

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
MESA PETROLEUM CO.

3. ADDRESS OF OPERATOR
1600 Lincoln, 2800 Lincoln Center, Denver Colorado 80264

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface 1620'/S and 930'/W
At proposed prod. zone SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest dirg. unit line, if any)
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
16. NO. OF ACRES IN LEASE 1282.68
19. PROPOSED DEPTH 7630

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6709' GL

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24	300	200 sk
7 7/8	5 1/2	15.5 & 17	7630	595

(SEE ATTACHMENTS)

Gas under this lease is dedicated to a contract.

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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.

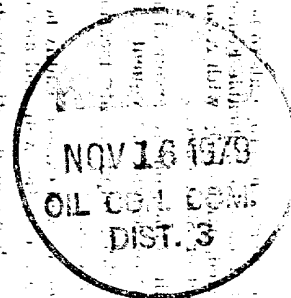
24. SIGNED John Alexander TITLE AGENT DATE November 14, 1979
JOHN ALEXANDER
(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE
CONDITIONS OF APPROVAL, IF ANY:

ak Smith

5. LEASE DESIGNATION AND SERIAL NO.
SF-079296, SF-079295
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
7. UNIT AGREEMENT NAME
8. FARM OR LEASE NAME
FEDERAL
9. WELL NO.
42E
10. FIELD AND POOL, OR WILDCAT
BASIN DAKOTA
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
23-26N-6W
12. COUNTY OR PARISH
RIO ARRIBA
13. STATE
NEW MEXICO



OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-107
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

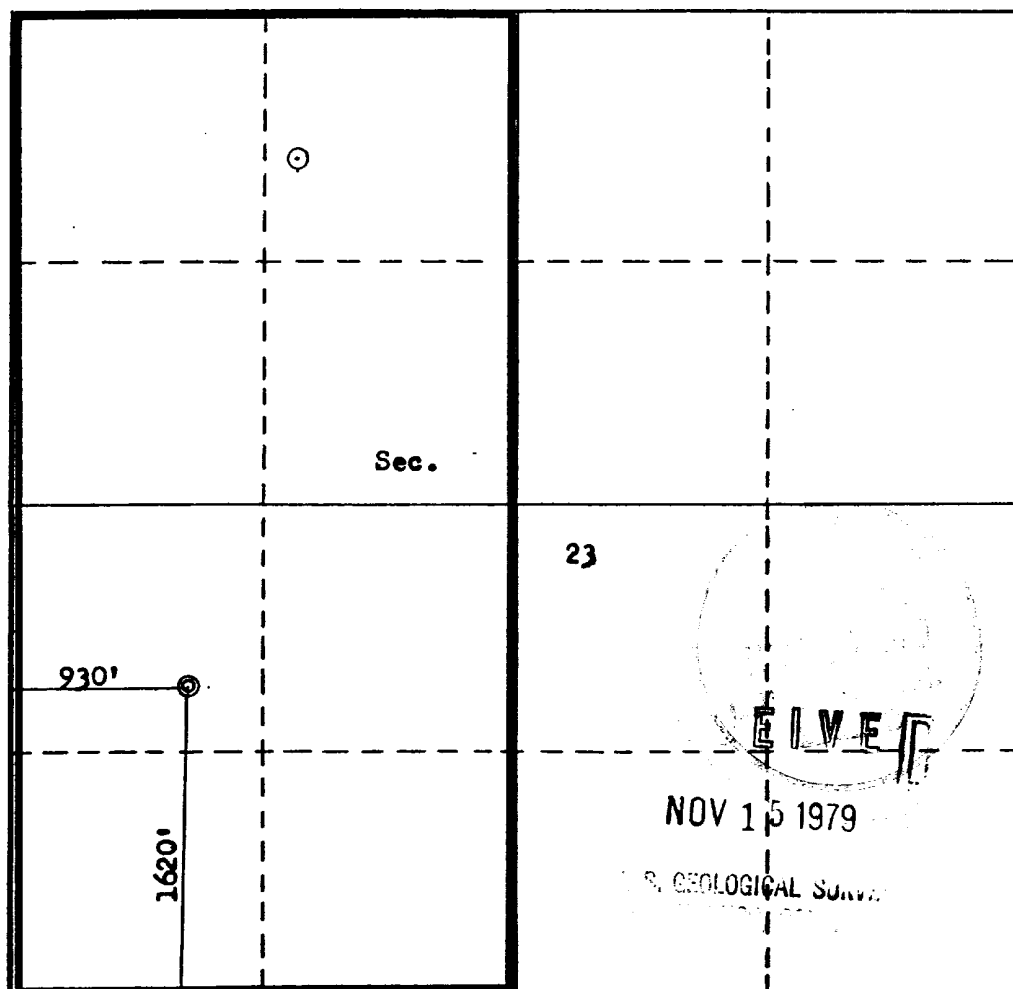
Operator MESA PETROLEUM COMPANY			Lease FEDERAL		Well No. 12-E
Unit Letter L	Section 23	Township 26N	Range 6W	County Rio Arriba	
Actual Footage Location of Well: 1620 feet from the South line and 930 feet from the West line					
Ground Level Elev. 6709	Producing Formation Dakota	Pool Basin Dakota		Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease 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?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

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 Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

John Alexander
Name

JOHN ALEXANDER

Position

AGENT

Company

MESA PETROLEUM

Date

November 14, 1979

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 knowledge and belief.

Date Surveyed

November 10, 1979

Registered Professional Engineer
and/or Land Surveyor

Fred B. Kerr
Fred B. Kerr

Certificate No. FRED B. KERR, P.E.

3950

MESA PETROLEUM COMPANY

Formation Information and Drilling Practices

WELL:

Federal 12E

LOCATION:

1620'/S & 930'/W

Sec. 23-26N-6W

Rio Arriba Co., NM

LEASE NUMBER:

SF-079296

SF-079295

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1. Surface Formation

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2. Estimated Formation Tops

Ojo Alamo	2334	Point Lookout	5227
Pictured Cliffs	2997	Greenhorn	7172
Cliff House	4678	Dakota	7382

3. Estimated Depth of Anticipated Water, Oil, Gas or Minerals

7382 Gas

4. Proposed Casing Program

0-300' 10 3/4", 40.5# K-55 ST&C new casing. Cement w/ 300 sk. class "B" + 2% CaCl₂

0-7630' 5 1/2", 15.5# & 17# casing, new ST&C. Cement 1st stage w/ 325 sk 50-50 Pozmix + 2% gel. Cement 2nd stage w/ 170 sk 65-35 Pozmix + 12% gel followed by 100 sk 50-50 Pozmix + 2% gel. Estimated cement top 2300'

5. Pressure Control Equipment - Blowout Preventer

The attached schematic shows the type of blowout preventer to be used while drilling. The unit will be tested to 800 psi prior to drilling from under surface pipe by pressuring through casing valves with blind ram closed. This procedure will be repeated with the pipe rams closed on a joint of drill pipe. Operation of the hydraulic system will be checked daily.

6. Drilling Fluids

Depth	Type	Vis	Weight	Fluid Loss
0-300	Gel-lime	35-45	8.6-9.0	N/L
0-7630	Low-solids	30-40	8.6-11.5	10

7. Auxiliary Equipment

- a. bit float
- b. stabbing valve to be used in drill pipe when the kelly is not connected
- c. rotating drilling head

8. Logging - Coring - Testing

Logging: FDC, GR-Induction, Caliper
Coring: None planned
Testing: None planned

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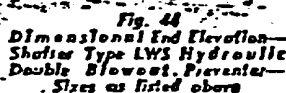
9. Abnormal temperatures, pressures or potential hazards: None expected.

10. Starting Date

Anticipated starting date is December 15, 1979. Approximately 15 days will be needed to build roads, location and drill to total depth. Completion will commence immediately and require approximately 20 days.

(Patented)

PARTS AND DIMENSIONAL ILLUSTRATIONS



(51) 4 Universal Joints

Refer to Figs. 43 and 44

Size	Max. Strong Piercing Force, psi	Tens. Force, psi	Tensile Zone	Max. Yield Stress	Approx. Weight Lbs.	A				B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH	JI	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM	KN	KO	KP	KQ	KR	KS	KT	KU	KV	KW	KX	KY	KZ	LA	LB	LC	LD	LE	LF	LG	LH	LI	LJ	LK	LL	LM	LN	LO	LP	LQ	LR	LS	LT	LU	LV	LW	LX	LY	LZ	MA	MB	MC	MD	ME	MF	MG	MH	MI	MJ	MK	ML	MM	MN	MO	MP	MQ	MR	MS	MT	MU	MV	MW	MX	MY	MZ	NA	NB	NC	ND	NE	NF	NG	NH	NI	NJ	NK	NL	NM	NN	NO	NP	NQ	NR	NS	NT	NU	NV	NW	NX	NY	NZ	OA	OB	OC	OD
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MESA PETROLEUM COMPANY

Surface Use Plan

WELL:

Federal 12E

LOCATION:

1620'/S & 930'/W

23-26N-6W

Rio Arriba Co., NM

LEASE NUMBER:

SF-079296

SF-079295

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1. Existing Roads (shown in green)

The attached topographic map shows all existing roads within one mile of the proposed location. The access road will join an existing lease road.

2. Planned Access Road

The access road will be approximately 300' long and 20' wide. No turnouts will be needed. Water bars will be used to aid drainage and prevent erosion. Maximum grade will be about 5%. No fences or cattleguards will be crossed.

3. Location of Existing Wells

All wells (water, oil, gas, disposal & drilling) are shown and so labeled on the topographic map.

4. Location of Tank Batteries, Prod. Facilities, Prod. Gathering & Service Lines

All production facilities are to be contained within the proposed site. Other facilities operated by Mesa are shown on the attached topographic map.

5. Location of Water Supply

Water for drilling will be trucked from Ice Canyon waterhole, approximately 7 miles south of the location. Water is privately owned.

6. Source of Construction Materials

Any construction material required for road or location will be excess material accumulated from building such sites.

7. Methods of Handling Waste Disposal (refer to attached well site layout)

All burnable material will be burned in the trash pit when conditions permit. All nonburnable material (drilling fluids, cuttings, chemicals, etc.) will be held in the reserve pit and buried when dry. Any oil produced while drilling will be trucked from the location prior to leaving the pit to dry. Pits will be fenced during dryout time, then completely backfilled with dirt prior to preparing the location for production or abandonment. Material that cannot otherwise be safely disposed of will be carried to a sanitary landfill.

8. Ancillary Facilities

No ancillary facilities are planned.

9. Well Site Layout

The attached layout shows the drilling rig with all facilities. Cut and fill required is also indicated.

10. Plans for Restoration of Surface

Restoration of well site and access road will begin within 90 days of well completion, weather permitting. Should the well be abandoned, the drilling site will be reshaped to its approximate former contour. The access road will be plowed and leveled. Both site and road will have topsoil replaced and will be reseeded when germination can occur.

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Should the well be commercial, that portion of the location not needed for operation will be repaired as above. The portion needed for daily production operation, and the access road, will be maintained in good repair.

In either case, cleanup of the site will include burning any safely burnable material, filling of all pits, carrying away of all nonburnable material and chemicals that cannot be buried. Any oil that has accumulated on the pits will be trucked away.

11. Other Information

This well is located about 3 miles northeast of Gas Company of New Mexico, Dogie Station. The area is rugged and covered with sagebrush, yucca and Cedar trees. The soil is a sandy clay. Small animals and rodents inhabit the area.

Surface belongs to the Bureau of Land Management. There are no occupied dwellings in the area. No artifacts were noticed.

12. John Alexander
3E Company, Inc.
P.O. Box 190
Farmington, NM 87401
Phone: 505-327-4020

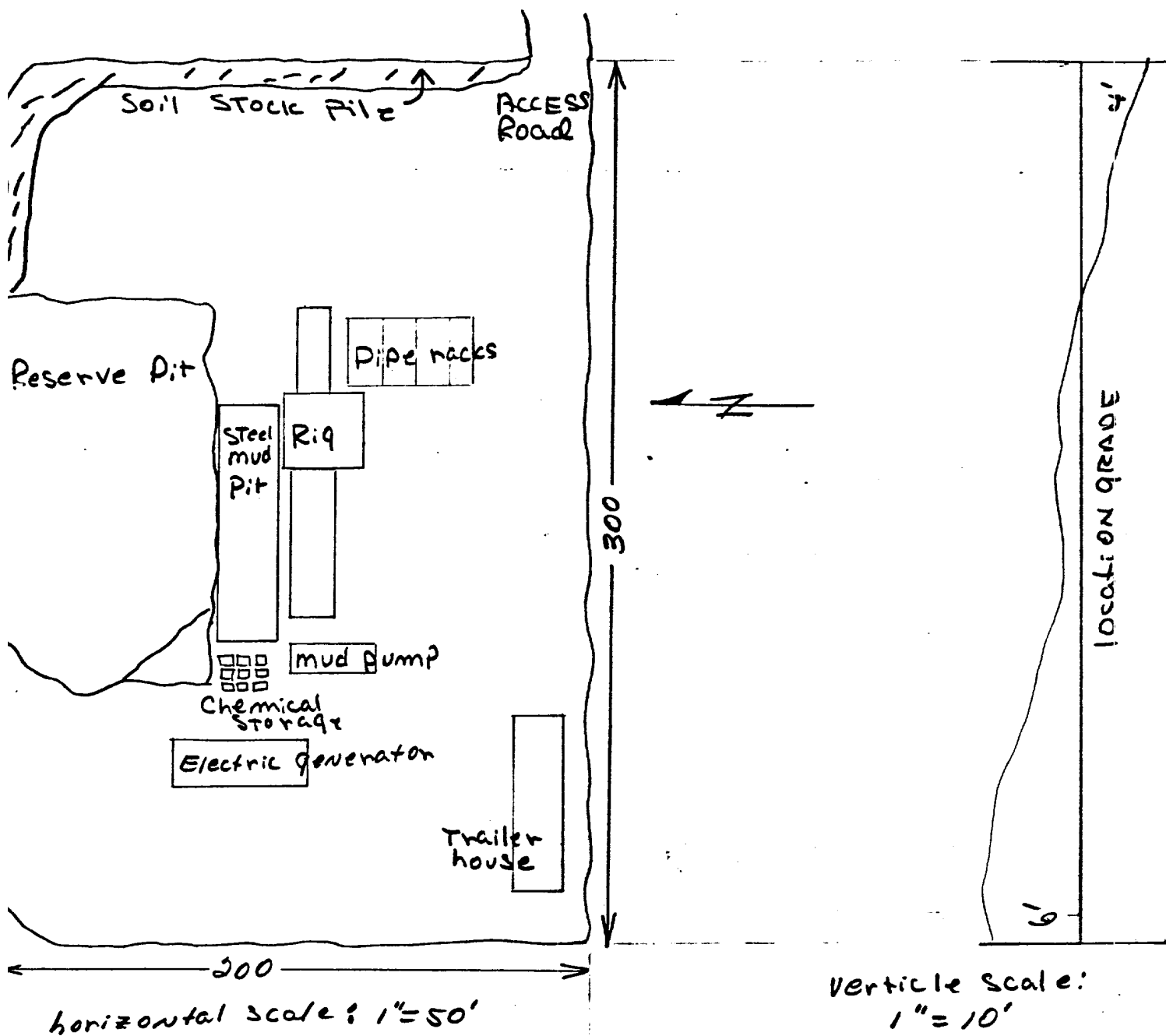
13. I hereby certify that I or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Mesa Petroleum Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

11-15-79
DATE

John Alexander
JOHN ALEXANDER

JA:cp

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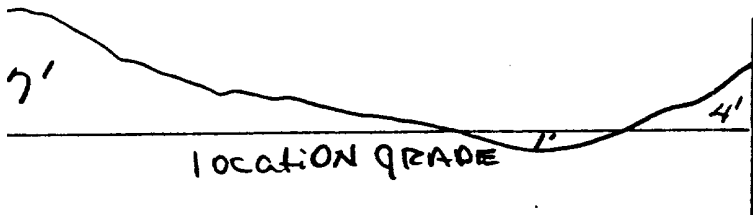


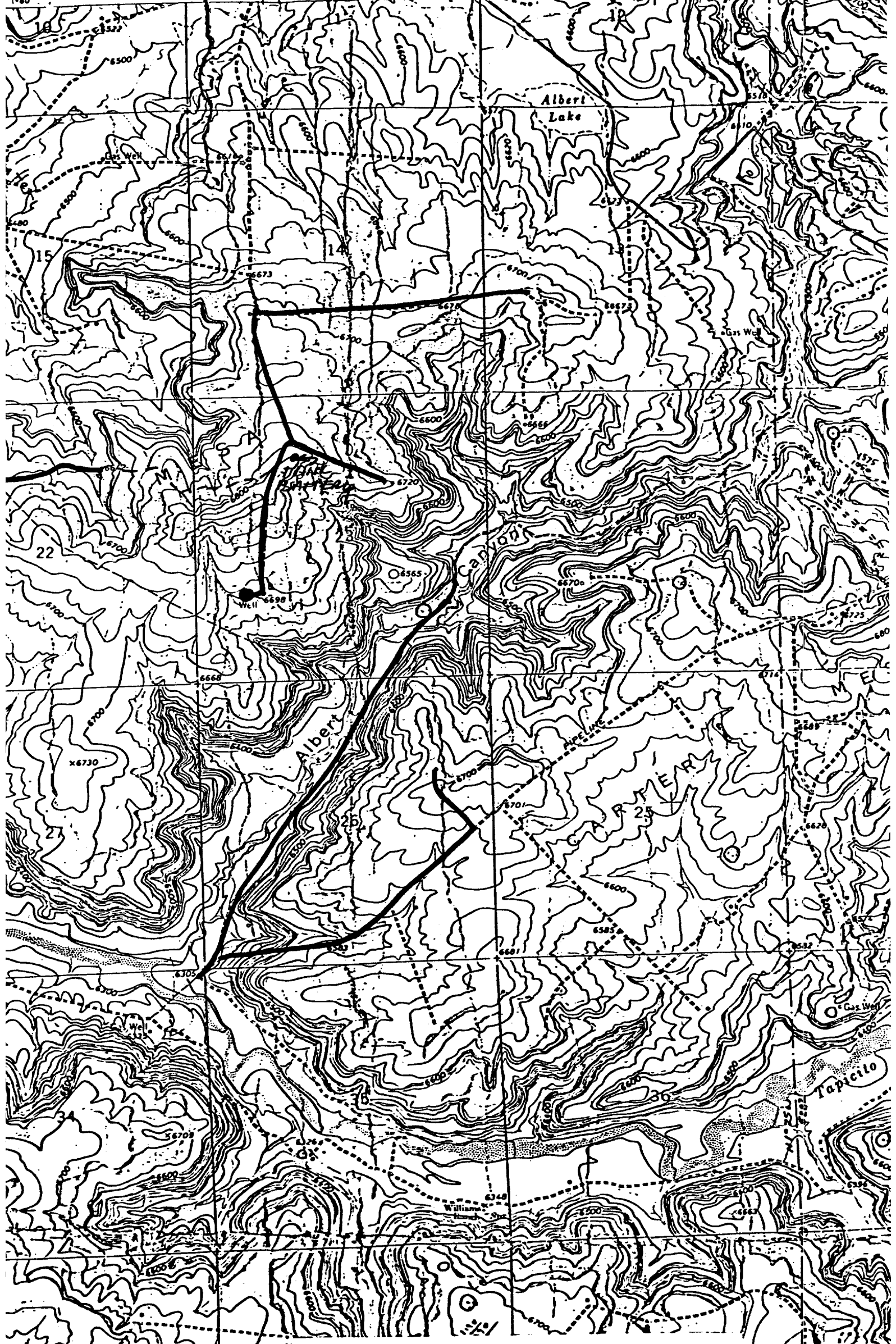
MESA Petroleum CO.
FEDERAL 12E
SW/4 23-26N-6W

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BOSTON, MASS.





Vicinity Map for
MESA PETROLEUM COMPANY #12-E FEDERAL
1620'FSL 930'FWL Sec 23-T26N-R6W
RIO ARRIBA COUNTY, NEW MEXICO