

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address: Concho Resources Inc. 110 W. Louisiana Ave., Suite 410 Midland, TX 79701		OGRID Number 166111
		API Number 30-025-34223
Property Code 22145	Property Name NAR 33 State	Well No. 1

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	33	15S	32E		1980	South	660	West	Lea

8 Proposed 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
Proposed Pool 1 North Anderson Ranch Cisco/Canyon					Proposed Pool 2				

Work Type Code N	Well Type Code O	Cable/Rotary R	Lease Type Code State	Ground Level Elevation 4311
Multiple No	Proposed Depth 10,600	Formation Cisco	Contractor Unknown	Spud Date 12-20-97

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2	13-3/8	48	400	390	Surface
12 1/4, 11	8-5/8	28, 32	4150	1320	Surface
7-7/8	5 1/2	17	10,600	160	9,600

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

This will be a new drill well for Cisco production. We will attempt Wolfcamp test if Cisco uncommercial. (See attached mud program for drilling details)

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Gordon Barker

Printed name:

Gordon Barker

Title:

Operations Manager, Concho Resources
915-683-7443

OIL CONSERVATION DIVISION

Approved by:

ORIGINAL SIGNED BY

Title:

GARY WINK

Approval Date:

DEC 09 1997

Expiration Date:

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-34223		2 Pool Code 136D		3 Pool Name North Anderson Ranch Cisco/Canyon	
4 Property Code 22145		5 Property Name NAR Unit 33 State			6 Well Number 1
7 OGRID No. 166111		8 Operator Name Concho Resources, Inc.			9 Elevation 4311

10 Surface Location

UL or lot no. L	Section 33	Township 15 S	Range 32 E	Lot Idn	Feet from the 1980	North/South line South	Feet from the 660	East/West line West	County Lea
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11 Bottom Hole Location If Different From Surface

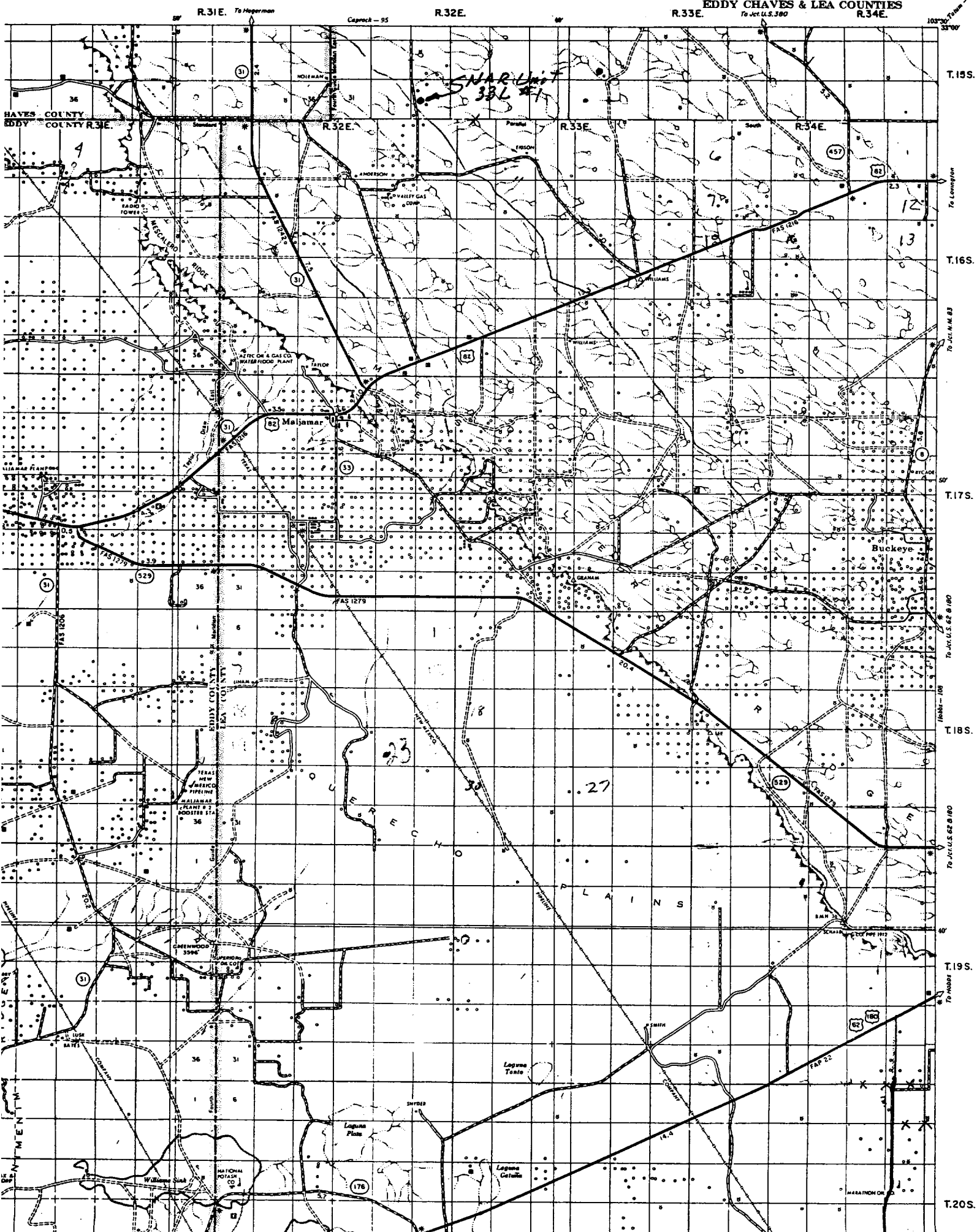
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres 40	13 Joint or Infill	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Gordon Barker Signature GORDON BARKER Printed Name OPERATIONS MGR. Title 12/2/97 Date
				18 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. November 20, 1997 Date of Survey Signature and Seal of Professional Surveyer: J. N. Newton 5109 Certificate Number

SEE Amended Plat



Interval Summary 1

Concho Resources

0 - 435 ft MD - 17-1/2" Open Hole	
Drilling Fluid System	M-I Gel/Lime Spud Mud
Key Products	M-I Gel, Lime, Drilling Paper, Fibrous LCM
Solids Control	Adjustable Linear Shaker, Desander, Desilter
Potential Problems	Seepage Losses, Lost Returns, Hole Cleaning

Interval Drilling Fluid Properties						
Depth Interval (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft ²)	API Fluid Loss (ml/30min)	HTHP Fluid Loss (ml/30min)	Total Solids (%)
0 - 435	8.8 - 9.2	4 - 8	4 - 6	N/C	N/C	5.0

- Spud with a M-I Gel/Lime type drilling fluid, having a 32 - 34 sec/qt viscosity, add 5 - 7 sacks Drilling Paper to spud mud.
- Drilling Paper additions should be sufficient to control minor seepage losses..
- Jet and clean, shale and settling pits as needed to control mud properties.
- Use fibrous LCM pills to control lost returns.
- Use M-I Gel pill sweeps to ensure a clean hole if dry drilling becomes necessary and prior to running casing.

Interval Summary 2

Concho Resources

13-3/8" Surface Casing, 435 - 4,150 ft MD - 11" Open Hole	
Drilling Fluid System	Fresh/Native, Brine/Native
Key Products	Lime, Drilling Paper, Fibrous LCM, Starch, Salt Gel
Solids Control	Reserve Pit, Adjustable Linear Shaker
Potential Problems	Seepage Losses, Lost Returns, Hole Cleaning, Troublesome Red Beds.

Interval Drilling Fluid Properties						
Depth Interval (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft ²)	API Fluid Loss (ml/30min)	HTHP Fluid Loss (ml/30min)	Total Solids (%)
435 - 1,500	8.4 - 9.6	4 - 8	4 - 6	N/C	N/A	4-6
1,500 - 4,150	9.6 - 10.4	4 - 8	4 - 6	N/C	N/A	4-6
		*6 - 12	8 - 12	20 - 30		

- Drill out below 13-3/8" surface casing with fresh water, building a 32 - 34 sec/qt native viscosity, circulating a portion of the reserve pit.
- Drilling Paper additions should be sufficient to control minor seepage losses and aid in hole cleaning.
- If permissible, add oil to system for 3 - 5% oil content over a 6 - 8 hours period, once a 32 sec/qt native viscosity is obtained.
- Use Salt Gel pill sweeps to ensure a clean hole.
- Add all water additions at flowline discharge, start brine additions at 1,500', to aid in controlling washouts in the salt section..
- *By 4,100', add 50 - 60 barrels oil to system and 50 starch to condition hole for casing, through the steel pits.

Interval Summary 3

Concho Resources

8-5/8" Intermediate Casing, 4,150 - 10,600 ft MD - 7-7/8 Open Hole

Drilling Fluid System	Fresh Water, M-I Gel/Polypac/Poly Plus
Key Products	Lime, Caustic Soda, M-I Gel, Polypac, Poly Plus, Fibrous LCM
Solids Control	Reserve Pit, Adjustable Linear Shaker, Centrifuge
Potential Problems	Seepage Losses, Lost Returns, Hole Cleaning

Interval Drilling Fluid Properties

Depth Interval (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft ²)	API Fluid Loss (ml/30min)	HTHP Fluid Loss (ml/30min)	Total Solids (%)
4,150 - 9,500	8.4	N/A	N/A	NC	NC	<1.5
9,500 - 10,600	8.8 - 9.0	6 - 10	4 - 8	10 - 12	N/C	<5
	*8.8 - 9.0	10 - 14	8 - 12	10 or less	N/C	<5

- Drill out below 8-5/8" intermediate casing with fresh water, circulating a portion of the reserve pit.
- Maintain 9.5 - 10.5 pH control using Lime.
- Use M-I Gel pill sweeps to ensure a clean hole.
- Use fibrous LCM pills to control lost returns.
- At 9,500', mud up through the steel pits with M-I Gel/Polypac/Poly Plus type drilling fluid.
- Maintain 8.8 - 9.0 lb/gal mud weight, 34 - 36 sec/qt viscosity and 10 - 12 cc's fluid loss after mud up.
- *At 10,600', we suggest increasing viscosity to 38 - 42 sec/qt and lowering fluid loss to 10cc's or less for DST's, logging and casing operations.

Key Issues

Concho Resources

Seepage Losses

- Seepage losses may be expected in all intervals to be drilled.
- Drilling paper additions should be sufficient to control minor seepage losses.

Lost Returns

- Lost returns may be encountered in all intervals to be drilled.
- Use fibrous LCM pills with Maxi-Seal and Cedar Fiber to control lost returns.

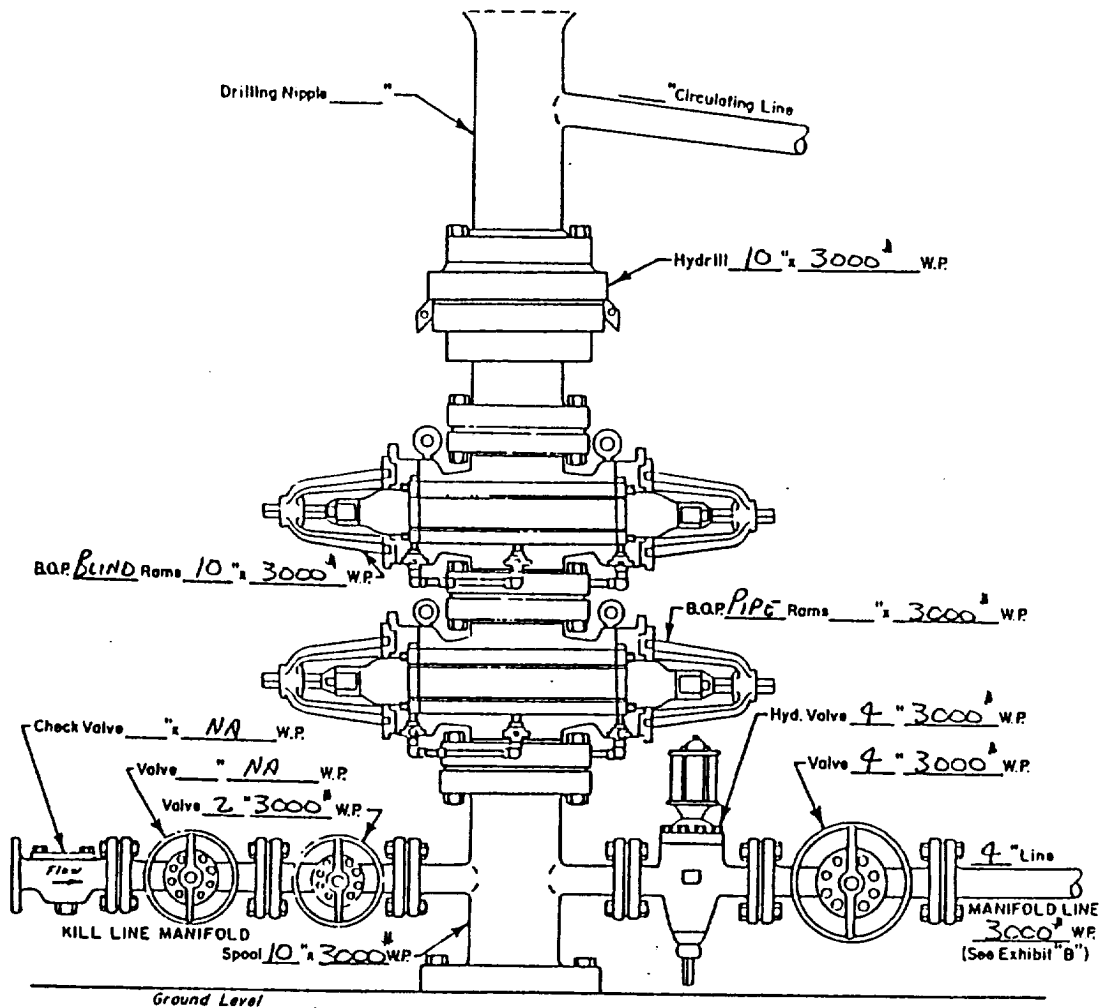
Hole Cleaning

- While drilling Red Bed Section, we recommend adding 2 - 3 sacks of Drilling Paper per 100' Red Bed drilled to aid in hole cleaning.
- Use M-I Gel pill sweeps to ensure a clean hole while drilling with fresh water.

Troublesome Red Beds

- We recommend adding oil to system for 3 - 5% oil content, once a 32 sec/qt native viscosity is obtained.
- Most operators add 50 - 60 barrels oil to system and 50 sacks of starch to condition hole for 8-5/8" casing through the steel pits..

Concho Resources, Inc.
 NAR Unit 33 L #1
 Sec 33 Twn 15S Rng 32E
 Lea County, NM

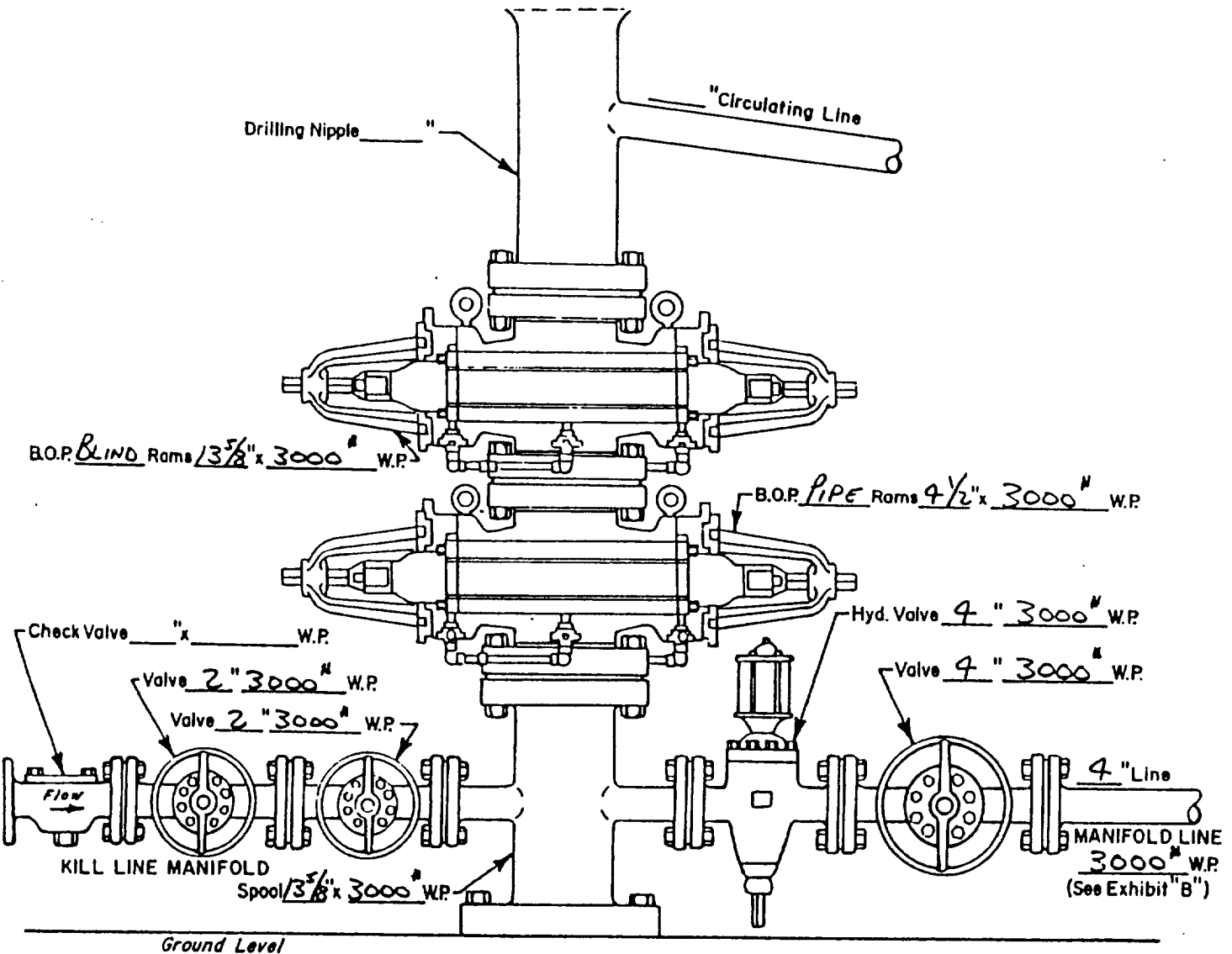


WELL HEAD B.O.P.
3000 # W.P.

☐ Manual
☒ Hydraulic

used to drill 7 7/8" hole

Concho Resources, Inc.
 NAR Unit 33 L #1
 Sec 33 Twn 15S Rng 32E
 Lea County, NM



WELL HEAD B.O.P.
3000 #W.P.

☐ Manual
☒ Hydraulic

USED TO DRILL INTERMEDIATE HOLE

RECEIVED
JAN 10 1964

82/11/9