

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  
890' FNL 1740' FWL, Sec.33, T-31-N, R-9-W, NMPM

5. Lease Number  
SF-078439

6. If Indian, All. or Tribe Name

7. Unit Agreement Name

8. Well Name & Number  
Johnston Federal #2A

9. API Well No.  
30-045-21640

10. Field and Pool  
Blanco Mesaverde

11. County and State  
San Juan Co, NM

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

Type of Submission	Type of Action
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other -
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Conversion to Injection

13. Describe Proposed or Completed Operations

It is intended to add Lewis pay to the 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 Duane W. Spencer Title Regulatory Administrator Date 2/22/99  
TLW

(This space for Federal or State Office use)  
APPROVED BY /S/ Duane W. Spencer Title Acting 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.

NMOC

**Johnston Federal #2A**  
**Lewis Shale Payadd Procedure**  
**C 33 31N 09W**  
**San Juan County, NM**  
**Latitude: 36 Deg., 51.56 Min**  
**Longitude: 107 Deg., 47.30 Min.**

**Summary:**

The subject well is a 1999 Lewis Shale payadd in 7" and 4-1/2" casing. This well was drilled in 1975 and was completed in the Point Lookout and Cliffhouse intervals. The Pt. Lookout interval was stimulated w/ approximately 50,000 lbs. total sand and 50,000 gal. total slickwater. The Cliffhouse interval was stimulated w/ approximately 50,000 lbs. total sand and 50,000 gal. total slickwater and placed on production. The Lewis will be perforated and fracture stimulated in one (1) stage with 136,964 total gal. of 75Q N<sub>2</sub> foamed "Clearfrac" fluid and 200,000 lbs. total 20/40 mesh sand. The new stimulation technique will test the viability of "Clearfrac" and a single stage stimulation within the Lewis Shale interval. The well will then be cleaned-up, tubing landed 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.

1. MOL, hold safety meeting and RU completion rig. Insure all safety equipment is strategically located and functioning properly. NU relief lines to blow pit. Set four (4) 400 BBL frac tank and fill w/ 4% KCL. Blow well down and kill well w/ 4% 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 173 jts. 2-3/8" Mesaverde tubing set at +/- **5385'** 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 and Cliffhouse interval.

3. RU wireline. RIH w/ 4-1/2" gauge ring and check wellbore for obstructions to PBTD @ **5565'**. POOH.\*\*

**\*\*NOTE:** If obstructions are encountered, PU 3-7/8" bit and 4-1/2" 10.5# csg. scraper on 2-3/8" 4.7# J-55 workstring and CO to PBTD @ **5565'**. TOOH

4. TIH w/ CIBP, on-off tool, 4-1/2" fullbore prk and approximately 142 jts 2-3/8" 4.7# J-55 workstring and tubing set CIBP @ +/- **4420'**. Set prk @ +/- **3145'**. Load hole down tubing w/ 25 bbls 10% Acetic Acid + 5% NH<sub>4</sub>CL\*\*\* for perforating. RU stimulation company. Pressure test surface lines to **4800** psi. Pressure test CIBP to **3800** psi (80% of burst in 4-1/2" 10.5# csg). RD stimulation company. TOOH w/ workstring and standback.

\*\* Tie into GR-Ind log.

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

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

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5. RU wireline company w/ packoff and pump-in tee. RIH w/ CCL\*\* on top of perforating guns. Perforate the entire Lewis Shale interval with 3-1/8" Hollow Steel Carrier Select Fire guns w/ HSC-3125-306T charges. These are 12 gram charges with a 0.30" hole and 17.48" penetration. Shoot 48 holes top down at the following depths: **3856', 3858', 3860', 3867', 3871', 3875', 3963', 3965', 3967', 4003', 4005', 4008', 4011', 4025', 4028', 4031', 4033', 4133', 4135', 4137', 4139', 4141', 4178', 4181', 4183', 4185', 4187', 4189', 4192', 4194', 4196', 4269', 4271', 4273', 4275', 4277', 4279', 4307', 4310', 4313', 4316', 4318', 4366', 4369', 4371', 4373', 4375', 4377'**. RD wireline company.

\*\* Tie into GR-Ind log.

6. TIH w/ 4-1/2" fullbore pkr and 119 jts. 2-3/8" 4.7# J-55 fracstring and set @ +/- **3700'**. RU stimulation company. Pressure test surface lines to **4800** psi. Breakdown perforations @ 6-8 BPM w/ tbg. volume of 4% KCL (approximately 14 BBL). Displace w/ 300 gal. of 10% Acetic Acid + 5% NH<sub>4</sub>CL\*\* dropping ninety-six (96) 7/8" 1.1 SG RCN balls evenly displaced through acid. Displace acid w/ approximately 25 BBL of 2% KCL to bottom perforation. Balloff to maximum pressure of **3800** psi (80% of burst in 4-1/2" 10.5# csg). Record breakdown pressure, ball action and ISIP. Release pkr and knock ball off of perforations.

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

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

7. TOOH w/ 4-1/2" fullbore pkr and approximately 119 jts. 2-3/8" 4.7# J-55 workstring. Stand back workstring and laydown pkr.
8. Pick-up 4-1/2" fullbore, 2 jts. 2-7/8" 6.4# N-80 **BUTTRESS**, 2-7/8" N-80 **BUTTRESS X** 3-1/2" 8rd changeover swage and 99 jts. 3-1/2" 9.3# N-80 fracstring. Set pkr @ +/- **3145'**. Load annulus w/ 88 BBL 4%KCL.
9. RU stimulation company to frac down fracstring and 4" frac valve. Hold pre-job safety meeting with all personnel on location. Pressure test surface lines to **7000** psi prior to stimulation.
10. Fracture stimulate in 0.5 to 3.0 ppg stages @ 40 BPM constant downhole rate with 136,964 gal. of 75Q N<sub>2</sub> foamed "Clearfrac" fluid and 200,000 lbs. 20/40 mesh sand. When sand concentration begins to drop. Call flush. Flush to top perf @ +/- **3856'**. Refer to frac schedule enclosed. Maximum bottomhole treating pressure is **3800** psi (80% of burst in 4-1/2" 10.5# csg). Estimated friction pressure is approximately **3223** psi @ **40** BPM. Maximum surface treating pressure is **6000** psi. **Leave csg. valve open and monitor annulus pressure in treating van.**
11. 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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16/64" Choke	From Shut-in – Until 2/3 of flush volume has been recovered (Approximately 31 BBL).
10/64" Choke	Approximately 2 hrs.
12/64" Choke	Approximately 2 hrs.
14/64" Choke	Approximately 2 hrs.
16/64" Choke	Approximately 3 hrs.
18/64" Choke	Approximately 3 hrs.
20/64" Choke	Approximately 3 hrs.
22/64" Choke	Approximately 3 hrs.
24/64" Choke	Approximately 3 hrs.
32/64" Choke	Approximately 3 hrs.

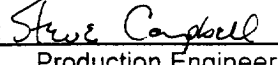
12. After well cleans up and pressures allow, release pkr and TOOH laying down 99 jts. 3-1/2" 9.3# N-80, 3-1/2" 8rd X 2-7/8" N-80 **BUTTRESS** changeover swage, 2 jts. 2-7/8" 6.4# N-80 **BUTTRESS** frac string, and 4-1/2" fullbore pkr.
13. TIH w/ 3-7/8" flat mill on 2-3/8" 4.7# J-55 workstring and clean-up to CIBP @ +/- 4420' 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.
14. Drill out CIBP @ +/- 4420' w/ 3-7/8" flat mill on 2-3/8" workstring. Use minimum mist rate of 10-12 BPH. CO to PBTD @ 5565'. TOOH 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 Cliffhouse and Point Lookout perforations w/ treatment specified by service company.

15. 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 @ 5349'.
16. 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 MOI.

Approve:  2/1/99  
Team Leader

Approve:  2/13/99  
Drilling Superintendent

Recommend:  2/1/99  
Production Engineer

**VENDORS:**

Wireline:	Schlumberger	325-5006
Stimulation:	Dowell	325-5096
Packer:	Arrow Completion Systems	326-5141
Bridge Plug:	Arrow Completion Systems	326-5141
Flat Mill:	Arrow Completion Systems	326-5141

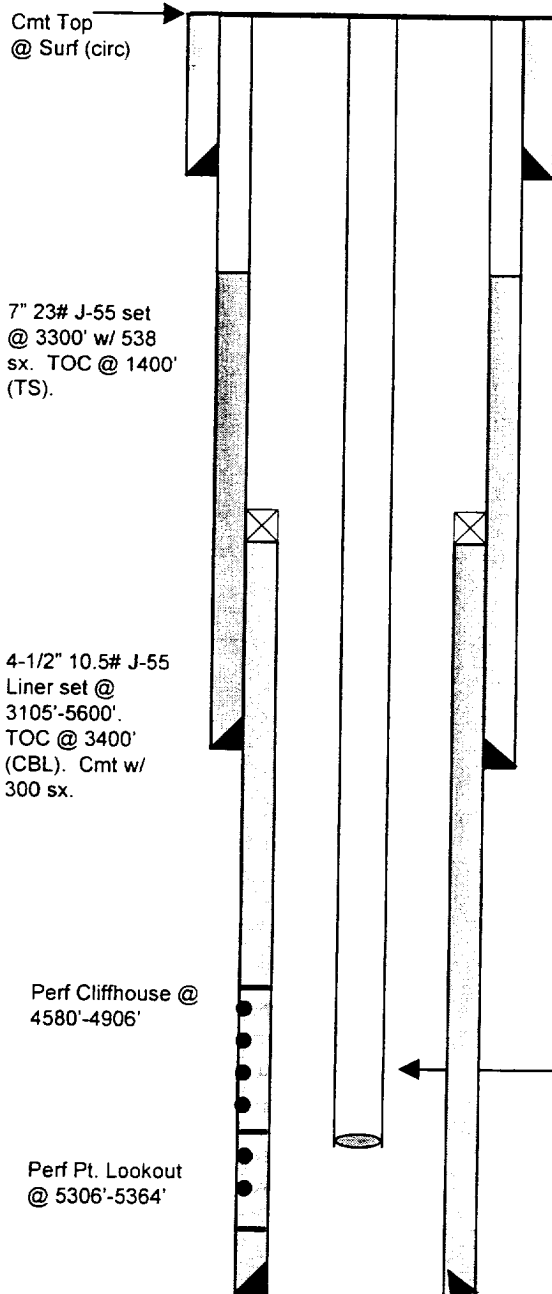
Steve Campbell Home 325-8218  
Glen Christiansen Home 327-5089  
Hans Dube Home 564-9401

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

# Johnston Federal #2A

Unit C, Section 33, T31N, R09W  
San Juan County, NM

Current Schematic



9-5/8" Csg.  
Set at 260'.  
Cmt'd with  
225 sx.

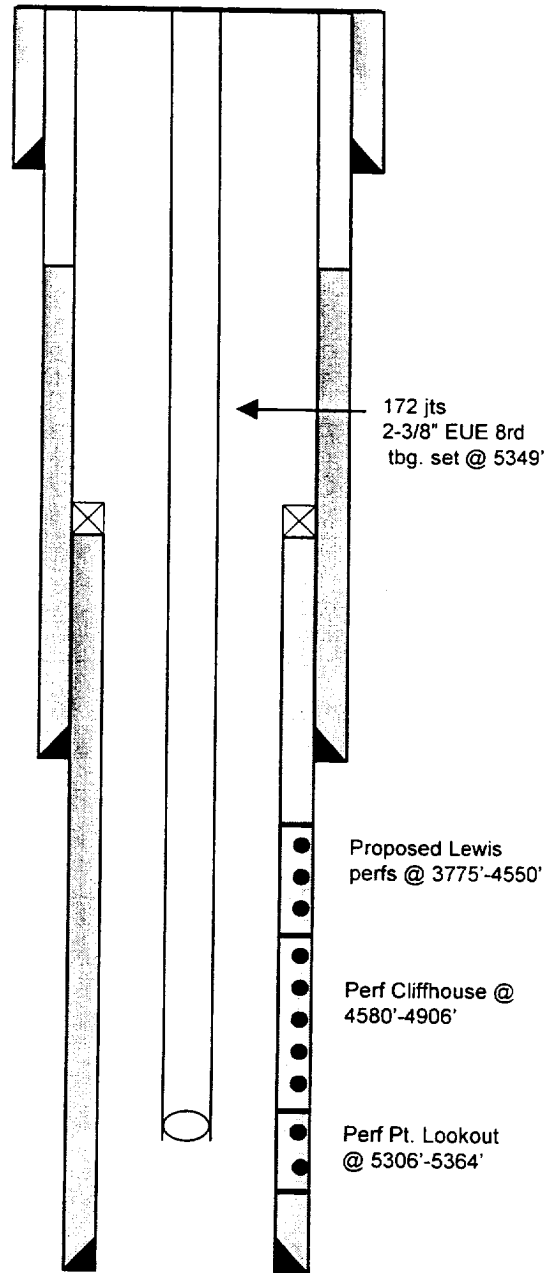
Formation Tops at:

Ojo Alamo	N/A
Pictured Cliffs	N/A
H. Bentonite	3768'
Cliffhouse	4574'
Menefee	4909'
Pt. Lookout	5238'

173 JTS. 2-3/8" EUE 8rd  
Tbg. Set at 5385'.

PBTD @ 5565'  
TD @ 5600'

Proposed Schematic



PBTD @ 5565'  
TD @ 5600'