State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Sundry Notices and Reports on Wells

API # (assigned by OCD)
30-039-05692

1. **Type of Well**
GAS

5. **Lease Number**

6. **State Oil&Gas Lease #**
E-505-5

2. **Name of Operator**
BURLINGTON RESOURCES **OIL & GAS COMPANY**

7. **Lease Name/Unit Name**
Canyon Largo Unit

8. **Well No.**
#99

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

9. **Pool Name or Wildcat**
Ballard PC

4. **Location of Well, Footage, Sec., T, R, M**
890'FSL, 1140'FWL, Sec.36, T-25-N, R-7-W, NMPM, Rio Arriba County, NM

10. **Elevation:**

Type of Submission	Type of Action	
_X_ Notice of Intent	___ Abandonment	___ Change of Plans
	___ Recompletion	___ New Construction
___ Subsequent Report	___ Plugging Back	___ Non-Routine Fracturing
	___ Casing Repair	___ Water Shut off
___ Final Abandonment	___ Altering Casing	___ Conversion to Injection
	_X_ Other - Restimulation	

13. Describe Proposed or Completed Operations

It is intended to restimulate the subject well according to the attached procedure and wellbore diagram.

RECEIVED
JUL 26 1999
OIL CON. DIV.
DIST. 3

SIGNATURE Peggy Bradfield Regulatory Administrator July 22, 1999

trc

(This space for State Use)

Approved by ORIGINAL SIGNED BY CHARLIE T. PERRIN Title ~~ORIGINAL SIGNED BY CHARLIE T. PERRIN~~ DEPUTY OIL & GAS INSPECTOR, DIST. #3 Date JUL 26 1999

Canyon Largo Unit #99
Pictured Cliffs Slimhole Restimulation Procedure
M 36 25N 07W
Rio Arriba County, N.M.
Latitude: 36 Deg, 21.12 Min
Longitude: 107 Deg, 31.87 Min
API # 300390569200

Summary:
The subject well is a 1960 Pictured Cliffs slimhole completion through 2 7/8" casing. The casing did not test during rigless testing operations. The casing leak will now be isolated and a free point will be run to determine if casing is free below the leak. If so, the casing will be backed off as deep as possible. New casing will be run and tied back in. (If the Ojo Alamo is not isolated and the BLM requires a squeeze job,the procedure will be written at that time.) The new casing will then be pressure tested to 3700 psi and the cased hole interval will be cleaned-out to PBTD at 2,350' using air-mist and 1-1/4" drillstring. The Pictured Cliffs will be restimulated with 56,688 gal of 70Q N_2 foamed 30# linear guar gel and 175,000# 20/40 mesh sand. The well will then be cleaned-up and returned to production. This well will be completed as a Type "B" well.

- 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. 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.

CASING REPAIR

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. ND wellhead and NU 7-1/16" 3M BOP, stripping head, and blooie line. Test BOP.

2. PU and TIH with a 2-7/8" RBP and 1-1/4" tubing. Set RBP above top perf (2312'). Release from BP. Spot 10' of sand on BP. TOOH.

3. PU 1 jt. 2-7/8" tubing and screw into casing. MIRU wireline specialties. Freepoint 2-7/8" casing.

4. PU 2-7/8" packer. TIH with 2-7/8" packer on 1-1/4" tubing. Set packer above bridge plug and test to 2000 psi. Release packer, TOOH, and set packer at lowest 100% freepoint in casing. Pressure test casing to 2000 psi below and above packer. Release packer and TOOH. If casing leak is below packer, RDMO. If leak is above packer continue with step 5.

5. RIH with stringshot. Back off casing at lowest joint 100% free. RDMO wireline specialties.

6. Circulate hole clean. TOOH and lay down old 2-7/8" casing.

7. PU and TIH with new 2-7/8" casing. Screw in to existing casing.

8. Pressure test casing to 3700 psi for 15 minutes. (If casing can not be screwed into or pressure tested to 3700 psi on first attempt contact Drilling Superintendent and Production Engineer to discuss procedure to run a Bowen casing patch.)

9. TIH with 1-1/4" tubing. Clean out to top of RBP. Latch on to 2-7/8" RBP and TOOH. Lay down RBP. TIH. CO to PBTD. TOOH and lay down 1-1/4" tubing.

10. RDMO.

RIGLESS PROCEDURE

11. Install 2 7/8 In. 6.5 # N-80 EUE 8rd sub and 5000 psi frac valve. Lay flowback line to pit.

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12. Set two (2) 400 bbl frac tank(s) on location and fill with 640 bbl 2% KCl water. Treat tank with biocide prior to filling. Heat gel tank to 60-70 °F in winter.

13. RU stimulation company to frac down 2 7/8" casing. Hold pre-job safety meeting with all personnel on location. Pressure test surface lines to 4700 psi for 15 minutes. Breakdown perforations by bullheading 200 gals 15% inhibited acid ahead of fracture stimulation. Acid will contain the following additives:

    - 1 gal/M A261 (corrosion inhibitor)
    - 2 gals/M F-75 (surfactant)

    Fracture stimulate in 1.0 to 4 ppg stages at 35 BPM constant downhole rate with 56,688 gal of 70Q N_2 foamed 30# linear guar gel and 175,000# 20/40 mesh Arizona sand. **Maintain a bottom hole frac gradient of 0.65 psi/ft throughout job.** When sand is in hopper and the concentration begins to drop, call flush. **Maintain previous stage's slurry and N2 rates. Quick flush to 100 ft. above top perforation with +/- 219 fluid gals.** Maximum treating pressure is 3700 psi. Monitor bottomhole treating pressure, surface treating pressure, downhole rate, foam quality, and sand concentration with computer van. Treat per the following schedule:

Stage	Foam Volume (gal)	Clean Gel Volume (gal)	Sand Volume (lbs)	Type
Pad	3,100	930	0	
1 ppg	2,000	600	2,000	20/40 Az
2 ppg	3,000	900	6,000	20/40 Az
3 ppg	25,200	7,560	75,600	20/40 Az
4 ppg	22,850	6,855	91,400	20/40 Az
Flush	(538)	(219 @ 59% N2)	0	
Totals	**56,688**	**17,064**	**175,000**	

Treat frac fluid with the following additives per 1000 gallons:

- 30# J8-77 (Gelling agent pre-mixed in full tank)
- 1.0# J-134 (Enzyme breaker mixed on fly)
- 1.0# J-218 (Oxidizer breaker mixed on fly)
- 5.0# gal F-52.1 (Foamer mixed on fly)
- 0.3# M-275 (Bacteriacide pre-mixed in full tank)

14. Shut well in after frac and record ISIP. Empty remaining fluid in frac tanks to pit and RD stimulation company. Install flowback line above frac valve. Wait for 30 minutes to 1 hour before commencing flowback. Open well to pit in accordance to **flowback schedule enclosed in procedure.** If choke plugs off, shut well in and remove obstruction from choke and return to flowback schedule. **Do not replace with next larger choke size until schedule dictates.** Continue cleaning well up until fluid returns are negligible. **Take pitot gauges when possible.**

15. ND flowback line and frac valve. NU production valve with flow tee. NU flowback line.

SWAB RIG CLEAN-UP

16. MIRU Silver Star. PU and RIH with 2 1/4" sand bailer. CO to PBTD at 2350'. Monitor gas and water returns. **Take pitot gauges when possible.**

17. Continue cleaning up after frac until sand returns are a trace and fluid recovery is less than 2 BPH. TOOH. **Take final pitot gauge.**

18. RD and release swabbing unit.

Approve: Scw for DEC 7/8/99
Team Leader

Approve: _____
Drilling Superintendent

VENDORS:

Stimulation:	Dowell-Schlumberger	325-5096	
Wireline:	Black Warrior	326-6669	
IsolationTool, Frac Valve, & Flowback Line:	Dean Lingo	330-0144	
Scott Dobson	Office - 326-9813	Home - 564-3244	Pager - 326-8036
Marvin Webb	Office - 326-9892	Home - 326-3659	Pager - 564-1662

Nitrogen Foam Stimulation Procedure
Burlington Resources

General Information

Well Name:	Canyon Largo Unit #99
Location:	M 36 T25N R07W
Formation:	Pictured Cliffs
Vendors	
Stimulation:	DS
Tagging:	
Fluid:	70Q N2 Foamed 30# Linear Gel
Note:	Water is city water @ pH of 7.3 with 2% KCl (supplied by BR)

Well Configuration

Csg:	2 7/8", 6.5# J-55		
Tbg:	Packer @		ft
Capacity:	0.00579	bbl/ft	Csg
		bbl/ft	Tbg
PBTD:	2350 ft	Vol. to:	(gals)
T Perf:	2312 ft	- 100'	538
B Perf:	2332 ft	T Perf:	562
Midpnt:	2322 ft	B Perf:	567

Perforations

1 spf	0.31 " holes
56 holes	18.00 " penetration

Formation and Stimulation Data

Frac Gradient:	0.65 psi/ft
BH Temp:	100 deg. F
Antic. BH Treating Pres:	1,509 psi
Antic. Surf. PSI:	3,000 psi
Foam Quality:	70%
Nitrogen GLR:	530 scf/bbl
BH Foam Rate:	35 bpm
Percent Pad:	6%
Net Pay:	70 ft
lb prop/net ft pay:	2,500 lb/ft
Job Duration:	43.9 min

Stimulation Schedule
Mitchell Quality

Stage	BH Sand Conc. ppg	Sand Mesh	Stage Sand lbs	BH Rate bpm	BH Foam Qual.	Clean Foam Volume gals	Clean Liquid Volume gals	Stage Clean Rate bpm	Blender Sand Conc. ppg	Stage Slurry Volume gals	Slurry Rate bpm	Nitrogen Rate scf/min	Stage N2 mscf	Stage Time min
Pad			0	35	70%	3,100	930	10.5	0.0	930	10.5	12,989	27.4	2.1
2	1	20/40	2,000	35	70%	2,000	600	10.0	3.3	690	11.6	12,423	17.7	1.4
3	2	20/40	6,000	35	70%	3,000	900	9.6	6.7	1,171	12.5	11,903	26.5	2.2
4	3	20/40	75,600	35	70%	25,200	7,560	9.2	10.0	10,978	13.4	11,426	222.1	19.4
5	4	20/40	91,400	35	70%	22,850	6,855	8.9	13.3	10,988	14.3	10,985	201.3	18.3
Flush			0	35	59%	538	219	14.3	0.0	219	14.3	10,985	4.0	0.4
			Total lbs.	Avg. Rate	Avg. Qual.	Total gallons	Total Gallons	Avg. Rate	Avg. SC	Total Gallons	Avg. Rate	Avg. N2 Rate	Total mscf	Total Time
			175,000	35.0	68%	56,688	17,064	10.4	6.7	24,978	12.8	11,785	499	43.9

Schedule maintains constant bottom-hole rate.

Volumes and Additives

Water Volume:	17,064	treat +	1,706	excess	18,771	gals. (BR)
Water Volume:	406	treat +	41	excess	447	bbls. (BR)
Fluid Volume:	447 bbls needed for stimulation					
20/40 Arizona Sand:	175,000 lbs					
Nitrogen Volume:	499 mscf (w/o cooldown)					
Base Fluid:	30# linear guar gel in 2% KCl (BR), pre-mixed in tank					
Foamer:	5 gal/M (mix on fly)					
Breaker:	1#/M enzyme (mix on fly) & 1#/M oxidizer (mix on fly)					
Bacteriacide:	0.38#/M added to each tank prior to filling with water					
Acid:	200 gal 15% HCl with additives (see procedure)					

Radioactive Tagging

None	None	None

Equipment

Tanks:	2 x 400 bbl frac tank(s) (supplied by BR)
Water:	447 bbls 2% KCl water (supplied by BR)

Computer Van
Sand Master
Blender
Fluid Pumps as required
Nitrogen Pumps as required
Quality Control Equipment

Comments and Special Instructions

MAXIMUM ALLOWABLE TREATING PRESSURE IS: **3,700 PSI**

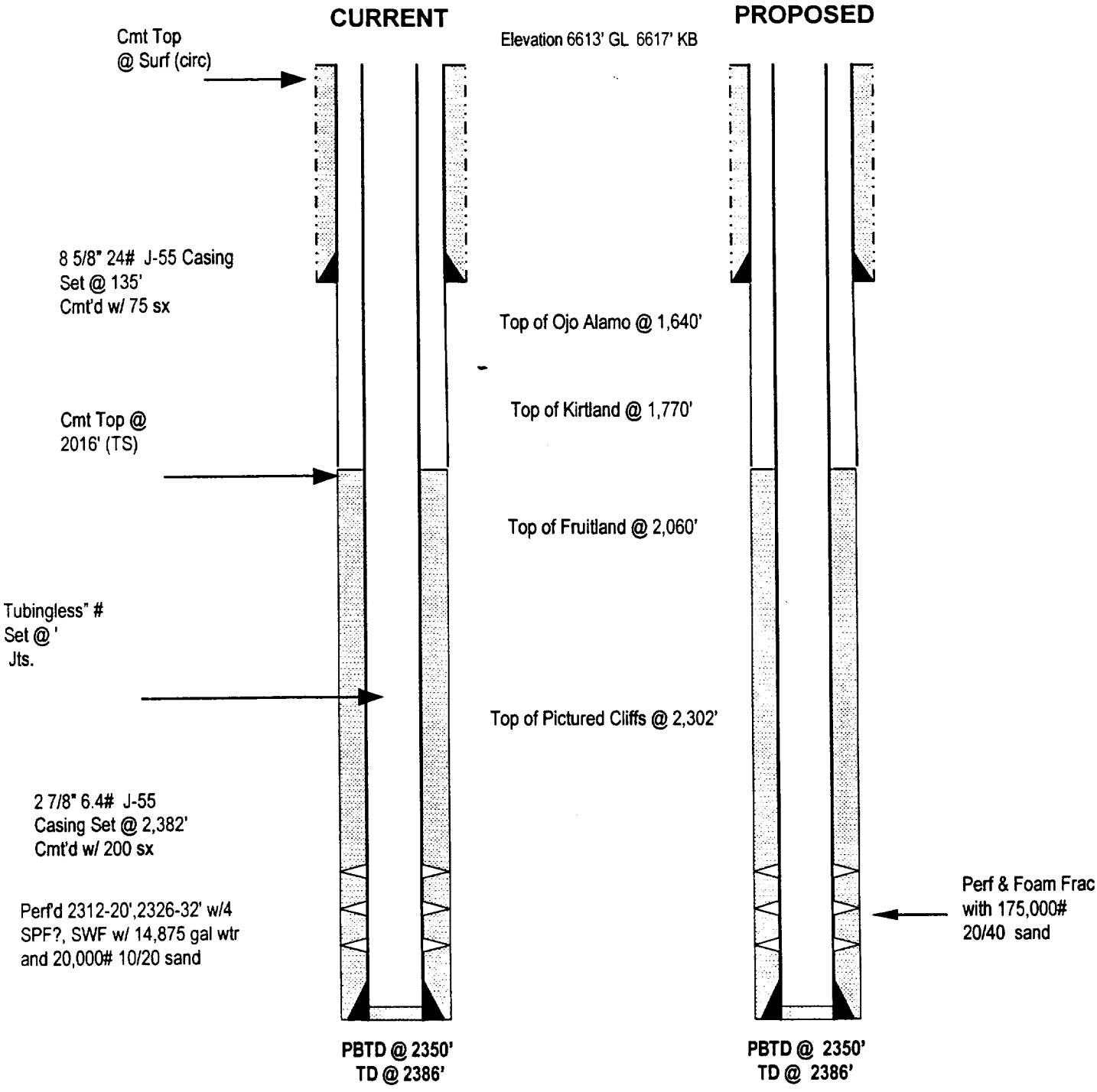
Hold safety meeting with everyone on location before pressure testing surface lines.
Pressure test surface lines to 1000 psi over maximum allowable pressure but less than working pressure.
Mileage - 45 miles one way
RTS at 7 am on day #1

Scott Dobson **7/6/99 10:22**

Canyon Largo Unit # 99

Section 36 M, T-25 -N R-07 -W
Rio Arriba, New Mexico

Ballard Pictured Cliffs Field
Wellbore Schematic



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PICTURED CLIFFS
FLOW BACK TABLE

Well head Pressure, psi	Choke Size, x/64 in.
over 700	8
700	10
450	12
300	14
200	18
100	32

Well should be flowed back according to the above schedule.
Once the lower pressure is obtained, or if the well is blowing dry, the next larger choke size should be used.
Once the Well Head pressure drops below 100 psi, choke sizes should be gradually increased from 32 to 48.
Maximum Choke size to be used during flowback and sand bailer operation is 48/64". No larger choke should be used.