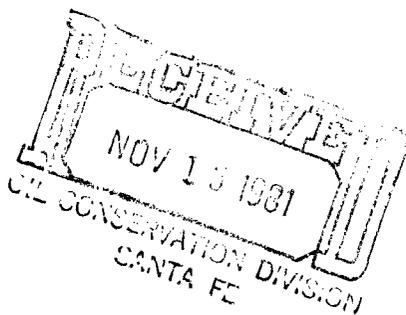


November 9, 1981



NSL-1452  
Rule 104 F  
12-3-81

Joe D. Ramey, Director  
New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501

Dear Mr. Ramey:

Subject: Mesa Petroleum Co.  
Alkali Federal Com #6  
400' FSL & 1980' FEL  
Sec 33, T5S, R25E  
Chaves County, New Mexico

*Undesignated F60 Gas*

Application is hereby made for administrative approval of an unorthodox location for subject well due to the presence of archaeological material at the 660' FNL & 1980' FEL location and points to the North thus preventing a regular location.

Exhibit I is an area land map showing offset operators, Exhibit II is the Form C102 showing mineral ownership and Exhibit III is the archaeological report outlining the necessity for moving the location.

Offset operators/lease holders have been provided a copy of this letter by Certified Mail.

Expeditious handling of this request and issuance of appropriate administrative order is appreciated.

Yours very truly,

MESA PETROLEUM CO.

*R. E. Mathis*  
R. E. Mathis  
Regulatory Coordinator  
Permian Basin Division

/pm

Attachments (Exhibits I, II & III)

CC: Yates Petroleum Co.; McClellan Oil & PLE et al

State	State	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Mesa Pat. Public Lds. Expl. 5-3-84 0119	Mesa Pat. 1/2 Public Lds. Expl. 5-1-89 40030 0189	Mesa Pat. Public Lds. Expl. 5-3-84 0119	Yates Pat. 6-1-81 4-1772 335		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184 104	Abso Pat. 11-87 40029	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
18	17	16	15	14	13	12	11
U.S.	U.S.	State	5	25	10	U.S.	U.S.
McClellan Oil 5-1-89 36409	McClellan Oil 5-1-89 36409	McClellan Oil 5-1-89 36409	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
19	20	22	24	25	26	27	28
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
McClellan Oil 5-1-89 36409	McClellan Oil 5-1-89 36409	McClellan Oil 5-1-89 36409	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
30	29	28	27	26	25	24	23
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Yates Pat. 1/2 McClellan Oil 5-1-89 36409	Yates Pat. 5-1-81 4-6774 324	Yates Pat. 7-3-84 4-1772 335	Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
31	32	33	34	35	36	37	38
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Yates Pat. 1/2 McClellan Oil 5-1-89 36409	Yates Pat. 5-1-81 4-6774 324	Yates Pat. 7-3-84 4-1772 335	Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)

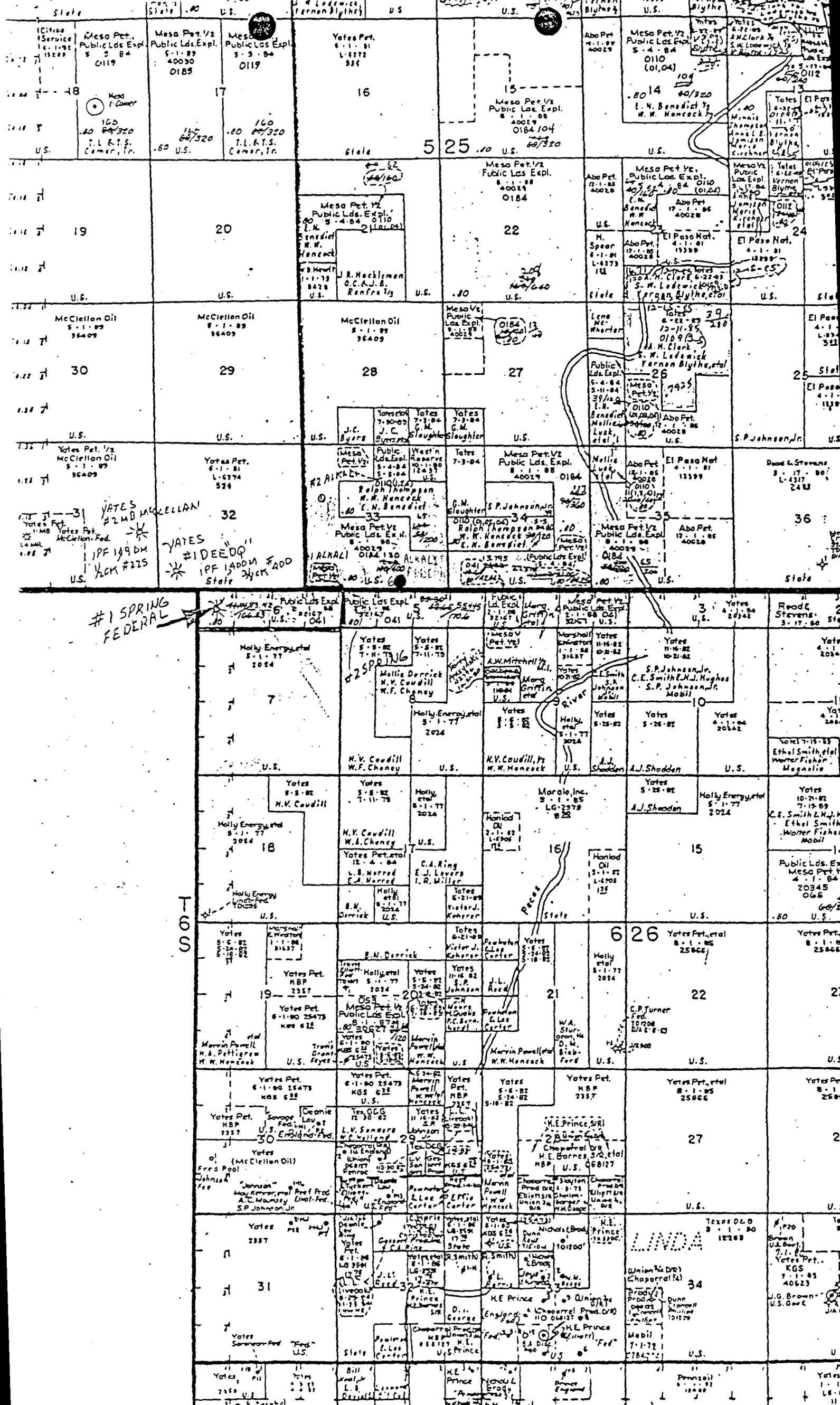
State	State	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Mesa Pat. Public Lds. Expl. 5-3-84 0119	Mesa Pat. 1/2 Public Lds. Expl. 5-1-89 40030 0189	Mesa Pat. Public Lds. Expl. 5-3-84 0119	Yates Pat. 6-1-81 4-1772 335		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 11-87 40029	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
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19	20	22	24	25	26	27	28
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
McClellan Oil 5-1-89 36409	McClellan Oil 5-1-89 36409	McClellan Oil 5-1-89 36409	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
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U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Yates Pat. 1/2 McClellan Oil 5-1-89 36409	Yates Pat. 5-1-81 4-6774 324	Yates Pat. 7-3-84 4-1772 335	Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)
31	32	33	34	35	36	37	38
U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.	U.S.
Yates Pat. 1/2 McClellan Oil 5-1-89 36409	Yates Pat. 5-1-81 4-6774 324	Yates Pat. 7-3-84 4-1772 335	Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184		Mesa Pat. 1/2 Public Lds. Expl. 8-1-88 40014 0184	Abso Pat. 12-1-85 40028	Mesa Pat. 1/2 Public Lds. Expl. 5-4-84 0110 (01,04)

#1 SPRING FEDERAL

TOSS

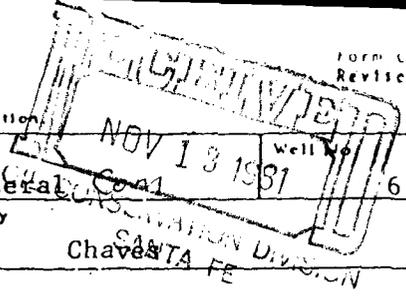
PIECE

LINDA



All distances must be from the outer boundaries of the Section

Operator Mesa Petroleum Co.			Lease Alkali Federal Coal		
Unit Letter 0	Section 33	Township 5 South	Range 25 East	County Chaves	
Actual Footage Location of Well: 1980 feet from the East line and 400 feet from the South line					
Ground Level Elev. 3703	Producing Formation AEO	Pool Undesignated		Dedicated Acreage: 1.00 Acre	

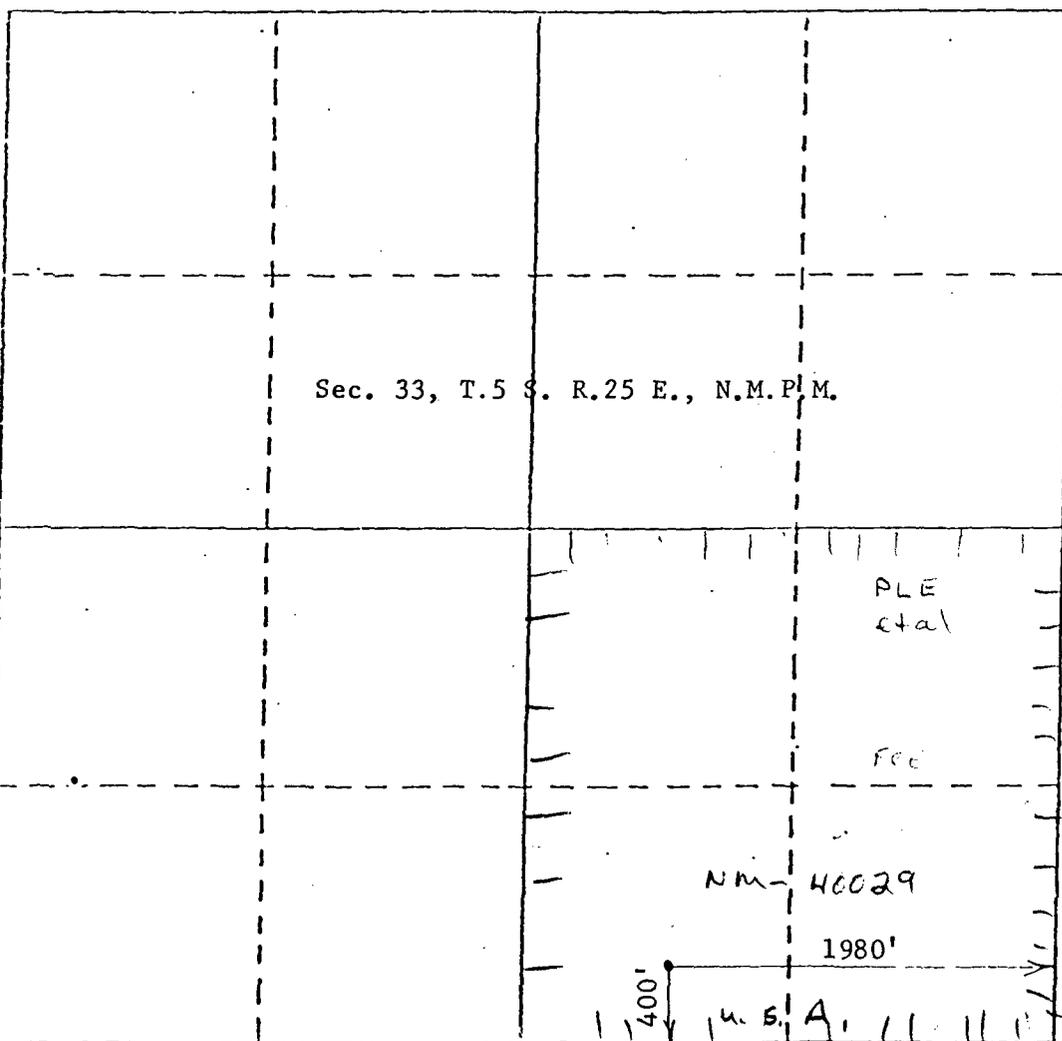


1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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 Division.



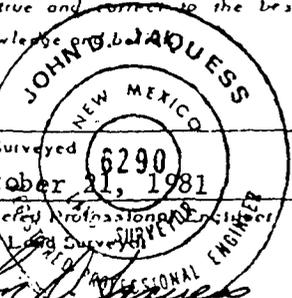
CERTIFICATION

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

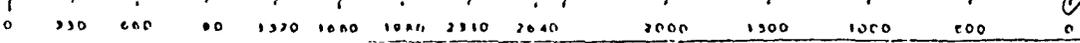
*R. P. Mathis*

Name  
R. P. MATHIS  
Position  
REGULATORY COORDINATOR  
Company  
MESA PETROLEUM CO.  
Date  
10-26-81

I hereby certify that the well location shown on this plot 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  
October 31, 1981  
Registered Professional Engineer and of Land Surveying  
John D. Jacques, P.E. & L.S.  
Certificate No. 6290



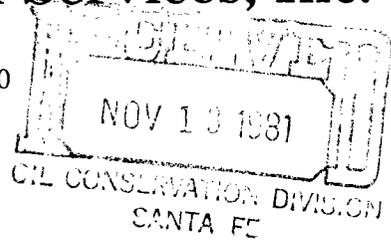


# NMAS

## New Mexico Archaeological Services, Inc.

P. O. Box 1341  
Carlsbad, New Mexico 88220  
(505) 887-7646

1 November 1981



Reconnaissance  
Excavation  
Analysis  
Explanation  
Curation

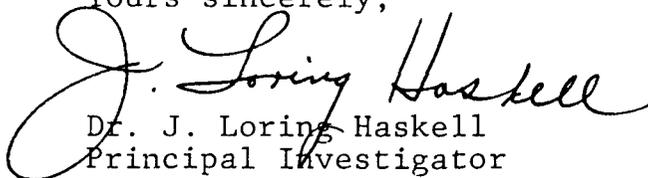
Mr. R.E. Mathis  
Regulatory Coordinator  
MESA PETROLEUM CO.  
1000 Vaughn Building  
Midland, Texas 79701

Dear Mr. Mathis:

Enclosed please find NMAS' Archaeological Clearance Report for MESA PETROLEUM CO.'s proposed Alkali Federal Well No. 6 and its associated access road in Chaves County, New Mexico. Three archaeological sites, NMAS 5205, NMAS 5206, and NMAS 5207, and two isolated cultural resources (CR) were recorded during this reconnaissance. NMAS is suggesting clearance for this project provided the archaeologically sensitive areas are avoided.

If you have any questions pertaining to this report, please call my office. Thank you for asking NMAS to do this reconnaissance.

Yours sincerely,

  
Dr. J. Loring Haskell  
Principal Investigator

Enclosure

cc: Mr. Lloyd Reed, Agent, MESA PETROLEUM CO., Roswell  
Ms. Ann Ramage, BLM, Roswell  
Mr. George Stewart, USGS, Roswell  
Mr. Curtis Schaafsma, Laboratory of Anthropology,  
Santa Fe  
Mr. Thomas W. Merlan, SHPO, Santa Fe

as

Archaeological Clearance Report

for

MESA PETROLEUM CO.

Alkali Federal Well No. 6

Prepared

By

Dr. J. Loring Haskell  
Principal Investigator

Submitted

By

Dr. J. Loring Haskell  
Principal Investigator  
New Mexico Archaeological Services, Inc.  
Carlsbad, New Mexico

1 November 1981

Permit No. 81-NM-306

#### ABSTRACT

New Mexico Archaeological Services, Inc., representing MESA PETROLEUM CO., Midland, undertook an archaeological reconnaissance of Bureau of Land Management lands scheduled to be impacted by the construction of a drill location and its associated access road. The investigated area is situated in Section 33, T5S, R25E, and Section 5, T6S, R26E, NMPM, Chaves County, New Mexico. Three archaeological sites, NMAS. 5205, NMAS 5206, NMAS 5207, and two isolated cultural resources (CR) were recorded during the course of this reconnaissance. NMAS is suggesting clearance for MESA PETROLEUM's proposed work provided the archaeologically sensitive areas are avoided.

## Introduction

On 15 October 1981, New Mexico Archaeological Services, Inc., (NMAS), Carlsbad, undertook for MESA PETROLEUM CO., Midland, an archaeological reconnaissance of federal lands administered by the Bureau of Land Management in Chaves County, New Mexico. The reconnoitered area will be impacted by the construction of a drill location and its associated access road. This project was advanced by Mr. Lloyd Reed, Regulatory Agent, MESA PETROLEUM CO., Roswell, and administered by Dr. J. Loring Haskell, Principal Investigator, NMAS, Inc. This reconnaissance was undertaken by Mr. John C. Haight, Research Assistant, NMAS.

## Survey Technique

For this investigation, MESA PETROLEUM's proposed location was reconnoitered for evidence of man's past activities by walking it in a series of 25 ft wide, close interval (15° or less), zigzag transects. In addition an added zone embracing to 20 ft on each side of the staked 400 X 400 ft location, and hence lying outside the bounds of the proposed work area, was reconnoitered by a similar means. As for the access road, it was walked in two 25 ft wide transects. Methodologically, this procedure served to promote optimal conditions for the visual examination of areas to be impacted by construction-related activities.

Alkali Federal Well No. 6

## Location

The proposed location will measure 400 X 400 ft on federal lands and will be situated 1980 ft from the east line and 660 ft from the south line of:

Section 33, T5S, R25E, NMPM, Chaves County, NM

Thus it will be situated in the:

SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 33, T5S, R25E, NMPM, Chaves County, NM

The associated access road will measure approximately 20 X 2640 ft and will be situated in the:

SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 33, T5S, R25E, NMPM, Chaves County, NM  
 SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 5, T6S, R26E, NMPM, Chaves County, NM  
 SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 5, T6S, R26E, NMPM, Chaves County, NM

Map Reference: USGS COTTONWOOD DRAW QUADRANGLE, 7.5 Minute Series, 1967.

### Terrain

MESA PETROLEUM's proposed location will be situated on a gently trending landform marked by occasional gysiferous eminences and ridges. Areal sheetwash is heavy with drainage being to the southeast and tributary to Alkali Draw. Soil individuals are composed of moderately-compacted, calcareous, silty clay loams and silt loams hosting chert, quartzite, and basalt cobbles and gravels. Pedons belong to the Calcic Gypsiorthid subgroup and its intergrades.

### Floristics

Areal soils host a sparse overstory of Prosopis juliflora, Yucca glauca, Ephedra sp., and Atriplex canescens. Attendant forbs include Coldenia canescens, Gutierrezia sarothrae, Sartwellia sp., Perezia nana, Verbena sp., and Senecio longilobus. The Gramineae, represented by Hilaria mutica, Bouteloua sp., Scleropogon brevifolius, Muhlenbergia porteri, and Tridens pulchellus, is the dominant component of floral community.

### Cultural Resources

Three archaeological sites, NMAS 5205, NMAS 5206, and NMAS 5207, as well as two isolated cultural resources (CR) were recorded during the course of this reconnaissance. CR 1 consists of a quartzite primary decortication flake at a point approximately 200 ft east of the center stake. It is situated in the:

NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 33, T5S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,742,420; E562,910

Map Reference: USGS COTTONWOOD DRAW QUADRANGLE, 7.5 Minute Series, 1967.

CR 2 consists of three quartzite cores at a point approximately 800 ft west of MESA PETROLEUM's Spring Federal Well No. 2 on the proposed access road. It is situated in the:

SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 5, T6S, R26E, NMPM, Chaves County, NM

UTM: Zone 13, N3,742,070; E562,770

Map Reference: USGS COTTONWOOD DRAW QUADRANGLE, 7.5 Minute Series, 1967.

*NMAS 5205*

Location: NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 33, T5S, R25E, NMPM, Chaves County, NM  
NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ , Section 33, T5S, R25E, NMPM, Chaves County, NM

UTM: Zone 13, N3,742,540; E562,810

Map Reference: USGS COTTONWOOD DRAW QUADRANGLE, 7.5 Minute Series, 1967.

Ownership: Bureau of Land Management Administration

Dimension of Resources: 152 X 213 m

Typological Designation: Task Locus

Temporality: Unknown

Nature of Cultural Resources: NMAS 5205, a large task locus, is situated on the slope of a prominent eminence overlooking Alkali Draw to the east. Resources consist of numerous chert and quartzite cores and exhausted cores, numerous chert, quartzite, and basalt primary, secondary and tertiary decortication flakes, and one quartzite unifacial scraper. Specific tasks carried out at this site focused on the roughing out of flaked tools. Cultural and temporal parameters cannot be established due to the absence of diagnostic artifacts.

Further investigation of this site should illuminate the nature of procedures and techniques used during flaked-tool manufacture.

These data, when combined with the spatial distribution of cultural

resources, should help to establish the exact nature and function of NMAS 5205.

*NMAS 5207*

Location: NE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 5, T6S, R26E, NMPM, Chaves County, NM  
NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 5, T6S, R26E, NMPM, Chaves County, NM

UTM: Zone 13, N3,742,180; E562,710

Map Reference: USGS COTTONWOOD DRAW QUADRANGLE, 7.5 Minute Series, 1967.

Ownership: Bureau of Land Management Administration

Dimension of Resources: 122 X 183 m

Typological Designation: Task Locus

Temporality: Unknown

Nature of Cultural Resources: NMAS 5206, a task locus, is situated on the southeast-facing slope of a prominent ridge overlooking the Pecos River to the east. Locally, ephemeral sheetwash has exposed quarry-able chert and quartzite cobbles. Observed cultural properties consist of small concentrations of chert and quartzite primary and secondary decortication flakes, quartzite hammerstones, quartzite and chert cores, and chert and quartzite spalls.

Further investigation of this site should help to illuminate our understanding of techniques of flaked-tool manufacture in the Middle Pecos Valley. In order to establish the exact nature and function of this site should be carried out simultaneously with the study of NMAS 5205. Although similar usage is suggested only excavation, collection and analysis will reveal actual differences between them should they exist.

*NMAS 5207*

Location: NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ , Section 5, T6S, R26E, NMPM, Chaves County, NM

UTM: Zone 13, N3,741,960; E562,600

Map Reference: USGS COTTONWOOD DRAW QUADRANGLE, 7.5 Minute Series, 1967.

Ownership: Bureau of Land Management Administration

Dimension of Resources: 15 X 22 M

Typological Designation: Task Locus

Temporality: Unknown

Nature of Cultural Resources: NMAS 5207, a small task locus, is situated on the east-facing slope of a gently trending ridge system. Resources consist of small concentrations of chert and quartzite primary, secondary, and tertiary flakes, quartzite hammerstones, and chert and quartzite cores. Specific tasks conducted include quarrying knappable lithic material for stone-tool manufacture. Owing to the concentration of lithic material plus the fact that residues indicate flaked-tool manufacture, this site has been termed a task locus. Temporal and cultural parameters cannot be given because of the absence of diagnostic artifacts.

Further investigation of this site should yield valuable information related to site function and techniques relating to stone-tool manufacture. These data should further our understanding of areal archaeology in the Middle Pecos Valley.

#### Recommendation

NMAS is suggesting clearance for MESA PETROLEUM's proposed location provided the archaeologically sensitive areas are avoided.

To avoid NMAS 5205, NMAS suggests that the location be shifted south, approximately 260 ft. i.e., 1980 FEL and 400 FSL (Fig.1). Owing to the amount of material cultural remains in this area, NMAS suggests that a fence be placed between the southern edge of the site and the suggested

re-location of MESA's pad (Fig. 2). MESA is amenable to this suggestion.

As for NMAS 5206, it is situated well to the west of MESA PETROLEUM's proposed work-related activities and hence is not threatened (Fig. 1). Finally, NMAS 5207, is situated at a point 200 ft east of MESA's existing Spring Federal Well No. 2 and 50 ft south of the proposed access road to proposed Alkali Federal Well No. 6. It will not be impacted by the proposed construction-related activities. (Fig. 1). Clearance, of course, is granted by the Bureau of Land Management. If additional cultural resources are encountered during construction, the BLM and NMAS should be notified immediately. Archaeologically sensitive areas are to be avoided by men and materiel.

## Definitions used by NMAS

As used by NMAS, a "site" is defined as any cultural material containing clear evidence of other than *en passant* human occupation.

### OCCUPATION ZONE

An occupation zone is a site at which associated cultural properties occur scattered over an extensive tract of land. Specifically, resources occur as a light, but extensive, scatter and lack overall concentration. Sites of this type, may or may not, reflect one task-specific activity.

### TASK LOCUS

A task locus is a site at which an individual, or social unit, carries out a single task-related activity, e.g., a milling station or a lithic fabrication station (one type of cultural resource).

### SPECIAL ACTIVITIES ZONE

A special activities zone is distinguished by a small range of related tasks, - e.g., milling tools in association with hide-working tools (more varied cultural resources).

### LIMITED BASE

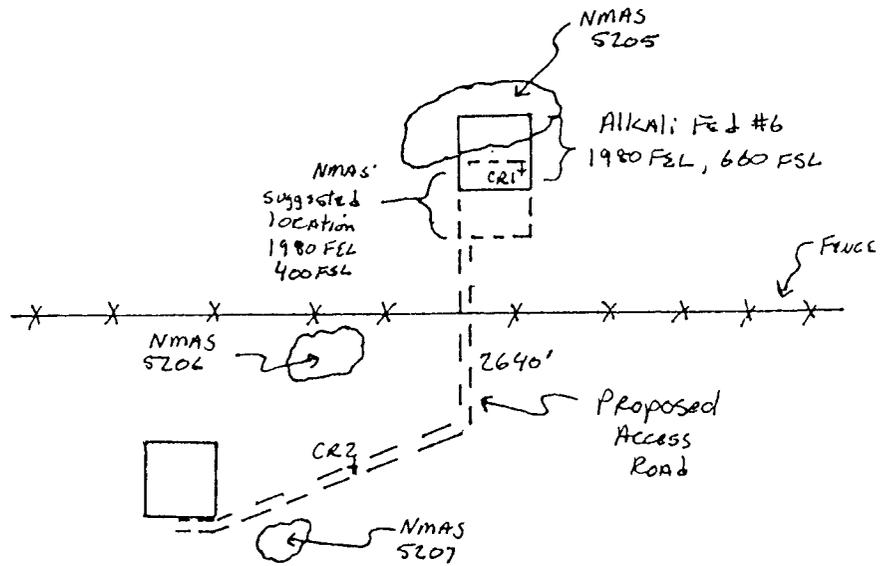
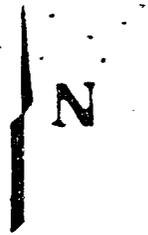
A limited base is characterized by a wider range of socio-economic activities resulting from more sustained occupation. Although it contains a wider array of task-related activities than at the above, it represents less than the full range of expected cultural resources construed as constituting a local group.

### HOME BASE

A home base is a site which evidences signs of year-around occupation and hence was occupied by the full spectrum of social units normally construed as constituting a local group, i.e., the full range of cultural resources.

### ISOLATED CULTURAL RESOURCE(S)

An isolated cultural resource, as used by NMAS, refers to any artifact or cultural material, separated by more than 20 m from any other occurrence. Isolated cultural resources, if multiple, have concentrations of less than one artifact per square meter exclusive of burned stone. Resources of this type are attributed to *en passant* activities.



Scale: 400 ft. = 1 cm

Fig. 1. Schematic representation showing MESA PETROLEUM's proposed Alkali Federal Well No. 6 (1980 FEL, 660 FSL) and its associated access road vis à vis NMAS 5205, NMAS 5206, and NMAS 5207. NMAS suggests that the location be shifted 260 ft to the south, i.e., 1980 FEL, 400 FSL, Section 33, T5S, R25E, NMPM, Chaves County, New Mexico.

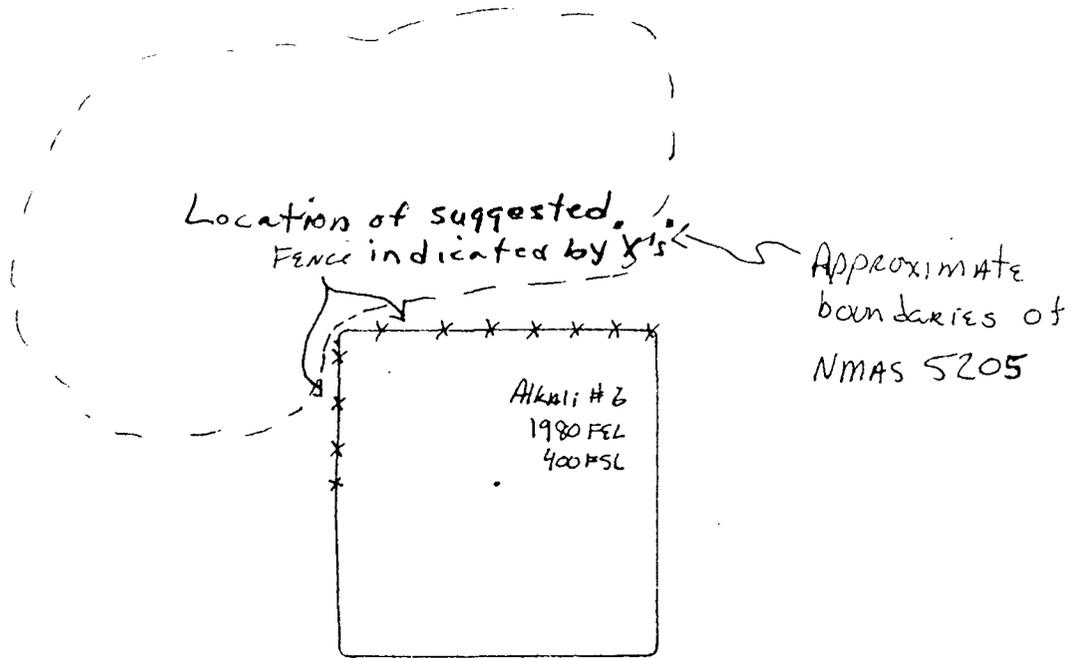
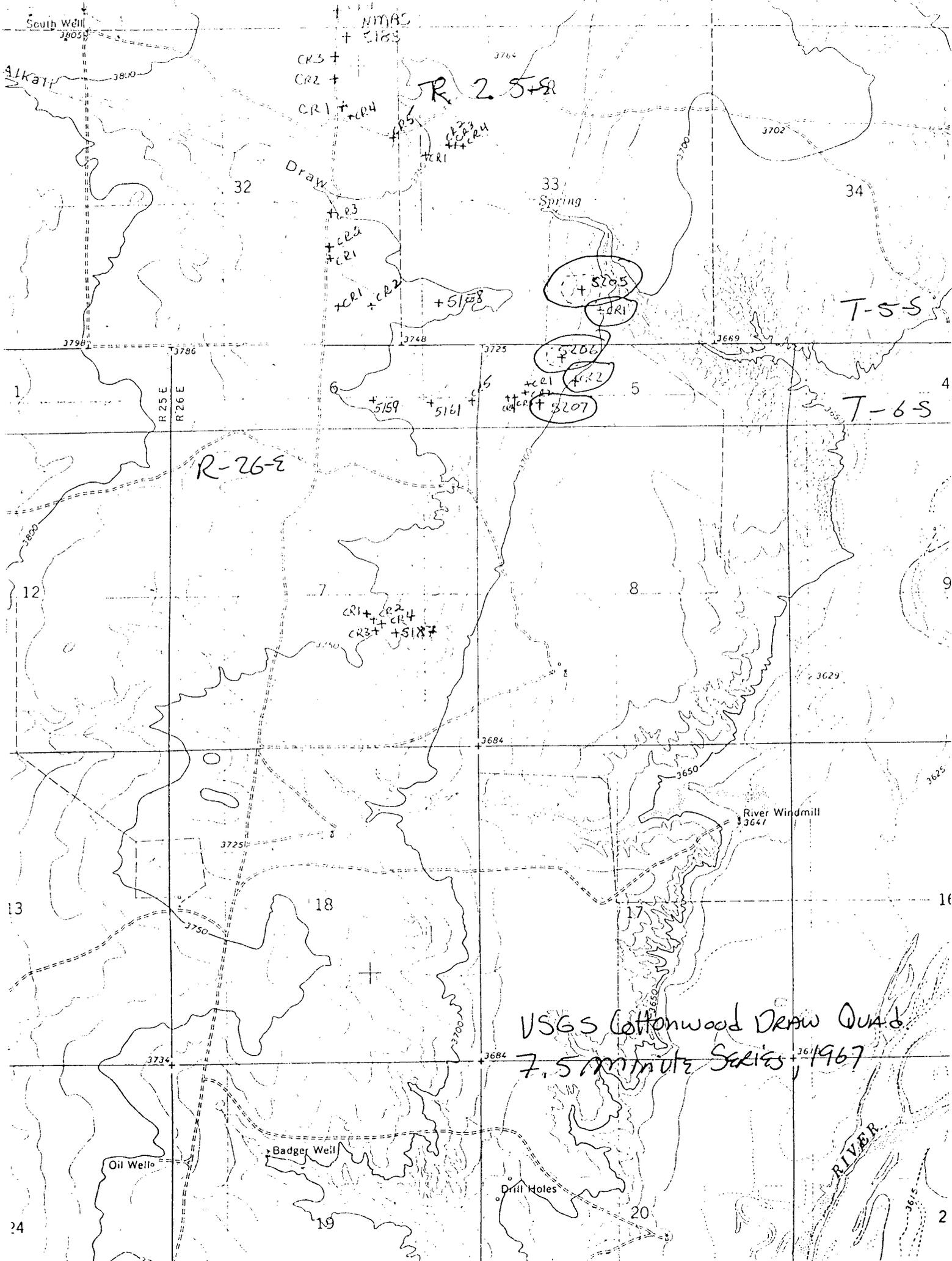
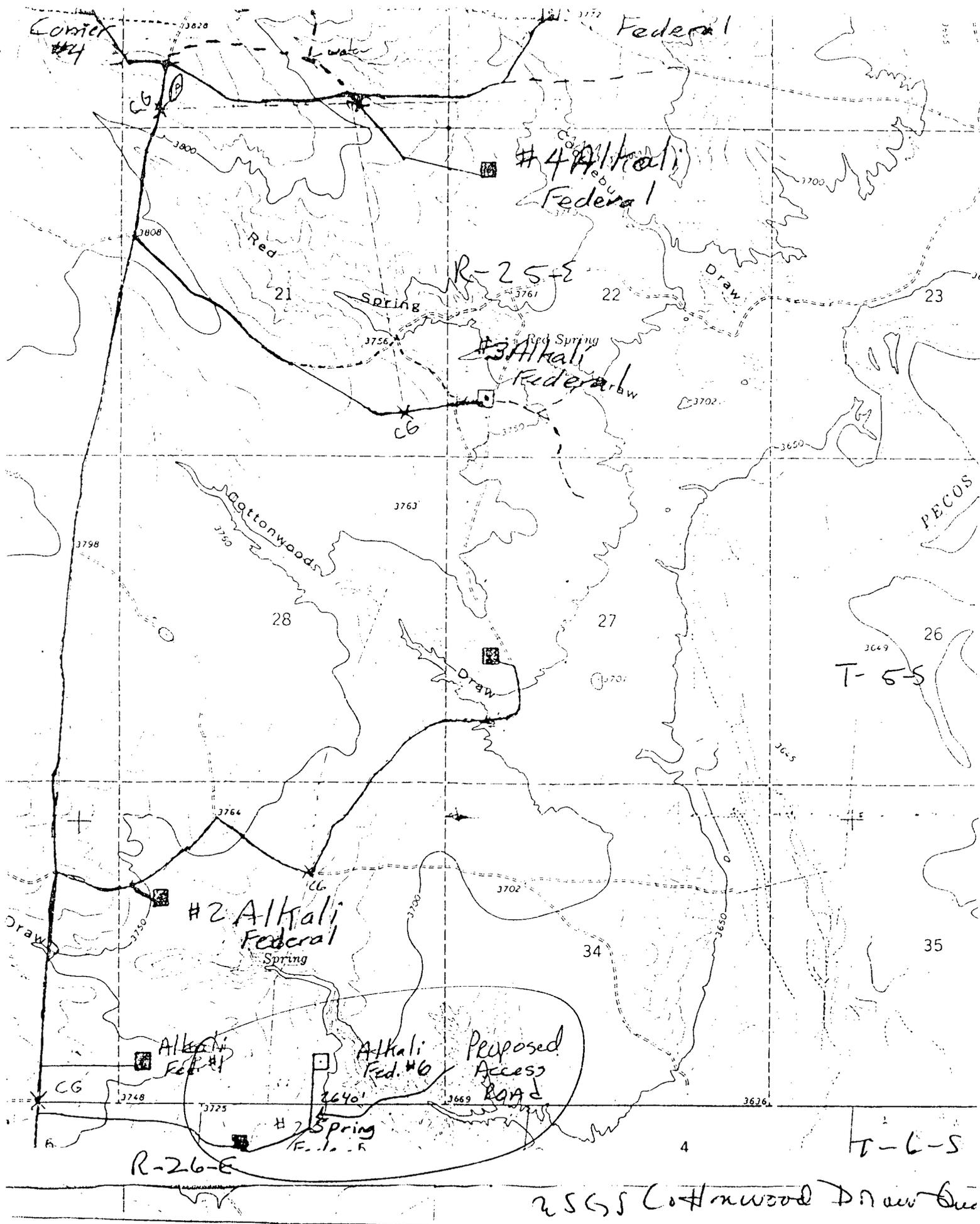


Fig. 2. Schematic representation showing the location of the suggested area to be fenced at MESA PETROLEUM's Alkali Federal Well No. 6. This area should be avoided by all construction related activities.



USGS Cottonwood Draw Quad  
7.5 minute Series, 1967



USGS Cottonwood Draw Area  
7.5 Minute Series, 1967.