# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on	Wolle
	Welts 3 27 5: 2
1. Type of Well GAS	<ul><li>5. Lease Number</li><li>NM-020496</li><li>6. If Indian, All.or</li><li>Tribe Name</li></ul>
2. Name of Operator	7. Unit Agreement Name
Meridian Oil Inc.	O Mall Mara e Marks
3. Address & Phone No. of Operator Box 4289, Farmington, NM 87499 (505)326-9700	<ul><li>8. Well Name &amp; Number</li><li>Angel Peak #3</li><li>9. API Well No.</li></ul>
4. Location of Well, Footage, Sec, T, R, M. 1450'N, 1450'E Sec. 20, T-27-N, R-11-W, NMPM	10.Field and Pool Basin Dakota 11.County and State San Juan County, NM
X Notice A material Abandonment Recompletion	F Action  _X Change of Plans  New Construction
Casing Repair	<pre> Non-Routine Fracturing Water Shut Off g Conversion to Injection</pre>
13. Describe Proposed or Completed Operations	
Verbal approval for the following change of plan Mason at the BLM at 8:50 am 1-15-91:	ns was received from Steve
TIH $w/2$ 3/8" tbg, csg scraper, and 3 7/8" bit to	2815' and clean out.
TIH $w/2$ 3/8" tbg open ended to top of fish @ 368	35'. Circ and clean out.
Spot 50 sx Class "B" neat cmt on top or near top cu.ft. = 659')	o of fish @ 3685' (59
After cmt has had 4 hrs to set, tag top $w/w$	TOC should be @ 3026'
After the above, continue w/step #8 of the attacplanned.	ched, and plug & abandon as
14. I hereby certify that the foregoing is true Signed May Halfuld (MP) Title Regulatory	
(This space for Federal or State office use)	
APPROVED BY TITLE CONDITION OF APPROVAL, IF ANY:	DATE 1 6 1991
	AREA DARVICER FARMINGTON NOTONIAS AREA

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Abandonment Recompletion Plugging Back Casing Repair	Change of Plans New Construction Non-Routine Fracture
13. Describe Proposed or Completed Operations	
Attached is the plug and abandonment procedure to location.	o be used for this

## SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify-that the foregoing is true Signed Signed (ROS Title Regulatory)	and correct  ffairs Plate 105-09-90
(This space for Federal or State office use)  APPROVED BY	MAY Span 1990
CONDITION OF APPROVAL, IF ANY:  OPERATOR	A PER MANAGER FARMINGTON FLEEDLINGE AREA

#### Plug and Abandonment Procedure Angel Peak #3

- 1. Prepare location for workover. Install / replace anchors as necessary.
- MOL with workover rig, hold safety meeting, install safety signs and proper fire equipment at strategic points. Comply with all BLM, NMOCD, and MOI regulations.
- Rig up blow lines, record tubing and casing pressures and blow well down. Kill well as necessary with water. ND tree and NU 6"
   3000 psi BOP and stripping head.
- 4. TOOH with 210 joints of 2 3/8" 4.7# J-55 EUE tubing set @ 6397'. A 4 1/2" Baker Model A-2 Lok-Set packer, with on/off tool, is set @ 6298'( 3 jts of tailpipe). To release packer, pick up 4000 lbs over string weight and rotate 8 turns to the right.
- 5. TIH with 2 3/8" tubing and clean out to PBTD @ 6521'.
- 6. Establish a rate into Dakota perforations with water. Spot a cement plug from PBTD-5385' with 168 sx of class B neat cement (198 cf, 100% excess to cover 50' above the top of the Gallup). With a minimum funnel viscosity of 50 sec/qt. TOOH. Tag cement top with wireline after 4 hours.
- 7. Perforate four squeeze holes at 3470'. Establish a rate into perforations with water. Set a 4 1/2" cement retainer @ 3370'. TIH with 2 3/8" tubing and sting into test position in retainer. Pressure test tubing to 1000 psi. Establish a rate into perforations with water. Squeeze cement with 50 sx of class B neat cement (59 cf, 100% excess to cover 50' above the top of the Cliff of retainer (7 cf, 81' in 4 1/2" casing). TOOH.
- 8. Perforate four squeeze holes at 2815'. Establish a rate into perforations with water. Set a 4 1/2" cement retainer @ 2715'. TIH with 2 3/8" tubing and sting into test position in retainer. Pressure test tubing to 1000 psi. Establish a rate into perforations with water. Squeeze cement with 50 sx of class B neat cement (59 cf, 100% excess to cover 50' above the top of the of retainer (7 cf, 81' in 4 1/2" casing).
- 9. Pull up hole to 1946' and spot 28 sx of class B neat cement from 50' below the top of the Pictured Cliffs to 50' above the top of the Fruitland ( 33 cf, plug @ 1600'-1946', 10% excess). TOOH.
- 10. Perforate four squeeze holes at 904'. Establish a rate into perforations with water. Set a 4 1/2" cement retainer @ 697'. TIH with 2 3/8" tubing and sting into test position in retainer. Pressure test tubing to 1000 psi. Establish a rate into

Plug and Abandonment Procedure Angel Peak #3 Page two

perforations with water. Squeeze cement with 103 sx of class B neat cement (121.5 cf, 100% excess to cover 50' below the top of the Kirtland to 50' above the top of the Ojo Alamo). Sting out of retainer and spot 6 sx class B neat on top of retainer (7 cf, 81' in 4 1/2" casing). TOOH.

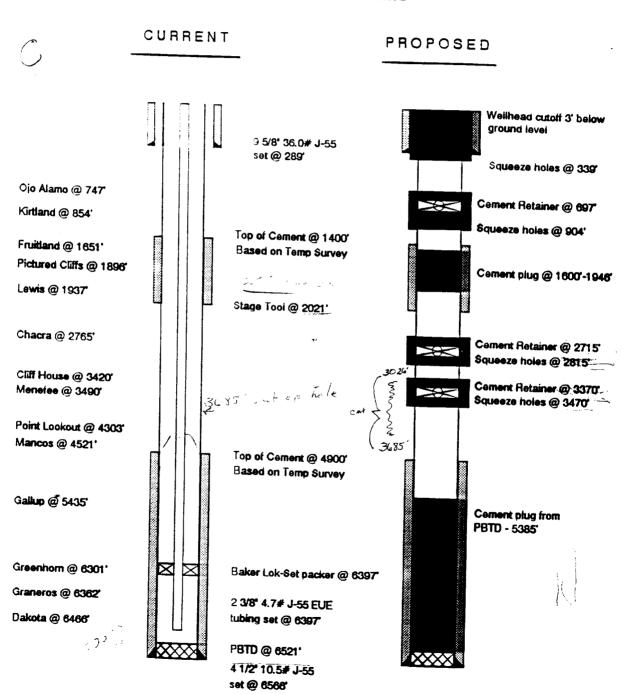
11. Perforate two squeeze holes at 339'. Establish a rate into

- perforations with water. Cement down 4 1/2" casing and circulate to surface with 225 sx of class B neat cement (265.5 cf, 100% excess to circulate to surface).

  12. Cut off wellhead and casing 3' below ground level. Weld a plate to the top of the casing containing required information. Rig down and release rig.
- 13. Strip and clean up location.

## Angel Peak #3 NE/4 Section 20, T-27-N, R-11-W San Juan County, New Mexico

## Wellbore Schematic



### UNITED STATES DEPARTMENT OF THE INTERIOR

#### BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA 1235 LA PLATA HIGHWAY FARMINGTON, NEW MEXICO 87401

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

Well: 3 Angel Peak

### CONDITIONS OF APPROVAL

- 1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
- 2. Mark Kelly with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 326-6201.
- 3. Blowour prevention equipment is required.
- 4. The following modifications to your plugging program are to be made (when applicable):

## GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON RESOURCE AREA

- 1. Secure prior approval either on a Sundry Notice (Form 3160-5) or verbally from the Fluids Drilling & Production Section at this office before changing the approved plugging program.
- 2. Plugging equipment used shall have separate mixing and displacement pumps and a calibrated tank to assure proper displacement of plugs. The Operator is responsible for providing all measuring devices needed to assure proper measurement of materials being used.
- 3. A proper tank or pit will be used to contain all fluids pumped from the well during plugging operations. Unattended pits are to be fenced.
- 4. All cement plugs are to be placed through tubing (or drillpipe) and shall be a minimum of 100 feet in length with 50% excess inside casing or 100% excess when plug is set in open hole or squeezed into perforations. 15.6%/gal slurry weight is to be used when using class 3 neat cement or when CaCl<sub>2</sub> is used. Use the recommended slurry weight of other type cements when they are used (Class C, Pozzolan etc.).
- 5. Any cement plugs placed when well is not full of fluid, or when well may be taking fluid, (i.e. across perfs-unless bridge plug or retainer is used, across bad csg., or fresh water formations) will be tagged (touched) after cement has set to verify proper location.
  - Sa. Testing The first plug below the surface plug shall generally be tested by either tagging the plug with the working pipe string, or pressuring to a minimum pump (surface) pressure of 1000 psig, with no more than a 10 percent drop during a 15-minute period (cased hole only). If the integrity of any other plug is questioned, it must be tested in the same manner. Also, any cement plug which is the only isolating medium for a fresh water interval or a zone containing a valuable mineral deposit should be tested by tagging with the drill string.
- 6. Mud must be placed between plugs. Plugging mud is to be made up with a minimum of 15 lbs/bbl of sodium bentonite, and a nonfermenting polymer.

  Minimum consistency of plugging mud must be 9 lbs/gal and with a minimum viscosity of 50 sec/qt. Fresh water is to be utilized for mixing mud.
- 7. Following the placement of a cement plug, the withdrawl rate for at least the length of the cement plug shall not exceed 30 ft/min, in order to minimize the contamination of the plug.