

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

5. Lease Serial No.
NMSF-078089

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
N/A 32/68

8. Lease Name and Well No.
SCOTT FEDERAL #232

9. API Well No.
30-045- 31153

10. Field and Pool, or Exploratory
BASIN FRUITLAND COAL
11. Sec., T., R., M., or Blk. and Survey or Area

23-27n-11w NMPM

12. County or Parish
SAN JUAN

13. State
NM

1a. Type of Work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
MARKWEST RESOURCES, INC.

3a. Address **155 INVERNESS DR., SUITE 200
ENGLEWOOD, CO. 80112**

3b. Phone No. (include area code)
(303) 290-8700

4. Location of Well (Report location clearly and in accordance with any State requirements*)

At surface **1710' FSL & 90' FEL**

At proposed prod. zone **SAME**

14. Distance in miles and direction from nearest town or post office*
11 AIR MILES SSE OF BLOOMFIELD

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) **1710'**

16. No. of Acres in lease
2,560

17. Spacing Unit dedicated to this well
320 ACRES (E2)

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. **1,086'**

19. Proposed Depth
2,100'

20. BLM/BIA Bond No. on file
KA6084 (BLM - NATIONWIDE)

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6,278' GL

22. Approximate date work will start*
DECEMBER 19, 2002

23. Estimated duration
2 WEEKS

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.

Comments

**On site inspection with Roger Herrera.
Archaeologist: CASA.**

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL CONDITIONS"

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

RECEIVED
2002 JUL 24 AM 11:04
070 FRANKLIN, NM

cc:BLM (&OCD), Pippin, Stowe

25. Signature **Brian Wood** Name (Printed/Typed) **BRIAN WOOD** Date **7-22-02**
Title **CONSULTANT** PHONE: 505 466-8120 FAX: 505 466-9682

Approved by (Signature) **David J. Montlow** Name (Printed/Typed) **DAVID J. MONTLOW** Date **MAR 10 2003**
Title **Chief** Office **Chief**

Application approval does not warrant or certify the 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.

HOLD C104 FOR **NSL**

NMOCD

DISTRICT II
611 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-31153		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL	
*Property Code 32168	*Property Name SCOTT FEDERAL			*Well Number 232
*OGRID No. 193195	*Operator Name MARKWEST RESOURCES, INC.			*Elevation 6278

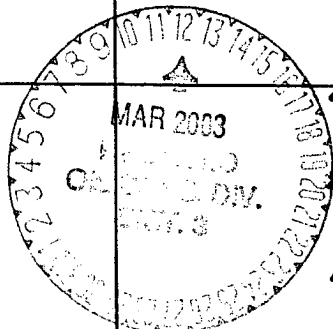
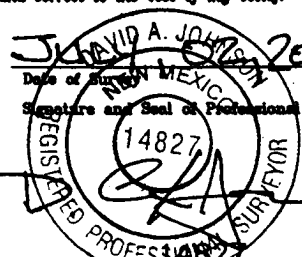
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	.23	27-N	11-W		. 1710'	. SOUTH	. 90'	. EAST	SAN JUAN

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
¹² Dedicated Acres <div>320</div>			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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>16</p>	<p>23</p> <p style="text-align: center;">  </p>	<p>17 OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p style="text-align: right; font-family: cursive;">Brian Wood</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title <u>BRIAN WOOD</u></p> <p>Title <u>CONSULTANT</u></p> <p>Date <u>JULY 21, 2002</u></p>
<p>FD 2 1/2" GLO BC 1913</p> <p style="text-align: center; font-size: 2em; opacity: 0.5;">RECEIVED</p> <p style="text-align: right;">2002 JUL 24 AM 11:04</p> <p style="text-align: right;">070 FARMINGTON, NM</p>	<p>FD WITNESS COR. OFST. 178.2' SOUTH</p> <p style="text-align: center;"> LAT. 36°33'29.5"N LONG. 107°57'52.5"W </p> <p style="text-align: center;">1230'</p> <p style="text-align: right;">90'</p> <p style="text-align: right;">923'</p> <p style="text-align: right;">N 00-04-23 W 2633.4'</p> <p style="text-align: right;">1710'</p>	<p>18 SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p style="text-align: right; font-family: cursive;">J. David A. Jones</p> <p>Date of Survey <u>July 2002</u></p> <p>Signature and Seal of Professional Surveyor:</p> <p style="text-align: center;">  </p> <p>Certificate Number _____</p>

MarkWest Resources, Inc.
Scott Federal 232
Surface: 1710' FSL & 90' FEL
Sec. 23, T. 27 N., R. 11 W.
San Juan County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>Depth from GL</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento Fm	000'	5'	+6,278'
Ojo Alamo Ss	838'	825'	+5,440'
Kirtland Sh	958'	864'	+5,320'
Fruitland Coal	1,423'	1,317'	+4,855'
Pictured Cliffs Ss	1,898'	1,816'	+4,380'
Total Depth*	2,100'	6,482'	+4,178'

* all elevations reflect the ungraded ground level of 6,278'.

2. NOTABLE ZONES

<u>Gas or Oil Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Ojo Alamo	
Gallup	Kirtland	
Dakota	Fruitland	

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded. Oil or gas shows will be tested for commercial potential based on the geologist's recommendations.

3. PRESSURE CONTROL

been awarded, thus the exact BOP model to be used is not yet known. A typical 8" double ram 2,000 psi model is on PAGE 3.

BOP equipment and all accessories will meet or exceed BLM requirements in

MarkWest Resources, Inc.
Scott Federal 232
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San Juan County, New Mexico

PAGE 2

43 CFR Part 3160 for a 2000 psi system. A 2000 psi double ram hydraulic BOP will be used. Accumulator system capacity will be sufficient to close all BOPE with a 50% safety factor. Fill, kill, and choke manifold lines will be 2" screw connections. Accessories will include upper and lower Kelly cocks with handles, stabbing valve to fit drill pipe on floor at all times, string float at bit, 2000 psi choke manifold with 2" adjustable choke with screw connections, and pressure gauge. BOPs will be tested every 24 hours. Tests will be recorded on an I. A. D. C. log.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connection</u>	<u>GL Setting Depth</u>
12 1/4"	8-5/8"	24	K-55	New	ST & C	160'
6-1/4"	4-1/2"	10.5	K-55	New	ST & C	2,100'

Surface casing will be cemented to the surface with ¹⁴³~~~118~~ cubic feet (¹⁶⁴~~~100~~ sacks) Class B + 1/4 lb/sack cello-flake + 2% CaCl₂. Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Volume = 100% excess. A guide shoe and insert float will be used with 3 centralizers. W. O. C. = 12 hours. Surface casing will be tested to 500 psi for 30 minutes.

Production casing will be cemented to the surface. Total cement = 367 cubic feet. Volumes are calculated at 70% excess. If cement does not circulate to surface, then a temperature survey will be run to determine the actual cement top as needed. W. O. C. = 12 hours. Test to 3,800 psi.

Lead cement = 290 cubic feet (~141 sacks) Class B cement with 2% SM, 3 pounds per sack gilsonite + 1/4 pound per sack cello-flake. Yield = 2.06 cubic feet per sack. Weight = 12.5 pounds per gallon.

Tail cement = 77 cubic feet (~50 sacks) Class B + 4% gel + 1/4#/sack cello-flake + 2% CaCl₂. Yield = 1.55 cubic feet per sack. Weight = 14.5 #/gallon.

UNITED STATES
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BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

MARKWEST RESOURCES, INC.

3a. Address **155 INVERNESS DR., SUITE 200
ENGLEWOOD, CO. 80112**

3b. Phone No. (include area code)
(303) 290-8700

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**SURFACE: 1710' FSL & 90' FEL SEC. 23, T. 27 N., R. 11 W.
BHL: SAME**

5. Lease Serial No.

NMSF-078089

6. If Indian, Allottee or Tribe Name

N/A

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

N/A

8. Well Name and No.

SCOTT FEDERAL 232

9. API Well No.

30-045-

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal

11. County or Parish, State

SAN JUAN COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Will change surface casing hole diameter from 11" to 12-1/4".
Will change cement volume to 193 cubic feet (164 sacks).
No change in casing or cement composition.



cc: BLM (& OCD), Bush, Pippin

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

BRIAN WOOD

Title **CONSULTANT (505) 466-8120**

Signature

A handwritten signature in black ink that reads "B. Wood". The signature is written in a cursive, slightly slanted style.

Date **2/8/03**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ David J. Monidewicz

Title

Date

MAR 10 2003

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

NMOCD