

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Sundry Notices and Reports on Wells

<p>1. Type of Well GAS</p> <hr/> <p>2. Name of Operator BURLINGTON RESOURCES OIL & GAS COMPANY</p> <hr/> <p>3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700</p> <hr/> <p>4. Location of Well, Footage, Sec., T, R, M 1750' FNL, 1650' FEL, Sec. 22, T-27-N, R-5-W, NMPM, Rio Arriba County</p>	<p>API # (assigned by OCD) 30-039-06993</p> <p>5. Lease Number Fee</p> <p>6. State Oil&Gas Lease #</p> <p>7. Lease Name/Unit Name San Juan 27-5 Unit</p> <p>8. Well No. 9</p> <p>9. Pool Name or Wildcat Blanco Mesaverde</p> <p>10. Elevation:</p>
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Type of Submission	Type of Action	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other - Pay add	

13. Describe Proposed or Completed Operations

It is intended to add the Lewis formation to the subject well according to the attached procedure and wellbore diagram. The lower Mesaverde open hole will be plugged and abandoned.

RECEIVED
OCT 29 1997
OIL CON. DIV.
DIST. 3

SIGNATURE *[Signature]* (JLDOpps) Regulatory Administrator October 28, 1997

(This space for State Use)

Approved by ORIGINAL SIGNED BY ERNIE BUSCH Title DEPUTY OIL & GAS INSPECTOR, DIST. #3 Date NOV - 3 1997

** Not by in time for witnesses*

San Juan 27-5 Unit #9

Lewis Pay Add Procedure

Unit G, Section 22, T27N, R5W

Lat: 36° 33.66486 min./ Long: 107° 20.5023 min.

Abandon the lower Mesaverde openhole and complete the Lewis. The Lewis will be sand fracture stimulated with two 150,000 lbs 20/40 sand stages using a 60Q 30 lb crosslinked gel for transport. A total of 300,000 lbs of sand will be utilized.

1. Inspect location and test rig anchors, if necessary. Comply with all NMOCD, BLM, Forestry & BR rules and regulations. Dig flowback pit or set flowback tank. Haul to location an inspected 4800', 2-3/8" production string, a 4700', 3-1/2" N-80 frac string, 3 jts of a 2-7/8" N-80 frac string, 1, 2-7/8 X 3-1/2" N-80 crossover and 3, 400 bbl frac tanks.
2. Fill Tank #1 with 400 bbls 2% KCL water. Blow well down and kill with 2% KCL water as necessary. ND WH and NU BOP with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line.
3. Attempt to TOOH with Mesaverde production string set at \pm 5730' (est.). If tubing is stuck, estimate where it is stuck using stretch calculations. Run gauge to 5000'. Wireline jet cut tubing at 5000'. Continue to TOOH and LD. Send string in to be inspected and salvaged, if possible.
4. PU and RIH with a 4-3/4" bit, 5-1/2" (15.5 lb/ft) casing scraper on the inspected 2-3/8" production string. Clean out to 4800' with air. TOOH.
5. RIH with a 5-1/2" CR, SN on the 2-3/8" production string and set CR at 4750'. PT tubing to 2000 psi using the CR stinger configuration. RU cementing contractor. Establish an injection rate through the CR. Squeeze the lower Mesaverde openhole with 200 sx class B cement (100% excess). Sting out of CR, spot 2 sx cement on CR and reverse circulate tubing clean. RD cementing contractor.
6. Roll the hole clean with 2% KCL water. TOOH 2-3/8" production string. PT CR and casing to 1000 psi. If casing doesn't hold pressure, isolate hole and contact Jennifer Dobson at ext. 4026 for squeeze procedure.
7. MIRU logging company. Run GR-CBL-CCL from PBTD to surface casing with 1000 psi surface pressure. Run GR-DSNL from PBTD to 3600'. Top of good cement must be above 3670' to continue. Evaluate CBL and send log copies to production and drilling.

LOWER LEWIS

8. Fill Tank #2 and Tank #3 with 691 bbls 2% KCL water. If necessary, filter all water to 25 microns. These two tanks are for the frac gel fluid. Add water to Tank #1 for the breakdown as necessary.
9. PU and TIH with 2-3/8 production string and spot 400 gals 15% HCL acid across lower Lewis perf interval 4250-4600'. TOH slowly for 7 stands. TOOH. Stand 2-3/8" tubing beside 3-1/2" tubing.

All acid on this well to contain the following additives per 1000 gals.

2 gal	CI-22	Corrosion inhibitor
5 gal	Ferrotrol-300L	Iron Control

1 gal	Flo-back 20	Surfactant
0.5 gal	Clay Master-5C	Clay control

10. Contact Jennifer Dobson at ext. 4026 for exact Lewis perforations. RU wireline services. RIH with 3-1/8" select fire carrier guns loaded with Owens 3125306P HSC 12 gm charges set at 1 SPF. (Av. perf diameter - 0.30", Av. pen. -17.48" in concrete). Perf the lower Lewis from top down. RD wireline services.
11. PU and RIH with 5-1/2" packer, tubing tester, 3 jts 2-7/8" N-80 tubing, 2-7/8"X3-1/2" N-80 crossover and remaining 3-1/2" frac string. Set packer at 4050'. PT frac string to 6500 psi.
12. RU stimulation company. Hold a tailgate safety meeting. Pressure test surface treating lines to 4600 psi. Breakdown lower Lewis with 1250 gals 15% HCL acid. Drop 2, 7/8" 1.3 sp gr RCN perf balls per perforation. Evenly space throughout the job for diversion. Attempt to ball off to 3600 psi. Use same acid additives as in Step 9. RD stimulation company.
13. Release packer and lower to 4650' to knock off perf balls. Pull packer back uphole to 4150' and set.
14. RU stimulation company. Hold tailgate safety meeting. Pressure test surface lines to 7500 psi. Frac lower Lewis down the 3-1/2" N-80 frac string with 67,500 gals of 60 quality foam using 30 lb crosslinked gel as the base fluid and 150,000 lbs 20/40 Arizona sand. Pump at 50 BPM. Monitor surface treating pressures, rate, foam quality and sand concentration with computer van. Sand laden fluid is to be tagged with 3 radioactive tracers. Max pressure is 6500 psi and estimated treating pressure is 6314 psi. Treat per the following schedule:

Stage	Downhole Foam Volume (gals)	Clean Gel Volume (gals)	N2 Volume (MSCF)	Sand Volume (lbs)
Pad	13,500	5,400	144.44	—
1.0 ppg	7,500	3,000	80.25	7,500
2.0 ppg	7,500	3,000	80.25	15,000
3.0 ppg	22,500	9,000	240.76	67,500
4.0 ppg	15,000	6,000	160.51	60,000
Flush	1,500	600	16.05	0
Totals	67,500	27,000	722.25	150,000

Treat frac fluid w/the following additives per 1000 gallons:

- | | |
|--------------------------|---|
| * 0.38 lbs XCIDE-207 | Bactericide to be mixed in tanks. |
| * 30 lbs GW-27 | Guar gelling agent to be mixed in tanks. |
| * 5.0 gals FAW-1 | Foaming agent to be mixed on fly. |
| * 2.5 gals BF-7L | Buffering agent to be mixed in tanks. |
| * 1.0 lbs ULTRA PERM CRB | Gel breaker to be mixed on fly. |
| * 1.0 lbs GBW-5 | Gel Breaker to be mixed in last 3,998 gals. |
| * 1.0 gals FLO-Back 20 | Non-ionic Surfactant mix in full tank. |
| * 1.0 gals XLW-30 | Crosslinker to be mixed on fly. |
| * 1.0 gals ENZYME G | Enzyme breaker to be mixed on fly. |

Treat flush fluid with the following additives per 1000 gals:

- | | |
|----------------------|-----------------------------------|
| * 0.38 lbs XCIDE-207 | Bactericide to be mixed in tanks. |
|----------------------|-----------------------------------|

- | | |
|------------------------|---|
| * 30 lbs GW-27 | Guar gelling agent to be mixed in tanks. |
| * 5.0 gals FAW-1 | Foaming agent to be mixed on fly. |
| * 2.5 gals BF-7L | Buffering agent to be mixed in tanks. |
| * 1.0 gals FLO-Back 20 | Non-ionic Surfactant mix in full tank. |
| * 1.0 lbs GBW-5 | Gel Breaker to be mixed in last 798 gals. |
| * 1.0 gals ENZYME G | Enzyme breaker to be mixed on fly. |

RD stimulation company.

15. Flow well back after 30 minutes to 1 hour through a choke manifold at 20 BPH or less if sand is observed. After the well has cleaned up and pressures allow, release packer and TOOH.
16. PUH and RIH with 5-1/2" CIBP, packer and 2-3/8" tubing. Set CIBP at 4230'. Release packer from CIBP and PUH. Set the packer just above CIBP and pressure test to 3600 psi (75% of casing yield). Trickle 1 sack of sand and soap down tubing. Allow sand to settle.

UPPER LEWIS

17. Fill Tank #2 and Tank #3 with 689 bbls 2% KCL water. If necessary, filter all water to 25 microns. These two tanks are for the frac gel fluid. Add water to Tank #1 for the breakdown as necessary.
18. Release the packer and spot 400 gals 15% HCL acid across upper Lewis perf interval 3870-4210'. TOH slowly for 7 stands. TOOH. Stand 2-3/8" tubing beside 3-1/2" tubing.

All acid on this well to contain the following additives per 1000 gals.

2 gal	CI-22	Corrosion inhibitor
5 gal	Ferrotrol-300L	Iron Control
1 gal	Flo-back 20	Surfactant
0.5 gal	Clay Master-5C	Clay control

19. Contact Jennifer Dobson at ext. 4026 for exact Lewis perforations. RU wireline services. RIH with 3-1/8" select fire carrier guns loaded with Owen 3125306P HSC 12 gm charges set at 1 SPF. (Av. perf diameter - 0.30", Av. pen. -17.48" in concrete). Perf the upper Lewis from top down. RD wireline services.
20. TIH with 5-1/2" packer, 3 jts 2-7/8" N-80 tubing, 2-7/8"X3-1/2" N-80 crossover and remaining 3-1/2 frac string. Set packer at 3670'.
21. RU stimulation company. Hold a tailgate safety meeting. Pressure test surface treating lines to 4600 psi. Breakdown upper Lewis with 1250 gals 15% HCL acid. Drop 2, 7/8" 1.3 sp gr RCN perf balls per perforation. Space evenly throughout the job for diversion. Attempt to ball off to 3600 psi. Use same acid additives as in Step 18. RD stimulation company.
22. Release packer and lower to 4260' to knock off perf balls. Pull packer uphole to 3770' and set.
23. RU stimulation company. Hold a tailgate safety meeting. Pressure test surface lines to 7500 psi. Frac upper Lewis down the 3-1/2" N-80 frac string with 67,300 gals of 60 quality foam using 30 lb crosslinked gel as the base fluid and 150,000 lbs 20/40 Arizona sand. Pump at 50 BPM. Monitor bottomhole and surface treating pressures, rate, foam

quality and sand concentration with computer van. Sand laden fluid is to be tagged with 3 radioactive tracers. Max pressure is 6500 psi and estimated treating pressure is 5846 psi. Treat per the following schedule:

Stage	Downhole Foam Volume (gals)	Clean Gel Volume (gals)	N2 Volume (MSCF)	Sand Volume (lbs)
Pad	13,500	5,400	133.78	---
1.0 ppg	7,500	3,000	74.32	7,500
2.0 ppg	7,500	3,000	74.33	15,000
3.0 ppg	22,500	9,000	222.99	67,500
4.0 ppg	15,000	6,000	148.66	60,000
Flush	1,500	520	12.88	0
Totals	67,500	26,920	666.95	150,000

Treat frac fluid w/the following additives per 1000 gallons:

- | | |
|--------------------------|---|
| * 0.38 lbs XCIDE-207 | Bactericide to be mixed in tanks. |
| * 30 lbs GW-27 | Guar gelling agent to be mixed in tanks. |
| * 5.0 gals FAW-1 | Foaming agent to be mixed on fly. |
| * 2.5 gals BF-7L | Buffering agent to be mixed in tanks. |
| * 1.0 lbs ULTRA PERM CRB | Gel breaker to be mixed on fly. |
| * 1.0 lbs GBW-5 | Gel Breaker to be mixed in last 3,998 gals. |
| * 1.0 gals FLO-Back 20 | Non-ionic Surfactant mix in full tank. |
| * 1.0 gals XLW-30 | Crosslinker to be mixed on fly. |
| * 1.0 gals ENZYME G | Enzyme breaker to be mixed on fly. |

Treat flush fluid with the following additives per 1000 gals:

- | | |
|------------------------|---|
| * 0.38 lbs XCIDE-207 | Bactericide to be mixed in tanks. |
| * 30 lbs GW-27 | Guar gelling agent to be mixed in tanks. |
| * 5.0 gals FAW-1 | Foaming agent to be mixed on fly. |
| * 2.5 gals BF-7L | Buffering agent to be mixed in tanks. |
| * 1.0 gals FLO-Back 20 | Non-ionic Surfactant mix in full tank. |
| * 1.0 lbs GBW-5 | Gel Breaker to be mixed in last 798 gals. |
| * 1.0 gals ENZYME G | Enzyme breaker to be mixed on fly. |

RDMO stimulation company.

24. Flow well back after 30 minutes to 1 hour through a choke manifold at 20 BPH or less if sand is observed. After the well has cleaned up and pressures allow, release packer and TOOH. LD 3-1/2" frac string, 2-7/8" X 3-1/2" N-80 crossover, 3 jts 2-7/8" N-80 tubing and packer.
25. TIH with 4-3/4" bit on 2-3/8" tbg and CO with air/mist to CIBP at 4230'. Take pitot gauges when possible. When well is sufficiently clean, drill up CIBP at 4230' and TOOH.
26. RIH with notched collar on 2-3/8" tubing and tag PBDT. If sand fill up is present, clean out to PBDT (~4730'). Monitor gas and water returns when applicable.
27. When wellbore is sufficiently clean, TOH and RU Pro-Technics. Run After-Frac log from PBDT-3750'. RD Pro-Technics.
28. RU Blue Jet. Run Perforation Efficiency log from 4600-3870'. RD Blue Jet.

29. Squeeze to cover Ojo Alamo as necessary.
30. Rabbit and TIH with an expendable check, one joint 2-3/8" tubing, standard seating nipple and remaining 2-3/8" tubing. Tag PBTD for sand fill up. If needed, circulate sand off bottom with air. Land tubing at bottom perforation. Pump off expendable check. ND BOP. NU WH. Obtain a final water and gas samples and flow rates. Contact Production Operations for well tie-in. RDMO.

Recommended: J. N. Johnson
Production Engineer

Approved: P. B. [Signature] 10/24/97
Drilling Superintendent

Approved: [Signature] 10/2/97
Team Leader

VENDORS:

Wireline:	Blue Jet	325-5584
Fracturing:	BJ Services	327-6222
RA Tag:	Pro-Technics	326-7133
Treesaver:	WSI	327-3402

Jennifer Dobson 599-4026 (work) 564-3244 (home) 324-2461 (pager)

San Juan 27-5 Unit #9
Pertinent Data Sheet
Lat: 36° 33.66486 min./ Long: 107° 20.5023 min.

General Well Information:

Location: 1750 FNL, 1650 FEL, Unit G, Section 22, T27N, R5W, Rio Arriba County, NM

Lease #: 891000950-A
Property #: 0079727000

DP #: 49491A
GWI/NRI: 67.46/56.81

Current Field: Blanco Mesaverde
Spud: 9/13/54
GL Elevation: 6543'
TD: 5680'

Completed: 11/6/54
KB Elevation: ?
PBD: 5680' (?)

Casing Record:

Hole Size	Csg Size	Weight	Grade	Depth Set	Cmt Vol	Cmt Top
13-3/8"	10-3/4"	44 lb/ft	J-55	202'	175	Sur. (est)
8-3/4"	5-1/2"	15.5 lb/ft	J-55	5003'	200	4248' (est)

Tubing Record:

Tubing Size	Weight	Grade	Depth Set	Number of Jts
?	?	?	5400' (est.)	90

Other Downhole Equipment:

Classification	Depth Set
1 Perforated Joint	5370' (est.)

Formation Tops:

Ojo Alamo:	Pictured Cliffs:	3353'
Kirtland: 2908'	Cliff House:	5013'
Fruitland: 3090'	Menefee:	5203'

Logging Record:

Schlumberger MicroLogging (10/7/54), Electrical (10/7/54) and Induction Log (10-21-54)

Completion:

Mesaverde is an openhole completion from 5003-5680'. It was sand oil fractured from 5458-5680' with 10,354 gals with 7,100 lbs sand at 5 BPM and 1800-3000 psi. It was then sand oil fractured from 5003-5180' with 14,000 gals and 3900 lbs sand at 16 BPM and 1000 psi.

Workover History:

None.

Production History:

Well was shut in 5/22/97 making 25 MCFD. Mesaverde Cum: 277 MMCF.

Pipeline: EPNG (Line Pressure = 230 psi)

San Juan 27-5 Unit #9

Unit G, Section 22, T27N, R5W
Rio Arriba County, NM

Current Schematic

Proposed Schematic

