

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-045-22589

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 Company

3. ADDRESS OF OPERATOR
P.O. Box 2009, Amarillo, Texas 79105

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 1760' FSL & 1850' FWL
 At proposed prod. zone Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
7 miles N.E. of Aztec, New Mexico

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

16. NO. OF ACRES IN LEASE
334.88

17. NO. OF ACRES ASSIGNED TO THIS WELL
160 150 23

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

19. PROPOSED DEPTH
3380

20. ROTARY OR CABLE TOOLS
rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6341 GL

22. APPROX. DATE WORK WILL START*
July 1, 1977

23. PROPOSED CASING AND CEMENTING PROGRAM

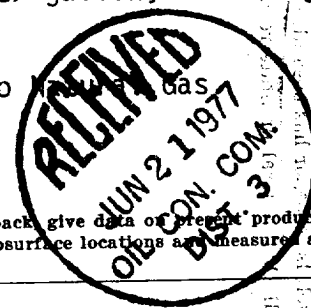
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	20#	130	150 sacks class "B"
7 7/8	3 1/2	9.2#	3380	100 sacks 65-35 Poz mix 12% gel + 100 sacks class "B"

Move in - rig up rotary tools. Drill 12 1/4" hole to 130 feet and case as above. Install and test blow out preventer. Drill 7 7/8" hole to 3380 feet and case as above. If well is non-commercial it will be plugged and abandoned as per U.S.G.S. instructions.

No abnormal pressures are anticipated and the well will be drilled with mud having the following characteristics: WTI 9.0# per gallon, viscosity 22 seconds per quart, w.l. 10 c.c. ±.

Gas under this lease is dedicated to El Paso Gas

RECEIVED



JUN 20 1977

U.S. GEOLOGICAL SURVEY
WASHINGTON, D.C.

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 measurements and true vertical depths. Give blowout preventer program, if any.

24. SIGNED John Alexander TITLE Agent DATE 6-15-77
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

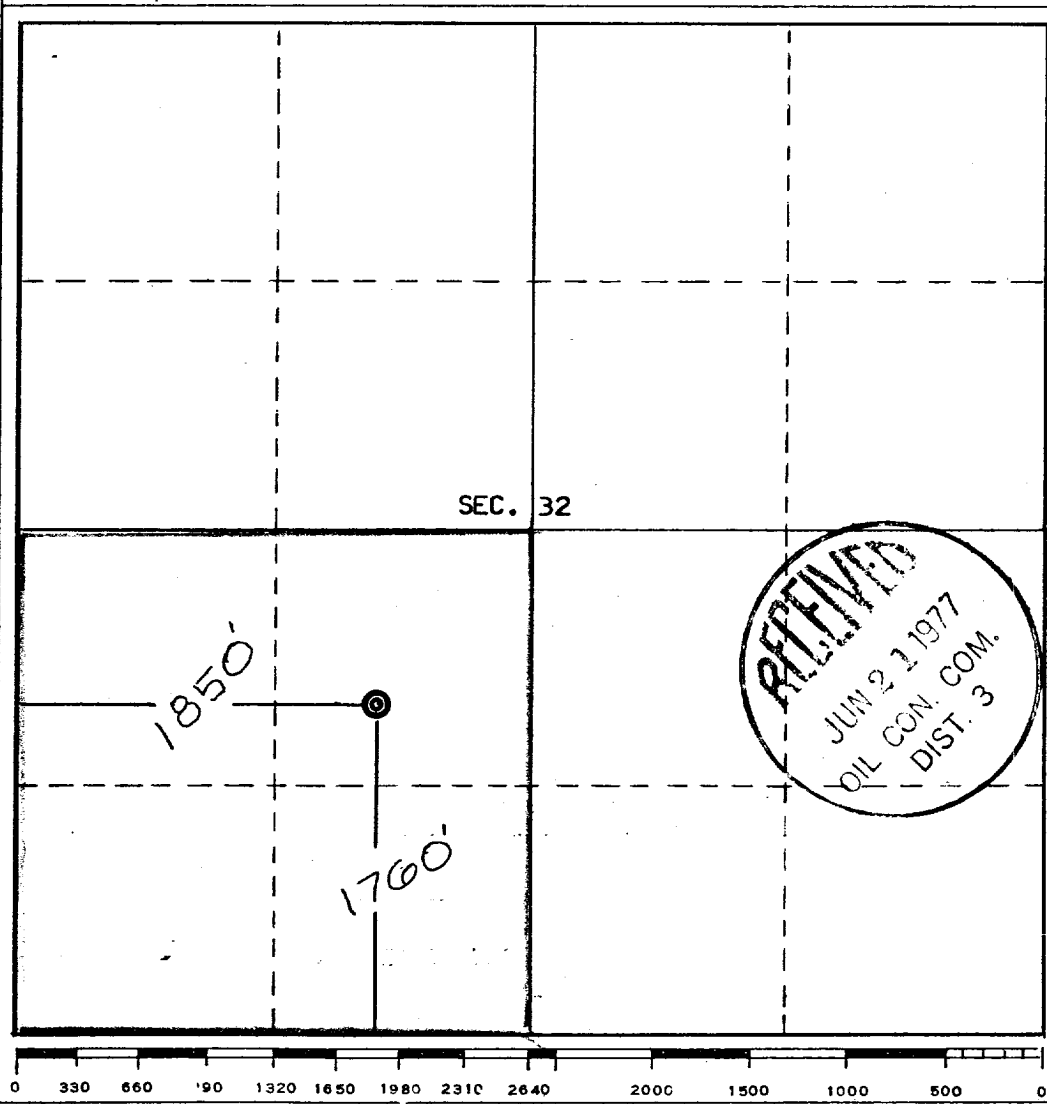
Operator Mesa Petroleum Co.		Lease State Com			Well No. 41
Unit Letter K	Section 32	Township 31 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 1760 feet from the South line and 1850 feet from the West line					
Ground Level Elev. 6341	Producing Formation Pictured Cliff		Pool Blanco Pictured Cliff ✓	Dedicated Acreage: 160 159.23 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
Agent
Position
Mesa Petroleum Company
Company
6-15-77
Date

John Alexander

I certify that the well location on this plat was plotted from field notes of original surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

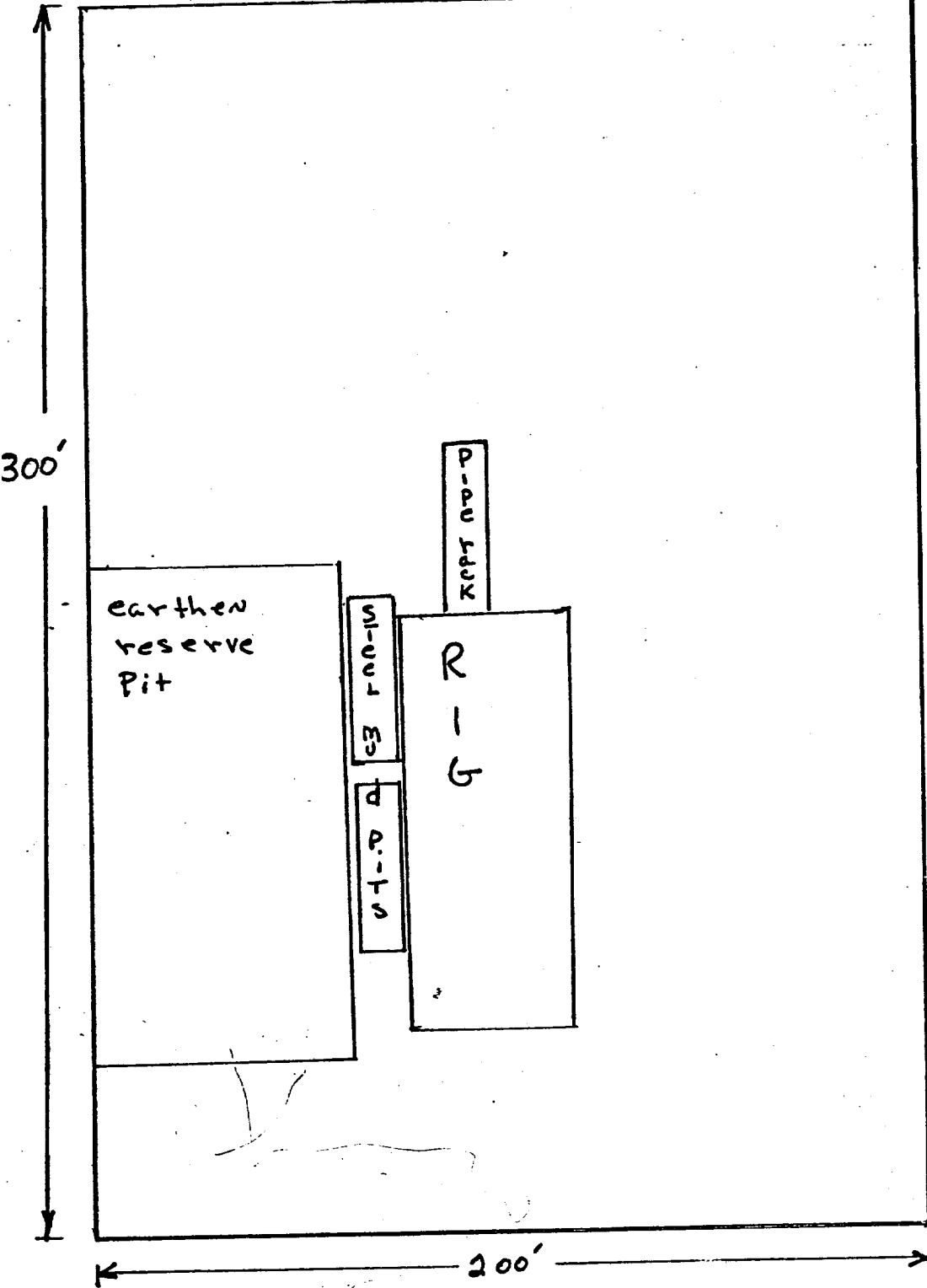
REGISTERED LAND SURVEYOR
ARNEST V. ECHOHAWK
MEXICO

Date Surveyed
January 19, 1977
Registered Professional Engineer and/or Land Surveyor
E. V. Echohawk

Certificate No. **3602**
E. V. Echohawk LS

Well Site Plat

← access road

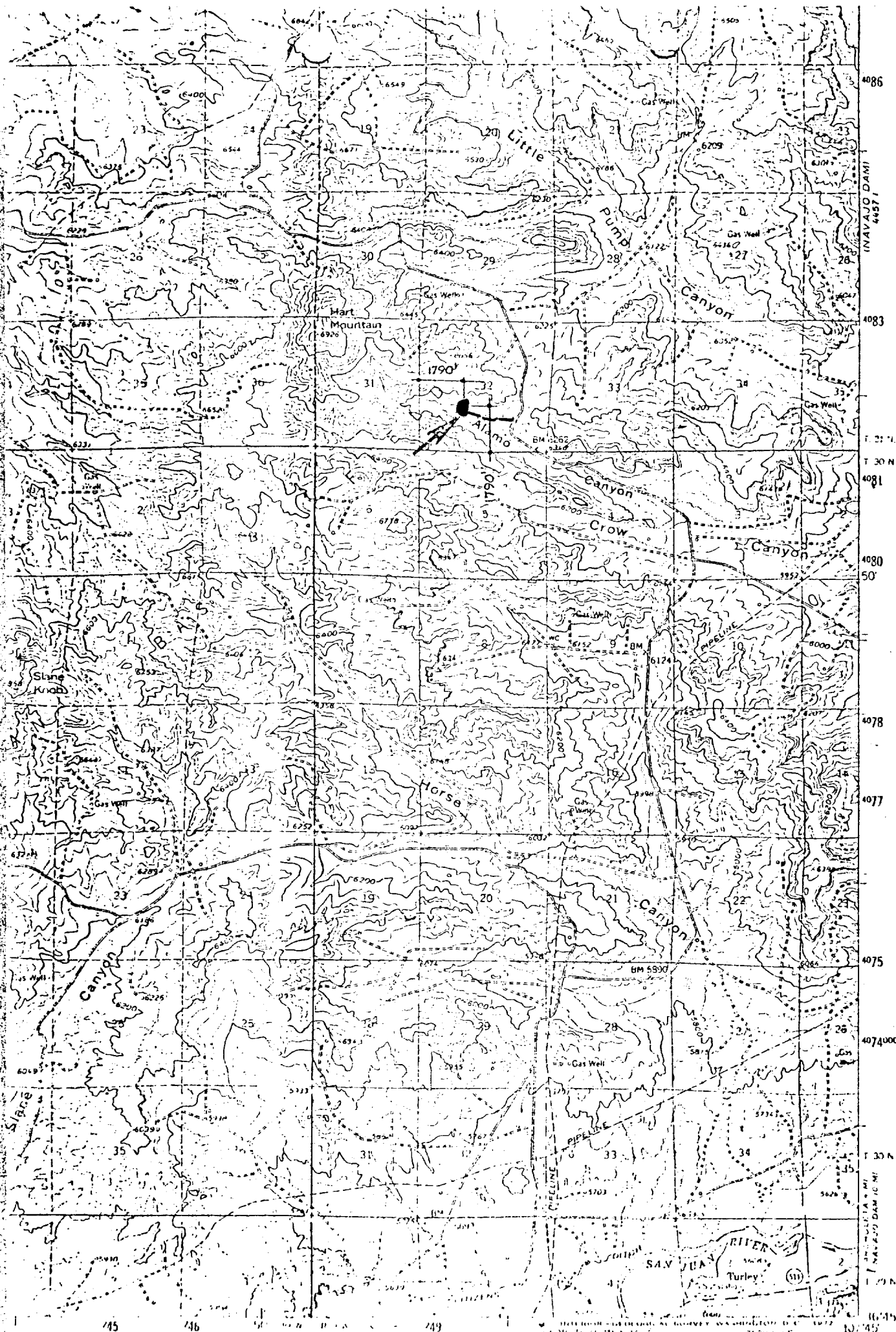


NORTH



Scale 1"=40'

Mesa Petroleum Company
State Com #41
1760' FSL & 1850' FWL
Sec 32 - 31N - 9W
Blanco Pictured Cliff
San Juan County, New Mexico



MESA PETROLEUM CO.
 ARKULETA PROSPECT - OP 726
 (STATE #41, Kpc)

Archaeological Clearance Survey Report

for

Mesa Petroleum Company

Locations

Site No. 1 X-A
State Com No. 41

Prepared by
Pat Zarnowski

Submitted by
Dr. J. Loring Haskell
Operations Director and
Principal Investigator
Agency of Conservation Archaeology

February 7, 1977

Introduction

The Agency of Conservation Archaeology of the San Juan County Museum Association and Eastern New Mexico University recently completed an archaeological clearance survey in Cox Canyon and Alamo Canyon. This land is to be impacted by the scheduled construction of two wells by Mesa Petroleum Company of Aztec, New Mexico.

The survey project was initiated at the request of Mr. Jack Cook of 3 E Company, Inc. on February 3, 1977. It was administered by Mr. Cook and by Dr. J. Loring Haskell, who serves as the principal investigator for the Agency of Conservation Archaeology in Portales, New Mexico.

The field work was conducted by Ms. Pat Zarnowski of the Agency of Conservation Archaeology in Farmington on February 4, 1977 under provisions of Federal Antiquities permit No. 76-NM-023, which expires on March 7, 1977. Other representatives in the field included Mr. Jack Cook of 3 E Company, Inc., Mr. Bob Moore of the Bureau of Land Management, Mr. Ray Swanson and Mr. Bill Hoppe of the United States Geological Survey, and Mr. Joe McKirney of Atchinson Construction.

Survey

The requested archaeological clearance survey involved the two well locations described below and located on land under the jurisdiction of the Bureau of Land Management. For specific details of location, please see the attached maps and the Recommendations section of this report.

The general survey procedure used was to walk the area of proposed construction in a zigzag manner. Visual inspection was made of the ground surface for evidence of any artifactual remains of historic or prehistoric origin. Erosional gullies were checked for signs of subsurface activity. Floral, faunal and geological observations were made to briefly describe the environmental situation.

Suter No. 1 X-A

Environment: This well is to be located in Cox Canyon, about three quarters of a mile south of the Colorado border. There is an existing pipeline here and it will be adjacent to the east side of the well pad. The pipeline will also serve as the access route to the well. The predominant vegetation where construction will take place is the big sagebrush (Artemisia tridentata), tumble weed (Salsola kali), four wing saltbush (Atriplex canescens) and cheat grass (Bromus tectorum). The eastern side of the pad area is open, but the other three sides are bordered by a sandstone mesa. At the foot of the mesa pinons (Pinus edulis), junipers (Juniperus sp.), yucca (Yucca baccata) and snakeweed (Cutierrezia sarothrae) are growing. The soil is a loose sandy loam. A small herd of deer was spotted in this general vicinity.

Cultural resources: None.

State Com No. 41

Environment: The head of Alamo Canyon is the proposed location for this well. Portions of the area where construction will take place are disturbed as a result of activities related to an already existing well, which will be adjacent to this well at the southwest corner. Big sagebrush (Artemisia tridentata), four wing saltbush (Atriplex canescens) and various grasses are the main vegetation here. There is a deep drainage gully on all but the southwest side, and this was checked very closely for any subsurface and eroding archaeological material.

Cultural resources: None.

Recommendations

<u>Well</u>	<u>Area</u>	<u>Location</u>	<u>Clearance Status</u>
Suter No. 1 X-A	Pad: 300' x 200'	1,190 feet from the North line, 2,110 feet from the West line in the Northeast $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 13, Township 32 North, Range 11 West, San Juan County, New Mexico. Map source: U. S. G. S. 15 minute Aztec Quadrangle.	Recommended
State Com No. 41	Pad: 300' x 200'	1,760 feet from the South line 1,850 feet from the West line in the Northeast $\frac{1}{4}$ of the Southwest $\frac{1}{4}$ of Section 32, Township 31 North, Range 9 West, San Juan County, New Mexico. Map source: U. S. G. S. 15 minute Aztec Quadrangle.	Recommended

Because no archaeological material was encountered during the survey of these two locations, it is recommended that archaeological clearance be granted. It is felt that the construction of these wells will not have any adverse impact on our cultural resources.

3E COMPANY, INC.

Engineering • Energy • Exploration

P. O. Box 190 — 505/327-4020

FARMINGTON, NEW MEXICO 87401

June 14, 1977

U.S. Department of Interior
Geological Survey
P.O. Box 959
Farmington, NM 87401

Attention: Mr. P. T. McGrath
District Engineer

RE: Development Plan for Surface Use
Mesa Petroleum Company
State Com #41
1760' FSL & 1850' FWL
Sec 32 - 31N - 9W
Blanco Pictured Cliff
San Juan County, New Mexico

Gentlemen:

Attached is the "Application for Permit to Drill" (form #9-331C) for the subject well. Also enclosed are the following items: surveyor's plat, drill site plat, vicinity map and archaeological report. Mr. Bob Moore of the Bureau of Land Management, Mr. Ray Swanson of the United States Geological Survey and Ms. Pat Zarnowski of the Agency of Conservation Archaeology have inspected the site.

The development plan for surface use is as follows:

- Points 1, 3, 4, 6, & 9 Vicinity map and drill site plat attached.
- Point 2. Water bars will be used on all roads where necessary.
- Point 5. Water for drilling will be trucked from Aztec, New Mexico approximately 7 miles to the southwest.
- Point 7. A waste disposal pit will be provided for the garbage and trash. Location shown on drill site plat. Drilling fluids will be contained in reserve pit until such time as evaporation occurs and then pits will be covered.
- Point 8. No camps or airstrip.

Point 10. Should the well be a commercial producer, it will be equipped to facilitate producing operations with all drilling pits filled, location leveled and well site reseeded in compliance with current Bureau of Land Management seeding requirements. During dry out time required for the reserve pit it will be fenced to eliminate livestock entry. All facilities will be painted grey: Federal Standard 595-36357.

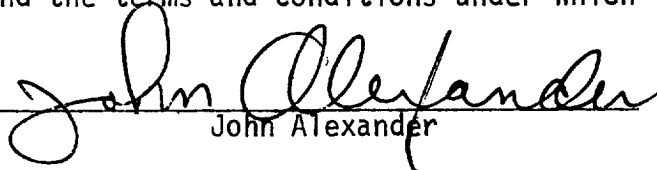
Point 11. The proposed location is on a level plain surrounded by a deep drainage gully on all but the southwest side. Vegetation consist of sagebrush, four wing salt brush and various native grasses.

Point 12.

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

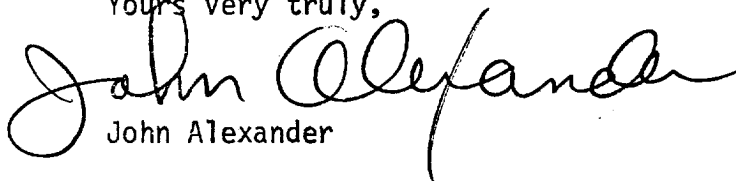
Point 13. I hereby certify that I or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are to the best of my knowledge, true and correct; and, that the work associated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

6-14-77


John Alexander

Should further information be desired, please advise.

Yours very truly,


John Alexander

JA:st

Attachments