

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

EDRUG FREE

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

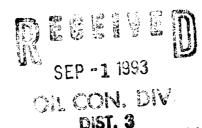
August 30, 1993

BRUCE KING GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

> Meridian Oil, Inc. P.O. Box 4289 Farmington, NM 87499-4289

Attention: Peggy Bradfield



Administrative Order NSL-3302

Dear Ms. Bradfield:

Reference is made to your application dated August 3, 1993 for an unorthodox gas well location in both the Blanco Mesaverde and Tapacitos Pictured Cliffs Pools for your proposed Jicarilla 98 Well No. 10A to be drilled 1865 feet from the South line and 1360 feet from the East line (Unit J) of Section 17, Township 26 North, Range 3 West, NMPM, as projected into the unsurveyed Jicarilla Apache Indian Reservation, Rio Arriba County, New Mexico.

It is our understanding that production from both the Mesaverde and Pictured Cliffs intervals are to be downhole commingled.

By the authority granted me under the provisions of Rule 2(c) of the General Rules and Regulations for the Prorated Gas Pools of New Mexico, the Special Rules and Regulations for the Tapacitos Pictured Cliffs Pool and the Special Rules and Regulations for the Blanco Mesaverde Pool, as promulgated by Division Order No. R-8170, as amended, the above-described unorthodox gas well location is hereby approved.

Further, the S/2 and SE/4 of said Section 17 shall be dedicated to said well forming standard 320-acre and 160-acre gas spacing and proration units for the Blanco Mesaverde and Tapacitos Pictured Cliffs Pools, respectively.

Also, Meridian Oil, Inc. shall comply with all provisions of Division General Rule 303.C pertaining to the downhole commingling of the gas from both zones.

Sincerely,

William J. LeMay

Director

WJL/MES/amg

cc: Oil Conservation Division - Aztec

US Bureau of Land Management - Farmington



#### STATE OF NEW MEXICO

## ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

## OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

Date	e: <u>8-16-93</u>	ata: Mike Stogner	/
P.O.	Conservation Division Box 2088 ta Fe, NM 87504-2088		
RE:	Proposed MC Proposed NSL Proposed WFX Proposed NSP	Proposed DHC Proposed SWD Proposed PMX Proposed DD	- - -
Gent	tlemen:		
	ave examined the application re		
for	the MERIDIAN OIL INC.	LEASE & WELL NO.	<u>A</u>
<i>J</i> - S	OPERATOR  -/7-26N-3W and my:	recommendations are as follow	s:
10	fferme	······································	
Your	rs truly,		
5			

### MERIDIAN OIL

August 3, 1993

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

AUG1 2 1993
OIL CON. DIV.

Re:

Meridian Oil Inc. Jicarilla 98 #10A

1865'FSL, 1360'FEL Section 17, T-26-N, R-3-W

Rio Arriba County, New Mexico

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Mesa Verde and Pictured Cliffs formations. This application for the referenced location is due to terrain as shown on the topographic map, and at the request of the Jicarilla Apache Tribe.

This well is planned as a Mesa Verde/Pictured Cliffs commingle and application is being made to the New Mexico Oil Conservation Division for the commingling.

The following attachments are for your review:

1. Application for Permit to Drill.

Jerome P. McHugh

- 2. Completed C-102 at referenced location.
- 3. Offset operators/owners plat and affadavit of notification...
- 4. 7.5 minute topographic map showing the orthodox windows for the south half dedication for the Mesa Verde and southeast quarter dedication for the Pictured Cliffs and enlargement of the map to define topographic features.
- 5. If the well were directionally drilled to a standard bottom hole location, the economics would be severely burdened due to the incremental directional drilling costs of \$200,000.

A copy of this application is being submitted to all offset owners/ operators by certified mail with a request that they furnish you with a Waiver of Objection, and return one copy to this office.

Singerely,							
Sony Sra.	Chield						
Peggy Bradfield							
	ance Representative						
encs.	•						
		WAIVER	3				
	hereby waives o	objection to	_ Meridian Oi	il Inc.'s	application	for a	non-
standard location f	or their Jicarilla 98 #				••		
By:		Date: _					
			•				
xc: Consolidat	ed Oil & Gas Corp.						



# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OIL CON. DIV

1a.	Type of Work	5. Lease Number		
٠	DRILL	Jicarilla Contract 98		
1b.	Type of Well	6. If Indian, All. or Tribe		
	GAS	Jicarilla Apache		
2.	Operator MERIDIAN OIL	7. Unit Agreement Name		
3.	Address & Phone No. of Operator	8. Farm or Lease Name		
	PO Box 4289, Farmington, NM 87499	Jicarilla 98		
	(505) 326-9700	9. Well Number 10A		
4.	Location of Well	10. Field, Pool, Wildcat		
	1865'FSL, 1360'FEL	Tapacitos Pic Cliffs		
		Blanco Mesa Verde		
		11. Sec., Twn, Rge, Mer.		
	Latitude 36° 29' 03", Longitude 108° 09' 48"	Sec 17,T-26-N,R-3-W NMPM		
14.	Distance in Miles from Nearest Town	12. County 13. State		
	35 miles to Dulce, NM	Rio Arriba NM		
15.	Distance from Proposed Location to Nearest Property or Lease Line			
16.	Acres in Lease	17. Acres Assigned to Well 160 (SE/4) & 320 (S/2)		
18.	Distance from Proposed Location to Nearest Well, Drig, Compi	, or Applied for on this Lease		
19.	Proposed Depth	20. Rotary or Cable Tools		
	6495'	Rotary		
21.	Elevations (DF, FT, GR, Etc.) 7128 'GR	22. Approx. Date Work will Start 3rd quarter 1993		
23.	Proposed Casing and Cementing Program			
	See Operations Plan attached			
24.	Authorized by: Denald ( Walker	7/29/93		
	Regional Drilling Engineer	Date		
PERM	IIT NO APPROVAL I	DATE		
ADDE	OVED BYTITLE	DATE		

School to Appropriate District Ciffee State Lance - 4 extens Fee Lance - 3 expens

## State of New Mexico Energy, Minerals and Natural Resources Department

Form C-162 Reviews 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe. New Mexico 87504-2088

DISTRICT II 2.O. Drawe OD, Ariena, NM 82210

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

<u>DISTRICT III</u> 1000 Rio Sessos RA., Amer. NM 17410

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Claimanns great he from the guar poundance of the section

	i Lease	Well No.
Meridian Oil Inc.	Jicarilla 98	10A
J 17 Z6 North	3 West	Rio Arriba
1865 for the South	1360	Fast
1805 feet from the SOUTH lie	Paol	Debase Asses
7128' Pictured Cliffs/Mesa	Verde Tapacitos/Blanc	0 160/320 Agree
1. Outline the ecrosps dedicated to the surpost well by con-	res pence or tections marks on the past below.	
2. If more than one tenne is declarated to the well, cutting a	nch and identify the extraordisp thereof (both as	to welling manual and royalty).
3. If more than one taken of different overance is decised	d to the well, have the interest of all owners be	on commidated by communication,
unitation, force-cooling, etc.? Yes No If answer is "	yed' type of ecoestidation	
If marrier is "no" list the owners and trust descriptions with	the large annually been consistent. (Use save	n === d
this form of meconstry.  No allowable will be songnes to the well unni all unarrest	herm been countried and the communication,	putinence, format-coming, or otherwise)
or with a non-emotion was, eliminating such marries, has	sees approved by the Division.	
5280.0	<u> </u>	OPERATOR CERTIFICATION
	ì	therein carely that the informa-
1		best of my engineers and belief.
i	i	Janes Madhiel
	į	Daniel Prodeintal
i	1	Peggy Bradfield
		Regulatory Representativ
		Pomuon
		Meridian Oil Inc.
		7-28-93
i	i	Deta
İ	l	
17	1	SURVEYOR CERTIFICATION
//-		N I hereby certify that the well location a
		on the piet was pletted from field not
	i ,	named surveys made by me or under
LIC. CONTRACT	ol/360	correct to the best of my inemials
#98	1!	6-28 92
		Date Surprises C. ED Ly
<del> </del>		New New Calling Test de
	11	Production Surveyor
	أما	(3357)
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	≈  i	
i i		

Page 1 July 29, 1993

#### OPERATIONS PLAN

Well Name: Jicarilla 98 #10A

Location: 1865'FSL, 1360'FEL Section 17, T-26-N, R-3-W

Rio Arriba County, New Mexico

Latitude 36° 29' 03", Longitude 108° 09' 48"

Formation: Tapacitos Pictured Cliffs/Blanco Mesa Verde

Elevation: 7128'GL

Formation Tops:	Top	Bottom	Contents
Surface	San Jose	3390'	
Ojo Alamo	3390'	<b>3510'</b>	aquifer
Kirtland	3510'	3575'	-
Fruitland	3575'	3810'	gas
Pictured Cliffs	3810'	3990'	gas
Lewis	3990'	4750'	•
Chacra	4750'	5490'	gas
Mesa Verde	5490'	55 <b>60'</b>	gas
Menefee	5560'	59451	gas
Point Lookout	5945'	6495'	gas
Total Depth	6495'		-

#### Logging Program:

Mud Logs/Coring/DST -

Mud logs - 3500' to Total Depth Coring - none

DST none

#### Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200	Spud	8.4-8.9	40-50	no control
200-64951	LSND	8.4-9.1	30-60	no control

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

#### Casing Program:

Hole Size	Depth Interval	Csg.Size		Grade
12 1/4"	0' - 200'	8 5/8"	24.0#	K-55
7 7/8"	0' - 6495'	4 1/2"	10.5#	K-55

#### Tubing Program:

0' - 6495' 2 3/8" 4.7# J-55 EUE

#### BOP Specifications, Wellhead and Tests:

#### Surface to 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.

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

#### Completion Operations -

6" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

#### Surface to Total Depth -

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

#### Wellhead -

8 5/8" x 4 1/2" x 2 3/8" x 3000 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.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

#### Cementing:

8 5/8" surface casing -

Cement to surface w/140 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (165 cu.ft. of slurry, 100% excess to circulate to surface.) WOC 12 hours prior to drilling out surface casing. 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.

#### Production Casing - 4 1/2"

First Stage: Cement to circulate to stage tool @ 4090'. Lead w/553 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC 4 hours prior to pumping second stage. (Slurry volume: 1097 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to surface. Lead w/987 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1865 cu.ft. Excess slurry: 100%.)

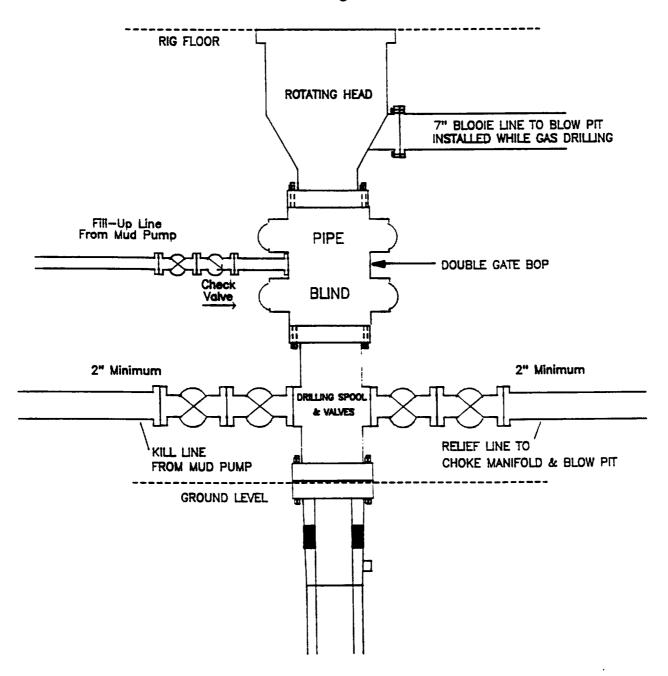
Float shoe on bottom. Three centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3510'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

- 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.

#### Additional Information:

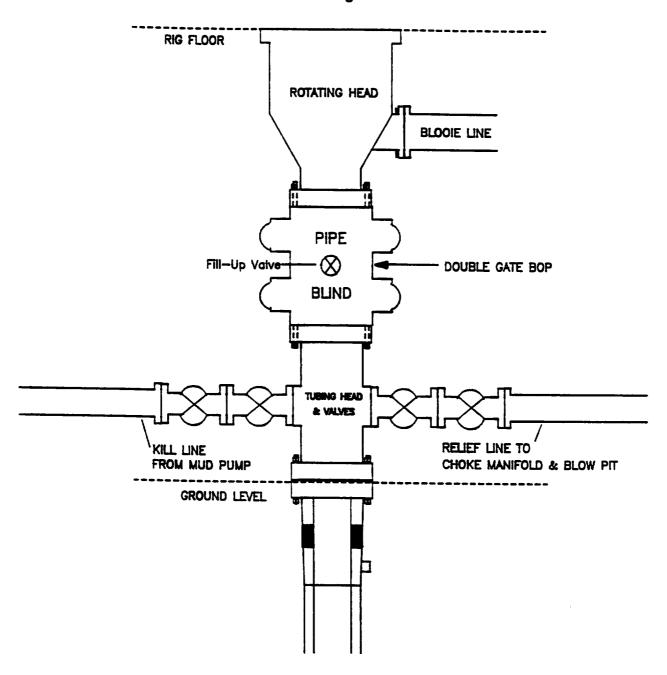
- Pictured Cliffs and Mesa Verde formations will be completed and commingled per New Mexico Oil Conservation Division Order.
- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The South half of Section 17 is dedicated to the Mesa Verde and the Southeast quarter is dedicated to the Pictured Cliffs.
- This gas is dedicated.
- New casing will be utilized.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

## Mesaverde Well BOP Configuration



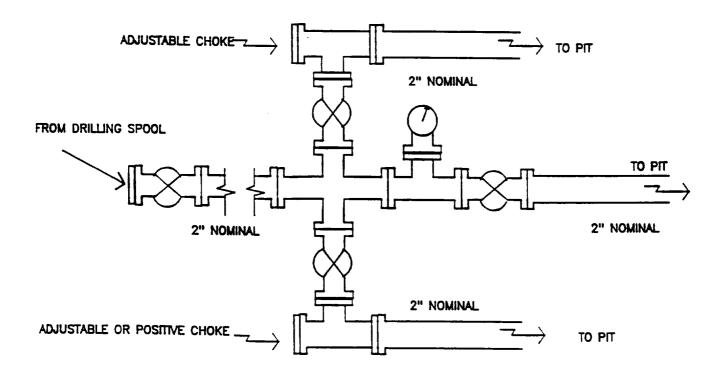
Minimum BOP installation for a Mesaverde well from Surface to Total Depth. 11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure or greater.

Mesaverde Well — Completion Rig BOP Configuration



Minimum BOP installation for Completion Operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

Mesaverde Well Choke Manifold Configuration



Minimum choke manifold installation from surface to Total Depth. 2" minimum, 2000psi working pressure equipment with two chokes.



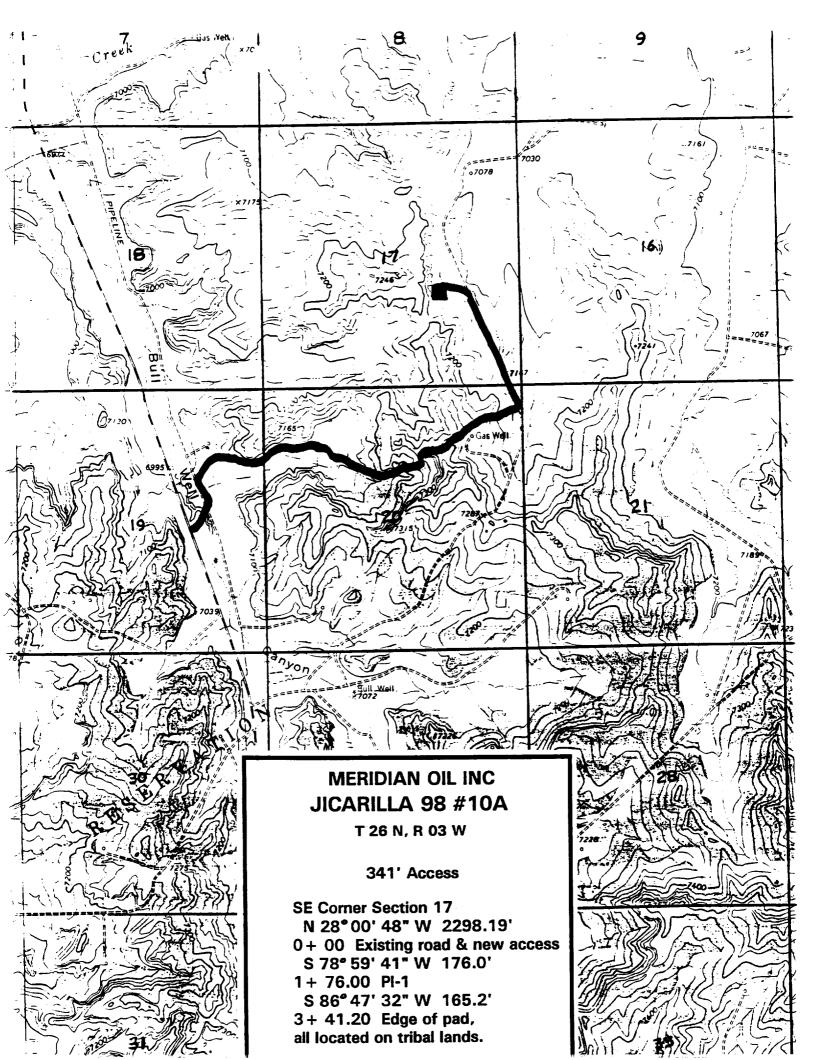
- 1. Existing Roads Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
- Planned Access Road Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 341' of access road will be constructed. Pipelines are indicated on Map No. 1A.
- 3. Location of Existing Wells Refer to Map No. 1A.
- 4. Location of Existing and/or Proposed Facilities if Well is Productive
  - a. On the Well Pad Refer to Plat No. 1, anticipated production facilities plat.
  - b. Off the Well Pad Anticipated facilities off the well pad will be applied for as required.
- 5. Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from Bull Pasture Well located SW Section 17, T-26-N, R-4-W, New Mexico.
- 6. Source of Construction Materials If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
- 7. Methods of Handling Waste Materials All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. All reserve pits will be lined with 12 mil bio-degradable plastic liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
- 8. Ancillary Facilities None anticipated.
- 9. Wellsite Layout Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

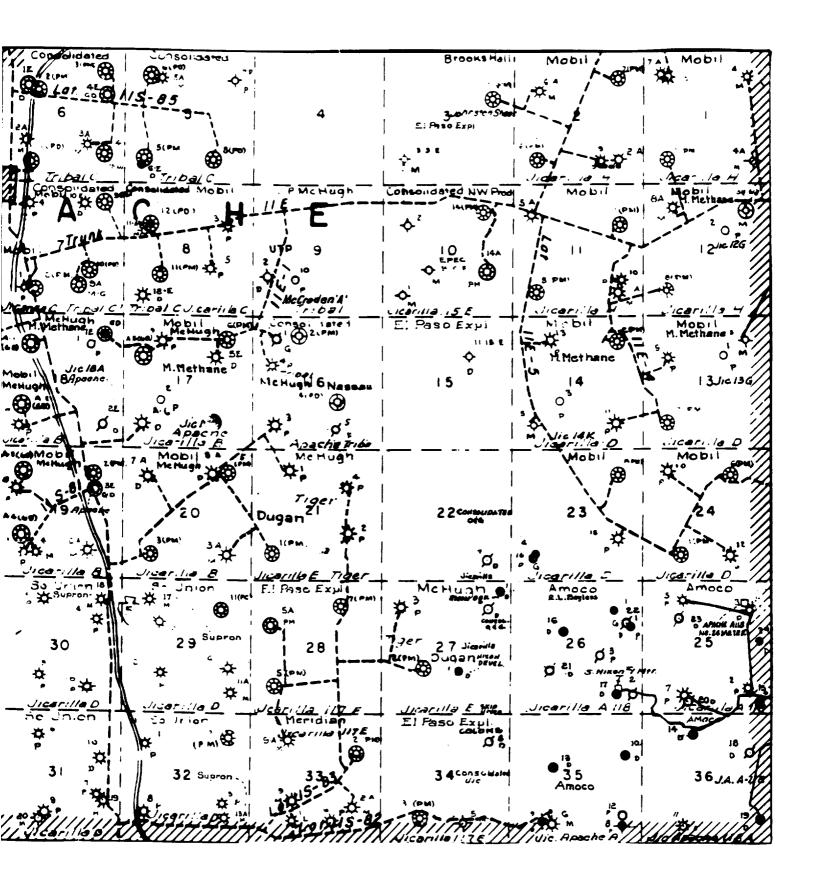
- 10. Plans for Restoration of the Surface After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.
- 11. Surface Ownership Jicarilla Apache Tribe.
- 12. Other Information Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- Operator's Representative and Certification Meridian Oil Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Regional Drilling Engineer

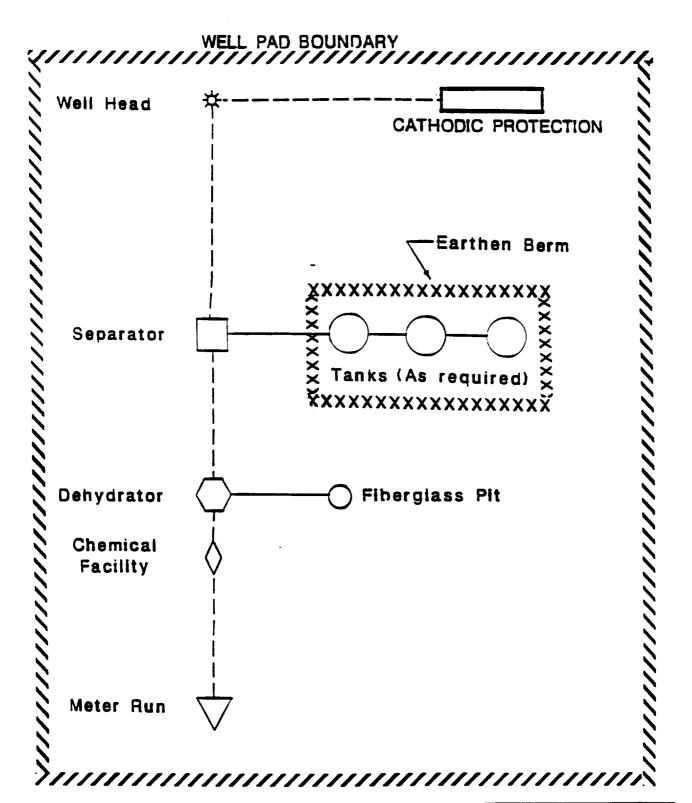
Date

JWC:pb





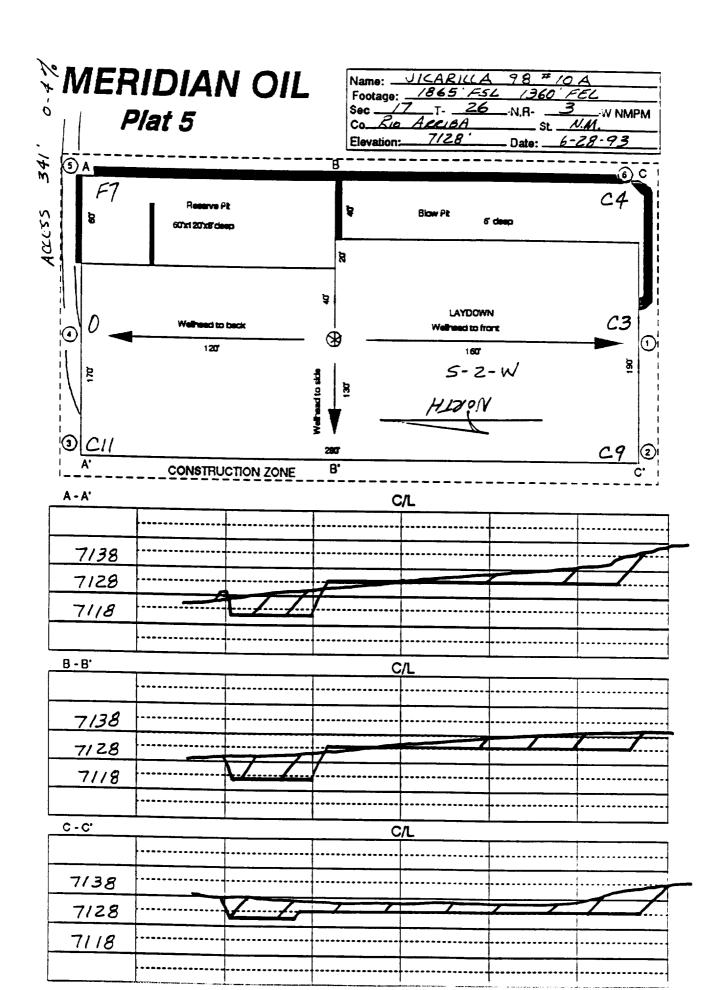
MERIDIAN OIL INC.
Pipeline Map
T-26-N, R-03-W
Rio Arriba County, New Mexico
Jicarilla 98 #10A
Map #1A



PLAT #1

## MERIDIAN OIL

ANTICIPATED
PRODUCTION FACILITIES
FOR A
MESA VERDE WELL



School to Asymptomic District Office State Lease - 4 comes Fee Lease - 3 comes

## State of New Mexico Energy, Minerals and Natural Resources Department

Form C-182 Revises 1-1-86

P.O. Box 1980, Hobbs, NM \$2240

OIL CONSERVATION DIVISION
P.O. Box 2088
Same Fe. New Mexico 87504-2088

DISTRICT II P.O. Drawer DD. Artenn, NM \$1210

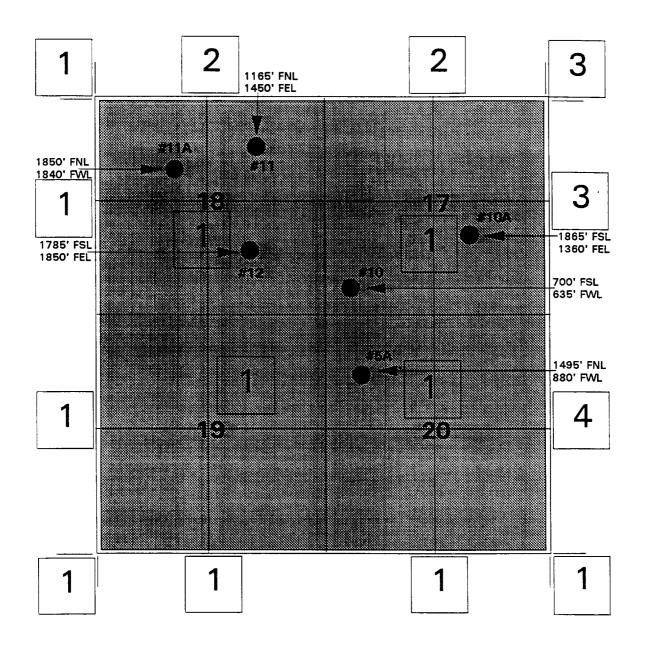
James 10, 110W Walker 0130-7-2000

DISTRICT III 1000 Rio Sensos RA., Amer. NSA 87410

## WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer tourscenes of the section Well No. Meridian Oil Inc. Jicarilla 98 10A Use Law 17 26 North 3 West Rio Arriba MMM Aster France Lorence of Well: 1865 feet from the East 1360 South feet from the lies and 7128' Pictured Cliffs/Mesa Verde Tapacitos/Blanco 160/320 Acres 1. Outline the acronge decirentes to the maries well by concret percei or hadron a D GE THE PLE BRIGHT. 2. If more than one takes as declimate to the well, excise each and identify the oversthip thereof (both he to weeking seasons and reynity). 3. If more than one taken of different oversoming is desirance to the well, have the imports of all overses been commissional by on If anyone is "yes" type of some E and that destruction which have extendy been extended. (Use prouse and of this force of manual No allowate will be as ned to the west times all tensions have been economicated (by econ METHODO, UNICERSOR, FORDIA GODING, OF CHAPTERIN OF WHILE & DOWNSHIPS WHILL, GARRIES ing such manue, has been approved by the Division. 5280.0 OPERATOR CERTIFICATION Thereby carries that the information MARKULL Peggy Bradfield Printed Name Regulatory Representative Meridian Oil Inc. 7-28-93 Date SURVEYOR CERTIFICATION N I hereby certify that the well location show O on this plac was planted from field notes actual surveyo made by me or under supervisor, and that the same is true a 1360' correct to the best of my shawnedge o JIC. CONTRACT 1 halia. 6-28-03 #98 News C. EDW 9857

### OFFSET OPERATOR/OWNER PLAT Pictured Cliffs/Mesaverde Commingle Township 26 North, Range 3 West Rio Arriba County, New Mexico



See Attached List

### Pictured Cliffs/Mesaverde Commingle Township 26 North, Range 3 West Offset Operators

- 1. Meridian Oil Inc.
  P.O. Box 4289
  Farmington, NM 87499-4289
- Consolidated Oil & Gas Corp.
   419 17th Street, Suite 400
   Denver, CO 80202-4410
- 3. Jerome P. McHugh 650 S. Cherry Street, Suite 1225 Denver, CO 80222
- 4. Jerome P. McHugh 650 S. Cherry Street, Suite 1225 Denver, CO 80222

Dugan Production Corp. P.O. Box 420 Farmington, NM 87499-0402

### MERIDIAN OIL

Re:

Meridian Oil Inc. Jicarilla 98 #10A

1865'FSL, 1360'FEL Section 17, T-26-N, R-3-W

Rio Amba County, New Mexico

I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

Consolidated Oil & Gas Corp. 419 17th Street, Suite 400 Denver, CO 80202-4410

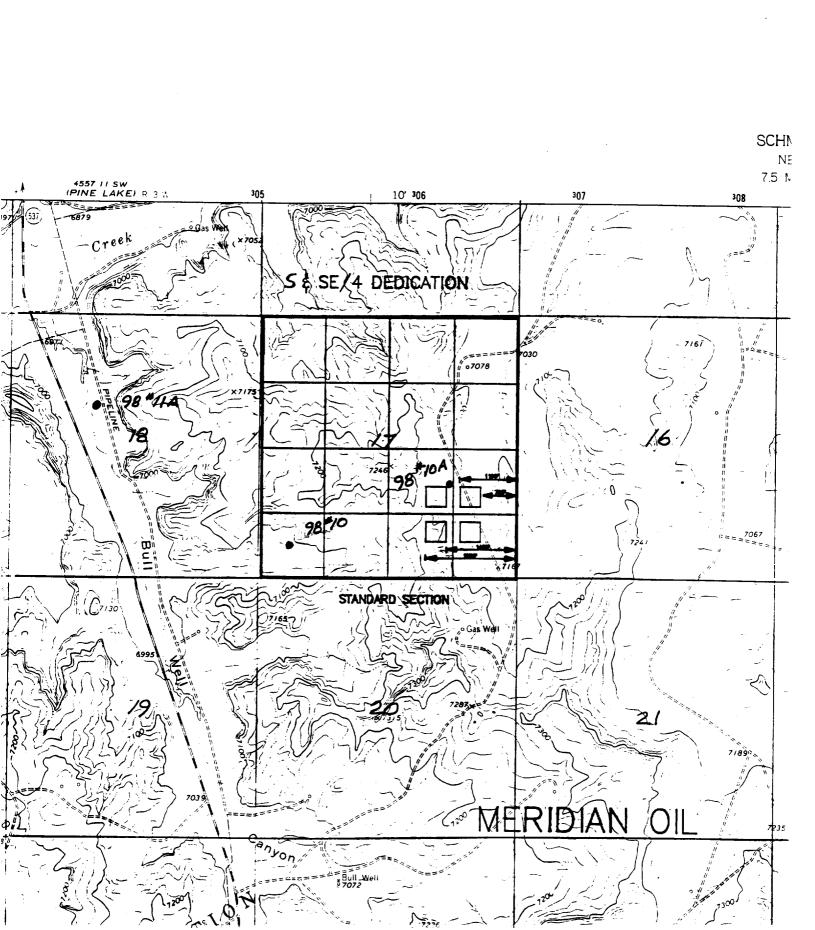
Jerome P. McHugh

650 South Cherry Street, Suite 1225

Denver, CO 80222

Peggy A. Bradfield San Juan County State of New Mexico

My commission expires August 17, 1996





## **DEVIATION REPORT**

	DEVIATION NEI	
Name of Company MERIDIAN OIL INC		Address PO BOX 4289, FARMINGTON, NM
Lease Name & Number JICARILLA 98 #10A	Unit Letter 1865 ' FSL, 1360 ' FWL	Sec. Twn Rge 17 026N 003W
Pool and Formation Tapacitos Pictured Cliffs/Blanc	o Mesa Verde	County RIO ARRIBA

Depth (Ft.)	Deviation (Degrees)	,
215	0.25	
720	0.25	
1248	0.50	
1586	0.75	
1835	0.75	
2142	1.00	
2420	0.75	
2761	0.75	
3270	1.25	
3750	1.25	
4121	1.00	DECENT
4618	1.00	IX = 0 E
5111	1.00	FEB1 51994
5500	1.00	
6178	1.00	OIL CON. DIV

I, the undersigned, certify that I, acting in my capacity as Petroleum Engineer for MERIDIAN OIL INC., am authorized by said Company to make this report; and that this report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

Subscribed and sworn to before me this 8th day of November, 1993.

Notary Public in and for San Juan County, New Mexico

My commission expires August 17, 1996.