

OIL CONSERVATION DIVISION
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'90 JAN 16 AM 10 18

BLACKWOOD & NICHOLS CO., LTD.

P.O. BOX 1237

DURANGO, COLORADO 81302-1237

(303) 247-0728
January 9, 1990

Mr. William LeMay
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Unorthodox Gas Well Location
Northeast Blanco Unit Well No. 499
925' FSL, 910' FEL, Sec. 20, T31N, R6W
Rio Arriba County, New Mexico

Dear Mr. LeMay:

Blackwood & Nichols Co., Ltd. requests administrative approval of an exception to the footage requirements of Rule 7, R-8768, for the subject well located in the Basin Fruitland Coal pool.

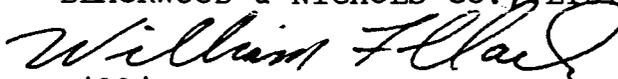
This request is for exception due to topography. A Vicinity Map and C-102 are attached for your reference. As evidenced by the Vicinity Map, no legal location exists in the southwest quarter due to Navajo Reservoir coverage. A legal footage location was staked in the southeast quarter as the alternative. This location should provide adequate separation from any Fruitland coal well that could be drilled in the northeast quarter of Section 29. A location farther north was not considered feasible because of archaeology sites.

The east half of Section 20, T31N, R6W, will be dedicated to this well. Also attached is an Area Map which indicates an offset operator to be Northwest Pipeline Corp. A copy of this application has been sent to them by certified mail with the below requested waiver.

Your prompt consideration of this request is appreciated.

Sincerely,

BLACKWOOD & NICHOLS CO., LTD.



William F. Clark
Operations Manager

Attachments

cc: NMOCD, Aztec Office

WAIVER:

N.W. PIPELINE hereby waives objection to Blackwood & Nichols Co., Ltd.'s application for an unorthodox location for their NEBU No. 489 as proposed above.

By: Paul C. Thompson

Date: 1/11/90

BLACKWOOD & NICHOLS CO., LTD.

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P.O. BOX 1237

DURANGO, COLORADO 81302-1237

90 JAN 16 AM 10 33

(303) 247-0728
January 9, 1990

Mr. William LeMay
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Unorthodox Gas Well Location
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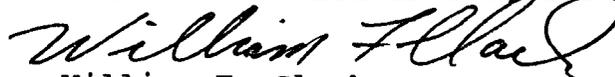
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Operations Manager

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By: _____ Date: _____

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 37501

Form C-102
Revised 10-1-78

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

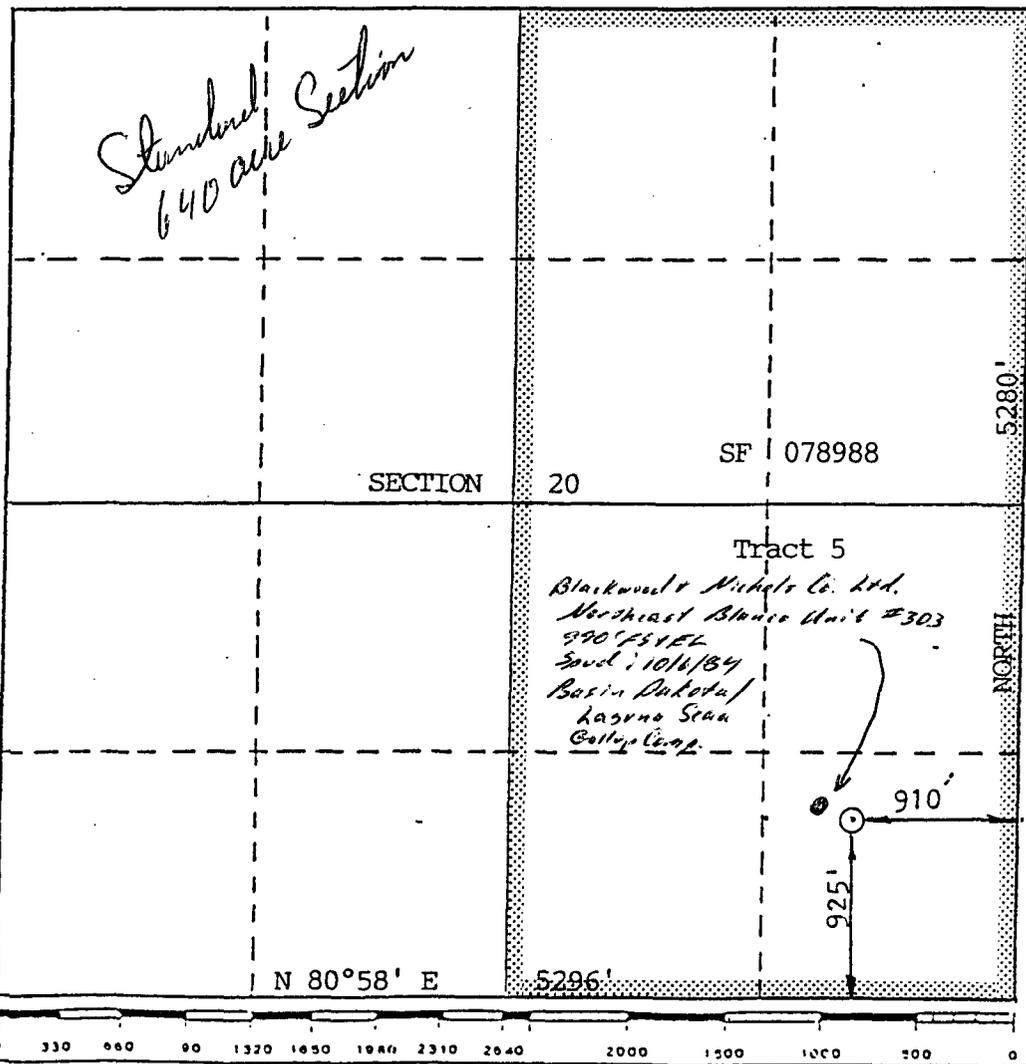
Operator BLACKWOOD NICHOLS CO. LTD.		Lease NORTHEAST BLANCO UNIT		Well No. 499
Unit Letter P	Section 20	Township 31 N.	Range 6 W.	County RIO ARriba
Actual Footage Location of Well:				
925 feet from the SOUTH		line and	910 feet from the EAST line	
Ground Level Elev. 6342	Producing Formation Fruitland Coal	Pool Basin Fruitland Coal	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 NA

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.

William F. Clark

Name
William F. Clark
Position
Operations Manager
Company
Blackwood & Nichols Co., LTD
Date
8 Jan 1990

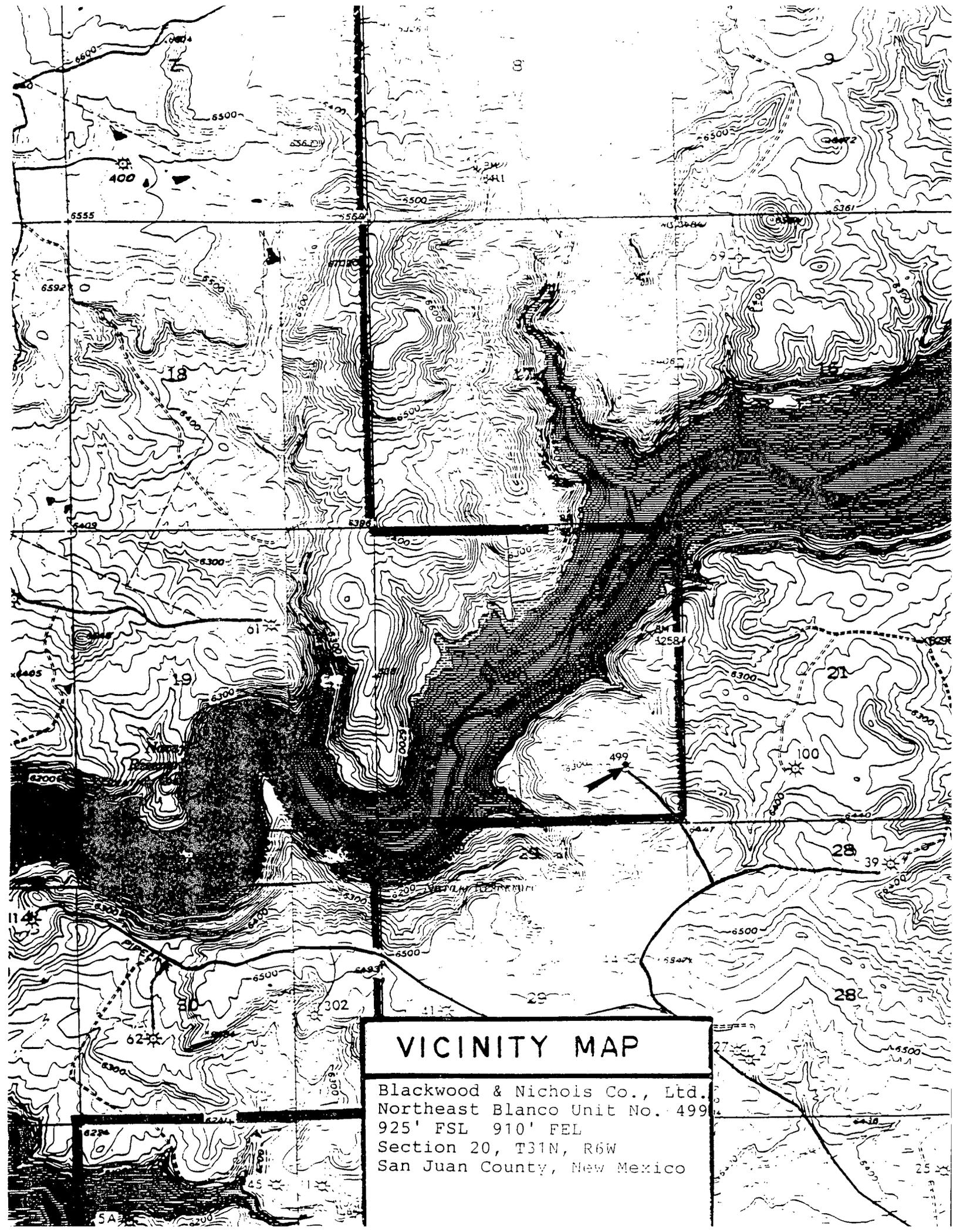
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

R. HOWARD DAGGETT

Date Surveyed
9/25/89
R. HOWARD DAGGETT
Registered Land Surveyor

R. Howard Daggett

Certification Registered Professional
Land Surveyor
9679



VICINITY MAP

Blackwood & Nichols Co., Ltd.
Northeast Blanco Unit No. 499
925' FSL 910' FEL
Section 20, T31N, R6W
San Juan County, New Mexico



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

January 29, 1990

Blackwood & Nichols Co.
P.O. Box 1237
Durango, CO 81302

Attention: William F. Clark,
Operations Manager

*RE: Unorthodox Coal Gas Well Location,
Northeast Blanco Unit Well No. 499,
925' FSL - 910' FEL.*

Dear Mr. Clark:

There appears a discrepancy with the subject application as it pertains to acreage dedication. The C-102, land plat form, shows an E/2 320-acre proration unit; however, in the second paragraph of your cover letter, it was stated that, "no legal location exists in the southwest quarter...", which would lead to the presumption a S/2 dedication is proposed for the well. Please inform me as to which dedication is correct.

In either case please submit additional economic data indicating the feasibility of directionally drilling to a standard bottomhole location from the proposed unorthodox surface location.

If you have any questions regarding this matter, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael E. Stogner".

Michael E. Stogner
Chief Hearing Officer/Engineer

MES/ag

OIL CONSERVATION DIVISION
RECEIVED

'90 FEB 5 AM 8 51

BLACKWOOD & NICHOLS CO., LTD.
P.O. BOX 1237
DURANGO, COLORADO 81302-1237
(303) 247-0728

February 2, 1990

Mr. Michael E. Stogner
New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504

Re: Unorthodox Gas Well Location
Northeast Blanco Unit Well No. 499
925' FSL, 910' FEL, Sec. 20, T31N, R6W
Rio Arriba County, New Mexico

Dear Mr. Stogner:

As you pointed out in your January 29, 1990, letter there is a discrepancy in my January 9, 1990, application for the referenced well. Section 20 has an east-west dedication and the application should have read, "no legal ^{1/2} location exists in the northeast quarter..."

A directionally drilled well would very likely double our projected AFE cost of \$389,800. Aside from the additional cost, a directionally drilled wellbore would not allow us to complete the well in the preferred open hole completion technique. This technique allows the overpressured coal zones to become stress-relieved and greatly enlarged. Once the wellbore enlarges in an upper coal seam it is very difficult to find the nonenlarged hole in the shale and/or sand zones below the coal in a deviated wellbore.

An open hole completed well in this area is expected to produce at a rate at least five to ten times that of a conventionally completed well.

If you have any questions regarding this matter, please contact me.

Sincerely,

BLACKWOOD & NICHOLS CO., LTD.



William F. Clark
Operations Manager

cc: NMOCD, Aztec Office

ATTN: M. STOGNER

OIL CONSERVATION DIVISION
RECEIVED

Project No. 89-70E
'90 JAN 12 AM 9 10

Cultural Resource Use Permit
No. 77-2920-89-D

An Archaeological Survey of
proposed well location
Northeast Blanco Unit 499,
Rio Arriba County, New Mexico.

for

Blackwood and Nichols Co., Ltd.

RECEIVED

JAN 11 1990

OIL CON. DIV
DIST. 3

by

Susan K. Moore

Submitted by

Roger A. Moore, Jr.
Principal Investigator

November 30, 1989

Moore Anthropological Research

Technical Report No. 89-70E

M.A.R., P.O. Box 1156, Aztec, New Mexico 87410

ABSTRACT

On October 2, 1989 Moore Anthropological Research conducted a Class III archaeological survey of a proposed gas well location for Blackwood and Nichols Co., Ltd. The survey area is located south of the Navajo Reservoir, in Rio Arriba County, New Mexico (T31N, R6W, Section 20) and is under the jurisdiction of the Bureau of Land Management, Farmington Resource Area. A total of 8.20 acres (3.31 hectares) were inventoried.

One archaeological site and five isolated loci were discovered during the survey.

The documentation of the isolates in the field has sufficiently exhausted their research potential for the purpose of this project. As site MAR-89-63 is 26ft outside of the eastern buffer zone archaeological clearance is recommended with no stipulations.

INTRODUCTION

On October 2, 1989 Moore Anthropological Research (M.A.R.) conducted a Class III archaeological survey for Blackwood and Nichols Co., Ltd. of Durango, Colorado. Robert Fielder agent of Property Management and Consulting, agent for Blackwood and Nichols requested the survey on September 26, 1989 and administered the project. Roger A. Moore administered the project for M.A.R.

Over the years the people of the United States have become more aware of the nonrenewable nature of their archaeological resources and their cultural heritage. As a result of this growing concern federal, state and local governments have passed laws and enacted ordinances designed to protect and conserve archaeological, historical, and anthropological resources. The principal legislation affecting federal lands, federally administered projects, or federally funded projects includes the Federal Antiquities Act of 1906 (P.L.52-209), the Reservoir Salvage Act of 1960 as amended (16 U.S.C. 469), the National Historic Preservation Act of 1966 (P.L.89-665) as amended in 1980 (P.L.96-515), the National Environmental Policy Act of 1969 (P.L.91-852), Executive Order No. 11593 of 1971 (36 F.R.8921, 16 U.S.C. 470), the Archaeological Resource Protection Act of 1979 (P.L.96-95; P.L.100-555), and the American Indian Religious Freedom Act of 1979 (P.L.95-341). The principal legislation affecting non-federal lands in New Mexico is the Cultural Properties Act. Work conducted in the course of this project is intended to comply with the above-mentioned laws and is governed by the stipulations of Cultural Resource Permit 77-2920-89-D.

Roger A. Moore and Susan K. Moore, M.A.R. archaeologists, surveyed the project area for cultural remains. The Bureau of Land Management (B.L.M.) Farmington Resource Area was notified of the proposed survey prior to beginning fieldwork. The archaeologists were unaccompanied during the fieldwork.

METHODS

The project area was surveyed by walking parallel transects 7 to 10 meters apart across the project area. A construction zone 50 ft. wide and a buffer zone 100 ft. wide was included in the survey. The project area was marked with orange flagged lath for the well pad and yellow and black striped flagging for the construction zone prior to conducting the survey. All cultural remains were recorded relative to known points within the project area. Archaeological sites were recorded on the appropriate state site forms, photographed, and a sketch map prepared. Isolated Loci were recorded according to the permitting agency guidelines. Pertinent environmental data were also recorded. Locational information presented in this report is derived from plats or vicinity maps provided by the client. Sites and isolates are defined according to BLM Manual Handbook H-8100-1: I-14 and BLM Special Conditions for Survey Permits (2920).

RECORDS SEARCH

A records search was conducted prior to field inspection at the B.L.M., Farmington Area office on September 27, 1989 to determine if any sites had been recorded within a one mile radius of the project area. Projects in this area for which previous cultural resource inspections have been conducted include oil and gas related development projects, and the Navajo Reservoir Project. The records search showed three previously recorded sites within one mile of the project (BLM Supplement Map [for BLM archaeologist only]). The only site within 1000 ft. of the project area is LA32819 which is approximately 100 ft. south of the south buffer zone.

PROJECT AREA

Northeast Blanco Unit 499

Legal Description: T.31 N, R. 6 W, Section 20, NW 1/4 SE 1/4 SE 1/4
Section 20, 925' F/SL, 910' F/EL

New Mexico Prime Meridian. San Juan County, New Mexico, 6342' Elevation

Map Source: U.S.G.S. 7.5' Bancos Mesa. N. W., New Mexico 1954 (Photorevised 1982)

Land Jurisdiction: Bureau of Land Management, Farmington Resource Area

Project Area: 250' x 350' (well pad)
350' x 450' (well pad with construction zone)
Surveyed Area: 550' x 650' (well pad with construction and buffer zone)
8.20 Acres

Environment: The proposed well location is on a north facing bench with a slope to the north and the east. There are numerous sandstone clasts. The western half of the pad and buffer zone are on existing well NEBU 303 and have a sparse cover of Russian thistle, annuals, prickly pear cactus, and rice grass. The remaining portion of the well pad is in a woodland environment with a 5 to 25% cover of juniper, pinyon, antelopebrush, grama grass, mountain mahogany, gamble oak, flowering annuals, cliff rose, prickly pear cactus, and buckwheat. The area shows use by cattle, and signs of deer and rabbits were also noted. (Figure 1)

Project Description: This is a proposed gas well location overlapping an existing well pad, the NEBU 330 (990' F/SL, 990' F/EL, T31N, R6W, Section 20). Access will be from the bladed road leading to the NEBU 330 (Moore, 1984)

Cultural Resources: One archaeological site, MAR-89-63, and five isolated artifacts were found during the survey. The isolated artifacts are shown on Figure 2 and described in Table 1.

Site MAR-89-63 is on a gently sloping north facing bench on the south side of the Navajo Reservoir. The bench is nearly level on the site. The soil is 0 to 25 cm deep over the sandstone. A woodland dominated by juniper, sagebrush, pinyon and grama grass provides a 10% cover. The site is a lithic scatter, no features were seen. (Figure 3)

Artifacts include flakes and a core of dark gray siltstone, and a pink sandstone mano. The core is a fragment of a unidirectional core. The mano is a one handed ovoid flat mano which may have been shaped. Stria on the single (unpecked) grinding surface are curvilinear. The mano is 8.4cm x 8 cm x 2.7 cm. The 26 flakes are 8% primary core reduction flakes, 27% secondary core reduction flakes, 42% tertiary core reduction flakes, 19% flake fragments, 4% tool manufacturing flakes.

The site may have been a temporary camp where one or two cores were reduced to produce flakes to use as tools and food was ground. The ax found 15 meters to the north may be associated with the site.

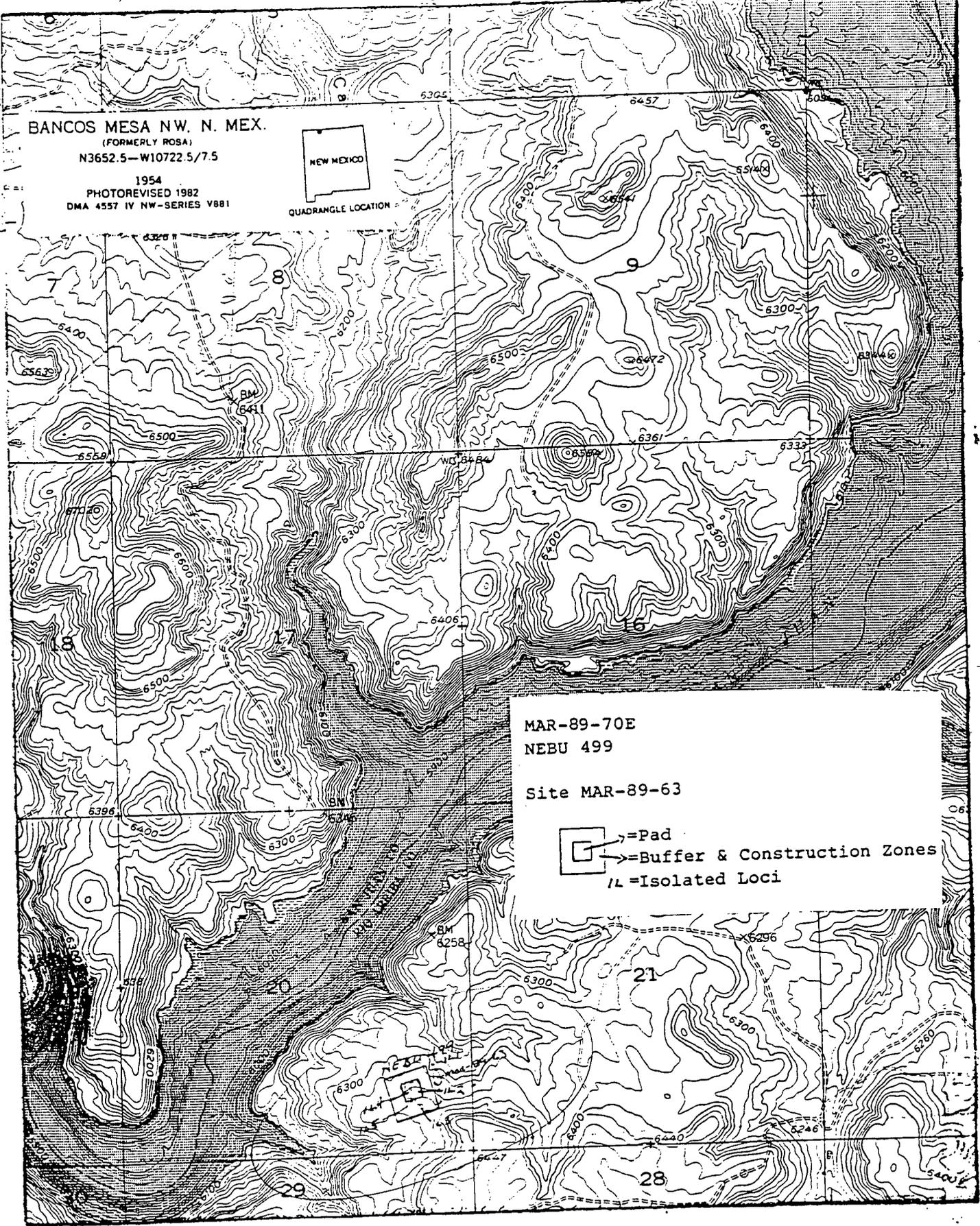
Site MAR-89-63 has research potential for studies of lithic technology, however, there is currently no means to date the site. The mano appears to be middle archaic to PI and the ax is probably Basketmaker III-Pueblo II. The site may be eligible for nomination to the National Register based on its research potential once it has been dated and should be considered eligible for the purpose of Section 106 Consultation.

Recommendations: Documentation of the isolated artifacts in the field has sufficiently exhausted their research potential in regards to this project. As site MAR-89-63 is 26ft from the eastern edge of the buffer zone, and 126ft from the construction zone, archaeological clearance is recommended with no stipulations.

REFERENCES

- Moore, Roger A
1984 An archaeological survey of two well pads and access routes south of Navajo Reservoir in Rio Arriba County, New Mexico. D.C.A. Contributions to Anthropology Series No. 879.

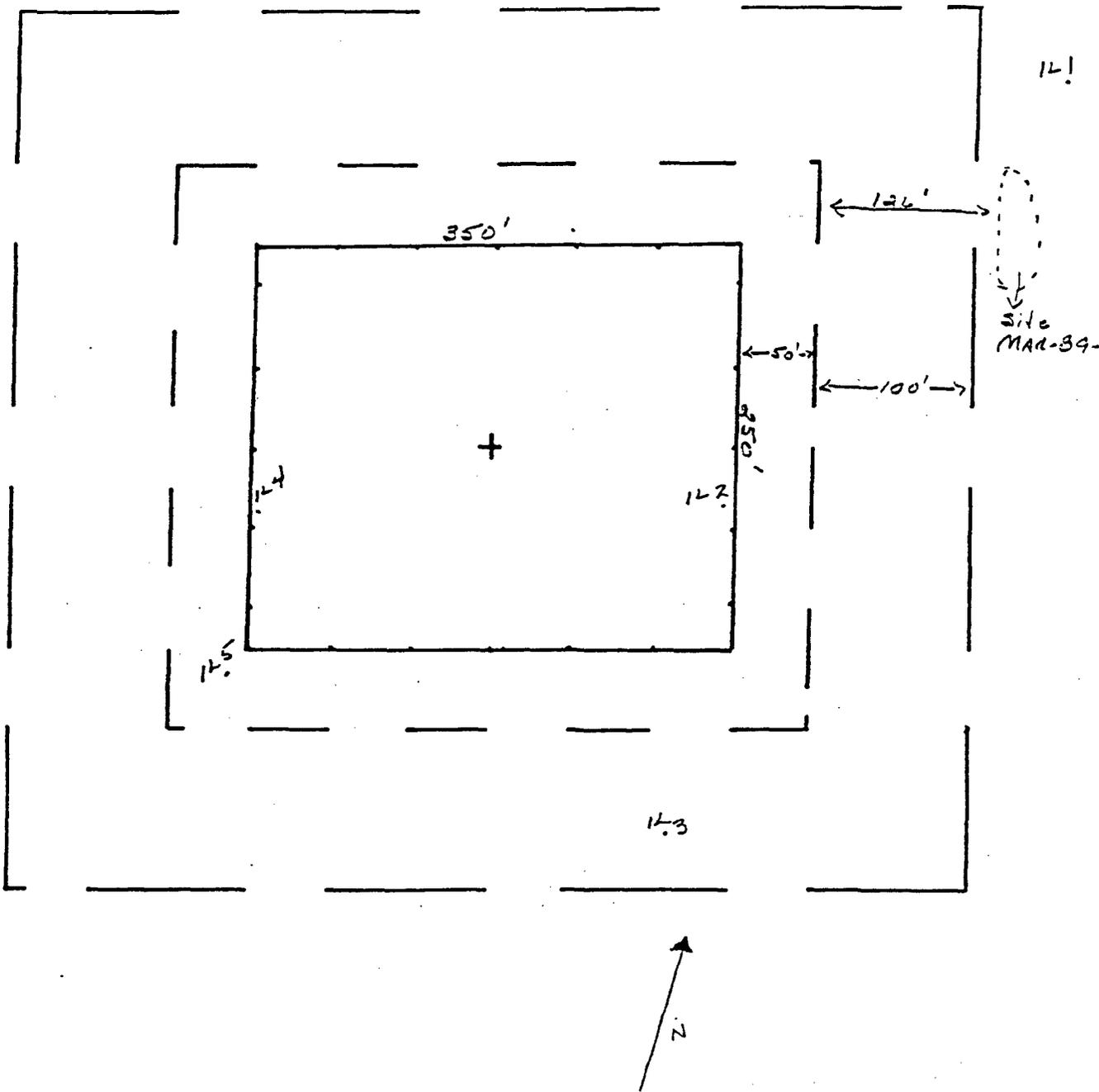
BANCOS MESA NW. N. MEX.
(FORMERLY ROSA)
N3652.5-W10722.5/7.5
1954
PHOTOREVISED 1982
DMA 4557 IV NW-SERIES V881



MAR-89-70E
NEBU 499
Site MAR-89-63

☐ = Pad
☐ = Buffer & Construction Zones
/L = Isolated Loci

Relationship of well pad to site and IL's



2 Meter Drop-off

2 m

NE CORNER of pod NEBD 499
is 59 meters west of X

Edge of Constructed Zone

42 meters

- - - = Site Boundary
- - - -> = Drainages
- C.F. = Core Fragment
- J = Juniper
- P = Pinyon

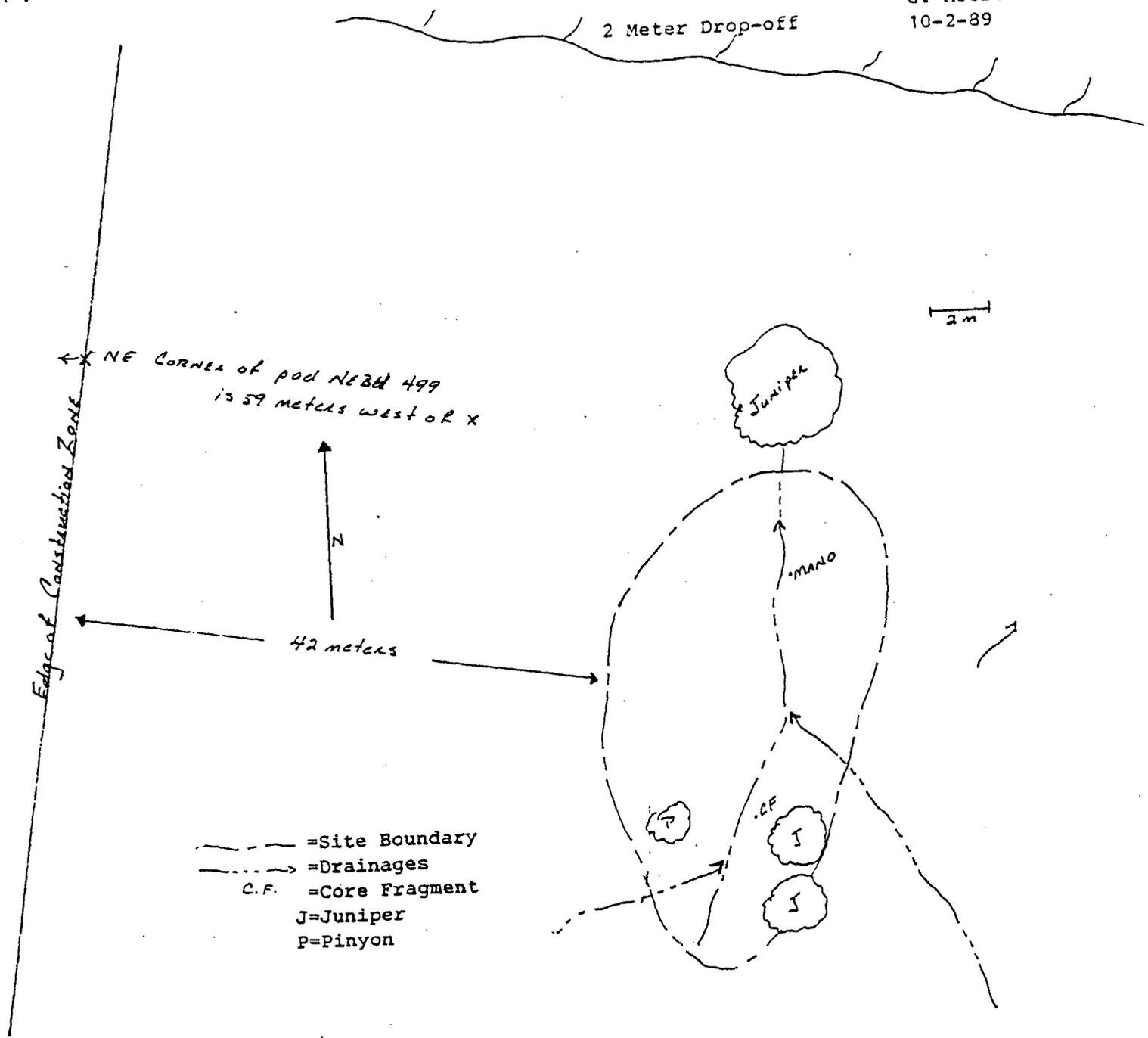


Table 1
Isolated Artifacts

IL #	Section 20			UTM (Zone 13)		Land Form	Veg. Zone	Description
	1/4	1/4	1/4	E	N			
1	NW	SE	SE	279110	4084360	B	WDL	1 Basalt cobble bifacially flaked ax (Illustrated)
2	NE	SE	SE	279040	4084240	B	WDL	3 Anasazi Grayware sherds.
3	NE	SE	SE	279040	4084160	B	WDL	1 Green Brushy Basin Chert tertiary core reduction flake.
4	NE	SE	SE	278960	4084230	B	WDL	1 Anasazi Grayware sherd.
5	NE	SE	SE	278960	4084170	B	WDL	1 Brown fine grained quartzite tertiary core reduction flake.

Key: All IL's are in T.31N, R.6W, Section 20; Rio Arriba County, New Mexico; N.M.P.M.; U.S.G.S. 7.5' map Bancos Mesa N.W., New Mexico 1954 (Photorevised 1984).

Land Form: B = bench

Veg. Zone: WDL = woodland



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

CONSERVATION DIVISION
RECEIVED

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6170

GARREY CARRUTHERS
GOVERNOR

'90 JAN 23 AM 8 48

Date: 1-19-90

Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504-2088

Re: Proposed MC _____
Proposed DHC _____
Proposed NSL X _____
Proposed SWD _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 1-11-90
for the BLACKWOOD & NICHOLS N.E.B.U. # 999
Operator Lease & Well No.

P-20-31W-610 and my recommendations are as follows:
Unit, S-T-R

Approve

Yours truly,

Emile Busch