

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well
GAS

5. Lease Number
SF-079394

6. If Indian, All. or
Tribe Name

2. Name of Operator

**BURLINGTON
RESOURCES**

OIL & GAS COMPANY

7. Unit Agreement Name
San Juan 27-5 Unit

3. Address & Phone No. of Operator

PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Sec., T, R, M

1660' FSL 1600' FWL, Sec. 28, T-27-N, R-5-W, NMPM

RECEIVED
FEB 12 1999

OIL CON. DIV.
DIST. 3

Well Name & Number
San Juan 27-5 U#51

API Well No.
30-039-06888

10. Field and Pool
Blanco MV/Blanco PC

11. County and State
Rio Arriba Co, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

☒ Notice of Intent

☐ Abandonment

☐ Change of Plans

☐ Subsequent Report

☐ Recompletion

☐ New Construction

☐ Final Abandonment

☐ Plugging Back

☐ Non-Routine Fracturing

☐ Casing Repair

☐ Water Shut off

☐ Altering Casing

☐ Conversion to Injection

☒ Other -

13. Describe Proposed or Completed Operations

It is intended to add pay to the Mesaverde formation and commingle the
Pictured Cliffs and Mesaverde formation of the subject well
according to the attached procedure and wellbore diagram.

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

Signed [Signature] (JLD) Title Regulatory Administrator Date 1/21/99

TLW

(This space for Federal or State Office use)

APPROVED BY [Signature] Title _____

Date FEB 10 1999

CONDITION 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.

Need OHC order

NMOCD

✓

San Juan 27-5 Unit #51
Lewis/Cliffhouse/Menefee Pay Add Procedure
Unit K, Section 28, T27N, R05W
Lat: 36°- 32.55888'/Long: 107° - 22.02024'

The well is currently completed in the Pictured Cliffs and Point Lookout intervals. It is intended to add the Lewis, Cliffhouse, and Menefee intervals to this existing Mesaverde producer and commingle the Pictured Cliffs/Mesaverde production. The Cliffhouse and Menefee will be sand fracture stimulated in a single stage using 100,000 lbs 20/40 sand in slickwater, while the Lewis will be completed in a single stage with 200,000 lbs 20/40 sand in a 70Q 20lb linear gel.

1. Inspect location and test rig anchors. Comply with all NMOCD, BLM, Forestry & BR rules and regulations. Dig flowback pit or set flowback tank. Haul to location 3 jts 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, 5300', 3-1/2" N-80 frac string and 11-400 bbl frac tanks.
2. MIRU. Fill 400 bbl tanks w/ 3# biocide/tank & 2% KCL water. Put one load of fresh water in each tank before adding 20% concentrated KCL water. Run fluid tests on water. Filter water based upon stimulation company water analysis. Record and report SI pressures on tubing, casing and bradenhead. Lay blowdown line. Blow well down and kill with 2% KCL water as necessary. ND WH and NU BOP, offset spool, and offset rams with flow tee and stripping head. Test operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
3. TOOH with 1-1/4", 2.4 lb/ft EUE Pictured Cliffs production string set at 3254' and LD. PU on 2-3/8" 4.7 lb/ft tubing and turn to the right to release the Guiberson "Shorty" packer at 3378'. Allow pressures to equalize. TOOH with 2-3/8", 4.7 lb/ft EUE Mesaverde production string set at 5430' and Guiberson packer. Visually inspect tubing, note and report any scale in/on tubing. Replace bad joints as needed.
4. PU and RIH with a 4-3/4" bit, 5-1/2" (15.5 lb/ft) casing scraper on the 2-3/8" tubing. Clean out to PBTD (~5516') with air/mist. **Blow well at PBTD to check sand production rates. Make sure well is not making sand before TOOH.** TOOH.
5. TIH with 5-1/2" CIBP, packer and 2-3/8" tubing. Set CIBP at 5320'. Release from CIBP and fill casing with ~ 50 bbls 2% KCL. Set packer just above CIBP. Pressure test CIBP to 3600 psi. Bleed off pressure. Release packer and PUH to 5270'. Spot 12 bbls 15% HCL across Cliffhouse/Menefee perforation interval (4843-5262'). TOOH.

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

2 gal	HAI-81M	Corrosion inhibitor
5 gal	FE-1A	Iron Control
5 gal	FE-2A	Iron Control
1 gal	SSO-21	Surfactant
1 gal	ClaSta XP	Clay control

6. RU logging company. Run GR-CBL-CCL from PBTD to til out of water. Evaluate CBL. Good cement bond must exist from PBTD to 3650' to continue with the Lewis portion of the procedure. Tie into liner top at 3297' for correlation.

San Juan 27-5 Unit #51
1999 Discretionary Lewis/Cliffhouse/Menefee Pay Add

CLIFFHOUSE/MENEFEE:

7. NU wireline. Correlate openhole Schlumberger Log to GR-CBL-CCL. Perforate Cliffhouse/Menefee as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at **1 SPF** (Av. perf diameter - 0.30", Av. pen. -16.64" in concrete).

**4843', 4844', 4854', 4859', 4879', 4880', 4906', 4907', 4908', 4910', 4917', 4918',
4932', 4934', 4936', 4954', 4955', 4959', 4961', 4964', 4971', 4975', 4976', 4978',
5088', 5106', 5134', 5139', 5171', 5173', 5236', 5238', 5254', 5260', 5262'
(35 holes total)**

ND wireline company.

8. TIH with 5-1/2" packer, 3 joints 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, and 3-1/2" N-80 frac string. Set packer at ~4650'.
9. RU stimulation company. Hold tailgate safety meeting. Pressure test surface lines to 7500 psi. Monitor annulus for indications of flow during the job. Breakdown Cliffhouse and Menefee perforations with 25 bbls 15% HCL. Drop 70 RCN 7/8" 1.3 specific gravity perf balls evenly spaced throughout job. Attempt to balloff to 3600 psi. Use same additives as in Step #5.
10. ND stimulation company. Bleed off pressure and release packer. Lower packer to 5270' to knock off perf balls. Reset packer at 4750'.
11. NU stimulation company. **Maximum surface treating pressure is 6500 psi.** Monitor annulus for indications of flow during the job. Fracture stimulate the Cliffhouse and Menefee with 100,000 lbs 20/40 Arizona sand in 2,738 bbls slickwater at **50 BPM**. Average surface treating pressure will be 3,397 psi. **If injection pressures allow, adjust sand schedule to increase 2.0 ppg stage.** Estimated tubing and perforation friction will be 3,311 psi. Treat per the following schedule:

Stage	Water (gals)	Sand Volume (lbs)
Pad	15,000	
0.5 ppg	30,000	15,000
1.0 ppg	45,000	45,000
1.5 ppg	20,000	30,000
2.0 ppg	5,000	10,000
Flush (100' above top perf)	1,715	
Totals	116,715	100,000

Slow rate during flush. If well is on vacuum near end of frac job, cut flush as necessary to avoid overflushing. Record ISIP, 5 minute, 10 minute and 15 minute SIP. RD stimulation company.

12. Open well through a positive choke or choke manifold. Monitor flow. Flow at 20 BPH or less, if sand is observed.
13. When pressures allow, release packers and TOOH. Stand back 3-1/2" frac string, 3-1/2" X 2-7/8" N-80 crossover, and 2-7/8" N-80 tubing. LD 5-1/2" packer. Redress packer as needed.

14. NU wireline. Set 5-1/2" CIBP at 4700'. ND wireline

LEWIS:

15. NU wireline. Correlate openhole Schlumberger Log to GR-CBL-CCL. Perforate Lewis as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at **1 SPF** (Av. perf diameter - 0.30", Av. pen. -16.64" in concrete).

3760', 3762', 3780', 3786', 3821', 3828', 3845', 3897', 4015', 4027', 4043', 4062', 4177', 4180', 4195', 4197', 4226', 4327', 4331', 4334', 4360', 4364', 4386', 4390', 4456', 4460', 4518', 4521', 4565', 4569' (30 holes total)

ND wireline company.

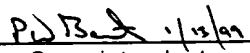
16. TIH with 5-1/2" packer, 3 joints 2-7/8" N-80 tubing, 2-7/8" X 3-1/2" N-80 crossover, and remaining 3-1/2" N-80 frac string. Set packer at just above CIBP at 4700'. Pressure test CIBP to 3600 psi. Bleed off pressure. Release packer and PUH with packer to 4580'. Spot 19 bbls 15% HCL across the Lewis perforation interval (3760 to 4569'). Use the same additives as in Step #5. PUH and set packer at 3550'. If squeeze work was necessary prior to the Lewis completion, adjust acid spot volume and set packer in good cement bond.
17. RU stimulation company. Hold tailgate safety meeting. Pressure test surface lines to 7500 psi. Monitor annulus for indications of flow during the job. Breakdown Lewis perforations with 25 bbls 15% HCL. Drop 60 RCN 7/8" 1.3 specific gravity perf balls evenly spaced throughout job. Attempt to balloff to 3600 psi. Use same additives as in Step #5.
18. ND stimulation company. Bleed off pressure and release packer. Lower packer to 4570' to knock balls off perforations. PUH and re-set packer at 3650'. If squeeze work was necessary prior to the Lewis completion, set packer in good cement bond.
19. NU stimulation company. **Maximum surface treating pressure is 6500 psi.** Monitor annulus for indications of flow during the job. Fracture stimulate the Lewis with 200,000 lbs 20/40 Arizona sand in 2,173 bbls 70Q 20 lb linear gel at **50 BPM**. **Tag sand with 3 radioactive isotopes.** Average surface treating pressure will be 6,171 psi. Perforation and tubing friction is estimated to be 4,865 psi. Treat per the following schedule:


Stage	Downhole Foam Volume (gals)	Clean Gel Volume (gals)	N2 Volume (MSCF)	Sand Volume (lbs)
Pad	15,000	4,500	153.2	—
1.0 ppg	12,000	3,600	122.5	12,000
2.0 ppg	21,000	6,300	214.1	42,000
3.0 ppg	27,333	8,200	278.5	82,000
4.0 ppg	16,000	4,800	162.9	64,000
Flush (100' above top perf)	1,301	390	13.3	0
Totals	92,634	27,790	945	200,000

Cut rate throughout flush as pressure allows. Record ISIP, 5 minute, 10 minute and 15 minute SIP. RD stimulation company.

20. Flow well back after 30 minutes to 1 hour through a choke manifold. Open well to pit, starting with a 10/64" choke. If minimal sand is being produced, change to a larger choke size (16/64"). If choke plugs off, shut well in and remove obstruction from choke and return to flowback. Continue increasing choke size and cleaning well up until fluid returns are negligible.
21. When pressures allow, release packer and TOOH. LD 3-1/2" frac string, 3-1/2" X 2-7/8" N-80 crossover, 2-7/8" N-80 frac string and packer.
22. TIH with 4-3/4" bit on 2-3/8" workstring and clean out to CIBP at 4700'. Monitor gas and water returns when applicable. **Take a "dirty" Pictured Cliffs/Lewis pitot gauge.** Drill out CIBP at 4700' when sand returns allow. Use a 10-12 BPH mist rate while drilling CIBP.
23. Clean out to CIBP at 5320'. Blow well throughout Lewis, Cliffhouse, and Menefee. Monitor gas, water and sand returns when applicable. **Take a "dirty" Pictured Cliffs/Lewis/Cliffhouse/Menefee pitot gauge.** Drill out CIBP at 5320' when sand returns allow. Use a 10-12 BPH mist rate while drilling CIBP.
24. Continue to CO to PBTD (5516') with air. Blow well at PBTD to check water rates. If needed, continue to blow well for clean up. When water rates are below 3 BPH and sand production is minimal, TOOH.
25. TIH with 1750' 2-3/8" tailpipe, 5-1/2" packer and 2-3/8" tubing. Set packer at 3700' (Within 100' of top Mesaverde perforation at 3760'). Run Mesaverde only 3 hour production test through separator using a back pressure of 150 psi. This is necessary for determining Lewis/Cliffhouse/Menefee pay add contribution for determining accurate commingling allocations. Release packer and TOOH.
26. TIH with an expendable check, one 2-3/8" joint, standard SN and remaining 2-3/8" tubing. Broach tubing while running in hole. CO with air/mist to PBTD again, if necessary. **Obtain final Pictured Cliffs/Lewis/Cliffhouse/Menefee/Point Lookout pitot gauge.** Land tubing at 5474'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.
27. RU Pro-Technics. Run After-Frac log across Lewis (3760-4569'). RD Pro-Technics.

Recommended: 
Production Engineer

Approved: 
Drilling Superintendent

Approved: 
Team Leader

Contact:

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

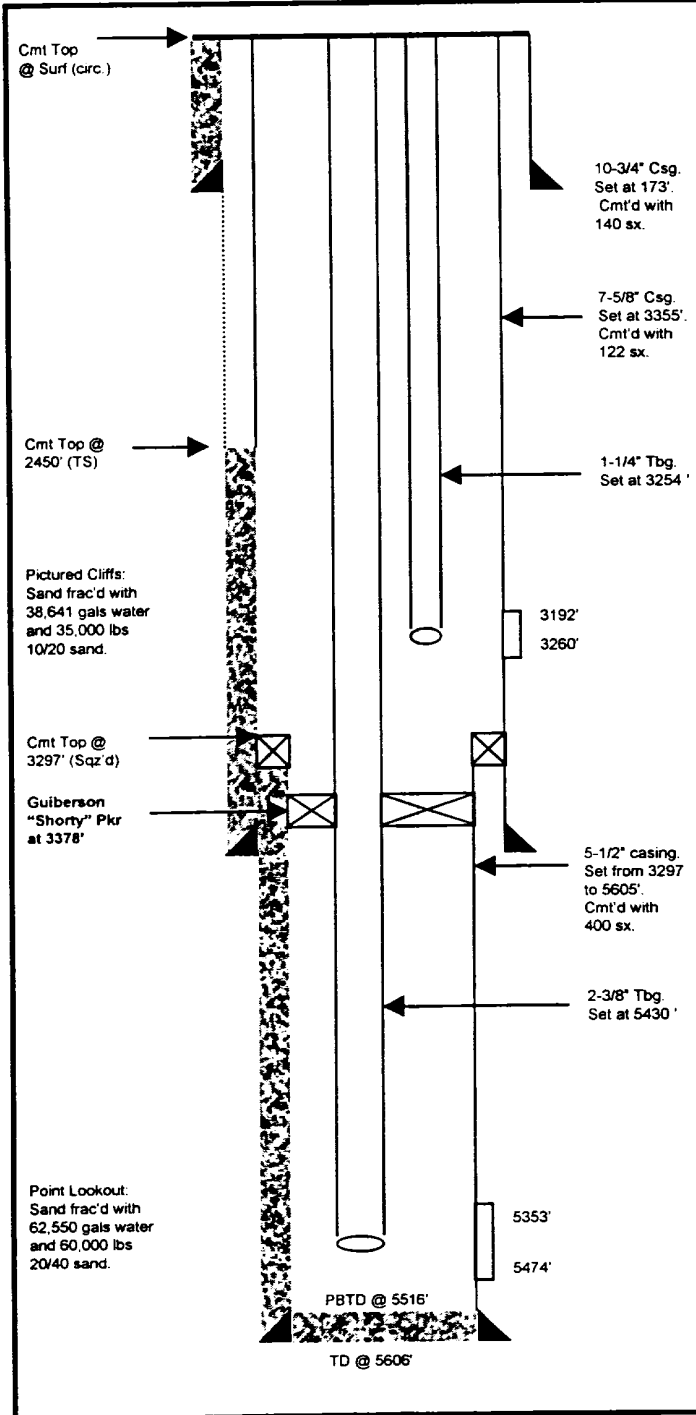
San Juan 27-5 Unit #51

Unit K, Section 28, T27N, R5W

Rio Arriba County, NM

Lat: 36° - 32.55888'/Long: 107° - 22.02024'

Current Schematic



Proposed Schematic

