



UNITED STATES
Conservation Division
DEPARTMENT OF THE INTERIOR
P. O. Box 26124
Albuquerque, New Mexico 87125
REGIONAL SURVEY

Cotton Petroleum Corporation
420 Wall Towers West
Midland, Texas 79701

Gentlemen:

Your Application for Permit to Drill well No.1 Federal 21 in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 19 S., R. 33 E., Lea County, New Mexico, lease NM 13835-A, to a depth of 3800 feet to test the Seven Rivers formation in the Oil Potash area is hereby approved, as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the District Engineer, Geological Survey, Hobbs, New Mexico, in sufficient time for a representative to witness all cementing operations.

Sincerely yours,

Enclosure

GENE F. DANIEL
Acting Area Oil and Gas Supervisor

cc: Conservation Manager, Denver
Area Mining Supervisor, Albuquerque (2)
NMOCC, Hobbs (2) (w/2 copies Notice)
Roswell Area Office (2)
Hobbs District Office

THE UNIVERSITY OF CHICAGO
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NO.

NM 13835-A

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

COTTON PETROLEUM CORPORATION

3. ADDRESS OF OPERATOR

420 Wall Towers West, Midland, Texas, 79701

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

At surface 660' FN&EL, Sec. 21, 19-S, 33-E, Lea County, NM

At proposed prod. zone

7-Rivers

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

26 mi. West of Hobbs

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

660'

16. NO. OF ACRES IN LEASE

80

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

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

None

19. PROPOSED DEPTH

3800'

20. ROTARY OR CABLE TOOLS

Rotary

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

3637 GR

22. APPROX. DATE WORK WILL START*

Feb. 15, 1978

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	42#	350	250 sx. Circ
7 7/8	4 1/2	Mixed wts. K-55 10.5#	3800	650 sx. Circ

1. Drill 12 1/4" hole to 350' and set 350' of 8 5/8" casing. Cement with 250 sx. circulated to surface.
2. Drill out with 7 7/8" bit to 3800'. If logs and testing warrant, run 4 1/2" casing to TD cemented with 650 sx. circulated to surface.
3. Attached is schematic of contractor's BOP equipment.

"PERMIT TO DRILL GRANTED
WHILE DRILLING AND TESTING."SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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

Div. Production manager

DATE

1-6-78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-102
Supersedes O-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator Cotton Petroleum Corp.			Lease Fed. 21		Well No. 1
Unit Letter A	Section 21	Township 19 South	Range 33 East	County Lea	
Actual Well Location of Well: 660 feet from the North line and 660 feet from the East line					
Ground Level Elev. 3637.2	Producing Formation Seven Rivers		Pool UNDESIGNATED Wildcat	Dedicated Acreage 40	

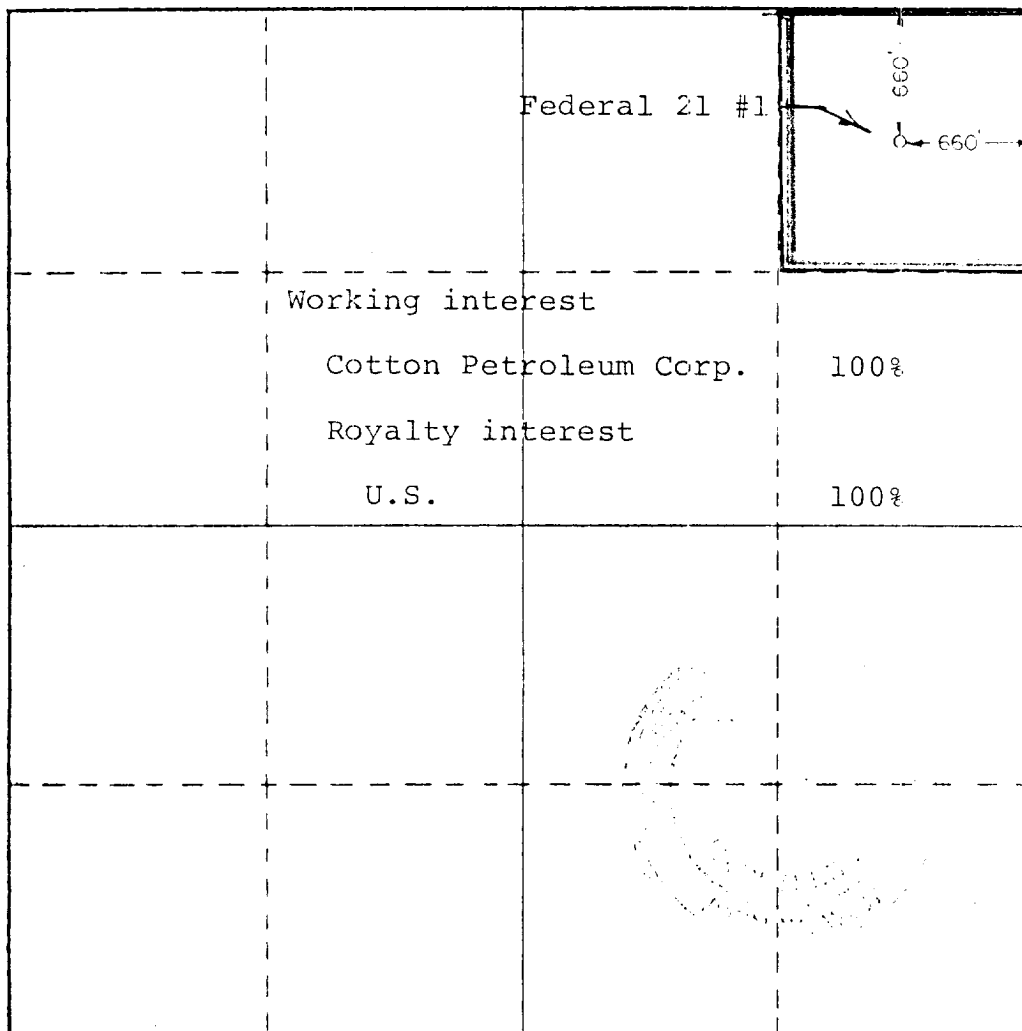
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is 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 N/A

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) N/A

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.

R-33E



Working interest	
Cotton Petroleum Corp.	100%
Royalty interest	
U.S.	100%

CERTIFICATION

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

Name John W. West
 Position Div. Production Manager
 Company Cotton Petroleum Corp.
 Date 1-9-78

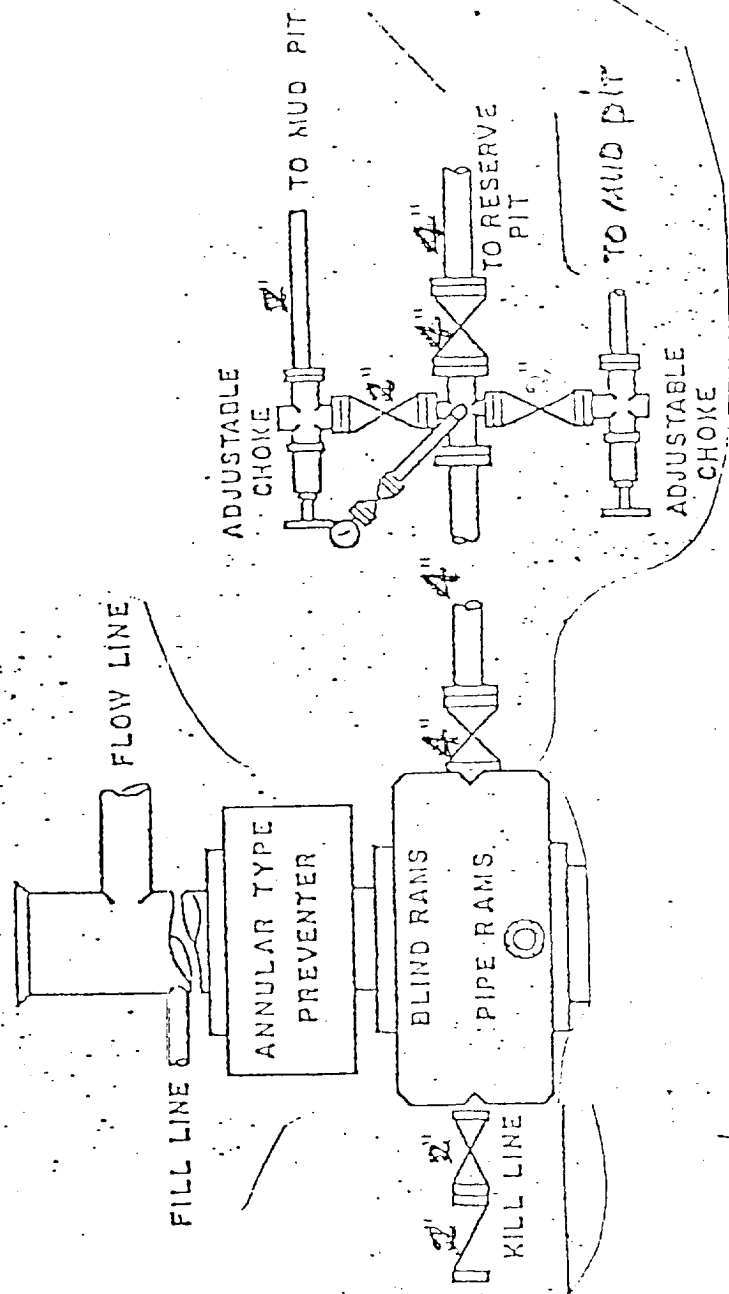
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed 1/5/78
 Registered Professional Engineer and/or Land Surveyor
John W. West
 Certificate No. John W. West 676
Ronald J. Eidson 3239

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

T O S

BLOW-OUT PREVENTOR EQUIPMENT



10" X 900 SERIES
OR/ 12" X 900 SERIES

To Supplement USGA Form 9-331C, "Application for Permit to Drill, Deepen or Plugback," the following additional information is submitted:

Operator: Cotton Petroleum Corporation
Lease & Well No: Federal 21, Well #1 (NM 13835)
Location: 660' FN&EL, Sec. 21, T-19-S, R-33-E
Lea County, New Mexico

1. 660' FN&EL, Section 21, T-19-S, R-33-E, Lea County, New Mexico
2. 3637' GR
3. The geologic name of the surface formation is: Tertiary with some Triassic exposed.
4. Rotary
5. 3800
6. Estimated tops of important geologic markers are:

Rustler	1350
Base Salt	2885
T. Yates	3090
T. Reef	3340
T. Seven Rivers	3410
7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are:

Santa Rosa Water Formation	300'
Yates	3090'
Seven Rivers	3410'
8. The proposed casing program including the size, grade and weight per foot of each string has been indicated on Form 9-331C. All strings of casing will be new.
9. See Form 9-331C for amount of cement.
Surface: Class "C" with 1.88# Ca Cl/sx.
Production: Class "H" with 1/8# Cellophane Flakes/sx.
10. The pressure control diagram is attached to Form 9-331C. The following additional information of the pressure control equipment is as follows:

Size: 10" - 900 series - Double Hydraulic pipe and blind rams.
Pressure ratings (or API Series) - 3000# WP, 6000# T.
Testing procedures: Pressure up to 1500# PSIG before drilling out of casing
Testing frequency: Upon installation and daily.

11. The type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling, and the quantities and types of mud and weighting material to be maintained will be as follows:

0 - 350' spud mud
350' - 3800' Brine water with lost circulation material.
12. The auxiliary equipment to be used will consist of: Kelly cocks and a sub on floor with full opening valve to be used when needed.
13. The testing, logging and coring programs will be:

GR-DLL w/RXO with combination CNL/FDC. There will be no coring but probably DST across the 7-Rivers formation.
14. No abnormal pressures or temperatures are expected to be encountered.
15. The starting date will be approximately Feb. 15, 1978 and will be completed approximately March 1, 1978.

SURFACE USE PLAN

COTTON PETROLEUM CORPORATION, FEDERAL 21 #1
660' FN&EL, Section 21, T-19-S, R-33-E,
Lease NM 13835, Lea County, New Mexico

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

1. Existing roads - Exhibit A is a map showing the location of the proposed well as staked. Go West out of Hobbs, N. Mexico on Highway 180-62 for 26.3 miles to road on right hand side. Turn right onto road and follow main road 4 miles to fork in road. Take left fork for 1.3 miles to location on right. All roads after turning off of Highway 180-62 are dirt.
2. Planned access roads - Exhibit A shows the planned access road which will be approximately 1100' long and 12' wide. The road will be surfaced with 6" of compacted caliche. This proposed road is color-coded green on Exhibit A and the center line has been staked and flagged from location to the access road. The proposed road will not cut a fence and no cattle guard or fence repair will be required.
3. Location of existing wells - Existing wells within the radius of one mile are shown on Exhibit A.
4. Location of existing and/or proposed facility - There are no tank batteries, production facilities or lease pipelines on the lease. If production is encountered, tank batteries and production equipment will be located at the south edge of the well mat and fenced. All flowlines are to be constructed on the well mat on top of the ground (refer to Exhibit B for tank battery location in reference to the well).
5. Water supply - Water for drilling the subject well will be hauled by truck from nearest commercial water source.

6. Source of Construction material - Caliche will be obtained from an existing pit located in the Southwest corner of Section 21, T-19-S, R-33-E and purchased from BLM by the dirt contractor. Construction materials will be hauled over the existing roads to the proposed new road and drill site. (Refer to Exhibit A for pit location and haul roads.)
7. Methods of handling waste disposal - Well cuttings will be disposed in a reserve pit. Barrel trash containers will be in accessible locations within the drilling site area during drilling and completion procedures. All detrimental waste will be hauled away, burned or buried with a minimum coverage of 24" of dirt (see Exhibit B for location of trash pits). If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. Any produced water will be collected in tanks until hauled to an approved disposal system. No waste water pits will be constructed without prior approval of U.S.G.S.
8. Ancillary facilities - No camps, airstrips, etc. will be constructed.
9. Wellsite layout - Refer to Exhibit B for direction orientation access.
 - a. Mat size - 240' X 170'.
 - b. Cut and fill - Location is nearly level and only slight amount of cut will be required on the South side and a slight amount of fill on North side of location.
 - c. Surfaced - Will be topped with 6" of caliche, bladed, watered, and compacted.
 - d. Reserve pit - Will be 75' x 75' lined with plastic joining well mat on the north.
 - e. Drillsite layout - Exhibit "B" shows position of mat reserve pits, trash pits, and mud pits in relation to well. Rig will be erected with V-Door looking east.
 - f. Center line of planned access road has been staked and a 400' square around wellsite has been staked with flags at each corner.
10. Restoration of Surface - If well is productive pits will be back filled and leveled as soon as drying permits. All plastic lining and other waste material will be removed or buried with at least 24" of cover. At the time of final abandonment, other USGS and BLM restoration stipulations will be complied with.
11. Other information

Topography - Land is gently sloping to the North as shown by the topographic map in Exhibit A.

Soil - is very shallow and underlain by caliche

Vegetation - the vegetative cover is generally sparse and consists primarily of mesquite, cactus and native grasses. Wildlife in the area is that typical of semi-arid land which includes coyotes, rabbits, rodents, reptiles, and quail.

Ponds and streams - there are no rivers, streams, lakes or ponds in the area. The nearest water well is located approximately 1 1/2 miles southeast of the location.

Residences and other structures - There are no buildings of any type within a radius of 2 miles of the proposed well.

Surface use - Grazing and hunting.

Effect on environment - Drillsite, which is located in this semi-arid country is in a low environmental risk area. A total effect in drilling and producing this and other wells in this area would be minimal.

Surface ownership - The proposed drillsite is on federal surface. All proposed roads are on federal surface.

Open pits - All pits containing mud or other liquids will be fenced.

Well signs - Signs identifying and locating the well will be maintained at drillsite commencing with the spudding of the well.

12. Operator's representatives - Field personnel who can be contacted concerning compliance with the surface use plan are as follows:

D. E. Wood
2801 Emerson Lane
Midland, Texas
Office phone: 915-683-5211
Home phone: 915-694-0745
Mobil phone: 915-683-1294

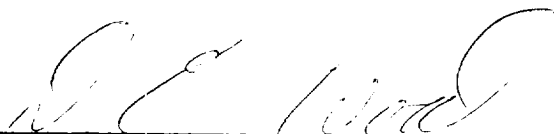
Bud Golden
4501 Fannin
Midland, Texas
Office phone: 915-683-5211
Home phone: 915-697-1580
Mobil phone: 915-683-1106

13. Certification

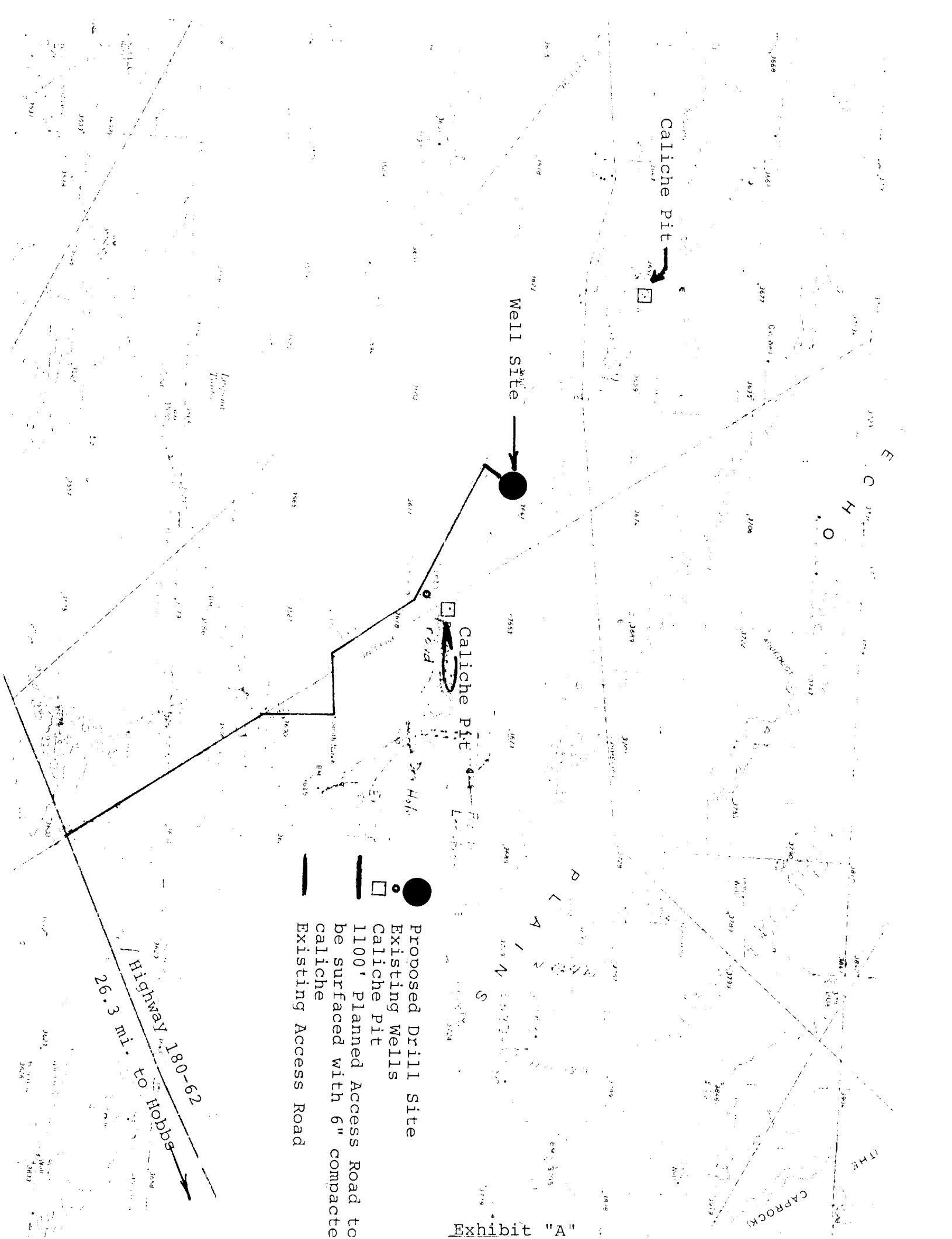
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated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

1-9-78

Date



D. E. Wood, Division Production Manager



Proposed Drill Site
Existing Wells
Caliche Pit
1100' Planned Access Road to
be surfaced with 6" compacte
caliche
Existing Access Road

Highway 180-62
26.3 mi. to Hobbs



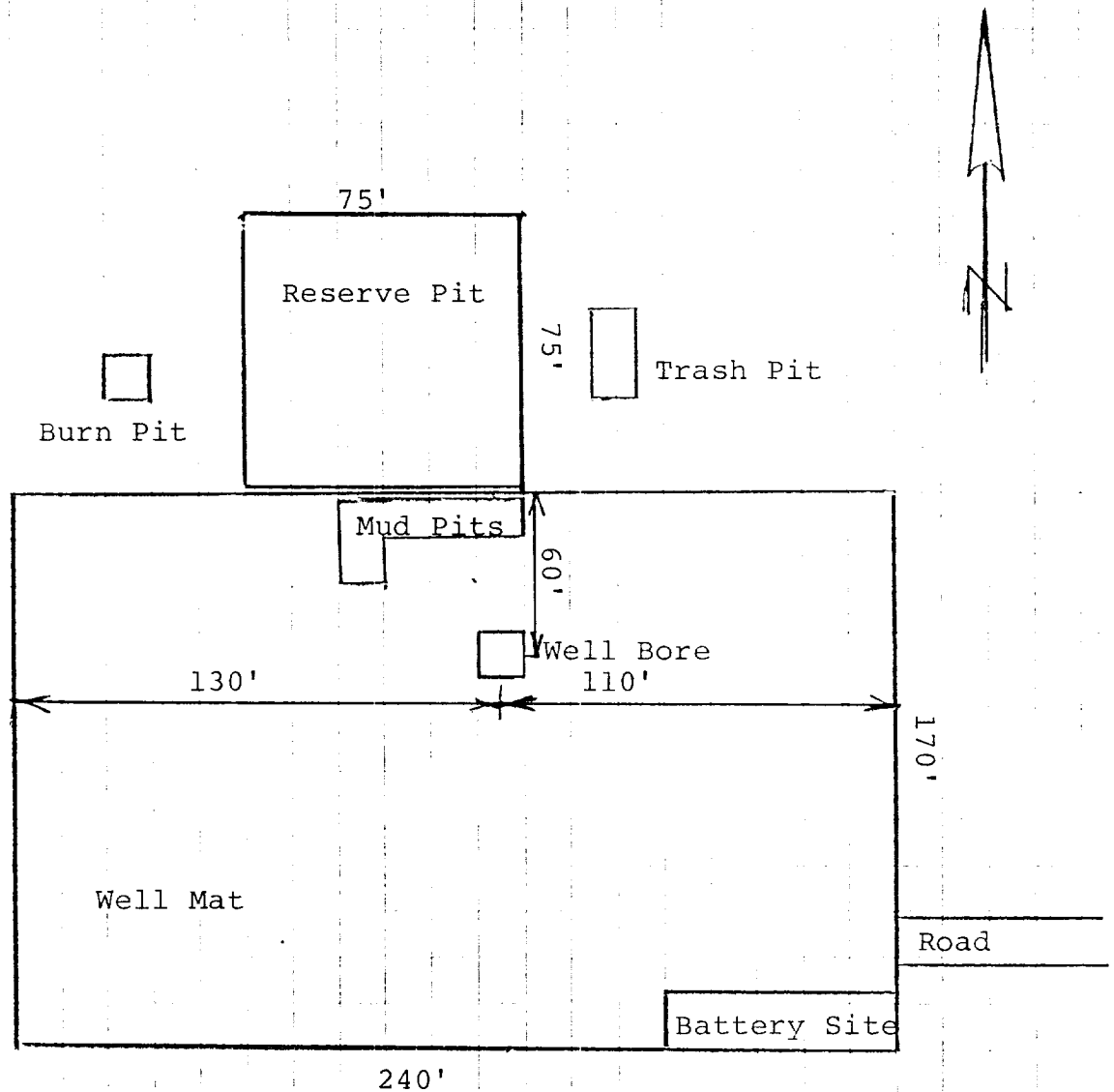
COTTON PETROLEUM CORPORATION
2121 SOUTH COLUMBIA - TULSA, OKLA. 74104

DATE 1-9-78

ENGINEERING CHART

BY DEW

SUBJECT Surface Use Plan Federal 21 #1



Surface Use Plan
COTTON PETROLEUM CORPORATION
Federal 21 #1
660' FN&EL, Sec. 21, T-19-S, R-33
Scale 1" = 50'

U. S. Geological Survey

HOBBS DISTRICT

Cotton Petroleum Corp.
No. 1 Federal 21
NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21-19S-33E
Lea County, N. M.

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.
2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. Operator will provide the dirt contractor with a copy of the enclosed Bureau of Land Management "Standard Requirements for all Drilling in Relation to Oil and Gas Activities in the Roswell District" prior to commencing construction of road, pad, or other associated developments.
7. In the event the oil or gas test results in a dry hole, the drill pad and access road will be ripped in accordance with "BLM Roswell District's Ripping Recommendations for Caliche or Compacted Drill Pads and Access Roads". (Reseeding of the affected areas may be required at the discretion of the BLM authorized officer).
8. All ripped surfaces are to be protected from vehicular travel by constructing a dead-end ditch and earthen barricade at the entrance to these ripped areas. The barricade is to be constructed using spoil material from the ditch and should be of sufficient magnitude to discourage vehicle entry.
9. All above ground structures, not subject to applicable conservation and safety requirements, shall be painted to blend with the natural surroundings. The paint used should be a nonglare, nonreflective, nonchalking color that simulates Fed. Stand. No. 595, color 30318.
10. Run open-hole gamma-ray and sonic logs.

RECEIVED

FEB 20 1978

OIL CONSERVATION COMM.
HOBBS, N. M.