Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-045-24365

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 [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Sun Oil Company

3. ADDRESS OF OPERATOR
2525 Northwest Expressway, Oklahoma City, Oklahoma 73112

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
1000'FNL & 1120'FWL
D
At proposed prod. zone
same

5. LEASE DESIGNATION AND SERIAL NO.
[redacted]047 NM

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A

8. FARM OR LEASE NAME
New Mexico Federal "N"

9. WELL NO.
#3E

10. FIELD AND POOL, OR WILDCAT
Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 18 T30N R12W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
4.1 miles Northwest of Farmington, New Mexico

12. COUNTY OR PARISH: San Juan
13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
1000'	1920	N/318.84 ~~320~~
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
-----	6900'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5956'GR

22. APPROX. DATE WORK WILL START*
March 15, 1980

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" new	24# K-55 ST&C	350'	250 sxs Class "A" plus additives
7-7/8"	4-1/2" new	9.5# K-55 ST&C	6900'	425+1300 sxs plus additives

1. Drill 12-1/4" hole and set 8-5/8" surface casing to 350' with good returns.
2. Log B.O.P. checks in daily drill reports and drill 7-7/8" hole to 6900.
3. Run tests if warranted and run 4-1/2" casing if productive.
4. Run logs as needed and perforate and stimulate as needed.

EXHIBITS ATTACHED:

"A" Location & Elevation Plat
"B" The Ten-Point Compliance Program
"C" The Blowout Preventer Diagram
"D" The Multi-Point Requirements for A.P.D.
"E" Access Road Map to Location
"F" Radius Map of Field
"G" Drill Pad Layout, Production Facilities & Cut-Fill Cross Section
"H" Drill Rig Layout
"K" Fracturing Program Layout

RECEIVED
FEB 29 1980
U.S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

RECEIVED
JUN 3 1980
OIL CON. COM.
DIST. 3

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 R. L. Manning TITLE Dist. Drilling Engr. DATE 2/25/80
R. L. Manning

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED AS AMENDED
JUN 2 1980
JAMES F. SIMS
DISTRICT ENGINEER

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

NMOCC

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

EXHIBIT "A"- Location & Elevation Plat

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
Sun Oil Company	USA 047 NM	Federal NM3E

Unit Letter	Section	Township	Range	County
D	18	30 North	12 West	San Juan

Actual Footage Location of Well:
1000 feet from the North line and 1120 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5956	Basin Dakota	Basin Dakota	N ~~320~~ 318.84 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

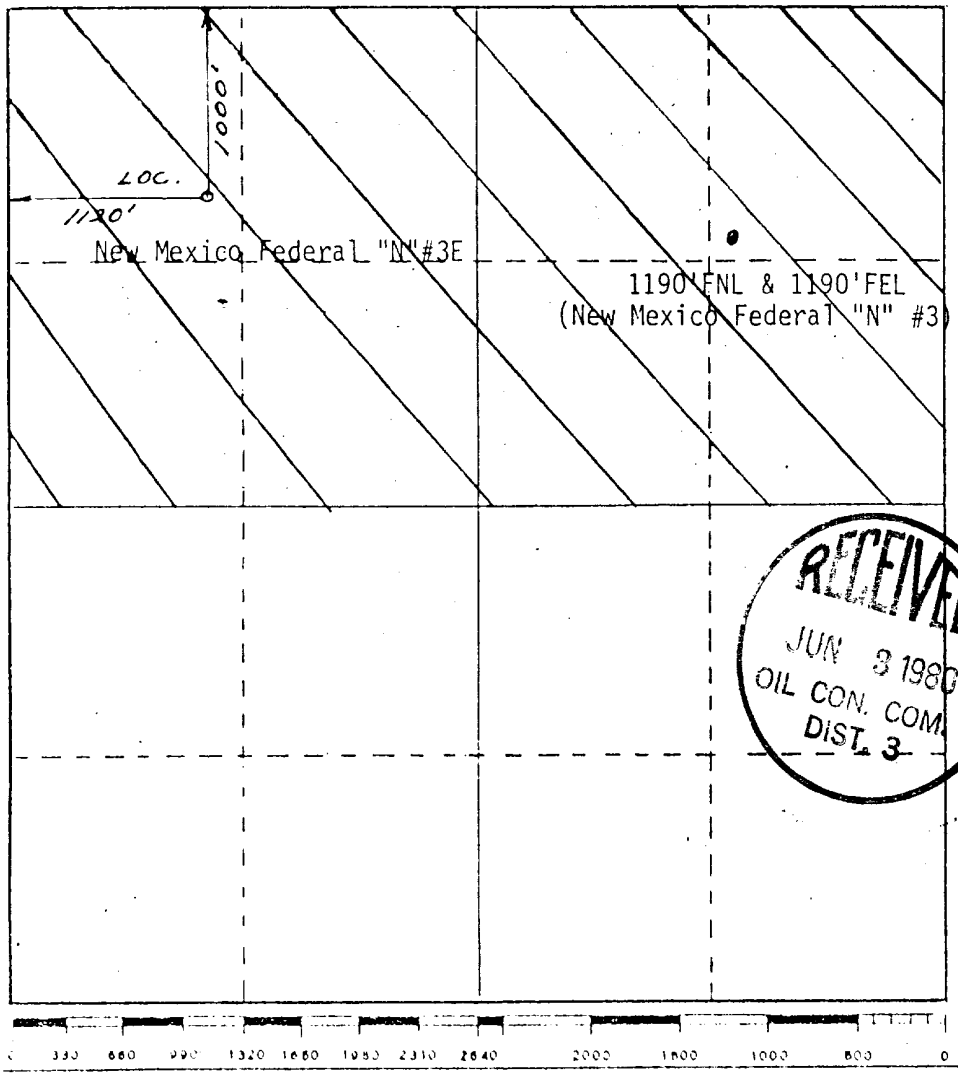
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by 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 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.

Name George Lapaseotes
V. Pres. Powers Elevation

Position
Agent Corsultant for

Company
Sun Oil Company

Date
2/26/80

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.

GERALD G. HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR

7 Feb 80

Date Surveyed
Gerald G. Huddleston

Registered Professional Engineer and or Land Surveyor

6844

Certificate No.

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM

OF NTL-6 APPROVAL OF OPERATIONS

Attached to Form 9-331C
Sun Oil Company
New Mexico Federal "N" #3E
NW NW Sec. 18 T30N R12W
1000'FNL & 1120'FWL
San Juan County, New Mexico

1. The Geologic Surface Formation

Torrejon - Puerco

2. Estimated Tops of Important Geologic Markers

Ojo Alamo	780'
Picture Cliffs	1953'
Cliff House	3530'
Point Lookout	4329'
Gallup	5596'
Basin Dakota	6535'
Total Depth	6900'

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

Ojo Alamo	780'	Water
Picture Cliffs	1953'	Gas
Cliff House	3530'	Gas
Point Lookout	4329'	Gas
Gallup	5596'	Gas
Basin Dakota	6535'	Gas

4. The Proposed Casing Program

HOLE SIZE	INTERVAL	SECTION LENGTH	SIZE (OD)	WEIGHT, GRADE & JOINT	NEW OR USED
12-1/4"	0-350'	350'	8-5/8"	24# K-55 ST&C	New
7-7/8"	0-6900'	6900'	4-1/2"	9.5# K-55 ST&C	New

Cement Program

(a) Surface Casing: Set 8-5/8" casing at 350' and cement with 250 sacks Class "A" + 2% $CaCl_2$ + ¼#/sack Flake. Circulate to surface.

(b) Production Casing: 1st Stage: Set 4½ casing at 6900' and cement with 425 sacks light + 6% Gel + 10#/sack Gilsonite. Tail in with 100 sacks Class "A" .75% CFR-2.
2nd Stage: Set DV tool at 4200' and cement with 1300 sacks 50-50 Pozmix + 2% Gel + 10#/sack Gilsonite. Calculated top of cement = 650'.

5. The Operator's Minimum Specifications for Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to 1/3 working pressure of casing after nippling up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Such checks of BOP will be noted on daily drilling reports.

Accessories to BOP will include a kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. The Type and Characteristics of the Proposed Circulating Muds

Mud system will be water-gel chemical with adequate stocks of sorptive agents on site to handle possible spills of fuel and oil on the surface. Heavier muds will be on location to be added if pressure requires.

INTERVAL	WEIGHT	WATER LOSS	VISCOSITY	MUD TYPE
0-350'	8.5-9.0ppg	NC	28-40 sec.	Water-Gel & Lime
350'-4000'	8.8-9.5ppg	15-25cc	28-30 sec.	Water-Gel & Soda Ash
4000'-6900'	9.0-9.5ppg	10-12cc	34-36 sec.	Low Solids-Dispersed Loss Circ. Material as Required

7. The Auxiliary Equipment to be Used

(a) A kelly cock will be kept in the string.

(b) A float will not be used at the bit.

(c) Neither a mud logging unit or a gas detecting device will be monitoring the system. The system will be monitored visually.

(d) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. The Testing, Logging and Coring Programs to be Followed

(a) No DST's are anticipated.

(b) The logging program will consist of a DIL-LL from 350' to total depth, and a CNL-FDC from 350' to total depth; other logs will be determined at well site to best evaluate any shows.

(c) No coring is anticipated.

(d) Completion program will consist of acidizing perforations down the tubing and cleaning up; and fracturing down the casing with gelled water and sand. Maximum treating pressure will be 3500#. See EXHIBIT "K" for equipment layout diagram.

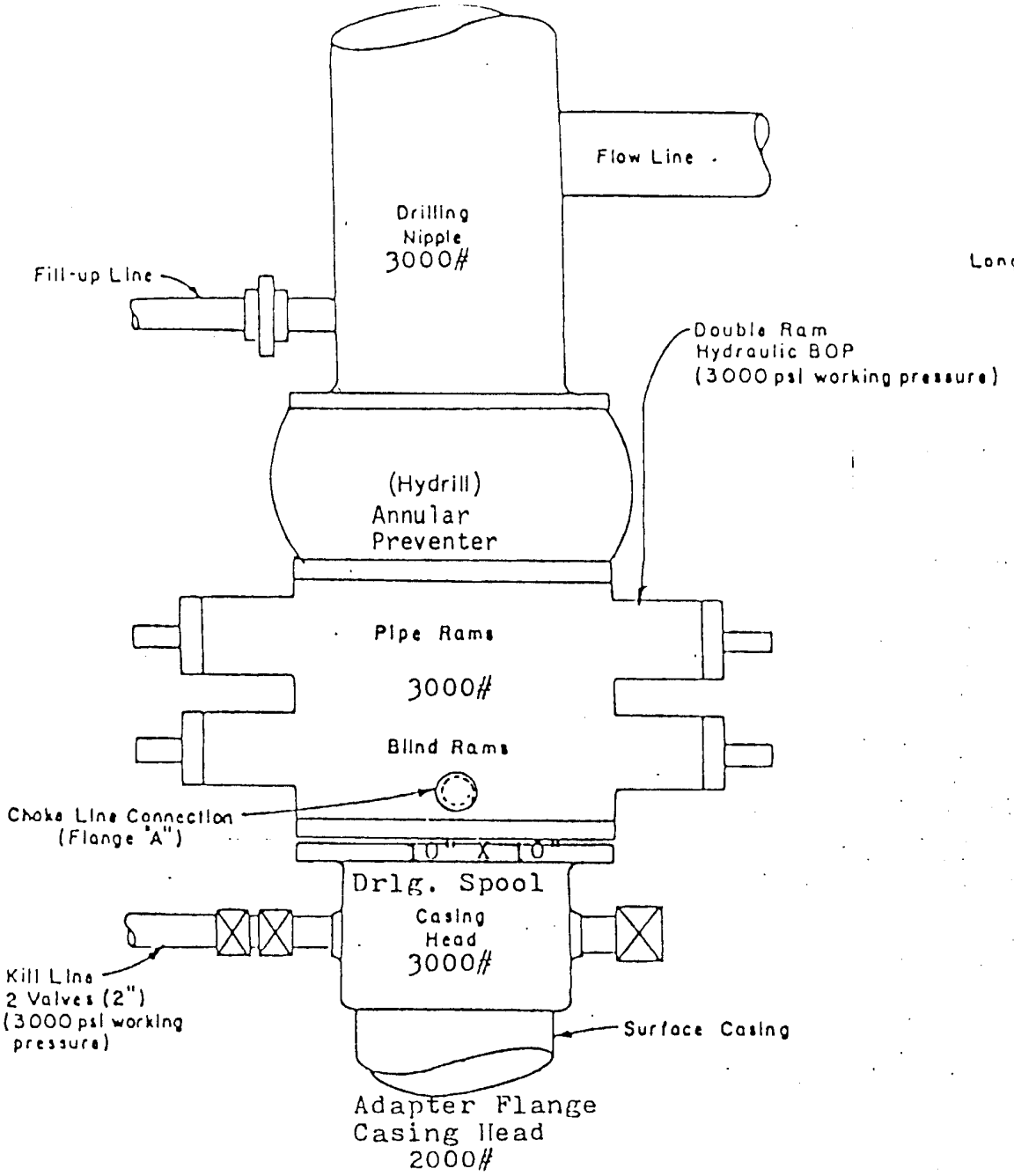
9. Any Anticipated Abnormal Pressures or Temperatures

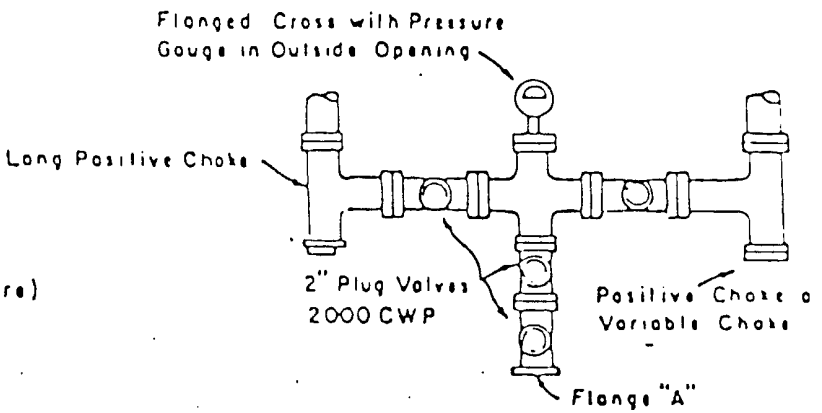
No abnormal pressures or temperatures have been noted or reported in wells drilled in this area nor at the depths anticipated in this well. Bottom hole pressure expected is 3250 psi.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for March 15, 1980, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 30 days after spudding the well and drilling to casing point.





PLAN VIEW - CHOKE MANIFOL

BLOWOUT PREVENTER
DIAGRAM

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Attached to Form 9-331C
Sun Oil Company
New Mexico Federal "N" #3E
NW NW Sec. 18 T30N R12W
1000' FNL & 1120' FWL
San Juan County, New Mexico

1. Existing Roads

A. The proposed well site and elevation plat is shown as EXHIBIT "A".

B. The distance from Farmington, New Mexico is 4.1 miles. From the intersection of Mayfair Drive and Highway #550 proceed North and West 2.6 miles to intersection of dirt roads; thence West on dirt road 0.9 mile, thence North 0.1 mile thence West 0.3 mile, then North 0.3 mile, then Southwest 75' on proposed access to location, as shown on EXHIBIT "E".

C. All roads to location are color-coded on EXHIBIT "E". An access road 75 feet from the existing graded road will be required, as shown on EXHIBIT "E".

D. N/A

E. This is a development well. All existing roads within a one-mile radius are shown on EXHIBIT "E".

F. The existing roads need no improvement.

2. Planned Access Roads

Map showing all necessary access roads to be constructed or reconstructed is shown as EXHIBIT "E" for the following:

(1) The maximum width of the running surface of the 75 feet of access road, extending beyond the existing graded road will be 18'.

(2) The grade will be 8% (eight percent) or less.

(3) No turn outs are planned.

(4) Appropriate water bars will be constructed to assure drainage off location to conform with the natural drainage pattern.

(5) No culverts are needed. No major cuts or fills are anticipated along access road during drilling operation.

(6) Surfacing materials will be native soil.

(7) No gates, cattle guards, or fence cuts are needed.

(8) The new access road to be constructed was staked and centerline flagged, as shown on EXHIBIT "E".

3. Location of Existing Wells

For all existing wells within a one mile radius of development well, see EXHIBIT "F".

(1) There are no water wells within a one-mile radius of this location.

(2) There are no abandoned wells in this one-mile radius.

(3) There are no temporarily abandoned wells.

(4) There are no disposal wells.

(5) There are no wells presently being drilled.

(6) There are five producing wells within this one-mile radius.

(7) There are no shut-in wells.

(8) There are no injection wells.

(9) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

A. Within a one-mile radius of location the following existing facilities are owned or controlled by lessee/operator:

(1) Tank Batteries: None

(2) Production Facilities: Yes

(3) Oil Gathering Lines: None

(4) Gas Gathering Lines: None

(5) Injection Lines: None

(6) Disposal Lines: None

B. If the well is productive, new facilities will be as follows:

(1) Production facilities will be located on solid ground of cut area of drill pad, as shown on EXHIBIT "G".

(2) All well flow lines will be buried and will be on the well site and battery site.

(3) Facilities will be 300 feet long and 220 feet wide.

(4) All construction materials for battery site and pad will be obtained from site. No additional material from outside sources is anticipated.

(5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.

C. Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with B.L.M. stipulations.

5. Location and Type of Water Supply

A. The source of water will be the La Plata River, 4.4 miles West of the location.

B. Water will be transported by truck over existing roadways.

C. No water well is to be drilled on this lease.

6. Construction Materials

A. No construction materials are needed for drilling well or constructing access roads into the drilling location unless well is productive. The surface soil materials will be sufficient or will be purchased from Dirt Contractor as needed.

B. No construction materials will be taken off Federal land.

C. All surface soil materials for construction of access roads are sufficient.

D. All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

(1) Drill cuttings will be buried in the reserve pit.

(2) Drilling fluids will be handled in the reserve pit.

(3) Any fluids produced during drilling test or while making production test will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt water or other noxious fluids will be cleaned up and removed.

(4) Chemical toilet facilities will be provided for human waste.

(5) Garbage, waste, salts and other chemicals produced during drilling or testing will be handled in trash/burn pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on EXHIBIT "H". The trash/burn pit will be totally enclosed with small mesh wire to prevent wind scattering trash before being burned or buried. Reserve pit will be fenced on three sides and the fourth side fenced upon removal of the rig.

(6) After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. Any dangerous open pit will be fenced during drilling and kept closed until the pit has dried and is filled.

8. Ancillary Facilities

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

(1) EXHIBIT "G" is the Drill Pad Layout as staked, with elevations, by Powers Elevation of Durango, Colorado. Cuts and fills have been drafted to visualize the planned cut across the location spot and the deepest part of the pad. Topsoil will be stockpiled per BLM specifications determined at time of pre-drill inspection.

(2) EXHIBIT "H" is a plan diagram of the proposed rig and equipment, reserve pit, trash/burn pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be a trailer on site.

(3) EXHIBIT "G" is a diagram showing the proposed production facilities layout.

(4) The reserve pits will not be lined. Steel mud tanks may be used during drilling operations.

10. Plans for Restoration

(1) Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.

(2) The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the BLM. Revegetation is recommended for road area, as well as around drill pad.

(3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from becoming entrapped; and the fencing will be maintained until leveling and cleanup are accomplished.

(4) If any oil is on the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.

(5) The rehabilitation operations will begin immediately after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best in Spring, 1981, unless requested otherwise.

11. Other Information

(1) The soil is a sandy-clay loam. No distinguishing geological features are present. The area is covered with cactus, sagebrush, cheat grass, cedar, juniper and native grass. There are rabbits and deer in the area. The topography is gently rolling North-Northwest.

(2) The surface is not used. The surface is owned by Hickman, McCoy and McCarty.

(3) The closest live water is the Las Animas River 4 miles Southeast of the location, as shown on EXHIBIT "E".

The closest occupied dwelling is located approximately 2000 feet South of location, as shown on EXHIBIT "E".

There are no known archaeological, historical, or cultural heritages that will be disturbed by this drilling.

(4) There are no reported restrictions or reservations noted on the oil and gas lease.

(5) Drilling is planned for on or about March 15, 1980. It is anticipated that the casing point will be reached within 30 days after commencement of drilling.

12. Lessee's or Operator's Representative

George Lapaseotes
Agent Consultant for
Sun Oil Company
600 South Cherry Street
Suite 1201
Denver, Colorado 80222
Phone (303) 321-2217

Ralph Maness
Sun Oil Company
2525 Northwest Expressway
Oklahoma City, Oklahoma 73112
Phone (405) 843-9711

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 Sun Oil Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

2-26-80
Date

George Lapaseotes
George Lapaseotes
Agent Consultant for
Sun Oil Company

EXHIBIT "E"
Access Road onto Location

Sun Oil Company
New Mexico Federal "N" #3E
NW NW Sec. 18 T30N R12W
1000'FNL & 1120'FWL
San Juan County, New Mexico

Closest Occupied Dwelling

Closest Town

Closest Live Water

LEGEND

Graded Road
New Access Road

EXHIBIT "F"
Radius Map of Location

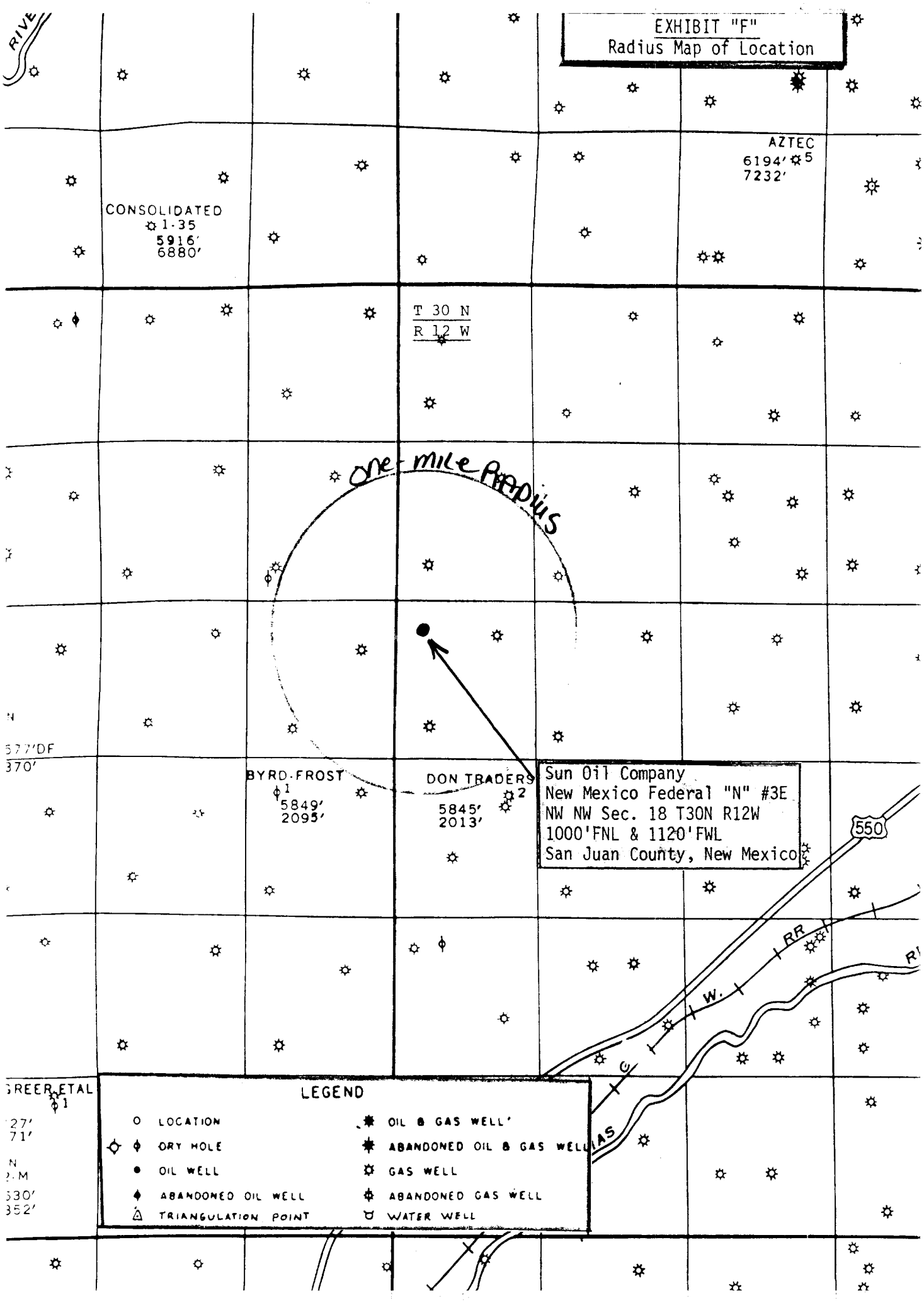
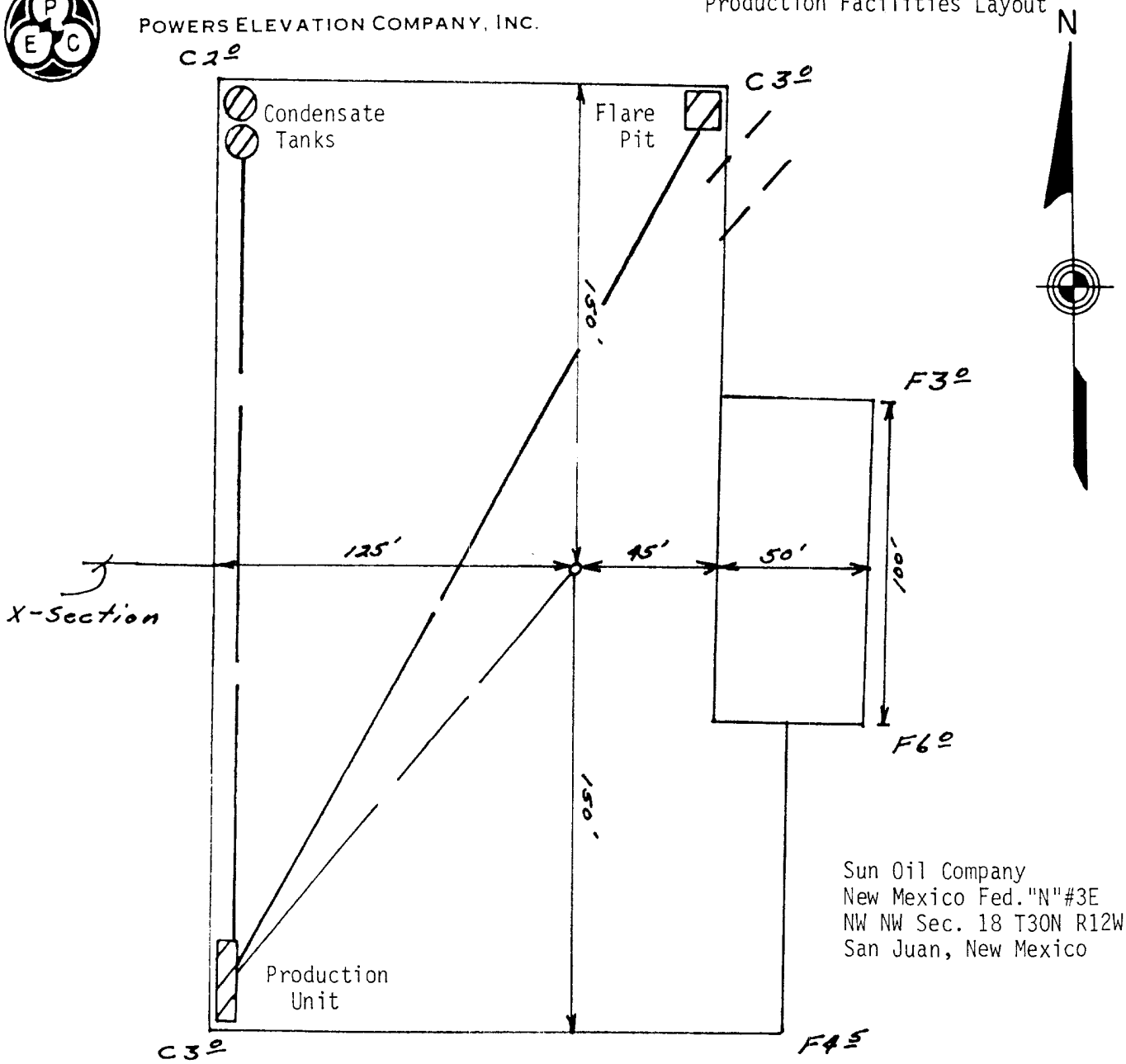


EXHIBIT "G"
Drill Pad Layout &
Production Facilities Layout

POWERS ELEVATION COMPANY, INC.



Sun Oil Company
New Mexico Fed."N"#3E
NW NW Sec. 18 T30N R12W
San Juan, New Mexico

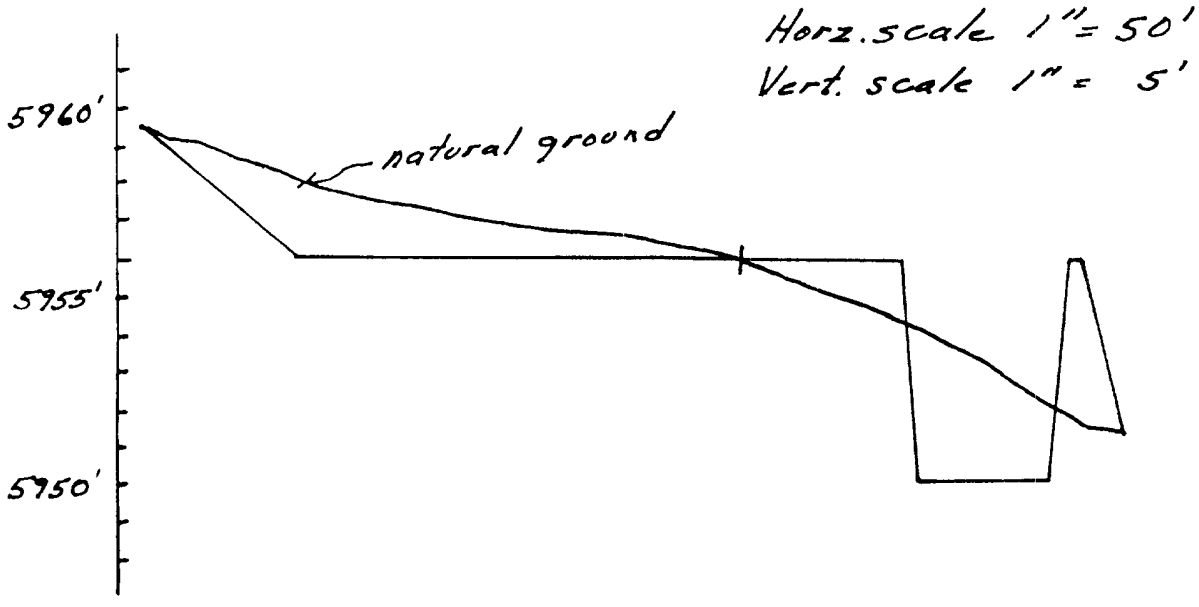
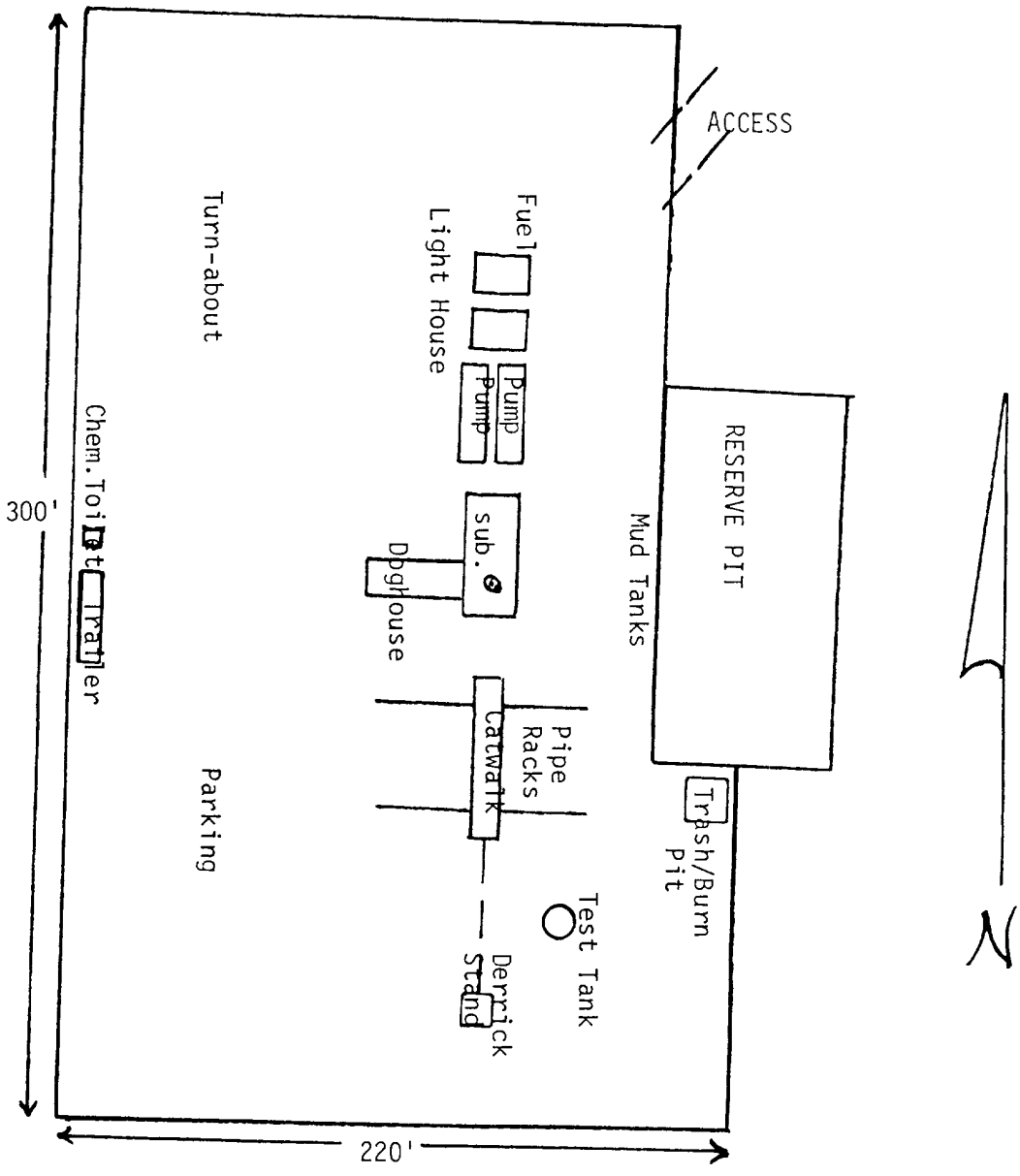


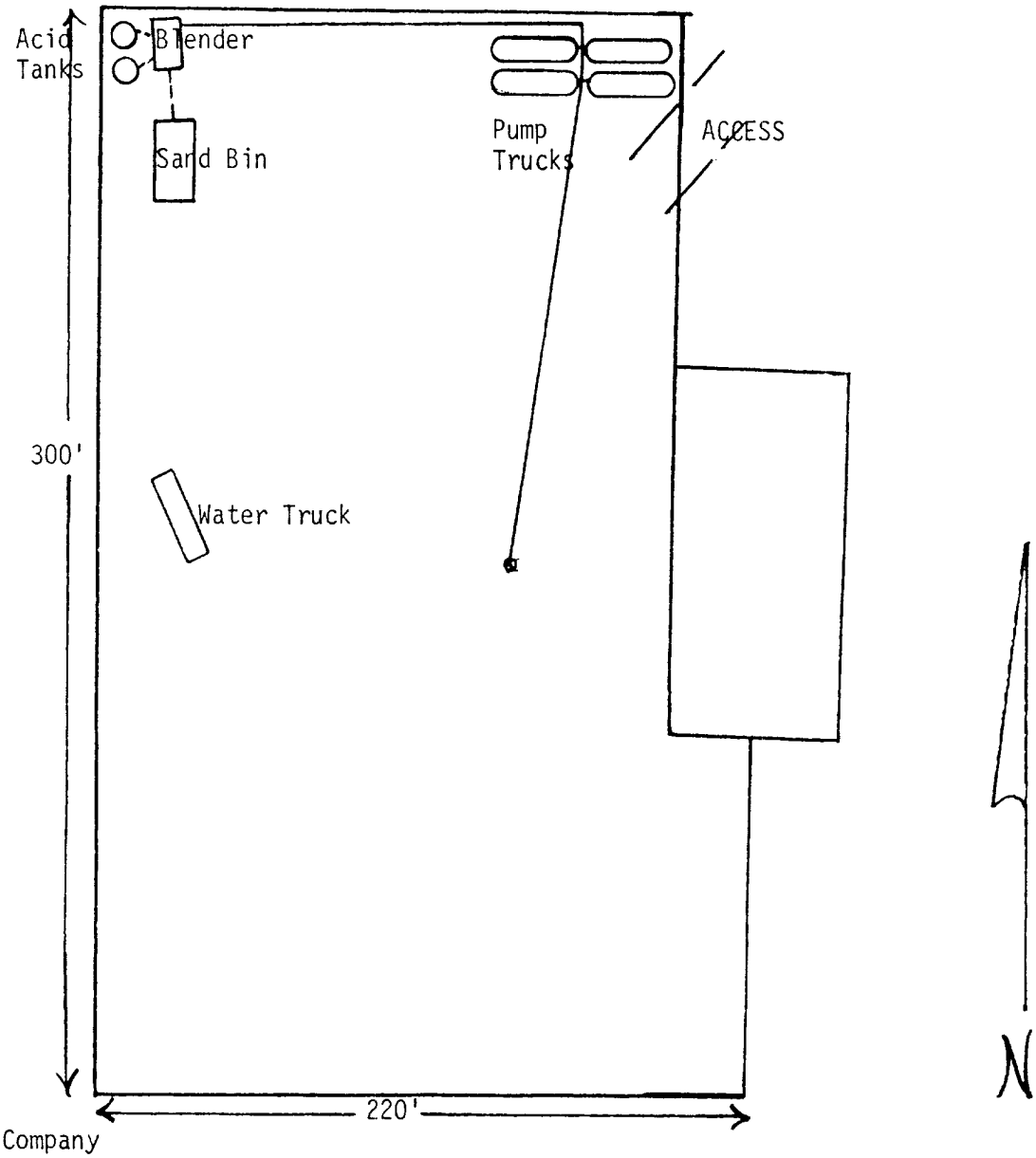
EXHIBIT "H"
Drill Rig Layout



Sun Oil Company
New Mexico Federal "N" #3E
NW NW Sec. 18 T30N R12W
San Juan, New Mexico

Scale: 1" = 50'

EXHIBIT "K"
Fracturing Program Layout



Sun Oil Company
New Mexico Federal "N" #3E
NW NW Sec. 18 T30N R12W
San Juan County, New Mexico

Scale: 1" = 50'