

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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BLM

2-045-2563

91 JUN 17 PM 2:50

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL	5. LEASE NUMBER SF-078438
1b. TYPE OF WELL SWD	6. IF INDIAN, ALL. OR TRIBE NAME
2. OPERATOR MERIDIAN OIL INC.	7. UNIT AGREEMENT NAME SAN JUAN 32-9 UNIT
3. ADDRESS & PHONE NO. OF OPERATOR 14538 P O BOX 4289 FARMINGTON, NM 87499	8. FARM OR LEASE NAME 13897 SAN JUAN 32-9 UNIT SWD
4. LOCATION OF WELL 15'FNL 240'FEL	9. WELL NO. 5
14. DISTANCE IN MILES FROM NEAREST TOWN 5 MILES SE CEDAR HILL	10. FIELD, POOL, OR WILDCAT WILDCAT Morris / Antelope 11. SEC. T. R. M OR BLK. A SEC. 18 T31N R09W NMPM 96162
15. DISTANCE FROM PROPOSED LOCATION 15' TO NEAREST PROPERTY OR LEASE LINE.	12. COUNTY SAN JUAN
16. ACRES IN LEASE	13. STATE NM
17. ACRES ASSIGNED TO WELL 0.00	
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 500' COMPL., OR APPLIED FOR ON THIS LEASE	19. PROPOSED DEPTH 9388'
20. ROTARY OR CABLE TOOLS ROTARY	
21. ELEVATIONS (DF, FT, GR, ETC.) 6605'GL	22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

*SEE OPERATIONS PLAN

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24. AUTHORIZED BY:

REG. DRILLING ENGR.

JUL 09 1991.

OIL CON. DIV
DIST. 3

6/14/91
DATE

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE

APPROVED
AS AMENDED

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3.

ARCH REPORT SUBMITTED 05/07/91

JUL 02 1991
AREA MANAGER

Submit to: Associate
District Office
State Leases - 4 copies
Fee Leases - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

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Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

91 JUN 17 PM 2:50

310 FARMINGTON, N.M.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Arama, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.			Lease (SF-078438) San Juan 32-9 Unit SWD		Well No. 5
Unit Letter A	Section 18	Township 31 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 15 feet from the North line and 240 feet from the East line					
Ground level Elev. 6605'		Producing Formation Morrison/Entrada		Dedicated Acreage: n/a Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hectare marks on the plat below.

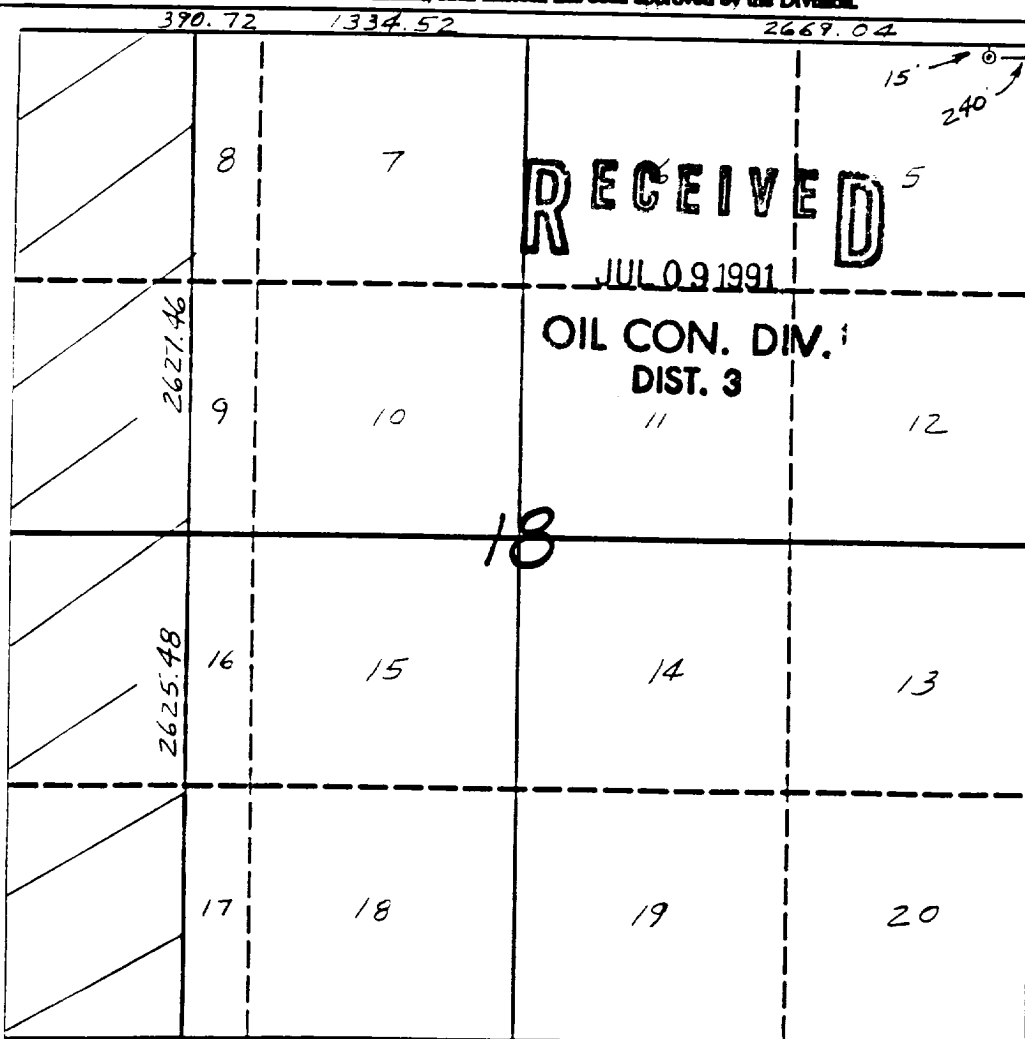
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☒ Yes ☐ No If answer is "yes" type of consolidation unitization

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature Peggy Bradfield

Printed Name
Peggy Bradfield

Position
Regulatory Affairs

Company
Meridian Oil Inc.

Date
6-14-91

Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

5-2-91

Date Surveyed

Signature Neale C. Edwards

Professional Surveyor

NEW MEXICO
6857
REGISTERED LAND SURVEYOR

Certificate No.
Neale C. Edwards

Operations Plan
San Juan 32-9 Unit SWD #5

Location: 15'N, 240'E, Section 18, T-31-N, R-9-W, San Juan County, NM

Formation: Chinle

Elevation: 6605'GL

I. Geology:

A. Formation Tops:

Surface	San Jose	Greenhorn	7747'
Ojo Alamo	1831'	Graneros	7805'
Kirtland	1881'	Dakota	7883'
Fruitland	3045'	Morrison	8138'
Pictured Cliffs	3417'	Bluff	8700'
Lewis	3661'	Summerville	8862'
Menefee	5315'	Todilto	8974'
Point Lookout	5696'	Entrada	9024'
Mancos	6196'	Chinle	9339'
Gallup	7034'	Total Depth	9388'

B. Logging Program:

Mud logs - surface to TD;

Wireline Logs - CNL-LDT/IES/SGR/ML/CAST - 3785' to 7785'
- CNL-LDT/IES/SGR/ML - 7785' to 9310'

II. Drilling:

A. Mud Program:

1. 17 1/2" surface hole - 0' to 300' - freshwater spud mud
2. 12 1/4" intermediate hole - 300' to 3785' - LSND
3. 8 3/4" production hole - 3785' to 7785' - gas
4. 6 1/8" production hole - 7785' to 9310' - Low Solids FW Polymer

B. Pressure Control Program:

1. 17 1/2" hole - diversion only
2. 12 1/4" hole - A 3000 psi WP casinghead will be installed on the surface casing. A 3000 psi drilling spool equipped with kill and choke lines will be installed on the casinghead. A 3000 psi double gate BOP will be installed above the drilling spool. A fill-up line, flow line and rotating head will be installed above the double gate BOP. Pipe and blind rams, choke line, and manifold will be tested at 500 psi and 3000 psi with a test plug. Casing will be tested to 1200 psi prior to drilling the shoe.

B. Pressure Control Program (cont'd):

3. 8 3/4" hole - A 3000 psi WP casinghead will be installed on the 9 5/8" casing (previous casinghead will be removed after cementing 9 5/8" casing). A 3000 psi drilling spool equipped with kill and choke lines will be installed on the casinghead. A 3000 psi double gate BOP will be installed above the drilling spool. A fill-up line, bleed line, and rotating head will be installed above the double gate BOP. Pipe and blind rams, choke line, and manifold will be tested at 500 psi and 3000 psi with a test plug. Casing will be tested to 2450 psi prior to drilling the shoe.
4. 6 1/8" hole - a 3000 psi x 5000 psi WP tubinghead will be installed on the 3000 psi WP casinghead. A 5000 psi x 3000 psi drilling spool equipped with kill and choke lines will be installed on the tubinghead. A 3000 psi double gate BOP will be installed above the tubinghead. A fill-up line, flow line, and rotating head will be installed above the double gate BOP. Pipe and blind rams, choke line, and manifold will be tested at 500 psi and 3000 psi against casing prior to drilling the shoe.
5. BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blow out preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. All tests will be reported on the daily drilling report. Preventers will be tested before drilling casing cement plugs. Kelly cock and full opening safety valve for all connections will be available on rig floor at all times.
6. In the event that a kick is taken while drilling, the following procedure will be followed:
 - a. Pick up kelly and raise the tool joint above floor.
 - b. Shut down the mud pump.
 - c. Close the pipe rams.
 - d. Record standpipe pressure (SIDPP) after it stabilizes and pit gain.
 - e. Calculate Initial Circulating Pressure = Slow Circulating Pressure + SIDPP.
 - f. Calculate kill mud weight required.
 - g. Complete kill sheet.
 - h. Decide whether to raise mud weight or drill under-balanced.

7. BOP Configuration:

17 1/2" surface hole - 0' to 300' - not applicable

3000 psi system

12 1/4" intermediate hole - 300' to 7785' - Figure #1, 1A & #4

3000 psi system

8 3/4" production hole - 3785' to 7785' - Figure #2 & #4

3000 psi system

6 1/8" production hole - 7785' to 9310' - Figure #3 & #4

III. Casing Program: (All casing will be new)

<u>A. Hole Size</u>	<u>Csg. Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Interval</u>
17 1/2"	13 3/8"	48.0#	K-55 ST&C	0' to 300'
12 1/4"	9 5/8"	36.0#	K-55 LT&C	300' to 3785'
8 3/4"	7"	23.0#	N-80 LT&C	3785' to 7785'
6 1/8"	4 1/2"	11.6#	L-80 LT&C	7650' to 9310'

B. Float Equipment:

13 3/8" casing - guide shoe, float collar, centralizers every 4th joint.

9 5/8" casing - guide shoe, float collar, stage tool at 3000' (above Fruitland Coal), bowspring centralizers every 4th joint. Turbolizers through Ojo Alamo.

7" casing - guide shoe, float collar, stage tool at 5000' (above Cliff House Sandstone), baffle, bowspring centralizers every other joint.

C. Wellhead Equipment:

13 5/8" 3000 psi x 13 3/8" 8rd casing head (to be removed prior to drilling 8 3/4" hole)

11" 3000 psi x 9 5/8" S. O. W. casinghead

11" 3000 psi x 9" 5000 psi tubinghead

9" 5000 psi x 3 1/8" 5000 psi adapter

Tree assembly for single injection service.

IV. Cementing:

17 1/2" surface - cement with 350 sacks Class "B" 65/35 Pozmix with 1/4# flocele/sack and 3% calcium chloride (12.6#/gal. weight; 531 cu.ft. of slurry). Tail with 200 sacks Class "B" neat with 1/4# flocele/sack and 3% calcium chloride (15.6#/gal weight; 235 cu.ft. of slurry). 100% excess circulated to surface.

12 1/4" intermediate -

First stage - cement with 300 sacks of Class "B" 65/35 Pozmix with 1/4# flocele/sack and 2% calcium chloride (12.6#/gal. weight; 513 cu.ft. of slurry). Tail with 100 sacks Class "B" neat with 1/4# flocele/sack and 2% calcium chloride, (15.6#/gal. weight; 118 cu.ft. of slurry). 100% excess circulated to top of Fruitland Coal.

Second stage - cement with 580 sacks of Class "B" 65/35 Pozmix with 1/4# flocele/sack and 2% calcium chloride (12.6#/gal. weight; 1450 cu.ft. of slurry). Tail with 100 sacks Class "B" neat with 1/4# flocele/sack and 2% calcium chloride (15.6#/gal. weight; 118 cu.ft. of slurry). 100% excess circulated to surface.

NOTE: 3 hour circulation time between stages.

8 3/4" production -

First stage - cement with 350 sacks of Class "B" 65/35 Pozmix with 6% gel, 2% calcium chloride, 1/4# flocele/sack (12.6#/gal. weight; 610 cu.ft. of slurry). Tail with 100 sacks Class "B" neat with 1/4# flocele/sack and 2% calcium chloride (15.6#/gal. weight; 118 cu.ft. of slurry). 100% excess circulated to top of Cliff House.

Second stage - cement with 260 sacks of Class "B" 65/35 Pozmix with 6% gel, 2% calcium chloride, 1/4# flocele/sack (12.6#/gal. weight; 450 cu.ft. of slurry). Tail with 100 sacks Class "B" neat with 1/4# flocele/sack and 2% calcium chloride (15.6#/gal. weight; 118 cu.ft. of slurry). 100% excess circulated into 9 5/8" casing string.

?

6 1/8" production liner - cement with 250 sacks Class "B" neat with 1/4# flocele/sack and 2% calcium chloride (15.6#/gal. weight; 295 cu.ft. of slurry).

V. Drill Stem Test Program: none anticipated

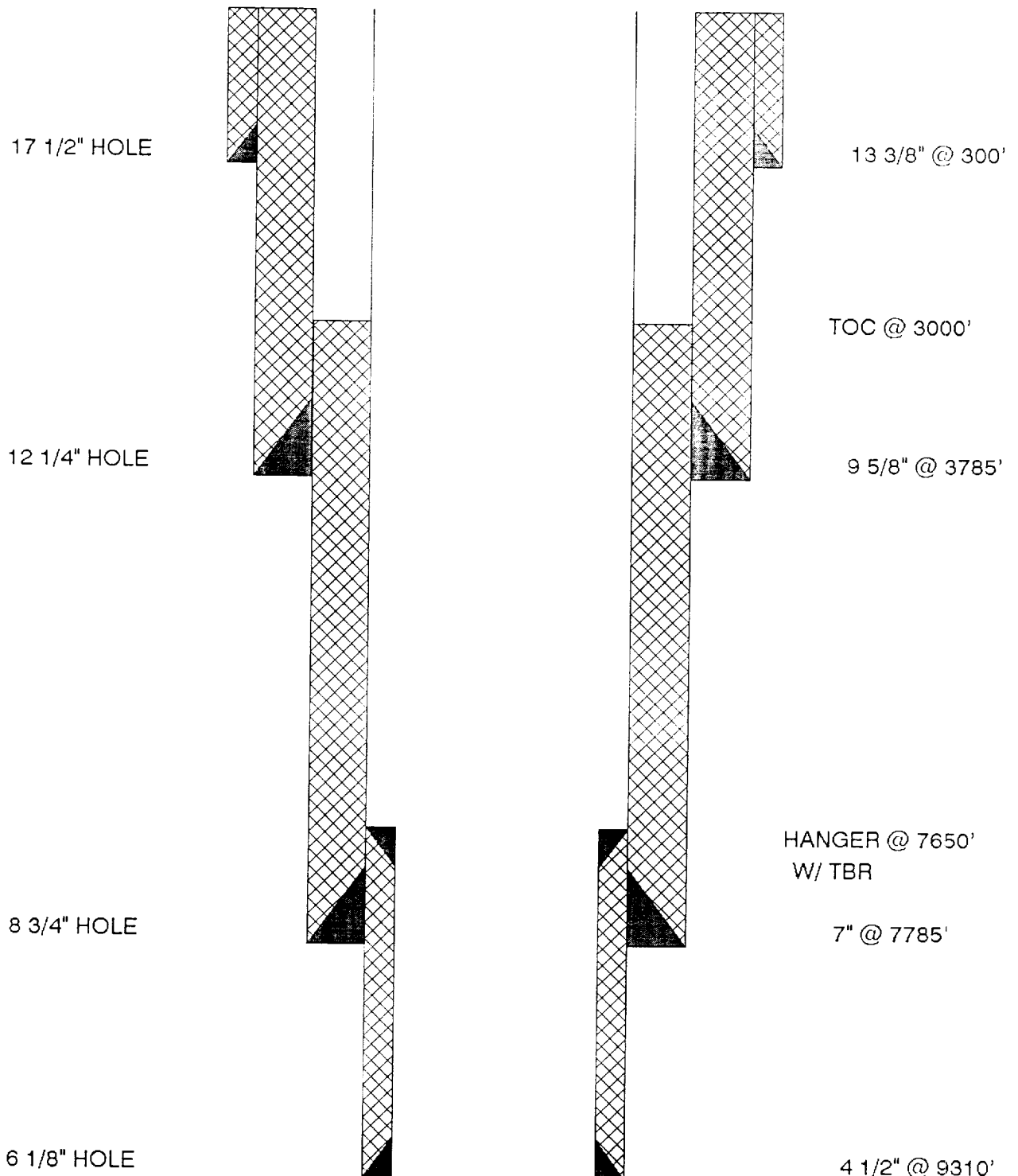
NOTE:

No abnormal pressures or temperatures are anticipated.

New casing will be utilized.

Cementing Contractor will provide the BLM with a chronological log including the pump rate and pressure, and the slurry density and volume for all cement jobs.

SAN JUAN 32-9 UNIT SWD #5
NE-18-31N-09W
SAN JUAN COUNTY, NEW MEXICO



San Juan 32-9 Unit SWD #5

T 31 N, R 09 W
Section 18

No New Construction

All existing roads are using
existing BLM ROW: NM 76726

MERIDIAN OIL INC

