

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-15019
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR SUNDANCE OIL COMPANY		7. UNIT AGREEMENT NAME
3. ADDRESS OF OPERATOR Suite 510, 1776 Lincoln St., Denver, CO 80203		8. FARM OR LEASE NAME Cone Federal
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 660' FEL and 1980' FSL At proposed prod. zone San Andres		9. WELL NO. 4
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 15½ miles south of Kenna, New Mexico		10. FIELD AND FOOT OR WILDCAT UNDESIGNATED
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 31, T.7S., R.32E.
16. NO. OF ACRES IN LEASE 560		12. COUNTY OR PARISH 13. STATE Roosevelt New Mexico
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		14. PROPOSED DEPTH 4350
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1860		15. ROTARY OR CABLE TOOLS Rotary tools
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 4496' GL		22. APPROX. DATE WORK WILL START* On approval

PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11	8 5/8	28	1800'	300 sx Econ & 100 sx C1155 C
7 7/8	4 1/2	11.60 & 10.5	4350'	300 sx 50/50 Poz

Well will be drilled to TD and evaluated by running logs and DST's when necessary.
Casing will be run when logs and DST's indicate possible commercial production.

"APPROVAL TO FLARE GRANTED
WHILE DRILLING AND TESTING."

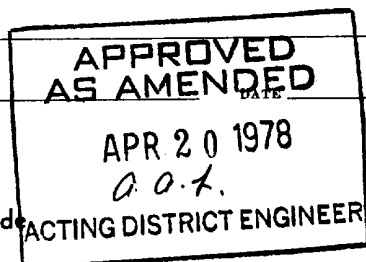
SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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 Richard O. Dimit TITLE Chief Engineer DATE 2/27/78
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side



U.S. CONSERVATION COMM.
HOBBS, N. M.

JUN 25 1978

RECEIVED

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

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

All distances must be from the outer boundaries of the Section

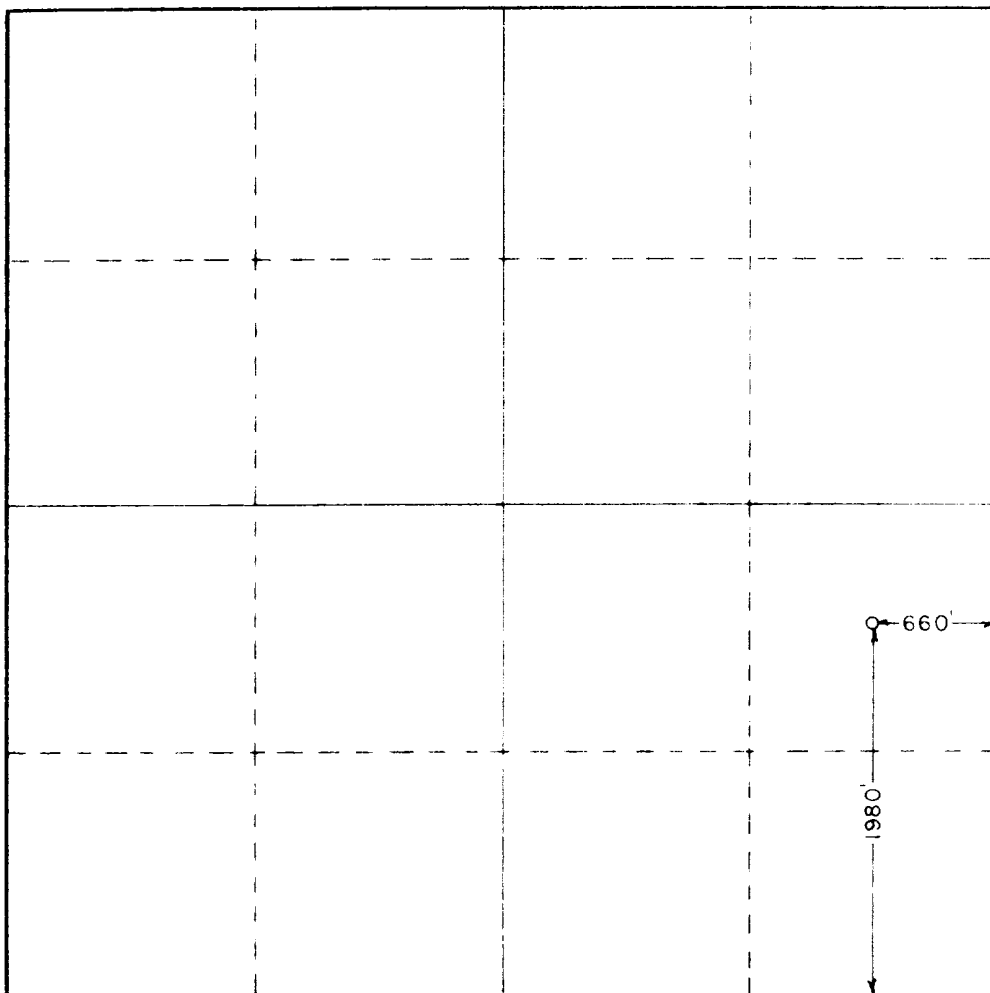
Operator Sundance Oil Company			Lease Cone Federal		Well No. 4
Tract Letter 1	Section 31	Township 7 South	Range 32 East	County Roosevelt	
Actual Portage Location of Well:					
1980	feet from the	South	line and	660	feet from the
					East
Ground Level Elev. 4496.0	Producing Formation San Andres		Foot UNDESIGNATED	Feet and Acres 40	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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 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, forced-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.

Richard O. Dimit

Richard O. Dimit

Chief Engineer

Sundance Oil Company

February 20, 1978

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

Feb. 9, 1978

Registered Professional Engineer and or Land Surveyor

John W. West

Certificate No. **John W. West**

676

Ronald J. Eidson

3239

OIL CONSERVATION COMM.
HOBBS, N. M.

JAN 25 1978

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Attachment to Form 9-331 C
Application for Permit to Drill

Sundance Oil Company, #4 Cone Federal
1980' FSL and 660' FEL of Section 31, T. 7S., R. 32E.
Roosevelt County, New Mexico

1. The geologic name of the surface information is Triassic red beds overlain by wind blown sands.
2. The estimated tops of important geologic markers are as follows:

Rustler	1800'
Salado	1830'
Yates	2220'
San Andres	3380'
P-1	4080'
P-2	4165'
T.D.	4350'

3. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations will be encountered are as follows:

Ogalala	150' water
Salado	1830' salt
San Andres	3380' oil and gas
P-1	4080' oil and gas
P-2	4165' oil and gas

4. The proposed casing program is as follows:

Surface - New 8 5/8", 28 lb/ft., ST&C, Secondary 45 (J&L).
Production - New 4 1/2", 10.5 lb/ft., ST&C, K-55 and 11.6 lb/ft., ST&C, JCW-36 (J&L).

5. A sketch of an API Series 900 Blowout Preventer is attached. Pipe rams and blinds will be checked to 1,000 PSI for 30 minutes when BOP is installed. BOP will be checked when casing is set and operated daily for checks.

6. The proposed mud program is as follows:

0-1800' spud mud	8.5 - 9.0 lbs./gal.
1800-3500' native mud	9.0 - 9.5 lbs./gal.
3500-T.D. salt gel	9.0 - 10.0 lbs./gal.

7. The auxiliary equipment to be used is:

1. Kelly cocks.
2. Floats at the bit.
3. Stabbing valve on rig floor with sub to fit drill pipe.

8. It is proposed to run 2" and 5" GR, CNL, FDC, DLL/MLL Logs from TD to 1800'.

9. No abnormal pressures or temperatures are expected to be encountered in this well.

10. The anticipated starting date for this well is March 20, 1978. Estimated duration of drilling operations is 10 to 12 days.

MULTI-POINT SURFACE USE & OPERATIONS PLAN

Sundance Oil Company: Cone Federal #4
1980' FSL and 660' FEL of Section 31, T. 7S., R. 32E.
Roosevelt County, New Mexico

This plan is to accompany "Application for Permit to Drill" the subject well which is located approximately 15½ miles south of Kenna, New Mexico. The following is a discussion of pertinent information concerning possible effect which the proposed drilling of the well may have on the environment of the well and road sites and surrounding acreage.

1. Existing Roads

- A. The proposed well site is 660' FEL and 1980' FSL of Section 31, T. 7S., R. 32E., Roosevelt County, New Mexico.
- B. Exhibit "A" is portion of a map showing existing roads with directions to the location from Kenna, New Mexico. The route to the location is marked in red along side of roads to be used. The well location is approximately 15½ miles south of Kenna, New Mexico.
- C., D. & E. Access roads are shown on Exhibit "A".
- F. No improvement or maintenance is anticipated for the existing roads.

2. Planned Access Roads

- A. Length & Width: New road required will be 2640' long and 12' wide. This new road is labeled and color coded Red on Exhibits "A" and "B". The center line of the proposed new road has been flagged and staked with the stakes being visible from one to the next.
- B. Surfacing Material: Six inches of caliche, watered, compacted, and graded.
- C. Drainage Design: New road will have a drop of six (6) inches from center line on each side.
- D. Culverts: None.
- E. Turnouts: None.
- F. Cuts and Fills: The location and pits will be constructed as shown on Exhibit "C". Maximum cut and maximum fill will be 3' on the location, other than leveling sand dunes.
- G. Gates, Cattleguards, Fences: None.

3. Location of Existing Wells

- A. See Exhibit "B".

4. Location of Existing and/or Proposed Facilities

- A. The tank battery and production facilities are located on this lease at or near the Cone Federal #1 location (NE NE Section 31).
- B. If commercial production is established, a flow line will be connected to the existing tank battery and no additional surface disturbance will occur. Facilities will be fenced and/or covered to protect livestock and wildlife.
- C. All unused areas disturbed by construction will be restored to natural terrain profile after construction is completed.

5. Location and Type of Water Supply

- A. Water will be obtained from well at Kenna and/or Crossroads.
- B. Water will be transported by truck.

6. Source of Construction Materials

- A. Caliche will be obtained from a pit in Section 7, T. 7S., R. 32E.

7. Methods for Handling Waste Disposal

- A. Drill cuttings will be disposed of in the reserve pit.
- 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 until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of twenty-four (24) inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of trash pit is shown on Exhibit "C". If well is productive, maintenance waste will be placed in special trash cans and hauled to an approved sanitary landfill, periodically. Any produced water will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted to the Survey for appropriate approval.

8. Ancillary Facilities: None.

9. Well Site Layout

- A. Exhibit "C" shows the relative location and dimensions of the well pad, mud pits, reserve pit, trash pit, and location of major rig components.

9. Well Site Layout (cont.)

- B. The reserve pit will be lined with plastic.
- C. The pad and pit area has been flagged and staked.

10. Plans for Restoration of Surface

- A. Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location and rehabilitation of the surface is planned to be completed within forty-five (45) days from commencement.

11. Other Information

- A. Terrain: Low rolling sand hills.
- B. Soil: Sandy.
- C. Vegetation: Scrub oak, bear grass and very sparse vegetation.
- D. Surface Use: Grazing.
- E. Ponds and Streams: None within one mile.
- F. Water Wells: One mile northwest of location.
- G. Residences and Buildings: One mile northwest of location.
- H. Arroyos, Canyons, Etc.: Caprock escarpment approximately one mile west of location.
- I. Well Sign: Sign identifying and locating well will be maintained at drill site with the spudding of the well.
- J. Open Pits: All pits containing mud or other liquids will be fenced.
- K. Archaeological Resources: None observed.

12. Lessee's or Operator's Representative

Richard O. Dimit
Sundance Oil Company
Suite 510
1776 Lincoln Street
Denver, CO 80203

Business phone (303) 861-4694

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

13. Certification (cont.)

my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by SUNDANCE OIL COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date

2/28/78

Richard O. Dimit
Chief Engineer



SUNDANCE OIL COMPANY

February 27, 1978

U.S.G.S.
P.O. Box 1157
205 N. Linam Street
Hobbs, NM 88240

RE: Agreement with Surface Landowner
and Sundance Oil Company
Cone Federal #4
NE SE Section 31, T. 7S., R. 32E.
Roosevelt County, New Mexico

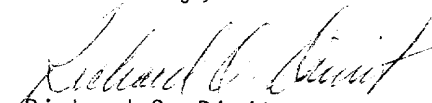
Gentlemen:

This is to certify that in regard to captioned well, Sundance Oil Company has an agreement with the surface owner in regard to the surface restoration.

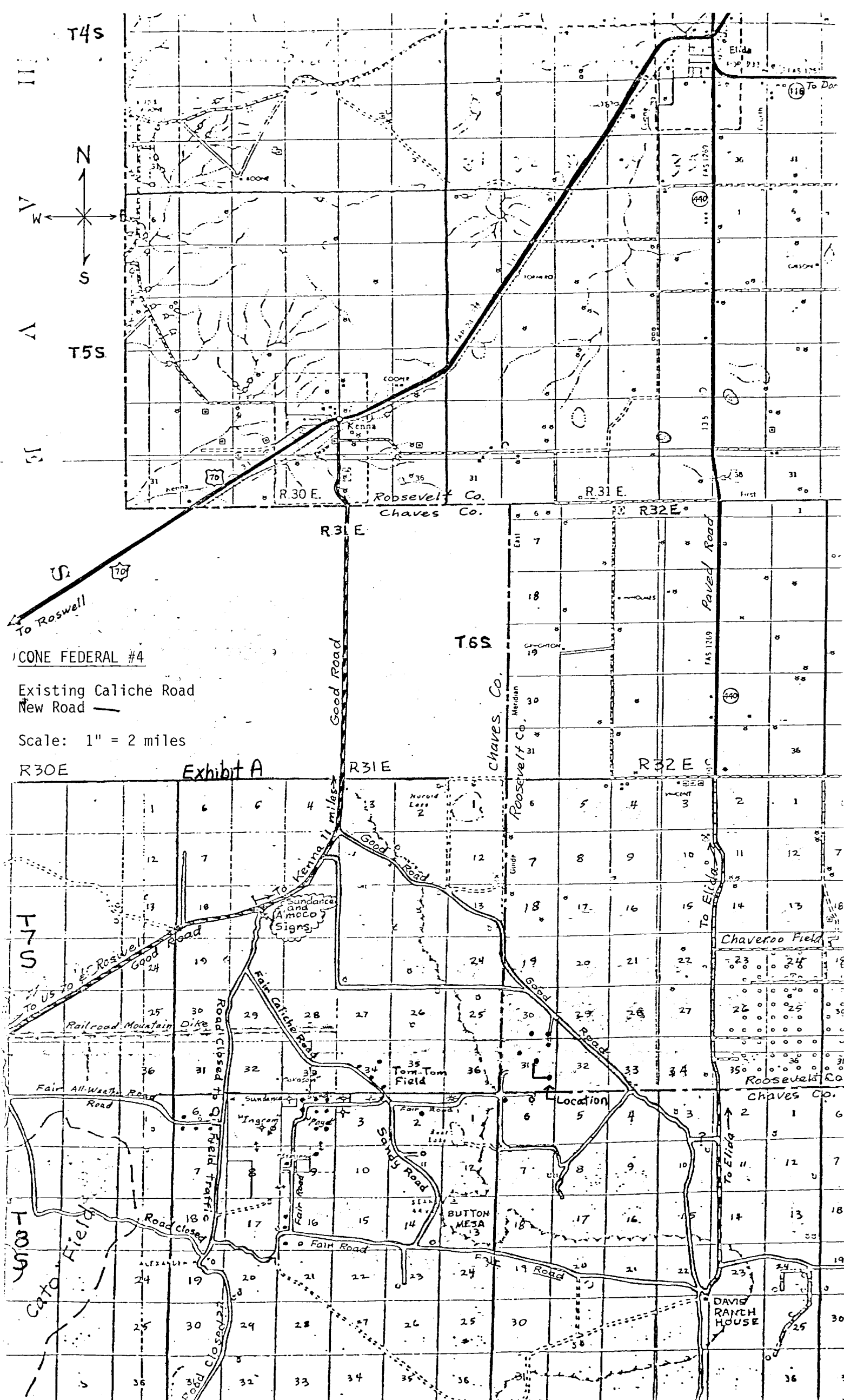
If this well is completed as a producing well, the pits are to be filled and covered and the location cleaned of all trash and junk in order to leave the wellsite in an aesthetically pleasing condition. Prior to the filling of the pits, any unguarded pit containing fluid will be fenced.

If the well is completed as a dry hole and plugged and abandoned, pits will be covered and location cleaned of all trash and junk. The road will remain in place. The drilling pad will either remain or be ripped at the landowner's option.

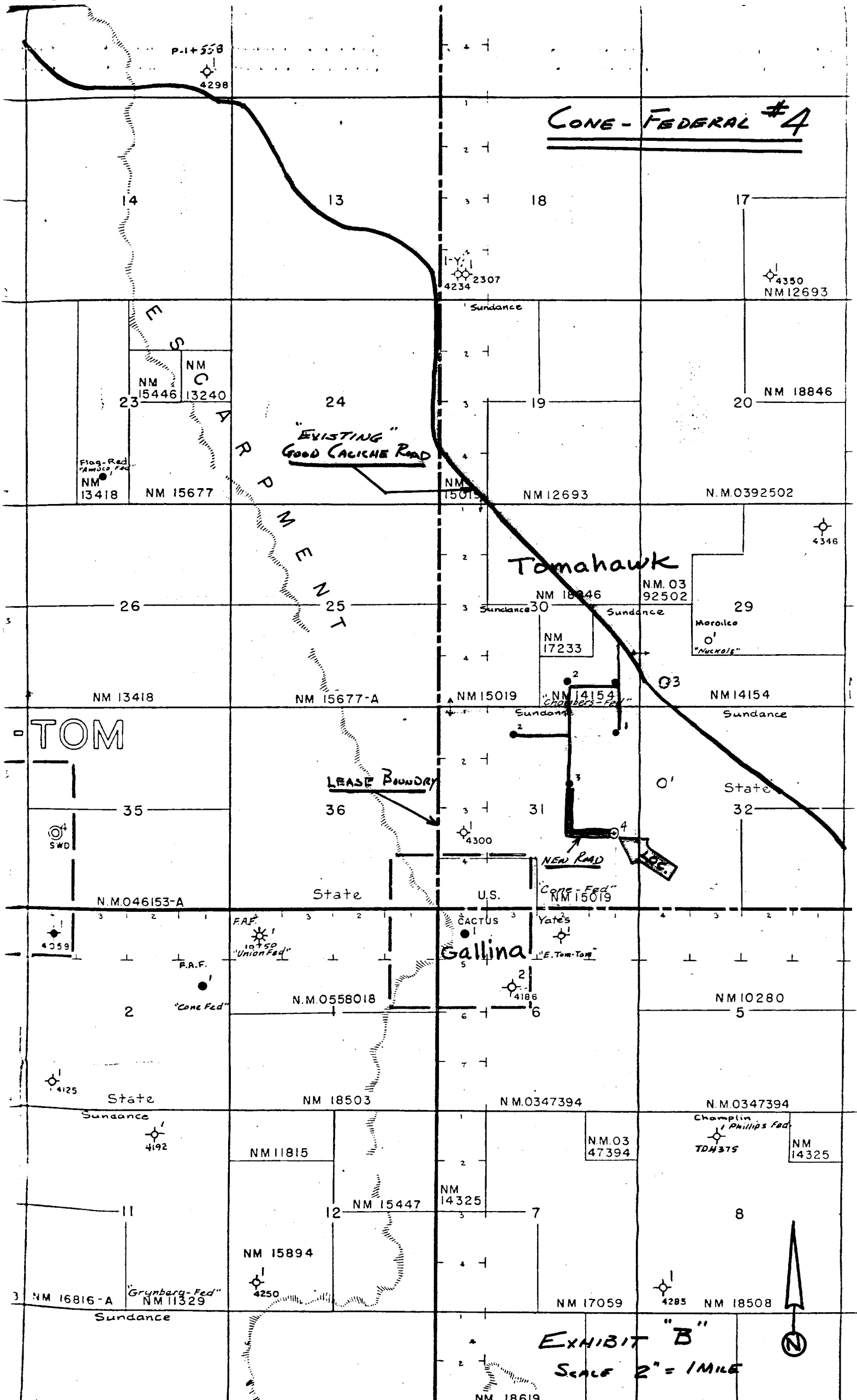
Yours truly,


Richard O. Dimit
Chief Engineer

RD:dh



CONE -	FEDERAL #4
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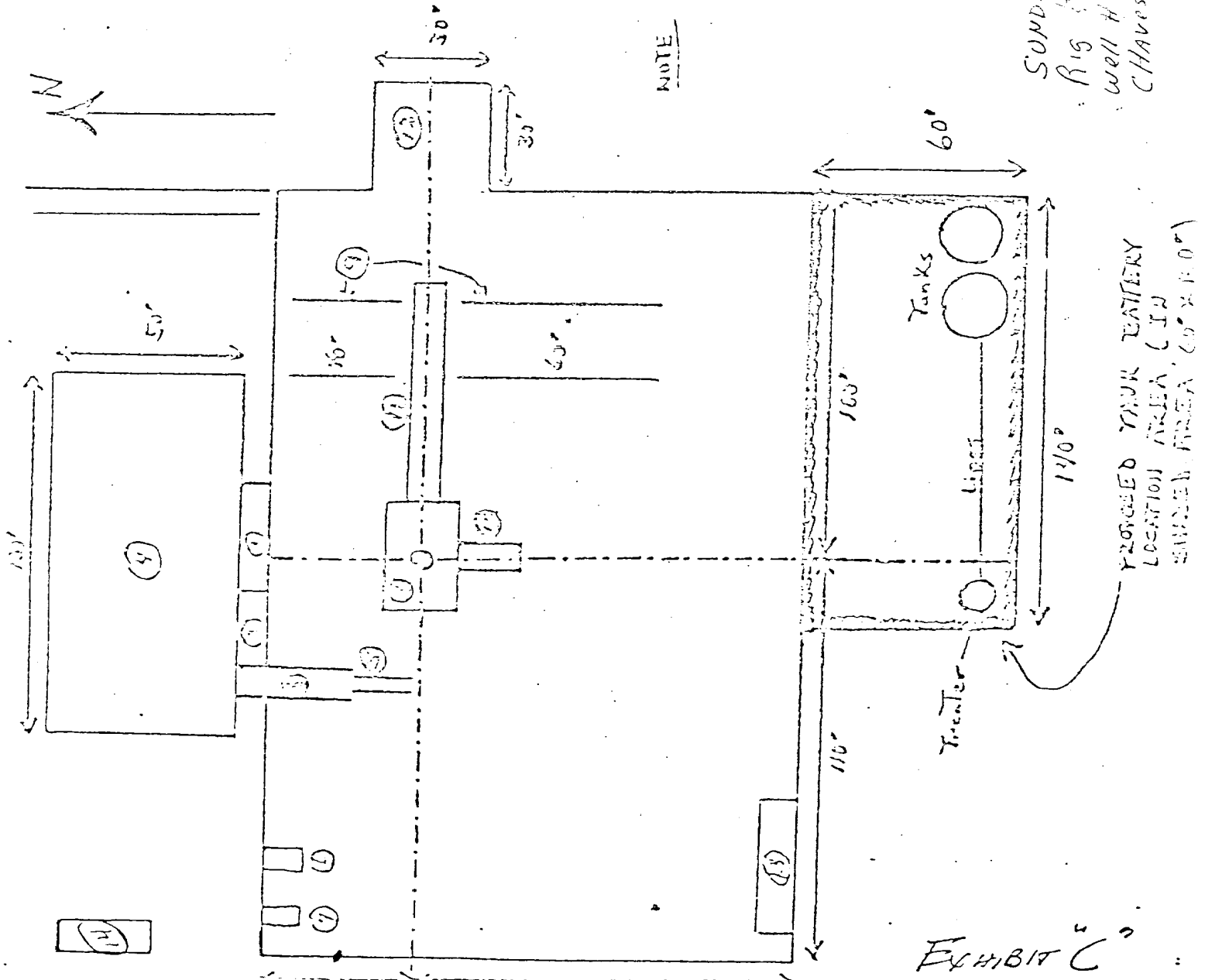


LOCATION, MUD PIT AND
PROPOSED TANK BATTERY
AREA SPECIFICATIONS

- ① Shole Pit 30' x 8'
- ② Mud Pit 20' x 10'
- ③ Suction Pit 30' x 8'
- ④ Reserve Pit 100' x 50'
- ⑤ Pump
- ⑥ Water Tank
- ⑦ Fuel Tank
- ⑧ Rig
- ⑨ Pipe Racks
- ⑩ Dog House
- ⑪ Cat Walk 60'
- ⑫ Stinger
- ⑬ Trailer
- ⑭ Burn Pit & Trash & Junk

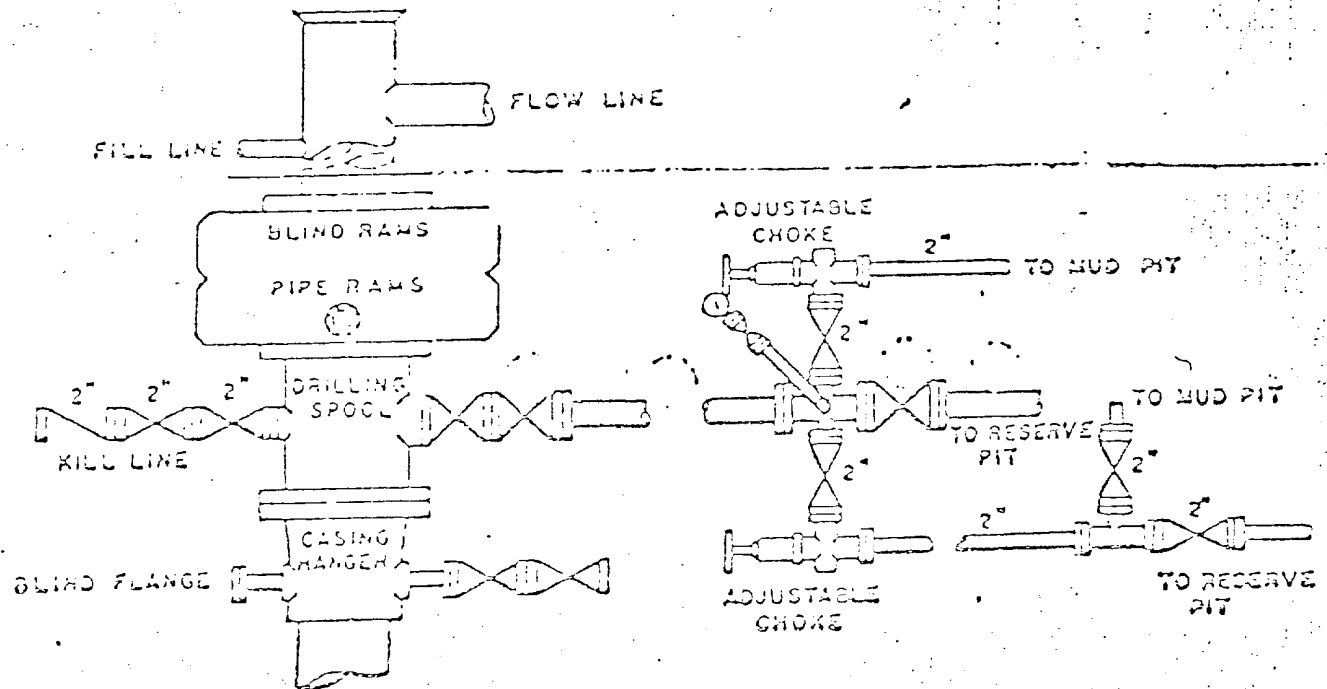
NOTE Lines from well to
battery facilities will
lay directly south
from wellhead.

SUNDANCE OIL CO.
Rig & Tank Battery Layout
Well #2 OAKASON FEDERAL
CHAVES CO. N. M.



BLOWOUT PREVENTER & CHOKE MANIFOLD

API 3M-8410-RdS



U. S. Geological Survey

HOBBS DISTRICT

Sundance Oil Company No. 4 Cone Federal NE $\frac{1}{4}$ SE $\frac{1}{4}$ Roosevelt County, New Mexico 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. Operations must be in compliance with the provisions of the landowner agreement concerning surface disturbance and surface restoration.
7. For the protection of livestock and wildlife all pits containing toxic liquids will be fenced and covered with a fine mesh netting (i.e., Hardware Cloth) with openings being $\frac{1}{2}$ inch or less.