

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM - 18848	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---	
2. NAME OF OPERATOR Getty Oil Company		7. UNIT AGREEMENT NAME ---	
3. ADDRESS OF OPERATOR P. O. Box 730; Hobbs, New Mexico 88240		8. FARM OR LEASE NAME 306-18 Federal Sand 18	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface Unit letter C, 1980' FWL and 990' FNL, Sec. 18-23S-32E At proposed prod. zone		9. WELL NO. 21	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 37 miles northwest of Jal, New Mexico		10. FIELD AND POOL, OR WILDCAT Sand Dunes Bone Springs	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 990'		11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA 18-23S-32E	
16. NO. OF ACRES IN LEASE 140/194.13		12. COUNTY OR PARISH Lea	
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		13. STATE N.M.	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2850'		20. ROTARY OR CABLE TOOLS Rotary Tools	
19. PROPOSED DEPTH 9300'		22. APPROX. DATE WORK WILL START* Immediately	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3555' GR			

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
15"	11 3/4"	42#	1000'	900 sacks
10 5/8"	8 5/8"	24# & 32#	4650'	2250 sacks
7 7/8"	5 1/2"	15.5# & 17#	9300'	900 sacks

It is proposed to drill the subject well from surface to a total depth of approximately 9300' to further develop the Bone Springs formation which was productive in well no. 1. The pump and plug process will be used for cementing all strings of casing and cement will be circulated to the surface on the 11 3/4" and the 8 5/8" casing. The 5 1/2" casing will be perforated as indicated by electric logs opposite the Bone Spring formation.

The drilling fluid will be brine water with sufficient gel to condition the hole for logging and running casing to approximately 9300'.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Unless Drilling Operations have
Commenced, this drilling approval
Expires 10-26-77

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 Michael C. Gentry TITLE Area Superintendent DATE July 8, 1977

(This space for Federal or State office use)

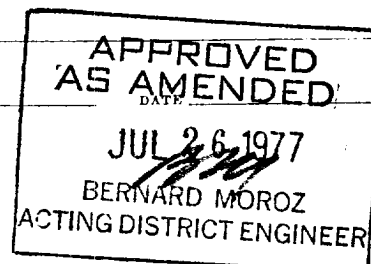
PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

"APPROVAL TO FLARE GRANTED
WHILE DRILLING AND TESTING."

*See Instructions On Reverse Side



NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the corner of the Section

Getty Oil Co.

Federal Sand 18 SDE-18-Federal

2-1

C

18

23 South

32 East

Lea

1980

West

990

North

3555.0

Bone Springs

UNDESIGNATED

Sand Dunes Bone Springs

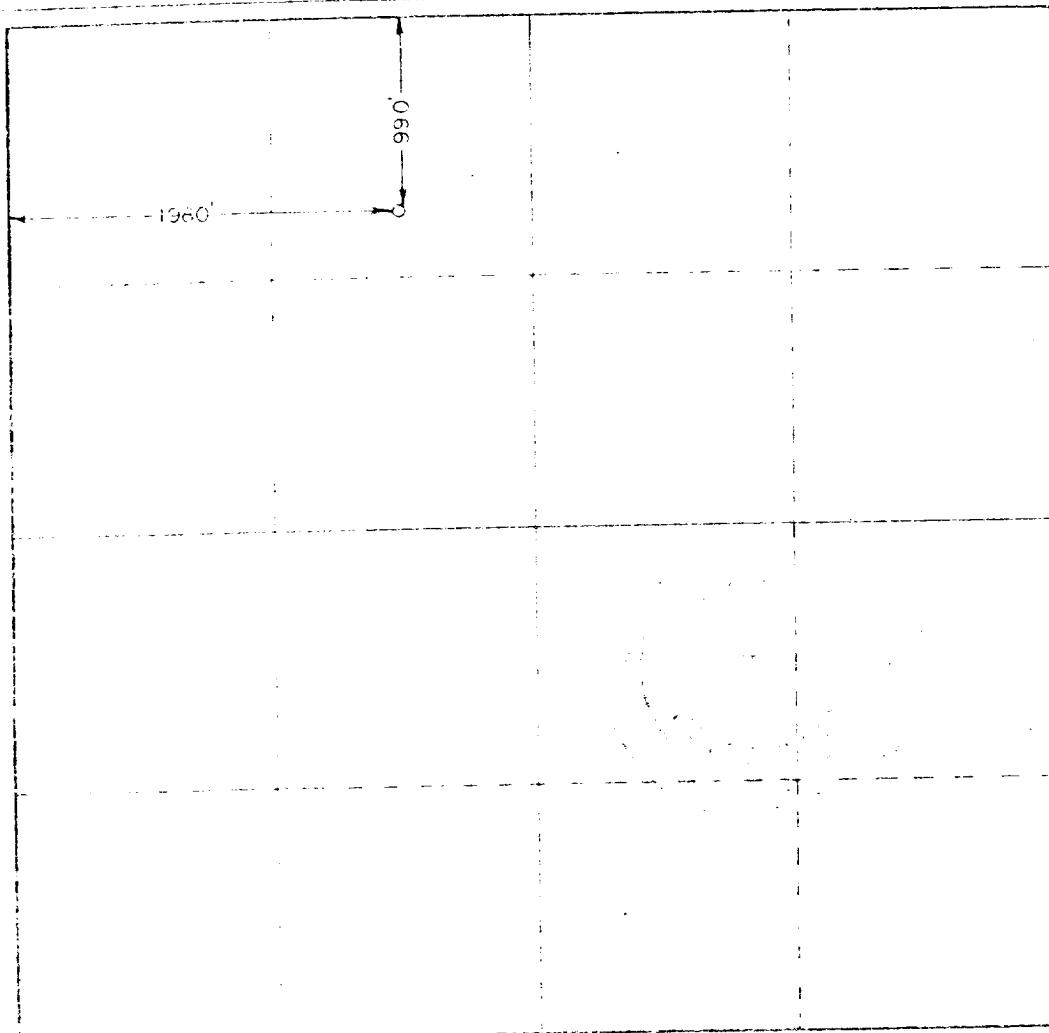
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- Outline the acreage dedicated to the subject well by colored pencil or lachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communization, 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 communization, 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.

John W. West

Area Superintendent

Getty Oil Company

July 8, 1977

I hereby certify that the well location shown on this plat was plotted from the 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 of Survey

7-2-77

Registered Professional Surveyor

John W. West

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Getty Oil Company

P. O. Box 730; Hobbs, New Mexico 88240

North American Exploration and Production Division

ADDITIONAL INFORMATION FOR "APPLICATION FOR PERMIT TO DRILL"

GETTY OIL COMPANY

FEDERAL SANDS "18" WELL NO. 2
SOE-18- Federal Well No. 1

- (1) The geologic name of the surface formation is OGALLALA.
- (2) The estimated tops of important geologic markers are as follows:

<u>Formation</u>	<u>Depth</u>	<u>Depth</u>
	From Surface	SUBSEA (3575' KB)
Rustler	985'	+ 2590'
Delaware	4600'	- 1025'
Cherry Canyon	5485'	- 1910'
Brushy Canyon	6775'	- 3200'
Bone Springs	8525'	- 4950'
Bone Springs Pay	8625'	- 5050'

- (3) The estimated depths at which anticipated water and oil could be encountered are

<u>Depth</u>	
100' - 1000'	Possible small volume of fresh water
4600' - 5485'	(Delaware) Possible oil
5485' - 8525'	(Cherry Canyon - Brushy Canyon) Possible Oil
8525' - 9300'	(Bone Springs) Oil

- (4) The proposed casing program - see attached "application for permit to drill".
- (5) The minimum specifications for pressure control equipment to be used - see Figure I. The BOP stack will be tested to 5000 psi.
- (6) The drilling fluid will consist of brine with sufficient gel to condition hole for logging and running casing. Since the Federal Sand 18 No. 1, a 2850' south-east offset, did not experience any pressure requiring additional mud weight, none is deemed necessary for well no. 1.
- (7) The auxiliary equipment to be used is as follows:
- (1) Kelly cocks
 - (2) Monitoring equipment on the mud system
 - (3) Sub on the floor with a full opening valve to be stabbed into drill pipe when the Kelly is not in the string.

- (8) There will be no coring or drill stem tests. The logging program is as follows:

<u>Type Log</u>	<u>Interval</u>
SONIC	4650' - 9300'
Compensated Neutron-Form. Density	4650' - 9300'
Dual Lateral	4650' - 9300'

1-12-1977

1-12-1977

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HOBBS, N. M.

- (9) No anticipated abnormal pressures or temperatures or hydrogen sulfide gas are expected to be encountered.
- (10) The starting date is immediately. It is anticipated that this well should be drilled and completed in 35 days.

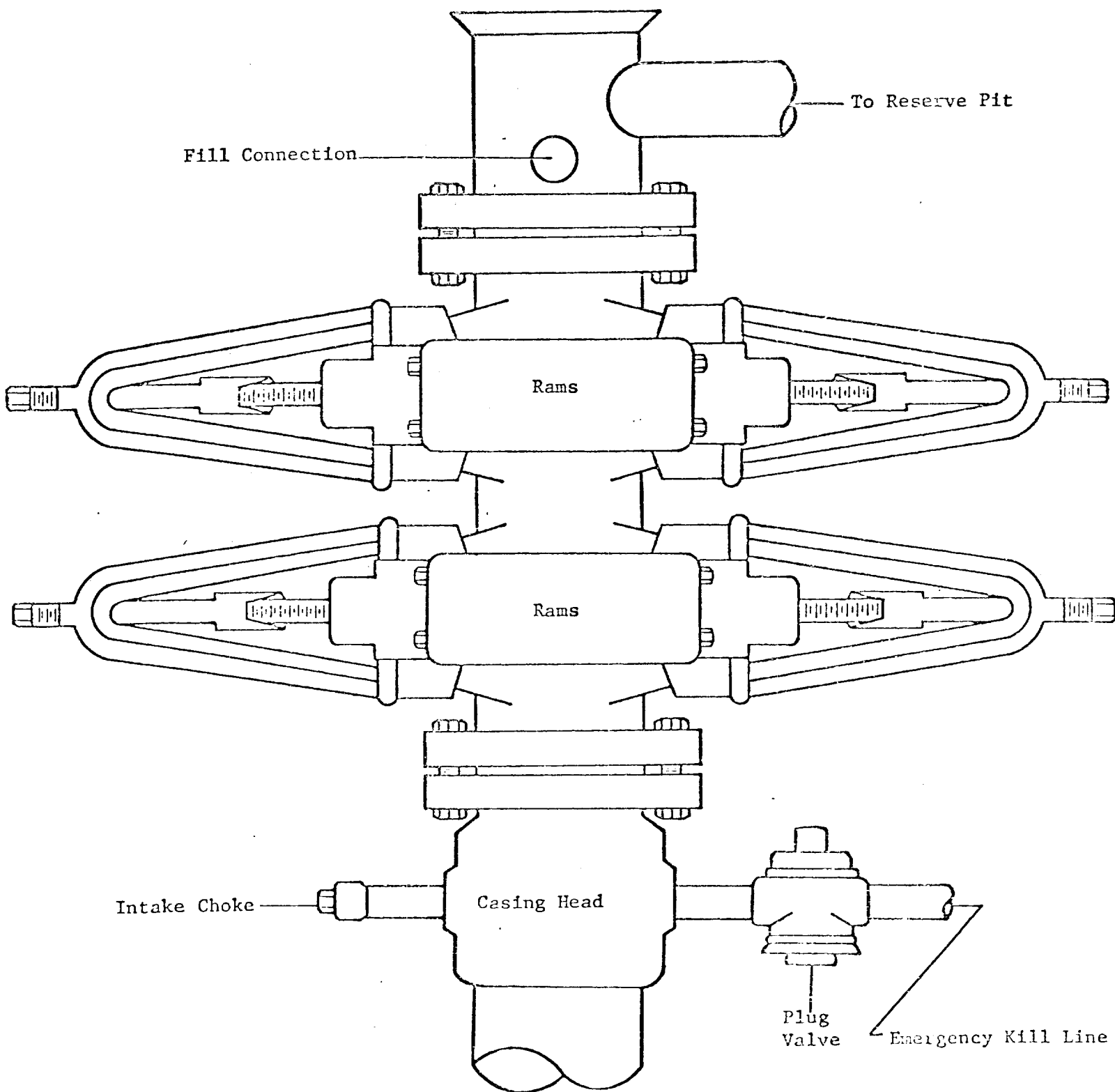


FIGURE I
 GETTY OIL COMPANY
 FEDERAL SAND "10" WELL NO. 21
 5000 PSI WORKING PRESSURE
 DRILLING CONTROL HOOK-UP



Getty Oil Company

P. O. Box 730; Hobbs, New Mexico 88240

North American Exploration and Production Division

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

GETTY OIL COMPANY

FEDERAL SAND "18" SAE-18-Federal

WELL NO. 21

1980' FWL and 990' FNL, Sec. 18-23S-32E

Lea County, New Mexico

Lease New Mexico 18848

This plan is submitted with our application for Permit to Drill the above well. The purpose of the plan is to describe the location of the well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

(1) Existing Roads:

- A. Exhibit "A" is a highway map showing the location of the proposed well. The location is as follows: Take highway 18 from Hobbs to Jal. From Jal go west on highway 128 for approximately 35.5 miles. Turn right through the first cattleguard approximately 1 mile past the Lea and Eddy County line. Go 3.5 miles and turn right on a caliche road. Go 1.3 miles and turn left into the location for the Federal Sand "18" Well No. 21.
SAE-18-Federal
- B. Exhibit "B" is a plat showing the existing roads within a radius of 1 mile of the proposed well and the planned access road to the location.

(2) Planned Access Road:

- A. Length and Width: 990' of new road will be required. This road will be constructed from the existing road north to the well site as shown on Exhibit "B". The new road will be 12 feet wide.
- B. Surfacing Material: The new road will consist of six inches of caliche which will be watered, compacted, and graded.
- C. Maximum Grade: 3 per cent
- D. Turnouts: None. Can use well no. 12 location which is 2640' east for this purpose.
- E. Drainage Design: New road will have a drop of 6 inches from center line on each side.

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- F. Culverts: None needed.
- G. Cuts and Fills: None required.
- H. Gates, Cattleguards: None required.

(3) Location of Existing Wells:

- A. Exhibit "B" shows wells within a one mile radius of the proposed well.

(4) Location of Existing Facilities:

- A. Exhibit "C" shows the tank battery and flow line for well no. 1. The produced water goes from the heater treater to a 90 BBL. tank and is then trucked off the lease.
- B. If the proposed well is productive, the ~~new flow line to the existing~~ tank battery will be as shown in Exhibit "C". *ON THE WELL PAD*

(5) Type of Water Supply:

- A. Water for drilling will be trucked to the well site over the existing and proposed roads shown on Exhibits "A" and "C".

(6) Source of Construction Materials:

- A. Caliche for surfacing the road and the well pad will be obtained from the pit shown in Exhibit "B". This pit is located on Federal Land. Approval to open this pit was previously obtained from the BLM in 1975 for use in surfacing roads and well site for well no. 1. *Fed Land*

(7) Methods of Handling Waste Disposal:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash will be buried in a trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. The location of the trash pit is shown on Exhibit "D".
- F. All trash and debris will be buried or removed from the well site within 30 days after finishing completion operations.

(8) Ancillary Facilities:

- A. None required.

(9) Wellsite Layout:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, and major rig components.
- B. Only levelling of the well site will be required. No significant cuts and fills will be necessary.
- C. The reserve pit will be plastic lined.
- D. The pad and pit area has been staked and flagged.

(10) Plans for Restoration of the Surface:

- A. After completion of operations, all equipment and other material not needed for operations will be removed. Pits will be filled and location cleaned of all trash and junk.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. Any special rehabilitation and revegetation requirements of the surface management agency will be complied with and accomplished as soon as possible. All pits will be filled and levelled within 90 days of completion or abandonment of the well.

(11) Other Information:

- A. Topography: The land surface is arid and gently rolling. From an elevation of 3555' at the well site, the surface slopes toward the northwest at above 50' per mile.
- B. Soil: The topsoil is sandy.
- C. Flora and Fauna: This area is sparsely covered by sage brush and native grass. Wildlife in the area is mainly rabbits, rattlesnakes, and coyotes.
- D. Ponds and Streams: There are no rivers, streams, lakes or ponds in the area.
- E. Residences and Other Structures: The nearest windmill water well is 2 miles east. There are no residences in the area.
- F. Archeological, Historical, and Cultural Sites: None observed in the area.
- G. Land Use: Grazing.
- H. Surface Ownership: Well site and proposed new road are on Federal Surface

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(12) Operator's Representative:

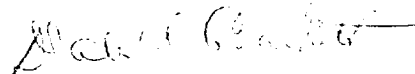
The field representative responsible for assuring compliance with the approved surface use and operations plan is:

Dale R. Crockett
P. O. Box 730
Hobbs, New Mexico 88240
Office Phone: 505-397-3571
Home Phone: 505-393-6326

(13) Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Getty Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

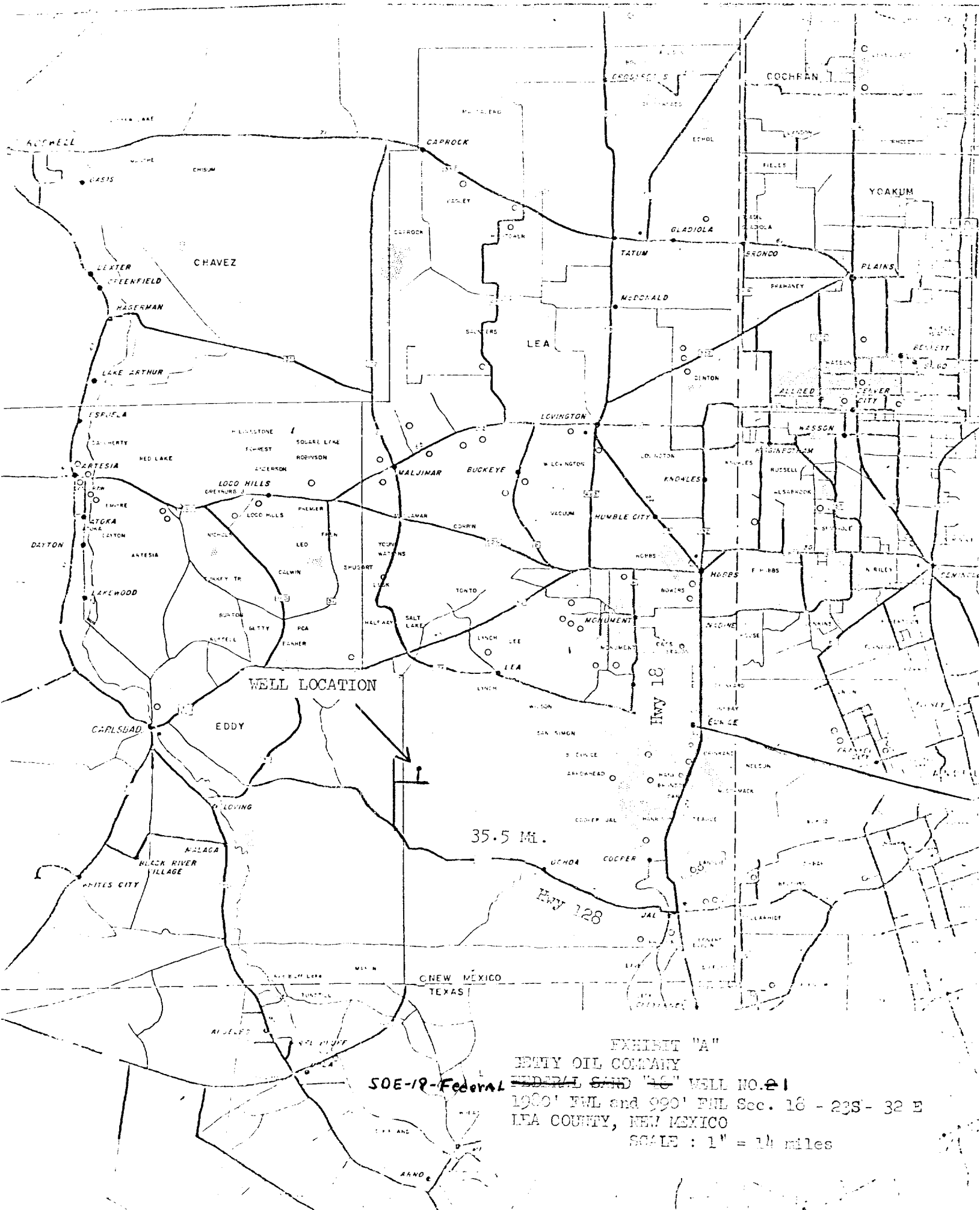
July 8, 1977


Dale R. Crockett
Area Superintendent

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50E-12-Federal

EXHIBIT "A"
 BETTY OIL COMPANY
 FEDERAL LAND "16" WELL NO. 21
 1900' FWL and 990' FWL Sec. 18 - 23S - 32 E
 LEA COUNTY, NEW MEXICO
 SCALE: 1" = 14 miles

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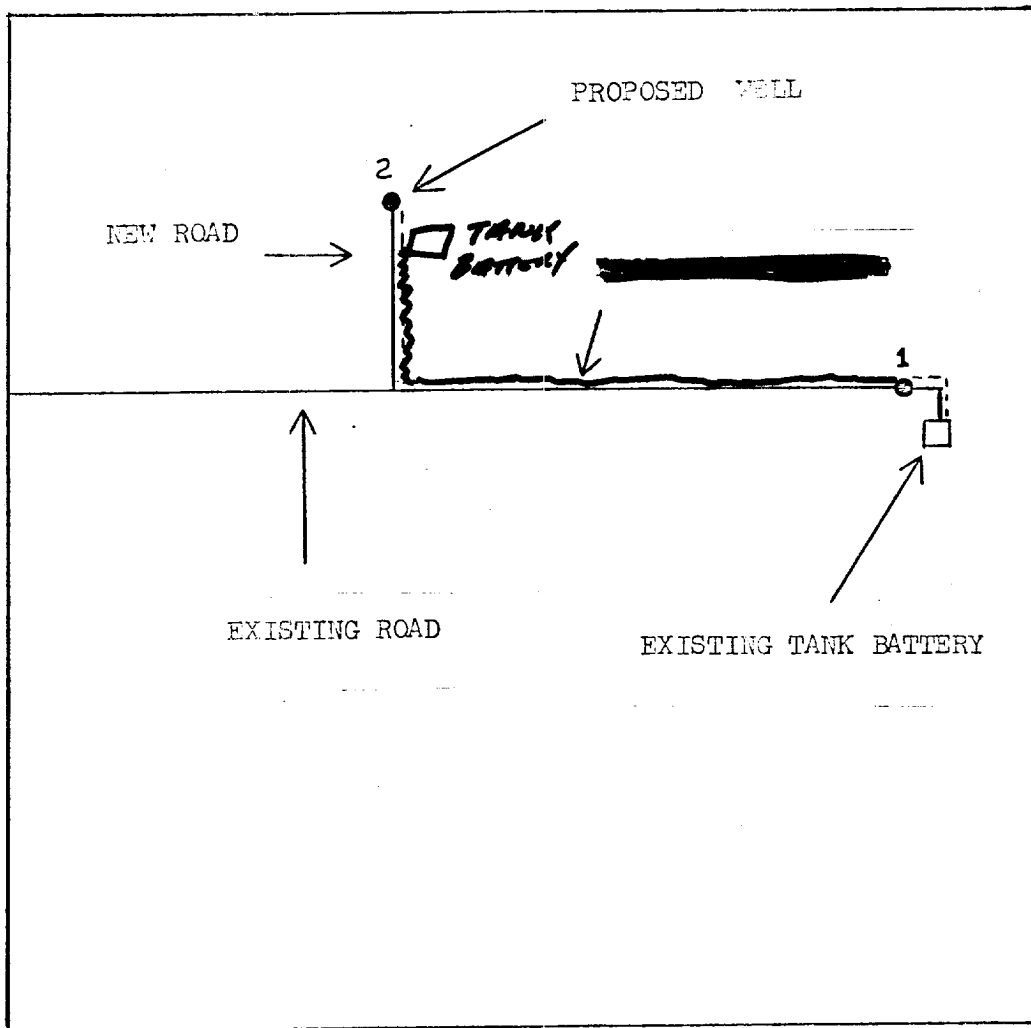


EXHIBIT "C"
 GETTY OIL COMPANY
 SOE-18-Federal FEDERAL SAND "18" WELL NO. 21
 1980' FWL and 990' FNL SEC. 18 - 23S - 32E
 LEA COUNTY, NEW MEXICO
 SCALE: 1"= 1000'

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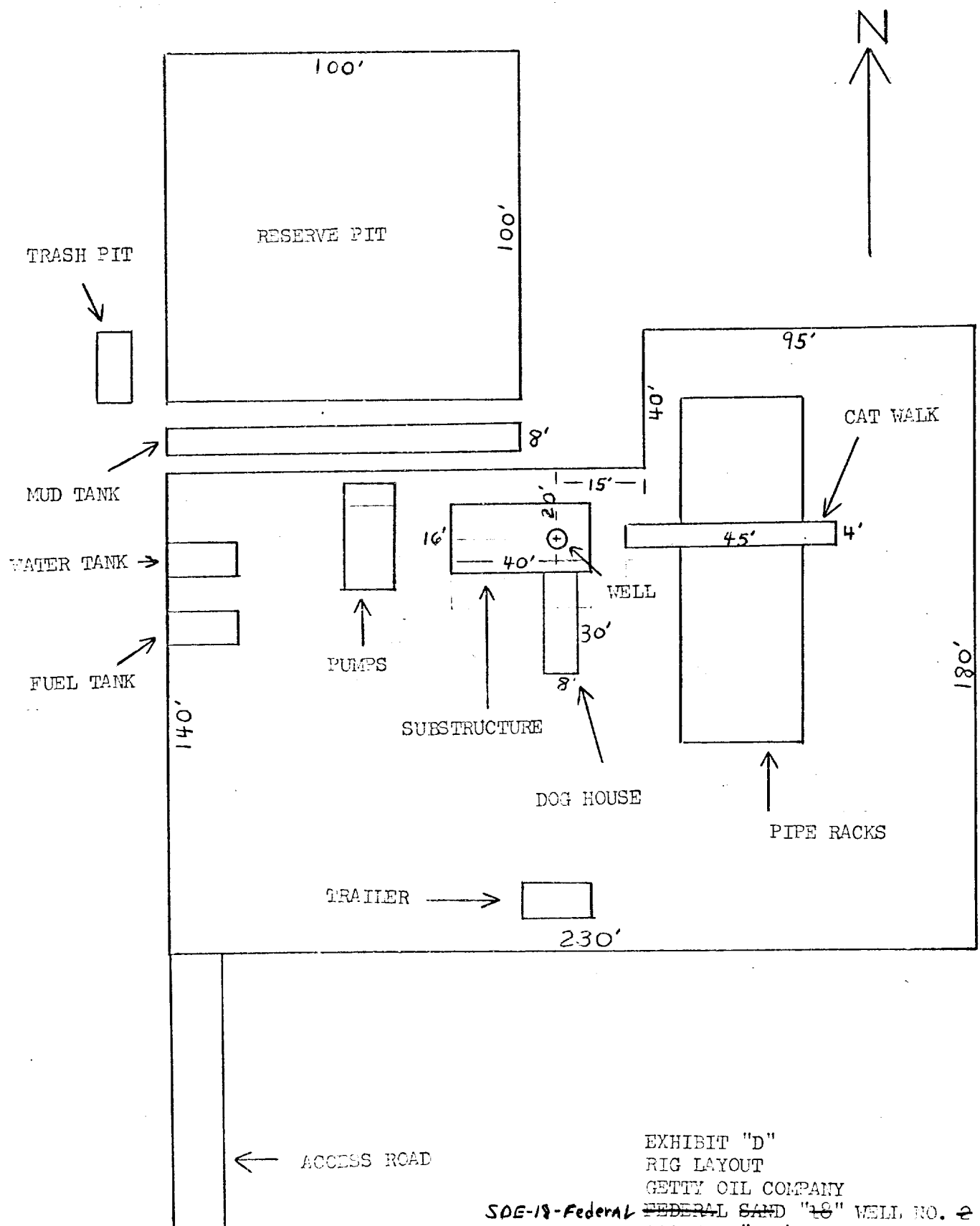


EXHIBIT "D"

RIG LAYOUT

GETTY OIL COMPANY

SDE-18-Federal FEDERAL SAND "18" WELL NO. 21

SCALE: 1" = 40'

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