## In Lieu of Form 3160

Approved by

Conditions of approval, if any:

## UNITED STATES DEPARTMENT OF INTERIOR

RECEIVED

FORM APPROVED

(June 1990)	BUREAU OF L	AND MANAGEMENT JUN 2 5 2010	ļ	Budget Bureau No. 1004-0135
SUNDRY NOTICE AND REPORTS ON WELLS  SUNDRY NOTICE AND REPORTS ON WELLS  Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  TO DRILL' for permit for such proposals				Lease Designation and Serial No. SF-078771
	10 DRILL for period	it for such proposals	6	If Indian, Allottee or Tribe Name
	SUBMIT IN 7	7.	If Unit or CA, Agreement Designation 8920005870	
1. Type of Well Oil Well X Gas Well Other			8.	Well Name and No. Rosa Unit #8A
2. Name of Operator WILLIAMS PRODUCTION COMPANY				API Well No. 30-039-25430
3. Address and Telephone No. PO BOX 3102 MS 25-4, TULSA, OK 74101 (918) 573-3046			10.	Field and Pool, or Exploratory Area ROSA PICTURED CLIFFS/ BLANCO MESAVERDE
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  963' FNL, 1184' FWL, NW/4 NW/4, SEC 26, T31N, R06W			11.	County or Parish, State RIO ARRIBA, NEW MEXICO
	CHECK APPROPRIA	TE BOX(s) TO INDICATE NATURE OF NOTICE, REPO	ORT, OR C	OTHER DATA
TYPE OF SUBMISSION TYPE		DF ACTION		
Ξ	Notice of Intent	Abandonment		Change of Plans
. 1	Subsequent Report	Recompletion Plugging Back		New Construction Non-Routine Fracturing
A	Final Abandonment	Casing Repair Altering Casing		Water Shut-Off Conversion to Injection
		€ Other <u>Commingle</u>		Dispose Water (Note: Report results of multiple completion
				on Well Completion or Recompletion Report and Log form.)
		Clearly state all pertinent details, and give pertinent dates, inc and measured and true vertical depths for all markers and		
		and measured and due version deputs for an markets and	zones perm	ROVD JUN 30'10
				OIL CONS. DIV.
i.	Pre-approved Pool Division (			DIST. 3
ii. iir.		nco MV 72319, Rosa Pictured Cliffs 9617 MV 5292' – 5819', Rosa Pictured Cliffs 31		
iv.		ased upon production data of 26% Blanco		
v.	Commingling will not reduce	the value of reserves.		
vi.	_ <del>-</del>	lty, and overriding royalty interest owners;		
vii.	The NWOCD has been noun	ed and has approved the work on sundry n	once for	in C103.
Please sec	e attached for commingle proc		r	
	· · · · · · · · · · · · · · · · · · ·	NO DHC yet 7/11	10	
14. I I	nereby sertify that the foregoing is true and c	orrect		
Si	gned Rachel Lipped	Title Engineering Technician II Da	ate <u>Ju</u>	ne 22, 2010 .
(T	his space for Federal or State office use)	7		

Title

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## **Production Allocation Recommendation ROSA UNIT #8A** Pictured Cliffs/Mesa Verde

WELLNAME: Rosa Unit #8A

NW/4 NW/4 Section 26(D), T31N, R6W

30-039-25430

FIELD: **COUNTY:**  San Juan Rio Arriba

June 15, 2010

Current Status: The Rosa #8A is currently a dual completion well producing from the Pictured Cliffs and Mesa Verde formations. The Production Optimization and Enhancement Team recommends commingling this well.

#### **Commingle Procedure:**

- Pictured Cliffs tubing will be pulled
- Mesa Verde tubing will be pulled
- Production packer will be removed
- Well will be cleaned out to PBTD at 5932'
- A single string of 2-3/8" tubing will be run to ~5700'
- One set of wellhead facilities will be removed
- Well will be produced as a PC/MV commingle

Allocation Method: Historic production data from both zones in this well was gathered and analyzed. Monthly production data from the entire life of the well (September 1994 through January 2010) was considered to calculate baseline allocations. Throughout the life of the well the Pictured Cliffs contributed approximately 74% of the total production of the well, while the Mesa Verde accounted for the remaining 26% during the same time span. Williams will run a completion profiler once the well is commingled to re-evaluate allocation percentages.

From September 1994 to January 2010

Total Production from well = 2174047 Mcf Total Production from PC = 1616868 Mcf Total Production from MV = 557179 Mcf

PC allocation = PC production / Total production = 1616868 Mcf / 2174047 Mcf = 74%

MV allocation = MV production / Total production = 557179 Mcf / 2174047 Mcf = 26%



## PACKER REMOVAL & COMMINGLING PROCEDURE

ROSA #8A API No. 30-039-25430 T31N, R6W, SECT. 26 ELEVATION: 6474' GR TD: 5955' MD

#### **WELLBORE STATUS:**

PC 1-1/2", 2.9 #/ft, To 3203' MD 5-1/2" ARROWDRILL PACKER @ 3880' MD

MV 1-1/2", 2.9 #/FT, To 5750' MD

#### **OBJECTIVE:** Remove packer and commingle PC and MV

- 1. Pull Pictured Cliffs tubing.
- 2. Pull Mesa Verde tubing.
- 3. Remove production packer.
- 4. Clean out to PBTD.
- 5. Acid stimulate each formation if needed.
- 6. Run completion profiler for allocation purposes.
- 7. Complete with single string 2-3/8" tubing, landed @ 5700', below MV perfs.
- 8. Install plunger lift system.
- 9. Remove one set of wellhead facilities.
- 10. Return to production as PC/MV commingle.

### PRIOR TO PRIMARY JOB

- 1) Test rig anchors.
- 2) Verify location is OK for rig operations.
- 3) Ensure JSA, ECP's and lockout procedures are in place for the flowline and other energized piping or equipment.
- 4) Acquire 6000' of 2-3/8" N-80 or stronger work string.
- 5) Acquire ~5800' of 2-3/8", EUE, 8rd, 4.7 #/ft J-55 tubing.
- 6) Acquire wellhead and convert from dual tubing string to a single, 2-3/8" tubing string.
- 7) Acquire 2-3/8", I.D. Type X or XN type nipple.
- 8) KCL on location to treat kill water as needed.

## SAFETY NOTICE

# PERSONNEL SAFETY IS THE NUMBER ONE JOB. NO EXCEPTIONS!!!

## PLEASE FOLLOW APPROPRIATE WILLIAMS CONTRACTOR PROTOCOLS FOR THIS JOB PLAN

Please see your Williams Business Representative if you have any questions; Contrator protocols can be located in the Williams E&P Contractor Guide

#### PRIMARY JOB

Note: Safety meetings shall be held each morning before work and subsequent "tailgate" safety meetings are to be held during the day when operation objectives shift in nature and intent (i.e. beginning/ending fishing operations, squeeze jobs, rigging down, perforating, etc.) Please ensure these are documented per section 2.2.7 of the Williams E&P Contractor Guide

- 1. MI and spot equipment to include fluid pumps and tanks.
- 2. MIRU.
- 3. ND/NU killing well with KCL water as necessary.
- 4. Test the BOP's to 2500 psig minimum. If they fail, then rebuild and retest. If they cannot pass tests <u>DO NOT PROCEED</u> and notify Production Engineer.
- 5. Pick up on long string (MV) to determine if the long string will pull.
- 6. If long string will release, then POOH with short string (PC) and proceed to step # 7. If the long string will not release, proceed with sub-steps 6.1 through 6.3 below:
  - 6.1. POOH with short string one or two joints to confirm ability to move.
  - 6.2. Pick up additional joints of 1-1/2" pipe and wash to top of packer at 4000' using heavy air mist. Wash as necessary until returns clean up to approximately ¼ cup of sand in 5 gallons of water returns.
  - 6.3. After returns clean up, POOH with pipe laying down string.
- 7. Spear or screw in and POOH with 1-1/2" 2.9 #/ft long string (MV) string using straight pull to pull out of Arrowdrill packer seal assembly up to 40,000 #'s.
- 8. POOH with lay down tubing 1-1/2" 2.9# J-55 and seal assembly.
- 9. NU additional pipe ram for work string or replace pipe ram with annular preventer.
- 10. Pick up work string.

- 11. Pick up Arrowdrill packer millover & pulling tool, using DC's and assembly as necessary and RIH on work string to mill over Arrowdrill packer @ 3880' MD and RIH on work string. If work string not inspected prior to work do not exceed 70% of joint strength of the work string pipe when pulling.
- 12. Millover and attempt to pluck Arrowdrill packer at 3880' MD. If using 4.7 #/ft work string, weight of dry string above packer is 18.8k #s. If using 6.5 #/ft work string, dry string weight will be 26k #'s. When attempting to pull packer and tail pipe determine work string weight and do not pull more than 70% of joint strength.
- 13. POOH with packer and lay down work string, tools and packer.
- 14. RIH w/ work string.
- 15. Clean out to 5932' PBTD using a bit, scraper, and air unit package. Acid stimulate if needed.
- 16. TOOH w/ work string.
- 17. TIH with 2-3/8" production string to 2965' (+/- 150 above top PC perf @ 3113').
- 18. MIRU slickline.
- 19. TIH w/ gauge ring/dummy assembly w/ to PBTD.
  - 19.1. Ensure slickline unit can run @ 30 to 150 fpm.
- 20. Allow flow to stabilize overnight.
- 21. RIH w/ completion profiler and log the production intervals per ProTechnics procedures.
- 22. TIH w/ completion profiler and record final wellhead pressure.
- 23. TIH w/ blanking plug and set a blanking plug in the F-nipple to isolate tubing from well.
- 24. TOH w/ slick line and bleed tubing pressure down to zero.
- 25. RD slick line.

### Note: Only use pipe dope on the pins. Do not dope the couplings.

26. RIH w/ tubing and set @ 5700' w/ seat nipple & standing valve, testing tubing to 1000 psi every 900'. Report leaks and replace.

Note: This well should be dead and the BOP's shall be closed and locked at the end of daily operations.

27. Ensure tubing is not plugged prior to releasing the rig.

- 28. N/D BOP's and N/U wellhead.
- 29. Return well to production.
- 30. R/D, move off location.
- 31. Return well to production.

## WELLBORE DIAGRAM ROSA UNIT #8A PC/MV

Location:

963'FNL, 1184'FWL NW/4 NW/4 SEC. 26, T31N, R6W

Rio Arriba, Co., NM

Elevation: 6474' GR

KB = 12'

Tops	Depth
Nacimiento	N/A
Ojo Alamo	2327'
Kirtland	2459'
Fruitland	2910'
Pictured Cliffs	3112'
Lewis	3436'
Cliff House	5277'
Menefee	5382'
Point Lookout	5896'
Mancos	5896'

#### STIMULATION:

PC: 3113' to 3208'

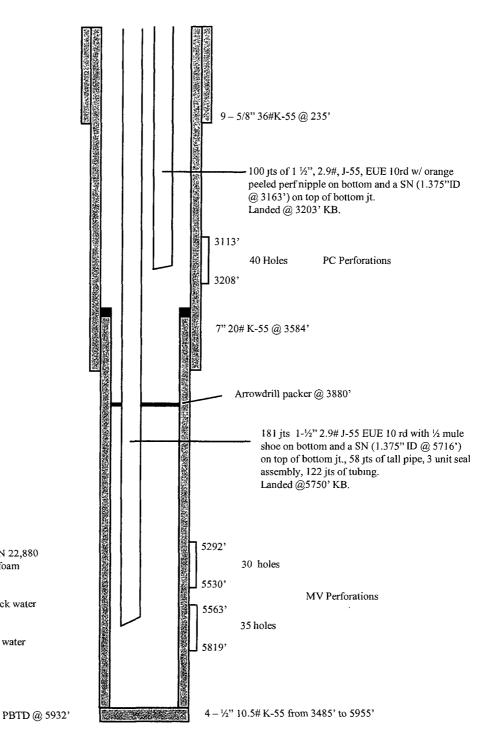
3113' TO 3208': 108,500#20/40 SAND IN 22,880 GALS OF 30# X-Link gel in a 70 quality foam

MV: 5563' to 5819'

109,100# 20/40 sand in 105,596 gals of slick water

MV: 5292' to 5530'

53,500#20/40 sand in 81,438 gals of slick water



Hole Size	Casing	Cement	Volume	Top Of CMT
12 - 1/4"	9-5/8", 36#	150 sx	177 cu. ft.	SURFACE
8 - 3/4"	7", 20#	550 sx	1044 cu. ft.	SURFACE
6 - 1/4"	4 - 1/2", 10.5#	235 sx	407 cu. ft.	LINEAR TOP