

30-015-24019

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

Storage

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

El Paso Natural Gas Co.

3. ADDRESS OF OPERATOR

1800 Wilco Bldg. - Midland, Texas 79701

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

At surface

1715' FNL, 572' FWL

At proposed prod. zone

Same

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

6 miles SW Whites City, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

NA

16. NO. OF ACRES IN LEASE

NA

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

NA

19. PROPOSED DEPTH

+7,050'

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

3750' GR

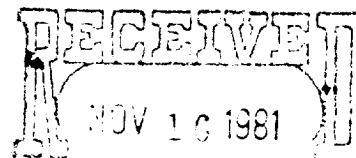
23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16"	13 3/8" Cond	29.3 H-40	40'	30 cu ft CIRCULATE
12 1/4"	9 5/8"	32.3 H-40	800'	630 cu ft to circ. CIRCULATE
8 1/2"	7"	23.0 H-80	7,050'	1341 cu ft

Project approved yb NMOCD Order No. R-6175-A.

Selectively perforate and treat the Morrow formation for gas storage.

A 3000 psi WP and 6000 psi test double gate BOP w/blind and pipe rams will
be used for blowout prevention.OR & GAS
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

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

Larry L. Mitchell

TITLE

Drilg. Engr.

DATE

11-11-81

(This space for Federal or State office use)

PERMIT NO.

APPROVED

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL

DEC 7 1981

TITLE

DATE

JAMES A. GILLHAM
DISTRICT SUPERVISOR

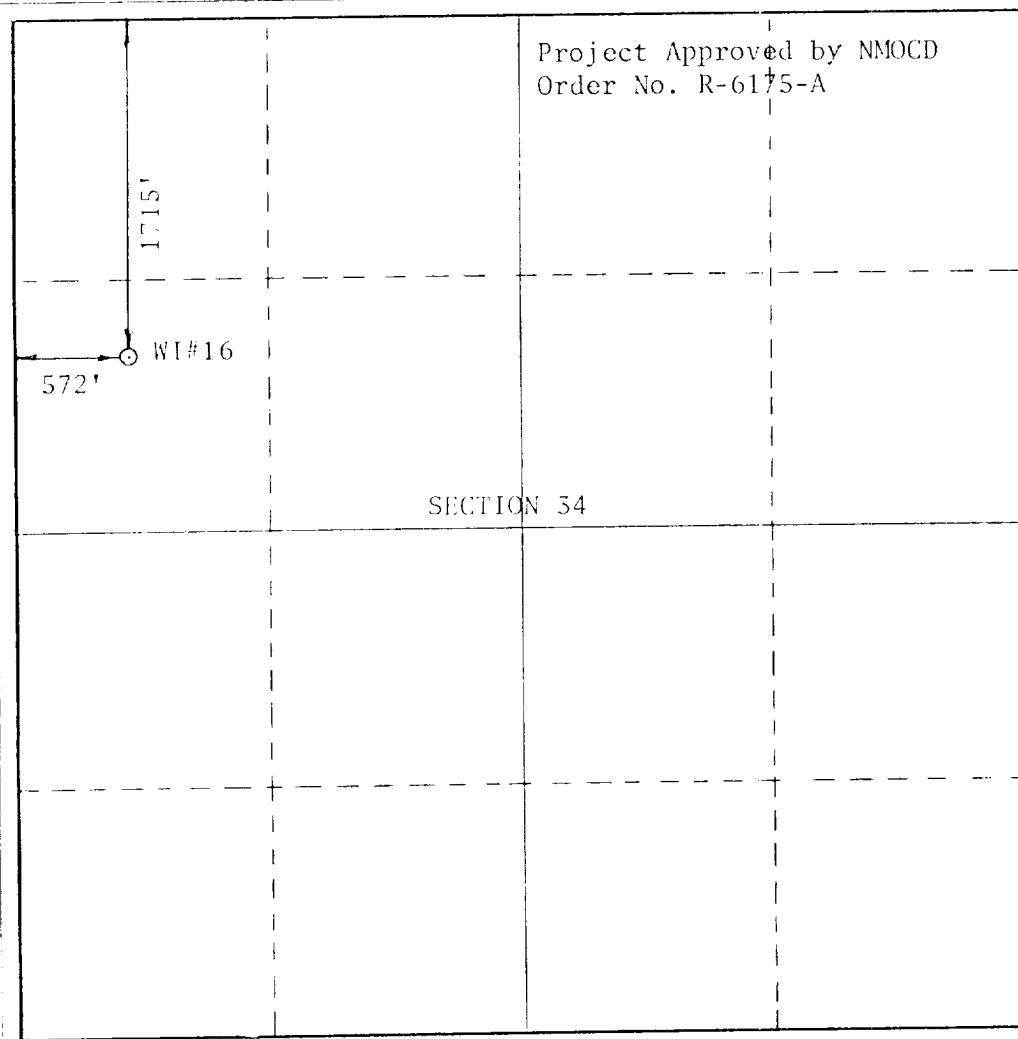
*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION

Supersedes G-128
Effective 1-1-81

All distances must be from the outer boundaries of the Section

Owner El Paso Natural Gas Co.			Lease Washington Ranch Storage Project		Well No. WI#16
Section E	Section 34	Range 25-S	Range 24-E	County Eddy County, New Mexico	
Actual Location of Well:					
1715		North	Line and	572	West
3750		Morrow	Pool	Washington Ranch	
				Dedicated Acreage N/A	
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below. NA 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). NA 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? NA ☐ 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, force-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.

Larry L. Mitchell
Larry L. Mitchell

H. L. Mitchell

Location

Drig. Engr.

Company

El Paso Natural Gas Co.

Date

11-11-81

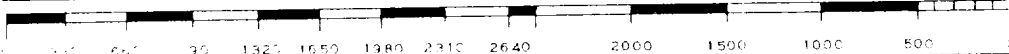
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

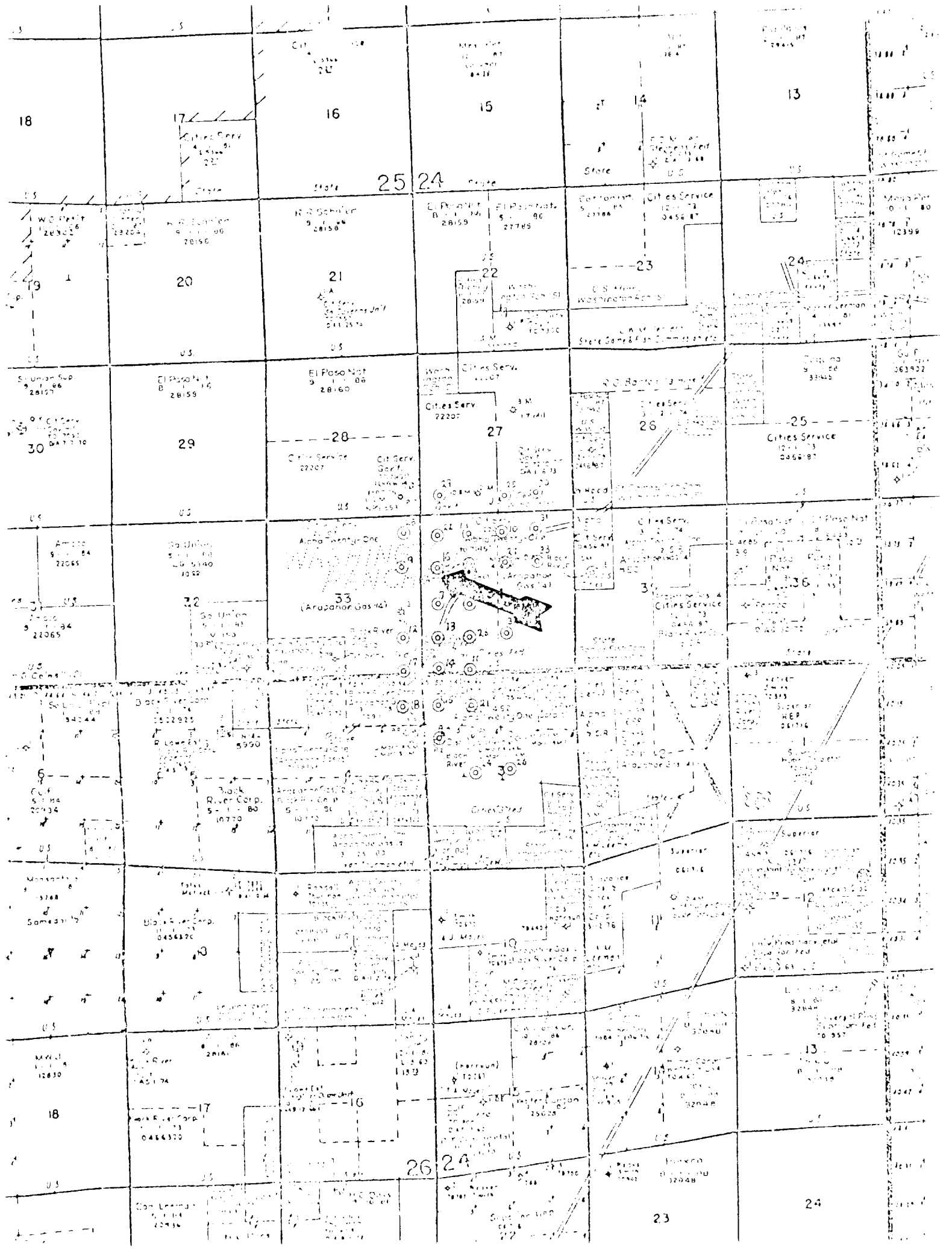
Date Surveyed
4-21-81

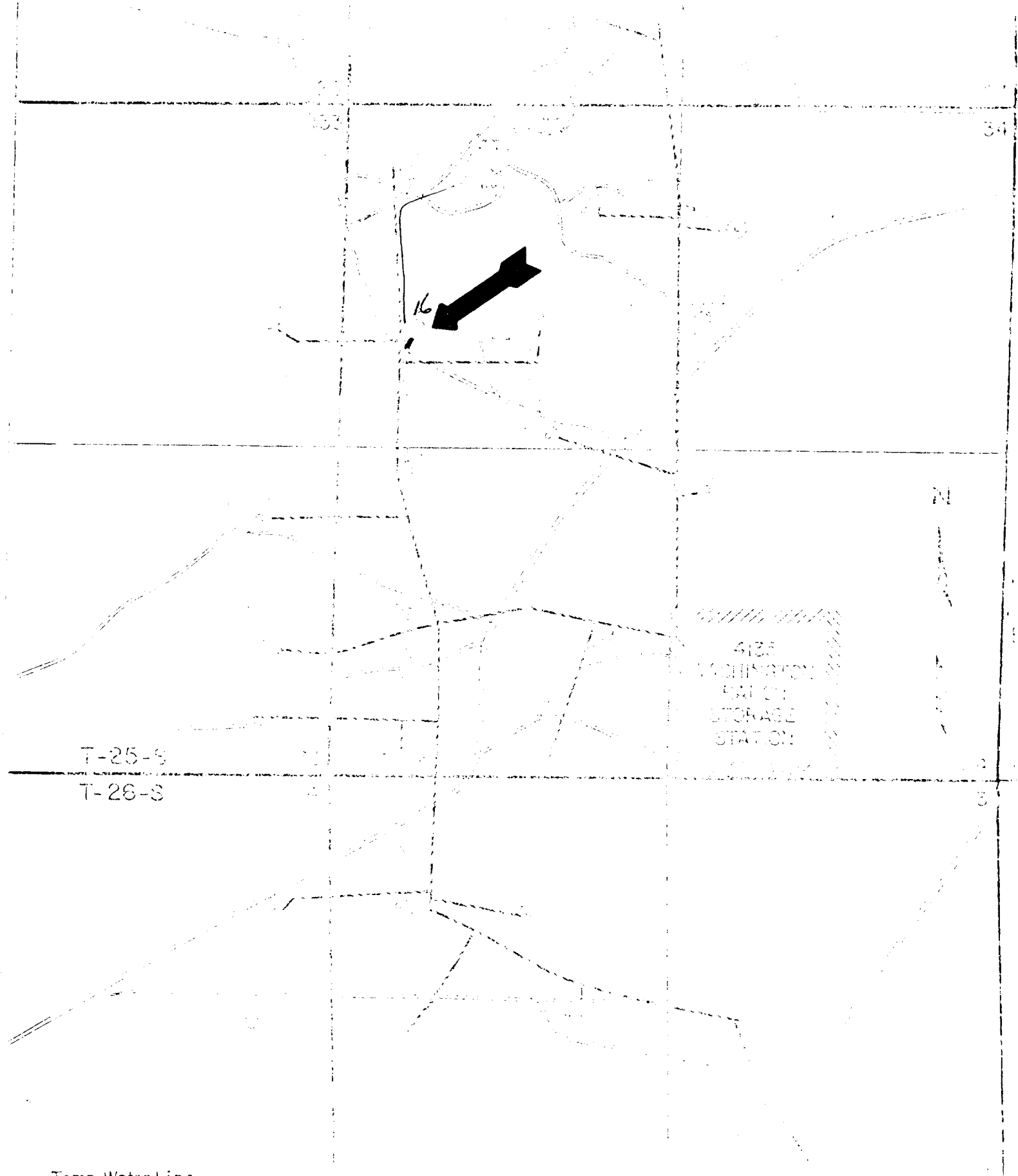
Registered Professional Engineer
and/or Land Surveyor

Emmett Montalvo

LS #1517







- Temp. Water Line
- Existing Water
- Proposed Project
- Proposed Pipeline
- Existing Wells
- Proposed Wells

OPERATIONS PLAN

Washington Ranch Storage Project W.I. Federal #16

I. Location: 1715' FNL & 572' FWL
Section 34, T-25-S, R-24-E
Eddy County, New Mexico

Field: Washington Ranch Elevation: 3750' GK

II. Geology:

A. Formation Tops:	Surface	Quaternary
	Castile	180
	Lamar	500
	Dela. Ss	575
	Cherry Cn	1,475
	Bone Spring	3,550
	Wolfcamp	5,550
	Strawn	5,635
	Atoka	6,950
	Morrow Ls	6,500
	Morrow Clastics	6,620
	T.D.	± 7,050

B. Logging Program: FDC-CNL
Dual Induction - SPL & SP & GK curves
BHC-Sonic

C. Coring: None

III. Drilling:

A. Mud Program: Fresh water non-dispersed mud from surface
to coring point.
Use low fluid loss non-dispersed mud from
coring point to T.D.

IV. Materials:

A. Casing Program:

<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CSG SIZE</u>	<u>WT & GRADE</u>
16"	40'	13 3/8"	29.3# H-40
12 1/4"	800'	9 5/8"	32.3# H-40
8 1/2"	7,050'	7"	23.0# N-80

B. Float Equipment:

13 3/8" conductor - None
 9 5/8" surface - Cement guide shoe, orifice fill insert float two jts off bottom, centralizers on jts 1, 3, 5, 7, 9, 11
 7" production - Cement guide shoe, float collar at top of first jt, one centralizer and four turbolizers per jt for first 16 jts, one centralizer every 3rd jt for 21 jts thereafter. Rough coat bottom 1,500' of casing.

C. Tubing:

7,000 ft. 2 7/8" 6.5# J-55

D. Wellhead Equipment:

Bradenhead, 9 5/8" OD slip-on X 11" 3000# W.P.
 @ 10" X 7" OD hanger
 Tbg Spool 11" 3000# W.P. X 7 1/16" 5000# W.P.
 with 6" X 2 7/8" OD hanger
 Upper Run: 3 1/8" 5000# W.P. master valve and production valves.

V. Cementing:

A. Conductor Casing (15" X 13 3/8"):

Cement in place with redi-mix aggregate cement (approx. 2 yds), WOC 12 hrs.

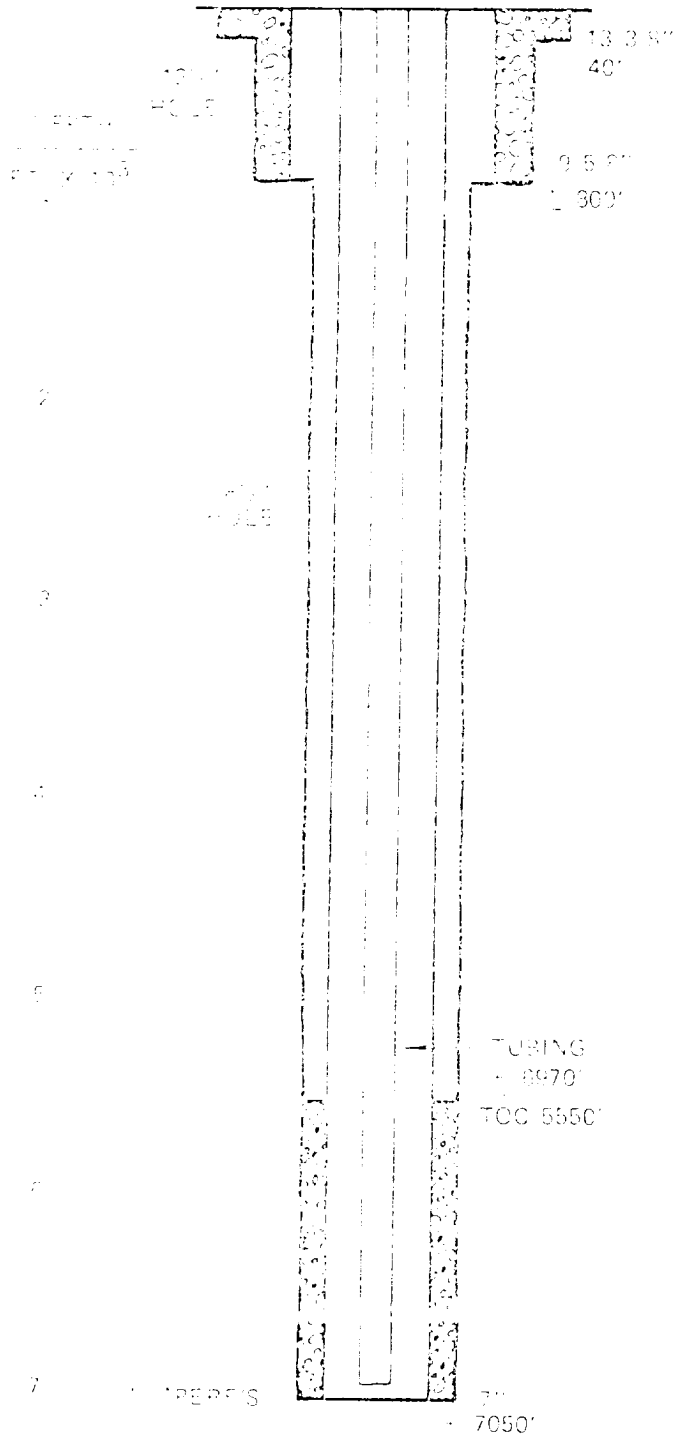
B. Surface Casing (12 1/4" X 9 5/8"):

Use 480 sx Class "C", 2% CaCl₂ and 5 lbs Kolite and 1/4# Celloflute per sack. (630 cu. ft., 150% excess to circulate to surface). WOC 8 hrs. Test csg to 800 psi for 30 min. before drilling plug.

C. Production Casing (8 1/2" X 7"):

Use caliper volume plus 20% to fill to approx. 5,550'. Cement with approx. 250 sx Class "H" plus 4% gel and 10% salt, 0.5% D65 and 10 lbs Kolite. WOC 18 hrs. Run temperature survey after 8 hrs.

WASHINGTON RANCH PROPOSED NEW I-W WELL



SIZE	GRADE	WT	BURST	COLLAPSE	DRIFT ID
13 3/8"	USED				
9 5/8"	J-40	32.3	2270	1430	6.945
7"	J-40*	23	4360	3270	6.241
2 3/8"	J-40	6.5	7080	7080	2.441

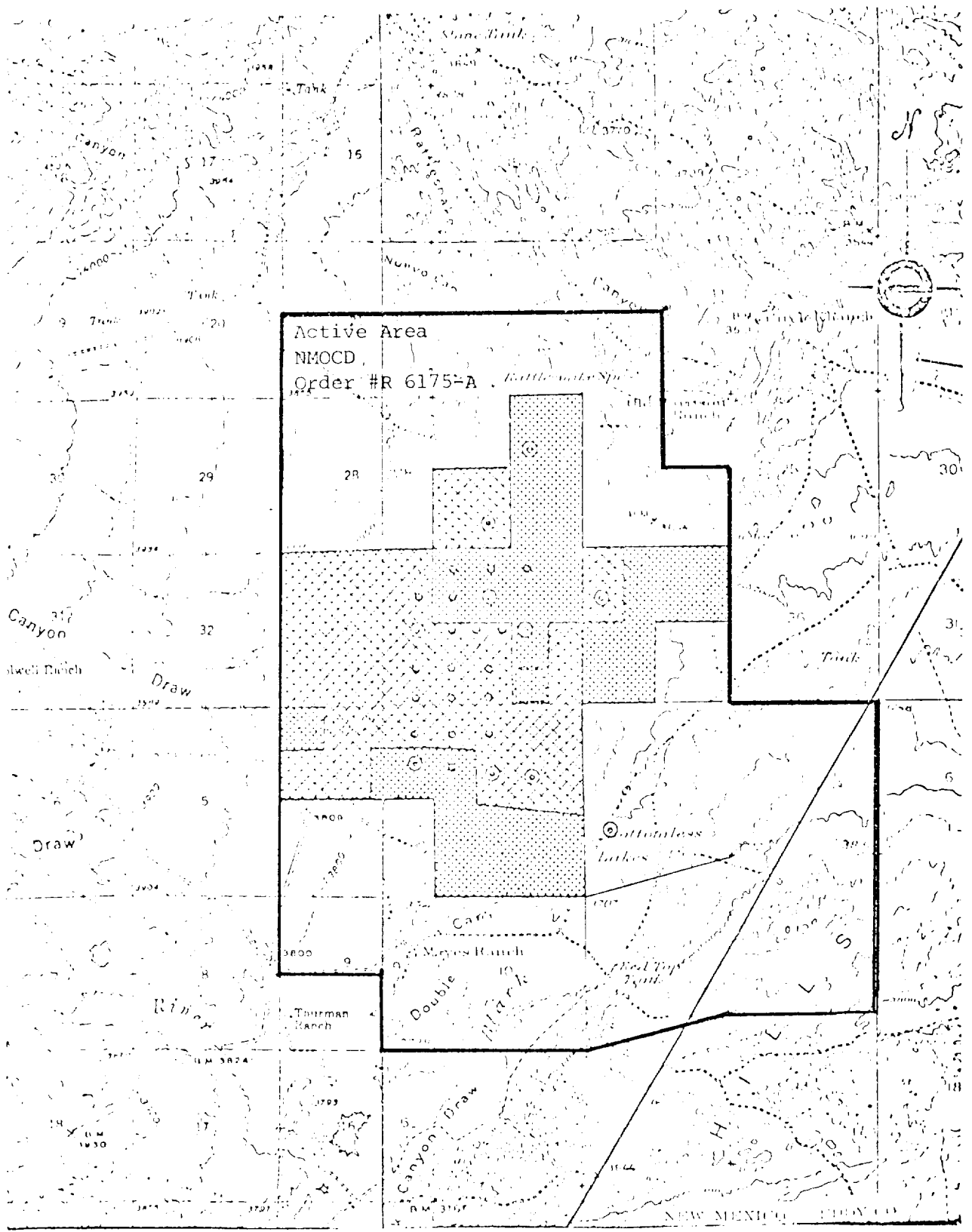
*11-50

T-25-S

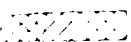
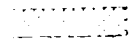
T-26-S

R-24-E

Active Area
NMOCD
Order #R 6175-A

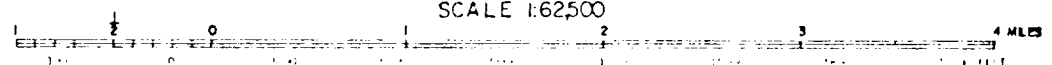


LEGEND

-  U.S. LAND
-  FEE LAND
-  EXISTING WELL
-  PROPOSED WELL
-  PROPOSED PLANT SITE

WASHINGTON RANCH STORAGE PROJECT

SCALE 1:62500



CONTOUR INTERVAL 25 FEET
ELEVATION IN FEET