

District I - (505) 393-6161
1625 N. French Dr
Hobbs, NM 88240
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131
2040 S. Pacheco
Santa Fe, NM 87505

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-140
Revised 06/99

SUBMIT ORIGINAL
PLUS 2 COPIES
TO APPROPRIATE
DISTRICT OFFICE

APPLICATION FOR
WELL WORKOVER PROJECT

I. Operator and Well

| | | | | | | | | |
|--|--------------|-----------------|-------------|------------------------|---------------------------|----------------------------|------------------------|--------------------|
| Operator name & address Williams Production Company P.O. Box 3102 Tulsa, OK 74101 | | | | | | Well Number 120782 | | |
| Contact Party Kristine Russell | | | | | | Phone 918/573-6181 | | |
| Property Name Rosa Unit | | | | | | API Number 30-045-27410 | | |
| UL L | Section 4 | Township 31N | Range 6W | Feet From The 1770' | North/South Line South | Feet From The 1770' | East/West Line West | County San Juan |

II. Workover

| | |
|--|---|
| Date Workover Commenced: 11/7/1999 | Previous Producing Pool(s) (Prior to Workover): |
| Date Workover Completed: 11/24/1999 | |

- III. Attach a description of the Workover Procedures performed to increase production.
IV. Attach a production decline curve or table showing at least twelve months of production prior to the workover and at least three months of production following the workover reflecting a positive production increase.
V. AFFIDAVIT:

State of Oklahoma)
County of Tulsa) ss.
Kristine Russell, being first duly sworn, upon oath states:
1. I am the Operator, or authorized representative of the Operator, of the above-referenced Well.
2. I have made, or caused to be made, a diligent search of the production records reasonably available for this Well.
3. To the best of my knowledge, this application and the data used to prepare the production curve and/or table for this Well are complete and accurate.
Signature Kristine Russell Title Production Analyst Date 6/23/2000
SUBSCRIBED AND SWORN TO before me this 23 day of JUNE, 2000.
Shirley K. Davis
Notary Public
My Commission expires: 10-10-01

FOR OIL CONSERVATION DIVISION USE ONLY:

VI. CERTIFICATION OF APPROVAL:

This Application is hereby approved and the above-referenced well is designated a Well Workover Project and the Division hereby verifies the data shows a positive production increase. By copy hereof, the Division notifies the Secretary of the Taxation and Revenue Department of this Approval and certifies that this Well Workover Project was completed on 11-24-1999.

| | | |
|---|--------------------------|---------------------------|
| Signature District Supervisor <u>Charles T. Kern</u> | OCD District <u>3</u> | Date <u>11-24-1999</u> |
|---|--------------------------|---------------------------|

VII. DATE OF NOTIFICATION TO THE SECRETARY OF THE TAXATION AND REVENUE DEPARTMENT: _____

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

1999 DEC -2 PM 12:31
070 FARMINGTON, NM

| | | |
|--|---|--|
| SUBMIT IN TRIPLICATE | | 5. Lease Designation and Serial No. SF-078772 |
| | | 6. If Indian, Allottee or Tribe Name |
| | | 7. If Unit or CA, Agreement Designation ROSA UNIT |
| 1. Type of Well Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> | 8. Well Name and No. ROSA UNIT #237 | |
| 2. Name of Operator WILLIAMS PRODUCTION COMPANY | 9. API Well No. 30-045-27410 | |
| 3. Address and Telephone No. PO BOX 3102 MS 37-2, TULSA, OK 74101 (918) 573-6254 | 10. Field and Pool, or Exploratory Area BASIN FRUITLAND COAL | |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1770' FSL & 1110' FWL, NW/4 SW/4, SEC 4 T31N R6W | 11. County or Parish, State SAN JUAN, NM | |

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

| TYPE OF SUBMISSION | TYPE OF ACTION |
|---------------------|---|
| Notice of Intent | Abandonment |
| X Subsequent Report | Recompletion |
| Final Abandonment | Plugging Back |
| | Casing Repair |
| | Altering Casing |
| | X Other <u>Cavitation Complete</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.)*

11-07-1999 MIRU. SICP & SITP = 520 psi, blow well down & kill w/30 bbls prod wtr. NDWH, NUBOPs & bloole lines. Pres test BOP stack to 2500 psi. Unseat donut, TOO H w/2 3/8" prod tbg laying down. Tally in w/ret tool, jarring assembly, DC's & 88 jts 3 1/2' DP & screw into hanger. Pull liner up hole 9' & hang up, jar on liner & free up but still dragging. Start out of hole w/5 1/2" liner

11-08-1999 Cont out w/5 1/2" liner laying down, bttm jt bent. TIH w/underreamer. RU power swivel, break circ & open arms. Underream f/3103'- 3206' circ clean. TOO H w/underreamer. TIH w/6 1/4" bit, tag 16' of fill @ 3190'. CO to 3206' w/8 bph a/s mist & 5 bbl sweeps, hvy ret's =90% coal & 10% shale. Blow well from TD w/8 bph a/s mist (coal running) hvy ret's = 90% coffee ground size coal & 10% 1/4" size shale. Blow well dry & PU bit to 3129'. Flow natural. Gauge well on 2" open line, all gauges dry & 8 lbs = 1756 mcf. SI 4 hr for build up

11-09-1999 Natural surge, 4 hr SI = 545 psi, ret's gas, flow nat. Break over w/air only @ 780 psi, ret's lt coal fines. Surge from 3129' (2 times) w/5 bph air/soap mist, pres @ 720 psi, lt ret's. Tag bridge @ 3190' & co to 3206' w/12 bph a/s mist. Blow well from 3206' w/12 bph a/s mist, hvy ret's = 90%coffee ground size coal & 10% 1/4" shale. TOO H w/ bit. Natural surge (3 times) 2 hr SI = 530 psi, lt ret's

Continued on Back

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

Signed

Tracy Ross
TRACY ROSS

Title Production Analyst

Date

November 28, 1999

(This space for Federal or State office use)

Approved by

Title

Date

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

MINING & RECLAMATION OFFICE

ROSA UNIT #237
CAVITATION RECAP

11-07-1999

MIRU. SICP & SITP = 520 psi, blow well down & kill w/30 bbls prod wtr. NDWH, NUBOPs & blooie lines. Pres test BOP stack to 2500 psi. Unseat donut, TOO H w/2 3/8" prod tbg laying down. Tally in w/ret tool, jarring assembly, DC's & 88 jts 3 1/2' DP & screw into hanger. Pull liner up hole 9' & hang up, jar on liner & free up but still dragging. Start out of hole w/5 1/2" liner

11-08-1999

Cont out w/5 1/2" liner laying down, bttm jt bent. TIH w/underreamer. RU power swivel, break circ & open arms. Underream f/3103' - 3206' circ clean. TOO H w/underreamer. TIH w/6 1/4" bit, tag 16' of fill @ 3190'. CO to 3206' w/8 bph a/s mist & 5 bbl sweeps, hvy ret's = 90% coal & 10% shale. Blow well from TD w/8 bph a/s mist (coal running) hvy ret's = 90% coffee ground size coal & 10% 1/4" size shale. Blow well dry & PU bit to 3129'. Flow natural. Gauge well on 2" open line, all gauges dry & 8 lbs = 1756 mcfd. SI 4 hr for build up. Q = 1756 mcfd

11-09-1999

Natural surge, 4 hr SI = 545 psi, ret's gas, flow nat. Break over w/air only @ 780 psi, ret's lt coal fines. Surge from 3129' (2 times) w/5 bph air/soap mist, pres @ 720 psi, lt ret's. Tag bridge @ 3190' & co to 3206' w/12 bph a/s mist. Blow well from 3206' w/12 bph a/s mist, hvy ret's = 90% coffee ground size coal & 10% 1/4" shale. TOO H w/ bit. Natural surge (3 times) 2 hr SI = 530 psi, lt ret's

11-10-1999

Surge well from surface (2 times) w/5 bbls ahead & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & 1 gal soap, pres to 720 psi, ret's extra hvy coal & shale. Bridge off on 2nd surge. TIH & tag/CO bridges @ 700', 850', 2300' & 2420' w/10 bph air/soap mist & 5 bbl sweeps, cont CO to TD. Blow well from TD w/10 bph a/s mist & 5 bbl sweeps, hvy ret's = 70% dust to 1/4" coal & 30% shale. Blow dry w/air only

11-11-1999

TOOH w/ bit. Natural surge, 4 hr SI = 540 psi, lt ret's. Surge f/surface (7 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & 1 gal soap, take pres to 700 psi, ret's hvy - extra hvy, plug blooie lines on 4 surges

11-12-1999

Flow natural. Surge natural, 2 hr SI = 520 psi, lt ret's. Surge from surface (2 times) w/8 bph a/s mist to 400 psi, pump 5 bbls & 1 gal soap, pres to 660 psi, ret's med-hvy 80% dust to 1/2" coal & 20% shale. TIH & tag 14' of fill @ 3192'. CO to 3206' w/10 bph a/s mist. CO on bttm w/10 bph a/s mist, hvy ret's = 80% coal & 20% shale. Blow dry w/air only. TOO H w/bit. Natural surge (2 times) both 2 hr SI = 500 psi, lt ret's

11-13-1999

Gauge well on 2" line, all gauges dry & avg 1865 mcfd. Break over w/air only @ 680 psi. Surge f/surface (3 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & 1 gal soap, take pres to 650 psi, ret's extra hvy & bridge off on 3rd surge. TIH & tag/co bridge @ 1500'. TOO H w/bit. Surge f/surface (2 times, same as above) hvy ret's = 90% dust to 1/4" coal & 10% shale. Natural surge, 2 hr SI = 500 psi, lt ret's. Q = 1865 mcfd

11-14-1999

Surge f/surface (4 times) w/5 bbl & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & 1 gal soap, pres to 630 psi, hvy ret's = 90% dust to 1/4" coal & 10% shale. TIH & tag 2' of fill @ 3204'. CO on bttm w/10 bph air/soap mist & 5 bbl sweeps, ret's hvy coffee ground size coal & trace shale. Blow dry w/air only

11-15-1999

TOOH w/bit. Natural surge, 2 hr SI = 500 psi, lt ret's. Surge f/surface (5 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi & pump 5 bbls & 1 gal soap, pres to 600 psi, ret's lt-med coffee ground size coal & trace shale. Natural surge (2 times) both 2 hr si = 490 psi, ret's lt-med coal. Surge f/surface w/5 bbls & 1 gal soap ahead, pres to 400 psi & pump 5 bbls & 1 gal soap, pres to 600 psi, ret's lt

11-16-1999

Flow natural. Surge from surface (3 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi & pump 5 bbls & 1 gal soap, take pres to 620 psi, ret's lt-med coffee ground size coal & trace shale. Natural surge (3 times) all 2 hr SI = 460 psi & lt ret's. Surge from surface (3 times, same as above) pres to 620 psi, ret's lt-med coffee ground size coal

11-17-1999

Surge from surface (2 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & 1 gal soap, pres to 610 psi, ret's lite coffee ground size coal. Natural surge (2 times) both 2 hr SI = 460 psi, lite ret's = black water & lite coal. TIH & tag 5' of fill @ 3201'. CO on bottom w/10 bph air/soap mist & 5 bbl sweeps, heavy ret's = 80% dust to 1/4" coal & 20% 1/4" shale

11-18-1999

CO on bottom w/10 bph air/soap mist & 5 bbl sweeps, ret's hvy-med coffee ground size coal. Blow dry w/air only. TOO H w/bit. Natural surge, 1 hr SI = 400 psi, lite ret's. Flow natural. Gauge well on 2" open line, all gauges dry & avg 1919 mcf. Surge from surface (4 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & 1 gal soap, pres to 610 psi, ret's lite - med coffee ground size coal. Natural surge, 2 hr SI = 440 psi, lite ret's. Q = 1919 mcf

11-19-1999

Surge f/surface (7 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & pres to 610 psi, ret's lt - med coffee ground size coal. Natural surge (2 times) both 2 hr SI = 450 psi lt ret's

11-20-1999

Surge f/surface (3 times) w/5 bbls & 1 gal soap ahead, pres to 400 psi, pump 5 bbls & pres to 610 psi, lite ret's = coffee ground size coal. Natural surge (5 times) all 2 hr SI = 450 psi, ret's lite-trace coffee ground size coal, flow natural 1.5 hrs each surge

11-21-1999

Surge from surface w/5 bbls & 1 gal soap ahead, pres to 400 psi & pump 5 bbls prod wtr, take pres to 600 psi, ret's lite. TIH & tag 6' of fill @ 3200'. CO on bottom w/10 bph air/soap mist, ret's med coffee ground size coal & trace shale, run 5 bbl sweep. Blow dry w/air only. TOO H w/bit. Natural surge, 2 hr SI = 460 psi, flow natural 1 hr. Gauge well on 2" open line, all gauges lite mist & avg 1919 mcf. Natural surge (3 times) all 2 hr SI = 450 psi, ret's trace coal. Q = 1919 mcf

11-22-1999

Natural surge (7 times) all 2 hr build up's = 450 psi, ret's trace fine coal, flow natural 1.5 hrs each surge

11-23-1999

Flow natural. Natural surge, 2 hr SI = 450 psi, ret's lite. TIH & tag 6' of fill @ 3200'. CO to TD w/10 bph air/soap mist, ret's lite-med coffee ground size coal. CO on bottom w/10 bph air/soap mist, ret's lite coffee ground size coal. Blow dry w/air only. TOO H laying down w/DC's. CO to run 5 1/2" liner

11-24-1999

MU 5 1/2" x 7" TIW hanger, TIH w/3 jts pre perf & 1 blank jt 5 1/2" 17# N-80 csg, tag 3' of fill, circ down & land @ 3019'. TOO H laying down w/3 1/2" DP. PU 4 3/4" mill & tally in w/2 7/8" tbg. Mill out plugs from 3067' - 3204'. TOO H w/mill. TIH w/prod tbg, land @ 3157' KB w/96 jts total. ND blooie lines, HCRs & BOP stack, NUWH. RD rig & equip. Gauge well on 2" open line, all gauges dry & = 1756 mcf up tbg, 1948 mcf up csg. Q = 1948 mcf

11-²⁵24-1999

Load out equip, road rig to loc. Rel Drake #17 @ 1400 hrs 11/24/99

ROSA UNIT COM #237 FRT

| WELL NAME | DATE | VOLUME |
|--------------------|-----------------|--------|
| ROSA UNIT COM #237 | 10/31/1998 0:00 | 33822 |
| ROSA UNIT COM #237 | 11/30/1998 0:00 | 31992 |
| ROSA UNIT COM #237 | 12/31/1998 0:00 | 34181 |
| ROSA UNIT COM #237 | 1/31/1999 0:00 | 34822 |
| ROSA UNIT COM #237 | 2/28/1999 0:00 | 27396 |
| ROSA UNIT COM #237 | 3/31/1999 0:00 | 36166 |
| ROSA UNIT COM #237 | 4/30/1999 0:00 | 32779 |
| ROSA UNIT COM #237 | 5/31/1999 0:00 | 32711 |
| ROSA UNIT COM #237 | 6/30/1999 0:00 | 31113 |
| ROSA UNIT COM #237 | 7/31/1999 0:00 | 34438 |
| ROSA UNIT COM #237 | 8/31/1999 0:00 | 36079 |
| ROSA UNIT COM #237 | 9/30/1999 0:00 | 35490 |
| ROSA UNIT COM #237 | 10/31/1999 0:00 | 35967 |
| ROSA UNIT COM #237 | 11/30/1999 0:00 | 14980 |
| ROSA UNIT COM #237 | 12/31/1999 0:00 | 45378 |
| ROSA UNIT COM #237 | 1/31/2000 0:00 | 48788 |
| ROSA UNIT COM #237 | 2/29/2000 0:00 | 46300 |
| ROSA UNIT COM #237 | 3/31/2000 0:00 | 48927 |
| ROSA UNIT COM #237 | 4/30/2000 0:00 | 43672 |
| ROSA UNIT COM #237 | 5/31/2000 0:00 | 41804 |
| ROSA UNIT COM #237 | 6/30/2000 0:00 | 42212 |
| ROSA UNIT COM #237 | 7/31/2000 0:00 | 40545 |
| ROSA UNIT COM #237 | 8/31/2000 0:00 | 39849 |