

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

2-26-90

OIL CONSERVATION DIVISION

GARREY CARRUTHERS

February 15, 1990

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

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

Attention: William F. Clark

Operations Manager

Administrative Order NSL-2755

Dear Mr. Clark:

Reference is made to your application of January 25, 1990 for a non-standard coal gas well location for your Northeast Blanco Unit Well No. 491 to be located 1756 feet from the South line and 1442 feet from the East line (Unit J) of Section 25, Township 31 North, Range 7 West, NMPM, Basin Fruitland Coal (Gas) Pool, Rio Arriba County, New Mexico. The S/2 of said Section 25 shall be dedicated to the well forming a standard 320-acre gas spacing and proration unit for said pool.

By the authority granted me under the Regulations for the Basin-Fruitland Coal (Gas) Pool as promulgated by Division Order No. R-8768, the above-described unorthodox coal gas well location is hereby approved.

Sincerely,

William J. LeMay

Director

WJL/MES/ag

cc: Oil Conservation Division - Aztec

US Bureau of Land Management - Farmington



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR

1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6178

Date	: 2-2-9	0			
P.O.	Box 2088	ion Division 87504-2088			
Re:	Proposed Proposed Proposed	MC DHC NSL SWD WFX PMX			
Gent	lemen:				
I ha	ave examine	ed the applicat	ion dated	1-29-90	
for	the BA	KW0007412 perator	CHOC5 Lease	<i>W.E.B.U.</i> & Well No.	# 491
	25-31N	2W and my	recommendat	ions are as	follows:
<i>f</i> ,	Hapro	ul		مده که خد سه چه درو درو درو درو درو	
					
Your	s truly,				
5		Budl			

BLACKWOOD & NICHOLS CO., LTD.

P.O. BOX 1237

DURANGO, COLORADO 81302-1237

(303) 247-0728

January 25, 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. 491

1756! FSL, 1442! FEL, Sec. 25, T31N, R7W

Rio Arriba County, New Mexico

Dear Mr. LeMay:

Attachments cc: NMOCD,

WAIVER:

Blackwood & Nichols Co., Ltd. requests administrative approval of an exception to the footage and location 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, Area Map, and C-102 are attached for your reference. Blackwood & Nichols investigated the possibility of a location in the SE/SW but could not fit a location in this area due to an archaeological site (see attached report). An alternate site at a standard footage location was picked in the SW/SE quarter. This site was refused by the BLM due to its proximity to an archaeological site. The subject location was selected as the second alternative and should receive clearance from the regulatory agencies. This location is 2100' from the nearest Fruitland Coal well proposed by Blackwood & Nichols Co., Ltd. and is 2200' from the nearest offset operated property line.

The south half of Section 25, T31N, R7W, will be dedicated to this well. Northwest Pipeline operates the offset proration units and has been notified of this request by certified mail.

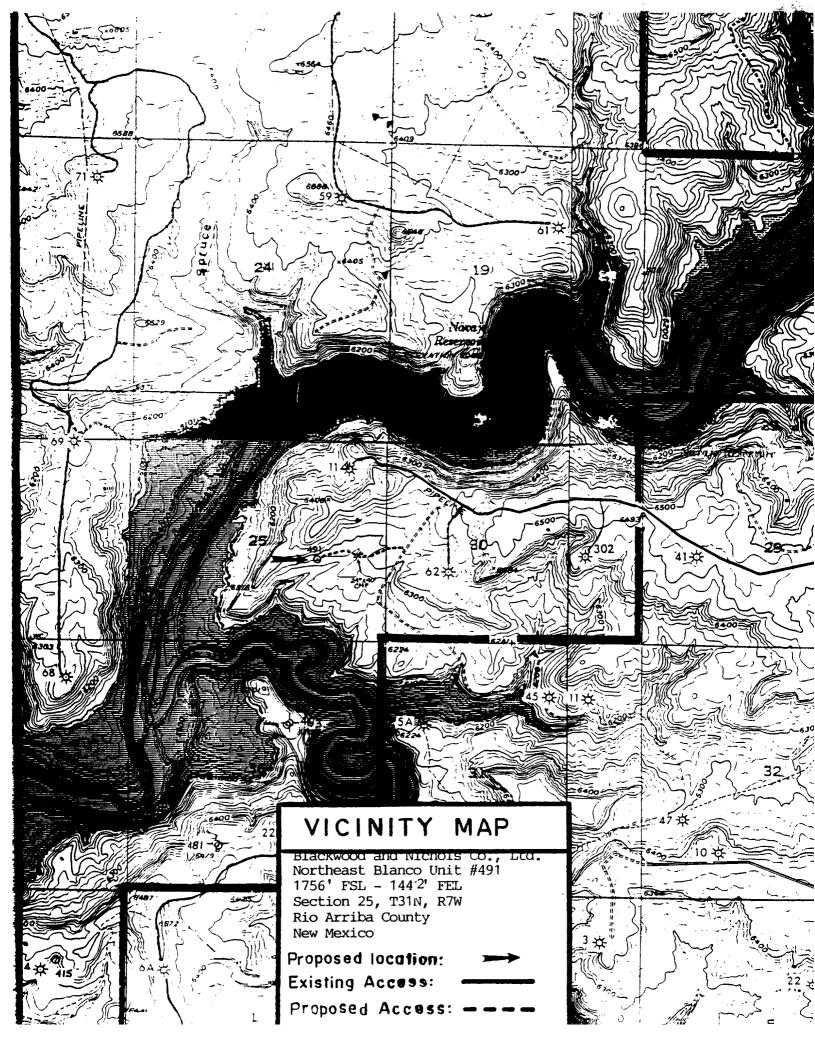
Your prompt consideration of this request is appreciated.

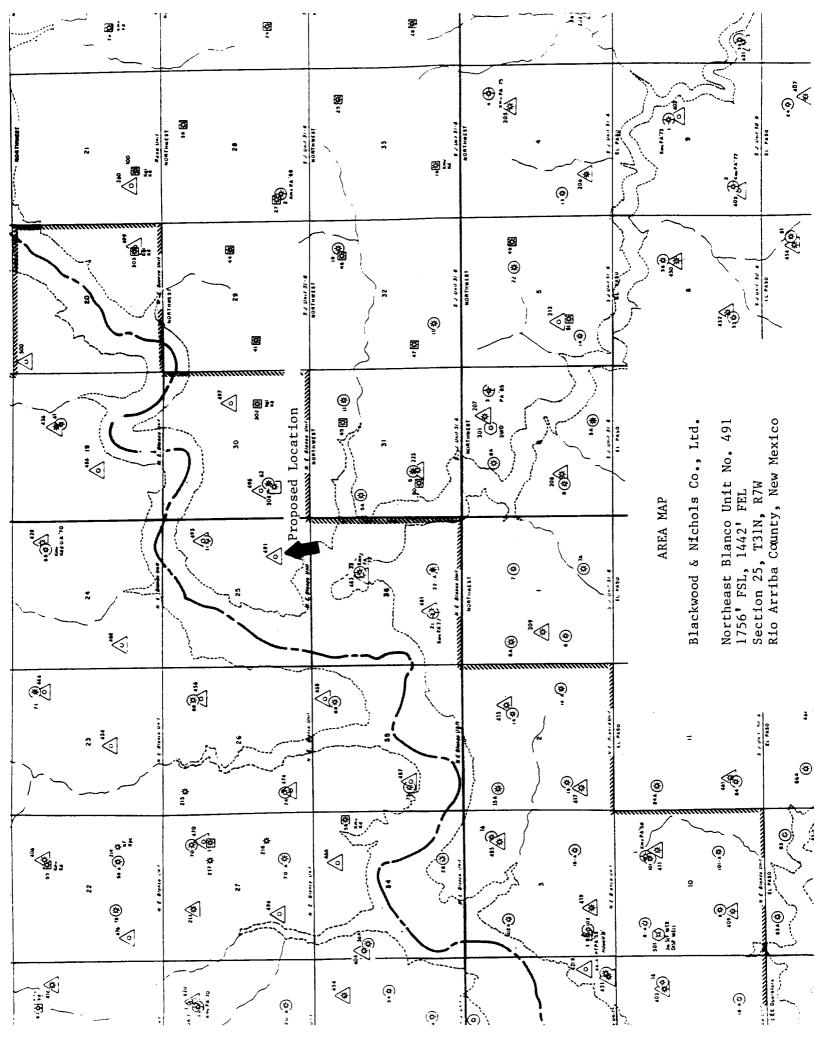
Sincerely,

	BLACKWOOD & NICHOLS CO.,	
	William F. Clark Operations Manager	JAN2 9 1990
Aztec Office		OIL CON. DIV

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

By:	Date:	
□ y •		





State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

Land Burveyor

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

P.O. Box 1980, Hobbs, NM 88240 DISTRICT II P.O. Drawer DD, Artesia, NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

1000 Rio Brazos Rd., Aztec, NM 87410 All Distances must be from the outer boundaries of the section Well No. N.E.B.U. 491 BLACKWOOD & NICHOLS CO. County Unit Letter Section Township Range ARRIBA COUNTY R.7 W. RIO T.31 Ν. . Actual Footage Location of Well: feet from the EAST 1442 SOUTH 1756 line feet from the line and Dedicated Acreage: Pool Ground level Elev. Producing Formation 6268 Fruitland Coal Basin Fruitland Coal 320 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 interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? ☐ No Yes 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 neccessary. 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 interest, has been approved by the Division. OPERATOR CERTIFICATION I hereby certify that the information tained herein in true and complete to the best of my knowledge and belief. Printed Name William F. Clark Position Operations Manager 17-1 Company Blackwood & Nichols Co. SURVEYOR CERTIFICATION I hereby certify that the well location show on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my knowledge and 1442' belief. SF079010 Date Surveyed JAN TRACT 8A NORTH Certificate N 89-55 W Professiona

1000

500

2000

1500

1650

1900 2310

An Archaeological Survey of proposed well location Northeast
Blanco Unit 491 and its combined access road and pipeline north of La Jara Creek, Rio Arriba County,
New Mexico.

for

Blackwood and Nichols Co., Ltd.

by

Susan K. Moore

Submitted by

Roger A. Moore, Jr. Principal Investigator

November 8, 1989

Moore Anthropological Research

Technical Report No. 89-70A

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

ABSTRACT

On September 27, 1989 Moore Anthropological Research conducted a Class III archaeological survey of a proposed well location and combined access road and pipeline for Blackwood and Nichols Co., Ltd. The survey area is located on a bench overlooking the confluence of La Jara Creek and the Navajo Reservoir (T31N, R7W, Section 25) in Rio Arriba County, New Mexico and is under the jurisdiction of the Bureau of Land Management (Minerals) and the Bureau of Reclamation (Surface). A total of 11.89 acres (4.80 hectares) were inventoried.

Two archaeological sites and seven 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. Archaeological clearance is recommended with the stipulations that site MAR-89-65 be fenced, and that construction of the well pad and the access road be monitored in the area of the site.

INTRODUCTION

On September 27, 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 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. 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), No. 11593 of 1971 (36 F.R.8921, 16 U.S.C. 470), the Executive Order 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 Work conducted in the course of this project is intended to Properties Act. comply with the above-mentioned laws and is governed by the stipulations of Cultural Resource Permit 77-2920-89-D.

Susan K. Moore, and Michael J. Proper, 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. Robert Fielder, and Charles Neally, surveyor, accompanied the archaeologists during the fieldwork.

METHODS

The project area was surveyed by walking parallel transects 10 meters apart across the well pad and the access right of way. A construction zone 30 ft. wide and a buffer zone 100 ft. wide around the well pad, and a 25 ft. right of way with a 50 ft. buffer on either side for the access road was included in the survey. The project area was marked with orange painted lath on the well pad and orange and yellow flagging tied to vegetation for the access right of way 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 26, 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. There are no sites within 1000 ft of the project area. The nearest previously recorded site is located over 1000 meters from the project area.

PROJECT AREA

Northeast Blanco Unit 491 and combined access road and pipeline

Legal Description: T.31 N. R. 6 W, Section 30, SW 1/4 NW 1/4 SW 1/4

T.31 N, R. 7 W, Section 25, S 1/2 NE 1/4 SE 1/4

SE 1/4 NW 1/4 SE 1/4

NE 1/4 SW 1/4 SE 1/4

Section 25, 1229' F/SL, 1438' F/EL

New Mexico Prime Meridian, San Juan County, New Mexico, 6260-6300' Elevation

Map Source: U.S.G.S. 7.5' Pine River, New Mexico 1954 (Photorevised 1971)

Land Jurisdiction: Bureau of Land Management, Farmington Resource Area

(Minerals); Bureau of Reclamation (Surface)

Project Area: 250' x 350' (well pad)

280' x 380' (well pad with construction zone)

 $50' \times 1600'$ (road)

Surveyed Area: 480' x 580' (well pad with construction and buffer zones)

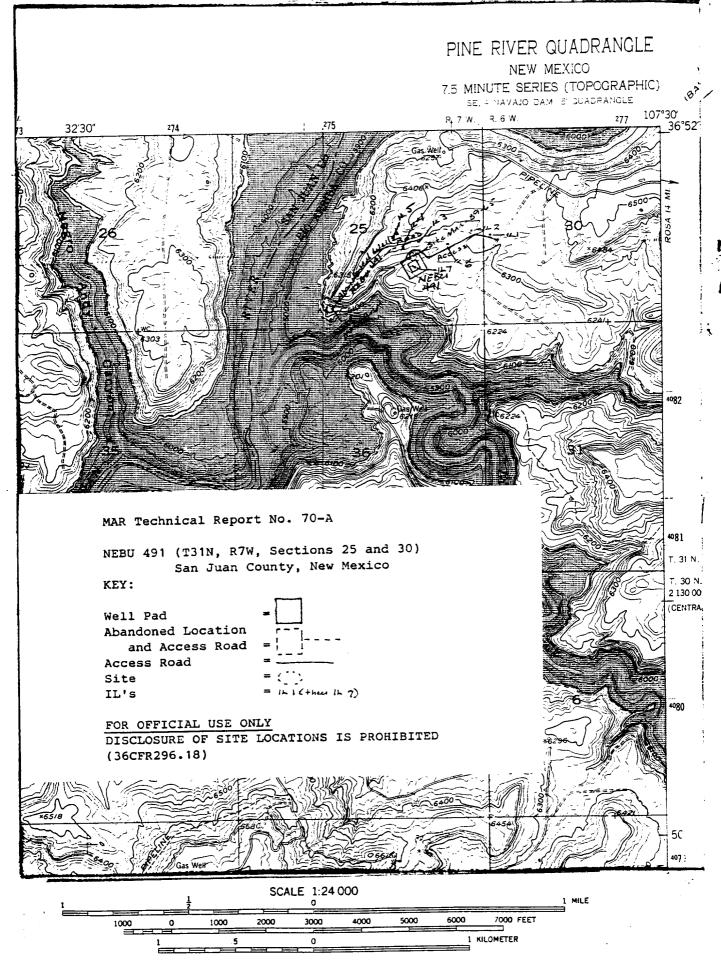
150' x 1600' (road with buffer zone)

11.89 Acres

Environment: The project area is located on a mesa bench overlooking the confluence of La Jara Creek and Navajo Reservoir (Figure 1). The beginning of the access road and the site are in pinyon/juniper woodland environments with a 35% cover consisting of pinyon pine, juniper, sagebrush, grasses, forbs, gambel oak, narrow leaf yucca, and club cholla. The middle section of the access road runs through a scrubland environment with a 40% cover of sagebrush, grasses, rabbitbrush and forbs. The soil is sandy, and on the pad area there are numerous large sandstone outcrops especially in the buffer areas. There were signs of deer, rabbits, and pack rats in the area. The weather was clear and warm.

Project Description: This is a proposed gas well, access road and pipeline. The originally proposed location was further north, but was rejected due to engineering problems. The access road comes north from a bladed road following a two track around a wooded knoll and then goes westward across the sageflats to a wooded bench on the edge of the mesa.

Cultural Resources: Two archaeological sites and seven Isolated Loci (IL) were found during the survey. Site MAR-89-64 and IL's 3, 4 and 5 are in portions of the original location abandoned for engineering problems. Site MAR-89-65 and IL's 1, 2, 6 and 7 are in the final staked location for the access road and well pad. (IL's are listed in Table 1 and Figure 1).



CONTOUR INTERVAL 40 FEET NATIONAL GEODETIC VERTICAL DATUM OF 1929

Site 89-64 (Figure 2) is a diffused lithic and ceramic scatter on a bench overlooking the reservoir at the base of a sandstone cliff. The site is scattered among the large sandstone boulders and in the beginning of a sandy wash area. On the north side of the cliff is an area that serves as a drainage during heavy rains, and the artifacts are in a fan shaped area downslope from this drainage for approximately 34 meters. There are only two lithic artifacts in the lower edges of the site in the sandy wash, the majority of the artifacts are within small, shallow, soil areas within the boulder scatter immediately below the cliff face. It appears the artifacts may have washed to their present position form the cliff top.

Artifacts include 4 Anasazi grayware ceramics from a possible pot bust; lithic artifacts include 20 flakes, 4 pieces of angular debris, and one possible core. The flakes represent all stages of core reduction. Materials include gray-green fine grained quartzite, gray fossiliferous chert, blue

mottled orthoguartzite, white and green chert. and white chalcedony.

The cultural deposits on MAR-89-64 appear to be redeposited material from the cliff top, so there are probably no buried intact deposits on the site. The site does have research potential for studies of early Anasazi (BMIII-PII) lithic technology and ceramic technology. Reconnaissance of the ridge top above the high cliff would be necessary to provide information to help determine the National Register status of this site. However, the site should be considered eligible for nomination for purposes of Section 106 consultation.

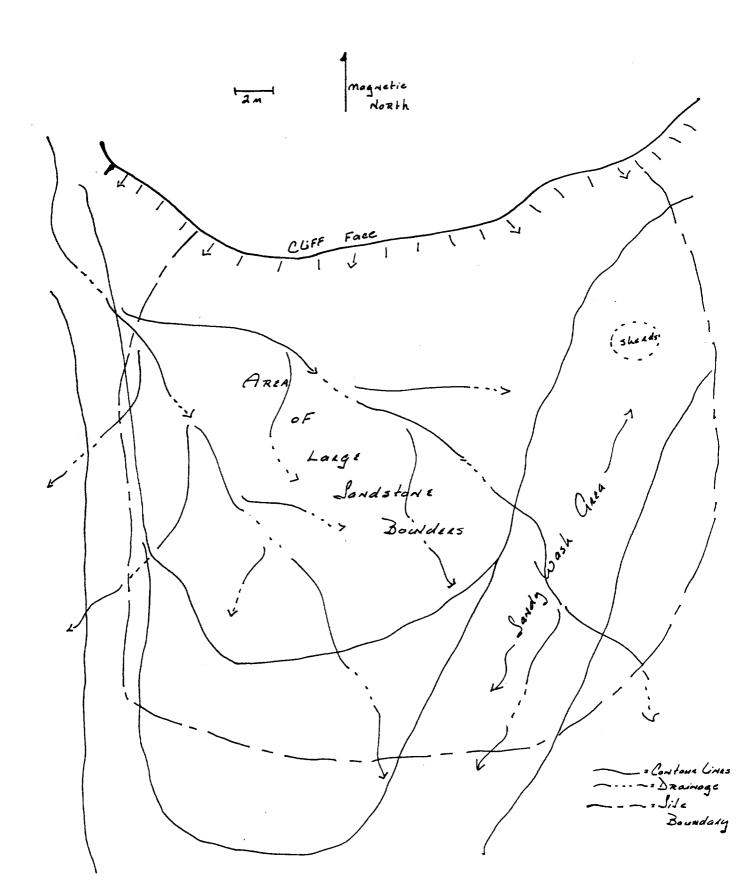
Site MAR-89-65 (Figure 3) is a small diffuse lithic scatter on the top of a moderate north facing slope. The soil is sandy and there are numerous large junipers around and throughout the site with 100% pine duff cover underneath, giving the possibility that more artifacts are still hidden. No features were noted. Artifacts include 1 fine grained red quartzite tertiary core reduction flake: 1 piece of orthoquartzite angular debris; 1 piece of red chalcedony angular debris; 1 biface mid-section of white chalcedony; 1 red fine grained quartzite tool with flaking along both sides of one edge; 1 red chert secondary core reduction flake; 1 large 5 cm x 3 cm red fine grained quartzite tool (possible scrapper) made from a large primary flake; 1 red/green chert secondary core reduction flake; 1 butterscotch chert primary core reduction flake; and 1 large chunk of quartzite angular debris.

Most of the artifacts were in drainage areas. The part of the site covered by the old junipers has stable accumulating soils and may contain intact buried cultural deposits.

MAR-89-65 has potential for intact buried deposits. Excavation and detailed lithic attribute analysis may provide a means of dating this site. The site has research potential for the period it represents for studies of lithic technologies and land use. It may therefore be eligible for nomination to the National Register under criterion D of 36CFR 60.4 and should be considered eligible for nomination for purposes of Section 106 consultation.

Recommendations: Because the north well pad boundary is within 30 ft. of site MAR-89-65, and the access road will circle to the north and west of the site, it is recommended that site MAR-89-65 be fenced prior to construction and that all construction in that area of the pads northeast corner and the portion of the access road around the site be monitored.

abandoned NEBH 491 Location M. PAOPER 9-27-89



Site MAR-89-65 Well NEBU 491

M. Proper 9-27-89

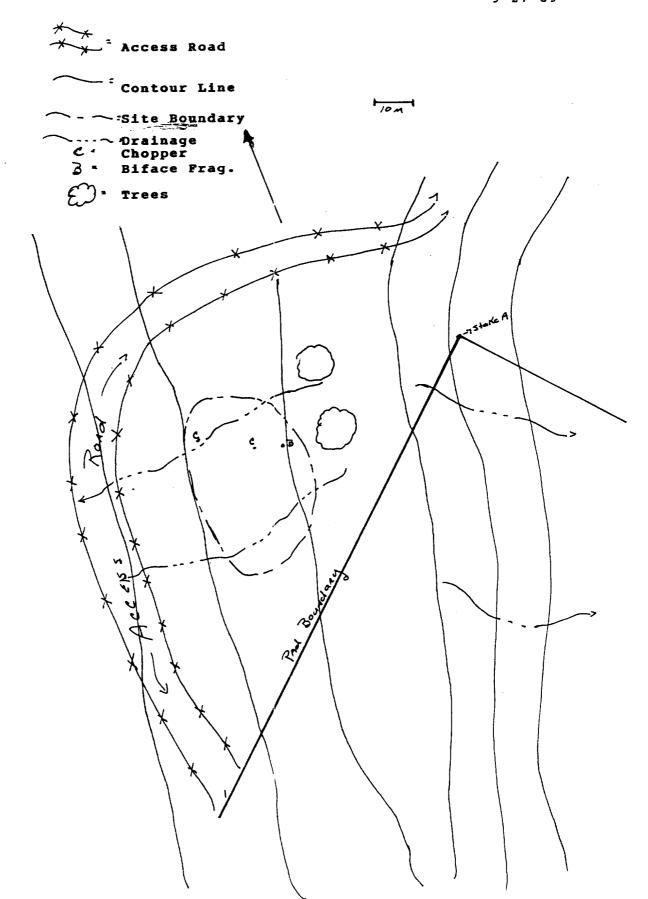


TABLE 1 ISOLATED LOCI DESCRIPTIONS

ΙL#		l Des 1/4	scription 1/4	UTM (Zone 1 N E		Land- form	Descriptions
1	SW	NW	SW	4083080 276	040 SCLD	V	1 dark grayish/brown tertiary core reduction flake.
2	NW	NE	SE	4083105 275	920 WDLD	V	Brown chalcedony scrapper made from a primary flake.
3	SE	NW	SE	4083050 275	580 WDLD	В	2 pieces brown chalcedony angular debris.
4	SE	NW	SE	4083300 275	480 WDLD	В	1 large (5 x 5cm) reddish brown fine-grained quartzite primary core reduction flake.
5	SE	NM	SE	4083090 275	410 WDLD	В	Middle section of Jemez obsidian biface.
6	SW	NE	SE	4083015 275	770 SCLD	٧	1 secondary core reduction flake of brown chert.
7	NE	SW	SE	4082870 275	550 WDLD		50+ pieces of Anasazi gray— ware from a pot bust.

Note: All IL's are in T31N, R7W, Section 25; with the exception of IL 1 which is in R6W, Section 30; of the Pine River 7.5 Quad Map. Key: Veg. Zone: SCLD=scrubland

WDLD=woodland
Landform: V=valley
B=bench