


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM MAIL ROOM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

55 OCT 10 PM 3:00

1a. Type of Work DRILL	5. Lease Number NM-0607 Unit Reporting Number
1b. Type of Well GAS (pressure observation)	6. If Indian, All. or Tribe
2. Operator MERIDIAN OIL	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Atlantic C 9. Well Number 4B
4. Location of Well 2495' FSL, 2310' FWL Latitude 36° 51.3, Longitude 107° 55.5	10. Field, Pool, Wildcat Blanco Mesa Verde ✓ 11. Sec., Twn, Rge, Mer. (NMPM) Sec 31, T-31-N, R-10-W ✓ API # 30-045-29298
14. Distance in Miles from Nearest Town 3 miles to Aztec, NM	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 2310'	17. Acres Assigned to Well 317.30 W/2
16. Acres in Lease	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 1700'	20. Rotary or Cable Tools Rotary
19. Proposed Depth 5288' ✓	
21. Elevations (DF, FT, GR, Etc.) 6048' GR	22. Approx. Date Work will Start 4th quarter 1995
23. Proposed Casing and Cementing Program See Operations Plan attached This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"
24. Authorized by:  Regional Drilling Engineer	Date 10/10/95

PERMIT NO. _____

APPROVED BY _____

APPROVAL DATE
RECEIVED
OCT 30 1995

DATE _____

Archaeological Report to be submitted
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

OIL CON. DIV.
DIST. 3

APPROVED
AS AMENDED

OCT 28 1995

DISTRICT MANAGER

ATTACHED FOR
RECORDS OF APPROVAL

Do not approve C-104!

NMOCD

Certificate Number 100-100000

October 4, 1995

OPERATIONS PLAN

Well Name: Atlantic C #4B
Location: 2495' FSL, 2310' FWL Section 31, T-31-N, R-10-W
 San Juan County, New Mexico
 Latitude 36° 51.3, Longitude 107° 55.5
Formation: Blanco Mesa Verde
Elevation: 6048' GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	1734'	
Ojo Alamo	1734'	1914'	aquifer
Fruitland	1914'	2669'	gas
Pictured Cliffs	2669'	2814'	gas
Lewis	2814'	3699'	
Intermediate TD	2895'		
Mesa Verde	3699'	4256'	gas
Massive Cliff House	4256'	4466'	gas
Menefee	4466'	4881'	gas
Massive Point Lookout	4881'	5249'	gas
Mancos	5249'		
Total Depth	5288'		

Logging Program:

Openhole Wireline Logging -

Surface to Intermediate TD : DIL/LDT/CNL/NGT/ML/FMS

Intermediate TD to Total Depth : DIL/LDT/CNL/Temp

Mud Logs/Coring/DST - none

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-8.9	40-50	no control
200-2895'	Weighted	8.4-9.1	30-60	no control
2895-5288'	Gas/Mist	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program:

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 2895'	7"	20.0#	K-55
	7" stage tool @ 1864'			
6 1/4"	2745' - 5288'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 5288'	2 3/8"	4.7#	J-55
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BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

6" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 2000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drill crew.
- All BOP tests & drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 160 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

First stage - lead w/105 sx of 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (271 cu.ft. of slurry, 75% excess to circulate to stage tool @ 1864'.)

Second stage - Lead w/269 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/50 sx Class "B" w/2% calcium chloride (560 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Seven bowspring centralizers spaced every other joint off bottom, with three spaced every fourth joint to the base of the Ojo Alamo at 1914'. Two turbolating centralizers at the base of the Ojo Alamo at 1914'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to circulate liner top. Lead with 203 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 100 sx Class "B" w/2% calcium chloride (444 cu.ft., 75% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Special Drilling Operations (Gas/Mist Drilling):

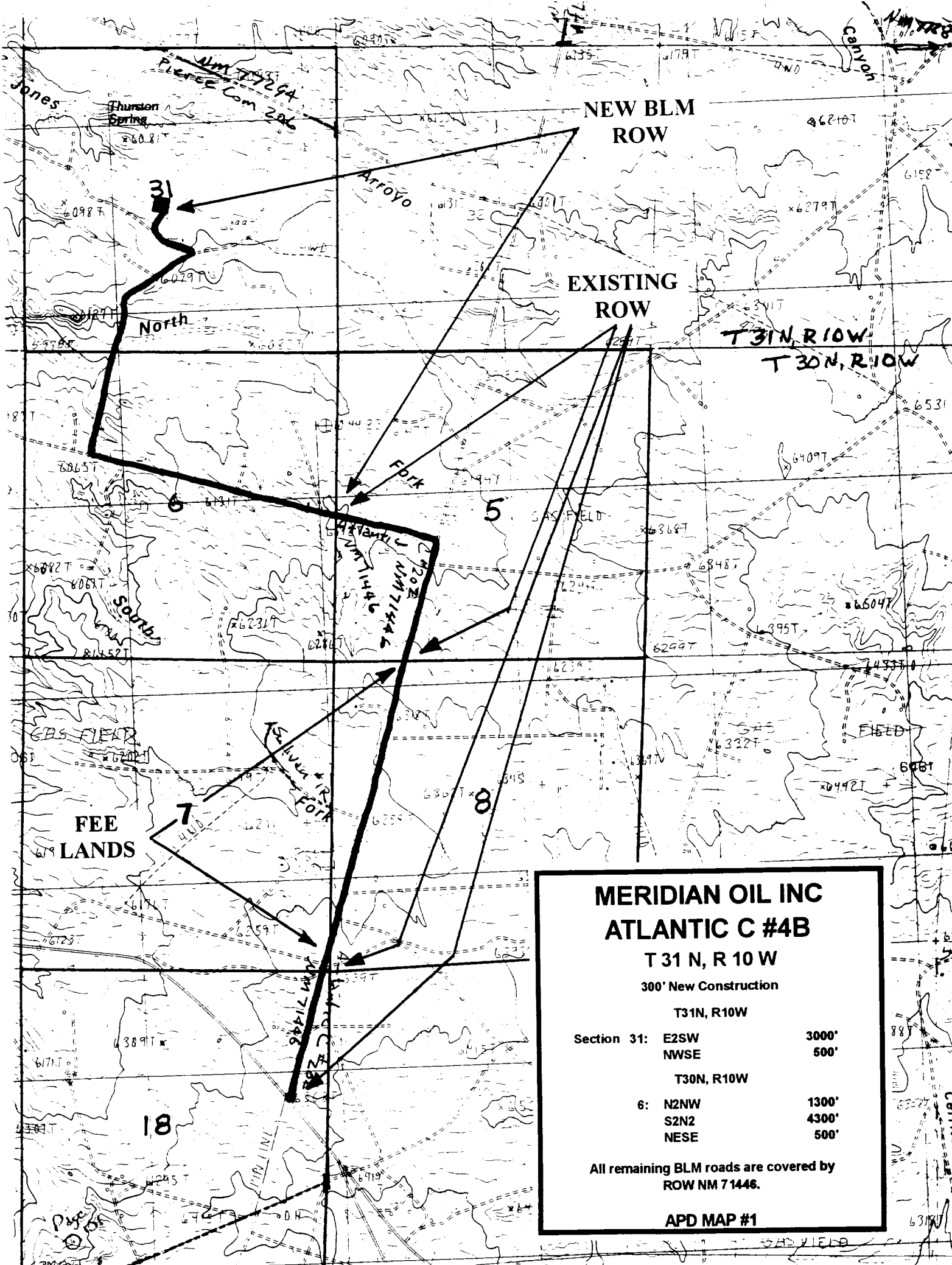
The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Mesa Verde formation will be completed.
- This well will be utilized as a Pressure Observation Well only at this time.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	1000 psi
Pictured Cliffs	1000 psi
Mesa Verde	700 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west half of Section 31 is dedicated to this well.
- This gas is dedicated.



**MERIDIAN OIL INC
ATLANTIC C #4B**

T 31 N, R 10 W

300' New Construction

T31N, R10W

Section 31:	E2SW	3000'
	NWSE	500'

T30N, R10W

6:	N2NW	1300'
	S2N2	4300'
	NESE	500'

**All remaining BLM roads are covered by
ROW NM 71446.**

APD MAP #1