STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION,

≡ DRUG FREE

BRUCE KING SOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

August 22, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504

DIST. 3

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

Attention: Peggy Bradfield

Administrative Order NSL-3420

Dear Ms. Bradfield:

Reference is made to your application dated July 6, 1994 for an unorthodox gas well location for both the Basin-Dakota Pool and the Angels Peak-Gallup Associated Pool for the proposed Huerfano Unit Well No. 217-R. Said well to be drilled 1395 feet from the North line and 1460 feet from the East line (Unit G) of Section 29, Township 27 North, Range 10 West, NMPM, San Juan County, New Mexico. It is our understanding that both zones are to be downhole commingled.

The N/2 of said Section 29 being a standard 320-acre gas spacing and proration unit for both pools, is to be dedicated to said well.

By the authority granted me under the provisions of Rule 2(c) of the "Special Rules and Regulations for the Basin-Dakota Pool", as promulgated by Division Order No. R-8170, as amended, and Rule 2(c) of the "General Rules and Regulations for the Associated Oil and Gas Pools of New Mexico/Special Rules and Regulations for the Angels Peak-Gallup Associated Pool", the above-described unorthodox gas well location is hereby approved.

Also, Meridian Oil, Inc. shall comply with all other provisions applicable in the drilling of high angle/horizontal directional wells.

Sincerely,

William J. LeMay

Director

WJL/MES/amg

cc: Oil Conservation Division - Aztec

US Bureau of Land Management - Farmington

Ernie Busch

From:

Ernie Busch

To: Subject: Mike Stogner

MERIDIAN OIL INC (NSL)

Date:

Tuesday, July 12, 1994 1:46PM

WELL NAME:

HUERFANO UNIT #217R

LOCATION:

G-29-27N-10W

FOOTAGE:

1395' FNL; 1460' FEL

RECOMMEND:

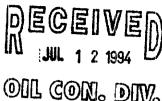
APPROVAL



July 6, 1994

Sent Federal Express

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



DIBL 3 OIL GOIN DIM

Re:

Meridian Oil Inc. Huerfano Unit #217R

1395'FNL, 1460'FEL. Section 29, T-27-N, R10-W - San Juan County, New Mexico

API # 30-045-29089

Dear Mr. LeMay:

Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in both the Basin Dakota and Angels Peak Gallup formations. This application for the referenced location is due to terrain as shown on the topographic map and the presence of endangered plants. This location is on existing disturbance.

This well is planned as a Basin Dakota/Angels Peak Gallup well, and administrative order DHC-1013 has been received to commingle this well.

The following attachments are for your review:

- 1. Application for Permit to Drill.
- Completed C-102 at referenced location.
- Offset operators/owners plat
- 4. 7.5 minute topographic map showing the orthodox windows for the north half dedication for both the Basin Dakota and Angels Peak Gallup; and enlargement of the map to define topographic features.

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.

Sincerely,

Peggy Bradfield

Regulatory/Compliance Representative encs.

	<u>WAIVER</u>
	hereby waives objection to Meridian Oil Inc.'s application for a non-
stand	ard location for their Huerfano Unit #217R as proposed above.
Ву: _	Date:
xc:	(see attached)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

	APPLICATION F	OR PERMIT TO DRILL, DEEPE	N, OR PLUG BACK
1a.	Type of Work DRILL	DEGEINED	5. Lease Number SF-080810
1b.	Type of Well GAS	JUL 1 2 1994	6. If Indian, All. or Tribe
2.	Operator MERIDIAN ©IL	OIL CON. DIV.	7. Unit Agreement Name Huerfano Unit
3.	Address & Phone No. of Oper PO Box 4289, Farmin (505) 326-9700		8. Farm or Lease Name Huerfano Unit 9. Well Number 217R
4.	Location of Well 1395'FNL, 1460'FEL		10. Field, Pool, Wildcat Angels Peak Gallup/ Basin Dakota 11. Sec., Twn, Rge, Mer.
	Latitude 36 ⁰ 33' 90",	Longitude 107° 54' 53"	Sec 29,T-27-N,R-10-W NMPM
14.	Distance in Miles from Neares 3 miles to Hilltop Sto		12. County 13. State San Juan NM
15.	Distance from Proposed Loca 1395 '	tion to Nearest Property or Lease I	.ine
16.	Acres in Lease		17. Acres Assigned to Well 320 N/2
18.	Distance from Proposed Loca	tion to Nearest Well, Drlg, Compl,	or Applied for on this Lease
19.	Proposed Depth 6495' Dakota - TVD 5615' Gallup - TVD;	7287' MD	20. Rotary or Cable Tools Rotary
21.	Elevations (DF, FT, GR, Etc.) 6014 'GR		22. Approx. Date Work will Start 1st quarter 1994
23.	Proposed Casing and Cement See Operations Plan		
24.	Authorized by: Regional	arelling Engineer	
PERM	IT NO.	APPROVAL DA	ATE
APPR	OVED BY	TITLE	DATE

Archaeological Report submitted by Arboles Contract Archaeology Technical Report #362 dated 11-08-93 Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3



College to Assertation
Contract College
College League - 4 college
Fine League - 5 college

Date of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revision 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Jama Fe. New Mexico 87504-2088

CO. Direct DD. Arama NM \$2210

CO. Bridge DD. Arama NM \$7410

COO RED HERES Rd. Area. NM \$7410

WELL LOCATION AND ACREAGE DEDICATION PLAT

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OPERATIONS PLAN

Well Name: Huerfano Unit #217R

Location: 1395'FNL, 1460'FEL Section 29, T-27-N, R-10-W

San Juan County, New Mexico

Latitude 36° 33' 00", Longitude 107° 54' 53"

Field: Angel Beak Gallup/Basin Dakota

Formation: Tocito/Dakota

Elevation: 6014'GL

Project Description: The Huerfano Unit #217R is planned to be drilled and completed in two phases. The first phase will be to drill and complete the Dakota formation and set a retrievable bridge plug. Once the Dakota formation is completed it is planned to return to the well with a drilling rig and set an oriented retrievable whipstock and sidetrack the existing 7" casing. A 1500' lateral is planned in the Tocito interval. It is intended to be completed naturally with a plugged and perforated liner which will be chemically cut at the kick-off point. The retrievable whipstock and bridge plug will be pulled and dual strings of tubing will be run. The well is planned to be commingled at the surface.

Formation Tops:	Top	Bottom	Con	te	<u>ats</u>
Surface Ojo Alamo Pictured Cliffs Cliff House Point Lookout	Nacimient 720' 1728' 3322' 4254'	1728' 3322' 4254' 5243'	aqui gas aqui		
Gallup Tocito Juana Lopez Greenhorn	5243' 5594' 5744' 6154'	5594' 5744' 6154' 6130'	gas gas gas	&	oil oil
Graneros Dakota Total Depth Kick-off Point Total Depth (TVD)	5263' To	6207' akota ocito	gas gas		oil oil
Total Depth (MD)	72 87 ' To	ocito			

Logging Program:

Mud Logs/Coring/DST -

Mud logs - 1300-2000', 5000-6495' (DK), 5000-7287' (Tocito).

Coring - none
DST - none

Electric logs - IEL/SP/GR; Density/Neut/GR; Microlog-GR (Dakota Only)

Mud Program:

Interval	Type	Weight	Vis.	Flu	id Loss	
0- 200'	Spud	8.4-8.9	40-50	no	control	
200-6495'	LSND	8.4-9.1	30-50	no	control	Dakota
5263-7287'	Air/mist	NA	NA		NA	Tocito

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

Casing Program:

Hole Size	Depth I	nterval	Csg.Size	Wt.	Grade	
12 1/4"	31	- 200'	9 5/8"	36.0#	K-55	
8 3/4"	<u>. 1</u>	- 5400'	7 11	23.0#	M - 80	Dakota
8 3/4"X 7	7/8"	5400'	7"X 5 1	/2" Swag	e	
7 7/8"	5400'	- 64951	5 1/2"	17.0#	M - 80	Dakota
6 1/4"	5263'	- ~287'	MD 2 7/8"	6.5#	J-55	Tocito

Plugged and Perforated

Tubing Program:

J'	-	6495'	2	3/8"	4.7#	J-55	EUE	Dakota
0 '	_	5200'	1	1/4"	2.4#	J-55	EUE	Tocito

BOP Specifications, Wellhead and Tests:

Surface to TD -

11" 3000 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, 3000 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, 3000 psi minimum choke manifold (Reference Figure #3).

Wellhead -

9 5/8" x 7" x (2 3/8" + 1 1/4") 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:

9 5/8" surface casing -

Cement to surface w/160 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (188 cu.ft. of slurry, 200% 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 - 5 1/2" X 7" Dakota

First Stage: Cement to circulate to stage tool @ 4350'. Lead w/326 sx 65/35 Class "E" 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: 695 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to stage tool @ 1400'. Lead w/468 sx 65/35 Class "B" Pozmix w/6\$ gel, 2\$ calcium chloride, and 1/4#/sx cellophane flakes. Tail w/50 sx Class "B" cement w/2\$ calcium chloride. WOC a minimum of 18 hours prior to cleanout. Slurry volume: 887 cu.ft. Excess slurry: 100\%.)

Third Stage: Cement to circulate to surface. Cement w/205 sx = 65/35 Class "B" Pozmix w/63 gel, 23 calcium chloride, and 1/4#/sx cellophane flakes. Tail w/50 sx Class "B" cement w/23 calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 421 cu.ft. Excess slurry: 1008.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty (30) centralizers - one every 4th joint to the base of the Ojo Alamo @ 1728'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1728'. 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.

Production Casing - 2 7/8" Tocito

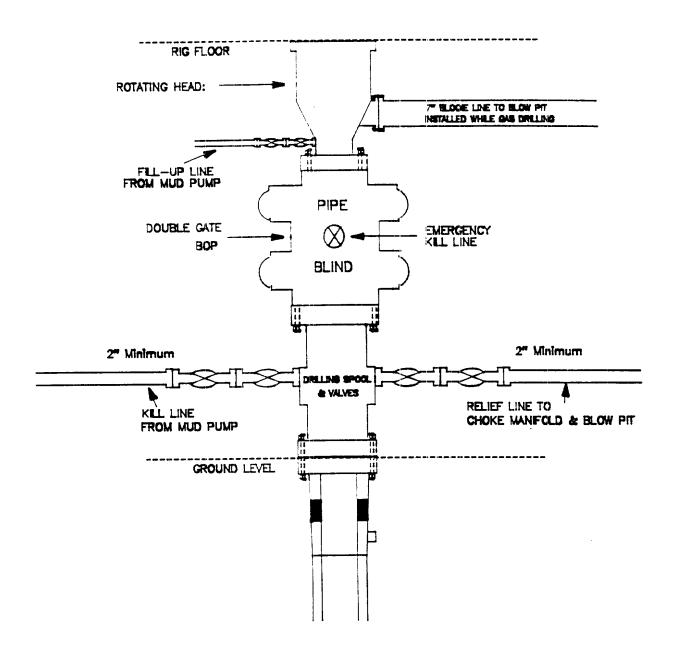
The 2 7/8" plugged and perforated production casing for the Tocito interval will be uncemented and chemically cut at KOP (5263).

Additional Information:

- The Gallup and Dakota formations will be completed with dual tubing strings of 2 3/8" and 1 1/4" and surface commingled.
- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost direculation is encountered below the top of the Pictured Cliffs.
- The North half of Section 29 is dedicated to this well.
- This gas is dedicated.
- · New casing will be utilized.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

MERIDIAN OIL INC.

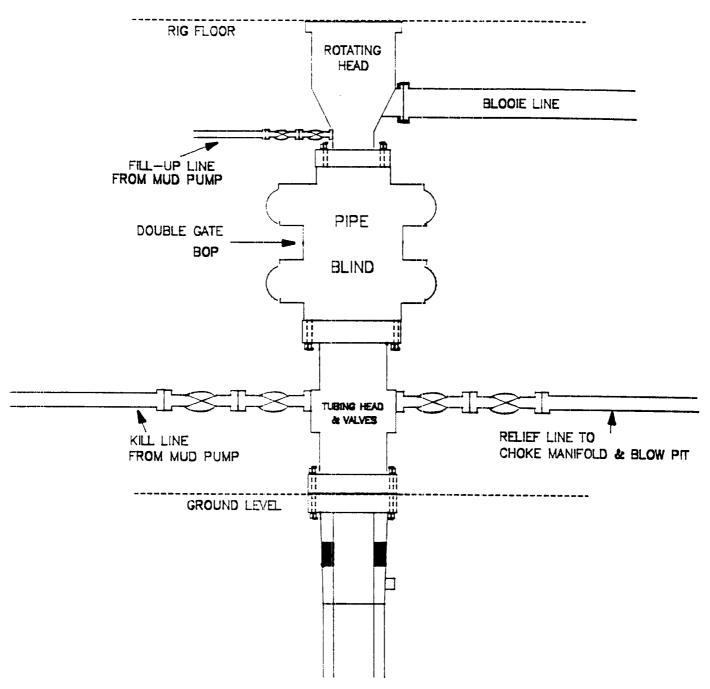
BOP Configuration 2M psi SYSTEM



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.

MERIDIAN OIL INC.

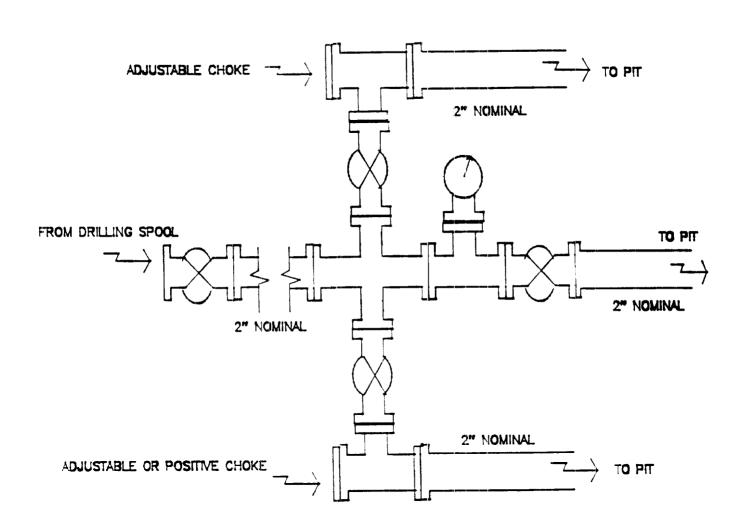
BOP Configuration 2M psi SYSTEM



Minimum BOP installation for Completion operations. $7 \frac{1}{16}$ " Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

Figure #2

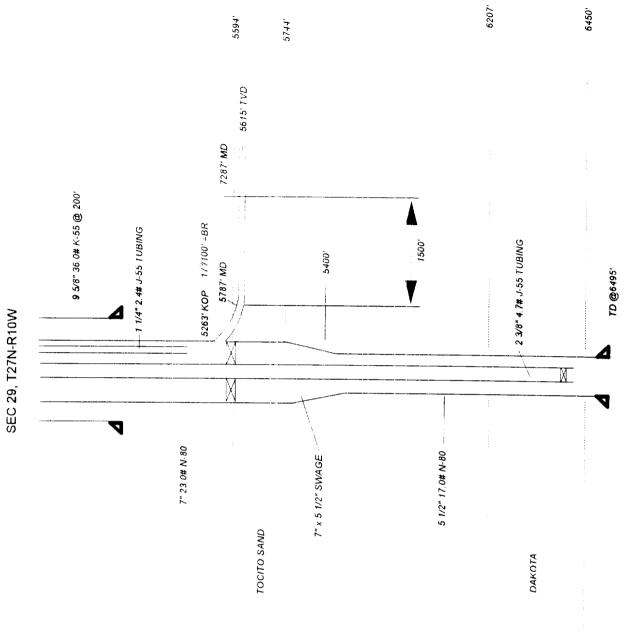
MERIDIAN OIL INC. Choke Manifold Configuration 2M psi SYSTEM



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

Figure #3

HUERFANO UNIT #217R TOCITO/DAKOTA NEW DRILL

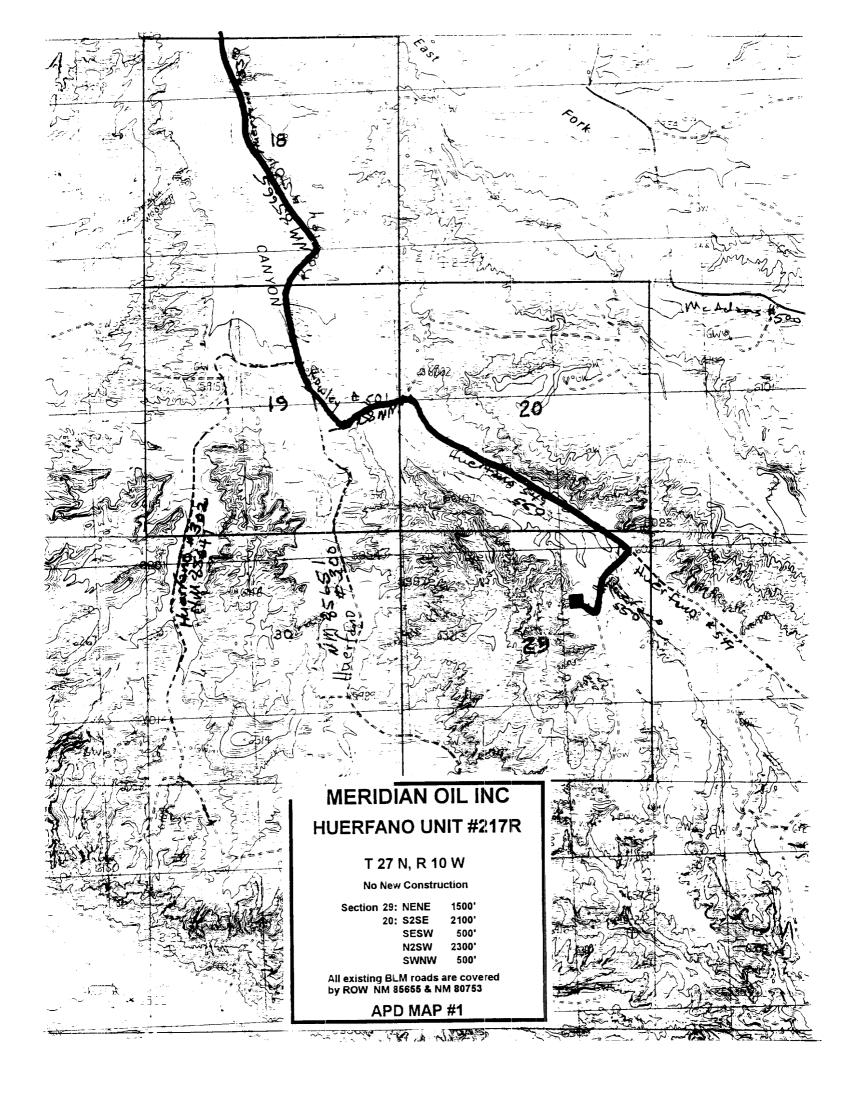




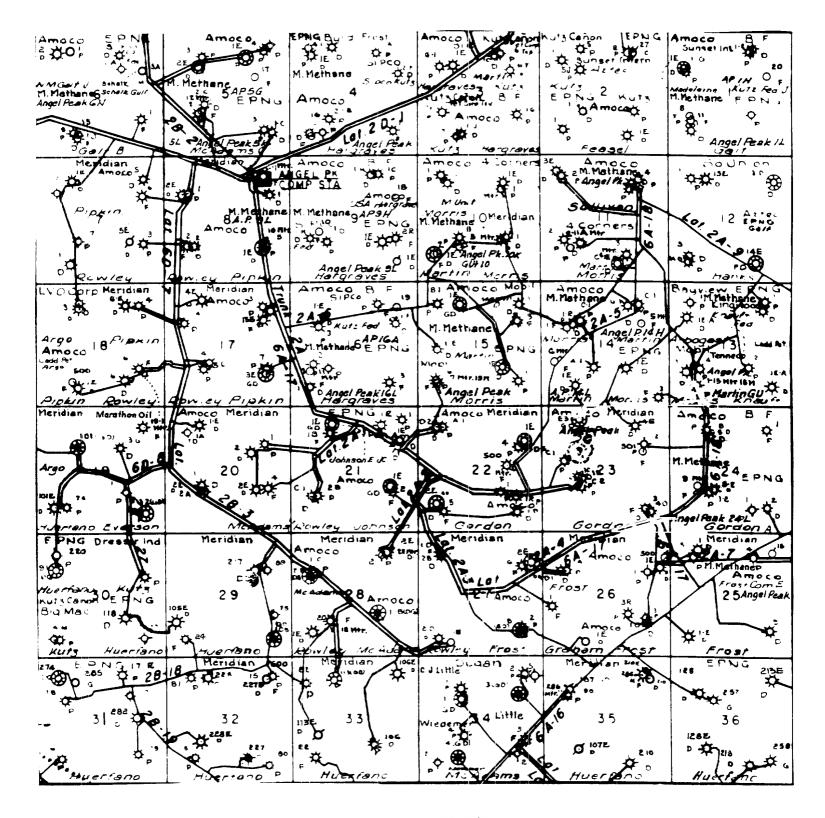
- 1. Existing Roads Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
- 2. Planned Access Road Refer to Map No. 1. None required.
- 3. 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 Rowley #7 bradenhead located in SW/4 Section 7, T-27-N, R-10-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 - Bureau of Land Management,
- 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.
- 13. 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







MERIDIAN OIL INC.
Pipeline Map
T-27-N, R-10-W
San Juan County, New Mexico
Huerfano Unit #217R
Map #1A

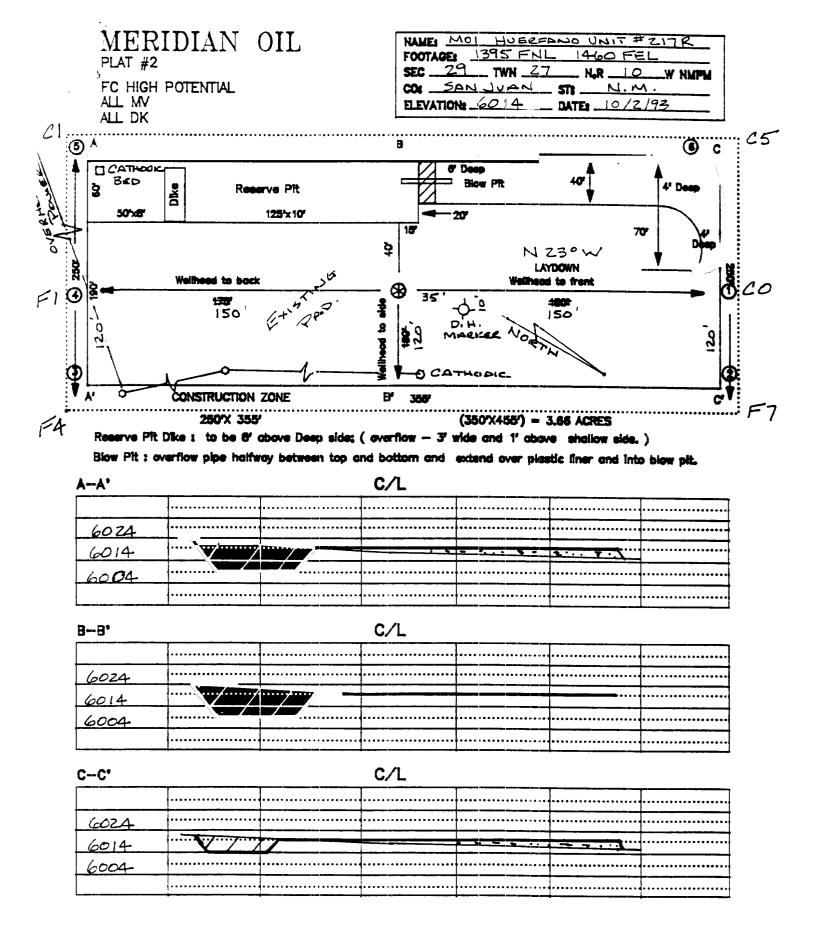
Well Pad Boundary Well Head Cathodic Protection - Earthen Berm Separator Tanks (As required) **Dehydrator** (Fiberglass Pit Chemical Facility Meter Run

PLAT #1

MERIDIAN OIL

ANTICIPATED
PRODUCTION FACILITIES
FOR A
DAKOTA WELL

SFF 8/91



School to Asse District Utilise State Lane - 4 comm

State of New Mexico Energy, Mineran and Natura Resources Department

OISTORICE ! ?.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION

P.O. Box 2088

Sama Fe. New Mexico 87504-2088

DISTRICT II P.O. Down DO. Arama NM \$5210

DISTRICT III 1000 Rio seems AA., Asse, NM 87410		LTION AND ACREAG					
Meridian Oil	Inc.	Hue	erfaño Unit		!	217R	
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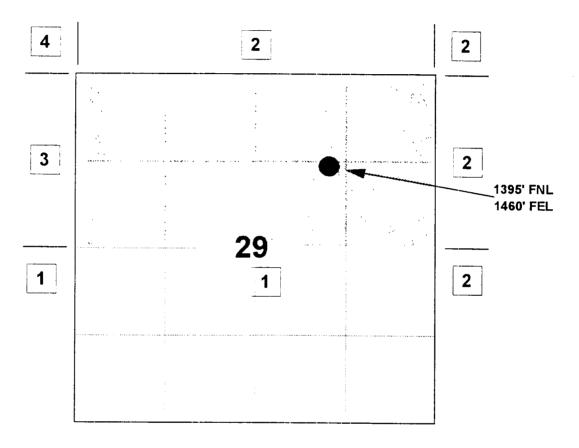
MERIDIAN OIL INC

HUERFANO UNIT #217R

OFFSET OPERATOR \ OWNER PLAT

Gallup / Dakota Commingle Well
Unorthodox Gallup \ Dakota Well Location

Township 27 North, Range 10 West



2) Amoco Production Company	PO Box 800, Denver, CO 80201 &
Conoco, Inc.	10 Desta Dr, Suite 100W, Midland, TX 79705-4500
3) B.B.L. Ltd.	PO Box 911, Brecenridge, TX 76024
4) Meridian Oil Inc &	
Marathon Oil Company	PO Box 552, Midland, TX 79702

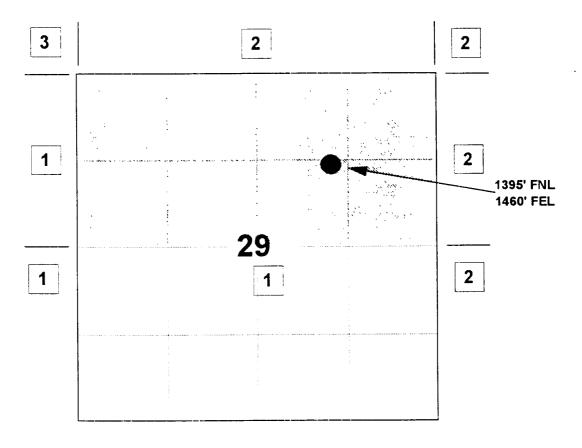
MERIDIAN OIL INC

HUERFANO UNI™ #217R

OFFSET OPERATOR \ OWNER PLAT

Gallup / Dakota Commingle Well Unorthodox Gallup \ Dakota Well Location

Township 27 North, Range 10 West



1) Meridian Oil Inc	
2) Amoco Production Company	PO Box 800, Denver, CO 80201 &
3) Meridian Oil Inc &	
Marathon Oil Company	PO Box 552, Midland, TX 79702

Dakota Formation

Re: Meridian Oil Inc. Huerfano Unit #217R

1395'FNL, 1460'FEL, Section 29, T-27-N, R10-W - San Juan County, New Mexico

API # 30-045-29089

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.

Gallup Formation

Amoco Production PO Box 800 Denver, CO 80201

Conoco, Inc. 10 Desta Drive, Suite 100W Midland, TX 79705-4500

BBL Ltd PO Box 911 Breckenridge, TX 76024

Marathon Oil PO Box 552 Midland, TX 79702

Dakota Formation

Amoco Production PO Box 800 Denver, CO 80201

Marathon Oil PO Box 552 Midland, TX 79702

Reggy A' Bradfield

San Juan County, State of New Mexico My commission expires August 17, 1996

Bradined

