

submitted in lieu of Form 3160-5

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
BLM

Sundry Notices and Reports on Wells

55 OCT 24 PM 4:17

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

900' FSL, 1840' FEL, Sec. 31, T-31-N, R-8-W, NMPM

5. Lease Number  
SF-078387

6. If Indian, All. or  
Tribe Name

7. Unit Agreement Name

8. Well Name & Number  
Howell D #3A

9. API Well No.  
30-045-21770

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

☒ 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 repair the casing in the subject well and add pay to the Mesaverde formation according to the attached procedure and wellbore diagram.

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OIL CON. DIV.  
DIST. 3

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

Signed Duane W. Spencer (SBD6) Title Regulatory Administrator Date 10/23/96

(This space for Federal or State Office use)

APPROVED BY \_\_\_\_\_ Title \_\_\_\_\_

CONDITION OF APPROVAL, if any:

APPROVED

OCT 25 1996

/S/ Duane W. Spencer  
DISTRICT MANAGER

NMOCD

## HOWELL D #3A

Meridian Oil, Inc.  
Blanco Mesaverde  
Unit O-Sec 31-T31N -R08W

Lat: 36° 50' 59"

Long: 107° 42' 47"

### CAPITAL WORKOVER PROCEDURE

- 
- Comply with all BLM, NMOCD, & MOI rules & regulations.
  - **Always Hold Safety Meetings.** Place fire and safety equipment in strategic locations.
  - 2-7/8" N-80 Buttress Frac String (5300' +/- required).
  - Fifty (50) joints 2-3/8" 4.7# EUE J-55 tubing and six (6) 3-1/8" drill collars on location
  - 14 frac tanks to be spotted and filled with 2% KCl water. (*During Restimulation Phase*)
  - Use drill gas for all operations.
- 

*This well is a 1996 obligatory well in which the Mesaverde production will be reestablished by cleaning out and repairing the casing initially. After the casing is repaired the well will be returned to production and tested on compression for 90-120 days. Once a base production profile has been reestablished a restimulation of existing Point Lookout, Menefee & Cliff House will be performed. The well was drilled and completed in 1976. The original stimulation consisted of a two fracs in the Point Lookout and Cliff House/Menefee intervals. The well has been inactive since 1991 and currently has a BLM demand. The EUR indicated by the P/Z graph for this well shows considerable potential exists if production can be reestablished and optimized. Cumulative Mesaverde production is 1,448 MMCF/ 7.7 MBO. It is expected that a leak exists in the Intermediate (7") or the tubing is plugged. Note: Fluid level is currently 4,885'.*

#### **Casing Repair/Workover:**

Prior to rig arriving, the location is to be cleared, blue staked, and anchors installed and tested.

1. MIRU. Record and report SI pressures on tubing, casing, & bradenhead. Lay blowdown line. Blow down casing & tubing. Kill well w/ 2% KCl down tubing. ND WH, NU BOP.
2. TOOH, rabbit, & strap 182 joints 2-3/8" tubing (from 5735', tally attached). Visually inspect tubing, note any scale in tubing. Replace any damaged joints. Utilize tubing for 2-3/8" workstring.
3. PU 3 7/8" bit and casing scraper, float, six (6) 3-1/8" drill collars & 2-3/8" 4.7# J-55 EUE workstring. Clean out w/ gas to 5778' +/- . Load hole w/ 30 bbls 2% Kcl. TOOH with bit & collars.
4. RU wireline, run GR-CBL-CCL from 5778' to 4800'.
5. RU wireline, TIH & set CIBP @ 4900'+/-
6. Pressure test entire casing string to 1000 psi for 10 minutes monitoring intermediate casing and bradenhead. If PT does not hold, locate leak(s). TOOH. Consult engineering in designing squeeze procedure.
7. RU wireline, run GR-CBL-CCL from 4900' to surface under as much pressure as possible (up to 1000 psi surface pressure).

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8. PU 7" packer on 2 3/8" workstring, TIH and isolate and identify casing leaks. Complete all squeeze cementing operations. WOC recommended time. Drill out cement. Pressure test to 1000 psi. If casing integrity still not sound, identify leaks, & engineering will recommend squeeze procedure & modify work as necessary.
9. When squeeze cementing & casing repair is complete, drill out CIBP @ 4900'. Clean out to PBTD @ 5778'. TOO H, lay down drill collars and bit,
10. Run production tubing string as follows for Mesaverde: expendable check, one joint 2-3/8" tubing, 1.81" 'Seating' nipple, and remaining tubing. Rabbit tubing while TIH. Land tubing @ 5735'.
11. ND BOP, NU WH. Pump off expendable check and flow well up tubing obtain Mesaverde production gauge. RD & release rig to next location. Return well to production. Produce well for 90-120 days. SI well & perform 21 day build-up test prior to restimulation pay add.

### ***Point Lookout Restimulation:***

1. MIRU. Record and report SI pressures on tubing, casing, & bradenhead. Lay blowdown line. Blow down casing & tubing. Kill well w/ 2% KCl down tubing. ND WH, NU BOP.
2. TOO H, rabbit, & strap 182 joints 2-3/8" tubing (from 5735'). Visually inspect tubing, note any scale in tubing. Replace any damaged joints. Utilize tubing for 2-3/8" workstring.
3. PU 3-7/8" bit and casing scraper, float, six (6) 3-1/8" drill collars & 2-3/8" 4.7# J-55 EUE workstring. Clean out w/ gas to 5778' +/- . Load hole w/ 10 bbls 2% Kcl, spot 300 gallons inhibited 15% HCl acid across Point Lookout. TOO H with bit & collars.
4. RU wireline under packoff. Perforate Point Lookout top-down in acid @ the following depths with 3 1/8" HSC gun w/ 19.7g charges (0.45" hole,) 1 SPF @ 180 degree phasing.

**5400', 5402', 5404', 5406', 5408',**

**5410', 5412', 5414', 5416', 5418',**

**5436', 5438', 5484', 5486', 5488',**

**5490', 5492', 5494', 5496', 5498',**

**5580', 5582', 5584', 5624', 5678',**

**5680', 5730', 5732'**

**(28 total holes , 332' of interval, Note: 14 0.31" perfs are currently open, 5405'-5736' )**

5. PU 4-1/2" FB PKR, 1.81" profile nipple, 12 joints 2-3/8" 4.7# N-80 tubing, 2-3/8" x 2-7/8" buttress changeover, 2.25" profile nipple, and 2-7/8" 8.7# N-80 Buttress frac string. **Set PKR @ 5300' +/- (perfs f/ 5400' - 5736'). NOTE: (10 0.31" Perfs in Backside 4948' - 5276')**
6. RU stimulation company. Pressure test surface lines to 7500 psi. **Max surface treating pressure = 6500 psi.** Prepare to break down Point Lookout w/ 500 gals inhibited 15% HCl acid and 84 7/8" 1.3 s.g ball sealers. Attempt to achieve 20 BPM on breakdown, go higher if possible. Release pressure, RD stimulation company. Release PKR & TIH knocking balls below bottom perforation. TOO H.

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7. PU 4-1/2" packer system on 2-7/8" tbg. Zone isolation system will cover existing Cliffhouse / Menefee perforations f/ 4948'- 5277'. Upper packer to be set @ 4918'+/-, lower packer @ 5290'+/-, with 11 jts (+/- 372') of 2-3/8" 4.7# N-80 tbg in between packers. Run 2 jts 2-3/8" tbg above top packer, change over to 2-7/8".
8. RU stimulation company. Pressure test surface lines to 7500 psi. **Maximum STP = 6500 psi.** Hold 500 psi on annulus. Fracture stimulate the Point Lookout w/ 100,000# 20/40 Arizona sand in 2% KCl slickwater. Sand will be traced with Ir-192. See attached frac schedule for details. *(6 frac tanks needed)* Rig down frac company, flow well back on 1/4" choke as needed to release packer.
9. Release PKR & TOOH standing back 2-7/8" N-80 tubing. Change out rams to 2-3/8".
10. TIH w/ 3-7/8" bit on 2-3/8" tubing and clean out to **5350'+/-**. TOOH.
11. RU wireline under packoff. Make 4-1/2" gauge ring run to 5350'. Set 4-1/2" **CIBP @ 5300'+/-**. RD wireline.

### ***Cliff House / Menefee Restimulation:***

1. TIH w/ 4-1/2" FB PKR on 2-7/8" and test CIBP to 3800 psi. Release packer, spot 300 gallons inhibited 15% HCl acid. TOOH.
2. Perforate Cliff House / Menefee top-down in acid @ the following with a 3-1/8" HSC gun w/ 19.7g charges (0.45" hole), 1 SPF @ 180 degree phasing. Engineering may modify perforations based upon bond character.

**4870', 4872', 4874', 4878', 4880',  
4896', 4898', 4914', 4920', 4944',  
4946', 4962', 4964', 4996', 5002',  
5004', 5008', 5010', 5012', 5014',  
5024', 5026', 5028', 5032', 5034',  
5036', 5040', 5042', 5044', 5046',  
5048', 5052', 5072', 5074', 5124',  
5128', 5130', 5132', 5170', 5172',  
5230', 5232', 5268', 5270', 5272',  
5274'**

**(46 total holes , 304' of interval)**

3. PU 4-1/2" FB PKR, 1.81" profile nipple, 4 joints 2-3/8" 4.7# N-80 tubing, 2-3/8" x 2-7/8" buttress changeover, 2.25" profile nipple, and 2-7/8" 8.7# N-80 Buttress frac string. **Set PKR @ 4770'**, 100' above top Cliff House perforation. Hold 500 psi on annulus during acid job.

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4. RU stimulation company. Pressure test surface lines to 7500 psi. **Max STP = 6500 psi.** Prepare to break down Cliff House / Menefee w/ 500 gallons inhibited 15% HCl acid and 108 7/8" 1.3 s.g ball sealers. Attempt to achieve 20 BPM on breakdown, go higher if possible. Release pressure, RD stimulation company. Release PKR & TIH knocking balls below bottom perforation. Pull up and reset PKR @ 4770', 100' above top Cliff House perforation. Hold 500 psi on annulus during STIMULATION.
5. RU stimulation company. Pressure test surface lines to 7500 psi. **Maximum STP = 6500 psi.** Hold 500 psi on annulus. Fracture stimulate the Cliff House / Menefee w/ 100,000# 20/40 Arizona sand in 2% KCl slickwater w/30Q N2 foam. Sand will be traced with Ir-192. See attached frac schedule for details. (6 frac tanks needed) Rig down frac company, flow well back on 1/4" choke as needed to release packer.
6. Release PKR & TOOH laying down 2-7/8" N-80 tubing. Change out rams to 2-3/8".
7. TIH w/ 3-7/8" bit w/ drill collars on 2-3/8" tubing and clean out to CIBP @ 5300', Drill out CIBP. Clean up to +/- 5 BPH and trace to no sand. Obtain final MV pitot gauge. TOOH.
8. RU wireline under packoff. Run afterfrac across the Mesa Verde interval. RD wireline.
9. Run production tubing string as follows for Mesaverde: expendable check, one joint 2-3/8" tubing, 1.81" 'Seating' nipple, and remaining tubing. Rabbit tubing while TIH. Land tubing @ 5735'.
10. ND BOP, NU WH. Pump off expendable check and flow well up tubing obtain Mesaverde production gauge. RD & release rig to next location.

Concur:

JOSha 10/15/96  
Northeast Basin Team Leader

Approved:

J.J. J 10/22/96  
Drilling Superintendent

P 10/14/96  
SBD

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Meridian Oil Inc.  
10/14/96

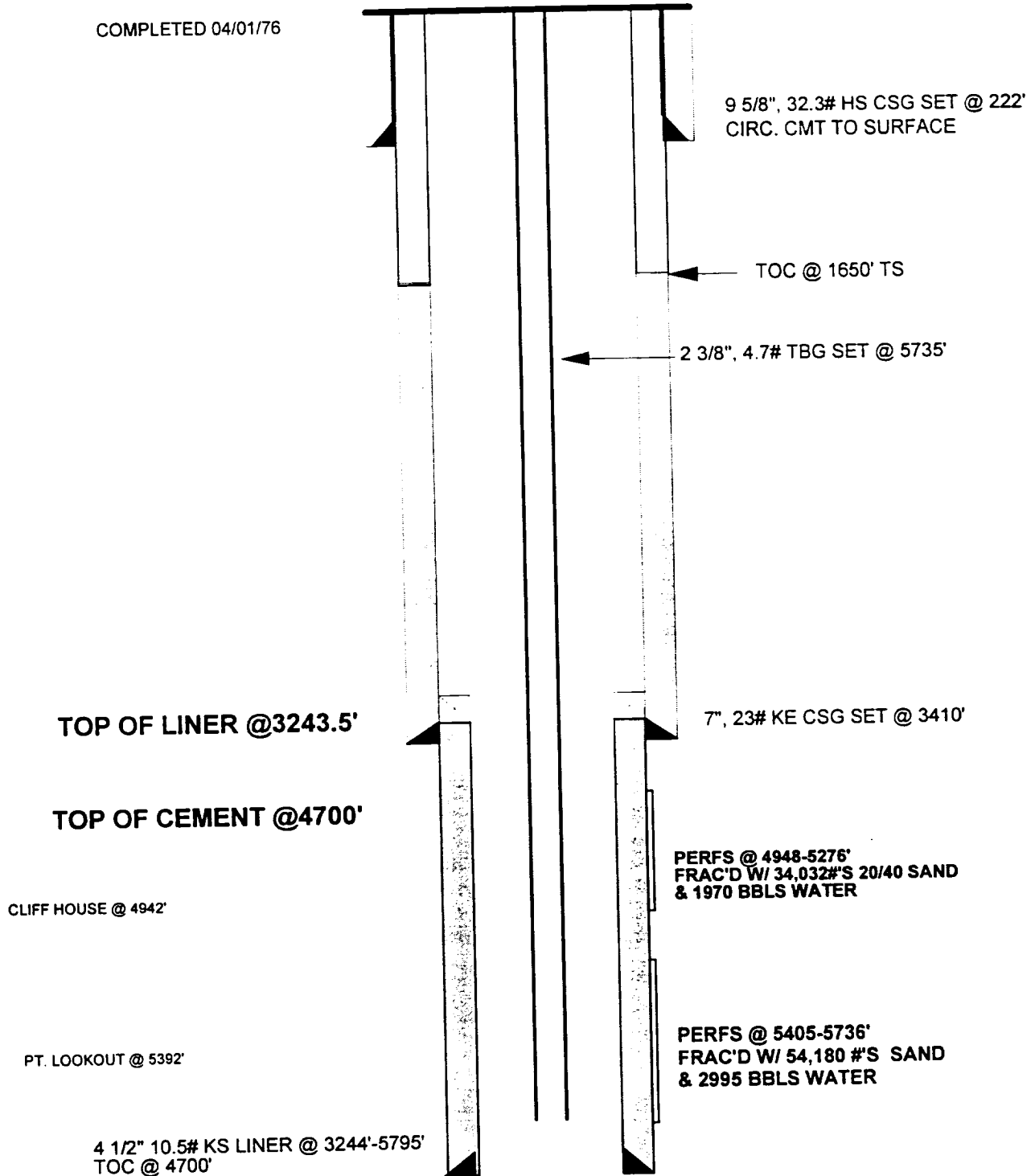
**Recommended Vendors:**

|                     |                |  |
|---------------------|----------------|--|
| Stimulation         | Depends on Rig |  |
| Cased Hole Services |                |  |
| Engineering         | S. B. Daves    | 324-2717-pager<br>326-9736-work<br>327-6843-home   |
|                     | T. D. Stice    | 326-8036-pager<br>326-9812-work<br>327-7164-home   |
| Frac Consultants    | Mark Byars     | 327-8470-pager<br>320-0349-mobile<br>327-0096-home |
|                     | Mike Martinez  | 599-7429-pager<br>860-7518-mobile<br>326-4861-home |

**HOWELL D #3A**  
**BLANCO MESAVERDE**  
SECTION 31, T31N-R08W

LAT: 36° 50' 59"  
LONG: 107° 42' 47"

COMPLETED 04/01/76



PERTINENT DATA SHEET  
**HOWELL D #3A**

**Location:** 900' FNL. 1840' FEL  
Unit O, Section 31, T31N. R8W  
San Juan County, New Mexico

**Field:** Blanco Mesaverde

**Spud Date:** 3/1/1976  
**Completion Date:** 4/1/1976

**Elevation:** 6360' GR  
**LAT:** 36° 50' 59"  
**LONG:** 107° 42' 47"  
**DP#:** 47952A  
**GW:** 100.0%  
**NRI:** 76.5625%  
**TD:** 5795  
**PBTD:** 5778

**Casing Record:**

| <u>Hole Size</u> | <u>Casing Size</u> | <u>Weight &amp; Grade</u> | <u>Depth Set</u> | <u>Sxs Cmt</u> | <u>Cement Top</u> |
|------------------|--------------------|---------------------------|------------------|----------------|-------------------|
| 13-3/4"          | 9-5/8"             | 32.3#                     | 222'             | 300 (245 ft3)  | surface           |
| 8-3/4"           | 7"                 | 23.0#                     | 3410'            | 165 (342 ft3)  | 1650' (TS)        |
| 6-1/4"           | 4-1/2"             | 10.23#                    | 5795'*           | 251 (434 ft3)  | NO CEMENT CIRC'D  |

\* LINER TOP @3243.5' BOND LOG SHOWED TOC @4700'

**Tubing Record:**

| <u>Tubing Size</u> | <u>Weight &amp; Grade</u> | <u>Depth Set</u> | <u>BHA</u>     |
|--------------------|---------------------------|------------------|----------------|
| 2-3/8"             | 4.7#                      | 5735'            | SN 1JT OFF BTM |

**Formation Tops:**

|           |       |                 |       |               |       |
|-----------|-------|-----------------|-------|---------------|-------|
| Ojo Alamo | 1950' | Pictured Cliffs | 3225' | Point Lookout | 5392' |
| Kirtland  | 2125' | Cliffhouse      | 4942' | Mancos        | 5760' |
| Fruitland | 2865' | Menefee         | 5053' |               |       |

**Logging Record:**

IND-GR. FDC-GR  
CBL. TEMP SURVEY

**Stimulation:**

Stage I Perfs: 5405', 5412', 5422', 5492', 5502', 5522', 5590', 5604', 5632', 5654', 5685', 5704', 5736', w/1 SPZ. 2995 bbls water, 54,180# 20/40 sand  
Stage II Perfs: 4948', 4967', 5010', 5018', 5038', 5053', 5135, 5174', 5234', 5276', w/1 SPZ, 1970 bbls water, 34,032 # 20/40 sand

**Workover History:**

NONE

**Production History:**

|                        |           |            |            |
|------------------------|-----------|------------|------------|
| Latest Deliverability  | -0- MCFD  | -0- BOPD   |            |
| Initial Deliverability | 7231 MCFD | ISITP: 338 | ISICP: 462 |
| Cums:                  | 1448 MMCF | 7660 BO    |            |

**Transporter:**

Oil/Condensate: Giant Gas: El Paso