



July 18, 2011

Mr. Mike Bratcher
NMOCD District 2
1301 West Grand Avenue
Artesia, NM 88210

AMARILLO
921 North Bivins
Amarillo, Texas 79107
Phone 806.467.0607
Fax 806.467.0622

ARTESIA
408 West Texas Ave.
Artesia, New Mexico 88210
Phone 575.746.8768
Fax 575.746.8905

AUSTIN
911 West Anderson Lane
Suite 202
Austin, Texas 78757
Phone 512.989.3428
Fax 512.989.3487

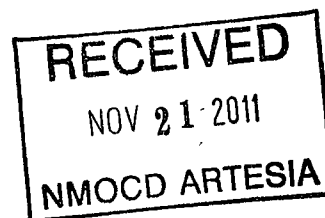
HOBBS
318 East Taylor Street
Hobbs, New Mexico 88240
Phone 575.393.4261
Fax 575.393.4658

MIDLAND
2901 State Hwy 349
Midland, Texas 79706
Phone 432.522.2133
Fax 432.522.2180

SAN ANTONIO
11 Commercial Place
Schertz, Texas 78154
Phone 210.265.8025
Fax 210.568.2191

TULSA
525 South Main Street
Suite 535
Tulsa, Oklahoma 74103
Phone 918.742.0871
Fax 918.382.0232

Subject: **Remediation and Closure Report**
Quantum Resources Management, LLC
Dunn B Federal No. 6
API # 30-015-01832 -- 2RP-605



Dear Mr. Bratcher,

Quantum Resources Management, LLC has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Dunn B Federal No. 6 release. The incident description, soil assessment, remediation activities and closure request are submitted herein.

Incident Date

January 27, 2011

Background Information

The Dunn B Federal No. 6 is located approximately seventeen (17) miles southeast of Artesia, New Mexico. The legal location for the site is Section 12, Township 18 South and Range 28 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.75726 North and -104.13633 West.

This site lies on undulating plains and low hills consisting of wind worked sandy deposits. Drainage courses in this area are normally dry. The local surface and shallow geology consists of Quaternary Age sedimentary deposits comprised of alluvium and eolian sands underlain by sand stone and hard caliches. The New Mexico State Engineer web site indicates the nearest ground water data to be in S34-T17S-R28E. The ground water in Section 34 is reported to be at an average depth of 53' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 10 based on the as following:

Depth to ground water	50'-100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Toll Free: 866.742.0742
www.talonlpe.com

Incident Description

On January 27, 2011 the injection line east of the Dunn B Federal No. 6 ruptured. The line was shut-in, excavated, repaired and placed back into service. Twenty to thirty (20-30) barrels of produced water were released. There were no fluids recovered. The area affected was located on the right of way east of the Dunn B Federal No. 7 well location. The impacted area on the right of way measured approximately 100-feet long by 48-feet wide. The release then flowed onto a two track lease road located south of the Dunn B Federal No. 7 location which measured approximately 80-feet long by 3-feet wide.

Remedial Actions Taken

On March 4, 2011 Talon personnel mobilized to the site to begin soil sampling and site assessment activities. Grab soil samples were collected utilizing a hand auger from within the initial impacted area (S-1).

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The chlorides were analyzed per SM4500Cl-B. The complete laboratory report is attached as Appendix II.

Analytical Results

Analytical results detailed on the attached laboratory reports are summarized below:

March 11, 2011

<u>Sample</u>	<u>Depth (ft)</u>	<u>Total BTEX</u>	<u>TPH</u>	<u>Chlorides</u>
S-1	0-ft	<50 mg/kg	15.4 mg/kg	496 mg/kg

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 1,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

Conclusions and Recommendations

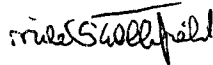
- Groundwater in the project vicinity is greater than 50-feet below land surface per the New Mexico State Engineer Database.
- Based on the depth to groundwater and the contamination levels detected in the soil; it is unlikely that the impacts identified from this release will pose a threat to groundwater.

- The impacted area was immediately excavated to a depth of 1-foot deep.
- Based upon the results of the sampling and analytical program, all chemical parameters tested for are reported to be less than their respective Recommended Remedial Action Levels (RRALs), below the excavated depth.
- Therefore on behalf of Quantum Resources Management, LLC, we respectfully request that no further actions be required and that the C-141 Final Report be granted.

Should you have any questions or if further information is required, please do not hesitate to contact us at 575.746.8768.

Respectfully submitted,

TALON/LPE



Mike Stubblefield
Project Manager



David J. Adkins
District Manager

SITE MAP



AMARILLO • AUSTIN • MIDLAND • NEW BRAUNFELS • TULSA, OK • HOBBS, NM

Project Correspondence Sheet

☐ Field ☐ Office ☐ Reimbursement ☐ Proposal
☐ OK ☐ NM ☐ TX ☐ Other

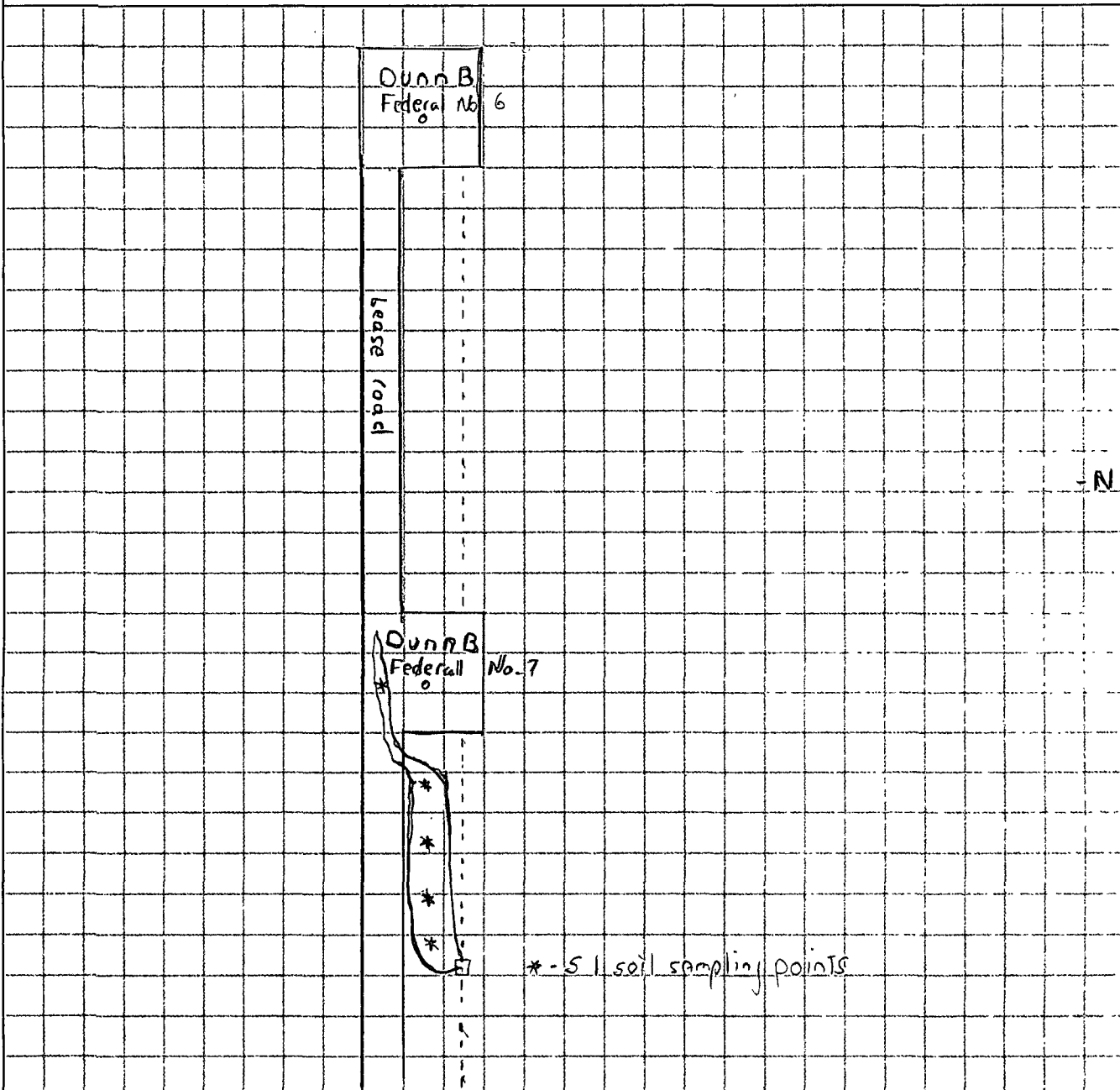
Date: 3/4/2011 Time: Project Manager: Mike Stubblefield

Project Number:

Project Name: Quantum Resources Management, LLC Dunn B Federal No. 6

Topic: Soil sampling diagram

Notes:



APPENDIX I
GROUNDWATER DATA
INITIAL C-141

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 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 Quantum Resources Management, LLC	Contact Garrett Newton
Address 1905 West Sears Ave., Artesia, New Mexico 88210	Telephone No. 575-513-0230
Facility Name Dunn B Federal #6	Facility Type WIW

Surface Owner Federal	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter M	Section 12	Township 18s	Range 28e	Feet from the 660	North/South Line South	Feet from the 660'	East/West Line West	County EDDY
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Latitude 32.75726 Longitude 104.13633

NATURE OF RELEASE

Type of Release Produced waters	Volume of Release 20-30 bbls	Volume Recovered 0
Source of Release Injection line	Date and Hour of Occurrence 1/27/2011 11:40am	Date and Hour of Discovery 1/27/2011 11:40am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD/Mike Bratcher	
By Whom? Garrett Newton	Date and Hour 1/27/2011 3:30pm	
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.*

The flow line located east of the Dunn B Federal #6 ruptured. The flow line was taken out of service and repaired.
The saturated soil from the impacted area was excavated and transported to and NMOCD approved Solid Waste disposal facility.

Describe Area Affected and Cleanup Action Taken.*

The affected area was located on the pipeline right of way east of the Dunn B Federal #7 well location
The affected area on the right of way was measured to be one hundred (100) feet long by forty-eight (48) feet wide. The release ran onto the two track lease road located south of the Dunn B Federal #7 location, the impacted area on the lease road was three (3) foot wide x eighty (80) feet long.
The weather at the time of the release was dry and windy. Talon/LPE has been contracted to construct a work plan for the correction of the release.

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: Garrett Newton

Title: Field Supervisor

E-mail Address: gnewton@pvtnetworks.net

Date: February 02/7/2011

Phone: 575-513-0230

Approved by District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

Attach Additional Sheets If Necessary



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q						X	Y	Distance	Depth Well	Depth Water	Water Column
				64	16	4	Sec	Tws	Rng						
L 07643		DOM	LE	4	4	2	34	17S	28E	578979	3628574*	3640	120	53	67
RA 09588		DOM	ED		1	2	33	18S	28E	576976	3619384*	5803	300		
L 03348 APPRO		DOM	LE	4	3	4	35	18S	28E	580236	3618135*	7007	105	65	40
RA 04048		OBS	LE	1	4	4	14	18S	27E	570841	3623030*	8006	2096		
RA 04561		PRO	ED		4	2	26	17S	27E	570871	3630142*	9320	250		
L 01370 REPAR-1		DOM	LE		2	4	15	18S	27E	569328	3623355*	9421	96	58	38
RA 03917		PRO	LE	4	1	2	10	18S	27E	569019	3625660*	9620	130	50	80
CP 00361		PRO	ED		1	3	09	19S	28E	576195	3615347*	9904	365	265	100

Average Depth to Water: 98 feet

Minimum Depth: 50 feet

Maximum Depth: 265 feet

Record Count: 8

UTM NAD83 Radius Search (in meters):

Easting (X): 578613

Northing (Y): 3624952

Radius: 10000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub	basin	Use	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Well	Water	Column
L 07643	DOM	LE			4	4	2	34	17S	28E	578979	3628574*	120	53	67
													Average Depth to Water:		
													53 feet		
													Minimum Depth:		
													53 feet		
													Maximum Depth:		
													53 feet		

Record Count: 1

PLSS Search:

Township: 17S Range: 28E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

APPENDIX II
LABORATORY RESULTS

March 11, 2011

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: DUNN B FEDERAL #6

Enclosed are the results of analyses for samples received by the laboratory on 03/07/11 13:00.

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 524.4	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 TALON LPE
 MIKE STUBBLEFIELD
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

 Received: 03/07/2011
 Reported: 03/11/2011
 Project Name: DUNN B FEDERAL #6
 Project Number: 701407.003.01
 Project Location: SEC.12-T18S-R28E

 Sampling Date: 03/04/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S - 1 0' (H100440-01)

BTEX 8021B		mg/kg	Analyzed By: CMS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/09/2011	ND	1.86	92.6	2.00	7.67		
Toluene*	<0.050	0.050	03/09/2011	ND	2.02	101	2.00	4.11		
Ethylbenzene*	<0.050	0.050	03/09/2011	ND	2.28	114	2.00	0.196		
Total Xylenes*	<0.150	0.150	03/09/2011	ND	6.75	113	6.00	0.0111		

Surrogate: 4-Bromofluorobenzene (PII) 98.7 % 70-130

Chloride, SM4500Cl-B		mg/kg	Analyzed By: NM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	496	16.0	03/07/2011	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/09/2011	ND	170	85.2	200	0.285	
DRO >C10-C28	15.4	10.0	03/09/2011	ND	173	85.4	200	3.27	

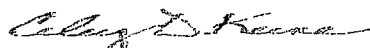
Surrogate: 1-Chlorooctane 122 % 70-130

Surrogate: 1-Chlorooctadecane 119 % 70-130

Cardinal Laboratories

* = Accredited Analyte

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 the service 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 without written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

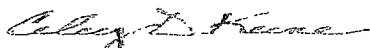
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
*#	Samples not received at proper temperature of 6°C or below.
*#B	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

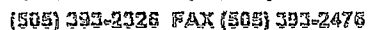
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* = Accredited Analytes

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Deley D. Keene, Lab Director/Quality Manager



† Cardinal cannot accept verbal changes. Please fax written changes to 505-353-2476

FINAL C-141

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 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 : Quantum Resources Management, LLC	Contact : Garrett Newton	
Address : 1905 West Sears Ave., Artesia, New Mexico 88210	Telephone No. : 575-513-0230	
Facility Name : Dunn B Federal #6	Facility Type: Injection Line	
Surface Owner : Federal	Mineral Owner	Lease No. : API #30-015-01832 - 2RP-605

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	12	18S	28E	660	South	660	West	Eddy

Latitude 32.75726 Longitude -104.13633

NATURE OF RELEASE

Type of Release : Produced Water	Volume of Release : 20-30 bbls	Volume Recovered: -0-
Source of Release : Injection line	Date and Hour of Occurrence: 1/27/11 11:40 am	Date and Hour of Discovery: 1/27/11 11:40am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Voicemail NMOCD/Mike Bratcher	
By Whom? Garrett Newton	Date and Hour : 1/27/11 3:30 pm	
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.*


The flow line located east of the Dunn B Federal #6 ruptured. The flow line was taken out of service and repaired.
The saturated soil from the impacted area was immediately excavated and transported to a NMOCD approved disposal facility.

Describe Area Affected and Cleanup Action Taken.*

The area was excavated and analytical testing was completed.

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: 	Approved by District Supervisor:	
Printed Name: Garrett Newton	Approval Date:	Expiration Date:
Title: Field Supervisor	Conditions of Approval:	
E-mail Address: gnewton@pvtnetworks.net	Attached <input type="checkbox"/>	
Date: 7/18/11 Phone: 575-513-0230		

* Attach Additional Sheets If Necessary