

District I  
1625 N. French Dr., Hobbs, NM 88240

District II  
1301 W. Grand Ave., Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-144  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

5799  
**Pit, Closed-Loop System, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application**

- Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

**Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request**

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

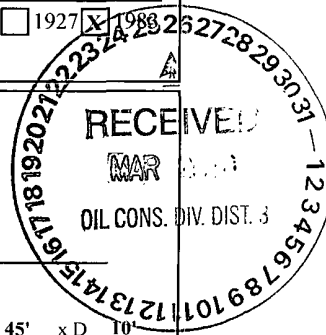
1	
Operator: <b>ConocoPhillips Company</b>	OGRID#: <b>217817</b>
Address: <b>P.O. Box 4289, Farmington, NM 87499</b>	
Facility or well name: <b>Mudge Federal 2</b>	
API Number: <b>30-045-33290</b>	OCD Permit Number: _____
U/L or Qtr/Qtr: <b>A(NE/NE)</b>	Section: <b>31</b> Township: <b>26N</b> Range: <b>11W</b> County: <b>San Juan</b>
Center of Proposed Design: Latitude: <b>36.269203</b> °N Longitude: <b>108.022875</b> °W NAD: <input type="checkbox"/> 1927 <input checked="" type="checkbox"/> 1983	
Surface Owner: <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Private <input checked="" type="checkbox"/> Tribal Trust or Indian Allotment	

2	
<input checked="" type="checkbox"/> <b>Pit:</b> Subsection F or G of 19.15.17.11 NMAC	
Temporary: <input checked="" type="checkbox"/> Drilling <input type="checkbox"/> Workover	
<input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> P&A	
<input checked="" type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness <b>12</b> mil <input checked="" type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	
<input checked="" type="checkbox"/> String-Reinforced	
Liner Seams: <input checked="" type="checkbox"/> Welded <input checked="" type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume: <b>4400</b> bbl Dimensions L <b>65'</b> x W <b>45'</b> x D <b>10'</b>	

3	
<input type="checkbox"/> <b>Closed-loop System:</b> Subsection H of 19.15.17.11 NMAC	
Type of Operation: <input type="checkbox"/> P&A <input type="checkbox"/> Drilling a new well <input type="checkbox"/> Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)	
<input type="checkbox"/> Drying Pad <input type="checkbox"/> Above Ground Steel Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other _____	
<input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type: Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVD <input type="checkbox"/> Other _____	
Liner Seams: <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____	

4	
<input type="checkbox"/> <b>Below-grade tank:</b> Subsection I of 19.15.17.11 NMAC	
Volume: _____ bbl Type of fluid: _____	
Tank Construction material: _____	
<input type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	
<input type="checkbox"/> Visible sidewalls and liner <input type="checkbox"/> Visible sidewalls only <input type="checkbox"/> Other _____	
Liner Type: Thickness _____ mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____	

5	
<input type="checkbox"/> <b>Alternative Method:</b>	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	



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**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pit, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify \_\_\_\_\_

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**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other \_\_\_\_\_
- ☐ Monthly inspections (*If netting or screening is not physically feasible*)

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**Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☒ Signed in compliance with 19.15.3.103 NMAC

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**Administrative Approvals and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

*Please check a box if one or more of the following is requested, if not leave blank:*

- ☐ Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consideration of approval. (**Fencing/BGT Liner**)
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

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**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

*Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.*

**Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.**

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

**Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).**

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

**Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.**

(*Applies to temporary, emergency, or cavitation pits and below-grade tanks*)

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

☐ NA

**Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.**

(*Applied to permanent pits*)

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

☐ NA

**Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.**

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site.

☐ Yes ☐ No

**Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended**

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

**Within 500 feet of a wetland.**

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

**Within the area overlying a subsurface mine.**

- Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division

☐ Yes ☐ No

**Within an unstable area.**

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

**Within a 100-year floodplain**

- FEMA map

☐ Yes ☐ No

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**Temporary Pits, Emergency Pits and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API \_\_\_\_\_ or Permit \_\_\_\_\_

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**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API \_\_\_\_\_

☐ Previously Approved Operating and Maintenance Plan API \_\_\_\_\_

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**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

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**Proposed Closure:** 19.15.17.13 NMAC  
*Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.*

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System  
☐ Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench  
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

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**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

*Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit #: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit #: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and  
☐ Yes (If yes, please provide the information) ☐ No

*Required for impacted areas which will not be used for future service and operations:*

- ☐ Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

**Siting Criteria (Regarding on-site closure methods only:** 19.15.17.10 NMAC

*Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.*

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ N/A

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ N/A

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ N/A

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; satellite image

☐ Yes ☐ No

☐ Yes ☐ No

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of the initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  
☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC  
☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  
☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)  
☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

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**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

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**OCD Approval:** ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: \_\_\_\_\_ Approval Date: 2/10/11  
 Title: Compliance Officer OCD Permit Number: \_\_\_\_\_

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**Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

☒ Closure Completion Date: July 15, 2008

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**Closure Method:**

☐ Waste Excavation and Removal ☒ On-site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)  
☐ If different from approved plan, please explain.

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**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

*Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_  
 Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

*Required for impacted areas which will not be used for future service and operations:*

☐ Site Reclamation (Photo Documentation)  
☐ Soil Backfilling and Cover Installation  
☐ Re-vegetation Application Rates and Seeding Technique

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**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

☒ Proof of Closure Notice (surface owner and division)  
☒ Proof of Deed Notice (required for on-site closure)  
☒ Plot Plan (for on-site closures and temporary pits)  
☒ Confirmation Sampling Analytical Results (if applicable)  
☐ Waste Material Sampling Analytical Results (if applicable)  
☒ Disposal Facility Name and Permit Number  
☒ Soil Backfilling and Cover Installation  
☒ Re-vegetation Application Rates and Seeding Technique  
☒ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude: 36.4487778 °N Longitude: 108.0389444 °W NAD ☐ 1927 ☒ 1983

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**Operator Closure Certification:**

*I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.*

Name (Print): Ethel Tally Title: Staff Regulatory Technician  
 Signature: Ethel Tally Date: 3/25/10  
 e-mail address: ethel.tally@conocophillips.com Telephone: 505/599-4027

**ConocoPhillips Company  
San Juan Basin  
Closure Report**

**Lease Name: Mudge Federal 2  
API No.: 30-045-33290**

In accordance with Rule 19.15.17.13 NMAC the following information describes the closure of the temporary pit referenced above. All proper documentation regarding closure activities is being included with the C-144. The temporary pit for this location was constructed and location drilled before June 16, 2008 (effective date for Rule 19.15.17). While closure of the temporary pit did fall within the rule some dates for submittals are after the rig release date.

- Details on Capping and Covering, where applicable. **(See report)**
- Plot Plan (Pit Diagram) **(Included as an attachment)**
- Inspection Reports **(Included as an attachment)**
- Sampling Results **(Included as an attachment)**
- C-105 **(Included as an attachment)**
- Copy of Deed Notice will be filed with County Clerk **(Not required on Federal, State, or Tribal land as stated by FAQ dated October 30, 2008)**

**General Plan:**

1. All free standing liquids will be removed at the start of the pit closure process from the pit and disposed of in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the appropriate division district office approves.

**All recovered liquids were disposed of at Basin Disposal (Permit #NM-01-005) and any sludge or soil required to be removed to facilitate closure was hauled to Envirotech Land Farm (Permit #NM-01-011) and JFJ Landfarm % IEI (Permit #NM-01-0010B).**

2. The preferred method of closure for all temporary pits will be on-site burial, assuming that all the criteria listed in sub-section (B) of 19.15.17.13 are met.

**The pit was closed using onsite burial.**

3. The surface owner shall be notified of COPC's closing of the temporary pit as per the approved closure plan using certified mail, return receipt requested.

**The closure process notification to the landowner was sent via email. (See Attached)(Well located on Federal Land, certified mail is not required for Federal Land per BLM/OCD MOU.)**

4. Within 6 months of the Rig Off status occurring COPC will ensure that temporary pits are closed, re-contoured, and reseeded.

**Provision 4 of the closure plan requirements were not met due to rig move off date as noted on C-105 which was prior to pit rule change. ConocoPhillips will ensure compliance with this rule in the future.**

5. Notice of Closure will be given to the Aztec Division office between 72 hours and one week of closure via email, or verbally. The notification of closure will include the following:
  - i. Operator's name
  - ii. Location by Unit Letter, Section, Township, and Range. Well name and API number.

**Notification is attached.**

6. Liner of temporary pit shall be removed above "mud level" after stabilization. Removal of liner will consist of manually or mechanically cutting liner at mud level and removing all remaining liner. Care will be taken to remove "All" of the liner i.e., edges of liner entrenched or buried. All excessive liner will be disposed of at a licensed disposal facility.

**Liner of temporary pit was removed above "mud level" after stabilization. Removal of the liner consisted of manually cutting liner at mud level and removing all remaining liner. Care was taken to remove "ALL" of the liner i.e., edges of liner entrenched or buried. All excessive liner was disposed of at a licensed disposal facility, (San Juan County Landfill).**

7. Pit contents shall be mixed with non-waste containing, earthen material in order to achieve the solidification process. The solidification process will be accomplished using a combination of natural drying and mechanically mixing. Pit contents will be mixed with non-waste, earthen material to a consistency that is deemed a safe and stable. The mixing ratio shall not exceed 3 parts clean soil to 1 part pit contents.

**ConocoPhillips mixed the Pit contents with non-waste containing, earthen material in order to achieve the solidification process. The solidification process was accomplished by using a combination of natural drying and mechanically mixing. Pit contents were mixed with non-waste, earthen material to a consistency that is deemed as safe and stable. The mixing ratio consisted of approximately 3 parts clean soil to 1 part pit contents.**

8. A five point composite sample will be taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). In the event that the criteria are not met, all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13 i.e., Dig and haul.

**A five point composite sample was taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). (Sample results attached).**

Components	Tests Method	Limit (mg/Kg)	Results
Benzene	EPA SW-846 8021B or 8260B	0.2	ND ug/kg
BTEX	EPA SW-846 8021B or 8260B	50	ND ug/kG
TPH	EPA SW-846 418.1	2500	32mg/kg
GRO/DRO	EPA SW-846 8015M	500	ND mg/Kg
Chlorides	EPA 300.1	1000/500	135 mg/L

9. Upon completion of solidification and testing standards being passed, the pit area will be backfilled with compacted, non-waste containing, earthen material. A minimum of four feet of cover shall be achieved and the cover shall include one foot of suitable material to establish vegetation at the site, or the background thickness of topsoil, whichever is greater. If standard testing fails BR will dig and haul all contents pursuant to 19.15.17.13.i.a. After doing such, confirmation sampling will be conducted to ensure a release has not occurred.

**The pit material passed solidification and testing standards. The pit area was then backfilled with compacted, non-waste containing, earthen material. More than four feet of cover was achieved and the cover included one foot of suitable material to establish vegetation at the site.**

10. During the stabilization process if the liner is ripped by equipment the Aztec OCD office will be notified within 48 hours and the liner will be repaired if possible. If the liner can not be repaired then all contents will be excavated and removed.

**The integrity of the liner was not damaged in the pit closure process.**

11. Dig and Haul Material will be transported to the Envirotech Land Farm located 16 miles south of Bloomfield on Angel Peak Road, CR 7175. Permit # NM010011

**Dig and Haul was not required.**

12. Re-contouring of location will match fit, shape, line, form and texture of the surrounding. Re-shaping will include drainage control, prevent ponding, and prevent erosion. Natural drainages will be unimpeded and water bars and/or silt traps will be placed in areas where needed to prevent erosion on a large scale. Final re-contour shall have a uniform appearance with smooth surface, fitting the natural landscape.

**The pit area was re-contoured to match fit, shape, line, form and texture of the surrounding area. Re-shaping included drainage control, to prevent ponding and erosion. Natural drainages were unimpeded and water bars and/or silt traps were placed in areas where needed to prevent erosion on a large scale. Final re-contour has a uniform appearance with smooth surface, fitting the natural landscape.**

13. Notification will be sent to OCD when the reclaimed area is seeded.

**Provision 13 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.**

14. COPC shall seed the disturbed areas the first growing season after the operator closes the pit. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs.

**Provision 14 was accomplished through complying with BLM seeding requirements as allowed by the BLM/OCD MOU.**

15. The temporary pit will be located with a steel marker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial upon the abandonment of all the wells on the pad. The marker will be flush with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information at the time of all wells on the pad are abandoned. The operator's information will include the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.

**Provision 15 was accomplished by installing a steel marker in the temporary pit, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial. The marker is flush with the ground to allow access of the active well pad and for safety concerns. The top of the marker contains a welded steel 12" square plate that indicates the onsite burial of the temporary pit. The plate contains the following: Operator Name, Lease Name, Well Name and number, Unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location.**

**The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the following operator's information at the time of all wells on the pad are abandoned. The riser will be labeled: COP, BLM, Mudge Federal 2, UL-A, Sec. 31, T 26N, R 11W, API # 30-045-33290**



## **Tafoya, Crystal**

---

**From:** Tafoya, Crystal  
**Sent:** Saturday, October 04, 2008 9:27 AM  
**To:** 'larry\_pixley@nm.blm.gov'  
**Subject:** Surface Owner Notification

The temporary pits for the following wells will be closed on-site. Please let me know if you have any questions.

Mudge Federal 2  
Mudge Federal 1E

Thank you,

Crystal L. Tafoya  
Regulatory Technician  
**ConocoPhillips Company**  
San Juan Business Unit  
Phone: (505) 326-9837  
Email: Crystal.Tafoya@conocophillips.com

RCVD MAY23'07

OIL CONS. DIV.

DIST. 3

Form C-102

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

District I  
PO Box 1980, Hobbs, NM 88241-1980District II  
PO Drawer 00, Artesia, NM 88211-0719District III  
1000 Rio Brazos Rd., Aztec, NM 87410District IV  
PO Box 2088, Santa Fe, NM 87504-2088State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

PO Box 2088  
Santa Fe, NM 87504-2088RECEIVED ☐ AMENDED REPORT  
070 FARMINGTON NM

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-33290</b>		*Pool Code <b>71629</b>	*Pool Name <b>BASIN FRUITLAND COAL</b>
*Property Code <b>31589</b>	*Property Name <b>MUDGE FEDERAL</b>		*Well Number <b>2</b>
*GRID No. <b>217817</b>	*Operator Name <b>CONOCOPHILLIPS COMPANY</b>		*Elevation <b>6203'</b>

## 10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>A</b>	<b>31</b>	<b>26N</b>	<b>11W</b>		<b>1145</b>	<b>NORTH</b>	<b>690</b>	<b>EAST</b>	<b>SAN JUAN</b>

## 11 Bottom Hole Location If Different From Surface

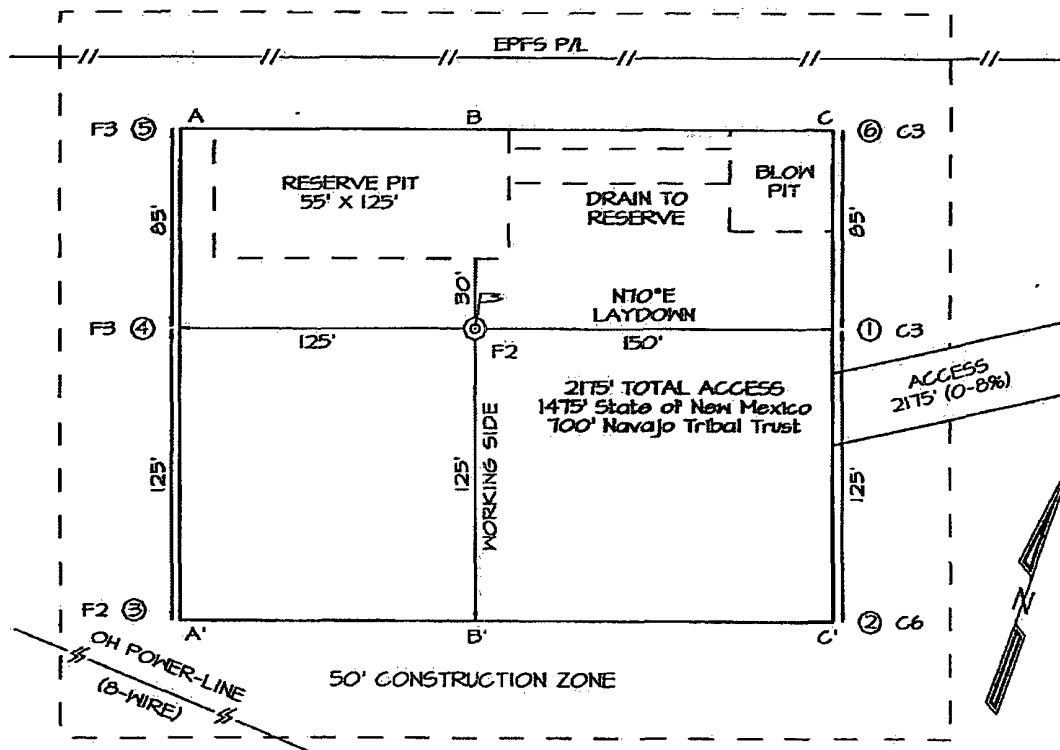
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres <b>319.64 Acres - N/2</b>					*Joint or Infill	*Consolidation Code	*Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>1294.92' 1303.50' 2607.00'</p> <p>LOT 1</p> <p>LEASE: NM-11773</p> <p>LOT 2</p> <p>LEASE: 1-149-IND-7971</p> <p>LOT 3</p> <p>LOT 4</p> <p>1315.38' 1310.10' 2620.20'</p>		<p>1145'</p> <p>690'</p> <p>2633.40'</p> <p>2641.32'</p> <p>LAT: 36°26.9203' N LONG: 108°02.2875' W DATUM: NAD27</p> <p>11</p> <p>31</p> <p>11</p> <p>11</p> <p>5280.00'</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Vicki Westby (pf)</i> Signature Vicki R. Westby</p> <p>Printed Name Staff Agent</p> <p>Title 8/12/2008</p> <p>Date</p> <p>18 SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Survey Date: JANUARY 19, 2005</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>JASON C. EDWARDS</b> NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269</p> <p><i>JASON C. EDWARDS</i> Certificate Number 15269</p>
---	--	--	---

LATITUDE: 36.44867° N  
LONGITUDE: 107.03813° W  
DATUM: NAD1927

**\*SURFACE OWNER\***  
Navajo Tribal Trust



A-A'						
6215'						
6205'						
6195'						

B-B'						
6215'						
6205'						
6195'						

C-C'						
6215'						
6205'						
6195'						

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2	Date Reported:	07-22-08
Laboratory Number:	46403	Date Sampled:	07-15-08
Chain of Custody No:	4635	Date Received:	07-16-08
Sample Matrix:	Soil	Date Extracted:	07-17-08
Preservative:	Cool	Date Analyzed:	07-18-08
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Drill Mud.**

Analyst

Review

**EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2 Background	Date Reported:	07-22-08
Laboratory Number:	46404	Date Sampled:	07-15-08
Chain of Custody No:	4635	Date Received:	07-16-08
Sample Matrix:	Soil	Date Extracted:	07-17-08
Preservative:	Cool	Date Analyzed:	07-18-08
Condition:	Intact	Analysis Requested:	8015 TPH

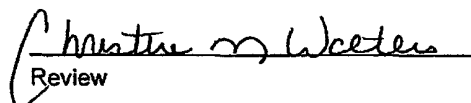
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Drill Mud.

  
Analyst

  
Review

**EPA Method 8015 Modified**  
**Nonhalogenated Volatile Organics**  
**Total Petroleum Hydrocarbons**

**Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	07-18-08 QA/QC	Date Reported:	07-22-08
Laboratory Number:	46386	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-18-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	9.6373E+002	9.6411E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.8496E+002	9.8536E+002	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

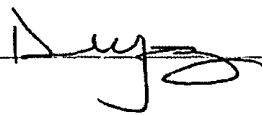
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	66.4	66.0	0.6%	0 - 30%
Diesel Range C10 - C28	167	166	0.6%	0 - 30%

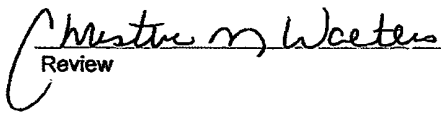
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	66.4	250	312	98.7%	75 - 125%
Diesel Range C10 - C28	167	250	415	99.5%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 46386, 46391, 46403, 46404, 46408 and 46417.

Analyst 

Review 

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2	Date Reported:	07-21-08
Laboratory Number:	46403	Date Sampled:	07-15-08
Chain of Custody:	4635	Date Received:	07-16-08
Sample Matrix:	Soil	Date Analyzed:	07-18-08
Preservative:	Cool	Date Extracted:	07-17-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	ND	1.2
o-Xylene	ND	0.9
Total BTEX	ND	

ND - Parameter not detected at the stated detection limit.

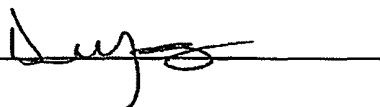
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

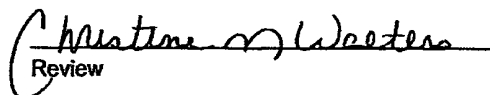
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Drill Mud.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2 Background	Date Reported:	07-21-08
Laboratory Number:	46404	Date Sampled:	07-15-08
Chain of Custody:	4635	Date Received:	07-16-08
Sample Matrix:	Soil	Date Analyzed:	07-18-08
Preservative:	Cool	Date Extracted:	07-17-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	ND	1.2
o-Xylene	ND	0.9
Total BTEX	ND	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Drill Mud.

Analyst

Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	07-18-BTEX QA/QC	Date Reported:	07-21-08
Laboratory Number:	46385	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-18-08
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	G-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	1.0553E+008	1.0574E+008	0.2%	ND	0.1
Toluene	7.4625E+007	7.4775E+007	0.2%	ND	0.1
Ethylbenzene	6.0908E+007	6.1030E+007	0.2%	ND	0.1
p,m-Xylene	1.2114E+008	1.2138E+008	0.2%	ND	0.1
o-Xylene	5.7052E+007	5.7166E+007	0.2%	ND	0.1

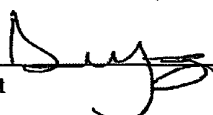
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	40.1	39.9	0.5%	0 - 30%	0.9
Toluene	351	350	0.3%	0 - 30%	1.0
Ethylbenzene	59.2	58.6	1.0%	0 - 30%	1.0
p,m-Xylene	2,210	2,200	0.5%	0 - 30%	1.2
o-Xylene	583	581	0.3%	0 - 30%	0.9

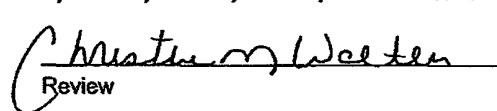
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	40.1	50.0	89.6	99.4%	39 - 150
Toluene	351	50.0	399	99.3%	46 - 148
Ethylbenzene	59.2	50.0	106	97.2%	32 - 160
p,m-Xylene	2,210	100	2,300	99.5%	46 - 148
o-Xylene	583	50.0	627	99.0%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 46385 - 46388, 46391, 46403, 46404, 46406, 46407 and 46417.

  
Analyst

  
Review

## TRACE METAL ANALYSIS

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2	Date Reported:	07-18-08
Laboratory Number:	46403	Date Sampled:	07-15-08
Chain of Custody:	4635	Date Received:	07-16-08
Sample Matrix:	Soil	Date Analyzed:	07-17-08
Preservative:	Cool	Date Digested:	07-17-08
Condition:	Intact	Analysis Needed:	Total Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.057	0.001	5.0
Barium	7.74	0.001	100
Cadmium	0.004	0.001	1.0
Chromium	0.228	0.001	5.0
Lead	0.152	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	ND	0.001	1.0
Silver	ND	0.001	5.0

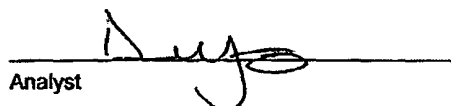
ND - Parameter not detected at the stated detection limit.

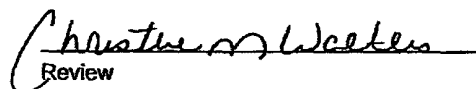
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C  
section 261.24, August 24, 1998.

Comments: Drill Mud.

  
Analyst

  
Review

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2 Background	Date Reported:	07-18-08
Laboratory Number:	46404	Date Sampled:	07-15-08
Chain of Custody:	4635	Date Received:	07-16-08
Sample Matrix:	Soil	Date Analyzed:	07-17-08
Preservative:	Cool	Date Digested:	07-17-08
Condition:	Intact	Analysis Needed:	Total Metals

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	TCLP Regulatory Level (mg/Kg)
Arsenic	0.113	0.001	5.0
Barium	31.8	0.001	100
Cadmium	0.003	0.001	1.0
Chromium	0.150	0.001	5.0
Lead	0.167	0.001	5.0
Mercury	ND	0.001	0.2
Selenium	0.050	0.001	1.0
Silver	ND	0.001	5.0

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

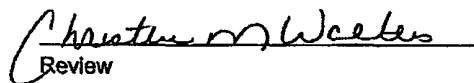
Note: Regulatory Limits based on 40 CFR part 261 subpart C  
section 261.24, August 24, 1998.

Comments: Drill Mud.

Analyst



Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	07-17 TM QA/QC	Date Reported:	07-18-08
Laboratory Number:	46403	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total RCRA Metals	Date Analyzed:	07-17-08
Condition:	N/A	Date Digested:	07-17-08

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/Kg)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.057	0.049	13.7%	0% - 30%
Barium	ND	ND	0.001	7.74	7.82	1.0%	0% - 30%
Cadmium	ND	ND	0.001	0.004	0.004	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.228	0.238	4.2%	0% - 30%
Lead	ND	ND	0.001	0.152	0.153	0.6%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

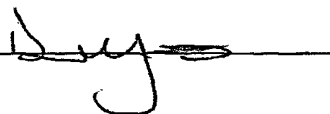
Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.250	0.057	0.269	87.6%	80% - 120%
Barium	0.500	7.74	8.3	101%	80% - 120%
Cadmium	0.250	0.004	0.260	102%	80% - 120%
Chromium	0.500	0.228	0.734	101%	80% - 120%
Lead	0.500	0.152	0.701	108%	80% - 120%
Mercury	0.100	ND	0.098	98.2%	80% - 120%
Selenium	0.100	ND	0.102	102%	80% - 120%
Silver	0.100	ND	0.099	98.7%	80% - 120%

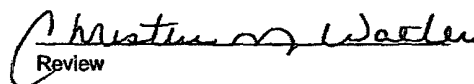
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 46403 - 46405 and 46409.

Analyst 

Review 

# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## CATION / ANION ANALYSIS

Client:	ConocoPhillips	Project #:	96052-0026
Sample ID:	Mudge Fed #2 Background	Date Reported:	07-22-08
Laboratory Number:	46404	Date Sampled:	07-15-08
Chain of Custody:	4635	Date Received:	07-16-08
Sample Matrix:	Soil Extract	Date Extracted:	07-16-08
Preservative:	Cool	Date Analyzed:	07-17-08
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	8.68	s.u.		
Conductivity @ 25° C	148	umhos/cm		
Total Dissolved Solids @ 180C	92.0	mg/L		
Total Dissolved Solids (Calc)	86.2	mg/L		
SAR	0.2	ratio		
Total Alkalinity as CaCO3	78.0	mg/L		
Total Hardness as CaCO3	44.3	mg/L		
Bicarbonate as HCO3	78.0	mg/L	1.28	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	4.91	mg/L	0.08	meq/L
Nitrite Nitrogen	0.187	mg/L	0.00	meq/L
Chloride	1.65	mg/L	0.05	meq/L
Fluoride	0.456	mg/L	0.02	meq/L
Phosphate	1.90	mg/L	0.06	meq/L
Sulfate	7.58	mg/L	0.16	meq/L
Iron	11.6	mg/L	0.42	meq/L
Calcium	9.50	mg/L	0.47	meq/L
Magnesium	5.01	mg/L	0.41	meq/L
Potassium	4.67	mg/L	0.12	meq/L
Sodium	3.02	mg/L	0.13	meq/L
Cations			1.55	meq/L
Anions			1.65	meq/L
Cation/Anion Difference			5.89%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Drill Mud.

Analyst

Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## CATION / ANION ANALYSIS

Client: ConocoPhillips  
Sample ID: Mudge Fed #2  
Laboratory Number: 46403  
Chain of Custody: 4635  
Sample Matrix: Soil Extract  
Preservative: Cool  
Condition: Intact

Project #: 96052-0026  
Date Reported: 07-22-08  
Date Sampled: 07-15-08  
Date Received: 07-16-08  
Date Extracted: 07-16-08  
Date Analyzed: 07-17-08

Parameter	Analytical Result	Units		
pH	11.47	s.u.		
Conductivity @ 25° C	2,400	umhos/cm		
Total Dissolved Solids @ 180C	956	mg/L		
Total Dissolved Solids (Calc)	973	mg/L		
SAR	16.9	ratio		
Total Alkalinity as CaCO3	410	mg/L		
Total Hardness as CaCO3	151	mg/L		
Bicarbonate as HCO3	<0.1	mg/L	0.00	meq/L
Carbonate as CO3	152	mg/L	5.07	meq/L
Hydroxide as OH	258	mg/L	15.17	meq/L
Nitrate Nitrogen	1.67	mg/L	0.03	meq/L
Nitrite Nitrogen	<0.1	mg/L	0.00	meq/L
Chloride	135	mg/L	3.81	meq/L
Fluoride	0.503	mg/L	0.03	meq/L
Phosphate	0.400	mg/L	0.01	meq/L
Sulfate	20.4	mg/L	0.42	meq/L
Iron	<0.01	mg/L	0.00	meq/L
Calcium	60.4	mg/L	3.01	meq/L
Magnesium	<0.1	mg/L	0.00	meq/L
Potassium	27.6	mg/L	0.71	meq/L
Sodium	478	mg/L	20.79	meq/L
Cations			24.51	meq/L
Anions			24.54	meq/L
Cation/Anion Difference			0.09%	

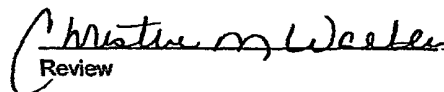
Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Drill Mud.

Analyst



Review





**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

Client:	ConocoPhillips	Project #:	96052-1661
Sample No.:	1	Date Reported:	3/1/2010
Sample ID:	5 pt Composite	Date Sampled:	2/26/2010
Sample Matrix:	Soil	Date Analyzed:	2/26/2010
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

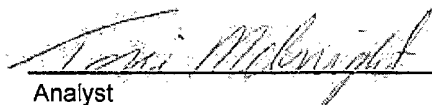
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	32	5.0

ND = Parameter not detected at the stated detection limit.

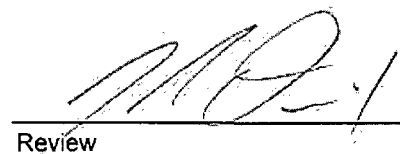
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Mudge Federal #2**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Toni McKnight  
Printed

  
\_\_\_\_\_  
Review

James McDaniel  
Printed



CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 26-Feb-10

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	185
	186	
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Toni McKnight  
Analyst

3/1/2010  
Date

Toni McKnight  
Print Name

MD - 1  
Review

3/2/10  
Date

James McDaniel  
Print Name



Submit To Appropriate District Office  
Two Copies  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., 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-105  
July 17, 2008

1. WELL API NO.

**30-045-33290**

2. Type of Lease

☐ STATE ☐ FEE ☒ FED/INDIAN

3. State Oil & Gas Lease No.

**I-149-IND-7971**

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

4. Reason for filing:

☐ **COMPLETION REPORT** (Fill in boxes #1 through #31 for State and Fee wells only)

☒ **C-144 CLOSURE ATTACHMENT** (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13.K NMAC)

7. Type of Completion:

☒ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☐ OTHER

8. Name of Operator

**ConocoPhillips Company**

10. Address of Operator

PO Box 4298, Farmington, NM 87499

5. Lease Name or Unit Agreement Name

**Mudge Federal**

6. Well Number:

**2**

9. OGRID

**217817**

11. Pool name or Wildcat

12. Location	Unit Ltr	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County
Surface:										
BH:										

13. Date Spudded	14. Date T.D. Reached	15. Date Rig Released <b>12/21/2007</b>	16. Date Completed (Ready to Produce)	17. Elevations (DF and RKB, RT, GR, etc.)
18. Total Measured Depth of Well	19. Plug Back Measured Depth	20. Was Directional Survey Made?	21. Type Electric and Other Logs Run	
22. Producing Interval(s), of this completion - Top, Bottom, Name				

23. **CASING RECORD** (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED

28. **PRODUCTION**

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in)		
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)	30. Test Witnessed By
--	-----------------------

31. List Attachments

32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.

33. If an on-site burial was used at the well, report the exact location of the on-site burial:

Latitude **36.4487778°N** Longitude **108.0389444°W** NAD ☐ 1927 ☒ 1983

I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature *Ethel Tally* Printed Name **Ethel Tally** Title: **Staff Regulatory Technician** Date: **3/25/10**  
E-mail Address **ethel.tally@conocophillips.com**



**Pit Closure Form:**

Date: 7/15/08

Well Name: Mudge Fed. #2

Footages: \_\_\_\_\_ Unit Letter: A

Section: 31, T-26-N, R-11-W, County: San Juan State: N.M.

Contractor Closing Pit: Aztec

Construction Inspector: Eric Smith Date: 7/15/08

Inspector Signature: E. Smith

## Tally, Ethel

---

**From:** Busse, Dollie L  
**Sent:** Thursday, July 10, 2008 2:12 PM  
**To:** Brandon.Powell@state.nm.us; Mark Kelly; Robert Switzer; Sherrie Landon  
**Cc:** Chavez, Virgil E; Kramme, Jeff L; Smith Eric (sconsulting.eric@gmail.com); 'Aztec Excavation'; 'G Meador'; Randy Flaherty; Blair, Maxwell O; Blakley, Maclovio; Clark, Joan E; Farrell, Juanita R; Finkler, Jane; Maxwell, Mary A (SOS Staffing Services, Inc.); McWilliams, Peggy L; Seabolt, Elmo F  
**Subject:** Clean Up Notice - Mudge Fed 2  
**Importance:** High  
**Attachments:** Mudge Federal 2.pdf

**Aztec Excavation** will move a tractor to the **Mudge Fed 2** on **Tuesday, July 15** to start the reclamation process. Please contact Eric Smith (608-1387) if you have any questions or need additional information.

Thanks!  
Dollie

**Network #: 10142925 (HZ)**

**Operator:** ConocoPhillips

**Legals:** 1145' FNL, 690' FEL  
Section 31, T26N, R11W  
Unit Letter 'A' (NENE)  
San Juan County, NM

**API #:** 30-045-33290

**Surface/Minerals:** Tribal surface / Navajo Allotted minerals



Mudge Federal  
2.pdf (162 KB)

## Dollie L. Busse

ConocoPhillips Company-SJBU

Construction Technician

Project Development

505-324-6104

505-599-4062 (fax)

[Dollie.L.Busse@conocophillips.com](mailto:Dollie.L.Busse@conocophillips.com)



**Reclamation Form:**

Date: 9/10/08

Well Name: Mudge Sed #2

Footages: 1145' FNL 690 FSL Unit Letter: A

Section: 31, T-26-N, R-11-W, County: San Juan State: N.M.

Reclamation Contractor: Aztec

Reclamation Date: 8/20/08

Road Completion Date: 8/20/08

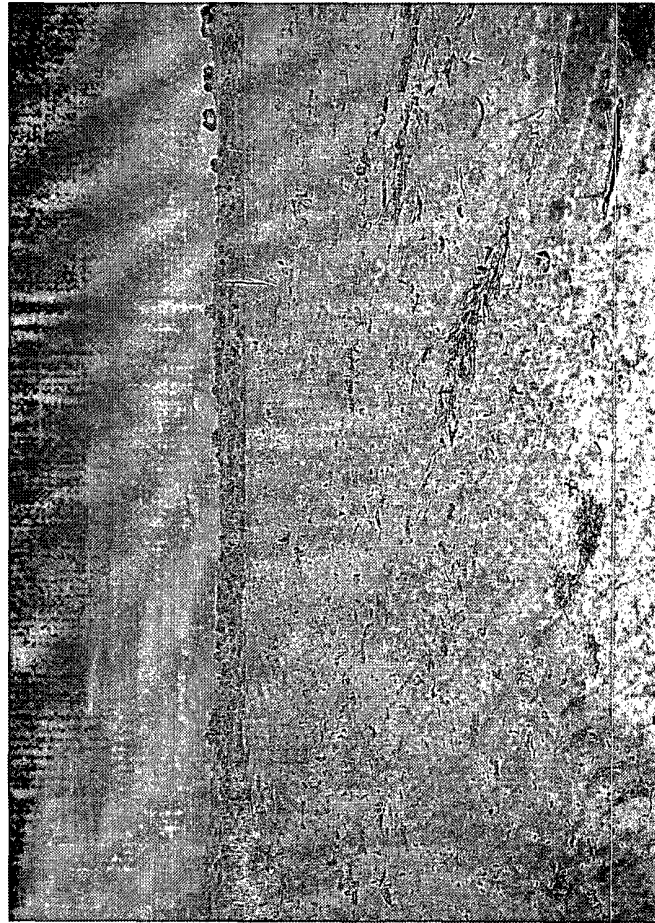
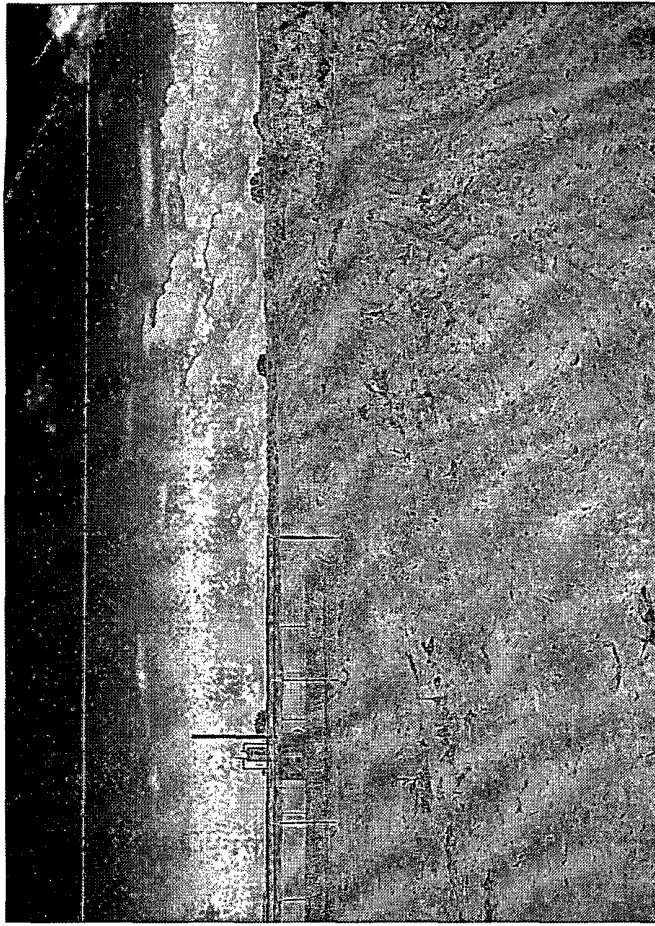
Seeding Date: 9/9/08

Construction Inspector: Eric Smith Date: 9/10/08

Inspector Signature: [Signature]

**CONOCOPHILLIPS COMPANY**  
MUDGE FEDERAL #2  
LATITUDE 36° 26' 9203 N (NAD27)  
LONGITUDE 108° 02' 2875 W  
UNIT A SEC 31 T26N R11W  
1145 FNL 690' FEL  
API # 30-045-33290  
LEASE # 1-149-IND-7971 ELEV. 6203 GL  
SAN JUAN COUNTY, NEW MEXICO  
EMERGENCY CONTACT 1-505-599-3400

2009/07/09



[illegible]