DEPARTMEN	ITED ATES TOF THE INTE	RIOR Hobbs	rse side)	A OWN WALKOVED		
APPLICATION FOR	PERMIT TO DRIL	L OR DEEPE	N	6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
DRILL TIPE OF WORK b. TIPE OF WELL	DEEPEN [7. UNIT AGREEMENT NAME		
OIL X GAS WELL OTHER		INGLE X MU	LTIPLE	S. FARM OR LEASE NAME WELL NO.		
2. NAME OF OPERATOR CONCHO RESOURCES, INC.		NT) 915-683-7		TOMCAT "17" FEDERAL # 4		
3. ADDRESS AND TELEPHONE NO. 110 WEST LOUISIANA SUITE 4			-683-7443	30-025 -34812		
4. LOCATION OF WELL (Report location clearly an At surface 2080 FEL & 2080 FSL SEC. At proposed prod. sone SAME			•	SAND DUNES-BONE SPRING 11. SEC. T. E. M. OF ELE. Sec. 17 T23S-R32E		
4. DISTANCE IN MILES AND DIRECTION FROM NE	REST TOWN OR POST OFFICE	•		12. COUNTY OR PARISH 13. STATE		
Approximately 34 miles West	of Jal New Mexic	င်				
3. DISTANCE FROM PROPUSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any)		320.	17. NO. O	LEA CO. NM FACRES ASSIGNED 118 WELL 40		
TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED POR, ON THIS LEASE, FT.	DISTANCE FROM PROPOSED LOCATION® TO NUMBER WELL, DRILLING, COMPLETED, 08 APPLIED FOR, ON THIS LEASE, FT. 1420. 19. PROPOSED DEPTH 20. ROTARY ROTARY					
1. ELEVATIONS (Show whether DF, RT, GR, etc.)	3664' GR.			22. APPROX. DATE WORK WILL START* WHEN WELL IS APPROVED		

PROPOSED CASING AND CEMENTING PROGRAM

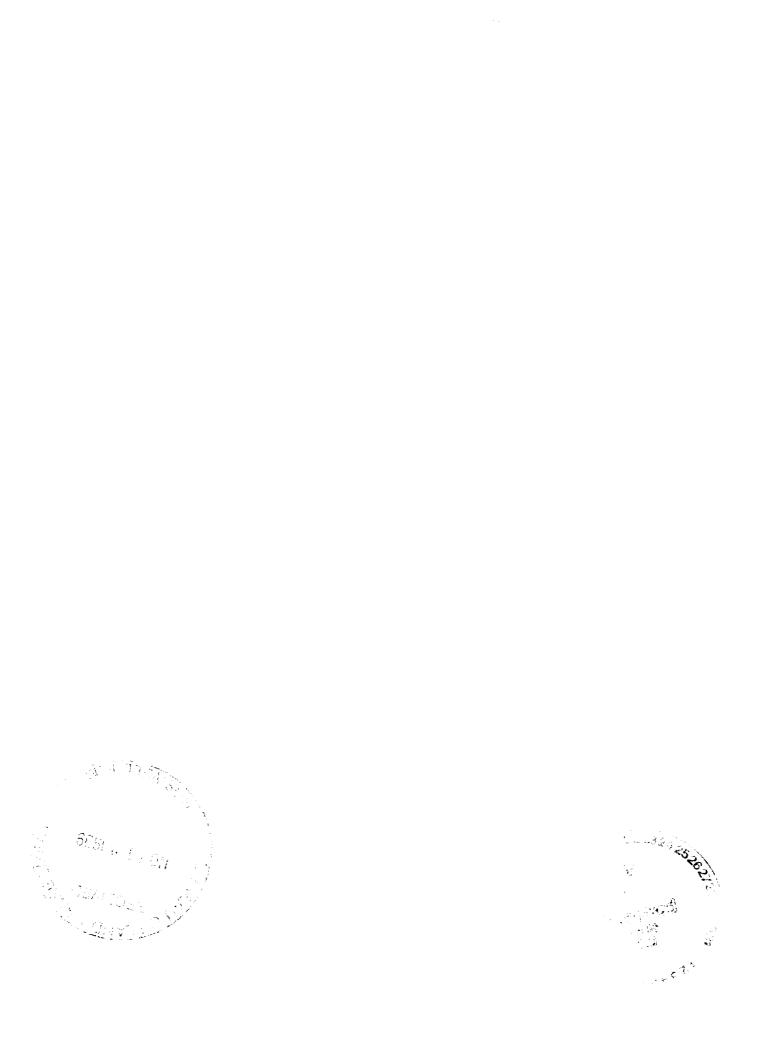
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	20" Conductor	NA	40	Cement to surface with Redi-mix
175"	H-40 13 3/8"	48	650'	550 Sx. circulate to surface
11"	K-55 8 5/3"	32	4900!	1400 Sx. Top of cement 450
7 7/8"	K-55	15.5 & 17	9100*	550 Sx. Top of cement 7600'

- 1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
- 2. Drill $17\frac{1}{2}$ " hole to 650'. Run and set 650' of 13 3/8" 48# H-40 ST&C casing. Cement with 300 Sx. of Halco Lifgt + 2% CaCl + $\frac{1}{2}$ # flocele/Sx., tail in with 250 Sx. of Premium Plus Class "C" + 2% CaCl + 1/4 folcele/Sx. Circulate cement to surface.
- 3. Drill II" hole to 4900'. Run and set 4900' of 8 5/8" 32# casing as follows: 700' of 32#S-80% LT&C, 4200' of 32# K-55 LT&C. Cement with 1200 Sx. of Class "C" + 1/4# flocele/Sx. tail in with 200 Sx. of Premium Plus cement + 2% CaCl + 1/4# flocele/Sx. Cirulalte to surface.
- 4. Drill 7 7/8" hole to 9100'. Run and set 9100' of $5\frac{1}{2}$ " casing as follows: 1500' of $5\frac{1}{2}$ " 17#K-55 LT&C, 7600' of $5\frac{1}{2}$ " 15.5# K-55 LT&C. Cement with 350 Sx. of Class "H" + additives, tail in with 200 Sx. of Super Class "H" +.4% CFR-3 +.5% Halad 322 +.5% Gilsonite/Sx. +3# Salt/Sx. Estimate top of cement 7600'.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zon 2

eepen directionally, give pertinent data on subsurface locations and me	asured and true vertical depths. Give blowe	and preventer program, if any,	occurve zone. It proposal is to d	Intros
signer January	Agent Agent		11/11/99	
(This space for Federal or State office use)		OPER. OGRID		===
PERMIT NO.	APPROVAL DATE	PROPERTY NO		
Application approval does not warrant or certify that the applicant hold		BEY THATE 12	22-99 turk operation	is hereon.
CONDITIONS OF APPROVAL, IF ANY:	Assistant Field (- 2 Sec. 2 Sec. 2 10 -	25-34812	
APPROVED BY	Lands and Miner	rals	NFC 2 0 1999	

*See Instructions On Reverse Side



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

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

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

API Number

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

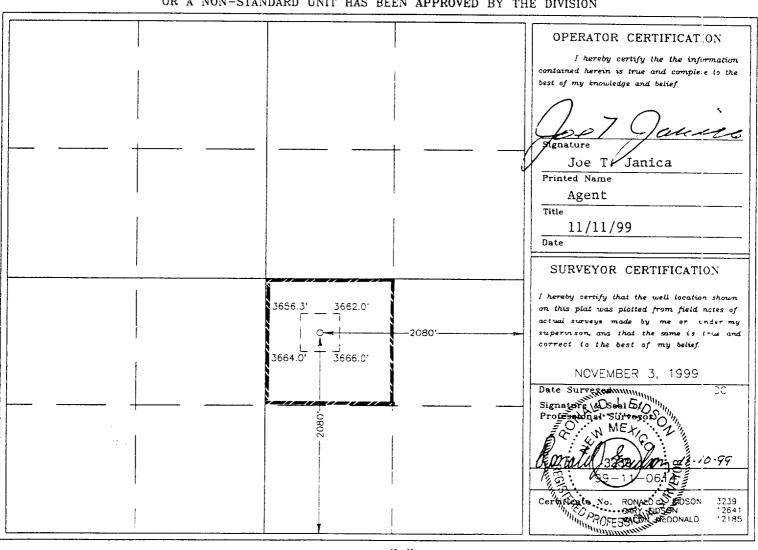
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

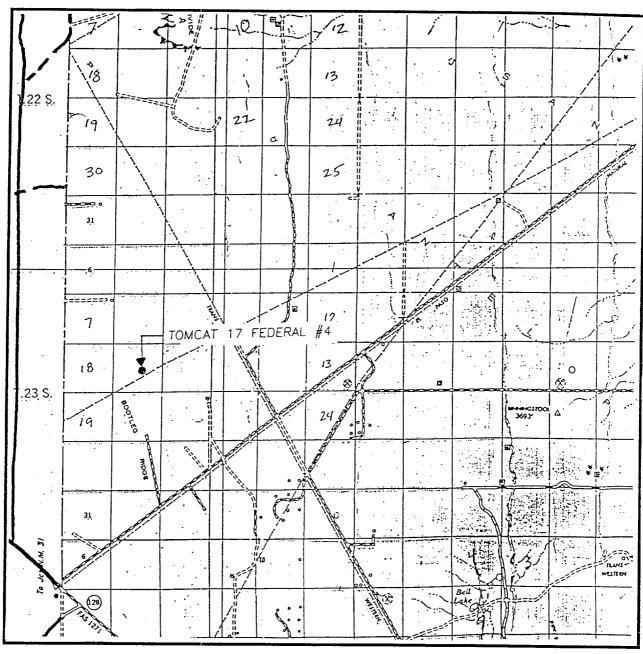
Bool Codo

Number	_		Pool Code	i	Pool Name				
25-	-34812		53800	3800 SAND DUNES-BONE SPRING					
			Property Name				Well Number		
			I (MCAL : / FE	DERAL		4		
o.			CONCUO DESCUDOFO MA					levation 3664	
				Surface Loc	ation				
Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
17	23 S	32 E		2080	SOUTH	2080	EAST	LEA	
		Bottom	Hole Loc	cation If Diffe	rent From Sur	face		L	
Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
s Joint o	r Infill Co	nsolidation (Code Or	der No.					
	Code 55 o. Section 17	Section Township 23 S Section Township	Code 555 o. Section Township Range 17 23 S 32 E Bottom Section Township Range	Section Township Range Lot Idn 17 23 S 32 E Bottom Hole Loc Section Township Range Lot Idn A Section Township Range Lot Idn	Section Township Range Bottom Hole Location If Differ Section Township Range Lot Idn Feet from the 23 S A2 E Bottom Hole Location If Differ Section Township Range Lot Idn Feet from the 2080	Sand Dunes-Bone Property Name TOMCAT 17 FEDERAL Operator Name CONCHO RESOURCES INC. Surface Location Section Township Range Lot Idn Feet from the North/South line 17 23 S 32 E 2080 SOUTH Bottom Hole Location If Different From Sur Section Township Range Lot Idn Feet from the North/South line Bottom Hole Location If Different From Sur	Section Township Range Bottom Hole Location If Different From Surface Section Township Range Lot Idn Feet from the North/South line Feet from the Section Hole Location If Different From Surface Section Township Range Lot Idn Feet from the North/South line Feet from the Section Hole Location If Different From Surface	Sand Dunes—Bone Spring Property Name	

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



VICINITY MAP

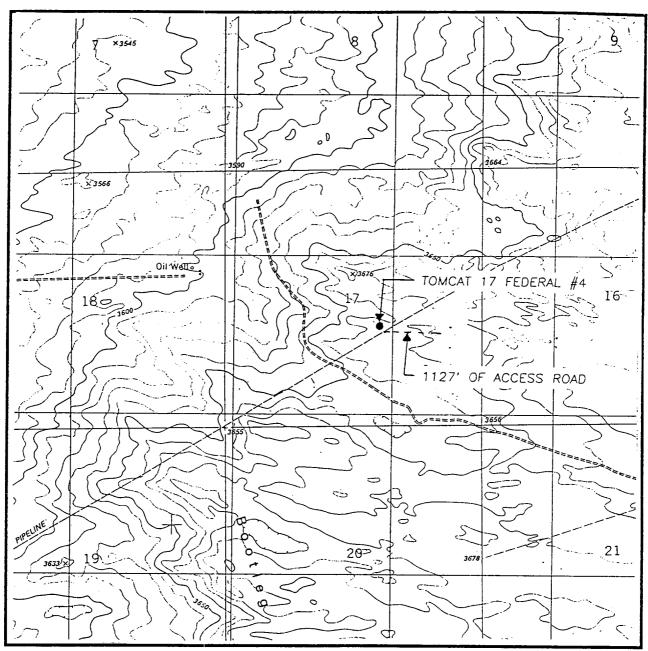


SCALE: 1" = 2 MILES

SEC. <u>17</u>	TWP. <u>23-S</u> RGE. <u>32-E</u>
SURVEY	N.M.P.M.
COUNTY	LEA
DESCRIPTION	N <u>2080' FSL & 2080' FEL</u>
ELEVATION_	3664
OPERATOR_	CONCHO RESOURCES INC
LEASE	TOMCAT 17 FEDERAL

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

LOCATION VERIFICATION MAP



SCALE: 1'' = 2000'

CONTOUR INTERVAL: BOOTLEG RIDGE - 10'

SEC. <u>17</u> TWP. <u>23-S</u> RGE. <u>32-E</u>
SURVEY N.M.P.M.
COUNTYLEA
DESCRIPTION 2080' FSL & 2080' FEL
ELEVATION 3664
OPERATOR CONCHO RESOURCES INC.
LEASE TOMCAT 17 FEDERAL
U.S.G.S. TOPOGRAPHIC MAP BOOTLEG RIDGE, N.M.

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

APPLICATION TO DRILL

CONCHO RESOURCES, INC.
TOMCAT "17" FEDERAL # 4
UNIT "J" SECTION 17
T23S-R32E 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: 2080' FSL & 2080' FEL SEC. 17 T23S-R32E LEA CO. NM
- 2. Elevation above Sea Level: 3664' GR.
- 3. Geologic name of surface formation: Quaternery Aeolian Deposits.
- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
- 5. Proposed drilling depth: 9100!
- 6. Estimated tops of geological markers:

Lamar	4820'	Brushy Canyon	73591
Bell Canyon	4850 '	Bone Spring	86501
Manzanita	5900¹		•

7. Possible mineral bearing formations:

Delaware Oil
Bone Spring Oil

8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Cullar	Grade
25"	0-40	20"	NA	NA	NA	Conductor
17½"	0-6501	13 3/8"	48ª	8-R	ST&C	H-40
11"	0-4900'	8 5/8"	32#	8-R	LT&C	K-55 S-80
7 8/7"	0-91001	5 1 "	15.5# 17#	8-R	LT&C	K-55

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 $17\frac{1}{2}$ " hole to 650'. Run and set 650' of 13 3/8" 48# H-40 ST&C casing. Cement with 550 Sx. of Class "C" Premium cement + additives circulate Cement to surface.
8 5/8" Intermediate	Drill 11" hole to 4900'. Run and set 4900' of 8 5/8" K-55 & S-80 32# LT&C casing. Cement with 1400 Sx. of Premium Plus Class "C"cement + additives circulate cement or at least 200' above 13 3/8 CS.
5½" Production	Drill 7 7/8" hole to 9100'. Run and set 9100' of 5½" K-55 17 & 15.5# LT&C casing. Cement with 550 Sx.of Class "H" cement + additives estimated top of cement 6400'.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E". A Series 900 3000 PSI working pressure B.O.P. consting of a double ram type preventor with a bag type annular preventor. The B.O.P. unit will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. The B.O.P. will be nippled 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 on trips. 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 System
40-6501	8.6-9	32-34	N/C	Fresh water system use paper to control seepage
650-4900'	10-10.1	29 - 34	N/C	Brine water use lime for pH control and paper to control seepage.
4900-8900'	8.4-8.5	28-34	N/C	Fresh water use Gel & paper to control seepage and clean hole.
8900-91001	8.5-9.0	32-34	10-15 cc or less	Fersh water with Gel/Pac Clean hole with high viscosity sweeps.

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 the viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

CONCHO RESOURCES, INC.
TOMCAT "17" FEDERAL # 4
UNIT "J" SECTION 17
T23S-R32E LEA CO. NM

12. Testing, Logging and Coring Program:

- A. Open hole lags will be run. Dual Induction, Density, compensated Neutron, Gamma Ray, Caliper. from TD to 4900'. Neutron Gamma Ray from 4900' to surface.
- B. Two man mud logging unit will be on hole from 4700' to TD.
- C. Side wall cores may be taken at the request of Geologist.

13. Potential Hazards:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, $\rm H_2S$ 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 operation of equipment being used. Estimated BHP $\frac{4500}{}$ PSI, estimated BHT $\frac{170}{}$.

14. Anticipated Starting Date and Duration of Operation:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take __30__ days. If production casing is rum an additional 30 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 total depth over possible pay intervals. The Bone Spring pay will be perforated and stimulated. The well will be swab tested and potentialed 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 hazzards
 - 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" & "E-1"
- 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 the location is near to a dwelling a closed DST will be performed.

- 8. Drilling contractor supervisor will be required to be familiar with the effects H₂S 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.

- 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 junction of Hi-way 18 & 128 in Jal New Mexico go North-West on New Mexico Hi-way 128 for 32 miles turn right on to Elpaso Pipeline road go 3.8 miles. Turn left and follow lease road 1.5 miles turn left go .5 miles turn North go .25 mi, turn left go .25 mi to location
 - C. Lay necessary Pipelines and construct required Powerlines that will be necessary to deliver produced fluids to a central collection point on this lease for sale to purchasers.
- 2. PLANNED ACCESS ROADS: Approximately 1320' of new road will be constructed.
 - A. The access road will be crowned and direhed 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 Water well in NE/4 of Sec.21 1+ mile Southeast of location.
- 3. Dispusal 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 entend a minimum of 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 RESOURCES, INC.
TOMCAT "17" FEDERAL # 4
UNIT "J" SECTION 17
T23S-R32E LEA CO. NM

11. OTHER INFORMATION:

- A. Topography consists of sand dunes with a slight dip toward the West. Deep sandy soil supports native grasses, mesquite, and shinnery Oak.
- B. Surface is owned by the Bureau of Land Management U.S. Department of Interior. Surface is used for grazing of livestock and is leased to ranchers for this purpose.
- C. An archaeological survey will be conducted and copies of the survey will be filed in the Carlsbad Office of The Bureau of Land Management.
- D. There are no dwellings or habitation within three miles of this location.

12. OPERATORS REPRESENTIVE:

Before construction:

TIERRA EXPLORATION INC. P.O. BOX 2188 HOBBS, NEW MEXICO 88241 OFFICE PHONE 505-392-2112 JOE T. JANICA

During and after construction:

CONCHO RESOURCES INC.
110 WEST LOUISIANA
SUITE 410
MIDLAND, TEXAS
JIM BLOUNT 915-683-7334

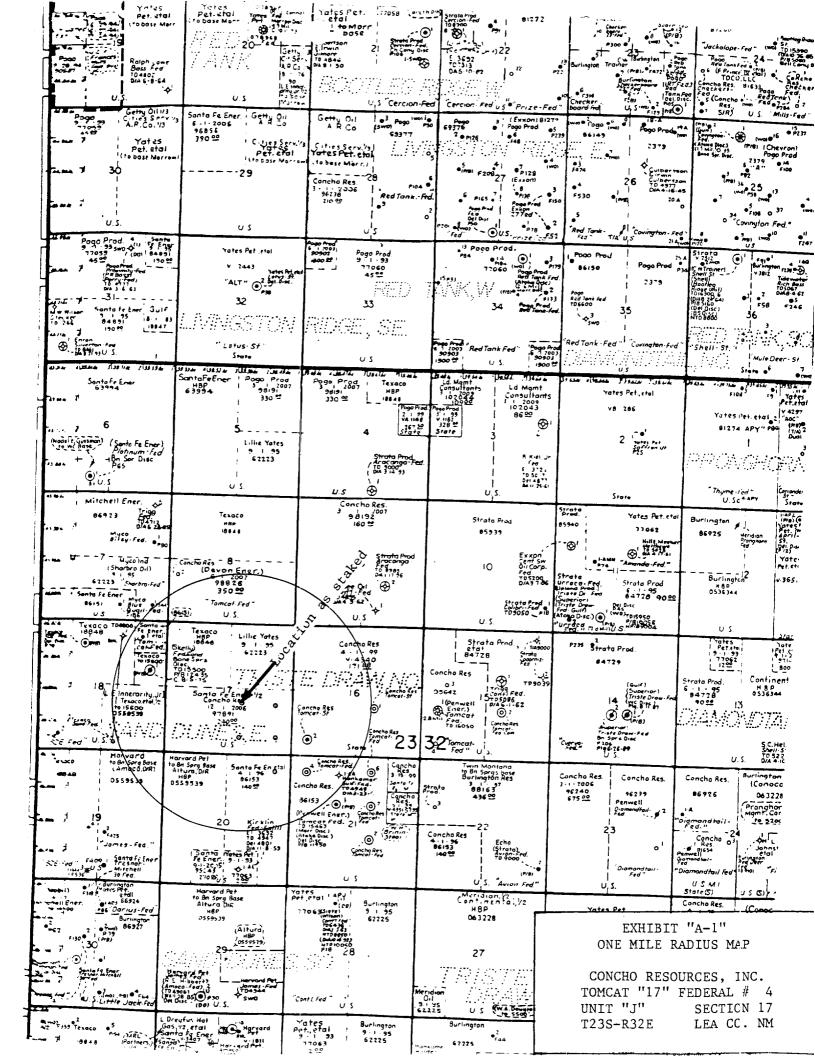
13. CERTIFICATION: - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Concho Resources Inc, its contractors/subcontractors is in the conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

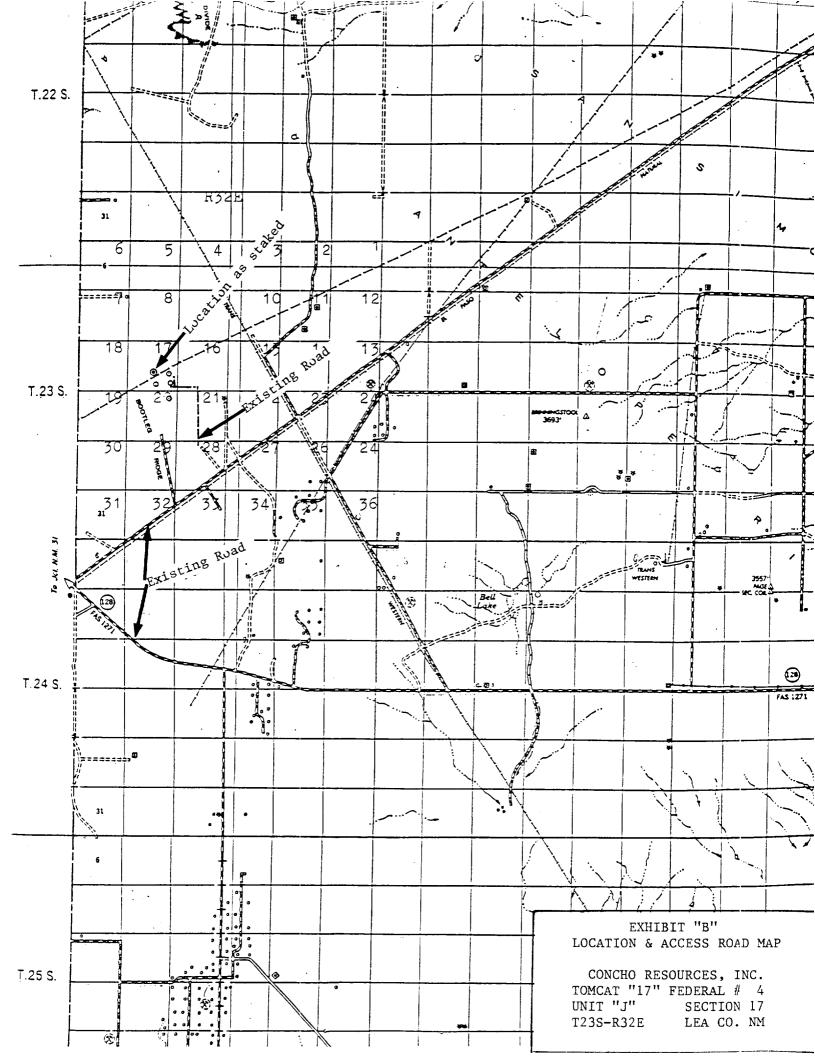
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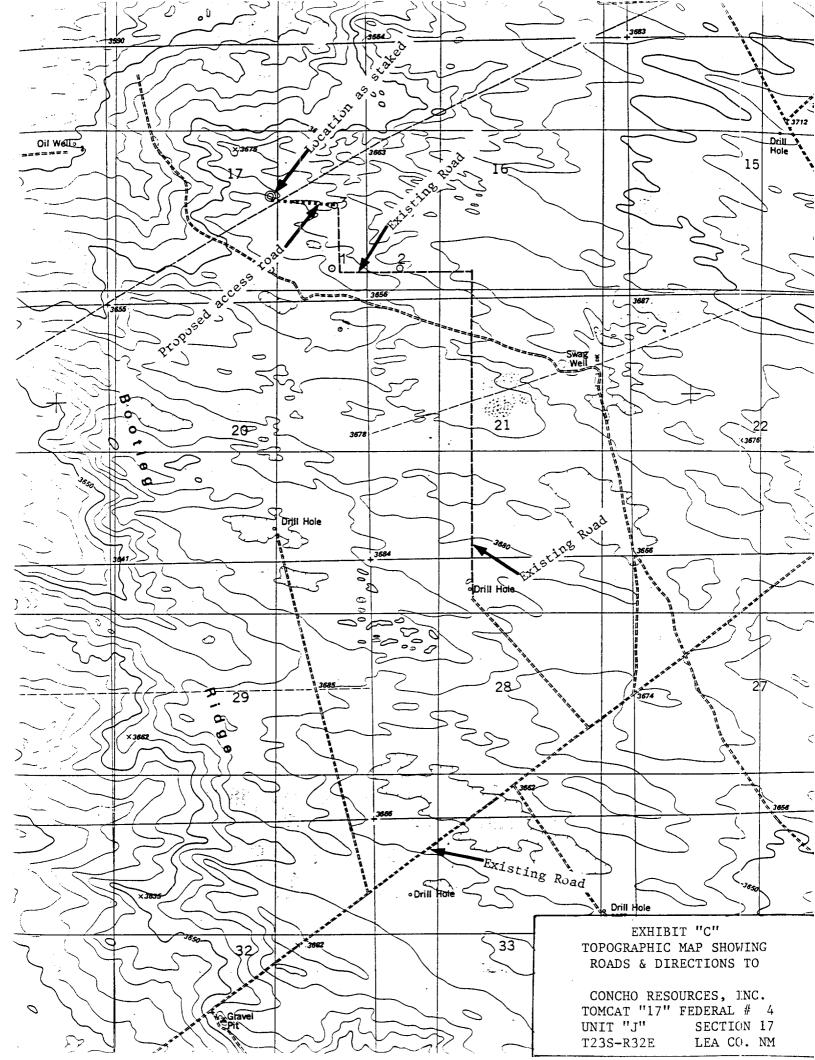
Agent

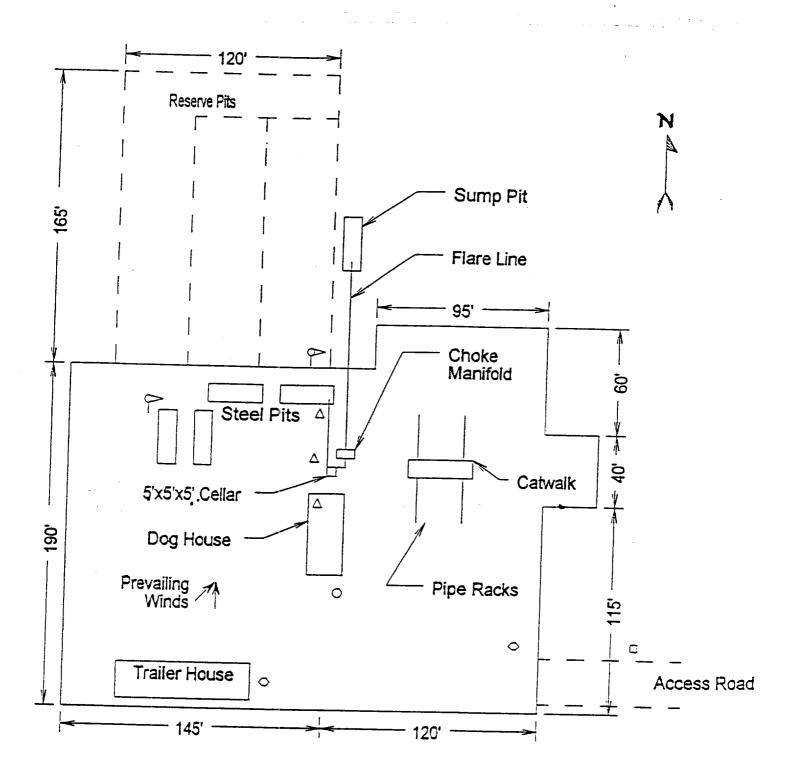
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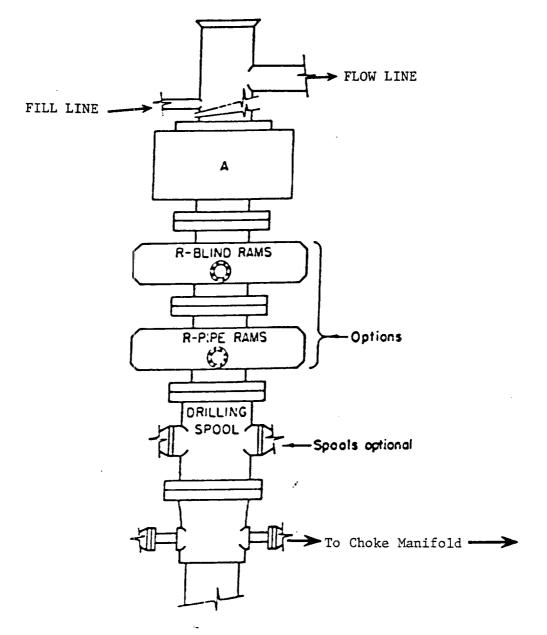




- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- □ Sign and Condition Flags

EXHIBIT "D"
RIG LAYOUT PLAT

CONCHO RESOURCES, INC.
TOMCAT "17" FEDERAL # 4
UNIT "J" SECTION 17
T23S-R32E LEA CC. NM

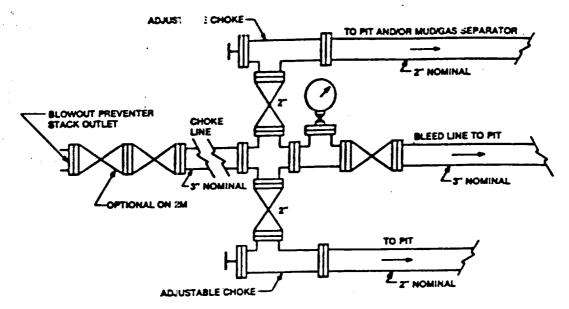


ARRANGEMENT SRRA

900 Series 3000 PSI WP

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

CONCHO RESOURCES, INC.
TOMCAT "17" FEDERAL # 4
UNIT "J" SECTION 17
T23S-R32E LEA CO. NM



Typical choke manifold assembly for 3M WP system

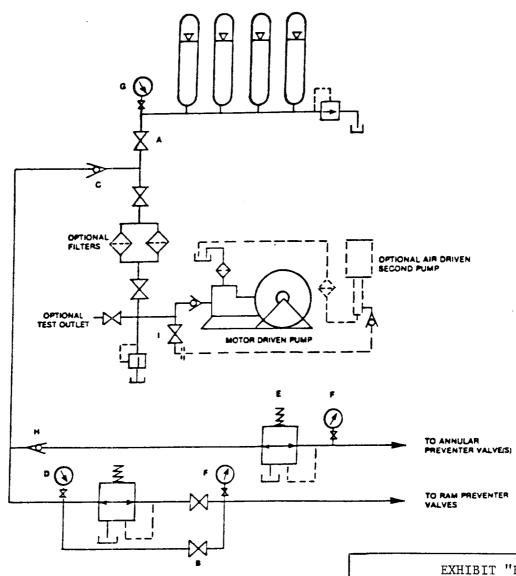


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

CONCHO RESOURCE; INC.
TOMCAT "17" FEDERAL # 4
UNIT "J" SECTION 17
T23S-R32E LEA CO. NM

ELF
ABOVE BATE DOES NOT INDICATE WHEN CONFIDENTIAL LOGS
WILL BE RELEASED

125262