

## 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

## Energy Minerals and Natural Resources

## Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-101  
Revised July 18, 2013

☐ AMENDED REPORT

RECEIVED

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

Operator Name and Address CAZA OPERATING, LLC. 200 NORTH LORAIN SUITE 1550 MIDLAND, TEXAS 79701		OGRID Number 249099
Property Code 40096		API Number 30-025-42033
Property Name GRAMMA "27" STATE		Well No. 4H

## 7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
A	27	21S	34E		330'	NORTH	330'	EAST	LEA

## 8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	27	21S	34E		330'	SOUTH	660'	EAST	LEA

## 9. Pool Information

Pool Name GRAMMA RIDGE-BONESPRING NORTHEAST	Pool Code 28435
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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 3688'
16. Multiple NO	17. Proposed Depth 15,650 MD	18. Formation BONE SPRING	19. Contractor UNKNOWN	20. Spud Date WHEN APPROVED
Depth to Ground water 100'		Distance from nearest fresh water well .5 miles Northeast of location		Distance to nearest surface water none known

☒ 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
Surface	17 1/2"	13 3/8"	54.5#	1800'	1506 Sx.	Surface
Intermed.	12 1/4"	9 5/8"	40#	5700'	1332 Sx.	Surface
Production	8 3/4"	5 1/2"	20#	15,650'	1825 Sx.	5000' FS

## Casing/Cement Program: Additional Comments

SEE ATTACHED SHEET
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## 22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
DOUBLE RAM	5000 PSI	3000 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:

Printed name: Joe T. Janica

Title: Permit Eng.

E-mail Address: joejanica@valornet.com

Date: 08/07/14

Phone: 575-391-8503

## OIL CONSERVATION DIVISION

Approved By:

Title: Petroleum Engineer

Approved Date: 08/11/14

Expiration Date: 08/11/16

E-PERMITTING -- New Well PM

Comp P&amp;A TA

CSNG Loc Chng

ReComp Add New Pool

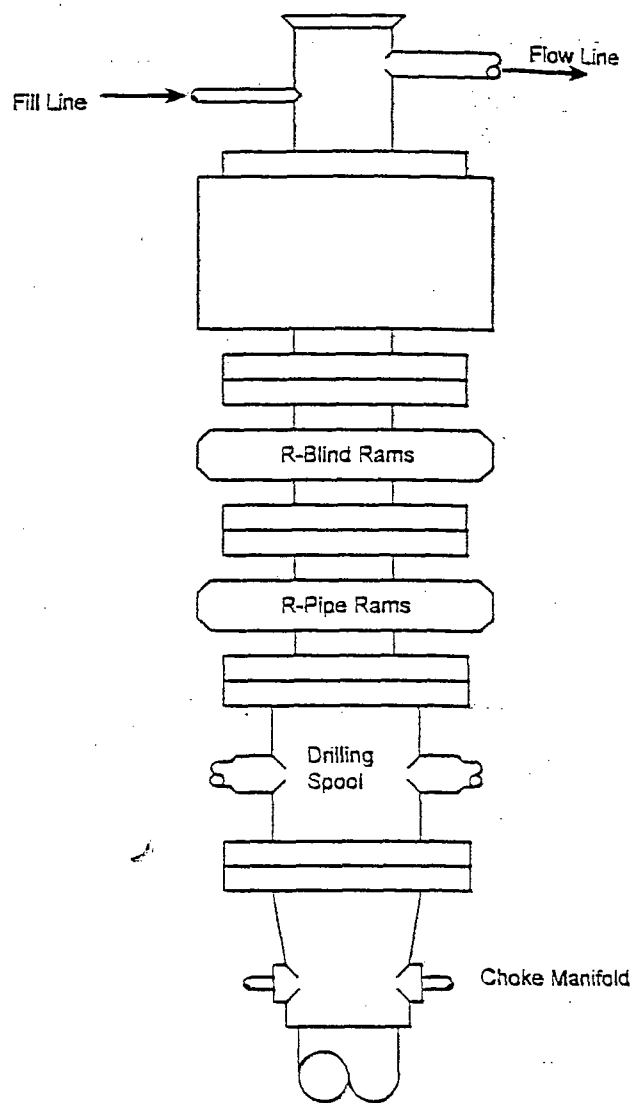
Cancl Well Create Pool

AUG 11 2014

1. Drill 26" hole to 120'. Set 120' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 1800'. Run and set 1800' of 13 3/8" 54.5# J-55 ST&C casing. Cement with 1306 Sx. of Class "C" cement + 4% Gel, + 2% CaCl, Yield 1.74, tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.32, 100% Excess, circulate cement to surface.
3. Drill 12½" hole to 5700'. Run and set 5700' of 9 5/8" casing as follows: 1800' of 9 5/8" 40# HCK-55 LT&C casing, 3900' of 9 5/8" 40# J-55 LT&C casing. Cement with 1032 Sx. of 35/65 Class "C" POZ cement + 5% Salt, + 6% Gel, Yield 2.09, tail in with 300 Sx. of Class "C" cement + 1% CaCl, Yield 1.32, 100 % Excess, circulate cement to surface.
4. Drill 8 3/4" hole to 10,650'. Run Gyro, and open hole logs. KO point 10,737'± drill 8 3/4" hole to 11,450' MD, (11,214' TVD) continue to drill lateral with 8 3/4" bit to 15,650±'MD. Run and set 15,650' of 5½" 20# HCP-110 CDC HTQ collars. Cement with 1100 Sx. of 65/35 Class "H" POZ cement + 0.25# of KOL seal/Sx. Yield 1.89, tail in with 725 Sx. of Class "H" SoluCem cement + Fluid loss control + Defoamer (Acid soluble) Yield 2.59, 50% Excess Estimated top of cement 5000' from surface.

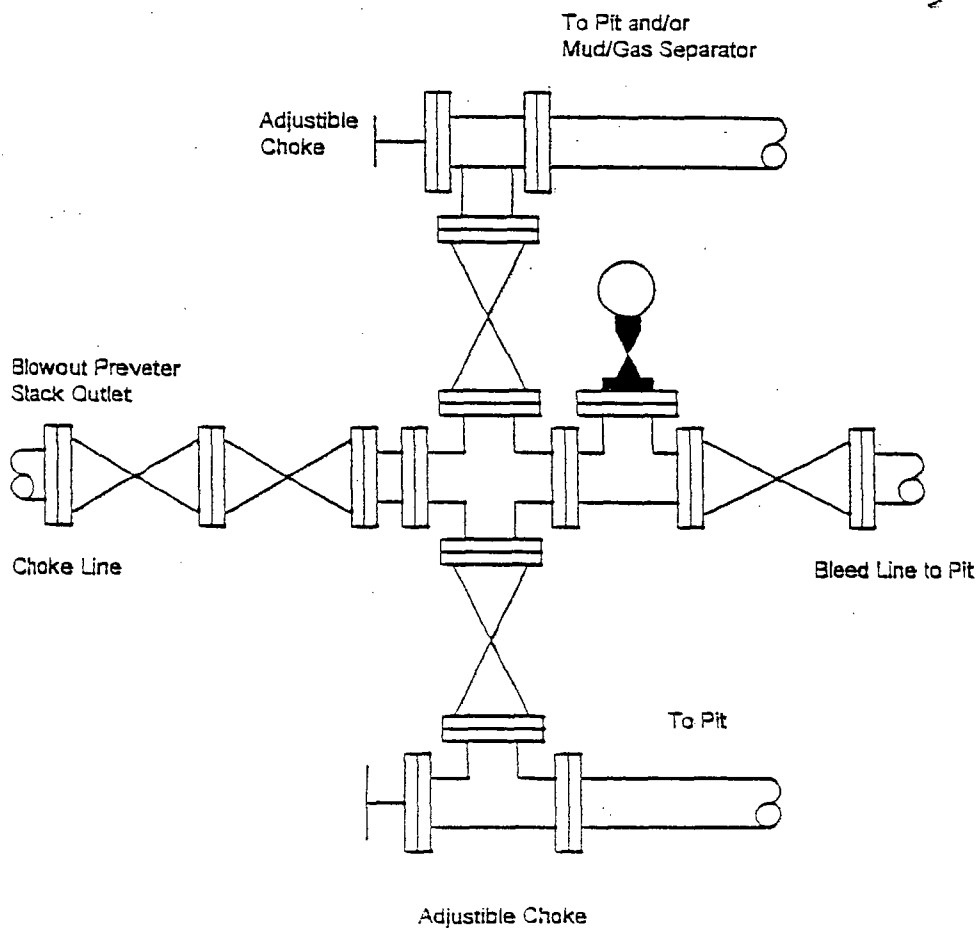
# BLOWOUT PREVENTER SYSTEM

5000 PSI



Type 1500 SERIES  
5000 psi WP

## Choke Manifold Assembly for 5M WP System





## **Gramma 27 State # 1H**

**Sec 27, T21S, R34E,**

### **Closed Loop Drilling System**

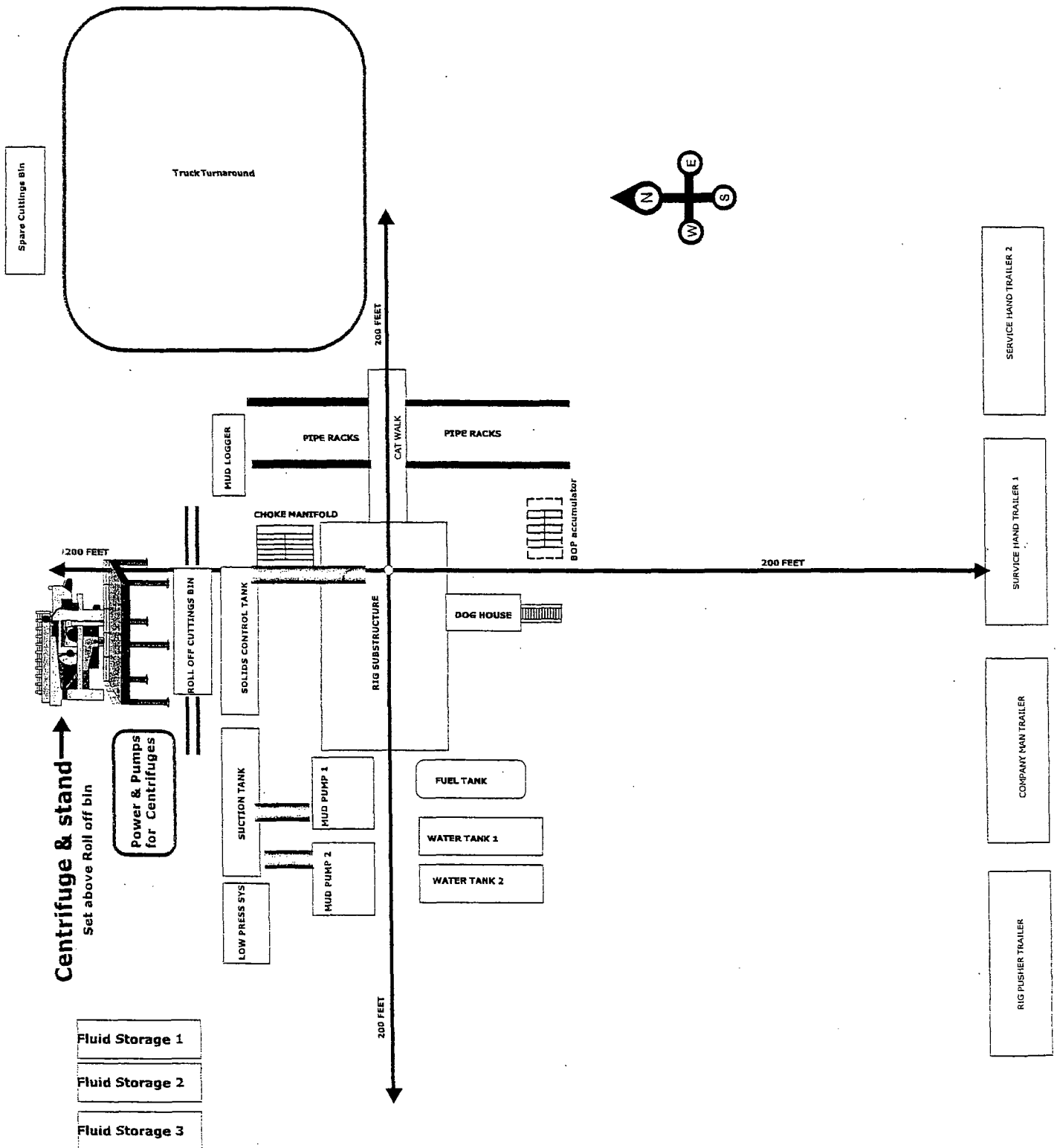
## **Operations and Maintenance Plan**

Closed Loop equipment will be inspected and monitored closely on a daily basis by each drilling rig Tour and by those hired specifically to operate the equipment. Any leak or release detected will be repaired immediately and the proper NMOCD official will be notified within the 48 hr requirement. A large release will require Caza Operating, LLC representatives to contact OCD immediately at the Hobbs @ 575 393 6161 as stated by NMOCD rule 116.

## **Closure Plan**

During and after drilling operations, liquids (which apply), all drill cuttings and drilling fluids will be hauled and disposed of at the R-360 disposal (permit number NM 01-0006) located about 30 miles East of Carlsbad, New Mexico. An alternate approved disposal site has been selected Parabo disposal "Sundance" which is 4 miles East of Eunice (permit number NM 01-0003). The Second site would be used in the event of economics or physical problems with R-360 disposal.

# 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.