

UNIT
DEPARTMENT
BUREAU OF

APPLICATION FOR F

OPER. LOGID NO. 193407
PROPERTY NO. 37361
POOL CODE 49780
REF. DATE 4/29/02
API NO. 30-025-35897LICATE*
(ons on
e)FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

CONCHO OIL & GAS, INC.

(GREG WILKES 915-683-7443)

3. ADDRESS AND TELEPHONE NO.

110 WEST LOUISIANA SUITE 410 MIDLAND, TEXAS 79701 (915-683-7443)

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

At surface

990' FEL & 990' FNL SEC. 28 T19S-R34E LEA CO. NM

At proposed prod. zone SAME

Capitan Controlled Water Basin

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

Approximately 30 miles Southwest of Hobbs, New Mexico.

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

990'

16. NO. OF ACRES IN LEASE

320

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.

1500'

19. PROPOSED DEPTH

5200'

20. ROTARY OR CABLE TOOLS

ROTARY

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

3727' GR.

22. APPROX. DATE WORK WILL START*
WHEN APPROVED

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	40'	Cement to surface with Redi-mix.
12 1/4"	J-55 8 5/8"	32	1350'	650 Sx. circulate to surface
7 7/8"	J-55 5 1/2"	15.5	5200'	700 Sx. circulate to surface

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 12 1/4" hole to 1350'. Run and set 1350' of 8 5/8" 32# J-55 ST&C casing. Cement with 450 Sx. of 35/65 POZ + 6% Gel + 1/4# Flocele/Sx. + 2% CaCl, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
3. Drill 7 7/8" hole to 5200'. Run and set 5200' of 5 1/2" 15.5# J-55 ST&C casing. Cement with 275 Sx. of 50/50 POZ + 10% Gel + 5% Salt + 3# Gilsonite/Sx. + 1/4# Flocele/Sx, tail in with 425 Sx. of Class "C" + fluid loss additive + dispersant + 5% Salt, circulate cement to surface

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on proposed deepening and proposed productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24.

SIGNED

TITLE Agent

DATE 03/11/02

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

/S/ JOE G. LARA

ACTING

FIELD MANAGER

APPROVED BY

TITLE

DATE

APR 24 2002

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

BUREAU OF LAND MGMT.
ROSWELL OFFICE

2002 MAR 12 AM 9:15

RECEIVED

ISA JOE G. LABA

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-35897	Pool Code 49780	Pool Name PEARL-QUEEN
Property Code 27361	Property Name SUN PEARL FEDERAL	Well Number 5
OGRID No. 193407	Operator Name CONCHO OIL & GAS CORPORATION	Elevation 3727'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	19-S	34-E		990	NORTH	990	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

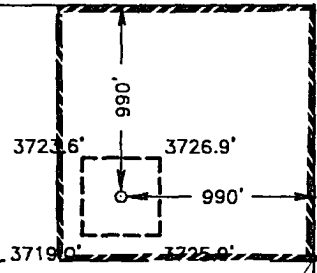
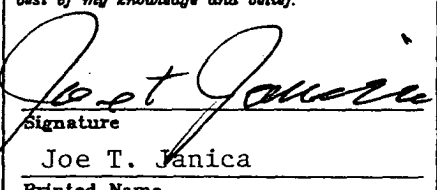
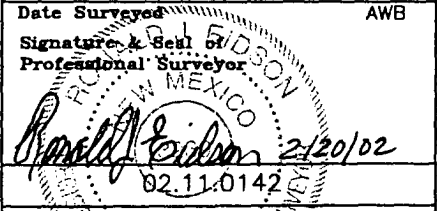
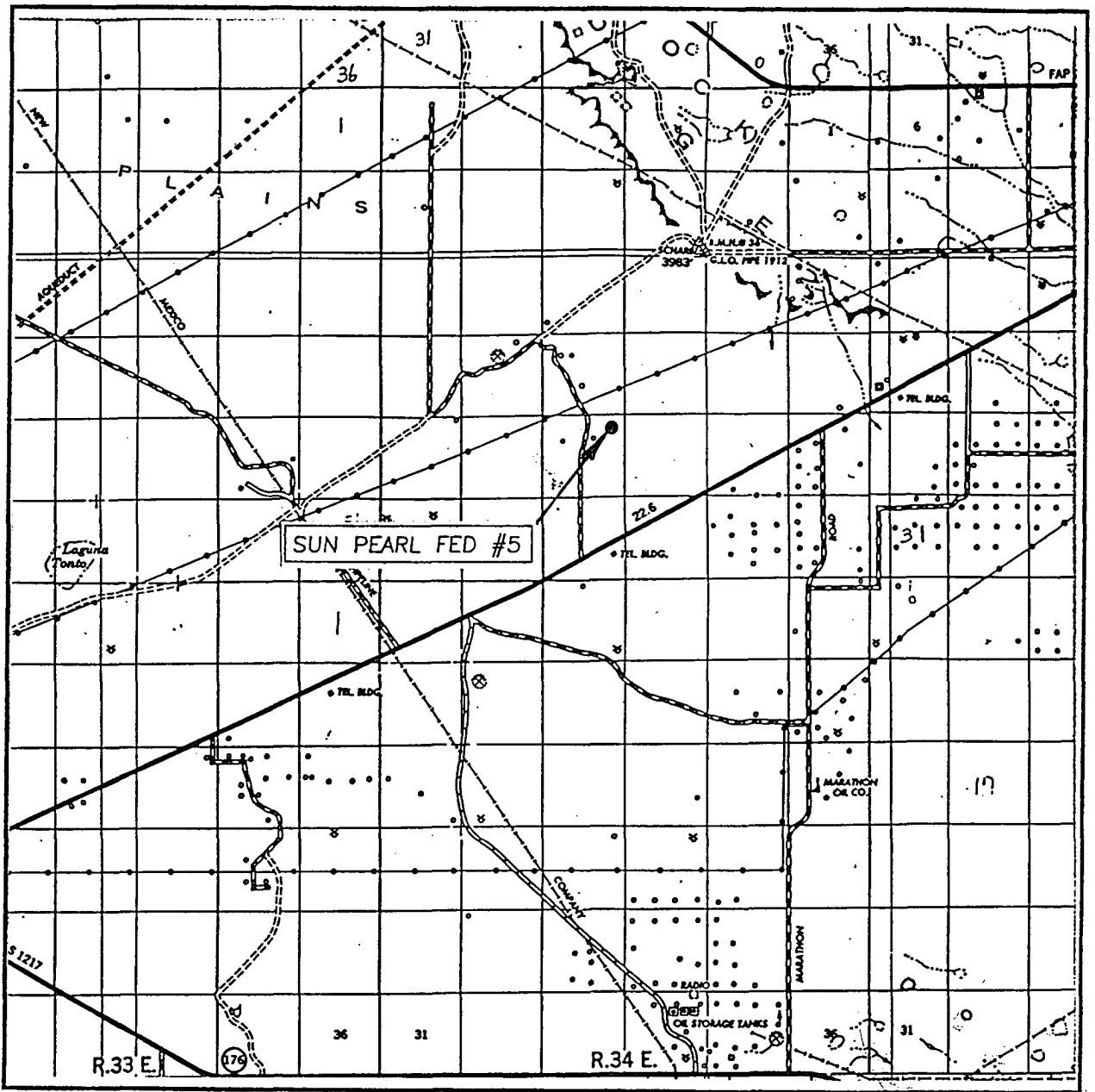
	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature Joe T. Janica Printed Name Agent Title 03/11/02 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from 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 belief. FEBRUARY 19, 2002 Date Surveyed Signature & Seal of Professional Surveyor  Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641

EXHIBIT "A"

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 19-S RGE. 34-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 990' FNL & 990' FEL

ELEVATION 3727'

OPERATOR CONCHO OIL & GAS CORPORATION

LEASE SUN PEARL FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

3758 Gas Well

Oil Well

Drill Hole

3745

3750

Oil Well

3778

Drill Hole

3755

3737

21

OIL AND GAS FIELD

Drill Hole

SUN PEARL FED #5

3708

Oil Well

3719

Oil Well

PIPELINE

28

3700

Drill Hole

1283.4' OF ACCESS ROAD

TRAIL

36

32'30"

11.5A1

CONTOUR INTERVAL: 10

IRONHOUSE WELL, N.M.

IRONHOUSE WELL, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

APPLICATION TO DRILL

CONCHO OIL & GAS CORP
 SUN PEARL FEDERAL # 5
 UNIT "A" SECTION 28
 T19S-R34E LEA CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location: 990' FEL & 990' FNL SEC. 28 T19S-R34E LEA CO. NM
2. Elevation above Sea Level: 3727' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 5200'
6. Estimated tops of geological markers:

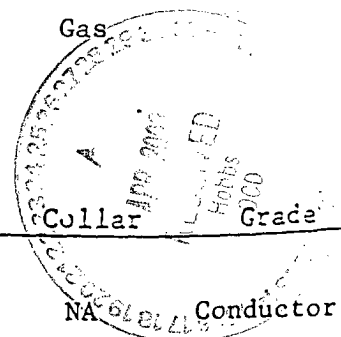
Rustler Anhydrite	1500'		
Yates	3590'	Queen	4550'
7 Rivers	3896'	Penrose	4788'

7. Possible mineral bearing formations:

Queen	Oil	Yates	Gas
Penrose	Oil		

8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
12 1/4"	0-1350'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-5200'	5 1/2"	15.5	8-R	ST&C	J-55



APPLICATION TO DRILL

CONCHO OIL & GAS CORP
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
8 5/8"	Surface	Set 1350' of 8 5/8" 32# J-55 ST&C casing. Cement with 450 Sx. of 35/65 Class "C" POZ + 6% Gel + 1/4# Flocele/Sx. + 2% CaCl, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
5 1/2"	Production	Set 5200' of 5 1/2" 15.5# J-55 ST&C casing. Cement with 275 Sx. of Class "C" 50/50 POZ + 10% Gel + 5% Salt + 3# Gilsonite/Sx. + 1/4# Flocele/Sx., tail in with 425 Sx. of Class "C" cement + fluid loss material + dispersant + 5% Salt, <u>circulate cement to surface.</u>

LEACDA

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped up on the 13 3/8" casing and tested to ~~API specifications~~. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

Onshore
Orders
NO. 02

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-1350'	8.5-8.7	29-38	NC	Fresh water spud mud add paper to control seepage use high viscosity sweeps to clean hole.
1350-4000'	9.8-10.2	29-38	NC	Brine water use paper to control seepage.
4000-5200'	10.0-10.2	29-38	15 cc or less	Brine water add Salt water Gel for viscosity and starch to control water loss. Use high viscosity sweeps to clean hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

CONCHO OIL & GAS CORP
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, LDT, CNL, Caliper, Gamma Ray from TD back to 1350'. Gamma Ray, Neutron from 1350' back to surface.

B. No cores or DST's are planned at this time.

Mud logger may be placed on hole at the Geologist's direction.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2400 PSI, and Estimated BHT 135°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 20 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

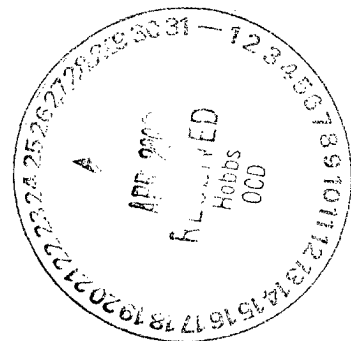
15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The QUEEN formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If location is near any dwelling a closed D.S.T. will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H_2S scavengers if necessary.



SURFACE USE PLAN

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

1. EXISTING ROADS & PROPOSED ROADS: Area maps; Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From Hobbs take U.S. Hi-way 62-180 West toward Carlsbad New Mexico go 28± miles turn North on to lease road go 1.1 miles turn East go 1000' to well # 1 turn North go 1400' to well # 3 bear Northeast go 1250' to location.
 - C. Flow lines and powerlines will be laid and constructed along road R-O-W from well to tank battery. See Exhibit "F".
2. PLANNED ACCESS ROADS: Approximately 1250' of new road will be constructed.
 - A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.
 - B. Gradient of all roads will be less than 5.00%.
 - C. If turn-outs are necessary they will be constructed.
 - D. If needed roads will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
 - E. Center-line for new roads will be flagged. Earth-work will be will be done as field conditions require.
 - F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilize low water crossings for drainage as required by topography.
3. LOCATIONS OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"
 - A. Water wells None known
 - B. Disposal wells One approximately 1000' Northwest of location
 - C. Drilling wells None known
 - D. Producing wells As shown on Exhibit "A-1"
 - E. Abandoned wells As shown on Exhibit "A-1"

SURFACE USE PLAN

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit "F".

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site; if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
- D. Waste water from living quarters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthed drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

8. ANCILLARY FACILITIES:

- A. No camps or air strips will be constructed on location.

SURFACE USE PLAN

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

SURFACE USE PLAN

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

11. OTHER INFORMATION:

- A. Topography consists of sand dunes, sandy soils with native grasses consisting of Sand Sage, Scrub Oak, Snakeweed and Mesquite. Drainage is Westerly toward the Querecho Plains.
- B. The surface is owned by The Bureau of Land Management, U.S. Dept. of Interior.
- C. An Archaeological survey will be conducted and the results will be submitted to the Bureau of Land Management, Carlsbad, New Mexico.
- D. No dwellings within one mile of location.

12. OPERATORS REPRESENTATIVE:

Field representative to contact regarding compliance with Application to Drill and Surface Use Plan is:

Before APD is approved.

Tierra Exploration Inc.
P.O. Box 2188
Hobbs, N.M. 88241
Joe T. Janica
Office Phone: 505-392-2112

After APD is approved.

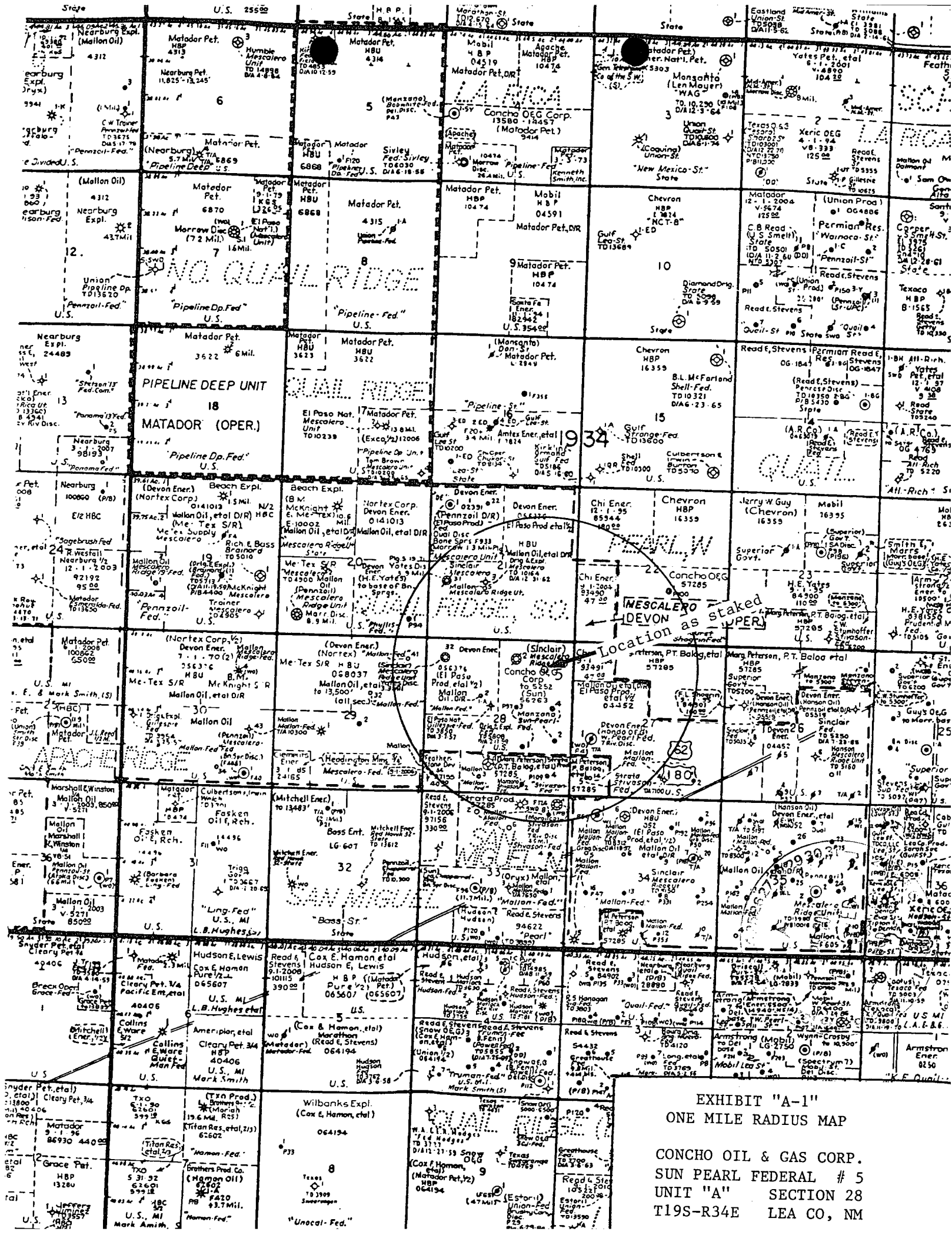
Concho Oil & Gas Corp.
110 Louisiana Suite 410
Midland, Texas 79701
Greg Wilks
Phone 915-683-7443

13. CERTIFICATION: I hereby certify that I, or persons under by direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently 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 Concho Oil & Gas Corp. it's contractors/subcontractors in conformity with this plan and the terms and the conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for filing a false statement.

DATE: 03/11/02

NAME: JOE T. JANICA

TITLE: AGENT



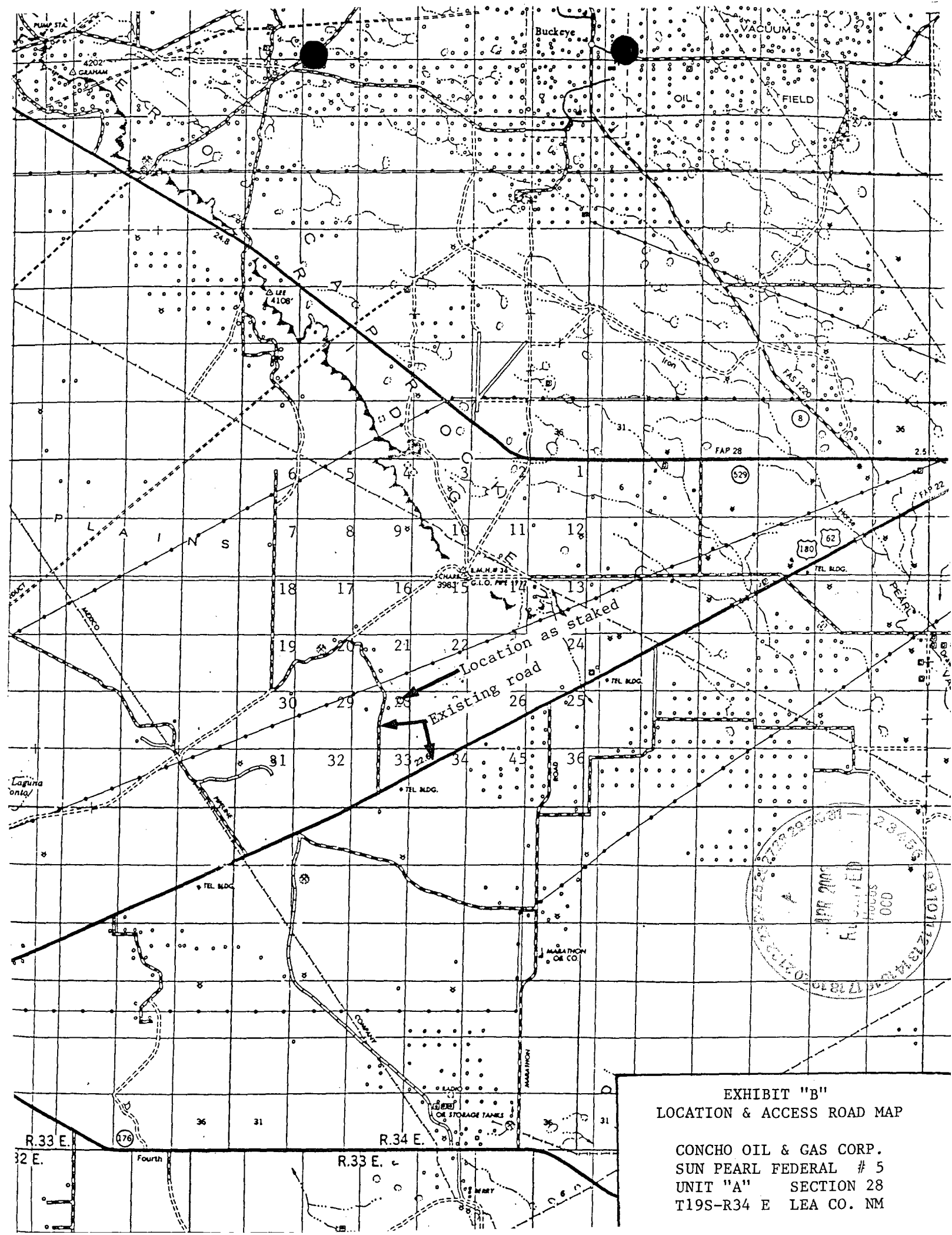


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34 E LEA CO. NM

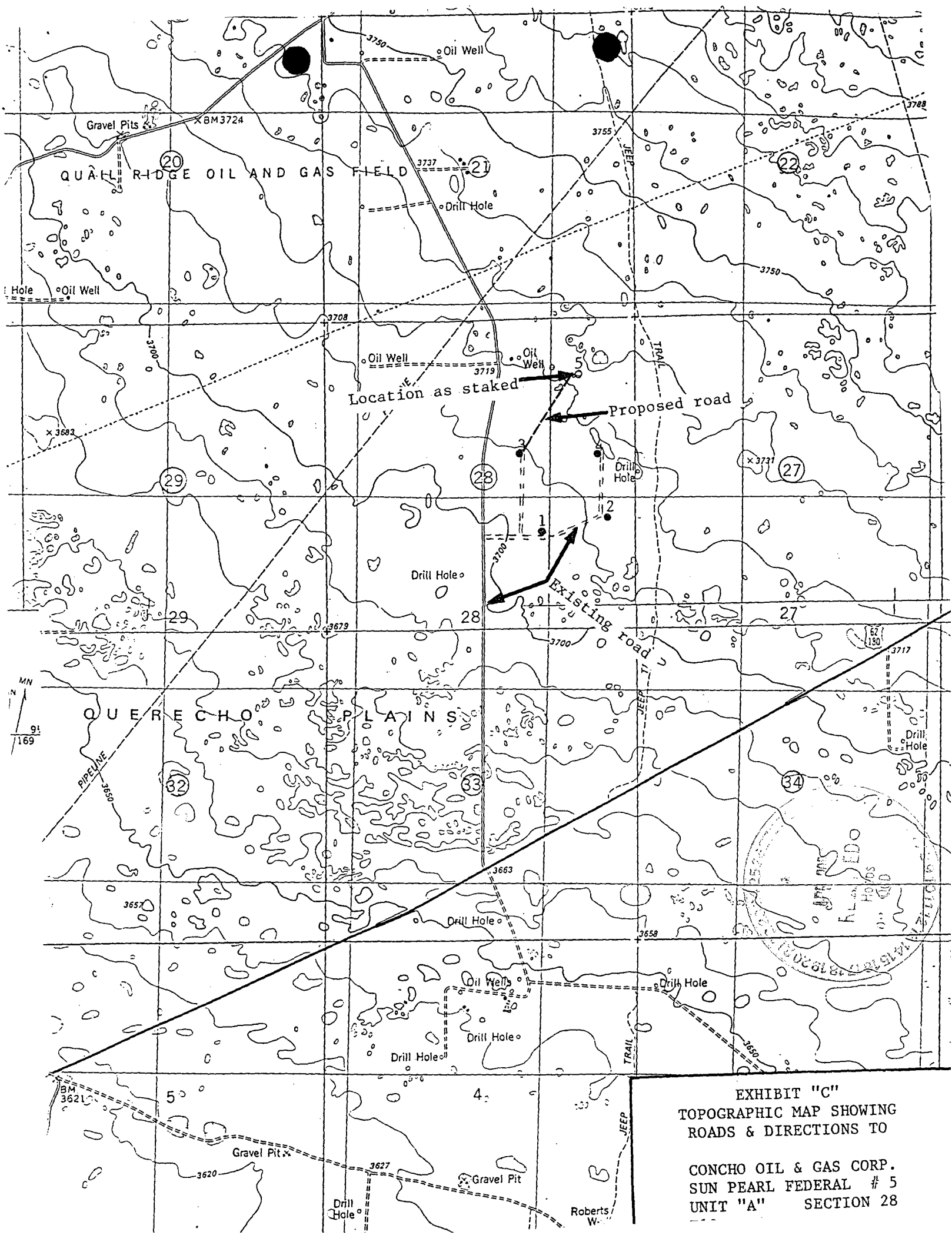
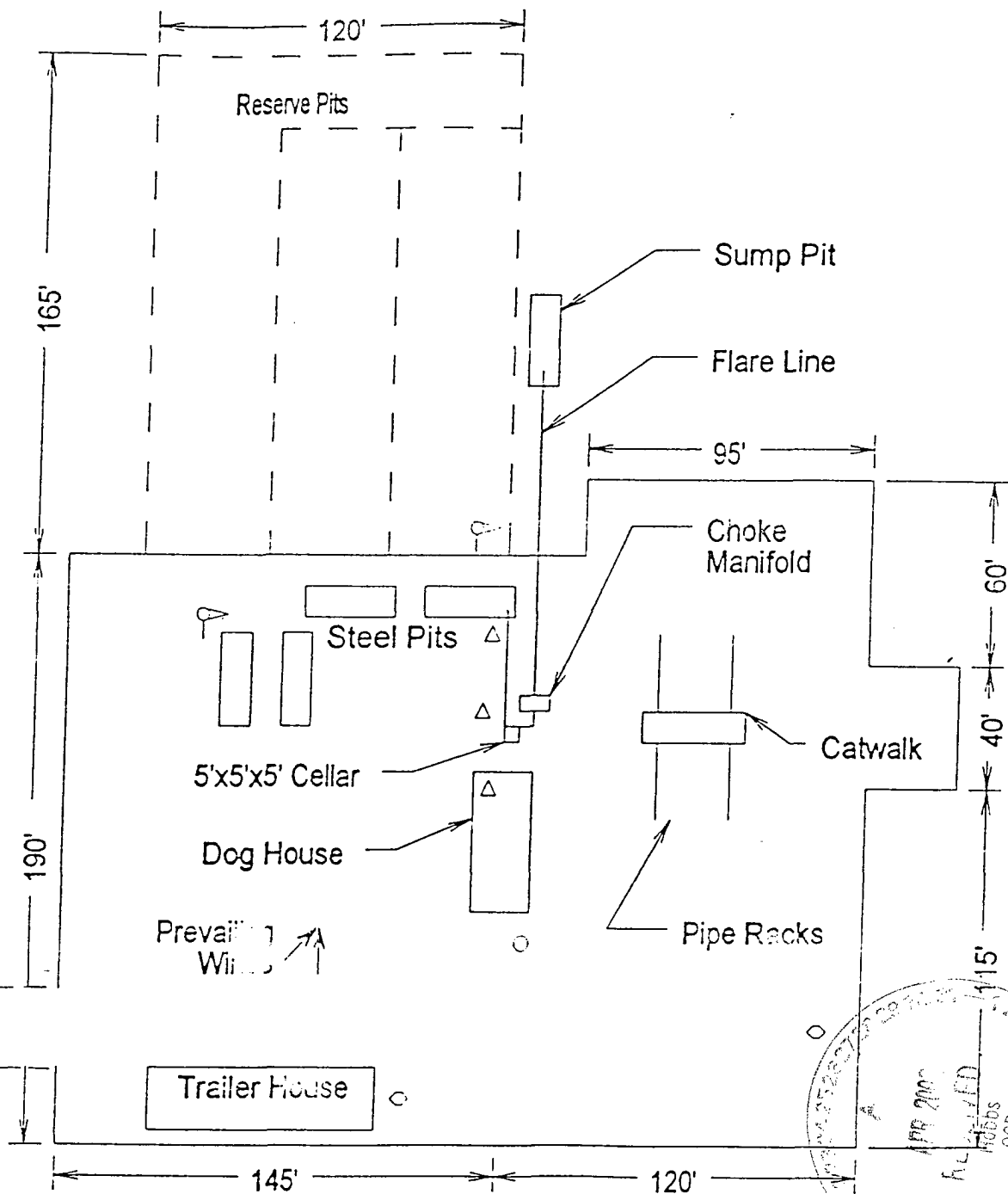


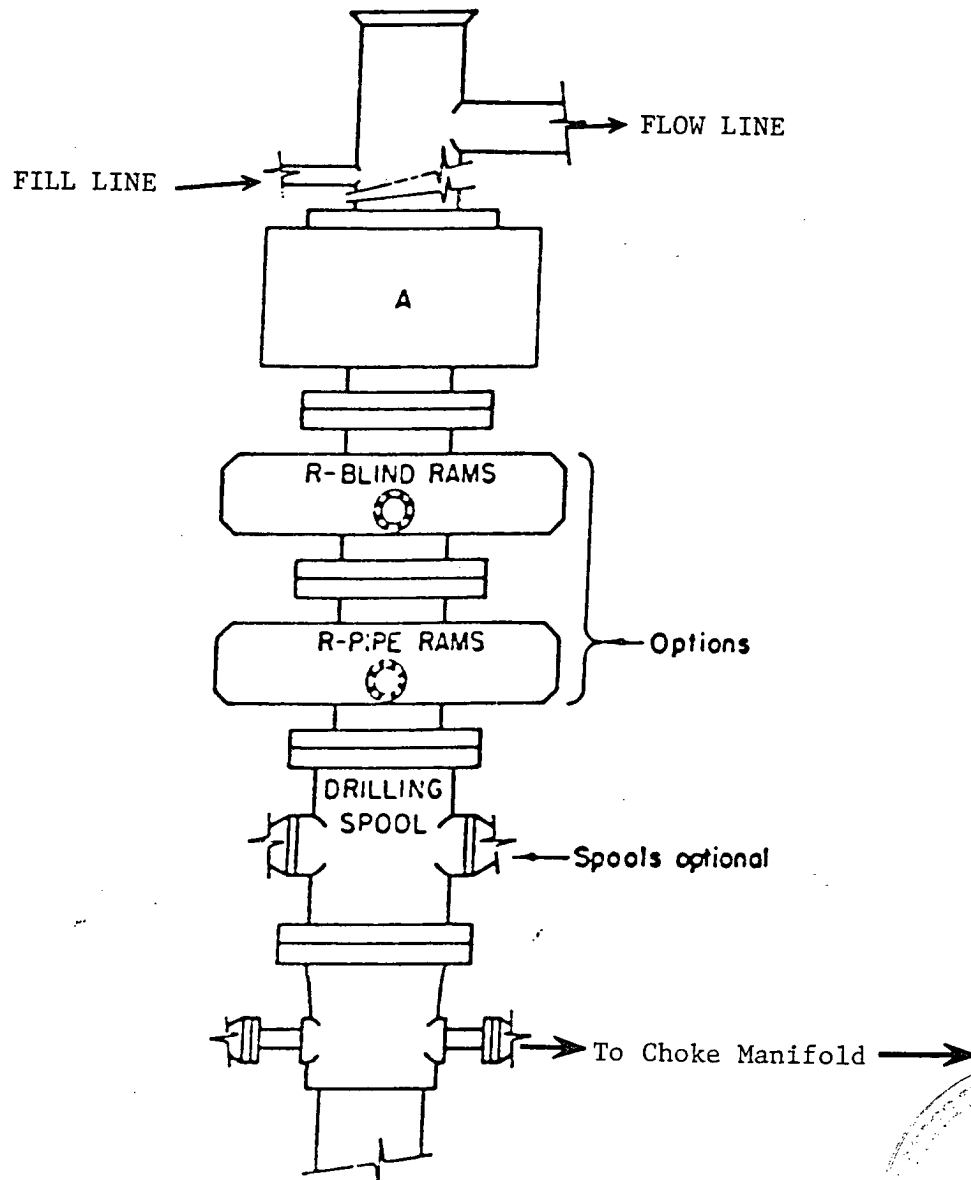
EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO
CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28



- ⤴ Wind Direction Indicators
(wind sock or streamers)
- △ H2S Monitors
(alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM



ARRANGEMENT SRRA

900 Series
3000 PSI WP

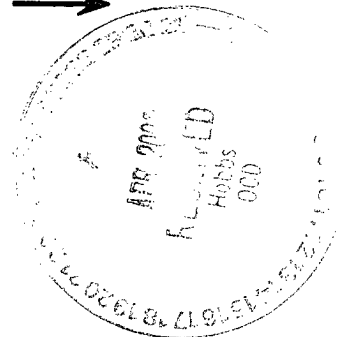


EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S- R34E LEA CO. NM

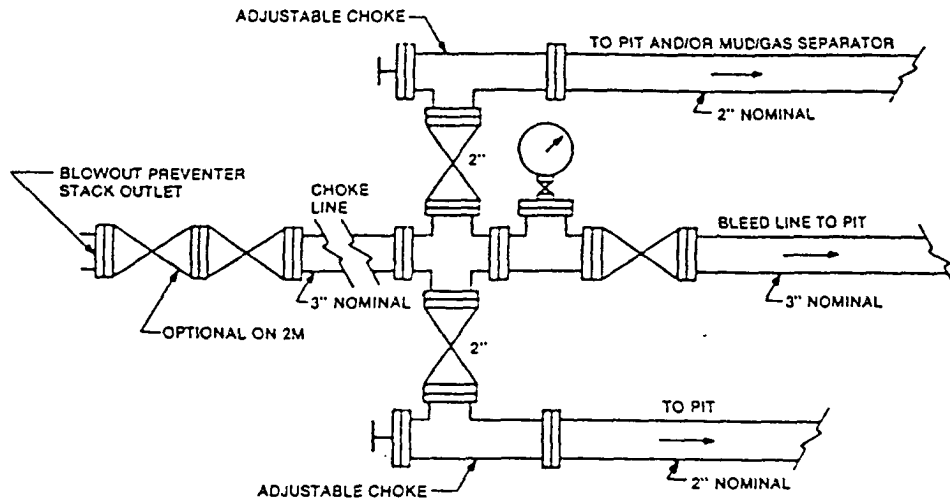


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

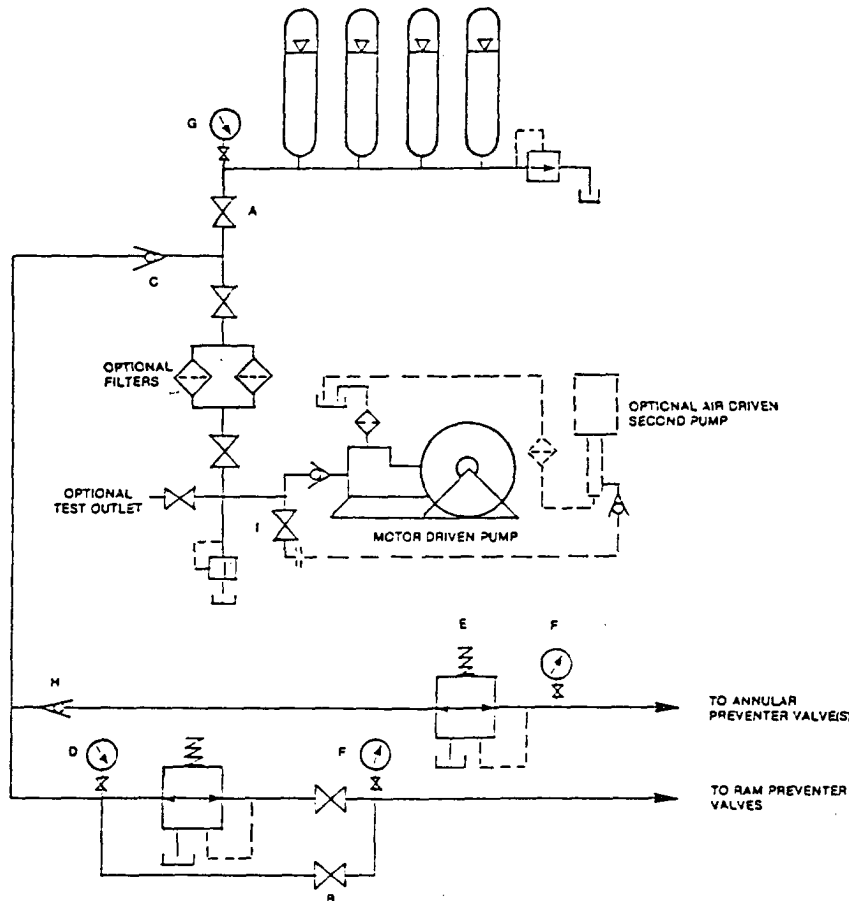


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

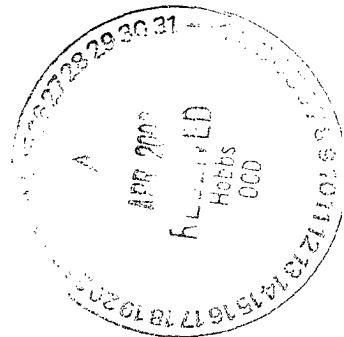


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T19S-R34E LEA CO. NM

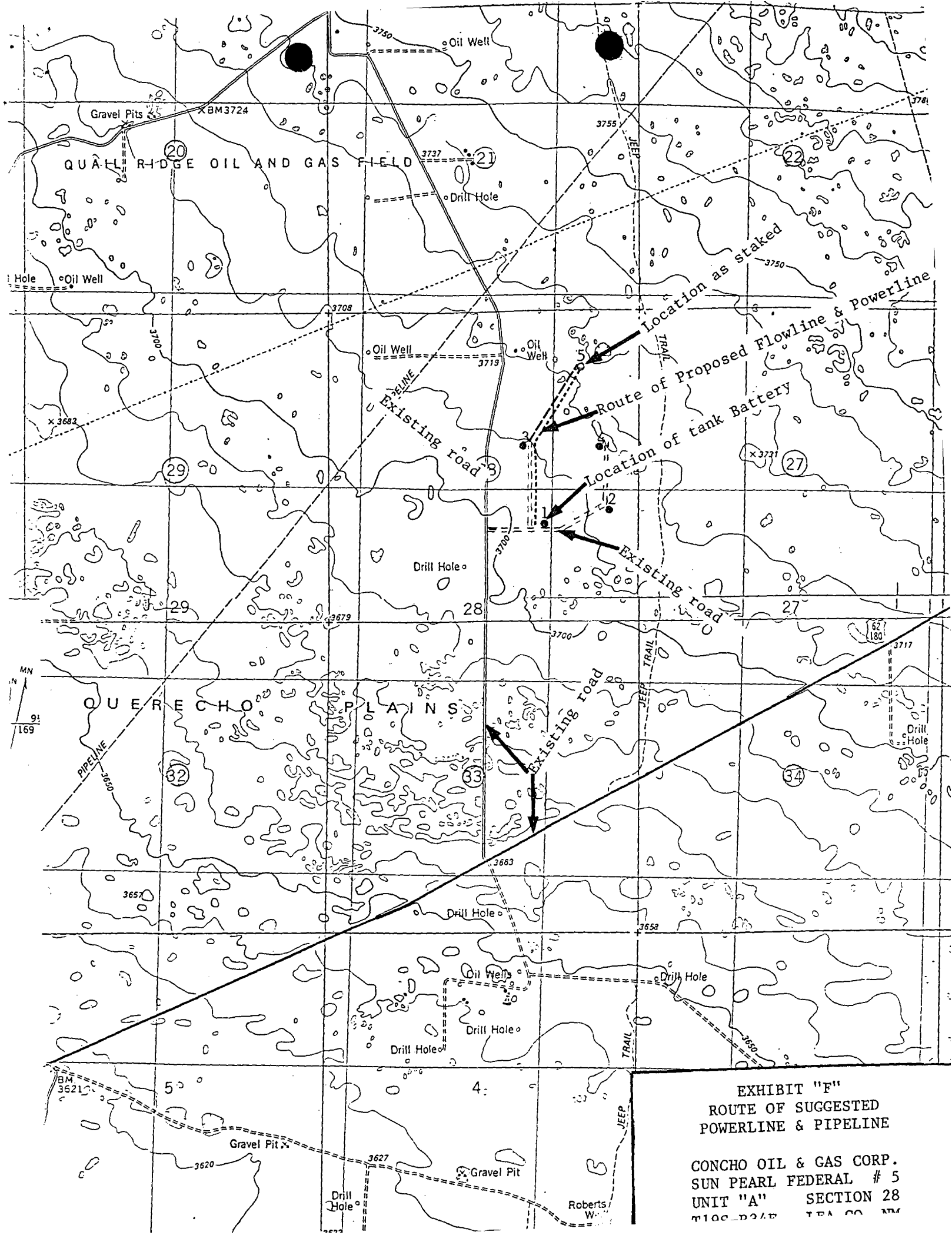


EXHIBIT "F"
ROUTE OF SUGGESTED
POWERLINE & PIPELINE

CONCHO OIL & GAS CORP.
SUN PEARL FEDERAL # 5
UNIT "A" SECTION 28
T10C-D24E T1A CO. 100