

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE  WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/abd. \_\_\_\_\_

DATE FILED **4-07-86**

LAND: FEE & PATENTED \_\_\_\_\_ STATE LEASE NO. \_\_\_\_\_ PUBLIC LEASE NO. **U 57895** INDIAN \_\_\_\_\_

DRILLING APPROVED: **4-21-86 (Exception Location)**

SPUDDED IN: \_\_\_\_\_

COMPLETED: \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION: \_\_\_\_\_

GRAVITY A.P.I. \_\_\_\_\_

GOR: \_\_\_\_\_

PRODUCING ZONES: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_

WELL ELEVATION: \_\_\_\_\_

DATE ABANDONED: **4-6-87 well LA'D.**

FIELD: **UNDESIGNATED**

UNIT: \_\_\_\_\_

COUNTY: **SAN JUAN**

WELL NO. **NAVAJO FEDERAL 43-5** API #**43-037-31262**

LOCATION **2290' FSL** FT. FROM (N) (S) LINE. **280' FEL** FT. FROM (E) (W) LINE. **NE SE** 1/4 - 1/4 SEC. **5**

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
<b>39S</b>	<b>25E</b>	<b>5</b>	<b>MERIDIAN OIL INC.</b>				

# MERIDIAN OIL

April 4, 1986

State of Utah Natural Resources  
Oil, Gas and Mining  
355 W. North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Attention: Arlene Sollis

**RECEIVED**  
APR 07 1986

DIVISION OF  
OIL, GAS & MINING

Re: Application for Permits to Drill  
42-5 Navajo  
SENE Section 5-39S-25E  
43-5 Navajo  
NESE Section 5-39S-25E  
San Juan County, Utah  
Federal Lease No. U-58728

Gentlemen:

Enclosed are three copies of Form 3160-3, Application for Permit to Drill with attachments for each of the above referenced locations.

Please be advised that Meridian Oil Inc. requests that all pertinent data for this location be granted TIGHT HOLE status.

If you have any questions, please do not hesitate to call me at 406-256-4122.

Sincerely,



S. S. Nelson  
Sr. Operations Technician

ssn

Encl

1175N

**CONFIDENTIAL** UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 MERIDIAN OIL INC.

3. ADDRESS OF OPERATOR  
 P. O. Box 1855, Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface      NESE (2290' FSL - 280' FEL)  
 At proposed prod. zone      Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 6 miles east Hatch Trading Post

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)      280'

16. NO. OF ACRES IN LEASE      520.28

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.      1000'

19. PROPOSED DEPTH      5770' *akal*

20. ROTARY OR CABLE TOOLS      Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)      4777' GL (graded)

22. APPROX. DATE WORK WILL START\*      June 15, 1986

5. LEASE DESIGNATION AND SERIAL NO.  
 U-57895

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 Navajo

7. UNIT AGREEMENT NAME  
 - -

8. FARM OR LEASE NAME  
 Navajo

9. WELL NO.  
 43-5

10. FIELD AND POOL, OR WILDCAT  
 Kiva UNDESIGNATED

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Section 5-39S-25E

12. COUNTY OR PARISH      13. STATE  
 San Juan      Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2	13-3/8	48#	80'	Redi-Mix to surface
11	8-5/8	24 & 32#	3,300'	Two stage, DV tool @ 1500'
7-7/8	5-1/2	15.5#	5,770'	Cmt to sfc w/1500 sx "B" Lite Single stage, top of cmt @ 2800

The Upper Ismay and/or the Desert Creek will be selectively perforated and tested.  
 A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams will be used for blow out prevention on this well.

**CONFIDENTIAL INFORMATION**

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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.

24. SIGNED *akal* By *W. J. Winters*      TITLE Sr. Drilling Engineer      DATE 3-26-86

(This space for Federal or State office use)

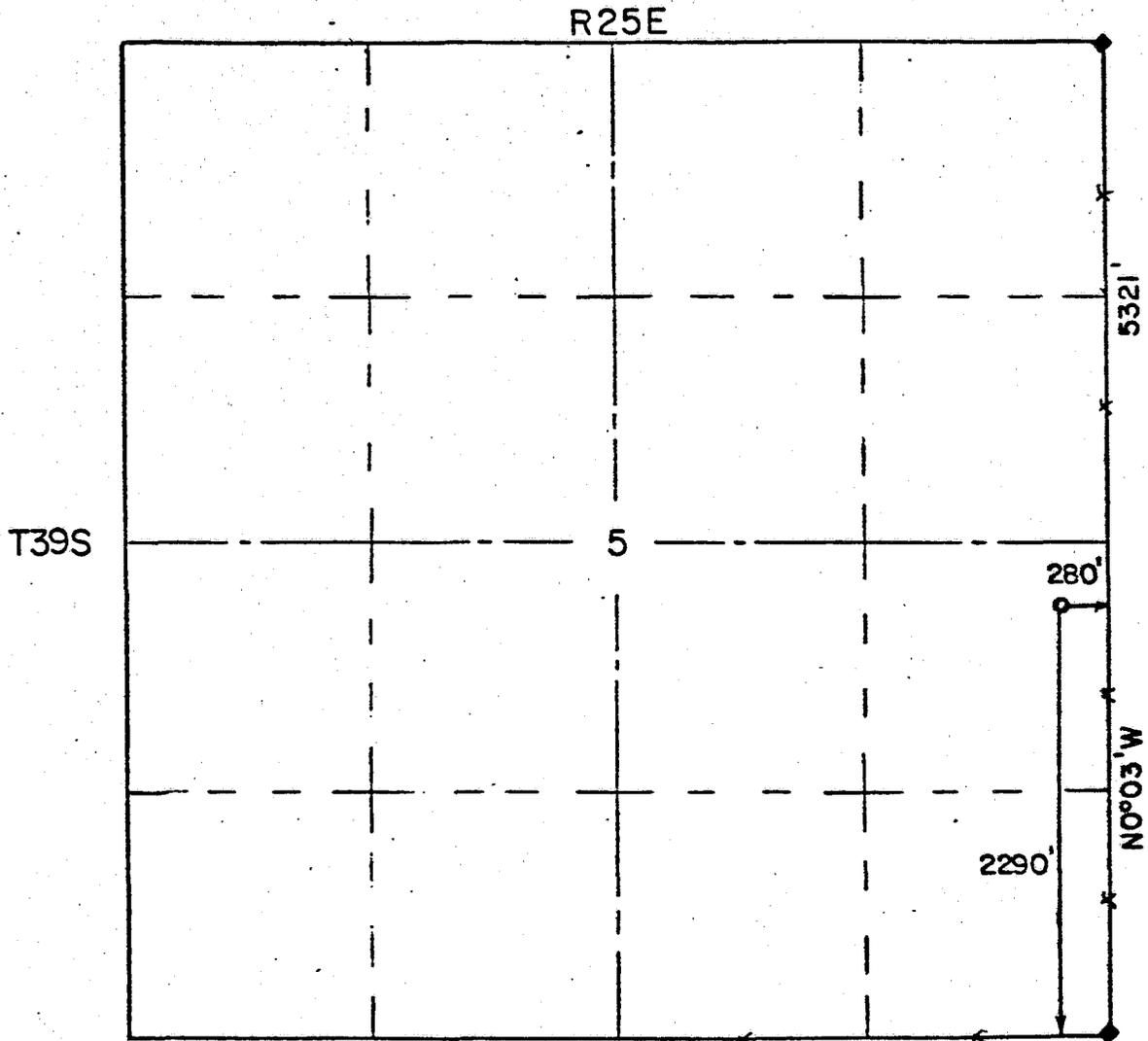
PERMIT NO. 43-031-31262

APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS, AND MINING  
 APPROVAL DATE  
 DATE: 4-21-86  
 BY: *John R. Day*  
 WELL SPACING: 302.1

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions On Reverse Side

WELL LOCATION PLAT



WELL LOCATION DESCRIPTION:

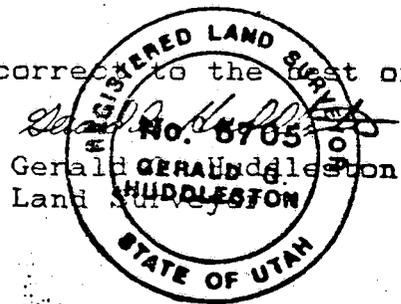
MERIDIAN OIL  
43-5 NAVAJO  
2290' FS & 280' FE  
SECTION 5, T39S, R25E, SLM  
SAN JUAN COUNTY, UTAH  
GROUND ELEVATION 4778'

REFERENCES:

200' SOUTH 4777'  
200' WEST 4773'

13 MARCH, 1986

The above plat is true and correct to the best of my knowledge and belief.



1189N/0075N/III

OIL AND GAS ORDER NO. 1

MERIDIAN OIL INC.

LEASE NAME: 43-5 Navajo  
LEASE NO. U-57895  
LOCATION: NESE Section 5-39S-25E  
2290' FSL - 280' FEL  
San Juan County, Utah  
Kiva Field

A. EIGHT POINT DRILLING PROGRAM

1. & 2. Estimated Tops:

Morrison	Surface	
Entrada	605	
Navajo	793	fresh water
Chinle	1498	
Shinarump	2366	
Cutler	2591	
Hermosa	4428	
Upper Ismay	5381	oil
Desert Creek	5635	oil
Chimney Rock	5702	
Akah	5725	
TD	5770	

3. Pressure Control Equipment:

- a. A 3000 psi WP and 6000 psi test double gate preventer equipped with blind and pipe rams.
- b. 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. Blowout preventor controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure tested before drilling casing cement plugs.

4. Casing program:

Anticipated cement tops will be reported as to depth, not the expected number of sacks. The San Juan Resource Area will be notified 1 day before running casing strings and cement.

Hole Size	Size	Depth	Casing			Cond	Cementing Program
			Weight	Grade	Thrd		
17-1/2	13-3/8	80	48#	H-40	ST&C	New	Redi-Mix to surface.
11	8-5/8	3,300	24 & 32#	K-55	ST&C	New	Two stage, DV tool @1500' Cement to sfc w/1500 sx "B" Lite (35/65/6) +2% CaCl <sub>2</sub> & 250 sx "B" +2% CaCl <sub>2</sub> .
7-7/8	5-1/2	5,770	15.5#	K-55	LT&C	New	Single stage, top of cmt @ 2800'. Caliper log + 40% excess. "B" Lite (35/65/6) + 1/4#/sx Flocele & Class "B" + fluid loss additive.

5. Proposed drilling mud program:

A water base mud system from surface to TD. Maximum anticipated mud weight is 10#/gallon.

A mud logging unit will be on location from 3300' to TD.

6. Testing program:

Lower Desert Creek - Possible  
 Upper Ismay - Probable

Logging program:

Cal/GR/DLL/MSFL Base surface casing to TD (GR to surface)  
 Cal/GR/Sonic Base surface casing to TD (GR to surface displays)  
 Cal/GR/CNL/Lithoden 5200' to TD  
 Dipmeter: If Desert Creek indicates productive.

Coring program:

None planned.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. If requested, samples (cuttings, fluids, and/or gases) will be submitted to the District Manager.

7. Anticipated abnormal BHP or BHT:

No abnormal BHP or BHT are expected in this well.

Potentially hazardous conditions anticipated:

No H<sub>2</sub>S has been found, reported or is known to exist at these depths in this area.

8. Anticipated Starting Dates and Notifications of Operations

The operator will contact the San Juan Resource Area at 801-587-2201, 48 hours before beginning any dirt work.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the San Juan Area Manager, a minimum of 24 hours before spudding. A Sundry Notice (Form 3160-5) will be sent within 24 hours after spudding, reporting the spud date and time. The Sundry will be sent to the District Manager. If the spudding is on a weekend or holiday, the Sundry will be submitted on the following regular work day.

In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329 "Monthly Report of Operations," starting with the month in which operations begin and continue each month until the well is physically plugged and abandoned. This report will be sent to the BLM District Office, P. O. Box 970, Moab, Utah 84532.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NTL-3A.

If a replacement rig is planned for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed, for prior approval of the District Manager. All conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergencies, verbal approval can be given by the District Petroleum Engineer.

If the well is successfully completed for production, then the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than 5 business days following the date on which the well is placed on production.

No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergencies, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration.

Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the San Juan Area Manager, or the appropriate surface manager.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The following information will be permanently beaded-on with a welding torch: Fed, well number, location by 1/4 1/4 section, township and range, Lease number.

A first production conference will be scheduled within 15 days after receipt of the first production notice. The San Juan Area Manager will schedule the conference.

Other: A separate rig will be used for completion operations.

The following may be inspected and/or witnessed:

1. The cementing and testing of surface casing.
2. (Dry Hole) Setting and testing of surface casing shoe plug.
3. (Depleted Producer) The setting and testing of plugs across the producing horizon and if applicable, the surface casing shoe plug and/or annulus (casing to formation) squeeze jobs.

Notify the San Juan Resource Area (Mike Wade) one day or on dry hole as soon as possible prior to the above at (801) 587-2201 (Home) (801) 587-2026 or if unable to reach Mike, call Moab District office Greg Noble at (801) 259-6111 (Home) (801) 259-8811.

B. THIRTEEN POINT SURFACE USE PLAN

1. Existing Roads (Yellow)

- a. Location of proposed well in relation to town or other reference point:  
6 miles east of Hatch Trading Post.
- b. Proposed route to location. (See attached Exhibit "1").
- c. Existing and new access shall be maintained in good or better condition.

2. Roads to be Constructed and Reconstructed (Blue)

- a. Access road will be inspected between the Bureau of Land Management and the dirt contractor prior to any work being done.
- b. Running surface width will be 25 feet.
- c. Maximum grade is less than 10%.
- d. There will be no turnouts.
- e. Road is centerline flagged.
- f. Road will be drained as needed.
- g. If well is drilled during wet winter conditions, surface materials may be required to avoid maintenance problems.
- g. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance by the San Juan Area Manager.

The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drill rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.

The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossing; and culverts will be determined at the appropriate field inspection.

3. Location of Existing Wells (1 mile radius)

- a. Existing wells in the area are shown on attached Exhibit "1".

4. Location of Existing and/or Proposed Facilities if Well is Productive

Battery facility is shown on Exhibit "4".

All permanent (on site for 6 months or longer) above ground facilities (including pump jacks) will be painted a flat, nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5-State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be Desert Brown.

All flowlines will be buried parallel to existing roads unless otherwise authorized by BLM.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter un or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place before any deliveries. Tests for meter accuracy will be conducted monthly for the first 3 months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the San Juan Area Manager. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply

All water needed for drilling purposes will be obtained from Benally water well, located NWNE Section 5-39S-25E.

Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer, (801) 637-1303 and by receiving permission from the landowner or surface management agency to use the land containing the water source.

6. Source of Construction Materials

Native soil materials from drilling location and access trail, which is available, will be used. Any additional materials needed will be hauled in from authorized commercial sources.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

7. Methods for Handling Waste Disposal

The reserve pit will be lined with commercial bentonite sufficient to prevent seepage. At least half of the capacity will be in cut.

Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.

A trash pit will be constructed near the mud tanks and dug at least six feet into solid undisturbed material. It will be totally enclosed with a fine wire mesh before the rig moves in. The road and pad will be kept litter free.

A burning permit is required for burning trash between May 1 and October 31. This can be acquired by contacting the State fire Warden, John Baker, at (801) 587-2705.

Produced waste water will be confined to a lined pit for a period not to exceed 90 days after initial production. During the 90 day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

8. Ancillary Facilities

Camp facilities will not be required.

9. Well Site Layout

Rig layout, cuts and fills are shown on attached Exhibits "9" and "9.1".

The top 10 inches of soil material will be removed from the location and stockpiled on southeast side of well pad. Topsoil along the access will be reserved in place.

A diversion ditch will be built on east side of well pad.

10. Reclamation:

- a. Immediately on completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash pit and will then be compacted and buried under a minimum of two feet of compacted soil.
- b. The operator/holder or his contractor will contact the San Juan Resource Area office in Monticello, Utah, (801) 587-2201, 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- c. Before any dirt work to restore the location takes place, the reserve pit must be completely dry.
- d. All disturbed areas will be recontoured to blend as nearly as possible with the natural topography. This includes removing all berms and refilling all cuts.
- e. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.
- f. Seed will be broadcast between October 1 and February 28 as per Surface Management stipulations. A harrow or similar implement will be dragged over the area to assure seed cover.
- g. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.
- h. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

11. Surface Ownership: Navajo Indian  
Mineral Ownership: Federal

12. Other Information

Approximately 1/10th mile of access road is privately owned by Richard C. Perkins.

There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

The dirt contractor will be provided with an approved copy of the surface use plan.

If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator/holder that they are subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will be done by a BLM approved archaeologist only if damage occurs.

This permit will be valid for a period of one year from the date of approval. After permit termination a new application will be filed for approval for any future operations.

Your contact with the District Office is: Greg Noble  
Office Phone: 801-259-6111 Address: P. O. Box 970, Moab, UT 84532

Resource Area Manager's Address and contacts:  
Address: P. O. Box 7, Monticello, UT 84535

Your contact is: Rich McClure  
Office Phone: 801-587-2201

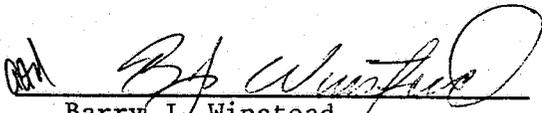
13. Lessee or Operator's Field Representative and Certification

Meridian Oil Inc.  
P. O. Box 1855  
Billings, Montana 59103

1.	Johnny L. Wright, Drilling Supt.	406-256-4175	406-252-2889
2.	Rick Muncrief, Area Drilling Engineer	406-256-4155	406-245-9896
3.	Barry Winstead, Sr. Drilling Engineer	406-256-4030	406-656-7521
4.	John Pulley, Drilling Manager	406-256-4124	406-259-6156

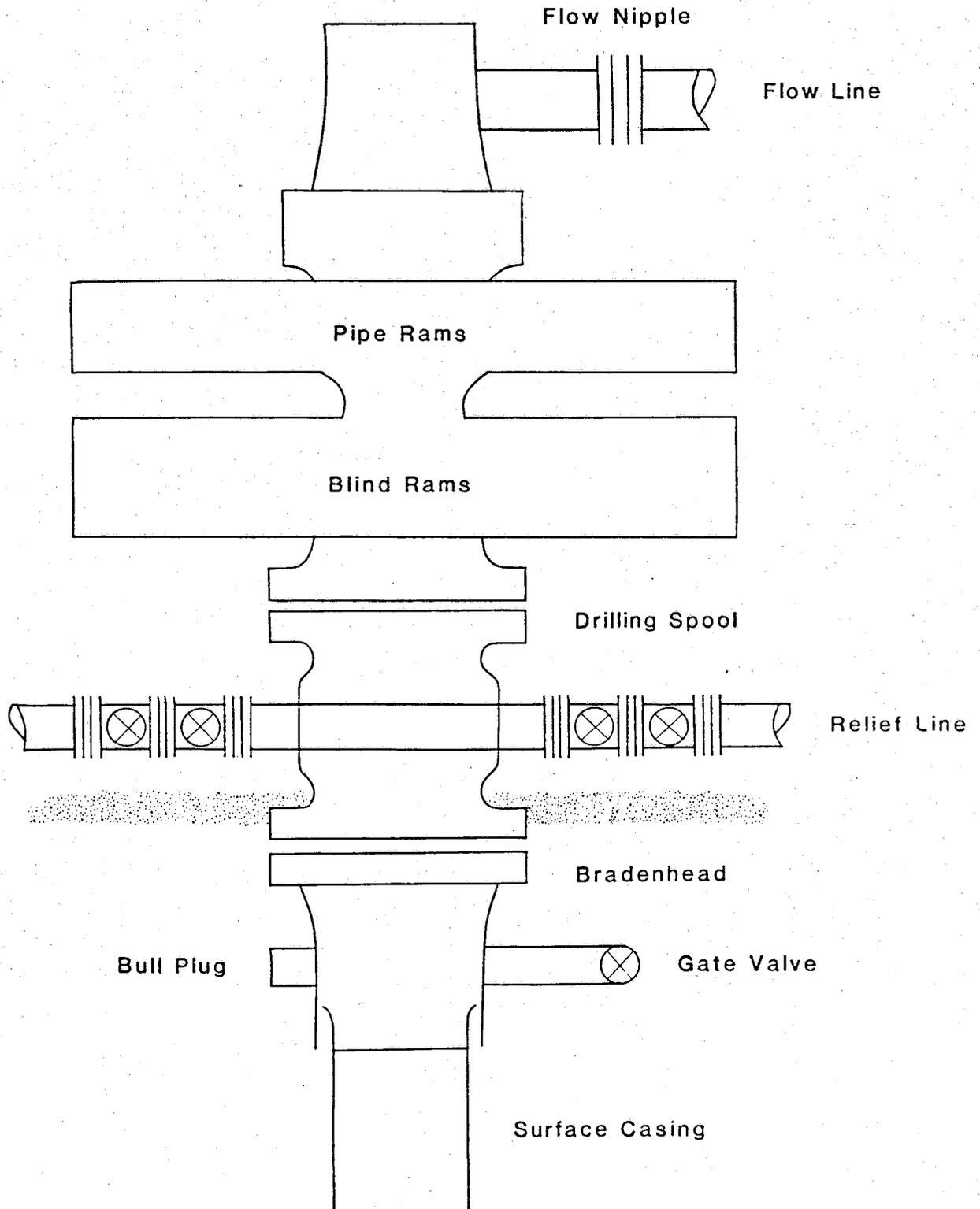
CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

  
Barry J. Winstead  
Sr. Drilling Engineer

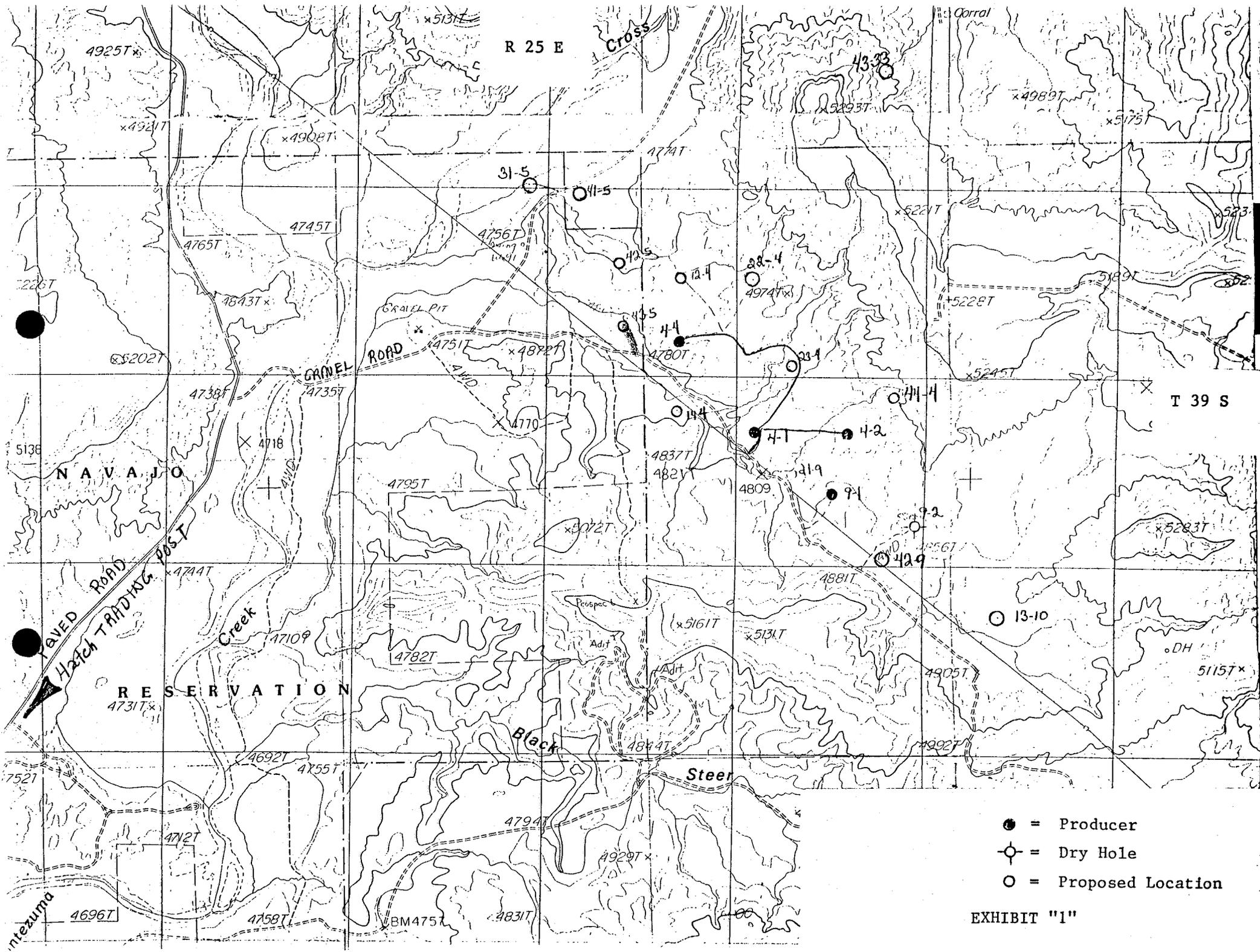
3/26/86  
Date

# TYPICAL B.O.P. INSTALLATION



Series 900 Double Gate B.O.P.,  
rated at 3000 psi Working Pressure.

When gas drilling operations begin a Shaffer type 50 or equivalent rotating head is installed on top of the flow nipple and the flow line is converted into a blowie line.



- = Producer
- ⊗ = Dry Hole
- = Proposed Location

EXHIBIT "1"

WELL PAD PLAN VIEW

43-5 NAVAJO



1" = 60'  
2' contours

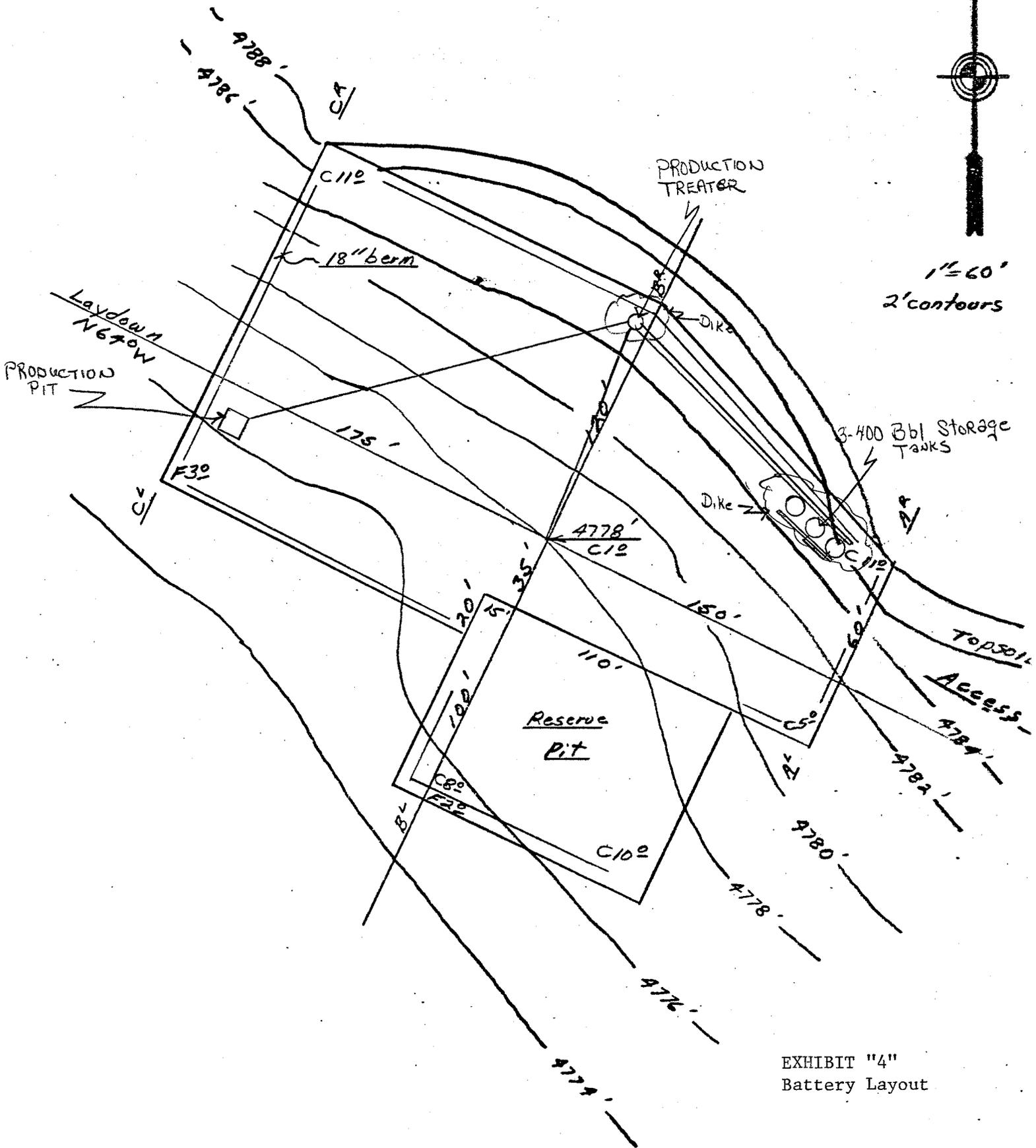


EXHIBIT "4"  
Battery Layout

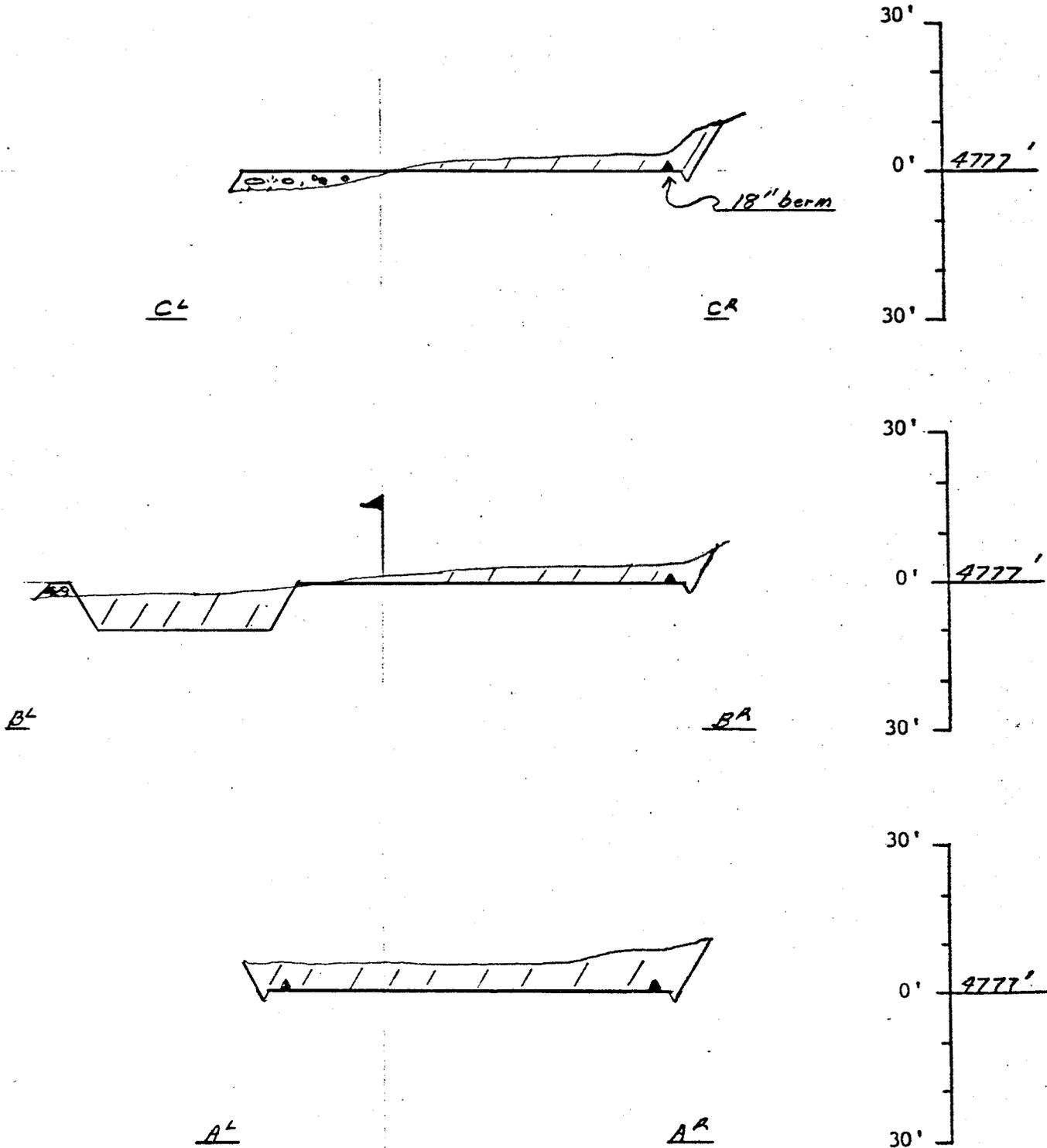


WELL PAD CROSS-SECTION

43-5 NAVAJO

Cut   
Fill 

Scales: 1" = 60' H.  
1" = 30' V.



# MERIDIAN OIL

April 3, 1986

State of Utah Natural Resources  
Oil, Gas and Mining  
355 W. North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

Attention: Arlene Sollis

Re: Request for Exception Locations  
Section 5-39S-25E  
San Juan County, Utah

RECEIVED  
APR 07 1986

DIVISION OF  
OIL, GAS & MINING

Gentlemen:

Meridian Oil Inc. requests the approval to drill two unorthodox locations in Section 5-39S-25E of San Juan County, Utah. The 42-5 Navajo location is staked 2130' FNL - 320' FEL and the 43-5 Navajo location is staked 2290' FSL - 280' FEL.

A lease ownership plat is attached as Exhibit "A". Meridian Oil Inc. owns 75% of the oil and gas leasehold working interest (Leases U-58728, U-52333 and U-57895) within a 660' radius of the proposed exception locations. BWAB Inc. owns the remaining 25% interest in Leases U-58728, U-52333 and U-57895 and is participating in the drilling of these wells. BWAB Inc. has been notified and is in agreement with these locations. No other offset owners are required to be notified since the offset acreage is owned by Meridian and BWAB Inc.

These exception locations are requested due to topographical reasons as per attached map.

Thank you for your consideration.

Sincerely,



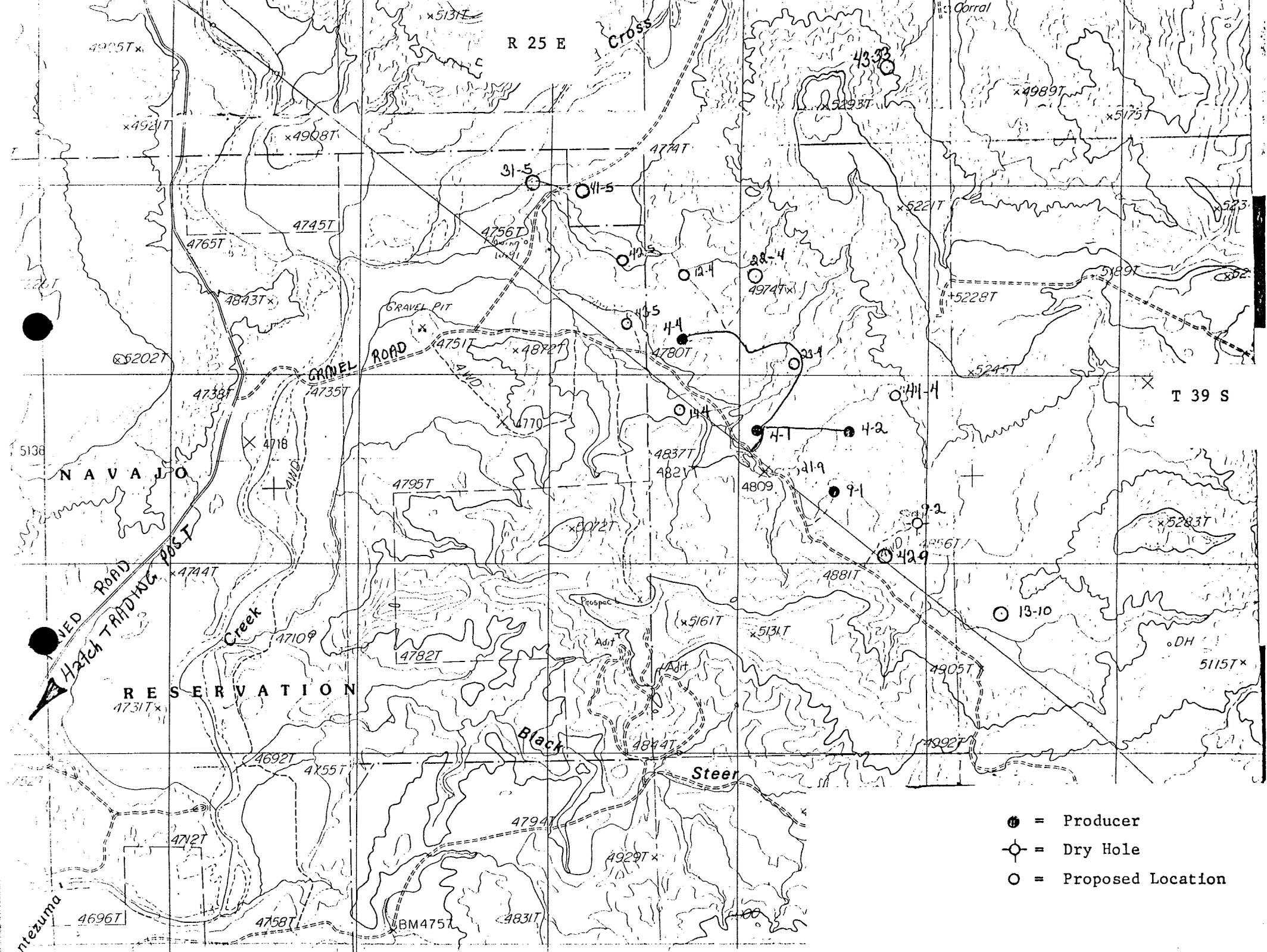
Suzann B. Nelson  
Sr. Operations Technician

Attachments

ssn

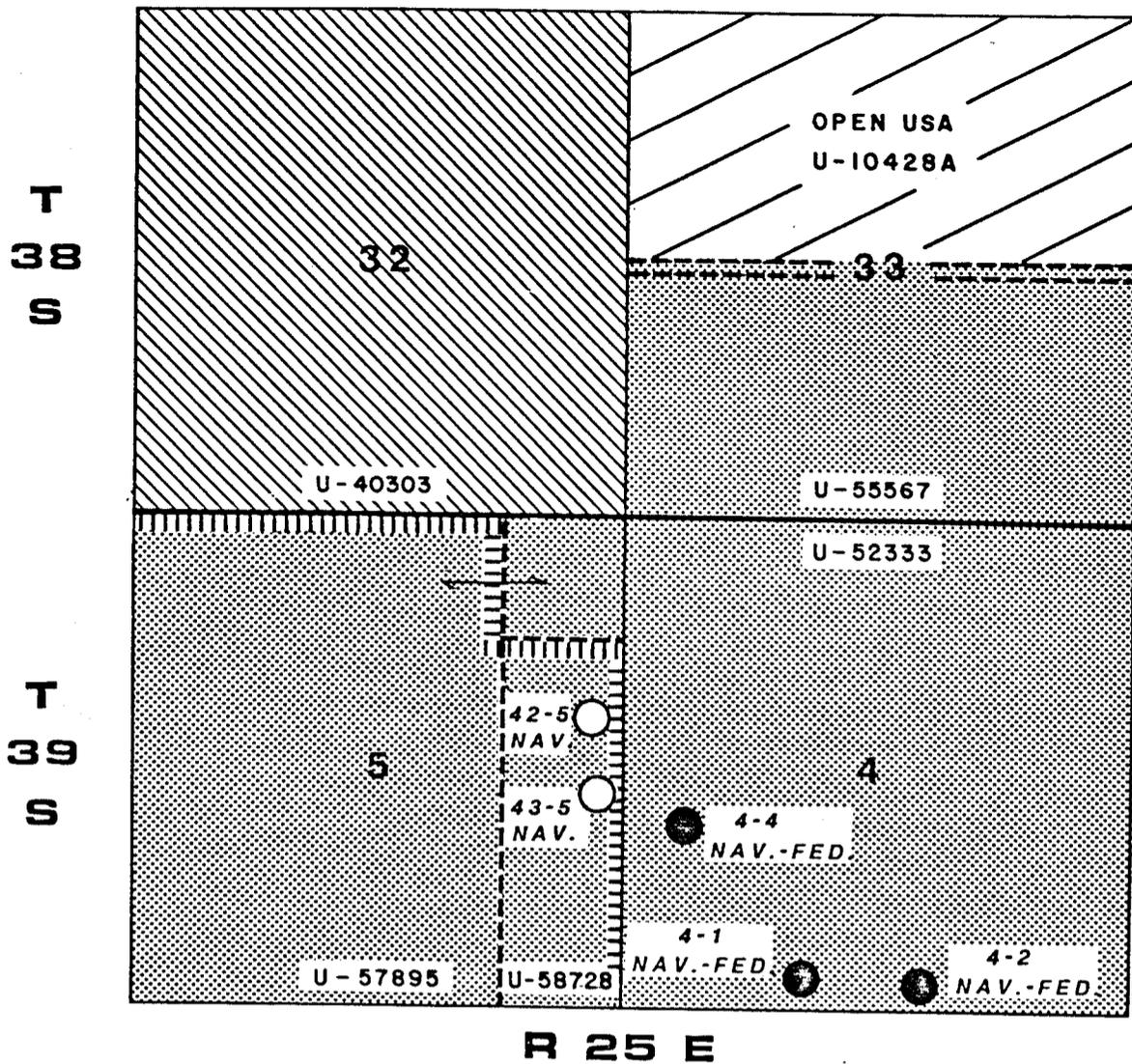
cc: BWAB Inc. - Denver, CO  
Cindy Crawley, Bill Mitchell - Meridian Oil, Denver District

1175N



- = Producer
- ⊗ = Dry Hole
- = Proposed Location

# EXHIBIT A



## KEY: LEASEHOLD OWNERSHIP

- 

MERIDIAN OIL INC. - 75%, BWAB 25%  
 (FEDERAL SERIAL NO. U-55567)  
 (FEDERAL SERIAL NO. U-52333)  
 (FEDERAL SERIAL NO. U-57895)  
 (FEDERAL SERIAL NO. U-58728)
- 

OPEN USA - U-10428A
- 

MARATHON OIL COMPANY (100%)  
 (FEDERAL SERIAL NO. U-40303)
- 

INDIAN RESERVATION (SURFACE ONLY)
- 

PROPOSED LOCATION - MOI. #42-5 NAV.  
 2130' FNL - 320' FEL
- 

PROPOSED LOCATION - MOI. #43-5 NAV.  
 2290' FSL - 280' FEL  
 (FEDERAL SERIAL NO. U-58728)
- 

EXISTING WELL - MOI. #4-1 NAV. FED.  
 370' FSL - 1940' FWL
- 

EXISTING WELL - MOI. #4-2 NAV. FED.  
 300' FSL - 2225' FEL
- 

EXISTING WELL - MOI. #4-4 NAV. FED.  
 1980' FSL - 660' FWL  
 (FEDERAL SERIAL NO. U-52333)

**MERIDIAN OIL**

KIVA FIELD  
 T 39 S, R 25 E  
 SAN JUAN COUNTY, UTAH  
 SCALE: 1" = 2000'

# CONFIDENTIAL

OPERATOR Meridian Oil Inc DATE 4-8-86

WELL NAME Naraja <sup>Sub.</sup> 43-5

SEC NE SE 5 T 39S R 25E COUNTY San Juan

43-037-31262  
API NUMBER

Fed.  
TYPE OF LEASE

CHECK OFF:

PLAT

BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

Need water permit  
Exception requested

APPROVAL LETTER:

SPACING:  203 \_\_\_\_\_ UNIT

302

\_\_\_\_\_ CAUSE NO. & DATE

302.1

STIPULATIONS:

1- Water



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

April 21, 1986

Meridian Oil Incorporated  
P. O. Box 1855  
Billings, Montana 59103

Gentlemen:

Re: Well Name: Navajo Federal 43-5 - NE SE Sec. 5, T. 39S, R. 25E  
2290' FSL, 280' FEL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Rule 302.1, Oil and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule 311.3, Associated Gas Flaring, Oil and Gas Conservation General Rules.

Page 2

Meridian Oil Incorporated

Well Name: Navajo Federal 43-5

April 21, 1986

5. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at each drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable State and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
6. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31262.

Sincerely,



R. J. Firth

Associate Director, Oil & Gas

as

Enclosures

cc: Branch of Fluid Minerals

D. R. Nielson

8159T

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

6. LEASE DESIGNATION AND SERIAL NO.

U-58728

9. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo

9. WELL NO.

43-5

10. FIELD AND POOL, OR WILDCAT

Kiva

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Section 5-39S-25E

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
MERIDIAN OIL INC.

3. ADDRESS OF OPERATOR  
P. O. Box 1855, Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.  
See also space 17 below.)  
At surface

NESE (2290' FSL - 280' FEL)

RECEIVED  
MAY 19 1986

DIVISION OF  
OIL, GAS & MINING

14. PERMIT NO.  
43-037-31262

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
4777' GL (graded)

18. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>	

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Meridian Oil Inc. has permitted the #43-5 Navajo well to drill an 11" surface hole to a depth of 3300'. If the salt water flow (est @ 3016') in the DeChelly formation has not been encountered by 3300', Meridian proposes to set the 8-5/8" surface casing off bottom at +1600' and cement by the single-stage method circulating cement to surface. A basket cementing shoe assembly (diagram attached) will be utilized for cementing in this situation on the bottom of the 8-5/8" casing. The proposed method would be used only in the absence of the salt water flow and would protect surface fresh water sands at the alternate setting depth of +1600'. If 8-5/8" surface casing is set off bottom, the 5-1/2" production casing will be set at TD and cemented by the two-stage method with a stage collar placed at +3500'. The proposed second stage TOC would be +1200'. In the event the salt water flow is encountered, surface and production casing will be set and cemented as originally permitted.

CONFIDENTIAL  
O.G.M.

18. I hereby certify that the foregoing is true and correct

SIGNED

*A. Arnold Hall*

TITLE

Petroleum Engineer

DATE

5/15/86

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE

5-23-86

BY

*John R. Bays*

Federal approval of this action  
is required before commencing  
operations.

\*See Instructions on Reverse Side

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

071708

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-58728
2. NAME OF OPERATOR MERIDIAN OIL INC.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo
3. ADDRESS OF OPERATOR P. O. Box 1855, Billings, MT 59103		7. UNIT AGREEMENT NAME --
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface NESE (2290' FSL - 280' FEL)		8. FARM OR LEASE NAME Navajo
14. PERMIT NO. 43-037-31262		9. WELL NO. 43-5
15. ELEVATIONS (Show whether DF, BT, GR, etc.) 4777' GL (graded)		10. FIELD AND POOL, OR WILDCAT Kiva
		11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA Section 5-39S-25E
		12. COUNTY OR PARISH San Juan
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Meridian Oil Inc. has permitted the 43-5 Navajo well to set the 13-3/8" casing at a depth of 80'.

The 13-3/8" casing will be set at a depth of 140'.

CONFIDENTIAL INFORMATION

18. I hereby certify that the foregoing is true and correct

SIGNED A. Arnold Hall

TITLE Petroleum Engineer

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE: 7-15-86  
BY: John Bay

CONFIDENTIAL INFORMATION

Federal approval of this action  
is required before commencing  
operations.

\*See Instructions on Reverse Side

MERIDIAN OIL

RECEIVED  
APR 02 1987

March 31, 1987

DIVISION OF  
OIL, GAS & MINING

State of Utah Natural Resources  
Oil, Gas and Mining  
355 W. North Temple  
3 Triad center, Ste 350  
Salt Lake City, Utah 84180-1203

Attention: Arlene Sollis

Re: Application for Permit to Drill  
43-5 Navajo  
NESE Section 5-39S-25E  
Federal Lease No. U-58728

Gentlemen:

Enclosed are three copies of Form 3160-3, Application For Permit to Drill with attachments for the above referenced location.

This location was moved from 2290' FSL - 280' FEL to 2050' FSL - 480' FEL.

This permit replaces the permit on file in your office which has not yet been approved.

Please be advised that Meridian Oil Inc. requests that all pertinent data for this location be granted TIGHT HOLE status.

If you have any questions, please do not hesitate to call me at 406-256-4122.

Sincerely,



Suzann S. Nelson  
Sr. Operations Technician

/ssn/1423N

Encl



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

040701

April 6, 1987

Meridian Oil Inc.  
P. O. Box 1855  
Billings, Montana 59103

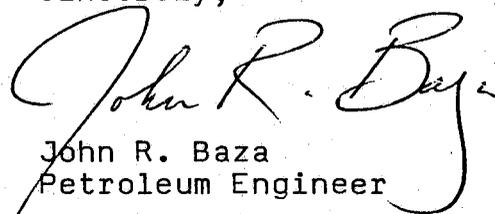
Gentlemen:

RE: Well No. Navajo Federal #43-5 - Sec.5, T.39S, R.25E,  
San Juan County, Utah - API NO. 43-037-31262

Per your request, approval to drill the subject well is hereby rescinded. A new Application for Permit to Drill must be filed with this office for approval, prior to future drilling of the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division of Oil, Gas and Mining immediately.

Sincerely,

  
John R. Baza  
Petroleum Engineer

sb  
cc: BLM-Moab  
D. R. Nielson  
R. J. Firth  
Well file  
0327T-69