

UNITED STATES
DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No 1004-0135
Expires March 31, 1993

SUNDRY NOTICE AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

RECEIVED

SUBMIT IN TRIPPLICATE

MAY 12 2010

Bureau of Land Management
Farmington Field Office

1. Type of Well
Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator
WILLIAMS PRODUCTION COMPANY

3. Address and Telephone No
PO BOX 640 Aztec, NM 87410-0640

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: 1475' FNL & 1220' FEL
Sec. 31, T31N, R4W

5. Lease Designation and Serial No.
NMSF-078777

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

7. If Unit or CA, Agreement Designation
Rosa

8. Well Name and No.
Rosa Unit #601

9. API Well No
30-039-20505 30916

10. Field and Pool, or Exploratory Area
Blanco MV/Basin MC/Basin DK

11. County or Parish, State
Rio Arriba, NM

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	Abandonment
<input type="checkbox"/> Subsequent Report	Recompletion
<input type="checkbox"/> Final Abandonment	Plugging Back
	Casing Repair
	Altering Casing
	<input checked="" type="checkbox"/> Other <u>Name Change, Formation Change</u>
	<u>Spacing Unit change</u>
	Change of Plans
	New Construction
	Non-Routine Fracturing
	Water Shut-Off
	Conversion to Injection
	Dispose Water
	Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Williams Production Company, LLC hereby requests authorization to: 1) change the name of this well from the Rosa Unit #399 to the Rosa Unit #601; 2) change the formation from the Fruitland Basin Coal to the Blanco Mesaverde, Basin Mancos and Basin Dakota; 3) change the spacing from E/2 to N/2. See attached C-102 and operations plan.

RCVD MAY 26 '10
OIL CONS. DIV.

DIST. 3

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

Basin IC cancelled 5/24/10

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

Signed Larry Higgins
Larry Higgins

Title Permit Supervisor Date 05/12/10

(This space for Federal or State office use)

Approved by Troy L. Sellers

Title Petroleum Engineer

Date 5/14/2010

Conditions of approval, if any.

NMOC

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 & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-30503	*Pool Code 97232 / 72319 / 71599	*Pool Name BASIN MANCOS / BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 17033	*Property Name ROSA UNIT	*Well Number 601
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 6963'

¹⁰ Surface Location

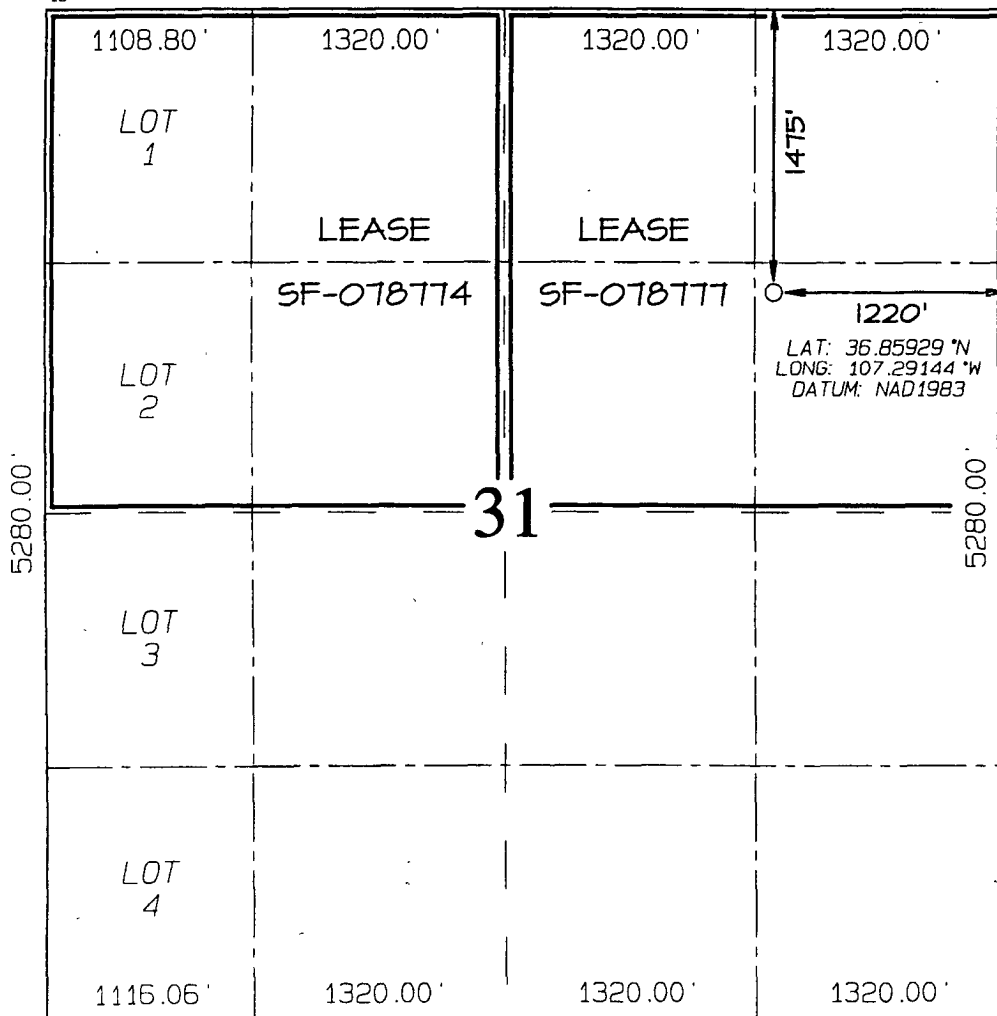
UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	31	31N	4W		1475	NORTH	1220	EAST	RIO ARriba

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
								RCVD MAY 26 '10	
¹² Dedicated Acres 307.31 Acres - (N/2)					¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No	OIL CONS. DIV. DIST. 3	

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



¹⁷ 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 of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Larry Higgins 5-12-10
Signature Date
LARRY HIGGINS
Printed Name

¹⁸ 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

Survey Date: SEPTEMBER 17, 2008

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 5/6/2010 **FIELD:** Basin DK/ Basin MC/BlancoMV
WELL NAME: Rosa Unit #601 **SURFACE:** USFS
BH LOCATION: SENE Sec 31-31N-4W **MINERALS:** Federal
Rio Arriba, NM
ELEVATION: 6,963' GR **LEASE #** SF-078777
MEASURED DEPTH: 8,862'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	Depth	Name	Depth
Ojo Alamo	3,162	Point Lookout	6,242
Kirtland	3,292	Mancos	6,532
Fruitland	3,607	Gallup	7,597
Pictured Cliffs	3,787	Greenhorn	8,317
Lewis	4,107	Graneros	8,367
Cliff House	6,022	Dakota	8,512
Menefee	6,067	Morrison	8,762
		TD	8,862

- B. MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD. Mud logger to pick TD. Weatherford Portable X-Ray Diffraction and Source Rock Analysis from intermediate csg to TD.
- C. LOGGING PROGRAM:** ACR/GR/CN/WAVE/SDL from surface casing to intermediate casing. ACR/GR/CN/WAVE/SDL from intermediate casing to TD
- D. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

- A. MUD PROGRAM:** Use Water + Gel/Polymer sweeps to drill Surface hole. Convert to a LSLD - EZ-MUD system mud (+/-50 Vis.) to drill 9-7/8 in. Intermediate Hole. Increase vis to +/-60 to run Casing. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Drill out of 7-5/8" casing with 6-3/4" PDC to top of Graneros. POOH to pick up 813 type PDC bit to Graneros, Greenhorn, Dakota and to TD at +/- 8,862 ft. (MD).
- B. BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS**A. CASING PROGRAM:**

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	14 3/4	300	10 3/4	32.75	K-55
Intermediate	9 7/8	4,262	7 5/8	26.4	K-55
Longstring	6 3/4	8,862	4 1/2	11.6	P-110

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 10-3/4" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7-5/8" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
3. PRODUCTION LINER / CASING: 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. SURFACE: Slurry: 290sx (521 cu.ft.) of "Type III" + 2% Cal-Seal 60 + ¼ # of poly-e-flake/sk + 0.3% Versaset + 2% Econolite + 6% Salt (Yield = 1.796 cu.ft./sk, Weight = 13.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi for 30 minutes.
2. INTERMEDIATE: Lead - 550 sx (1498 cu.ft.) of "EXTENDACEM" + 5 #/sk pheno-seal + 5% Cal-Seal 60 (Yield = 2.723 cu.ft./sk, Weight = 11.5 #/gal.). Tail - 100 sx (117.8cu.ft.) of Premium cement + 0.125 #/sk Poly-E-Flake, (Yield = 1.178 cu.ft./sk, Weight = 15.6#/gal.). Total volume = 1615 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface. WOC 12 hours. Test casing to 1500psi for 30 minutes.
3. PRODUCTION CASING: 10 bbl Gelled Water spacer. Cement: 610 sx (853 ft³) of "FRACCEM" + 0.8% Halad-9 + 0.1% CFR-3 + 5 #/sk Gilsonite + 0.125 #/sk Poly-E-Flake + 0.15% HR-800. (Yield = 1.398 ft³/sk, Weight = 13.1 #/gal.). Displace cement at a minimum of 8 BPM. otal volume (853) ft³. WOC 12 hours. Casing will be tested at completion.

IV. IV COMPLETION**A. CBL**

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement not circulated to surface..

B. PRESSURE TEST


1. Pressure test 4-1/2" casing to 1500 psi for 30 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 5000# 100 mesh sand and 120,000# Ottawa Sand in slick water.
2. Isolate Dakota with a RBP.
3. Perforate Mancos as determined from the open hole logs
4. Stimulate Mancos with 3 stages of approximately 5000# 100 mesh sand and 150,000# 40/70 Ottawa sand
5. Isolate Mancos with RBP
6. Stimulate Point Lookout with approximately 40,000# 20/40 Ottawa sand in slick water.
7. Isolate Point Lookout with a RBP.
8. Perforate the Menefee/Cliff House as determined from the open hole logs.
9. Stimulate with approximately 40,000# 20/40 Ottawa sand in slick water.
10. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Production Tubing: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Dakota perforation


for Brian Alteman
Drilling Engineer