



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: pJXK1620956057

1RP - 4367

CHEVRON U S A INC

7/27/2016

RECEIVED

SEP 16 2010

HOBBSOCD

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

**Re: Spill Remediation Report, Chevron MidContinent Alaska,
North Vacuum Abo West Satellite #2,
Unit Letter E (SW/4, NW/4), Section 27, Township 17 South, Range 34 East,
Lea County, New Mexico
(Latitude: N 32.80731° / Longitude: W 103.55286°)**

Dear Mr. Johnson:

Chevron MidContinent Alaska (Chevron) has retained Crain Environmental (CE) to remediate impacts to soil from a leak at the North Vacuum Abo West Satellite #2 (Site). The Site is located in the southwest quarter (SW/4) of the northwest quarter (NW/4), Section 27, Township 17 South, Range 34 East, Lea County, New Mexico. Approximately 18.73 barrels of crude oil and produced water were released from the separator on January 9, 2010, and approximately 17 barrels were recovered from the site. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on January 13, 2010, 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 148 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
Total:		0

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 January 9, 2010, a vacuum truck was dispatched to the Site and recovered approximately seventeen (17) barrels of free standing fluid. On May 4, 2010, soil samples (SS-1, SS-2 and SS-3) were collected around the perimeter of the separator and scrubber area at a depth of 0 to 6 inches below ground surface (bgs). The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest and delivered to Xenco Laboratories (Xenco), of Odessa, Texas for analysis of total petroleum hydrocarbons (TPH) and 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, TPH concentrations in samples SS-1 (west of the separator) and SS-2 (southwest of the separator) were reported at 19,889 mg/kg and 16,070 mg/kg, respectively. Soil sample SS-3 (south of the separator) reported a TPH concentration of 119.7 mg/kg. Chloride concentrations were reported at 47.1 mg/kg in sample SS-1, 185 mg/kg in sample SS-2, and 1,810 mg/kg in sample SS-3.

Hydrocarbon impacted soil was removed from around the separator and scrubbers by hand, and was excavated from around the perimeter of the area by backhoe. All excavated and hand dug soil was disposed at Controlled Recovery, Inc. (CRI).

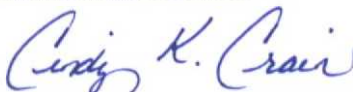
Confirmation Sampling Activities

On June 7, 2010, soil samples (SS-1, SS-2 and SS-3) were collected around the perimeter of the separator and scrubber area at a depth of 1.5 feet 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 analysis of TPH and 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 TPH concentrations below the RRAL of 5,000 mg/kg and all chloride concentrations below 1,000 mg/kg. The excavation was backfilled with clean soil.

Chevron respectfully requests that the North Vacuum Abo West Satellite #2 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 Klahsen at (432) 894-3298, or myself at (575) 441-7244. We may also be reached by email at KDKL@chevron.com or Cindy.Crain@gmail.com.

Sincerely,
Crain Environmental



Cindy K. Crain, P.G.
President

cc: Kim Klahsen, Chevron

FIGURES



Site Location

GPS Coordinates
N 33.80731 deg.,
W 103.55286 deg.

Graphic Scale in Feet

0' 2-25 1,213' 2,426'
Scale: 1" = 1,213'

FIGURE # 1

LEA COUNTY, NEW MEXICO

Chevron MidContinent Alaska



NVA West-Satellite #2
UL-E, Sec. 27, T17S, R34E

Site Location

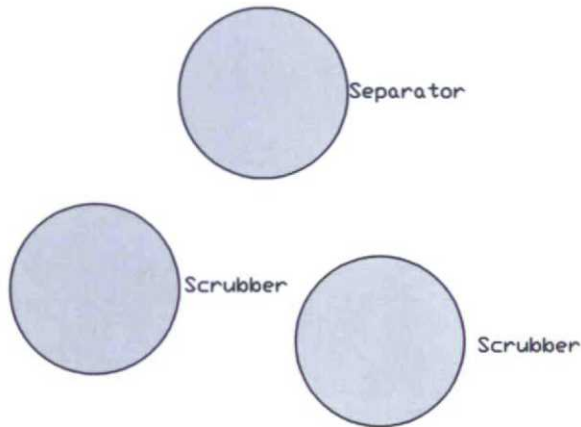
DATE: 08-22-10
NAME: JTC
PROJECT NO.: 0210-004C

Ocotillo
ENVIRONMENTAL

NEW
MEXICO

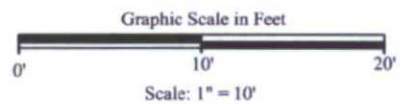
QUADRANGLE LOCATION

SS-1
(1.5')
476/128



SS-2
(1.5')
292/160

SS-3
(1.5')
147/288



GPS Coordinates

SS-1	N.32.80731°	W.103.55286°
SS-2	N.32.80719°	W.103.55288°
SS-3	N.32.80720°	W.103.55280°

LEGEND

SS-1
(1.5')
476/128

Soil Sample Location and Depth
(feet bgs) and TPH/CL
Concentrations (mg/kg)



DATE: 08-22-10
NAME: JTC
PROJECT NO.: 0210-004C

FIGURE # 2

LEA COUNTY, NEW MEXICO

Chevron MidContinent Alaska



NVA West Satellite #2
UL-E, Sec. 27, T17S, R34E

Site Drawing With Soil Sample
Locations

Ocotillo
ENVIRONMENTAL

TABLE

Table 1:
Summary of Laboratory Analysis of Soil Samples from Excavation
Chevron MidContinent Alaska, NVA West Satellite #2
Unit Letter E, Section 27, Township 17 South, Range 34 East
Lea County, New Mexico

Sample Date	Sample Name	Sample Depth (feet BGS)	TPH - GRO (C6 - C12) (mg/kg)	TPH - DRO (C12 - C28) (mg/kg)	TPH - ORO (C28 - C35) (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)	Soil Status
WQCC Standard						5000	1000	
5/4/10	SS-1	0-6"	409	17,000	2,480	19,889	47.1	Excavated
5/4/10	SS-2	0-6"	320	13,800	1,950	16,070	185	Excavated
5/4/10	SS-3	0-6"	<15.8	97.5	22.2	119.7	1,810	Excavated
Sample Date	Sample Name	Sample Depth (feet BGS)	TPH - GRO (C6 - C10) (mg/kg)	TPH - DRO (C10 - C28) (mg/kg)		Total TPH (mg/kg)	Chloride (mg/kg)	Soil Status
WQCC Standard						5000	1000	
6/7/10	SS-1	1.5	<50.0	476	---	476	128	In Situ
6/7/10	SS-2	1.5	<50.0	292	---	292	160	In Situ
6/7/10	SS-3	1.5	<10.0	147	---	147	288	In Situ

Notes: 5/4/10 Samples Analyzed by Xenco Laboratories of Odessa, Texas. 6/7/10 Samples Analyzed by Cardinal Laboratories, Hobbs, New Mexico.

1. BGS: Below ground surface.
2. mg/kg: Milligrams per kilogram.
3. --- No data available.
4. < Less than the test method detection limit.

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

☒ Initial Report ☐ Final Report

Name of Company CHEVRON	Contact Kim Klahsen	
Address HCR 60, BOX 423 - Lovington, NM 88260 Physical: 56 Texas Camp Road, Lovington NM 88260	Telephone No. Office: 575-396-4414 ext 228 Cellular: 432-894-3298	
Facility Name: North Vacuum Abo West	Facility Type: Production Satellite No. 2	
Surface Owner:	Mineral Owner	Lease No.

LOCATION OF RELEASE

Longitude: **32 degrees 48 minutes 26.31 seconds** Latitude: **103 degrees 33 minutes 10.45 seconds**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	Lea
E	27	17.0S	34E	2150	North	1225	West		

NATURE OF RELEASE

Type of Release Oil and Produced Water	Volume of Release 5.51 bbls oil and 13.22 bbls Produced Water	Volume Recovered Approximately 17 bbls total fluid
Source of Release : From the separator vessel	Date and Hour of Occurrence Jan. 9, 2010 @ approx 4:57 AM	Date and Hour of Discovery Jan. 9, 2010 @ 8:17
Was Immediate Notice Given? x Yes <input type="checkbox"/> No Not Required	If YES, To Whom? Larry Johnson	
By Whom? Tejay Simpson		
Was a Watercourse Reached? <input type="checkbox"/> Yes x No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Cold weather caused liquid to freeze in the flow line causing oil and water to fill the separator vessel. The separator filled to capacity and overflowed onto the ground surface. A vacuum truck picked up approximately 17 bbls of total fluid. Samples will be collected to determine if the soil meets remediation standards. A plan will be developed after delineation to determine the next course of action.

Describe Area Affected and Cleanup Action Taken.*

Approximately 550 square feet of soil was affected by the spill.

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.

OIL CONSERVATION DIVISION

Signature:			
Printed Name: Kim Klahsen	Approved by District Supervisor:		
Title: HES Specialist	Approval Date:	Expiration Date:	
Date: January 13, 2010 Phone: 432-894-3298	Conditions of Approval:	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

APPENDIX B

**ANALYTICAL DATA AND CHAIN OF CUSTODY
DOCUMENTATION**

Analytical Report 371528

for

Ocotillo Environmental, LLC

Project Manager: Cindy Crain

Chevron NVA West Sat # 2

0210-004C

11-MAY-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)

Xenco-Boca Raton (EPA Lab Code: FL00449):

Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)

North Carolina(444), Texas(T104704468-TX), Illinois(002295)

11-MAY-10

Project Manager: **Cindy Crain**
Ocotillo Environmental, LLC
P.O. Box 1816
Hobbs, NM 88241

Reference: XENCO Report No: **371528**
Chevron NVA West Sat # 2
Project Address: Lea County, New Mexico

Cindy Crain:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 371528. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 371528 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Brent Barron, II

Odessa Laboratory Manager

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Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America

Sample Cross Reference 371528**Ocotillo Environmental, LLC, Hobbs, NM**

Chevron NVA West Sat # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS-1	S	May-04-10 17:35	0 - 6 In	371528-001
SS-2	S	May-04-10 17:38	0 - 6 In	371528-002
SS-3	S	May-04-10 17:41	0 - 6 In	371528-003



CASE NARRATIVE

Client Name: Ocotillo Environmental, LLC

Project Name: Chevron NVA West Sat # 2



Project ID: 0210-004C

Work Order Number: 371528

Report Date: 11-MAY-10

Date Received: 05/05/2010

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-805332 Percent Moisture

None

Batch: LBA-805521 TPH By SW8015 Mod

None

Batch: LBA-805765 Inorganic Anions by EPA 300

None

Certificate of Analysis Summary 371528

Ocotillo Environmental, LLC, Hobbs, NM

Project Name: Chevron NVA West Sat # 2



Project Id: 0210-004C

Contact: Cindy Crain

Project Location: Lea County, New Mexico

Date Received in Lab: Wed May-05-10 01:43 pm

Report Date: 11-MAY-10

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	371528-001	371528-002	371528-003			
	<i>Field Id:</i>	SS-1	SS-2	SS-3			
	<i>Depth:</i>	0-6 In	0-6 In	0-6 In			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	May-04-10 17:35	May-04-10 17:38	May-04-10 17:41			
Anions by E300	<i>Extracted:</i>						
	<i>Analyzed:</i>	May-08-10 10:24	May-08-10 10:24	May-08-10 10:24			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		47.1 4.25	185 8.50	1810 44.4			
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	May-05-10 17:00	May-05-10 17:00	May-05-10 17:00			
	<i>Units/RL:</i>	% RL	% RL	% RL			
Percent Moisture		1.26 1.00	1.13 1.00	5.41 1.00			
TPH By SW8015 Mod	<i>Extracted:</i>	May-06-10 10:45	May-06-10 10:45	May-06-10 10:45			
	<i>Analyzed:</i>	May-06-10 20:16	May-06-10 20:43	May-06-10 21:36			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		409 305	320 305	ND 15.8			
C12-C28 Diesel Range Hydrocarbons		17000 305	13800 305	97.5 15.8			
C28-C35 Oil Range Hydrocarbons		2480 305	1950 305	22.2 15.8			
Total TPH		19889 305	16070 305	119.7 15.8			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

 Brent Barron, II
 Odessa Laboratory Manager

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

* Outside XENCO's scope of NELAC Accreditation.

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 5757 NW 158th St, Miami Lakes, FL 33014
 12600 West I-20 East, Odessa, TX 79765
 842 Cantwell Lane, Corpus Christi, TX 78408

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(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116

Form 2 - Surrogate Recoveries

Project Name: Chevron NVA West Sat # 2

Work Orders : 371528,

Project ID: 0210-004C

Lab Batch #: 805521

Sample: 562616-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 15:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	42.4	50.1	85	70-135	

Lab Batch #: 805521

Sample: 562616-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 15:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	100	108	70-135	
o-Terphenyl	42.4	50.1	85	70-135	

Lab Batch #: 805521

Sample: 562616-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 05/06/10 16:10

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.7	99.6	90	70-135	
o-Terphenyl	43.6	49.8	88	70-135	

Lab Batch #: 805521

Sample: 371528-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/06/10 20:16

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.2	100	99	70-135	
o-Terphenyl	39.6	50.2	79	70-135	

Lab Batch #: 805521

Sample: 371528-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 05/06/10 20:43

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.1	101	91	70-135	
o-Terphenyl	38.2	50.3	76	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Chevron NVA West Sat # 2

Work Orders : 371528,

Project ID: 0210-004C

Lab Batch #: 805521

Sample: 371528-003 / SMP

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 05/06/10 21:36

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.4	99.5	89	70-135	
o-Terphenyl	46.2	49.8	93	70-135	

Lab Batch #: 805521

Sample: 371628-001 S / MS

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 05/07/10 02:03

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	99.5	105	70-135	
o-Terphenyl	40.3	49.8	81	70-135	

Lab Batch #: 805521

Sample: 371628-001 SD / MSD

Batch: 1 **Matrix:** Soil

Units: mg/kg

Date Analyzed: 05/07/10 02:30

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.9	103	70-135	
o-Terphenyl	39.7	50.0	79	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.

Project Name: Chevron NVA West Sat # 2

Work Order #: 371528

Analyst: LATCOR

Date Prepared: 05/08/2010

Project ID: 0210-004C

Date Analyzed: 05/08/2010

Lab Batch ID: 805765

Sample: 805765-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	ND	10.0	8.00	80	10	8.11	81	1	75-125	20	

Analyst: BEV

Date Prepared: 05/06/2010

Date Analyzed: 05/06/2010

Lab Batch ID: 805521

Sample: 562616-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1090	109	1000	1100	110	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	919	92	1000	851	85	8	70-135	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Chevron NVA West Sat # 2

Work Order #: 371528

Lab Batch #: 805765

Date Analyzed: 05/08/2010

Date Prepared: 05/08/2010

Project ID: 0210-004C

Analyst: LATCOR

QC- Sample ID: 371513-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

MATRIX / MATRIX SPIKE RECOVERY STUDY						
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	9850	10000	20000	102	75-125	

Matrix Spike Percent Recovery [D] = $100 \cdot (C-A)/B$
 Relative Percent Difference [E] = $200 \cdot (C-A)/(C+B)$
 All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries



Project Name: Chevron NVA West Sat # 2

Work Order #: 371528

Project ID: 0210-004C

Lab Batch ID: 805521

QC- Sample ID: 371628-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 05/07/2010

Date Prepared: 05/06/2010

Analyst: BEV

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	15.1	1000	1060	104	1010	1040	101	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	17.9	1000	780	76	1010	891	86	13	70-135	35	

Matrix Spike Percent Recovery $[D] = 100 * (C - A) / B$

Relative Percent Difference $RPD = 200 * |(C - F) / (C + F)|$

Matrix Spike Duplicate Percent Recovery $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not

ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Project Name: Chevron NVA West Sat # 2

Work Order #: 371528

Lab Batch #: 805765

Project ID: 0210-004C

Date Analyzed: 05/08/2010

Date Prepared: 05/08/2010

Analyst: LATCOR

QC- Sample ID: 371513-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	9850	9320	6	20	

Lab Batch #: 805332

Date Analyzed: 05/05/2010

Date Prepared: 05/05/2010

Analyst: JLG

QC- Sample ID: 371526-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	ND	1.23	NC	20	

Spike Relative Difference RPD $200 * |(B-A)/(B+A)|$
 All Results are based on MDL and validated for QC purposes.
 BRL - Below Reporting Limit

Page 13 of 14

Final Ver. 1.000

Chevron NVA West Sat #2

Project Name: Chevron NVA West Sat #2

Project #: 0210-004C

Project Loc: Lea County, New Mexico

PO #:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

e-mail: cindy.crain@gmail.com

371528

Special Instructions:

Laboratory Comments:

Temperature Upon Receipt: _____

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Ocotillo Environmental
 Date/ Time: 05-05-10 @ 1343
 Lab ID #: 371528
 Initials: JMF

Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	1.1 °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container?	Yes	No	<u>Not Present</u>
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	Yes	No	<u>ID written on Cont/ Lid</u>
#9	Container label(s) legible and intact?	Yes	No	<u>Not Applicable</u>
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by EL0T?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	Yes	<u>No</u>	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
 - ☐ Client understands and would like to proceed with analysis
 - ☐ Cooling process had begun shortly after sampling event



ARDINAL LABORATORIES

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

June 11, 2010

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

Re: NVAW Sat #2

Enclosed are the results of analyses for sample number H20047, 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

This report conforms with NELAP requirements.



ARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
OCOTILLO ENVIRONMENTAL
ATTN: CINDY CRAIN
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: (432) 272-0304


Receiving Date: 06/07/10
Reporting Date: 06/10/10
Project Owner: CHEVRON
Project Name: NVAW SAT #2
Project Location: BUCKEYE, NM

Sampling Date: 06/07/10
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 6°C
Sample Received By: JH
Analyzed By: AB

LAB NUMBER	SAMPLE ID	GRO (C ₆ -C ₁₀) (mg/kg)	DRO (>C ₁₀ -C ₂₈) (mg/kg)	*Cl ⁻ (mg/kg)
ANALYSIS DATE		06/09/10	06/09/10	06/08/10
H20047-1	SS#1 - 18"	<50.0	476	128
H20047-2	SS#2 - 18"	<50.0	292	160
H20047-3	SS#3 - 18"	<10.0	147	288
Quality Control		456	405	500
True Value QC		500	500	500
% Recovery		91.2	81.0	100
Relative Percent Difference		0.1	0.6	6.9

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; Cl⁻: Std. Methods 4500-Cl⁻B

*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.


Cheryl Keene
Chemist


Date

H20047 TCL OCO

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 client for analysis. All claims, including those for negligence 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 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. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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

Page ____ of ____

Company Name: THE OCOTILLO ENVIRONMENTAL				BILL TO				ANALYSIS REQUEST																					
Project Manager: CINDY CRAIN				P.O. #:				<div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">C/TPH 8015</div> </div>																					
Address: PO Box 1816				Company:																									
City: Hobbs State: NM Zip: 88241				Attn: Same																									
Phone #: 575-393-4371 Fax #: 432-272-0304				Address:																									
Project #: 0210-004C Project Owner: CHEVRON				City:																									
Project Name: HYAW SAT #2				State: Zip:																									
Project Location: Buckey				Phone #:																									
Sampler Name: Bobby D Jones				Fax #:																									
FOR LAB USE ONLY		Lab I.D.	Sample I.D.	(G/RAB OR (C)OMP # CONTAINERS	MATRIX						PRESERV.		SAMPLING																
GROUNDWATER	WASTEWATER				SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME																
		H20047-1	SS #1 - 18"	6	1			1				1		6/7/10	2:15p	1	1												
		2	SS #2 18"	6	1			1				1		6/7/10	2:21p	1	1												
		3	SS #3 18"	6	1			1				1		6/7/10	2:35p	1	1												

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: 6/7/10	Received By:		REMARKS: Fax: CINDY CRAIN 432-272-0304	
Time: 4:40						
Delivered By: (Circle One)						
Sampler - UPS - Bus - Other:		Temp. 60C	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		CHECKED BY:	

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

#26

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

HOBBSOCD

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	North Vacuum ABO West Satellite #2	Facility Type	Production Satellite No. 2

Surface Owner:	Mineral Owner:	Lease No. 1576 API # 30-025-24050
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	27	17S	34E	2150	North	1225	West	Lea

Latitude N 32.80731° Longitude W 103.55286°

NATURE OF RELEASE

Type of Release	Oil and Produced Water	Volume of Release	5.51 bbl oil / 13.22 bbl produced water	Volume Recovered	Approximately 17 bbl total fluids
Source of Release	From the separator vessel	Date and Hour of Occurrence	1/9/10 @ 4:57 AM	Date and Hour of Discovery	1/9/10 @ 8:17 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	1/9/10 @ 9:00 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.*

Cold weather caused liquid to freeze in the flow line causing oil and water to fill the separator vessel. The separator filled to capacity and overflowed onto the ground surface. A vacuum truck picked up approximately 17 bbls of total fluid.

Describe Area Affected and Cleanup Action Taken.*

Visibly impacted soil was removed from an area covering approximately 550 square feet and disposed at an NMOCD approved facility. Soil samples were collected on 5/4/10. Additional soil was excavated and removed from the site, until further sampling confirmed that chloride concentrations were below 1,000 mg/kg and TPH concentrations were below 5,000 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:

Printed Name: Kim Klahsen

Title: HES Specialist

E-mail Address: KDKL@chevron.com

Date: 8/27/10

Phone: (432) 894-3298

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary