

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐OTHER ☐SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Solar Petroleum, Inc.

## 3. ADDRESS OF OPERATOR

1660 Lincoln Street, Suite 1500, Denver, Colorado 80264

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*

At surface

1400  
1330 FSL

1330' FWL

At proposed prod. zone

Same

## 14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

14 miles NE of Shiprock

## 10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

1330'

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

900'

## 21. ELEVATIONS (Show whether DF, RT, GR, etc.)

5262' G.L.

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2	8 5/8	23#	60'	20 sx
6 3/4	4 1/2	10.5#	1110'	200 sx

This action is subject to administrative review.

Drill to top of Gallup with air. Mud up. Drill Gallup to approximately 1500'. Run logs. Run 4 1/2 casing and cement to the surface. Perforate and frack producing zone. Run rods and tubing, set pumping unit. Put on production. If well is dry will plug and abandon as per USGS instructions. Blow out preventer will be installed and checked daily.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE

Agent

DATE

8-13-80

(This space for Federal-State joint use)

PERMIT NO.

AS AMENDED

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL IF ANY

NOV 24 1980

JAMES F. SIMS  
DISTRICT ENGINEER

TITLE

DATE

\*See Instructions On Reverse Side

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

Operator <b>SOLAR PETROLEUM, INCORPORATED</b>			Lease <i>Tribe of Indians</i> <b>Navajo "F"</b>		Well No. <b>150</b>
Unit Letter <b>K</b>	Section <b>4</b>	Township <b>31N-</b>	Range <b>17W</b>	County <b>San Juan</b>	
Actual Footage Location of Well:					
1405 feet from the <b>South</b>		line and <b>1330</b>		feet from the <b>West</b> line	
Ground Level Elev: <b>5262</b>	Producing Formation <b>Gallup</b>		Pool <b>Horseshoe</b>		Dedicated Acreage: <b>40</b> Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 Commission.

		Sec.	
		4	
1330'			
1330'			

Scale: 1"=1000'

CERTIFICATION

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

Name  
*David W. Sledge*

Position  
**Agent**

Company  
**Solar Petroleum, Inc.**

Date  
**August 12, 1980**

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  
**August 2, 1980**

Registered Professional Engineer and Land Surveyor

*Fred B. Key, Jr.*  
Certificate No. **3950**



P.O. BOX 819  
Bloomfield, New Mexico 87413

(505) 632 - 3385

*Merion said  
Ray Rader  
Western Energy Inc.  
\$7.50 per foot*

July 1, 1980

Compliance Office-Navajo Tribe  
Navajo Land Administration Office  
P. O. Box 410  
Montezuma Creek, Utah 84534

*move 10' off line*

Dear Sirs:

Solar Petroleum, Inc., Suite 1500, 1660 Lincoln Street, Denver,  
Colorado, 80264, will stake the below listed wells around July 15, 1980.

- |      |             |           |                               |       |        |
|------|-------------|-----------|-------------------------------|-------|--------|
| • 1. | Section 1,  | 1320 FSL, | 2640 FWL,                     | T31N, | R17W - |
| 2.   | Section 2,  | 1320 FNL, | 1320 FEL,                     | T31N, | R17W   |
| 3.   | Section 4,  | 760 FNL,  | 1320 FEL,                     | T31N, | R17W   |
| 4.   | Section 4,  | 1420 FNL, | 1320 FEL,                     | T31N, | R17W   |
| 5.   | Section 4,  | 1320 FWL, | 1320 <del>FSL</del> ,<br>FNL, | T31N, | R17W   |
| • 6. | Section 9,  | 1065 FNL, | 2640 FEL,                     | T31N, | R17W   |
| • 7. | Section 9,  | 1320 FNL, | 1320 FEL,                     | T31N, | R17W   |
| 8.   | Section 10, | 2600 FWL, | 2640 FNL,                     | T31N, | R17W   |
| 9.   | Section 10, | 2640 FNL, | 1320 FWL,                     | T31N, | R17W   |
| 10.  | Section 10, | 1320 FSL, | 1320 FWL,                     | T31N, | R17W   |

As per the attached copy of the letter to the U.S.G.S., surveying  
and staking approval has been obtained by Solar Petroleum, Inc.

If further information is needed please contact me at the letterhead  
address or phone number.

Sincerely yours,

*[Signature]*

Joe P. Elledge

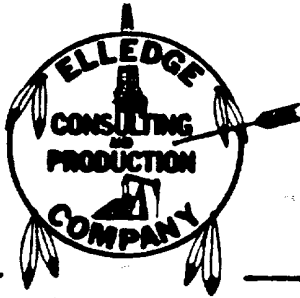
Joe P. Elledge

JFE/jr

C.C. U.S.G.S.-Farmington

Solar Petroleum, Inc.-Denver, Colo.

1.



operator Co,

P.O. BOX 819  
Bloomfield, New Mexico 87413

(505) 632-3385

Before entering lands you will be required to notify:  
Compliance Office, Navajo Tribe  
Navajo Land Administration Office  
P.O. Box 410  
Montezuma Creek, Utah 84534  
June 23, 1980  
Phone: (801) 651-3208 Nellie Jackson

District Engineer  
United States Geological Survey  
P. O. Box 959  
Farmington, New Mexico 87401

Dear Sir:

Solar Petroleum, Inc. Suite 1500, 1660 Lincoln Street, Denver,  
Colorado 80264, proposes to stake the below listed oil wells on the  
Navajo Reservation in San Juan County, New Mexico.

1. Section 1,	1320 FSL, 2640 FWL	T31N, R17W
2. Section 2,	1320 FNL, 1320 FEL,	T31N, R17W
3. Section 4,	760 FNL, 1320 FEL,	T31N, R17W
4. Section 4,	1420 FNL, 1320 FEL,	T31N, R17W
5. Section 4,	1320 FWL, 1320 FEL,	T31N, R17W
6. Section 9,	5' FNL, 2640 FEL,	T31N, R17W
7. Section 9,	1320 FNL, 1320 FEL,	T31N, R17W
8. Section 10,	2600 FWL, 2640 FNL,	T31N, R17W
9. Section 10,	2640 FNL, 1320 FWL,	T31N, R17W
10. Section 10,	1320 FSL, 1320 FWL,	T31N, R17W

E. J. Elledge 6-25-80

L.S. & S.

JFE/jr

C.C. Sherwin Artus  
Solar Petroleum, Inc.  
Denver, Colo. 80264.

Yours truly,

J. F. Elledge  
Joe F. Elledge

A 15 day waiting period  
prior to staking will be  
required in order to give  
BIA an opportunity to  
voice any objections they  
may have to this.

Wait on designation  
of operator before staking  
Sherwin will call when  
ready.

SOLAR PETROLEUM, INC.

Navajo "F" #150

OPERATION PLAN

I. Location: K-4-31N-17W

Field: Horseshoe Gallup

Elevation: 5262

II. Geology:

A. Formation Tops:            Surface:            Mancos  
                                 Gallup:            1030  
                                 Sanastee:        1060

B. Logging Program: I-ES and Gamma Ray-Density logs.

C. Coring Program: None

III. Drilling:

A. Mud Program: Low solid mud-surface to T.D.

IV. Materials:

A. Casing Program:	<u>Hole Size</u>	<u>Depth</u>	<u>Casing Size</u>	<u>Wt. &amp; Grade</u>
	12 $\frac{1}{4}$	60'	8 5/8	23# H-40
	6 3/4	1200'	4 $\frac{1}{2}$	10.5# K-55

B. Float Equipment: Casing will be run with a regular guide shoe and float collar. Pipe will be centralized through pay zones.

C. Tubing: If commercial, 2 3/8" 4.7# EUE tubing will be utilized for the completion string.

D. Wellhead Eqpt. A series 600 flanged tree will be used to accommodate 4 $\frac{1}{2}$ " casing and the 2 3/8" tubing string.

V. Cementing: The Gallup interval will be cemented conventionally with 100 sx 65/35 pozmix cement, 2% gel and 100 sx Class "B" neat. Loss circulation additives will be used if needed.

SOLAR PETROLEUM, INC.

Navajo "F" #150

1. Existing Roads

Refer to Map which shows the existing roads. New roads which will be required have been marked on this map. All existing and new roads will be properly maintained during this period.
2. Planned Access Roads

The grade of the access roads will be consistent with that of the local terrain. The road surface will not exceed 20 feet (20') in width. Upon completion all roads will be adequately drained to control said erosion. Drainage facilities may include ditches, water bars, culverts or other measures necessary to insure proper drainage.
3. Location of Existing Wells

See Attached map.
4. Location of Tank Batteries, Production facilities, and production gathering and service lines

If this well is productive, it would be oil. The facilities would be a wellhead, pumping unit and flow lines to an existing central battery.
5. Location and Type of water supply.

Produced water from the Navajo "F" lease will be used.
6. Source of Construction Materials

All construction material will be purchased and hauled to the location. No additional materials will be required.
7. Methods of Handling Waste Materials.
  - a. Cuttings will be buried 3' below surface.
  - b. Drilling fluid will be left in a fenced, open pit to evaporate.
  - c. Portable toilet to be provided.
  - d. Trash will be burned in burn pit then buried.
  - e. After pit area is dry, cuttings will be pushed into pit and sub soil will be placed on any remaining fluid and cutting then top soil will be placed over both pit and location area.
8. Ancillary Facilities

No camps or airstrip will be associated with this project.
9. Well Site Layout

Refer to attached plat.
10. Plans for Restoration of the surface

After completion of the proposed project, the

location will be cleaned and leveled.  
The location will be left in such a  
condition that will enable reseeding  
operations to be carried out as controlled  
by the regulatory body.

11. Other Information

The terrain is flat covered with grass and  
some sagebrush.

12. Operator's Representative

Elledge Consulting & Production Company  
P. O. Box 819  
Bloomfield, New Mexico 87413

Harold Elledge-President  
Office Phone: 632-3385  
Home Phone: 632-8476

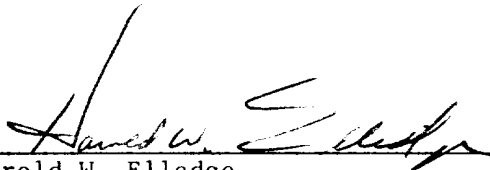
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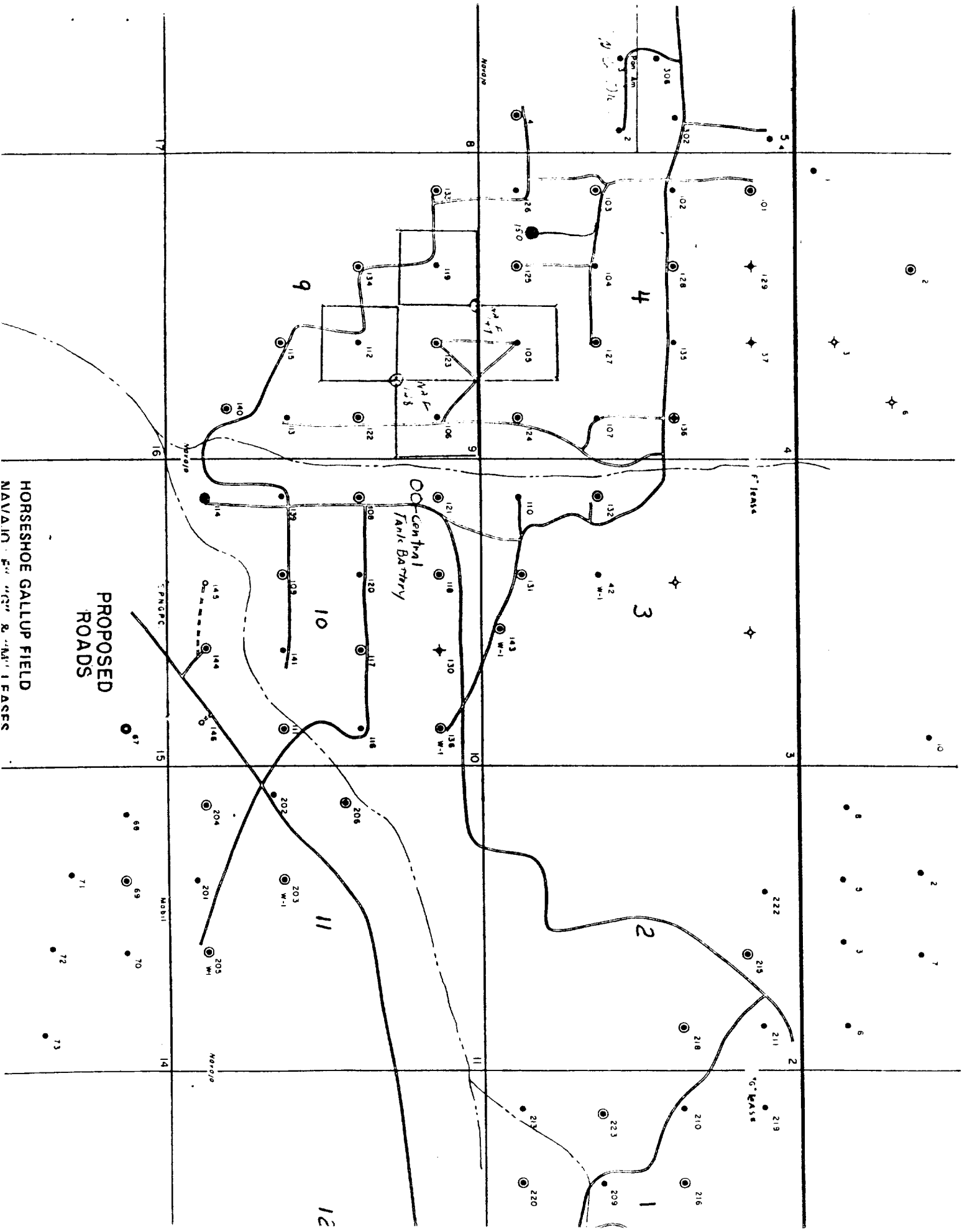
Solar Petroleum, Inc.  
1660 Lincoln Street  
Suite 1500  
Denver, Colorado 80264  
Phone: 303-861-9561

13. Certification

I hereby certify that I, or persons under  
my supervision, have inspected the proposed  
drill site and access route, that I am  
familiar with the conditions which presently  
exist; that the statements made in this plan  
are, to the best of my knowledge, true and  
correct; and, that the work associated with  
the operations proposed herein will be  
performed by Solar Petroleum, Inc. and its  
contractors and sub-contractors in conformity  
with this plan and the terms and conditions  
under which it is approved.

Date: August 13, 1980.

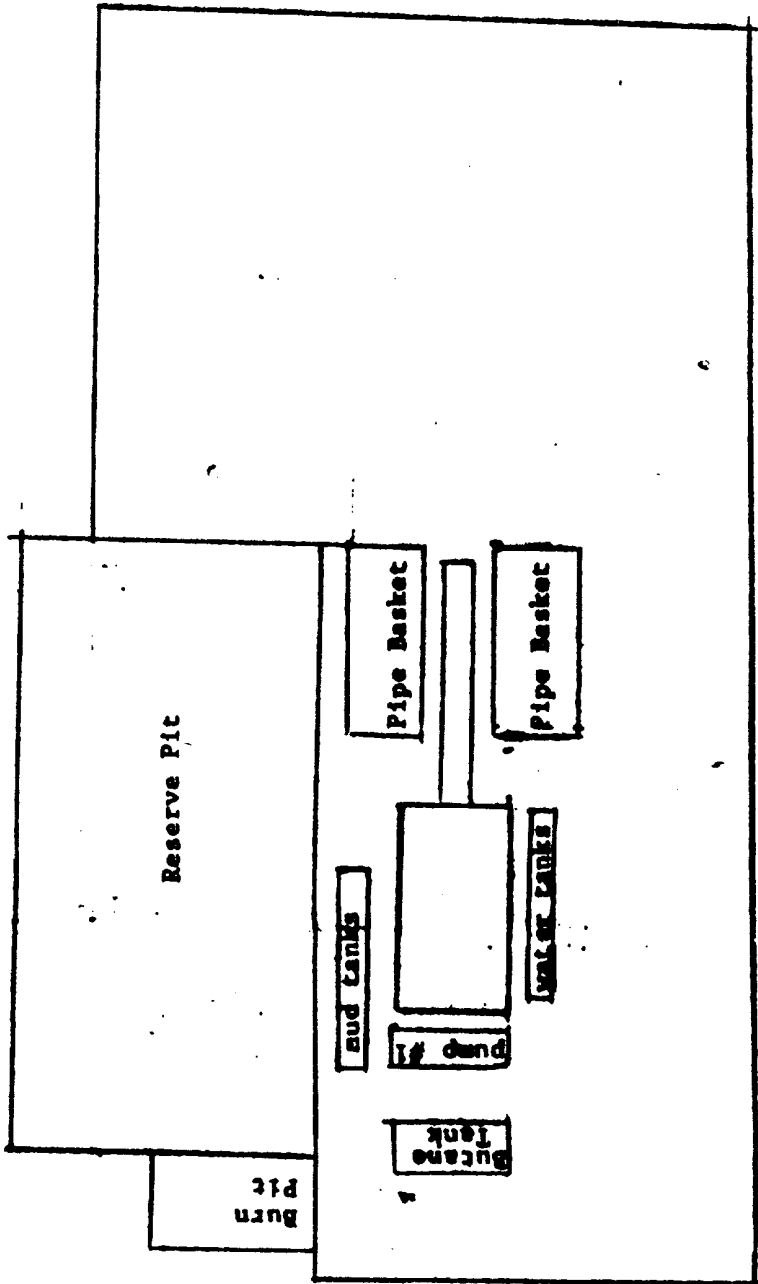
  
\_\_\_\_\_  
Harold W. Elledge



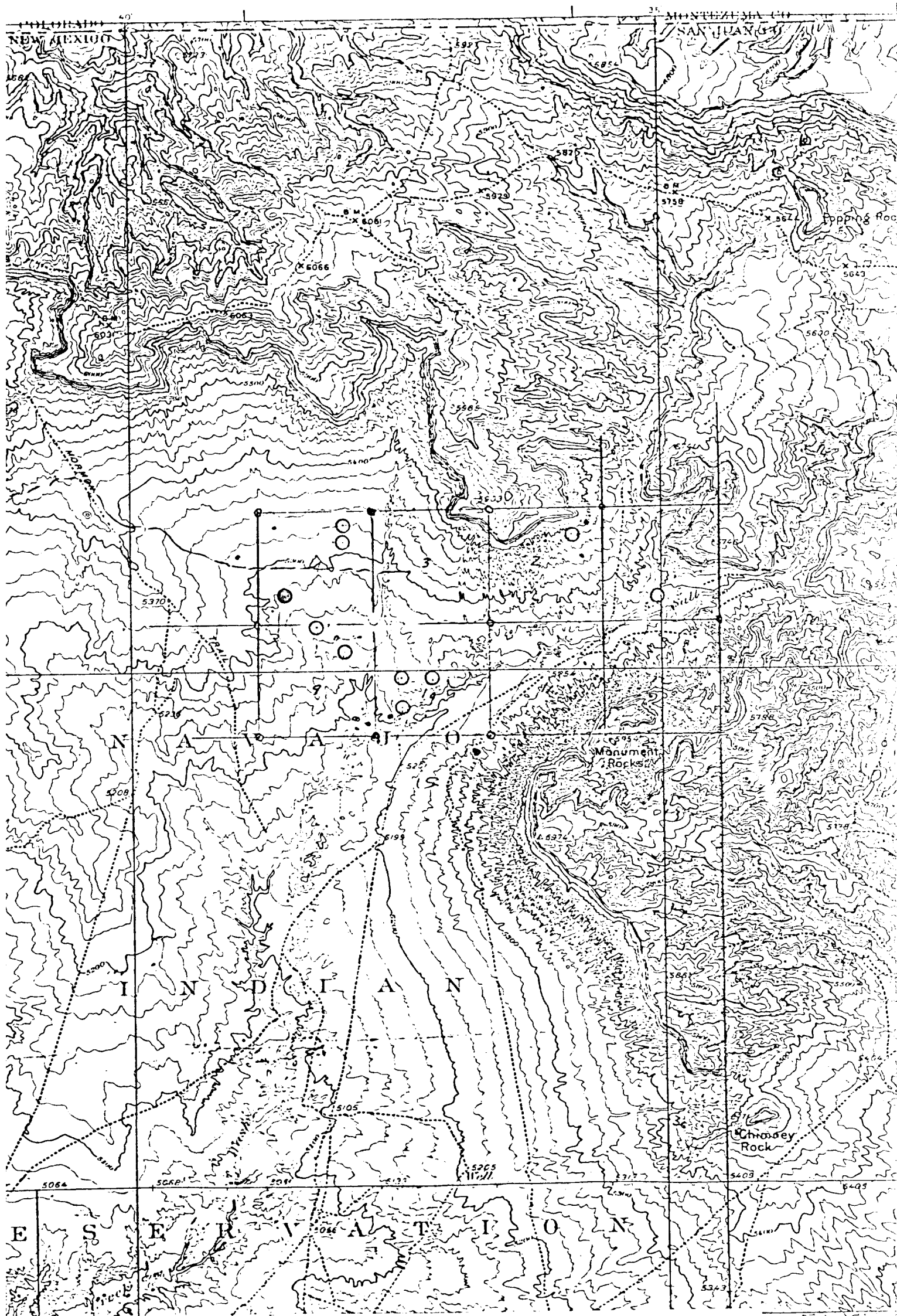
HORSESHOE GALLUP FIELD  
PROPOSED  
ROADS  
NAVAJO 5th & 6th REGTS



2



utility line



Vicinity Map for  
SOLAR PETROLEUM # Navajo "F" Well #150  
1330'FSL 1330'FWL Sec. 4-T31N-R17W  
SAN JUAN COUNTY, NEW MEXICO

November 20, 1974

M E M O R A N D U M

TO : Bruce Anderson, Division of Archaeology, National Park Service,  
P.O. Box 728, Santa Fe, New Mexico 87501

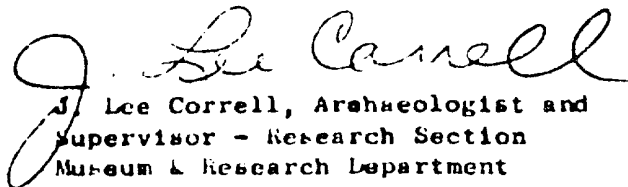
FROM : J. Lee Correll, Archaeologist and Supervisor of Research Section,  
Museum and Research Dept., The Navajo Tribe

SUBJECT: Archaeological Clearance - Associated Royalties Lease, 10 Miles  
North of Shiprock, New Mexico. Handled by Engineering & Production  
Service, Farmington, New Mexico

Pursuant to the request of Mr. J. D. Hicks of the Engineering & Production Service Company of Farmington, New Mexico, accompanied by him, I examined the area held under lease by Associated Royalties. The region is something of a big sink, relatively flat with gravel mounds about the periphery. The area is criss-crossed by existing access roads, and there are a number of operating oil wells. Those areas examined, all in Township 31 N, Range 17 W, were:

Section	3 - W $\frac{1}{2}$ only
"	4 - All of Section
"	5 - E $\frac{1}{2}$ only
"	9 - All except the SW $\frac{1}{4}$
"	10 - All of Section
"	11 - W $\frac{1}{2}$ only

Other than one Navajo family who maintains a dwelling within the area, no evidence of either prehistoric or historic occupancy was noted, and archaeological clearance is hereby recommended.

  
J. Lee Correll, Archaeologist and  
Supervisor - Research Section  
Museum & Research Department  
The Navajo Tribe

CC: ✓ J. D. Hicks  
Martin A. Link  
File  
Chrono