

District I

1625 N. French Dr., Hobbs, NM 88240

District II

821 South First, Artesia, NM 88210

District III

1000 Rio Brava Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources DepartmentOIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505Form C-102
Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-25890		2 Pool Code 96175		3 Pool Name ROSA PICTURED CLIFFS	
4 Property Code 00017833		5 Property Name ROSA UNIT			6 Well Number 160
7 OGRID No. 120782		8 Operator Name WILLIAMS PRODUCTION COMPANY			9 Elevation 6438'

10 Surface Location

UL or lot no. 0	Section 25	Township 31N	Range 06W	Lot Idn	Feet from the 1250	North/South line SOUTH	Feet from the 790	East/West line EAST	County RIO ARriba
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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
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12 Dedicated Acres 112.32	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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	2640'	1320'	524.32'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature _____ Printed Name: _____ Title _____ Date _____
			1	
			2	
			3	
	25			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. Date of Survey _____ Signature and Seal of Professional Surveyor: _____ Certificate Number _____
			4	
	2640'	1320'	524.6'	

Ross, Tracy

From: Perrin, Charlie [CPerrin@state.nm.us]
Sent: Monday, April 10, 2000 3:18 PM
To: 'Ross, Tracy'
Subject: RE: Rosa Unit #160

March 14, 2000

New Mexico Oil Conservation Division
Attn: Mr. Frank Chavez, District 3 Supervisor
1000 Rio Brazos Road
Aztec, NM 87410

Re: Non-Standard Gas Unit
Rosa Unit #160
1250' FSL, 790' FEL
Section 25-T31N-R6W
Rio Arriba, NM
Rosa Pictured Cliffs

Dear Mr. Chavez,

This is a request for Administrative approval for a non-standard gas unit in the Rosa Pictured Cliffs pool for the referenced well. The proposed spacing unit is the southeast quarter of the east half and lots 3 and 4 of Section 25-T31N-R6W, which is 112.32 acres due to a variation in the legal subdivision of the U.S. Public Land Surveys.

The above mentioned well was originally drilled and completed in 1998. This well was original proposed in 1996, Williams was granted approval for a non-standard gas spacing and proration unit for the Blanco-Mesaverde Pool on April 30, 1996.

Attached for your information is a plat showing the proposed spacing unit and also a map showing the offset ownership. Notification of this application has been provided to all offset operators.

Thank you for your consideration and approval of this application. If you have any questions, I may be reached at (918) 573-6254.

Sincerely,

Ms.

Tracy Ross

Production Analyst
Approved 3/13/00
Pc 112.32 acre
Charlie T. Perrin



ENERGY SERVICES
Exploration & Production

TO: Dorothy Jacquez

COMPANY: nmocd

FAX #: 505-334-6170

DATE: 6-28-00

FROM: Tracy Ross

PHONE: 918-573-6254

TOTAL NUMBER OF PAGES (including cover): 87

Hard copies will be sent today.

I am also send a copy of the approval
from Charlie on the Non-Standard the Unit

In Lieu of
Form 3160
(June 1990)

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.

5. Lease Designation and Serial No.
SF-078766

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA, Agreement Designation
ROSA UNIT

8. Well Name and No.
ROSA UNIT #160

9. API Well No.
30-039-25890

10. Field and Pool, or Exploratory Area
ROSA PICTURED CLIFFS/ MESA VERDE

11. County or Parish, State
RIO ARriba, NM

SUBMIT IN TRIPPLICATE

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

2. Name of Operator
WILLIAMS PRODUCTION COMPANY

3. Address and Telephone No.
PO BOX 3102 MS 37-2, TULSA, OK 74101 (918) 573-6254

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1250 FSL & 790 FEL, SE/4 SE/4 SEC 25-31N-6W

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	<input checked="" type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment	Plugging Back
	Casing Repair
	Altering Casing
	Other _____
	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 proposes to complete the Pictured Cliffs formation in this wellbore and dual with the existing Mesa Verde per the attached procedure. Estimated start date is April 3, 2000

ONE ATTACHED FOR
CONTINUATION OF APPROVAL

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

Signed Tracy Ross
Tracy Ross

Title Production Analyst

Date February 29, 2000

(This space for Federal or State office use)

Approved by Charlie Buchanan

Title PMT Team Lead
ACTING

Date 3/13/00

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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.

OPERATOR

1/10/00

WILLIAMS PRODUCTION COMPANY
COMPLETION PROGNOSIS
ROSA 160

Purpose: To complete the Pictured Cliffs formation and dual with the existing Mesaverde.

1. Notify BLM 24 hours prior to moving in.
Check rig anchors and repair as necessary.

Spot and fill 2- 400 bbl tanks with 1% fresh KCl water. Do not filter water unless necessary. Filter water to 25 microns if necessary. One tank will be gelled.
Set flow back tank if needed and dig pit. Fence and line any pits dug.
Order out dual tubing head and Mt. Sates Model B Seal Bore Packer packer.
Order Pictured Cliffs tbg string w/ turned down collars.
Order out 3-1/2" frac string. Williams yard.
2. MIRUSU. Nipple up BOP, bleed line, working valves and 2" relief lines. Test BOP.
3. TOH with 2-3/8" Mesaverde tbg.
4. TIH with 7" retrievable bridge plug on 2-3/8" tbg and set above liner top (tol @ 3562'). Load hole with 1% KCl water and pressure test entire casing to 3,000 psi and hold for 15 minutes. TOH.
5. On wireline run CBL-CCL across Pictured Cliffs from 3500'-3000'.
6. Spot 200 gals 15% HCl acid across perfed interval from 3299'-3411'. TOH with tbg.
6. Correlate to Halliburton's Neutron-Density log of 9/4/98. Perforate the Pictured Cliffs formation in 7" casing w/ 20 - 0.36" holes using a 3-1/2" select fire casing gun from top down at the following depths; 3299, 3307, 3320, 3329, 3346, 3348, 3350, 3352, 3354, 3356, 3358, 3361, 3363, 3368, 3369, 3374, 3394, 3401, 3402, 3411.
7. Breakdown and attempt to balloff down 3-1/2" frac string w/ 500 gals 15% HCl acid and 1.3 S.G. - 7/8" neutral density RCN perf balls.
Maximum pressure = 3000 psi.
Acid to contain 1 gal/1000 gals surfactant, iron control and inhibitor (24 hour inhibition at 150°F).
8. RIH with 3-1/2" work string and push balls to BP. Set packer at ±3000'.

10. Rig up pump trucks and fracture stimulate the Pictured Cliffs with 80,000# 20/40 Arizona sand using 70 quality foam (TRANSFOAM). Initial injection rate of 40 BPM rate down 3-1/2" tubing as follows.
CONFIRM ALL VOLUMES ON LOCATION

<u>STAGE</u>	<u>FLUID (gals)</u>	<u>DOWNHOLE FOAM (gals)</u>	<u>SAND (lbs)</u>
Pad	3,000 gals	10,000 gals	-
1.0 ppg	3,000 gals	10,000 gals	10,000#
1.5 ppg	3,000 gals	10,000 gals	15,000#
2.0 ppg	3,000 gals	10,000 gals	25,000#
3.0 ppg	3,000 gals	10,000 gals	30,000#
Flush	(5,609 gals)	-	-
	20,271 gals	50,000 gals	80,000 #

Maximum injection rate = 40 BPM or greater at maximum STP = 3000 psi. Attempt 2 -3 bbls/min/perf
 All frac fluid to contain 20 PPT of Guar Gel, 1 PPT of Breaker, 5 GPT Foaming Agent
 SI well in for 3 hours to allow gel to break. Record ISDP and 15 minute shut in pressure if not on vacuum.

Flow back initially through 1/4" choke. Then gradually open as pressure drops.

11. TIH with bit on tubing and clean out to BP. Obtain pitot gauge when possible. TOH.
12. TIH with tbg and retrieve RBP. TOH.
13. TIH w/ original 2-3/8", 4.7#, J-55, 8rd, EUE Mesaverde tubing w/ 4-1/2" Mt. States Model B Arrow Drill Seal Bore Packer (WPX configuration) and tail pipe w/ SN 1 joint off bottom. Land @ ±5990'. Set packer at approx. 3700' inside 4-1/2" liner. Liner top @ 3562'.
 TIH w/ 2-3/8", 4.7#, J-55, 8rd, EUE Pictured Cliffs tubing with turned down collars & SN 1 joint off bottom. Land near bottom perf, 3402'. Flow back both zones. Obtain pitot tube gauge from both zones if possible. If pump out plug is used on Pictured Cliffs tbg, then run orange peeled sub on bottom and perforated joint of tbg between SN and orange peeled sub.
13. ND BOP and NU wellhead. Shut well in for buildup.
14. Cleanup location and release rig.


 Sterg Katirgis
 Senior Engineer

ROSA UNIT #160 BLANCO MESAVERDE

Location: 1250' FSL, 790' FEL
SE/4 SE/4 Section 25P, T31N, R6W
Rio Arriba Co., NM

Elevation: 6438' OR
KB = 12'

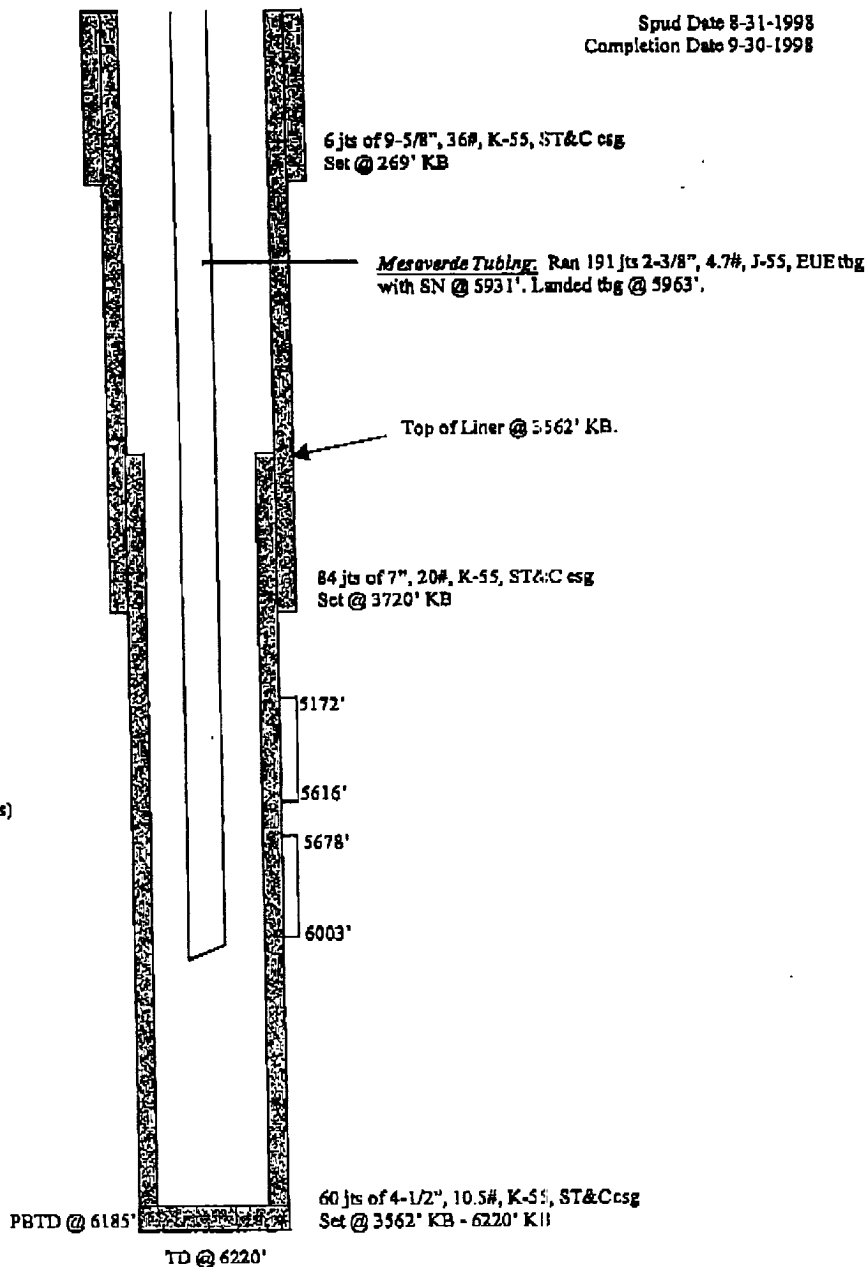
Spud Date 8-31-1998
Completion Date 9-30-1998

Tops	Depth
Kirtland	2655'
Fruitland	3035'
Pictured Cliffs	3270'
Cliff House	5445'
Point Lookout	5705'
Mancos	6220'

STIMULATION

Cliff House/Menafree 5172' - 5616' (35, 0.38" holes)
78,000# of 20/40 sand in 2050 BBI's slick water.

Point Lookout 5678' - 6003' (50, 0.38" holes)
82,000# of 20/40 sand in 2790 BBI's slick water.



HOLE SIZE	CASING	CEMENT	CMT TOP
12 - 1/4"	9 - 5/8"	150 c x	SURFACE
8 - 3/4"	7"	685 c x	SURFACE
6 - 1/4"	4 - 1/2"	315 c x	3671' (CBL)