Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-99040

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

7. UNIT AGREEMENT NAME: ---

8. FARM OR LEASE NAME, WELL NO.: RANGER "17" FEDERAL COM. # 3

9. API WELL NO.: 30-015-31536

10. FIELD AND POOL, OR WILDCAT: LUSK WEST ● MORROW

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SECTION 17 T19S-R31E

12. COUNTY OR PARISH: EDDY CO.

13. STATE: NEW MEXICO

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

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

2. NAME OF OPERATOR: CONCHO RESOURCES, INC. (JIM BLOUNT) 915-683-7443

3. ADDRESS AND TELEPHONE NO.: 110 WEST LOUISIANA SUITE 410 MIDLAND, TEXAS 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 860' FNL & 660' FEL SEC. 17 T19S-R31E EDDY CO. NM
At proposed prod. zone: SAME Unit A

RECEIVED
OCD - ARTESIA

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 15 miles South Southeast of Loco Hills 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
660'	480	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**
3300'	12,900'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3475' GR.

22. APPROX. DATE WORK WILL START*: When approved

23. PROPOSED CASING AND CEMENTING PROGRAM — CAPITAN CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	20" conductor	NA	40'	Cement to surface with Redi-mix
17½"	H-40 13 3/8"	48	~~450'~~ 475'	400 Sx. circulate cement to surface
12¼"	J-55,S-80 8 5/8"	32	3500'	1200 Sx " " " "
7 7/8"	N-80,S-95 5½"	17	12,900'	950 Sx. Estimate top of cement 6000'

WITNESS

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

2. Drill 17½" hole to ~~450'~~ 475'. Run and set ~~450'~~ 475' of 13 3/8" H-40 48# ST&C casing. Cement with 400 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.

3. Drill 12¼" hole to 3500'. Run and set 3500' of 8 5/8" J-55 & S80 32# ST&C casing. Cement with 1200 Sx. of cement. 1000 Sx. of Class "C" Light + additives, tail in with 200 Sx. of Class "C" + additives. Circulate cement to surface.

4. Drill 7 7/8" hole to 12,900'. Run and set 5½" casing as follows: 3500' of 5½" S-95 17# LT&C, 6500' of 5½" N-80 17 LT&C, 2900' of 5½" N-80 Buttress Thread LT&C. Cement with 700 Sx. of Class "H" Premium Light + additives, tail in with 250 Sx. of Class "H" Preimum Plus cement + additives. Estimate top of cement 6000' from surface.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Jose Rocco TITLE Agent DATE 11/24/00

(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:

Acting Assistant Field Manager, Minerals

APPROVED BY _____ TITLE _____ DATE JAN 29 2001

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

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

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

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	80840	LUSK WEST-MORROW

Property Code	Property Name	Well Number
	RANGER "17" FEDERAL COM.	3

OGRID No.	Operator Name	Elevation
166111	CONCHO RESOURCES, INC.	3475

Surface Location

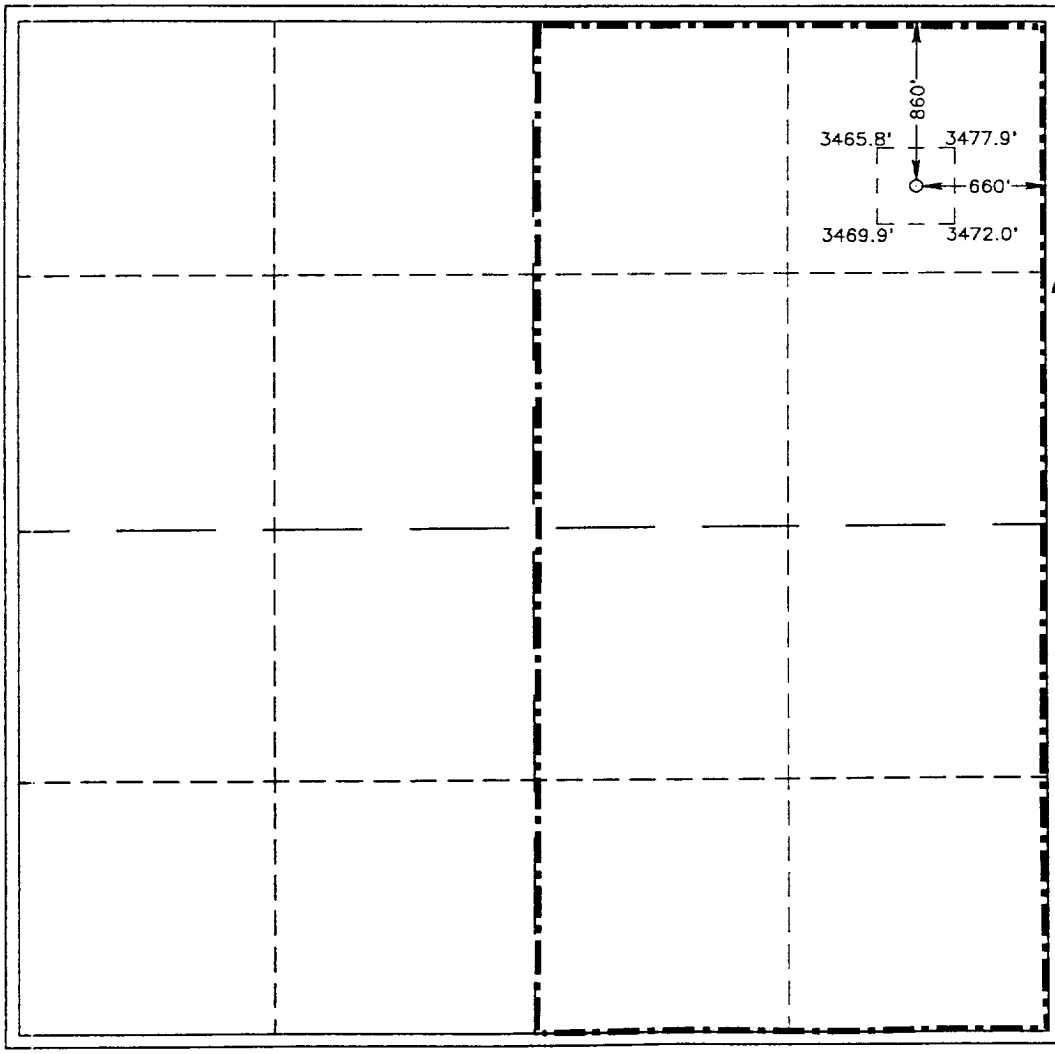
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	17	19 S	31 E		860	NORTH	660	EAST	EDDY

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	Joint or Infill	Consolidation Code	Order No.
320			

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.

Joe T. Janica
Signature

Joe T. Janica
Printed Name

Agent
Title

11/24/00
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 supervison, and that the same is true and correct to the best of my belief.

NOVEMBER 17, 2000
Date Surveyed JLP

Signature & Seal of Professional Surveyor

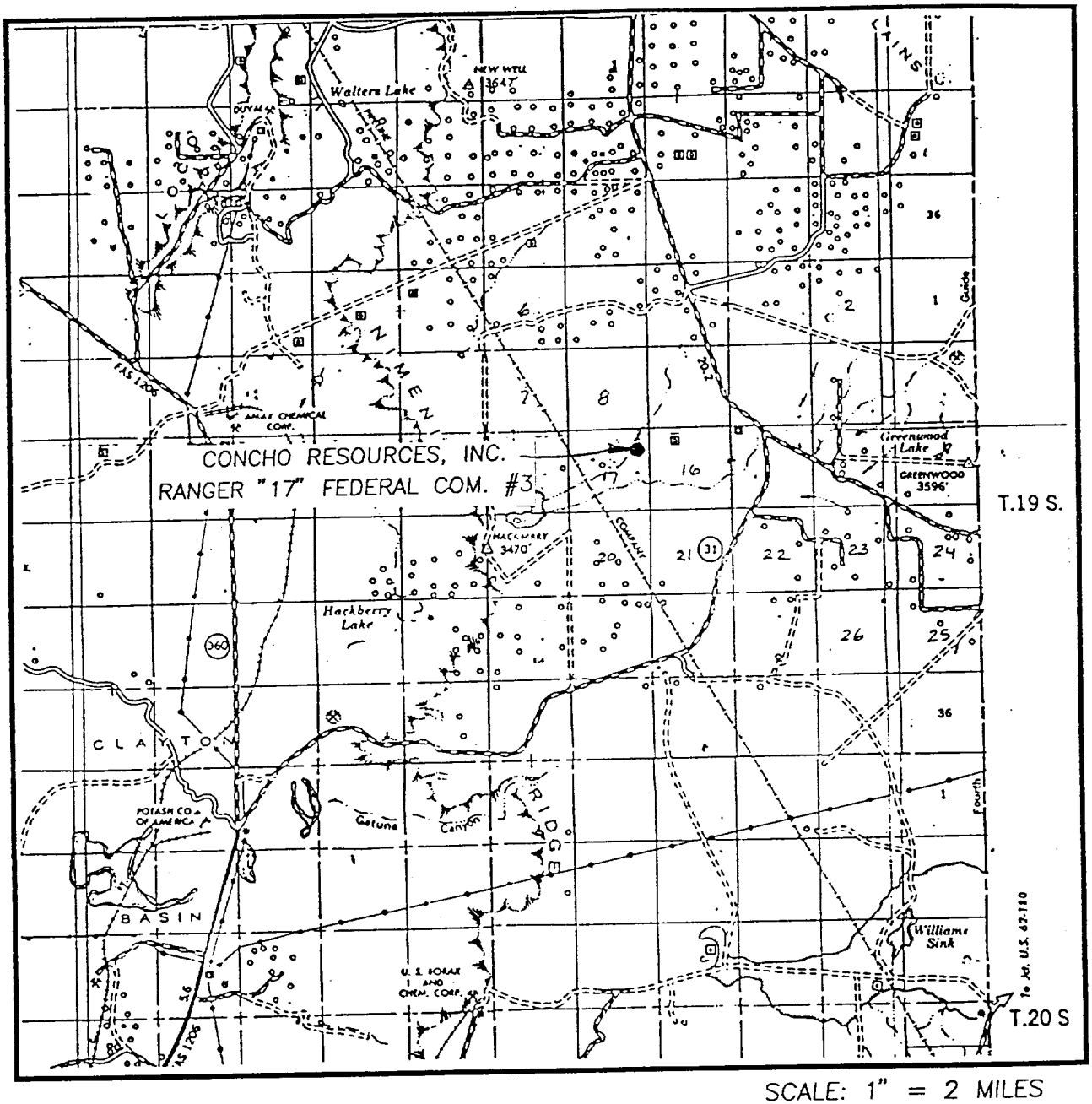
Ronald J. Eidson 11/20/00

W.O. Num. 00-11-1383

Certificate No. RONALD J. EIDSON, 3239
GARY G. EIDSON, 12641

EXHIBIT "A"

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 19-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 860' FNL & 660' FEL

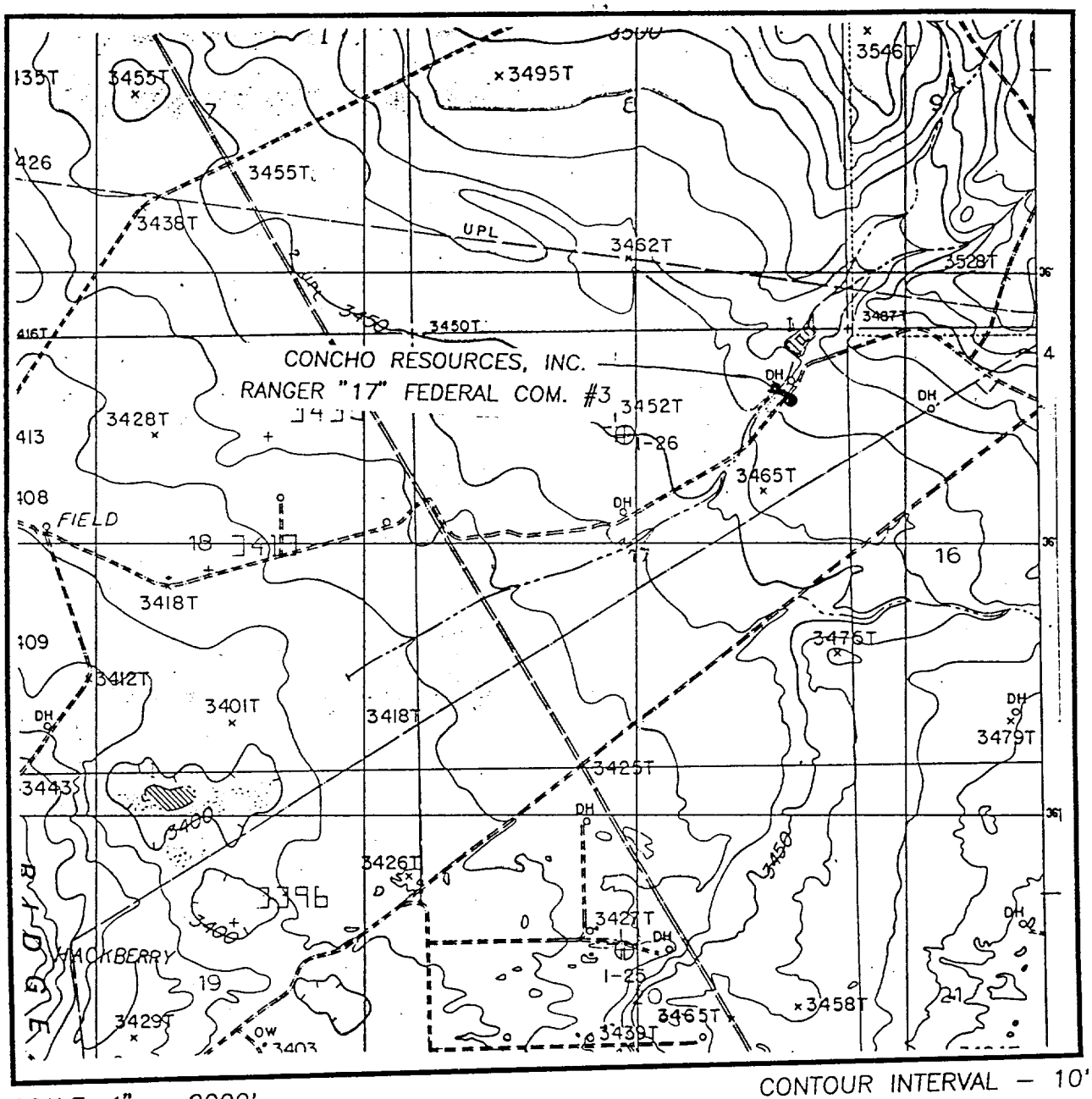
ELEVATION 3475

OPERATOR CONCHO RESOURCES, INC.

LEASE RANGER "17" FEDERAL COM.

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL – 10'

SEC. 17 TWP. 19-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 860' FNL & 660' FEL

ELEVATION 3475

OPERATOR CONCHO RESOURCES, INC.

LEASE RANGER "17" FEDERAL COM.

U.S.G.S. TOPOGRAPHIC MAP

HACKBERRY LAKE, N.M.

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

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY 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: 860' FNL & 660' FEL SEC. 17 T19S-R31E EDDY CO. NM

2. Elevation above Sea Level: 3475' GR.

3. Geologic name of surface formation: Quaternery 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: 12,900'

6. Estimated tops of geological markers:

Rustler Anhydrite	400'	Wolfcamp	10,025'
Yates	2250'	Strawn	10,950'
Bone Spring	6750'	Morrow	12,000'

7. Possible mineral bearing formations:

Bone Spring	Oil	Strawn	Gas
Wolfcamp	Oil	Morrow	Gas

8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
25"	0-40	20"	NA	NA	NA	Conductor
17½"	0-450	13 3/8"	48	8-R	ST&C	H-40
12¼"	0-3500'	8 5/8	32	8-R	ST&C	J-55
7 7/8"	0-12,900'	5½"	17	8-R & Butress	LT&C	S-95 N-80

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM

9. Cementing and Setting Depth:

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 450' of 13 3/8" H-40 48# ST&C casing. Cement with 400 Sx of Class "C" + 2% CaCl, circulate cement to surface.
8 5/8"	Intermediate	Set 3500' of 8 5/8" 32# J-55 ST&C casing. cement with 1200 Sx. of Class "C" cement. 1000 Sx. of Halco Light + additives, tail on with 200 Sx. of Class "C" + ¼# Flacele/Sx. + 2% CaCl, circulate cement to surface.
5½"	Production	Set 12,900' of 5½" casing as follows: 3500' of 5½" S-95 17# LT&C, 6500' of N-80 17# LT&C, 2900' of 5½" N-80 17# Butress thread. Cement with 700 Sx. of Class "H" Premium Light + additives, tail in with 250 Sx. of Class "H" Premium Plus + additives. Estimate top of cement 6000' from surface.

10. Pressure Control Equipment: Exhibit "E". A 1500 Series 5000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. BOP will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nippled up on 13 3/8" casing and will be operated at least once each 24 Hr. period while drilling and blind rams will be operated when out of hole during trips. Flow sensor, PVT, full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. Proposed Mud Circulating System:

Depth	Mud Wt.	Visc.	Fluid Loss	Type Mud
40-450'	8.4-8.7	29-34	NC	Fresh water Spud mud add paper to control seepage.
450-3500'	10.2-10.4	29-36	NC	Brine water add paper to control seepage and Lime to control pH, use high viscosity sweeps to clean hole.
3500-11,000'	"	"	"	Same as above
11,000-12,900'	10.2-10.6	30-40	10 cc or less	Brine water add Salt Gel for for viscosity, & lime for pH control, use Starch for water loss control.

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

12. TESTING, LOGGING, & COREING PROGRAM:

A. Open hole logs: Dual-LaterOlog, CNL, LDT, Density, Gamma Ray Caliper from TD to 3500'. run Gamma Ray, Neutron from 3500' to surface.

B. Mud logger will be rigged up on hole when the geologist deems it approiate.

C. DST's and Cores will be taken as shows dictate.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence of unsafe levels of H_2S. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of all equipment that will be used. Estimated BHP 6250 PSI & estimated BHT 185°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Roads and location construction will begin after the BLM approves the APD. Anticipated spud date will be as soon as pad & road construction has been completed. Drilling time for the well is estimated to take 45-50 days. If production casing is run an additional 30 days will be required to complete well and construct surface facilities.

15. OTHER FACETS OF OPERATION:

After running production casing, cased hole Gamma-Neutron & Collar logs will be run over all possible pay intervals. If commercial production from the Morrow pay is indicated it will be perforated and stimulated. Then if necessary the pay will be swab tested and completed as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S 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, H_2S 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 telephoned 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 seperator will be brought into service along with H_2S scavengers if necessary.

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM

1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads 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 Loco Hills New Mexico take U.S. Hi-way 82 East 5+ miles to Co-Road 222 turn South (Right) go 10 miles turn West (Right) go .5+ miles bear Southwest (Right), go .4 miles bear West (Right) follow road .5 miles to location on the South side of road.

C. Flow lines and powerlines will be constructed along road R-O-W's.

2. PLANNED ACCESS ROADS: Approximately .5 miles of road will be upgraded.

A. The access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-of-way.

B. Gradient on all roads will be less than 5.00%.

C. No turnouts will be necessary.

D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.

E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.

F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.

3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

A.	Water wells	-	None known
B.	Disposal wells	-	None known
C.	Drilling wells	-	None Known
D.	Producing wells	-	As shown on Exhibit "A-1"
E.	Abandoned wells	-	As shown on Exhibit "A-1"

4. If, upon completion this well is a producer Concho Resources Inc. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.

5. LOCATION AND TYPE OF WATER SUPPLY:

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

6. SOURCE OF CONSTRUCTION MATERIAL:

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

7. METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be disposed of in the reserve pit.

B. All trash, junk and other waste material will be contained in trash cages or 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 supplier including broken sacks.

D. Sewage from living quarters will drain into holes with a minium depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Ports-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.

E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

A. No camps or airstrips to be constructed.

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.

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY 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: 505-391-8503

After APD is approved.

Concho Resources, Inc.
110 West Louisiana
Suite 410
Midland, Texas 79702
Erick Nelson 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 Resources, Inc. 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: 11/24/00

NAME: JOE T. JANICA Joe T Janica

TITLE: AGENT

EXHIBIT "A-1"
ONE MILE RADIUS MAP

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM

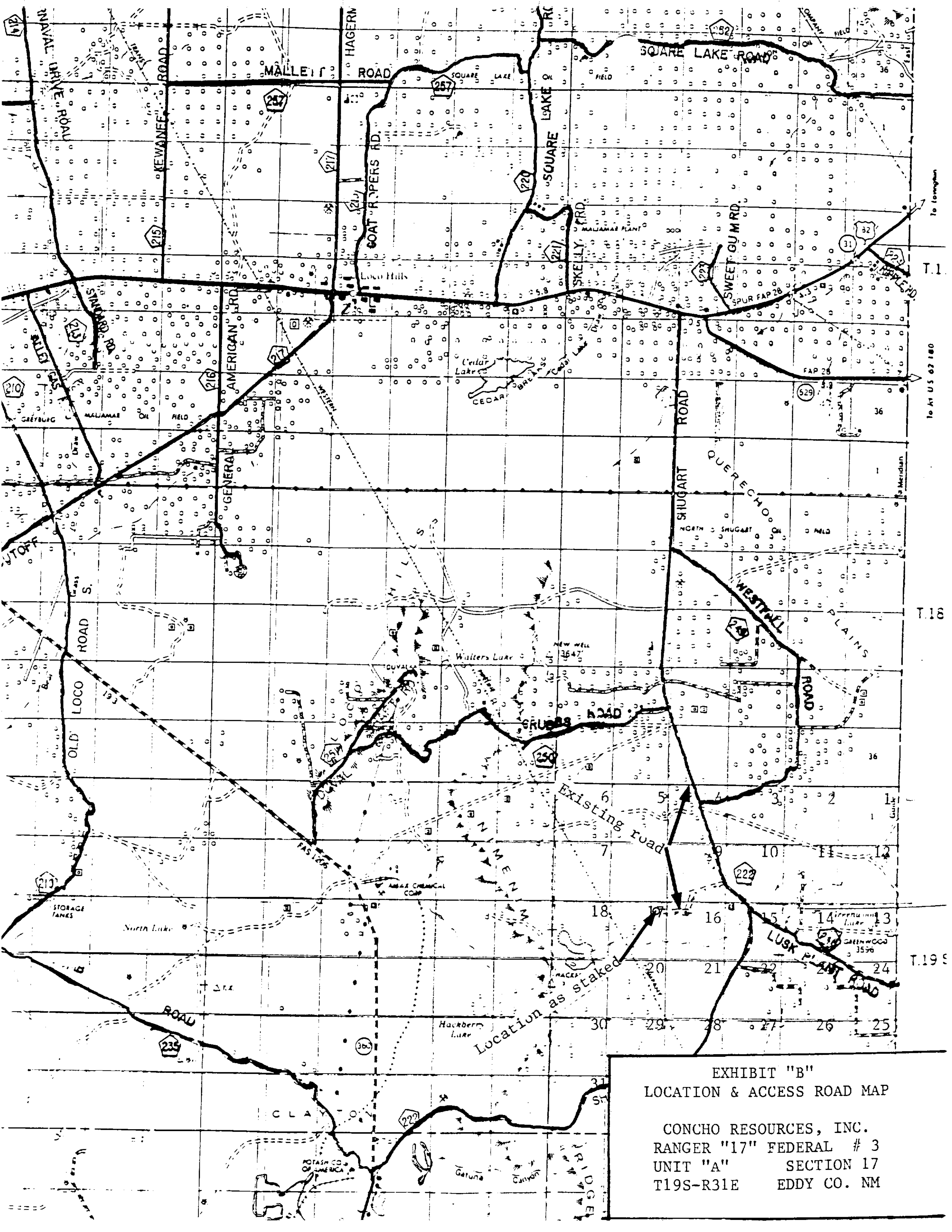
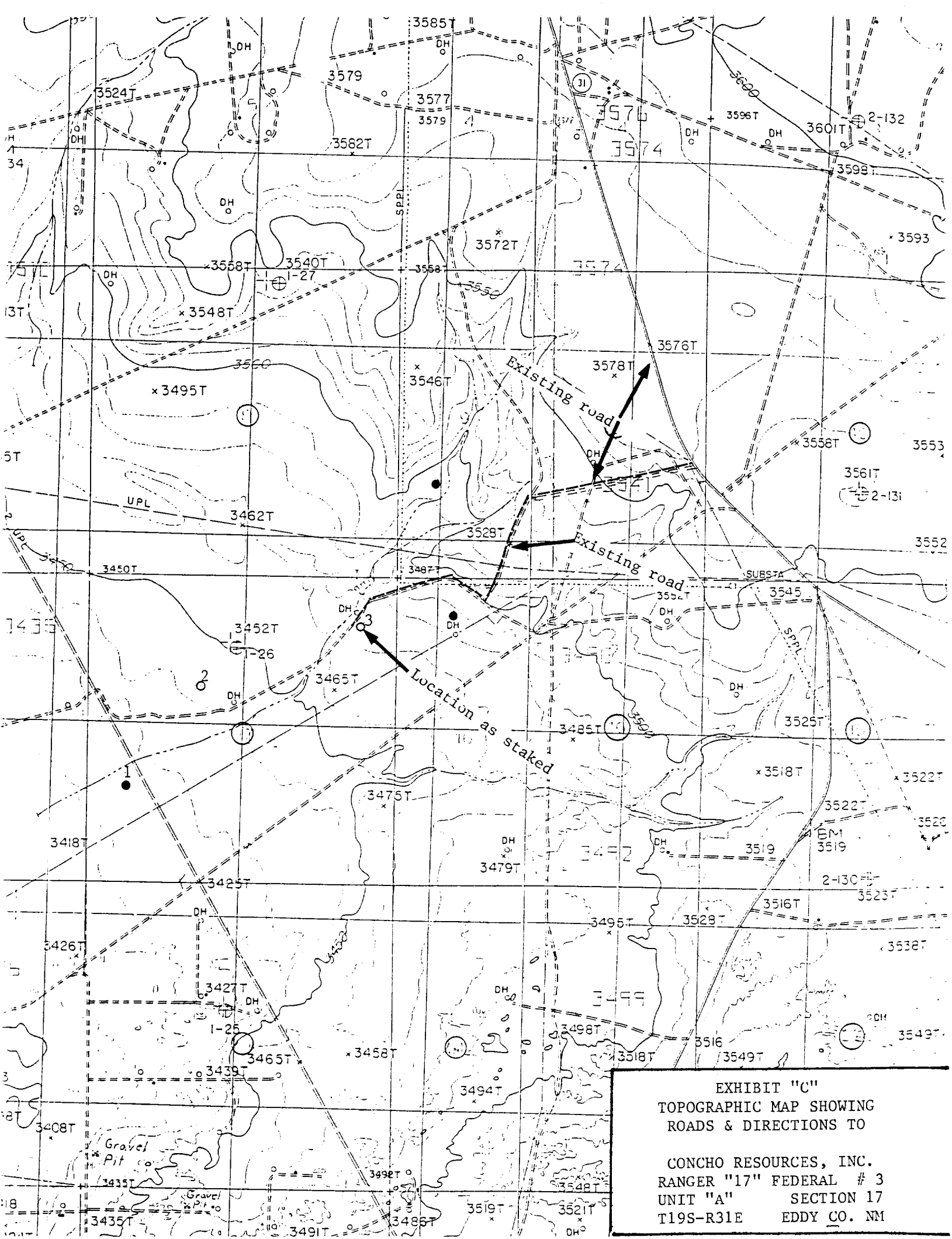
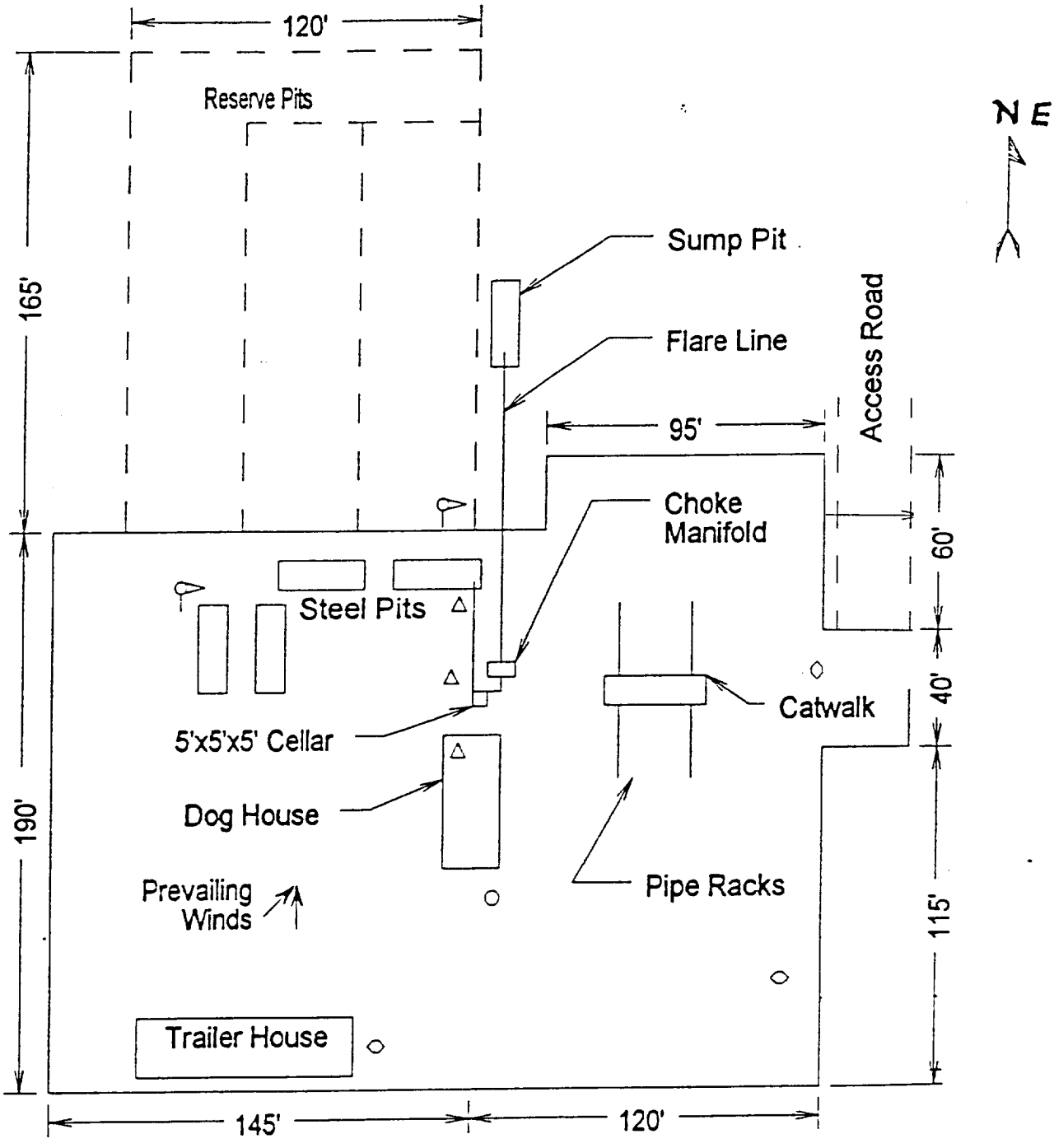


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM

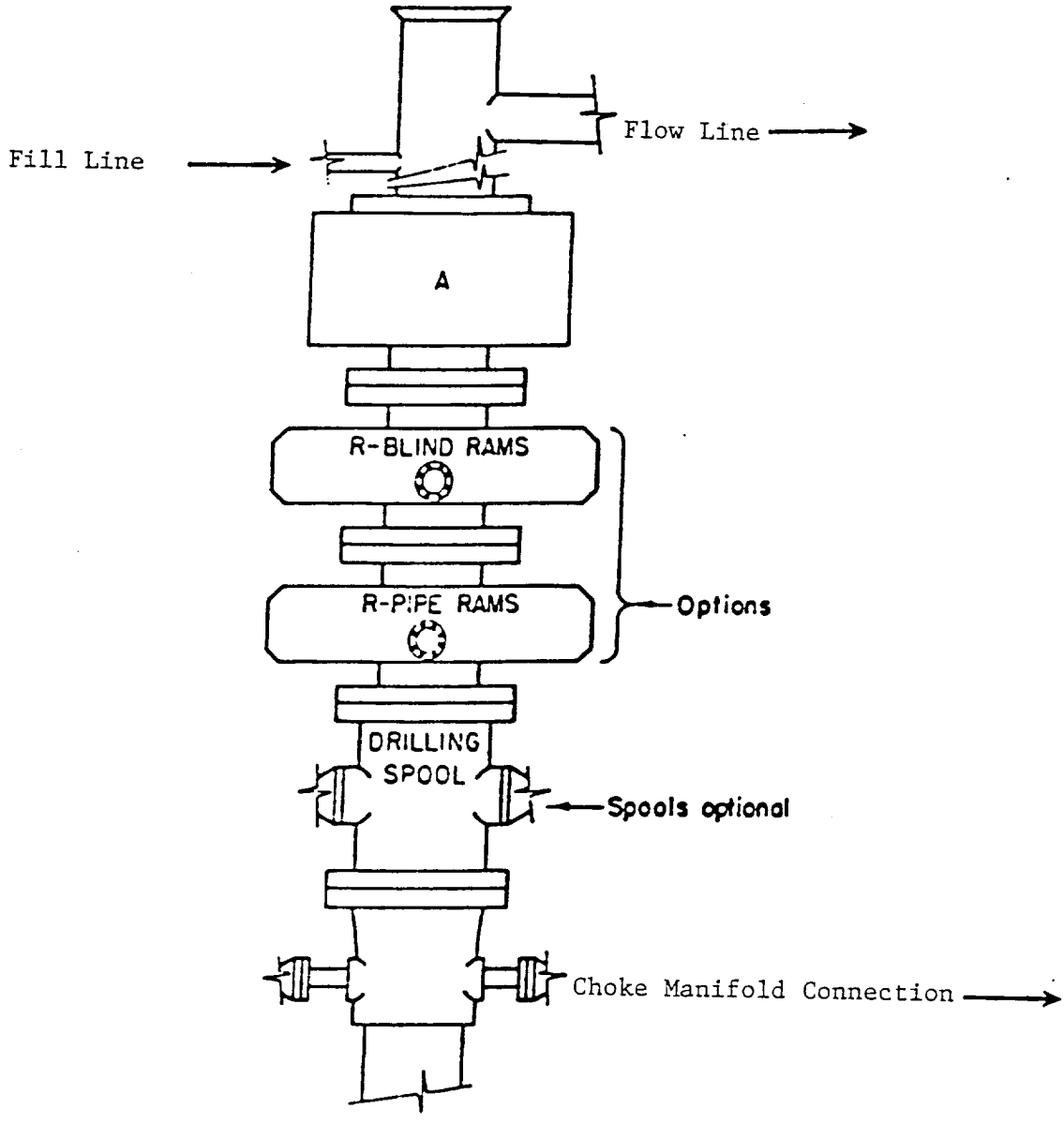

Existing road
Existing road
Location as staked
EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO
CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM



- 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 LAYOUT PLAT

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM



ARRANGEMENT SRRA

1500 Series
5000 PSI WP

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

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM

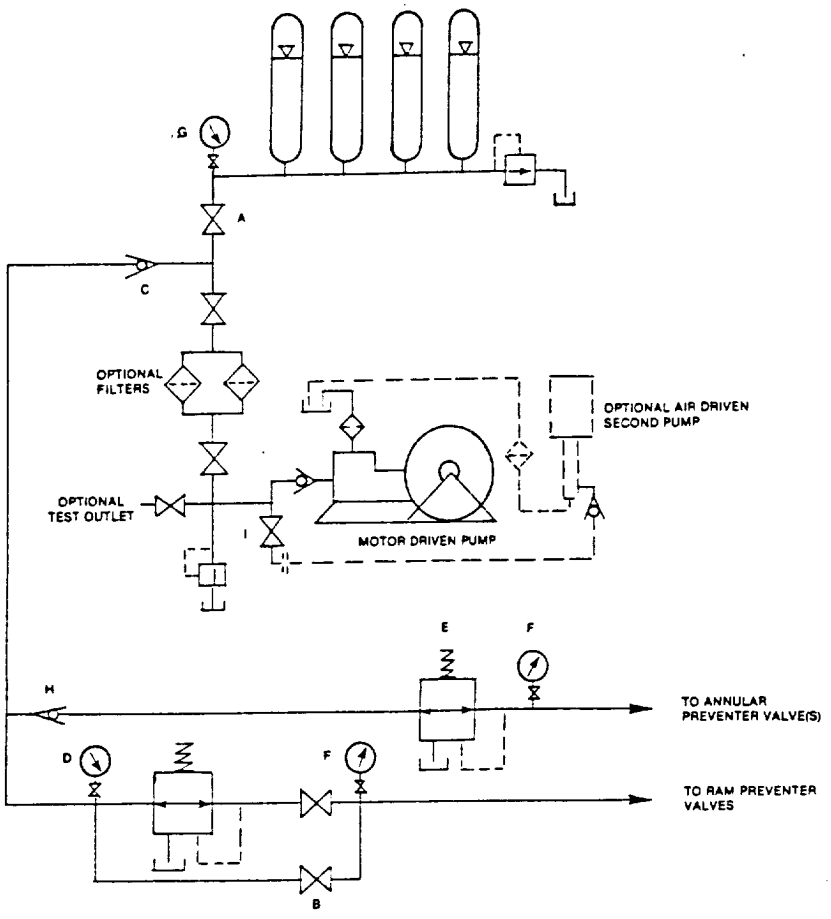


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

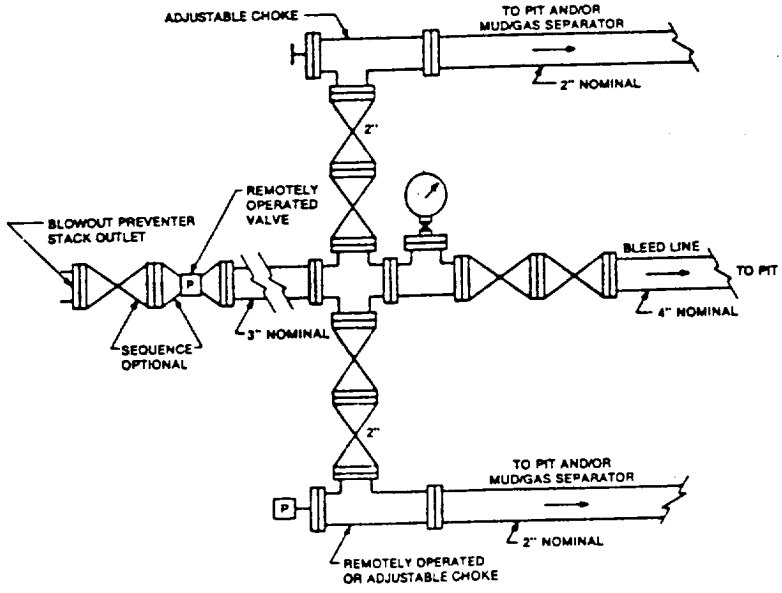


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

CONCHO RESOURCES, INC.
RANGER "17" FEDERAL # 3
UNIT "A" SECTION 17
T19S-R31E EDDY CO. NM