UNITED STATES

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT REPORT TO

	83 M		
Sundry Not:	ices and Reports on Wells		
L. Type of Well	99 JUN 21 PM 1: 44	5.	Lease Number SF-078509 If Indian, All. or
GAS		1 7.	Tribe Name Unit Agreement Name
Name of Operator BURLINGTON RESOURCES OIL	GAS COMPANY N JUL - 2 1999)	San Juan 32-9 Unit
	DU DU	Ŭø.	Well Name & Number
3. Address & Phone No. of Opera PO Box 4289, Farmington, NM	tor 87499 (505) 320 9700 DISTO 3	9.	San Juan 32-9 U #33. API Well No. 30-045-23312
4. Location of Well, Footage, S 1420'FNL, 810'FWL Sec.6, T-3	ec., T, R, M 1-N, R-9-W, NMPM		Field and Pool Blanco Mesaverde County and State
	F		San Juan Co, NM
12. CHECK APPROPRIATE BOX TO IN	DICATE NATURE OF NOTICE, REPORT,	OTHER	DATA
Type of Submission	Type of Action		
X Notice of Intent	Abandonment Change Recompletion New Con	or Pr	tion
Subsequent Report	Recomplection New conditions Non-Rou	tine	Fracturing
Subsequenc Report	Casing Repair Water S	hut o	ff
Final Abandonment	Altering Casing Convers X_ Other - Payadd	ion t	o Injection
13. Describe Proposed or Comp	oleted Operations		
It is intended to add pay and wellbore diagram.	y to the subject well according to	the	attached procedure
			•
	e foregoing is true and correct. L d Title Regulatory Administrate	or Dat	ce 6/21/99
(This space for Federal or State APPROVED BY /S/Duane W. Spence CONDITION OF APPROVAL, if any:	te Office use) Team Lead, Petroleum Managem Di		JUN 3 0 1999

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.



Lewis Payadd Procedure Unit F, Section 06, T-31N, R-9 W

Lat: 36° 55.8106' Long: 107° 49.4302'

This well is currently completed in the Cliff House, Menefee, and Point Lookout. It is intended to add the Lewis to the existing Mesaverde production. The Lewis will be sand fracture stimulated in two stages using 100,000 lbs 20/40 sand and 70Q 20 lb linear gel in each stage. Foam is to be used to limit fluid damage to the Lewis and aide in the flowback. The flowback choke schedule is to be used to ensure that proppant remain in the fractures.

- > Comply with all BLM, NMOCD, and BR rules and regulations.
- > Hold safety meetings.
- > Place fire safety equipment in strategic locations.
- > Inspect location and test rig anchors.
- Dig flowback pit or set flowback tank.

Equipment Needed:

- (5) Frac Tanks with 2% KCl water
- (1) 4-1/2" Tree Saver
- (1) 5000# Frac Valve 4-1/16"
- (2) 4-1/2" CIBP
- (1) 4-1/2" RBP
- (1) 4-1/2" Packer

PROCEDURE:

- MIRU. Record and report SI pressures on tubing, casing, and bradenhead. Lay blowdown line and blow well down. Kill well with 2% KCI water. ND WH, NU BOP. Test and record operation of rams. NU blooie line and 2-7/8" relief line. Redress production wellhead as needed.
- TOOH w/ 2-3/8" 4.7# J-55 tubing set at 6120' (SN @ 6089'). Visually inspect tubing, note and report any corrosion and/or scale in/on tubing. Replace bad joints as needed.
- 3. RU wireline. Run 4-1/2" gauge ring to 5000'. If ring tags up before 5000', TIH with 3-7/8" Bit, 4-1/2" 10.5# casing scraper on 2-3/8" tubing and CO to 5000'. TOOH. TIH with 4-1/2" CIBP on 2-3/8" tbg and set CIBP @ ± 5000'. Load hole w/ 2% KCI water.
- 4. Run GR-CBL-CCL w/ 1000 psi from 5000' to TOC' (TOC ~ 3400' by TS) correlate to old Induction-Gamma Ray Log. Contact Michele Quisel and Drilling to evaluate CBL.
- 5. Pressure Test casing and CIBP to 3800 psi. (80% burst of 4-1/2" 10.5# J-55 csg).

1st Stage Lewis:

 Perforate Lower Lewis as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at 1 SPF and 120° phasing (Avg. perf diameter – 0.30", Avg. penetration – 16.64" in concrete). Correlate to new GR-CBL-CCL.

> 4897' - 4907', 4810' - 20', 4770' - 80', 4700' - 10, 4665' - 70' 4630' - 35,

For a total of 56 holes. RD wireline.

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7. TIH with 4-1/2" RBP, on/off tool and 4-1/2" packer on 2-3/8" tubing.

Set RBP at RBP setting depth. PUH \pm 10 ft and set Packer. RU stimulation company and pressure test RBP and lines to 3800 psi. Release packer, and reset packer at Packer Setting Depth. Breakdown perforations and establish an injection rate between 8 and 10 BPM with 200 gals of Acetic Acid + 5% NH4Cl **. Breakdown to the Max pressure of 3800 psi. Release packer and RBP. Repeat for the remaining intervals.

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

1000 gal 10% Acetic Acid
2 gal MSA II corrosion inhibitor
5% NH₄CL clay control

RBP Setting Depth	Packer Setting Depth	Perforation Intervals					
4940	4870	4897-4907					
4850	4740	4810-20, 4770-80,					
4740	4600	4700-10, 4665-70, 4630-35					

- 8. TOOH w/ RBP, Packer, and 2-3/8" tubing.
- 9. Install 4-1/2" Tree Saver and 4-1/16" -- 5000 psi frac valve. Pressure Test surface lines to 4800 psi. Fracture stimulate Lower Lewis with 100,000 lbs 20/40 sand in 74,862 gals 70Q 20 lb linear gel at a MAXIMUM RATE OF 40 BPM in 1.0 to 4.0 ppg stages. Tag sand with 3 radioactive isotopes. Estimated friction pressure is 1700 psi @ 40 BPM. Maximum Surface Treating Pressure is 3800 psi.

Stage	BH Sand Conc.	Stage Sand !bs	BH Rate	BH Foam <u>Qual.</u>	Clean Foam Volume gals	Clean Liquid Volume gals	Nitrogen Rate <u>scf/min</u>	Stage N2 <u>mscf</u>
Pad		0	40	80%	17,000	3,400	23,701	239.8
2	1	10,000	40	70%	10,000	2,000	19,834	82.2
3	2	20,000	40	70%	10,000	2,000	19,005	82.1
4	3	40,000	40	70%	13,333	2,667	18,243	109.4
5	4	30,000	40	70%	7,500	1,500	17,539	61.5
Flush		0	40	0%	17,028	17,028	0	0.0
-	<u>L., , , , , , , , , , , , , , , , , , , </u>	Total lbs.	Avg. Rate	Avg. Qual.	Total gallons	Total Gallons	Avg. N2 Rate	Total mscf
		100,000	40.0	60%	74,862	28,595	16,387	575

Slow rate during flush. Flush to top perf with KCl water. Record ISIP, 5, 10 and 15 minute shut-in pressures. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-flowbean or dual-choke manifold. Begin flowback when stimulation company is rigged down. Open well to pit in 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 2nd flowbean or adjustable choke and open adjustable choke or place correct size flowbean on manifold to pre-determined size listed in table and begin flowing through adjustable choke or 2nd flowbean. Close ball valve upstream of positive flow bean and change out

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flow bean to next larger size in table. Open ball valve upstream of positive flow bean and begin flowing. Close ball valve upstream of 2^{nd} flowbean or adjustable choke.

40+ hour Flowback

16/64" Choke	From Shut-in – Until 2/3 of flush volume has been recovered (Approximately 270 BBL).
10/64" Choke	Approximately 3 hrs.
12/64" Choke	Approximately 3 hrs.
14/64" Choke	Approximately 3 hrs.
16/64" Choke	Approximately 4 hrs.
18/64" Choke	Approximately 4 hrs.
20/64" Choke	Approximately 4 hrs.
22/64" Choke	Approximately 4 hrs.
24/64" Choke	Approximately 4 hrs.
32/64" Choke	Approximately 5 hrs.
48/64" Choke	Approximately 5 hrs.

NOTE: Follow this schedule to utilize a 40+ hour flowback. If well begins to slug or make large amounts of sand to surface, drop to next lower choke size. If well begins to taper off in liquid production (mostly N_2), change to next larger choke size before time schedule dictates.

- 10. RU Wireline, RIH w/ 4-1/2" CIBP and set CIBP @ ± 4600'. Pressure test casing and CIBP to 3800 psi.
- 11. Perforate Upper Lewis as follows using select fire HSC guns loaded with Owens HSC-3125 302T 10 gram charges set at 1 SPF and 120° phasing (Avg. perf diameter 0.30", Avg. penetration 16.64" in concrete). Correlate to new GR-CBL-CCL.

4555' - 65', 4470' - 80', 4430' - 40', 4395' - 4400', 4280' - 90', 4260' - 65'

For a total of 56 holes. RD wireline.

12. TIH with 4-1/2" RBP, on/off tool and 4-1/2" packer on 2-3/8" tubing.

Set RBP at RBP setting depth. PUH ± 10 ft and set Packer. RU stimulation company and pressure test RBP and lines to 3800 psi. Release packer, and reset packer at Packer Setting Depth. Breakdown perforations and establish an injection rate between 8 and 10 BPM with 200 gals of Acetic Acid + 5% NH4Cl **. Breakdown to the **Max pressure of 3800 psi.** Release packer and RBP. Repeat for the remaining intervals.

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

1000 gal 10% Acetic Acid 2 gal MSA II corrosion inhibitor

5% NH₄CL clay control

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RBP Setting Depth	Packer Setting Depth	Perforation Intervals
4590	4450	4555-65, 4470-80
4460	4375	4430-40, 4395-4400
4320	4230	4280-90, 4260-65

- 13. TOOH w/ RBP, Packer, and 2-3/8" tubing and stand back.
- 14. Install 4-1/2" Tree Saver and 4-1/16" -- 5000 psi frac valve. Pressure Test surface lines to 4800 psi. Fracture stimulate Upper Lewis with 100,000 lbs 20/40 sand in 73,358 gals 70Q 20 lb linear gel at a MAXIMUM RATE OF 40 BPM in 1.0 to 4.0 ppg stages. Tag sand with 3 radioactive isotopes. Estimated friction pressure is 1700 psi @ 40 BPM. Maximum Surface Treating Pressure is 3800 psi.

Stage	BH Sand Conc. ppg	Stage Sand <u>Ibs</u>	BH Rate bpm	BH Foam Qual.	Clean Foam Volume gals	Clean Liquid Volume gals	Nitrogen Rate <u>scf/min</u>	Stage N2 <u>mscf</u>
Pad		0	40	80%	17,000	3,400	21,985	222.5
2	1	10,000	40	70%	10,000	2,000	18,398	76.3
3	2	20,000	40	70%	10,000	2,000	17,629	76.2
4	3	40,000	40	70%	13,333	2,667	16,922	101.5
5	4	30,000	40	70%	7,500	1,500	16,269	57.1
Flush		0	40	0%	15,525	15,525	0	0.0
	<u> </u>	Total	Avg.	Avg.	Total	Totai	Avg.	Total
		lbs.	Rate	Qual.	gallons	Gallons	N2 Rate	mscf
		100,000	40.0	60%	73,358	27,091	15,200	533

Slow rate during flush. Flush to top perf. Record ISIP, 5 minute, 10 minute, and 15 minute pressures. Shut-in frac valve. RD stimulation company. Install flowback line above frac valve. Lay flowback line to dual-flowbean or dual-choke manifold. Begin flowback when stimulation company is rigged down. Open well to pit in 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 2nd flowbean or adjustable choke and open adjustable choke or place correct size flowbean on manifold to pre-determined size listed in table and begin flowing through adjustable choke or 2nd flowbean. 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 or adjustable choke.

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40+ hour Flowback

16/64" Choke	From Shut-in - Until 2/3 of flush
10/04 CHORC	volume has been recovered
	(Approximately 246 BBL).
10/64" Choke	Approximately 3 hrs.
12/64" Choke	Approximately 3 hrs.
14/64" Choke	Approximately 3 hrs.
16/64" Choke	Approximately 4 hrs.
18/64" Choke	Approximately 4 hrs.
20/64" Choke	Approximately 4 hrs.
22/64" Choke	Approximately 4 hrs.
24/64" Choke	Approximately 4 hrs.
32/64" Choke	Approximately 5 hrs.
48/64" Choke	Approximately 5 hrs.

NOTE: Follow this schedule to utilize a 40+ hour flowback. If well begins to slug or make large amounts of sand to surface, drop to next lower choke size. If well begins to taper off in liquid production (mostly N₂), change to next larger choke size before time schedule dictates.

- RD Tree Saver and valveTlH w/ 3-7/8" bit on 2-3/8" tubing and CO to CIBP @ 4600'. Monitor gas 15. and water returns. When sand and water allow (less than 5 BPH and trace sand), take a Upper Lewis pitot gauge. DO CIBP @ 4600' with a minimum of 12 BPH mist rate.
- CO to CIBP @ 5000'. Monitor gas and water returns. When sand and water allow (less than 5 16. BPH and trace sand), take a complete Lewis pitot gauge. DO CIBP @ 5000' with a minimum of 12 BPH mist rate.
- Continue to CO to PBTD with air. Blow well at PBTD to check water rates. If needed continue to 17. blow well for clean up. When water rates are below 5 BPH and there is no sand production, TOOH.
- TIH with an expendable check, one 2-3/8" joint, seating nipple, and remaining production tubing. 18. Broach tubing while running in hole. CO with air/mist to PBTD again, if necessary. Obtain final Lewis/Cliff House/Menefee/Point Lookout pitot gauge. Land tubing at + 6120'. ND BOP. NU WH. Pump off expendable check. RDMO. Contact Production Operations for well tie-in.

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19. RU	Pro-Technics. Ru	ın After Fra	ac Log across Le	wis (500	0' - 4100'). RD Pro-Technic	S
Recommer	nded: <u>Michela</u> Production	S. Cruis n Engineer	Approv	ed:	Drilling Superintendent	
		6	Approv	ed:		
					Team Leader	
Contact:						
Michele Qu	uisel 324-6162 (W	ORK)	326-8196(PAGE	ER)	564-9097(HOME)	
\/amdama	\A/ireline:	Black V	Varrior	326-666	39	

Black Warrior

Wireline:

Vendors:

1420' FNL, 810' FWL Unit F Sec. 06, T-31 R-09W San Juan County, New Mexico

KB 6656

GL 6646

Lat: 36o 55.8106'

Long: 107o 49.4302'

