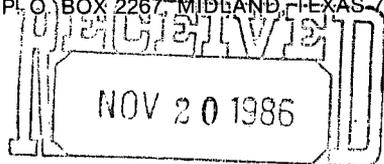


Release 104-86

By Dec



P.O. BOX 2267 MIDLAND, TEXAS 79702 (915) 686-3600



November 17, 1986

OIL CONSERVATION DIVISION
SANTA FE

USC - 2304
RULE-104 F(I)

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, NM 87501

Attn: R. L. Stamets

Owen Mesa Alaska Gas
Pool
320 acres dtd.
N/2 Sect 26

In Re: Unorthodox Location

Owen Mesa 26 Federal Com., Well No. 1
Sec. 26, T24S, R29E
Eddy County, New Mexico

Dear Mr. Stamets:

HNG Oil Company wishes to apply for an unorthodox location for the above-named well. Due to existing topographical conditions the well has been staked 1350 feet from the north line and 1880 feet from the east line of Section 26. Enclosed are copies of a Land Plat, Topo Map, and the reconnaissance performed by the New Mexico Archaeological Services, Inc.

Very truly yours,

HNG OIL COMPANY

Betty Gildon
Regulatory Analyst

BG

enclosures

OFFSET OPERATORS

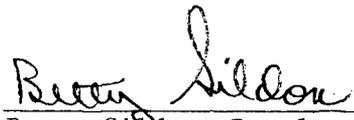
Inexco Oil Company
700 Louisiana, Ste. 2100
Houston, Texas 77002

Bass Enterprises
P. O. Box 2760
Midland, Texas 79702

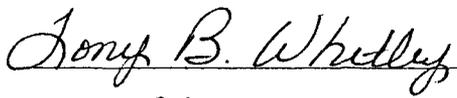
Phillips Petroleum
4001 Penbrook
Odessa, Texas 79762

Mobil Producing
Nine Greenway Plaza, Ste. 2700
Houston, Texas 77046

All above-named offset operators have been notified by Certified Mail of HNG Oil Company's request for an unorthodox location for the Owen Mesa 26 Federal Com., Well No. 1, located in Section 26, Township 24 South, Range 29 East, Eddy County, New Mexico.



Betty Gildon, Regulatory Analyst



11-17-86

Prospective formations of interest for HNG Oil Company's Owen Mesa 26 Federal Com., Well No. 1, located 1350' FNL & 1880' FEL of Section 26, Township 24 South, Range 29 East, Eddy County, New Mexico.

Wolfcamp	- 10,250'
Atoka	- 12,600'
Atoka Bank	- 12,750'

**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.

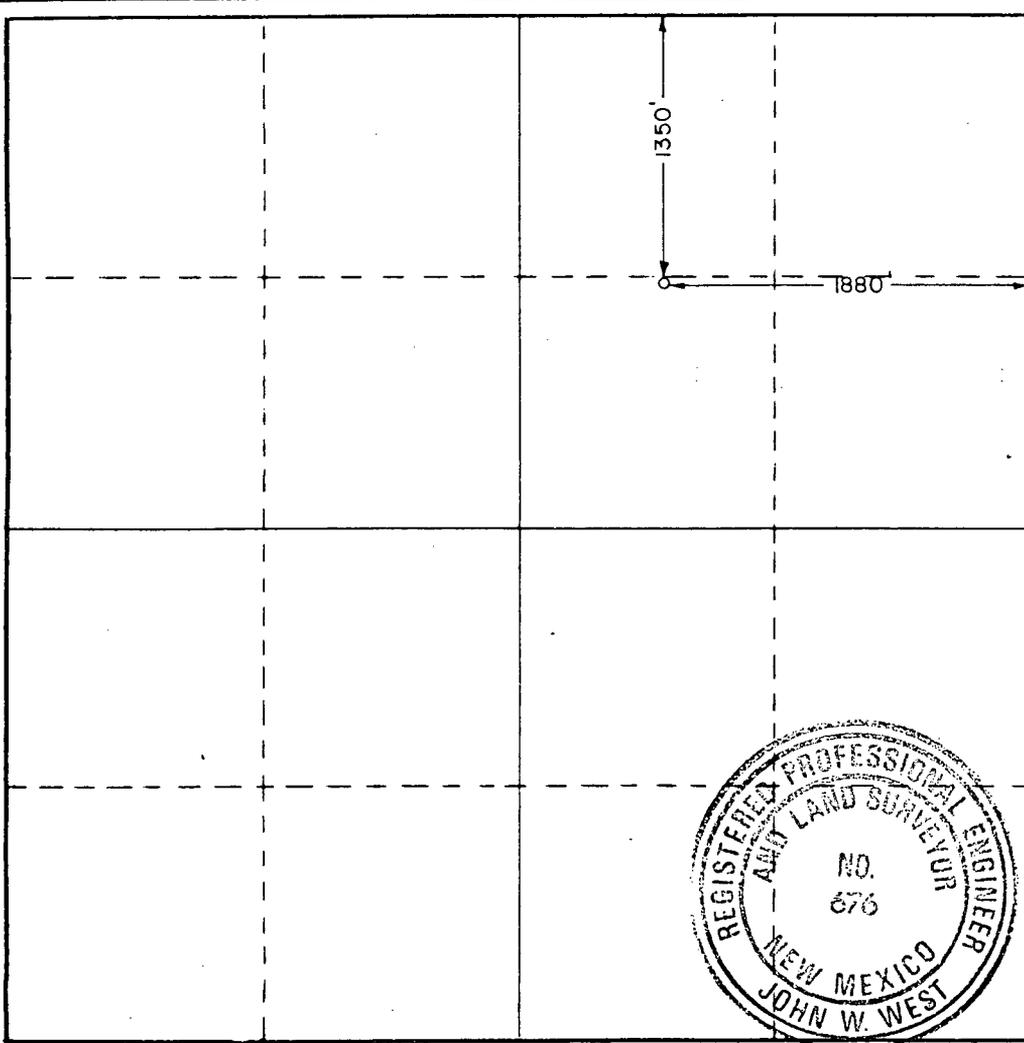
Operator HNG Oil Company		Lease Owen Mesa 26 Federal Com.			Well No. 1
Unit Letter G	Section 26	Township 24 South	Range 29 East	County Eddy	
Actual Footage Location of Well: 1880 feet from the East line and 1350 feet from the North line					
Ground Level Elev. 2967.0'	Producing Formation Atoka		Pool Owen Mesa	Dedicated Acreage: N/2 320 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 communitization

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.

Betty Gildon

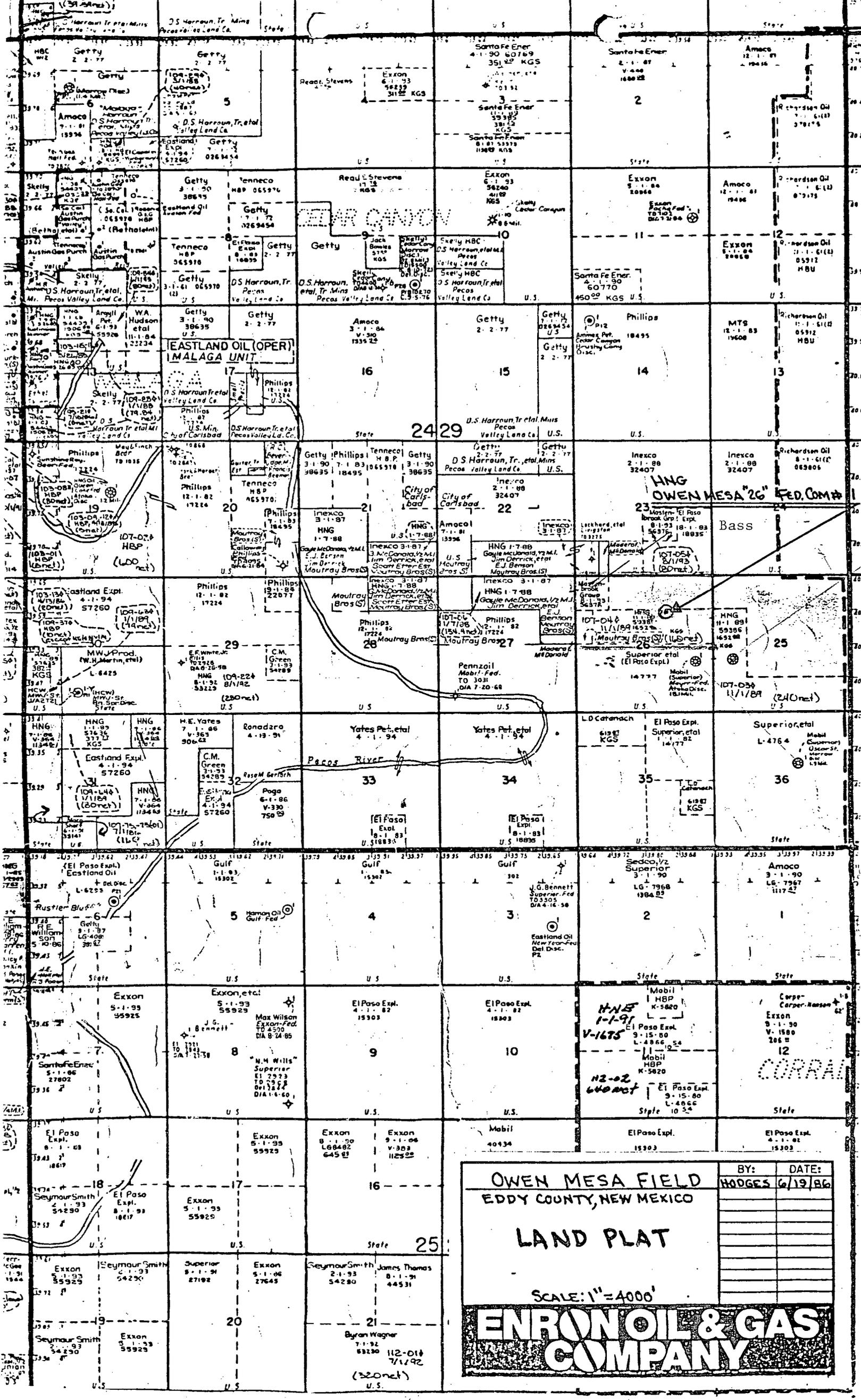
Name Betty Gildon
Position Regulatory Analyst
Company HNG OIL COMPANY
Date 11/17/86

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 July 29, 1986
Registered Professional Engineer and/or Land Surveyor <i>John W. West</i>
Certificate No. JOHN W. WEST, 676 RONALD J. EIDSON, 3239

91746





OWEN MESA FIELD
EDDY COUNTY, NEW MEXICO

LAND PLAT

SCALE: 1" = 4000'

ENRON OIL & GAS COMPANY

BY: HODGES	DATE: 6/19/86



NMAS

New Mexico Archaeological Services, Inc.

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

Reconnaissance
Excavation
Analysis
Explanation
Curation

12 November 1986

Mr. George Hover
HNG OIL COMPANY
P.O. Box 2267
Midland, Texas 79702

Dear Mr. Hover:

Enclosed please find NMAS' Archaeological Clearance Report for HNG OIL COMPANY's proposed Owen Mesa "26" Federal Com. Well No. 1 and its associated access road in Eddy County, New Mexico. Two archaeological sites (NMAS 5816 and NMAS 5817) and three isolated cultural occurrences (ICO) were recorded during this survey. NMAS is suggesting clearance for this project provided the archaeological sites are avoided.

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

Yours sincerely,

J. Loving Haskell
Dr. J. Loving Haskell
Principal Investigator

Enclosure

cc: Mr. Randy Szenasy, HNG OIL COMPANY, Hobbs
Mr. Mark Calamia, BLM, Carlsbad
Mr. Thomas W. Merlan, SHPO, Santa Fe

as

Archaeological Clearance Report
for

HNG OIL COMPANY

Owen Mesa "26" Federal Com. Well No. 1

Prepared

By

Dr. J. Loring Haskell

Submitted

By

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

12 November 1986

Permit No. 14-2920-86-C

Report Number: NMAS-1986-6-N

ABSTRACT

New Mexico Archaeological Services, Inc., representing HNG OIL COMPANY, Midland, undertook a Class III survey of Bureau of Land Management and fee lands scheduled to be impacted by the construction of a drill location and access road. Field work was conducted under bright, sunny conditions during mid-day on 4 November and similar conditions during mid-day on 9 November. The proposed location will measure 400 x 400 ft (actual area surveyed 4.44 acres). The access road on federal land will measure 20 X 3250 ft (actual area surveyed 7.46 acres). The existing ranch road, occurring on fee land and to be utilized by HNG for reaching their location, measures 20 X 4300 ft (actual area surveyed 9.87 acres). Total acreage/21.77 acres. They are situated in Sections 26 and 27, T24S, R29E, NMPM, Eddy County, New Mexico. Two archaeological sites (NMAS 5816 and NMAS 5817) and three isolated cultural occurrences (ICO) were recorded during this survey. NMAS is suggesting clearance for HNG OIL COMPANY's proposed work provided the archaeological sites are avoided.

Introduction

On 4 and 9 November 1986, New Mexico Archaeological Services, Inc., (NMAS), Carlsbad, undertook for HNG OIL COMPANY, Midland, an archaeological survey of federal and fee lands situated in Eddy County, New Mexico. Reconnoitered areas will be impacted by the construction of a drill location and its associated access road. This project was advanced by Mr. Randy Szenasy, Drilling Foreman, HNG OIL COMPANY, and administered by Dr. J. Loring Haskell, Principal Investigator, NMAS, Inc. This survey was undertaken by Dr. Haskell. Field work was conducted under bright, sunny conditions during mid-day on 4 November and similar conditions during mid-day on 9 November. Ground visibility ranges between 75 and 85%. Field time six hours.

Survey Technique

For this investigation, HNG OIL COMPANY'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 extending 20 ft on each side of the staked 400 X 400 ft location, and lying outside the bounds of the proposed work area, was reconnoitered by a similar means. The access road was walked in two, 50 ft wide transects. Lathe and/or flags are considered to be the center of the proposed road. Methodologically, these procedures served to promote optimal conditions for the visual examination of the areas to be impacted by construction-related activities.

Owen Mesa "26" Federal Com. Well No. 1

Location

The proposed location will measure 400 X 400 ft (actual area surveyed 4.44 acres) on federal lands and will be situated 1980 ft from the east line and 1450 ft from the north line.

Section 26, T24S, R29E, NMPM, Eddy County, NM

SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM

The associated access road on federal land will measure approximately 20 X 3250 ft (actual area surveyed 7.46 acres) and will be situated in the:

SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM

SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM

SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM

The existing ranch road on the west, occurring on fee land and to be utilized by HNG OIL COMPANY, measures approximately 20 X 4300 ft (actual area surveyed 9.87 acres). It is located in the:

SW $\frac{1}{4}$ NW $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM

SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM

SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM

SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM

Map Reference: USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series, 1968.

The sites of the proposed location and access road in Section 26 have not been previously impacted by mechanical means. In Section 27, the existing ranch road will be used for access to the location.

Terrain

HNG OIL COMPANY's proposed location, situated within Pierce Canyon, will be located on the mid-slope of a well-defined pediment which girdles the upper portion of the canyon. Overall, this land-

form is the object of very intense sheetwash from the escarpment to the south. Rills, gullies and a series of entrenched arroyos course through the area and coalesce into a more intergraded drainage system to the north. The contemporary surface is marked by hummocky terrain, longitudinally oriented, interfluvial, upland features and a series of low, limestone, serpentine eminences. Screens of chert, quartzite and limestone gravels and cobbles mantle elevated features. Surficial deposits are derived from sandstone and limestone parent material. Soil individuals are made up of sandy loams, loamy sands, sandy clay loams, clay loams and silty clay loams. Soil individuals fall within the Typic Torripsamment and Typic Paleorthid subgroups and their intergrades.

Floristics

Local soil individuals are supportive of a desert-scrub, floral community. Principal plants of the overstory are Acacia constrictata, Larrea tridentata and Prosopis juliflora. Forbs include: Croton sp., Euphorbia sp., Phyllanthus sp., Mentzelia sp., Zinnia acerosa and Dyssodia sp. The Gramineae includes Aristida sp., Sporobolus flexuosus and Tridens pulchellus.

Cultural Resources

Prefield 28 October 1986/Arita Slate, two archaeological sites.

NM-06-4119, a lithic scatter of unknown authorship, is situated on the south side of Pierce Canyon and hosts chert and quartzite, primary- and secondary- decortication flakes and numerous scrapers.

NM-06-4102, a lithic scatter of unknown authorship, is situated within Pierce Canyon and hosts chert and quartzite, primary- and secondary- decortication flakes. No diagnostic artifacts were noted at the site.

During the course of this survey, two archaeological sites (NMAS 5816 and NMAS 5817) and three isolated cultural occurrences (ICO) were recorded.

Isolated Cultural Occurrences (ICO)

ICO 1, consisting of one, very dark red, granular, quartzite primary decortication flake, 37 X 24 X 10 mm, and several pieces of burned caliche, is situated at a point 500 ft east of the locked gate in Section 27. There is no evidence of sub-surface remains. The general vicinity is subject to intense sheetwash from the plowed field to the north. Plants are limited to seasonal, invasive forbs. It is located in the:

NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM

UTM: Zone 13, N3,561,920; E596,560

Map Reference: USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series, 1968.

ICO 2, consisting of one piece of very dark red, granular, quartzite, angular debris, 30 X 21 X 15 mm, is situated in an gully at a point 1800 ft east of the section line. Hummocky terrain is characteristic of the general vicinity. There is no evidence of sub-surface remains. The piece appears to have been carried to its present resting place by flood water. Principal plants are mesquite and broom snakeweed. It is located in the:

NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM

UTM: Zone 13, N3,561,960; E598,255

Map Reference: USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series, 1968.

ICO 3, consisting of one very dark red, granular, quartzite, secondary decortication flake, 27 X 20 X 7 mm, with bulb, platform and 75% cortex. There is no retouch. It is situated at a point 2000 ft east of the section line. Coppice dunes and an interconnecting web of interdunal areas, subject to intense sheetwash, is characteristic of the near vicinity. Chief plants are mesquite and broom snakeweed. It is situated in the:

NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM
UTM: Zone 13, N3,561,960; E598,320

Map Reference: USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series, 1968.

Archaeological Sites

NMAS 5816

Location: SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM
NW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 26, T24S, R29E, NMPM, Eddy County, NM

UTM: Zone 13, N3,561,910; E598,760

Map Reference: USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series, 1968.

Ownership: Bureau of Land Management Administration

Dimension of Resources: 120 X 120 m

Typological Designation: Occupation Zone

Authorship/Temporality: Unknown

Nature of Cultural Resources; NMAS 5816, an occupation zone, is situated on the north-facing slope of a well-defined, pediment which girdles the upper portion of Pierce Canyon. This landform is bounded on the north, east and south by escarpments and opens out to the Pecos River on the west.

Local soil individuals harbor often copious amounts of chert, quartzite and limestone cobbles. Overall, the coeval surface is subject to very, intense sheetwash. Gullies and a series of well-defined arroyos braid the coeval surface.

Observed cultural properties include chert and quartzite, primary- and secondary- decortication flakes, quartzite multi-dimensional cores and tested cores, several quartzite bifaces, quartzite scrapers, chert and quartzite hammerstones, angular chert and quartzite debris, a quartzite chopper and several quartzite, scrapers-gravers. Resources occur in the form of a light, but continuous scatter with occasional minor concentrations. Artifacts are most prevalent on elevated surfaces. Overall, the site is the object of very intense runoff from the escarpment to the south which has resulted in many artifacts being washed into the numerous gullies and subsequently rolled by flood waters. Authorship of the site is unknown owing to the absence of diagnostic artifacts. Occupancy of the site was brief at any one time with re-occupancy occurring on a number of occasions. Occupancy was strictly diurnal as there is no evidence of overnight camping activities, i.e., fire hearths. Locally occurring siliceous lithic material was routinely tested for suitability and, if deemed suitable, was fashioned either into usable flaked tools here or else was transported for use elsewhere in the form of cores. Density of remains ranges from a maximum of four pieces per square meter in

central portions of the site to one piece or less near the limits of the site's universe on the north. The presence of numerous finished artifacts indicates that NMAS 5816, in addition to being a quarry-type site, functioned as a locus where tools were being finished and utilized.

Owing to the intensity of sheetwash here as well as the presence of a veneer of aeolian material, there is a strong likelihood of buried artifacts at NMAS 5816. Artifacts, if buried, should be limited to the top 15 cm or so of the surface.

NMAS 5816 is important for a number of reasons:

Firstly, the site, owing to its size and the quality of the siliceous lithic material being tapped here, plus the presence of numerous finished artifacts, offers the archaeologist a rare opportunity to undertake an intensive study of flaked-tool manufacturing techniques and wear-use patterns at a site which has not been vandalized. Secondly, the site, being located near the head of Pierce Canyon and hence easy access to multiple habitats and niches, is important in terms of prehistoric land usage, settlement pattern, and, of course, interpretation and illumination of site function.

NMAS 5817

Location: SE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM
SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$, Section 27, T24S, R29E, NMPM, Eddy County, NM

UTM: Zone 13, N3,561,840; E597,200

Map Reference: USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series,
1968.

Ownership: Fee Land (Surface and Minerals)

Dimension of Resources: 90 X 180 m

Typological Designation: Task Locus

Authorship/Temporality: Unknown

Nature of Cultural Resources; NMAS 5817, a large task locus, is situated within Pierce Canyon on an alluvial terrace of the Pecos River. An extensive tract of alluvial bottomlands occurs to the north and northeast. Surficial deposits are composed of silty clay loams and clay loams which typically lack lithic inclusions. Below this terrace, the present flood plain is marked by copious amounts of river cobbles and is inundated during periods of high water. Locally, drainage is by sheetwash with runoff being to the south.

Observed cultural properties include at least three highly disturbed and eroded caliche-type, fire hearths, a generalized, light scatter of burned- and fire-cracked, caliche cobbles and gravels, quartzite primary- and secondary-decortication flakes, angular quartzite debris, several quartzite scrapers, several tested cores and multi-dimensional cores, and occasional shell fragments. Remains occur in the form of a light scatter in most areas along with several minor concentrations. No diagnostic artifacts were noted; consequently, authorship and temporality remain unknown. Judging by the highly reduced nature of the burned caliche, occupancy lasted at least several days at a time with

reoccupancy being a distinct possibility on account of the areal extent of the cultural detritus, viz., burned caliche. The site has been termed a task locus as activities here focused primarily on camping-related tasks. Density of the remains, consisting mostly of burned caliche and thence lithic debitage, etc., being a very poor second, ranges between a maximum of three-to-five pieces per square meter to one piece per five meters square near the fringes of site on the north, east and west.

NAMS 5817 has been highly impacted and is largely destroyed. The site has been impacted severely by agricultural pursuits, viz., plowing, cattle- and horse- raising, irrigation ditches, dikes, and roads. Additionally, the site, overall, is subject to extreme sheetwash emanating from the upper reaches of Pierce Canyon. There is, however, a possibility of sub-surface remains immediately south of the existing ranch road as it has not been plowed. The site is previously unrecorded; no collection was made.

The site is of limited scientific value for several reasons. Firstly, it is highly eroded and very severely impacted by mechanical means. Secondly, artifactual remains associated with it are very limited in number and even more so in variety. Thirdly, the fire hearths are barely discernible and hence will not yield specimens suitable for radiometric dating purposes. Nonetheless, the site is important as it relates to prehistoric land usage

and settlement pattern.

Recommendations

NMAS suggests clearance for HNG OIL COMPANY's proposed Owen Mesa "26" Well No. 1 provided the archaeological sites are avoided (Fig. 1). As for NMAS 5816, the location should be shifted 100 ft north and 100 ft east to 1350 FNL, 1880 FEL, Section 26, T24S, R29E (Fig. 2). As proposed, the pad will extend 115 ft south of center, 200 ft north of center, 175 ft east of center, and 195 ft west of center. (This general area has been indicated in the field by NMAS with orange-glow flags.) The site is situated to the south of this area and will not be impacted as long as men and materiel are confined to the pad and avoid the archaeologically sensitive area altogether during all phases of work. As for NMAS 5817, it is located on fee land and is largely destroyed (Fig. 3). The existing ranch road through it has been graded by the farmer-rancher on numerous occasions in the past. Cultural remains occurring in it at the present time are limited to occasional pieces of burned caliche. NMAS, therefore, suggests that HNG be permitted to use it with the understanding that vehicular traffic be confined strictly to the roadbed itself. No further action for it is suggested. Clearance, of course, is granted by the Bureau of Land Management. If additional cultural properties are encountered during construction, the BLM and NMAS should be notified immediately.

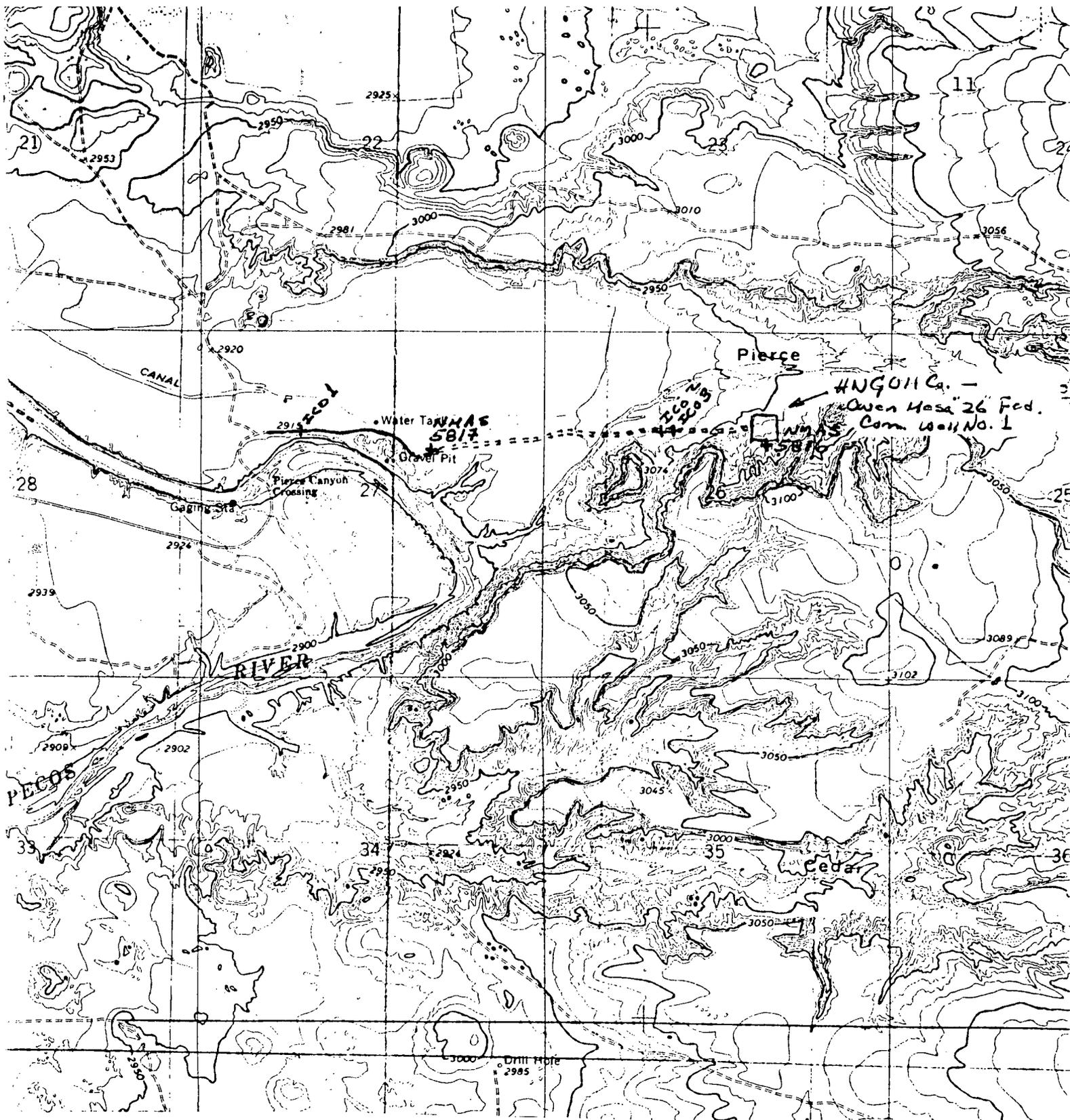


Fig. 1. USGS PIERCE CANYON QUADRANGLE, 7.5 Minute Series, 1:24,000; 1968, showing HNG OIL COMPANY's proposed Mesa "26" Federal Com. Well No. 1, 1450 FNL, 1980 FEL, and access road, Sections 26 and 27, T24S, R29E, NMPM, Eddy County, New Mexico, vis à vis NMAAS 5816 and NMAAS 5817.

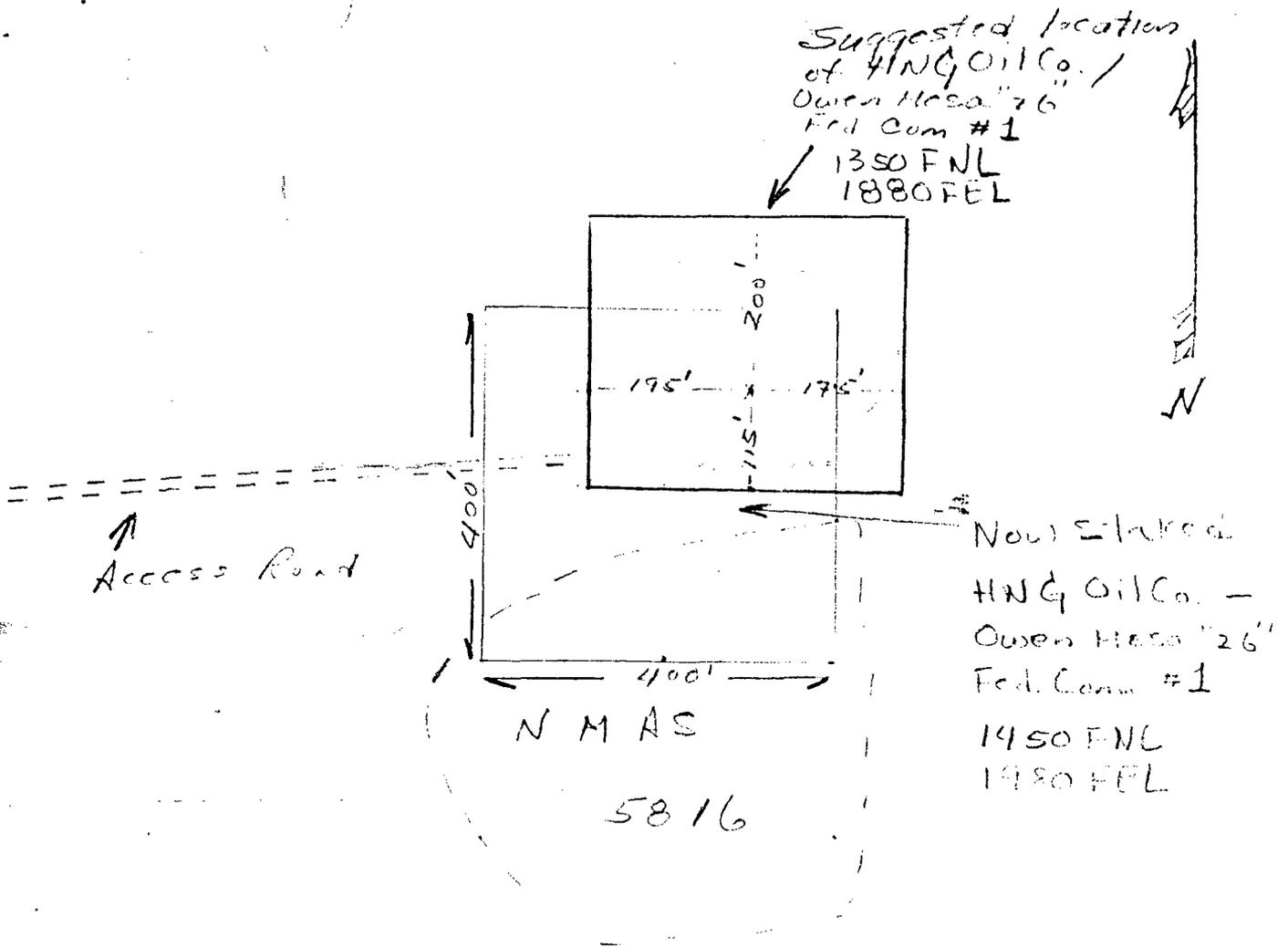


Fig. 2. Schematic representation showing HNG OIL COMPANY's proposed Owen Mesa "26" Federal Com. Well No. 1, 1450 FNL, 1980 FEL, Section 26, T24S, R29E, vis à vis NMA S 5816, and the suggested re-location of the pad to 1350 FNL, 1880 FEL. (The pad will extend 115 ft south of center, 175 ft east of center, 195 ft west of center and 200 ft north of center.)

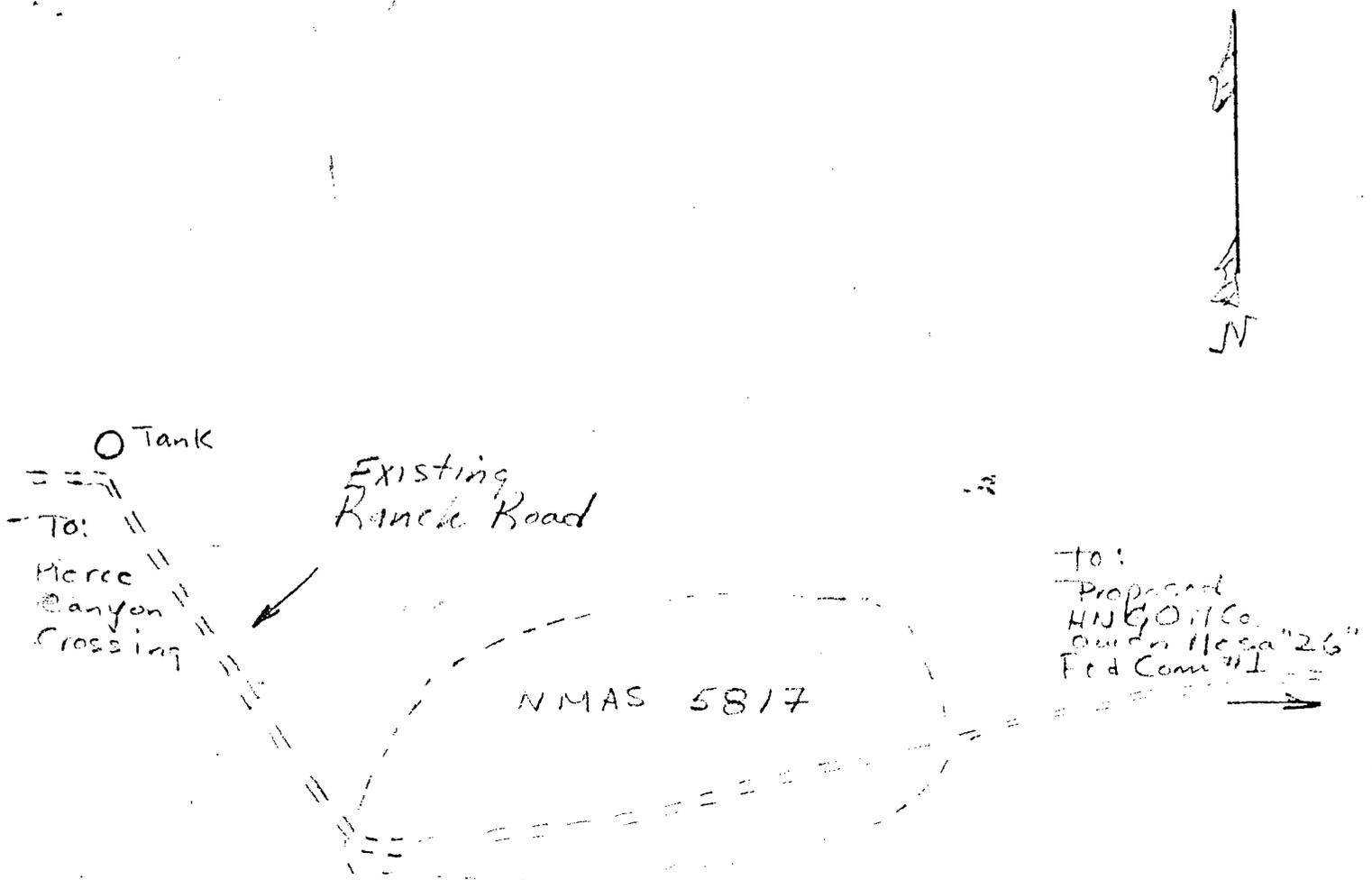


Fig. 3. Schematic representation showing existing ranch road, Section 27, T24S, R29E, vis à vis N.M.A.S. 5817. HNG OIL COMPANY will use road to reach its proposed Owen Mesa "26" Federal Com. Well No. 1 in Section 26, T24S, R29E, NMPM, Eddy County, New Mexico.

As used by NMAS, a "site" is defined as any cultural material containing clear evidence of other than en passant human occupation. (A site is a physical location of past human activities or events. Cultural resource sites are extremely variable in size, and range from a cluster of several objects or materials to structures with associated objects or features.)

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)

Isolated Occurrences generally contain fewer than 10 artifacts, have densities of less than one artifact per square meter, and have only a single type of material present.

LITHIC DEFINITIONS

- CORES: The block or nodules of raw material from which flakes are removed in the manufacture of chipped-stone tools.
- UNPREPARED CORE: A core which possesses no systematic shaping of lateral edges and primary flaking is limited to preparation of a striking platform.
- PREPARED CORE: A core which displays systematic preparation of the lateral edges.
- PRIMARY DECORTICATION FLAKE: A flake struck during the initial shaping of a core which displays cortex over the entire dorsal surface.
- SECONDARY DECORTICATION FLAKE: A flake struck during the initial shaping of the core which exhibits cortex over only part of the dorsal surface. An important difference between primary and secondary decortication flakes is that the latter are often utilized as tools themselves in a modified or unmodified state.
- TABULAR FLAKE: Flake struck from an unprepared core, exhibiting a quadrilateral cross-section. The dorsal and ventral surfaces of these flakes are flat and parallel.
- PARALLEL-SIDED FLAKE: Flake struck from a prepared core; large, thick flakes possessing a triangular cross section.
- RECTANGULAR FLAKE: Flake struck from a prepared core exhibiting parallel, or slightly expanding lateral edges in relation to its longitudinal axis. These flakes are generally smaller than Parallel-Sided flakes and are believed to be struck from the edges, toward the center of a pyramidal core.
- LAMELLAR FLAKE: Flake struck from a prepared core which exhibits a thinner, more regular shape than the other flakes detached from prepared cores. The symmetry and length-width ratio of Lamellar Flakes cause them to possess traits intermediate between those of flakes and blades. Indeed, they are removed from cores prepared similarly to the ones true blades are struck from, but lack the careful attention to the striking platform necessary to produce such a blade.
- THINNING FLAKE: Flake removed to thin a piece for artifact manufacture.
- BLADE: A specialized flake which possesses parallel lateral edges and a length equal to or more than twice the width. Blades are manufactured from carefully prepared

LITHIC DEFINITIONS (Cont.)

core, utilizing a blade technique which results in a unique pattern of ridges on the dorsal surface.

GRAVER: Chipped stone tool designed to possess a point or spur which is generally assumed to function as an incising implement. Frequently, heavy wear on such a spur is a diagnostic trait of such tools.