

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. <b>NMNM114998</b> 6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No. <b>SIOUX 25-36 STATE FED COM</b> <b>[326483]</b> <b>20H</b> 9. API Well No. <b>30-025-50391</b>
2. Name of Operator <b>CAZA OPERATING LLC [249099]</b> 3a. Address <b>200 N. Loraine Street, Suite 1550, Midland , TX 79701</b> 3b. Phone No. (include area code) <b>(432) 682-7424</b>		10. Field and Pool, or Exploratory <b>WC-025 G-09 S253536D/WC-025 G-09 S</b> 11. Sec., T. R. M. or Blk. and Survey or Area <b>SEC 25/T25S/R35E/NMP</b>
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>NWNE / 73 FNL / 1389 FEL / LAT 32.1084427 / LONG -103.3172073</b> At proposed prod. zone <b>SWSE / 20 FSL / 2260 FEL / LAT 32.0796242 / LONG -103.3200196</b>		12. County or Parish <b>LEA</b> 13. State <b>NM</b>
14. Distance in miles and direction from nearest town or post office* <b>7 miles</b>		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>73 feet</b> 16. No of acres in lease  17. Spacing Unit dedicated to this well <b>320.0</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>60 feet</b> 19. Proposed Depth <b>12525 feet / 22710 feet</b> 20. BLM/BIA Bond No. in file <b>FED: NMB000471</b>		21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>3090 feet</b> 22. Approximate date work will start* <b>12/03/2021</b> 23. Estimated duration <b>35 days</b>
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |   |   |
|---|---|
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must 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).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature (Electronic Submission)  Title <b>Engineer</b>	Name (Printed/Typed) <b>STEVE MORRIS / Ph: (432) 682-7424</b>  Name (Printed/Typed) <b>Cody Layton / Ph: (575) 234-5959</b>  Office <b>Carlsbad Field Office</b>	Date <b>05/18/2021</b>  Date <b>09/21/2021</b>
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Application approval does not warrant or certify that 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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**NGMP Rec 06/24/2022****SL**

(Continued on page 2)

APPROVED WITH CONDITIONS

**Approval Date: 09/21/2021**
**KZ**  
**07/28/2022**

\*(Instructions on page 2)

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	CAZA OPERATING LLC
<b>WELL NAME &amp; NO.:</b>	Sioux 25-36 State Fed Com 20H
<b>LOCATION:</b>	SECTION 25, T25S, R35E, NMPM
<b>COUNTY:</b>	LEA

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The **20** inch conductor casing shall be set at approximately 120 feet and cemented to the surface.
2. The **13-3/8** inch surface casing shall be set at approximately 1100 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

- hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  - ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
  - ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
    - Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
    - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
- Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.

### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface

casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### **D. SPECIAL REQUIREMENT (S)**

##### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

## **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,



(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

**B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



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 & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-025-50391</b>	<sup>2</sup> Pool Code <b>98228</b>	<sup>3</sup> Pool Name <b>WC-025 G-09 S253536D; UPR WOLFCAMP</b>
<sup>4</sup> Property Code <b>326483</b>	<sup>5</sup> Property Name <b>SIOUX 25-36 STATE FED COM</b>	<sup>6</sup> Well Number <b>20H</b>
<sup>7</sup> OGRID No. <b>249099</b>	<sup>8</sup> Operator Name <b>CAZA OPERATING LLC</b>	<sup>9</sup> Elevation <b>3090'</b>

<sup>10</sup> Surface Location

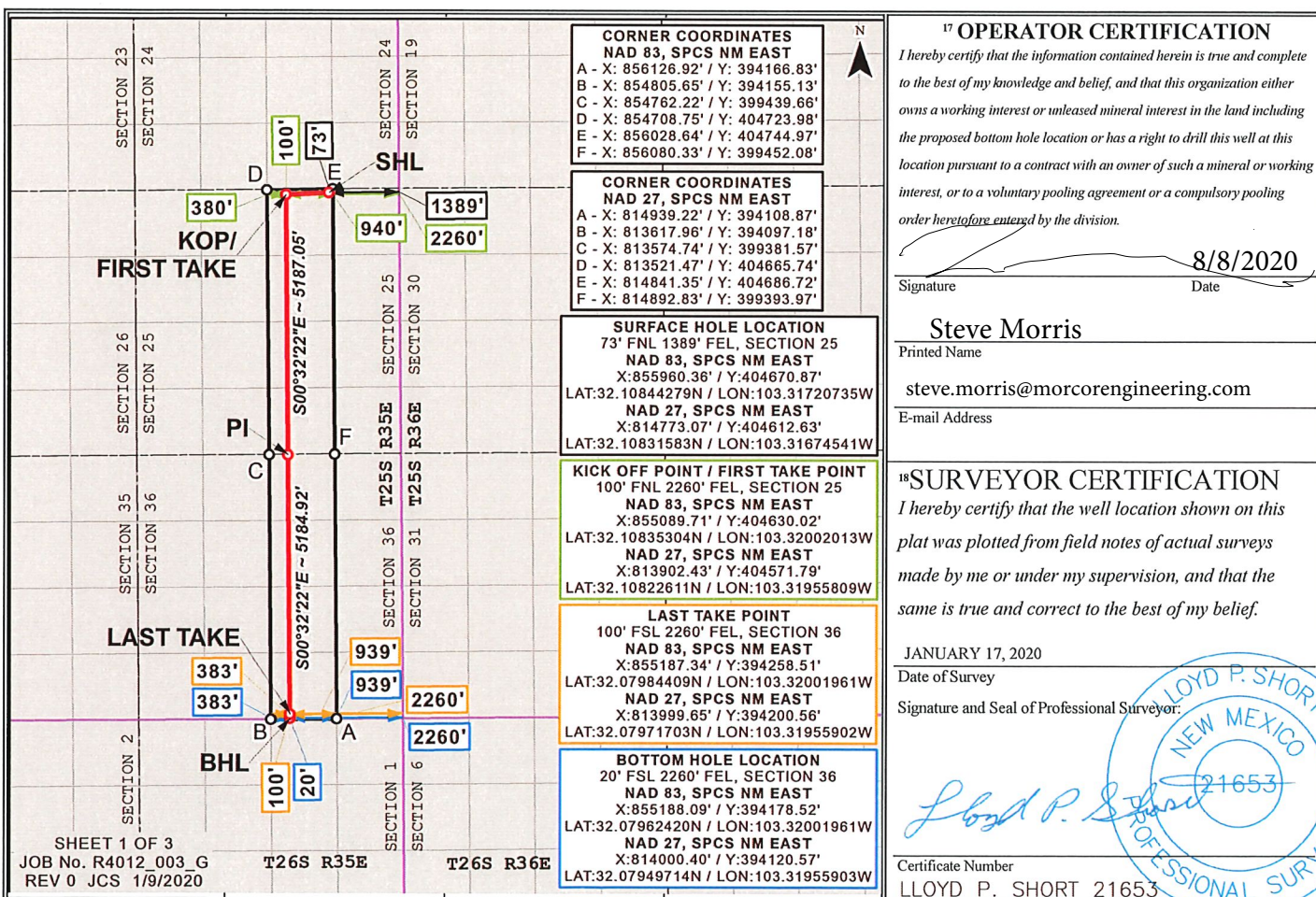
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	25	25S	35E		73	NORTH	1389	EAST	LEA

<sup>11</sup> 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
O	36	25S	35E		20	SOUTH	2260	EAST	LEA

<sup>12</sup> Dedicated Acres <b>320.0</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99987673 Convergence: 00°32'19.77000"



State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Caza Operating LLC **OGRID:** 249099 **Date:** 6 / 17 / 2022

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Sioux 25-36 State Fed Com 20H	30-025-50391	B-25-25S-35E	73FNL 1389FEL	750	1200	800

**IV. Central Delivery Point Name:** Sioux 25-36 State Fed CTB [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Sioux 25-36 State Fed Com 20H	30-025-50391	1/01/2023	02/01/2023	02/02/2023	02/15/2023	02/25/2023

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

**Section 2 – Enhanced Plan****EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**


1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Steve Morris
Title: Engineer
E-mail Address: steve.morris@morcoreengineering.com
Date: 06/17/2022
Phone: 985-415-9729
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

## Natural Gas Management Plan

### Items VI-VIII

#### **VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.**

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid – Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

#### **VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.**

##### Drilling Operations

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

##### Completions/Recompletions Operations

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

##### Production Operations

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

##### Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

##### Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses will be installed.

- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

**VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.**

- During downhole well maintenance, Caza will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.





U.S. Department of the Interior  
Bureau of Land Management

*Application for Permit to Drill*

**APD Package Report**

Date Printed: 09/22/2021 04:09 AM

APD ID: 10400066300

Well Status: AAPD

APD Received Date: 05/18/2021 07:20 AM

Well Name: SIOUX 25-36 STATE FED CO

Operator: CAZA OPERATING LLC

Well Number: 20H

APD Package Report Contents

- Form 3160-3 : Error Generating Form
- Operator Certification Report
- Application Report
- Application Attachments
  - Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
  - Blowout Prevention Choke Diagram Attachment: 3 file(s)
  - Blowout Prevention BOP Diagram Attachment: 3 file(s)
  - Casing Design Assumptions and Worksheet(s): 4 file(s)
  - Hydrogen sulfide drilling operations plan: 1 file(s)
  - Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  - Other Facets: 4 file(s)
  - Other Variances: 1 file(s)
- SUPO Report
- SUPO Attachments
  - Existing Road Map: 1 file(s)
  - Attach Well map: 1 file(s)
  - Production Facilities map: 1 file(s)
  - Water source and transportation map: 1 file(s)
  - Well Site Layout Diagram: 3 file(s)
  - Surface use plan certification document: 1 file(s)
  - Other SUPO Attachment: 7 file(s)
- PWD Report
- PWD Attachments
  - None
- Bond Report

- Bond Attachments
  - None



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Operator Certification Data Report

09/22/2021

### Operator Certification

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

**NAME:** STEVE MORRIS

**Signed on:** 01/04/2021

**Title:** Engineer

**Street Address:** 14102 WCR 173

**City:** ODESSA

**State:** TX

**Zip:** 79766

**Phone:** (985)415-9729

**Email address:** steve.morris@morcorengineering.com

### Field Representative

**Representative Name:** STEVE MORRIS

**Street Address:** 200 N. LORRAINE ST 1550

**City:** MIDLAND

**State:** TX

**Zip:** 79701

**Phone:** (985)415-9729

**Email address:** steve.morris@morcorengineering.com



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Application Data Report

09/22/2021

APD ID: 10400066300

Submission Date: 05/18/2021

Highlighted data  
reflects the most  
recent changes

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

APD ID: 10400066300

Tie to previous NOS? Y

Submission Date: 05/18/2021

BLM Office: Carlsbad

User: STEVE MORRIS

Title: Engineer

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM114998

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? YES

APD Operator: CAZA OPERATING LLC

Operator letter of designation:

## Operator Info

Operator Organization Name: CAZA OPERATING LLC

Operator Address: 200 N. Loraine Street, Suite 1550

Zip: 79701

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)682-7424

Operator Internet Address:

## Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WC-025 G-09  
S253536DPool Name: WC-025 G-09  
S253536D; UPR WOLFCAMP

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N

Use Existing Well Pad? Y

New surface disturbance? N

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: Sioux Number: 8H

25-36 State Fed Com

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 7 Miles

Distance to nearest well: 60 FT

Distance to lease line: 73 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Sioux\_25\_36\_State\_Fed\_Com\_20H\_C\_102\_signed\_20210104064919.pdf

Well work start Date: 12/03/2021

Duration: 35 DAYS

## Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: R4012-003

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	73	FNL	1389	FEL	25S	35E	25	Aliquot NWNE	32.1084427	-103.3172073	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 114998	3090	0	0	Y
KOP Leg #1	100	FNL	2260	FEL	25S	35E	25	Aliquot NWNE	32.108353	-103.3200201	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 114998	-7992	11868	11082	Y
PPP Leg #1-1	100	FNL	2260	FEL	25S	35E	25	Aliquot NWNE	32.108353	-103.3200201	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 114998	-8705	11860	11795	Y

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-2	0	FNL	2260	FEL	25S	35E	36	Aliquot NWNE	32.094145	- 103.320028	LEA	NEW MEXICO	NEW MEXICO	S	STATE	- 9355	17406	12445	Y
EXIT Leg #1	100	FSL	2260	FEL	25S	35E	36	Aliquot SWSE	32.079844	- 103.3200196	LEA	NEW MEXICO	NEW MEXICO	S	STATE	- 9435	22630	12525	Y
BHL Leg #1	20	FSL	2260	FEL	25S	35E	36	Aliquot SWSE	32.0796242	- 103.3200196	LEA	NEW MEXICO	NEW MEXICO	S	STATE	- 9435	22710	12525	Y



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 & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 98228	<sup>3</sup> Pool Name WC-025 G-09 S253536D; UPR WOLFCAMP
<sup>4</sup> Property Code	<sup>5</sup> Property Name SIOUX 25-36 STATE FED COM	<sup>6</sup> Well Number 20H
<sup>7</sup> OGRID No. 249099	<sup>8</sup> Operator Name CAZA OPERATING LLC	<sup>9</sup> Elevation 3090'

<sup>10</sup> Surface Location

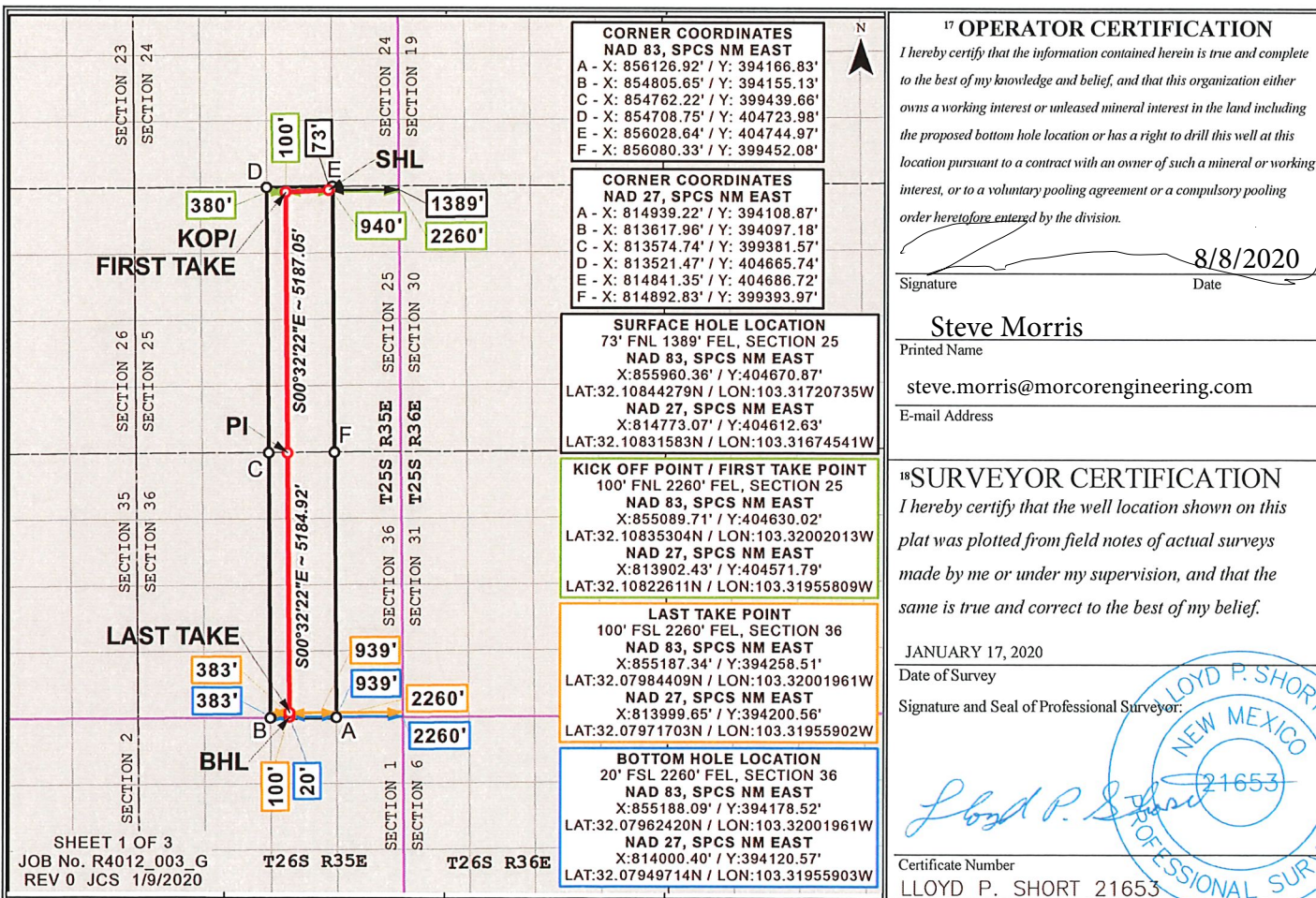
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	25	25S	35E		73	NORTH	1389	EAST	LEA

<sup>11</sup> 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
O	36	25S	35E		20	SOUTH	2260	EAST	LEA

<sup>12</sup> Dedicated Acres 320.0	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99987673 Convergence: 00°32'19.77000"



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

09/22/2021

APD ID: 10400066300

Submission Date: 05/18/2021

Highlighted data  
reflects the most  
recent changes

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1394287	QUATERNARY	3090	0	0	ALLUVIUM	NONE	N
1394288	RUSTLER	2181	909	909	ANHYDRITE	USEABLE WATER	N
4119308	TOP SALT	1753	1337	1337	SALT	NONE	N
4119309	TANSILL	-141	3231	3245	ANHYDRITE, DOLOMITE	NONE	N
4119310	YATES	-272	3362	3377	ANHYDRITE, DOLOMITE	NONE	N
4119311	SEVEN RIVERS	-462	3552	3569	ANHYDRITE, DOLOMITE	NONE	N
4119312	QUEEN	-688	3778	3797	ANHYDRITE, DOLOMITE	NONE	N
4119313	GRAYBURG	-1064	4154	4177	ANHYDRITE, DOLOMITE	NONE	N
4119314	SAN ANDRES	-1512	4602	4629	ANHYDRITE, DOLOMITE	NONE	N
4119315	DELAWARE	-1906	4996	5027	CONGLOMERATE, LIMESTONE, SANDSTONE	NONE	N
4119316	CHERRY CANYON	-2678	5768	5807	CONGLOMERATE, LIMESTONE, SANDSTONE	NONE	N
4119317	BRUSHY CANYON	-4191	7281	7335	CONGLOMERATE, LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
4119318	BRUSHY CANYON LOWER	-5167	8257	8320	CONGLOMERATE, LIMESTONE, SANDSTONE	NONE	N
4119319	BONE SPRING	-5406	8496	8561	LIMESTONE, SANDSTONE	NONE	N
4119320	BONE SPRING 1ST	-6690	9780	9846	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
4119321	BONE SPRING 2ND	-7098	10188	10254	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N
4119322	2ND BONE SPRING LIME	-7615	10705	10771	LIMESTONE	NONE	N
4119323	BONE SPRING 3RD	-8476	11566	11632	LIMESTONE, SANDSTONE	NATURAL GAS, OIL	N

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
4119324	WOLFCAMP	-8705	11795	11861	LIMESTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 10M**Rating Depth:** 15000**Equipment:** Rotating head with a rating of 500psi will be used. A remote kill line and gas buster will be used**Requesting Variance?** YES

**Variance request:** Variance is requested for the use of a coflex hose for the choke line to from the BOP to the choke manifold. A variance is requested to use 1502(15,000psi working pressure) hammer unions downstream of the Choke Manifold used to connect the mud/gas separator and panic line. See choke manifold diagram. Variance is requested to use a 5M Annular. Well Control Plan is attached.

**Testing Procedure:** Minimum Working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 inch casing shoe shall be 5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips the minimum wait time before cut-off is eight hours after bumping the pug. BOP/BOPE testing can begin after cut-off or once cement reaches 500PSI compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified). The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater prior to initiating the test (see casing segment as lead cement may be critical item). a. The results of the test shall be reported to the appropriate BLM office. b. All Tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office. c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

**Choke Diagram Attachment:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_10M\_Choke\_Schematic\_20210104065139.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Coflex\_Hyd\_Test\_Cert\_20210104065140.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Coflex\_Hose\_Test\_Chart\_20210104065140.pdf

**BOP Diagram Attachment:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_10M\_BOP\_Schematic\_20210104065204.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Multi\_Bowl\_Wellhead\_20210104065205.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Well\_Control\_20210104065205.pdf



**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	CONDUCTOR	26	20.0	NEW	API	N	0	120	0	120	3090	2970	120	H-40	94	ST&C						
2	SURFACE	17.5	13.375	NEW	API	N	0	1285	0	1285	3090	1805	1285	J-55	68	ST&C	3.28	1.07	DRY	7.72	DRY	7.72
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	7200	0	7148	3090	-4058	7200	HCL-80	40	BUTT	1.13	1.07	DRY	2	DRY	2
4	INTERMEDIATE	12.25	9.625	NEW	API	N	7200	10840	7148	10775	-4058	-7685	3640	HCL-80	47	BUTT	1.27	1.28	DRY	6.35	DRY	6.35
5	PRODUCTION	8.5	6.0	NEW	API	N	0	22710	0	12525	3090	-9435	22710	P-110	23.5	BUTT	1.41	1.58	DRY	2.61	DRY	2.61

**Casing Attachments****Casing ID:** 1 **String Type:** CONDUCTOR**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Casing Attachments**

---

**Casing ID:** 2      **String Type:** SURFACE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**SIOUX\_25\_36\_STATE\_FED\_COM\_20H\_\_\_Casing\_and\_Cement\_Design\_20210518065029.pdf

---

**Casing ID:** 3      **String Type:** INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**SIOUX\_25\_36\_STATE\_FED\_COM\_20H\_\_\_Casing\_and\_Cement\_Design\_20210518065157.pdf

---

**Casing ID:** 4      **String Type:** INTERMEDIATE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**SIOUX\_25\_36\_STATE\_FED\_COM\_20H\_\_\_Casing\_and\_Cement\_Design\_20210518065306.pdf

---

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

## Casing Attachments

Casing ID: 5 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

## Casing Design Assumptions and Worksheet(s):

SIOUX\_25\_36\_STATE\_FED\_COM\_20H\_\_\_Casing\_and\_Cement\_Design\_20210518065448.pdf

## Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
CONDUCTOR	Lead		0	120	105	1.33	14.8	140	5	Class C	CaCl2

SURFACE	Lead		0	985	710	1.93	13.5	1370	100	Class C	4% bwoc Bentonite II + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.005% bwoc Static Free + 0.005 gps FP- 6L
SURFACE	Tail		985	1285	309	1.35	14.8	417	100	Class C	CaCl2
INTERMEDIATE	Lead	4900	0	4800	1380	2.13	12.6	2939	100	Class C	(35:65) + Poz (Fly Ash) + 4% bwoc Bentonite II + 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM- 1 + 0.125 lbs/sack Cello Flake + 0.005 lbs/sack Static Free + 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride
INTERMEDIATE	Tail		4800	4900	150	1.35	14.8	202	100	Class C	CaCl2



Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead	4900	4900	7200	700	2.13	12.6	1491	100	Class C	(35:65) + Poz (Fly Ash) + 4% bwoc Bentonite II + 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM- 1 + 0.125 lbs/sack Cello Flake + 0.005 lbs/sack Static Free + 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride

INTERMEDIATE	Lead		7200	1025 5	898	2.13	12.6	1913	100	Class C	(35:65) + Poz (Fly Ash) + 4% bwoc Bentonite II + 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM- 1 + 0.125 lbs/sack Cello Flake + 0.005 lbs/sack Static Free + 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride
INTERMEDIATE	Tail		1025 5	1075 5	260	1.18	15.6	307	100	Class H	none
PRODUCTION	Lead		0	1220 0	2065	2.38	11.5	4915	100	Class H	(50:50) + Poz (Fly Ash) + 10% bwoc Bentonite II + 5% bwow Sodium Chloride + 5 lbs/sack LCM-1 + 0.005 lbs/sack Static Free + 0.005 gps FP-6L
PRODUCTION	Tail		1220 0	2271 0	2860	1.62	13.5	4633	100	Class H	(15:61:11) Poz (Fly Ash):Class H Cement:CSE-2 + 4% Sodium Chloride + 3 lbs/sack LCM-1 + 0.6% bwoc FL-25 + FP-6L + 0.005% bwoc Static Free

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

## Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud will be on location to control any abnormal conditions encountered. Such as but not limited to a kick, lost circulation and hole sloughing.

**Describe the mud monitoring system utilized:** A Pason PVT system will be rigged up prior to spudding the well. A volume monitoring system that measures, calculates, and displays readings from the mud system on the rig to alert the rig crew of impending gas kicks and lost circulation issues. Components a) PVT Pit Bull monitor: Acts as the heart of the system, containing all the controls, switches, and alarms. Typically, it is mounted near the driller's console. b) Junction box: Provides a safe, convenient place for making the wiring connections. c) Mud probes: Measure the volume of drilling fluid in each individual tank. d) Flow sensor: Measures the relative amount of mud flowing in the return line.

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1285	SPUD MUD	8.4	8.9	62	0.1	9.5	2	0	0	
1285	1075 5	OTHER : Direct Emulsion	9.2	10	75	0.1	9.5	2	150000	0	
1075 5	2271 0	OIL-BASED MUD	10	12.5	82	0.4	9.5	6	135000	18	

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H

## Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

none

**List of open and cased hole logs run in the well:**

GAMMA RAY LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

**Coring operation description for the well:**

none

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 8134**Anticipated Surface Pressure:** 5378**Anticipated Bottom Hole Temperature(F):** 171**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards description:****Contingency Plans geohazards attachment:****Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations plan:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_H2S\_Plan\_20210104065444.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Well\_Plan\_20210518071705.pdf

**Other proposed operations facets description:****Other proposed operations facets attachment:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Closed\_Loop\_Diagram\_Design\_Plan\_20210104065516.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Closed\_Loop\_Design\_Operating\_and\_Closure\_Plan\_20210104065517.pdf

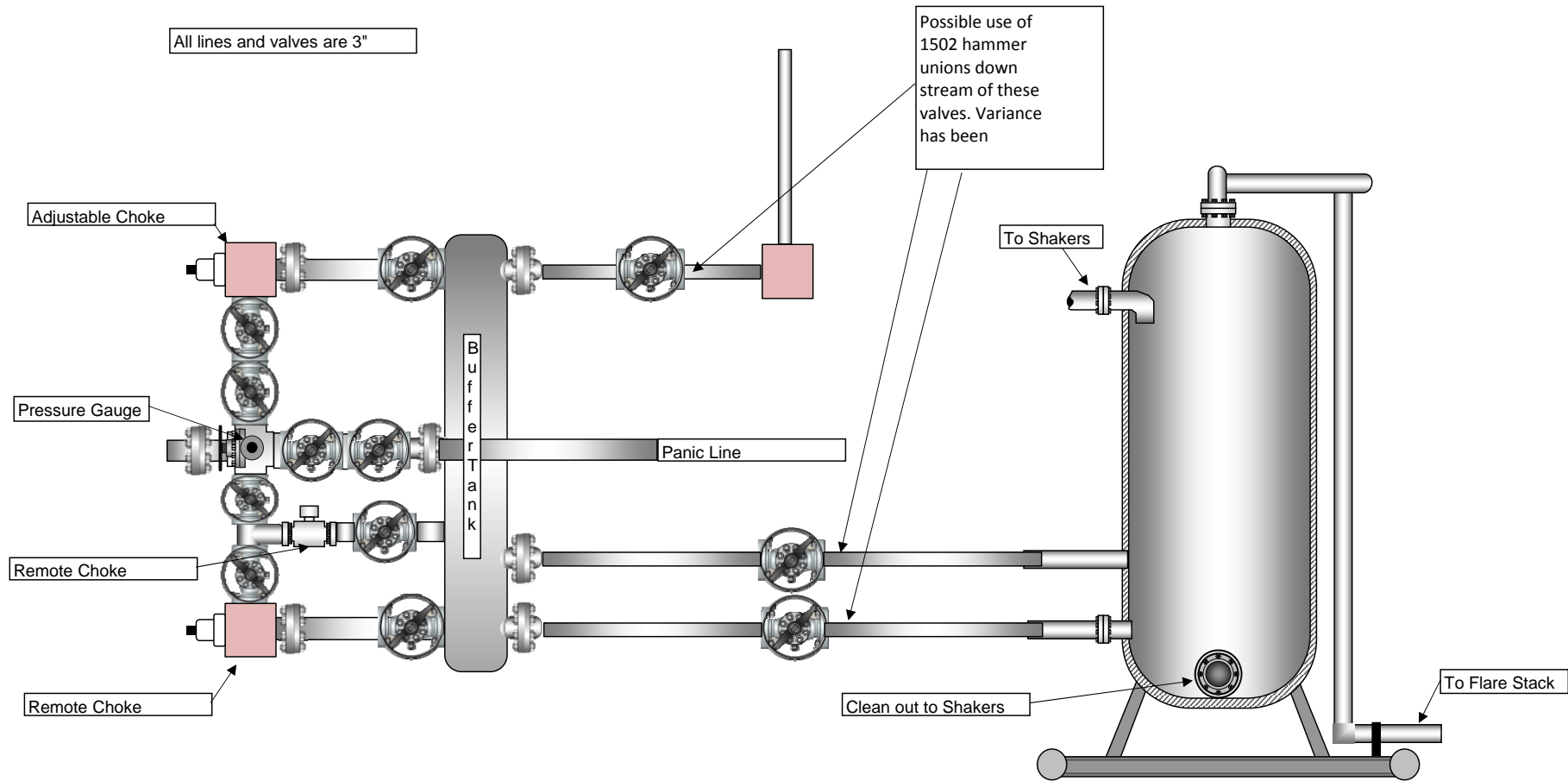
Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Gas\_Capture\_Plan\_20210104065517.pdf

Sioux\_14\_15\_16\_17\_20\_21\_22\_23\_\_\_Reciept\_20210518072006.pdf

**Other Variance attachment:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Multi\_Bowl\_Wellhead\_20210104065533.pdf

CONFIDENTIAL





Midwest Hose  
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST CERTIFICATE		
Customer: HWD		Customer P.O. Number: RIG#4 92112-11
HOSE SPECIFICATIONS		
Type: Rotary / Vibrator Hose D / API 7K	Hose Length: 173 IN	
I.D. 4 INCHES	O.D. 5.87 INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE N/A PSI
COUPLINGS		
Part Number E4.0X64WB E4.0X64WB	Stem Lot Number 2Q11LOT1 2Q11LOT1	Ferrule Lot Number NQ745 NQ745
Type of Coupling: Swage-It	Die Size: 6.38 INCHES	
PROCEDURE		
<u>Hose assembly pressure tested with water at ambient temperature.</u>		
TIME HELD AT TEST PRESSURE 11 1/4 MIN.		ACTUAL BURST PRESSURE: N/A PSI
Hose Assembly Serial Number: 170980		Hose Serial Number: 8268
Comments:		
Date: 9/21/2012	Tested: <i>D. McNamee</i>	Approved: <i>Kim Thomas</i>

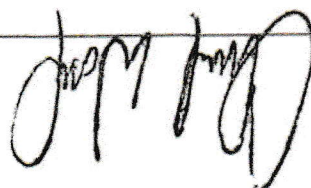


FORM QA-21-REV-2  
3-22-00

DATE

November 20, 2006

WITNESSED BY:



3 MIN. @ 15,000 PSI

2 MIN. @ 0 PSI

5 MIN. @ 10,000 PSI

5'1" OAL

## HYDROSTATIC TEST

- (A) END CAPS / SLEEVE RECESS:  
 (B) EXTERIOR / COVER / BRANDING:  
 (C) INTERIOR TUBE:

OK

OK

OK

## VISUAL INSPECTION

HT-X1840

CONNECTIONS:

4-1/16" 10,000 PSI API FLANGES

SERIAL NO.:

22199

SHOP ORDER NO.:

16454

SIZE:

4"

I.D.

LENGTH

50

FT.

IN.

H2S SUITABLE

SPEC: 090-1915 HS

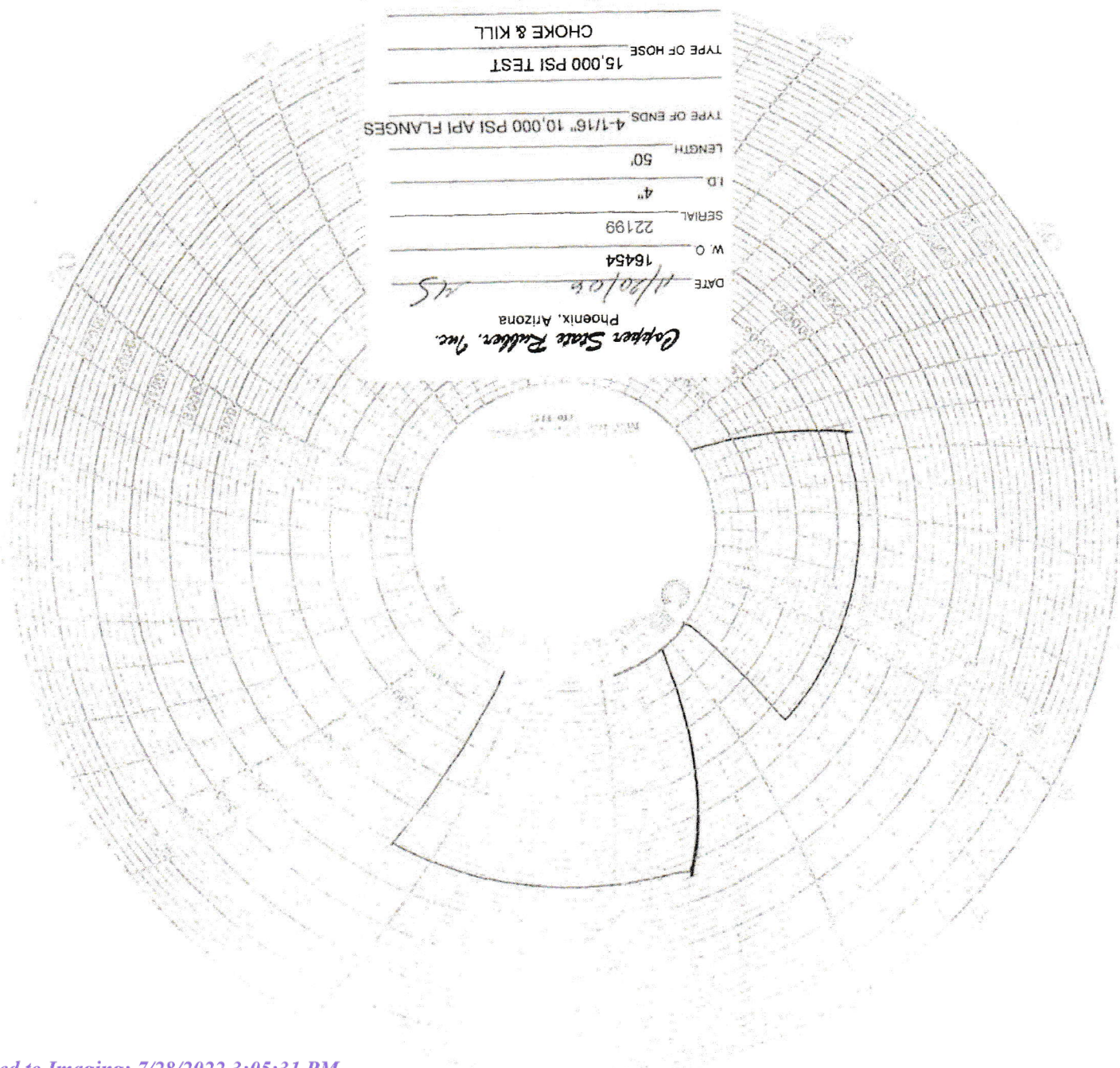
10,000 P.S.I. W/P X 15,000 P.S.I. T/P

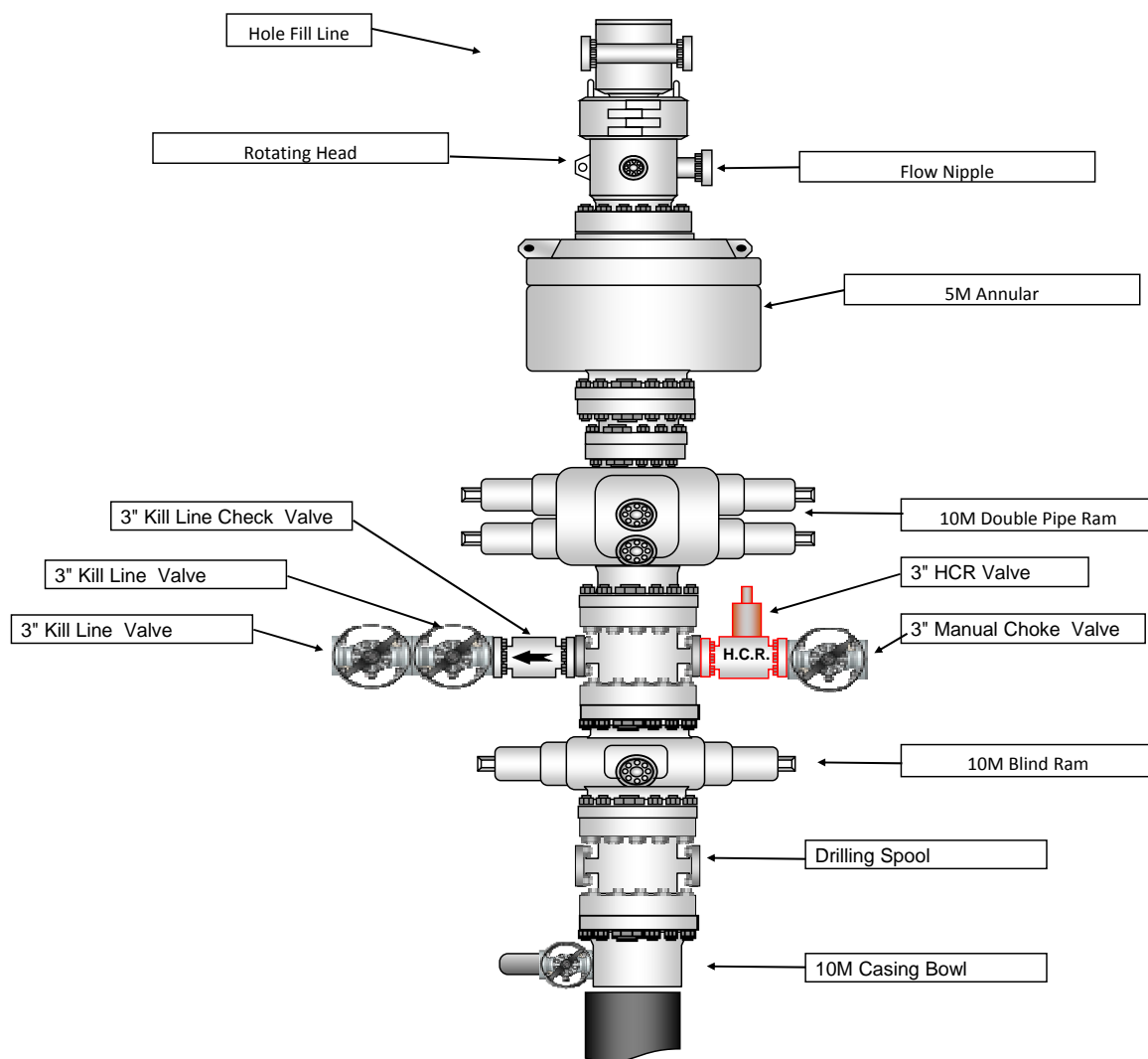
CHOKE &amp; KILL HOSE

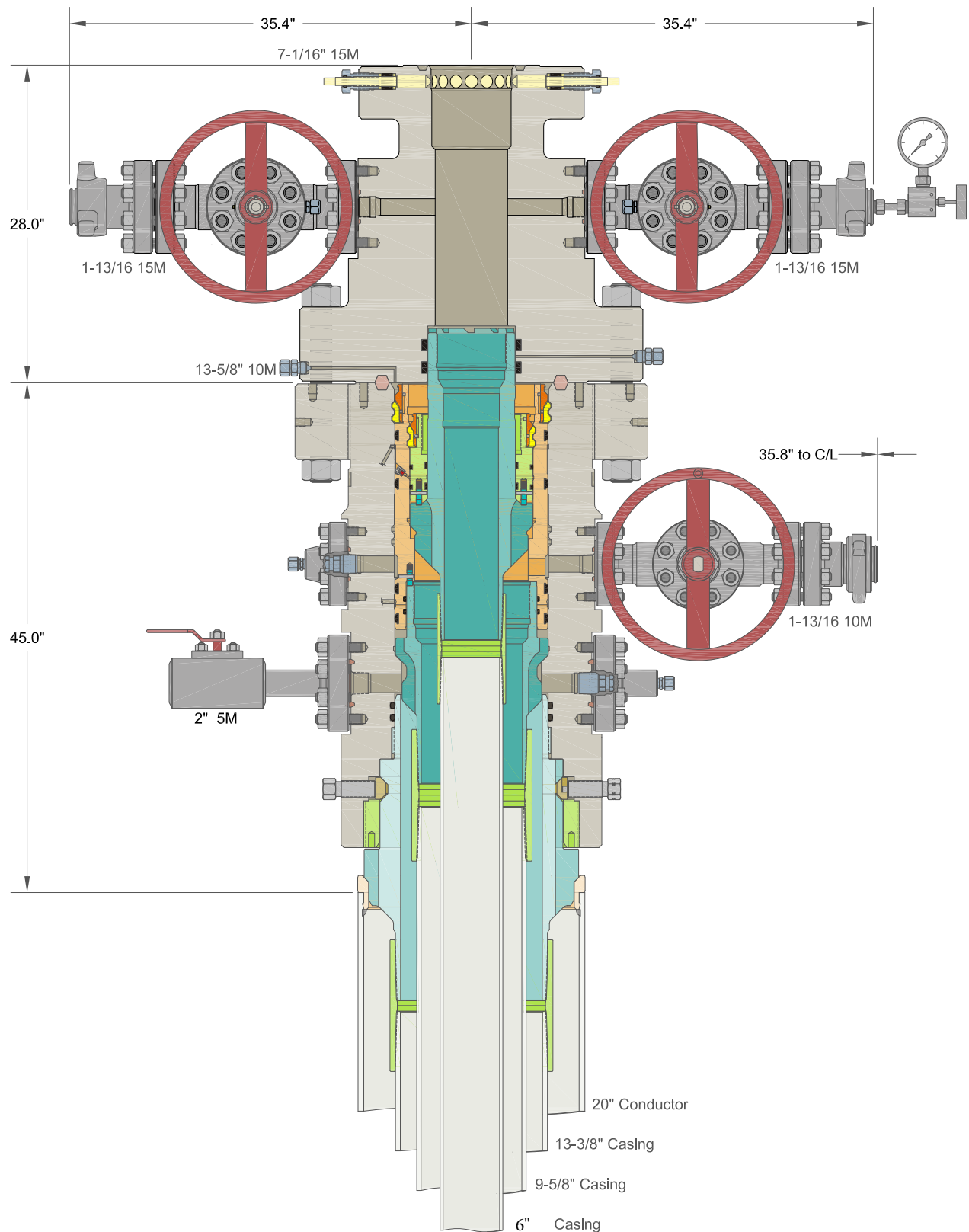
VISUAL INSPECTION / HYDROSTATIC TEST REPORT

COPPER STATE RUBBER









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ALL DIMENSIONS APPROXIMATE

## CACTUS WELLHEAD LLC

CAZA PETROLEUM  
PERMIAN BASIN

13-3/8" x 9-5/8" x 6" MBU-3T-CFL-R-DBLO Wellhead System  
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head  
And 13-3/8", 9-5/8" & 5-1/2" Mandrel Casing Hangers

DRAWN	DLE	25SEP19
APPRV		
DRAWING NO.	ODE0003135	

**Well Control Plan For 10M MASP Section of Wellbore****1. Component and Preventer Compatibility Table**

The table below covers drilling and casing of the 10M MASP portion of the well and outlines the tubulars and the compatible preventers in use. Combined with the mud program, the below documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Component	OD	Preventer	RWP
Drill Pipe	5"	Upper 5"-7" VBR Lower 5"-7" VBR	10M
HWDP	5"		
Drill Collars and MWD	6"-6.75"		
Mud Motor	6.75"-7.25"		
Production Casing	6"		
ALL		Annular	5M
Open-hole	0-13.625"	Blind Rams	10M

VBR = Variable Bore Ram with compatible range listed in chart.

**2. Well Control and Shut-In Procedures**

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are minimum tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. The maximum pressure at which well control is transferred from the annular to another compatible ram is 2500 psi.

**Drilling:**

1. Sound the alarm (alert rig crew)
2. Space out the drill string
3. Shut down pumps and stop the rotary
4. Shut-in the well with the annular with HCR and choke in closed position
5. Confirm the well is shut-in
6. Notify contractor and company representatives
7. Read and record the following data
  - Time of shut-in
  - SIDPP and SICP
  - Pit gain
8. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
9. Prepare for well kill operation.

**Tripping:**

1. Sound alarm (alert rig crew)
2. Stab full opening safety valve and close the valve
3. Space out the drill string
4. Shut-in the well with the annular with HCR and choke in closed position
5. Confirm shut-in
6. Notify contractor and company representatives
7. Read and record the following data:



**Well Control Plan For 10M MASP Section of Wellbore**

- Time of shut-in
  - SIDPP and SICP
  - Pit gain
8. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
  9. Prepare for well kill operation.

**Running Casing**

1. Sound alarm (alert rig crew)
2. Stab crossover and valve and close the valve
3. Shut-in the well with annular with HCR and choke in closed position
4. Confirm shut-in
5. Notify contractor and company representatives
6. Read and record the following data
  - Time of shut-in
  - SIDPP and SICP
  - Pit gain
7. If pressure has increased to or is anticipated to increase to 2500 psi, confirm spacing and close the upper pipe rams.
8. Prepare for well kill operation

**No Pipe in Hole (Open Hole)**

1. At any point when pipe or BHA are not in BOP stack, well will be shut in with blind rams, HCR will be open and choke will be closed. If pressure increase is observed:
2. Sound alarm (alert crew)
3. Confirm shut-in
4. Notify contractor and company representatives
5. Read and record the following data
  - Time of shut-in
  - Time of pressure increase
  - SICP
6. Prepare for well kill operation

**Pulling BHA through BOP Stack**

1. Prior to pulling last joint/stand of drillpipe through the stack, perform a flow check. If well is flowing:
  - a. Sound alarm (alert crew)
  - b. Stab full opening safety valve and close the valve
  - c. Space out drill string with tooljoint just beneath the upper pipe ram.
  - d. Shut-in the well with upper pipe ram with HCR and choke in closed position
  - e. Confirm shut-in
  - f. Notify contractor and company representatives
  - g. Read and record the following data
    - Time of shut-in
    - SIDPP and SICP
    - Pit gain
  - h. Prepare for well kill operation.

**Well Control Plan For 10M MASP Section of Wellbore**

2. With BHA in the stack:
  - a. If possible to pick up high enough, pull BHA clear of the stack
    - i. Follow "Open Hole" procedure above
  - b. If impossible to pick up high enough to pull BHA clear of the stack:
    - i. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
    - ii. Space out drill string with tooljoint just beneath the upper pipe ram.
    - iii. Shut-in the well with upper pipe ram with HCR and choke in closed position
    - iv. Confirm shut-in
    - v. Notify contractor and company representatives
    - vi. Read and record the following:
      - Time of shut-in
      - SIDPP and SICP
      - Pit gain
    - vii. Prepare for well kill operation.

**3. Well Control Drills**

Well control drills are specific to the rig equipment, personnel and operation at the time a kick occurs. Each crew will execute one drill weekly relevant to ongoing operations, but will make a reasonable attempt to vary the type of drills. The drills will be recorded in the daily drilling log. Below are minimum tasks for respective well control drills.

Drilling/Pit:

Action	Responsible Party
Initiate Drill <ul style="list-style-type: none"> <li>• Lift Flow Sensor or Pit Float to indicate a kick</li> <li>• Immediately record start time</li> </ul>	Company Representative / Rig Manager
Recognition <ul style="list-style-type: none"> <li>• Driller and/or Crew recognizes indicator</li> <li>• Driller stop drilling, pick up off bottom and spaces out drill string, stop pumps and rotary</li> <li>• Conduct flow check</li> </ul>	Driller
Initiate Action <ul style="list-style-type: none"> <li>• Sound alarm, notify rig crew that the well is flowing</li> </ul>	Company Representative / Rig Manager
Reaction <ul style="list-style-type: none"> <li>• Driller moves BOP remote and stands by</li> <li>• Crew is at their assigned stations</li> <li>• Time is stopped</li> <li>• Record time and drill type in the Drilling Report</li> </ul>	Driller / Crew

**Well Control Plan For 10M MASP Section of Wellbore**Tripping Pit Drills (either in the hole or out of the hole)

Action	Responsible Party
Initiate Drill <ul style="list-style-type: none"> <li>• Lift Flow Sensor or Pit Float to indicate a kick</li> <li>• Immediately record start time</li> </ul>	Company Representative / Rig Manager
Recognition <ul style="list-style-type: none"> <li>• Driller recognizes indicator</li> <li>• Suspends tripping operations</li> <li>• Conduct Flow Check</li> </ul>	Driller
Initiate Action <ul style="list-style-type: none"> <li>• Sound alarm, notify rig crew that the well is flowing</li> </ul>	Company Representative / Rig Manager
Reaction <ul style="list-style-type: none"> <li>• Position tool joint above rotary and set slips</li> <li>• Stab FOSV and close valve</li> <li>• Driller moves to BOP remote and stands by</li> <li>• Crew is at their assigned stations</li> <li>• Time is stopped</li> <li>• Record time and drill type in the Drilling Report</li> </ul>	Driller / Crew

Choke

Action	Responsible Party
<ul style="list-style-type: none"> <li>• Have designated choke operator on station at the choke panel</li> <li>• Close annular preventer</li> <li>• Pressure annulus up 200-300 psi</li> <li>• Pump slowly to bump the float and obtain SIDPP</li> <li>• At choke operator instruction, slowly bring pumps online to slow pump rate while holding casing pressure constant at the SICP.</li> <li>• Allow time for the well to stabilize. Mark and record circulating drillpipe pressure.</li> <li>• Measure time lag on drillpipe gauge after choke adjustments.</li> <li>• Hold casing pressure constant as pumps are slowed down while choke is closed.</li> <li>• Record time and drill type in the Drilling Report</li> </ul>	Company Man / Rig Manager & Rig Crew



Operator	Caza Operating LLC
Well Name & No.	Sioux 25-36 State Fed Com 20H
County	Lea
Location (S/T/R/Alt)	
Lease Number	
ATS or EC #	

APD### or EC###

Colors:
Choose casings
Fill in, if applicable

ral 6H Lea NM114998 Caza Operating LLC 13-22 10052019 LV

Name	
Date	
Version	

Remarks	
---------	--

Type of Casing	Size of Hole (in)	Size of Casing (in)	Weight per Foot (lbs/ft)	Grade	Yield	Coupling #:	Top (ft)	Bottom (MD) (ft)	Setting Depth (TVD) (TVD of entire string) (ft)	Min Mud Weight (ppg)	Max Mud Weight (ppg)	ID	Drift ID	Cplg OD
Surface	17.500	13.375	68.00	j	55	stc	0	1285	1285	8.40	8.90	12.4150	12.2900	14.3750
Int 1	12.250	9.625	40.00	hcl	80	btc	0	7200	10755	9.20	10.00	8.8350	8.7500	10.6250
Int 1 Taper 1	12.250	9.625	47.00	hcl	80	btc	7200	10840	10755	9.20	10.00	8.6810	8.6250	10.6250
<Choose Casing>														
Prod 1	8.500	6.000	24.50	p	110	btc	0	22710	12525	10.00	12.50	5.2000	5.0750	6.8750
<Choose Casing>														
<Choose Casing>														

Cement														
Surface			Int 1			Prod 1			<Choose Casing>			<Choose Casing>		
TOC	0		TOC	0		TOC	0		TOC			TOC		
DV Depth			DV Depth	4900		DV Depth			DV Depth			DV Depth		
Sacks		Yield (ft3/sx)			Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)
Lead	710	1.93	Lead	1600	2.13	Lead 1	2065	2.38	Lead 1			Lead 1		
Tail	309	1.35	Tail	260	1.18	Tail 1	2860	1.62	Tail 1			Tail 1		
DV Lead			DV Lead	1380	2.13	DV Lead			DV Lead			DV Lead		
DV Tail			DV Tail	150	1.35	DV Tail			DV Tail			DV Tail		
Cmt Added	1787.45	cuft	Cement Added	3714.8 / 3141.9	cuft	Cement Added	9547.90	cuft	Cement Added	#N/A	cuft	Cement Added	#N/A	cuft
Cmt Req.	893	cuft	Cement Req.	1860.3 / 1563.1	cuft	Cement Req.	4780	cuft	Cement Req.	0	cuft	Cement Req.	0	cuft
Excess	100.25%		Excess	99.7% / 101%		Excess	99.77%		Excess	#N/A		Excess	#N/A	

Clearances	in Hole	In Surface	In Int 1	In Int 1 Taper 1	In Prod 1		
Surface	Pass = 1.5625						
Int 1	Pass = 0.8125	Pass = 0.895					
Int 1 Taper 1	Pass = 0.8125	No Overlap	No Overlap				
Prod 1	Pass = 0.8125	Pass = 2.77	Pass = 0.98	Pass = 0.903	No Overlap		

Safety Factors	Joint/Body	Collapse	Burst	Alt Burst
Surface	7.72	3.28	0.62	1.07
Int 1	2.00	1.13	0.71	1.07
Int 1 Taper 1	6.35	1.27	0.84	1.28
Prod 1	2.61	1.41	1.58	2.39

BOP Requirements After the Shoe				
Surface		Int 1		Prod 1
Max. Surf. Pressure	3221 psi	Max. Surf. Pressure	5378 psi	Max. Surf. Pressur psi
BOP Required	5M System	BOP Required	10M System	BOP Required System
<Choose Casing>				
Max. Surf. Pressure	psi			
BOP Required	System			

Operator	Caza Operating LLC	Colors: Choose casings Fill in, if applicable	Name		Remarks	
Well Name & No.	Sioux 25-36 State Fed Com 20H		Date			
County	Lea		Version			
Location (S/T/R/Alt)						
Lease Number						
ATS or EC #		APD### or EC###				

Type of Casing	Size of Hole (in)	Size of Casing (in)	Weight per Foot (lbs/ft)	Grade	Yield	Coupling #:	Top (ft)	Bottom (MD) (ft)	Setting Depth (TVD) (TVD of entire string) (ft)	Min Mud Weight (ppg)	Max Mud Weight (ppg)	ID	Drift ID	Cplg OD
Surface	17.500	13.375	68.00	j	55	stc	0	1285	1285	8.40	8.90	12.4150	12.2900	14.3750
Int 1	12.250	9.625	40.00	hcl	80	btc	0	7200	10755	9.20	10.00	8.8350	8.7500	10.6250
Int 1 Taper 1	12.250	9.625	47.00	hcl	80	btc	7200	10840	10755	9.20	10.00	8.6810	8.6250	10.6250
<Choose Casing>														
Prod 1	8.500	6.000	24.50	p	110	btc	0	22710	12525	10.00	12.50	5.2000	5.0750	6.8750
<Choose Casing>														
<Choose Casing>														

Cement														
Surface			Int 1			Prod 1			<Choose Casing>			<Choose Casing>		
TOC	0		TOC	0		TOC	0		TOC			TOC		
DV Depth			DV Depth	4900		DV Depth			DV Depth			DV Depth		
Sacks		Yield (ft3/sx)			Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)
Lead	710	1.93	Lead	1600	2.13	Lead 1	2065	2.38	Lead 1			Lead 1		
Tail	309	1.35	Tail	260	1.18	Tail 1	2860	1.62	Tail 1			Tail 1		
DV Lead			DV Lead	1380	2.13	DV Lead			DV Lead			DV Lead		
DV Tail			DV Tail	150	1.35	DV Tail			DV Tail			DV Tail		
Cmt Added	1787.45	cuft	Cement Added	3714.8 / 3141.9	cuft	Cement Added	9547.90	cuft	Cement Added	#N/A	cuft	Cement Added	#N/A	cuft
Cmt Req.	893	cuft	Cement Req.	1860.3 / 1563.1	cuft	Cement Req.	4780	cuft	Cement Req.	0	cuft	Cement Req.	0	cuft
Excess	100.25%		Excess	99.7% / 101%		Excess	99.77%		Excess	#N/A		Excess	#N/A	

Clearances	in Hole	In Surface	In Int 1	In Int 1 Taper 1	In Prod 1		
Surface	Pass = 1.5625						
Int 1	Pass = 0.8125	Pass = 0.895					
Int 1 Taper 1	Pass = 0.8125	No Overlap	No Overlap				
Prod 1	Pass = 0.8125	Pass = 2.77	Pass = 0.98	Pass = 0.903	No Overlap		

Safety Factors	Joint/Body	Collapse	Burst	Alt Burst
Surface	7.72	3.28	0.62	1.07
Int 1	2.00	1.13	0.71	1.07
Int 1 Taper 1	6.35	1.27	0.84	1.28
Prod 1	2.61	1.41	1.58	2.39

BOP Requirements After the Shoe				
Surface		Int 1		Prod 1
Max. Surf. Pressure	3221 psi	Max. Surf. Pressure	5378 psi	Max. Surf. Pressur psi
BOP Required	5M System	BOP Required	10M System	BOP Required System
<Choose Casing>				
Max. Surf. Pressure	psi			
BOP Required	System			

Operator	Caza Operating LLC	Colors: Choose casings Fill in, if applicable	Name		Remarks
Well Name & No.	Sioux 25-36 State Fed Com 20H		Date		
County	Lea		Version		
Location (S/T/R/Alt)					
Lease Number					
ATS or EC #		APD### or EC###			

Type of Casing	Size of Hole (in)	Size of Casing (in)	Weight per Foot (lbs/ft)	Grade	Yield	Coupling #:	Top (ft)	Bottom (MD) (ft)	Setting Depth (TVD) (TVD of entire string) (ft)	Min Mud Weight (ppg)	Max Mud Weight (ppg)	ID	Drift ID	Cplg OD
Surface	17.500	13.375	68.00	j	55	stc	0	1285	1285	8.40	8.90	12.4150	12.2900	14.3750
Int 1	12.250	9.625	40.00	hcl	80	btc	0	7200	10755	9.20	10.00	8.8350	8.7500	10.6250
Int 1 Taper 1	12.250	9.625	47.00	hcl	80	btc	7200	10840	10755	9.20	10.00	8.6810	8.6250	10.6250
<Choose Casing>														
Prod 1	8.500	6.000	24.50	p	110	btc	0	22710	12525	10.00	12.50	5.2000	5.0750	6.8750
<Choose Casing>														
<Choose Casing>														

Cement														
Surface			Int 1			Prod 1			<Choose Casing>			<Choose Casing>		
TOC	0		TOC	0		TOC	0		TOC			TOC		
DV Depth			DV Depth	4900		DV Depth			DV Depth			DV Depth		
Sacks		Yield (ft3/sx)			Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)
Lead	710	1.93	Lead	1600	2.13	Lead 1	2065	2.38	Lead 1			Lead 1		
Tail	309	1.35	Tail	260	1.18	Tail 1	2860	1.62	Tail 1			Tail 1		
DV Lead			DV Lead	1380	2.13	DV Lead			DV Lead			DV Lead		
DV Tail			DV Tail	150	1.35	DV Tail			DV Tail			DV Tail		
Cmt Added	1787.45	cuft	Cement Added	3714.8 / 3141.9	cuft	Cement Added	9547.90	cuft	Cement Added	#N/A	cuft	Cement Added	#N/A	cuft
Cmt Req.	893	cuft	Cement Req.	1860.3 / 1563.1	cuft	Cement Req.	4780	cuft	Cement Req.	0	cuft	Cement Req.	0	cuft
Excess	100.25%		Excess	99.7% / 101%		Excess	99.77%		Excess	#N/A		Excess	#N/A	

Clearances	in Hole	In Surface	In Int 1	In Int 1 Taper 1	In Prod 1		
Surface	Pass = 1.5625						
Int 1	Pass = 0.8125	Pass = 0.895					
Int 1 Taper 1	Pass = 0.8125	No Overlap	No Overlap				
Prod 1	Pass = 0.8125	Pass = 2.77	Pass = 0.98	Pass = 0.903	No Overlap		

Safety Factors	Joint/Body	Collapse	Burst	Alt Burst
Surface	7.72	3.28	0.62	1.07
Int 1	2.00	1.13	0.71	1.07
Int 1 Taper 1	6.35	1.27	0.84	1.28
Prod 1	2.61	1.41	1.58	2.39

BOP Requirements After the Shoe				
Surface		Int 1		Prod 1
Max. Surf. Pressure	3221 psi	Max. Surf. Pressure	5378 psi	Max. Surf. Pressur psi
BOP Required	5M System	BOP Required	10M System	BOP Required System
<Choose Casing>				
Max. Surf. Pressure	psi			
BOP Required	System			

Operator	Caza Operating LLC	Colors: Choose casings Fill in, if applicable	Name		Remarks
Well Name & No.	Sioux 25-36 State Fed Com 20H		Date		
County	Lea		Version		
Location (S/T/R/Alt)					
Lease Number					
ATS or EC #		APD### or EC###			

Type of Casing	Size of Hole (in)	Size of Casing (in)	Weight per Foot (lbs/ft)	Grade	Yield	Coupling #:	Top (ft)	Bottom (MD) (ft)	Setting Depth (TVD) (TVD of entire string) (ft)	Min Mud Weight (ppg)	Max Mud Weight (ppg)	ID	Drift ID	Cplg OD
Surface	17.500	13.375	68.00	j	55	stc	0	1285	1285	8.40	8.90	12.4150	12.2900	14.3750
Int 1	12.250	9.625	40.00	hcl	80	btc	0	7200	10755	9.20	10.00	8.8350	8.7500	10.6250
Int 1 Taper 1	12.250	9.625	47.00	hcl	80	btc	7200	10840	10755	9.20	10.00	8.6810	8.6250	10.6250
<Choose Casing>														
Prod 1	8.500	6.000	24.50	p	110	btc	0	22710	12525	10.00	12.50	5.2000	5.0750	6.8750
<Choose Casing>														
<Choose Casing>														

Cement														
Surface			Int 1			Prod 1			<Choose Casing>			<Choose Casing>		
TOC	0		TOC	0		TOC	0		TOC			TOC		
DV Depth			DV Depth	4900		DV Depth			DV Depth			DV Depth		
Sacks		Yield (ft3/sx)			Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)	Sacks		Yield (ft3/sx)
Lead	710	1.93	Lead	1600	2.13	Lead 1	2065	2.38	Lead 1			Lead 1		
Tail	309	1.35	Tail	260	1.18	Tail 1	2860	1.62	Tail 1			Tail 1		
DV Lead			DV Lead	1380	2.13	DV Lead			DV Lead			DV Lead		
DV Tail			DV Tail	150	1.35	DV Tail			DV Tail			DV Tail		
Cmt Added	1787.45	cuft	Cement Added	3714.8 / 3141.9	cuft	Cement Added	9547.90	cuft	Cement Added	#N/A	cuft	Cement Added	#N/A	cuft
Cmt Req.	893	cuft	Cement Req.	1860.3 / 1563.1	cuft	Cement Req.	4780	cuft	Cement Req.	0	cuft	Cement Req.	0	cuft
Excess	100.25%		Excess	99.7% / 101%		Excess	99.77%		Excess	#N/A		Excess	#N/A	

Clearances	in Hole	In Surface	In Int 1	In Int 1 Taper 1	In Prod 1		
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Max. Surf. Pressure	3221 psi	Max. Surf. Pressure	5378 psi	Max. Surf. Pressur psi
BOP Required	5M System	BOP Required	10M System	BOP Required System
<Choose Casing>				
Max. Surf. Pressure	psi			
BOP Required	System			

# Caza Oil and Gas, Inc

H2S Drilling Operations Plan

Sioux 25-36 State Fed Com 9H

Lea County, New Mexico

Prepared by: Steve Morris

Date: 06/27/2018

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## H2S Contingency Plan Section

### Scope:

This contingency plan provides an organized plan of action for alerting and protecting the public within an area of exposure prior to an intentional release, of following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H<sub>2</sub>S).

### Objective:

Prevent any and all accidents, and prevent the uncontrolled release of H<sub>2</sub>S into the atmosphere.

Provide proper evacuation procedures to cope with emergencies.

Provide immediate and adequate medical attention should an injury occur.

**Implementation:** This plan, with all details, is to be fully implemented 1000' before drilling into the first sour zone.

**Emergency Response Procedure:** This section outlines the conditions and denotes steps to be taken in the event of an emergency.

**Emergency Equipment and Procedure:** This section outlines the safety and emergency equipment that will be required for the drilling of this well.

**Training Provisions:** This section outlines the training provisions that must be adhered to 1000' before drilling into the first sour zone.

**Emergency Call Lists:** Included are the telephone numbers of all persons that would need to be contacted, should an H<sub>2</sub>S emergency occur.

**Briefing:** This section deals with the briefing of all persons involved with the drilling of this well.

**Public Safety:** Public safety personnel will be made aware of the drilling of this well.

**Check Lists:** Status check lists and procedural check lists have been included to ensure adherence to the plan.

**General Information:** A general information section has been included to supply support information.



## Emergency Procedures Section

### Emergency Procedures

- I. In the event of any evidence of H<sub>2</sub>S level above 10 ppm, take the following steps immediately:**
  - A. Secure breathing apparatus.
  - B. Order non-essential personnel out of the danger zone.
  - C. Take steps to determine if the H<sub>2</sub>S level can be corrected or suppressed, and if so, proceed with normal operations.
- II. If uncontrollable conditions occur, proceed with the following:**
  - A. Take steps to protect and/or remove any public downwind of the rig, including partial evacuation or isolation. Notify necessary public safety personnel and the New Mexico Oil & Gas of the situation.
  - B. Remove all personnel to the safe briefing area.
  - C. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.
  - D. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety measures.
- III. Responsibility:**
  - A. The company approved supervisor shall be responsible for the total implementation of the plan.
  - B. The company approved supervisor shall be in complete command during any emergency.
  - C. The company approved supervisor shall designate a backup supervisor in the event that he/she is not available.

### Emergency Procedure Implementation

- I. Drilling or Tripping:**
  - A. All Personnel
    1. When alarm sounds, don escape unit and report to upwind safe briefing area.
    2. Check status of other personnel (buddy system).
    3. Secure breathing apparatus.
    4. Wait for orders from supervisor.
  - B. Drilling Foreman
    1. Report to the upwind safe briefing area.
    2. Don breathing apparatus and return to the point of release with the Tool pusher of Driller (buddy system).
    3. Determine the concentration of H<sub>2</sub>S.
    4. Address the situation and take appropriate control measures.
  - C. Tool Pusher
    1. Report to the upwind safe briefing area.
    2. Don breathing apparatus and return to the point of release with the Drilling Foreman or the Driller (buddy system).

3. Determine the concentration.
4. Address the situation and take appropriate control measures.
- D. Driller
  1. Check the status of other personnel (in a rescue attempt, always use the buddy system).
  2. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
  3. Assume the responsibility of the Drilling Foreman and the Tool Pusher until they arrive, in the event of their absence.
- E. Derrick Man and Floor Hands
  1. Remain in the upwind safe briefing area until otherwise instructed by a supervisor.
- F. Mud Engineer
  1. Report to the upwind safe briefing area.
  2. When instructed, begin check of mud for PH level and H2S level.
- G. Safety Personnel
  1. Don breathing apparatus.
  2. Check the status of all personnel.
  3. Wait for instructions from Drilling Foreman or Tool Pusher.
- II. **Taking a Kick:**
  - A. All personnel report to the upwind safe briefing area.
  - B. Follow standard BOP procedures.
- III. **Open Hole Logging:**
  - A. All unnecessary personnel should leave the rig floor.
  - B. Drilling Foreman and Safety personnel should monitor the conditions and make necessary safety equipment recommendations.
- IV. **Running Casing or Plugging:**
  - A. Follow "Drilling or Tripping" procedures.
  - B. Assure that all personnel have access to protective equipment.

### **Simulated Blowout Control Drills**

All drills will be initiated by activating alarm devices (air horn). One long blast on the air horn for ACTUAL and SIMULATED blowout control drills. This operation will be performed by the Drilling Foreman or Tool Pusher at least one time per week for each of the following conditions, with each crew:

- |          |                     |
|----------|---------------------|
| Drill #1 | On-bottom Drilling  |
| Drill #2 | Tripping Drill Pipe |

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire put drill assignment. The times must be recorded on the IADC Driller's log as "Blowout Control Drill".

Drill No.:		
Reaction Time to Shut-in:	minutes,	seconds.
Total Time to Complete Assignment:	minutes,	seconds.

I. Drill Overviews:

A. Drill No. 1 – On-bottom Drilling

1. Sound the alarm immediately.
2. Stop the rotary and hoist the Kelly joint above the rotary table.
3. Stop the circulatory pump.
4. Close the drill pipe rams.
5. Record casing and drill pipe shut-in pressures and pit volume increases.

B. Drill No. 2 – Tripping Drill Pipe:

1. Sound the alarm immediately.
2. Position the upper tool joint just above the rotary table and set the slips.
3. Install a full opening valve inside blowout preventer tool in order to close the drill pipe.
4. Close the drill pipe rams.
5. Record the shut-in annular pressure.

II. Crew Assignments

A. Drill No. 1 – On-bottom Drilling:

1. Driller
  - a) Stop the rotary and hoist the Kelly joint above the rotary table.
  - b) Stop the circulatory pump.
  - c) Check flow.
  - d) If flowing, sound the alarm immediately.
  - e) Record the shut-in drill pipe pressure.
  - f) Determine the mud weight increase needed or other courses of action.
2. Derrick Man
  - a) Open choke line valve at BOP.
  - b) Signal Floor Man #1 at accumulator that choke line is open.
  - c) Close choke upstream valve after pipe rams have been closed.
  - d) Read the shut-in annular pressure and report readings to Driller.
3. Floor Man #1
  - a) Close the pipe rams after receiving the signal from the Derrick Man.
  - b) Report to Driller for further instructions.
4. Floor Man #2
  - a) Notify the Tool Pusher and Operator Representative of the H2S alarms.
  - b) Check for open fires and, if safe to do so, extinguish them.
  - c) Stop all welding operations.
  - d) Turn-off all non-explosive proof lights and instruments.

- e) Report to Driller for further instructions.
- 5. Tool Pusher
  - a) Report to the rig floor.
  - b) Have a meeting with all crews.
  - c) Compile and summarize all information.
  - d) Calculate the proper kill weight.
  - e) Ensure that proper well procedures are put into action.
- 6. Operator Representative
  - a) Notify the Drilling Superintendent.
  - b) Determine if an emergency exists and if so, activate the contingency plan.
- B. Drill No. 2 – Tripping Pipe:
  - 1. Driller
    - a) Sound the alarm immediately when mud volume increase has been detected.
    - b) Position the upper tool joint just above the rotary table and set slips.
    - c) Install a full opening valve or inside blowout preventer tool to close the drill pipe.
    - d) Check flow.
    - e) Record all data reported by the crew.
    - f) Determine the course of action.
  - 2. Derrick Man
    - a) Come down out of derrick.
    - b) Notify Tool Pusher and Operator Representative.
    - c) Check for open fires and, if safe to do so, extinguish them.
    - d) Stop all welding operations.
    - e) Report to Driller for further instructions.
  - 3. Floor Man #1
    - a) Pick up full opening valve or inside blowout preventer tool and slab into tool joint above rotary table (with Floor Man #2)
    - b) Tighten valve with back-up tongs.
    - c) Close pipe rams after signal from Floor Man #2.
    - d) Read accumulator pressure and check for possible high pressure fluid leaks in valves or piping.
    - e) Report to Driller for further instructions.
  - 4. Floor Man #2
    - a) Pick-up full opening valve or inside blowout preventer tool and tab into tool joint above rotary table (with Floor Man #1)
    - b) Position back-up tongs on drill pipe.
    - c) Open choke line valve at BOP.
    - d) Signal Floor Man #1 at accumulator that choke line is open.
    - e) Close choke and upstream valve after pipe rams have been closed.
    - f) Check for leaks on BOP stack and choke manifold.

- g) Read annular pressure.
- h) Report readings to the Driller.
- 5. Tool Pusher
  - a) Report to the rig floor.
  - b) Have a meeting with all of the crews.
  - c) Compile and summarize all information.
  - d) See that proper well kill procedures are put into action.
- 6. Operator Representative
  - a) Notify Drilling Superintendent.
  - b) Determine if an emergency exists, and if so, activate the contingency plan

## Ignition Procedures

### Responsibility:

The decision to ignite the well is responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event of the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

### Instructions for Igniting the Well:

1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and must use a full body harness and attach a retrievable safety line to the D-Ring in the back. One man must monitor the atmosphere for explosive gases with the LEL monitor, while the Drilling Foreman is responsible for igniting the well.
2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.
3. Ignite from upwind and do not approach any closer than is warranted.
4. Select the ignition site best suited for protection and which offers an easy escape route.
5. Before igniting, check for the presence of combustible gases.
6. After igniting, continue emergency actions and procedures as before.
7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

NOTE: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

## Training Program

When working in an area where Hydrogen Sulfide (H<sub>2</sub>S) might be encountered, definite training requirements for all personnel must be carried out. The Company Supervisor will ensure that all personnel at the well site have had adequate training in the following:

1. Hazards and Characteristics of Hydrogen Sulfide.
2. Physicals effects of Hydrogen Sulfide on the human body.
3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
4. H<sub>2</sub>S detection, emergency alarm and sensor location.
5. Emergency rescue.
6. Resuscitators.
7. First aid and artificial resuscitation.
8. The effects of Hydrogen Sulfide on metals.
9. Location safety.

Service company personnel and visiting personnel must be notified if the zone contains H<sub>2</sub>S, and each service company must provide adequate training and equipment for their employees before they arrive at the well site.

## Emergency Equipment Requirements

### Lease Entrance Sign:

Should be located at the lease entrance with the following information:

CAUTION- POTENTIAL POISON GAS HYDROGEN SULFIDE

### Well Control Equipment:

- A flare line will be located a minimum of 150' from the wellhead to be ignited by a flare gun.
- The choke manifold will include a remotely operated choke.
- A mud/gas separator will be installed to separate gas from the drilling mud.

### Mud Program:

The drilling mud program has been designed to minimize the volume of hydrogen sulfide (H<sub>2</sub>S) circulated to surface. The operator will have the necessary mud products on location to minimize the hazards while drilling in H<sub>2</sub>S-bearing zones.



**Metallurgy:**

- All drill strings , casings, tubing, wellhead equipment , the blowout preventer , the drilling spool, kill lines, choke manifold and lines, and all valves shall be suitable for H2S service.
- All elastomers used for packing and seals shall be H2S trim.

**Respiratory Equipment:**

- Fresh air breathing equipment should be placed at the safe briefing areas and should include the following: Two SCBA's will be placed at each briefing area. A moveable breathing air trailer with 2 SCBA's, 5 work/escape units, ample breathing air hose and manifolds will be on location. The breathing air hose will be installed on the rig floor and derrick along with breathing air manifolds so that it will not restrict work activity. All employees that may wear respiratory will complete a MEQ and be quantitative fit tested 1000' prior to the 1st zone that may contain H2S.

**Windsocks or Wind Streamers:**

- A minimum of two 10" windsocks located at strategic locations so that they may be seen from any point on location. More will be used if necessary for wind consciousness.
- Wind streamers (if preferred) should be placed at various locations on the well site to ensure wind consciousness at all times. (Corners of location).

**Hydrogen Sulfide Detector and Alarms:**

- 1 - Four channel H2S monitor with audible and visual alarms, strategically located to be seen and heard by all employees working on the well site. All sensors will be bump tested or calibrated if necessary on a weekly basis. The alarms will be set to visually alarm at 10 PPM and audible at 14 PPM.
- Four (4) sensors located as follows: #1 -Rig Floor, #2 & #3- Bell Nipple, #4- End of flow line where wellbore fluid is discharged.
- Portable color metric tube detector with tubes will be stored in the Tool Pusher trailer.

**Well Condition Sign and Flags:**

The Well Condition Sign with flags should be placed a minimum of 150' before entry to the location. It should have three (3) color coded flags (green, yellow and red) that will be used to denote the following location conditions:

GREEN - Normal Operating Conditions

YELLOW - Potential Danger

RED - Danger, H2S Gas Present

**Auxiliary Rescue Equipment:**

- Stretcher (drilling contractor)
- 2- 100' OSHA approved Rescue lines (drilling contractor)
- First Aid Kit properly stocked (drilling contractor)

**Mud Inspection Equipment:**

Garret Gas Train or Hach Tester for inspection of Hydrogen Sulfide in the drilling mud system.

**Fire Extinguishers:**

Adequate fire extinguishers shall be located at strategic locations (provided by drilling contractor)

**Blowout Preventer:**

- The well shall have hydraulic BOP equipment for the anticipated BHP.
- The BOP should be tested upon installation.
- BOP, Choke Line and Kill Line will be tested as specified by Operator.

**Confined Space Monitor:**

There should be a portable multi-gas monitor with at least 3 sensors (O2, LEL & H2S). This instrument should be used to test the atmosphere of any confined space before entering. It should also be used for atmospheric testing for LEL gas before beginning any type of Hot Work. Proper calibration documentation will need to be provided. (Supplied by Drilling Contractor)

**Communication Equipment:**

- Proper communication equipment such as cell phones or 2 -way radios should be available at the rig.
- Radio communication shall be available for communication between the company man's trailer, rig floor and the tool pusher's trailer.
- Communication equipment shall be available on the vehicles.

### **Special Control Equipment:**

- Hydraulic BOP equipment with remote control on the ground.
- Rotating head at the surface casing point.
- BOP, Choke Manifold and Process Flow Diagrams (see the attached - previously submitted)
- Patriot Rig #5 SM Choke Manifold Equipment (see the attached - previously submitted)

### **Evacuation Plan:**

- Evacuation routes should be established prior to spudding the well.
- Should be discussed with all rig personnel.

### **Designated Areas:**

#### ***Parking and Visitor area:***

- All vehicles are to be parked at a pre-determined safe distance from the wellhead.
- Designated smoking area.

#### ***Safe Briefing Areas:***

- Two safe briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
- Personal protective equipment should be stored at both briefing areas or if a moveable cascade trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both briefing areas should be accessible.

### **NOTES:**

- .
- Additional personal H2S monitors are available for all employees on location.
- Automatic Flare Igniters are recommended for installation on the rig.

## **CHECK LISTS**

### **Status Check List**

Note: Date each item as they are implemented.

1. Sign at location entrance.
2. Two (2) wind socks (in required locations).
3. Wind Streamers (if required).
4. SCBA's on location for all rig personnel and mud loggers.
5. Air packs, inspected and ready for use.
6. Spare bottles for each air pack (if required).
7. Cascade system for refilling air bottles.
8. Cascade system and hose line hook up.
9. Choke manifold hooked-up and tested. (Before drilling out surface casing.)
10. Remote Hydraulic BOP control (hooked-up and tested before drilling out surface casing).
11. BOP tested (before drilling out surface casing).
12. Mud engineer on location with equipment to test mud for H2S.
13. Safe Briefing Areas set-up.
14. Well Condition sign and flags on location and ready.
15. Hydrogen Sulfide detection system hooked-up & tested.
16. Hydrogen Sulfide alarm system hooked-up & tested.
17. Stretcher on location at Safe Briefing Area.
18. 2-100' OSHA Approved Life Lines on location.
19. 1-20# Fire Extinguisher in safety trailer.
20. Confined Space Monitor on location and tested.
21. All rig crews and supervisor trained (as required).
22. Access restricted for unauthorized personnel.
23. Drills on H2S and well control procedures.
24. All outside service contractors advised of potential H2S on the well.
25. NO SMOKING sign posted.
26. H2S Detector Pump w/tubes on location.
27. 25mm Flare Gun on location w/flares.
28. Automatic Flare Igniter installed on rig.

## Procedural Check List

Perform the following on each tour:

1. Check fire extinguishers to see that they have the proper charge.
2. Check breathing equipment to insure that they have not been tampered with.
3. Check pressure on the supply air bottles to make sure they are capable of recharging.
4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

1. Check each piece of breathing equipment to make sure that they are fully charged and operational. This requires that the air cylinder be opened and the mask assembly be put on and tested to make sure that the regulators and

masks are properly working. Negative and positive pressure should be conducted on all masks.

2. BOP skills.
3. Check supply pressure on BOP accumulator stand-by source.
4. Check all breathing air mask assemblies to see that straps are loosened and turned back, ready to use.
5. Check pressure on cascade air cylinders to make sure they are fully charged and ready to use for refill purposes if necessary.
6. Check all cascade system regulators to make sure they work properly.
7. Perform breathing drills with on-site personnel.
8. Check the following supplies for availability:
  - Stretcher
  - Safety Belts and ropes.
  - Spare air bottles.
  - Spare oxygen bottles (if resuscitator required).
  - Gas Detector Pump and tubes.
  - Emergency telephone lists.
9. Test the Confined Space Monitor to verify the batteries are good and that the unit is in good working condition and has been properly calibrated according to manufacturer's recommendations.

## Briefing Procedures

The following scheduled briefings will be held to ensure the effective drilling and operation of this project:

### Pre-Spud Meeting

Date: Prior to spudding the well.

Attendance: Drilling Supervisor  
Drilling Engineer  
Drilling Foreman  
Rig Tool Pushers  
Mud Engineer  
All Safety Personnel  
Key Service Company Personnel

Purpose: Review and discuss the well program, step-by-step, to ensure complete understanding of assignments and responsibilities.

## Evacuation Plan

### General Plan

The direct lines of action prepared by Caza SAFETY, to protect the public from hazardous gas situations are as follows:

1. When the company approved supervisor (Drilling Foremen, Tool Pusher or Driller) determine that Hydrogen Sulfide gas cannot be limited to the well location, and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the Area Map.
2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation needs to be implemented.
3. Company approved safety personnel that have been trained in the use of the proper emergency equipment will be utilized.
4. Law enforcement personnel (State Police, Local Police Department, Fire Department, and the Sheriff's Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

### Emergency Assistance Telephone List

#### **PUBLIC SAFETY:** 911 or

Lea County Sheriff or Police..... (575) 396-3611

Fire Department .....(575) 397-9308

Hospital ..... (575) 492-5000

Ambulance ..... 911

Department of Public Safety..... (392) 392-5588

Oil Conservation Division .....(575) 748-1823

New Mexico Energy, Minerals & Natural Resources Department .....(575) 748-1283

**Caza Oil and Gas, Inc:**

Office .....(423) 682-7424

VP Operations: Tony Sam

Office .....(423) 682-7424

Cell .....(432) 556-6708

Project Manager: Steve Morris

Cell .....(972) 835-3315

Project Manager: Joel Stockford

Cell .....(972) 835-3349

The geologic zones that will be encountered during drilling may contain hazardous quantities of H<sub>2</sub>S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, and conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description:

Residents: THERE ARE NO RESIDENTS WITHIN 3000' ROE.

**Notification Process:**

A continuous siren audible to all residence will be activated, signaling evacuation of previously notified and informed residents.

**Evacuation Plan:**

All evacuees will migrate laterally toward the wind direction.

Caza Oil and Gas, Inc. will identify all home bound or highly susceptible individuals and make special evacuation preparations, interfacing with the local and emergency medical service as necessary.

**MAPS AND PLATS**

See the attached map showing the 3000' ROE clarification.





## **Caza Operating LLC**

**Sioux 25-36 State Fed Com 20H**

**Sioux 25-36 State Fed Com 20H**

**Sioux 25-36 State Fed Com 20H**

**Sioux 25-36 State Fed Com 20H**

**Plan: Sioux 25-36 State Fed Com 20H**

## **Morcor Standard Plan**

**18 May, 2021**



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Sioux 25-36 State Fed Com 20H		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Sioux 25-36 State Fed Com 20H		
<b>Site Position:</b>		<b>Northing:</b>	404,670.87 usft
<b>From:</b>	Map	<b>Easting:</b>	855,960.36 usft
<b>Position Uncertainty:</b>	1.0 usft	<b>Slot Radius:</b>	17-1/2 "
		<b>Latitude:</b>	32° 6' 30.394 N
		<b>Longitude:</b>	103° 19' 1.946 W
		<b>Grid Convergence:</b>	0.54 °

<b>Well</b>	Sioux 25-36 State Fed Com 20H		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	32° 6' 30.394 N
		<b>Longitude:</b>	103° 19' 1.946 W
		<b>Ground Level:</b>	3,090.0 usft

<b>Wellbore</b>	Sioux 25-36 State Fed Com 20H		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>
	IGRF2015	1/20/2021	6.60
			<b>Dip Angle (°)</b>
			59.86
			<b>Field Strength (nT)</b>
			47,615

<b>Design</b>	Sioux 25-36 State Fed Com 20H		
<b>Audit Notes:</b>			
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>
			0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>
	0.0	0.0	0.0
			<b>Direction (°)</b>
			184.21

<b>Survey Tool Program</b>	<b>Date</b>	5/18/2021		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	22,710.4	Sioux 25-36 State Fed Com 20H (Sioux 25	MWD	MWD - Standard



## Morcor Engineering

Morcor Standard Plan

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<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	-3,112.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
100.0	0.00	0.00	100.0	-3,012.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
200.0	0.00	0.00	200.0	-2,912.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
300.0	0.00	0.00	300.0	-2,812.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
400.0	0.00	0.00	400.0	-2,712.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
500.0	0.00	0.00	500.0	-2,612.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
600.0	0.00	0.00	600.0	-2,512.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
700.0	0.00	0.00	700.0	-2,412.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
800.0	0.00	0.00	800.0	-2,312.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
900.0	0.00	0.00	900.0	-2,212.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
909.0	0.00	0.00	909.0	-2,203.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
<b>Rustler</b>										
1,000.0	0.00	0.00	1,000.0	-2,112.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
1,100.0	0.00	0.00	1,100.0	-2,012.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
1,200.0	0.00	0.00	1,200.0	-1,912.0	0.0	0.0	855,960.36	404,670.87	0.00	0.00
1,300.0	1.00	310.00	1,300.0	-1,812.0	0.6	-0.7	855,959.69	404,671.43	-0.51	1.00
1,337.0	1.27	299.56	1,337.0	-1,775.0	1.0	-1.3	855,959.09	404,671.84	-0.87	0.91
<b>Top of Salt</b>										
1,400.0	1.78	289.60	1,400.0	-1,712.0	1.6	-2.8	855,957.56	404,672.51	-1.43	0.91
1,500.0	2.65	282.03	1,499.9	-1,612.1	2.6	-6.5	855,953.84	404,673.52	-2.16	0.91
1,600.0	3.54	278.22	1,599.7	-1,512.3	3.6	-11.8	855,948.52	404,674.44	-2.69	0.91
1,700.0	4.44	275.95	1,699.5	-1,412.5	4.4	-18.7	855,941.62	404,675.28	-3.02	0.91
1,800.0	5.34	274.45	1,799.1	-1,312.9	5.2	-27.2	855,933.14	404,676.04	-3.16	0.91
1,900.0	6.25	273.38	1,898.6	-1,213.4	5.9	-37.3	855,923.06	404,676.73	-3.10	0.91
2,000.0	7.16	272.58	1,997.9	-1,114.1	6.5	-48.9	855,911.41	404,677.33	-2.84	0.91
2,092.9	8.00	272.00	2,090.0	-1,022.0	6.9	-61.2	855,899.17	404,677.81	-2.43	0.91
2,100.0	8.00	271.99	2,097.1	-1,014.9	7.0	-62.2	855,898.18	404,677.85	-2.39	0.01



## Morcor Engineering

Morcor Standard Plan

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<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

## Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
2,200.0	8.00	271.91	2,196.1	-915.9	7.5	-76.1	855,884.27	404,678.32	-1.84	0.01
2,300.0	8.00	271.82	2,295.1	-816.9	7.9	-90.0	855,870.36	404,678.77	-1.27	0.01
2,400.0	8.00	271.74	2,394.1	-717.9	8.3	-103.9	855,856.46	404,679.21	-0.68	0.01
2,500.0	8.00	271.65	2,493.2	-618.8	8.7	-117.8	855,842.55	404,679.62	-0.07	0.01
2,600.0	8.00	271.57	2,592.2	-519.8	9.1	-131.7	855,828.64	404,680.01	0.56	0.01
2,700.0	8.00	271.48	2,691.2	-420.8	9.5	-145.6	855,814.73	404,680.38	1.21	0.01
2,800.0	8.00	271.39	2,790.2	-321.8	9.9	-159.5	855,800.83	404,680.73	1.89	0.01
2,900.0	8.00	271.31	2,889.3	-222.7	10.2	-173.4	855,786.92	404,681.05	2.58	0.01
3,000.0	8.00	271.22	2,988.3	-123.7	10.5	-187.3	855,773.01	404,681.36	3.29	0.01
3,100.0	7.99	271.14	3,087.3	-24.7	10.8	-201.3	855,759.11	404,681.65	4.03	0.01
3,200.0	7.99	271.05	3,186.4	74.4	11.0	-215.2	855,745.20	404,681.91	4.79	0.01
3,245.1	7.99	271.01	3,231.0	119.0	11.2	-221.4	855,738.93	404,682.03	5.13	0.01
<b>Tansil</b>										
3,300.0	7.99	270.97	3,285.4	173.4	11.3	-229.1	855,731.30	404,682.16	5.56	0.01
3,377.4	7.99	270.91	3,362.0	250.0	11.5	-239.8	855,720.54	404,682.34	6.18	0.01
<b>Yates</b>										
3,400.0	7.99	270.88	3,384.4	272.4	11.5	-243.0	855,717.39	404,682.38	6.36	0.02
3,500.0	7.99	270.79	3,483.4	371.4	11.7	-256.9	855,703.49	404,682.59	7.18	0.01
3,569.2	7.99	270.73	3,552.0	440.0	11.8	-266.5	855,693.86	404,682.71	7.76	0.01
<b>Seven Rivers</b>										
3,600.0	7.99	270.71	3,582.5	470.5	11.9	-270.8	855,689.58	404,682.77	8.02	0.01
3,700.0	7.99	270.62	3,681.5	569.5	12.1	-284.7	855,675.68	404,682.93	8.88	0.01
3,797.4	7.99	270.54	3,778.0	666.0	12.2	-298.2	855,662.13	404,683.07	9.74	0.01
<b>Queen</b>										
3,800.0	7.99	270.54	3,780.5	668.5	12.2	-298.6	855,661.77	404,683.07	9.76	0.00
3,900.0	7.99	270.45	3,879.6	767.6	12.3	-312.5	855,647.87	404,683.19	10.66	0.01
4,000.0	7.99	270.37	3,978.6	866.6	12.4	-326.4	855,633.97	404,683.29	11.58	0.01
4,100.0	7.99	270.28	4,077.6	965.6	12.5	-340.3	855,620.06	404,683.37	12.53	0.01



## Morcor Engineering

Morcor Standard Plan

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<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)	
4,177.1	7.99	270.21	4,154.0	1,042.0	12.5	-351.0	855,609.34	404,683.41	13.27	0.01	
Grayburg											
4,200.0	7.99	270.19	4,176.6	1,064.6	12.6	-354.2	855,606.16	404,683.43	13.49	0.01	
4,300.0	7.99	270.11	4,275.7	1,163.7	12.6	-368.1	855,592.26	404,683.46	14.47	0.01	
4,400.0	7.99	270.02	4,374.7	1,262.7	12.6	-382.0	855,578.36	404,683.48	15.48	0.01	
4,500.0	7.99	269.94	4,473.7	1,361.7	12.6	-395.9	855,564.46	404,683.47	16.50	0.01	
4,600.0	7.99	269.85	4,572.8	1,460.8	12.6	-409.8	855,550.55	404,683.45	17.55	0.01	
4,629.5	7.99	269.82	4,602.0	1,490.0	12.6	-413.9	855,546.45	404,683.44	17.86	0.01	
San Andres											
4,700.0	7.99	269.77	4,671.8	1,559.8	12.5	-423.7	855,536.65	404,683.40	18.62	0.01	
4,800.0	7.99	269.68	4,770.8	1,658.8	12.5	-437.6	855,522.75	404,683.33	19.71	0.01	
4,900.0	7.99	269.59	4,869.8	1,757.8	12.4	-451.5	855,508.85	404,683.25	20.81	0.01	
5,000.0	7.99	269.51	4,968.9	1,856.9	12.3	-465.4	855,494.95	404,683.14	21.94	0.01	
5,027.4	7.99	269.48	4,996.0	1,884.0	12.2	-469.2	855,491.14	404,683.10	22.26	0.01	
Delaware											
5,100.0	7.99	269.42	5,067.9	1,955.9	12.1	-479.3	855,481.05	404,683.01	23.09	0.01	
5,200.0	7.99	269.34	5,166.9	2,054.9	12.0	-493.2	855,467.15	404,682.86	24.27	0.01	
5,300.0	7.99	269.25	5,266.0	2,154.0	11.8	-507.1	855,453.25	404,682.69	25.46	0.01	
5,400.0	7.99	269.16	5,365.0	2,253.0	11.6	-521.0	855,439.35	404,682.49	26.67	0.01	
5,500.0	7.99	269.08	5,464.0	2,352.0	11.4	-534.9	855,425.46	404,682.28	27.90	0.01	
5,600.0	7.99	268.99	5,563.1	2,451.1	11.2	-548.8	855,411.56	404,682.05	29.16	0.01	
5,700.0	7.99	268.91	5,662.1	2,550.1	10.9	-562.7	855,397.66	404,681.79	30.43	0.01	
5,800.0	7.99	268.82	5,761.1	2,649.1	10.6	-576.6	855,383.76	404,681.52	31.73	0.01	
5,807.0	7.99	268.79	5,768.0	2,656.0	10.6	-577.6	855,382.79	404,681.50	31.82	0.06	
Cherry Canyon											
5,900.0	7.99	268.74	5,860.1	2,748.1	10.4	-590.5	855,369.86	404,681.22	33.04	0.01	
6,000.0	7.99	268.65	5,959.2	2,847.2	10.0	-604.4	855,355.97	404,680.90	34.38	0.01	



# **Morcor Engineering** Morcor Standard Plan

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<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

## **Planned Survey**

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
6,100.0	7.99	268.56	6,058.2	2,946.2	9.7	-618.3	855,342.07	404,680.57	35.74	0.01
6,200.0	7.99	268.48	6,157.2	3,045.2	9.3	-632.2	855,328.17	404,680.21	37.11	0.01
6,300.0	7.99	268.39	6,256.3	3,144.3	9.0	-646.1	855,314.28	404,679.83	38.51	0.01
6,400.0	7.99	268.31	6,355.3	3,243.3	8.6	-660.0	855,300.38	404,679.43	39.93	0.01
6,500.0	7.99	268.22	6,454.3	3,342.3	8.1	-673.9	855,286.49	404,679.01	41.37	0.01
6,600.0	7.99	268.14	6,553.3	3,441.3	7.7	-687.8	855,272.59	404,678.56	42.84	0.01
6,700.0	7.99	268.05	6,652.4	3,540.4	7.2	-701.7	855,258.70	404,678.10	44.32	0.01
6,800.0	7.99	267.96	6,751.4	3,639.4	6.7	-715.6	855,244.80	404,677.62	45.82	0.01
6,900.0	7.99	267.88	6,850.4	3,738.4	6.2	-729.5	855,230.91	404,677.11	47.34	0.01
7,000.0	7.99	267.79	6,949.5	3,837.5	5.7	-743.3	855,217.01	404,676.59	48.89	0.01
7,100.0	7.99	267.71	7,048.5	3,936.5	5.2	-757.2	855,203.12	404,676.04	50.45	0.01
7,200.0	7.99	267.62	7,147.5	4,035.5	4.6	-771.1	855,189.23	404,675.47	52.04	0.01
7,300.0	7.99	267.53	7,246.5	4,134.5	4.0	-785.0	855,175.33	404,674.89	53.64	0.01
7,334.8	7.99	267.50	7,281.0	4,169.0	3.8	-789.9	855,170.50	404,674.68	54.21	0.01
<b>Brushy Canyon</b>										
7,400.0	7.99	267.45	7,345.6	4,233.6	3.4	-798.9	855,161.44	404,674.28	55.27	0.01
7,500.0	7.99	267.36	7,444.6	4,332.6	2.8	-812.8	855,147.55	404,673.65	56.92	0.01
7,600.0	7.99	267.28	7,543.6	4,431.6	2.1	-826.7	855,133.66	404,673.00	58.59	0.01
7,700.0	7.99	267.19	7,642.7	4,530.7	1.5	-840.6	855,119.76	404,672.33	60.28	0.01
7,800.0	8.00	267.11	7,741.7	4,629.7	0.8	-854.5	855,105.87	404,671.64	61.99	0.01
7,900.0	8.00	267.02	7,840.7	4,728.7	0.1	-868.4	855,091.98	404,670.92	63.72	0.01
8,000.0	8.00	266.93	7,939.7	4,827.7	-0.7	-882.3	855,078.09	404,670.19	65.47	0.01
8,100.0	8.00	266.85	8,038.8	4,926.8	-1.4	-896.2	855,064.20	404,669.44	67.24	0.01
8,200.0	8.00	266.76	8,137.8	5,025.8	-2.2	-910.0	855,050.31	404,668.66	69.03	0.01
8,300.0	8.00	266.68	8,236.8	5,124.8	-3.0	-923.9	855,036.42	404,667.87	70.85	0.01
8,320.4	8.00	266.68	8,257.0	5,145.0	-3.2	-926.8	855,033.59	404,667.70	71.22	0.00
<b>Lower Brushy Canyon</b>										



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)	
8,367.5	8.00	266.62	8,303.7	5,191.7	-3.6	-933.3	855,027.05	404,667.32	72.08	0.02	
8,400.0	7.51	266.62	8,335.9	5,223.9	-3.8	-937.7	855,022.67	404,667.06	72.66	1.50	
8,500.0	6.01	266.62	8,435.2	5,323.2	-4.5	-949.4	855,010.92	404,666.36	74.22	1.50	
8,561.1	5.09	266.62	8,496.0	5,384.0	-4.9	-955.3	855,005.02	404,666.02	75.00	1.50	
Bone Spring											
8,600.0	4.51	266.62	8,534.7	5,422.7	-5.0	-958.6	855,001.77	404,665.82	75.43	1.50	
8,700.0	3.01	266.62	8,634.5	5,522.5	-5.4	-965.1	854,995.22	404,665.44	76.30	1.50	
8,800.0	1.51	266.62	8,734.5	5,622.5	-5.7	-969.1	854,991.28	404,665.20	76.82	1.50	
8,900.0	0.01	266.62	8,834.4	5,722.4	-5.7	-970.4	854,989.96	404,665.13	76.99	1.50	
8,900.7	0.00	0.00	8,835.1	5,723.1	-5.7	-970.4	854,989.96	404,665.13	76.99	1.50	
9,000.0	0.00	0.00	8,934.4	5,822.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,100.0	0.00	0.00	9,034.4	5,922.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,200.0	0.00	0.00	9,134.4	6,022.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,300.0	0.00	0.00	9,234.4	6,122.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,400.0	0.00	0.00	9,334.4	6,222.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,500.0	0.00	0.00	9,434.4	6,322.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,600.0	0.00	0.00	9,534.4	6,422.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,700.0	0.00	0.00	9,634.4	6,522.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,800.0	0.00	0.00	9,734.4	6,622.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
9,845.6	0.00	0.00	9,780.0	6,668.0	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
1st BS Sand											
9,900.0	0.00	0.00	9,834.4	6,722.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
10,000.0	0.00	0.00	9,934.4	6,822.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
10,100.0	0.00	0.00	10,034.4	6,922.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
10,200.0	0.00	0.00	10,134.4	7,022.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
10,253.6	0.00	0.00	10,188.0	7,076.0	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00	
2nd BS Sand											





## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
10,300.0	0.00	0.00	10,234.4	7,122.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
10,400.0	0.00	0.00	10,334.4	7,222.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
10,500.0	0.00	0.00	10,434.4	7,322.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
10,600.0	0.00	0.00	10,534.4	7,422.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
10,700.0	0.00	0.00	10,634.4	7,522.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
10,770.6	0.00	0.00	10,705.0	7,593.0	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
2nd BS Lime										
10,800.0	0.00	0.00	10,734.4	7,622.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
10,900.0	0.00	0.00	10,834.4	7,722.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,000.0	0.00	0.00	10,934.4	7,822.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,100.0	0.00	0.00	11,034.4	7,922.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,200.0	0.00	0.00	11,134.4	8,022.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,300.0	0.00	0.00	11,234.4	8,122.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,400.0	0.00	0.00	11,334.4	8,222.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,500.0	0.00	0.00	11,434.4	8,322.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,600.0	0.00	0.00	11,534.4	8,422.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,631.6	0.00	0.00	11,566.0	8,454.0	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
3rd BS Sand										
11,700.0	0.00	0.00	11,634.4	8,522.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,800.0	0.00	0.00	11,734.4	8,622.4	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,860.6	0.00	0.00	11,795.0	8,683.0	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
Wolfcamp										
11,867.8	0.00	0.00	11,802.2	8,690.2	-5.7	-970.4	854,989.96	404,665.13	76.99	0.00
11,900.0	3.22	172.00	11,834.4	8,722.4	-6.6	-970.3	854,990.08	404,664.23	77.88	10.00
12,000.0	13.22	172.00	11,933.3	8,821.3	-20.8	-968.3	854,992.07	404,650.09	91.84	10.00
12,100.0	23.22	172.00	12,028.1	8,916.1	-51.7	-963.9	854,996.42	404,619.16	122.36	10.00
12,200.0	33.22	172.00	12,116.1	9,004.1	-98.5	-957.4	855,002.99	404,572.39	168.52	10.00



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

## Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
12,300.0	43.22	172.00	12,194.6	9,082.6	-159.7	-948.8	855,011.59	404,511.20	228.91	10.00
12,400.0	53.22	172.00	12,261.1	9,149.1	-233.4	-938.4	855,021.96	404,437.45	301.70	10.00
12,500.0	63.22	172.00	12,313.7	9,201.7	-317.5	-926.6	855,033.77	404,353.38	384.68	10.00
12,557.4	68.96	172.00	12,337.0	9,225.0	-369.5	-919.3	855,041.08	404,301.41	435.97	10.00
<b>Wolfcamp B</b>										
12,600.0	73.22	172.00	12,350.8	9,238.8	-409.3	-913.7	855,046.68	404,261.54	475.33	10.00
12,700.0	83.22	172.00	12,371.2	9,259.2	-506.2	-900.1	855,060.29	404,164.72	570.89	10.00
12,759.2	89.14	172.00	12,375.1	9,263.1	-564.6	-891.9	855,068.50	404,106.26	628.58	10.00
12,800.0	89.14	172.82	12,375.7	9,263.7	-605.1	-886.5	855,073.89	404,065.81	668.52	2.00
12,900.0	89.14	174.82	12,377.2	9,265.2	-704.5	-875.7	855,084.66	403,966.41	766.87	2.00
13,000.0	89.14	176.82	12,378.7	9,266.7	-804.2	-868.4	855,091.96	403,866.69	865.78	2.00
13,100.0	89.14	178.82	12,380.3	9,268.3	-904.1	-864.6	855,095.76	403,766.78	965.14	2.00
13,132.2	89.14	179.46	12,380.7	9,268.7	-936.3	-864.1	855,096.25	403,734.56	997.24	2.00
13,200.0	89.14	179.46	12,381.8	9,269.8	-1,004.1	-863.5	855,096.89	403,666.80	1,064.77	0.00
13,300.0	89.14	179.46	12,383.3	9,271.3	-1,104.1	-862.5	855,097.83	403,566.82	1,164.42	0.00
13,400.0	89.14	179.46	12,384.8	9,272.8	-1,204.0	-861.6	855,098.76	403,466.83	1,264.06	0.00
13,500.0	89.14	179.46	12,386.3	9,274.3	-1,304.0	-860.7	855,099.70	403,366.85	1,363.71	0.00
13,600.0	89.14	179.46	12,387.8	9,275.8	-1,404.0	-859.7	855,100.64	403,266.86	1,463.35	0.00
13,700.0	89.14	179.46	12,389.3	9,277.3	-1,504.0	-858.8	855,101.58	403,166.88	1,563.00	0.00
13,800.0	89.14	179.46	12,390.8	9,278.8	-1,604.0	-857.8	855,102.52	403,066.89	1,662.64	0.00
13,900.0	89.14	179.46	12,392.3	9,280.3	-1,704.0	-856.9	855,103.46	402,966.91	1,762.29	0.00
14,000.0	89.14	179.46	12,393.8	9,281.8	-1,803.9	-856.0	855,104.40	402,866.93	1,861.93	0.00
14,100.0	89.14	179.46	12,395.3	9,283.3	-1,903.9	-855.0	855,105.34	402,766.94	1,961.58	0.00
14,200.0	89.14	179.46	12,396.8	9,284.8	-2,003.9	-854.1	855,106.28	402,666.96	2,061.22	0.00
14,300.0	89.14	179.46	12,398.3	9,286.3	-2,103.9	-853.1	855,107.22	402,566.97	2,160.87	0.00
14,400.0	89.14	179.46	12,399.8	9,287.8	-2,203.9	-852.2	855,108.16	402,466.99	2,260.51	0.00
14,500.0	89.14	179.46	12,401.4	9,289.4	-2,303.9	-851.3	855,109.10	402,367.00	2,360.16	0.00



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

## Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
14,600.0	89.14	179.46	12,402.9	9,290.9	-2,403.8	-850.3	855,110.04	402,267.02	2,459.80	0.00
14,700.0	89.14	179.46	12,404.4	9,292.4	-2,503.8	-849.4	855,110.98	402,167.04	2,559.45	0.00
14,800.0	89.14	179.46	12,405.9	9,293.9	-2,603.8	-848.4	855,111.92	402,067.05	2,659.09	0.00
14,900.0	89.14	179.46	12,407.4	9,295.4	-2,703.8	-847.5	855,112.86	401,967.07	2,758.74	0.00
15,000.0	89.14	179.46	12,408.9	9,296.9	-2,803.8	-846.6	855,113.79	401,867.08	2,858.39	0.00
15,100.0	89.14	179.46	12,410.4	9,298.4	-2,903.8	-845.6	855,114.73	401,767.10	2,958.03	0.00
15,200.0	89.14	179.46	12,411.9	9,299.9	-3,003.8	-844.7	855,115.67	401,667.12	3,057.68	0.00
15,300.0	89.14	179.46	12,413.4	9,301.4	-3,103.7	-843.7	855,116.61	401,567.13	3,157.32	0.00
15,400.0	89.14	179.46	12,414.9	9,302.9	-3,203.7	-842.8	855,117.55	401,467.15	3,256.97	0.00
15,500.0	89.14	179.46	12,416.4	9,304.4	-3,303.7	-841.9	855,118.49	401,367.16	3,356.61	0.00
15,600.0	89.14	179.46	12,417.9	9,305.9	-3,403.7	-840.9	855,119.43	401,267.18	3,456.26	0.00
15,700.0	89.14	179.46	12,419.4	9,307.4	-3,503.7	-840.0	855,120.37	401,167.19	3,555.90	0.00
15,800.0	89.14	179.46	12,421.0	9,309.0	-3,603.7	-839.1	855,121.31	401,067.21	3,655.55	0.00
15,900.0	89.14	179.46	12,422.5	9,310.5	-3,703.6	-838.1	855,122.25	400,967.23	3,755.19	0.00
16,000.0	89.14	179.46	12,424.0	9,312.0	-3,803.6	-837.2	855,123.19	400,867.24	3,854.84	0.00
16,100.0	89.14	179.46	12,425.5	9,313.5	-3,903.6	-836.2	855,124.13	400,767.26	3,954.48	0.00
16,200.0	89.14	179.46	12,427.0	9,315.0	-4,003.6	-835.3	855,125.07	400,667.27	4,054.13	0.00
16,300.0	89.14	179.46	12,428.5	9,316.5	-4,103.6	-834.4	855,126.01	400,567.29	4,153.77	0.00
16,400.0	89.14	179.46	12,430.0	9,318.0	-4,203.6	-833.4	855,126.95	400,467.30	4,253.42	0.00
16,500.0	89.14	179.46	12,431.5	9,319.5	-4,303.5	-832.5	855,127.89	400,367.32	4,353.06	0.00
16,600.0	89.14	179.46	12,433.0	9,321.0	-4,403.5	-831.5	855,128.82	400,267.34	4,452.71	0.00
16,700.0	89.14	179.46	12,434.5	9,322.5	-4,503.5	-830.6	855,129.76	400,167.35	4,552.35	0.00
16,800.0	89.14	179.46	12,436.0	9,324.0	-4,603.5	-829.7	855,130.70	400,067.37	4,652.00	0.00
16,900.0	89.14	179.46	12,437.5	9,325.5	-4,703.5	-828.7	855,131.64	399,967.38	4,751.65	0.00
17,000.0	89.14	179.46	12,439.0	9,327.0	-4,803.5	-827.8	855,132.58	399,867.40	4,851.29	0.00
17,100.0	89.14	179.46	12,440.5	9,328.5	-4,903.5	-826.8	855,133.52	399,767.42	4,950.94	0.00
17,200.0	89.14	179.46	12,442.1	9,330.1	-5,003.4	-825.9	855,134.46	399,667.43	5,050.58	0.00



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
17,300.0	89.14	179.46	12,443.6	9,331.6	-5,103.4	-825.0	855,135.40	399,567.45	5,150.23	0.00
17,400.0	89.14	179.46	12,445.1	9,333.1	-5,203.4	-824.0	855,136.34	399,467.46	5,249.87	0.00
17,500.0	89.14	179.46	12,446.6	9,334.6	-5,303.4	-823.1	855,137.28	399,367.48	5,349.52	0.00
17,600.0	89.14	179.46	12,448.1	9,336.1	-5,403.4	-822.1	855,138.22	399,267.49	5,449.16	0.00
17,700.0	89.14	179.46	12,449.6	9,337.6	-5,503.4	-821.2	855,139.16	399,167.51	5,548.81	0.00
17,800.0	89.14	179.46	12,451.1	9,339.1	-5,603.3	-820.3	855,140.10	399,067.53	5,648.45	0.00
17,900.0	89.14	179.46	12,452.6	9,340.6	-5,703.3	-819.3	855,141.04	398,967.54	5,748.10	0.00
18,000.0	89.14	179.46	12,454.1	9,342.1	-5,803.3	-818.4	855,141.98	398,867.56	5,847.74	0.00
18,100.0	89.14	179.46	12,455.6	9,343.6	-5,903.3	-817.4	855,142.92	398,767.57	5,947.39	0.00
18,200.0	89.14	179.46	12,457.1	9,345.1	-6,003.3	-816.5	855,143.86	398,667.59	6,047.03	0.00
18,300.0	89.14	179.46	12,458.6	9,346.6	-6,103.3	-815.6	855,144.79	398,567.60	6,146.68	0.00
18,400.0	89.14	179.46	12,460.1	9,348.1	-6,203.2	-814.6	855,145.73	398,467.62	6,246.32	0.00
18,500.0	89.14	179.46	12,461.7	9,349.7	-6,303.2	-813.7	855,146.67	398,367.64	6,345.97	0.00
18,600.0	89.14	179.46	12,463.2	9,351.2	-6,403.2	-812.7	855,147.61	398,267.65	6,445.61	0.00
18,700.0	89.14	179.46	12,464.7	9,352.7	-6,503.2	-811.8	855,148.55	398,167.67	6,545.26	0.00
18,800.0	89.14	179.46	12,466.2	9,354.2	-6,603.2	-810.9	855,149.49	398,067.68	6,644.91	0.00
18,900.0	89.14	179.46	12,467.7	9,355.7	-6,703.2	-809.9	855,150.43	397,967.70	6,744.55	0.00
19,000.0	89.14	179.46	12,469.2	9,357.2	-6,803.2	-809.0	855,151.37	397,867.71	6,844.20	0.00
19,100.0	89.14	179.46	12,470.7	9,358.7	-6,903.1	-808.1	855,152.31	397,767.73	6,943.84	0.00
19,200.0	89.14	179.46	12,472.2	9,360.2	-7,003.1	-807.1	855,153.25	397,667.75	7,043.49	0.00
19,300.0	89.14	179.46	12,473.7	9,361.7	-7,103.1	-806.2	855,154.19	397,567.76	7,143.13	0.00
19,400.0	89.14	179.46	12,475.2	9,363.2	-7,203.1	-805.2	855,155.13	397,467.78	7,242.78	0.00
19,500.0	89.14	179.46	12,476.7	9,364.7	-7,303.1	-804.3	855,156.07	397,367.79	7,342.42	0.00
19,600.0	89.14	179.46	12,478.2	9,366.2	-7,403.1	-803.4	855,157.01	397,267.81	7,442.07	0.00
19,700.0	89.14	179.46	12,479.7	9,367.7	-7,503.0	-802.4	855,157.95	397,167.83	7,541.71	0.00
19,800.0	89.14	179.46	12,481.2	9,369.2	-7,603.0	-801.5	855,158.89	397,067.84	7,641.36	0.00
19,900.0	89.14	179.46	12,482.8	9,370.8	-7,703.0	-800.5	855,159.82	396,967.86	7,741.00	0.00



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
20,000.0	89.14	179.46	12,484.3	9,372.3	-7,803.0	-799.6	855,160.76	396,867.87	7,840.65	0.00
20,100.0	89.14	179.46	12,485.8	9,373.8	-7,903.0	-798.7	855,161.70	396,767.89	7,940.29	0.00
20,200.0	89.14	179.46	12,487.3	9,375.3	-8,003.0	-797.7	855,162.64	396,667.90	8,039.94	0.00
20,300.0	89.14	179.46	12,488.8	9,376.8	-8,103.0	-796.8	855,163.58	396,567.92	8,139.58	0.00
20,400.0	89.14	179.46	12,490.3	9,378.3	-8,202.9	-795.8	855,164.52	396,467.94	8,239.23	0.00
20,500.0	89.14	179.46	12,491.8	9,379.8	-8,302.9	-794.9	855,165.46	396,367.95	8,338.87	0.00
20,600.0	89.14	179.46	12,493.3	9,381.3	-8,402.9	-794.0	855,166.40	396,267.97	8,438.52	0.00
20,700.0	89.14	179.46	12,494.8	9,382.8	-8,502.9	-793.0	855,167.34	396,167.98	8,538.17	0.00
20,800.0	89.14	179.46	12,496.3	9,384.3	-8,602.9	-792.1	855,168.28	396,068.00	8,637.81	0.00
20,900.0	89.14	179.46	12,497.8	9,385.8	-8,702.9	-791.1	855,169.22	395,968.01	8,737.46	0.00
21,000.0	89.14	179.46	12,499.3	9,387.3	-8,802.8	-790.2	855,170.16	395,868.03	8,837.10	0.00
21,100.0	89.14	179.46	12,500.8	9,388.8	-8,902.8	-789.3	855,171.10	395,768.05	8,936.75	0.00
21,200.0	89.14	179.46	12,502.4	9,390.4	-9,002.8	-788.3	855,172.04	395,668.06	9,036.39	0.00
21,300.0	89.14	179.46	12,503.9	9,391.9	-9,102.8	-787.4	855,172.98	395,568.08	9,136.04	0.00
21,400.0	89.14	179.46	12,505.4	9,393.4	-9,202.8	-786.4	855,173.92	395,468.09	9,235.68	0.00
21,500.0	89.14	179.46	12,506.9	9,394.9	-9,302.8	-785.5	855,174.86	395,368.11	9,335.33	0.00
21,600.0	89.14	179.46	12,508.4	9,396.4	-9,402.7	-784.6	855,175.79	395,268.12	9,434.97	0.00
21,700.0	89.14	179.46	12,509.9	9,397.9	-9,502.7	-783.6	855,176.73	395,168.14	9,534.62	0.00
21,800.0	89.14	179.46	12,511.4	9,399.4	-9,602.7	-782.7	855,177.67	395,068.16	9,634.26	0.00
21,900.0	89.14	179.46	12,512.9	9,400.9	-9,702.7	-781.7	855,178.61	394,968.17	9,733.91	0.00
22,000.0	89.14	179.46	12,514.4	9,402.4	-9,802.7	-780.8	855,179.55	394,868.19	9,833.55	0.00
22,100.0	89.14	179.46	12,515.9	9,403.9	-9,902.7	-779.9	855,180.49	394,768.20	9,933.20	0.00
22,200.0	89.14	179.46	12,517.4	9,405.4	-10,002.7	-778.9	855,181.43	394,668.22	10,032.84	0.00
22,300.0	89.14	179.46	12,518.9	9,406.9	-10,102.6	-778.0	855,182.37	394,568.24	10,132.49	0.00
22,400.0	89.14	179.46	12,520.4	9,408.4	-10,202.6	-777.1	855,183.31	394,468.25	10,232.13	0.00
22,500.0	89.14	179.46	12,521.9	9,409.9	-10,302.6	-776.1	855,184.25	394,368.27	10,331.78	0.00
22,600.0	89.14	179.46	12,523.5	9,411.5	-10,402.6	-775.2	855,185.19	394,268.28	10,431.43	0.00



## Morcor Engineering

Morcor Standard Plan

<b>Company:</b>	Caza Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Sioux 25-36 State Fed Com 20H
<b>Project:</b>	Sioux 25-36 State Fed Com 20H	<b>TVD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Site:</b>	Sioux 25-36 State Fed Com 20H	<b>MD Reference:</b>	WELL @ 3112.0usft (Original Well Elev)
<b>Well:</b>	Sioux 25-36 State Fed Com 20H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Sioux 25-36 State Fed Com 20H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Sioux 25-36 State Fed Com 20H	<b>Database:</b>	EDM 5000.1 Single User Db

## Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
22,700.0	89.14	179.46	12,525.0	9,413.0	-10,502.6	-774.2	855,186.13	394,168.30	10,531.07	0.00
22,710.4	89.14	179.46	12,525.1	9,413.1	-10,513.0	-774.1	855,186.23	394,157.91	10,541.42	0.00

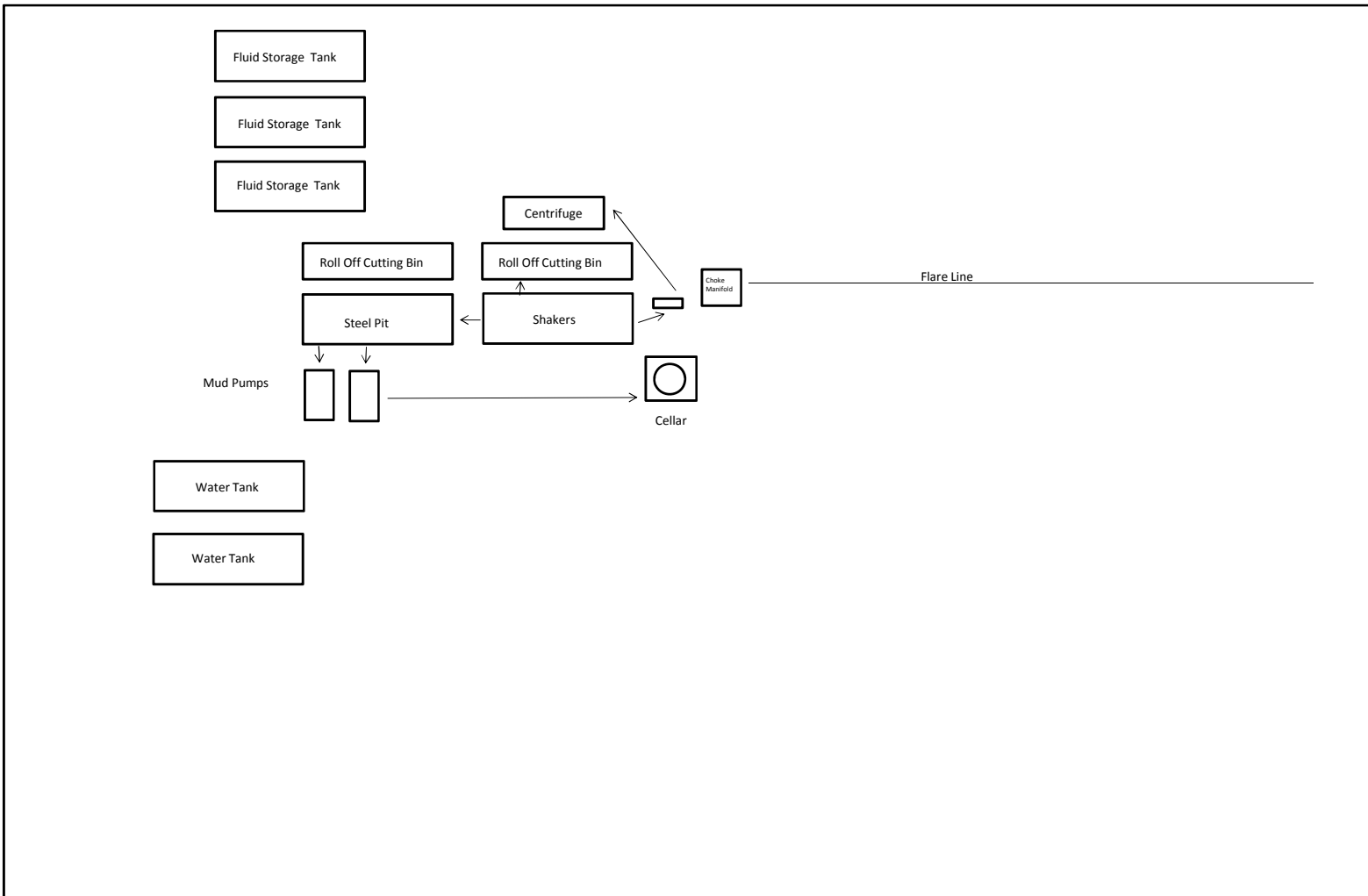
## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,334.8	7,281.0	Brushy Canyon		0.00	
5,027.4	4,996.0	Delaware		0.00	
3,569.2	3,552.0	Seven Rivers		0.00	
8,561.1	8,496.0	Bone Spring		0.00	
3,245.1	3,231.0	Tansil		0.00	
11,631.6	11,566.0	3rd BS Sand		0.00	
12,557.4	12,337.0	Wolfcamp B		0.00	
5,807.0	5,768.0	Cherry Canyon		0.00	
10,253.6	10,188.0	2nd BS Sand		0.00	
4,177.1	4,154.0	Grayburg		0.00	
3,797.4	3,778.0	Queen		0.00	
8,320.4	8,257.0	Lower Brushy Canyon		0.00	
10,770.6	10,705.0	2nd BS Lime		0.00	
11,860.6	11,795.0	Wolfcamp		0.00	
909.0	909.0	Rustler		0.00	
4,629.5	4,602.0	San Andres		0.00	
9,845.6	9,780.0	1st BS Sand		0.00	
3,377.4	3,362.0	Yates		0.00	
1,337.0	1,337.0	Top of Salt		0.00	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



## Closed Loop Diagram Design Plan



## Design Plan, Operating Plan and Maintenance Plan, and Closure Plan for the OCD form C-144

### **Design Plan:**

Fluid and cuttings coming from drilling operations will pass over the shale shaker with the cuttings going to the haul off bin and the cleaned fluid returning to the working steel pits.

### **Equipment Includes:**

- 1-670bbl steel working pit
- 2-100bbl steel working suction pits
- 2-500bbl steel tanks
- 2-20yd<sup>3</sup> steel haul off bins
- 2-pumps (HHF-1600)
- 2-Shale shakers
- 1-Centrifuge
- 1-Desilter/Desander

### **Operating and Maintenance Plan:**

Inspection to occur every tour for proper operation of system and individual components. If any problems are found they will be repaired and/or corrected immediately.

### **Closure Plan:**

All haul off bins containing cuttings will be removed from location and hauled to R-360 (NM-01-0006) disposal site located 30 miles east of Carlsbad.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Original  
to Appropriate  
District Office

## GAS CAPTURE PLAN

Date: 8/8/2020

☒ Original

Operator & OGRID No.: 249099

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Sioux 25-36 State Fed Com 20H		B-25-25S-35E	73'FNL 1389'FEL	1000	flared	

### Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Versado and will be connected to Versado low/high pressure gathering system located in Lea County, New Mexico. It will require 1000' of pipeline to connect the facility to low/high pressure gathering system. Caza provides (periodically) to Versado a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Caza and Versado have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Versado Processing Plant located in Sec.29, Twn.21S, Rng.37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Versado system at that time. Based on current information, it is Caza's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

**United States Department of the Interior**  
**Bureau of Land Management**  
CARLSBAD FIELD OFFICE  
620 E. GREENE  
CARLSBAD, NM 88220 -6292  
Phone: (575) 234-5972

Receipt

No: 4849809

<b>Transaction #:</b> 4978154	
<b>Date of Transaction:</b> 12/10/2020	
CUSTOMER:	
	CAZA OPERATING LLC 200 N LORAIN ST STE 1550 MIDLAND, TX 79701-4765 US

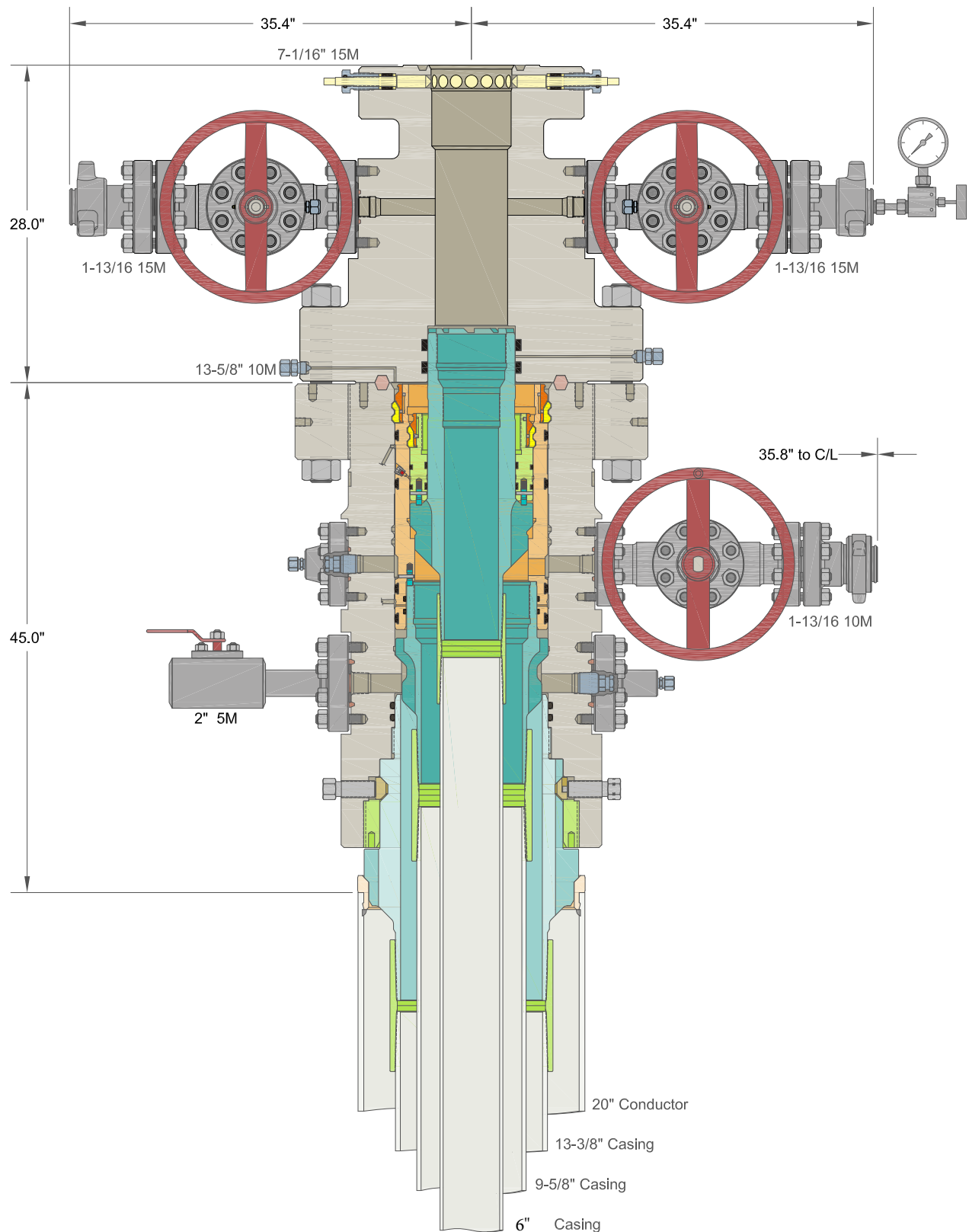
LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIoux 25-36 STATE FED COM 14H	- n/a -	7770.00
2	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIoux 25-36 STATE FED COM 14H	- n/a -	2590.00
3	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIoux 25-36 STATE FED COM 15H	- n/a -	7770.00
4	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIoux 25-36 STATE FED COM 15H	- n/a -	2590.00
5	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIoux 25-36 STATE FED COM 16H	- n/a -	7770.00
6	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIoux 25-36 STATE FED COM 16H	- n/a -	2590.00
7	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIoux 25-36 STATE FED COM 17H	- n/a -	7770.00
8	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIoux 25-36 STATE FED COM 17H	- n/a -	2590.00
9	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIoux 25-36 STATE FED COM 20H	- n/a -	7770.00
		OIL & GAS / APPLICATION FOR	SIoux 25-36		

10	1.00	PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	STATE FED COM 20H	- n/a -	2590.00
11	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIOUX 25-36 STATE FED COM 21H	- n/a -	7770.00
12	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIOUX 25-36 STATE FED COM 21H	- n/a -	2590.00
13	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIOUX 25-36 STATE FED COM 22H	- n/a -	7770.00
14	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIOUX 25-36 STATE FED COM 22H	- n/a -	2590.00
15	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE	SIOUX 25-36 STATE FED COM 23H	- n/a -	7770.00
16	1.00	OIL & GAS / APPLICATION FOR PERMIT TO DRILL (APD) / APD FEE - BW ALLOCATION	SIOUX 25-36 STATE FED COM 23H	- n/a -	2590.00
<b>TOTAL:</b>					<b>\$82,880.00</b>

PAYMENT INFORMATION				
1	AMOUNT:	82880.00	POSTMARKED:	12/10/2020
	TYPE:	CHECK	RECEIVED:	12/10/2020
	CHECK NO:	55193		
	NAME:	CAZA OPERATING LLC 200 N LORAIN ST STE 1550 MIDLAND TX 79701-4765 US		

REMARKS

This receipt was generated by the automated BLM Collections and Billing System and is a paper representation of a portion of the official electronic record contained therein.



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

## CACTUS WELLHEAD LLC

CAZA PETROLEUM  
PERMIAN BASIN

13-3/8" x 9-5/8" x 6" MBU-3T-CFL-R-DBLO Wellhead System  
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head  
And 13-3/8", 9-5/8" & 5-1/2" Mandrel Casing Hangers

DRAWN	DLE	25SEP19
APPRV		
DRAWING NO.		ODE0003135





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# SUPO Data Report

09/22/2021

APD ID: 10400066300

Submission Date: 05/18/2021

Highlighted data  
reflects the most  
recent changes

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Existing\_Road\_Map\_20210104070003.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

### ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

## Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_1\_Mile\_Radius\_20210104070031.pdf

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H

## Section 4 - Location of Existing and/or Proposed Production Facilities

**Submit or defer a Proposed Production Facilities plan?** SUBMIT**Production Facilities description:** Central tank battery previously approved. Tankage will be added as needed. Each well will have a 3 phase metered separator and FWKO.**Production Facilities map:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_SIOUX\_CENTRAL\_TANK\_BATTERY\_20210104070053.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source type:** GW WELL**Water source use type:**  
SURFACE CASING  
STIMULATION  
INTERMEDIATE/PRODUCTION  
CASING**Source latitude:** 32.107143**Source longitude:** -103.30588**Source datum:** NAD83**Water source permit type:** PRIVATE CONTRACT**Water source transport method:** TRUCKING**Source land ownership:** PRIVATE**Source transportation land ownership:** PRIVATE**Water source volume (barrels):** 400000**Source volume (acre-feet):** 51.55723853**Source volume (gal):** 16800000**Water source and transportation map:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Water\_Supply\_and\_Caliche\_Map\_20210104070219.pdf

**Water source comments:** S30 T25S R36E NENW**New water well?** N

### New Water Well Info

**Well latitude:****Well Longitude:****Well datum:**

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Well target aquifer:****Est. depth to top of aquifer(ft):****Est thickness of aquifer:****Aquifer comments:****Aquifer documentation:****Well depth (ft):****Well casing type:****Well casing outside diameter (in.):****Well casing inside diameter (in.):****New water well casing?****Used casing source:****Drilling method:****Drill material:****Grout material:****Grout depth:****Casing length (ft.):****Casing top depth (ft.):****Well Production type:****Completion Method:****Water well additional information:****State appropriation permit:****Additional information attachment:**

## Section 6 - Construction Materials

**Using any construction materials:** NO**Construction Materials description:****Construction Materials source location attachment:**

## Section 7 - Methods for Handling Waste

**Waste type:** DRILLING**Waste content description:** drill cuttings**Amount of waste:** 1163460 pounds**Waste disposal frequency :** Daily**Safe containment description:** roll off bins**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY**Disposal location ownership:** PRIVATE**Disposal type description:****Disposal location description:** R360 State approved commercial facility**Waste type:** SEWAGE**Waste content description:** onsite housing sewage**Amount of waste:** 300 gallons**Waste disposal frequency :** Daily

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Safe containment description:** closed septic system**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY**Disposal location ownership:** STATE**Disposal type description:****Disposal location description:** Hobbs Waste Water Management**Waste type:** GARBAGE**Waste content description:** onsite housing trash**Amount of waste:** 100 pounds**Waste disposal frequency :** Daily**Safe containment description:** steel trash trailer**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY**Disposal location ownership:** OTHER**Disposal type description:****Disposal location description:** Eunice landfill

### Reserve Pit

**Reserve Pit being used?** NO**Temporary disposal of produced water into reserve pit?** NO**Reserve pit length (ft.)****Reserve pit width (ft.)****Reserve pit depth (ft.)****Reserve pit volume (cu. yd.)****Is at least 50% of the reserve pit in cut?****Reserve pit liner****Reserve pit liner specifications and installation description**

### Cuttings Area

**Cuttings Area being used?** NO**Are you storing cuttings on location?** N**Description of cuttings location****Cuttings area length (ft.)****Cuttings area width (ft.)****Cuttings area depth (ft.)****Cuttings area volume (cu. yd.)****Is at least 50% of the cuttings area in cut?**

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**WCuttings area liner****Cuttings area liner specifications and installation description**

## Section 8 - Ancillary Facilities

**Are you requesting any Ancillary Facilities?:** N**Ancillary Facilities attachment:****Comments:**

## Section 9 - Well Site Layout

**Well Site Layout Diagram:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Well\_Location\_Plat\_20210104070609.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Well\_Pad\_Plat\_20210104070610.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_\_Location\_Map\_20210104070703.pdf

**Comments:**

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** No New Surface Disturbance **Multiple Well Pad Name:** Sioux 25-36 State Fed Com**Multiple Well Pad Number:** 8H**Recontouring attachment:****Drainage/Erosion control construction:** Per BLM instructions as identified during onsite**Drainage/Erosion control reclamation:** Per BLM instructions as identified during onsite**Well pad proposed disturbance (acres):****Road proposed disturbance (acres):****Powerline proposed disturbance (acres):****Pipeline proposed disturbance (acres):****Other proposed disturbance (acres):****Total proposed disturbance:** 0**Well pad interim reclamation (acres):** 0**Road interim reclamation (acres):** 0**Powerline interim reclamation (acres):** 0**Pipeline interim reclamation (acres):** 0**Other interim reclamation (acres):** 0**Total interim reclamation:** 0**Well pad long term disturbance (acres):** 0**Road long term disturbance (acres):** 0**Powerline long term disturbance (acres):** 0**Pipeline long term disturbance (acres):** 0**Other long term disturbance (acres):** 0**Total long term disturbance:** 0**Disturbance Comments:****Reconstruction method:** Interim reclamation as identified during onsite**Topsoil redistribution:** Interim reclamation as identified during onsite

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Soil treatment:** Interim reclamation as identified during onsite**Existing Vegetation at the well pad:** Sage brush and native grasses**Existing Vegetation at the well pad attachment:****Existing Vegetation Community at the road:** Sage brush and native grasses**Existing Vegetation Community at the road attachment:****Existing Vegetation Community at the pipeline:** Sage brush and native grasses**Existing Vegetation Community at the pipeline attachment:****Existing Vegetation Community at other disturbances:** Sage brush and native grasses**Existing Vegetation Community at other disturbances attachment:****Non native seed used?** N**Non native seed description:****Seedling transplant description:****Will seedlings be transplanted for this project?** N**Seedling transplant description attachment:****Will seed be harvested for use in site reclamation?** N**Seed harvest description:****Seed harvest description attachment:****Seed Management****Seed Table****Seed Summary****Total pounds/Acre:****Seed Type****Pounds/Acre****Seed reclamation attachment:****Operator Contact/Responsible Official Contact Info****First Name:** STEVE**Last Name:** MORRIS**Phone:** (985)415-9729**Email:** steve.morris@morcorengineering.com

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Seedbed prep:** Harrow**Seed BMP:** As identified during onsite**Seed method:** Broadcast followed by a drag chain**Existing invasive species?** N**Existing invasive species treatment description:****Existing invasive species treatment attachment:****Weed treatment plan description:** Spray for cheat grass**Weed treatment plan attachment:****Monitoring plan description:** Visual inspection in spring and late fall**Monitoring plan attachment:****Success standards:** 80% coverage by 2nd growing season of native species with less than 5% invasive species**Pit closure description:** no pits**Pit closure attachment:**

## Section 11 - Surface Ownership

**Disturbance type:** WELL PAD**Describe:****Surface Owner:** PRIVATE OWNERSHIP**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:****Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:**



**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Fee Owner:** Fee Owner Depercated**Fee Owner Address:****Phone:** (999)999-9999**Email:** none@aol.com**Surface use plan certification:** YES**Surface use plan certification document:**

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Surface\_use\_plan\_of\_operations\_certification\_signed\_20210104072942.pdf

**Surface access agreement or bond:** AGREEMENT**Surface Access Agreement Need description:** Fee per well drilled**Surface Access Bond BLM or Forest Service:****BLM Surface Access Bond number:****USFS Surface access bond number:**

## Section 12 - Other Information

**Right of Way needed?** N**Use APD as ROW?****ROW Type(s):**

### ROW Applications

**SUPO Additional Information:****Use a previously conducted onsite?** Y**Previous Onsite information:** Sioux 25-36 State Fed Com 8H

### Other SUPO Attachment

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Closed\_Loop\_Diagram\_Design\_Plan\_20210104073054.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Gas\_Capture\_Plan\_20210104073054.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Closed\_Loop\_Design\_Operating\_and\_Closure\_Plan\_20210104073054.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Location\_Map\_20210104073055.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Vicinity\_Map\_20210104073055.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_Location\_Verification\_Map\_20210104073057.pdf

Sioux\_25\_36\_State\_Fed\_Com\_20H\_\_IR\_Plat\_20210104073057.pdf



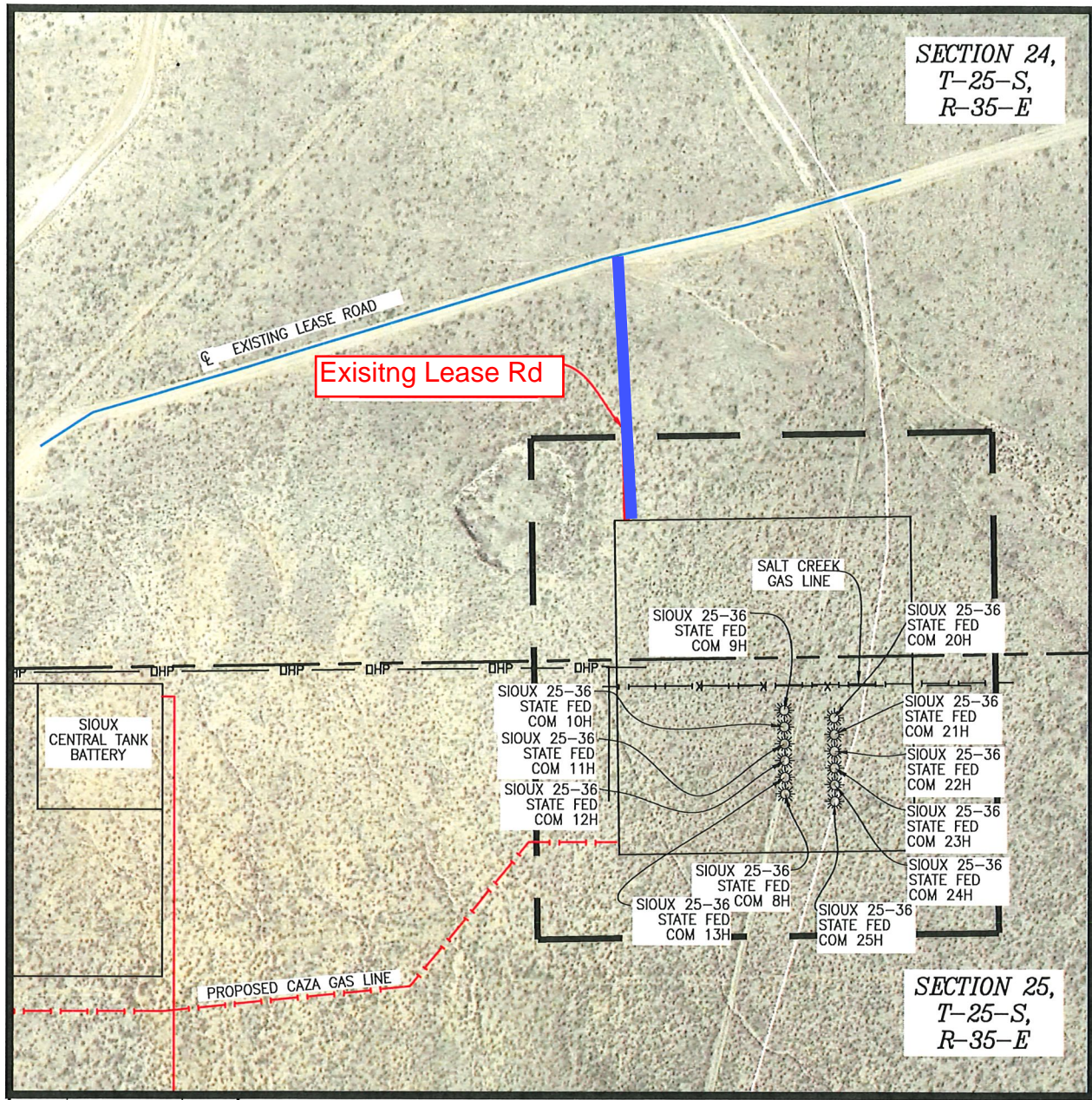
Page 91 of 114

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Released to Imaging: 7/28/2022 3:05:31 PM

# EXISTING ACCESS ROADS

SIoux 25-36 STATE FED COM  
SEC. 24 & 25 TWP. 25-S RGE. 35-E  
SURVEY: N.M.P.M.  
COUNTY: LEA  
OPERATOR: CAZA OPERATING, LLC  
U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, N.M.



REV 3 01/20/2020 JMT

## LEGEND

SCALE: 1" = 200'

- |                     |           |                   |               |
|---------------------|-----------|-------------------|---------------|
| PROPOSED WELL PAD   | —————     | EXISTING ROAD     | — — — — —     |
| ARCH SURVEY LIMITS  | — — — — — | PROPOSED PIPELINE | —————         |
| EXISTING LEASE ROAD | —————     | EXISTING PIPELINE | - - - - -     |
| PROPOSED LEASE ROAD | —————     | FENCE             | — x — x —     |
| SECTION LINE        | — — — — — | OVERHEAD POWER    | — DHP — DHP — |
| PROPERTY LINE       | — — — — — | WELLS             | •             |

SHEET 1 OF 7

PREPARED BY:  
R-SQUARED GLOBAL, LLC  
1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-6900 OFFICE  
JOB No. R4012\_003



# ONE-MILE RADIUS MAP

SIOUX 25-36 STATE FED COM

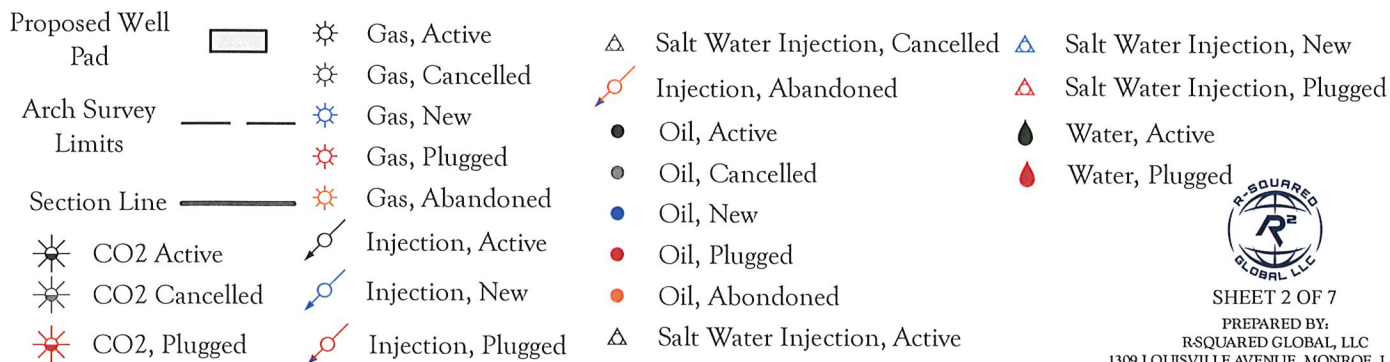
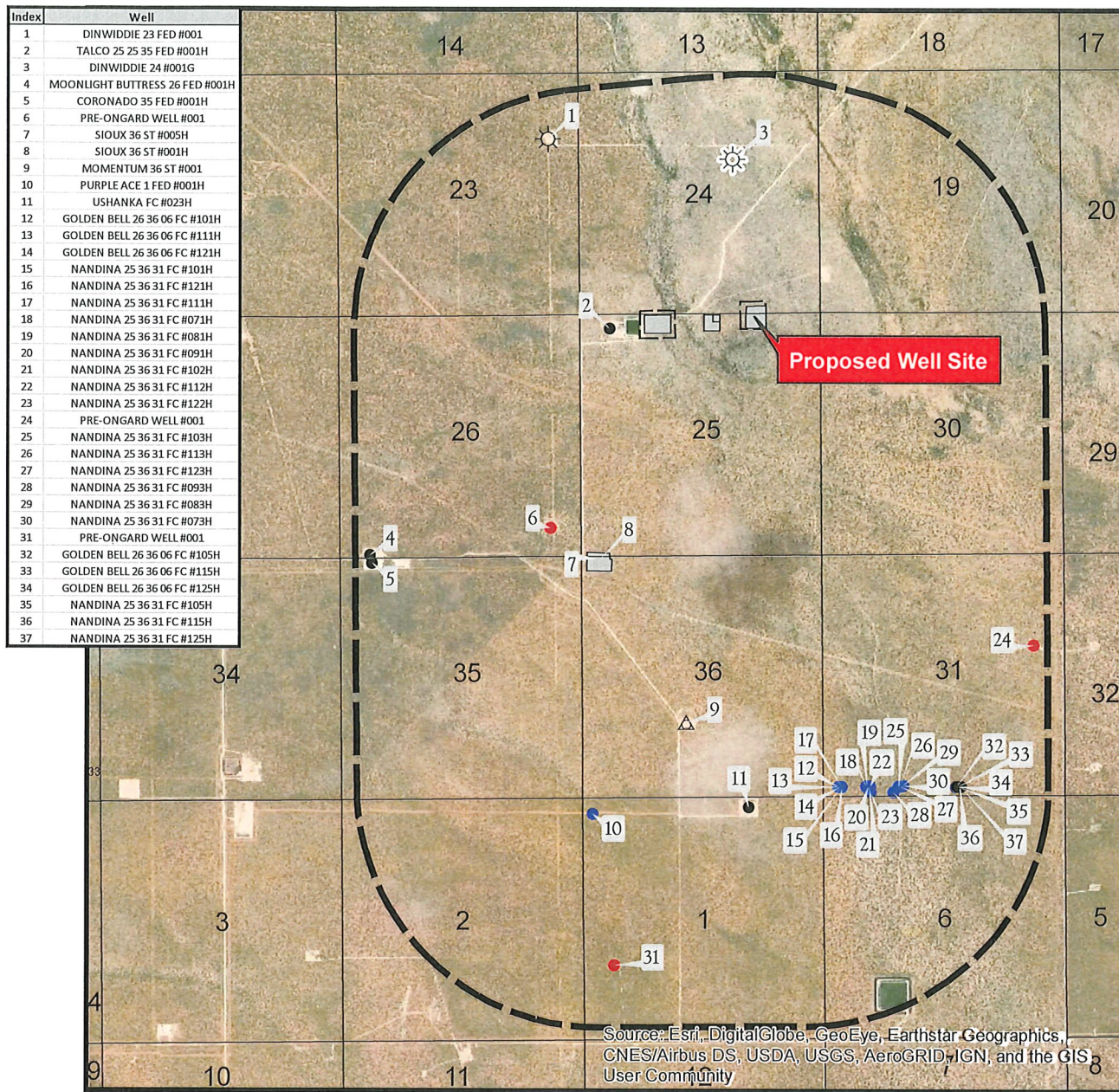
SEC. 25 TWP. 25-S RGE. 35-E

SURVEY: N.M.P.M.

COUNTY: LEA

OPERATOR: CAZA OPERATING, LLC

U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, NM, TX.



SHEET 2 OF 7  
PREPARED BY:  
RSQUARED GLOBAL, LLC  
1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-6900 OFFICE  
JOB No. R4012\_003



EXHIBIT "A"

NM-LE-0003.00000  
LEA COUNTY, NEW MEXICO  
SIOUX CENTRAL TANK BATTERY  
PROPOSED CRUDE FLOWLINE  
CAZA OPERATING, LLC

SHEET 1 OF 2

FIELD NOTES DESCRIBING

*The centerline of a 30 foot wide proposed permanent easement, being 0.55 acres of land. Said easement being located in Section 25, Township 25 South, Range 35 East, New Mexico Principal Meridian, Lea County, New Mexico.*

Being more particularly described as lying 15 feet on each side of the following described centerline, unless otherwise shown (see Detail "A" on sheet 2 of 2):

*BEGINNING* at a point from which a 1 inch iron pipe with GLO cap found for the North Quarter corner of said Section 25 bears N 78°32'32" W a distance of 1,026.13 feet.

*THENCE* crossing said Section 25 the following courses and distances:  
S 49°20'56" W a distance of 3.83 feet, S 63°03'50" W a distance of 41.02 feet,  
S 04°09'46" W a distance of 94.97 feet, S 83°39'43" W a distance of 513.76 feet,  
S 86°34'25" W a distance of 129.62 feet, and N 00°02'34" E a distance of 20.04 feet to the *POINT OF TERMINATION* from which a 1 inch iron pipe with GLO cap found for the West Quarter corner of said Section 25 bears S 51°44'50" W a distance of 3,737.94 feet.

The total length of the herein described proposed permanent easement crossing said Section 25, being 803.24 feet (48.68 rods), containing 0.55 acres of land.

The edges of the permanent easement are parallel with the centerline of the easement until reaching the boundaries of the subject tract of land, unless otherwise shown.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings, distances, coordinates, and areas are based on grid measurements utilizing a combined scale factor of 0.99987673, convergence angle of 0.53882500°).

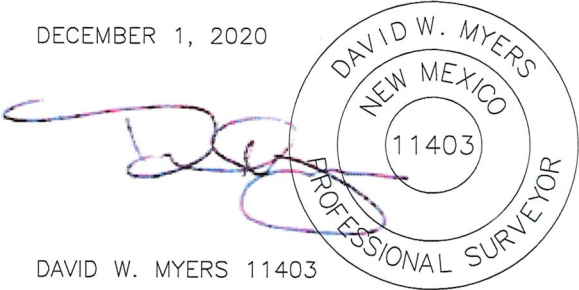
Title information furnished by Caza Operating, LLC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

STATE OF NEW MEXICO  
COUNTY OF LEA

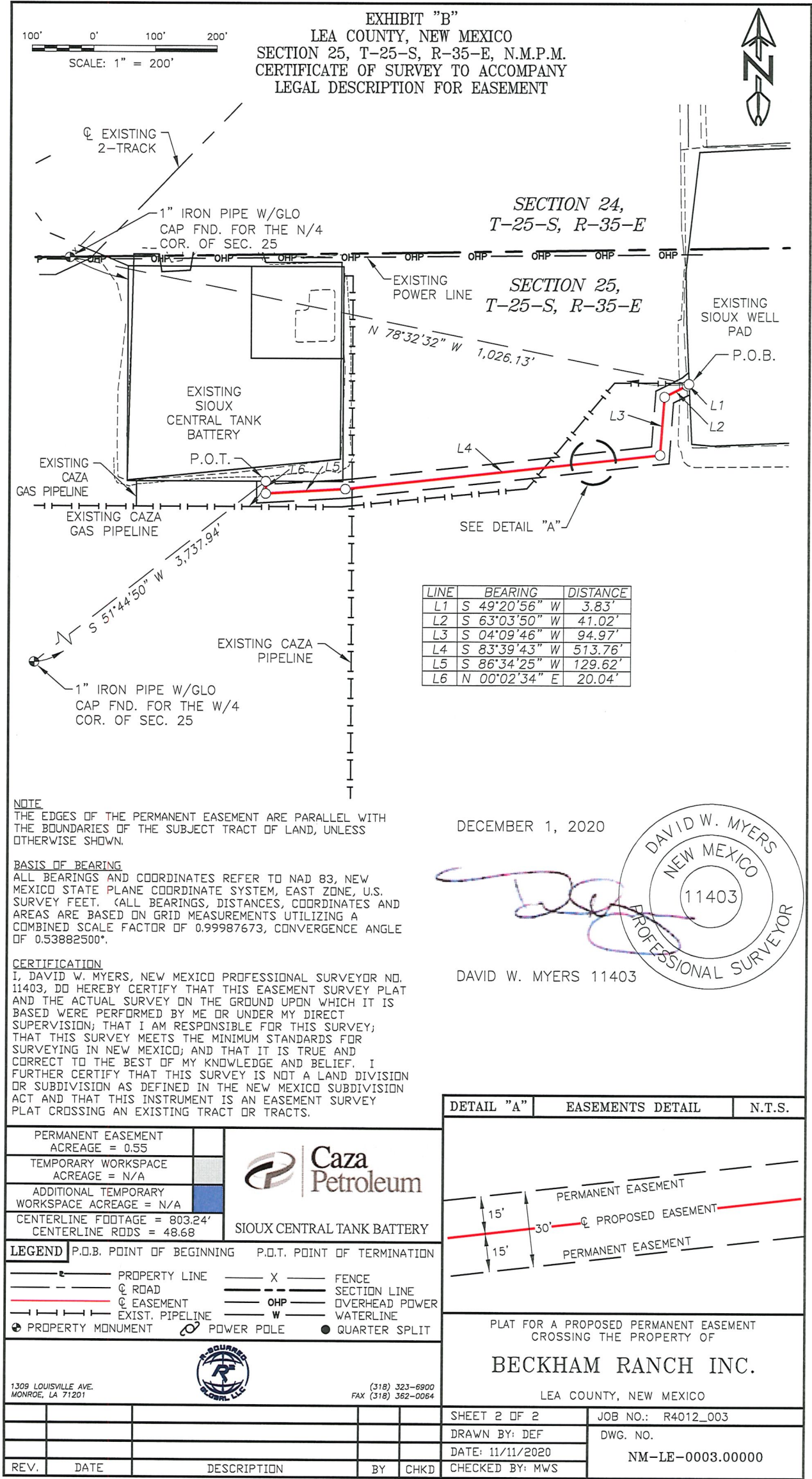
I, David W. Myers, New Mexico Professional Surveyor No. 11403, do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.

DECEMBER 1, 2020

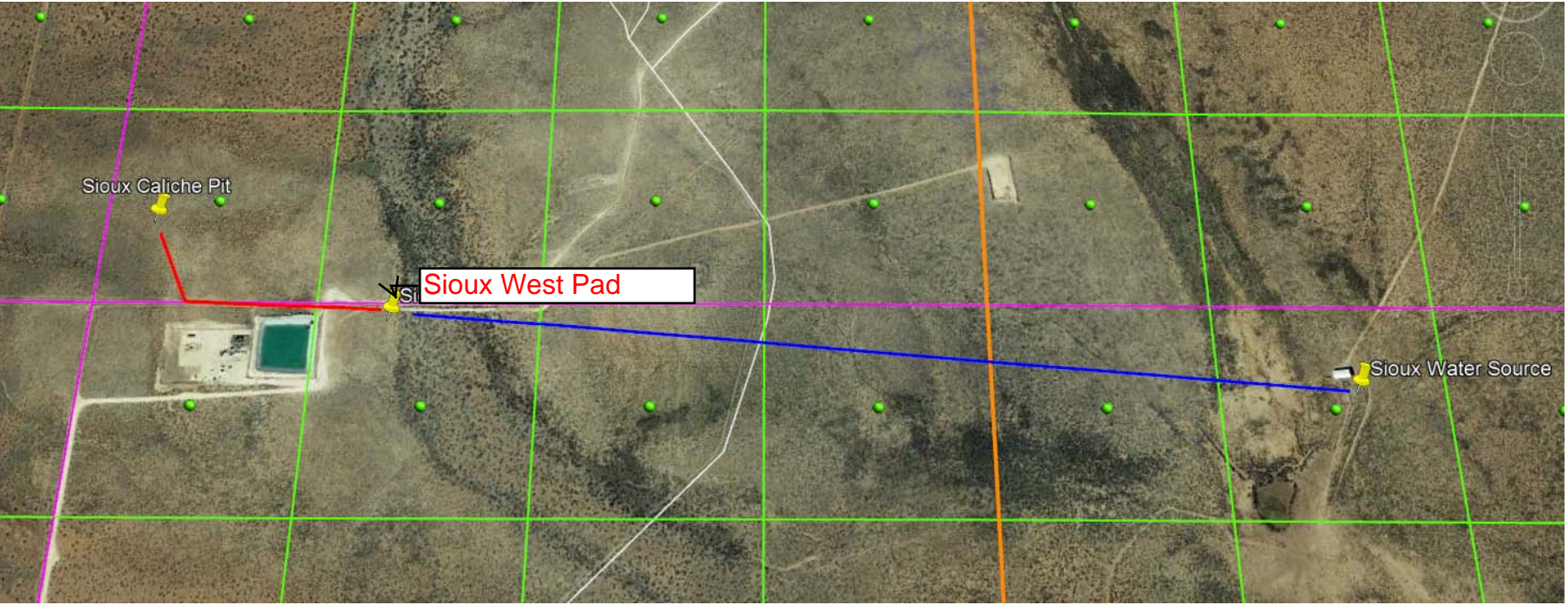


DAVID W. MYERS 11403

R-SQUARED GLOBAL, LLC  
PROJECT NO. R4012\_003  
Modification in any way of the foregoing description terminates liability of Surveyor.









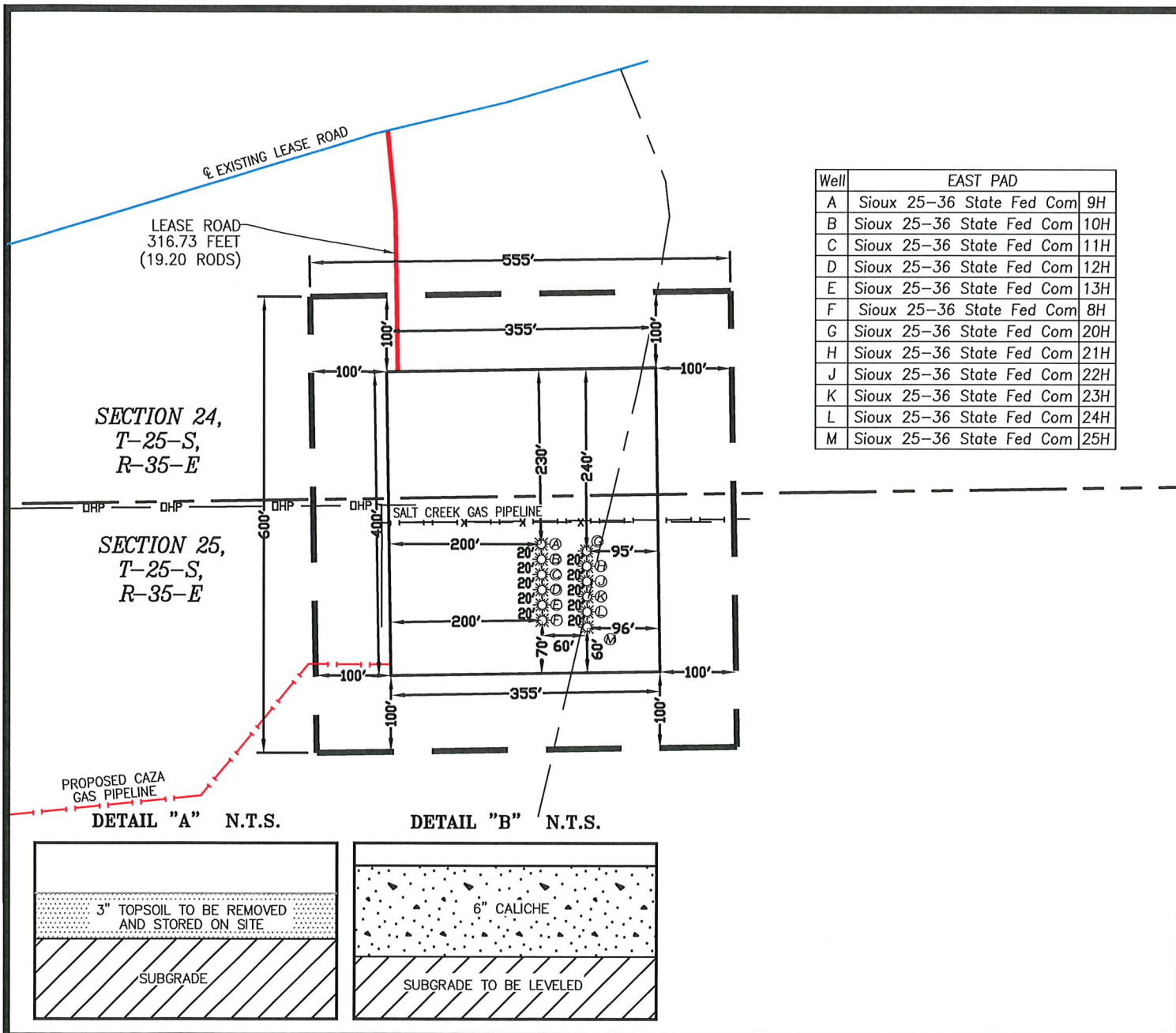
# LEGEND

## WELL LOCATION PLAT

SIoux 25-36 STATE FED COM  
SEC. 24 & 25 TWP. 25-S RGE. 35-E  
SURVEY: N.M.P.M.  
COUNTY: LEA  
OPERATOR: CAZA OPERATING, LLC  
U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, N.M.



- PROPOSED WELL PAD
- ARCH SURVEY LIMITS
- PROPOSED LEASE ROAD
- EXISTING LEASE ROAD
- EXISTING PIPELINE
- SECTION LINE
- ROAD
- PROPOSED PIPELINE
- OVERHEAD POWER



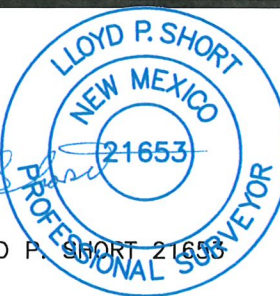
Well	EAST PAD	
A	Sioux 25-36 State Fed Com	9H
B	Sioux 25-36 State Fed Com	10H
C	Sioux 25-36 State Fed Com	11H
D	Sioux 25-36 State Fed Com	12H
E	Sioux 25-36 State Fed Com	13H
F	Sioux 25-36 State Fed Com	8H
G	Sioux 25-36 State Fed Com	20H
H	Sioux 25-36 State Fed Com	21H
J	Sioux 25-36 State Fed Com	22H
K	Sioux 25-36 State Fed Com	23H
L	Sioux 25-36 State Fed Com	24H
M	Sioux 25-36 State Fed Com	25H

NOTE:  
THIS IS NOT A BOUNDARY SURVEY,  
APPARENT PROPERTY CORNERS AND  
PROPERTY LINES ARE SHOWN FOR  
INFORMATION ONLY. BOUNDARY DATA  
SHOWN IS FROM STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION FORM C-102  
INCLUDED IN THIS SUBMITTAL.

JANUARY 28, 2020

*Lloyd P. Short*

LLOYD P. SHORT 21653



REV 3 01/20/2020 JMT

SHEET 5 OF 7

PREPARED BY:  
R-SQUARED GLOBAL, LLC  
1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-8900 OFFICE  
JOB No. R4012\_003

100' 0' 100' 200'  
SCALE: 1" = 200'

# WELL LOCATION PLAT

SIoux 25-36 STATE FED COM

SEC. 24 & 25 TWP. 25-S RGE. 35-E

SURVEY: N.M.P.M.

COUNTY: LEA

OPERATOR: CAZA OPERATING, LLC

U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, N.M.

**SIoux 25-36 STATE FED COM 9H**  
**CAZA OPERATING, LLC**  
 63' FNL 1,449' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855900.09' / Y:404679.81'  
 LAT:32.10846890N / LON:103.31740172W  
**NAD 27, SPCS NM EAST**  
 X:814712.79' / Y:404621.56'  
 LAT:32.10834194N / LON:103.31693978W  
 ELEVATION = 3087'

**SIoux 25-36 STATE FED COM 10H**  
**CAZA OPERATING, LLC**  
 83' FNL 1,449' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855900.40' / Y:404659.84'  
 LAT:32.10841402N / LON:103.31740133W  
**NAD 27, SPCS NM EAST**  
 X:814713.10' / Y:404601.60'  
 LAT:32.10828706N / LON:103.31693940W  
 ELEVATION = 3086'

**SIoux 25-36 STATE FED COM 11H**  
**CAZA OPERATING, LLC**  
 103' FNL 1,449' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855900.79' / Y:404639.85'  
 LAT:32.10835906N / LON:103.31740067W  
**NAD 27, SPCS NM EAST**  
 X:814713.49' / Y:404581.60'  
 LAT:32.10823210N / LON:103.31693873W  
 ELEVATION = 3086'

**SIoux 25-36 STATE FED COM 12H**  
**CAZA OPERATING, LLC**  
 123' FNL 1,449' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855901.01' / Y:404619.78'  
 LAT:32.10830391N / LON:103.31740056W  
**NAD 27, SPCS NM EAST**  
 X:814713.72' / Y:404561.54'  
 LAT:32.10817695N / LON:103.31693863W  
 ELEVATION = 3085'

**SIoux 25-36 STATE FED COM 13H**  
**CAZA OPERATING, LLC**  
 143' FNL 1,449' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855901.35' / Y:404699.79'  
 LAT:32.10824894N / LON:103.31740009W  
**NAD 27, SPCS NM EAST**  
 X:814714.05' / Y:404541.55'  
 LAT:32.10812198N / LON:103.31693816W  
 ELEVATION = 3085'

**SIoux 25-36 STATE FED COM 8H**  
**CAZA OPERATING, LLC**  
 163' FNL 1,449' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855899.70' / Y:404699.79'  
 LAT:32.10852385N / LON:103.31740235W  
**NAD 27, SPCS NM EAST**  
 X:814712.41' / Y:404641.55'  
 LAT:32.10839689N / LON:103.31694041W  
 ELEVATION = 3087'

**SIoux 25-36 STATE FED COM 20H**  
**CAZA OPERATING, LLC**  
 73' FNL 1,389' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855960.36' / Y:404670.87'  
 LAT:32.10844279N / LON:103.31720735W  
**NAD 27, SPCS NM EAST**  
 X:814773.07' / Y:404612.63'  
 LAT:32.10831583N / LON:103.31674541W  
 ELEVATION = 3090'

**SIoux 25-36 STATE FED COM 21H**  
**CAZA OPERATING, LLC**  
 93' FNL 1,389' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855960.55' / Y:404650.88'  
 LAT:32.10838782N / LON:103.31720735W  
**NAD 27, SPCS NM EAST**  
 X:814773.26' / Y:404592.63'  
 LAT:32.10826086N / LON:103.31674542W  
 ELEVATION = 3090'

**SIoux 25-36 STATE FED COM 22H**  
**CAZA OPERATING, LLC**  
 113' FNL 1,389' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855960.74' / Y:404630.88'  
 LAT:32.10833284N / LON:103.31720735W  
**NAD 27, SPCS NM EAST**  
 X:814773.44' / Y:404572.63'  
 LAT:32.10820588N / LON:103.31674542W  
 ELEVATION = 3090'

**SIoux 25-36 STATE FED COM 23H**  
**CAZA OPERATING, LLC**  
 133' FNL 1,389' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855960.93' / Y:404610.88'  
 LAT:32.10827787N / LON:103.31720735W  
**NAD 27, SPCS NM EAST**  
 X:814773.63' / Y:404552.63'  
 LAT:32.10815091N / LON:103.31674543W  
 ELEVATION = 3090'

**SIoux 25-36 STATE FED COM 24H**  
**CAZA OPERATING, LLC**  
 153' FNL 1,389' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855961.12' / Y:404590.88'  
 LAT:32.10822289N / LON:103.31720735W  
**NAD 27, SPCS NM EAST**  
 X:814773.82' / Y:404532.63'  
 LAT:32.10809593N / LON:103.31674543W  
 ELEVATION = 3090'

**SIoux 25-36 STATE FED COM 25H**  
**CAZA OPERATING, LLC**  
 173' FNL 1,389' FEL, SECTION 25  
**NAD 83, SPCS NM EAST**  
 X:855961.31' / Y:404570.88'  
 LAT:32.10816792N / LON:103.31720735W  
**NAD 27, SPCS NM EAST**  
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 LAT:32.10804096N / LON:103.31674543W  
 ELEVATION = 3090'

## NOTE:

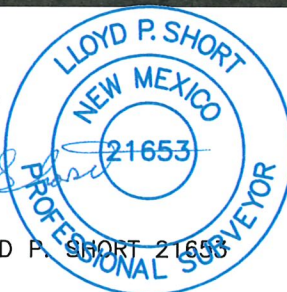
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 OIL CONSERVATION DIVISION FORM C-102  
 INCLUDED IN THIS SUBMITTAL.

100' 0' 100' 200'  
 SCALE: 1" = 200'

JANUARY 28, 2020

*Lloyd P. Short*

LLOYD P. SHORT 21653



REV 3 01/20/2020 JMT

SHEET 6 OF 7

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-6900 OFFICE  
 JOB No. R4012\_003



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# WELL PAD PLAT

SIOUX 25-36 STATE FED COM

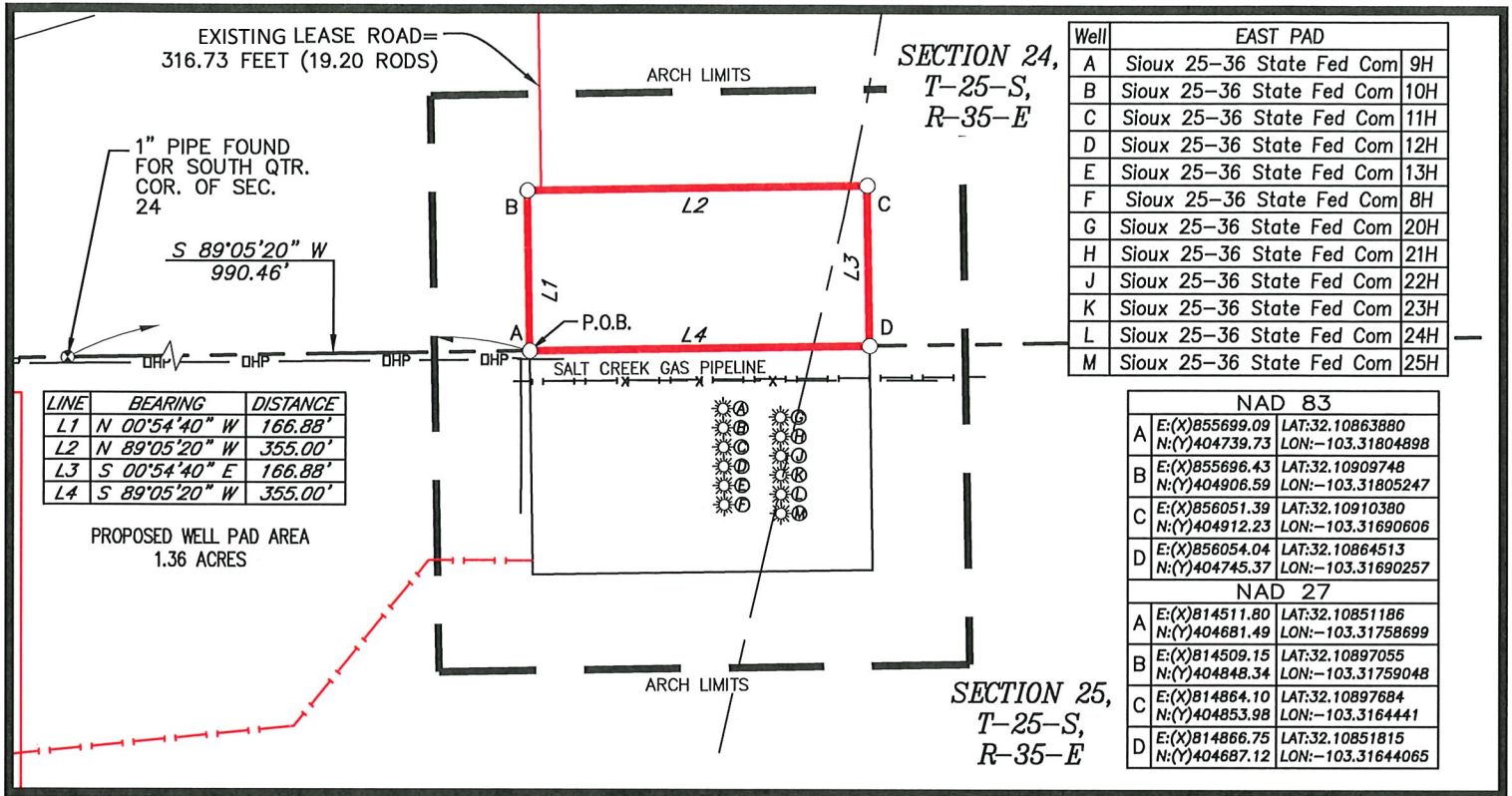
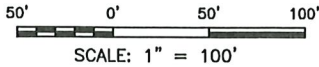
SEC. 24 TWP. 25-S RGE. 35-E

SURVEY: N.M.P.M.

COUNTY: LEA

OPERATOR: CAZA OPERATING, LLC

U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, N.M.



Well	EAST PAD	
A	Sioux 25-36 State Fed Com	9H
B	Sioux 25-36 State Fed Com	10H
C	Sioux 25-36 State Fed Com	11H
D	Sioux 25-36 State Fed Com	12H
E	Sioux 25-36 State Fed Com	13H
F	Sioux 25-36 State Fed Com	8H
G	Sioux 25-36 State Fed Com	20H
H	Sioux 25-36 State Fed Com	21H
J	Sioux 25-36 State Fed Com	22H
K	Sioux 25-36 State Fed Com	23H
L	Sioux 25-36 State Fed Com	24H
M	Sioux 25-36 State Fed Com	25H

NAD 83			
A	E:(X)855699.09 N:(Y)404739.73	LAT:32.10863880 LON:-103.31804898	
B	E:(X)855696.43 N:(Y)404906.59	LAT:32.10909748 LON:-103.31805247	
C	E:(X)856051.39 N:(Y)404912.23	LAT:32.10910380 LON:-103.31690606	
D	E:(X)856054.04 N:(Y)404745.37	LAT:32.10864513 LON:-103.31690257	
NAD 27			
A	E:(X)814511.80 N:(Y)404681.49	LAT:32.10851186 LON:-103.31758699	
B	E:(X)814509.15 N:(Y)404848.34	LAT:32.10897055 LON:-103.31759048	
C	E:(X)814864.10 N:(Y)404853.98	LAT:32.10897684 LON:-103.3164441	
D	E:(X)814866.75 N:(Y)404687.12	LAT:32.10851815 LON:-103.31644065	

A tract of land being 1.36 acres. Said tract being located in Section 24, Township 25 South, Range 35 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described by metes and bounds as follows:

**BEGINNING** at a point from which a 1 inch pipe found for the South Quarter corner of said Section 24 bears S 89°05'46" W a distance of 990.46 feet.

**THENCE**

N 00°54'40" W a distance of 166.88 feet, N 89°05'20" E a distance of 355.00 feet, S 00°54'40" E a distance of 166.88 feet, and S 89°05'20" W a distance of 355.00 feet to the POINT OF BEGINNING.

The total area of the herein described tract contains 1.36 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings, distances, coordinates and areas are based on grid measurements utilizing a combined scale factor of 0.99987673, convergence of 0.53882500".)

Title information furnished by Caza Operating, LLC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

STATE OF NEW MEXICO  
COUNTY OF LEA

I, Lloyd P. Short, New Mexico Professional Surveyor No. 21653, do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.



LLOYD P. SHORT, PS No. 21653 DATE: JANUARY 28, 2020


*Lloyd P. Short*



PLAT FOR A SURFACE SITE ON THE PROPERTY OF  
BUREAU OF LAND MANAGEMENT  
LEA COUNTY, NEW MEXICO

**LEGEND**  
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS AND DISTANCES ARE GRID MEASUREMENTS.)

LEGEND	P.O.B. POINT OF BEGINNING	R4012_003
— — — — —	EXISTING ROAD	ARCH LIMITS
— — — — —	LEASE ROAD	PROG. PIPELINE
— — — — —	SURFACE SITE EDGE	SECTION LINE
— — — — —	EXIST. PIPELINE	Q ROAD
— — — — —	LOT LINE	
●	MONUMENT	
●	QUARTER SPLIT	

3	1/20/2020	WELLS & PAD UPDATED	JMT	MWS
REV.	DATE	DESCRIPTION	BY	CHKD
SHEET 3 OF 7		 1309 LOUISVILLE AVE. MONROE, LA 71201 (318) 323-6900 FAX (318) 362-0064		
DRAWN BY: JMT				
DATE: 12/02/2019				
CHECKED BY: MWS				



Page 99 of 114  
Received by CD: 6/24/2022 6:34:27 AM

# WELL PAD PLAT

SIOUX 25-36 STATE FED COM

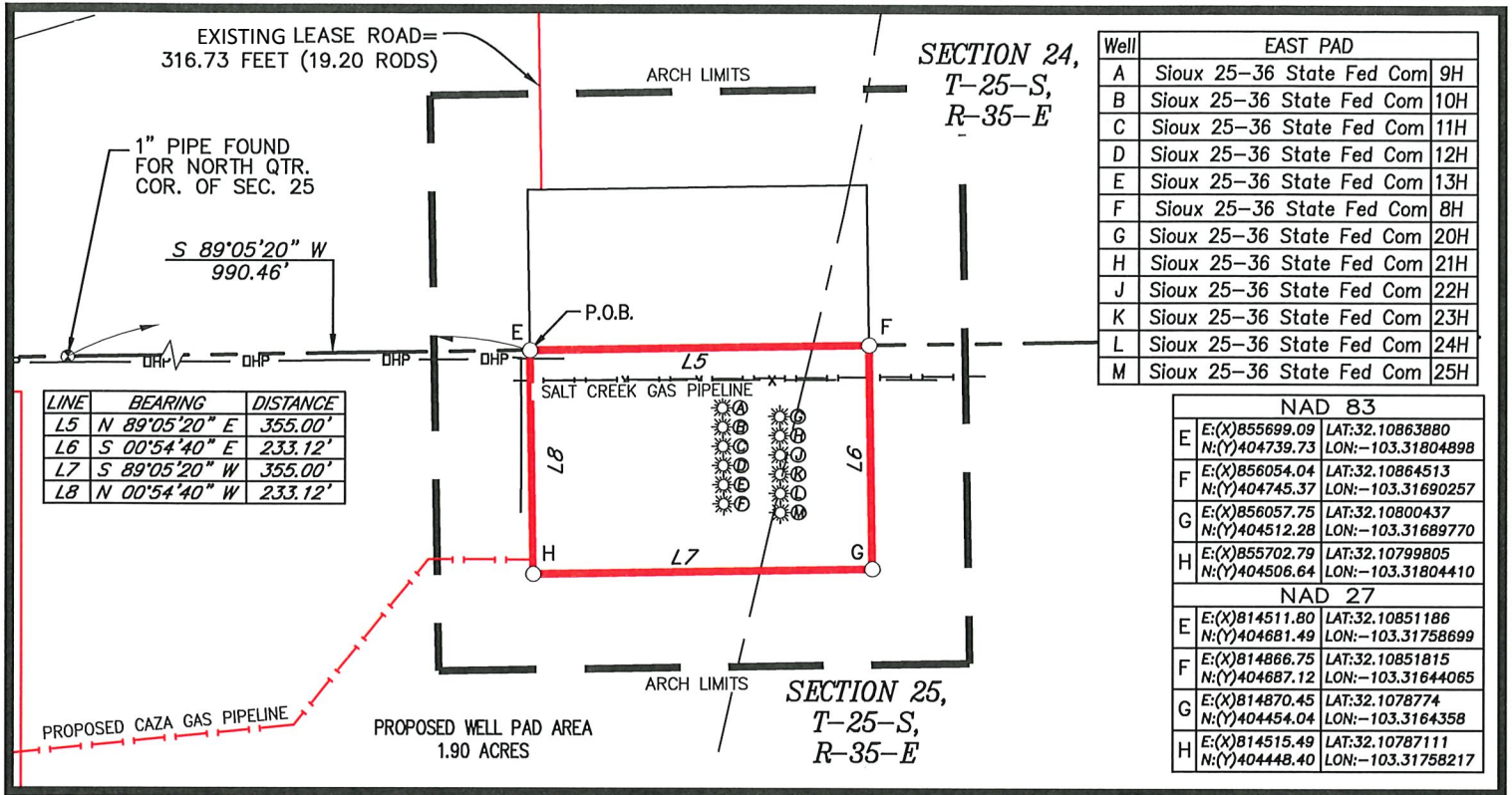
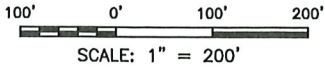
SEC. 25 TWP. 25-S RGE. 35-E

SURVEY: N.M.P.M.

COUNTY: LEA

OPERATOR: CAZA OPERATING, LLC

U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, N.M.



## FIELD NOTES DESCRIBING

A tract of land being 1.90 acres. Said tract being located in Section 25, Township 25 South, Range 35 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described by metes and bounds as follows:

**BEGINNING** at a point from which a 1 inch pipe found for the South Quarter corner of said Section 25 bears S 89°05'46" W a distance of 990.46 feet.

### THENCE

N 89°05'20" E a distance of 233.12 feet, S 00°54'40" E a distance of 355.00 feet, S 89°05'20" W a distance of 233.12 feet, and S 00°54'40" W a distance of 355.00 feet to the POINT OF BEGINNING.

The total area of the herein described tract contains 1.90 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings, distances, coordinates and areas are based on grid measurements utilizing a combined scale factor of 0.99987673, convergence of 0.53882500".)

Title information furnished by Caza Operating, LLC.

Reference accompanying Certificate of Survey prepared in conjunction with this legal description for easement.

STATE OF NEW MEXICO  
COUNTY OF LEA

I, Lloyd P. Short, New Mexico Professional Surveyor No. 21653, do hereby certify that this easement survey plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the minimum standards for surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief. I further certify that this survey is not a land division or subdivision as defined in the New Mexico Subdivision Act and that this instrument is an easement survey plat crossing an existing tract or tracts.



LLOYD P. SHORT, PS No. 21653 DATE: JANUARY 28, 2020

*Lloyd P. Short*



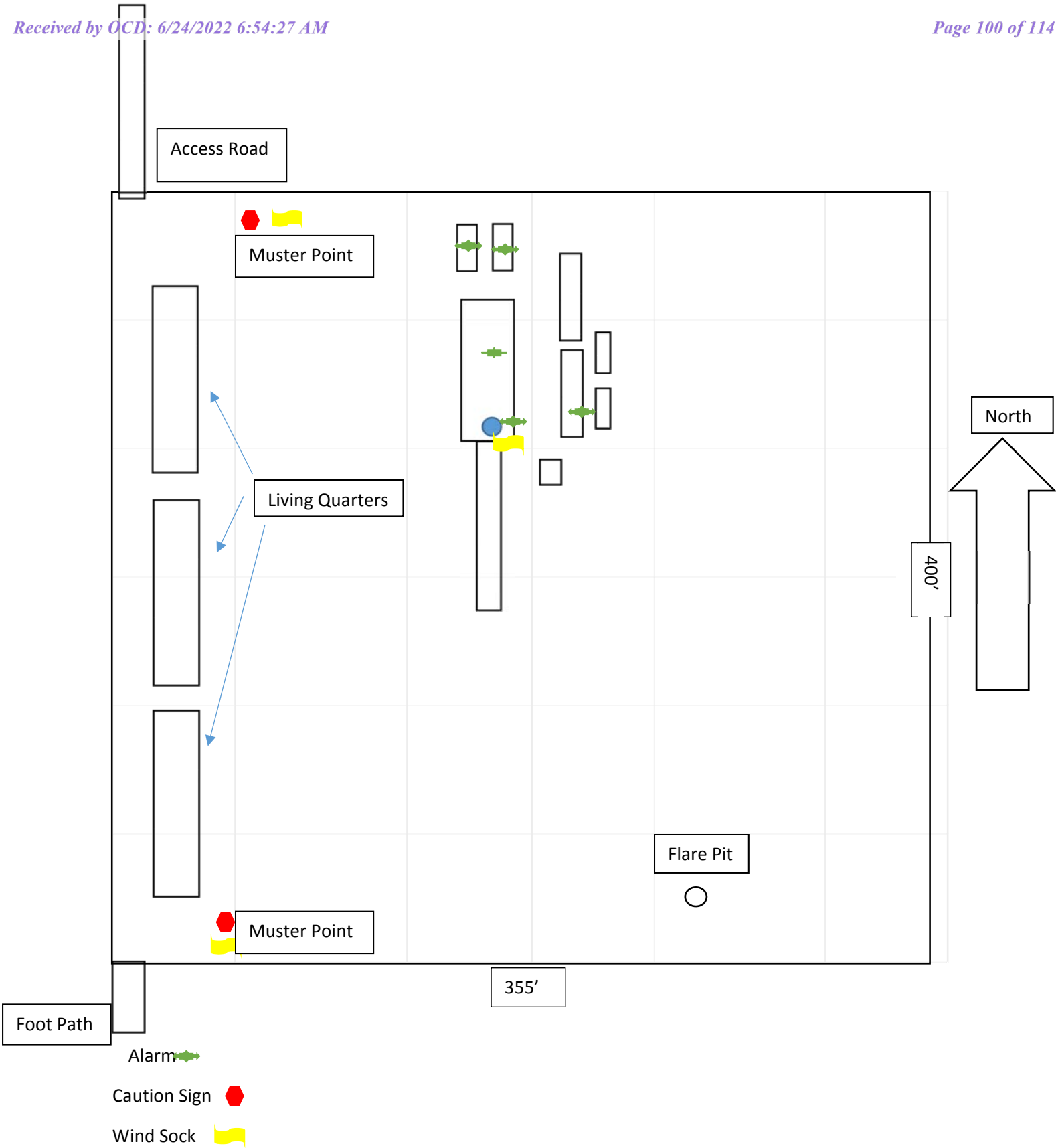
PLAT FOR A SURFACE SITE ON THE PROPERTY OF  
BUREAU OF LAND MANAGEMENT  
LEA COUNTY, NEW MEXICO

**LEGEND**  
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS AND DISTANCES ARE GRID MEASUREMENTS.)

**LEGEND**  
P.O.B. POINT OF BEGINNING  
R4012\_003  
--- EXISTING ROAD  
--- PROPOSED ROAD  
--- SURFACE SITE EDGE  
--- EXIST. PIPELINE  
--- ARCH LIMITS  
--- PROP. PIPELINE  
--- SECTION LINE  
--- ROAD  
--- LOT LINE  
● MONUMENT  
● QUARTER SPLIT

REV.	DATE	DESCRIPTION	BY	CHKD
3	1/20/2020	WELLS & PAD UPDATED	JMT	MWS
SHEET 4 OF 7				
DRAWN BY: JMT		1309 LOUISVILLE AVE. MONROE, LA 71201 (318) 323-6900 FAX (318) 362-0064		
DATE: 12/02/2019		GLOBAL LLC		
CHECKED BY: MWS				

Released to Imaging: 7/28/2022 3:05:31 PM



January 6, 2020

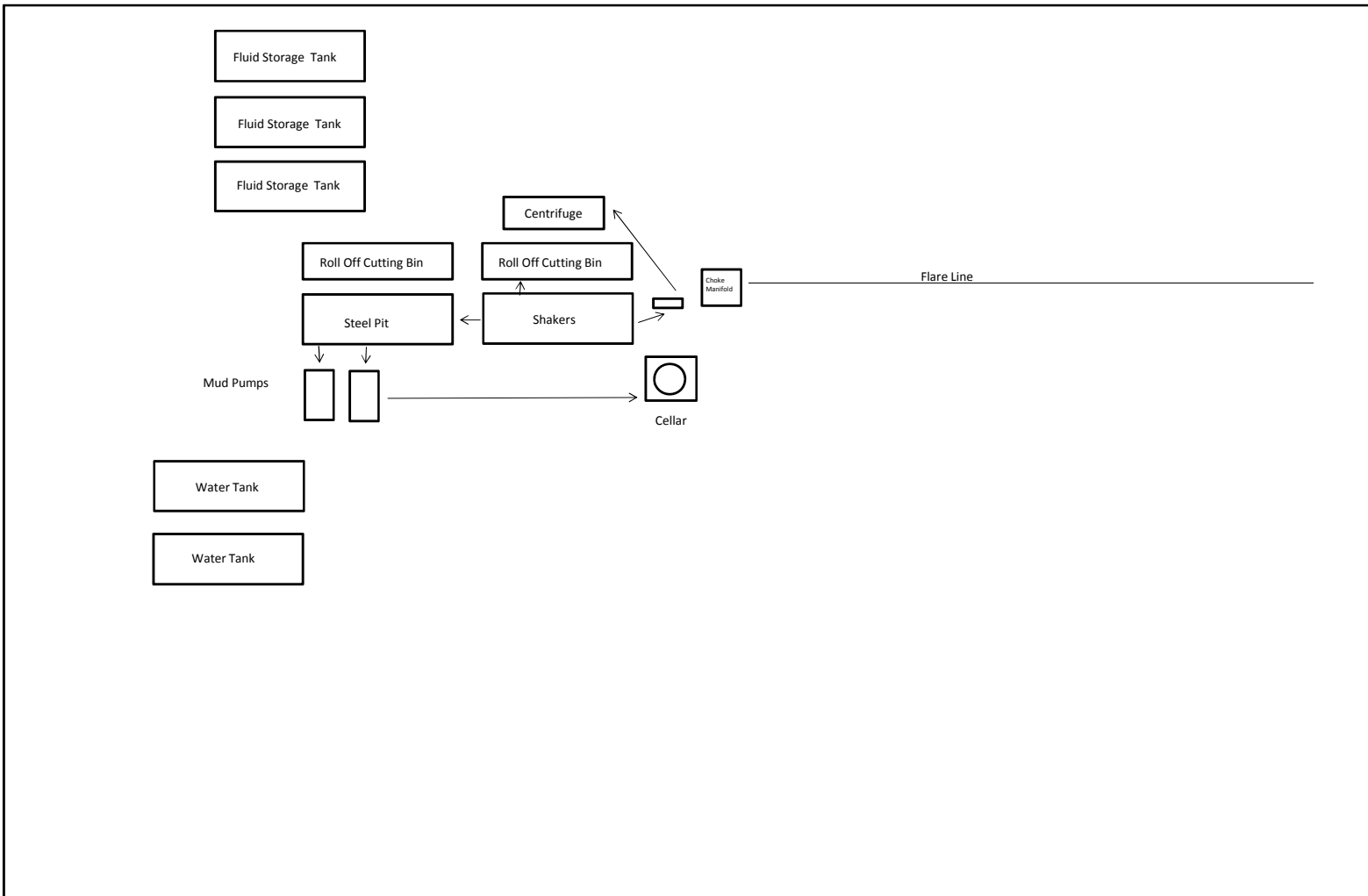
I hereby certify that I, or someone authorized within the Caza Operating LLC has provided a Surface Use Plan of Operations to the surface owner for the subject well pad.

A handwritten signature in black ink, appearing to read 'Steve Morris', with a stylized, sweeping underline.

Steve Morris

Contract Engineer, Caza Operating LLC  
200 N Lorraine St. #1550  
Midland, TX  
79701

## Closed Loop Diagram Design Plan





District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Original  
to Appropriate  
District Office

## GAS CAPTURE PLAN

Date: 8/8/2020

☒ Original

Operator & OGRID No.: 249099

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Sioux 25-36 State Fed Com 20H		B-25-25S-35E	73'FNL 1389'FEL	1000	flared	

### Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Versado and will be connected to Versado low/high pressure gathering system located in Lea County, New Mexico. It will require 1000' of pipeline to connect the facility to low/high pressure gathering system. Caza provides (periodically) to Versado a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Caza and Versado have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Versado Processing Plant located in Sec.29, Twn.21S, Rng.37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Versado system at that time. Based on current information, it is Caza's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Design Plan, Operating Plan and Maintenance Plan, and Closure Plan for the OCD form C-144

**Design Plan:**

Fluid and cuttings coming from drilling operations will pass over the shale shaker with the cuttings going to the haul off bin and the cleaned fluid returning to the working steel pits.

**Equipment Includes:**

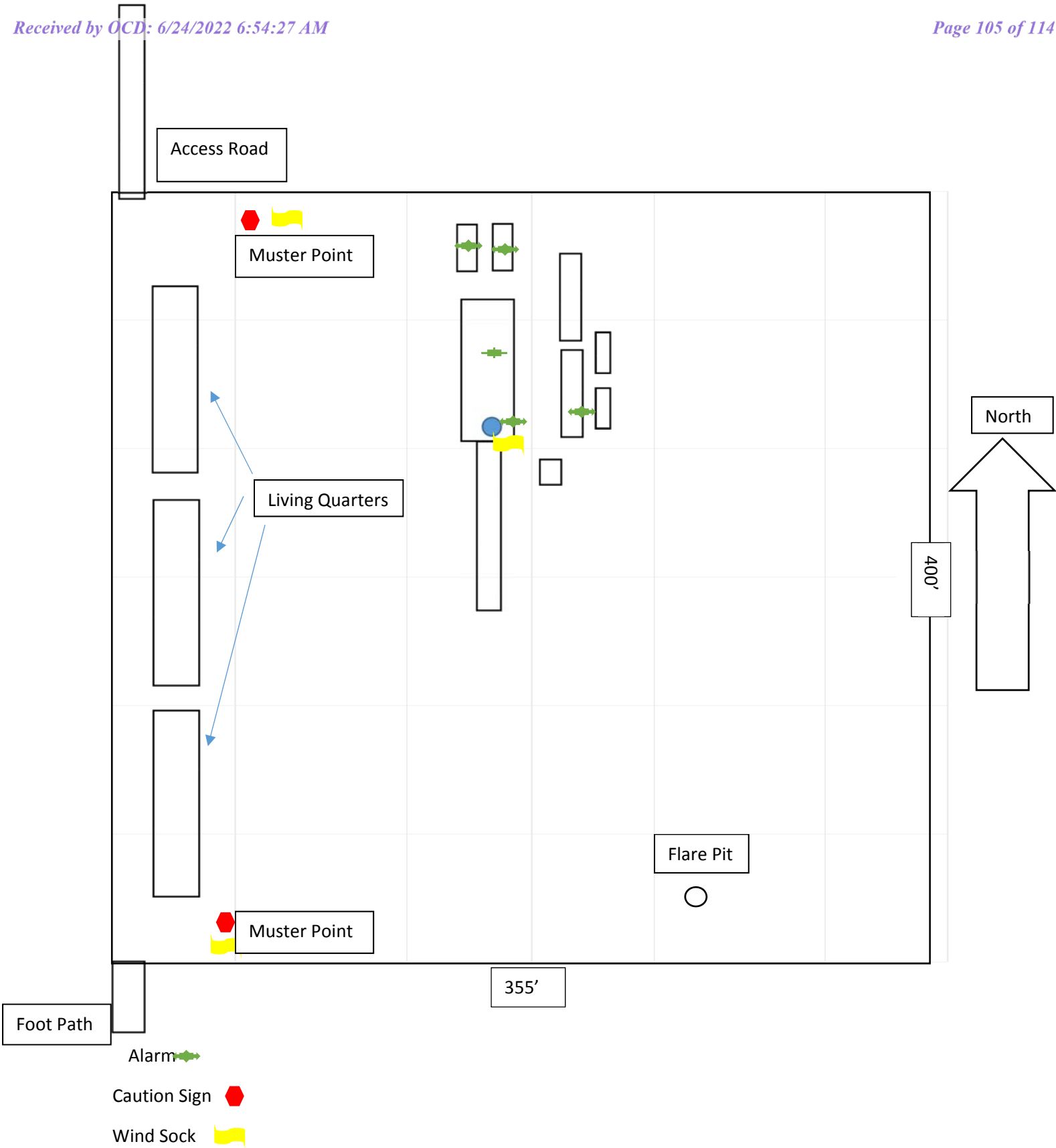
- 1-670bbl steel working pit
- 2-100bbl steel working suction pits
- 2-500bbl steel tanks
- 2-20yd<sup>3</sup> steel haul off bins
- 2-pumps (HHF-1600)
- 2-Shale shakers
- 1-Centrifuge
- 1-Desilter/Desander

**Operating and Maintenance Plan:**

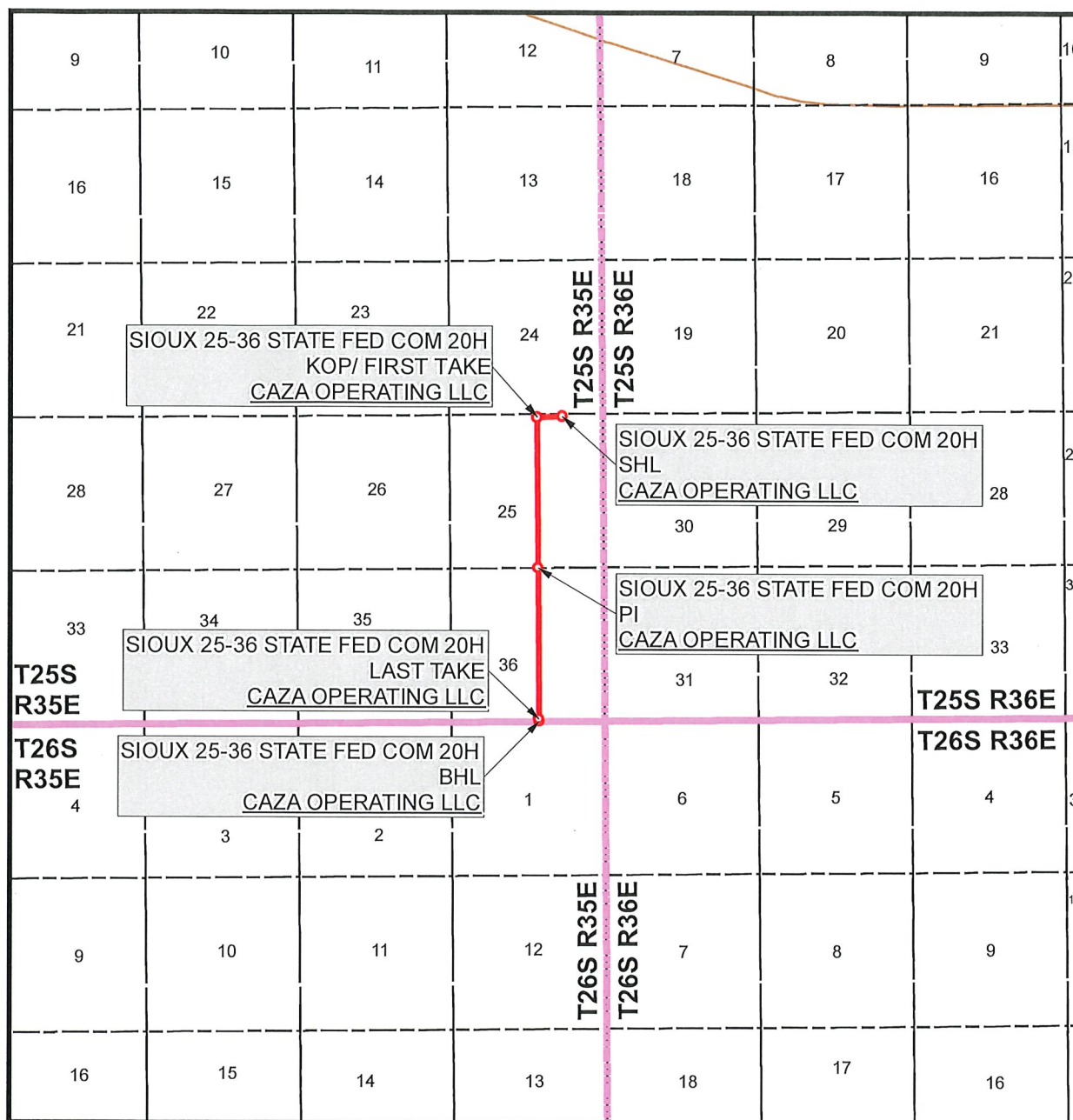
Inspection to occur every tour for proper operation of system and individual components. If any problems are found they will be repaired and/or corrected immediately.

**Closure Plan:**

All haul off bins containing cuttings will be removed from location and hauled to R-360 (NM-01-0006) disposal site located 30 miles east of Carlsbad.



# VICINITY MAP



SEC. 25 TWP. 25-S RGE. 35-E  
SURVEY: N.M.P.M.  
COUNTY: LEA  
OPERATOR: CAZA OPERATING LLC  
DESCRIPTION: 73' FNL & 1389' FEL  
ELEVATION: 3090'  
LEASE: SIOUX 25-36 STATE FED COM  
U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, NM, TX.

1" = 1 MILE

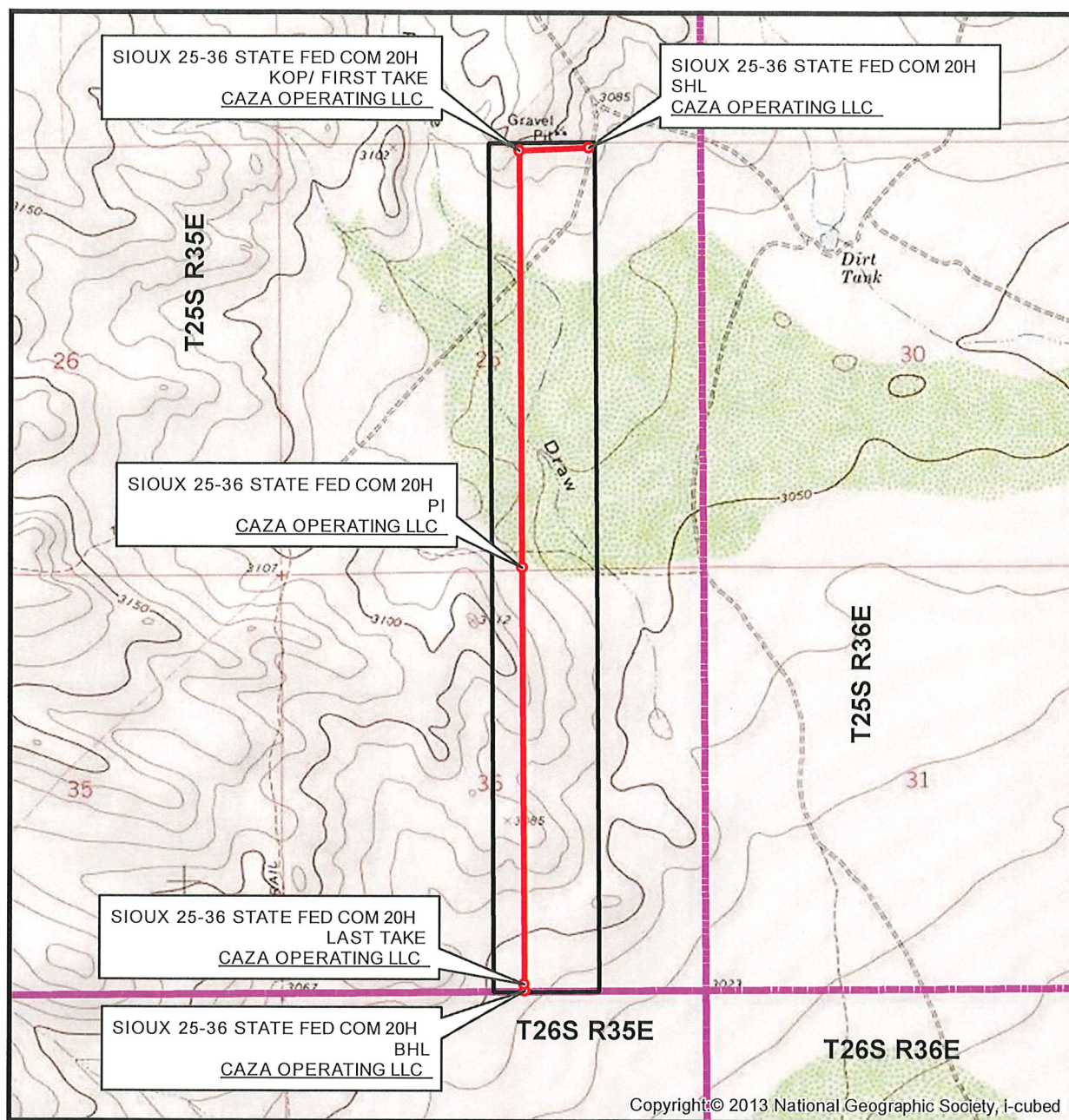


SHEET 3 OF 3

PREPARED BY:  
R-SQUARED GLOBAL, LLC  
1309 LOUISVILLE AVENUE, MONROE, LA 71201  
318-323-6900 OFFICE  
JOB No. R4012\_003\_G



# LOCATION VERIFICATION MAP



SEC. 25 TWP. 25-S RGE. 35-E  
 SURVEY: N.M.P.M.  
 COUNTY: LEA  
 OPERATOR: CAZA OPERATING LLC  
 DESCRIPTION: 73' FNL & 1389' FEL  
 ELEVATION: 3090'  
 LEASE: SIOUX 25-36 STATE FED COM  
 U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, NM, TX.

1" = 2,000'  
 CONTOUR INTERVAL = 10'



SHEET 2 OF 3

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-6900 OFFICE  
 JOB No. R4012\_003\_G



# WELL PAD PLAT

SIOUX 25-36 STATE FED COM

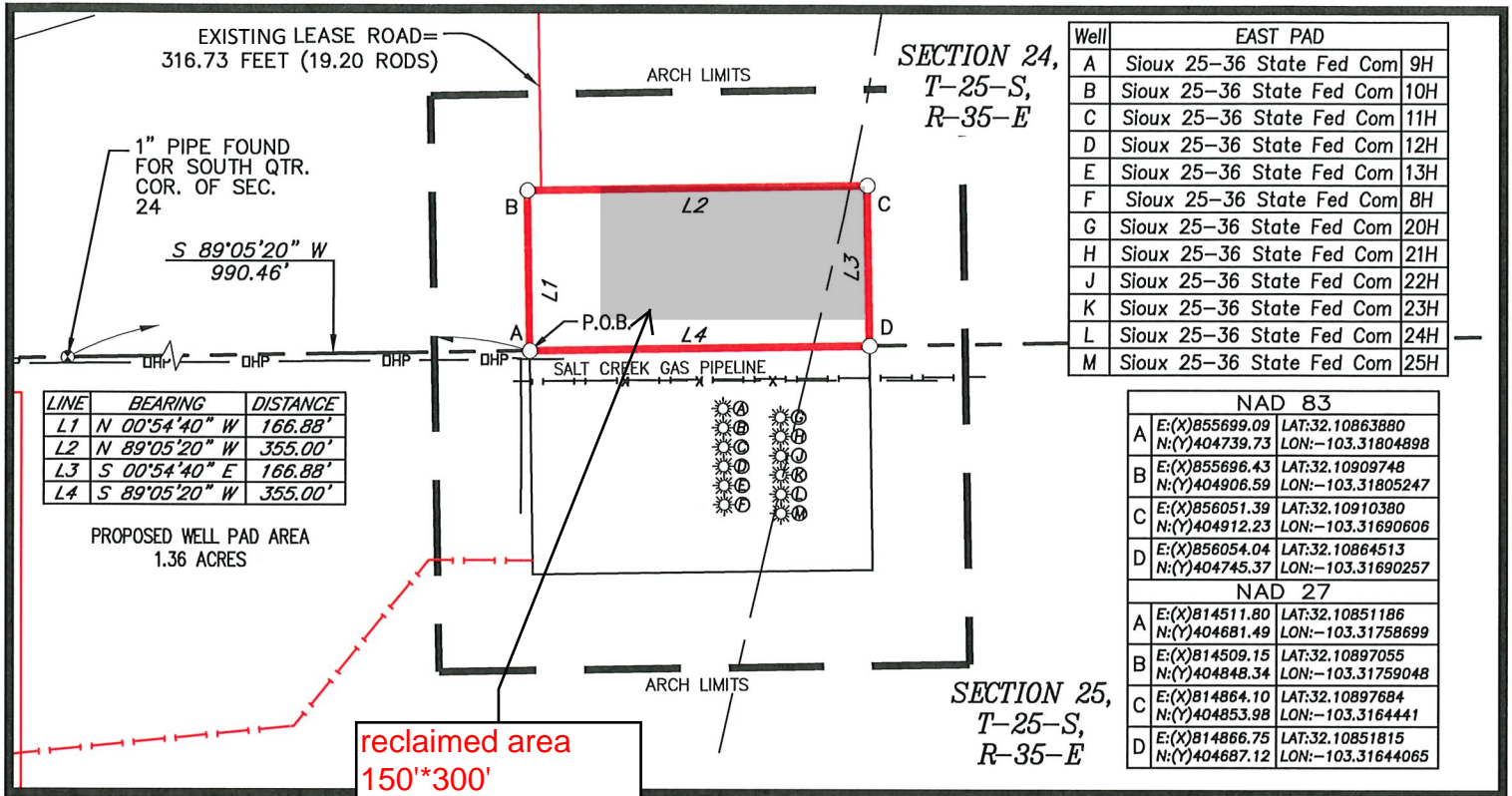
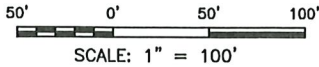
SEC. 24 TWP. 25-S RGE. 35-E

SURVEY: N.M.P.M.

COUNTY: LEA

OPERATOR: CAZA OPERATING, LLC

U.S.G.S. TOPOGRAPHIC MAP: JAVELINA BASIN, N.M.



A tract of land being 1.36 acres. Said tract being located in Section 24, Township 25 South, Range 35 East, New Mexico Principal Meridian, Eddy County, New Mexico.

Being more particularly described by metes and bounds as follows:

**BEGINNING** at a point from which a 1 inch pipe found for the South Quarter corner of said Section 24 bears S 89°05'46" W a distance of 990.46 feet.

**THENCE** N 00°54'40" W a distance of 166.88 feet, N 89°05'20" E a distance of 355.00 feet, S 00°54'40" E a distance of 166.88 feet, and S 89°05'20" W a distance of 355.00 feet to the POINT OF BEGINNING.

The total area of the herein described tract contains 1.36 acres of land.

All bearings and coordinates refer to NAD 83, New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet. (All bearings, distances, coordinates and areas are based on grid measurements utilizing a combined scale factor of 0.99987673, convergence of 0.53882500".)

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STATE OF NEW MEXICO  
COUNTY OF LEA

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LLOYD P. SHORT, PS No. 21653 DATE: JANUARY 28, 2020

*Lloyd P. Short*



PLAT FOR A SURFACE SITE ON THE PROPERTY OF  
BUREAU OF LAND MANAGEMENT  
LEA COUNTY, NEW MEXICO

**LEGEND**  
ALL BEARINGS AND COORDINATES REFER TO NAD 83, NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, U.S. SURVEY FEET. (ALL BEARINGS AND DISTANCES ARE GRID MEASUREMENTS.)

**LEGEND**  
P.O.B. POINT OF BEGINNING  
R4012\_003  
--- EXISTING ROAD  
--- LEASE ROAD  
--- SURFACE SITE EDGE  
--- EXIST. PIPELINE  
--- MONUMENT  
--- QUARTER SPLIT  
--- ARCH LIMITS  
--- PROP. PIPELINE  
--- SECTION LINE  
--- Q. ROAD  
--- LOT LINE

REV.	DATE	DESCRIPTION	BY	CHKD
3	1/20/2020	WELLS & PAD UPDATED	JMT	MWS
SHEET 3 OF 7				
DRAWN BY: JMT				
DATE: 12/02/2019				
CHECKED BY: MWS				



1309 LOUISVILLE AVE.  
MONROE, LA 71201  
(318) 323-6900  
FAX (318) 362-0064



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## PWD Data Report

09/22/2021

APD ID: 10400066300

Submission Date: 05/18/2021

Operator Name: CAZA OPERATING LLC

Well Name: SIOUX 25-36 STATE FED COM

Well Number: 20H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

Would you like to address long-term produced water disposal? NO

### Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:



**Operator Name:** CAZA OPERATING LLC

**Well Name:** SIOUX 25-36 STATE FED COM

**Well Number:** 20H

**Lined pit Monitor description:**

**Lined pit Monitor attachment:**

**Lined pit: do you have a reclamation bond for the pit?**

**Is the reclamation bond a rider under the BLM bond?**

**Lined pit bond number:**

**Lined pit bond amount:**

**Additional bond information attachment:**

### Section 3 - Unlined Pits

**Would you like to utilize Unlined Pit PWD options?** N

**Produced Water Disposal (PWD) Location:**

**PWD disturbance (acres):**

**PWD surface owner:**

**Unlined pit PWD on or off channel:**

**Unlined pit PWD discharge volume (bbl/day):**

**Unlined pit specifications:**

**Precipitated solids disposal:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal permit:**

**Unlined pit precipitated solids disposal schedule:**

**Unlined pit precipitated solids disposal schedule attachment:**

**Unlined pit reclamation description:**

**Unlined pit reclamation attachment:**

**Unlined pit Monitor description:**

**Unlined pit Monitor attachment:**

**Do you propose to put the produced water to beneficial use?**

**Beneficial use user confirmation:**

**Estimated depth of the shallowest aquifer (feet):**

**Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?**

**TDS lab results:**

**Geologic and hydrologic evidence:**

**State authorization:**

**Unlined Produced Water Pit Estimated percolation:**

**Unlined pit: do you have a reclamation bond for the pit?**

**Operator Name:** CAZA OPERATING LLC**Well Name:** SIOUX 25-36 STATE FED COM**Well Number:** 20H**Is the reclamation bond a rider under the BLM bond?****Unlined pit bond number:****Unlined pit bond amount:****Additional bond information attachment:**

#### Section 4 - Injection

**Would you like to utilize Injection PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Injection PWD discharge volume (bbl/day):****Injection well mineral owner:****Injection well type:****Injection well number:****Injection well name:****Assigned injection well API number?****Injection well API number:****Injection well new surface disturbance (acres):****Minerals protection information:****Mineral protection attachment:****Underground Injection Control (UIC) Permit?****UIC Permit attachment:**

#### Section 5 - Surface Discharge

**Would you like to utilize Surface Discharge PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Surface discharge PWD discharge volume (bbl/day):****Surface Discharge NPDES Permit?****Surface Discharge NPDES Permit attachment:****Surface Discharge site facilities information:****Surface discharge site facilities map:**

#### Section 6 - Other

**Would you like to utilize Other PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Other PWD discharge volume (bbl/day):**

**Operator Name:** CAZA OPERATING LLC

**Well Name:** SIOUX 25-36 STATE FED COM

**Well Number:** 20H

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

## Bond Info Data Report

09/22/2021

**APD ID:** 10400066300

**Submission Date:** 05/18/2021

Highlighted data  
reflects the most  
recent changes

**Operator Name:** CAZA OPERATING LLC

**Well Name:** SIOUX 25-36 STATE FED COM

**Well Number:** 20H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

### Bond Information

**Federal/Indian APD:** FED

**BLM Bond number:** NMB000471

**BIA Bond number:**

**Do you have a reclamation bond?** NO

**Is the reclamation bond a rider under the BLM bond?**

**Is the reclamation bond BLM or Forest Service?**

**BLM reclamation bond number:**

**Forest Service reclamation bond number:**

**Forest Service reclamation bond attachment:**

**Reclamation bond number:**

**Reclamation bond amount:**

**Reclamation bond rider amount:**

**Additional reclamation bond information attachment:**

**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 Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 120205

**CONDITIONS**

Operator: CAZA OPERATING, LLC 200 N Loraine St Midland, TX 79701	OGRID: 249099
	Action Number: 120205
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/28/2022
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	7/28/2022
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	7/28/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	7/28/2022