

c/sf

PREVIOUSLY APPROVED PERMIT. DRILLING EXTENSION REQUEST HAS NOT BEEN APPROVED & CONCHO RESOURCES INC. IS CURRENTLY READY TO DRILL WELL. BLM STIPULATIONS FROM APPROVED PERMIT ATTACHED FOR YOUR INFORMATION.

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

5. Lease Serial No.

NM 96212

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

24305

8. Lease Name and Well No.

Angel "6" Federal #6

9. API Well No.

30-015-31573

10. Field and Pool, or Exploratory

WC: Fadeway Cisco Canyon

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 6, T-20S, R-28E

12. County or Parish

Eddy

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other

☐ Single Zone ☐ Multiple Zone

2. Name of Operator

Concho Resources Inc. 166111

3a. Address

110 W. Louisiana Ste 410; Midland, Tx

3b. Phone No. (include area code)

(915) 683-7443

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 2395' FNL & 1650' FWL

At proposed prod. zone same

Unit F

14. Distance in miles and direction from nearest town or post office*

Approximately 11 miles North from Carlsbad, NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)

1650'

16. No. of Acres in lease

331

17. Spacing Unit dedicated to this well

40

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.

665'

19. Proposed Depth

9600

20. BLM/BIA Bond No. on file

NM 2611

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3357' GR

22. Approximate date work will start*

ASAP

23. Estimated duration

15-20 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Terri Stathem

Name (Printed/Typed)

Terri Stathem

Date

10/10/00

Title

Production Analyst

Approved by (Signature)

Name (Printed/Typed)

Date

JAN 5 2001

Title

Office

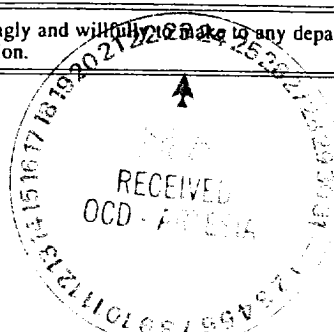
Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

NSL



Application to Drill

Concho Resources Inc.
Angell '6' Federal #6
UL: F; Sec. 6, T-20S, R-28E
Eddy County, NM

In response to questions asked under Section IIB of Bulletin NTL-6 the following information is provided for your consideration:

1. Location: 2395' FNL & 1650' FWL, Sec. 6, T-20S, R-28E, Eddy County, NM

2. Elevation Above Sea Level: 3357' GR

3. Geologic Name of Surface Formation: Quaternary Aeolian Deposits

4. Drilling Tools and Associated Equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5. Proposed Drilling Depth: 9600'

6. Estimated Tops of Geological Markers:

Yates	680'	Bone Spring	3800'	Strawn	9620'
Queen	1590'	Wolfcamp	8530'		
Delaware	2660'	Cisco Canyon	9350'		

7. Possible Mineral Bearing Formation:

Delaware	Oil
Bone Spring	Oil
Cisco Canyon	Oil

8. Casing Program:

Hole Sz	Interval	OD Csg	Weight	Thread	Collar	Grade	Condition
25"	0-40'	20"	Cond.	NA	NA	NA	New
17-1/2"	0-450'	13-3/8"	48#	8-R	ST&C	H-40	New
11"	0-2900'	8-5/8"	32#	8-R	ST&C	J-55	New
7-7/8"	0-9600'	5-1/2"	15.5#	8-R	LT&C	J-55	New

9. Cementing & Setting Depth:

20"	Conductor	Drill 25" hole to 40'. Set 40' of 20" conductor. Cement to surface with Redi-mix.
13-3/8"	Surface	Drill 17-1/2" hole to 450'. Run & set 450' of 13-3/8", 48#, H-40, ST&C casing. Cement with 450 sacks Class "C" + 2% CaCl. Circulate cmt to surface.
8-5/8"	Intermediate	Drill 11" hole to 2900'. Run & set 2900' of 8-5/8", J-55, 32# ST&C casing. Cement with 500 sacks Class "C" Light, tail in with 250 sacks Class "C" + 2% CaCl. Circulate cmt to surface.
5-1/2"	Production	Drill 7-7/8" hole to 9600'. Run & set 9600' of 5-1/2", 17#, K-55/N-80, LT & C casing. Cement with 400 sacks Class "C" Halco Light, tail in with 200 sacks Class "H" + additives. Estimated top of cement - 2600'.

**Application to Drill
Concho Resources Inc.
Angell '6' Federal #6
UL: F; Sec. 6, T-20S, R-28E
Eddy County, NM**

10. Pressure Control Equipment: Exhibit "E". A 900 Series 3000 psi working pressure BOP consisting of a double ram type preventor with a bag type annular preventor. BOP unit will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. BOP will be nipped up on 13-3/8" casing and will be operated at least once each 24 hour 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'	8.5-8.7	29 - 34	NC	Fresh Water spud mud add paper for seepage control.
450-2900'	10.2-10.5	29 - 34	NC	Brine water add Lime for pH control & paper for seepage.
2900-9600'	10.2-10.5	29 - 38	10 cc or less start @ 5000'	Cut brine soda ash drispac & starch for water loss control.

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

12. Testing, Logging and Coring Program:

- A. OH logs: Dual Laterolog, Micro SFL, CNL, Density, Gamma Ray, & Caliper.
- B. Mud logger on from 2900' to TD.
- C. No DST's or cores are planned at this time.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide (H₂S) Gas may be encountered. H₂S detectors will be in place to detect any presence. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of equipment being used. Estimated BHP 3500 PSI, estimated BHT 140°.

14. Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 15-20 days. If production casing is run an additional 15 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from TD over possible pay intervals. The Cisco Canyon pay will be perforated and stimulated. The well will be swab tested and potentialized as an oil well.

Hydrogen Sulfide Drilling Operations Plan

Concho Resources Inc.

Angell '6' Federal #6

UL: F:, Sec. 6, T-20S, R-28E

Eddy County, NM

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 systems 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 blooey line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or Wind Streamers
 - A. Windsock at mud pit 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 – indicating potential pressure and danger. Red Flag – danger – H₂S present in dangerous concentration. Only emergency personnel admitted on location.
5. Well Control Equipment – See Exhibit “E”
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalkboard is inappropriate.
 - C. Two way radio will be used to communicate off location in case emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
7. Drill Stem Testing
 - A. All testing will be done in the daylight hours.
 - B. Exhausts will be watered.
 - C. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - D. If location is near any dwelling a closed DST will be performed.

Hydrogen Sulfide Drilling Operations Plan

**Concho Resources Inc.
Angell '6' Federal #6
UL: F:, Sec. 6, T-20S, R-28E
Eddy County, NM**

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 Resources Inc.
Angell '6' Federal #6
UL: F:, Sec. 6, T-20S, R-28E
Eddy County, NM

1. EXISTING ROADS: Area map, Exhibit "B" is a reproduction of the Eddy County General Highway Co. map. Exhibit "C" is a reproduction of a USGS Topographic map. All existing roads and proposed roads are shown on each exhibit. All 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 development well as staked.
 - B. From Carlsbad, NM take US Highway 62-180 East towards Hobbs to North Loop Road (CR 604), turn North on to 604 & go 5.3 miles to CR 206, go North on 206 for 8.5 miles, turn East & go 1400' turn North & go 850' to location.
 - C. Lay 3" polyethylene pipeline to transport produced fluids to a common tank battery. Construct a 1250 KV electric power line along road ROW in order to produce oil and gas from this well.
2. PLANNED ACCESS ROADS: Approximately 850' of new road will be constructed.
 - A. The access road will be crowned and ditched to a 12'00" wide travel surface with a 40' ROW.
 - 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 Exhibit "A-1"
 - E. Abandoned Wells 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 private source and trucked over the access roads or piped in flexible lines laid on top of the ground.

Surface Use Plan
Concho Resources Inc.
Angell '6' Federal #6
UL: F:, Sec. 6, T-20S, R-28E
Eddy County, NM

6. SOURCE OF CONSTRUCTION MATERIALS

If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access route as shown on Exhibit "A".

7. METHODS FOR HANDLING WASTE DISPOSAL

- A.
1. Drill cuttings will be disposed of in the reserve pit.
 2. Trash, waste paper, and garbage will either be contained in a fenced trash trailer or a trash pit, fenced with mesh wire to prevent wind scattering during storage. When the rig moves out, all trash and debris left at the site will be contained to prevent scattering and will be buried at least 36" deep within a reasonable period of time. ND
 3. Salts remaining after completion of the well and broken sacks will be picked up by the supplier.
 4. Sewage from trailer house will drain into holes with a minimum depth of 10' 00". These holes will be covered during drilling and backfilled upon completion. A "porta potty" will be provided for the rig crews. This will be properly maintained during the drilling operations and removed upon completion of the well.
- B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time they will be transported by tank truck to a state approved disposal site.
- Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES

No camps or airstrips will be constructed.

9. WELL SITE LAYOUT

- A. Exhibit "D" shows location and rig layout.
- B. Exhibit "D" indicates proposed location of reserve and trash pits; and living facilities.
- C. Pit is proposed to be unlined, unless subsurface conditions encountered using pit construction indicate that lining is needed for lateral containment of fluids.
1. If lining of reserve pit is needed it is to be lined with PVC or polyethylene. The pit liner will be 6 mils thick. Pit liners will extend a minimum 2' 00" over the reserve pit dikes, where the liner will be anchored down.

Surface Use Plan
Concho Resources Inc.
Angell '6' Federal #6
UL: F:, Sec. 6, T-20S, R-28E
Eddy County, NM

- D. 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 of 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 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. Top soil 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.

11. **OTHER INFORMATION:**

- A. Topography, as shown on topographic map consists of low lying hills some topped with caliche. Soil where present is sandy loam, with mesquite, snake weed, and native grasses. There is a slight dip to the east.
- B. The surface is owned by the Department of Interior, Bureau of Land Management. The surface is used for grazing of livestock and oil and gas production.
- C. An archeological survey has been conducted of the location and road. This was submitted separately to the BLM upon completion.
- D. There are no dwellings within 2 miles of this location.

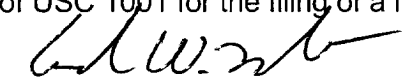
Surface Use Plan
Concho Resources Inc.
Angell '6' Federal #6
UL: F:, Sec. 6, T-20S, R-28E
Eddy County, NM

12. OPERATORS REPRESENTATIVES:

Concho Resources Inc.
110 W. Louisiana, Suite 410
Midland, Tx 79701
(915) 683-7443
Mr. Erick Nelson

13. CERTIFICATION:

I hereby certify that I, or persons under my 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., its contractors/subcontractors in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of USC 1001 for the filing of a false statement.



Erick Nelson

Engineer

Title

10/10/00

Date

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30015-30458	Pool Code 24305	Pool Name WC Fadeway Cisco Canyon
Property Code 24305	Property Name ANGEL "6" FEDERAL	Well Number 6
OGRID No. 166111	Operator Name Concho Resources Inc.	Elevation 3357'

Surface Location

UL or lot No. F	Section 6	Township 20 S	Range 28 E	Lot Idn	Feet from the 2395	North/South line NORTH	Feet from the 1650	East/West line WEST	County EDDY
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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

LOT 4	LOT 3	LOT 2	LOT 1
LOT 5			
LOT 6			
LOT 7			

Diagram showing well location and acreage dedication plat. The plat is divided into seven lots (LOT 1 to LOT 7). The well location is marked with a circle and labeled with dimensions: 2395' (North/South line), 1650' (East/West line), 3359.0' (North/South line), 3354.1' (North/South line), 3364.5' (East/West line), and 3356.6' (East/West line).

OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *Terri Stathem*

Printed Name: Terri Stathem

Title: Production Analyst

Date: 10/10/00

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.

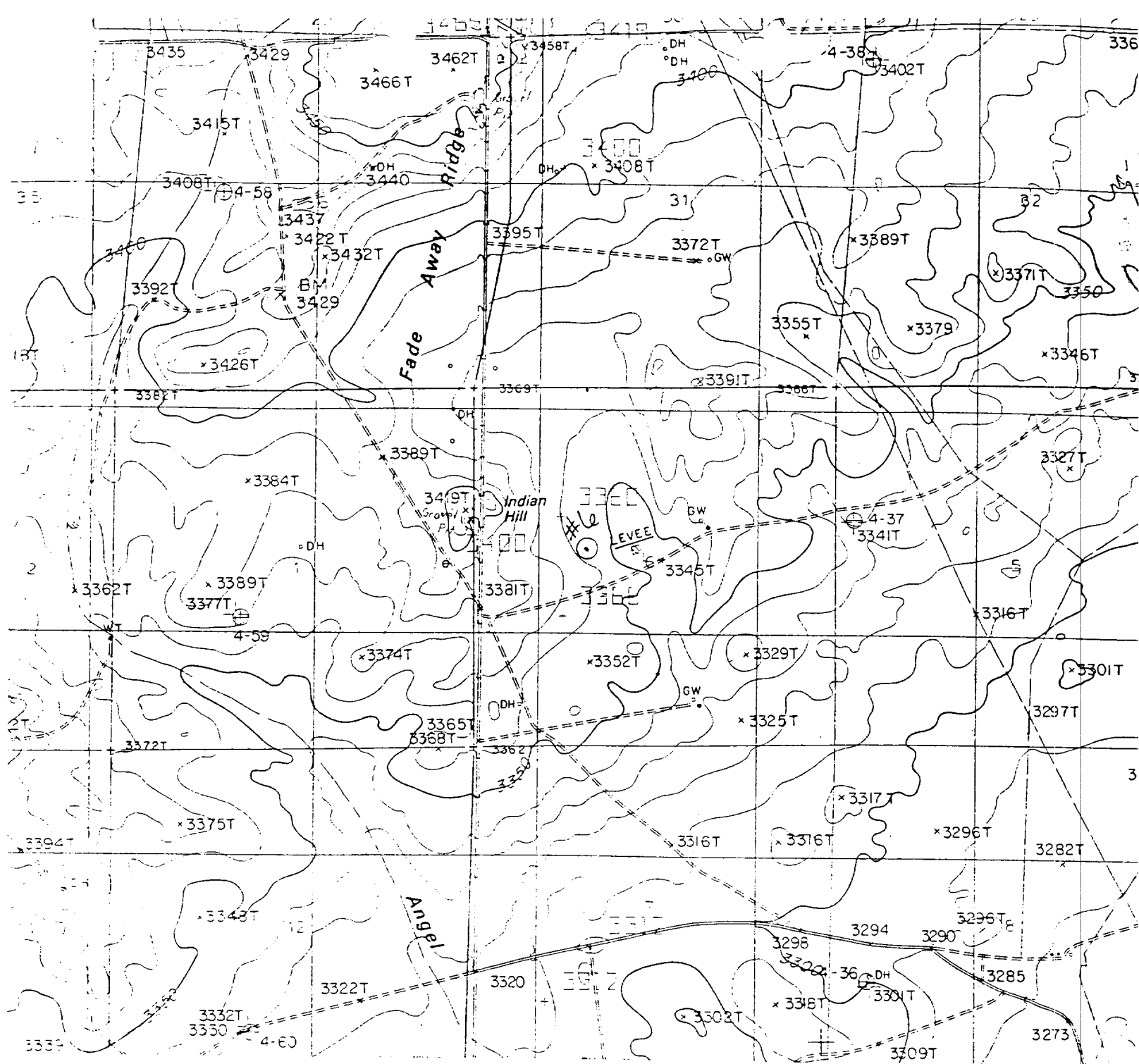
Date Surveyed: August 05, 1998

Signature & Seal of Professional Surveyor: *Gary L. Jones*

WFO. No. 8357A

Certificate No. Gary L. Jones 7977

BASIN SURVEYS



CONCHO RESOURCES INC.
 ANGEL "6" FEDERAL #6
 2395' FNL & 1650' FWL
 Sec. 6, T-20-S, R-28-E,
 Eddy County, New Mexico.

SCALE: 1"=2000'

BASIN SURVEYS

P.O. BOX 1786 - HOBBS, NEW MEXICO

2000' 0 2000' 4000 Feet

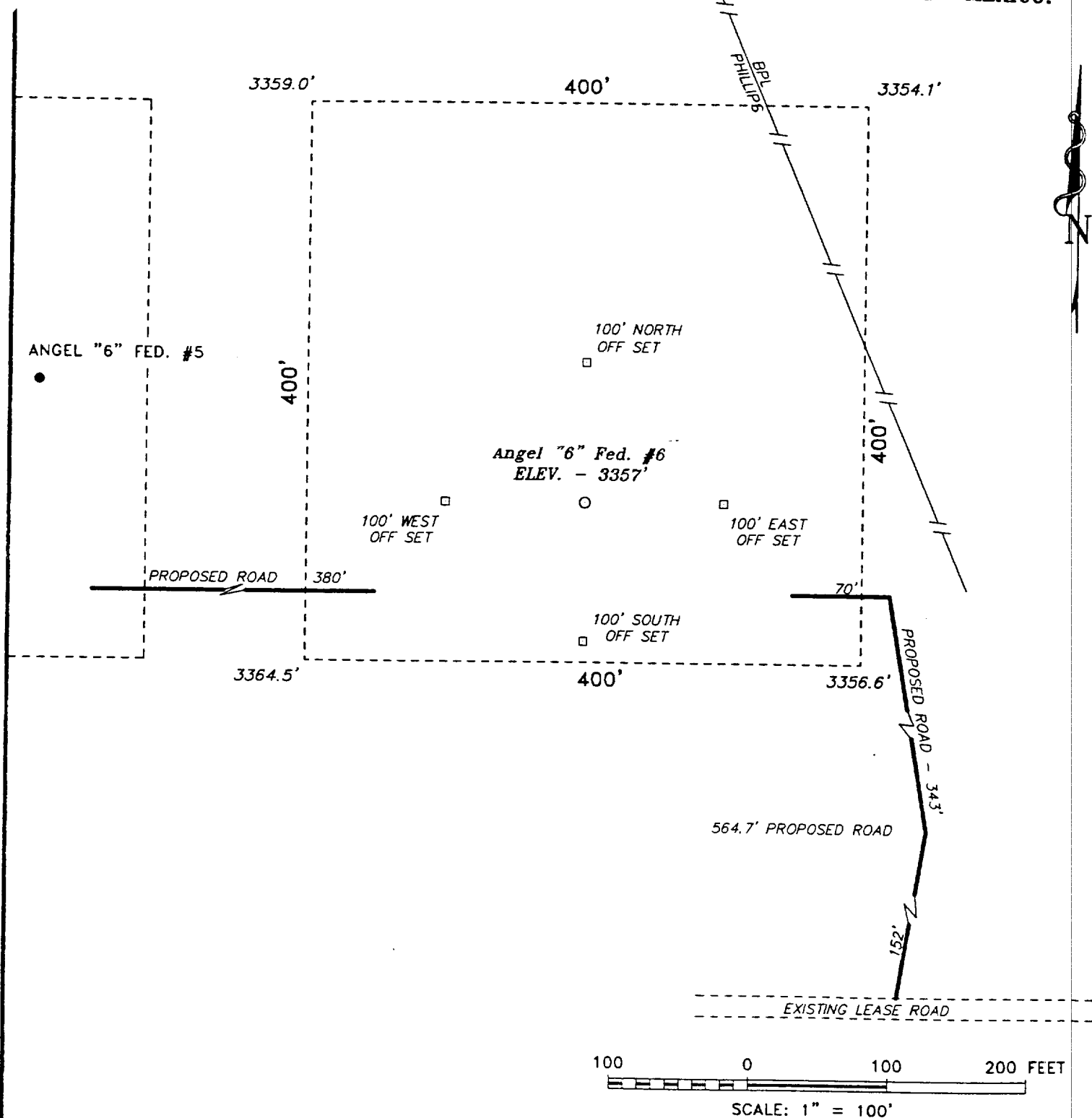
W.O. Number: 8357

Drawn By: K. GOAD

Survey Date: 08-05-98

Sheet 1 of 1 Sheets

SECTION 6, TOWN 11P 20 SOUTH, RANGE 13 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



CONCHO RESOURCES INC.

REF: Angel "6" Federal No. 6 / Well Pad Topo

THE ANGEL "6" FEDERAL No. 6 LOCATED 2395' FROM THE
NORTH LINE AND 1650' FROM THE WEST LINE OF
SECTION 6, TOWNSHIP 20 SOUTH, RANGE 28 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.C. Number: 8357	Drawn By: K. GOAD
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Date: 08-05-98 Disk: KJG #116 - 8357A.DWG

Survey Date: 08-05-98

Sheet 1 of 1 Sheets

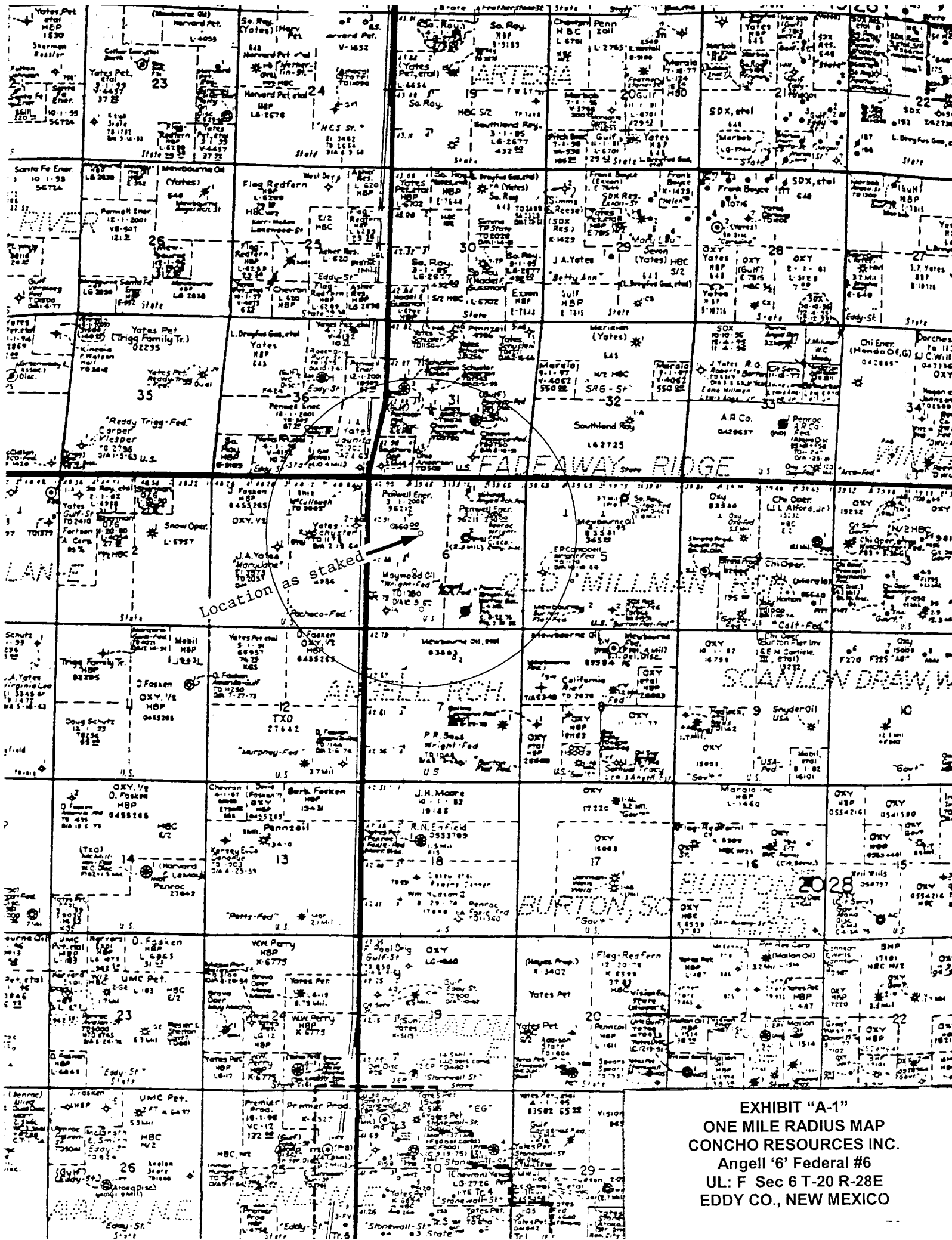


EXHIBIT "A-1"
ONE MILE RADIUS MAP
CONCHO RESOURCES INC.
Angell '6' Federal #6
UL: F Sec 6 T-20 R-28E
EDDY CO., NEW MEXICO

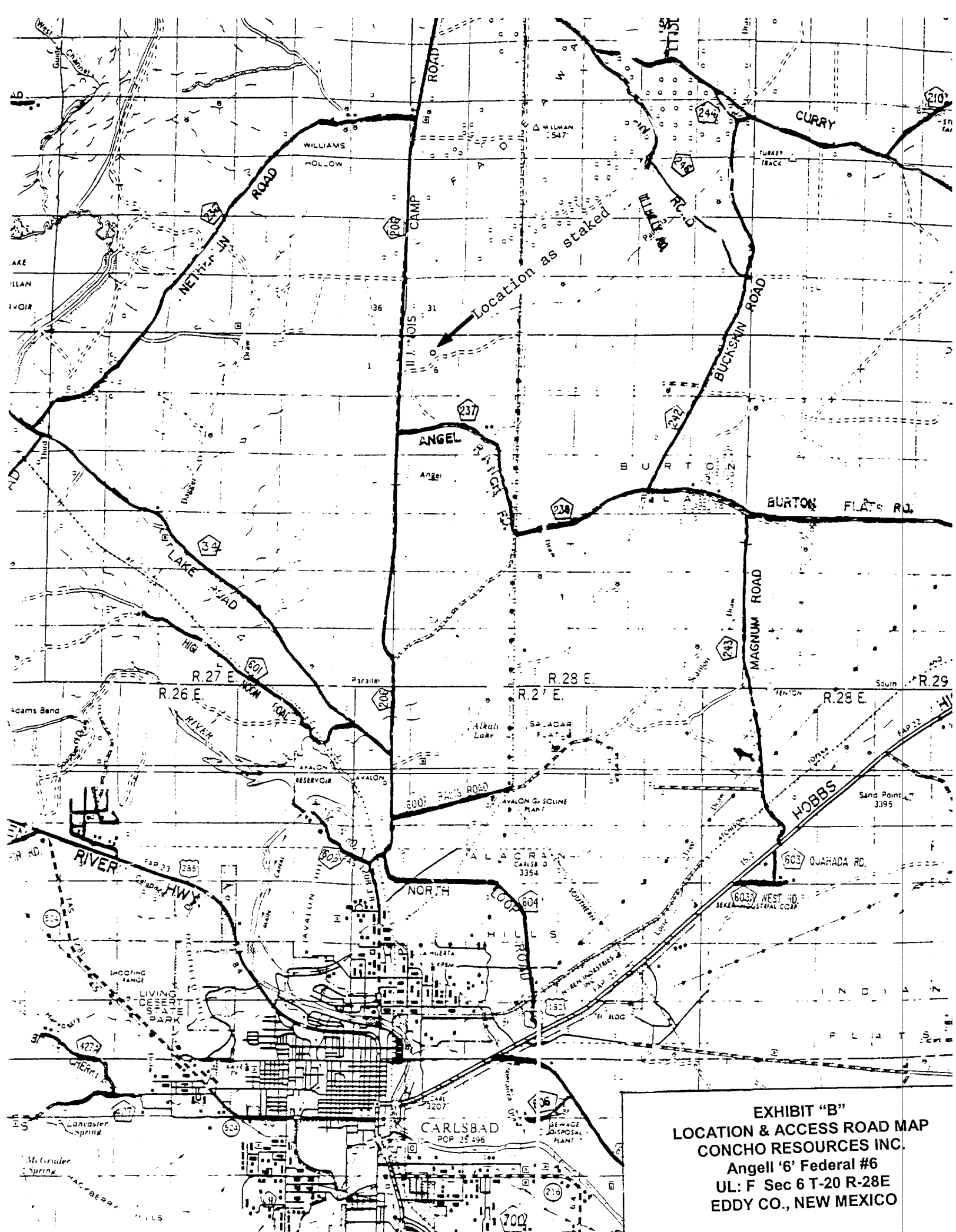


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP
CONCHO RESOURCES INC.
Angell '6' Federal #6
UL: F Sec 6 T-20 R-28E
EDDY CO., NEW MEXICO

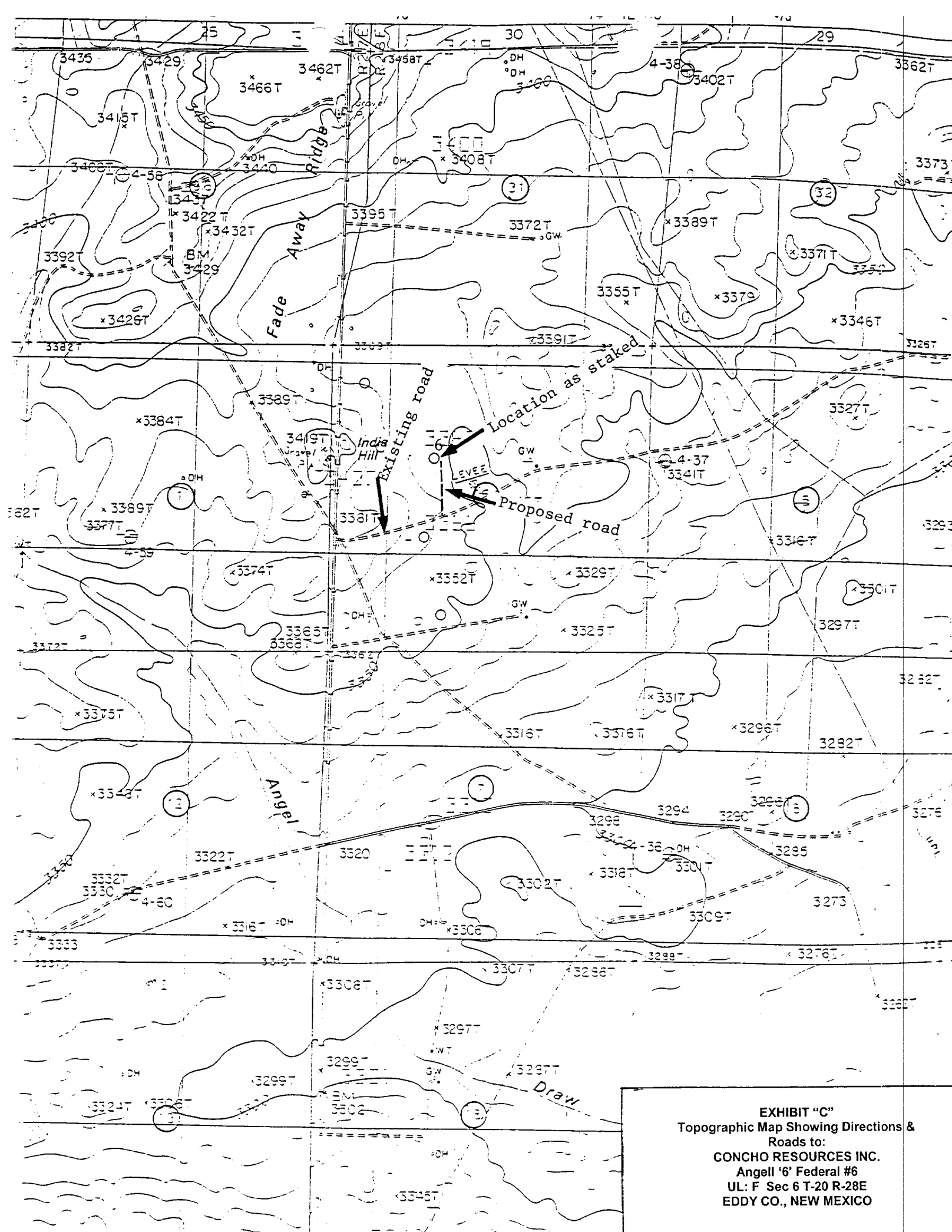
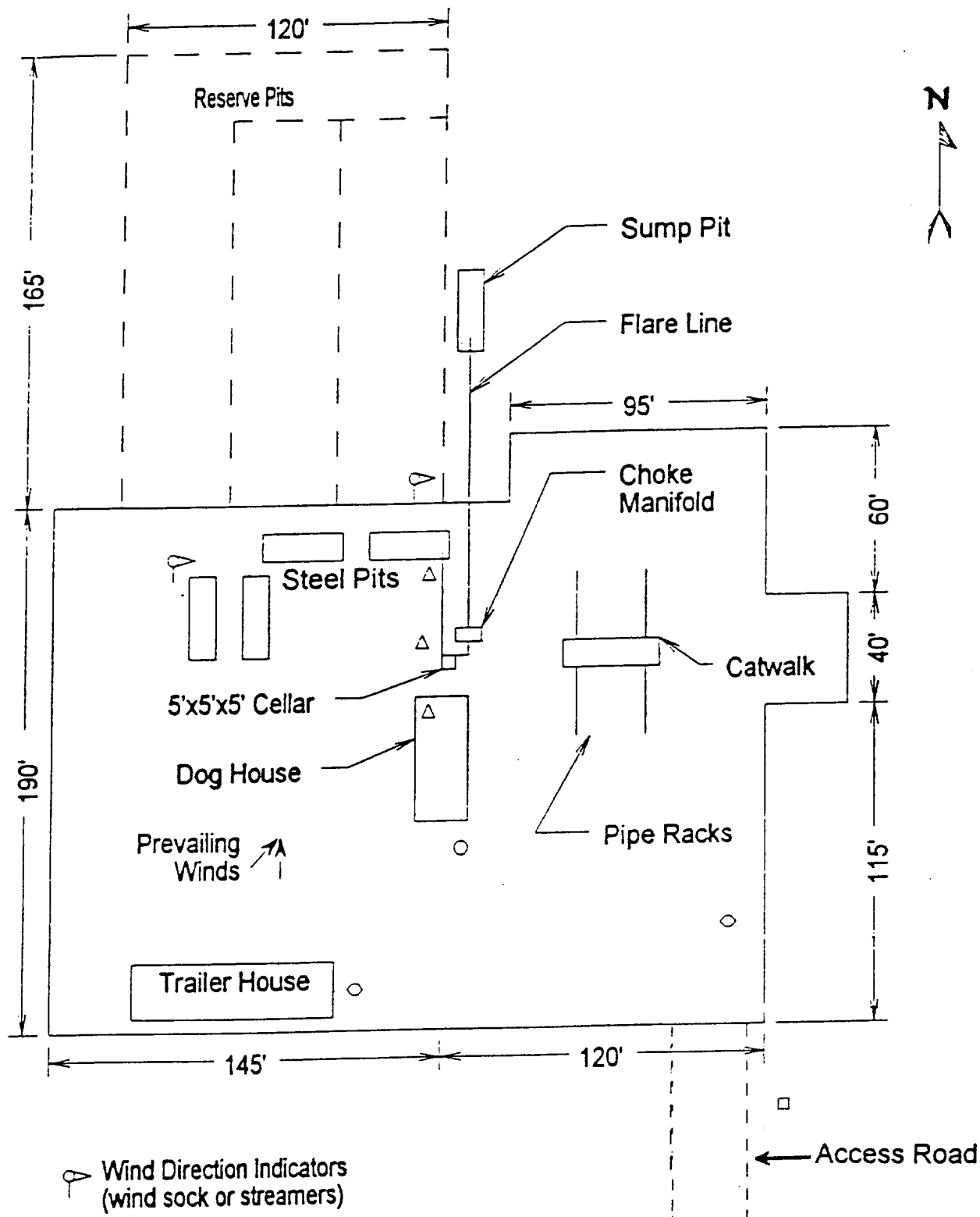
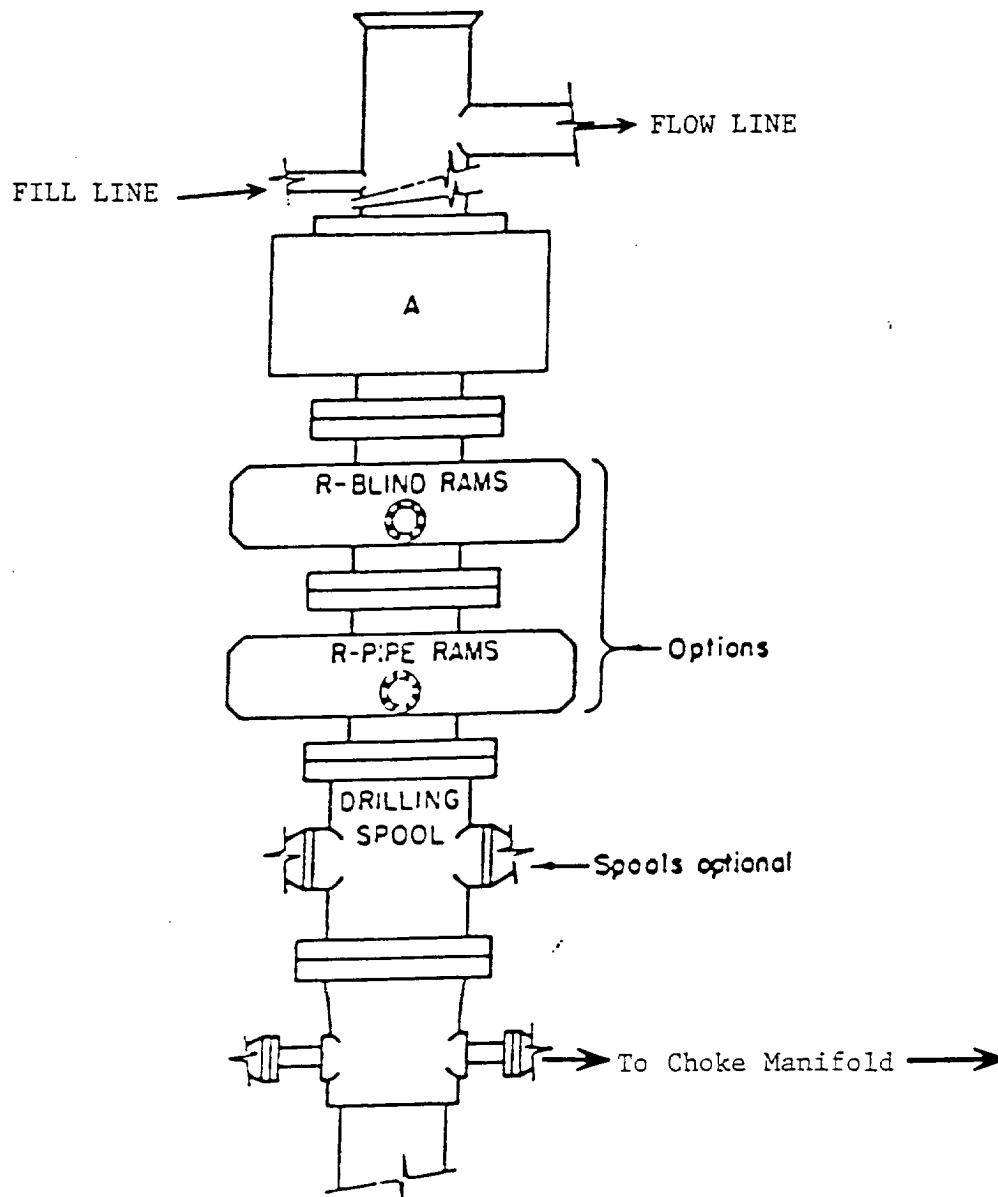


EXHIBIT "C"
Topographic Map Showing Directions &
Roads to:
CONCHO RESOURCES INC.
Angell '6' Federal #6
UL: F Sec 6 T-20 R-28E
EDDY CO., NEW MEXICO



- 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

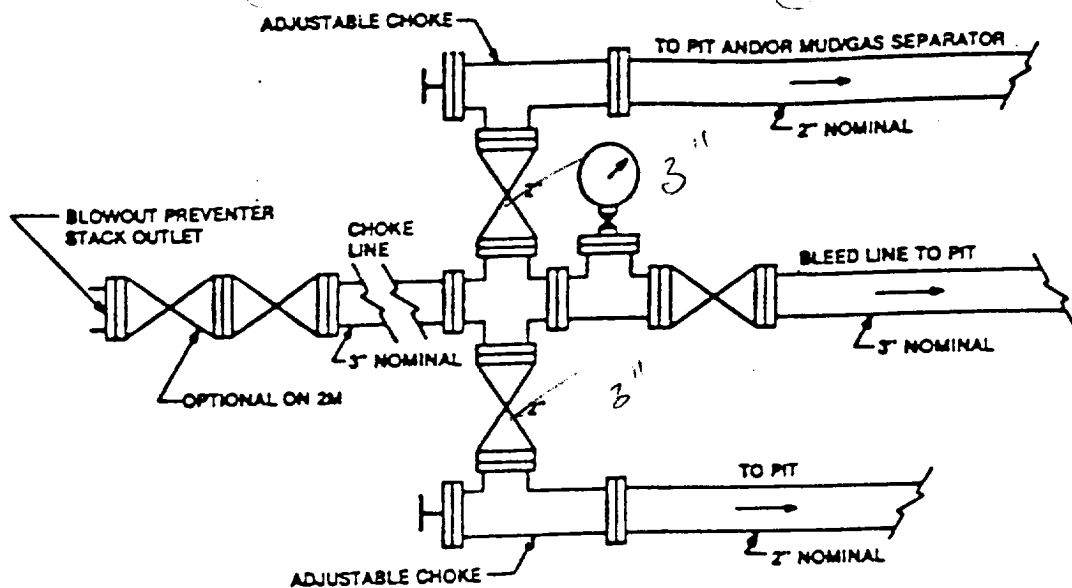
EXHIBIT "D"
 RIG LAY OUT PLAT
 CONCHO RESOURCES INC.
 Angell '6' Federal #6
 UL: F Sec 6 T-20 R-28E
 EDDY CO., NEW MEXICO



ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
BOP SKETCH TO BE USED ON:
CONCHO RESOURCES INC.
Angell '6' Federal #6
UL: F Sec 6 T-20 R-28E
EDDY CO., NEW MEXICO



Typical choke manifold assembly for 3M WP system

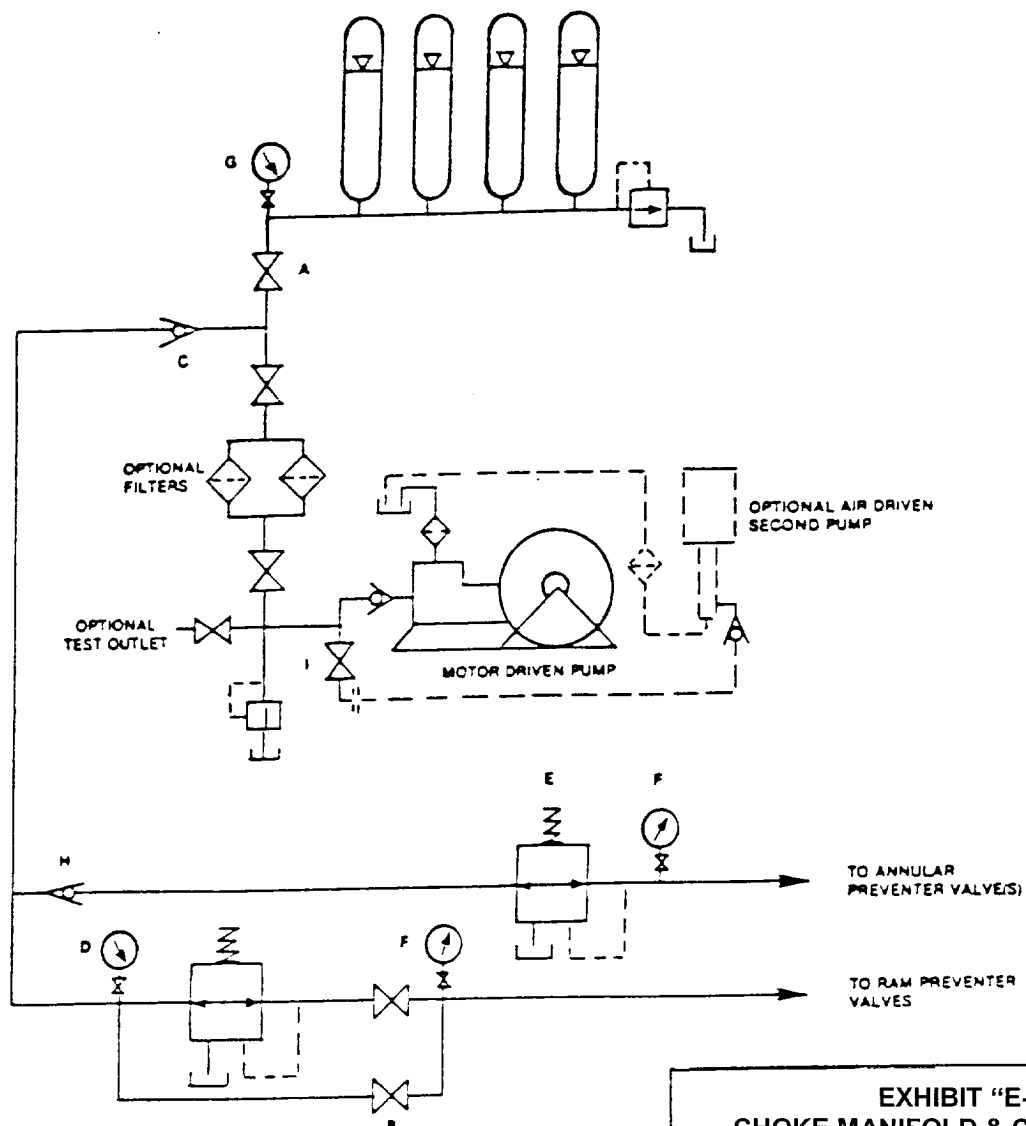


EXHIBIT "E-1"
 CHOKE MANIFOLD & CLOSING UNIT
 CONCHO RESOURCES INC.
 Angell '6' Federal #6
 UL: F Sec 6 T-20 R-28E
 EDDY CO., NEW MEXICO