

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK  
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL  
OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR  
Merrion Oil & Gas Corporation

3. ADDRESS AND TELEPHONE NO.  
P. O. Box 840, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface 1650' fsl & 330' fel (NE SE)  
At proposed prod. zone ± 1540' fsl & 1105' fwl, Section 14 (NW SW)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
23 miles Southwest of Cuba, New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)  
330'

16. NO. OF ACRES IN LEASE  
80

17. NO. OF ACRES ASSIGNED TO THIS WELL  
40

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL-DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
750'

19. PROPOSED DEPTH  
6090' MD; 5215' TVD

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
6807' GR; 6821' KB

22. APPROX. DATE WORK WILL START\*  
August, 1995

5. LEASE DESIGNATION AND SERIAL NO.  
NM-12012

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Media Entrada Unit

8. FARM OR LEASE NAME, WELL NO.  
MEU No. 2

9. AP WELL NO.  
30-043-20087

10. FIELD AND POOL OR WILDCAT  
Media Entrada 45600

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Section 15, T19N, R3W

12. COUNTY OR PARISH  
Sandoval

13. STATE  
New Mexico

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
(Existing casing strings depicted on attached schematic)				
6-1/2"	4-1/2" N80	11.6#	± 5500' MD	100 sx (118 cu.ft.)

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 AND PROCEDURES ARE SUBJECT TO COMPLETION OF ATTACHED "GENERAL REQUIREMENTS"

Merrion proposes to re-enter the MEU No. 2 and clean out to kick off point at ± 4850' KB. Will run directional survey. May run CBL across kick off point. Will mill up to 60 feet of 7" casing section at kick-off point in Morrison formation (depth not yet chosen). Will spot kick-off cement plug, dress off and mobilize direction equipment. Will run in hole with mud motor and 6-1/8" bit. Will orient and kick off of cement plug in a easterly direction (± S84°E). Will build angle and intersect Entrada top at or near horizontal. Will continue to build angle to ≈ 90°. May run 4-1/2" liner through build section and cement in place with adequate cement to circulate to liner top inside of 7" casing. Will set liner top a minimum of 50 feet into 7" casing. If a liner is set will drill ahead with a 3-7/8" bit; if not a 6-1/8" bit will continue to be used. Will drill a horizontal lateral up 1,500 feet in length in a easterly direction. Following drilling, no open hole logs are planned. The drilling mud will be displaced with water or other suitable completion fluid and the Entrada formation will be tested for sizing of a submersible pump. (Other technical details attached.)

(Wellbore schematic attached.)

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

SIGNATURE Steven S. Dunn TITLE Operations Manager DATE 7-12-95

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

(Original Signed) HECTOR A. VILLALOBOS

AREA MANAGER  
RIO PUERCO RESOURCE AREA

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE SEP 8 1995

\*See Instructions On Reverse Side

NMOCD

District I  
PO Box 1988, Hobbs, NM 88241-1988  
District II  
PO Drawer DD, Aramis, NM 88211-8719  
District III  
1008 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-043-20087</b>	Post Code <b>45600</b>	Post Name <b>Media Entrada</b>
Property Code <b>7817</b>	Property Name <b>MEU</b>	Well Number <b>2</b>
OGRID No. <b>014634</b>	Operator Name <b>Merrion Oil &amp; Gas Corp.</b>	Elevation <b>6807' GR</b>

10 Surface Location

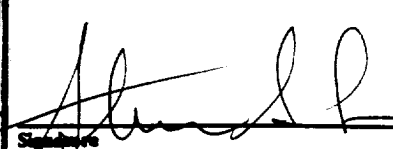
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	15	19N	3W	NESE	1650	south	330	east	Sandoval

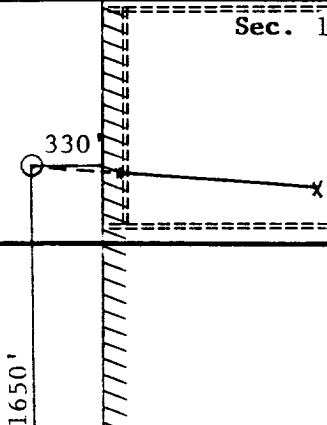
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedication Acres <b>40</b>	13 Joint or Infill <b>✓</b>	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16					<b>17 OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>   Signature <b>Steven S. Dunn</b> Printed Name Operations Manager Title Date 7/12/95
	Sec. 15				
					<b>18 SURVEYOR CERTIFICATION</b> <i>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 belief.</i>  Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number



# Merrion Oil & Gas Corporation

## Wellbore Schematic

### MEU No. 2

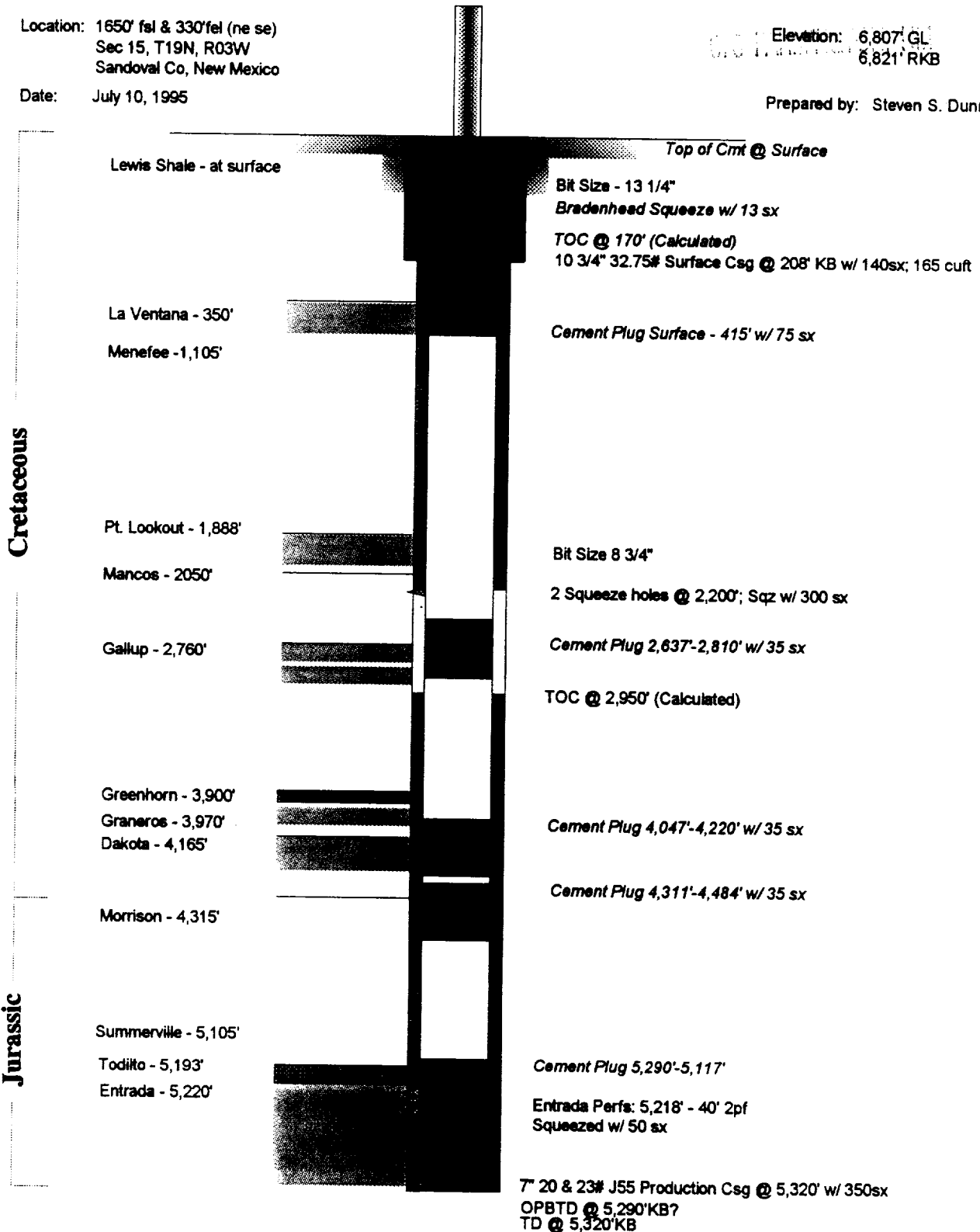
#### Current Wellbore Configuration

Location: 1650' fsl & 330'fel (ne se)  
Sec 15, T19N, R03W  
Sandoval Co, New Mexico

Date: July 10, 1995

Elevation: 6,807' GL  
6,821' RKB

Prepared by: Steven S. Dunn



#### WELL DATA:

CAPACITIES:

7" 23# -	0.0394 bbl/ft
2 3/8" 4.7# -	0.00387 bbl/ft
7" X 2 3/8" -	0.0339 bbl/ft

# MERRION OIL & GAS CORPORATION

## DRILLING TECHNICAL PROGRAM

(Attachment to Form 3160-3)

### MEU No. 2

1650' fsl & 330' fel (NESE)

Section 15, T19N, R3W

Sandoval County, New Mexico

### 1. ESTIMATED FORMATION TOPS:

<u>FORMATION</u>	<u>DEPTH</u>	<u>FORMATION</u>	<u>DEPTH</u>
Lewis Shale	Surface	Graneros	3970'
Cliff House	350'	Dakota	4165'
Menefee	1105'	Morrison	4315'
Point Lookout	1888'	Todilto	5193'
Mancos	2050'	Entrada	5220'
Gallup	2760'	Total Depth	5230'
Greenhorn	3900'		

### 2. WELL CONTROL SYSTEM

- A. Proposed blowout preventer system (schematic drawings attached) is a series 600 double ram with choke and kill manifold, and will be used in 2M service.
- B. Minimum required working pressure rating for BOP stack is 2000 psi.
- C. BOP pressure testing will be conducted at time of installation. The BOP's will be activated at minimum on each trip for a bit and recorded in driller's log.

### 3. DRILLING MUD PROGRAM

- A. A 6-1/8" or 3-7/8" hole will be drilled to total depth utilizing a low solids, non-dispersed gel-water mud system. Additives such as starch, cmc, soda ash and others will be used to control mud characteristics as necessary. No materials of a hazardous nature will be added to the drilling fluid in hazardous quantities.

Lost circulation materials will be stored on location, as necessary, for use in restoring lost circulation.

<u>INTERVAL</u>	<u>MUD SYSTEM</u>	<u>WEIGHT</u> <u>#/GAL</u>	<u>VISCOSITY</u> <u>SEC/QT</u>	<u>WATER</u> <u>LOSS CC</u>
4850'±-6090'±		Gel-Wtr ND	8.4-9.0	28-45 ≤ 12

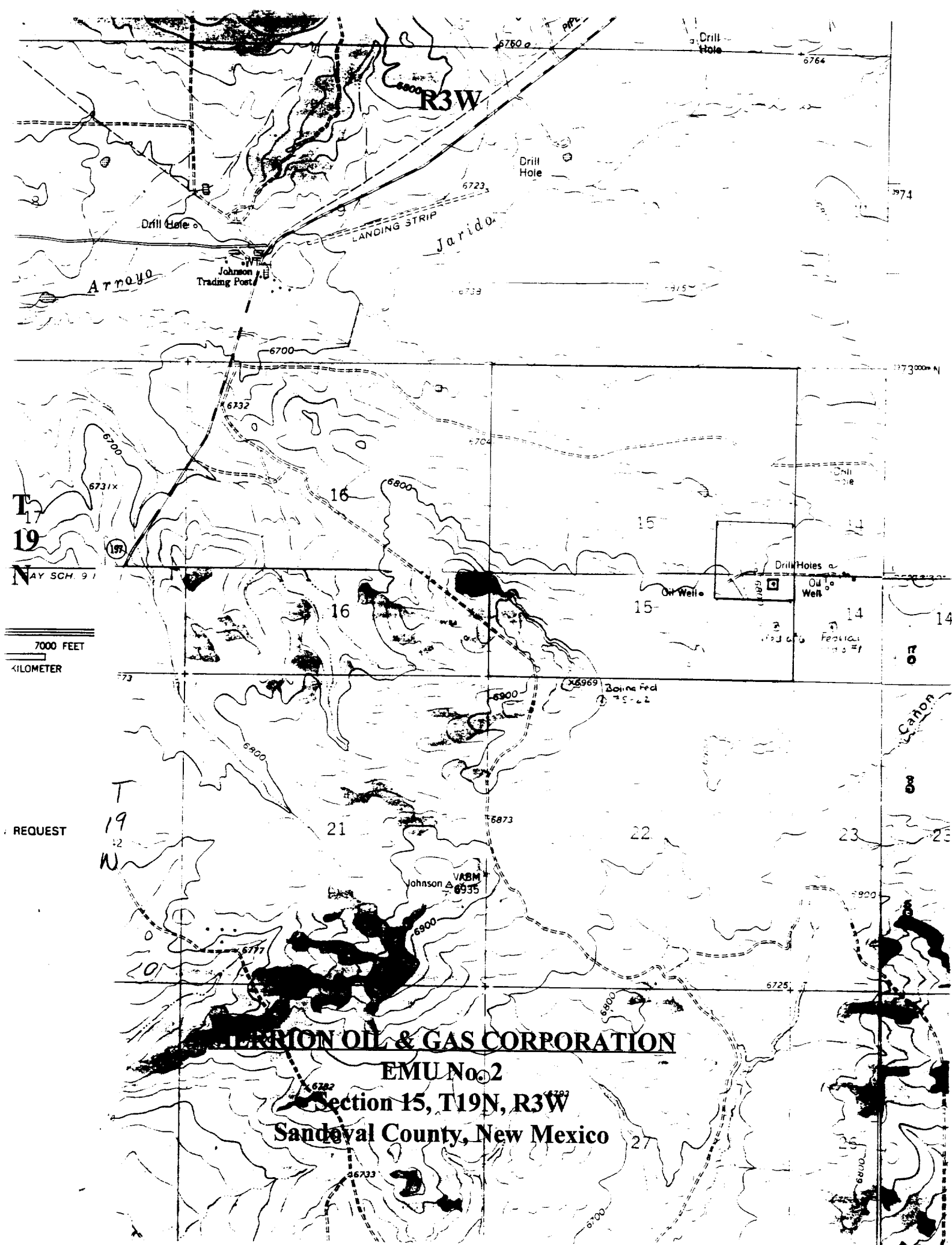
- C. Mud trip monitoring will be done visually.

#### **4. HAZARDS**

- A. No abnormal pressure is anticipated. However, 2M BOPs will be used from KOP to total depth. Normal pressure gradient is  $<0.38$  psi/ft of depth in this area. .
- B. Lost circulation is not expected to be a major problem in this area. However, lost circulation materials will be stored on location during drilling.
- C. No  $H_2S$  is expected. However, should  $H_2S$  be found during drilling, detection and warning equipment will be installed.
- D. The hole will be intentionally deviated to horizontal. Directional surveys giving hole inclination and direction will be run a minimum of every 100 feet..

#### **5. LOGGING AND TESTING**

- A. No open hole logs are planned.
- B. No drill stem tests will be run.
- C. No core is anticipated.
- D. Plans call for using a mud logging unit during drilling.



R 3 W

