

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

RECEIVED
MAY 16 1996

1. Type of Well
GAS

2. Name of Operator
MERIDIAN OIL

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

4. Location of Well, Footage, Sec., T, R, M
~1650' FNL, 1650' FEL, Sec.34, T-30-N, R-8-W, NMPM

5. Lease Number
SF-078385A
6. If Indian, All. or
Tribe Name
7. Unit Agreement Name
8. Well Name & Number
Howell L #4
9. API Well No.
30-045-09009
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 checked="" type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other - P&A Mesaverde	

13. Describe Proposed or Completed Operations

It is intended to plug and abandon the Mesaverde interval of the subject well according to the attached procedure and wellbore diagram. The Fruitland Coal formation will be completed in the 1997 drilling program. Please cancel our sundry approved 5-8-96.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

RECEIVED
MAY 22 1996
OIL CON. DIV.
DIST. 3

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

Signed [Signature] (VGW5) Title Regulatory Administrator Date 5/15/96

(This space for Federal or State Office use)

APPROVED BY _____ Title _____ Date _____

CONDITION OF APPROVAL, if any:

APPROVED

MAY 17 1996

DISTRICT MANAGER

NMOC

MESAVERDE PLUG & ABANDONMENT PROCEDURE

4-30-96

Howell L #4
Blanco Mesaverde
NE Section 34, T-30-N, R-08-W
San Juan Co., NM

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures.

1. Install and test location rig anchors. Prepare blow pit. Comply to all NMOC, BLM, and Meridian regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. NU relief line. Blow down well and kill with water as necessary. ND and NU BOP, test.
2. Load casing with water and establish circulation to surface; establish rate into casing leak, observe bradenhead for flow or blow. Set plug or standing valve in seating nipple and pressure test tubing to 2000#. POH and tally 2-3/8" EUE tubing (143 joints at 4458'), visually inspect. If necessary, replace bad joints or PU 2" workstring.
3. ND BOP and remove tubing head ("casing spool" has restricted ID; from 1-14-96 Daily Workover Report). Install tubing head with adequate ID. PU and round-trip 7" casing scraper or gauge ring to 4480'.
4. **Plug #1 (Mesaverde, 4480' - 4380')**: RIH with open ended tubing to 4480' and tag bridge plug. Mix 29 sxs Class B cement and spot a balanced plug inside casing above the bridge plug from 4480' to 4380'. POH with tubing.
5. PU 7" packer and RIH; isolate casing leak(s) interval. Maybe be necessary to pick up 7" retrievable bridge plug to determine extent and location of multiple casing leaks.
6. If unable to circulate to surface and casing leak(s) are below 2527', then if possible combine a squeeze repair of the casing leak(s) and the cementing of the PC and Fruitland. Mix sufficient Class B cement to cover from casing leak to above Fruitland top at 2527' with a 100% excess. If casing leak(s) are above 2500' then plug well as follows:
7. **Plug #2 (Pictured Cliffs and Fruitland [outside], 3180' - 2527')**: Perforate 3 HSC squeeze holes at 3180'. PU 7" cement retainer and RIH; set at 3150'. Establish rate into squeeze holes; attempt to circulate to surface, with and without the casing valve shut. May be necessary to perforate 3 HSC squeeze holes at 2527' and block squeeze PC/Ft annulus. Mix 176 sxs Class B cement, squeeze 166 sxs cement outside 7" casing from 3180' to 2527' and leave 10 sxs cement below the retainer. POH.

MESAVERDE PLUG & ABANDONMENT PROCEDURE

4-30-96

Howell L #4

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8. **Plug #3 (Casing Leak Repair):** If casing leak is above 2527', then attempt to circulate to surface.
If able to circulate, set a packer 150' above leak; then mix and pump cement until good cement circulates out bradenhead valve, displace to within 50' of casing leak.
If unable to circulate to surface then repair leak by hesitation squeeze cementing under a packer. POH and LD tubing and packer. Pressure test casing to 500#.
9. Pressure test casing again after providing the BLM with notice to do a mechanical integrity test.
10. ND BOP and NU wellhead. RD, Move off location, do not cut off anchors; clean up location.

Recommended: _____
Operations Engineer

Approval: _____
Production Superintendent

Howell L #4

Current

Blanco Mesaverde

NE Section 34, T-30-N, R-8-W, San Juan County, NM

Lat/Long.: ____/____

Today's Date: 4/30/96

Spud: 11/29/51

Completed: 3/26/52

Elevation: 6147' (GL)

Logs: IEL, Temp. Survey

Nacimiento @ 725'

Ojo Alamo @ 1782'

Kirtland @ 1982'

Fruitland @ 2577'

Pictured Cliffs @ 2906'

Mesaverde @ 4612'

12-1/4" Hole

8-3/4" Hole

6-1/4" Hole

9-5/8" 36# Casing set at 278'
Cmt w/150 sxs (Circulated to Surface)

Workover History

Jan '96: Casing leak; cut
stuck tubing; set CIBP to
protect MV; land tubing.

143 joints 2-3/8" Tubing at 4458'

TOC @ 3550' (T.S.)

CIBP set at 4480' (Jan '96)

7" 20# J-55 Casing set at 4510'
Cemented with 300 sxs

2-3/8" Tubing jet cut at 4610' (Jan '96)

Open Hole Interval: 4510' - 5280'

TD 5280'

Howell L #4

Proposed P & A

Blanco Mesaverde

NE Section 34, T-30-N, R-8-W, San Juan County, NM

Lat/Long.: ____/____

Today's Date: 4/30/96

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Nacimiento @ 725'

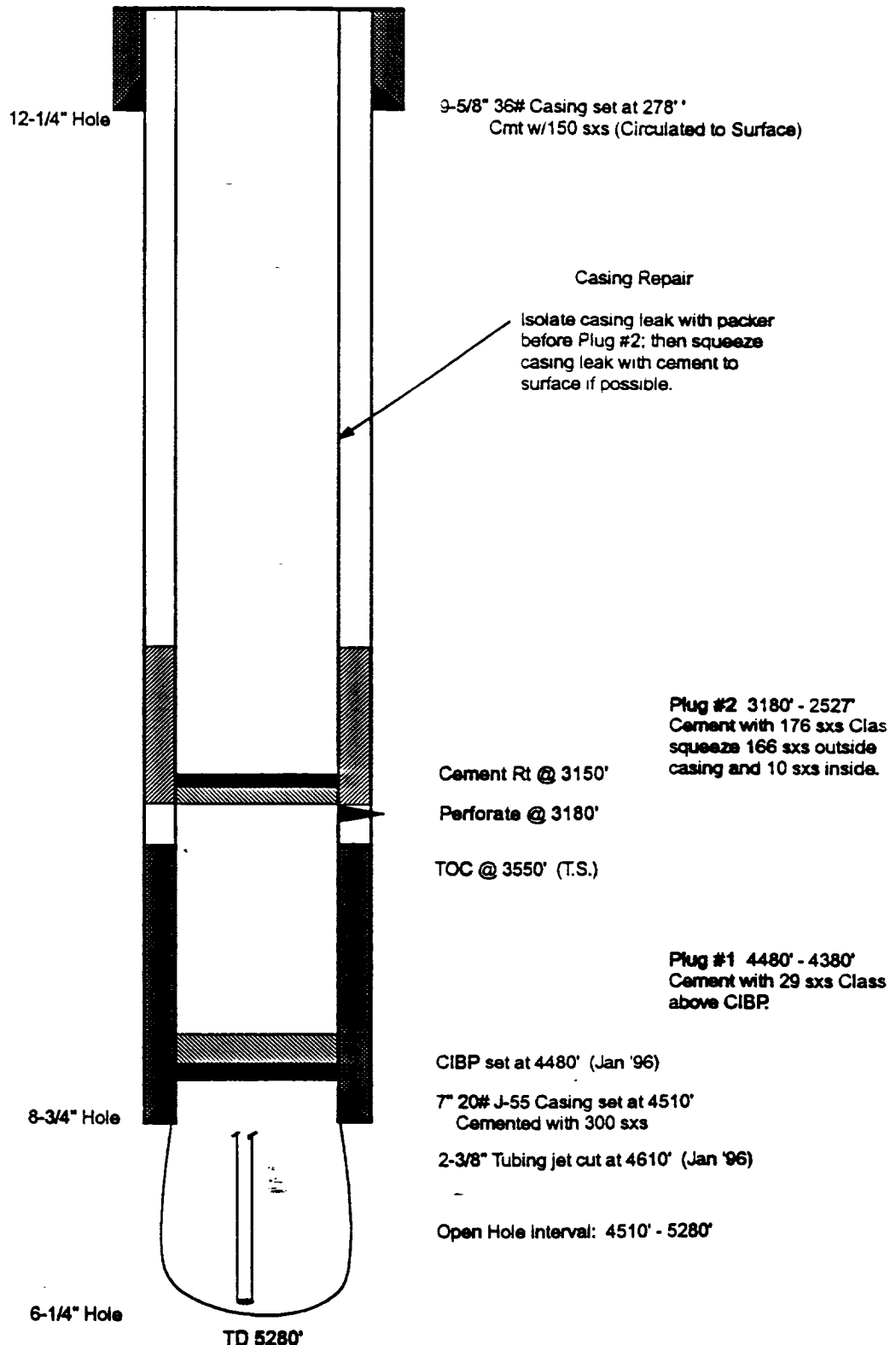
Ojo Alamo @ 1782'

Kirtland @ 1982'

Fruitland @ 2577'

Pictured Cliffs @ 2906'

Mesaverde @ 4612'



UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
1235 LA PLATA HIGHWAY
FARMINGTON, NEW MEXICO 87401

Attachment to notice of Intention to Abandon:

Re: Permanent Abandonment

Well: 4 Howell L

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Mike Flanikan with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 599-8907
3. The following modifications to your plugging program are to be made:
 - a) Place a cement plug from 3735' - 3635' to cover the Chacra, top @ 3685'.
 - b) Place the Pictured Cliffs/Fruitland plug (from 3180' - 2527') inside and outside the 7" casing.
 - c) Place the Ojo Alamo plug (from 2032' - 1732') inside and outside the 7" casing.
 - d) Place the Nacimiento plug (from 775' - 675') inside and outside the 7" casing.
 - e) Place the surface plug (from 328' - surface) inside and outside the 7" casing.

Office Hours: 7:45 a.m. to 4:30 p.m.

**GENERAL REQUIREMENTS FOR
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES
FARMINGTON DISTRICT OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Farmington District office, Branch of Drilling & Production.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured.

3.0 A tank or approved pit must be used for containment of any fluids from the wellbore during plugging operations and all unattended pits are to be fenced.

3.1 Pits are not to be used for disposal of any constituent(s) of concern.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by: (1) tagging with the work string, or: (2) for cased holes only; pressuring to a minimum surface pressure of 500 PSI, with no more than a 10% drop during a 15-minute period.

5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.

- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 6.0 All wells are to be controlled by means of a wellbore fluid that is to be of a weight and consistency necessary to stabilize the wellbore. Wellbore fluid shall be left in place as filler between all plugs.
- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.
- 7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H₂S.
- 8.0 Within 30 days after plugging work is completed, file a Sundry Notice, *Subsequent Report of Abandonment (Form 3160-5)*, five copies, with the District Manager, Bureau of Land Management, 1235 La Plata Highway, Farmington, NM 87401. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.
- 9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.
- 10.0 After plugging work is completed the surface is to be rehabilitated in accord with instructions from the Surface Owner or the responsible Surface Management Agency. The period of liability under the bond of record will not be terminated until the lease is inspected and the surface rehabilitation approved. Please contact the Farmington District Office, *Environmental Protection Staff*, in reference to rehabilitation requirements and/or final inspection(s).
- All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.