

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED  
OMB NO 1004-0135  
Expires: July 31, 2010

**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.*

5. Lease Serial No  
NMNM67102

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

|  |   |  |
|--|---|--|
| 1. Type of Well<br><input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other |   | 8. Well Name and No<br>PARKWAY 35 FEDERAL COM 4H   |
| 2. Name of Operator<br>SM ENERGY   |   | 9. API Well No<br>30-015-39839-00-X1               |
| 3a. Address<br>3300 N A ST BLDG 7 STE 200<br>MIDLAND, TX 79705   | 3b. Phone No (include area code)<br>Ph. 432-688-1709<br>Fx 432-688-1701 | 10. Field and Pool, or Exploratory<br>PARKWAY      |
| 4. Location of Well (Footage, Sec, T, R, M, or Survey Description)<br>Sec 35 T19S R29E SWSW Lot M 450FSL 330FWL                  |   | 11. County or Parish, and State<br>EDDY 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"/> Subsequent Report           | <input type="checkbox"/> Deepen                                     |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Fracture Treat                             |
|  | <input type="checkbox"/> Production (Start/Resume)                  |
|  | <input type="checkbox"/> Reclamation                                |
|  | <input type="checkbox"/> Recomplete                                 |
|  | <input type="checkbox"/> Temporarily Abandon                        |
|  | <input type="checkbox"/> Water Disposal                             |
|  | <input type="checkbox"/> Water Shut-Off                             |
|  | <input type="checkbox"/> Well Integrity                             |
|  | <input checked="" type="checkbox"/> Other<br>Change to Original APD |

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 recomplete 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 recompletion 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.)

The following changes are requested to be made to the Parkway 35 Federal Com 4H:

Change #1:

SM Energy requests to change the casing design to the following:

Hole Size Casing Size Wt /Ft Grade Coupling Interval  
 26" 20" 94 # J-55 STC 250'  
 17-1/2" 13-3/8" 48 # H-40 STC 0-1,200'  
 17-1/2" 13-3/8" 54 5 # J-55 STC 1,200' - 1,300' → See COA  
 12 1/4" 9 5/8" 36 # J-55 LTC 3,300'  
 8 3/4" 5 1/2" 17 # 1 80 LTC 12,375' → 12,521

P-110

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**RECEIVED**  
OCT 29 2012

**APPROVED**  
OCT 25 2012  
BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE

14. I hereby certify that the foregoing is true and correct

Electronic Submission #155823 verified by the BLM Well Information System  
For SM ENERGY, sent to the Carlsbad  
Committed to AFMSS for processing by KURT SIMMONS on 10/23/2012 (13KMS3569SE)

|                                      |                        |
|--------------------------------------|------------------------|
| Name (Printed/Typed) VICKIE MARTINEZ | Title ENGINEER TECH II |
| Signature (Electronic Submission)    | Date 10/22/2012        |

Accepted for record  
NMOCD

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

|   |                          |                 |
|---|--------------------------|-----------------|
| Approved By EDWARD FERNANDEZ  | Title PETROLEUM ENGINEER | Date 10/25/2012 |
| 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 Carlsbad |

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.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

## Additional data for EC transaction #155823 that would not fit on the form

### 32. Additional remarks, continued

Note: 13-3/8" Casing will be set at 1,300' due to lack of production in the Yates formation. Please reference the Parkway Delaware Unit #521 and the Four Peak 35 Federal 2H and 1H.  
Note: No pilot hole will be drilled

#### Change 2:

SM Energy requests the ability to use an air unit in the Capitan Reef if large losses occur. Estimated mud weight is 6 ppg. If a well control situation is encountered the emergency shut offs on the air units will be utilized and the rig pumps will be used to regain the 8.4 ppg mud weight

| Interval      | Mud Type               | Weight   | Viscosity | Fluid Loss |
|---------------|------------------------|----------|-----------|------------|
| 0-210'        | Fresh Water Spud Mud   | 8.6-9.4  | 32-34     | No Control |
| 210'-1,300'   | Brine                  | 10.28-30 |           | No Control |
| 1,300'-2,000' | Fresh Water            | 8.4-8.6  | 28-30     | No Control |
| 2,000'-3,300' | Fresh Water            | 6        | N/A       | No Control |
| 3,300'-8,356' | Cut Brine              | 8.4-8.6  | 28-30     | No Control |
| 8,356'-TD     | MD Cur Brine / polymer | 8.4-8.6  | 32-40     | No Control |

NOTE: THE 2,000' -3,300' Reflects the possible usage of an air package.

#### Change 3:

SM Energy requests the surface and intermediate cementing programs to be changed to the following:

20" Surface Lead: 180 sacks Class H Cement + 5% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 10 lbs/sack LCM-1 + 8% bwoc A-10 + 53/7 % Fresh Water, 14.60 ppg, Yield: 1.49 cf/sack, Tail: 620 sacks Class C Cement +2% bwoc Calcium Chloride + 0.125 lbs/sack Cello Flake + 56.3 Fresh Water, 14.8 ppg Yield: 1.34 cf/sk TOC @ SURFACE

13 - 3/8" Intermediate Lead: 735 sacks (35.65) Poz (Fly Ash): Class C Cement + 5% bwoc Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 102.9% Fresh Water, 12.5 ppg Yield. 2.03 cf/sk, Tail. 200 sacks Class C Cement + 1% bwoc Sodium Chloride + 56.3% Water, 14.8 ppg Yield 1.34 cf/sk TOC @ SURFACE

9-5/8" Intermediate: Stage #1 Lead 400 sacks (35.65) Poz (Fly Ash): Class C Cement + 4% bwoc Bentonite II + 5% bwoc Sodium Chloride + 0.125 lbs/sack + 5 lbs/sack LCM - 1 + 0.3 bwoc FL - 52 + 5% bwoc MPA-5, 12.50 ppg, Yield: 2.11 cf/sack, Stage #1 Tail 200 sacks Class C Cement + 1% bwoc Calcium Chloride + 56.3% water, 14.80 ppg, Yield 1.34 cf/sack, Stage #2 Lead 400 sacks (35.65) Poz (Fly Ash): Class C Cement + 4% bwoc Bentonite II + 5% bwoc Sodium Chloride + 0.125 lbs/sack + 5 lbs/sack LCM - 1 + 0.3 bwoc FL - 52 + 5% bwoc MPA-5, 12.50 ppg, Yield: 2.11 cf/sack TOC @ SURFACE

#### Change 4.

Should lost circulation be encountered on the Parkway 35 Federal 3H and circulation is not reestablished SM Energy Company respectfully requests the ability to use a packer stage cementing collar. Position of the packer stage cementing collar will be placed in the deepest competent formation but not within 100' of the previous casing shoe. The positioning of the packer stage cementing collar will be determined either by caliper survey or rate of penetration log. Current estimated setting depth is 1,500'. Slurries and stages are shown in the table above. Should packer placement change cement volume will be adjusted proportionally determined by annulus volume above the packer with 35% excess and will meet the 500 psi requirement before casing test and drill out.

See change 5 on attached.

Change 5.

SM Energy request the permission to complete and cement the production casing in two stages with a Stage Frac Cement Diverter Tool set at approx. 8,150. The stages are as follows:

|         |        |            |  |
|---------|--------|------------|--|
| Stage 1 | 5-1/2" | Production | 12,353' - 8,324 packer/port system No Cement in lateral after inflating the packers  |
| Stage 2 | 5-1/2" | Production | Lead: 1095 sks (50:50) Poz (Fly Ash): Class H + 10% bwoc Bentonite II + 0.3% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride 11.60 ppg, Yield 2.61 cf/sack<br>Tail: 195 sks Class H + 1% bwow Sodium Chloride 15.60 ppg Yield: 1.19 cf/sack <b>BLM show the Capitan Reef Marker at 1,900'. TOC is designed for 1,800' with 35% excess</b> |

## CONDITIONS OF APPROVAL

Sundry dated 10/22/2012

|                       |                                    |
|-----------------------|------------------------------------|
| OPERATOR'S NAME:      | SM ENERGY COMPANY                  |
| WELL NAME & NO.:      | PARKWAY 35 FEDERAL #4H             |
| SURFACE HOLE FOOTAGE: | 450' FSL & 330' FWL                |
| BOTTOM HOLE FOOTAGE:  | 660' FSL & 330' FEL                |
| LOCATION:             | Section 35, T.19 S., R.29 E., NMPM |
| COUNTY:               | Eddy County, New Mexico            |

### Original COA still applies with the following changes:

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Capitan Reef

Secretary's Potash

High Cave/Karst

Possible lost circulation in the Artesia, Delaware and Bone Spring Groups.

Possible brine and water flows in the Artesia and Salado Groups.

1. The 20 inch surface casing shall be set at approximately 250 feet (a minimum of 25 feet into the Competent Bed and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 13-3/8 inch 1<sup>st</sup> intermediate casing **which shall be set at approximately 1500' below Yates Formation, is:**  
(The Yates has been known to be capable of producible hydrocarbons)
- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash.**
3. The minimum required fill of cement behind the 9-5/8 inch 2<sup>nd</sup> intermediate casing **which shall be set in the Base of the Capitan Reef or in the Top of the Delaware Mountain Group at approximately 3300' is:**
- Cement to surface. If cement does not circulate see a, c-d above under surface casing.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

**If 75% or greater lost circulation occurs while drilling the 2nd intermediate (9-5/8") casing hole, the cement on the production casing must come to surface.**

**The BLM shows the Capitan Reef marker at 1700 feet. Top of cement on 5-1/2" production casing shall reach a minimum of 50 feet above that depth.**

4. The minimum required fill of cement behind the 5-1/2 inch production casing is:

**Operator has proposed DV tool at depth of 1500', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 100' below previous shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.**

- From Stage DV Tool cement should tie-back a minimum of 50 feet above the Capitan Reef. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Capitan Reef, cave/karst and potash.**
- Below DV Tool No cement required on this 5-1/2" segment as it utilizes a Packer/Port completion system.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

**DRILLING MUD**

**Approved for aerated mud, but not air drilling, in the Capitan Reef.**

**EGF 102512**