

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

Copy Sent to E. Busch

9/11/90

Verbal by E. Busch

9/20/90

June 21, 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. 413R
350' FNL, 460' FEL
Section 20, T30N, R7W
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, and allowance to drill the Northeast Blanco Unit #413R at 350' FNL and 460' FEL in Section 20, T30N, R7W, located in the Basin Fruitland Coal Pool.

This request for exception is based on numerous archaeological sites which are described in detail in the attached archaeological reports, and extremely rough terrain in the majority of the standard well location window, as shown on the attached topographic map. A vicinity map, and C-102 are also attached for your reference.

In the past 30 days four locations for the Northeast Blanco Unit #413R have been evaluated. These sites are designated on the attached map as A, B, C, and D. Each location is evaluated and the reasons why the three standard locations are not desirable are given in the following discussions.

Site A: 790' FNL and 1470' FEL, Section 20, T30N, R7W

This location is 150' west of the existing NEBU #413 on the same pad. This site is not suitable for two reasons: 1) The proximity to the NEBU #413. This well was frac'd twice and the damage to the formation makes this location undesirable. 2) Construction cost. The estimated cost for removing the surface equipment and setting a plug in the casing on the adjoining Mesa Verde well, power line relocation, and location preparation is estimated to be \$30,000-\$40,000.

NEBU #413R Unorthodox Location
June 21, 1990

p. 2

Site B: 790' FNL and 790' FEL, Section 20, T30N, R7W

This location was located in rough terrain but was considered economic to build and was located far enough away from the existing #413 to be outside the area of damaged formation. However, upon inspection by Moore Anthropological Research. An unrecorded site was discovered within the staked pad. Numerous archaeological sites surrounding this location eliminate any other possible site in the northeast corner of this proration area.

Site C: 350' FNL and 460' FEL, Section 20, T30N, R7W

This is the unorthodox location and appears to be the best site to drill the NEBU #413R. An attempt was made to locate this well closer to the proration unit. A power line to the south along with scattered archaeological sites to the south and west prohibit relocation in those areas.

Site D: 2250' FNL and 1700' FEL, Section 20, T30N, R7W

The entire mesa in this southeast corner of the proration unit was surveyed by Moore Anthropological Research. Numerous scattered pot shards were found along with four stick hogans. In addition, the cost to build a pipe line off of this mesa has been estimated to be approximately \$40,000.

The east half of Section 20 will be dedicated to this well.

The acreage to the north and east which is being encroached upon is also part of the Northeast Blanco Unit operated by Blackwood & Nichols. The only offset operator is Meridian Oil which joins the southeast corner of this proration unit and has been notified of this request by certified mail.

Your prompt consideration of this request is appreciated.

Sincerely,

W.F. Clark

By At Receiver

William F. Clark
Operations Manager

WFC:MD:1kl

WAIVER

Meridian Oil, INC. hereby waives objection to Blackwood & Nichols Co.'s application for an unorthodox location for their NEBU #413R as proposed above.

By: *[Signature]*

Date: 7/5/90

At

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Blackwood & Nichols Co., LTD.		Lease Northeast Blanco Unit		Well No. 413 R
Unit Letter A	Section 20	Township 30 North	Range 7 West	County Rio Arriba
Actual Footage Location of Well: 350 feet from the North line and 460 feet from the East line				
Ground level Elev. 6298'	Producing Formation Fruitland	Pool Basin Fruitland Coal	Dedicated Acreage: 320 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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.?

☒ Yes ☐ No If answer is "yes" type of consolidation Unitization

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 interest, has been approved by the Division.

5274.72'

*Non-standard
due to terrain
and archeology.

20

350
460

OPERATOR CERTIFICATION

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

Signature

William F. Clark

Printed Name

William F. Clark

Position

Operations Manager

Company

Blackwood & Nichols Co.

Date

June 22, 1990

SURVEYOR CERTIFICATION

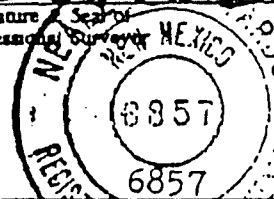
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. 6-11-90

Date Surveyed

[Signature]

Signature

Professional Surveyor



Certificate No. 6857

Neale & Edwards

5281.32'

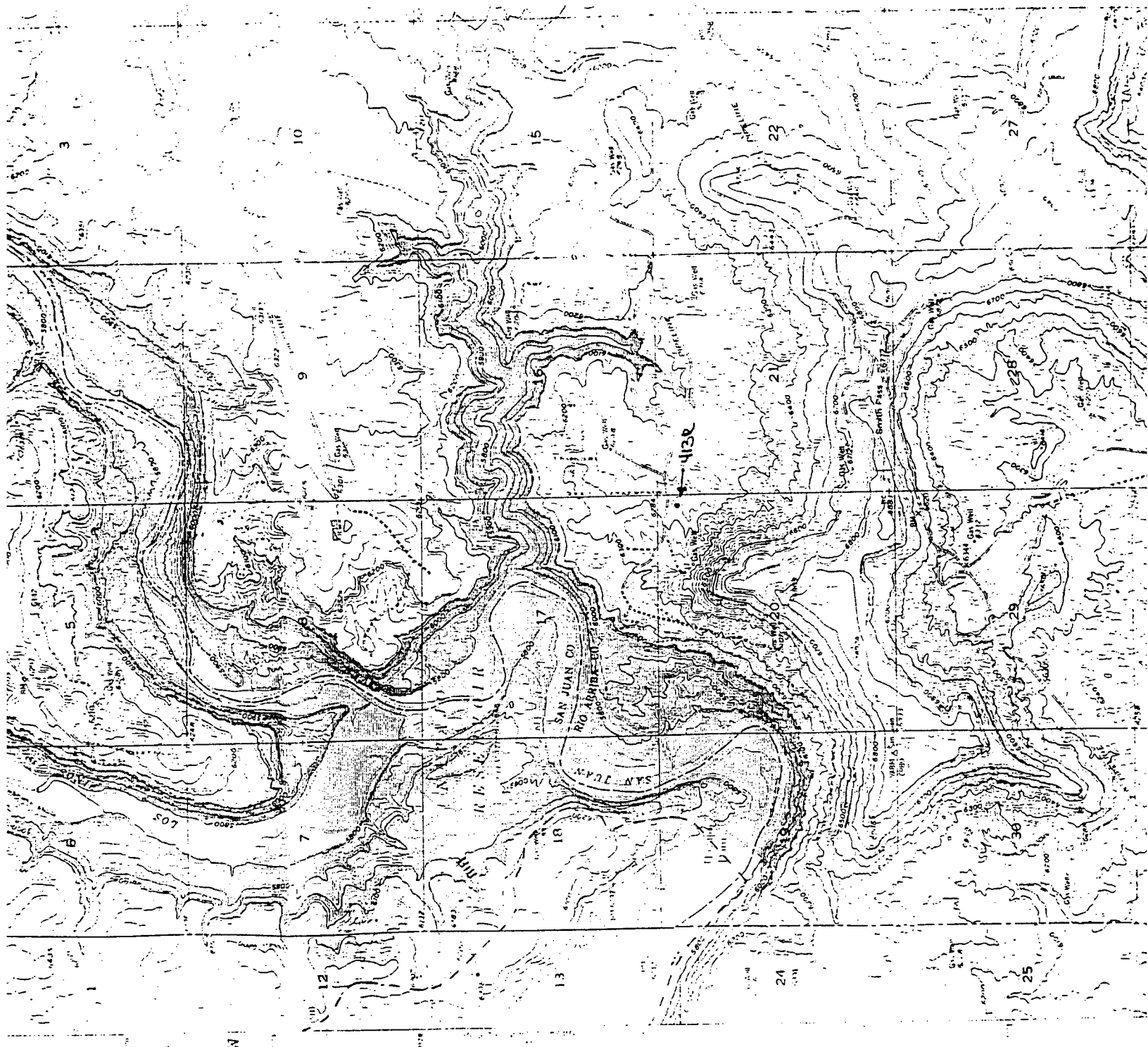
0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

Figure I

AREA MAP

Northeast Blanco Unit
Well No. 413R

Section 20, T30N, R7W



Project No. 90-50

Cultural Resource Use Permit
No. 77-2920-89-D
New Mexico State Trust Lands
Permit No. 90-040

An Archaeological Survey of
Three Alternate Locations for the NEBU 413R on the
De Lasso Loos Road

for

Blackwood & Nichols Company, Limited

Class II survey of Locations: NEBU 413RB, NEBU 413RD
Class III Survey of Location: NEBU 413RD

by

Susan K. Moore
Kathleen C. Reid

Submitted by

Roger A. Moore, Jr.
Principal Investigator

June 21, 1990

Moore Anthropological Research

Technical Report No. 90-50

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

ABSTRACT

On June 11 and 12, 1990 Moore Anthropological Research conducted a Class III archaeological survey of one alternate location for the NEBU 413R (413RC) and a Class II archaeological survey of two alternate locations (NEBU 413RB and 413RD) for Blackwood and Nichols Co., Ltd. of Durango, Colorado. The survey areas are located on the north side of Smith Mesa and south of the De Lasso Loos Road and are under the jurisdiction of the State Trust Lands; Bureau of Land Management, Farmington Resource Area; and private land. A total of 7.576 acres were in the Class III inventory area, and 7.576 acres were in the Class II area on State minerals and Private surface land, and 5.739 acres were in the Class II inventory area on B.L.M. land for a total of 7.576 acres of Class III survey area and 13.315 acres of Class II survey area. Total area surveyed was 20.891 acres (8.455 hectares).

Three archaeological sites and two 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 only for project area NEBU 413RC. Clearance is not recommended for (Class II surveys) areas NEBU 413RB and NEBU 413RD.

INTRODUCTION

On June 11 and 12, 1990 Moore Anthropological Research (M.A.R.) conducted two Class II and one Class III archaeological survey for Blackwood and Nichols of Durango Co., Ltd., Colorado. Mike Dwinnell of Blackwood and Nichols requested the survey on June 8, 1990, 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 Federal Cultural Resources Use Permit No. 77-2920-89D and New Mexico State Trust Lands Permit No. 90-040.

Susan K. Moore and Kathleen C. Reid, 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 Mike Dwinnell accompanied the archaeologists during the fieldwork.

METHODS

The Class III Survey project area was surveyed by walking parallel transects, seven to ten meters apart across the project area. The Class II Survey project areas were surveyed by walking parallel transects 18 to 25 meters apart across the project area. A construction zone 50 ft. wide and a buffer zone 100 ft. wide was included in the survey. Wells NEBU 413RB and NEBU 413RC were marked with orange flagged lath prior to conducting the survey; NEBU 413RD (Class II well survey). Archaeological sites MAR-90-59 and 60 were marked with a datum tag; MAR-90-61 was not tagged because it was already marked with flagging. 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 June 8, 1990, 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 40 previously recorded sites within one mile of the project (BLM Supplement Map [for BLM archaeologist only]). One site (LA 76801) is 1000 ft of the project area. This site is of unknown age and type (information not available on this recently recorded site); it is located 1000 Ft. (300m) from proposed well NEBU 413RD and should not be impacted by this project.

PROJECT AREA

Well Location NEBU 413RB

Legal Description: T. 30N, R. 7W, Section 20, S 1/2 SW 1/4 NE 1/4
Section 20, 790' F/NL, 790' F/EL

U.T.M.: Zone 13, 475960 N, 269150 E (center stake)

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

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

Land Jurisdiction: State Trust Lands (minerals), Private Elks Lodge (Surface)

Project Area: 300' x 250' (well pad), 400' x 350' (well pad w/construction)

Surveyed Area: 600' x 550' (well pad w/construction and buffer zones)

Acres: 7.576

Environment: The project area is located on a north facing bench of Smith Mesa south of the De Lasso Loos Road (Figure 1). The north half of the project area is on a steep north facing talus slope covered by large sandstone boulders, shale and clay outcrops, and cut by numerous deep drainages. The southern half is less steep with fewer boulders, but sandstone outcrops still occur. The soil is a sandy loam. There is a 15% woodland cover consisting of pinyon, juniper, sagebrush, Mormon Tea, mountain mahogany, findler bush, narrow leaf yucca, grasses, forbs and prickly pear cactus. The area shows use by deer and rabbits; skinks were seen during the survey. The weather at the time of the survey was hot and clear. Current use of the area is for energy development and recreation.

Project Description: This is a Class II survey of a second alternate location for the NEBU 413R (Figure 2). The original 413R was at 790'F/NL and 1470'F/EL (Moore, 1990). The first alternate (413RA) was a rotation of the original pad, which did not require any new archaeological survey. The proposed pad 413RB is moved 1000 Ft. west of the original location.

Cultural Resources: One archaeological site was found 13 meters north of the center stake. Site MAR-90-59 is a possible Anasazi site of unknown period.

Recommendations: Archaeological clearance is not recommended.

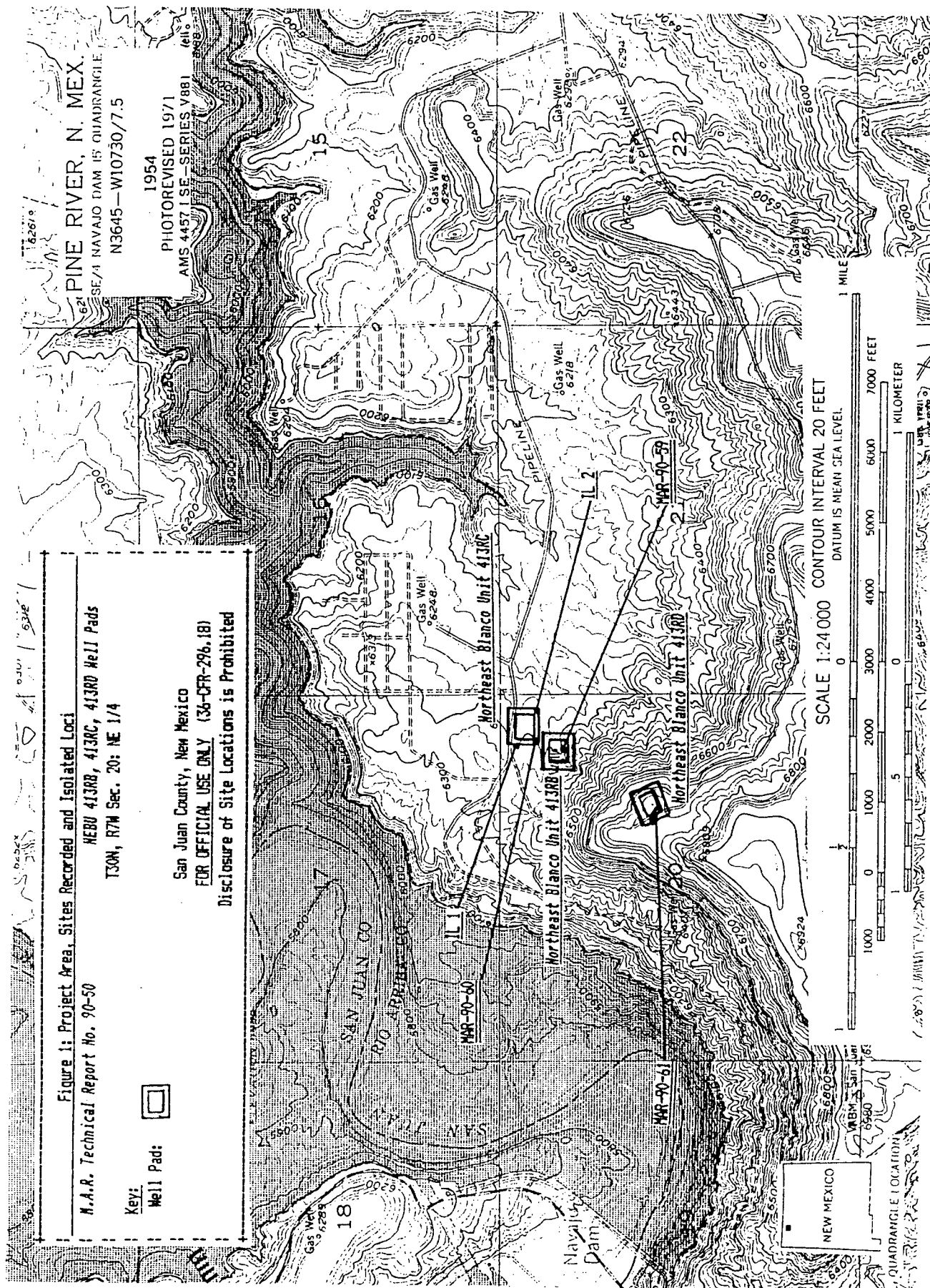


Figure 1

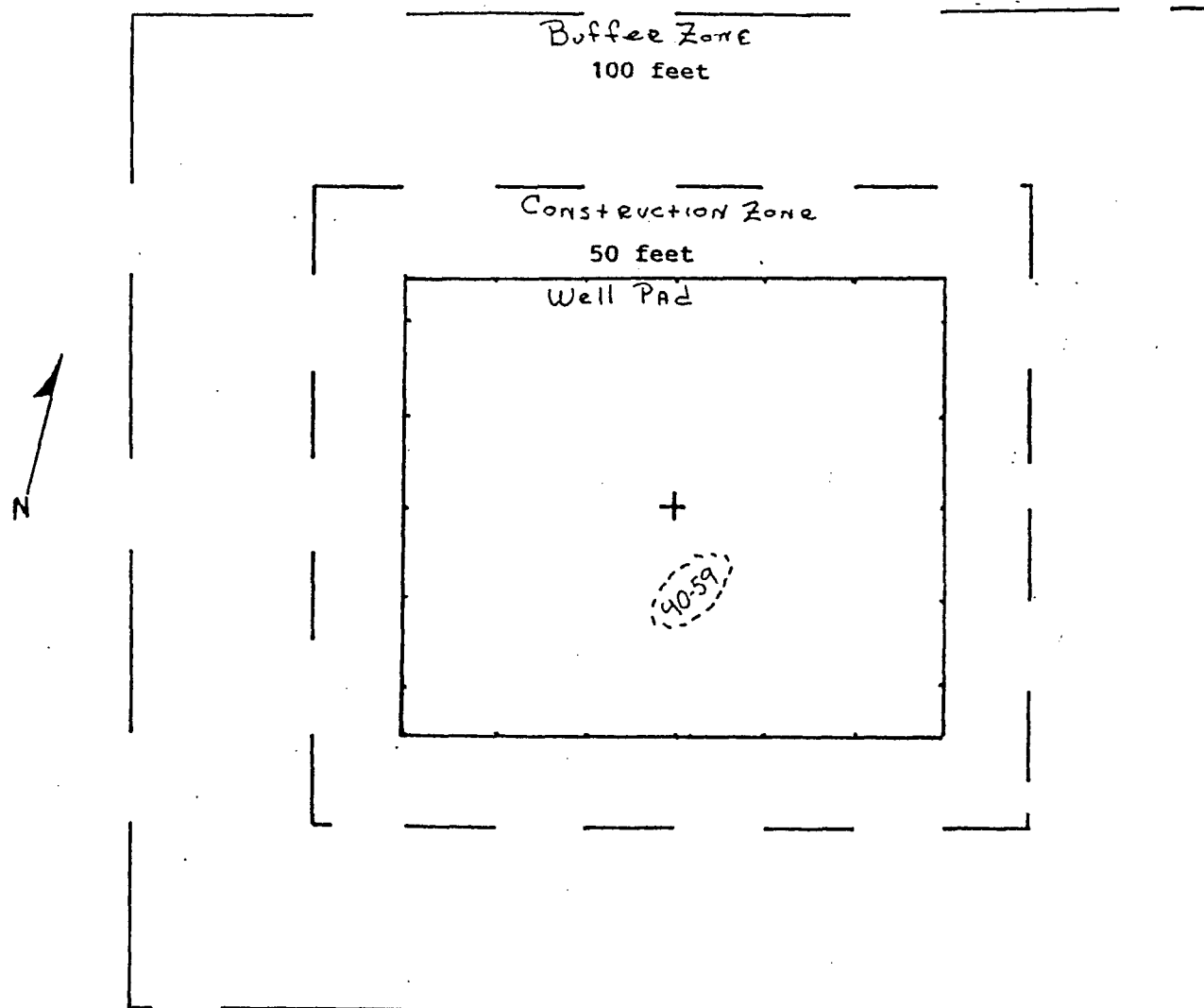


Figure 2

Site Map
M.A.R. 90-59
6-6-90
H13R Alt. B



[] = 2 meter

(.) = DARK STAIN
(J) = JUNIPER TREE
(S) = Small Rock

[Hatched rectangle] = Deadfall

[Hatched shape] = Large Boulder



*Note: Center Stone is 15m. North
of Dark Stain Area

Figure 3

PROJECT AREA

Proposed Well NEBU 413 RC

Legal Description: T. 30N, R. 7W, Section 20, NE 1/4 NE 1/4 NE 1/4
Section 20, 350' F/NL, 460' F/EL

U.T.M.: Zone 13, 476100 N, 269250 E (center stake)

New Mexico Prime Meridian, San Juan County, New Mexico, 6298' Elevation

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

Land Jurisdiction: State Trust Lands (minerals), Private Elks Lodge (surface)

Project Area: 300' x 250' (well pad), 400' x 350' (well pad w/construction)

Surveyed Area: 600' x 550' (well pad w/construction and buffer zones)

Acres : 7.576

Environment: The project area is located on Smith Mesa on the south side of the De Lasso Loos Road, south of the Navajo Reservoir (Figure 1). The area slopes gently upslope to the south, with small drainages running west to east. There are sandstone and gravel outcrops across the south edge of the pad area, and a powerline runs over the south construction zone. The south buffer zone has more sandstone outcrops, gravel areas, and the drainages are deeper. The sandy loam soil shows depth of up to 40cm in the drainages. The De Lasso Loos road is in the north construction zone and an open pipeline trench is in the north buffer zone. The pad area has a 40% scrubland cover consisting of sagebrush, broad leaf yucca, needle and thread, galleta and indian rice grasses; club cholla, barrel cactus, and a few pinyon and juniper trees. The east, west, and south buffer zones have a 10-15% woodland cover consisting of pinyon, juniper, grasses, forbs, Mormon Tea, yucca, prickly pear cactus and sagebrush. Signs of deer, rabbits and cattle were seen. The weather at the time of the survey was hot and clear. Current use is for energy development and recreation.

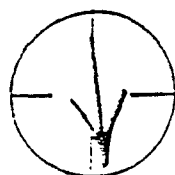
Project Description: This is the third alternate location for the NEBU 413R (Figure 4). This was a Class III survey. This area is north of the NEBU 413RB location.

Cultural Resources: One archaeological site and two isolated loci (IL) were found during the survey. The IL's are described in Table 1. The site (figures 1 and 5) is a Navajo Gobernador Phase site located on the outside edge of the construction zone nearest the southwest corner of the proposed pad.

Blackwood & Nichols
Co., LTD.

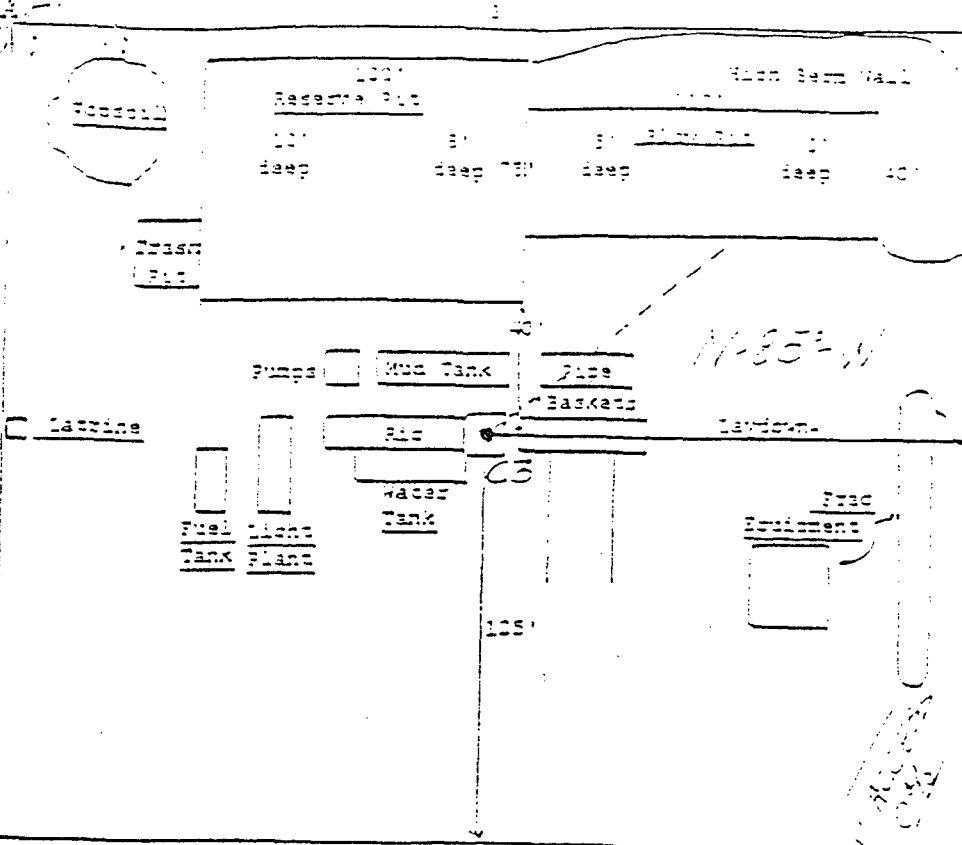
Northeast Blanco Unit
#413 E

350' FNL, 460' FEL,
Sec. 20, T30N, R7W, NDEP.,
Rio Arriba Co., N.M.



F5
④

F11
③



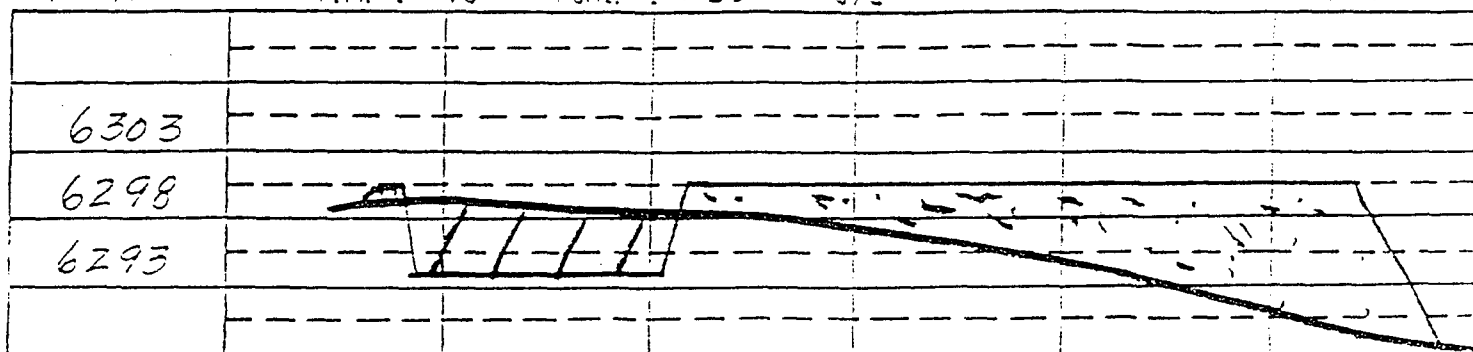
A - A'

Vert. 1" = 10'

Horiz. 1" = 50'

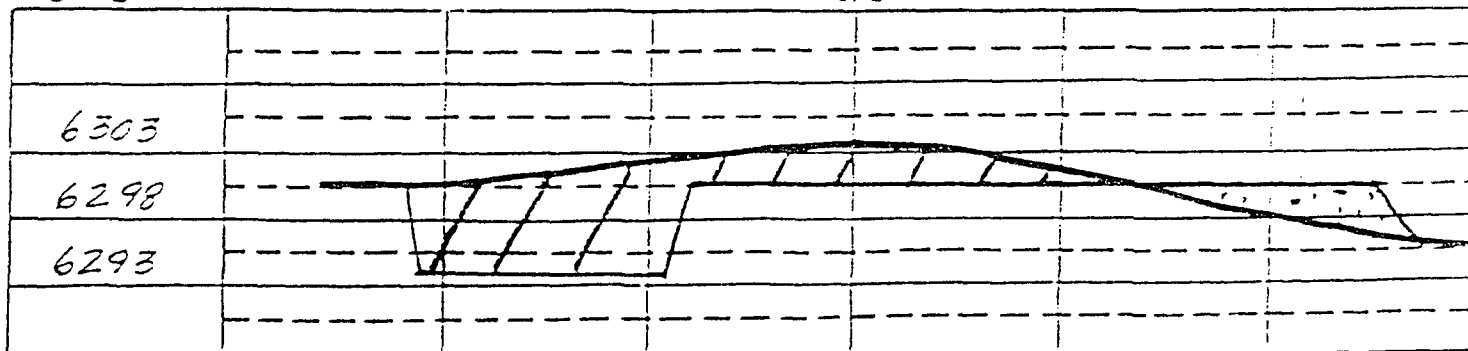
C/L

200'



B - B'

C/L



C - C'

C/L

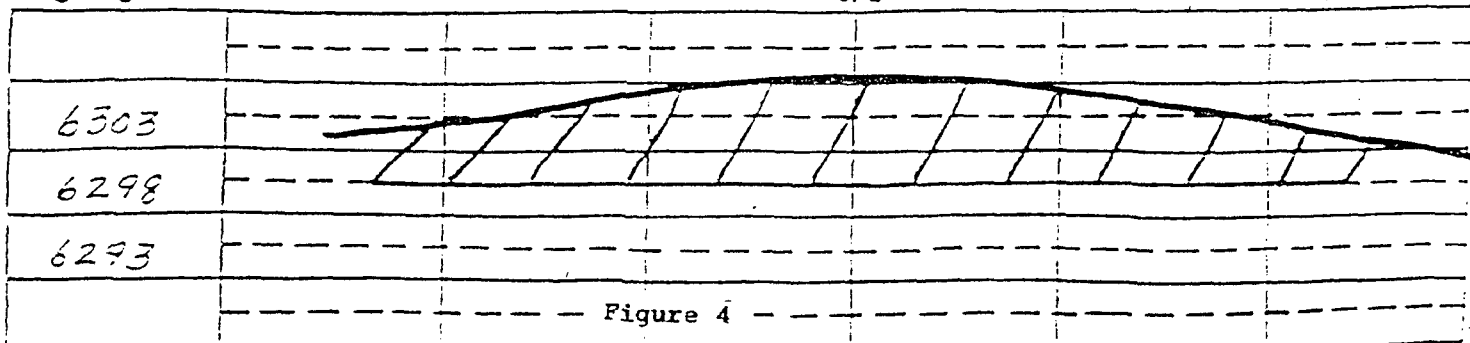


Figure 4

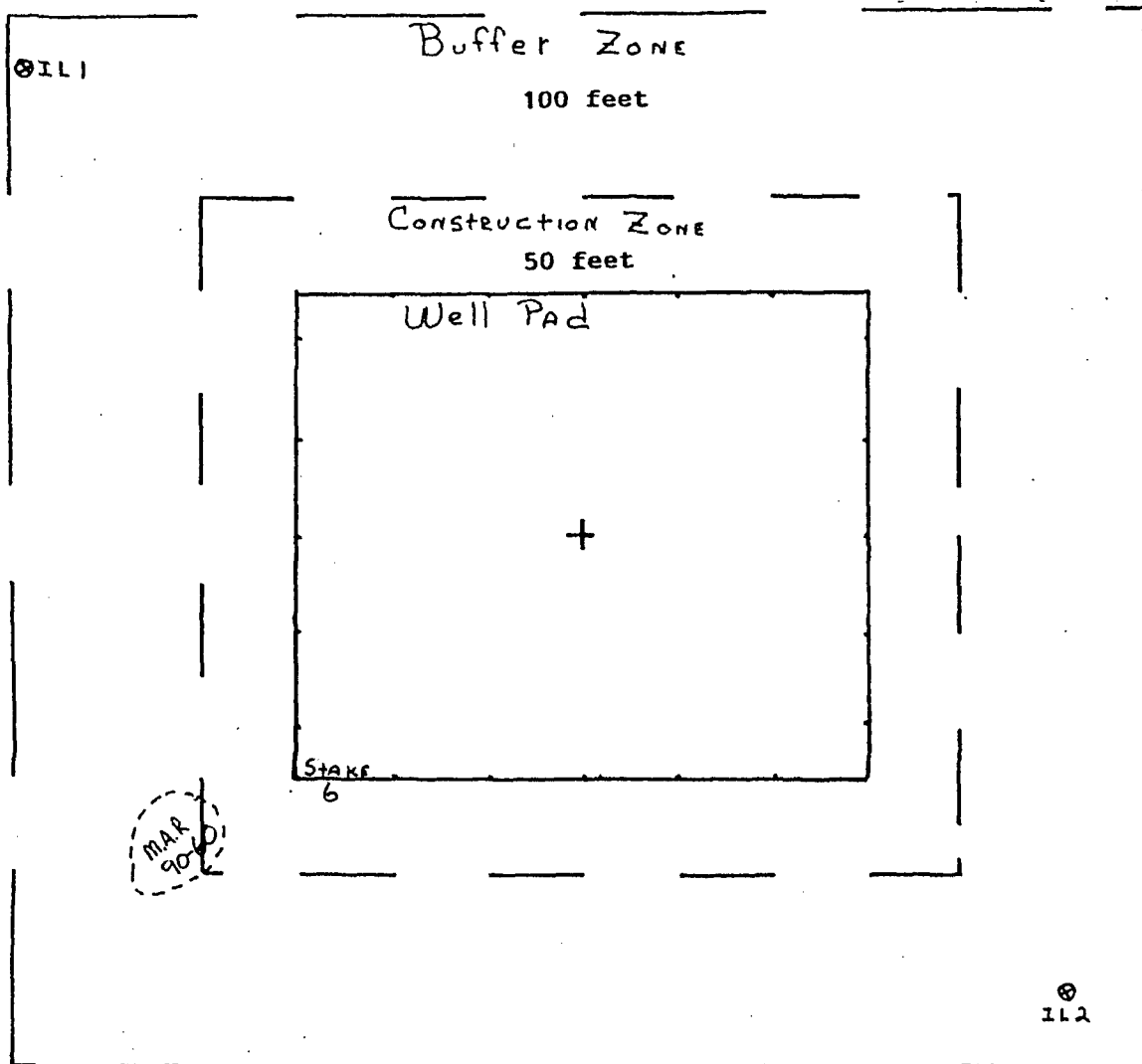
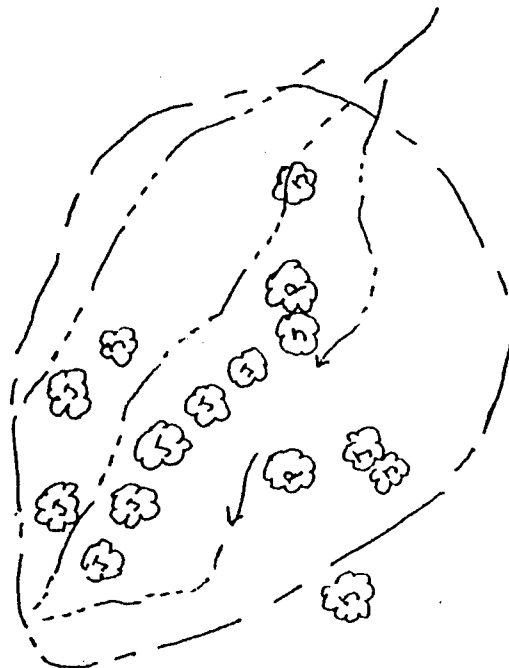


Figure 5

Site Map M.A.R. 90-60

413 C

6-12-90



[= 5 meters

○ = Site Boundary

⊙
Stake
6



Figure 6

TABLE 1: Isolated Loci Descriptions

IL	U.T.M. Zone 13		
<u>No.</u>	<u>Northing</u>	<u>Easting</u>	<u>Description</u>
1	4076140	269165	One gray siltstone tertiary core reduction flake 60mm long, 32mm wide, 25mm thick.
2	4076040	269310	Four pieces of fire-cracked rock; one gray fossiliferous chert (with red & white inclusions) scraper made by retouch of the right lateral margin of a tertiary core reduction flake 68mm long, 37mm wide, 20mm thick.

 Key: Both IL's have the following information in common:
 T.30N, R.7W, Sec. 20, NE 1/4 NE 1/4 NE 1/4; N.M.P.M.; Rio Arriba County;
 U.S.G.S. 7.5' Pine River, New Mexico 1954 (Photorevised 1971) map;
 Woodland; on a wide bench of Smith Mesa.

Recommendations: The site is in the southwest corner of the project area on the edge of the construction zone, 18 meters (approximately 54') from stake 6. Archaeological clearances is recommended with the stipulation that construction be monitored and that no construction zone be used for 50' either side of stake 6 (southwest corner stake).

PROJECT AREA

Proposed well NEBU 413RD

Legal Description: T. 30N, R. 7W, Section 20, SE 1/4 SW 1/4 NE 1/4
 Section 20, 1600' F/EL, 2250' F/NL

U.T.M.: Zone 13, 475530 N, 268890 E (center stake)

New Mexico Prime Meridian, San Juan County, New Mexico, 6740' 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

Project Area: 500' x 500'

Surveyed Area: 500' x 500' (Class II reconnaissance)

Acres: 5.739

Environment: The project area is located on the first bench down from Smith Mesa (Figure 1). The area is a level mesa bench, with numerous shallow drainages. There is a 10-15% woodland cover consisting of very old juniper and pinyons, both with stabilized areas of soil and pine duff; Mormon Tea, broad leaf yucca, prickly pear cactus, and minimal grasses and sagebrush. The soils are a sandy loam, with minimal shale and sandstone outcrops. The area shows use by deer and rabbits. The weather at the time of the survey warm and partly cloudy.

Project Description: This was a Class II reconnaissance survey of an alternate location of the NEBU 413R on a bench directly above the original location (see project description for 413R-B). No plat is available for this location.

Cultural Resources: One archaeological site was found in the proposed area. Site MAR-90-61 is a Navajo Gobernador Phase site (Figure 8) located in the southwest pad and buffer zone area (pad never staked).

Recommendations: Archaeological clearance is not recommended.

REFERENCES

Moore, Susan K.

- 1990 An Archaeological Survey of Well NEBU 413R south of Navajo Reservoir. Moore Anthropological Research, Technical Report No. 90-30A.

NEBU 413RD

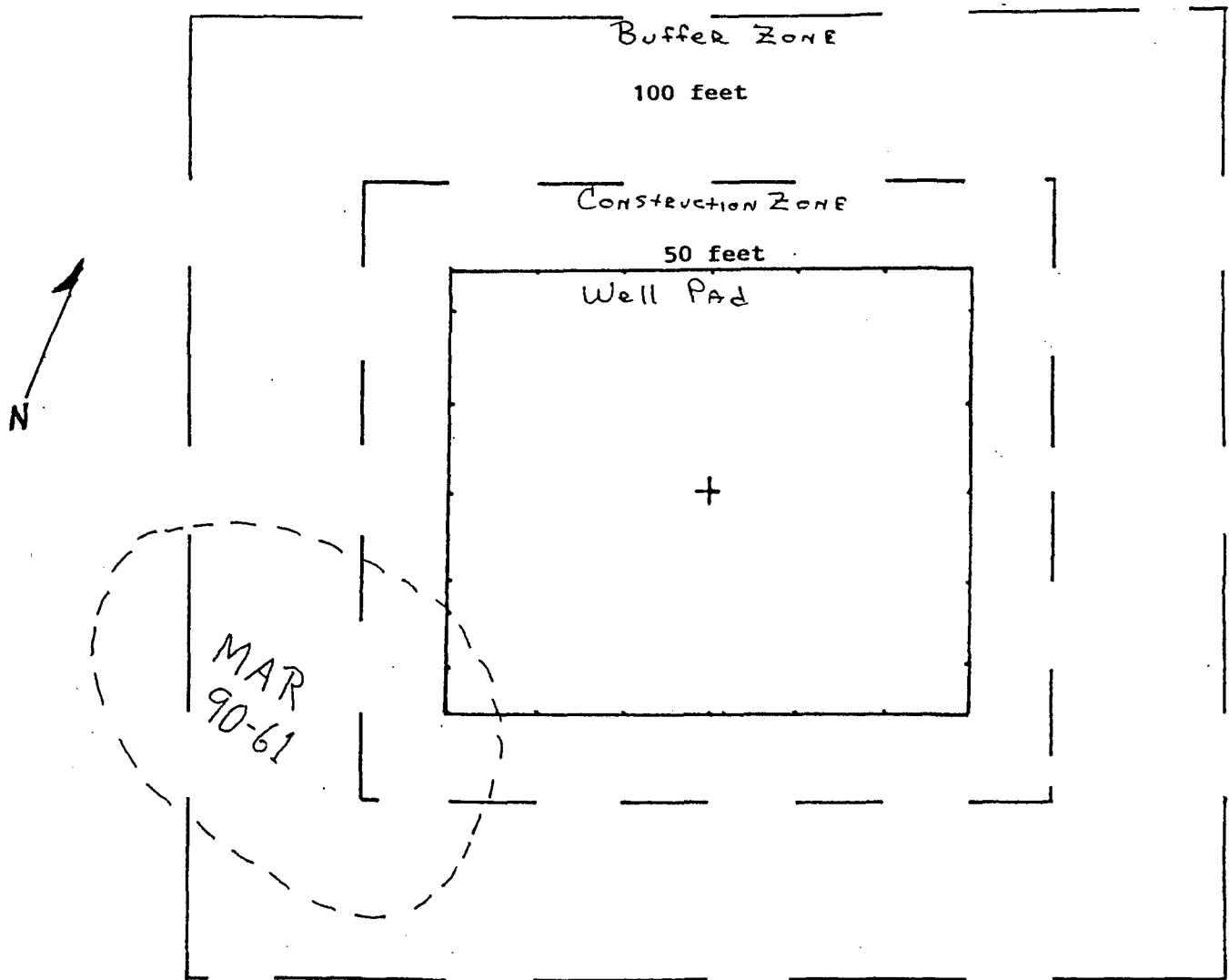


Figure 7

Site Map 90-61
MAR 6-12-90
413RD

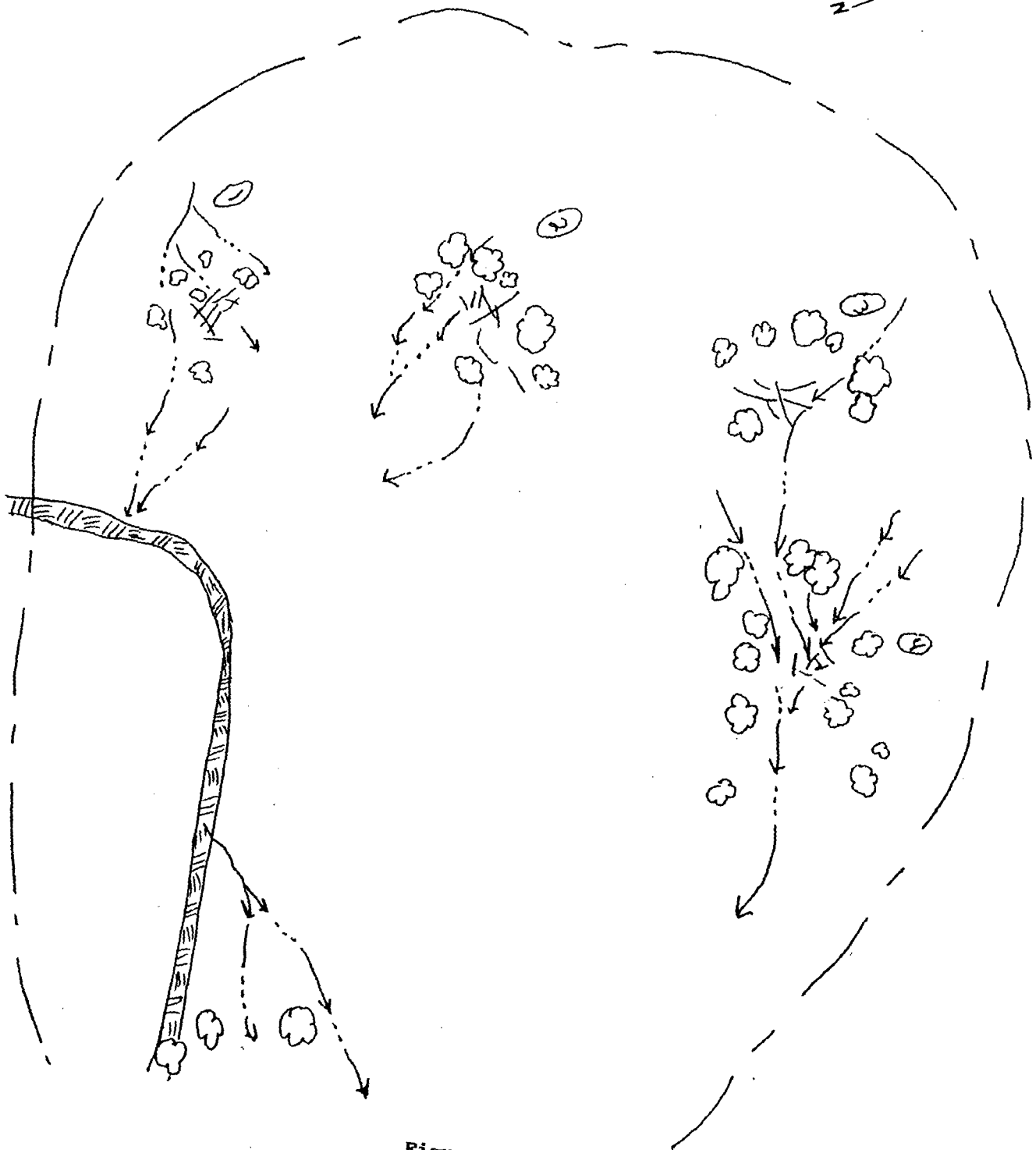
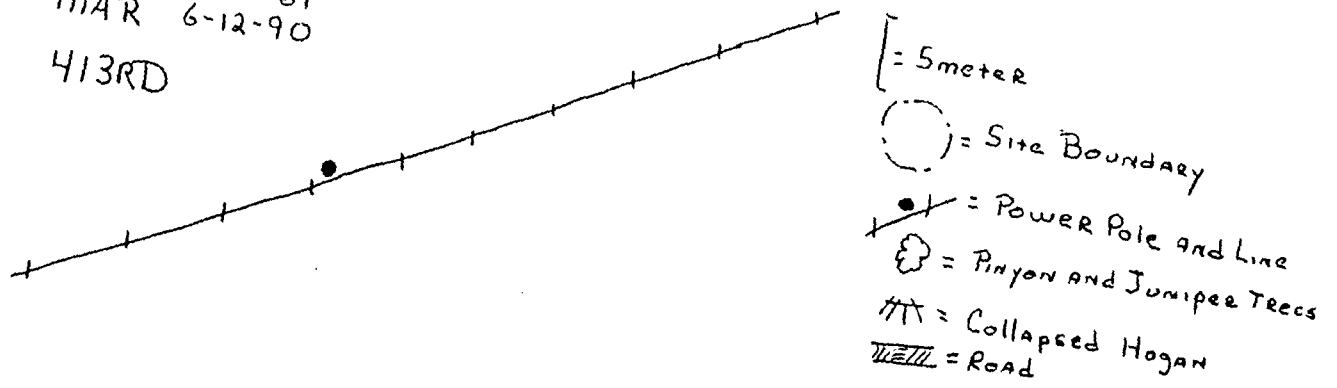


Figure 8

MERIDIAN OIL OIL CONSERVATION DIVISION
RECEIVED

'90 JUL 9 AM 9 11

July 6, 1990

New Mexico Oil Conservation Division
Attention: Mr. William LeMay
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Unorthodox Gas Well Location
Northeast Blanco Unit #413R
NE/4 Section 20, T-30-N, R-7-W
Rio Arriba County, New Mexico

Dear Mr. LeMay:

Please find enclosed an executed copy of Blackwood & Nichols Co., Ltd. letter ballot dated June 21, 1990 indicating Meridian Oil Inc.'s decision to waive objection on the above referenced unorthodox well location.

Very truly yours,



Alan Alexander
Senior Land Advisor

AA:gm

Enclosure

NEBU, 5.0

cc: Blackwood & Nichols Co., Ltd.
Durango, Colorado

45+



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

September 17, 1990

US Bureau of Reclamation
Durango Projects Office
P.O. Box 640
Durango, CO 81302-0640

Attention: Steve Sacks, Projects Manager

*RE: Northeast Blanco Unit Well No. 413R, 350' FNL - 460'
FEL (Unit A) 20-T30N-R7W, Basin-Fruitland Coal Gas
Pool, Rio Arriba County, New Mexico.*

Dear Mr. Sacks:

Enclosed please find a copy of an unorthodox coal gas well location request that the NMOCD received on June 25, 1990. This information is being provided for your records since the well is within your jurisdiction and it does not appear that you were furnished with a copy of this filing by the applicant. Should you have any comments for suggestions, please contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael E. Stogner", with a long horizontal line extending to the right.

Michael E. Stogner
Chief Hearing Officer/Engineer

MES/ag

cc: Oil Conservation Division - Aztec
US Bureau of Land Management - Farmington
Blackwood & Nichols, Co., Ltd.