

# RECEIVED

Form 3160-3  
(April 2004)

FEB 24 2010

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Bureau of Land Management  
Farmington Field Office

Lease Serial No.  
NMNM09867

## APPLICATION FOR PERMIT TO DRILL OR REENTER

6. If Indian, Allottee or Tribe Name

1a. Type of work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

NMNM-121467-FC

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.

Reya No. 1

2. Name of Operator  
McElvain Oil & Gas Properties, Inc.

9. API Well No.

30-045-35112

3a. Address 1050 17th Street, Suite 1800  
Denver, CO 80265-1801

3b. Phone No. (include area code)  
303-893-0933X375

10. Field and Pool, or Exploratory  
Basin Fruitland Coal

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
At surface 960' FNL - 1260' FEL, Section 20, T30N, R13W, NMPM  
At proposed prod. zone same

11. Sec., T. R. M. or Blk. and Survey or Area

A Section 20, T30N, R13W, NMPM

14. Distance in miles and direction from nearest town or post office\*  
5 miles north of Farmington, NM

12. County or Parish

San Juan

13. State

NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft. 361.32  
(Also to nearest drig. unit line, if any) 960

16. No. of acres in lease  
160

17. Spacing Unit dedicated to this well  
N/2-323.74 acs. 320.00

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 3900

19. Proposed Depth  
1546'

20. BLM/BIA Bond No. on file  
NM0253

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5540' GL

22. Approximate date work will start\*  
03/01/2010

23. Estimated duration  
11 days

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

RCVD MAR 16 '10

OIL CONS. DIV.

DIST. 3

25. Signature *Robert E. Fielder*  
Title Agent

Name (Printed/Typed)  
Robert E. Fielder

Date  
02/24/2010

Approved by (Signature) *J. Montenegro*  
Title AFM

Name (Printed/Typed)  
Office FFO

Date  
3/12/2010

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

MAR 17 2010

NMOC

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

BLM'S APPROVAL OR ACCEPTANCE OF THIS  
ACTION DOES NOT RELIEVE THE LESSEE AND  
OPERATOR FROM OBTAINING ANY OTHER  
AUTHORIZATION REQUIRED FOR OPERATIONS  
ON FEDERAL AND INDIAN LANDS.

NOTIFY ATEO 24 HRS.  
PRIOR TO CASING & CEMENT

A COMPLETE C-144 MUST BE SUBMITTED TO AND  
APPROVED BY THE NMOC FOR: A PIT, CLOSED  
LOOP SYSTEM, BELOW GRADE TANK, OR  
PROPOSED ALTERNATIVE METHOD, PURSUANT TO  
NMOC PART 19.15.17, PRIOR TO THE USE OR  
CONSTRUCTION OF THE ABOVE APPLICATIONS.

This action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II  
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III  
1000 Rio Brazos Rd., Asteo, N.M. 87410

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised October 12, 2005

RECEIVED

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Bureau of Land Management  
Farmington Field Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-35112</b>		*Pool Code 71629	*Pool Name Basin FRUITLAND COAL
*Property Code 36593	*Property Name REYA		*Well Number 1
*OGRID No. 22044	*Operator Name McELVAIN OIL AND GAS PROPERTIES, INC.		*Elevation 5540'

<sup>10</sup> Surface Location

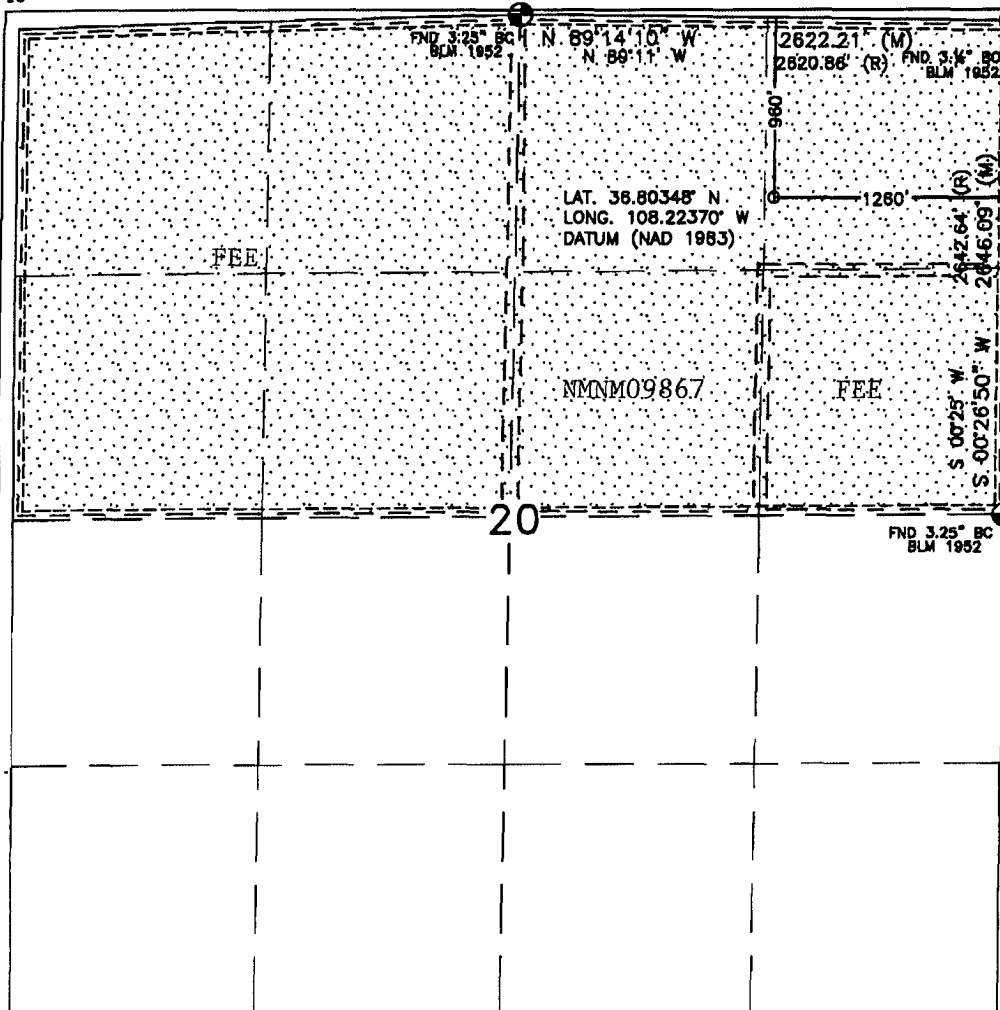
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	20	30N	13W		960'	NORTH	1260'	EAST	SAN JUAN

<sup>11</sup> 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 323.74 Acres - (N/2)					*Joint or Infill Y		*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

16



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner or a compulsory pooling order heretofore entered by the division.

*Robert E. Fielder* 2/24/2010  
Signature Date

Robert E. Fielder  
Printed Name

<sup>18</sup> SURVEYOR CERTIFICATION

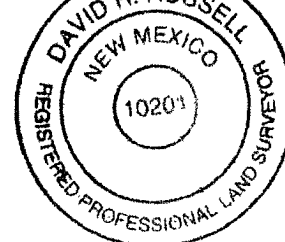
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

AUGUST 22, 2008

Date of Survey

Signature and Seal of Professional Surveyor:

*David R. Russell*



DAVID RUSSELL

Certificate Number

10201

**McElvain Oil & Gas Properties, Inc.**  
**Reya No. 1**  
**960' FNL & 1260' FEL**  
**Section 20, T30N, R13W, NMPM**  
**San Juan County, New Mexico**

**TEN POINT DRILLING PROGRAM**

1. **Surface Formation:** Ojo Alamo
2. **Surface Elevation:** 5540' GL.
3. **Estimated Formation Tops:**

<u>Formation</u>	<u>Top - feet</u>	<u>Expected Production</u>
Ojo Alamo	surface	
Kirtland	746	
Fruitland	1146	GAS
Pictured Cliffs	1396	GAS
TOTAL DEPTH	1546	

4. **Surface Hole Program:**

**Bit:** Drill an 12 $\frac{3}{4}$ " hole to 500' using a retip mill tooth, IADC Class 115 or 116, bit. WOB: all. RPM: 70 - 100.

**Mud:** Use a fresh water base spud mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
0 - 500	8.6 or less	9.0-9.5	40 - 50	No Control

**Casing and Cementing:** A string of 8 $\frac{5}{8}$ " 24 ppf J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 350 sacks (413.0 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl<sub>2</sub> and 1/4 lb/sack celloflake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 $\frac{3}{4}$ " by 8 $\frac{5}{8}$ " annulus. Minimum clearance between couplings and hole is 1.3125". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test BOPE to full working pressure using a test plug. Drill out cement to within five feet of surface casing shoe. \* Test surface casing and BOPE to a minimum of 600 psig for 15 minutes. \* See drilling COA

**Centralizers:** Run four (4) 8 $\frac{5}{8}$ " X 12 $\frac{3}{4}$ " regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

**Float Equipment:** Cement nose guide shoe on bottom and self fill insert float valve run one joint above shoe. Thread lock shoe and connection between first and second joint run.

**Drilling Program**  
**McElvain Oil & Gas Properties, Inc.**  
**Reya No. 1**  
Page Two

**5. Production Hole Program:**

**Bit:** Drill a 7 $\frac{1}{2}$ " hole to 1546' using a TCI, IADC Class 447 bit. WOB: 30-35K. RPM: 60 - 75. Hold RPM at 55 - 65 through Ojo Alamo.

**Mud:** Use a fresh water base polymer and water system to drill this section. If hole conditions dictate, mud up with a fresh water base LSND mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
500 - 1546	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12

Fresh water will be used for dilution and building volume. Sufficient materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume in the surface pit will be visually monitored and recorded on a routine basis.

Note: If mud up is required, raise **viscosity** to 55 - 60 for logging. Thin to 40 - 45 viscosity to run casing.

**pH** is to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection.

Drispac will be used for control of fluid loss.

Lost Circulation can occur in the Fruitland Coal and Pictured Cliffs formation. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

**Pressure Control:** A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to full working pressure. Surface casing and BOPE will be tested to a minimum of 600 psig before drilling out from under surface casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 5 $\frac{1}{2}$ " rams will be installed before running production casing. A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

**Logging Program:** Dual Induction and Epithermal Neutron/Formation Density logs will be run from TD to the surface casing shoe.

**Casing and Cementing Program:** Run 5 $\frac{1}{2}$ " 15.5 ppg J-55 production casing from surface to TD and cement in a single stage with 115 sacks (293.25 cf) of Class B containing 3% sodium metasilicate extender, 5 pps Gilsonite and 1/4 pps celloflake. Lead slurry mixed at 11.8 PPG to yield 2.55 cf/sk. Tail in with 90 sacks (107.1 cf) of Class B with 0.25 pps celloflake, 0.3% FLA and 5 pps gilsonite mixed at 15.6 PPG to yield 1.19 cf/sk.

**Drilling Program**  
**McElvain Oil & Gas Properties, Inc.**  
**Reya No. 1**  
**Page Three**

**5. Production Hole Program: -continued**

Slurry volumes assume a 50% excess over gauge hole volume to circulate to surface. Minimum clearance between couplings and hole is 0.9125". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

**Centralizers:** 5 - 5½" X 7⅞" bowspring centralizers will be run across all prospective pays and 3 - 5½" X 7⅞" turbolizers will be spaced such that one (1) is just below the base of the Fruitland coal, one just below the base of the Ojo Alamo and one (1) in the Ojo Alamo.

**Float Equipment:** Cement nose guide shoe, 1 joint 4½" casing, and float collar.  
**5.8"**

**6. Auxiliary Equipment:**

An upper kelly cock will be utilized. The handle will be available on rig floor at all times

**7. Logging Program:**

Dual Induction and Epithermal Neutron / Formation Density will be run from TD to surface casing shoe. Bulk density will be presented on a 5 " scale through the coals. Deep induction curve will be merged onto the porosity log.

**Coring and Testing Program:**

No cores or drill stem tests are planned.

**8. Abnormal Pressure:**

Although not expected, abnormal pressures are possible in the Fruitland formation.

**Estimated Bottom Hole Pressure:**

250 - 300 psig.

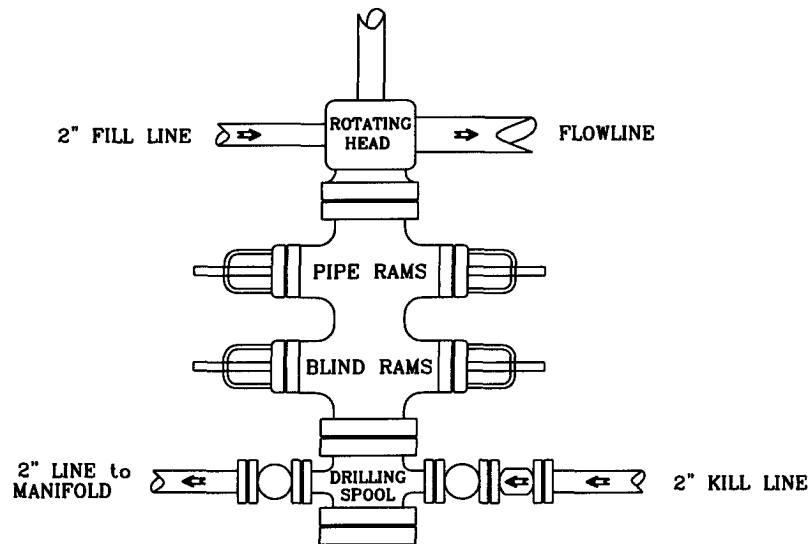
**9. Anticipated Starting Date:**

March 1, 2010

**Duration of Operations:** It is estimated a total of 6 days will be required for drilling operations and 5 days for the completion operation.

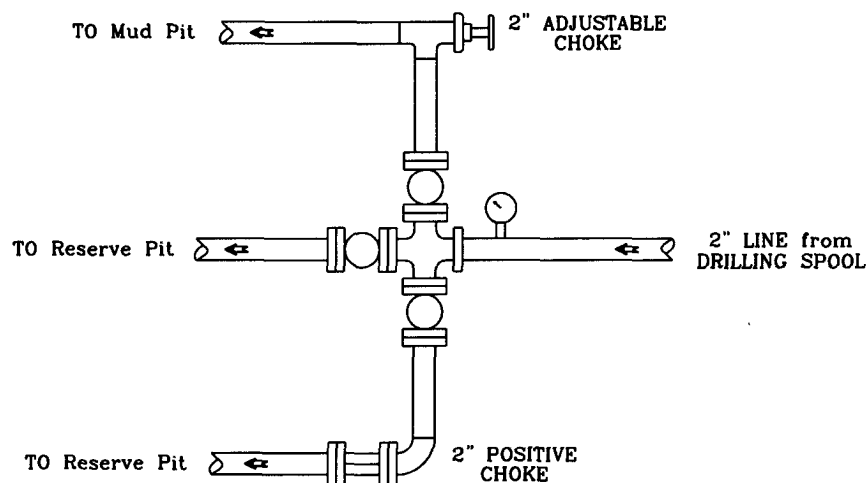
# PRESSURE CONTROL

## Wellhead Assembly



Preventer and Spools are to have a  
6" Bore or larger and a 2000 PSI  
or higher Pressure Rating

## Choke Manifold



*McElvain Oil & Gas Properties, Inc.*

Reya No. 1

960' FNL - 1260' FEL

Section 20, T30N, R13W, NMPM  
San Juan County, New Mexico

## **DRILLING CONDITIONS OF APPROVAL**

**Operator:** McElvain Oil & Gas Properties  
**Lease No.:** NMNM-09867  
**Well Name:** Reya #1  
**Well Location:** Sec.20, T30N, R13W; 960' FNL & 1260' FEL

- 1) Test the 8.625" surface casing to a minimum of 600 psi for 30 minutes.
- 2) Upon completion, test the 5.5" casing to a minimum of 1500 psi for 30 minutes.