

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

700' FNL, 950' FEL, Sec.15, T-30-N, R-7-W, NMPM

5. Lease Number
NM-012694

6. If Indian, All. or
Tribe Name

7. Unit Agreement Name

San Juan 30-6 Unit

8. Well Name & Number
San Juan 30-6 U #83

9. API Well No.
30-039-07861

10. Field and Pool
Blanco Mesaverde

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 - Pay add

13. Describe Proposed or Completed Operations

It is intended to add the Lewis interval to the existing Mesaverde formation of the subject well according to the attached procedure and wellbore diagram.

RECEIVED
JUL 29 1999
OIL CON. DIV.
DIST. 3

RECEIVED
JUL 15 PM 2:13
OIL CON. DIV.
DIST. 3

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

Signed [Signature] (HDOpps) Title Regulatory Administrator Date 7/14/99

(This space for Federal or State Office use)

APPROVED BY /s/ Duane W. Spencer Title Team Lead, Petroleum Management Date JUL 27

CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make 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 30-6 #83
Lewis Shale Payadd Procedure
A 15 30N 07W
San Juan County, NM
Latitude: 36 Deg., 49.07 Min
Longitude: 107 Deg., 33.10 Min.

Summary:

The subject well is a 1999 Lewis Shale payadd in 4-1/2" casing. This well was drilled in 1953 and was open hole completed w/ nitroglycerin in the Point Lookout, Cliffhouse and Menefee intervals. In 1975 a workover was performed and the subject well was sidetracked from 4871'-5685'. 4-1/2" casing was run from TD to surface and cemented. The Pt. Lookout interval was stimulated w/ approximately 100,000 lbs. total sand and 135,370 gal. total slickwater. The Cliffhouse/ Menefee interval was stimulated w/ approximately 78,000 lbs. total sand and 107,580 gal. total slickwater and placed on production. The Lewis will be perforated and fracture stimulated in two (2) stages with 296 total tons of liquid CO₂ and 95,000 lbs. total 30/50 mesh sand. The new stimulation technique will test the viability of a liquid CO₂ and sand stimulation within the Lewis Shale interval. The well will then be cleaned-up in the Mesaverde and placed on production.

Comply to all NMOCD, BLM and BR regulations. Conduct daily safety meetings for all personnel on location. Notify BR regulatory (Peggy Bradfield 326-9727) and the appropriate Regulatory Agency prior to pumping any cement job and after CBL is run. If an unplanned cement job is required, approval is required before the job can be pumped. If verbal approval is obtained, document the approval in Dims. Allow adequate notice prior to the pump time for the Agency to witness the cementing operation.

- Inspect location and wellhead and install rig anchors prior to rig move.
- Construct blow pit.
- **DURING CO₂ STIMULATION, ONLY AUTHORIZED PERSONNEL ARE ALLOWED ON LOCATION. ONLY CO₂ EXPERIENCED AND APPROVED STIMULATION PERSONNEL AND PUMP EQUIPMENT ARE ALLOWED ON LOCATION.**

1. MOL, hold safety meeting and RU completion rig. RD pumping unit. Insure all safety equipment is strategically located and functioning properly. NU relief lines to blow pit. Set one (1) 400 BBL frac tank and fill w/ 2% KCL. Blow well down and kill well w/ 2% KCL water as necessary. ND wellhead and NU 7-1/16" 3M BOP, stripping head and blooie line. Operationally test BOP.

2. TOOH w/ approximately 188 jts. 2-3/8" Mesaverde tubing set at +/- **5627'** and stand back. Inspect tubing and replace bad tubing as necessary**.

****NOTE:** If existing tbg. is scaled-up, contact production engineer and a scale analysis will be run. This will determine if we will pump acid down the 2-3/8" 4.7# J-55 workstring and acid wash perforations across the Point Lookout, Menefee, and Cliffhouse intervals.

3. RU wireline. RIH w/ 4-1/2" gauge ring and check wellbore for obstructions to PBTD @ **5668'**. POOH.**

****NOTE:** If obstructions are encountered, PU 3-7/8" bit and 4-1/2" string mill on 2-3/8" 4.7# J-55 workstring and CO to PBTD @ **5668'**. TOOH

4. Pick-up 4-1/2" 11.6# wellhead isolation tool and 4" frac valve**. RU wireline w/ packoff and pump in tee. RIH and wireline set CIBP @ +/- **4650'**. Load hole w/ 73 bbls 2% KCL for logging and perforating. RIH w/ TDT logging tool and log from **4650'** to **3700'*****. TOOH w/ TDT logging tool. RIH w/ GR\CCL\CBL and log from **4650'** to **3700'*****. TOOH w/ GR\CCL\CBL logging tool. RU stimulation company. Pressure test surface lines to **5050** psi and pressure test CIBP to **4050** psi (85% of burst of 4-1/2" 10.5# csg). RD stimulation company.

**** Ensure frac valve is compatible for CO₂ stimulation (i.e. 90-duro, peroxide cured buna-N o-rings)**

***** Correlate to GR/ Neutron log.**

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1st Stage – Lower Lewis Shale

5. RIH w/ CCL on top of perforating guns**. Perforate the Lower Lewis Shale interval with **3-1/2" HPG gun system w/ 37J UJ HMX charges**. These are 34 gram charges with a 0.46" hole and 34.0" penetration. Shoot approximately 120 holes bottom up in two (2) gun runs @ **2 SPF 60° Phase** in 2% KCL***. RD wireline company.

** NOTE: Tie into new TDT log.

***NOTE: Perforation intervals will be chosen after review of the TDT log.

6. TIH w/ 4-1/2" RBP, on-off tool, 4-1/2" fullbore pkr, and 2-3/8" 4.7# J-55 workstring. Beginning at the lowest perforated interval in the Lewis, isolate each 10' gun run of perforations by setting RBP below perforated interval and pkr. above perforated interval. RU stimulation company. Pressure test surface lines to **5050 psi**. Breakdown perforations @ 6 BPM w/ 300 gal. of 10% Acetic Acid + 5% NH₄CL** at each setting. Displace w/ approximately 14 BBL of 2% KCL at each setting. Breakdown to maximum pressure of **4050 psi** (85% of burst in 4-1/2" 10.5# csg). Record breakdown pressure and ISIP. After each breakdown, release pkr and RBP and reset. Repeat operation at each 10' gun run of perforations. Release pkr and RBP. TIH to CIBP @ +/- **4650'**. **DO NOT RESET RBP & PKR**. Blow hole dry. TOOH w/ 2-3/8" 4.7# J-55 workstring, 4-1/2" fullbore pkr, on-off tool, and 4-1/2" RBP. Laydown pkr and RBP. Standback workstring.

** All Acid to contain the following additives/ 1000 gal:

1000 gal	10%	Acetic Acid
2 gal	MSA II	corrosion inhibitor
5%	NH ₄ CL	clay control

7. RU stimulation company to frac down 4" frac valve. Hold pre-job safety meeting with all personnel on location. Pressure test surface lines to **5050 psi** prior to stimulation.**

****NOTE: HAVE PRE-JOB SAFETY MEETING WITH ALL PERSONNEL ON LOCATION. USE CO₂ APPROVED PUMPING EQUIPMENT ONLY. REVIEW CONTINGENCY PLANS FOR POSSIBLE JOB MALFUNCTIONS WITH ALL PERSONNEL.**

8. Fracture stimulate in 0.6 to 3.0 ppg stages @ 40 BPM constant downhole rate with 149 tons of Liquid CO₂ and 47,500 lbs. 30/50 mesh sand. When enclosed blender is empty, call flush. Flush to top perf with Liquid CO₂. Refer to frac schedule enclosed. Maximum bottomhole treating pressure is **4050 psi** (85% of burst in 4-1/2" 10.5# csg). Estimated friction pressure is approximately **1867 psi @ 40 BPM**. Maximum surface treating pressure is **4050 psi**.
9. Record ISIP, 5, 10 and 15 shut-in pressure. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-choke manifold and pit. Begin flowback after stimulation company has rigged down from frac valve. Open well to pit on accordance to flowback schedule listed in the table below. Do not shut well in during flowback. When schedule dictates a larger choke size, open ball valve upstream of adjustable choke and open adjustable choke on manifold to pre-determined size listed in table and begin flowing through adjustable choke. Close ball valve upstream of positive flow bean and change out flow bean to next larger size in table. Open ball valve upstream of positive flow bean and begin flowing. Close ball valve upstream of adjustable choke and close adjustable choke.

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20/64" Choke	For approximately 1 hour
24/64" Choke	For approximately 1 hour
32/64" Choke	For approximately 1 hour
48/64" Choke	For approximately 1 hour
2" Line-pipe	For approximately 2 hours

2nd Stage – Upper Lewis Shale

10. After well cleans up and pressures allow, RU wireline w/ packoff and pump in tee. RIH w/ CIBP, #10 setting tool, 1st perforating gun run w/ CCL on top of perforating guns** and wireline set CIBP @ +/- 4160'. Load hole w/ 66 bbls 2% KCL for perforating.

** NOTE: Tie into new TDT log.

11. Perforate the Upper Lewis Shale interval with 3-1/2" HPG gun system w/ 37J UJ HMX charges. These are 34 gram charges with a 0.46" hole and 34.0" penetration. Shoot approximately 110 holes bottom up in two (2) gun runs @ 2 SPF 60° Phase in 2% KCL***. RD wireline company.

***NOTE: Perforation intervals will be chosen after review of the TDT log.

12. TIH w/ 4-1/2" RBP, on-off tool, 4-1/2" fullbore pkr, and 2-3/8" 4.7# J-55 workstring. Beginning at the lowest perforated interval in the Lewis, isolate each 10' gun run of perforations by setting RBP below perforated interval and pkr. above perforated interval. RU stimulation company. Pressure test surface lines to 5050 psi. Breakdown perforations @ 6 BPM w/ 300 gal. of 10% Acetic Acid + 5% NH₄CL** at each setting. Displace w/ approximately 14 BBL of 2% KCL at each setting. Breakdown to maximum pressure of 4050 psi (85% of burst in 4-1/2" 10.5# csg). Record breakdown pressure and ISIP on each setting. After each breakdown, release pkr and RBP and reset. Repeat operation at each 10' gun run of perforations. Release pkr and RBP. TIH to CIBP @ +/- 4160'. DO NOT RESET RBP & PKR. Blow hole dry. TOOH w/ 2-3/8" 4.7# J-55 workstring, 4-1/2" fullbore pkr, on-off tool, and 4-1/2" RBP. Laydown pkr and RBP. Standback workstring.

** All Acid to contain the following additives/ 1000 gal:

1000 gal	10%	Acetic Acid
2 gal	MSA II	corrosion inhibitor
5%	NH ₄ CL	clay control

13. RU stimulation company to frac down 4" frac valve. Hold pre-job safety meeting with all personnel on location. Pressure test surface lines to 5050 psi prior to stimulation.**

****NOTE: HAVE PRE-JOB SAFETY MEETING WITH ALL PERSONNEL ON LOCATION. USE CO₂ APPROVED PUMPING EQUIPMENT ONLY. REVIEW CONTINGENCY PLANS FOR POSSIBLE JOB MALFUNCTIONS WITH ALL PERSONNEL.**

14. Fracture stimulate in 0.6 to 3.0 ppg stages @ 40 BPM constant downhole rate with 147 tons of Liquid CO₂ and 47,500 lbs. 30/50 mesh sand. When enclosed blender is empty, call flush. Flush to top perf with Liquid CO₂. Refer to frac schedule enclosed. Maximum bottomhole treating pressure is 4050 psi (85% of burst in 4-1/2" 10.5# csg). Estimated friction pressure is approximately 1673 psi @ 40 BPM. Maximum surface treating pressure is 4050 psi.

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15. Record ISIP, 5, 10 and 15 shut-in pressure. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-choke manifold and pit. Begin flowback after stimulation company has rigged down from frac valve. Open well to pit on accordance to flowback schedule listed in the table below. Do not shut well in during flowback. When schedule dictates a larger choke size, open ball valve upstream of adjustable choke and open adjustable choke on manifold to pre-determined size listed in table and begin flowing through adjustable choke. Close ball valve upstream of positive flow bean and change out flow bean to next larger size in table. Open ball valve upstream of positive flow bean and begin flowing. Close ball valve upstream of adjustable choke and close adjustable choke.

20/64" Choke	For approximately 1 hour
24/64" Choke	For approximately 1 hour
32/64" Choke	For approximately 1 hour
48/64" Choke	For approximately 1 hour
2" Line-pipe	For approximately 2 hours

16. After well cleans up and pressures allow, TIH w/ 3-7/8" flat mill on 2-3/8" 4.7# J-55 workstring and clean-up to CIBP @ +/- **4160'** with air/mist. When well is sufficiently clean, gauge the Upper Lewis interval for one (1) hour. Obtain an accurate pitot gauge for the Upper Lewis interval.
17. Drill out CIBP @ +/- **4160'** w/ 3-7/8" flat mill on 2-3/8" workstring. Use minimum mist rate of 10-12 BPH.
18. Clean up to CIBP @ +/- **4650'** w/ air/mist. When well is sufficiently clean, gauge the entire Lewis interval for one (1) hour.
19. Drill out CIBP @ +/- **4650'** w/ 3-7/8" flat mill on 2-3/8" workstring w/ air/mist and CO to PBTD @ **5668'****. TOO H w/ 2-3/8" 4.7# J-55 workstring and stand back. Lay down 3-7/8" flat mill.
- **NOTE:** If tbg. was scaled-up, acid wash the existing Pt. Lookout, Menefee, and Cliffhouse perforations w/ treatment specified by service company.
20. Broach in tubing on sandline. TIH w/ one joint of 2-3/8" 4.7# J-55 tubing w/ expendable check, seating nipple, then remaining 2-3/8" production tubing. Land tubing @ **5597'**.
21. ND BOP's, NU single tubing hanger wellhead. Pump off expendable check. Obtain a final pitot up tubing. If well will not flow on it's own, make swab run to seating nipple. If swab run is not necessary, RD and MOL.

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Approve:  13 APR 99
Team Leader H. Dube

Approve:  4/26/99
Drilling Superintendent

Recommend: Steve Campbell 4/13/99
Production Engineer

VENDORS:

Wireline:	Schlumberger	325-5006
Stimulation:	Universal Well Services	1-800-935-2837
Enclosed Blender:	Universal Resources	1-800-935-2837
Liquid CO ₂ :	BOC Gases	1-800-448-5988
Packer:	Arrow Completion Systems	326-5141
Bridge Plug:	Arrow Completion Systems	326-5141
Flat Mill:	Arrow Completion Systems	326-5141

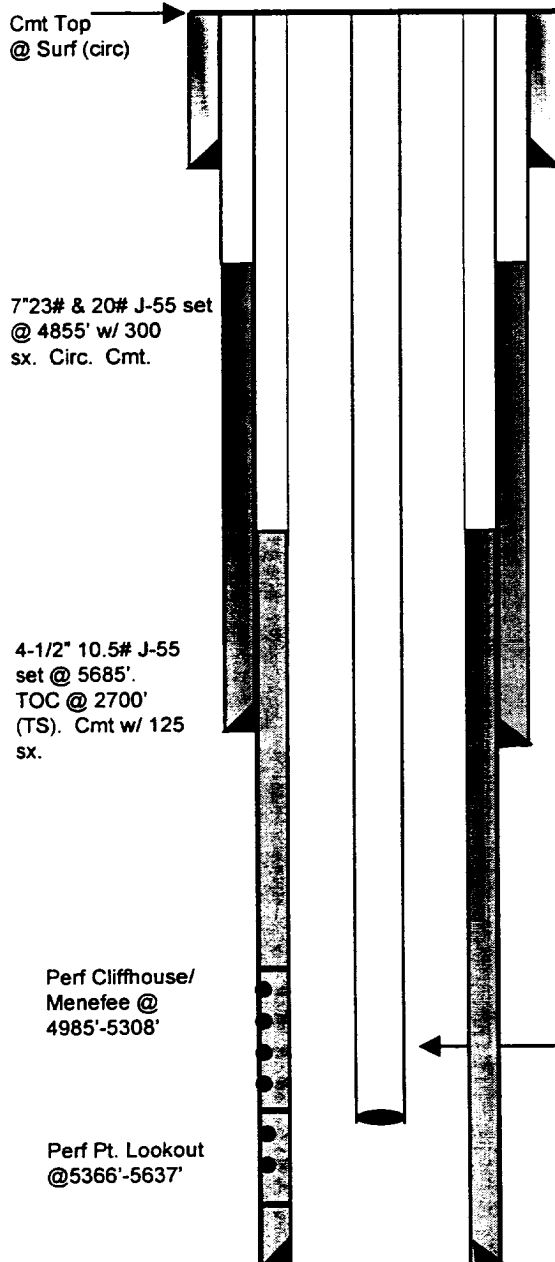
Steve Campbell Home 325-8218
Glen Christiansen Home 327-5089
Hans Dube Home 564-9401

Office 326-9546 Pager 564-1902
Office 326-9733 Pager 324-7562
Office 326-9555

San Juan 30-6 #83

Unit A, Section 15, T30N, R07W
Rio Arriba County, NM

Current Schematic



9-5/8" Csg.
Set at 172'.
Cmt'd with
125 sx.

Formation Tops at:

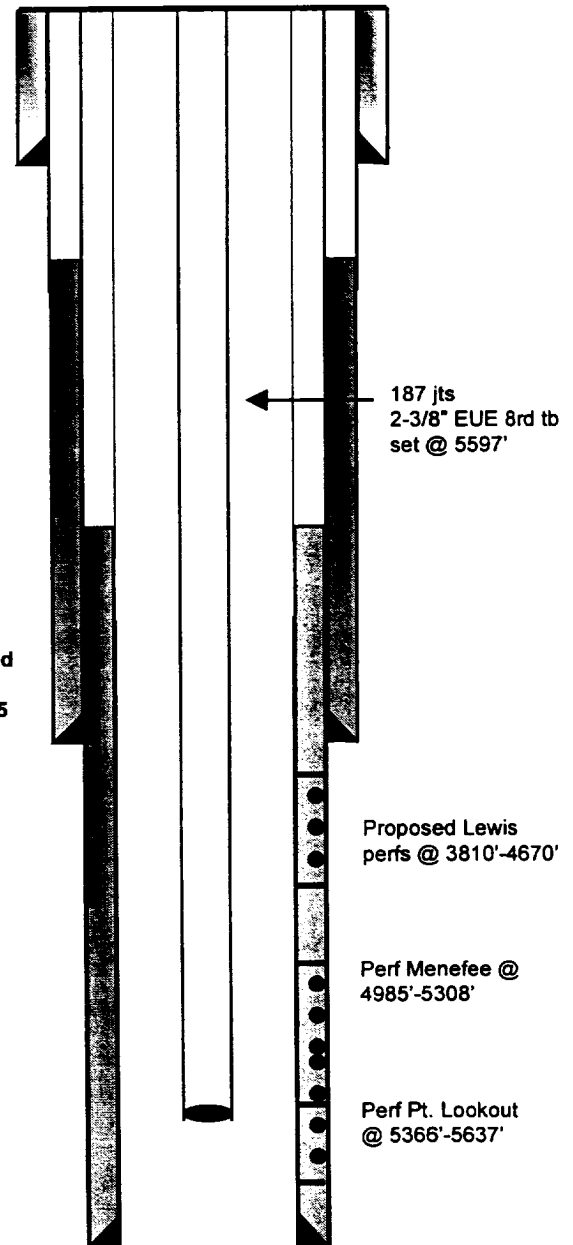
Ojo Alamo	1910'
Pictured Cliffs	3066'
H. Bentonite	3805'
U. Cliffhouse	4675'
M. Cliffhouse	4957'
Menefee	5000'
Pt. Lookout	5312'

Original Openhole sidetracked
in 11/75. Sidetracked from
4871'-5685'. 4-1/2" 10.5# K-55
csg ran from TD to surface.

188 JTS. 2-3/8" EUE 8rd
Tbg. Set at 5627'.

PBTD @ 5668'
TD @ 5685'

Proposed Schematic



PBTD @ 5668'
TD @ 5685'