Mobil Exploration & Producing U.S. Inc.

February 1, 1991

P.O. BOX 633 MIDLAND, TEXAS 79702

MIDLAND DIVISION

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
State Land Office Building
P.O. Box 2088
Santa Fe, New Mexico 87504

Attention: Mr. William J. Lemay

UNORTHODOX WELL LOCATION
LINDRITH B UNIT LEASE
WELL NO. 78
UNDESIGNATED DAKOTA FIELD
RIO ARRIBA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc. (MEPUS), as Agent for Mobil Producing Texas & New Mexico Inc., respectfully requests authority to drill and complete the subject well on an unorthodox location. This request is necessary because location #78 is less than 790' from the quarter section line, as required by the West Lindrith (Gallup/Dakota) Field Rules; well #78 must abide by these rules since it is less that one mile from this established pool.

The following items are being submitted, in triplicate, in support of this request:

- 1. Form C-101 Application for Permit to Drill, Deepen or Plug Back;
- Form C-102 Well location and acreage dedication plat;
- 3. Map showing Offset Operators;
- 4. Copy of Certified letter to Offset Operators.

BEFORE EXAMINER MO	ORROW
OIL CONSERVATION D	IVISION
MEPUS EXHIBIT NO.	
CASE NO. 1025	

State of New Mexico Unorthodox Well Location Lindrith B Unit #78 -2-

February 1, 1991

A copy of this letter and attachments are being furnished to the Offset Operator by Certified Mail, as notice of this application.

If further information is needed to process this request, please call Ann Moore at (915) 688-1772.

Yours very truly,

C. a. moore

D. P. Klancher
Environmental & Regulatory/
LP Supervisor

Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing Texas & New Mexico Inc.

CAMoore

attachments

cc: Oil Conservation Division - Aztec
 Offset Operator (w/attach)

MOBIL EXPLORATION & PRODUCING U.S. INC. UNORTHODOX WELL LOCATIONS LINDRITH B UNIT WELL NO. 78 RIO ARRIBA COUNTY, NEW MEXICO

OFFSET OPERATOR

Jerome P. McHugh & Associates 650 South Cherry Street, Suite 1225 Denver, Colorado 80222 Form 3160-3 (November 1983) (Formerly 9-331C)

UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED. Budget Bureau No. 1004-0136 Expires August 31, 1985

	DEPARTM	ent of the i	NTERIOR		Í	5. LEASE DESIGNATION AF	NO SERIAL NO
	BUREAU (OF LAND MANAG	EMENT				
				5		SF - 78	
APPLICATION	ON FOR PERMIT	TO DRILL,	DEEPEN, OR	PLUG B	ACK	6. IF INDIAN, ALLOTTEE	
a. TYPE OF WORK			_			N/A	
DR	ILL X	DEEPEN [_ PL(JG BACK		7. UNIT AGREEMENT NAM	E
b. TYPE OF WELL			SINGLE 7	MULTIPLE	_	LINDRIT	
OIL X	SAS OTHER		SINGLE ZONE	ZONE	Ш	8. FARM OR LEASE NAME	E
NAME OF OPERATOR						LINDRITH B UNIT	
MOBIL PRODUCII	NG TEXAS & NEW M	IEXICO INC				9. WELL NO.	
. ADDRESS OF OPERATOR						78	
C/O MOBIL EXP	LORATION & PRODU	CING US INC, P.	O. BOX 633, MIDL	AND, TX 7	9702	10. FIELD AND POOL, OR	WILDCAT
	Report location clearly and	in accordance with	any State requirements.*)		UNDESIGNATE	D DAKOTA
At surface 2030' FSL; 143	' FWL					11. SEC., T., R., M., OR AND SURVEY OR ARE	
At proposed prod. ze						AND SURVEY OR ARE	^
SAME						SEC. 6, T24N, R2W	
14. DISTANCE IN MILES A	NO DIRECTION FROM NEARS	ST TOWN OR POST OF	FICE*			12. COUNTY OR PARISH 13. STATE	
5 MILES NW OF	LINDRITH, NEW MI	EXICO				RIO ARRIBA	N. M.
15. DISTANCE FROM PROP LOCATION TO NEARES	OSED*	SIDE PARCEL	16. NO. OF ACRES IN	LEASE		ACRES ASSIGNED	1
PROPERTY OR LEASE	LINE, FT.	NOIDE PARCEL	2,451.2) A	אד סד	IS WELL	
						Y OR CABLE TOOLS	
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2403' NW TO 77 7900'						ROTARY	
	hether DF, RT, GR, ETC.)	03 144 10 77	7300		,	22. APPROX. DATE WOR	K WILL START
·	neurer or, Rr, CR, CTC.						•
7004' GL		20000050 0400	0 410 051451511			APRIL 1,	1991
		PROPUSED CASIN	G AND CEMENTING	i PROGRAM	1		
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOO	T SETTING DE	РТН		QUANTITY OF CEMENT	
17-1/2	13-3/8	48#	0-45	0,	TO	TO SURFACE W/625 CU. FT.	
	5-1/2	15.5#	0-330	00'	TO SURFACE W/2123 CU. FT.		CU. FT.
11					3300' TO 7900' W/1036 CU. FT.		

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

TITLE

ENV. & REG. TECHNICIAN II

DATE

02-01-91

8 Point Drilling Program

1. ESTIMATED FORMATION TOPS*

Formation Name	Depth from GL	Depth from KB	Subsea Depth
Base Ojo Alamo	2,705'	2,717'	7,004
Fruitland	3,065'	3,077'	3,939'
Pictured Cliffs	3,269'	3,281'	3,735'
Menefee	4,977'	4,989'	2,027'
Point Lookout	5,491'	5,503'	1,513'
Gallup	6,623'	6,635'	381'
Dakota D	7,733'	7,745'	-729'
Burro Canyon	7,790'	7,802'	-786'
Total Depth (TD)	7,900'	7,912'	-896'

^{*} All depths based on ungraded ground level of 7,032 '

2. NOTABLE ZONES

The estimated formation top depths from ungraded GL at which water, oil, gas, or other mineral bearing zones may be encountered are:

Possible Water Zone	<u>Possible Coal Zone.</u>	Possible Oil or Gas Zones
Fruitland 3,065'	Fruitland 3,065'	Fruitland 2,603'
	Menefee 4,977'	Pictured Cliffs 3,269'
		Point Lookout 5,491'
		Gallup 6,623
		Dakota D 7,733'

Propose to drill, complete and eqip a oil producer in the Dakota D sand in an undesignated field. Hydraulic fracturing stimulation will probably be necessary.

The well will be cased throughout its length and cemented to the cemented, if possible, to surface.

If the well is plugged and abandoned, then cement plugs will be placed opposite all open perforations extending 50 above the highest perforation and 50 below the lowest perforation in each interval. See PAGE 5 for diagrams of completed and plugged well bores.

3. PRESSURE CONTROL (Also see "5" on PAGE 3)

The drilling contract has not yet been awarded, thus the exact types of BOPs to be used are not yet known. Examples of a typical BOP and choke manifold are on PAGE 4. Maximum anticipated surface pressure will be 1,500 psi.

Once out from under the surface casing, a minimum 11" 2,000 psi system will be used with two hydraulic rams (blind/pipe). The choke manifold will have a minimum 2,000 psi rating.

BOPs will be tested to their working pressure after nippling up and after any use under pressure. Pipe rams will be function tested daily. Blind rams will be function tested after each trip out of the hole. BOP tests will be recorded on IADC reports.

Upper and lower kelly valves, floor safety valve, and drill string inside BOP rated at a minimum 2,000 psi will be maintained on the floor at all times. Upper and lower kelly valves will be in use at all times. Back pressure and full opening drill string safety valves will be available on the rig floor at all times.

4. CASING & CEMENTING

Hole Size	O.D.	Weight	<u>Grade</u>	Conn.	Age	Setting Depth(GL)
17 1/2"	13 3/8"	48 #	H40	STC	New	0000' - 0450'
11"	5 1/2"	15.5#	K55	LTC	New	0000' - 3300'
8 3/4"	5 1/2"	15.5#	K55	LTC	New	3300' - 7900'

Surface Casing (O' to 450'): Cement to surface with 625 cubic feet. Volume calculated with 100% excess. Class B slurry + 2% CaC12.

Production Casing (O to 7,900'): Multistage cement tool @ +/- 3,300'. Cement to 3,300' with 1036 cubic feet for the first stage. Volume calculated with 30% excess. Lead with slurry of 65/35 H Poz + 6.25 # gilsonite. Tail with Class H + 1# latex. Cement to surface with 2123 cubic feet for the second stage. Volume calculated with 30% excess. Lead with slurry of 65/35 H Poz + 6.25 # gilsonite. Tail with Class H + 1# latex.

5. MUD PROGRAM

Depth	Type	Weight	Viscosity	Fluid Loss
0000'-0450'	Native spud mud(gel & water)	+/- 8.8	35-45	NC
0450'-7900'	Gel/Drispac/caustic/phpa sys	8.8-9.0	35-45	10-15

6. CORING, TESTING, LOGGING

No cores are currently planned. DIL-SFL-GR-SP, Density-Neutron-GR-Cal and FMS standard production logs may be run.

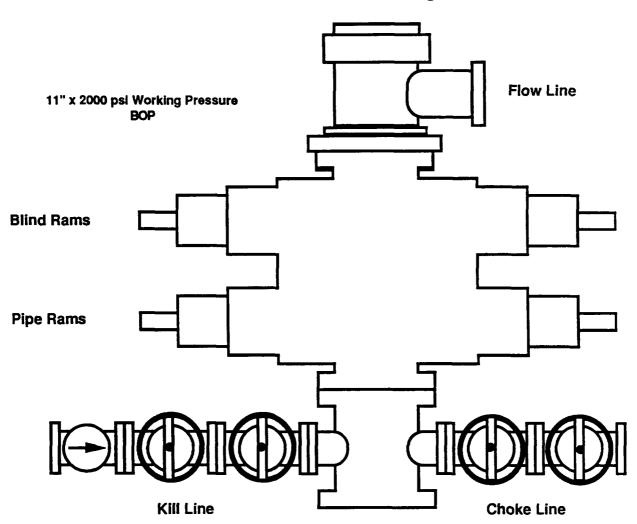
7. **DOWNHOLE CONDITIONS**

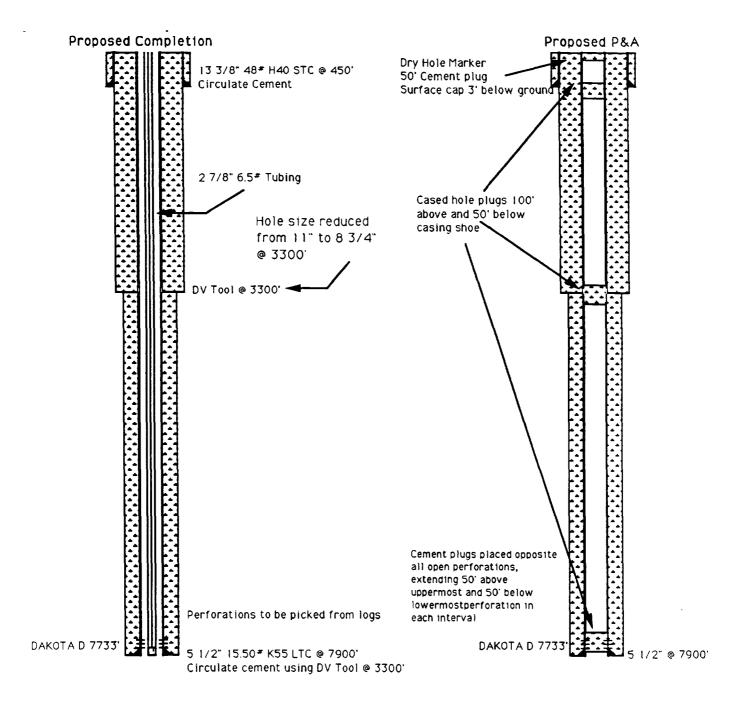
Lost circulation is likely in the Fruitland and Pictured Cliffs zone due to subnormal pressures. in some subnormally pressured zones. No abnormally high pressures, temperatures, or hydrogen sulfide are expected.

8. MISCELLANEOUS

The anticipated spud date is April 1, 1991. It is expected it will take +/-20 days to drill the well and 10 days to complete the well.

Blowout Preventer Diagram





MOBIL EXPLORATION AND PRODUCING U.S. INC.

MIDLAND DIVISION

SURFACE USE AND OPERATION PLAN
LINDRITH "B" UNIT LOCATION NO. 78

143' FWL & 2030' FSL

SECTION 6, T-24-N, R-2-W
RIO ARRIBA COUNTY, NEW MEXICO

SURFACE USE AND OPERATION PLAN

1. EXISTING ROADS (See attached Maps "A" and "B")

From Lindrith New Mexico the well site is 3 miles North on State Highway 595; then 1.0 miles West on a graded dirt County road; then South 0.8 miles on an existing lease road; then 1.3 miles West, South, West, and Northwest respectively on an existing road to be upgraded, sanded, and six 18" and one 24" culverts added where necessary to the beginning of the proposed access road. The proposed access road will exit to the West and the well site will be 1.0 miles distant. Existing lease roads will be maintained in as good or better condition than now exist.

2. PLANNED ACCESS ROAD (See attached maps "B" and "C")

The planned access road will exit from the existing lease road in a Westerly direction and is 5,100 feet long. It is proposed to install eight 18" culverts in washes. Where we cross Oso Canyon install two 36" culverts and place riprap both up and down stream. The access road will be surfaced with a sand/gravel material from an existing pit on private land in the Northeast 1/4 of the Southwest 1/4 of Section 4, T-25-N, R-2-W.

- 3. LOCATION OF EXISTING WELLS (See attached map "D")
- 4. LOCATION OF TANK BATTERY, PRODUCTION FACILITIES, AND PRODUCTION GATHERING LINES. (See attached maps "B" and "E")

If the well is productive a production unit consisting of a pumping unit (if needed), three 400 barrel tanks, a separator, and a fiberglass lined emergency everflow pit will be installed on the well pad. The tank facilities will be painted Juniper green and surrounded by a 30 inch containment dike. A gas pipeline will be buried adjacent to the proposed access road to an existing gathering pipeline at E.P.N.G. Well #100 in the Southeast 1/4 of the Southeast 1/4 of Section 6, T-24-N, R-2-W.

5. WATER SUPPLY (See attached map "B")

The water will be trucked in from a private water source. The source is a tank dug in the Southeast 1/4 of the Northwest 1/4 of Section 4, T-24-N, R-2-W.

6. SOURCE OF CONSTRUCTION MATERIAL (See attached map "B")

It is planned to surface the drill pad, access road, and portions of the existing road with sand/gravel obtained from a pit on private land in the Northeast 1/4 of the Southwest 1/4 Section 4, T-24-N, R-2-W.

7. METHODS FOR HANDLING WASTE DISPOSAL

Drill cuttings, circulation materials and completion fluids will be placed in a lined, fenced, and netted reserve pit. A proper cleanup of the site area will be made when the rig moves out. Waste will be burned, buried, and/or hauled from the well site. Buried waste will have a minimum cover of 5 feet.

A burn pit about 5 feet deep with wire mesh fencing will be constructed as shown on map "F". Most waste will be disposed of in this burn pit. Upon cleanup, any refuse in this pit will be buried a minimum of 3 feet.

Human waste will be disposed of in 10 feet deep ratholes under trailers or in chemical toilets. Ratholes will be immediately filled when the trailers are removed.

8. ANCILLARY FACILITIES

No ancillary facilities will be required at this time.

9. WELL SITE LAYOUT (See map "F" and cross-section map "F-1")

Drainage in the area of the well site is a general 5 % downslope to the Southeast into Oso Canyon.

10. PLANS FOR RESTORATION OF THE SURFACE

All excess excavation from construction will be stockpiled adjacent to the drill pad. When all drilling and production activities have been completed the stockpiled material will be utilized for the reshaping of the drill pad.

Upon completion of drilling the reserve pit will be allowed to dry and materials remaining in it buried. The reserve pit will be backfilled, graded, and contoured to prevent any materials from washing into the watershed.

At the land owners request, the reclaimed reserve pits and road right-of-way will be reseded with a seed mixture of 100 % Crested Wheat Grass and spread at a rate of 8 pounds/acre.

Upon the completion of all producing operations the drill pad and access road will be reshaped to original contour and reseeded using the seed mixture above.

11. SURFACE OWNERSHIP

The existing road, access road, drill pad, and gas pipeline falls on private surface (South 1/2 of Section 5 & 6, T-24-N, R-2-W) owned by Mr. Roy Williams, and Mobil has reached a

written agreement with him. His address is Box 22, Moriarty, New Mexico. His phone number is (505) 832-4944.

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

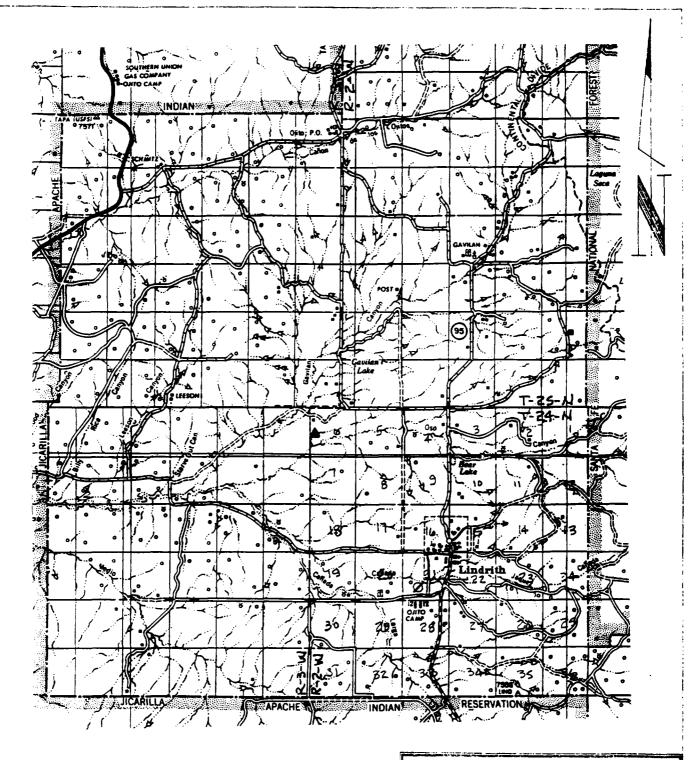
Mr. Ed Barber Mobil's Bloomfield Senior Production Supervisor will be the field representative. His phone number is (505) 632-1891.

13. CERTIFICATION

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site; that I am familiar with the conditions that 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 operations proposed herein will be performed by a reliable contractor in conformity with this plan and the conditions under which it is approved.

Ed Barber

Senior Production Supervisor



▲ - PROPOSED LOCATION

SCALE = 1" = 10,560' = 2 MILES

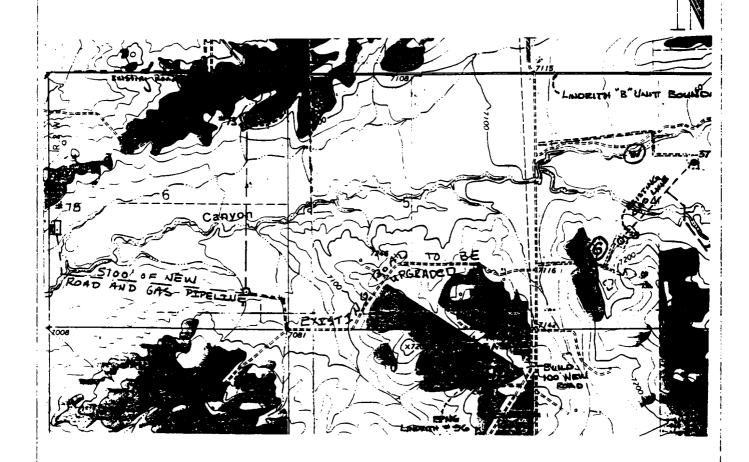
MOBIL EXPLORATION & PRODUCING U.S. INO.
MIDLAND DIVISION

MAP "A"

LINDRITH "B" UNIT LOCATION #78

RIO ARRIBA COUNTY, NEW MEXICO

G.E.W. 1-18-91



PROPOSED LOCATION

SCALE = !" = 2,000'

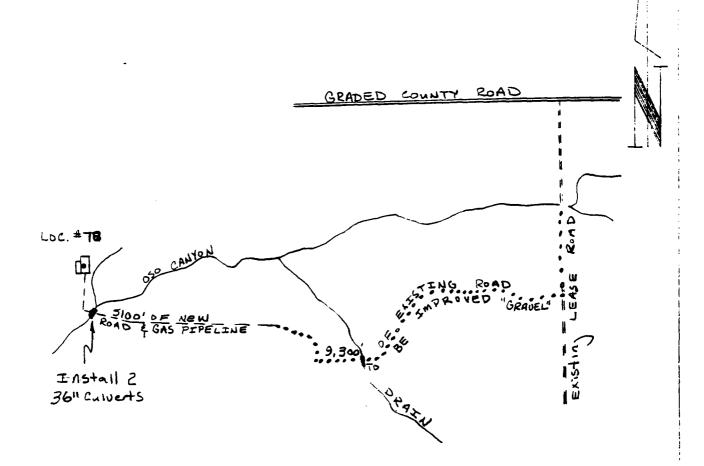
MOBIL EXPLORATION & PRODUCING U.S. INC.
MIDLAND DIVISION

MAP "B"

LINDRITH "B" UNIT LOCATION #78

RIO ARRIBA COUNTY, NEW MEXICO

G. E. W. 1-18-91



MOBIL EXPLORATION & PRODUCING U.S. INC.
MIDLAND DIVISION

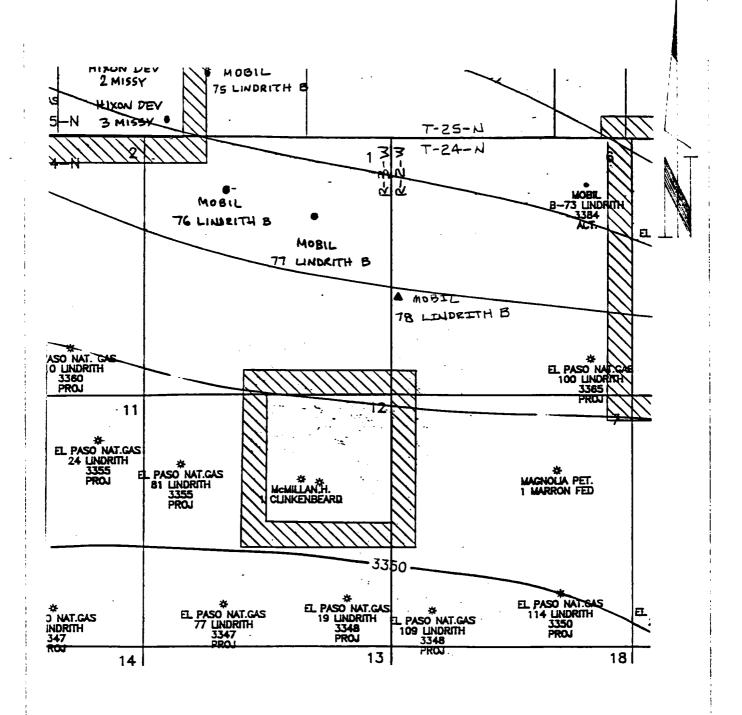
MAP "C"

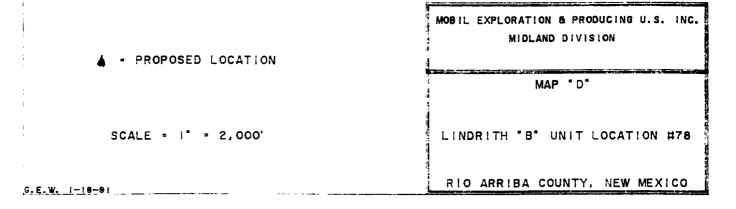
LINDRITH "B" UNIT LOCATION #78

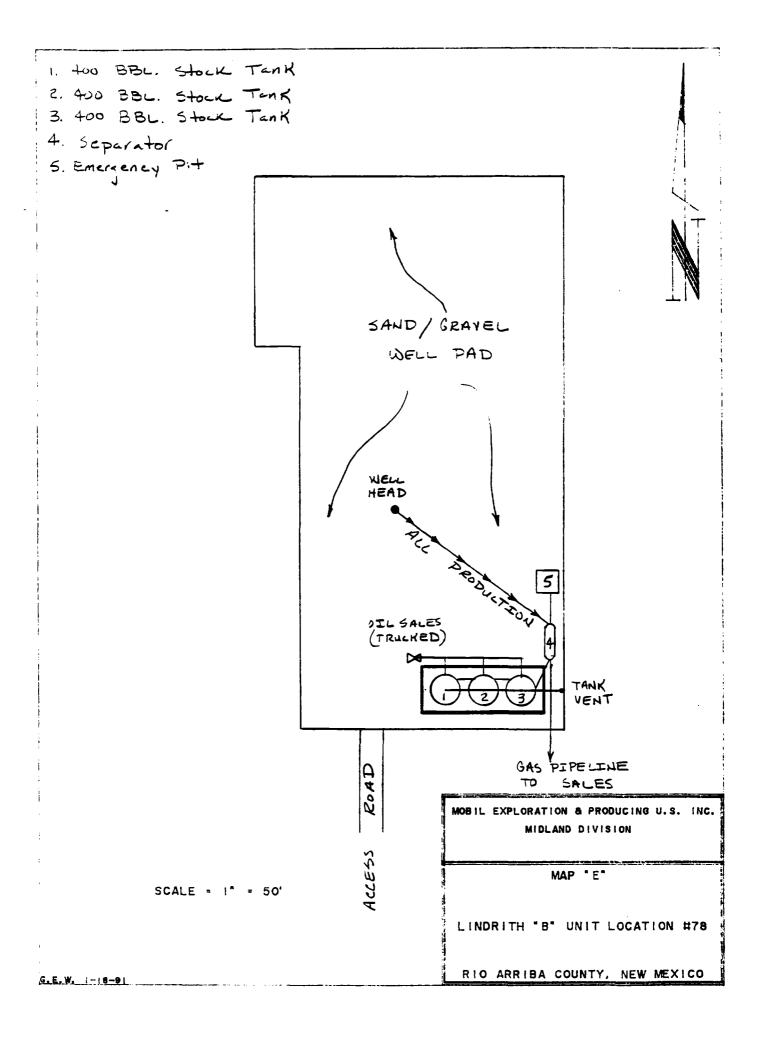
RIO ARRIBA COUNTY, NEW MEXICO

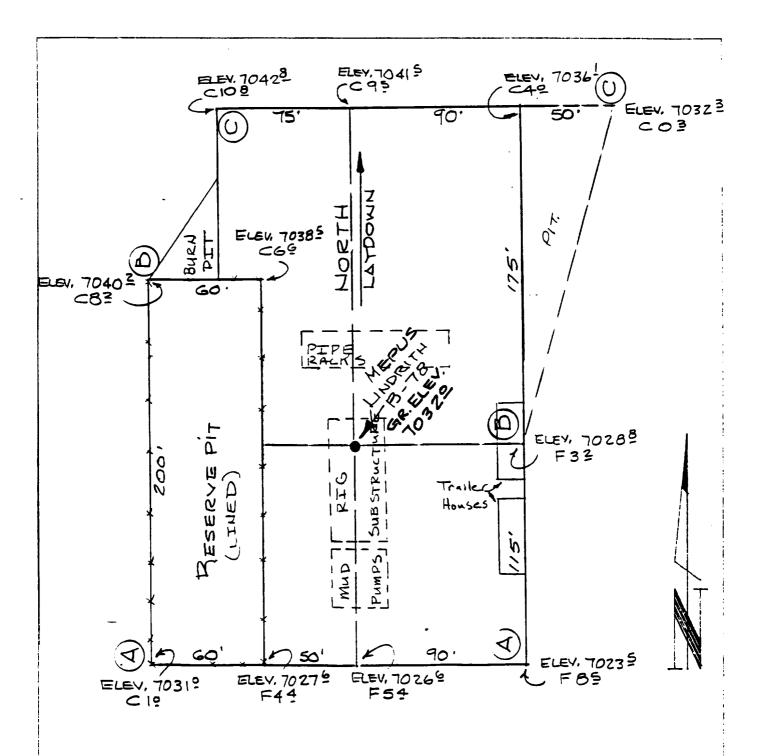
SCALE = 1" = 2,000'

G.E.W. 1-18-91









SCALE = !" = 50'

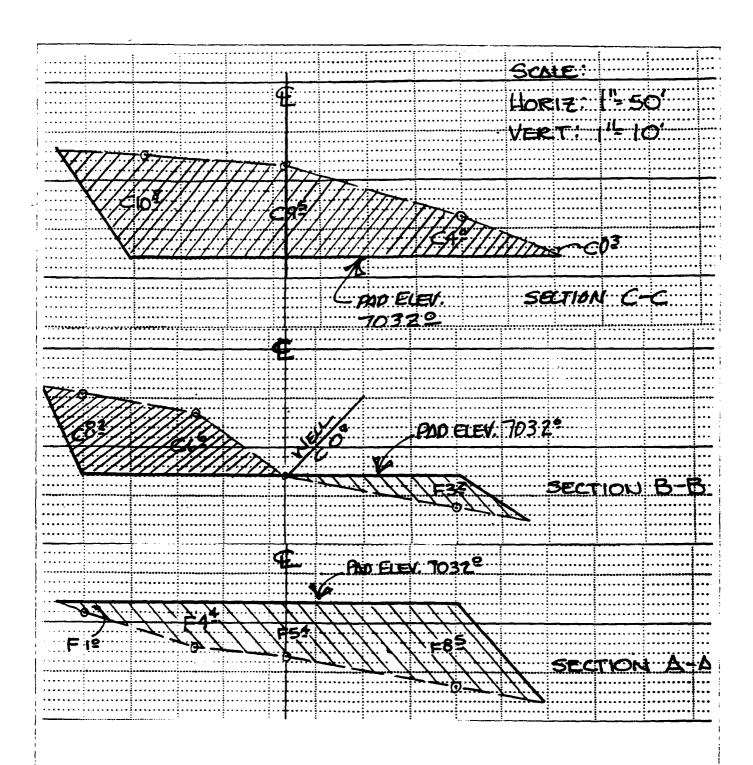
MOBIL EXPLORATION & PRODUCING U.S. INC.
MIDLAND DIVISION

MAP "F"

LINDRITH "B" UNIT LOCATION #78

RIO ARRIBA COUNTY, NEW MEXICO

G.E.W. 1-18-91



MOBIL EXPLORATION & PRODUCING U.S. INC.
MIDLAND DIVISION

MAP "F-!"

LINDRITH "B" UNIT LOCATION #78

RIO ARRIBA COUNTY, NEW MEXICO

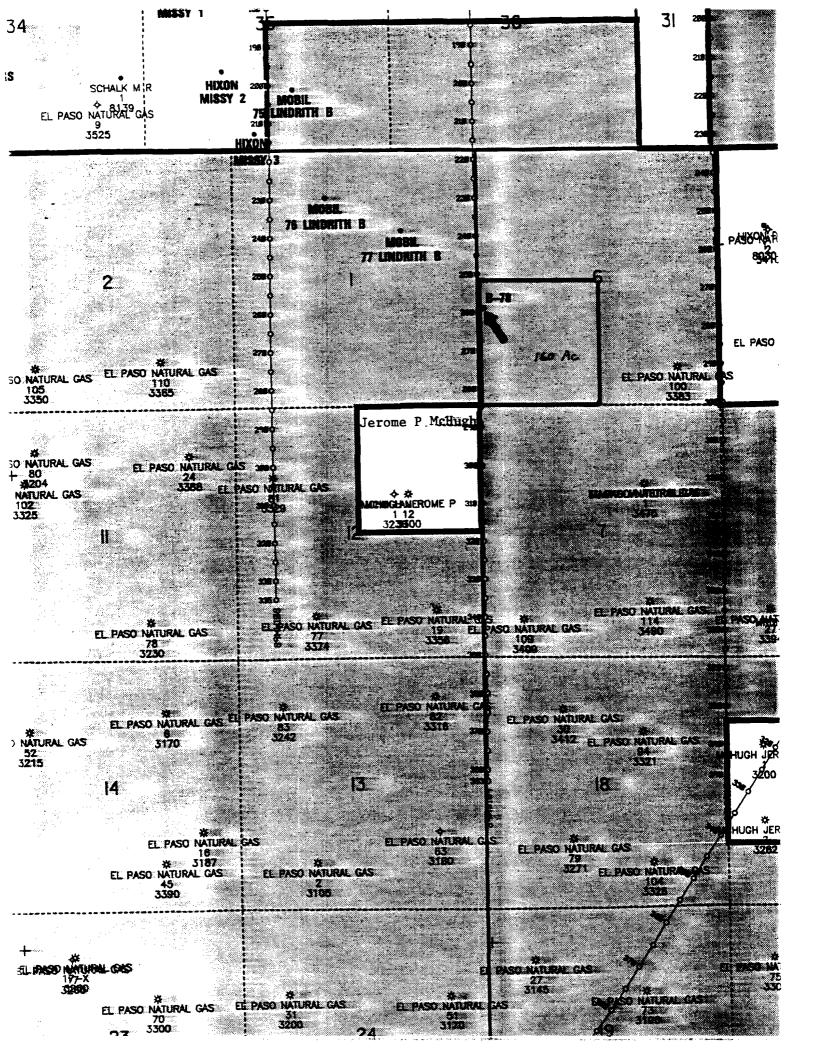
REHABILITATION PLAN

Lease No.:	2030' F	; Well Name and N SL & 143' FWL	lo.: <u>LIND</u>	RITH "B" UNIT WELL 78 c. 6, T. 24 N., R. 2 W.
				ntends to drill a well on surface
owned by				The lessee/operator
agrees to	complete	the following rehabilitation	work if t	the well is a producer:
		Maintain access road and pr		·
7.0	1_/	Waintain access road and hi	oniae aged	dare diamage to road.
/x/ Yes	// No	Reshape and reseed any area pump and support facilities	not neede	ed for maintenance of the
Other requ	uirements:			
The follow	ving work	will be completed when the w	rell is abs	andoned:
/X/ Yes	// No	Pit will be fenced until di surrounding topography.	ry, then fi	illed to conform to
<u>∕≭</u> Yes	Д №	Water bers will be construct	ted as dee	emed necessary.
<u>/</u> ≭⁄ Yes	// No	Site will require reshaping	to confor	rm to surrounding topography.
<u>/</u> ▼ Yes	// No	Entire disturbed area will seed mixture will be used.	be reseede	ed. If yes, the following
		CRESTED WHEAT GRASS - 8 LE	S PER ACRE	·
		·		
<u>/x</u> ! Yes	// No	Access road will be closed, the same seed mixture as al		tated and reseeded using
· /// Yes	<u>/≭</u> №	Access road will remain for	r surface o	owner's use.
/x/ Yes	// No	Water bars will be construenteessary.	cted on the	e access road as deemed
Other requ	uirements:	LESSEE WILL GUARANTEE REVI	EGATATION	
	 -			
Surface Ox	mer:	Оре	erator/Less	see:
Name:	ROY WILL	IAMS Nam	ne:1	MOBIL PRODUCING TEXAS & NEW MEXICO I
Address:		Add	iress:	P. O. BOX 633
City:	MORIARTY		:y:	MIDLAND
		CO 87035 St.	tte:	TEXAS 79702
Telephone:	(303) 83 - 10 - 10 -		rebnone:	(915) 686–1447
	that abov			o me. I also waive an intensive
-		*	Kac	1 (Velliame
•		~_2	(Surfac	owner's signature)

This plan does not affect any other agreements between the lessee/operator and surface owner.

WELL LOCATION AND ÁCREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section. Crestones Yell No. MOBIL EXPLORATION & PRODUCING, UNITED STATES LINDRITH B - 78Unit Letter Section Township 6 T. 24 NORTH 2 WEST RIO ARRIBA Actual Postage Location of Vella 2030 feet from the SOUTH Producting Fermettes Dedicated Acresses 7032.0 DAKOTA UNDESIGNATED 160 Acres 1. Outline the acreage dedicated to the subject well by colored pencil or hachuse marks on the plat below. 2. If more than one Icase is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? If answer is "yes," type of consolidation . If answer is "ac," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commissica. CERTIFICATION she cortife that the Info d hereto to true and complete to the it of an boundedon and ballah. R-2-W T-24-N noore A. MOORE ENV. & REG. TECHNICIAN II MOBIL PRODUCING TX, & N.M. IN C/O MOBIL EXPL, & PROD, US IN 02-01-91 SECTION 6 I hereby certify that the well location -143 a on this plat was platted from field es of ectual surveys made by me or MEPUS ! n ay supervision, and that the sec LINDRITH B-78 ledge and belief. CONAL ENGINE DECEMBER 13, 1990 1530 1690 1000 2310



Mabil Exploration & Producing U.S. Inc.

February 1, 1991

P.O. BOX 633 MIDLAND, TEXAS 79702

MIDLAND DIVISION

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Jerome P. McHugh & Associates 650 South Cherry Street, Suite 1225 Denver, Colorado 80222

> NOTICE OF APPLICATION FOR UNORTHODOX WELL LOCATION LINDRITH B UNIT WELL NO. 78 UNDESIGNATED DAKOTA FIELD RIO ARRIBA COUNTY, NEW MEXICO

Gentlemen:

Mobil Exploration & Producing U.S. Inc. (MEPUS), as Agent for Mobil Producing Texas & New Mexico Inc., is requesting authority to drill Lindrith B Unit #78 on an unorthodox location, under the provisions of Rule 104 (F). Attached to this letter is a copy of the application to drill and corresponding plats, showing the exact location of the subject well.

If you have no objection to this application, please sign the attached three copies of the waiver and mail to MEPUS. An addressed, stamped envelope is enclosed for your convenience.

Please call C. A. Moore at (915) 688-1772 if any further information is needed.

Yours very truly,

C.a. more

D. P. Klancher
Environmental & Regulatory/
LP Supervisor

Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing Texas & New Mexico Inc.

CAMoore

attachments

cc: Oil Conservation Division - Aztec

A:M103228.CAM

WAIVER

Mobil Exploration & Producing U.S. Inc. P.O. Box 633 Midland, Texas 79702

Attn: C. A. Moore

UNORTHODOX WELL LOCATIONS
LINDRITH B UNIT
WELL NO. 78
UNDESIGNATED DAKOTA FIELD
RIO ARRIBA COUNTY, NEW MEXICO

Gentlemen:

We, the undersigned, have been furnished a copy of Mobil Exploration & Producing U.S. Inc., as Agent for Mobil Producing Texas & New Mexico Inc.'s application to drill the subject well on an unorthodox location under the provisions of Rule 104 (F). Please be informed that we, as an offset operator, have no objection to the drilling of this well as set forth in MEPUS's application dated February 1, 1991.

Yours truly,

Company:	
Representative:	
Signature:	 · · · · · · · · · · · · · · · · · · ·
Title:	
Date:	