

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
NM OIL CONSERVATION
ARTESIA DISTRICT

Form C-101
Revised July 18, 2013

Energy Minerals and Natural Resources DEC 21 2015

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

RECEIVED

Santa Fe, NM 87505

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

Operator Name and Address CAZA OPERATING, LLC. 200 NORTH LORRAINE SUITE 1550 MIDLAND, TEXAS 79701		OGRID Number 249099
Property Code 39924		API Number 30-015-43581
Property Name MAD RIVER 13 STATE		Well No. 2H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	13	24S	27E		33330'	SOUTH	560'	WEST	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	13	24S	27E		660'	NORTH	660'	WEST	EDDY

9. Pool Information

WILLOW LAKE WOLFCAMP	Pool Name Black River, Wolfcamp, East (Gas)	Pool Code 97442
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Additional Well Information

11. Work Type N	12. Well Type O	13. Cable/Rotary ROTARY	14. Lease Type S	15. Ground Level Elevation 3170'
16. Multiple NO	17. Proposed Depth MD-13,920' TVD-9875'	18. Formation WOLFCAMP	19. Contractor UNKNOWN	20. Spud Date WHEN APPROVED
Depth to Ground water 31'		Distance from nearest fresh water well 0.6 Mile		Distance to nearest surface water 1.25 mile BLACK RIVER

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Cond	26"	20"	Conductor	80'	Redi-mix	Surface
Surface	17 1/2"	13 3/8"	48#	500'	355 Sx.	Surface
Intermed.	12 1/4"	9 5/8"	36#	2400'	600 Sx.	Surface

Casing/Cement Program: Additional Comments

SEE ATTACHED SHEET

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000 PSI	1500 PSI	Cameron or Schaffer

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

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: Joe T. Janica

Printed name: Joe T. Janica

Title: Permit Eng.

E-mail Address: joejanica@valornet.com

Date: 12/15/15

Phone: 575-391-8503

OIL CONSERVATION DIVISION

Approved By:

Title: Dist # Supervisor

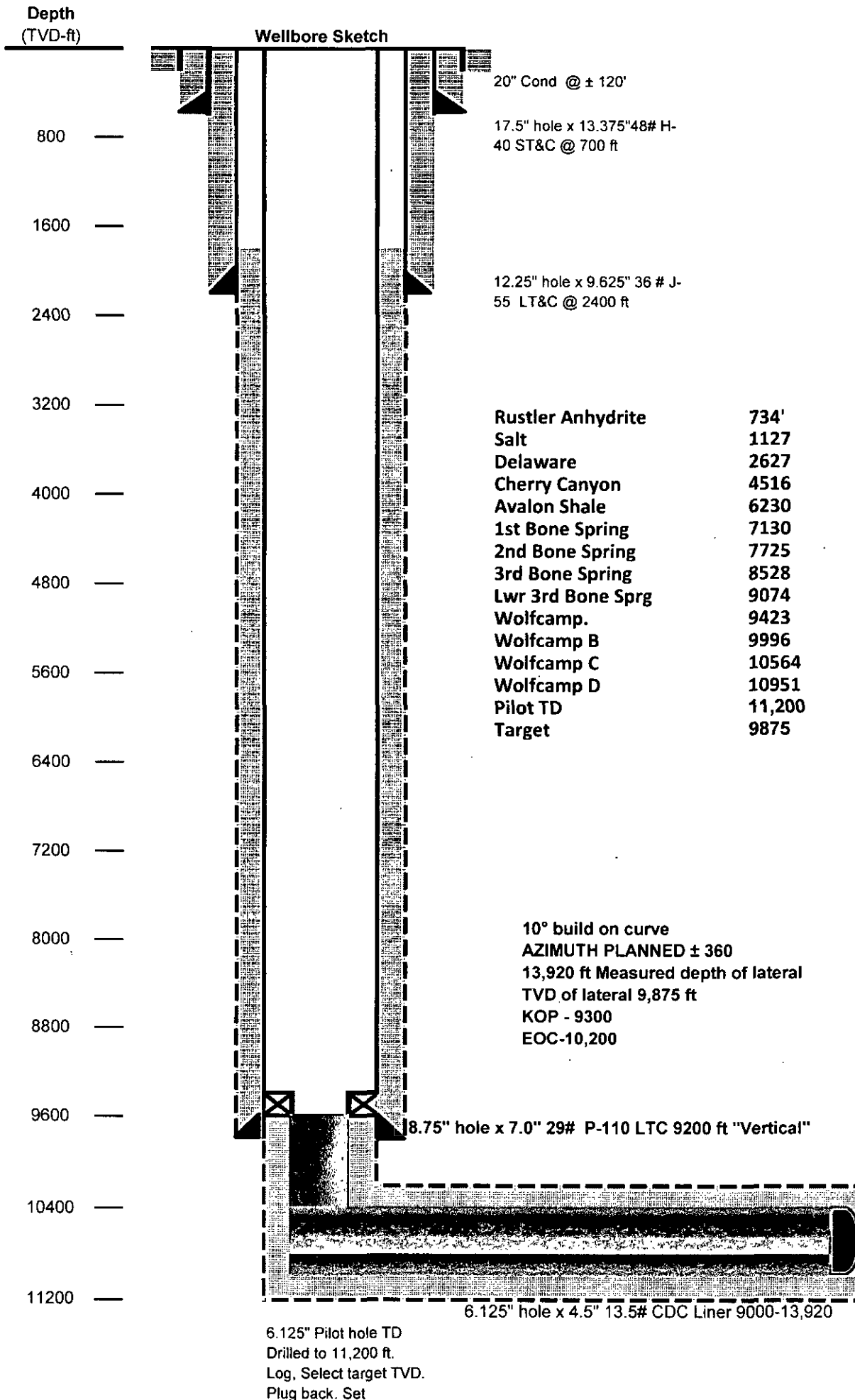
Approved Date: 1/19/2016

Expiration Date: 1/19/2018

Conditions of Approval Attached

TYPE	HOLE SIZE	CASING SIZE	WEIGHT	SETTING DEPTH	SACKS CEMENT	TOC	NEW
Conductor	26"	20"	NA	120"	Rêdi-mix	Surface	New
Surface	17½"	13 3/8"	48#	500'	355 Sx.	Surface	New
1st Inter- mediate	12¼"	9 5/8"	36#	2400'	600 Sx.	Surface	New
2nd Inter- mediate	8 3/4"	7"	29#	9200'	1161 Sx.	Surface	New
Prod. Liner	6 1/8"	4½"	13.5#	Hang Liner @ 9000'	281 Sx	9000'	New

1. Drill 26" hole to 120'. Set 120' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 500'. Run and set 500' of 13 3/8" 48# H-40 ST&C casing. Cement with 205 Sx. of Class "C" cement + 4% Gel, + 2% CaCl, + 0.25# CelloFlakes/Sx. Yield 1.75, tail in with 150 Sx. of Class "C" cement + 2% CaCl. Yield 1.32. top of cement surface. 50% Excess
3. Drill 12½" hole to 2400'. Run and set 2400' of 9 5/8" 36# J-55 ST&C casing. Cement with 400 Sx. of 35/65 Class "C" POZ cement + 5% Salt, + 6% Gel, Yield 2.09. tail in with 200 Sx. of Class "C" cement + 2% cacl, yield 1.32 50% Excess top of cement surface.
4. Drill 8 3/4" hole to 9200'. Run and set 9200' of 7" 29# P-110 LT&C casing. Cement with 861 Sx. of 50/50 Class "H" POZ cement + 5#/Sx. of Gilsonite, + 0.125# Cello-Flakes/Sx. , Yield 1.30, tail in with 300 Sx. of Class "H" Cement + additives, Yield 1.18 35% Excess Estimated top of cement 19)).
5. Drill 6 1/8" hole to TVD=9875', MD-13,920' Run and set a 4920' 4½" 13½# P-110 BT&C liner, hang at 9000'. Cement with 281 Sx. of Class "H" SoluCem Acid Soluble cement + fluid loss control, + defoamer, Yield 2.53 35% Excess.



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State of New Mexico
Energy, Minerals & Natural Resources Department

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-102

Revised August 1, 2011

DEC 21 2015

Submit one copy to appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

RECEIVED

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015- 43581	Pool Code 97442	Pool Name Black River WILLOW LAKE WOLF CAMP EAS G
Property Code 39924	Property Name MAD RIVER 13 STATE	
OGRID No 249099	Operator Name CAZA OPERATING, LLC	
		Well Number 2H
		Elevation 3170'

Surface Location

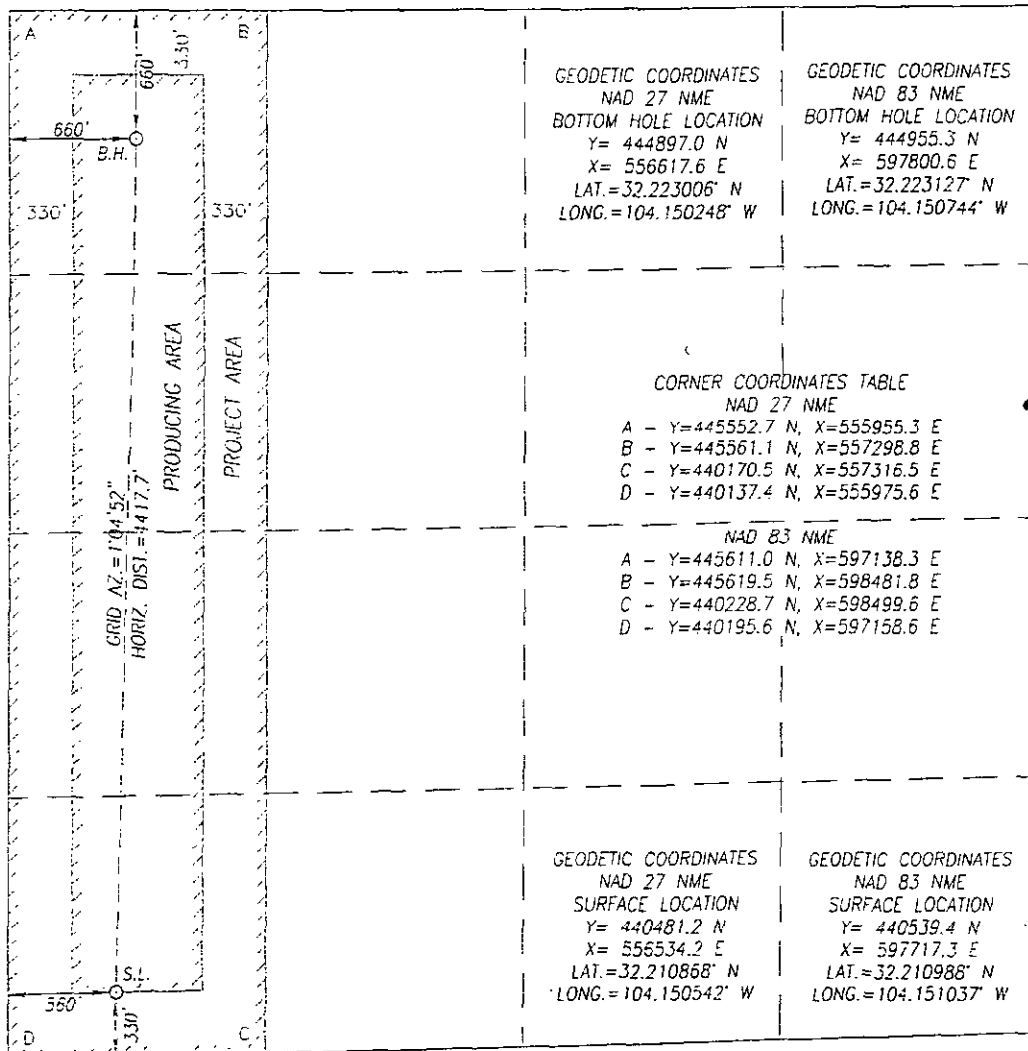
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	13	24-S	27-E		330	SOUTH	560	WEST	EDDY

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
D	13	24-S	27-E		660	NORTH	660	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



GEODETIC COORDINATES
NAD 27 NME
BOTTOM HOLE LOCATION
Y= 444897.0 N
X= 556617.6 E
LAT.=32.223006° N
LONG.=104.150248° W

GEODETIC COORDINATES
NAD 83 NME
BOTTOM HOLE LOCATION
Y= 444955.3 N
X= 597800.6 E
LAT.=32.223127° N
LONG.=104.150744° W

CORNER COORDINATES TABLE
NAD 27 NME

A - Y=445552.7 N, X=555955.3 E
B - Y=445561.1 N, X=557298.8 E
C - Y=440170.5 N, X=557316.5 E
D - Y=440137.4 N, X=555975.6 E

NAD 83 NME

A - Y=445611.0 N, X=597138.3 E
B - Y=445619.5 N, X=598481.8 E
C - Y=440228.7 N, X=598499.6 E
D - Y=440195.6 N, X=597158.6 E

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 440481.2 N
X= 556534.2 E
LAT.=32.210858° N
LONG.=104.150542° W

GEODETIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 440539.4 N
X= 597717.3 E
LAT.=32.210988° N
LONG.=104.151037° W

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Joe T. Janica
Signature Date

Joe T. Janica 12/15/15

Printed Name
joejanica@valornet.com

E-mail Address

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 13, 2015

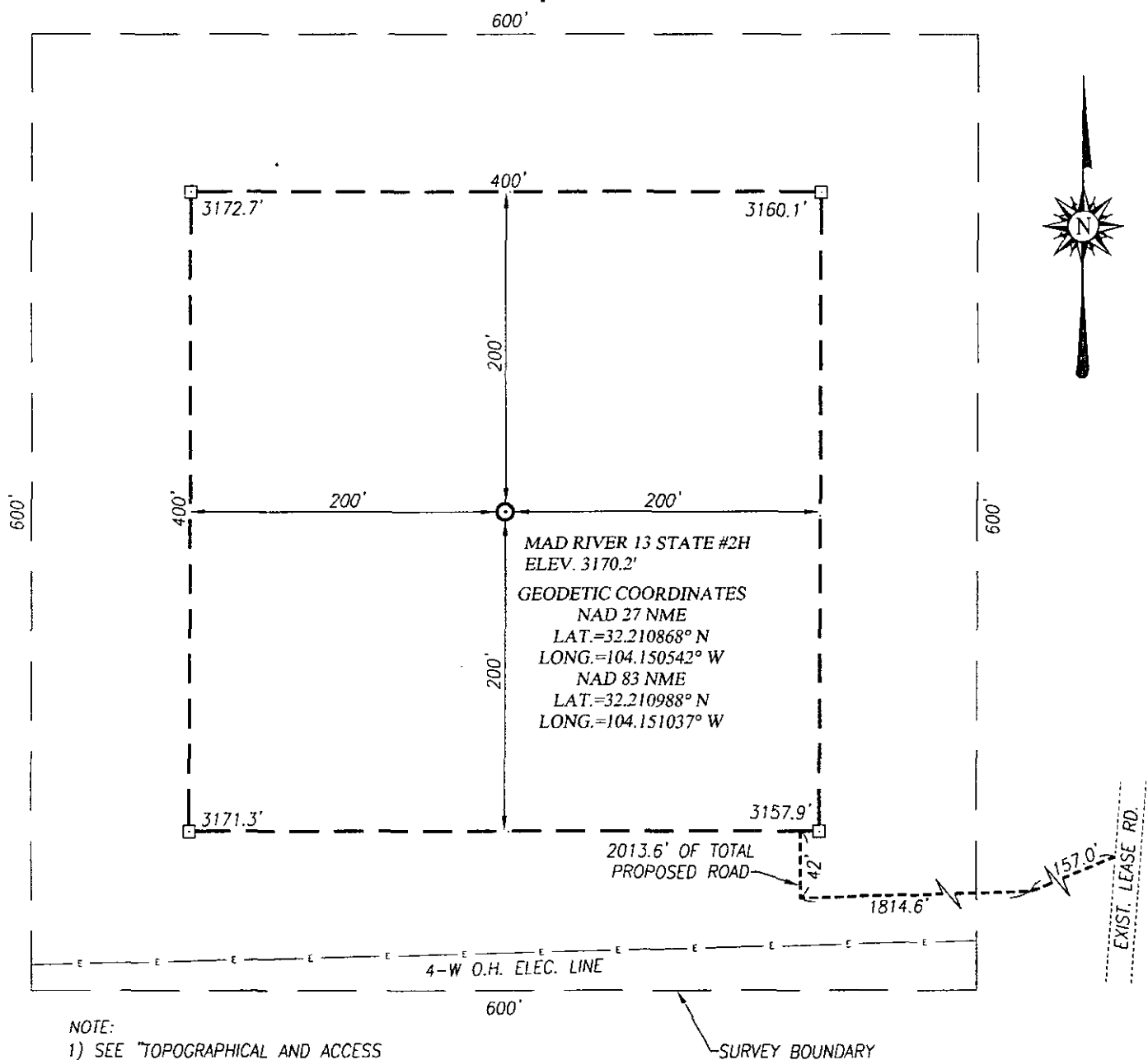
Date of Survey
Signature of Registered Professional Surveyor



Ronald J. Eidson
Certificate Number 12641
12/17/2015

ACK JWSC W.O. 12.11.1057

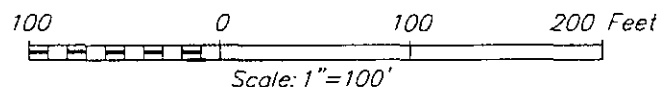
WELL SITE PLAN



NOTE:
1) SEE "TOPOGRAPHICAL AND ACCESS
ROAD MAP" FOR PROPOSED ROAD
LOCATION.

DIRECTIONS TO MAD RIVER 13 STATE #2H:

FROM THE INTERSECTION OF CO. RD. 720 AND CO. RD. 774. GO SOUTHWEST ON CO. RD. 774 FOR APPROX. 2 MILES. TURN RIGHT AND GO WEST ON LEASE ROAD APPROX. 0.7 MILES. TURN RIGHT AND GO NORTH 158 FEET TO PROPOSED ROAD SURVEY. FOLLOW STAKED ROAD WEST APPROX. 1971.6 FEET. TURN RIGHT AND GO NORTH 42 FEET TO THIS LOCATION.



CAZA OPERATING, LLC

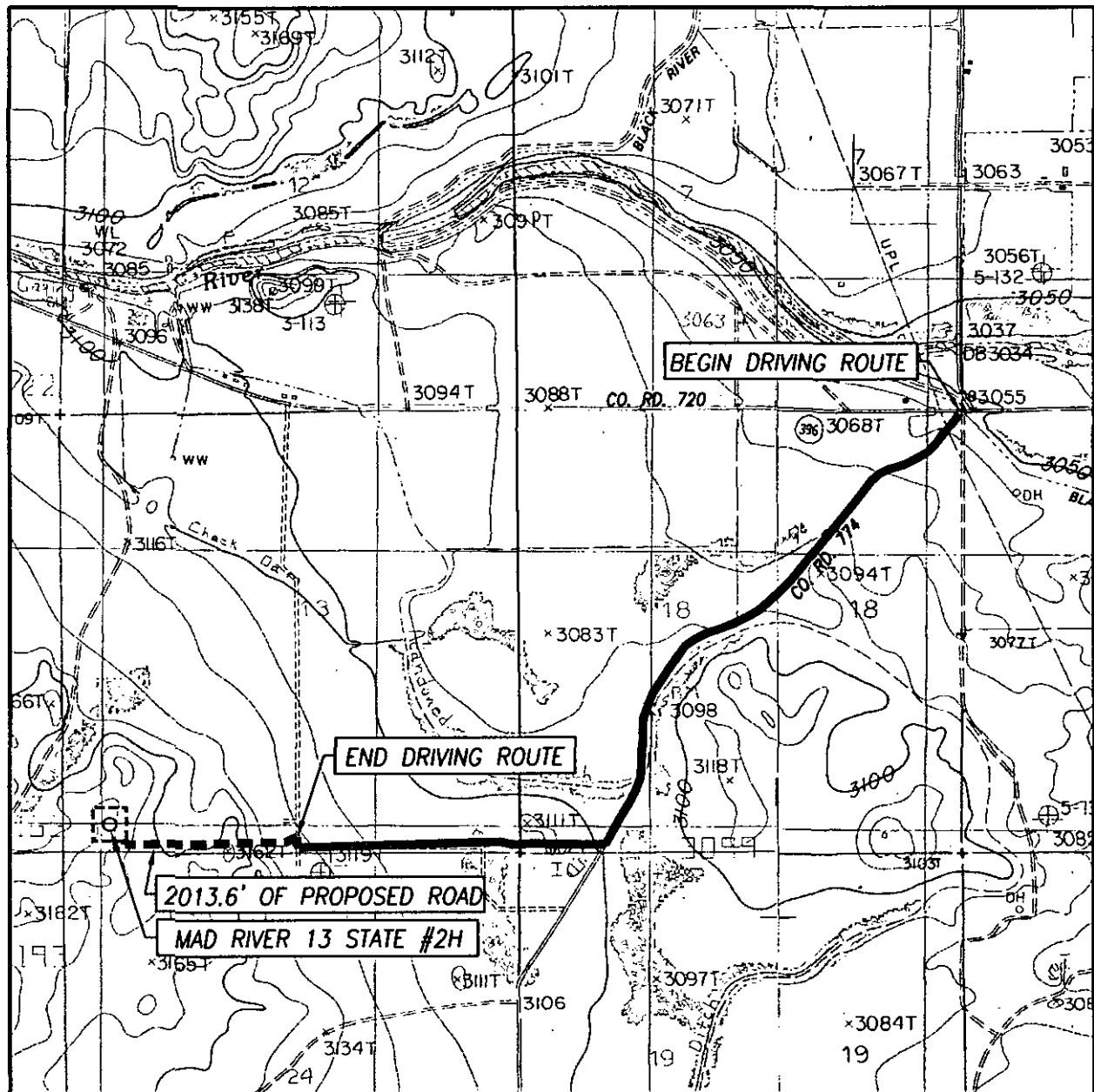
MAD RIVER 13 STATE #2H WELL
LOCATED 330 FEET FROM THE SOUTH LINE
AND 560 FEET FROM THE WEST LINE OF SECTION 13.
TOWNSHIP 24 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 11/13/15	CAD Date: 12/2/15	Drawn By: ACK
W.O. No.: 15111057	Rev: .	Rel. W.O.: Sheet 1 of 1

TOPOGRAPHICAL AND ACCESS ROAD MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BOND DRAW, N.M. - 10'
MALAGA, N.M. - 10'

SEC. 13 TWP. 24-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 330' FSL & 560' FWL

ELEVATION 3170'

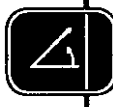
OPERATOR CAZA OPERATING, LLC

LEASE MAD RIVER 13 STATE

U.S.G.S. TOPOGRAPHIC MAP
BOND DRAW, N.M.

DIRECTIONS TO MAD RIVER 13 STATE #2H:

FROM THE INTERSECTION OF CO. RD. 720 AND CO. RD. 774. GO
SOUTHWEST ON CO. RD. 774 FOR APPROX. 2 MILES. TURN RIGHT
AND GO WEST ON LEASE ROAD APPROX. 0.7 MILES. TURN RIGHT AND
GO NORTH 158 FEET TO PROPOSED ROAD SURVEY. FOLLOW STAKED
ROAD WEST APPROX. 1971.6 FEET. TURN RIGHT AND GO NORTH 42
FEET TO THIS LOCATION.



PROVIDING SURVEYING SERVICES
SINCE 1946

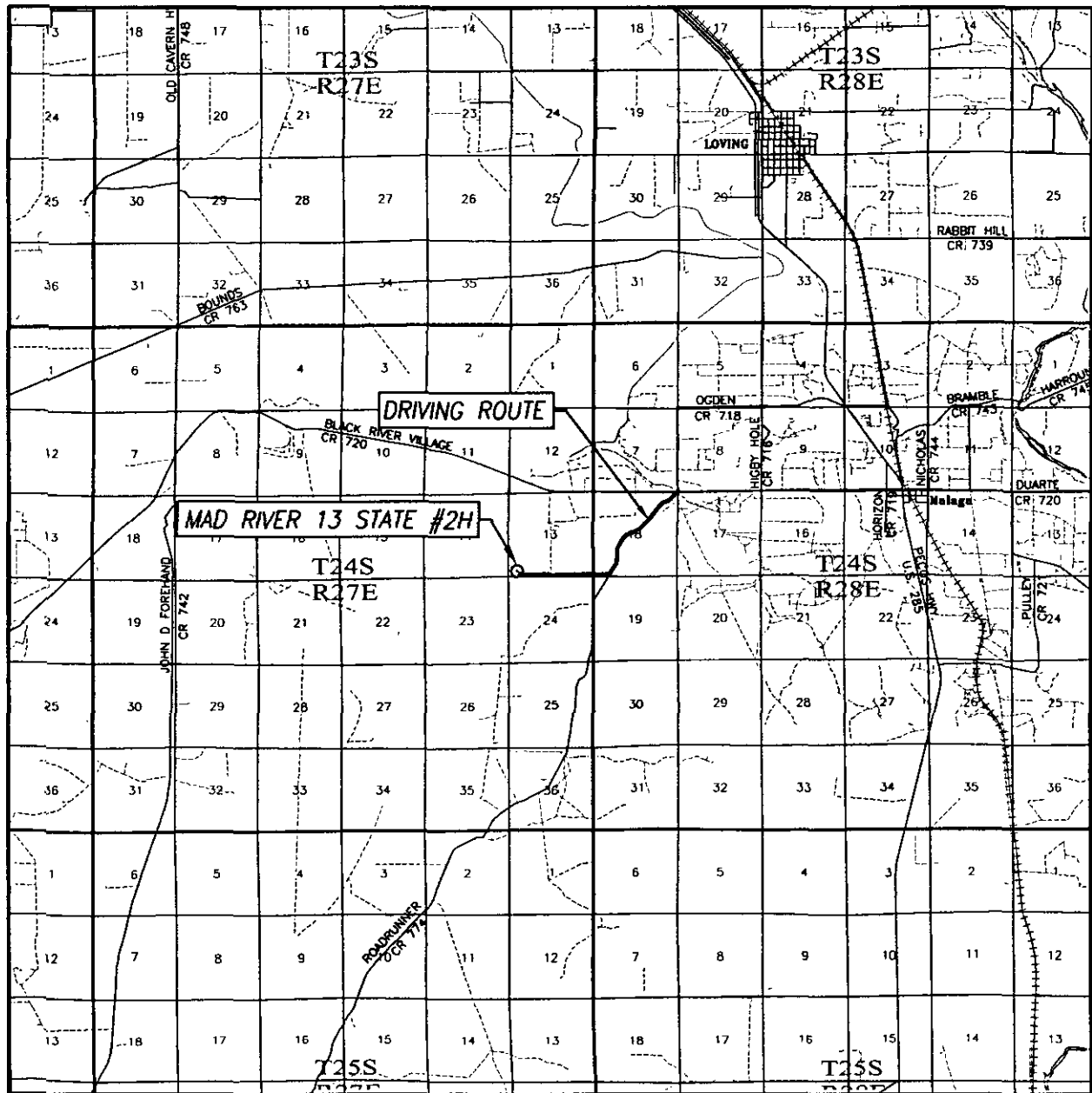
JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240

(575) 393-3117 www.jwsc.biz

TBPLS# 10021000

VICINITY MAP



SCALE: 1" = 2 MILES

DRIVING ROUTE: SEE TOPOGRAPHICAL AND ACCESS ROAD MAP

SEC. 13 TWP. 24-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 330' FSL & 560' FWL

ELEVATION 3170'

OPERATOR CAZA OPERATING, LLC

LEASE MAD RIVER 13 STATE



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

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TBPLS# 10021000

LONG's METHOD OF SURVEY COMPUTATION**OBLIQUE CIRCULAR ARC INTERPOLATION**

6000	MD OF INTERPOLATION DEPTH,(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

3 D DISTANCE BETWEEN STATION A AND STATION B

DISTANCE TABLE

STATION A	STATION B
400.00	600.00
300.00	400.00
100.00	300.00
300.00	ft

TABLE OF SURVEY STATIONS

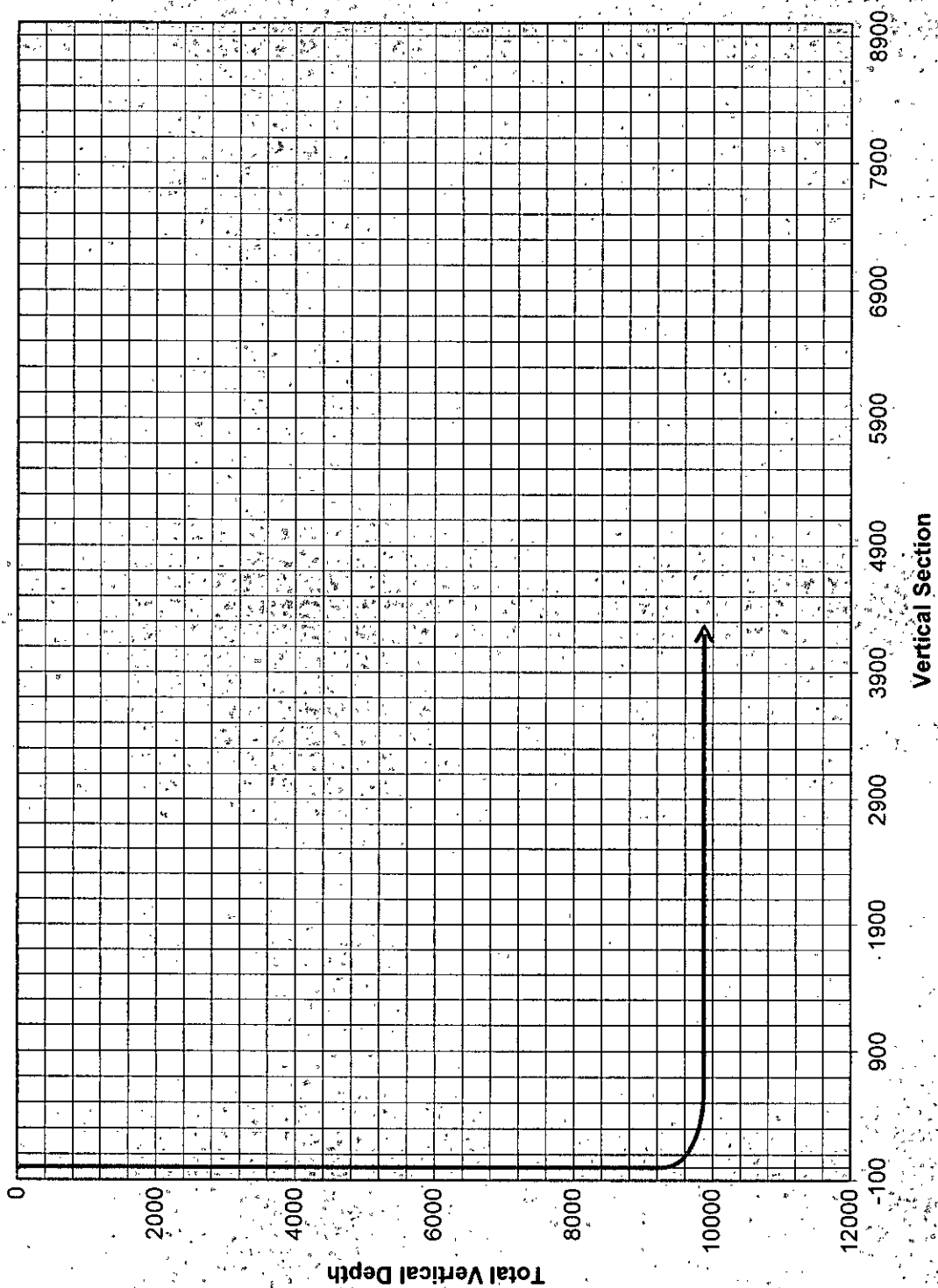
Calculator =

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+S- ft	E+W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	9302.00	9302.00	0.00	0.00	-
2	100	10	360	9402.00	9401.49	8.70	0.00	10.00
3	100	20	360	9502.00	9497.96	34.55	0.00	10.00
4	100	30	360	9602.00	9588.48	76.76	0.00	10.00
5	100	40	360	9702.00	9670.29	134.05	0.00	10.00
6	100	50	360	9802.00	9740.91	204.67	0.00	10.00
7	100	60	360	9902.00	9798.20	286.48	0.00	10.00
8	100	70	360	10002.00	9840.40	376.99	0.00	10.00
9	100	80	360	10102.00	9866.25	473.46	0.00	10.00
10	100	90	360	10202.00	9874.96	572.96	0.00	10.00
11	100	90	360	10302.00	9874.96	672.96	0.00	0.00
12	100	90	360	10402.00	9874.96	772.96	0.00	0.00
13	100	90	360	10502.00	9874.96	872.96	0.00	0.00
14	100	90	360	10602.00	9874.96	972.96	0.00	0.00
15	100	90	360	10702.00	9874.96	1072.96	0.00	0.00
16	100	90	360	10802.00	9874.96	1172.96	0.00	0.00
17	100	90	360	10902.00	9874.96	1272.96	0.00	0.00
18	100	90	360	11002.00	9874.96	1372.96	0.00	0.00
19	100	90	360	11102.00	9874.96	1472.96	0.00	0.00
20	100	90	360	11202.00	9874.96	1572.96	0.00	0.00
21	100	90	360	11302.00	9874.96	1672.96	0.00	0.00
22	100	90	360	11402.00	9874.96	1772.96	0.00	0.00
23	100	90	360	11502.00	9874.96	1872.96	0.00	0.00
24	100	90	360	11602.00	9874.96	1972.96	0.00	0.00
25	100	90	360	11702.00	9874.96	2072.96	0.00	0.00
26	100	90	360	11802.00	9874.96	2172.96	0.00	0.00
27	100	90	360	11902.00	9874.96	2272.96	0.00	0.00
28	100	90	360	12002.00	9874.96	2372.96	0.00	0.00
29	100	90	360	12102.00	9874.96	2472.96	0.00	0.00
30	100	90	360	12202.00	9874.96	2572.96	0.00	0.00
31	100	90	360	12302.00	9874.96	2672.96	0.00	0.00
32	100	90	360	12402.00	9874.96	2772.96	0.00	0.00
33	100	90	360	12502.00	9874.96	2872.96	0.00	0.00
34	100	90	360	12602.00	9874.96	2972.96	0.00	0.00
35	100	90	360	12702.00	9874.96	3072.96	0.00	0.00
36	100	90	360	12802.00	9874.96	3172.96	0.00	0.00
37	100	90	360	12902.00	9874.96	3272.96	0.00	0.00
38	100	90	360	13002.00	9874.96	3372.96	0.00	0.00

Mad River 13 State # 2H
Caza Operating, LLC
Eddy County, New Mexico

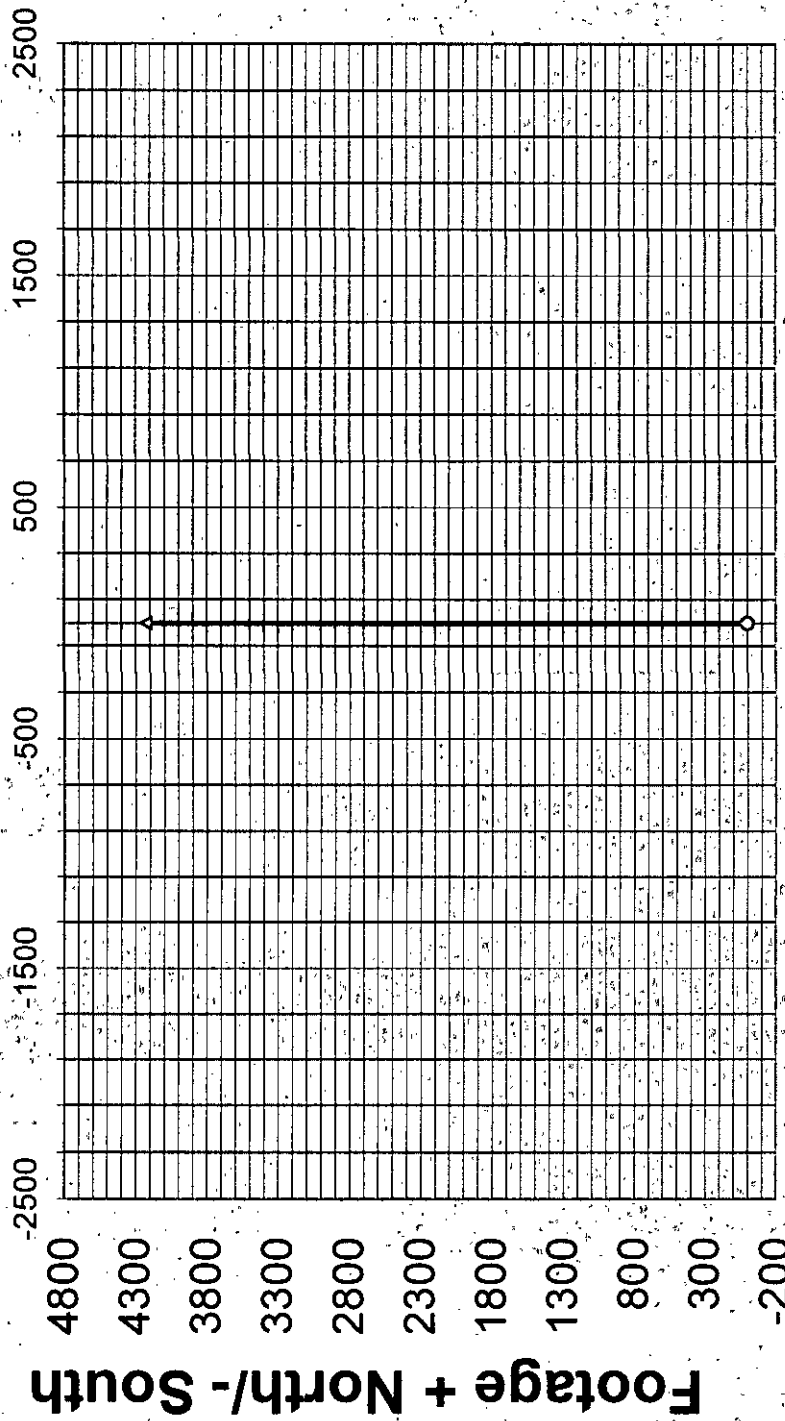
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41	100	90	360	13302.00	9874.96	3672.96	0.00	0.00
42	100	90	360	13402.00	9874.96	3772.96	0.00	0.00
43	100	90	360	13502.00	9874.96	3872.96	0.00	0.00
44	100	90	360	13602.00	9874.96	3972.96	0.00	0.00
45	100	90	360	13702.00	9874.96	4072.96	0.00	0.00
46	100	90	360	13802.00	9874.96	4172.96	0.00	0.00
47	100	90	360	13902.00	9874.96	4272.96	0.00	0.00
48	17	90	360	13919.00	9874.96	4289.96	0.00	0.00

Mad River 13 State # 2H



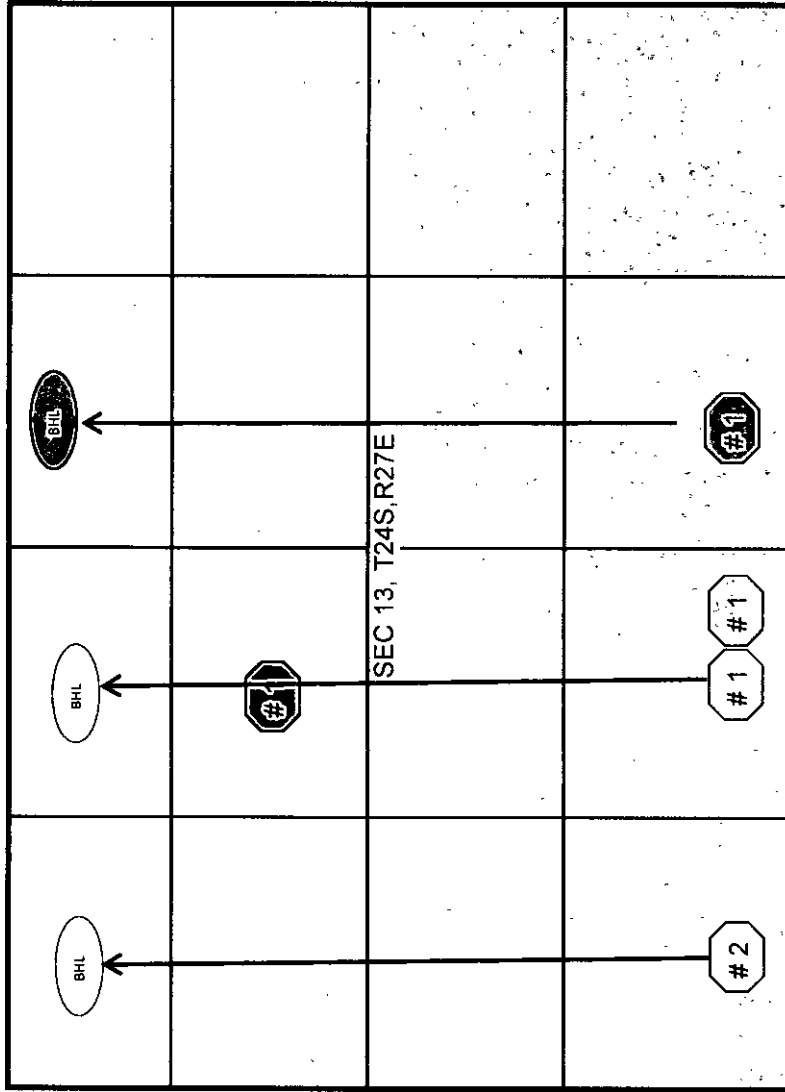
Horizontal Plane Footage +East/-West

○→ Mad River 13 State #2H



Mad River 13 St. # 2H_Wolfcamp Horizontal

330 FSL & 660 FWL, Sec 13, T-24-S, R-27-E, Eddy County, New Mexico

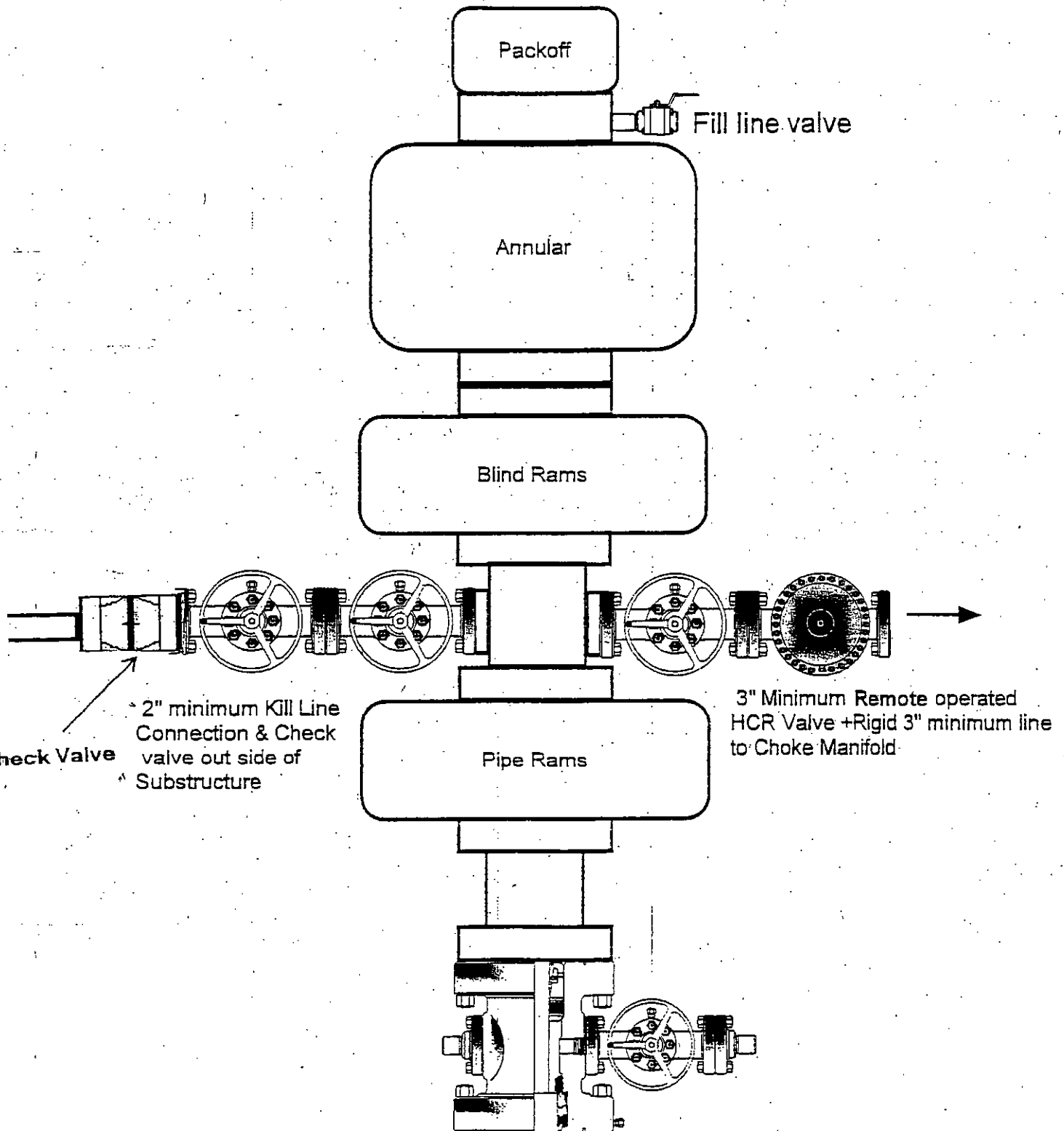


Well Name	Surface Location	Depth and Strata	Current Prod Zone	Bottom Hole Location
Mad River 13 State # 2H	330 FSL & 660 FWL	TVD = 9875 Wifcomp Horz	Not Drilled	660 FNL & 660 FWL ± 9875 TVL
Mad River 13 State # 1H	330 FSL & 2310 FWL	TVD = 9875 Wifcomp Horz	Not Drilled	660 FNL & 1980 FWL ± 9875 TVL
Bongol Fee #1H	330 FSL & 1980 FWL	TVD = 7200 2nd BS Horz	Drilled	330 FNL & 1980 FWL COG Perm
Brantley 13 State # 1	660 FSL & 2310 FWL	TD = 12,900'	P&A	Same HNG ReEn
Beeman 13 #1	1980 FNL & 1980 FWL	TD = 2565'	P&A	Same Cable tool

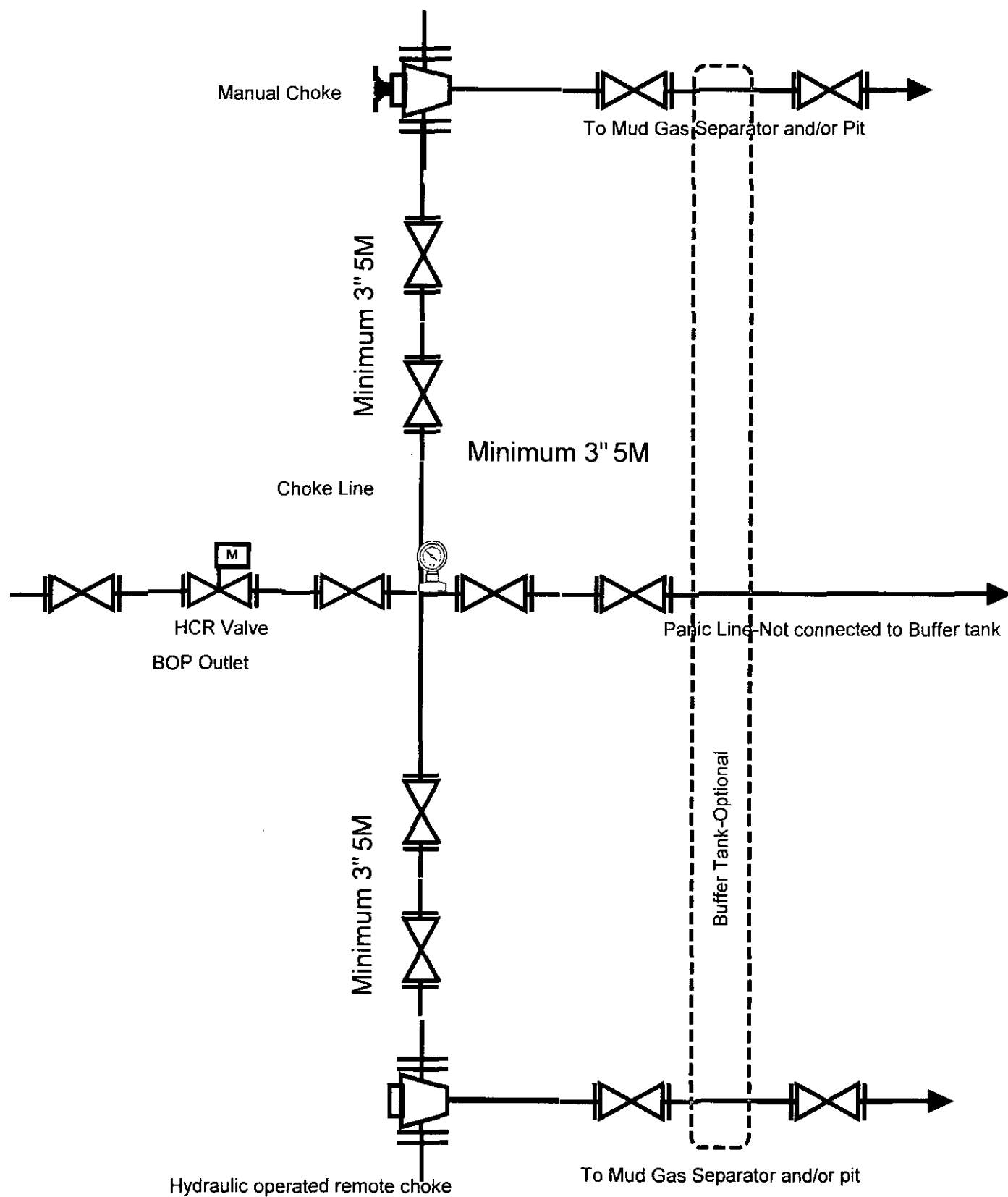
CAZA OPERATING, LLC.

MAD RIVER "13" STATE #2H

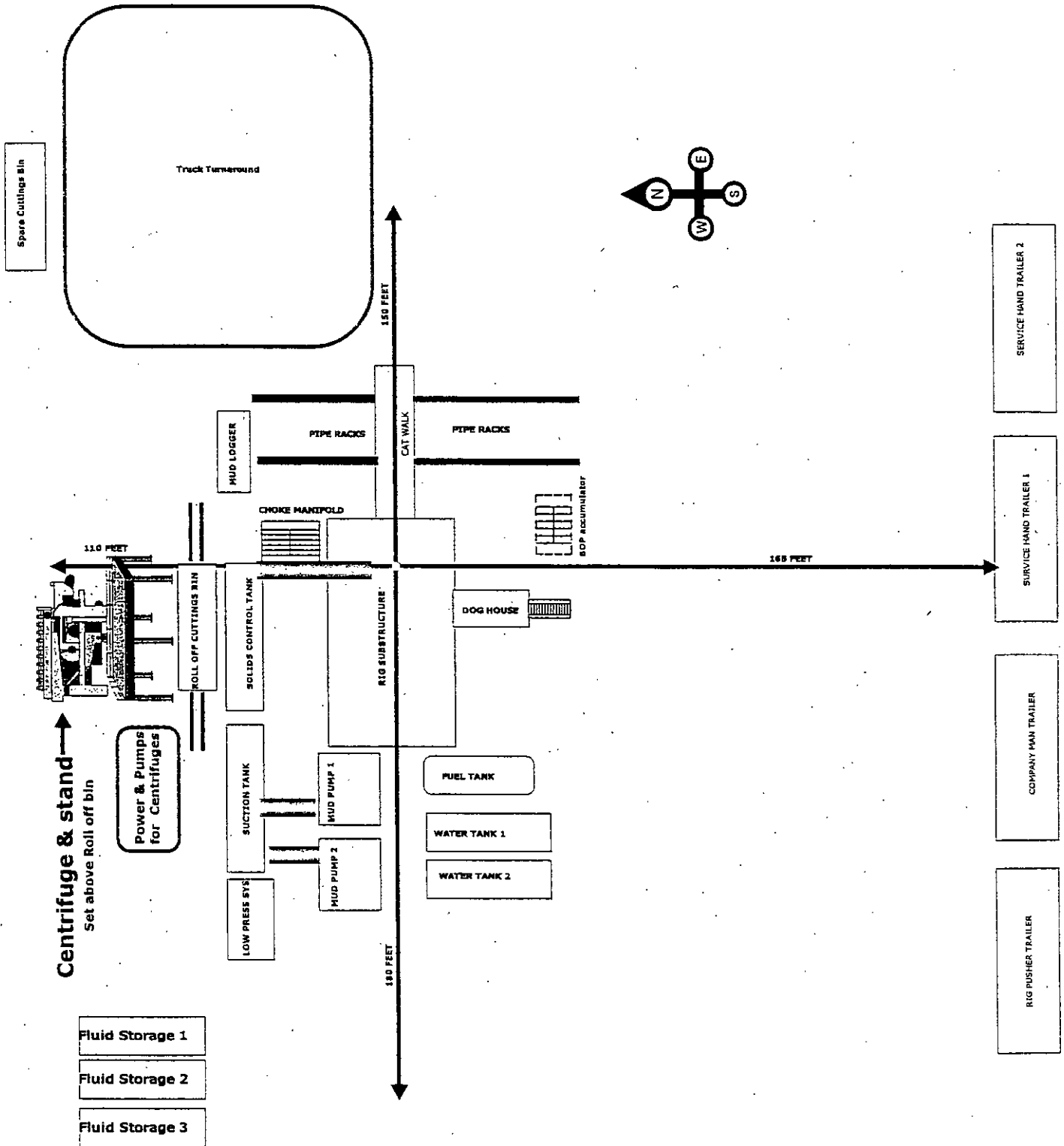
5000 PSI 13 5/8" BOP



5,000 psi Manifold Equipment- Configuration of chokes may vary.



Closed Loop Oil Well



Note: The Rig and Closed System Company for this well have not been selected thus the set up shown is simply generic.

Closed Loop Mud System

Drilling fluids will circulate through a "closed system" consisting of above ground steel tanks, mud pumps, a chemical injection and flocculation system and various pieces of solids control equipment located in series and above ground along the "drilling fluid returns" side of the mud circulation system. Solids will be removed from the returns and temporarily stored in steel roll-off bins prior to haul-off to an approved NMOCD facility. This closed loop system will consist of steel piping and various pieces of equipment as follows:

1. Conventional shale shakers with graduated screens will handle the initial removal of drill cuttings from the mud return stream.
2. A conventional mud cleaner will then remove still finer solid particles.
3. One or more centrifuges may be utilized to receive effluent downstream of the mud cleaner and remove additional cuttings and drill particles.
4. Flocculants may be added via a chemical injection system (which includes a settling tank) in order to flocculate and settle additional solid particles.
5. Roll off bins will be utilized to store the solids removed by the shale shaker, mud cleaner, centrifuge(s) and flocculation settling tank. These waste solids will either drop directly into the bins or be transferred immediately upon cleanout of any settling or catch tank. Once a bin is full it will be hauled to, emptied and cleaned out at an NMOCD approved disposal site.

Operation and Maintenance

Personnel with appropriate training and experience will be on-site 24 hours per day to operate and maintain the solids control equipment. If equipment problems occur the repairs or parts replacement will be done by qualified personnel. Personnel will monitor the solids levels in the roll off bins. Trucking companies will be notified to pick up the full bins and move the new bins into place.

Closure Plan

Cuttings and solids will be disposed of at an OCD permitted facility according to OCD guidelines. **Where possible, fluids will be recycled.** If unable to use the fluids the fluids will be hauled to an approved disposal facility. Fluids will be temporarily stored in tanks of sufficient volume to maintain the liquids on-site. Following drilling and completion operations all stored fluids necessary for or a waste product of drilling and completion operations will be removed from location and hauled to an approved disposal facility before releasing and removing the temporary storage tanks.