

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

Sundry Notices and Reports on Wells

1. Type of Well  
GAS

2. Name of Operator

**BURLINGTON  
RESOURCES**

OIL & GAS COMPANY

3. Address & Phone No. of Operator

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

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

810' FSL 1150' FWL, Sec. 29, T-27-N, R-4-W, NMPM

m

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

Type of Submission

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment

Type of Action

☐ Abandonment

☐ Recompletion

☐ Plugging Back

☐ Casing Repair

☐ Altering Casing

☒ Other -

☐ Change of Plans

☐ New Construction

☐ Non-Routine Fracturing

☐ Water Shut off

☐ Conversion to Injection

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 /s/ Duane W. Spencer

Title

Team Lead, Petroleum Management

Date MAR - 1 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.

NMOCD

## San Juan 27-4 Unit #17

Cliffhouse/Menefee Pay Add Procedure

Unit M, Section 29, T27N, R4W

Lat: 36° – 32.3538' Long: 107° - 16.69554'

*The well is currently completed in the Pictured Cliffs and Point Lookout intervals. It is intended to add the Cliffhouse and Menefee to the existing Mesaverde producer and commingle the Pictured Cliffs/Mesaverde production. The pay add will be sand fracture stimulated in a single stage using a total of 117,000 gals slickwater and 100,000 lbs 20/40 sand.*

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, 5800', 3-1/2" N-80 frac string and 9, 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 solids 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 3876' and LD. PU on 2-3/8" 4.7 lb/ft tubing and turn to the right to release the Guiberson "Shorty" packer at 3888'. Allow pressures to equalize. TOOH with 2-3/8", 4.7 lb/ft EUE Mesaverde production string set at 5875'. 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 and 5-1/2" (15.5 lb/ft) casing scraper on the 2-3/8" tubing. Clean out to PBTD (~5956') with air. **Blow well at PBTD to check sand production rates. Make sure well is not making sand before TOOH.** TOOH.
5. RIH with 5-1/2" CIBP, packer on 2-3/8" tubing. Set CIBP at 5740'. Release from CIBP. Load hole with ~50 bbls 2% KCL water. Set packer just above CIBP. Pressure test CIBP to 3600 psi. Bleed off pressure. Release packer and PUH to 5710'. Spot 10 bbls 15% HCL across Cliffhouse/Menefee perforations (5325-5699'). 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. Run GR-CBL-CCL from PBTD til out of water. Evaluate CBL. Top of good cement must be above 5200' to continue with procedure. Tie into liner top at 3776' for correlation.
7. RU wireline. Perforate Cliffhouse and Menefee as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges (Av. perf diameter - 0.29", Av. pen. -16.64" in concrete).

**5325', 5337', 5373', 5385', 5391', 5395', 5396', 5404', 5410', 5412', 5418',  
5441', 5443', 5445', 5447', 5449', 5450', 5584', 5585', 5586', 5590', 5608',  
5617', 5618', 5623', 5647', 5651', 5694', 5696', 5699' (30 holes total)**

RDMO wireline company.

8. TIH with 5-1/2" packer, 3 jts 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 5100'.
9. RU stimulation company. Hold tailgate safety meeting. Pressure test surface lines to 7500 psi. Monitor pressure on annulus. Breakdown Cliffhouse and Menefee 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. Bleed off pressure and release packer. Lower packer to 5710' to knock off perf balls. Reset packer at 5200'.
10. **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 2738 bbls slickwater at **50 BPM**. Average surface treating pressure will be 4,032 psi. Estimated tubing and perforation friction will be 3,938 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	1,911	
<b>Totals</b>	<b>116,911</b>	<b>100,000</b>

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

11. Open well through choke manifold and monitor flow. Flow at 20 BPH or less, if sand is observed. When pressures allow, release packer and TOOH. LD 3-1/2" frac string, 3-1/2" X 2-7/8" crossover, 2-7/8" N-80 tubing, and 5-1/2" packer.
12. TIH with 4-3/4" bit on 2-3/8" tubing and clean out to CIBP at 5740'. Alternate between natural flow and blow stages for cleanup. Monitor gas and water returns when applicable. **Take a "dirty" Pictured Cliffs/Cliffhouse/Menefee pitot gauge.** Drill out CIBP at 5740' when sand returns allow. Use a 10-12 BPH mist rate while drilling CIBP.
13. Continue to CO to PBTD at 5956'. Alternate between natural flow and blow periods at PBTD. When water rates are less than 3 BPH, obtain a Pictured Cliffs/Cliffhouse/Menefee/Point Lookout pitot gauge. TOOH.
14. TIH with 5-1/2" packer and 2-3/8" tubing. Set packer at 5250' (Within 100' of top perforation at 5325'). Run Mesaverde only 3 hour production test through separator using a back pressure of 150 psi. This is necessary for determining Cliffhouse/Menefee pay add contribution and correct commingling allocations. Release packer and TOOH.

15. TIH with an expendable check, one joint 2-3/8" tubing, standard SN and remaining 2-3/8" tubing string. Broach tubing while running in hole. CO with air/mist to PBTD again, if necessary. Land tubing at 5904'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.

Recommended:   
Production Engineer

Approved:   
Drilling Superintendent

Approved:  12/18/98  
Team Leader

Jennifer Dobson

599-4026 (work)

564-3244 (home)

324-2461 (pager)

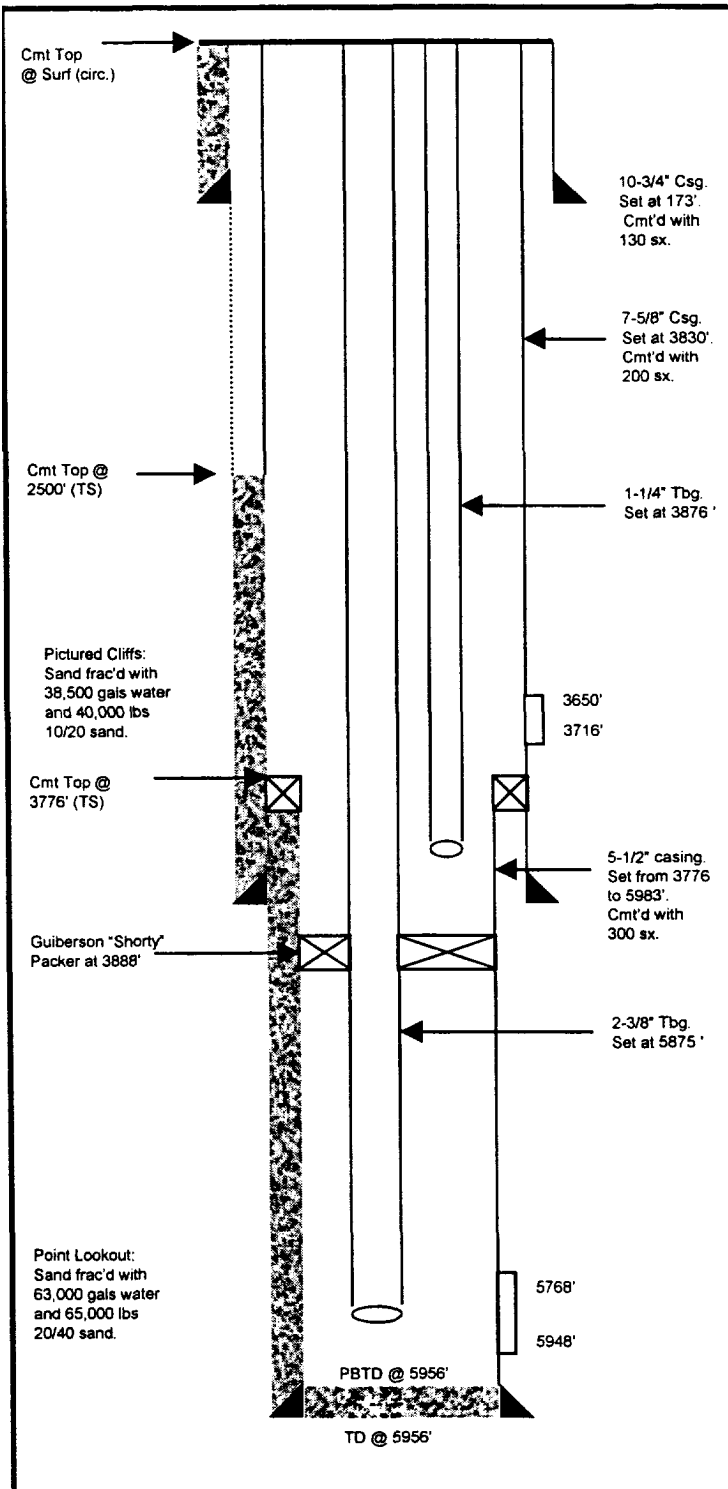
# San Juan 27-4 Unit #17

Unit M, Section 29, T27N, R4W

Rio Arriba County, NM

Lat: 36° - 32.3538'/Long: 107° - 16.69554'

## Current Schematic



## Proposed Schematic

