30-025-30[illegible]

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Highland Production Company

3. ADDRESS OF OPERATOR: 810 N. Dixie Blvd., Suite 202, Odessa, Texas 79761

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 330' FNL and 2080' FWL
At proposed prod. zone: 330' FNL and 2080' FWL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 21½ Miles SW of Jal, New Mexico

5. LEASE DESIGNATION AND SERIAL NO.: LC-062749 (B)
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Conoco "A" Federal
9. WELL NO.: 3
10. FIELD AND POOL, OR WILDCAT: North Mason (Delaware)
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 19, T-26-S. R-32-E, NMPM
12. COUNTY OR PARISH: Lea
13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 330'
16. NO. OF ACRES IN LEASE: 160
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.: 4120'
19. PROPOSED DEPTH: 4550'
20. ROTARY OR CABLE TOOLS: Rotary to 4350' and cable tool to TD.
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3207.7 GR.
22. APPROX. DATE WORK WILL START*: February 20, 1989

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	8 5/8"	24 #	1100'	125 Sks. Class C - Circulate
7 7/8"	5 1/2"	15.5#	4550'	1200 Sks. HLC w/Class C - Circulate

Additional Information:

1. Surface formation is Tertiary with some Triassic Exposed.
2. Estimated geological tops: Rustler - 950': Anhydrite - 1,050'; ~~Base~~ Top Salt 1,300'; Castile - 3,000'; Lamar Lime - 4,100'; Top of Delaware - 4,300'.
3. Pressure control equipment: Double hydraulic pressure tested to 3,000 PSI, full closing hydril on top tested to 3,000 PSI. Pressure control diagram is attached. Testing will be on installation, daily and on trips.
4. Proposed circulating medium: 0 - 1,100' Spud Mud; 1,100 - 4,500' Brine Water;
5. Estimate will encounter water from 890' to 950'.
6. Estimate will encounter oil at 4,370'.
7. Logging Program: Acoustic velocity gamma ray caliper log: FoRoxo guard log.
8. No coring or drill stem testing.
9. No abnormal pressures or temperatures are expected to be encountered.
10. Anticipated starting date is February 20, 1989.

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 Marvin L. Smith TITLE President DATE Jan. 17, 1989

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE 2-16-89

CONDITIONS OF APPROVAL, IF ANY:

[illegible] SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Delaware North ~~East~~ Mason 40

Marvin L. Smith

President

Highland Production Company

January 16, 1989

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.

NEW MEXICO
NO. 676
REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR

Certificate No. JOHN W. WEST 676

RONALD J. EIDSON 3239

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

HIGHLAND PRODUCTION COMPANY
Conoco "A" Federal Well No. 3
Unit Letter H, 330' FEL and 2310' FNL
Section 19, T-26-S, R-32-E
Lea County, New Mexico

This plan is submitted with the 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 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:

Exhibit *A* is a portion of a United States Geological Survey Topographic Map covering a part of T-26-S, R-32-E, Lea County, New Mexico which shows the location of the proposed well as staked. Also included on Exhibit *A* is nearby New Mexico State Highways, *652* as well as all existing roads within a one mile radius of the proposed well site and the planned access road.

To reach the proposed well site: Drive North on Highway 652, turn left ten (10) miles North of the Texas/New Mexico State Line, go approximately 3960', turn right on existing lease road, go 1320' to existing lease road, turn left, go 330' on existing road, turn right, go 990' on existing lease road to existing location, then 990' due north on proposed new lease road.

2. PLANNED ACCESS ROADS:

A. Length and Width: The required new access road from *existing lease road* will be approximately *990* ft. long. The new road is labeled and color coded red on Exhibit *B* . The center line of the proposed new road from the edge of the well site to the existing access road has been staked and flagged with the stakes being visible from one stake to the next.

B. SURFACING MATERIAL: Six inches of caliche, water, compacted and graded.

C. MAXIMUM GRADE: Three (3) percent.

D. TURNOUTS: No new turnouts required.

E. DRAINAGE DESIGN: New road will have a drop of six (5) inches from the center

F. CULVERTS: None required.

G. CUTS AND FILLS: None required.

H. CATTLEGUARDS: None required.

3. LOCATION OF EXISTING WELLS:

All existing wells within a one-mile radius of the proposed drill site are shown on Exhibit C.

4. LOCATION OF EXISTING AND PROPOSED PRODUCTION FACILITIES:

A. EXISTING FACILITIES: Existing production facilities are shown on Exhibit D.

B. PROPOSED FACILITIES: None required. Flowline from well to tank battery is shown Exhibit D.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water for drilling the proposed well will be trucked in and provided by water station in Jal, NM,

6. SOURCE OF CONSTRUCTION MATERIALS:

Caliche for surfaceing the road and well pad will be obtained from the contracters pit.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. DRILL CUTTINGS: Drill cuttings will be disposed of in drilling pits.

B. DRILLING FLUIDS: Drilling fluids will be allowed to evaporate in drilling pits until the pits are dry. While the drilling pits are in the evaporation stage, they will be adequately fenced so as not to be a hazard to people or livestock.

C. FORMATION WATER AND OIL: Although not anticipated, any produced formation water will be disposed of in the drillling pits. Oil produced from the well during tests will be stored in test tanks until sold.

D. HUMAN WASTE: All current laws and regulation pertaining to the disposal of human waste will be complied with.

E. TRASH, WASTE PAPER, GARBAGE, AND JUNK: All trash, waste paper, garbage, and junk will be buried in a trash pit located adjacent to the reserve pit and will be covered with a minimum of 24 inches of dirt. Before burial, the waste material will be contained to prevent scattering by the wind. The location of the trash pit is shown in Exhibit E.

F. TRASH BURIAL: All trash and debris will be buried or removed from the well site within thirty (30) days after finishing well completion operations.

8. ANCILLARY FACILITIES:

None required.

9. WELLSITE LAYOUT:

A. WELLSITE BOUNDARIES: The boundaries of the wellsite have been staked and flagged.

B. RIG COMPONENTS: Exhibits E and F show the relative location and diminsions of the well pad, mud pits, reserve pit, trash pit, and location of major rig components.

C. WELLSITE LEVELLING: Only minor levelling of the wellsite will be required. No cuts or fills will be necessary.

D. PIT LINING: The reserve pit will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. EQUIPMENT REMOVAL: After the finishing of drilling and/or completion operations, all drilling equipment and other material not needed for routine operations will be removed from the wellsite. Pits will be filled and the location cleaned of all trash and junk thus leaving the wellsite in an aesthetically pleasing condition.

B. UNGUARDED PITS: Any unguarded pits containing fluid will be fenced until they are back-filled.

C. WELL ABANDONMENT: Upon abandoning the proposed well, the surface restoration will be in accordance with the agreement with the surface owner. As stated above, the pits will be filled and the location will be cleaned. The pit area, well pad, and all unneeded access roads will be ripped to promote vegetation. Rehabilitation will be accomplished within 90 days after abondonment.

11. OTHER INFORMATION:

A. TOPOGRAPHY: The wellsite is located on a plain which slopes to the southeast at the rate of 40 feet/mile.

B. SOIL: The surface consists of sandy soil.

C. FLORA AND FAUNA: The vegetation cover is generally sparse and consists of mesquite and perennial native range grasses.

Wildlife in the area is typical and semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, doves, and quail.

D. PONDS AND STREAMS: There are no rivers, streams, ponds, or lakes in the area.

E. RESIDENCES AND OTHER STRUCTURES: The nearest occupied dwellings are on a ranch three miles SE of wellsite. The closest water well is located at the above dwelling.

F. ARCHEOLOGICAL, HISTORICAL, AND CULTURAL SITES: None observed in the area.

G. LAND USE: Grazing.

H. SURFACE OWNERSHIP: Well is on surface owned by Malcom Madera of Les County, New Mexico.

12. OPERATOR"S REPRESENTATIVES:

The field representatives responsible for assuring compliance with the approved Surface Use and Operations Plan are as follows:

Marvin L. Smith
810 N. Dixie Blvd., Suite 202
Odessa, Tx 79761
Office: 915-332-0275
Home: 915-535-2204

13. CERTIFICATION:

I hearby 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 Doyle Hartman and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

January 16, 1989
Date

Marvin L. Smith
Drilling Supervisor
Highland Production Company

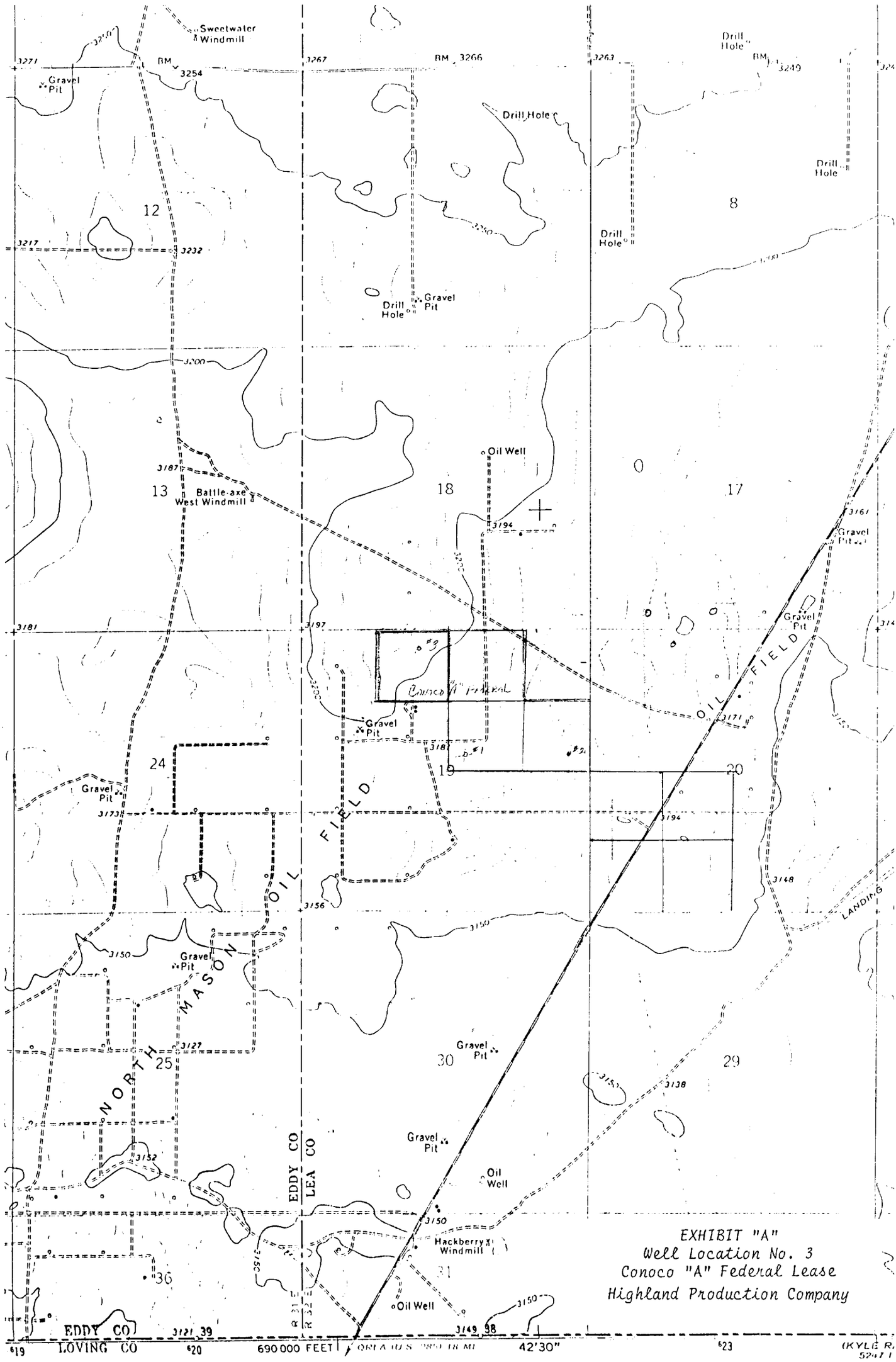


EXHIBIT "A"
Well Location No. 3
Conoco "A" Federal Lease
Highland Production Company

lished by the Geological Survey

NOAA

tric methods from aerial
ield checked 1973

rid ticks: New Mexico
(transverse Mercator)

MN
GN
0°42'
12 MILS
11°
196 MILS

SCALE 1:

1000 0 1000 2000 300

CONTOUR INTE

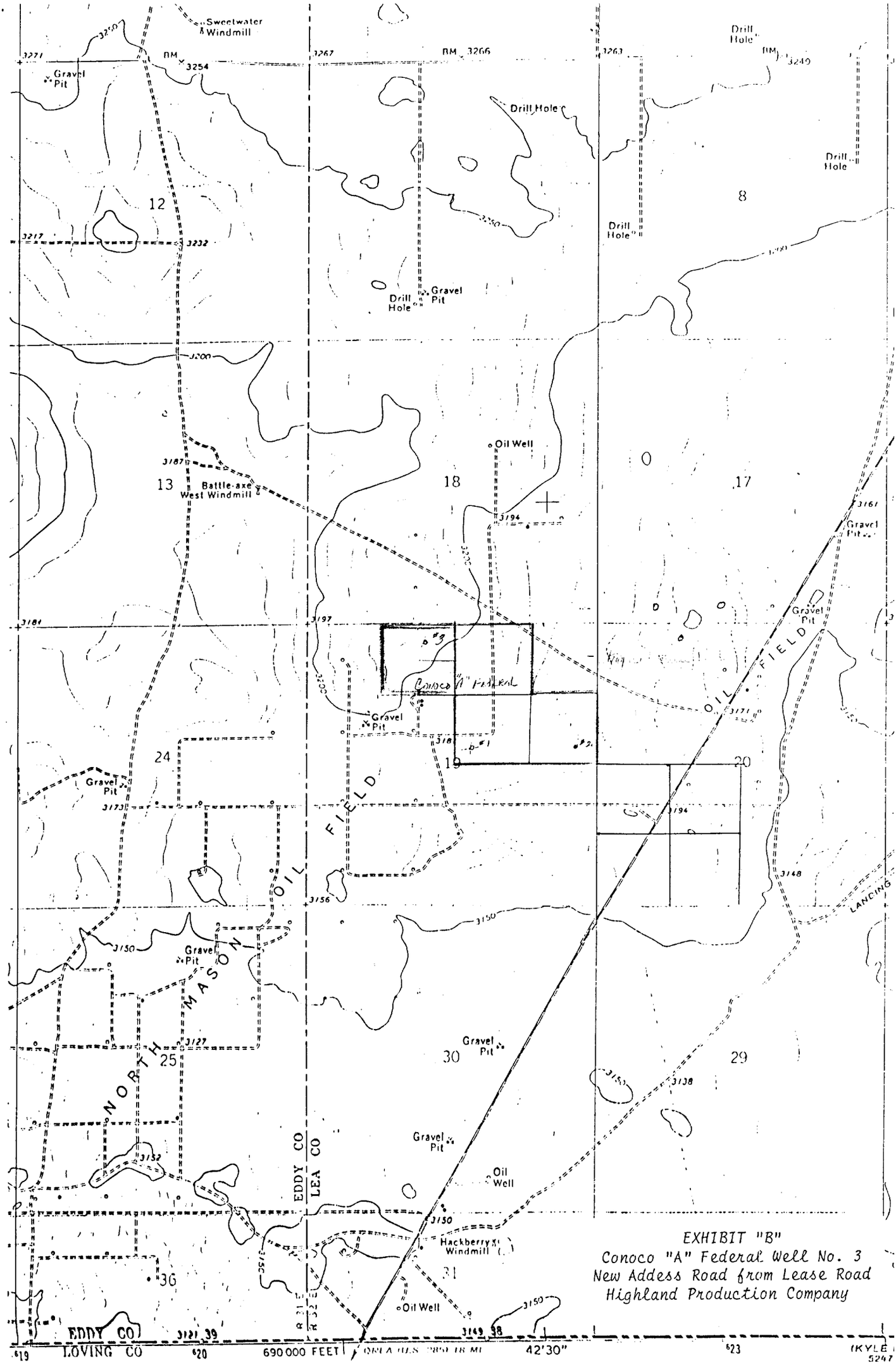


EXHIBIT "B"
Conoco "A" Federal Well No. 3
New Addess Road from Lease Road
Highland Production Company

lished by the Geological Survey

NOAA

tric methods from aerial
ield checked 1973

rid ticks: New Mexico
(transverse Mercator)

MN
GN
0°42'
12 MILS
11°
196 MILS

SCALE

1000 0 1000 2000

CONTOUR INT

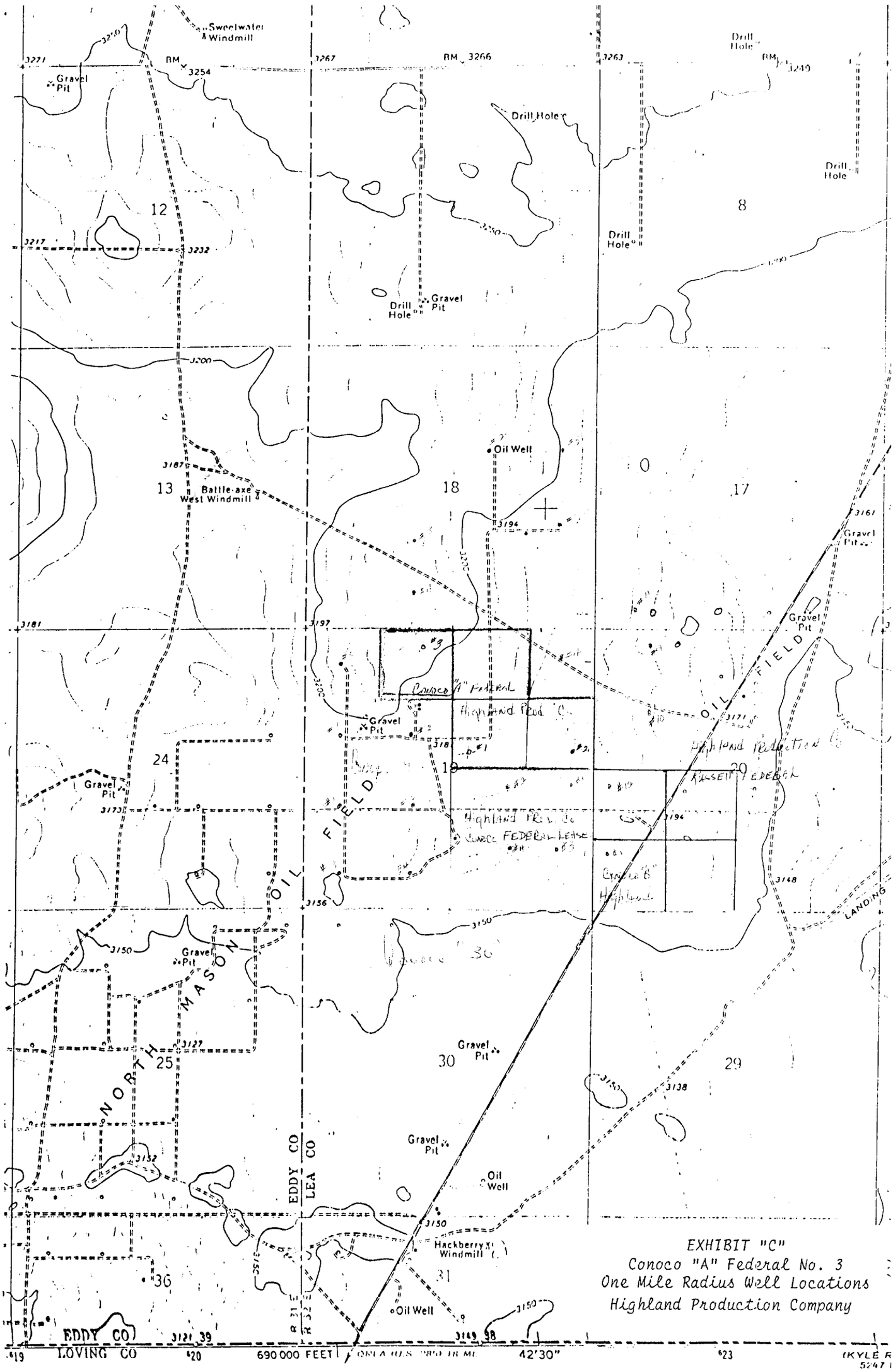


EXHIBIT "C"
Conoco "A" Federal No. 3
One Mile Radius Well Locations
Highland Production Company

lished by the Geological Survey

NOAA

tric methods from aerial
ield checked 1973

rid ticks: New Mexico
(Transverse Mercator)

MN
GN
0°42'
12 MILS
11°
196 MILS

SCALE 1

1000 0 1000 2000 30

CONTOUR INTI

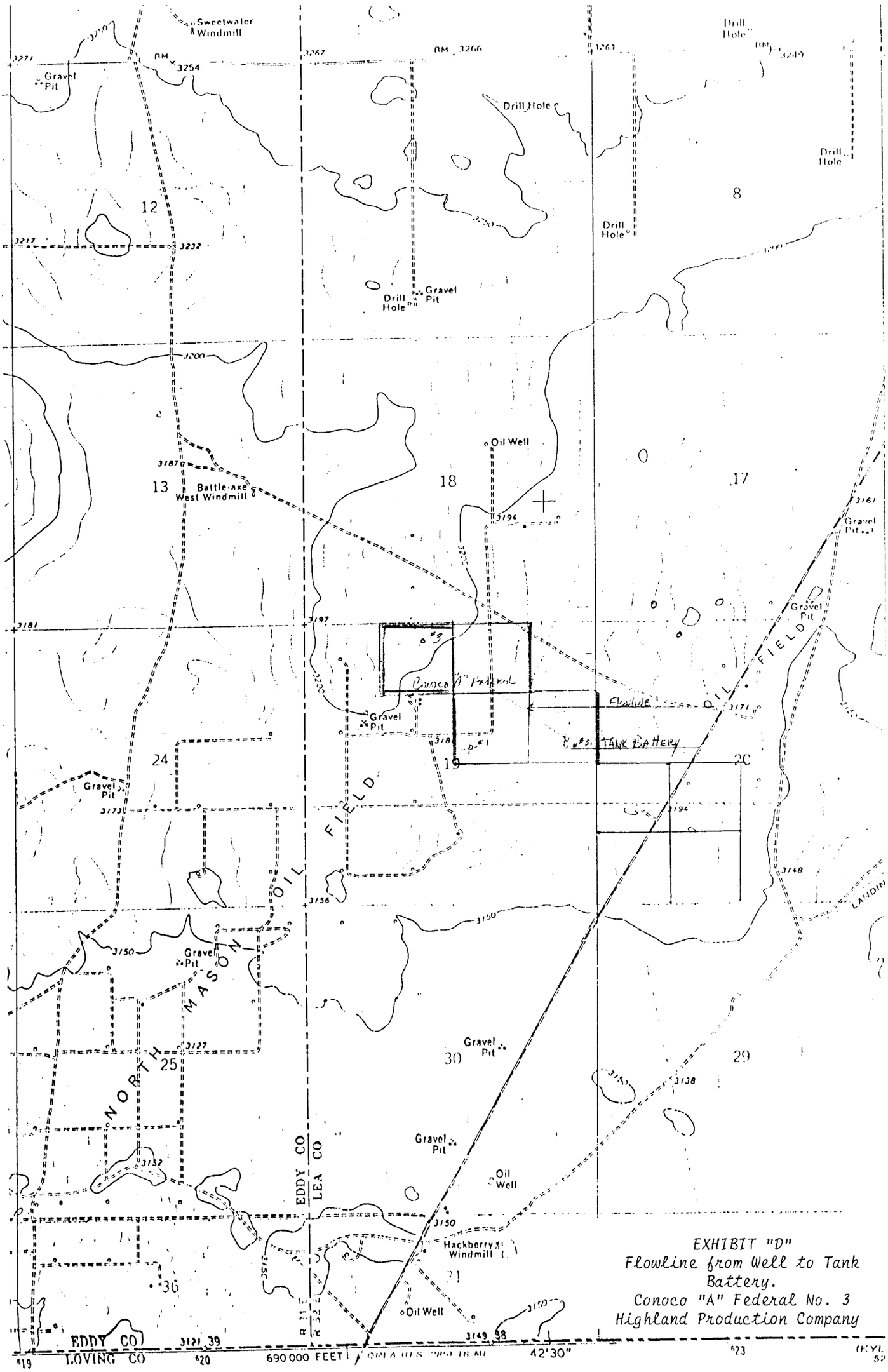


EXHIBIT "D"
Flowline from Well to Tank Battery.
Conoco "A" Federal No. 3
Highland Production Company

lished by the Geological Survey

NOAA

tric methods from aerial
ield checked 1973

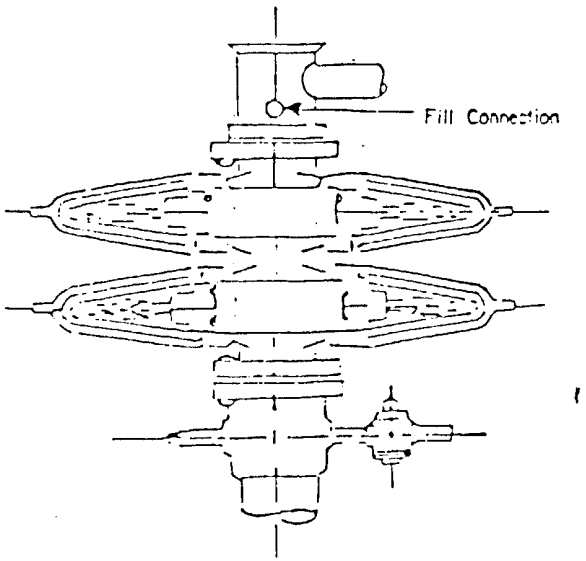
rid ticks: New Mexico
(transverse Mercator)

MN
GN
0°42'
12 MILS
11°
196 MILS

SCAL

1000 0 1000 2000

CONTOUR I



Shaffer Type E Series 900 Hydraulic B.O.P.

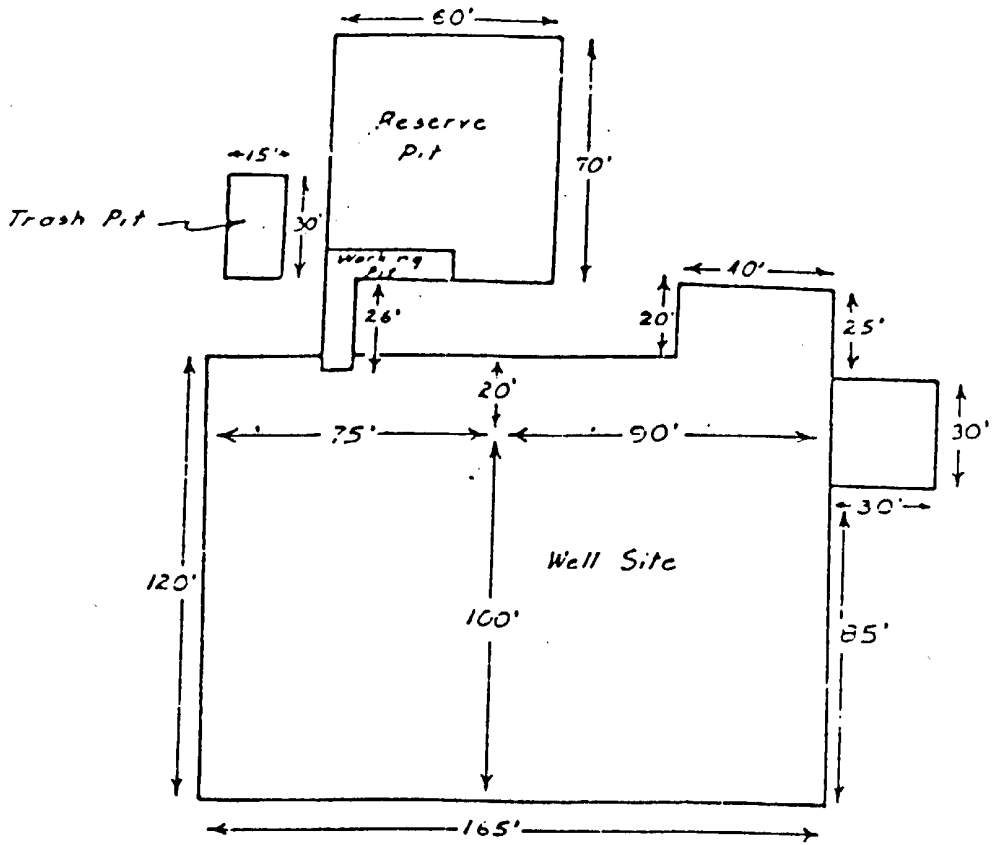
3000 PSI WORKING PRESSURE
BLOWOUT PREVENTER HOOK-UP

Series 900 Flanges, or Better.

Note: B.O.P. system will meet the conditions of drilling approval required by the U.S.G.S. District Office in Hobbs, New Mexico.

Application to Drill
Conoco "A" Federal No. 3
Highland Production Company

NORTH



WEST

EAST

SOUTH

EXHIBIT "E"
Trash Pit - Well Pad Layout
Conoco "A" Federal No. 3
Application to Drill
Highland Production Company

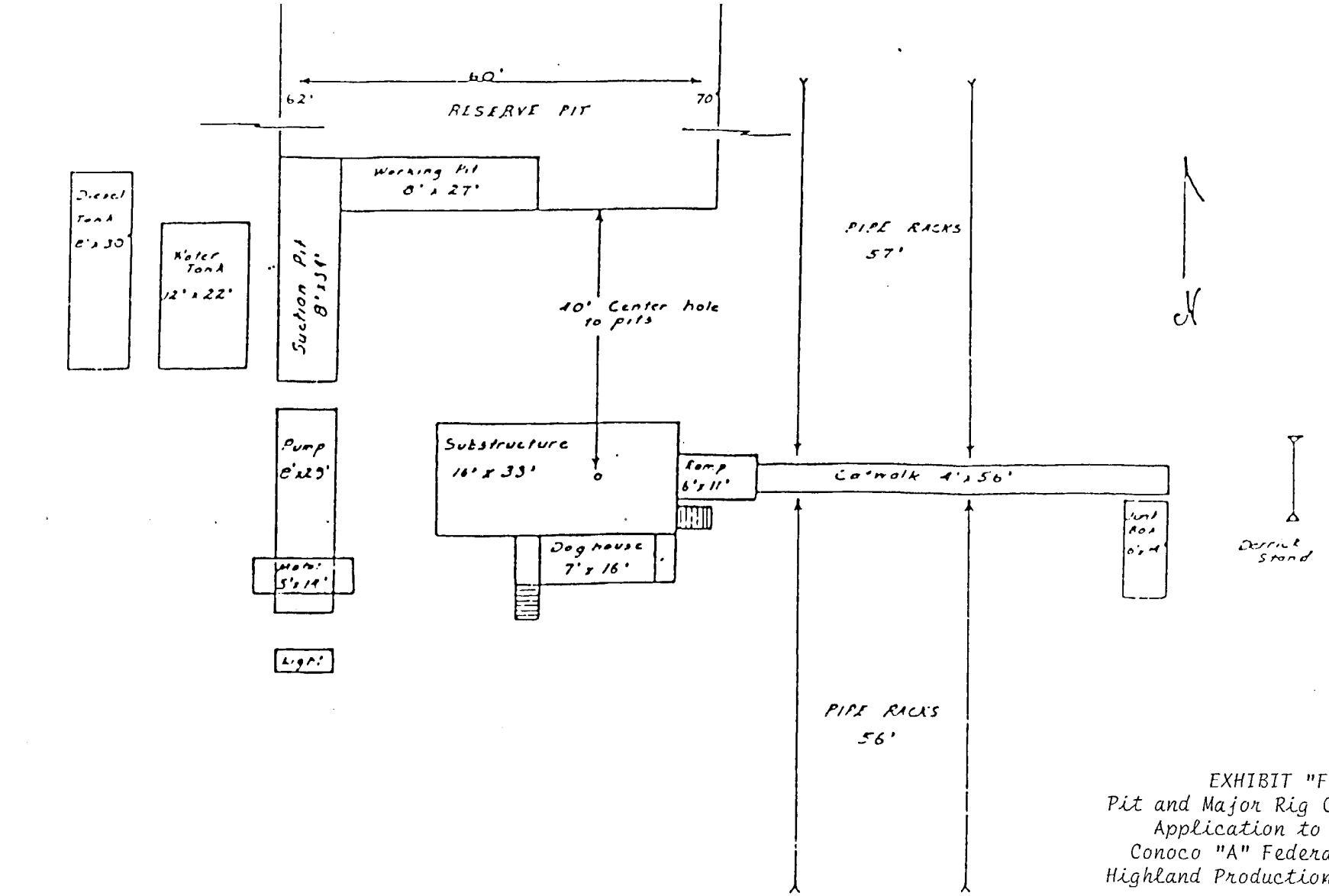


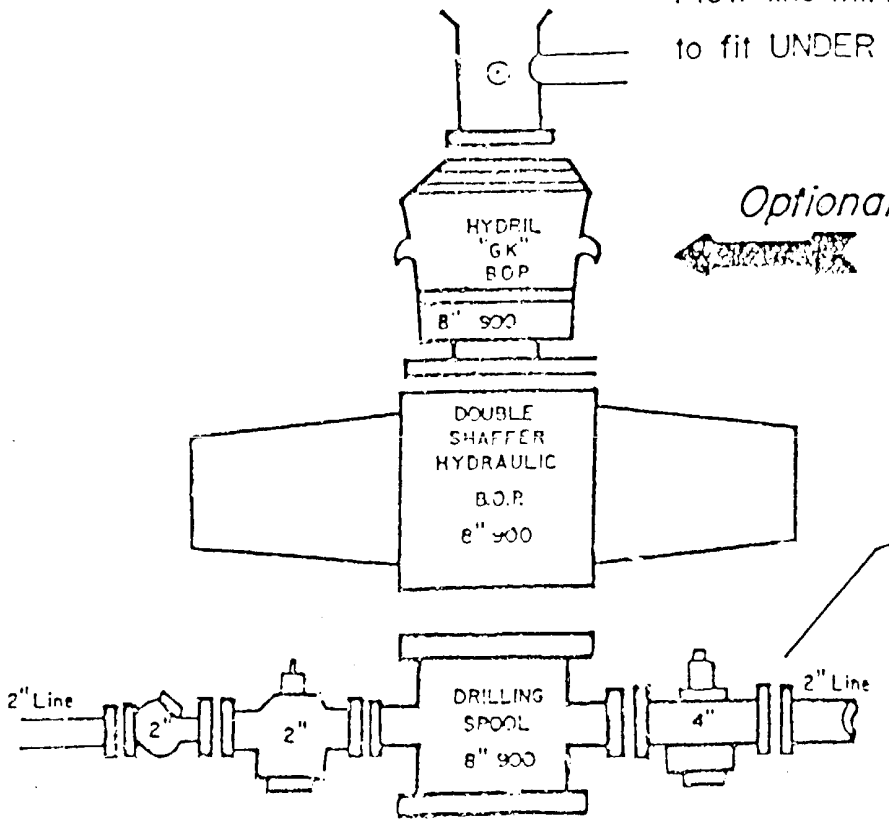
EXHIBIT "F"
Pit and Major Rig Components
Application to Drill
Conoco "A" Federal No. 3
Highland Production Company

Lea County, New Mexico

1" = 50'

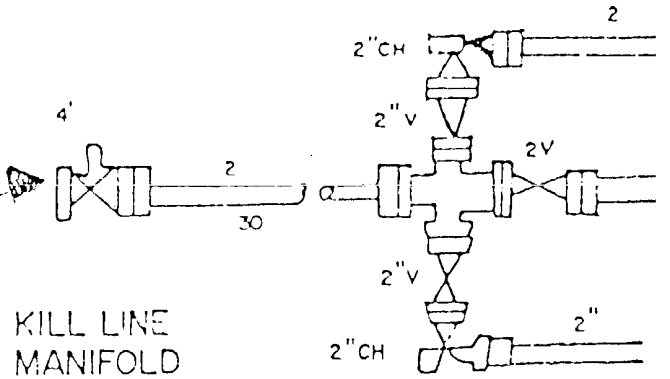
ASE ROTARY TABLE

Flow line will have to be made to fit UNDER Rotary.



Optional

2" 1500
4" 900



KILL LINE
MANIFOLD

Application to Drill
Conoco "A" Federal No. 3
Highland Production Company