Form 3160-3
(June 2015)

OCD – HOBBS
06/09/2020
RECEIVED

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

5. Lease Serial No.
NMLC0065876A

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
SD 24 13 FED P416 [328296]
17H

2. Name of Operator
CHEVRON USA INCORPORATED [4323]

9. API Well No. **30-025-47303**

3a. Address
6301 Deauville Blvd., Midland, TX 79706

3b. Phone No. *(include area code)*
(432) 687-7866

10. Field and Pool, or Exploratory [98097]
~~XXXXXXXXXXXXXXXXXXXX~~
~~3RD BONE SPRING/3RD BONE SPRING~~

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SWSE / 248 FSL / 2205 FEL / LAT 32.021611 / LONG -103.626938
At proposed prod. zone NWNE / 25 FNL / 1650 FEL / LAT 32.050301 / LONG -103.625137

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 24/T26S/R32E/NMP

14. Distance in miles and direction from nearest town or post office*
33 miles

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
248 feet

16. No of acres in lease
80

17. Spacing Unit dedicated to this well
320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
510 feet

19. Proposed Depth
12094 feet / 22544 feet

20. BLM/BIA Bond No. in file
FED: ES0022

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3136 feet

22. Approximate date work will start*
04/30/2020

23. Estimated duration
130 days

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.
2. A Drilling Plan.
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).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	LAURA BECERRA / Ph: (432) 687-7866	10/22/2019

Title
Permitting Specialist

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	06/01/2020

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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.

GCP Rec 06/09/2020

SL

APPROVED WITH CONDITIONS

KZ

06/19/2020

Approval Date: 06/01/2020

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHEVRON USA INCORPORATED
WELL NAME & NO.:	SD 24 13 FED P416 17H
SURFACE HOLE FOOTAGE:	248'/S & 2205'/E
BOTTOM HOLE FOOTAGE	25'/N & 1650'/E
LOCATION:	Section 24, T.26 S., R.32 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	( ) Low	(•) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	( ) Multibowl	(•) Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **850** 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.

2. The **9-5/8** inch intermediate casing shall be set at approximately **4500** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In **Medium Cave/Karst 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.

3. The minimum required fill of cement behind the **7-5/8** inch 2nd intermediate liner is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **5-1/2 x 5** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

c. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

d. Second stage above DV tool:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

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.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi.

Option 2:

1. 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.

    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.

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 2nd 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 intergrity 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 intergrity 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.

NMK05262020

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

CHEVRON U.S.A. INC

Lease Number
NMNM118722 and NMLC0065876A

Lea County

Well Pad 415

SD 24 13 Fed P415 13H
Surface Hole Location: 261' FSL & 1826' FWL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 1980' FWL, Section 13, T. 26 S., R. 33 E.

SD 24 13 Fed P415 14H
Surface Hole Location: 261' FSL & 1851' FWL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 2310' FWL, Section 13, T. 26 S., R. 33 E.

SD 24 13 Fed P415 15H
Surface Hole Location: 261' FSL & 1876' FWL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 2310' FWL, Section 13, T. 26 S., R. 33 E.

SD 24 13 Fed P415 16H
Surface Hole Location: 261' FSL & 1901' FWL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 1980' FWL, Section 13, T. 26 S., R. 33 E.

Well Pad 416

SD 24 13 Fed P416 17H
Surface Hole Location: 248' FSL & 2205' FEL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 1650' FEL, Section 13, T. 26 S., R. 33 E.

SD 24 13 Fed P416 18H
Surface Hole Location: 248' FSL & 2180 FEL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 990' FEL, Section 13, T. 26 S., R. 33 E.

SD 24 13 Fed P416 19H
Surface Hole Location: 248' FSL & 2155' FEL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 660' FEL, Section 13, T. 26 S., R. 33 E.

SD 24 13 Fed P416 20H
Surface Hole Location: 248' FSL & 2130' FEL, Section 24, T. 26 S., R. 32 E.
Bottom Hole Location: 25' FNL & 330' FEL, Section 13, T. 26 S., R. 33 E.

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a

Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Watershed:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.

- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:
Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:
Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

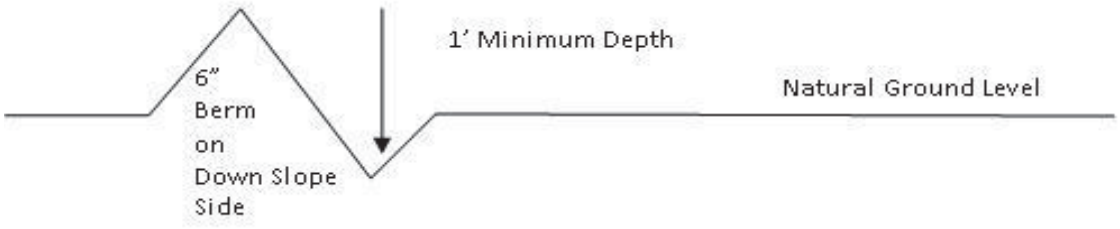
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

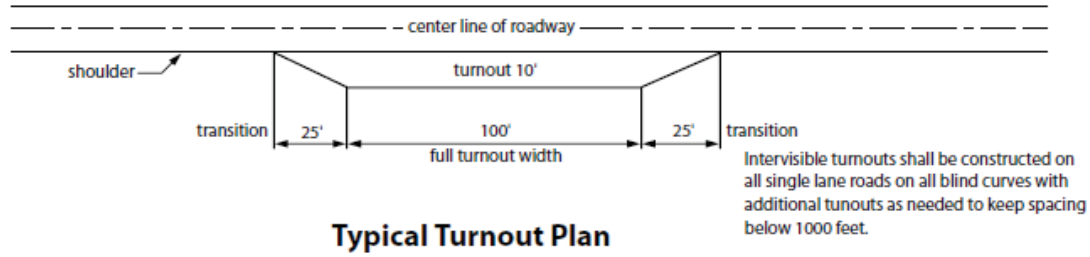
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

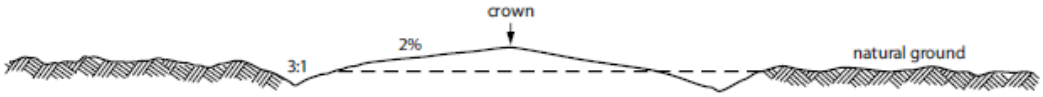
Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

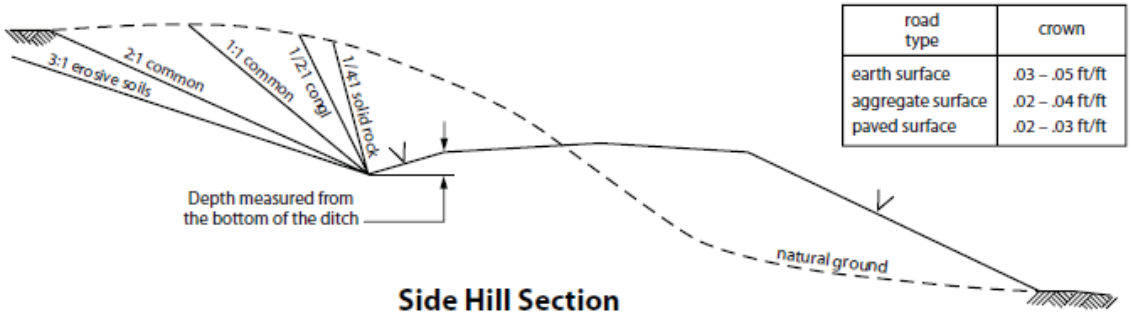


Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional tunouts as needed to keep spacing below 1000 feet.

Typical Turnout Plan

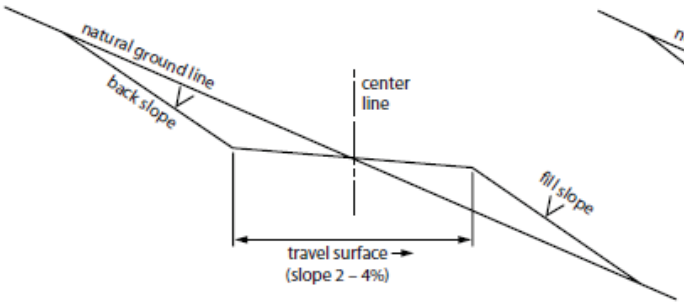


Level Ground Section

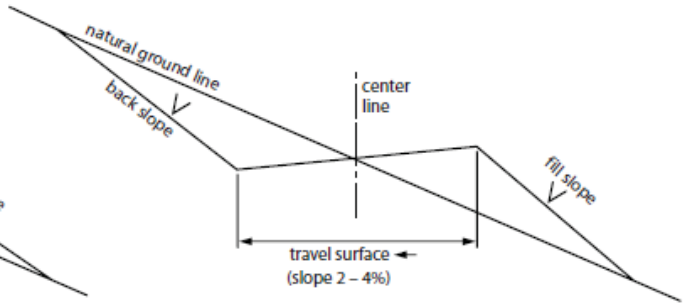


road type	crown
earth surface	.03 – .05 ft/ft
aggregate surface	.02 – .04 ft/ft
paved surface	.02 – .03 ft/ft

Side Hill Section



Typical Outsloped Section



Typical Inslope Section

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production

equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler (RSLR)		622	
Castile (CSTL)		2840	
Lamar (LMAR)		4623	
Bell Canyon (BLCN)		4652	
Cherry Canyon (CRCN)		5664	
Brushy Canyon (BCN)		7272	
Bone Spring (BSGL)		8824	
Upper Avalon (AVN)		8882	
Top Bone Spring 1 (FBS)		9726	
Top Bone Spring 2 (SBU)		10336	
Third Bone Spring 1st Carbonate		10805	
Top Bone Spring 3 (TBS)		11501	
Third Bone Spring Target 1		11859	
Wolfcamp A (WCA)		11926	
Wolfcamp A Target 1 (Y Sand)		12083	
Wolfcamp A Target 2 (WCA SH)		12130	
Wolfcamp B (WCB)		12628	
Lateral TD (WCA T1 Y Sand)		12,094	22544

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		700
Water	Rustler	622
Water	Bell Canyon	4652
Water	Cherry Canyon	5664
Oil/Gas	Brushy Canyon	7272
Oil/Gas	Bone Spring (BSGL)	8824
Oil/Gas	Upper Avalon (AVN)	8882
Oil/Gas	Top Bone Spring 1	9726
Oil/Gas	Top Bone Spring 2	10336
Oil/Gas	Top Bone Spring 3	11501
Oil/Gas	Third Bone Spring Target 1	11859
Oil/Gas	Wolfcamp	11926
Oil/Gas	Wolfcamp A Target 1 (Y Sand)	12083
Oil/Gas	Wolfcamp A Target 2 (WCA SH)	12130

All shows of fresh water and minerals will be reported and protected

3. **BOP EQUIPMENT**

Will have a minimum of a 10000 psi rig stack (see proposed schematic) for drill out below surface (Wolfcamp is not exposed until drillout of the intermediate casing). Could possibly utilize the 5000 psi rig stack (see proposed schematic) for drill out below surface casing due to the availabity of 10 M annular. (Wolfcamp is not exposed until drillout of the intermediate casing) Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs) BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC UH-S Multibowl wellhead, which will be run through the rig foor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

4. **CASING PROGRAM**

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	850'	17-1/2"	13-3/8"	54.5 #	J55	BTC	New
Intermediate 1	0'	4630'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Intermediate 2 (Liner)	4,330'	10,860'	8-1/2"	7-5/8"	29.7 #	L-80	W-513	New
Production (Taper String)	0'	10,360'	6-3/4"	5.5"	20#	P-110-ICY	TXP BTC	New
	10,360'	22,544'	6-3/4"	5"	18#	P-110 IC	W-521	New

b. Casing design subject to revision based on geologic conditions encountered.

c. *****A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalcuated & sent to the BLM prior to drilling.**

d. **Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.**

SF Calculations based on the following "Worst Case" casing design:

Surface Casing: 1150' TVD
Intermediate Casing: 5132' TVD
Intermediate Liner: 11,650' TVD
Production Casing: 23,000' MD/12,852' TVD (10,300' VS @ 90 deg inc)

4 String Design

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.48	2.10	4.91	1.80
Intermediate	1.52	1.87	2.79	1.83
Liner	1.33	2.59	1.60	1.66
Production	1.10	1.39	1.61	1.32

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int (1)	Int 2 (Liner)	Prod
Burst Design				
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X			
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 16 ppg Frac Gradient		X	X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid				X
Tubing leak- Prod Csg P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid				X
Collapse Design				
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X	X
Tension Design				
100k lb overpull	X	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water	Additives
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk	
Tail	Class C	0'	850'	14.8	1.33	50	650	6.57	Extender Antifoam Retarder
Intermediate									
Lead	Class C	0'	4,330'	11.9	2.20	30	730	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	4,330'	4630'	14.8	1.33	30	113	6.29	Antifoam Retarder Viscosifier
Liner									
Lead	Class C	4,330'	10,360'	11.9	2.17	140	462	14.69	Antifoam Extender Salt Retarder Viscosifier
Tail	Class C	10,360'	10,860'	14.8	1.33	50	59	6.29	Antifoam Extender Salt Retarder Viscosifier
Production									
Lead	Class H	7,500'	21,044'	15.6	1.19	35	1558	5.18	Antifoam Dispersent Fluid Loss Retarder Viscosifier
Tail	Class H	21,044'	22,544'	16.0	1.78	20	110	7.45	Antifoam Dispersent Fluid Loss Retarder Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

6. **MUD PROGRAM**

From	To	TVD Top	TVD Btm	Type	Weight	F. Vis	Filtrate
0'	850'	0'	850'	Spud Mud	8.3-8.7	32 - 34	NC - NC
850'	4630'	850'	4,610'	Brine	9.4-10.6	28 - 30	25-30
4630'	10,860'	4,610'	10,827'	Cut Brine	8.8-10.0	70 - 75	25-30
10,860'	22,544'	10,827'	12,094'	Oil Based Mud	12.0-14.8	70 - 75	25-30

A closed system will by utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated -- a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. **TESTING, LOGGING, AND CORING**

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling	TBD

c. Conventional whole core samples are not planned.
d. A Directional Survey will be run.

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

a. No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 8650 psi

b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

Schlumberger

Chevron SD 24 13 Fed P416 17H Rev0 jjb 02Aug19 Proposal Geodetic Report

(Def Plan)

Report Date:	August 03, 2019 - 04:08 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chevron	**Vertical Section Azimuth:**	359.650 ° (Grid North)
Field:	NM Lea County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chevron SD 24 13 Fed P416 / 17H	**TVD Reference Datum:**	RKB = 31.5ft
Well:	SD 24 13 Fed P416 17H	**TVD Reference Elevation:**	3167.500 ft above
Borehole:	SD 24 13 Fed P416 17H	**Seabed / Ground Elevation:**	3136.000 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.655 °
Survey Name:	Chevron SD 24 13 Fed P416 17H Rev0 jjb 02Aug19	**Total Gravity Field Strength:**	998.4364mgn (9.80665 Based)
Survey Date:	August 03, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	104.429 ° / 11221.443 ft / 6.337 / 0.924	**Total Magnetic Field Strength:**	47657.910 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.612 °
Location Lat / Long:	N 32° 1' 17.34343", W 103° 37' 35.29451"	**Declination Date:**	August 03, 2019
Location Grid N/E Y/X:	N 372259.000 ftUS, E 719075.000 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3748 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99996406	**Grid Convergence Used:**	0.3748 °
Version / Patch:	2.10.760.0	**Total Corr Mag North->Grid North:**	6.2804 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	100.00	0.00	109.09	100.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	200.00	0.00	109.09	200.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	300.00	0.00	109.09	300.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	400.00	0.00	109.09	400.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	500.00	0.00	109.09	500.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	600.00	0.00	109.09	600.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
Rustler	*601.27*	*0.00*	*109.09*	*601.27*	*0.00*	*0.00*	*0.00*	*0.00*	*372259.00*	*719075.00*	*N 32 1 17.34*	*W 103 37 35.29*
	700.00	0.00	109.09	700.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	800.00	0.00	109.09	800.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
13 3/8" Casing	*850.00*	*0.00*	*109.09*	*850.00*	*0.00*	*0.00*	*0.00*	*0.00*	*372259.00*	*719075.00*	*N 32 1 17.34*	*W 103 37 35.29*
	900.00	0.00	109.09	900.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	1000.00	0.00	109.09	1000.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	1100.00	0.00	109.09	1100.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	1200.00	0.00	109.09	1200.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	1300.00	0.00	109.09	1300.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	1400.00	0.00	109.09	1400.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
Build 1.5°/100ft	1500.00	0.00	109.09	1500.00	0.00	0.00	0.00	0.00	372259.00	719075.00	N 32 1 17.34	W 103 37 35.29
	1600.00	1.50	109.09	1599.99	-0.44	-0.43	1.24	1.50	372258.57	719076.24	N 32 1 17.34	W 103 37 35.28
	1700.00	3.00	109.09	1699.91	-1.74	-1.71	4.95	1.50	372257.29	719079.95	N 32 1 17.33	W 103 37 35.24
	1800.00	4.50	109.09	1799.69	-3.92	-3.85	11.13	1.50	372255.15	719086.13	N 32 1 17.30	W 103 37 35.17
	1900.00	6.00	109.09	1899.27	-6.96	-6.84	19.77	1.50	372252.16	719094.77	N 32 1 17.27	W 103 37 35.07
Hold	1966.65	7.00	109.09	1965.49	-9.48	-9.31	26.90	1.50	372249.69	719101.90	N 32 1 17.25	W 103 37 34.98
	2000.00	7.00	109.09	1998.59	-10.83	-10.64	30.74	0.00	372248.36	719105.74	N 32 1 17.24	W 103 37 34.94
	2100.00	7.00	109.09	2097.85	-14.88	-14.63	42.26	0.00	372244.37	719117.26	N 32 1 17.20	W 103 37 34.80
	2200.00	7.00	109.09	2197.10	-18.94	-18.61	53.78	0.00	372240.39	719128.77	N 32 1 17.16	W 103 37 34.67
	2300.00	7.00	109.09	2296.36	-23.00	-22.60	65.29	0.00	372236.40	719140.29	N 32 1 17.12	W 103 37 34.54
	2400.00	7.00	109.09	2395.61	-27.05	-26.58	76.81	0.00	372232.42	719151.81	N 32 1 17.08	W 103 37 34.40
	2500.00	7.00	109.09	2494.86	-31.11	-30.57	88.33	0.00	372228.43	719163.32	N 32 1 17.04	W 103 37 34.27
	2600.00	7.00	109.09	2594.12	-35.16	-34.56	99.84	0.00	372224.45	719174.84	N 32 1 17.00	W 103 37 34.14
	2700.00	7.00	109.09	2693.37	-39.22	-38.54	111.36	0.00	372220.46	719186.35	N 32 1 16.95	W 103 37 34.00
	2800.00	7.00	109.09	2792.63	-43.28	-42.53	122.87	0.00	372216.47	719197.87	N 32 1 16.91	W 103 37 33.87
	2900.00	7.00	109.09	2891.88	-47.33	-46.51	134.39	0.00	372212.49	719209.38	N 32 1 16.87	W 103 37 33.74
Castile	*2917.47*	*7.00*	*109.09*	*2909.22*	*-48.04*	*-47.21*	*136.40*	*0.00*	*372211.79*	*719211.40*	*N 32 1 16.87*	*W 103 37 33.71*
	3000.00	7.00	109.09	2991.14	-51.39	-50.50	145.91	0.00	372208.50	719220.90	N 32 1 16.83	W 103 37 33.60
	3100.00	7.00	109.09	3090.39	-55.44	-54.48	157.42	0.00	372204.52	719232.42	N 32 1 16.79	W 103 37 33.47
	3200.00	7.00	109.09	3189.65	-59.50	-58.47	168.94	0.00	372200.53	719243.93	N 32 1 16.75	W 103 37 33.34
	3300.00	7.00	109.09	3288.90	-63.56	-62.46	180.45	0.00	372196.55	719255.45	N 32 1 16.71	W 103 37 33.20
	3400.00	7.00	109.09	3388.16	-67.61	-66.44	191.97	0.00	372192.56	719266.96	N 32 1 16.67	W 103 37 33.07
	3500.00	7.00	109.09	3487.41	-71.67	-70.43	203.49	0.00	372188.58	719278.48	N 32 1 16.63	W 103 37 32.94
	3600.00	7.00	109.09	3586.67	-75.72	-74.41	215.00	0.00	372184.59	719289.99	N 32 1 16.59	W 103 37 32.80
	3700.00	7.00	109.09	3685.92	-79.78	-78.40	226.52	0.00	372180.60	719301.51	N 32 1 16.55	W 103 37 32.67
	3800.00	7.00	109.09	3785.18	-83.84	-82.38	238.04	0.00	372176.62	719313.03	N 32 1 16.51	W 103 37 32.54
	3900.00	7.00	109.09	3884.43	-87.89	-86.37	249.55	0.00	372172.63	719324.54	N 32 1 16.47	W 103 37 32.40
	4000.00	7.00	109.09	3983.69	-91.95	-90.36	261.07	0.00	372168.65	719336.06	N 32 1 16.43	W 103 37 32.27
	4100.00	7.00	109.09	4082.94	-96.00	-94.34	272.58	0.00	372164.66	719347.57	N 32 1 16.39	W 103 37 32.14
	4200.00	7.00	109.09	4182.19	-100.06	-98.33	284.10	0.00	372160.68	719359.09	N 32 1 16.35	W 103 37 32.00
	4300.00	7.00	109.09	4281.45	-104.12	-102.31	295.62	0.00	372156.69	719370.60	N 32 1 16.31	W 103 37 31.87
	4400.00	7.00	109.09	4380.70	-108.17	-106.30	307.13	0.00	372152.71	719382.12	N 32 1 16.27	W 103 37 31.74
	4500.00	7.00	109.09	4479.96	-112.23	-110.28	318.65	0.00	372148.72	719393.64	N 32 1 16.23	W 103 37 31.60
	4600.00	7.00	109.09	4579.21	-116.28	-114.27	330.16	0.00	372144.73	719405.15	N 32 1 16.19	W 103 37 31.47
Lamar	*4612.62*	*7.00*	*109.09*	*4591.74*	*-116.80*	*-114.77*	*331.62*	*0.00*	*372144.23*	*719406.61*	*N 32 1 16.19*	*W 103 37 31.45*
9 5/8" Casing	*4628.00*	*7.00*	*109.09*	*4607.00*	*-117.42*	*-115.39*	*333.39*	*0.00*	*372143.62*	*719408.38*	*N 32 1 16.18*	*W 103 37 31.43*
Bell Canyon	*4646.72*	*7.00*	*109.09*	*4625.59*	*-118.18*	*-116.13*	*335.55*	*0.00*	*372142.87*	*719410.53*	*N 32 1 16.17*	*W 103 37 31.41*
	4700.00	7.00	109.09	4678.47	-120.34	-118.26	341.68	0.00	372140.75	719416.67	N 32 1 16.15	W 103 37 31.34
	4800.00	7.00	109.09	4777.72	-124.40	-122.24	353.20	0.00	372136.76	719428.18	N 32 1 16.11	W 103 37 31.20
	4900.00	7.00	109.09	4876.98	-128.45	-126.23	364.71	0.00	372132.78	719439.70	N 32 1 16.07	W 103 37 31.07
	5000.00	7.00	109.09	4976.23	-132.51	-130.21	376.23	0.00	372128.79	719451.21	N 32 1 16.03	W 103 37 30.93
	5100.00	7.00	109.09	5075.49	-136.56	-134.20	387.75	0.00	372124.81	719462.73	N 32 1 15.99	W 103 37 30.80
	5200.00	7.00	109.09	5174.74	-140.62	-138.18	399.26	0.00	372120.82	719474.25	N 32 1 15.95	W 103 37 30.67
	5300.00	7.00	109.09	5274.00	-144.68	-142.17	410.78	0.00	372116.84	719485.76	N 32 1 15.91	W 103 37 30.53
	5400.00	7.00	109.09	5373.25	-148.73	-146.16	422.29	0.00	372112.85	719497.28	N 32 1 15.87	W 103 37 30.40
	5500.00	7.00	109.09	5472.51	-152.79	-150.14	433.81	0.00	372108.86	719508.79	N 32 1 15.83	W 103 37 30.27
	5600.00	7.00	109.09	5571.76	-156.84	-154.13	445.33	0.00	372104.88	719520.31	N 32 1 15.79	W 103 37 30.13
Cherry Canyon	*5687.00*	*7.00*	*109.09*	*5658.11*	*-160.37*	*-157.60*	*455.34*	*0.00*	*372101.41*	*719530.33*	*N 32 1 15.75*	*W 103 37 30.02*
	5700.00	7.00	109.09	5671.01	-160.90	-158.11	456.84	0.00	372100.89	719531.82	N 32 1 15.75	W 103 37 30.00
	5800.00	7.00	109.09	5770.27	-164.96	-162.10	468.36	0.00	372096.91	719543.34	N 32 1 15.71	W 103 37 29.87
	5900.00	7.00	109.09	5869.52	-169.01	-166.08	479.87	0.00	372092.92	719554.86	N 32 1 15.67	W 103 37 29.73
	6000.00	7.00	109.09	5968.78	-173.07	-170.07	491.39	0.00	372088.94	719566.37	N 32 1 15.63	W 103 37 29.60
	6100.00	7.00	109.09	6068.03	-177.13	-174.06	502.91	0.00	372084.95	719577.89	N 32 1 15.59	W 103 37 29.47
	6200.00	7.00	109.09	6167.29	-181.18	-178.04	514.42	0.00	372080.96	719589.40	N 32 1 15.55	W 103 37 29.33
	6300.00	7.00	109.09	6266.54	-185.24	-182.03	525.94	0.00	372076.98	719600.92	N 32 1 15.51	W 103 37 29.20
Drop 1.5°/100ft	6321.60	7.00	109.09	6287.98	-186.11	-182.89	528.43	0.00	372076.12	719603.41	N 32 1 15.50	W 103 37 29.17
	6400.00	5.82	109.09	6365.89	-189.03	-185.75	536.70	1.50	372073.25	719611.68	N 32 1 15.47	W 103 37 29.08
	6500.00	4.32	109.09	6465.50	-191.97	-188.64	545.06	1.50	372070.36	719620.04	N 32 1 15.44	W 103 37 28.98
	6600.00	2.82	109.09	6565.30	-194.05	-190.68	550.95	1.50	372068.32	719625.93	N 32 1 15.42	W 103 37 28.91
	6700.00	1.32	109.09	6665.23	-195.25	-191.87	554.37	1.50	372067.14	719629.35	N 32 1 15.41	W 103 37 28.87
Hold Vertical	6788.25	0.00	109.09	6753.47	-195.59	-192.20	555.33	1.50	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	6800.00	0.00	109.09	6765.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	6900.00	0.00	109.09	6865.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7000.00	0.00	109.09	6965.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7100.00	0.00	109.09	7065.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7200.00	0.00	109.09	7165.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
Brushy Canyon	*7291.17*	*0.00*	*109.09*	*7256.39*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
	7300.00	0.00	109.09	7265.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7400.00	0.00	109.09	7365.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7500.00	0.00	109.09	7465.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7600.00	0.00	109.09	7565.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7700.00	0.00	109.09	7665.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7800.00	0.00	109.09	7765.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	7900.00	0.00	109.09	7865.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8000.00	0.00	109.09	7965.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8100.00	0.00	109.09	8065.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8200.00	0.00	109.09	8165.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8300.00	0.00	109.09	8265.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8400.00	0.00	109.09	8365.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8500.00	0.00	109.09	8465.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8600.00	0.00	109.09	8565.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8700.00	0.00	109.09	8665.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	8800.00	0.00	109.09	8765.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
Bone Spring	*8837.39*	*0.00*	*109.09*	*8802.61*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
Upper Avalon	*8891.80*	*0.00*	*109.09*	*8857.02*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
	8900.00	0.00	109.09	8865.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9000.00	0.00	109.09	8965.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9100.00	0.00	109.09	9065.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9200.00	0.00	109.09	9165.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9300.00	0.00	109.09	9265.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9400.00	0.00	109.09	9365.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9500.00	0.00	109.09	9465.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9600.00	0.00	109.09	9565.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9700.00	0.00	109.09	9665.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
Top Bone Spring 1	*9737.95*	*0.00*	*109.09*	*9703.17*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
	9800.00	0.00	109.09	9765.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	9900.00	0.00	109.09	9865.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10000.00	0.00	109.09	9965.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10100.00	0.00	109.09	10065.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10200.00	0.00	109.09	10165.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10300.00	0.00	109.09	10265.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
Top Bone Spring 2	*10355.30*	*0.00*	*109.09*	*10320.52*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
	10400.00	0.00	109.09	10365.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10500.00	0.00	109.09	10465.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10600.00	0.00	109.09	10565.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10700.00	0.00	109.09	10665.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	10800.00	0.00	109.09	10765.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
Third Bone Spring 1st Carbonate	*10825.99*	*0.00*	*109.09*	*10791.21*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
7 5/8" Casing	*10851.78*	*0.00*	*109.09*	*10817.00*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
	10900.00	0.00	109.09	10865.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11000.00	0.00	109.09	10965.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11100.00	0.00	109.09	11065.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11200.00	0.00	109.09	11165.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11300.00	0.00	109.09	11265.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11400.00	0.00	109.09	11365.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11500.00	0.00	109.09	11465.22	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
Top Bone Spring 3	*11512.78*	*0.00*	*109.09*	*11478.00*	*-195.59*	*-192.20*	*555.33*	*0.00*	*372066.81*	*719630.31*	*N 32 1 15.41*	*W 103 37 28.86*
KOP, Build 10°/100ft	11583.25	0.00	109.09	11548.47	-195.59	-192.20	555.33	0.00	372066.81	719630.31	N 32 1 15.41	W 103 37 28.86
	11600.00	1.68	359.65	11565.22	-195.34	-191.96	555.33	10.00	372067.05	719630.31	N 32 1 15.41	W 103 37 28.86
	11700.00	11.68	359.65	11664.42	-183.73	-180.35	555.26	10.00	372078.66	719630.24	N 32 1 15.52	W 103 37 28.86
	11800.00	21.68	359.65	11760.09	-155.08	-151.69	555.08	10.00	372107.32	719630.06	N 32 1 15.81	W 103 37 28.86
FTP Cross	*11825.00*	*24.18*	*359.65*	*11783.11*	*-145.34*	*-141.95*	*555.02*	*10.00*	*372117.05*	*719630.00*	*N 32 1 15.90*	*W 103 37 28.86*
Third Bone Spring Target 1	*11871.83*	*28.86*	*359.65*	*11825.00*	*-124.44*	*-121.05*	*554.90*	*10.00*	*372137.95*	*719629.88*	*N 32 1 16.11*	*W 103 37 28.86*
	11900.00	31.68	359.65	11849.33	-110.24	-106.85	554.81	10.00	372152.15	719629.79	N 32 1 16.25	W 103 37 28.86
Wolfcamp A	*11964.36*	*38.11*	*359.65*	*11902.09*	*-73.45*	*-70.06*	*554.59*	*10.00*	*372188.94*	*719629.56*	*N 32 1 16.61*	*W 103 37 28.86*
	12000.00	41.68	359.65	11929.43	-50.59	-47.20	554.45	10.00	372211.80	719629.43	N 32 1 16.84	W 103 37 28.86
	12100.00	51.68	359.65	11997.96	22.07	25.45	554.00	10.00	372284.45	719628.98	N 32 1 17.56	W 103 37 28.86
	12200.00	61.68	359.65	12052.83	105.52	108.90	553.50	10.00	372367.90	719628.47	N 32 1 18.39	W 103 37 28.86
Wolfcamp A Target 1	*12216.17*	*63.29*	*359.65*	*12060.30*	*119.86*	*123.24*	*553.41*	*10.00*	*372382.24*	*719628.39*	*N 32 1 18.53*	*W 103 37 28.86*
	12300.00	71.68	359.65	12092.37	197.23	200.61	552.94	10.00	372459.60	719627.92	N 32 1 19.29	W 103 37 28.86
Wolfcamp A Target 2	*12337.58*	*75.43*	*359.65*	*12103.01*	*233.26*	*236.65*	*552.72*	*10.00*	*372495.64*	*719627.70*	*N 32 1 19.65*	*W 103 37 28.86*
	12400.00	81.68	359.65	12115.39	294.41	297.79	552.35	10.00	372556.78	719627.32	N 32 1 20.25	W 103 37 28.86
Land Vertical	12475.62	89.24	359.65	12121.38	369.74	373.12	551.89	10.00	372632.10	719626.87	N 32 1 21.00	W 103 37 28.86
	12500.00	89.24	359.65	12121.70	394.12	397.50	551.74	0.00	372656.48	719626.72	N 32 1 21.24	W 103 37 28.86
	12600.00	89.24	359.65	12123.03	494.11	497.49	551.13	0.00	372756.47	719626.11	N 32 1 22.23	W 103 37 28.86
	12700.00	89.24	359.65	12124.36	594.10	597.48	550.52	0.00	372856.45	719625.50	N 32 1 23.22	W 103 37 28.85
	12800.00	89.24	359.65	12125.70	694.09	697.46	549.91	0.00	372956.44	719624.89	N 32 1 24.21	W 103 37 28.85
	12900.00	89.24	359.65	12127.03	794.08	797.45	549.30	0.00	373056.42	719624.28	N 32 1 25.20	W 103 37 28.85
	13000.00	89.24	359.65	12128.36	894.07	897.44	548.69	0.00	373156.41	719623.67	N 32 1 26.19	W 103 37 28.85
	13100.00	89.24	359.65	12129.69	994.07	997.43	548.08	0.00	373256.39	719623.06	N 32 1 27.18	W 103 37 28.85
	13200.00	89.24	359.65	12131.02	1094.06	1097.42	547.47	0.00	373356.38	719622.45	N 32 1 28.17	W 103 37 28.85
	13300.00	89.24	359.65	12132.35	1194.05	1197.41	546.86	0.00	373456.37	719621.84	N 32 1 29.16	W 103 37 28.85
	13400.00	89.24	359.65	12133.68	1294.04	1297.40	546.26	0.00	373556.35	719621.23	N 32 1 30.15	W 103 37 28.85
	13500.00	89.24	359.65	12135.02	1394.03	1397.39	545.65	0.00	373656.34	719620.63	N 32 1 31.14	W 103 37 28.85
	13600.00	89.24	359.65	12136.35	1494.02	1497.38	545.04	0.00	373756.32	719620.02	N 32 1 32.13	W 103 37 28.85
	13700.00	89.24	359.65	12137.68	1594.01	1597.37	544.43	0.00	373856.31	719619.41	N 32 1 33.12	W 103 37 28.85
	13800.00	89.24	359.65	12139.01	1694.00	1697.36	543.82	0.00	373956.29	719618.80	N 32 1 34.10	W 103 37 28.85
	13900.00	89.24	359.65	12140.34	1793.99	1797.35	543.21	0.00	374056.28	719618.19	N 32 1 35.09	W 103 37 28.85
	14000.00	89.24	359.65	12141.67	1893.99	1897.34	542.60	0.00	374156.26	719617.58	N 32 1 36.08	W 103 37 28.85
	14100.00	89.24	359.65	12143.00	1993.98	1997.33	541.99	0.00	374256.25	719616.97	N 32 1 37.07	W 103 37 28.85
	14200.00	89.24	359.65	12144.34	2093.97	2097.31	541.38	0.00	374356.24	719616.36	N 32 1 38.06	W 103 37 28.85
	14300.00	89.24	359.65	12145.67	2193.96	2197.30	540.77	0.00	374456.22	719615.75	N 32 1 39.05	W 103 37 28.85
	14400.00	89.24	359.65	12147.00	2293.95	2297.29	540.16	0.00	374556.21	719615.14	N 32 1 40.04	W 103 37 28.85
	14500.00	89.24	359.65	12148.33	2393.94	2397.28	539.56	0.00	374656.19	719614.53	N 32 1 41.03	W 103 37 28.85
IFP1, Build 2°/100ft	14587.82	89.24	359.65	12149.50	2481.76	2485.09	539.02	0.00	374744.00	719614.00	N 32 1 41.90	W 103 37 28.84
	14600.00	89.48	359.65	12149.64	2493.93	2497.27	538.95	2.00	374756.18	719613.93	N 32 1 42.02	W 103 37 28.84
Hold	14642.90	90.34	359.65	12149.70	2536.83	2540.17	538.68	2.00	374799.07	719613.66	N 32 1 42.44	W 103 37 28.84
	14700.00	90.34	359.65	12149.37	2593.93	2597.27	538.34	0.00	374856.17	719613.32	N 32 1 43.01	W 103 37 28.84
	14800.00	90.34	359.65	12148.78	2693.93	2697.27	537.73	0.00	374956.16	719612.71	N 32 1 44.00	W 103 37 28.84
	14900.00	90.34	359.65	12148.18	2793.93	2797.26	537.12	0.00	375056.16	719612.10	N 32 1 44.99	W 103 37 28.84
	15000.00	90.34	359.65	12147.59	2893.93	2897.26	536.51	0.00	375156.15	719611.49	N 32 1 45.98	W 103 37 28.84
	15100.00	90.34	359.65	12147.00	2993.92	2997.25	535.90	0.00	375256.14	719610.88	N 32 1 46.97	W 103 37 28.84
	15200.00	90.34	359.65	12146.41	3093.92	3097.25	535.29	0.00	375356.13	719610.27	N 32 1 47.96	W 103 37 28.84
	15300.00	90.34	359.65	12145.82	3193.92	3197.25	534.68	0.00	375456.13	719609.66	N 32 1 48.95	W 103 37 28.84
	15400.00	90.34	359.65	12145.23	3293.92	3297.24	534.07	0.00	375556.12	719609.05	N 32 1 49.94	W 103 37 28.84
	15500.00	90.34	359.65	12144.64	3393.92	3397.24	533.46	0.00	375656.11	719608.44	N 32 1 50.93	W 103 37 28.84
	15600.00	90.34	359.65	12144.05	3493.92	3497.24	532.86	0.00	375756.10	719607.84	N 32 1 51.92	W 103 37 28.84
	15700.00	90.34	359.65	12143.46	3593.91	3597.23	532.25	0.00	375856.10	719607.23	N 32 1 52.91	W 103 37 28.84
	15800.00	90.34	359.65	12142.86	3693.91	3697.23	531.64	0.00	375956.09	719606.62	N 32 1 53.90	W 103 37 28.84
	15900.00	90.34	359.65	12142.27	3793.91	3797.23	531.03	0.00	376056.08	719606.01	N 32 1 54.88	W 103 37 28.84
	16000.00	90.34	359.65	12141.68	3893.91	3897.22	530.42	0.00	376156.07	719605.40	N 32 1 55.87	W 103 37 28.84
	16100.00	90.34	359.65	12141.09	3993.91	3997.22	529.81	0.00	376256.07	719604.79	N 32 1 56.86	W 103 37 28.84
	16200.00	90.34	359.65	12140.50	4093.91	4097.21	529.20	0.00	376356.06	719604.18	N 32 1 57.85	W 103 37 28.84
	16300.00	90.34	359.65	12139.91	4193.90	4197.21	528.59	0.00	376456.05	719603.57	N 32 1 58.84	W 103 37 28.84
	16400.00	90.34	359.65	12139.32	4293.90	4297.21	527.98	0.00	376556.04	719602.96	N 32 1 59.83	W 103 37 28.83
	16500.00	90.34	359.65	12138.73	4393.90	4397.20	527.37	0.00	376656.04	719602.35	N 32 2 0.82	W 103 37 28.83
	16600.00	90.34	359.65	12138.14	4493.90	4497.20	526.77	0.00	376756.03	719601.75	N 32 2 1.81	W 103 37 28.83
	16700.00	90.34	359.65	12137.54	4593.90	4597.20	526.16	0.00	376856.02	719601.14	N 32 2 2.80	W 103 37 28.83
	16800.00	90.34	359.65	12136.95	4693.90	4697.19	525.55	0.00	376956.01	719600.53	N 32 2 3.79	W 103 37 28.83
	16900.00	90.34	359.65	12136.36	4793.89	4797.19	524.94	0.00	377056.01	719599.92	N 32 2 4.78	W 103 37 28.83
	17000.00	90.34	359.65	12135.77	4893.89	4897.19	524.33	0.00	377156.00	719599.31	N 32 2 5.77	W 103 37 28.83
	17100.00	90.34	359.65	12135.18	4993.89	4997.18	523.72	0.00	377255.99	719598.70	N 32 2 6.76	W 103 37 28.83
	17200.00	90.34	359.65	12134.59	5093.89	5097.18	523.11	0.00	377355.99	719598.09	N 32 2 7.75	W 103 37 28.83
MP, Build 2°/100ft	17215.02	90.34	359.65	12134.50	5108.90	5112.19	523.02	0.00	377371.00	719598.00	N 32 2 7.90	W 103 37 28.83
Hold	17219.59	90.43	359.65	12134.47	5113.47	5116.76	522.99	2.00	377375.57	719597.97	N 32 2 7.94	W 103 37 28.83

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	17300.00	90.43	359.65	12133.87	5193.89	5197.17	522.50	0.00	377455.98	719597.48	N 32 2 8.74	W 103 37 28.83
	17400.00	90.43	359.65	12133.12	5293.88	5297.17	521.89	0.00	377555.97	719596.87	N 32 2 9.73	W 103 37 28.83
	17500.00	90.43	359.65	12132.36	5393.88	5397.16	521.28	0.00	377655.96	719596.26	N 32 2 10.72	W 103 37 28.83
	17600.00	90.43	359.65	12131.61	5493.88	5497.16	520.67	0.00	377755.95	719595.65	N 32 2 11.71	W 103 37 28.83
	17700.00	90.43	359.65	12130.86	5593.87	5597.16	520.06	0.00	377855.94	719595.04	N 32 2 12.70	W 103 37 28.83
	17800.00	90.43	359.65	12130.11	5693.87	5697.15	519.45	0.00	377955.93	719594.43	N 32 2 13.69	W 103 37 28.83
	17900.00	90.43	359.65	12129.36	5793.87	5797.15	518.84	0.00	378055.93	719593.82	N 32 2 14.68	W 103 37 28.83
	18000.00	90.43	359.65	12128.61	5893.87	5897.14	518.23	0.00	378155.92	719593.21	N 32 2 15.67	W 103 37 28.83
	18100.00	90.43	359.65	12127.86	5993.86	5997.14	517.62	0.00	378255.91	719592.60	N 32 2 16.65	W 103 37 28.83
	18200.00	90.43	359.65	12127.11	6093.86	6097.13	517.01	0.00	378355.90	719591.99	N 32 2 17.64	W 103 37 28.82
	18300.00	90.43	359.65	12126.36	6193.86	6197.13	516.40	0.00	378455.89	719591.38	N 32 2 18.63	W 103 37 28.82
	18400.00	90.43	359.65	12125.61	6293.85	6297.12	515.79	0.00	378555.88	719590.77	N 32 2 19.62	W 103 37 28.82
	18500.00	90.43	359.65	12124.86	6393.85	6397.12	515.18	0.00	378655.88	719590.16	N 32 2 20.61	W 103 37 28.82
	18600.00	90.43	359.65	12124.11	6493.85	6497.11	514.57	0.00	378755.87	719589.55	N 32 2 21.60	W 103 37 28.82
	18700.00	90.43	359.65	12123.36	6593.85	6597.11	513.96	0.00	378855.86	719588.94	N 32 2 22.59	W 103 37 28.82
	18800.00	90.43	359.65	12122.61	6693.84	6697.10	513.35	0.00	378955.85	719588.33	N 32 2 23.58	W 103 37 28.82
	18900.00	90.43	359.65	12121.86	6793.84	6797.10	512.74	0.00	379055.84	719587.73	N 32 2 24.57	W 103 37 28.82
	19000.00	90.43	359.65	12121.11	6893.84	6897.09	512.13	0.00	379155.83	719587.12	N 32 2 25.56	W 103 37 28.82
	19100.00	90.43	359.65	12120.35	6993.83	6997.09	511.52	0.00	379255.82	719586.51	N 32 2 26.55	W 103 37 28.82
	19200.00	90.43	359.65	12119.60	7093.83	7097.09	510.92	0.00	379355.82	719585.90	N 32 2 27.54	W 103 37 28.82
	19300.00	90.43	359.65	12118.85	7193.83	7197.08	510.31	0.00	379455.81	719585.29	N 32 2 28.53	W 103 37 28.82
	19400.00	90.43	359.65	12118.10	7293.83	7297.08	509.70	0.00	379555.80	719584.68	N 32 2 29.52	W 103 37 28.82
	19500.00	90.43	359.65	12117.35	7393.82	7397.07	509.09	0.00	379655.79	719584.07	N 32 2 30.51	W 103 37 28.82
	19600.00	90.43	359.65	12116.60	7493.82	7497.07	508.48	0.00	379755.78	719583.46	N 32 2 31.50	W 103 37 28.82
	19700.00	90.43	359.65	12115.85	7593.82	7597.06	507.87	0.00	379855.77	719582.85	N 32 2 32.49	W 103 37 28.82
	19800.00	90.43	359.65	12115.10	7693.82	7697.06	507.26	0.00	379955.77	719582.24	N 32 2 33.48	W 103 37 28.82
	19900.00	90.43	359.65	12114.35	7793.81	7797.05	506.65	0.00	380055.76	719581.63	N 32 2 34.47	W 103 37 28.82
	20000.00	90.43	359.65	12113.60	7893.81	7897.05	506.04	0.00	380155.75	719581.02	N 32 2 35.46	W 103 37 28.82
	20100.00	90.43	359.65	12112.85	7993.81	7997.04	505.43	0.00	380255.74	719580.41	N 32 2 36.45	W 103 37 28.81
	20200.00	90.43	359.65	12112.10	8093.80	8097.04	504.82	0.00	380355.73	719579.80	N 32 2 37.44	W 103 37 28.81
	20300.00	90.43	359.65	12111.35	8193.80	8197.03	504.21	0.00	380455.72	719579.19	N 32 2 38.42	W 103 37 28.81
	20400.00	90.43	359.65	12110.60	8293.80	8297.03	503.60	0.00	380555.71	719578.58	N 32 2 39.41	W 103 37 28.81
	20500.00	90.43	359.65	12109.85	8393.80	8397.02	502.99	0.00	380655.71	719577.97	N 32 2 40.40	W 103 37 28.81
	20600.00	90.43	359.65	12109.10	8493.79	8497.02	502.38	0.00	380755.70	719577.36	N 32 2 41.39	W 103 37 28.81
	20700.00	90.43	359.65	12108.34	8593.79	8597.02	501.77	0.00	380855.69	719576.75	N 32 2 42.38	W 103 37 28.81
	20800.00	90.43	359.65	12107.59	8693.79	8697.01	501.16	0.00	380955.68	719576.14	N 32 2 43.37	W 103 37 28.81
	20900.00	90.43	359.65	12106.84	8793.78	8797.01	500.55	0.00	381055.67	719575.53	N 32 2 44.36	W 103 37 28.81
	21000.00	90.43	359.65	12106.09	8893.78	8897.00	499.94	0.00	381155.66	719574.92	N 32 2 45.35	W 103 37 28.81
	21100.00	90.43	359.65	12105.34	8993.78	8997.00	499.33	0.00	381255.66	719574.31	N 32 2 46.34	W 103 37 28.81
	21200.00	90.43	359.65	12104.59	9093.78	9096.99	498.72	0.00	381355.65	719573.70	N 32 2 47.33	W 103 37 28.81
	21300.00	90.43	359.65	12103.84	9193.77	9196.99	498.11	0.00	381455.64	719573.09	N 32 2 48.32	W 103 37 28.81
	21400.00	90.43	359.65	12103.09	9293.77	9296.98	497.50	0.00	381555.63	719572.48	N 32 2 49.31	W 103 37 28.81
Wolfcamp A Target 2	*21410.73*	*90.43*	*359.65*	*12103.01*	*9304.50*	*9307.71*	*497.43*	*0.00*	*381566.36*	*719572.41*	*N 32 2 49.42*	*W 103 37 28.81*
	21500.00	90.43	359.65	12102.34	9393.77	9396.98	496.89	0.00	381655.62	719571.87	N 32 2 50.30	W 103 37 28.81
	21600.00	90.43	359.65	12101.59	9493.76	9496.97	496.28	0.00	381755.61	719571.26	N 32 2 51.29	W 103 37 28.81
	21700.00	90.43	359.65	12100.84	9593.76	9596.97	495.67	0.00	381855.60	719570.65	N 32 2 52.28	W 103 37 28.81
	21800.00	90.43	359.65	12100.09	9693.76	9696.96	495.06	0.00	381955.60	719570.04	N 32 2 53.27	W 103 37 28.81
	21900.00	90.43	359.65	12099.34	9793.76	9796.96	494.45	0.00	382055.59	719569.43	N 32 2 54.26	W 103 37 28.81
	22000.00	90.43	359.65	12098.59	9893.75	9896.95	493.84	0.00	382155.58	719568.82	N 32 2 55.25	W 103 37 28.80
	22100.00	90.43	359.65	12097.84	9993.75	9996.95	493.23	0.00	382255.57	719568.21	N 32 2 56.24	W 103 37 28.80
	22200.00	90.43	359.65	12097.09	10093.75	10096.95	492.62	0.00	382355.56	719567.60	N 32 2 57.23	W 103 37 28.80
	22300.00	90.43	359.65	12096.34	10193.74	10196.94	492.01	0.00	382455.55	719566.99	N 32 2 58.22	W 103 37 28.80
	22400.00	90.43	359.65	12095.58	10293.74	10296.94	491.40	0.00	382555.55	719566.38	N 32 2 59.21	W 103 37 28.80
LTP Cross	*22469.17*	*90.43*	*359.65*	*12095.07*	*10362.91*	*10366.10*	*490.98*	*0.00*	*382624.71*	*719565.96*	*N 32 2 59.89*	*W 103 37 28.80*
	22500.00	90.43	359.65	12094.83	10393.74	10396.93	490.79	0.00	382655.54	719565.77	N 32 3 0.19	W 103 37 28.80
SD 24 13 Fed P416 17H - PBHL	22544.47	90.43	359.65	12094.50	10438.20	10441.40	490.52	0.00	382700.00	719565.50	N 32 3 0.63	W 103 37 28.80

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 3-D 97.071% Confidence 3.0000 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	31.500	1/100.000	30.000	30.000		B001Mb_MWD+HRGM-Depth Only	SD 24 13 Fed P416 17H / Chevron SD 24 13 Fed P416 17H Rev0 jjb 02Aug19
	1	31.500	22544.467	1/100.000	30.000	30.000		B001Mb_MWD+HRGM	SD 24 13 Fed P416 17H / Chevron SD 24 13 Fed P416 17H

H_2S Preparedness and Contingency Plan Summary

SD 24 13 FED P416 17H – 20H

Training

MCBU Drilling and Completions H_2S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H_2S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H_2S, who are not required to perform work in H_2S areas, will be provided with an awareness level of H_2S training prior to entering any H_2S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H_2S
2. Health hazards of H_2S
3. Personal protective equipment
4. Information regarding potential sources of H_2S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

Advanced Level H_2S Training

Employees and contractors required to work in areas that may contain H_2S will be provided with Advanced Level H_2S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H_2S training will include:

1. H_2S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H_2S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H_2S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H_2S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform “standby” duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H_2S training;
6. Proficiency examination covering all course material.

Advanced H_2S training courses will be instructed by personnel who have successfully completed an appropriate H_2S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

H_2S Training Certification

All employees and visitors will be issued an H_2S training certification card (or certificate) upon successful completion of the appropriate H_2S training course. Personnel working in an H_2S environment will carry a current H_2S training certification card as proof of having received the proper training on their person at all times.

Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be up-wind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

H_2S Equipment

Respiratory Protection

a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.

b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

Visual Warning System

a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.

b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

H_2S Detection and Monitoring System

a) H_2S monitoring system (sensor head, warning light and siren) placed throughout rig.

- Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
- Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.

Well Control Equipment

a) Flare Line 150' from wellhead with igniter.

b) Choke manifold with a remotely operated choke.

c) Mud / gas separator

Mud Program

In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

1. Use of a degasser
2. Use of a zinc based mud treatment
3. Increasing mud weight

Public Safety - Emergency Assistance

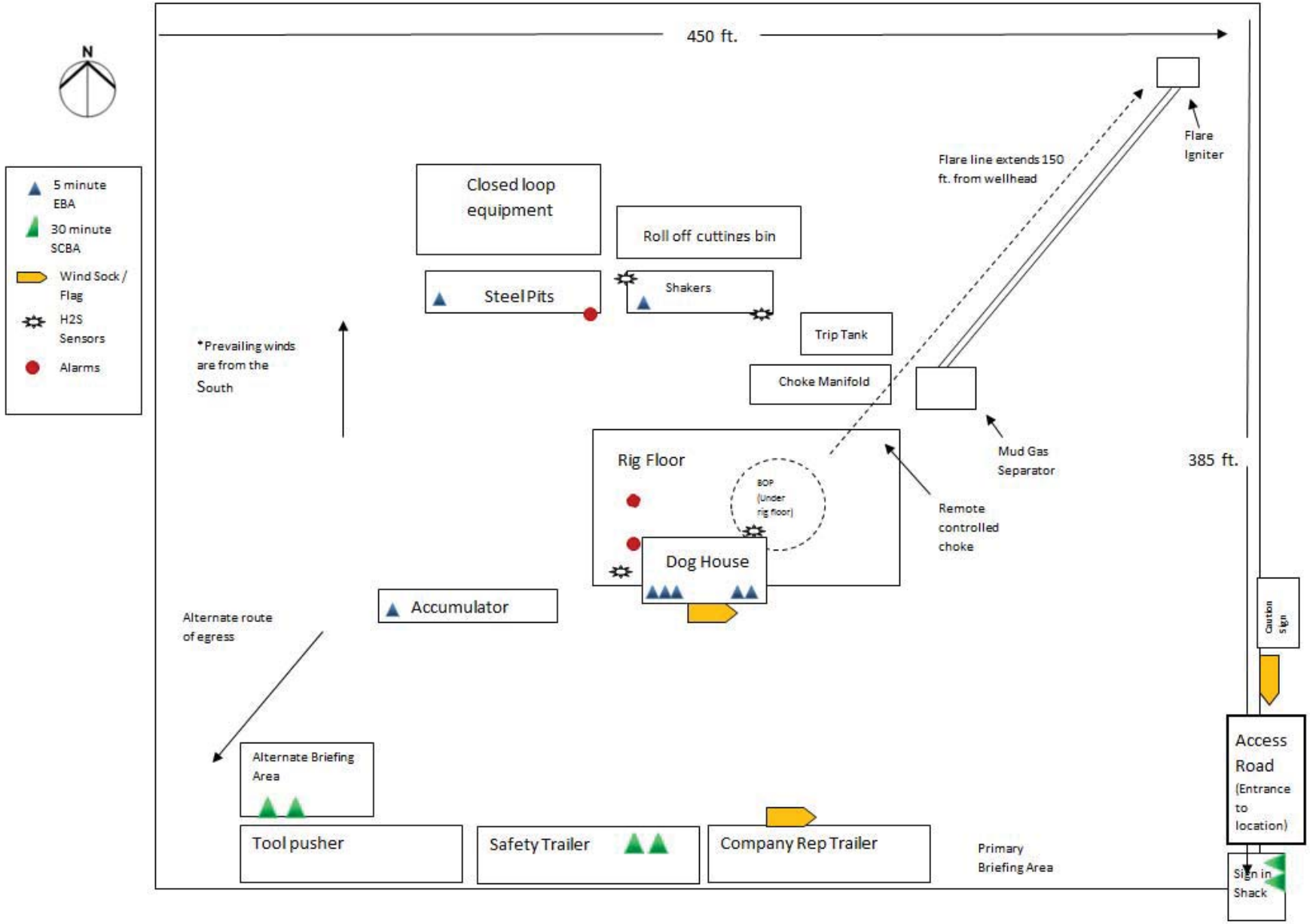
Agency	Telephone Number
Lea County Sheriff's Department	575-396-3611
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Lea County Regional Medical Center	575-492-5000
Jal Community Hospital	505-395-2511
Lea County Emergency Management	575-396-8602
Poison Control Center	800-222-1222

Chevron MCBU D&C Emergency Notifications

Below are lists of contacts to be used in emergency situations.

	Name	Title	Office Number	Cell Phone
1.	**Tony Bacon**	Drilling Engineer	(713) 372-4025	(406) 989-0415
2.	Chuck Schaff	Superintendent	(713) 372-4500	(281) 714-9329
5.	Scott Bowman	Drilling Manager	(713) 372-4479	(713) 492-4479
6.	Kyle Eastman	Operations Manager		(281) 755-6554
7.	Scott Simpson	D&C HES	(713) 372-7597	(281) 414 -6675
8.	Cynthia Lynch	Completion Engineer		(281) 254-0483

H_2S Preparedness and Contingency Plan Summary



Chevron U.S.A. Inc. (CUSA)
SUNDRY ATTACHMENT: SPUDDER RIG

DATA OPERATOR NAME: Chevron U.S.A. Inc.

1. SUMMARY OF REQUEST:

CUSA respectfully requests approval for the following operations for the surface hole in the drill plan:

1. Utilize a spudder rig to pre-set surface casing for time and cost savings.

2. Description of Operations

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
   - **a.** After drilling the surface hole section, the spudder rig will run casing and cement following all the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
   - **b.** The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.

2. The wellhead will be installed and then tested offline after the WOC time has been reached.

3. An abandonment cap at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on one wing-valve.
   - **a.** A means for intervention will be maintained while the drilling rig is not over the well.

4. Spudder rig operations are expected to take 2-3 days per well on the pad.

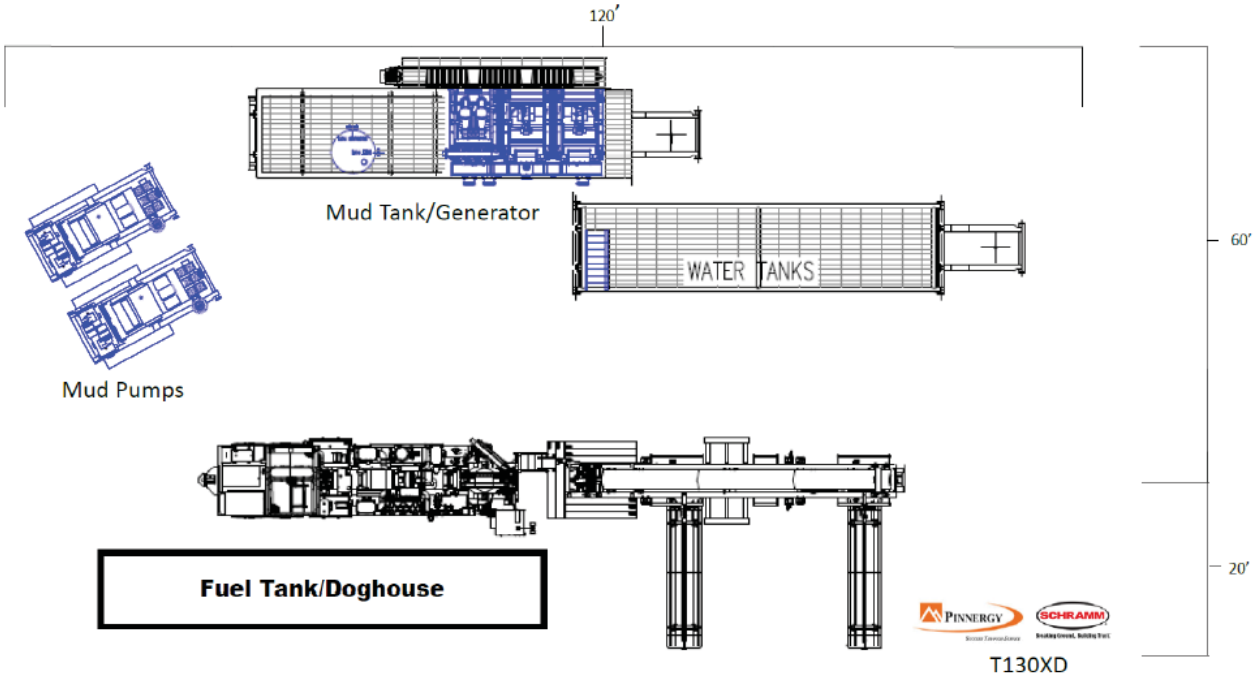
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.

6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
   - **a.** The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
   - **b.** The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.

7. CUSA will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.

8. Once the rig is removed, CUSA will secure the wellhead area by placing a guard rail around the cellar area.

Surface Rig Layout



Delaware Basin
Changes to APD / COA for Federal Well

Well Names:

Well Name		API #
SD 24 13 Fed P416	17H	*Pending*
SD 24 13 Fed P416	18H	*Pending*
SD 24 13 Fed P416	19H	*Pending*
SD 24 13 Fed P416	20H	*Pending*

Rig: Nabors X30

CVX CONTACT:

CODY LEATHERS
CHEVRON D&C ENGINEER
1400 SMITH ST, HOUSTON, TX
MOBILE: 832.523.6837
OFFICE: 713.372.8263
CODYLEATHERS@CHEVRON.COM

Summary of Changes to APD Submission

Chevron respectfully requests to vary from the Onshore Order 2 where it states:

> *"(A full BOP Test) shall be performed: when initially installed and whenever any seal subject to test pressure is broken."*

We propose to perform a "break test" on the BOP when able to finish the next hole section within 21 days of the previous full BOP test. Upon the first nipple up of the pad a full BOP test will be performed. The break test will consist of a 250 psi low / ≥ 5,000 psi high (10 min ea.) test against the connection that was broken when skidding the rig (between the BOP and the wellhead). Time between full BOP tests will never surpass 21 days. A break test will not be performed on our last production hole section. A break test will only be performed on operations where BLM documentation states a 5M or less BOP can be utilized.

See figure below where skid sequence shows all possible skids between wells where break test may occur.

Drilling Sequence & Slot Designation (West to East)

	SD 23 14 Fed P416			
	17H	18H	19H	20H
Surface	Drilled by surface rig			
Intermediate 1	1	3	5	7
Intermediate 2 Liner	2	4	6	8
Pilot Hole				
Production	12	11	10	9

Delaware Basin
Changes to APD for Federal Well

CHEVRON CONTACT:

TONY BACON
DRILLING ENGINEER
1400 SMITH ST.
HOUSTON, TX 77002

DESK: HOU140/43-014
CELL: 406-989-0415
EMAIL: TONYBACON@CHEVRON.COM

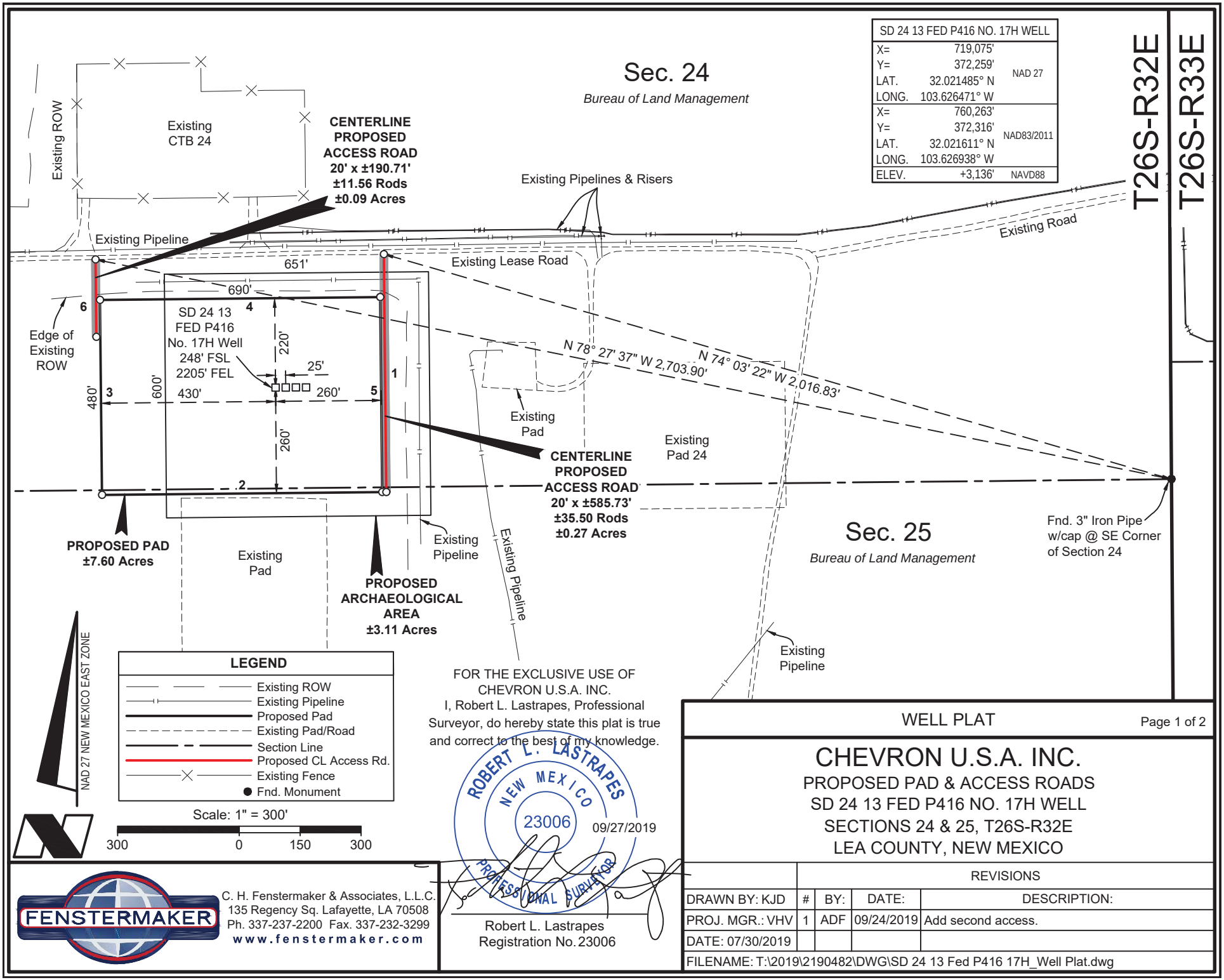
Summary of Changes to MPD Submission

BOP Equipment – CoFlex Hose (Section 3 of 9 Point Drilling Plan in MPD)

BOP Equipment – CoFlex Hose

Summary: Variance to use a CoFlex hose between BOP and choke manifold not requested in original submittal.

As Defined in MPD:	As Planned on Well:
Variance to use CoFlex hose not requested.	Chevron requests a variance to use a CoFlex hose with a metal protective covering that will be utilized between the BOP and Choke manifold. Please refer to the attached testing and specification documents.



FOR THE EXCLUSIVE USE OF CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional Surveyor, do hereby state this plat is true and correct to the best of my knowledge.

ROBERT L. LASTRAPES NEW MEXICO 23006 09/27/2019 PROFESSIONAL SURVEYOR

Robert L. Lastrapes
Registration No. 23006

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

WELL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD & ACCESS ROADS
SD 24 13 FED P416 NO. 17H WELL
SECTIONS 24 & 25, T26S-R32E
LEA COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: KJD	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV	1	ADF	09/24/2019	Add second access.
DATE: 07/30/2019				
FILENAME: T:\2019\2190482\DWG\SD 24 13 Fed P416 17H_Well Plat.dwg				

DISCLAIMER: At this time, C. H. Fenstermaker & Associates, L.L.C. has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

NOTE:
Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100 % effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc. may exist undetected on site.

NOTE:
Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities. For guidance, New Mexico One Call www.nm811.org

NW ARCH AREA CORNER			NE ARCH AREA CORNER		
X=	718,801'	NAD 27	X=	719,452'	NAD 27
Y=	372,539'		Y=	372,545'	
LAT.	32.022258° N		LAT.	32.022263° N	
LONG.	103.627349° W		LONG.	103.625249° W	
X=	759,988'	NAD83/2011	X=	760,639'	NAD83/2011
Y=	372,596'		Y=	372,602'	
LAT.	32.022383° N		LAT.	32.022388° N	
LONG.	103.627817° W		LONG.	103.625717° W	
ELEV.	+3,138' NAVD 88		ELEV.	+3,140' NAVD 88	
SW ARCH AREA CORNER			SE ARCH AREA CORNER		
X=	718,806'	NAD 27	X=	719,458'	NAD 27
Y=	371,939'		Y=	371,945'	
LAT.	32.020608° N		LAT.	32.020614° N	
LONG.	103.627344° W		LONG.	103.625243° W	
X=	759,994'	NAD83/2011	X=	760,645'	NAD83/2011
Y=	371,996'		Y=	372,002'	
LAT.	32.020734° N		LAT.	32.020739° N	
LONG.	103.627812° W		LONG.	103.625711° W	
ELEV.	+3,137' NAVD 88		ELEV.	+3,136' NAVD 88	

NW PAD CORNER			NE PAD CORNER		
X=	718,643'	NAD 27	X=	719,333'	NAD 27
Y=	372,475'		Y=	372,482'	
LAT.	32.022086° N		LAT.	32.022093° N	
LONG.	103.627861° W		LONG.	103.625634° W	
X=	759,830'	NAD83/2011	X=	760,520'	NAD83/2011
Y=	372,532'		Y=	372,539'	
LAT.	32.022211° N		LAT.	32.022218° N	
LONG.	103.628329° W		LONG.	103.626102° W	
ELEV.	+3,137' NAVD 88		ELEV.	+3,139' NAVD 88	
SW PAD CORNER			SE PAD CORNER		
X=	718,648'	NAD 27	X=	719,338'	NAD 27
Y=	371,995'		Y=	372,002'	
LAT.	32.020766° N		LAT.	32.020773° N	
LONG.	103.627855° W		LONG.	103.625628° W	
X=	759,835'	NAD83/2011	X=	760,525'	NAD83/2011
Y=	372,052'		Y=	372,059'	
LAT.	32.020891° N		LAT.	32.020899° N	
LONG.	103.628323° W		LONG.	103.626096° W	
ELEV.	+3,136' NAVD 88		ELEV.	+3,136' NAVD 88	

CENTERLINE PROPOSED ACCESS ROAD		
COURSE	BEARING	DISTANCE
1	S 00° 34' 58" E	585.73'

CENTERLINE PROPOSED ACCESS ROAD		
COURSE	BEARING	DISTANCE
6	S 00° 35' 32" E	190.71'

PROPOSED PAD		
COURSE	BEARING	DISTANCE
2	S 89° 24' 28" W	690.00'
3	N 00° 35' 32" W	480.00'
4	N 89° 24' 28" E	690.00'
5	S 00° 35' 32" E	480.00'

FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional Surveyor, do hereby state this plat is true and correct to the best of my knowledge.

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23006
09/27/2019
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PROPOSED PAD & ACCESS ROADS
SD 24 13 FED P416 NO. 17H WELL
SECTIONS 24 & 25, T26S-R32E
LEA COUNTY, NEW MEXICO

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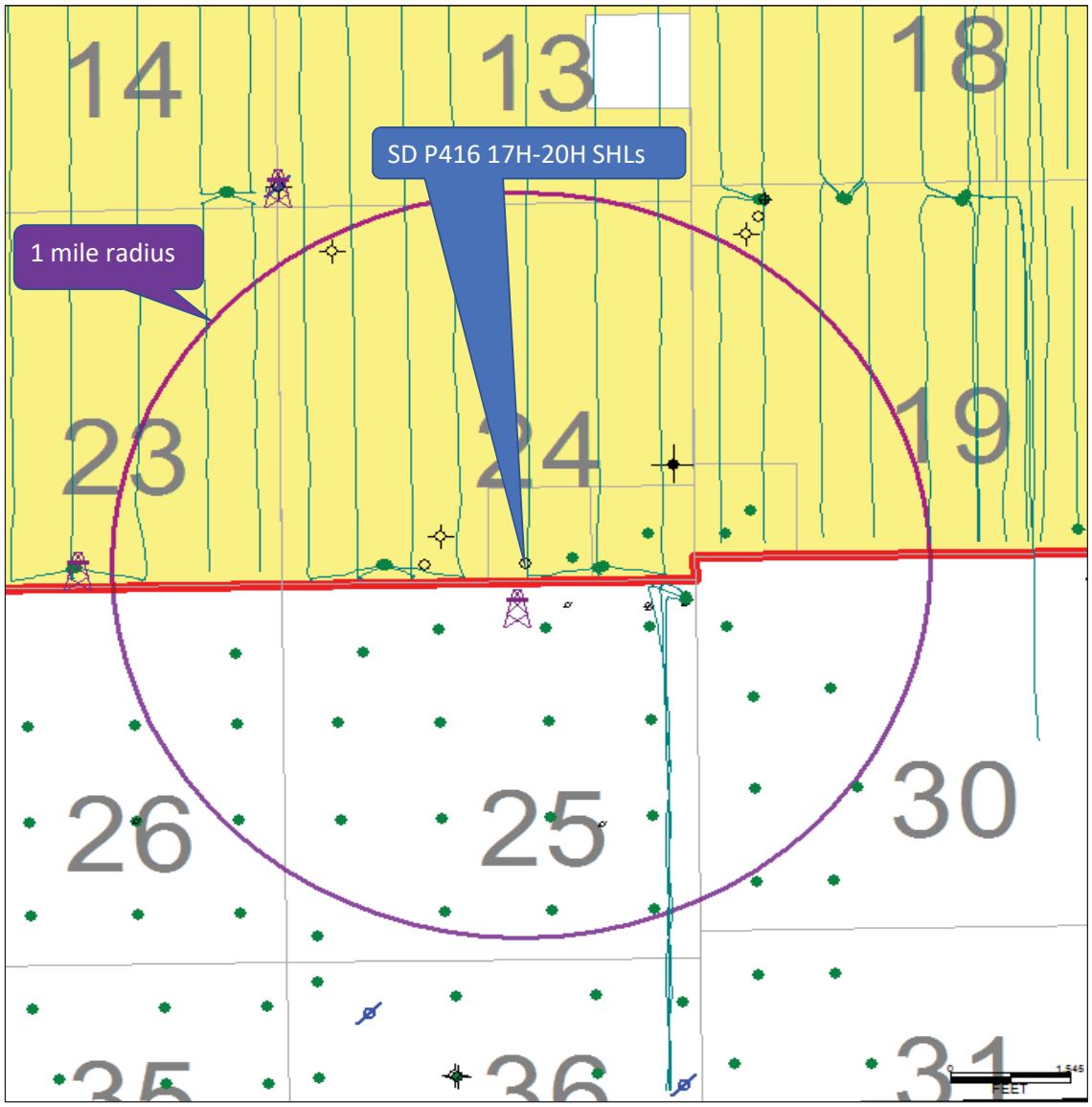
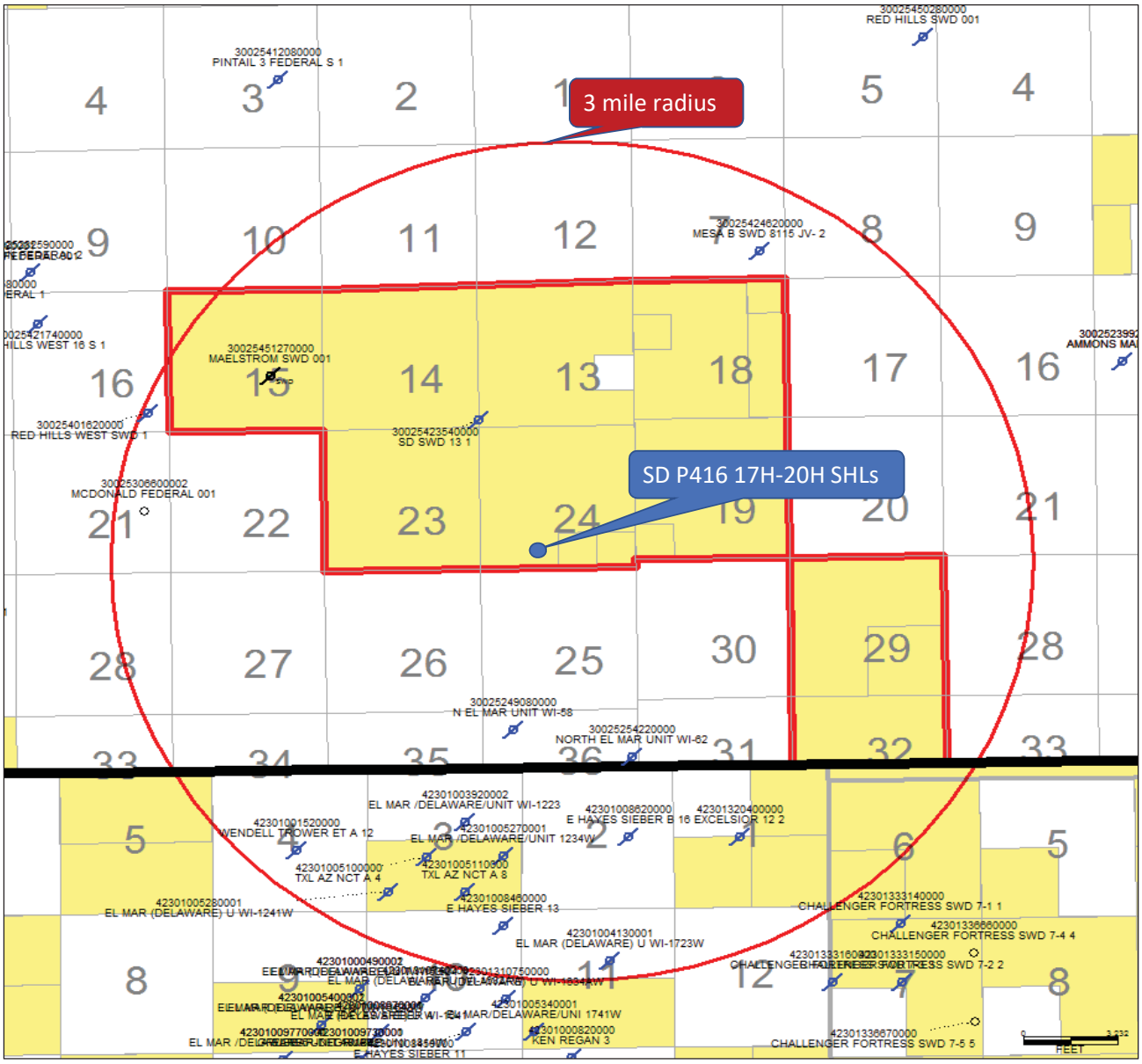
FILENAME: T:\2019\2190482\DWG\SD 24 13 Fed P416 17H_Well Plat.dwg

All offset wells 1 mile radius

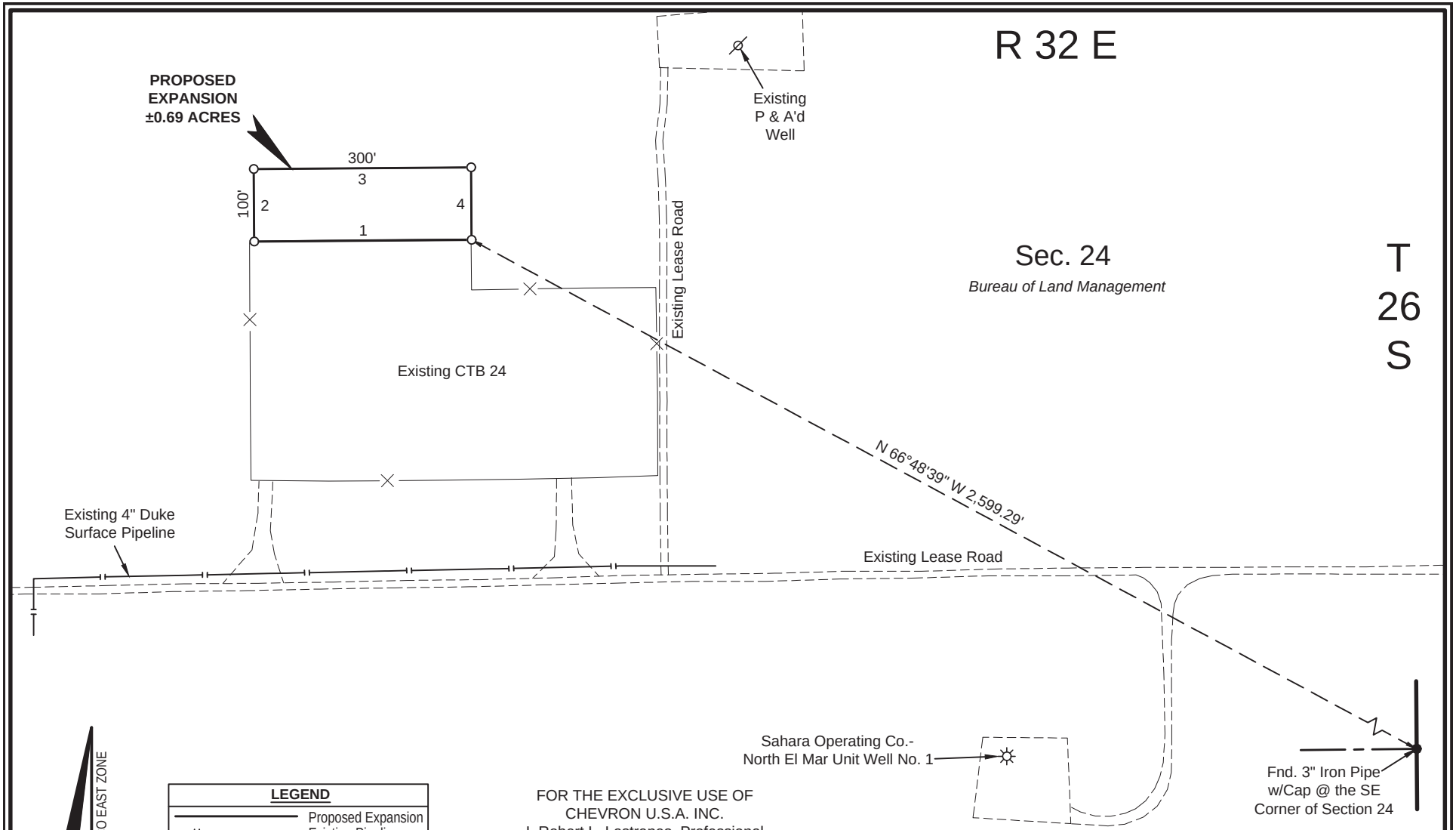


All offset injectors 3 mile radius



API	Well Name	Well Number	Operator	Final Status	TD	TVD	SHL to SHL Distance--17H
30025425600000	ZIA HILLS 25E FEDERAL COM	401H	CONOCOPHILLIPS COMPANY	TREATD	17282		510
30025433640000	ZIA HILLS 25E FEDERAL COM	402H	CONOCOPHILLIPS COMPANY	TREATD	17830		545
30025433770000	ZIA HILLS 25E FEDERAL COM	403H	CONOCOPHILLIPS COMPANY	TREATD	17773		575
30025433630000	ZIA HILLS 25E FEDERAL COM	404H	CONOCOPHILLIPS COMPANY	TREATD	10806		610
30025433630100	ZIA HILLS 25E FED COM	404H	CONOCOPHILLIPS COMPANY	TREATD	17771		610
30025082680000	FED-LITTLEFIELD DR	1	CONTINENTAL OIL COMPANY	OIL PRODUCER	4719		615
30025425590000	WAR HAMMER 25 FEDERAL COM W3	009H	CONOCOPHILLIPS COMPANY	WELL PERMIT			740
30025425610000	WAR HAMMER 25 FEDERAL COM W2	10H	CONOCOPHILLIPS COMPANY	WELL PERMIT			765
30025425580000	WAR HAMMER 25 FEDERAL COM W1	11H	CONOCOPHILLIPS COMPANY	ABANDON LOCATION			790
30025425570000	WAR HAMMER 25 FEDERAL COM	12H	CONOCOPHILLIPS COMPANY	ABANDON LOCATION			815
30025082800000	WILDER-FEDERAL	9-X	CONTINENTAL OIL COMPANY	ABD-OW	4696		950
30025436740000	SD WE 24 FEDERAL P24	005H	CHEVRON U S A INCORPORATED	OIL PRODUCER	19338	9088	970
30025436730000	SD WE 24 FEDERAL P24	006H	CHEVRON U S A INCORPORATED	OIL PRODUCER	19286	9083	995
30025436750000	SD WE 24 FEDERAL P24	007H	CHEVRON U S A INCORPORATED	OIL PRODUCER	19371	9121	1020
30025082700000	GULF-FEDERAL	2	HILL & MEEKER	DRY & ABANDONED	4704		1170
30025082860000	WILDER-FEDERAL	15	CONTINENTAL OIL COMPANY	ABD-OW	4675		1445
30025082690000	GULF-FEDERAL	1	KERN COUNTY LAND COMPANY	ABD-OW	4790		1650
30025433910000	WAR HAMMER 25 FEDERAL COM	005H	CONOCOPHILLIPS COMPANY	ABANDON LOCATION			1695
30025433920000	WAR HAMMER 25 FEDERAL COM	006H	CONOCOPHILLIPS COMPANY	ABANDON LOCATION			1725
30025432980000	SD WE 24 FED P23	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	18709	9087	1775
30025432970000	SD WE 24 FED P23	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	19261	9064	1800
30025432960000	SD WE 24 FED P23	2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	19261	9076	1825
30025082720000	MELLISSA-FEDERAL	1	WORLDWIDE PETROLEUM CORPORATION	ABD-OW	4744		1845
30025433180000	SD WE 24 FEDERAL P23	1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	19366	9056	1850
30025420290000	WAR HAMMER 25 FEDERAL COM W3	001H	CONOCOPHILLIPS COMPANY	OIL PRODUCER	20027	13145	2135
30025420280000	WAR HAMMER 25 FEDERAL COM W2	002H	CONOCOPHILLIPS COMPANY	PILOT HOLE	13575		2145
30025420280100	WAR HAMMER 25 FEDERAL COM W2	002H	CONOCOPHILLIPS COMPANY	OIL-WO	19670	12698	2145
30025420270000	WAR HAMMER 25 FEDERAL COM W1	003H	CONOCOPHILLIPS COMPANY	OIL PRODUCER	18902	12250	2155
30025420580000	WAR HAMMER 25 FEDERAL COM TC	4H	CONOCOPHILLIPS COMPANY	ABANDON LOCATION			2160
30025082790000	WILDER-FEDERAL	8	CONTINENTAL OIL COMPANY	OIL PRODUCER	4677		2255
30025082710000	GULF-FEDERAL	3	HILL & MEEKER	D&A-O	4767		2375
30025082870000	WILDER-FEDERAL	23	CONTINENTAL OIL COMPANY	ABD-OW	4684		2445
30025082770000	WILDER-FEDERAL	6	CONTINENTAL OIL COMPANY	ABD-OW	4665		2495
30025084200000	LITTLEFIELD-FRAL DQ	1	ANTWEIL MORRIS R	ABD-OW	4710		2620
30025084360000	BROWN-FEDERAL	1	PENROSE PRODUCTION COMPANY	ABD-OW	4704		2750
30025082810000	WILDER-FEDERAL	10	CONTINENTAL OIL COMPANY	ABD-OW	4697		2755
30025084210000	LITTLEFIELD-FRAL DQ	1	ANTWEIL MORRIS R	OIL PRODUCER	4790		3005
30025082850000	WILDER-FEDERAL	14	CONTINENTAL OIL COMPANY	OIL PRODUCER	4654		3300
30025084300000	PAYNE-FEDERAL	2	CONTINENTAL OIL COMPANY	ABD-OW	4742		3495
30025082780000	WILDER-FEDERAL	7	CONTINENTAL OIL COMPANY	ABD-OW	4719		3610
30025082760000	WILDER-FEDERAL	4	CONTINENTAL OIL COMPANY	OIL PRODUCER	4645		3765
30025417200000	WAR HAMMER 25 M	1	CONOCOPHILLIPS COMPANY	ABANDON LOCATION			3830
30025082840000	WILDER-FEDERAL	13	CONTINENTAL OIL COMPANY	OIL PRODUCER	4690		3945
30025082980000	WILDER-FEDERAL	26	CONTINENTAL OIL COMPANY	ABD-OW	4700		3955
30025084340000	PAYNE-FEDERAL	8	CONTINENTAL OIL COMPANY	ABD-OW	4830		4315
30025082750000	WILDER-FEDERAL	3	CONTINENTAL OIL COMPANY	OIL PRODUCER	4644		4340
30025084310000	PAYNE-FEDERAL	3	CONTINENTAL OIL COMPANY	ABD-OW	4719		4355
30025082940000	WILDER-FEDERAL	21	CONTINENTAL OIL COMPANY	ABD-OW	4652		4365
30025082820000	WILDER-FEDERAL	11	CONTINENTAL OIL COMPANY	OIL PRODUCER	4679		4930
30025082740000	WILDER-FEDERAL	2	CONTINENTAL OIL COMPANY	ABD-OW	4656		5040
30025204480000	LITTLEFIELD-FRAL DR	2	GULF OIL CORPORATION	DRY & ABANDONED	4645		5080
30025082830000	WILDER-FEDERAL	12	CONTINENTAL OIL COMPANY	ABD-OW	4683		5180
30025082900000	WILDER-FEDERAL	17	CONTINENTAL OIL COMPANY	OIL PRODUCER	4691		5195
30025084320000	PAYNE-FEDERAL	4	CONTINENTAL OIL COMPANY	ABD-OW	4749		5330
30025084330000	PAYNE-FEDERAL	5	CONTINENTAL OIL COMPANY	ABD-OW	4699		5405
30025204430000	LITTLEFIELD-FRAL DQ	2	GULF OIL CORPORATION	DRY & ABANDONED	4805		5485
30025082730000	WILDER-FEDERAL 25	1	CONTINENTAL OIL COMPANY	OIL PRODUCER	4636		5925
30025426590000	SALADO DRAW 18 26 33 FEDERAL	1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14042	9101	5985
30025426610000	SALADO DRAW 19 26 33 FEDERAL COM	1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13830	9081	6000
30025084350000	PAYNE-FEDERAL	11	CONTINENTAL OIL COMPANY	ABD-OW	4786		6005
30025426600000	SALADO DRAW 18 26 33 FEDERAL	2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14135	9109	6010
30025426627000	SALADO DRAW 19 26 33 FEDERAL COM	2H	CHEVRON U S A INCORPORATED	DRY & ABANDONED	9124		6025
30025426620000	SALADO DRAW 19 26 33 FEDERAL COM	2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13647	9122	6025
30025082880000	WILDER-FEDERAL	5	CONTINENTAL OIL COMPANY	OIL PRODUCER	4640		6180
30025423540000	SALADO DRAW SWD 13	1	CHEVRON U S A INCORPORATED	SWDOP	18675		6225
30025423540100	SALADO DRAW SWD 13	1	CHEVRON U S A INCORPORATED	J&AW	18256		6225
30025423540200	SALADO DRAW SWD 13	1	MESQUITE SWD INCORPORATED	TREATD	19460		6225
30025423540000	SALADO DRAW SWD 13	1	CHEVRON U S A INCORPORATED	SWDOP	18675		6225
30025430890000	SD WE 23 FEDERAL P7	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14002	9030	6500
30025430870000	SD WE 14 FEDERAL P7	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13816	9074	6515
30025430880000	SD WE 23 FEDERAL P7	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14043	9017	6530
30025430860000	SD WE 14 FEDERAL P7	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13803	9036	6545
30025422780000	SALADO DRAW 18 26 33 FEDERAL	3H	CHEVRON U S A INCORPORATED	PILOT HOLE	9500		6600
30025422780100	SALADO DRAW 18 26 33 FEDERAL	3H	CHEVRON U S A INCORPORATED	OIL-WO	13890	9166	6600
30025422800000	SALADO DRAW 19 26 33 FEDERAL	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14055	9191	6615
30025422790000	SALADO DRAW 18 26 33 FEDERAL	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13900	9161	6630
30025422810000	SALADO DRAW 19 26 33 FEDERAL	004H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13976	9146	6650
30025249080000	N EL MAR UNIT	WI-58	CONTINENTAL OIL COMPANY	WATER INJECTION WELL	4750		6680
30025408020000	PORTER BROWN	1H	CHEVRON U S A INCORPORATED	PILOT HOLE	12200	12198	7150
30025408020100	PORTER BROWN	1H	CHEVRON U S A INCORPORATED	OIL-WO	13468	9171	7150
30025083180003	NORTH EL MAR UNIT	54	CONTINENTAL OIL COMPANY	ABD-IW	4750		7305
30025451170000	NIGHT KING FED	121H	MATADOR PRODUCTION COMPANY	WELL PERMIT			7315
30025427950000	SD EA 18 FEDERAL P6	5H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14214	9153	7625

30025427960000	SD EA 18 FEDERAL P6	6H	CHEVRON U S A INCORPORATED	OIL PRODUCER	14185	9154	7645
30025254220000	NORTH EL MAR UNIT	WI-62	CONTINENTAL OIL COMPANY	WATER INJECTION WELL	4750		7670
30025427970000	SD EA 19 FEDERAL P6	5H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13928	9160	7675
30025427980000	SD EA 19 FEDERAL P6	6H	CHEVRON U S A INCORPORATED	OIL PRODUCER	13742	9132	7695
30025427990000	SD EA 19 FEDERAL P6	7H	CHEVRON U S A INCORPORATED	DRY & ABANDONED	9348	9219	7725
30025427990100	SD EA 19 FEDERAL P6	7H	CHEVRON U S A INCORPORATED	OIL-WO	13846	9197	7725
42301003920001	EL MAR (DELAWARE) UNIT	1223 W	TEXACO INCORPORATED	ABD-SWD	4685		10515
42301003920002	EL MAR /DELAWARE/UNIT	WI-1223	BURLINGTON RESOURCES O&G CO LP	WI-EOR	4685		10515
30025441130000	SD EA 18 19 P13 FED COM	008H	CHEVRON U S A INCORPORATED	WELL PERMIT			10695
30025441300000	SD EA 18 19 P13 FEDERAL COM	010H	CHEVRON U S A INCORPORATED	WELL START			10715
30025441310000	SD EA 18 19 FEDERAL COM P13	011H	CHEVRON U S A INCORPORATED	WELL START			10720
30025458260000	SD 14 23 FED P19	20H	CHEVRON U S A INCORPORATED	WELL PERMIT			10950
30025457070000	SD 14 23 FED P19	019H	CHEVRON U S A INCORPORATED	WELL PERMIT			10960
30025458250000	SD 14 23 FED P19	18H	CHEVRON U S A INCORPORATED	WELL PERMIT			10970
30025457060000	SD 14 23 FED P19	017H	CHEVRON U S A INCORPORATED	WELL PERMIT			10980
30025458240000	SD 14 23 FED P19	16H	CHEVRON U S A INCORPORATED	WELL PERMIT			10995
30025457050000	SD 14 23 FED P19	015H	CHEVRON U S A INCORPORATED	WELL PERMIT			11005
30025421280000	MESA B 8115 JV-P COM	005H	BTA OIL PRODUCERS LLC	OIL PRODUCER	13777	9174	11100
30025448860000	MESA B 8115 7	006H	BTA OIL PRODUCERS LLC	WELL PERMIT			11150
30025448870000	MESA B 8115 7	007H	BTA OIL PRODUCERS LLC	WELL PERMIT			11160
30025082550000	CLIFFORD	1	HOMESTEAD OIL & GAS	D&A-O	4868		11205
30025441320000	SD EA 18 19 FEDERAL P14	012H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH	23000		11265
30025441330000	SD EA 18 19 FEDERAL P14	013H	CHEVRON U S A INCORPORATED	WELL START			11275
30025441390000	SD EA 18 19 FED P14	014H	CHEVRON U S A INCORPORATED	WELL START			11285
30025441340000	SD EA 18 19 FEDERAL P14	015H	CHEVRON U S A INCORPORATED	WELL START			11295
42301005270001	EL MAR /DELAWARE/UNIT	1234W	BURLINGTON RESOURCES OIL & GAS COMPANY	WI-EOR	4660		11380
30025421270000	8115 JV-P MESA B COM	4H	BTA OIL PRODUCERS LLC	PILOT HOLE	12704	12701	11540
30025421270100	8115 JV-P MESA B COM	4H	BTA OIL PRODUCERS LLC	OIL-WO	13760	9215	11540
42301320400000	EXCELSIOR 12 SWD	2	EOG RESOURCES INCORPORATED	SWDOP	8000	7999	11910
42301327300000	SUN 54-2	201D	XTO ENERGY INCORPORATED	SWD	7642		11930
30025441290000	SD EA 18 19 FEDERAL COM P13	009H	CHEVRON U S A INCORPORATED	WELL START			11945
30025440880000	SD EA 18 19 P15 FED COM	016H	CHEVRON U S A INCORPORATED	TREATD	22343		12055
30025440890000	SD EA 18 19 P15 FED COM	017H	CHEVRON U S A INCORPORATED	TREATD	22641		12070
30025440900000	SD EA 18 19 FEDERAL COM P15	018H	CHEVRON U S A INCORPORATED	TREATD	22207		12080
30025441670000	SD EA 18 19 P15 FED COM	019H	CHEVRON U S A INCORPORATED	TREATD	13000		12095
30025441670100	SD EA 18 19 P15 FED COM	019H	CHEVRON U S A INCORPORATED	TREATD	22583		12095
30025440910000	SD EA 18 19 P15 FED COM	020H	CHEVRON U S A INCORPORATED	TREATD	13952		12110
30025448880000	MESA B 8115 7	008H	BTA OIL PRODUCERS LLC	WELL PERMIT			12150
30025448890000	MESA B 8115 7	009H	BTA OIL PRODUCERS LLC	WELL PERMIT			12165
30025421250000	8115 JV-P MESA B COM	2H	BTA OIL PRODUCERS LLC	PILOT HOLE	12700	12698	12565
30025421250100	8115 JV-P MESA B COM	2H	BTA OIL PRODUCERS LLC	OIL-WO	13728	9165	12565
30025424620000	MESA B SWD 8115 JV-P	2	BTA OIL PRODUCERS LLC	SWDOP	7019		13365
30025424620000	MESA B SWD 8115 JV-P	2	BTA OIL PRODUCERS LLC	SWDOP	7019		13365
42301005280001	EL MAR (DELAWARE) UNIT	WI-1241W	BURLINGTON RESOURCES O&G CO LP	W-INJW	4650		13980
30025306620000	MESA `B` 8105 JV-P	1	BTA OIL PRODUCERS	GAS PRODUCER	13900		14740
42301004130001	EL MAR (DELAWARE) UNIT	WI-1723W	BURLINGTON RESOURCES O&G CO LP	WI-EOR	4724		15135
30025429510000	MESA 8105 JV-P	024H	BTA OIL PRODUCERS LLC	WELL PERMIT			15470
30025429640000	MESA 8105 JV-P	027H	BTA OIL PRODUCERS LLC	WELL PERMIT			15470
30025429610000	MESA 8105 JV-P	015H	BTA OIL PRODUCERS LLC	WELL PERMIT			15555
30025429600000	MESA 8105 JV-P	010H	BTA OIL PRODUCERS LLC	WELL PERMIT			15560
30025429520000	MESA 8105 JV-P	025H	BTA OIL PRODUCERS LLC	WELL PERMIT			15600
30025429630000	MESA 8105 JV-P	26H	BTA OIL PRODUCERS LLC	ABANDON LOCATION			15605
30025429650000	MESA 8105 JV-P	028H	BTA OIL PRODUCERS LLC	WELL PERMIT			15605
30025429620000	MESA 8105 JV-P	023H	BTA OIL PRODUCERS LLC	WELL PERMIT			15645
30025430790000	MESA 8105 JV-P	009H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14600	9809	15685
30025428460000	MESA 8105 JV-P	008H	BTA OIL PRODUCERS LLC	WELL PERMIT			15855
30025428570000	MESA 8105 JV-P	022H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14554	9650	15900
30025428480000	MESA 8105 JV-P	012H	BTA OIL PRODUCERS LLC	ABANDON LOCATION			16110
30025428490000	MESA 8105 JV-P	013H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14965	9852	16135
30025428470000	MESA 8105 JV-P	011H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14944	9824	16175
30025428450000	MESA 8105 JV-P	007H	BTA OIL PRODUCERS LLC	WELL PERMIT			16195
30025428500000	MESA 8105 JV-P	014H	BTA OIL PRODUCERS LLC	WELL PERMIT			16210
30025421260000	MESA B 8115 JV-P COM	003H	BTA OIL PRODUCERS LLC	OIL PRODUCER	14089	9168	16435
42301333140000	CHALLENGER FORTRESS 7	1	HILLSTONE DACO PERMIAN LLC	SWDCOM	7315		17770
42301336660000	CHALLENGER FORTRESS SWD 7-4	4	HILLSTONE DACO PERMIAN LLC	SWDOP	7312		20240
30025412080000	PINTAIL 3 FEDERAL SWD	1	COG OPERATING LLC	SWDOP	6613		20780
30025437250000	MESA 8105 JV-P	031H	BTA OIL PRODUCERS LLC	OIL PRODUCER	20008	9852	20785
30025437260000	MESA 8105 JV-P	032H	BTA OIL PRODUCERS LLC	WELL PERMIT			20905
30025437240000	MESA 8105 JV-P	030H	BTA OIL PRODUCERS LLC	OIL PRODUCER	20030	9912	20920
30025437230000	MESA 8105 JV-P	029H	BTA OIL PRODUCERS LLC	WELL PERMIT			20955
30025450280000	RED HILLS SWD	1	MESQUITE SWD INCORPORATED	SWDCOM	19000		23195



FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional
Land Surveyor, do hereby state this plat is true
and correct to the best of my knowledge.

ROBERT L. LASTRAPES
NEW MEXICO
23006
PROFESSIONAL SURVEYOR
02/11/2020

Robert L. Lastrapes
Registration No. 23006

SURFACE USE PLAT

CHEVRON U.S.A. INC.

SALADO DRAW
PROPOSED CTB 24 EXPANSION
SECTION 24, T26S-R32E
LEA COUNTY, NEW MEXICO

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

	REVISIONS			
DRAWN BY: VHV	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV				
DATE: 06/14/2019				
FILENAME: T:\2015\2153294\DWG\Salado Draw CTB 24 Expansion_SUP.dwg				

NW CORNER			NE CORNER		
X=	718,591'	NAD 27	X=	718,891'	NAD 27
Y=	373,155'		Y=	373,157'	
LAT.	32.023956° N		LAT.	32.023957° N	
LONG.	103.628014° W		LONG.	103.627046° W	
X=	759,778'	NAD83/2011	X=	760,078'	NAD83/2011
Y=	373,212'		Y=	373,214'	
LAT.	32.024081° N		LAT.	32.024082° N	
LONG.	103.628482° W		LONG.	103.627514° W	
ELEV.	+3,141'	NAVD88	ELEV.	+3,141'	NAVD88
SW CORNER			SE CORNER		
X=	718,592'	NAD 27	X=	718,892'	NAD 27
Y=	373,055'		Y=	373,057'	
LAT.	32.023681° N		LAT.	32.023682° N	
LONG.	103.628013° W		LONG.	103.627045° W	
X=	759,779'	NAD83/2011	X=	760,079'	NAD83/2011
Y=	373,112'		Y=	373,114'	
LAT.	32.023806° N		LAT.	32.023807° N	
LONG.	103.628481° W		LONG.	103.627513° W	
ELEV.	+3,140'	NAVD88	ELEV.	+3,141'	NAVD88

PROPOSED EXPANSION		
COURSE	BEARING	DISTANCE
1	S 89° 32' 51" W	300.00'
2	N 00° 27' 09" W	100.00'
3	N 89° 32' 51" E	300.00'
4	S 00° 27' 09" E	100.00'

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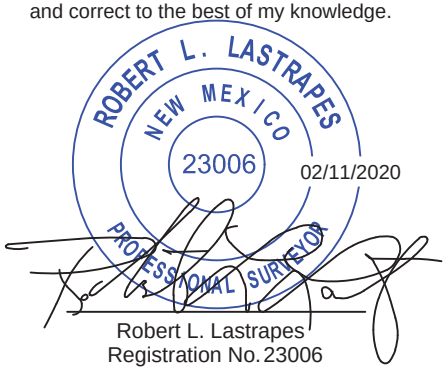
CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional
Land Surveyor, do hereby state this plat is true
and correct to the best of my knowledge.



Robert L. Lastrapes
Registration No. 23006

NOTE:
Please be advised, that while reasonable efforts are made to locate and verify pipelines and anomalies using our standard pipeline locating equipment, it is impossible to be 100 % effective. As such, we advise using caution when performing work as there is a possibility that pipelines and other hazards, such as fiber optic cables, PVC pipelines, etc. may exist undetected on site.

NOTE:
Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities. For guidance: New Mexico One Call System - www.nmonecall.org.

DISCLAIMER: At this time, C. H. Fenstermaker & Associates, L.L.C. has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

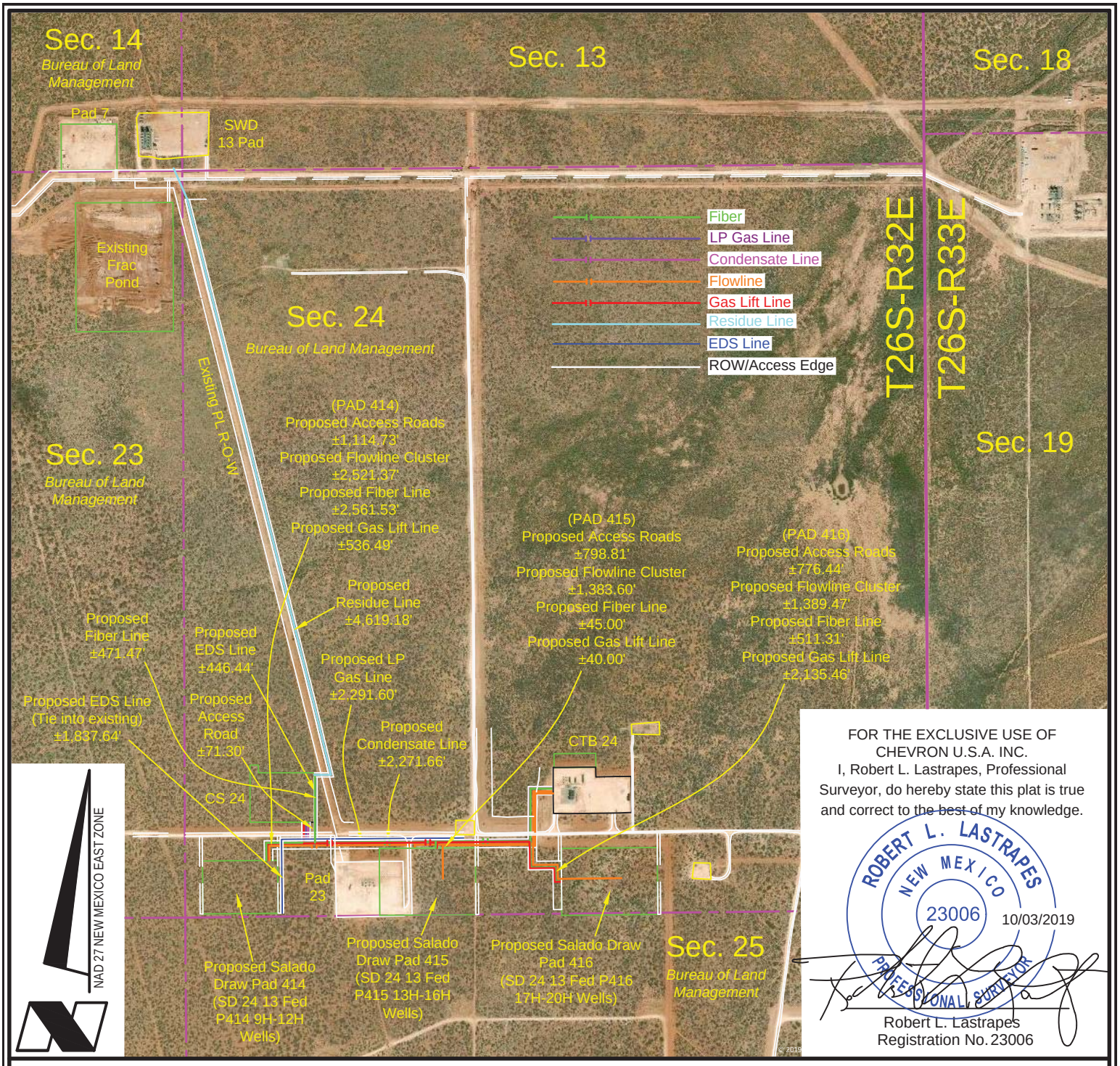
FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

SURFACE USE PLAT

CHEVRON U.S.A. INC.

SALADO DRAW
PROPOSED CTB 24 EXPANSION
SECTION 24, T26S-R32E
LEA COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: VHV	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV				
DATE: 06/14/2019				
FILENAME: T:\2015\2153294\DWG\Salado Draw CTB 24 Expansion_SUP.dwg				



FOR THE EXCLUSIVE USE OF CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional Surveyor, do hereby state this plat is true and correct to the best of my knowledge.

ROBERT L. LASTRAPES
NEW MEXICO
23006
10/03/2019
PROFESSIONAL SURVEYOR

Robert L. Lastrapes
Registration No. 23006

Scale: 1" = 1000'

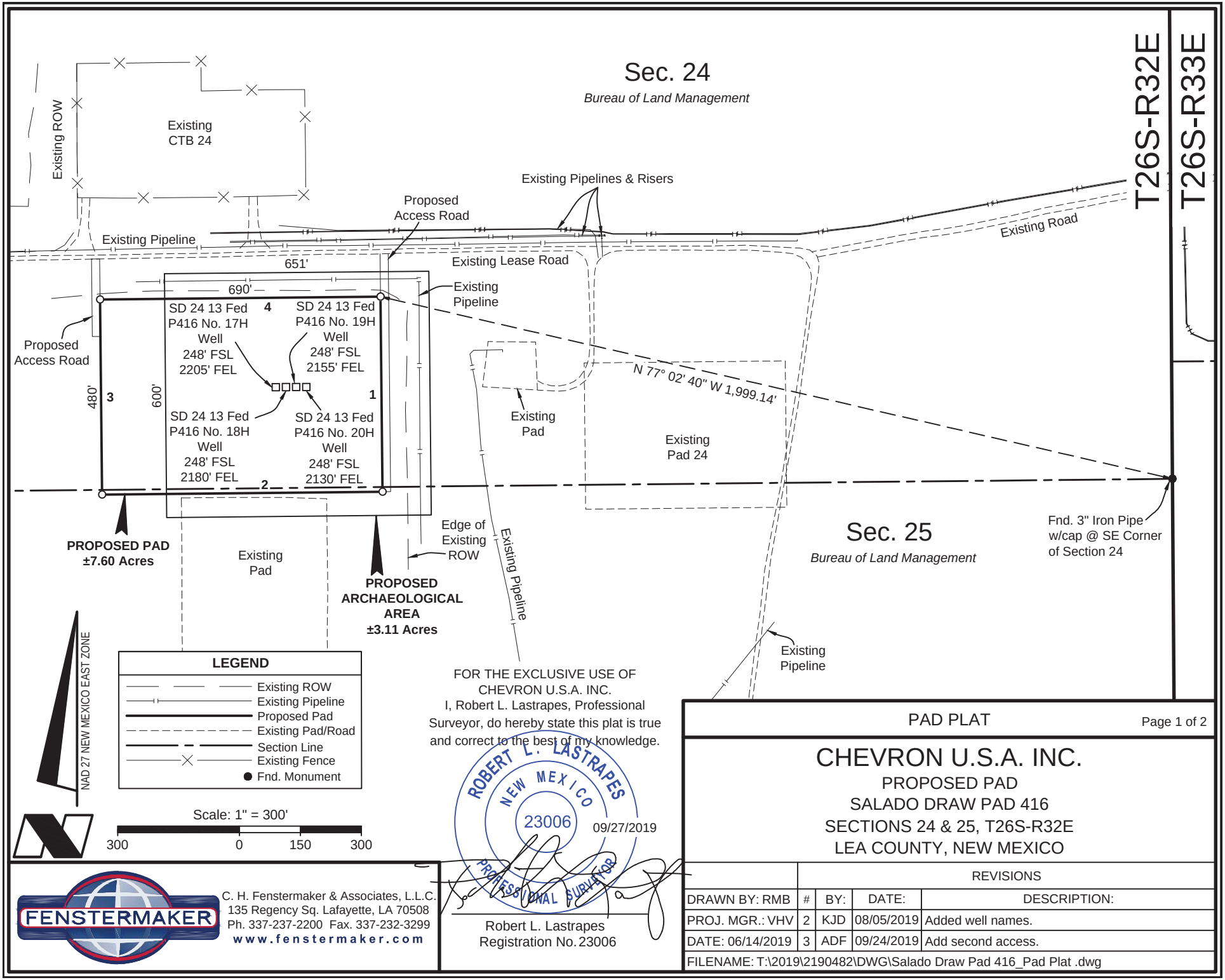
1000' 0 500' 1000'

CHEVRON U.S.A. INC.

WORK AREA DETAIL FOR THE SALADO DRAW PADS 414, 415, 416 & COMPRESSOR STATION 24 SECTIONS 14, 23, 24 & 25, T26S-R32E LEA COUNTY, NEW MEXICO

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

	REVISIONS			
DRAWN BY: VHV	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV				
DATE: 10/01/2019				
FILENAME: T:\2019\2190451\DWG\Salado Draw Pads 414-416_Aerial Detail.dwg				



FOR THE EXCLUSIVE USE OF CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional Surveyor, do hereby state this plat is true and correct to the best of my knowledge.

ROBERT L. LASTRAPES NEW MEXICO 23006 PROFESSIONAL SURVEYOR 09/27/2019

Robert L. Lastrapes
Registration No. 23006

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

PAD PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
SALADO DRAW PAD 416
SECTIONS 24 & 25, T26S-R32E
LEA COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: RMB	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV	2	KJD	08/05/2019	Added well names.
DATE: 06/14/2019	3	ADF	09/24/2019	Add second access.
FILENAME: T:\2019\2190482\DWG\Salado Draw Pad 416_Pad Plat .dwg				

DISCLAIMER: At this time, C. H. Fenstermaker & Associates, L.L.C. has not performed nor was asked to perform any type of engineering, hydrological modeling, flood plain, or "No Rise" certification analyses, including but not limited to determining whether the project will impact flood hazards in connection with federal/FEMA, state, and/or local laws, ordinances and regulations. Accordingly, Fenstermaker makes no warranty or representation of any kind as to the foregoing issues, and persons or entities using this information shall do so at their own risk.

NOTE:
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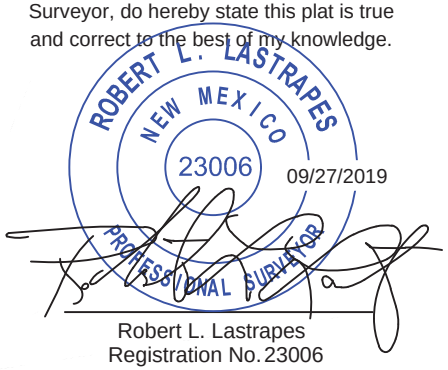
NW ARCH AREA CORNER			NE ARCH AREA CORNER		
X=	718,801'	NAD 27	X=	719,452'	NAD 27
Y=	372,539'		Y=	372,545'	
LAT.	32.022258° N		LAT.	32.022263° N	
LONG.	103.627349° W		LONG.	103.625249° W	
X=	759,988'	NAD83/2011	X=	760,639'	NAD83/2011
Y=	372,596'		Y=	372,602'	
LAT.	32.022383° N		LAT.	32.022388° N	
LONG.	103.627817° W		LONG.	103.625717° W	
SW ARCH AREA CORNER			SE ARCH AREA CORNER		
X=	718,806'	NAD 27	X=	719,458'	NAD 27
Y=	371,939'		Y=	371,945'	
LAT.	32.020608° N		LAT.	32.020614° N	
LONG.	103.627344° W		LONG.	103.625243° W	
X=	759,994'	NAD83/2011	X=	760,645'	NAD83/2011
Y=	371,996'		Y=	372,002'	
LAT.	32.020734° N		LAT.	32.020739° N	
LONG.	103.627812° W		LONG.	103.625711° W	

NW PAD CORNER			NE PAD CORNER		
X=	718,643'	NAD 27	X=	719,333'	NAD 27
Y=	372,475'		Y=	372,482'	
LAT.	32.022086° N		LAT.	32.022093° N	
LONG.	103.627861° W		LONG.	103.625634° W	
X=	759,830'	NAD83/2011	X=	760,520'	NAD83/2011
Y=	372,532'		Y=	372,539'	
LAT.	32.022211° N		LAT.	32.022218° N	
LONG.	103.628329° W		LONG.	103.626102° W	
SW PAD CORNER			SE PAD CORNER		
X=	718,648'	NAD 27	X=	719,338'	NAD 27
Y=	371,995'		Y=	372,002'	
LAT.	32.020766° N		LAT.	32.020773° N	
LONG.	103.627855° W		LONG.	103.625628° W	
X=	759,835'	NAD83/2011	X=	760,525'	NAD83/2011
Y=	372,052'		Y=	372,059'	
LAT.	32.020891° N		LAT.	32.020899° N	
LONG.	103.628323° W		LONG.	103.626096° W	

PROPOSED PAD		
COURSE	BEARING	DISTANCE
1	S 00° 35' 32" E	480.00'
2	S 89° 24' 28" W	690.00'
3	N 00° 35' 32" W	480.00'
4	N 89° 24' 28" E	690.00'

FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional Surveyor, do hereby state this plat is true and correct to the best of my knowledge.



Robert L. Lastrapes
Registration No. 23006

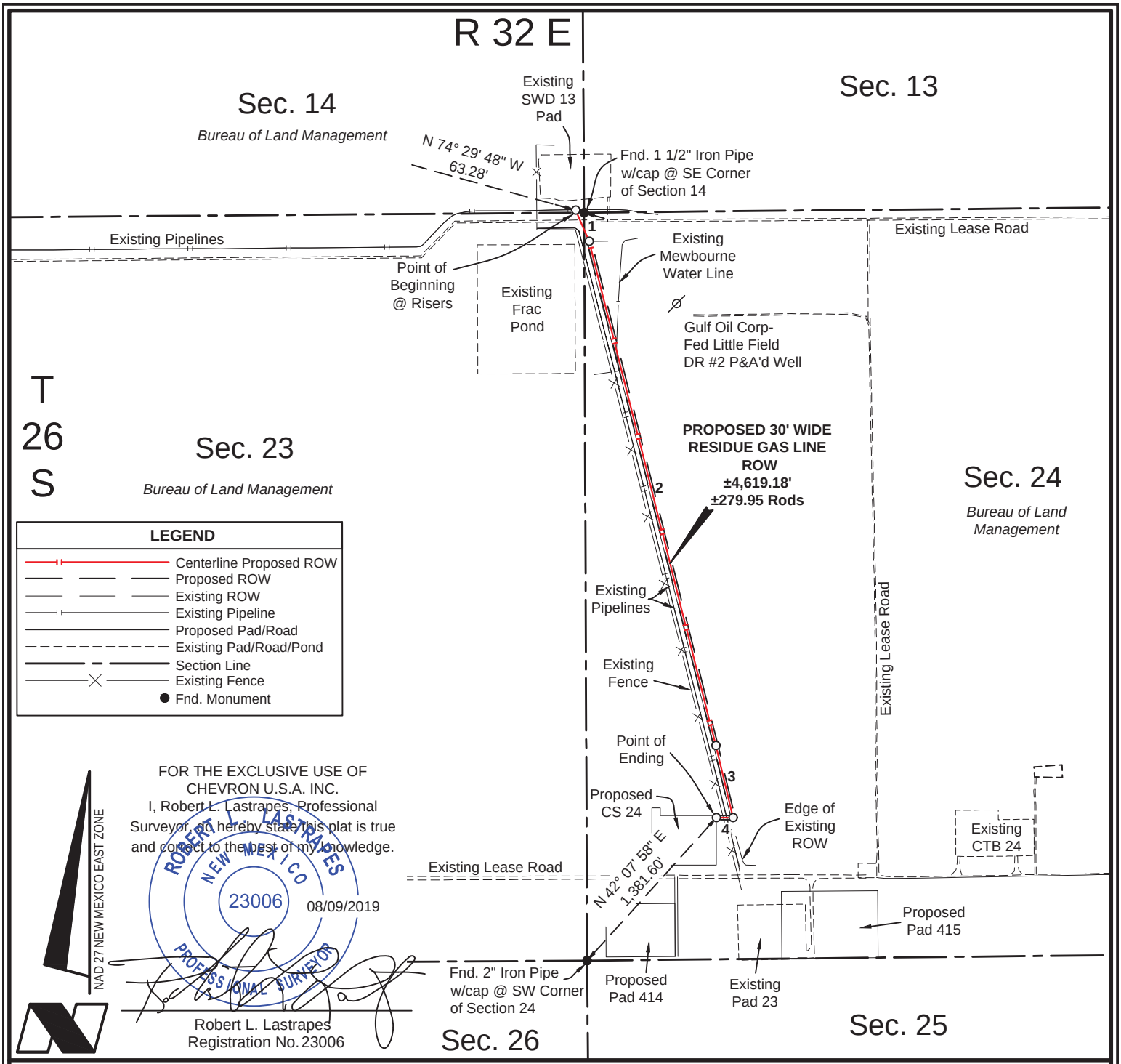
FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

PAD PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
SALADO DRAW PAD 416
SECTIONS 24 & 25, T26S-R32E
LEA COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: RMB	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV	2	KJD	08/05/2019	Added well names.
DATE: 06/14/2019	3	ADF	09/24/2019	Add second access.
FILENAME: T:\2019\2190482\DWG\Salado Draw Pad 416_Pad Plat .dwg				



Page 1 of 2

SURFACE USE PLAT

Scale: 1" = 1000'

1000' 0 500' 1000'

CHEVRON U.S.A. INC.

PROPOSED RIGHT-OF-WAY
SALADO DRAW PAD RESIDUE GAS LINE
SECTIONS 14, 23 & 24, T26S-R32E
LEA COUNTY, NEW MEXICO

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

	REVISIONS			
DRAWN BY: KJD	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV				
DATE: 08/02/2019				
FILENAME: T:\2019\2190482\DWG\Salado Draw Residue Gas ROW_SUP.dwg				

POINT OF BEGINNING @ EXISTING RISERS			POINT OF ENDING @ CS 24		
X=	715,861'	NAD 27	X=	716,870'	NAD 27
Y=	377,355'		Y=	373,003'	
LAT.	32.035551° N		LAT.	32.023570° N	
LONG.	103.636734° W		LONG.	103.633568° W	
X=	757,048'	NAD83/2011	X=	758,058'	NAD83/2011
Y=	377,413'		Y=	373,060'	
LAT.	32.035676° N		LAT.	32.023695° N	
LONG.	103.637203° W		LONG.	103.634036° W	

CENTERLINE PROPOSED RESIDUE GAS LINE ROW		
COURSE	BEARING	DISTANCE
1	S 23° 39' 20" E	243.38'
2	S 14° 05' 49" E	3725.45'
3	S 13° 31' 15" E	530.68'
4	WEST	119.67'

FOR THE EXCLUSIVE USE OF
CHEVRON U.S.A. INC.
I, Robert L. Lastrapes, Professional Surveyor, do hereby state this plat is true and correct to the best of my knowledge.

ROBERT L. LASTRAPES
NEW MEXICO
23006
PROFESSIONAL SURVEYOR
08/09/2019

Robert L. Lastrapes
Registration No. 23006

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SURFACE USE PLAT

CHEVRON U.S.A. INC.

PROPOSED RIGHT-OF-WAY
SALADO DRAW RESIDUE GAS LINE
SECTIONS 14, 23 & 24, T26S-R32E
LEA COUNTY, NEW MEXICO

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

	REVISIONS			
DRAWN BY: KJD	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: VHV				
DATE: 08/02/2019				
FILENAME: T:\2019\2190482\DWG\Salado Draw Residue Gas ROW_SUP.dwg				

CHEVRON U.S.A. Inc.
SD 24 13 FED P416 17H
USA NMLC 067586-A, NMNM 118722
SECTION 24, T26S-R32E SECTION 13, T26S, R32E
SHL 248' FSL & 2,205' FEL BHL 25' FNL & 1,650' FEL

APD Surface Use Plan of Operations

Existing Roads (Road Plat Attached)

- The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.
- Driving Directions – The location is approximately 33 miles from the nearest town, which is Jal, New Mexico. From Hwy 1 (Orla Road), head Easterly on Battle Axe Road approximately 3.68 miles to an existing lease road. Head Northerly then West along existing lease road approximately 1.76 miles to the access road entrance on the South side of the road.

New or Reconstructed Access Roads (Well Plat Attached)

- There will be **776.44' of new road construction** for the well pad and facilities.
- Road Width: The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 25'. The maximum width of surface disturbance shall not exceed 30'.
- Maximum Grade: 3%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.
- Turnouts: 50-60'
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggestion
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.
- Type of Surfacing Material: Caliche. The road will also have a dust abatement polymer coating to decrease dust as well as help maintain the road, Envirotac II.

Location of Existing Wells (Diagram Attached)

- 1-Mile radius map is attached

Location of Existing and/or Proposed Production Facilities (Work Area Detail Map Attached)

- Facilities:
    - A proposed **Compressor Station site (CS 24)** will be located to the North of the well pad, in Section 24, T26S-R32E, where gas will be compressed and delivered as gas lift through a gas lift distribution system (artificial lift for the wells). The dimensions for the Compressor Station are 410' x 462' (3.85 acres). Please see site plat and Cut & Fill plat attached hereto.
    - A proposed extension of Central Tank Battery #24, located to the Northeast of the well pad in Section 24, T26S-R32E, where an additional Train will be added to process the oil/water/gas from the producing wells. The extension proposal is 100' x 300' (0.69 acres).
    - Open top tanks or open containments will be netted.
    - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting.
    - Facilities will have a secondary containment 1.5 times the holding capacity of largest storage tank.
    - All above ground structures will be painted non-reflective shale green for blending with surrounding environment.
    - The Satellite will send the produced water to a Central Tank Battery for further processing, at which point the water will be delivered to the existing water gathering system in the field for permanent water disposal.

Location of Proposed ROW (Work Area Detail Map Attached)

- There are 5-primary facility lines within a proposed 60' easement extending from the well pad – please see attached ROW SUP plat. This proposed 60' easement will extend from the well pad to the East along the South side of an existing easement, over to Central Tank Battery (CTB) #24, located in Section #24, T26S-R32E and be 2,666.07' in length. This easement corridor will cross lease lines and an SF-299 ROW will need to be acquired. The proposed easement will contain:

1. 1-4" gas-lift pipeline extending 2,135.46' in length
2. 4-4" production flowlines extending 1,389.47' in length

- **EDS/Fiber**:
  1. 1-20' EDS easement running to the North from the proposed pad, up to the proposed 60' easement corridor. This 20' easement is 511.31'.

  All construction activity will be confined to the approved ROW.

Location and Types of Water Supply (Work Area Detail Map Attached)

- Fresh water will be obtained from a private water source.
- A temporary 12" expanding pipe water transfer line will run west from the existing Frac Ponds in Sections #23 & #13 over to the well pad. This temporary expanding pipe water transfer line will be set within the proposed 60' easement corridor and will run approximately 4,619.18' in total length. This proposed corridor will cross lease lines and an SF-299 ROW will need to be acquired.

Construction Material

- Caliche will be used to construct well pad and roads. Material will be purchased from the private land owners (Oliver Kiehne) caliche pit located in Sec 27, T26, R33E, Lea County, NM.
- The proposed source of construction material will be located and purchased by Chevron U.S.A. Inc.
  - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.

Methods for Handling Waste

- Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.
- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.
- The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Ancillary Facilities

None

Well Site Layout (Well Plat Attached)

- Well Plat
  - Exterior well pad dimensions are **480' x 690'**.
  - Interior well pad dimensions from point of entry (well head) of the easternmost well are **N-220', S-260', E-260', W-430'**. The length to the west includes 25' spacing for next well on multi-well pad (four wells). Total disturbance area needed for construction of well pad will be **7.60 acres**.
  - Topsoil placement is on the east where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

Proposed Pad Cut & Fill (Plat Attached)

- Cut and fill: will be minimal.

Rig Layout (Attached)

Plans for Surface Reclamation (Pad Plat Attached)

Reclamation Objectives

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition like what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.
- The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
- If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.
- Reclamation will be performed by using the following procedures:

Interim Reclamation Procedures

- Within 6 months, Chevron will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim

reclamation include **reducing the pad size to approximately 2.72 acres from the proposed size of 7.60 acres**. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production. A plan will be submitted showing where interim reclamation will be completed in order to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book".

- In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling but will be recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM #2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation has reestablished

Final Reclamation (well pad, buried pipelines, and power lines, etc.)

- Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
- All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends in distinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
- After all the disturbed areas have been properly prepared; the areas will be seeded with the proper BLM seed mixture (BLM #2), free of noxious weeds.
- Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

Surface Ownership

- All subject property and infrastructure is on Federal Surface.
- **Nearest Post Office:** Jal Post Office; 27 Miles East

Other Information

- On-site performed by BLM NRS: Paul Murphy 6/18/2019
- Cultural report attached: **N/A** Participating Agreement attached: **Yes**
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road by the use of any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.
- Exclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.
- Terrain: Landscape is flat
- Soil: Sandy loam
- Vegetation: Vegetation present in surrounding area includes mesquite, shrubs, and grass (needle-grass, burro grass, dropseed).
- Wildlife: No wildlife observed, but it is likely that deer, rabbits, coyotes, and rodents pass through the area.
- Surface Water: No surface water concerns.
- Cave Karst: Low Karst area with no caves or visual signs of caves found.
- Watershed Protection: The entire perimeter of the well pad will be bermed to prevent oil, salt, or other chemical contaminates from leaving the well pad.
- Water wells: No known water wells within the 1-mile radius.
- Residences and Buildings: No dwellings within the immediate vicinity of the proposed location.
- Well Signs: Well signs will comply per federal and state requirements and specifications.

Chevron Representatives

Primary point of contact:
W Mark Woodard
432 687 7999

CHEVRON U.S.A. Inc.
SD 24 13 FED P416 17H
USA NMLC 067586-A, NMNM 118722
SECTION 24, T26S-R32E SECTION 13, T26S, R32E
SHL 248' FSL & 2,205' FEL BHL 25' FNL & 1,650' FEL

Chevron Functional Contacts

Project Manager Name: Sam Storrick Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7769 Email: storrick@chevron.com	**Drilling Engineer** Name: Tony Bacon Address: 1400 Smith Street Houston, TX 77002 Phone: (713) 372-4025 Email: tonybacon@chevron.com
Surface Land Representative Name: W Mark Woodard Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7999 Email: markwoodard@Chevron.com	**Facility Lead** Name: Matthew Kieke Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7264 Email: mkieke@chevron.com
Geologist Name: Kate Schwehr Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7469 Email: kschwehr@chevron.com	**Regulatory Specialist** Name: Laura Becerra Address: 6301 Deauville Midland, Texas 79706 Office: (432) 687-7665 Email: lbecerra@chevron.com

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

OCD – HOBBS
06/09/2020
RECEIVED

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-47303	98097	SANDERS TANK, UPR WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
328296	SD 24 13 FED P416	17H

[7] OGRID No.	[8] Operator Name	[9] Elevation
4323	CHEVRON U.S.A. INC.	3136'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	24	26 SOUTH	32 EAST, N.M.P.M.		248'	SOUTH	2205'	EAST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	13	26 SOUTH	32 EAST, N.M.P.M.		25'	NORTH	1650'	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

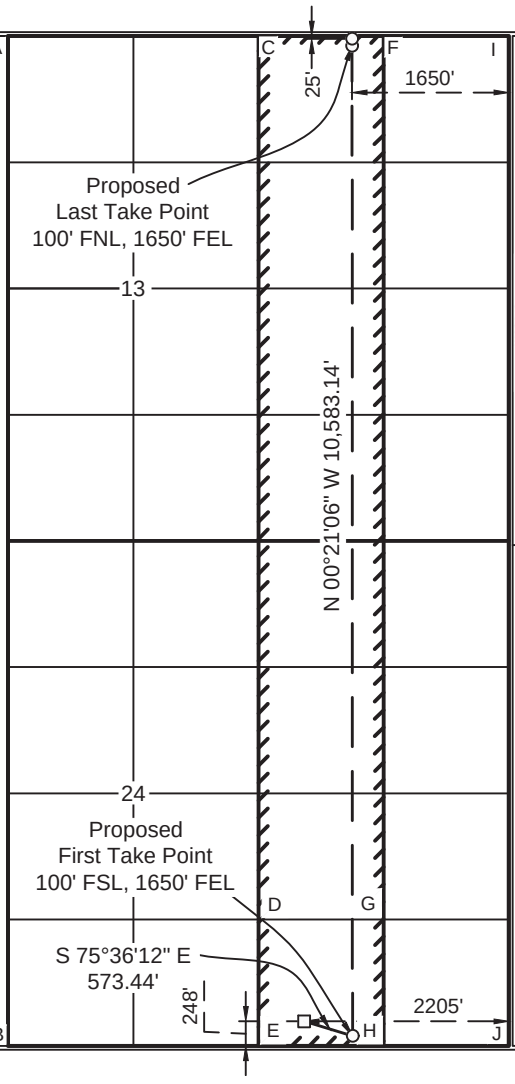
[16]

SD 24 13 FED P416 17H WELL			PROPOSED BOTTOM HOLE LOCATION		
X=	719,075	NAD 27	X=	719,566	NAD 27
Y=	372,259		Y=	382,700	
LAT.	32.021485 N		LAT.	32.050176 N	
LONG.	103.626471 W		LONG.	103.624667 W	
X=	760,263	NAD83/2011	X=	760,753	NAD83/2011
Y=	372,316		Y=	382,757	
LAT.	32.021611 N		LAT.	32.050301 N	
LONG.	103.626938 W		LONG.	103.625137 W	
ELEVATION +3136' NAVD 88					

PROPOSED FIRST TAKE POINT			PROPOSED LAST TAKE POINT		
X=	719,630	NAD 27	X=	719,566	NAD 27
Y=	372,117		Y=	382,625	
LAT.	32.021083 N		LAT.	32.049970 N	
LONG.	103.624682 W		LONG.	103.624667 W	
X=	760,818	NAD83/2011	X=	760,753	NAD83/2011
Y=	372,174		Y=	382,682	
LAT.	32.021209 N		LAT.	32.050094 N	
LONG.	103.625149 W		LONG.	103.625137 W	

CORNER COORDINATES TABLE (NAD 27)

A - Y=382677.22, X=715890.15
B - Y=371978.70, X=715943.63
C - Y=382711.66, X=718552.69
D - Y=373345.79, X=718605.59
E - Y=372006.29, X=718612.32
F - Y=382728.88, X=719883.96
G - Y=373359.36, X=719939.26
H - Y=372020.08, X=719946.66
I - Y=382746.10, X=721215.23
J - Y=372033.87, X=721281.01



[17] OPERATOR CERTIFICATION

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

Signature — Date: 9/4/2019

Laura Becerra
Printed Name

LBecerra@Chevron.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

06/25/2019
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT L. LASTRAPES
NEW MEXICO
23006
PROFESSIONAL SURVEYOR
07/16/2019

23006
Certificate Number

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
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State of New Mexico
Energy, Minerals and Natural Resources Department

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

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District Office

GAS CAPTURE PLAN

X Original Operator & OGRID No.: CHEVRON U S A INC (4323)

☐ Amended Date: 9/6/2019

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, recomplete to new zone, re-frac) activity.

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Salado Draw CTB 24

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
SD 24 13 FED P416 17H	*Pending* **30-025-47303**	UL:O, Sec. 24, T26S- R32E	248' FSL, 2,205 FEL	5,000	0	
SD 24 13 FED P416 18H	*Pending*	UL:O, Sec. 24, T26S- R32E	248' FSL, 2,180 FEL	5,000	0	
SD 24 13 FED P416 19H	*Pending*	UL:O, Sec. 24, T26S- R32E	248' FSL, 2,155 FEL	5,000	0	
SD 24 13 FED P416 20H	*Pending*	UL:O, Sec. 24, T26S- R32E	248' FSL, 2,130 FEL	5,000	0	

Gathering System and Pipeline Notification

Wells 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 Delaware Basin Midstream, LLC (DBM) and will be connected to DBM's low pressure gathering system located in LEA County, New Mexico. The facility is already connected to a low pressure gathering system. Chevron provides (periodically) to DBM a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Chevron and DBM have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DBM's Ramsey Processing Plant located in Sec.36, Block 57-T1, Reeves County, Texas. The gas produced from the production facility may also be sent to Mark West's low pressure gathering system and will be processed at Mark West's Tornado Processing Plant located in Loving County, Texas. 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, wells will be turned to permanent production facilities. Wells will have temporary sand catchers that will be installed at the well location to prevent sand from getting into the flowlines. These sand separators will be blown down periodically which will result in minimal venting of gas. Gas sales will start as soon as the wells start flowing through the production facilities, unless there are operational issues on DBM's system at that time. Based on current information, it is Chevron'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