Form C-103

# State of New Mexico

To Appropriate District Office		
DISTRICT I P.O. Box 1980, Hobbs, NM 88240	OIL CONSERVATION DIVISION 2040 South Pacheco	WELL API NO 49 96 0 30-039-0
DISTRICT II 811 South First, Artesia NM 88210	Santa Fe, NM 87505	5. Indicate Type of Lease STATE FEE
DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410		6. State Oil & Gas Lease No.
(DO NOT USE THIS FORM FOR PRO DIFFERENT RESERVOIR. USE "A	CES AND REPORTS ON WELLS POSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS	7. Lease Name or Unit Agreement Name:  ROSA UNIT
<ol> <li>Type of Well:</li> <li>Oil Well □</li> </ol>	Gas Well ■ Other	
2. Name of Operator	ous wen	8. Well No.
WILLIAMS PRODUCTION COMPA	NV	#18
3. Address of Operator	The state of the s	9. Pool name or Wildcat
P O BOX 3102, MS 25-4, TULSA, OI	•	
4. Well Location (Surface)	C 74101	BLANCO MESAVERDE
	the NORTH line & 800 feet from the EAST line Sec	22-31N-R6W RIO ARRIBA, NM
	10. Elevation (Show whether DF, RKB, RT, GR, etc. 6275' GR	100
NOTICE OF INTENT	Appropriate Box to Indicate Nature of Notice, Report ION TO:  SUBSEQUENT AND ABANDON REMEDIAL WORK	T REPORT OF:  ALTERING CASING
TEMPORARILY ABANDON CHAN	IGE PLANS COMMENCE DRILLING OPNS.	PLUG AND ABANDONMENT
PULL OR ALTER CASING	CASING TEST AND CEMENT JOB	
<b>X</b> OTHER: <u>COMMINGLE</u>	OTHER:	•
12. Describe proposed or completed oper proposed work). Data below to satis	rations. (Clearly state all pertinent details, and give pertinent dates, fy NM OCD Rule 303.C.3 (b) (i)-(vii)	including estimated date of starting any
	Rosa Unit #18. We recommend commingling this well for twilliams can install an artificial lift system and produce both	
<ol> <li>Pull Mesa Verde tubing</li> <li>Remove Production pack</li> <li>Clean out to PBTD</li> <li>Acid stimulate each form</li> </ol>	ter aution if needed.	PRECEIVED  MAR 2010  OIL CONS. DIV. DIST. 3  OIL CONS. DIV. DIST. 3  DATE: March 23, 2010
<ul><li>6. Complete with single str.</li><li>7. Install plunger lift system</li><li>8. Remove one set of wellh</li></ul>	ing 2-3/8" tubing, landed @ 5600', below MV perfs  1.  ead facilities	OIL CONS. DIV. DIST. 3
9. Return to production as I	PV/MV comingle No DAC order	State Sun Carlo
I hereby certify that the information above SIGNATURE	true and complete to the best of my knowledge and belief.  TITLE: Engineering Technician II	DATE: March 23, 2010 .
Type or print name_Rachel Lipperd		No: <u>(918) 573-3046</u>
(This space for State use)		MAR 3 0 2010

(This space for State use) APRROVED TITLE Deputy Oil & Gas Inspector,
District #3

\_DATE\_



### COMMUNICATION REPAIR & COMINGLING PROCEDURE

ROSA #18 T31N, R6W, SECT. 22 ELEVATION: 6275' GR PBTD:5740' MD

### **WELLBORE STATUS:**

MV 1-1/2", 2.9 #/FT EUE, To 5665' MD

PC 1-1/2", 2.9 #/FT EUE, To 3153' MD

5" BAKER MODEL D PACKER @ 4000' MD

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

- 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 @ 5600', below MV perfs
- 8. Install plunger lift system.
- 9. Remove one set of wellhead facilities
- 10. Return to production as PV/MV comingle

### **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 ~5700' 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 Baker Model D 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 Baker Model D packer millover & pulling tool, using DC's and assembly as necessary and RIH on work string to mill over Baker Model D packer @ 4000' 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 Baker Model D packer at 4000' 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 5740' 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 2940' (+/- 150 above top PC perf @ 3088').
- 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 @ 5600' 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.



### Production Allocation Recommendation Rosa #18 (PC/MV)

WELLNAME: Rosa #18

OCATION: SE/4 NE/4 Sec.22, T31N, R06W

**API No.:** 03-039-07960

<u>FIELD:</u> COUNTY: Rosa Blanco Rio Arriba, NM

**Date:** March 4, 2010

Current Status: The Rosa 18 is currently a dual completion well producing from the Pictured Cliff and Mesa Verde formations. The packer assembly at 4000' has failed and repair is mandatory. Williams recommends comingling this well for two reasons; packer repair, and production optimization. A plunger lift system will be installed to help unload this well successfully.

### **Commingle Procedure:**

- 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. Complete with single string 2-3/8" tubing, landed @ 5600', below MV perfs
- 7. Install plunger lift system.
- 8. Remove one set of wellhead facilities
- 9. Return to production as PV/MV comingle

Allocation Method: Historical production data was gathered and analyzed. Average production was considered to calculate baseline allocations. Williams will run a completion profiler once well is comingled to re-evaluate allocation percentages.

Average production used for baseline allocation:

Total Production from well = 245 MCFD

Total Production from PC = 200 MCFD

Total Production from MV = 45 MCFD

PC allocation = PC prod / Total prod = 200 MCFD /245 MCFD = **82%** 

MV allocation = MV prod / Total prod = 45 MCFD /245 MCFD = 18%

### WELLBORE DIAGRAM ROSA UNIT #18 MV

Location: SE/4 NE/4 Sec. 22 T31N, R06W, Rio Arriba Co., NM

Elevation: 6275' GR

KB = 12'

Tops	Depth
Nacimiento	N/A
Ojo Alamo	2310'
Kirtland	2411'
Fruitland	2908'
Pictured Cliffs	3082'
Lewis	3475'
Cliff House	5210'
Menefee	5307'
Point Lookout	5544'

### **STIMULATION**

PC: 3088' to 3171'

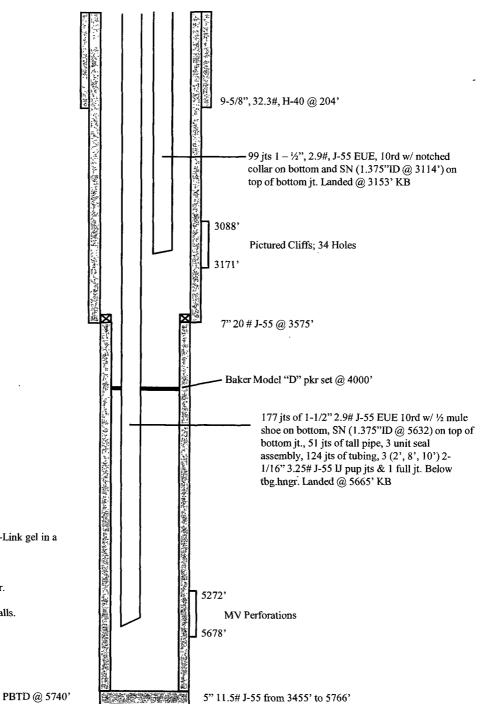
110,000# 20 / 40 in 12,180 gals of 30# X-Link gel in a 70 quality foam.

### <u>MV:</u>

1. 50,000# of sand in 75,000 gals of water.

Dropped 193 balls

2. Re-frac: 151,200 gals of water & 625 balls.



Hole Size	Casing	Cement	Volume	Top Of CMT
13 - 3/4"	9-5/8", 32.3#	175 sx	207 cu. ft.	surface
8 - 3/4"	7", 20#	200sx	347 cu. ft.	2255'(calc)
6 - 1/4"	5", 11#	150 sx	177 cu. ft.	4615'(calc)