

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

GREAT WESTERN DRILLING COMPANY

(Kenneth Smith)

RECEIVED 5-396-5538

3. ADDRESS OF OPERATOR

P. O. Box 1659, Midland, Texas 79702

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

At surface

660' FNL & 660' FWL of Section 22.

At proposed prod. zone

Same

O. C. D.

(Unit D)

ARTESIA, OFFICE

(NW 1/4 NW 1/4)

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

26 air miles north-northeast of Roswell, New Mexico

15. DISTANCE FROM PROPOSED*

660'

16. NO. OF ACRES IN LEASE

1759.06

17. NO. OF ACRES ASSIGNED

TO THIS WELL 160

18. DISTANCE FROM PROPOSED LOCATION*

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

3080'

19. PROPOSED DEPTH

4250' Abo

20. ROTARY OR CABLE TOOLS

Rotary

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

3933' GR

22. APPROX. DATE WORK WILL START*

June 26, 1989

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	10 3/4"	32.75#	920'	Sufficient to circulate
9 7/8 & 7 7/8"	4 1/2"	9.50#	4250'	300 sacks

9 7/8" hole will be reduced to 7 7/8" at ±1800' (200-300' below top of the Glorietta). Production casing will be cemented with sufficient cement to come back to a minimum of 600' above the Abo.

Abo pay zone will be selectively perforated and stimulated as needed for optimum production.

Attached are: 1. Well Location & Acreage Dedication Plat
2. Supplemental Drilling Data
3. Surface Use Plan

Gas for this acreage is not dedicated.

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

James A. Knaut

TITLE

Permit Agent

DATE June 9, 1989

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

S/Phil Kirk

TITLE

Area Manager

DATE

JUL 6 1989

APPROVAL OF THIS APPLICATION DOES NOT WARRANT OR
CERTIFY THAT THE APPLICANT HOLDS LEGAL OR EQUITABLE
TITLE TO THOSE RIGHTS IN THE SUBJECT LEASE WHICH WOULD
ENTITLE THE APPLICANT TO CONDUCT OPERATIONS THEREON.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

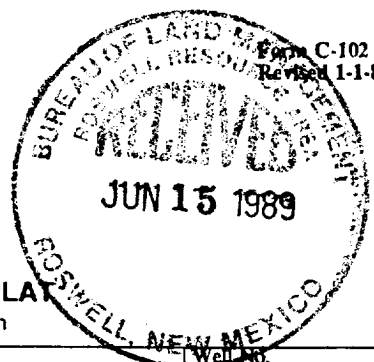
PLEASE BE ADVISED THAT THERE WILL BE NO EXCAVATION
OF FEDERALLY OWNED MINERAL MATERIAL FOR CONSTRUCTION
OF THE ACCESS ROAD OR PAD WITHOUT PAYMENT
IN ADVANCE

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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



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

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

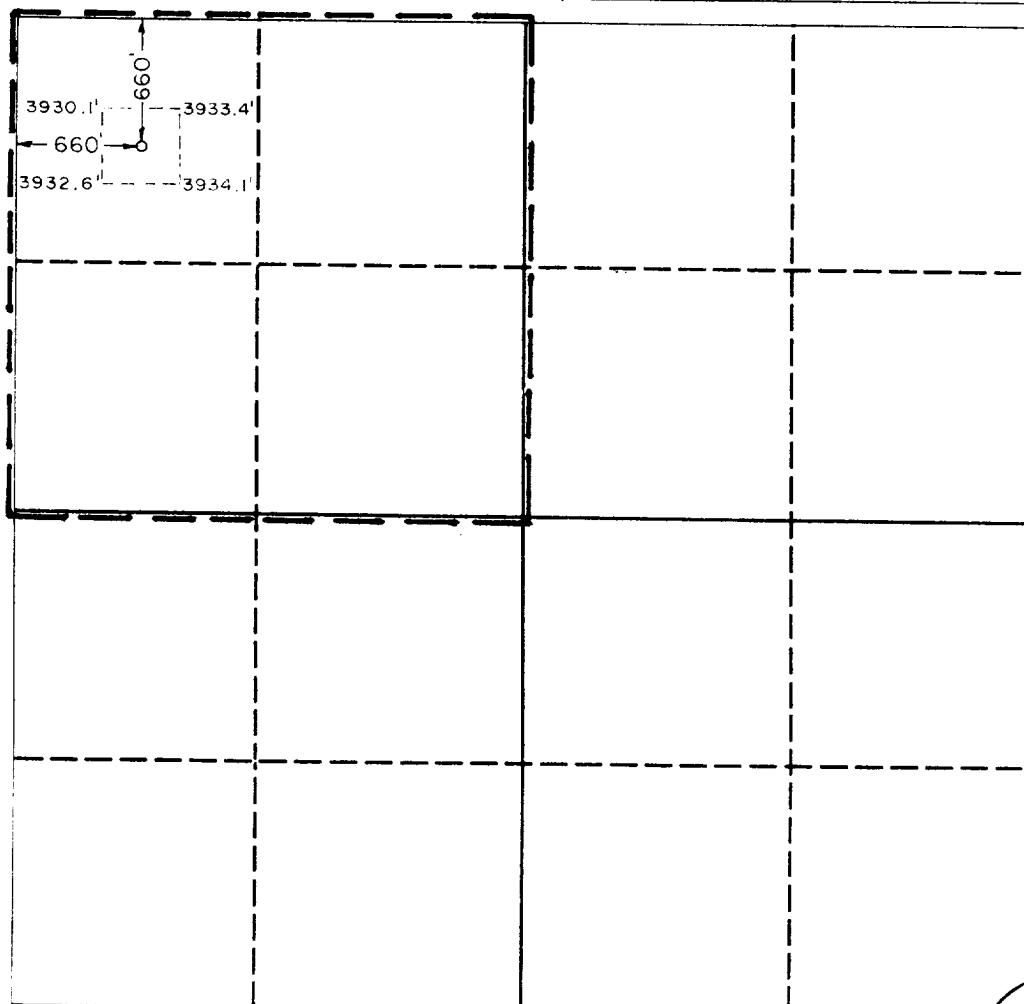
DISTRICT III
000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator GREAT WESTERN DRILLING COMPANY			Lease QUAIL FEDERAL		Well No. 4
Unit Letter D	Section 22	Township 6 South	Range 25 East	County Chaves	
Actual Footage Location of Well: 660 feet from the North line and 660 feet from the West line					
Ground level Elev. 3933.3		Producing Formation Abo	Pool Pecos Slope Abo	Dedicated Acreage: 160 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 _____
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.



OPERATOR CERTIFICATION

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

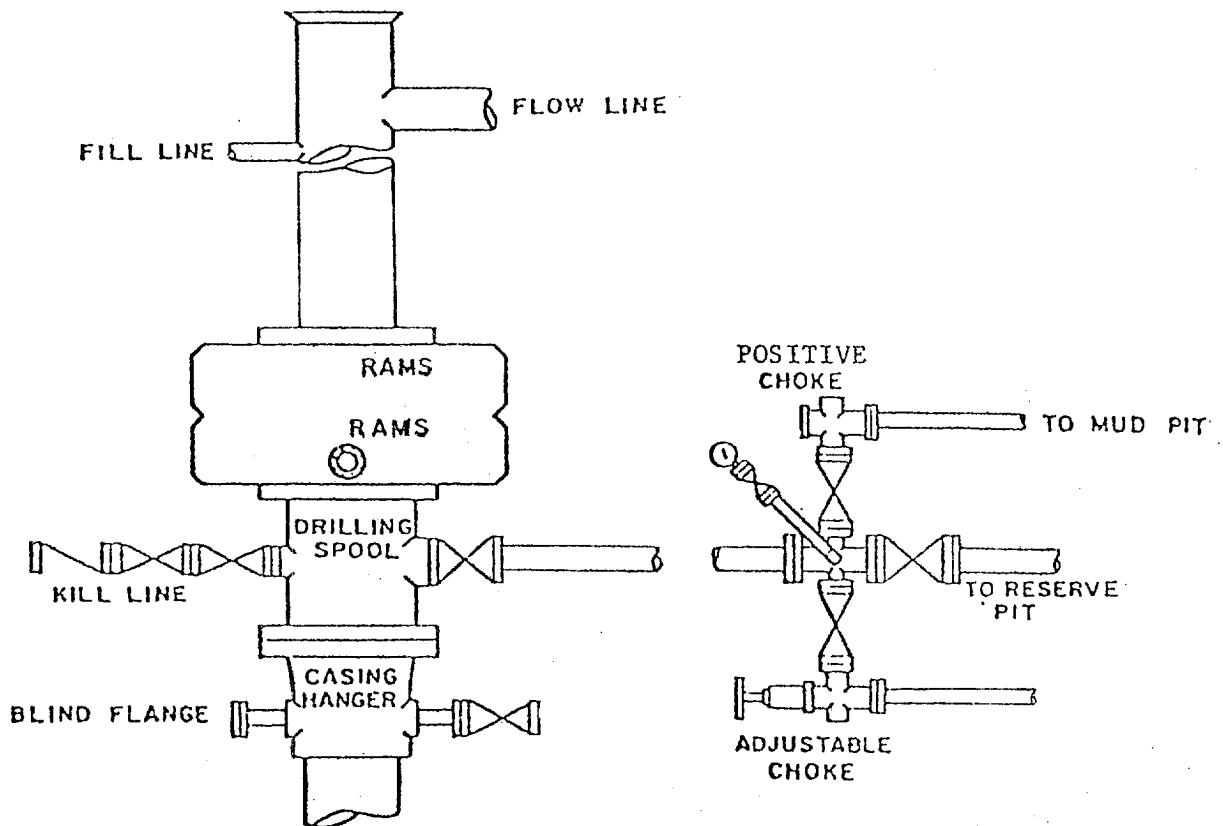
Signature <i>James A. Knauf</i>
Printed Name James A. Knauf
Position Permit Agent
Company GREAT WESTERN DRLG. CO.
Date May 31, 1989

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.

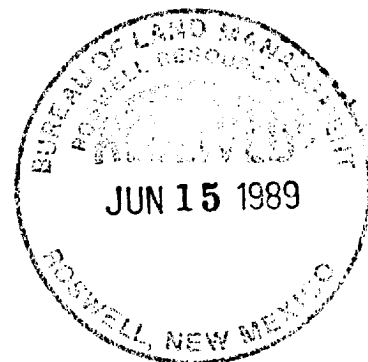
Date Surveyed May 24, 1989
Signature of Professional Surveyor <i>Ronald J. Eldson</i>
Certificate No. JOHN W. WEST 676 RONALD J. ELDSOY 3239

BLOWOUT PREVENTOR SKETCH



SUPPLEMENTAL DRILLING DATA

GREAT WESTERN DRILLING COMPANY
WELL #4 QUAIL FEDERAL
660' FNL & 660' FWL SEC. 22-6S-25E
CHAVES COUNTY, NEW MEXICO



1. SURFACE FORMATION: Artesia Group of Permian Age.

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

San Andres	595'	Tubb	3035'
Glorietta	1615'	Abo	3670'

3. ANTICIPATED POROSITY ZONES:

Water	50-150', 595-680'
Oil	1015-1230'
Gas	3710-4070'

4. CASING DESIGN:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>	<u>Condition</u>
10 3/4"	0 - 940'	32.75#	K-55	STC	New
4 1/2"	0 - 4250'	9.5 #	K-55	STC	New

5. SURFACE CONTROL EQUIPMENT: A double ram-type BOP will be used.

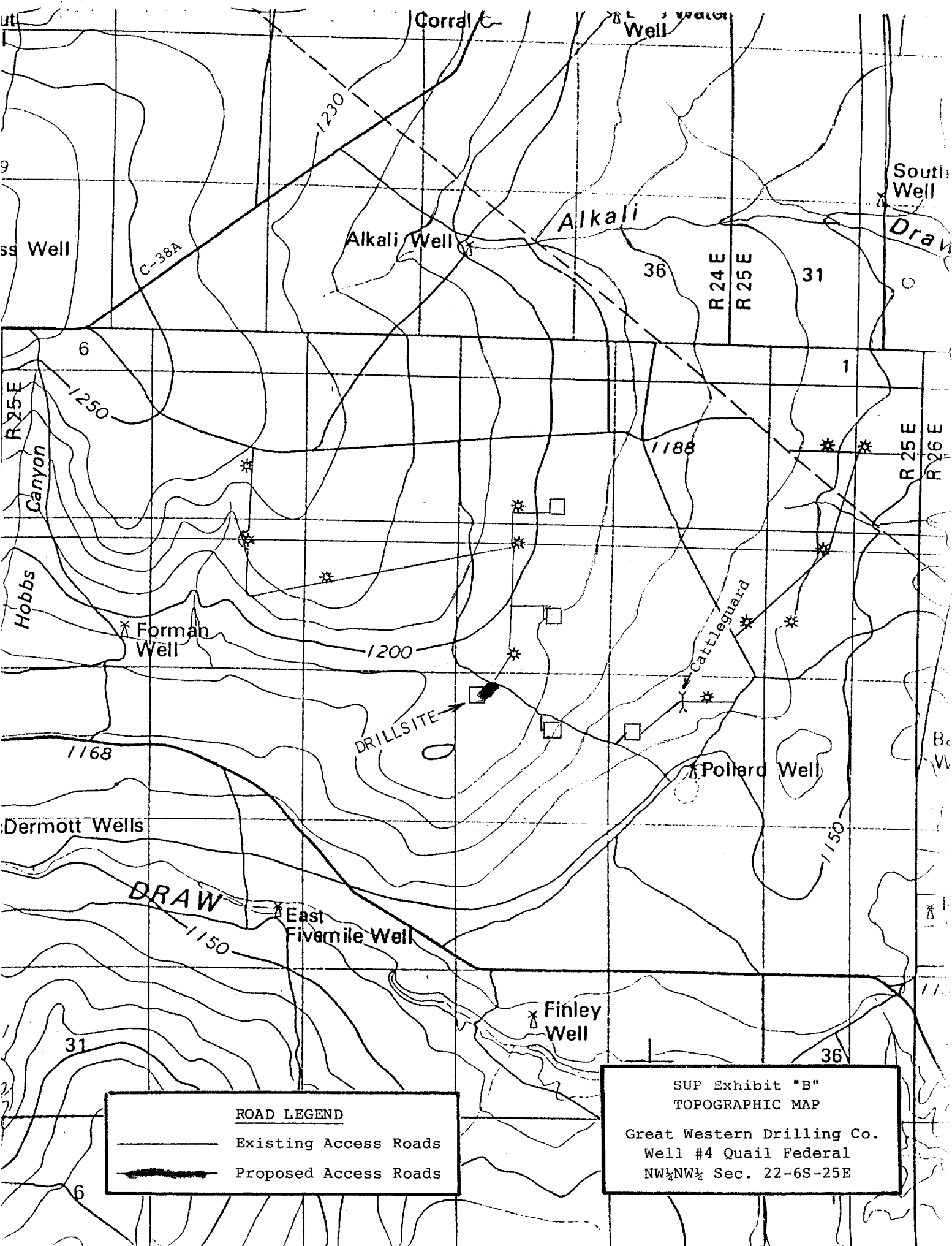
6. CIRCULATING MEDIUM: Fresh water mud conditioned as necessary for control of viscosity and water loss.

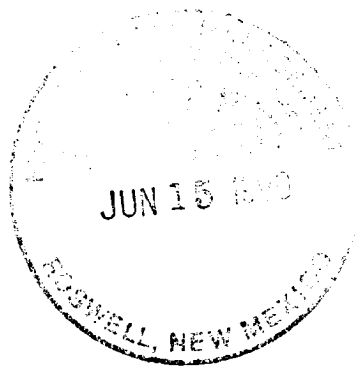
7. AUXILIARY EQUIPMENT: A full opening safety valve will be kept on rig floor in open position at all times.

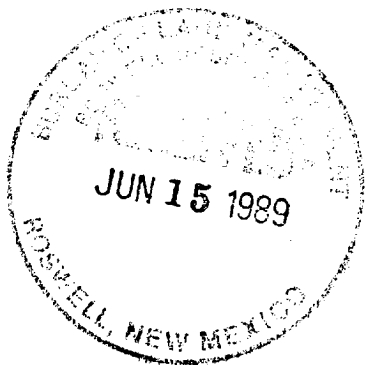
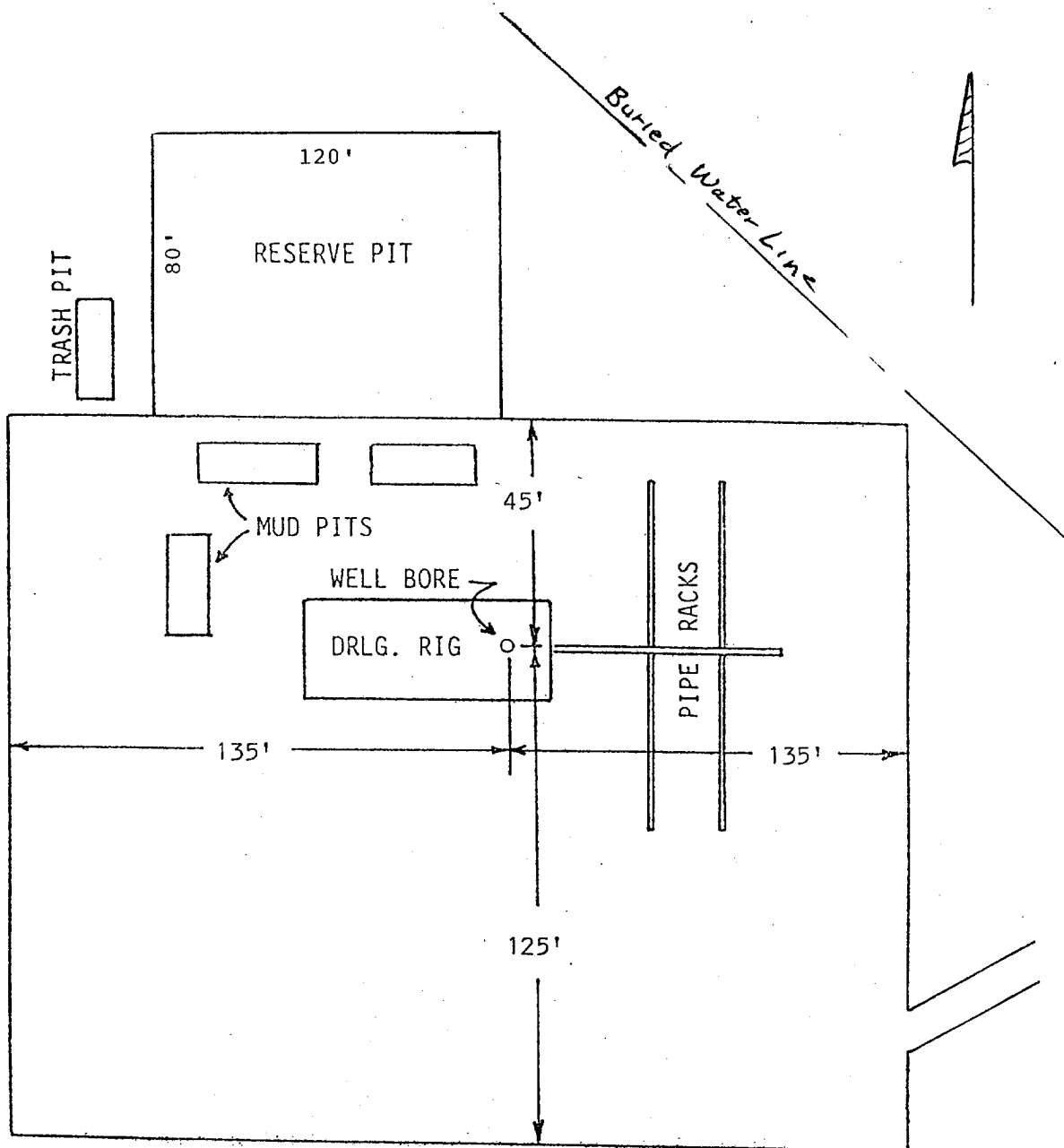
8. LOGGING PROGRAM: Compensated Neutron/Formation Density Log (0-TD).

9. ABNORMAL PRESSURES, TEMPERATURES OR GASES: None anticipated.

10. ANTICIPATED STARTING DATE: It is planned that operations will commence about June 26, 1989. Duration of drilling, testing, and completion operations should be 2 to 5 weeks.







SUP Exhibit "D"
SKETCH OF WELL PAD
Great Western Drilling Co.
Well #4 Quail Federal
NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 22-6S-25E