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DISTRICT I-ARTESIA O.C.D.

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM121473

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.
CICADA UNIT / NMNM137168X

8. Lease Name and Well No.
CICADA UNIT
29H

2. Name of Operator
CHEVRON USA INCORPORATED

9. API Well No.
30-015-46470

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
6301 Deauville Blvd. Midland TX 79706	(432)687-7866	PURPLE SAGE WOLFCAMP GAS / WOL

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SWSE / 835 FSL / 1550 FEL / LAT 32.066182 / LONG -104.174866

At proposed prod. zone SESE / 50 FSL / 792 FEL / LAT 32.034962 / LONG -104.171987

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 3 / T26S / R27E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
11.5 miles	EDDY	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
835 feet	1920	640
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. in file**
1680 feet	9055 feet / 19679 feet	FED: ES0022
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3254 feet	04/02/2020	147 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)687-7665	08/29/2019
Title: Permitting Specialist		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959	Date 11/15/2019
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

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.

APPROVED WITH CONDITIONS

Approval Date: 11/15/2019

RWP 12-6-19

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Chevron USA Incorporated
LEASE NO.:	NMNM121473
WELL NAME & NO.:	CICADA UNIT 29H
SURFACE HOLE FOOTAGE:	835'/S & 1550'/E
BOTTOM HOLE FOOTAGE	50'/S & 792'/E
LOCATION:	Section 3, T.26 S., R.27 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
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

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

B. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **450** feet (a minimum of **70 feet (Eddy 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 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** 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.

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 **4-1/2** inch production liner is:

- Cement should tie-back **100 feet** into the previous casing. 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 **3000 (3M)** psi.

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

   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

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

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

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: 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.

NMK9162019

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL
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CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Chevron USA Incorporated
WELL NAME & NO.:	Cicada Unit 27H
SURFACE HOLE FOOTAGE:	885'/S & 1500'/E
BOTTOM HOLE FOOTAGE	280'/S & 330'/E
LOCATION:	Section 3, T.26 S., R.27 E., NMPM
COUNTY:	Eddy County, New Mexico

OPERATOR'S NAME:	Chevron USA Incorporated
WELL NAME & NO.:	Cicada Unit 28H
SURFACE HOLE FOOTAGE:	860'/S & 1550'/E
BOTTOM HOLE FOOTAGE	280'/S & 1170'/E
LOCATION:	Section 3, T.26 S., R.27 E., NMPM
COUNTY:	Eddy County, New Mexico

OPERATOR'S NAME:	CHEVRON USA INCORPORATED
WELL NAME & NO.:	CICADA UNIT 29H
SURFACE HOLE FOOTAGE:	835'/S & 1550'/E
BOTTOM HOLE FOOTAGE	50'/S & 792'/E
LOCATION:	Section 3, T.26 S., R.27 E., NMPM
COUNTY:	Lea County, New Mexico

Approval Date: 11/15/2019

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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 and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

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)

Cave and Karst Conditions of Approval for APDs

** 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.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

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, or equivalent, 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 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.

FLOWLINES (SURFACE):

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- 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.
- 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.

Watershed

The entire 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 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.

Tank battery locations 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 or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

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 valves 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.

Special Status Plant Species (SSPS) Occupied Habitat

The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

Prior to initiating project construction activities, a barricade for the protection of Scheer's beehive cactus occupied habitat will be installed according the following standards:

Barricade Type
☒Temporary Fencing
☐Permanent Fencing
☐Natural Obstacles
☐Other: _____

Barricade Specifications
Construction fencing at location A that effectively barricades SSPS individuals from vehicle and equipment trampling.

Location A
PLSS: SW ¼ SE ¼, S3, T26S, R27E
Side of pad: East
Distance from pad edge: 36 feet (11 meters)
Approximate Center Point: UTM NAD83 ZONE 13N 577932E 3548042N

Biomonitor Required During Barrier Installation? ☒Yes ☐No
Biomonitor to coordinate with BLM biologist prior? ☒Yes ☐No
Coordination Type: Shapefile of known occurrences in project vicinity

Biomonitor Required During Project Construction? ☒Yes ☐No
Activities requiring biomonitoring: Construction
Biomonitor to coordinate with BLM biologist prior? ☒Yes ☐No ☐N/A
Coordination Type: Shapefile of known occurrences in project vicinity

Upon conclusion of project construction activities, disturbed surfaces within 165 feet (50 meters) of Location A will be covered with a certified weed free mulch. Mulch product specifications must be approved by the Authorized Officer in writing before the mulch is applied. Mulch will be applied according to the following standards:

Type: Straw
Depth: 2 inches (2.5 centimeters)

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

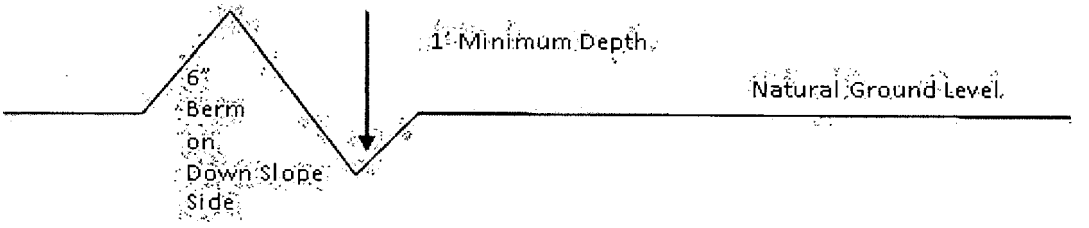
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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

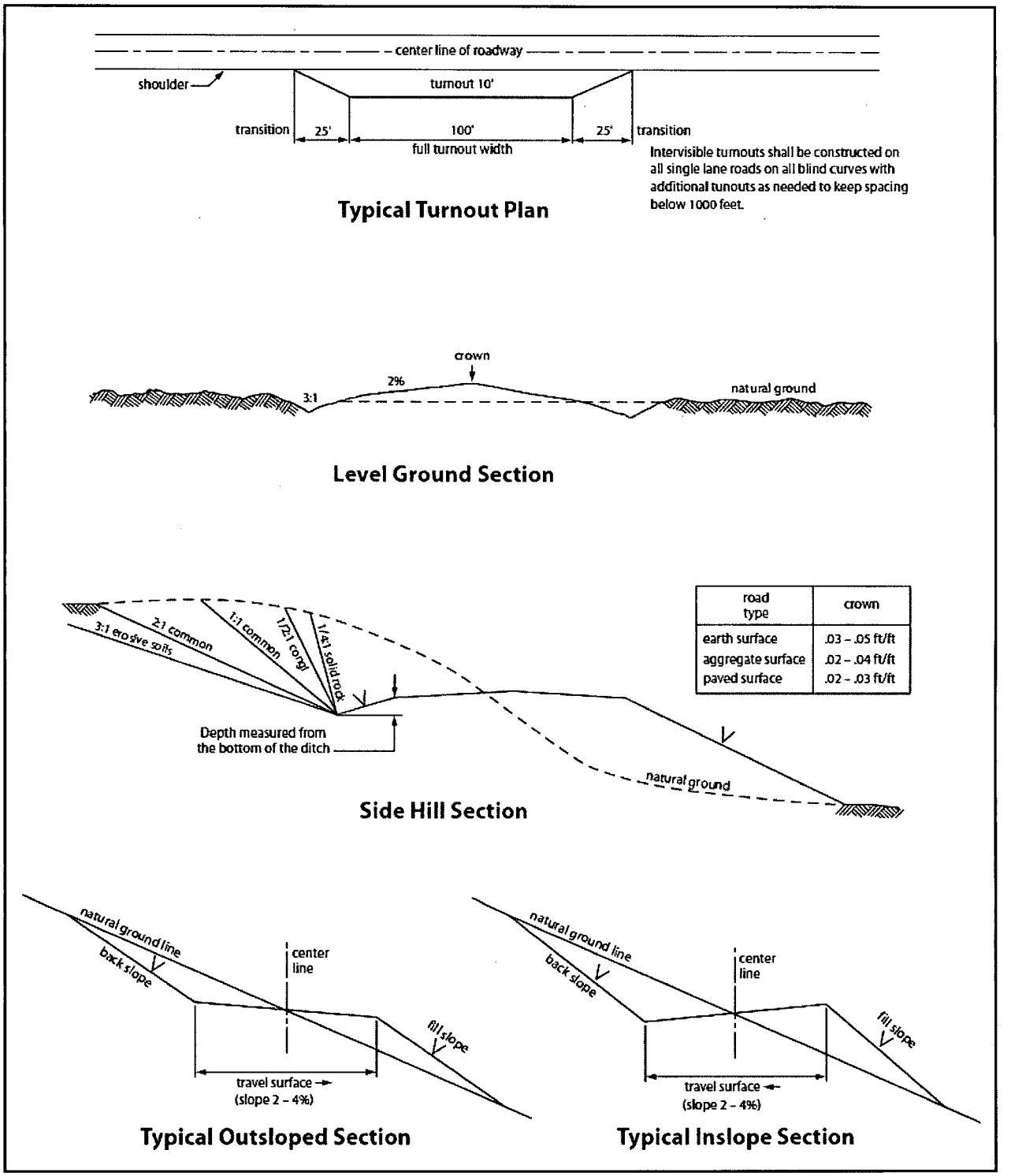


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (*see* 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms

are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;

b. Activities of other parties including, but not limited to:
   (1) Land clearing
   (2) Earth-disturbing and earth-moving work
   (3) Blasting
   (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized

right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than

routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. 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 cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. 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, powerline 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.

17. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

STANDARD STIPULATIONS FOR BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the

Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.)*

intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

(X) seed mixture 1 ( ) seed mixture 3

( ) seed mixture 2 ( ) seed mixture 4

( ) seed mixture 2/LPC ( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. 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 proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. 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 associated roads, 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.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

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).

Seed Mixture 1 for Loamy Sites

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 shall 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 shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

Delaware Basin
Changes to APD for Federal Well

CHEVRON CONTACT:

JUSTIN BLACKBURN
DRILLING ENGINEER
1400 SMITH ST.
HOUSTON, TX 77002

DESK: HOU140/43RD FLOOR
CELL: 832-390-8976
EMAIL: JUSTIN.BLACKBURN@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.

BOPE 5K Test Checklist

The following items must be checked off prior to beginning test:

- ☐ BLM will be given at least 4 hour notice prior to beginning BOPE testing.
- ☐ Valve on casing head below test plug will be open.
- ☐ Test will be performed using clear water.

The following items must be performed during the BOPE testing:

- ☐ BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 day intervals. **Test pressure and times will be recorded by a 3rd party on a test charge and kept on location through the end of the well.**
- ☐ Test plug will be used.
- ☐ Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 5,000 psi (high).
- ☐ Annular type preventer will be tested to 250 psi (low) and 3,500 psi (high).
- ☐ Valves will be tested fromt eh working pressure side with all downstream valves open. The check valve will be held open to test the kill line valve(s).
- ☐ Each pressure test will be held for 10 minutes with no allowable leak off.
- ☐ Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOPE test.
- ☐ Record BOP tests and pressures in drilling reports and IADC sheet.

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:
Elevation: 3254 ft

FORMATION	SUB-SEA TVD	TVD	MD	LITHOLOGIES	MIN. RESOURCES	PROD. FORMATION
Lamar		2,100			N/A	
Bell Canyon		2,337			N/A	
Cherry Canyon		3,182			N/A	
Brushy Canyon		4,331			N/A	
Bone Spring Limestone		5,973			N/A	
Avalon		6,083			N/A	
First Bone Spring		6,836			Oil	
Second Bone Spring		7,469			Oil	
SBSG 3rd Carb		8,239			Oil	
Third Bone Spring		8,690			Oil	
Wolfcamp A		9,036			Oil	
Wolfcamp B		9,541			Oil	
Wolfcamp C		9,867			Oil	
Wolfcamp D		9,962			Oil	
Target		9,055	19,679			WC A

WELLBORE LOCATIONS	SUB-SEA TVD	RKB TVD	MD
SHL	3254	-	
KOP	-5228	8,482	8,595
FTP	-5801	9,055	9,496
LTP	-5801	9,055	19,399

Bottom hole temperature: 150 degrees F

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		450
Water	Lamar	2,100
Oil/Gas	Bell Canyon	2,337
Oil/Gas	Cherry Canyon	3,182
Oil/Gas	Brushy Canyon	4,331

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

3. BOP EQUIPMENT

Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. The 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 per hole section, unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs and variance). BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC Technologies UH-S Multibowl wellhead, which will be run through the rig floor 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 Technologies 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. All tests performed by third party.

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'	450'	17-1/2"	13-3/8"	54.5 #	J-55	BTC	New
Intermediate	0'	2,115'	12-1/4"	9-5/8"	40#	L-80	BTC	New
Production	0'	8,339'	8-3/4"	7"	29.0 #	P-110	BLUE	New
Production Liner	8,039'	19,679'	6-1/8"	4-1/2"	11.6 #	P-110	W521	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 recalculated & 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:	450'	ftTVD
Intermediate Casing:	2,464'	ftTVD
Production Casing:	10,050'	ftTVD
Production Casing:	21,291'	ftMD

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.79	5.19	6.03	2.22
Intermediate	1.46	2.41	4.29	1.79
Production	1.10	1.76	1.84	1.29
Production Liner	1.38	1.02	1.61	1.54

The following worst case load cases were considered for calculation of the above Min. Safety Factors:

Burst Design	Surf	Int	Prod	Prod Lnr
Pressure Test- Surface, Int, Prod Csg P external: Mud weight above TOC, PP below P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Mud weight above TOC, PP below P internal: Dry Gas from Next Csg Point	X			
Gas over mud (60/40) - Int Csg P external: Mud weight above TOC, PP below P internal: 60% gas over 40% mud from hole TD PP		X		
Stimulation (Frac) Pressures- Prod Csg P external: Mud weight above TOC, PP below P internal: Max inj pressure w/ heaviest injected fluid			X	X
Tubing leak- Prod Csg (packer at KOP) P external: Mud weight above TOC, PP below P internal: Leak just below surf, 8.45 ppg packer fluid			X	X
Collapse Design	Surf	Int	Prod	Prod
Full Evacuation P external: Mud weight gradient P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: displacement fluid - water	X	X	X	X
Tension Design	Surf	Int	Prod	Prod
100k lb overpull	X	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	*Sacks*	Yield	Density	%Excess	Water	*Volume*	Additives
Surface					(cu ft/sk)	(ppg)	Open Hole	gal/sk	cuft	
Tail	Class C	0'	450'	492	1.33	14.8	50	6.37	654	Extender, Antifoam, Retarder
Intermediate Csg										
Lead	Class C	0'	1,115'	205	2.56	11.9	50	14.66	524	Extender, Antifoam, Retarder, Viscosifier
Tail	Class C	1,115'	2,115'	382	1.33	14.8	50	6.38	507	Extender, Antifoam, Retarder, Viscosifier
Production										
Lead	Class C	1,815'	8,500'	722	2.46	11.9	50	14.05	1775	Extender, Antifoam, Retarder, Viscosifier
Tail	Class C	7,839'	8,339'	81	1.4	14.5	50	6.77	113	Extender, Antifoam, Retarder, Viscosifier
Production Liner										
Lead	Class C	8,039'	18,679'	812	1.85	13.2	50	6.77	1503	Extender, Antifoam, Retarder, Viscosifier
Tail	Acid Sol Class H	18,679'	19,679'	65	2.19	15	50	9.54	141	Extender, Antifoam, 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 solid body type centralizer on every joint in the lateral, then every other joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing and surface.

6. MUD PROGRAM

From(TVD)	To (TVD)	Type	Weight	Viscosity	Filtrate	Notes
0'	450'	Fresh water mud	8.3 - 8.9	26-30	N/C	
450'	2,115'	Brine	9.5 - 10.2	40-45	<20	
2,115'	8,339'	WBM	8.3 - 9.6	40-45	<20	
8,339'	9,055'	OBM	9.2 - 9.96	50-80	12 - 15	The Wolfcamp A pore pressure is 9.96 ppg, but due to wellbore stability, the mud program will exceed the pore pressure. To assist with hole stability we will be using a MW window of 9.2 - 12.5 ppg.

A closed system will be used 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. And transportating of E&P waste will follow EPA regulations and accompanying manifests.

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
Mudlogs	2 man mudlog	Surface casing shoe through prod hole TD	While drilling or circulating
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling

c. Conventional whole core samples are not planned.
d. A directional survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. No abnormal pressure or temperatures are expected. Estimated BHP is: **2,698** psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

H_2S Preparedness and Contingency Plan Summary

CICADA UNIT 27H, 28H, 29H, 30H, 31H & 32H

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
Eddy County Sheriff's Department	575-887-7551
Carlsbad Fire Department	575-885-3125
Carlsbad Medical Center	575-887-4100
Eddy County Emergency Management	575-885-3581
Poison Control Center	800-222-1222

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

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

1. SUMMARY OF REQUEST:

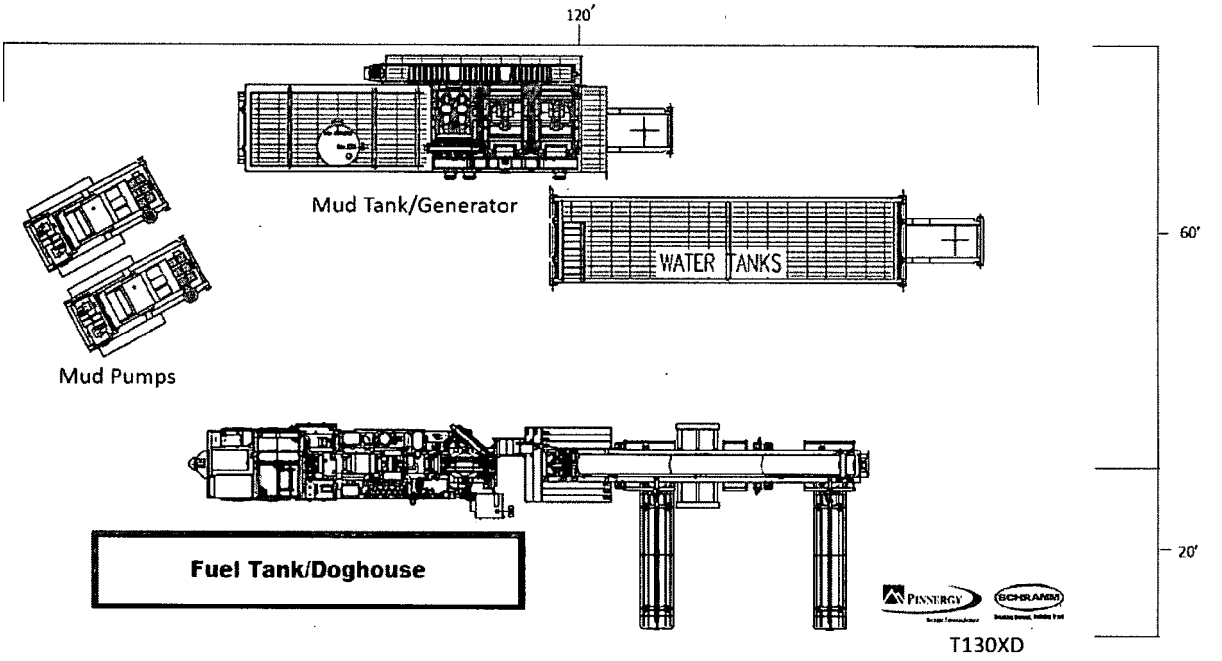
CUSA respectfully requests approval for the following operations for the surface hole in the drill plan:

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



Schlumberger

Chevron Cicada Unit 29H Rev1 jjb 14Aug19 Proposal Geodetic Report

(Def Plan)

Report Date:	August 14, 2019 - 02:59 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chevron	**Vertical Section Azimuth:**	179.090 ° (Grid North)
Field:	NM Eddy County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chevron Cicada Unit 27-29 / 29H	**TVD Reference Datum:**	RKB = 28ft
Well:	Cicada Unit 29H	**TVD Reference Elevation:**	3282.000 ft above MSL
Borehole:	Cicada Unit 29H	**Seabed / Ground Elevation:**	3254.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.181 °
Survey Name:	Chevron Cicada Unit 29H Rev1 jjb 14Aug19	**Total Gravity Field Strength:**	998.4305mgn (9.80665 Based)
Survey Date:	August 14, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	121.881 ° / 11706.399 ft / 6.491 / 1.293	**Total Magnetic Field Strength:**	47766.009 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.699 °
Location Lat / Long:	N 32° 3' 57.82095", W 104° 10' 27.74888"	**Declination Date:**	August 14, 2019
Location Grid N/E Y/X:	N 387794.000 ftUS, E 549241.000 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.0844 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99991187	**Grid Convergence Used:**	0.0844 °
Version / Patch:	2.10.760.0	**Total Corr Mag North->Grid North:**	7.0963 °
		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	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
	100.00	0.00	129.44	100.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
	200.00	0.00	129.44	200.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
	300.00	0.00	129.44	300.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
	400.00	0.00	129.44	400.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
13.375 Casing	*450.00*	*0.00*	*129.44*	*450.00*	*0.00*	*0.00*	*0.00*	*0.00*	*387794.00*	*549241.00*	*N 32 3 57.82*	*W 104 10 27.75*
	500.00	0.00	129.44	500.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
	600.00	0.00	129.44	600.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
Build 1.5°/100ft	650.00	0.00	129.44	650.00	0.00	0.00	0.00	0.00	387794.00	549241.00	N 32 3 57.82	W 104 10 27.75
	700.00	0.75	129.44	700.00	0.21	-0.21	0.25	1.50	387793.79	549241.25	N 32 3 57.82	W 104 10 27.75
	800.00	2.25	129.44	799.96	1.91	-1.87	2.27	1.50	387792.13	549243.27	N 32 3 57.80	W 104 10 27.72
	900.00	3.75	129.44	899.82	5.29	-5.20	6.32	1.50	387788.81	549247.32	N 32 3 57.77	W 104 10 27.68
	1000.00	5.25	129.44	999.51	10.37	-10.18	12.38	1.50	387783.82	549253.37	N 32 3 57.72	W 104 10 27.61
	1100.00	6.75	129.44	1098.96	17.14	-16.82	20.45	1.50	387777.18	549261.45	N 32 3 57.65	W 104 10 27.51
	1200.00	8.25	129.44	1198.10	25.59	-25.11	30.53	1.50	387768.89	549271.53	N 32 3 57.57	W 104 10 27.39
	1300.00	9.75	129.44	1296.87	35.72	-35.05	42.61	1.50	387758.96	549283.61	N 32 3 57.47	W 104 10 27.25
	1400.00	11.25	129.44	1395.19	47.52	-46.62	56.68	1.50	387747.38	549297.68	N 32 3 57.36	W 104 10 27.09
	1500.00	12.75	129.44	1493.00	60.98	-59.83	72.74	1.50	387734.18	549313.73	N 32 3 57.23	W 104 10 26.90
	1600.00	14.25	129.44	1590.24	76.09	-74.66	90.77	1.50	387719.35	549331.76	N 32 3 57.08	W 104 10 26.70
Hold	1650.00	15.00	129.44	1638.62	84.27	-82.68	100.52	1.50	387711.33	549341.51	N 32 3 57.00	W 104 10 26.58
	1700.00	15.00	129.44	1686.91	92.64	-90.90	110.51	0.00	387703.11	549351.50	N 32 3 56.92	W 104 10 26.47
	1800.00	15.00	129.44	1783.50	109.40	-107.34	130.50	0.00	387686.67	549371.49	N 32 3 56.76	W 104 10 26.23
	1900.00	15.00	129.44	1880.10	126.16	-123.78	150.49	0.00	387670.23	549391.48	N 32 3 56.59	W 104 10 26.00
	2000.00	15.00	129.44	1976.69	142.91	-140.22	170.48	0.00	387653.79	549411.47	N 32 3 56.43	W 104 10 25.77
	2100.00	15.00	129.44	2073.28	159.67	-156.66	190.47	0.00	387637.35	549431.45	N 32 3 56.27	W 104 10 25.54
	2200.00	15.00	129.44	2169.88	176.43	-173.11	210.46	0.00	387620.91	549451.44	N 32 3 56.10	W 104 10 25.31
Lamar	*2295.37*	*15.00*	*129.44*	*2262.00*	*192.41*	*-188.79*	*229.52*	*0.00*	*387605.23*	*549470.50*	*N 32 3 55.95*	*W 104 10 25.08*
	2300.00	15.00	129.44	2266.47	193.18	-189.55	230.45	0.00	387604.47	549471.43	N 32 3 55.94	W 104 10 25.07
Bell Canyon	*2346.10*	*15.00*	*129.44*	*2311.00*	*200.91*	*-197.13*	*239.66*	*0.00*	*387596.89*	*549480.64*	*N 32 3 55.87*	*W 104 10 24.97*
	2400.00	15.00	129.44	2363.06	209.94	-205.99	250.44	0.00	387588.03	549491.42	N 32 3 55.78	W 104 10 24.84
	2500.00	15.00	129.44	2459.65	226.70	-222.43	270.43	0.00	387571.59	549511.40	N 32 3 55.62	W 104 10 24.61
	2600.00	15.00	129.44	2556.25	243.45	-238.87	290.42	0.00	387555.15	549531.39	N 32 3 55.45	W 104 10 24.38
	2700.00	15.00	129.44	2652.84	260.21	-255.31	310.41	0.00	387538.71	549551.38	N 32 3 55.29	W 104 10 24.15
	2800.00	15.00	129.44	2749.43	276.97	-271.75	330.39	0.00	387522.27	549571.36	N 32 3 55.13	W 104 10 23.91
	2900.00	15.00	129.44	2846.02	293.72	-288.19	350.38	0.00	387505.83	549591.35	N 32 3 54.96	W 104 10 23.68
	3000.00	15.00	129.44	2942.62	310.48	-304.63	370.37	0.00	387489.39	549611.34	N 32 3 54.80	W 104 10 23.45
	3100.00	15.00	129.44	3039.21	327.24	-321.08	390.36	0.00	387472.95	549631.33	N 32 3 54.64	W 104 10 23.22
Cherry Canyon	*3165.01*	*15.00*	*129.44*	*3102.00*	*338.13*	*-331.76*	*403.36*	*0.00*	*387462.27*	*549644.32*	*N 32 3 54.53*	*W 104 10 23.07*
	3200.00	15.00	129.44	3135.80	343.99	-337.52	410.35	0.00	387456.51	549651.31	N 32 3 54.47	W 104 10 22.99
	3300.00	15.00	129.44	3232.39	360.75	-353.96	430.34	0.00	387440.07	549671.30	N 32 3 54.31	W 104 10 22.75
	3400.00	15.00	129.44	3328.99	377.51	-370.40	450.33	0.00	387423.63	549691.29	N 32 3 54.15	W 104 10 22.52
	3500.00	15.00	129.44	3425.58	394.26	-386.84	470.32	0.00	387407.19	549711.28	N 32 3 53.99	W 104 10 22.29
	3600.00	15.00	129.44	3522.17	411.02	-403.28	490.31	0.00	387390.75	549731.26	N 32 3 53.82	W 104 10 22.06
	3700.00	15.00	129.44	3618.76	427.77	-419.72	510.30	0.00	387374.31	549751.25	N 32 3 53.66	W 104 10 21.83
	3800.00	15.00	129.44	3715.36	444.53	-436.16	530.29	0.00	387357.87	549771.24	N 32 3 53.50	W 104 10 21.59
	3900.00	15.00	129.44	3811.95	461.29	-452.61	550.27	0.00	387341.44	549791.23	N 32 3 53.33	W 104 10 21.36
	4000.00	15.00	129.44	3908.54	478.04	-469.05	570.26	0.00	387325.00	549811.21	N 32 3 53.17	W 104 10 21.13
	4100.00	15.00	129.44	4005.13	494.80	-485.49	590.25	0.00	387308.56	549831.20	N 32 3 53.01	W 104 10 20.90
	4200.00	15.00	129.44	4101.73	511.56	-501.93	610.24	0.00	387292.12	549851.19	N 32 3 52.85	W 104 10 20.67
	4300.00	15.00	129.44	4198.32	528.31	-518.37	630.23	0.00	387275.68	549871.17	N 32 3 52.68	W 104 10 20.43
Drop 1.5°/100ft	4314.60	15.00	129.44	4212.42	530.76	-520.77	633.15	0.00	387273.28	549874.09	N 32 3 52.66	W 104 10 20.40
Brushy canyon	*4392.64*	*13.83*	*129.44*	*4288.00*	*543.34*	*-533.11*	*648.15*	*1.50*	*387260.94*	*549889.09*	*N 32 3 52.54*	*W 104 10 20.23*
	4400.00	13.72	129.44	4295.15	544.47	-534.22	649.51	1.50	387259.82	549890.45	N 32 3 52.52	W 104 10 20.21
	4500.00	12.22	129.44	4392.60	559.00	-548.48	666.84	1.50	387245.57	549907.78	N 32 3 52.38	W 104 10 20.01
	4600.00	10.72	129.44	4490.60	571.88	-561.11	682.19	1.50	387232.94	549923.13	N 32 3 52.26	W 104 10 19.83
	4700.00	9.22	129.44	4589.09	583.08	-572.11	695.56	1.50	387221.94	549936.50	N 32 3 52.15	W 104 10 19.68
	4800.00	7.72	129.44	4687.99	592.62	-581.46	706.94	1.50	387212.59	549947.87	N 32 3 52.06	W 104 10 19.54
	4900.00	6.22	129.44	4787.25	600.47	-589.17	716.31	1.50	387204.88	549957.24	N 32 3 51.98	W 104 10 19.44
	5000.00	4.72	129.44	4886.79	606.64	-595.22	723.67	1.50	387198.83	549964.60	N 32 3 51.92	W 104 10 19.35
	5100.00	3.22	129.44	4986.55	611.12	-599.62	729.02	1.50	387194.43	549969.95	N 32 3 51.88	W 104 10 19.29
	5200.00	1.72	129.44	5086.45	613.91	-602.36	732.34	1.50	387191.70	549973.28	N 32 3 51.85	W 104 10 19.25
	5300.00	0.22	129.44	5186.44	615.01	-603.43	733.65	1.50	387190.62	549974.58	N 32 3 51.84	W 104 10 19.23
Hold Vertical	5314.60	0.00	129.44	5201.04	615.03	-603.45	733.67	1.50	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	5400.00	0.00	129.44	5286.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	5500.00	0.00	129.44	5386.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	5600.00	0.00	129.44	5486.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	5700.00	0.00	129.44	5586.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	5800.00	0.00	129.44	5686.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	5900.00	0.00	129.44	5786.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6000.00	0.00	129.44	5886.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
Bone Spring Limestone	*6068.56*	*0.00*	*129.44*	*5955.00*	*615.03*	*-603.45*	*733.67*	*0.00*	*387190.60*	*549974.60*	*N 32 3 51.84*	*W 104 10 19.23*
	6100.00	0.00	129.44	5986.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
Avalon	*6152.56*	*0.00*	*129.44*	*6039.00*	*615.03*	*-603.45*	*733.67*	*0.00*	*387190.60*	*549974.60*	*N 32 3 51.84*	*W 104 10 19.23*
	6200.00	0.00	129.44	6086.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6300.00	0.00	129.44	6186.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6400.00	0.00	129.44	6286.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6500.00	0.00	129.44	6386.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6600.00	0.00	129.44	6486.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6700.00	0.00	129.44	6586.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6800.00	0.00	129.44	6686.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	6900.00	0.00	129.44	6786.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
First Bone Spring	*6921.56*	*0.00*	*129.44*	*6808.00*	*615.03*	*-603.45*	*733.67*	*0.00*	*387190.60*	*549974.60*	*N 32 3 51.84*	*W 104 10 19.23*
	7000.00	0.00	129.44	6886.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7100.00	0.00	129.44	6986.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7200.00	0.00	129.44	7086.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7300.00	0.00	129.44	7186.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23

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 ° ' ")
	7400.00	0.00	129.44	7286.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
Second Bone Spring	*7489.56*	*0.00*	*129.44*	*7376.00*	*615.03*	*-603.45*	*733.67*	*0.00*	*387190.60*	*549974.60*	*N 32 3 51.84*	*W 104 10 19.23*
	7500.00	0.00	129.44	7386.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7600.00	0.00	129.44	7486.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7700.00	0.00	129.44	7586.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7800.00	0.00	129.44	7686.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	7900.00	0.00	129.44	7786.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	8000.00	0.00	129.44	7886.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	8100.00	0.00	129.44	7986.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
9.625Casing	*8123.56*	*0.00*	*129.44*	*8010.00*	*615.03*	*-603.45*	*733.67*	*0.00*	*387190.60*	*549974.60*	*N 32 3 51.84*	*W 104 10 19.23*
	8200.00	0.00	129.44	8086.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	8300.00	0.00	129.44	8186.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	8400.00	0.00	129.44	8286.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	8500.00	0.00	129.44	8386.44	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
KOP, Build 10°/100ft	8595.60	0.00	129.44	8482.04	615.03	-603.45	733.67	0.00	387190.60	549974.60	N 32 3 51.84	W 104 10 19.23
	8600.00	0.44	178.16	8486.44	615.04	-603.47	733.67	10.00	387190.59	549974.60	N 32 3 51.84	W 104 10 19.23
	8700.00	10.44	178.16	8585.86	624.51	-612.93	733.97	10.00	387181.13	549974.91	N 32 3 51.74	W 104 10 19.23
Third Bone Spring	*8751.48*	*15.59*	*178.16*	*8636.00*	*636.10*	*-624.51*	*734.35*	*10.00*	*387169.54*	*549975.28*	*N 32 3 51.63*	*W 104 10 19.23*
	8800.00	20.44	178.16	8682.13	651.09	-639.50	734.83	10.00	387154.55	549975.76	N 32 3 51.48	W 104 10 19.22
	8900.00	30.44	178.16	8772.32	693.99	-682.38	736.21	10.00	387111.68	549977.14	N 32 3 51.06	W 104 10 19.21
	9000.00	40.44	178.16	8853.69	751.89	-740.27	738.06	10.00	387053.80	549979.00	N 32 3 50.48	W 104 10 19.19
	9100.00	50.44	178.16	8923.76	823.05	-811.39	740.35	10.00	386982.68	549981.28	N 32 3 49.78	W 104 10 19.16
	9200.00	60.44	178.16	8980.42	905.28	-893.60	742.99	10.00	386900.48	549983.92	N 32 3 48.97	W 104 10 19.13
Wolfcamp A	*9228.82*	*63.32*	*178.16*	*8994.00*	*930.69*	*-918.99*	*743.81*	*10.00*	*386875.09*	*549984.74*	*N 32 3 48.72*	*W 104 10 19.12*
	9300.00	70.44	178.16	9021.93	996.11	-984.39	745.91	10.00	386809.70	549986.84	N 32 3 48.07	W 104 10 19.10
	9400.00	80.44	178.16	9047.04	1092.76	-1081.00	749.01	10.00	386713.10	549989.94	N 32 3 47.11	W 104 10 19.06
FTP Cross	9495.60	90.00	178.16	9055.00	1187.91	-1176.11	752.06	10.00	386617.99	549993.00	N 32 3 46.17	W 104 10 19.03
	9500.00	90.00	178.16	9055.00	1192.30	-1180.51	752.21	0.00	386613.60	549993.14	N 32 3 46.13	W 104 10 19.03
	9600.00	90.00	178.16	9055.00	1292.29	-1280.46	755.42	0.00	386513.66	549996.35	N 32 3 45.14	W 104 10 18.99
	9700.00	90.00	178.16	9055.00	1392.28	-1380.40	758.63	0.00	386413.72	549999.56	N 32 3 44.15	W 104 10 18.96
	9800.00	90.00	178.16	9055.00	1492.27	-1480.35	761.84	0.00	386313.78	550002.77	N 32 3 43.16	W 104 10 18.92
	9900.00	90.00	178.16	9055.00	1592.25	-1580.30	765.05	0.00	386213.84	550005.98	N 32 3 42.17	W 104 10 18.89
	10000.00	90.00	178.16	9055.00	1692.24	-1680.25	768.26	0.00	386113.90	550009.19	N 32 3 41.18	W 104 10 18.85
	10100.00	90.00	178.16	9055.00	1792.23	-1780.20	771.47	0.00	386013.96	550012.40	N 32 3 40.19	W 104 10 18.82
	10200.00	90.00	178.16	9055.00	1892.21	-1880.15	774.68	0.00	385914.02	550015.61	N 32 3 39.20	W 104 10 18.78
	10300.00	90.00	178.16	9055.00	1992.20	-1980.09	777.89	0.00	385814.08	550018.82	N 32 3 38.22	W 104 10 18.74
	10400.00	90.00	178.16	9055.00	2092.19	-2080.04	781.10	0.00	385714.14	550022.03	N 32 3 37.23	W 104 10 18.71
	10500.00	90.00	178.16	9055.00	2192.17	-2179.99	784.31	0.00	385614.20	550025.24	N 32 3 36.24	W 104 10 18.67
	10600.00	90.00	178.16	9055.00	2292.16	-2279.94	787.52	0.00	385514.27	550028.45	N 32 3 35.25	W 104 10 18.64
	10700.00	90.00	178.16	9055.00	2392.15	-2379.89	790.73	0.00	385414.33	550031.66	N 32 3 34.26	W 104 10 18.60
	10800.00	90.00	178.16	9055.00	2492.13	-2479.84	793.94	0.00	385314.39	550034.87	N 32 3 33.27	W 104 10 18.57
	10900.00	90.00	178.16	9055.00	2592.12	-2579.79	797.15	0.00	385214.45	550038.08	N 32 3 32.28	W 104 10 18.53
	11000.00	90.00	178.16	9055.00	2692.11	-2679.73	800.36	0.00	385114.51	550041.29	N 32 3 31.29	W 104 10 18.49
	11100.00	90.00	178.16	9055.00	2792.09	-2779.68	803.57	0.00	385014.57	550044.50	N 32 3 30.30	W 104 10 18.46
	11200.00	90.00	178.16	9055.00	2892.08	-2879.63	806.79	0.00	384914.63	550047.71	N 32 3 29.31	W 104 10 18.42
	11300.00	90.00	178.16	9055.00	2992.07	-2979.58	810.00	0.00	384814.69	550050.92	N 32 3 28.32	W 104 10 18.39
	11400.00	90.00	178.16	9055.00	3092.05	-3079.53	813.21	0.00	384714.75	550054.13	N 32 3 27.33	W 104 10 18.35
	11500.00	90.00	178.16	9055.00	3192.04	-3179.48	816.42	0.00	384614.81	550057.34	N 32 3 26.35	W 104 10 18.32
	11600.00	90.00	178.16	9055.00	3292.03	-3279.42	819.63	0.00	384514.87	550060.55	N 32 3 25.36	W 104 10 18.28
	11700.00	90.00	178.16	9055.00	3392.02	-3379.37	822.84	0.00	384414.93	550063.76	N 32 3 24.37	W 104 10 18.25
	11800.00	90.00	178.16	9055.00	3492.00	-3479.32	826.05	0.00	384314.99	550066.97	N 32 3 23.38	W 104 10 18.21
	11900.00	90.00	178.16	9055.00	3591.99	-3579.27	829.26	0.00	384215.05	550070.18	N 32 3 22.39	W 104 10 18.17
	12000.00	90.00	178.16	9055.00	3691.98	-3679.22	832.47	0.00	384115.11	550073.39	N 32 3 21.40	W 104 10 18.14
	12100.00	90.00	178.16	9055.00	3791.96	-3779.17	835.68	0.00	384015.17	550076.60	N 32 3 20.41	W 104 10 18.10
	12200.00	90.00	178.16	9055.00	3891.95	-3879.12	838.89	0.00	383915.23	550079.81	N 32 3 19.42	W 104 10 18.07
	12300.00	90.00	178.16	9055.00	3991.94	-3979.06	842.10	0.00	383815.29	550083.02	N 32 3 18.43	W 104 10 18.03
	12400.00	90.00	178.16	9055.00	4091.92	-4079.01	845.31	0.00	383715.36	550086.24	N 32 3 17.44	W 104 10 18.00
	12500.00	90.00	178.16	9055.00	4191.91	-4178.96	848.52	0.00	383615.42	550089.45	N 32 3 16.45	W 104 10 17.96
	12600.00	90.00	178.16	9055.00	4291.90	-4278.91	851.73	0.00	383515.48	550092.66	N 32 3 15.47	W 104 10 17.93
	12700.00	90.00	178.16	9055.00	4391.88	-4378.86	854.94	0.00	383415.54	550095.87	N 32 3 14.48	W 104 10 17.89
	12800.00	90.00	178.16	9055.00	4491.87	-4478.81	858.15	0.00	383315.60	550099.08	N 32 3 13.49	W 104 10 17.85
	12900.00	90.00	178.16	9055.00	4591.86	-4578.75	861.36	0.00	383215.66	550102.29	N 32 3 12.50	W 104 10 17.82
	13000.00	90.00	178.16	9055.00	4691.84	-4678.70	864.57	0.00	383115.72	550105.50	N 32 3 11.51	W 104 10 17.78
	13100.00	90.00	178.16	9055.00	4791.83	-4778.65	867.79	0.00	383015.78	550108.71	N 32 3 10.52	W 104 10 17.75
	13200.00	90.00	178.16	9055.00	4891.82	-4878.60	871.00	0.00	382915.84	550111.92	N 32 3 9.53	W 104 10 17.71
	13300.00	90.00	178.16	9055.00	4991.80	-4978.55	874.21	0.00	382815.90	550115.13	N 32 3 8.54	W 104 10 17.68
	13400.00	90.00	178.16	9055.00	5091.79	-5078.50	877.42	0.00	382715.96	550118.34	N 32 3 7.55	W 104 10 17.64
	13500.00	90.00	178.16	9055.00	5191.78	-5178.45	880.63	0.00	382616.02	550121.55	N 32 3 6.56	W 104 10 17.61
	13600.00	90.00	178.16	9055.00	5291.76	-5278.39	883.84	0.00	382516.08	550124.76	N 32 3 5.57	W 104 10 17.57
	13700.00	90.00	178.16	9055.00	5391.75	-5378.34	887.05	0.00	382416.14	550127.97	N 32 3 4.59	W 104 10 17.53
	13800.00	90.00	178.16	9055.00	5491.74	-5478.29	890.26	0.00	382316.20	550131.18	N 32 3 3.60	W 104 10 17.50
	13900.00	90.00	178.16	9055.00	5591.73	-5578.24	893.47	0.00	382216.26	550134.39	N 32 3 2.61	W 104 10 17.46
	14000.00	90.00	178.16	9055.00	5691.71	-5678.19	896.68	0.00	382116.32	550137.60	N 32 3 1.62	W 104 10 17.43
	14100.00	90.00	178.16	9055.00	5791.70	-5778.14	899.89	0.00	382016.38	550140.81	N 32 3 0.63	W 104 10 17.39
	14200.00	90.00	178.16	9055.00	5891.69	-5878.08	903.10	0.00	381916.45	550144.02	N 32 2 59.64	W 104 10 17.36
	14300.00	90.00	178.16	9055.00	5991.67	-5978.03	906.31	0.00	381816.51	550147.23	N 32 2 58.65	W 104 10 17.32
	14400.00	90.00	178.16	9055.00	6091.66	-6077.98	909.52	0.00	381716.57	550150.44	N 32 2 57.66	W 104 10 17.29
MP, Turn 2°/100ft	14448.60	90.00	178.16	9055.00	6140.25	-6126.55	911.08	0.00	381668.00	550152.00	N 32 2 57.18	W 104 10 17.27
	14500.00	90.00	179.19	9055.00	6191.65	-6177.94	912.27	2.00	381616.62	550153.19	N 32 2 56.67	W 104 10 17.26
Hold	14542.64	90.00	180.04	9055.00	6234.29	-6220.58	912.56	2.00	381573.98	550153.48	N 32 2 56.25	W 104 10 17.25
	14600.00	90.00	180.04	9055.00	6291.64	-6277.94	912.52	0.00	381516.63	550153.43	N 32 2 55.68	W 104 10 17.25
	14700.00	90.00	180.04	9055.00	6391.63	-6377.94	912.45	0.00	381416.63	550153.36	N 32 2 54.69	W 104 10 17.26
	14800.00	90.00	180.04	9055.00	6491.61	-6477.94	912.37	0.00	381316.64	550153.29	N 32 2 53.70	W 104 10 17.26
	14900.00	90.00	180.04	9055.00	6591.60	-6577.94	912.30	0.00	381216.65	550153.22	N 32 2 52.71	W 104 10 17.26
	15000.00	90.00	180.04	9055.00	6691.59	-6677.94	912.23	0.00	381116.66	550153.15	N 32 2 51.72	W 104 10 17.26
	15100.00	90.00	180.04	9055.00	6791.57	-6777.94	912.16	0.00	381016.67	550153.08	N 32 2 50.73	W 104 10 17.27
	15200.00	90.00	180.04	9055.00	6891.56	-6877.94	912.09	0.00	380916.68	550153.01	N 32 2 49.75	W 104 10 17.27
	15300.00	90.00	180.04	9055.00	6991.54	-6977.94	912.02	0.00	380816.69	550152.93	N 32 2 48.76	W 104 10 17.27
	15400.00	90.00	180.04	9055.00	7091.53	-7077.94	911.94	0.00	380716.70	550152.86	N 32 2 47.77	W 104 10 17.28
	15500.00	90.00	180.04	9055.00	7191.52	-7177.94	911.87	0.00	380616.71	550152.79	N 32 2 46.78	W 104 10 17.28
	15600.00	90.00	180.04	9055.00	7291.50	-7277.94	911.80	0.00	380516.72	550152.72	N 32 2 45.79	W 104 10 17.28
	15700.00	90.00	180.04	9055.00	7391.49	-7377.94	911.73	0.00	380416.72	550152.65	N 32 2 44.80	W 104 10 17.28
	15800.00	90.00	180.04	9055.00	7491.48	-7477.94	911.66	0.00	380316.73	550152.58	N 32 2 43.81	W 104 10 17.29
	15900.00	90.00	180.04	9055.00	7591.46	-7577.94	911.59	0.00	380216.74	550152.50	N 32 2 42.82	W 104 10 17.29
	16000.00	90.00	180.04	9055.00	7691.45	-7677.94	911.52	0.00	380116.75	550152.43	N 32 2 41.83	W 104 10 17.29
	16100.00	90.00	180.04	9055.00	7791.43	-7777.94	911.44	0.00	380016.76	550152.36	N 32 2 40.84	W 104 10 17.29
	16200.00	90.00	180.04	9055.00	7891.42	-7877.94	911.37	0.00	379916.77	550152.29	N 32 2 39.85	W 104 10 17.30
	16300.00	90.00	180.04	9055.00	7991.41	-7977.94	911.30	0.00	379816.78	550152.22	N 32 2 38.86	W 104 10 17.30
	16400.00	90.00	180.04	9055.00	8091.39	-8077.94	911.23	0.00	379716.79	550152.15	N 32 2 37.87	W 104 10 17.30
	16500.00	90.00	180.04	9055.00	8191.38	-8177.94	911.16	0.00	379616.80	550152.08	N 32 2 36.88	W 104 10 17.30
	16600.00	90.00	180.04	9055.00	8291.37	-8277.94	911.09	0.00	379516.81	550152.00	N 32 2 35.89	W 104 10 17.31
	16700.00	90.00	180.04	9055.00	8391.35	-8377.94	911.01	0.00	379416.82	550151.93	N 32 2 34.90	W 104 10 17.31
	16800.00	90.00	180.04	9055.00	8491.34	-8477.94	910.94	0.00	379316.82	550151.86	N 32 2 33.91	W 104 10 17.31
	16900.00	90.00	180.04	9055.00	8591.32	-8577.94	910.87	0.00	379216.83	550151.79	N 32 2 32.92	W 104 10 17.31
	17000.00	90.00	180.04	9055.00	8691.31	-8677.94	910.80	0.00	379116.84	550151.72	N 32 2 31.93	W 104 10 17.32
	17100.00	90.00	180.04	9055.00	8791.30	-8777.94	910.73	0.00	379016.85	550151.65	N 32 2 30.94	W 104 10 17.32
	17200.00	90.00	180.04	9055.00	8891.28	-8877.94	910.66	0.00	378916.86	550151.57	N 32 2 29.95	W 104 10 17.32
	17300.00	90.00	180.04	9055.00	8991.27	-8977.94	910.58	0.00	378816.87	550151.50	N 32 2 28.96	W 104 10 17.32
	17400.00	90.00	180.04	9055.00	9091.26	-9077.94	910.51	0.00	378716.88	550151.43	N 32 2 27.97	W 104 10 17.33
	17500.00	90.00	180.04	9055.00	9191.24	-9177.94	910.44	0.00	378616.89	550151.36	N 32 2 26.99	W 104 10 17.33
	17600.00	90.00	180.04	9055.00	9291.23	-9277.94	910.37	0.00	378516.90	550151.29	N 32 2 26.00	W 104 10 17.33
	17700.00	90.00	180.04	9055.00	9391.21	-9377.94	910.30	0.00	378416.91	550151.22	N 32 2 25.01	W 104 10 17.33
	17800.00	90.00	180.04	9055.00	9491.20	-9477.94	910.23	0.00	378316.91	550151.14	N 32 2 24.02	W 104 10 17.34
	17900.00	90.00	180.04	9055.00	9591.19	-9577.94	910.16	0.00	378216.92	550151.07	N 32 2 23.03	W 104 10 17.34
	18000.00	90.00	180.04	9055.00	9691.17	-9677.94	910.08	0.00	378116.93	550151.00	N 32 2 22.04	W 104 10 17.34
	18100.00	90.00	180.04	9055.00	9791.16	-9777.94	910.01	0.00	378016.94	550150.93	N 32 2 21.05	W 104 10 17.34

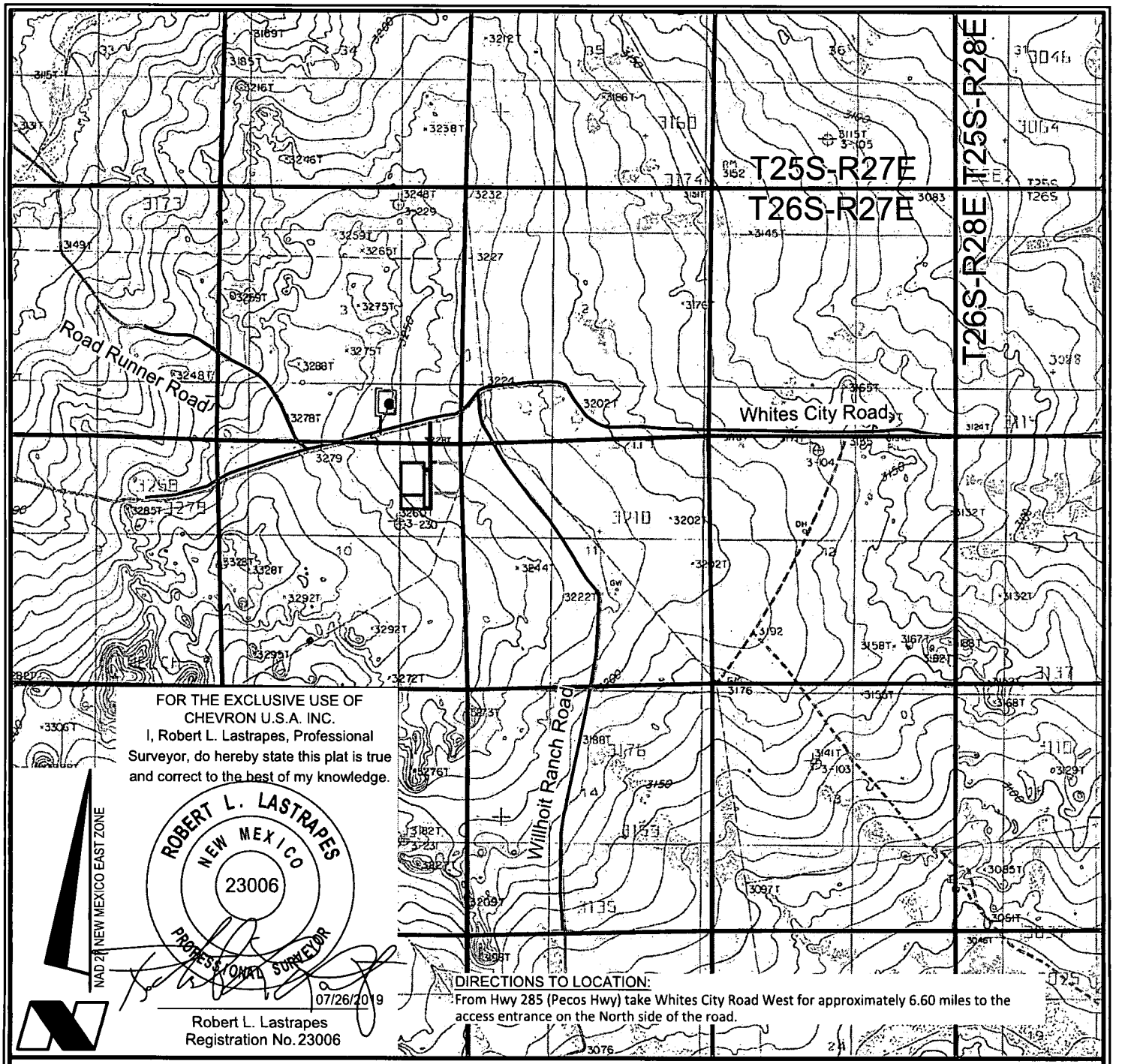
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	18200.00	90.00	180.04	9055.00	9891.15	-9877.94	909.94	0.00	377916.95	550150.86	N 32 2 20.06	W 104 10 17.35
	18300.00	90.00	180.04	9055.00	9991.13	-9977.94	909.87	0.00	377816.96	550150.79	N 32 2 19.07	W 104 10 17.35
	18400.00	90.00	180.04	9055.00	10091.12	-10077.94	909.80	0.00	377716.97	550150.72	N 32 2 18.08	W 104 10 17.35
	18500.00	90.00	180.04	9055.00	10191.10	-10177.94	909.73	0.00	377616.98	550150.64	N 32 2 17.09	W 104 10 17.35
	18600.00	90.00	180.04	9055.00	10291.09	-10277.94	909.65	0.00	377516.99	550150.57	N 32 2 16.10	W 104 10 17.36
	18700.00	90.00	180.04	9055.00	10391.08	-10377.94	909.58	0.00	377417.00	550150.50	N 32 2 15.11	W 104 10 17.36
	18800.00	90.00	180.04	9055.00	10491.06	-10477.94	909.51	0.00	377317.01	550150.43	N 32 2 14.12	W 104 10 17.36
	18900.00	90.00	180.04	9055.00	10591.05	-10577.94	909.44	0.00	377217.01	550150.36	N 32 2 13.13	W 104 10 17.37
	19000.00	90.00	180.04	9055.00	10691.03	-10677.94	909.37	0.00	377117.02	550150.29	N 32 2 12.14	W 104 10 17.37
	19100.00	90.00	180.04	9055.00	10791.02	-10777.94	909.30	0.00	377017.03	550150.21	N 32 2 11.15	W 104 10 17.37
	19200.00	90.00	180.04	9055.00	10891.01	-10877.94	909.22	0.00	376917.04	550150.14	N 32 2 10.16	W 104 10 17.37
	19300.00	90.00	180.04	9055.00	10990.99	-10977.94	909.15	0.00	376817.05	550150.07	N 32 2 9.17	W 104 10 17.38
LTP Cross	*19399.06*	*90.00*	*180.04*	*9055.00*	*11090.04*	*-11077.00*	*909.08*	*0.00*	*376718.00*	*550150.00*	*N 32 2 8.19*	*W 104 10 17.38*
	19400.00	90.00	180.04	9055.00	11090.98	-11077.94	909.08	0.00	376717.06	550150.00	N 32 2 8.18	W 104 10 17.38
	19500.00	90.00	180.04	9055.00	11190.97	-11177.94	909.01	0.00	376617.07	550149.93	N 32 2 7.19	W 104 10 17.38
	19600.00	90.00	180.04	9055.00	11290.95	-11277.94	908.94	0.00	376517.08	550149.86	N 32 2 6.20	W 104 10 17.38
Chevron Cicada Unit 29H - PBHL	19679.08	90.00	180.04	9055.00	11370.03	-11357.02	908.88	0.00	376438.00	550149.80	N 32 2 5.42	W 104 10 17.39

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	28.000	1/100.000	30.000	30.000		B001Ma_MWD+HDGM-Depth Only	Cicada Unit 29H / Chevron Cicada Unit 29H Rev1 jjb 14Aug19
	1	28.000	19679.085	1/100.000	30.000	30.000		B001Ma_MWD+HDGM	Cicada Unit 29H / Chevron Cicada Unit 29H Rev1 jjb 14Aug19



ROAD PLAT

Scale: 1" = 3000'

3000' 0 1500' 3000'

LEGEND

- Proposed Well
- Proposed Access Road
- Proposed Drillsite
- Existing Road
- Section Line
- Proposed Frac Pond
- Proposed Facility

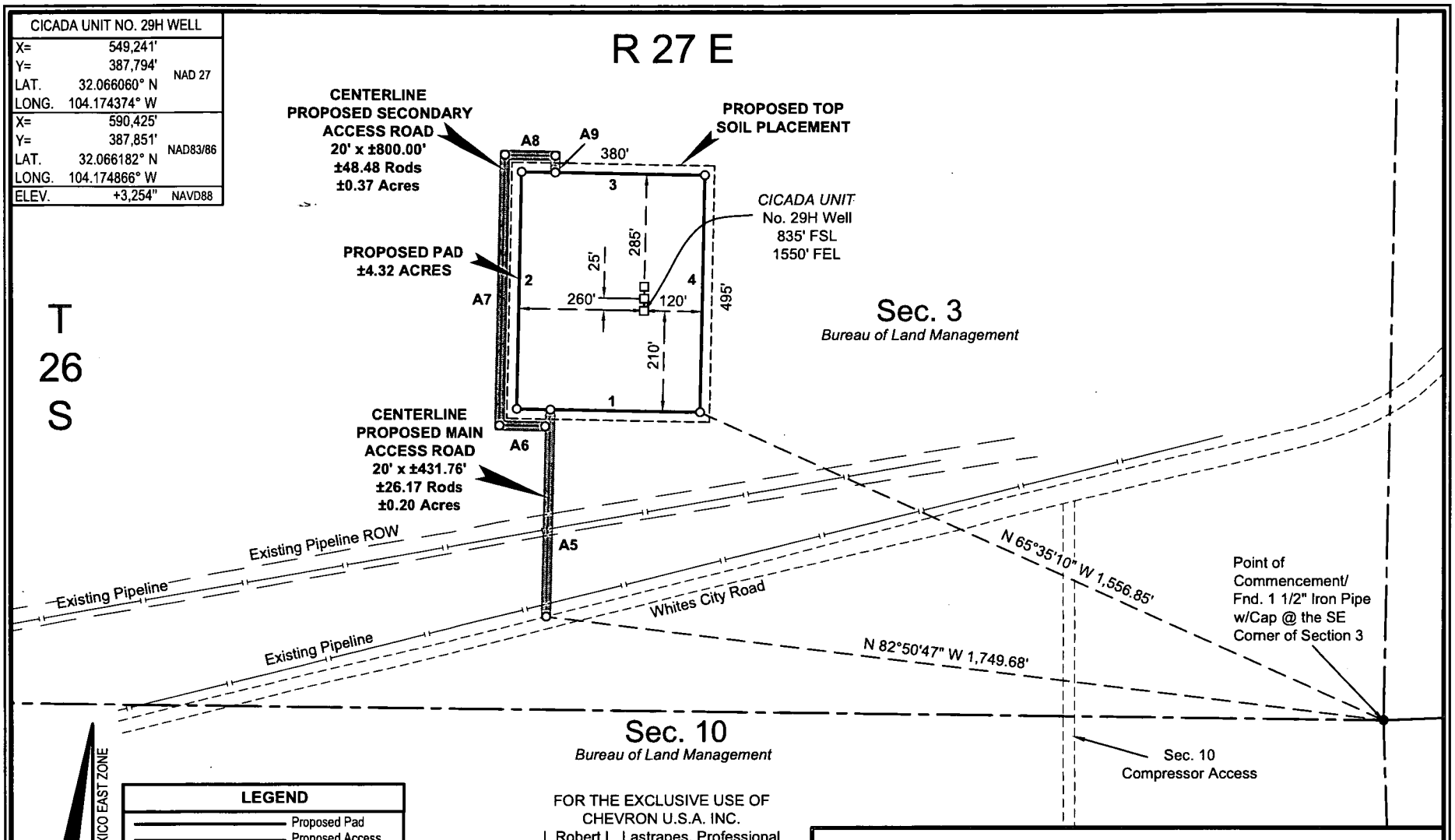
CHEVRON U.S.A. INC.

CICADA UNIT NO. 29H WELL
LOCATED 835' FSL AND 1550' FEL
SECTION 3, T26S-R27E
EDDY 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: DMB	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	2	KJD	12/14/2018	Pad size changed
DATE: 11/09/2017	3	KJD	05/03/2019	Pad size change
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 29H_APD.dwg				

CICADA UNIT NO. 29H WELL		
X=	549,241'	NAD 27
Y=	387,794'	
LAT.	32.066060° N	
LONG.	104.174374° W	
X=	590,425'	NAD83/86
Y=	387,851'	
LAT.	32.066182° N	
LONG.	104.174866° W	
ELEV.	+3,254'	NAVD88



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

07/26/2019

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

WELL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
CICADA UNIT NO. 29H WELL
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: DMB	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	2	KJD	12/14/2018	Pad size changed
DATE: 11/09/2017	3	KJD	05/03/2019	Pad size change
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 29H 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 PAD CORNER			NE PAD CORNER		
X=	548,987'	NAD 27	X=	549,367'	NAD 27
Y=	388,084'		Y=	388,076'	
LAT.	32.066859° N		LAT.	32.066837° N	
LONG.	104.175194° W		LONG.	104.173967° W	
X=	590,171'	NAD83/86	X=	590,551'	NAD83/86
Y=	388,141'		Y=	388,133'	
LAT.	32.066981° N		LAT.	32.066959° N	
LONG.	104.175686° W		LONG.	104.174459° W	
ELEV.	+3261'	NAVD88	ELEV.	+3254'	NAVD88
SW PAD CORNER			SE PAD CORNER		
X=	548,977'	NAD 27	X=	549,357'	NAD 27
Y=	387,589'		Y=	387,581'	
LAT.	32.065498° N		LAT.	32.065476° N	
LONG.	104.175227° W		LONG.	104.174001° W	
X=	590,161'	NAD83/86	X=	590,541'	NAD83/86
Y=	387,646'		Y=	387,638'	
LAT.	32.065620° N		LAT.	32.065598° N	
LONG.	104.175720° W		LONG.	104.174493° W	
ELEV.	+3256'	NAVD88	ELEV.	+3251'	NAVD88

METES AND BOUNDS DESCRIPTION OF A
PROPOSED PAD
BUREAU OF LAND MANAGEMENT, SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

Survey of a proposed pad being 4.32 acres on the Bureau of Land Management Land, Section 3, T26S-R27E, Eddy County, New Mexico.

COMMENCING at a Found 1 ½" Iron Pipe w/Cap at the Southeast Corner of said Section 3; **Thence** North 65 degrees 35 minutes 10 seconds West 1,556.85 feet to the **POINT OF BEGINNING** having the following coordinates: X= 549,357.11 and Y= 387,581.30 (New Mexico East State Plane Coordinate System, NAD 27);

Thence North 88 degrees 52 minutes 31 seconds West 380.00 feet to a point;
Thence North 01 degrees 07 minutes 29 seconds East 495.00 feet to a point;
Thence South 88 degrees 52 minutes 31 seconds East 380.00 feet to a point;
Thence South 01 degrees 07 minutes 29 seconds West 495.00 feet to a point back to the said **POINT OF BEGINNING**;

The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.
This description represents a survey made on the ground of a proposed pad. This description does not represent a boundary survey.

PROPOSED PAD		
COURSE	BEARING	DISTANCE
1	N 88° 52' 31" W	380.00'
2	N 01° 07' 29" E	495.00'
3	S 88° 52' 31" E	380.00'
4	S 01° 07' 29" W	495.00'

CENTERLINE PROPOSED MAIN ACCESS ROAD		
COURSE	BEARING	DISTANCE
A5	N 01° 07' 29" E	431.76'

CENTERLINE PROPOSED SECONDARY ACCESS ROAD		
COURSE	BEARING	DISTANCE
A6	N 88° 52' 31" W	95.00'
A7	S 01° 07' 29" E	565.00'
A8	S 88° 52' 31" E	105.00'
A9	S 01° 07' 29" W	35.00'

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
NEW MEXICO
23006
PROFESSIONAL SURVEYOR

07/26/2019
Robert L. Lastrapes
Registration No. 23006

FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
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WELL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
CICADA UNIT NO. 29H WELL
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

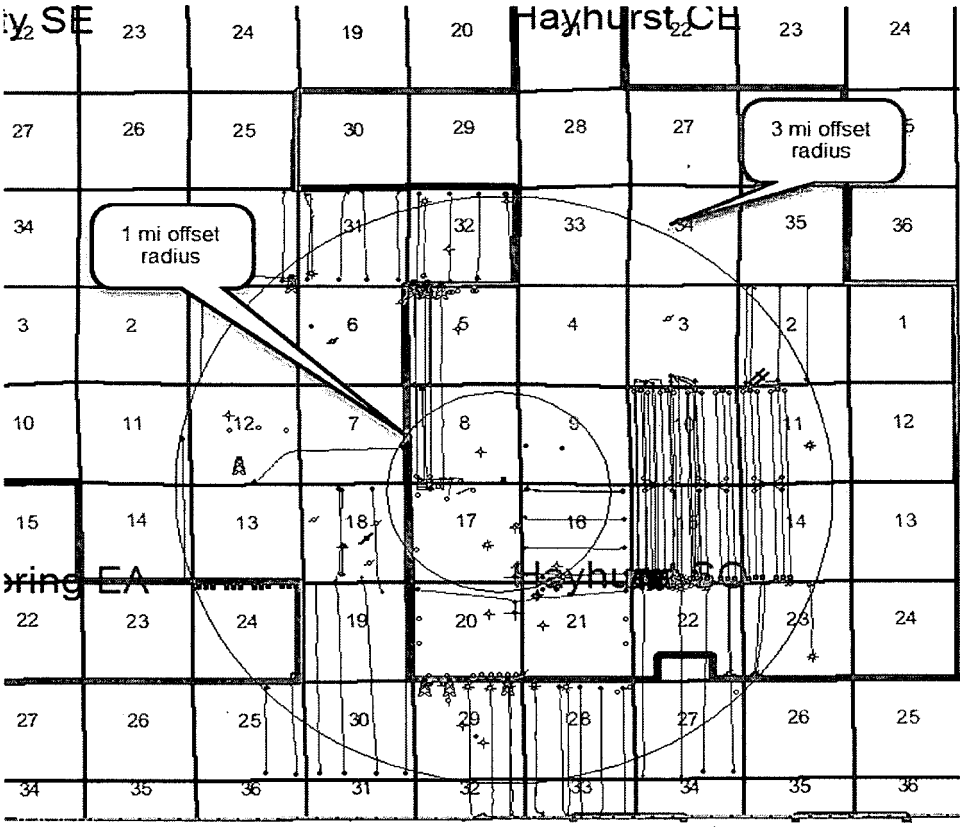
DRAWN BY: DMB
PROJ. MGR.: GDG
DATE: 11/09/2017

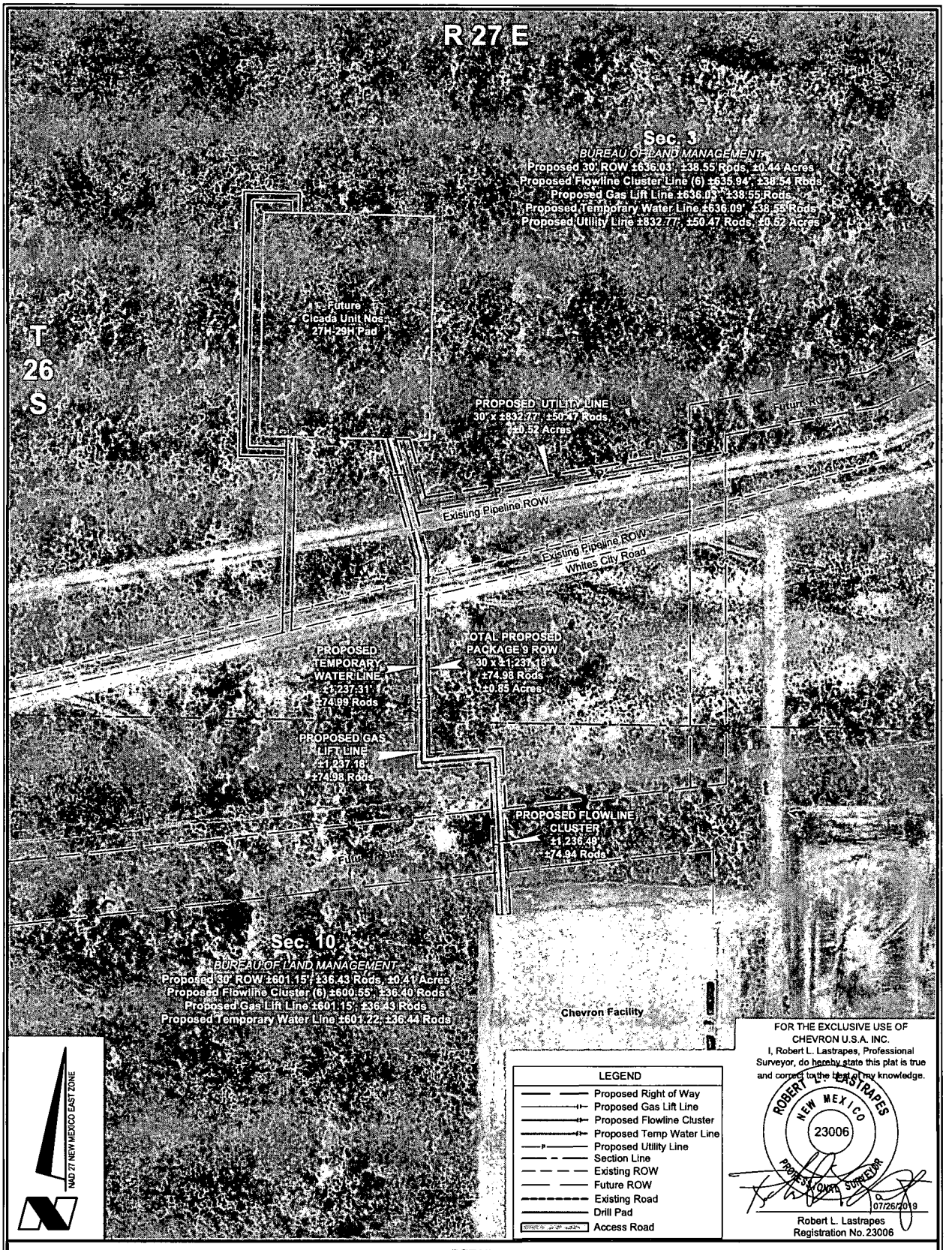
REVISIONS			
#	BY:	DATE:	DESCRIPTION:
2	KJD	12/14/2018	Pad size changed
3	KJD	05/03/2019	Pad size change

FILENAME: T:\2017\2176161\DWG\CICADA UNIT 29H WELL PLAT.dwg

API	Well Name	Well Number	Operator	Final Status	TVD	SHL to SHL Distance-- CICADA UNIT 29H
30015439290000	HH SO 10 P3	016H	CHEVRON U S A INCORPORATED	PILOT HOLE		1680
30015439290100	HH SO 10 P3	016H	CHEVRON U S A INCORPORATED	GAS-WO	10120	1680
30015439300000	HH SO 10 P3	015H	CHEVRON U S A INCORPORATED	GAS PRODUCER	10133	1685
30015439370000	HH SO 10 P3	008H	CHEVRON U S A INCORPORATED	GAS PRODUCER	9851	1690
30015439360000	HH SO 10 P3	007H	CHEVRON U S A INCORPORATED	GAS PRODUCER	9870	1690
30015439260000	HH SO 10 P3	024H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH		1695
30015439320000	HH SO 10 P3	023H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH		1700
30015417440000	SKEEN 2 SWD	1	CHEVRON U S A INCORPORATED	SWDOP		2775
30015417440000	SKEEN 2 SWD	1	CHEVRON U S A INCORPORATED	SWDOP		2775
30015443670000	HH SO 10 15 FED 002	6H	CHEVRON U S A INCORPORATED	WELL START		2950
30015443710000	HH SO 10 15 FED 002	5H	CHEVRON U S A INCORPORATED	WELL START		2955
30015443530000	HH SO 10 15 FED 002	4H	CHEVRON U S A INCORPORATED	WELL START		2960
30015443510000	HH SO 10 15 FED 002	003H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH		2965
30015443540000	HH SO 10 15 FED 002	002H	CHEVRON U S A INCORPORATED	TREATD		2970
30015443520000	HH SO 10 15 FED 002	1H	CHEVRON U S A INCORPORATED	TREATD		2975
30015438920000	GRAVITAS 2 STATE SWD	2	CHEVRON U S A INCORPORATED	SWDOP	14952	3130
30015438920000	GRAVITAS 2 STATE SWD	2	CHEVRON U S A INCORPORATED	SWDOP	14952	3130
30015363410000	SCRABBLE BLE FEDERAL	1	YATES PETROLEUM CORPORATION	ABANDON LOCATION		3300
30015410460000	SKEEN 2-26-27 STATE	1H	CHEVRON U S A INCORPORATED	OIL PRODUCER	7746	4945
30015430400000	MIDNIGHT SUN 2 26 27	5H	CHEVRON U S A INCORPORATED	JUNKED & ABANDONED	6552	5090
30015430400100	MIDNIGHT SUN 2 26 27	5H	CHEVRON U S A INCORPORATED	PILOT HOLE - WO	9184	5090
30015430400200	MIDNIGHT SUN 2 26 27	5H	CHEVRON U S A INCORPORATED	OIL-WO	8984	5090
30015410470000	SKEEN 2-26-27 STATE	2H	CHEVRON U S A INCORPORATED	OIL PRODUCER	7792	5755
30015410477000	SKEEN 2-26-27 STATE	2H	CHEVRON U S A INCORPORATED	PILOT HOLE	8047	5755
30015214560000	HAY HOLLOW U	1	GREAT WESTERN DRILLING COMPANY	ABD-GW		6445
30015011480000	FEDERAL 11	1	RITCHIE & REAVES	DRY & ABANDONED		6500
30015411170000	SKEEN 2-26-27 STATE	3H	CHEVRON U S A INCORPORATED	OIL PRODUCER	7768	6710
30015239990000	AZTEC STATE	1	MOORE WAYNE	D&A-OG		6935
30015411180000	SKEEN 2-26-27 STATE	4H	CHEVRON U S A INCORPORATED	OIL PRODUCER	7788	7950
30015439540000	SAGE 35 B2PA FED COM	1H	MEWBOURNE OIL COMPANY	WELL PERMIT		7975
30015443450000	HH CE 35 2 FEDERAL 006	005H	CHEVRON U S A INCORPORATED	WELL START		9630
30015443490000	HH CE 35 2 FED 006	004H	CHEVRON U S A INCORPORATED	TREATD		9635
30015443500000	HH CE 35 2 FED 006	003H	CHEVRON U S A INCORPORATED	TREATD		9655
30015443460000	HH CE 35 2 FED 006	002H	CHEVRON U S A INCORPORATED	WELL START		9675
30015443470000	HH CE 35 2 FED 006	001H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH	10560	9690
30015443470100	HH CE 35 2 FED 006	001H	CHEVRON U S A INCORPORATED	AT TOTAL DEPTH	10287	9690
30015375470000	CLUSTER STATE COM	001H	COG OPERATING LIMITED LIABILITY CORI	OIL PRODUCER	6240	10715
30015404000000	CLUSTER STATE COM	2H	COG OPERATING LIMITED LIABILITY CORI	OIL PRODUCER	7637	10830
30015424750000	OWL DRAW 22 W1AP FEDERAI	1H	MEWBOURNE OIL COMPANY	OIL PRODUCER	9131	11225
30015414300000	OWL DRAW 22 27 B2AP FEDER	1H	MEWBOURNE OIL COMPANY	OIL PRODUCER	7599	11260
30015414480000	OWL DRAW 23 DM FEDERAL C	1H	MEWBOURNE OIL COMPANY	GAS PRODUCER	10091	11345
30015416290000	OWL DRAW 23 DM FEDERAL C	2H	MEWBOURNE OIL COMPANY	OIL PRODUCER	7569	11345
30015403740000	CLUSTER STATE COM	3H	COG OPERATING LIMITED LIABILITY CORI	OIL PRODUCER	7646	11725
30015416220000	OWL DRAW 22 BO FEDERAL CC	1H	MEWBOURNE OIL COMPANY	ABANDON LOCATION		11735
30015428290000	OWL DRAW 22/27 B2BO FEDEI	2H	MEWBOURNE OIL COMPANY	OIL PRODUCER	7562	11735
30015428150000	OWL DRAW 23 B2CN FEDERAL	001H	MEWBOURNE OIL COMPANY	ABANDON LOCATION		12170
30015415350000	COTTON HILLS 23-26-27 FEDEF	1H	CHEVRON U S A INCORPORATED	PILOT HOLE	10350	12550
30015415350100	COTTON HILLS 23-26-27 FEDEF	1H	CHEVRON U S A INCORPORATED	OIL-WO	9265	12550
30015404810000	CLUSTER STATE COM	4H	COG OPERATING LIMITED LIABILITY CORI	OIL PRODUCER	7689	12865
30015415360000	COTTON HILLS 23-26-27 FEDEF	3H	CHEVRON U S A INCORPORATED	ABANDON LOCATION		13220
30015407400000	CLUSTER STATE COM	5H	COG OPERATING LIMITED LIABILITY CORI	OIL PRODUCER	7561	13980
30015421470000	BLAST `BLA` FEDERAL	3H	YATES PETROLEUM CORPORATION	OIL PRODUCER	7611	15210
30015439110000	BLAST `BLA` FEDERAL	5H	YATES PETROLEUM CORPORATION	WELL PERMIT		16120
30015439040000	BLAST BLA FEDERAL	7H	YATES PETROLEUM CORPORATION	WELL PERMIT		16985
30015433540000	BLAST `BLA` FEDERAL	009H	EOG Y RESOURCES INC	ABANDON LOCATION		18530
30015436850000	OWL DRAW 27-22 B2NC FEDEF	001H	MEWBOURNE OIL COMPANY	WELL PERMIT		21835
30015436840000	OWL DRAW 27 22 W2NC FEDE	2H	MEWBOURNE OIL COMPANY	GAS PRODUCER	10057	21840
30015433310000	OWL DRAW 27 22 B2MD FEDE	1H	MEWBOURNE OIL COMPANY	OIL PRODUCER	7515	22035
42109323270001	WISHBONE	1SW	COG OPERATING LIMITED LIABILITY CORI	SWDOP-WO		24740
42109325740000	DEETS	1SW	COG OPERATING LIMITED LIABILITY CORI	SWDOP		28035

3-Mile Offset Radius





LEGEND
Proposed Right of Way
Proposed Gas Lift Line
Proposed Flowline Cluster
Proposed Temp Water Line
Proposed Utility Line
Section Line
Existing ROW
Future ROW
Existing Road
Drill Pad
Access Road

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
07/26/2019

Robert L. Lastrapes
Registration No. 23006

DETAIL

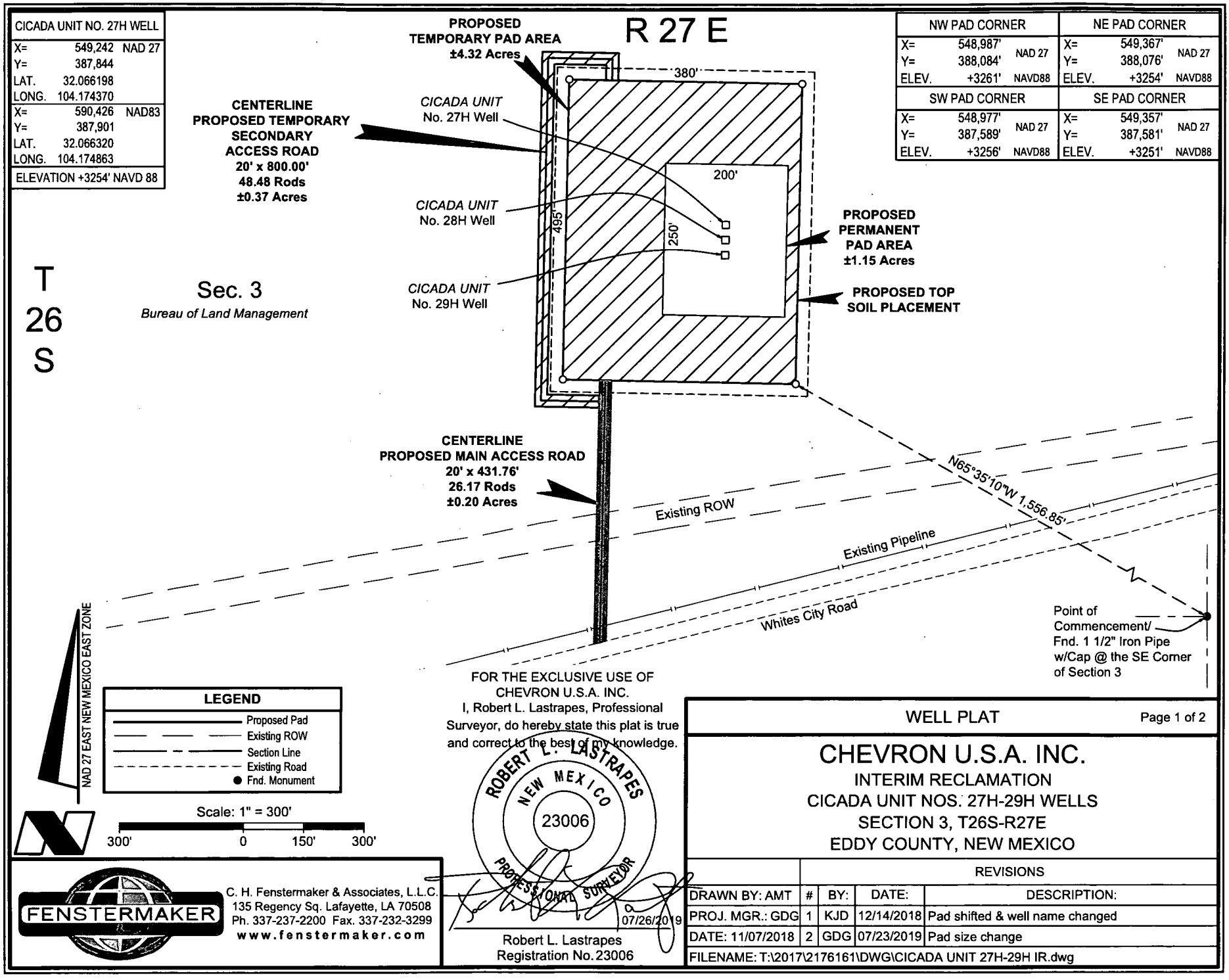
CHEVRON U.S.A. INC.

PROPOSED FLOWLINE & UTILITY ROWS
CICADA UNIT NOS. 27H-29H PACKAGE 9 ROW
SECTIONS 3 & 10, T26S-R27E
EDDY 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

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

REVISIONS				
DRAWN BY: ADF	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	2	DMB	05/13/2019	ROW Shift
DATE: 01/17/2019	3	GDG	07/18/2019	Add Utility ROW to plat
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 27H-29H FLOWLINE DETAIL.dwg				


CICADA UNIT NO. 27H WELL
X= 549,242 NAD 27
Y= 387,844
LAT. 32.066198
LONG. 104.174370
X= 590,426 NAD83
Y= 387,901
LAT. 32.066320
LONG. 104.174863
ELEVATION +3254' NAVD 88
PROPOSED TEMPORARY PAD AREA
±4.32 Acres
R 27 E
NW PAD CORNER
X= 548,987' NAD 27
Y= 388,084'
ELEV. +3261' NAVD88
NE PAD CORNER
X= 549,367' NAD 27
Y= 388,076'
ELEV. +3254' NAVD88
SW PAD CORNER
X= 548,977' NAD 27
Y= 387,589'
ELEV. +3256' NAVD88
SE PAD CORNER
X= 549,357' NAD 27
Y= 387,581'
ELEV. +3251' NAVD88
CENTERLINE
PROPOSED TEMPORARY
SECONDARY
ACCESS ROAD
20' x 800.00'
48.48 Rods
±0.37 Acres
CICADA UNIT
No. 27H Well
CICADA UNIT
No. 28H Well
CICADA UNIT
No. 29H Well
380'
200'
495'
250'
PROPOSED
PERMANENT
PAD AREA
±1.15 Acres
PROPOSED TOP
SOIL PLACEMENT
T
26
S
Sec. 3
Bureau of Land Management
CENTERLINE
PROPOSED MAIN ACCESS ROAD
20' x 431.76'
26.17 Rods
±0.20 Acres
Existing ROW
N65°35'10"W 1,556.85'
Existing Pipeline
Whites City Road
Point of
Commencement/
Fnd. 1 1/2" Iron Pipe
w/Cap @ the SE Corner
of Section 3
NAD 27 EAST NEW MEXICO EAST ZONE
LEGEND
Proposed Pad
Existing ROW
Section Line
Existing Road
Fnd. Monument
Scale: 1" = 300'
300' 0 150' 300'
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
07/26/2019
Robert L. Lastrapes
Registration No. 23006
FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
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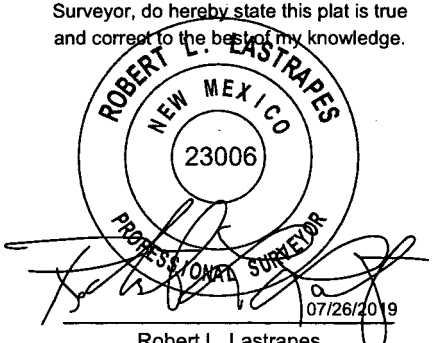
www.fenstermaker.com
WELL PLAT
Page 1 of 2
CHEVRON U.S.A. INC.
INTERIM RECLAMATION
CICADA UNIT NOS. 27H-29H WELLS
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO
REVISIONS
DRAWN BY: AMT
PROJ. MGR.: GDG
DATE: 11/07/2018
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 27H-29H IR.dwg
BY: DATE: DESCRIPTION:
1 KJD 12/14/2018 Pad shifted & well name changed
2 GDG 07/23/2019 Pad size change

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.nmonecall.org.

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

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WELL PLAT

CHEVRON U.S.A. INC.

INTERIM RECLAMATION
CICADA UNIT NOS. 27H-29H WELLS
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: AMT	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	1	KJD	12/14/2018	Pad shifted & well name changed
DATE: 11/07/2018	2	GDG	07/23/2019	Pad size change
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 27H-29H IR.dwg				

CICADA UNIT NO. 29H WELL		
X=	549,241'	NAD 27
Y=	387,794'	
LAT.	32.066060° N	
LONG.	104.174374° W	
X=	590,425'	NAD83/86
Y=	387,851'	
LAT.	32.066182° N	
LONG.	104.174866° W	
ELEV.	+3,254'	NAVD88

R 27 E

T 26 S

CENTERLINE PROPOSED SECONDARY ACCESS ROAD
20' x ±800.00'
±48.48 Rods
±0.37 Acres

PROPOSED TOP SOIL PLACEMENT

PROPOSED PAD
±4.32 ACRES

CICADA UNIT
No. 29H Well
835' FSL
1550' FEL

A8 A9 A7 A6 A5

380' 285' 25' 260' 120' 495' 210'

1 2 3 4

CENTERLINE PROPOSED MAIN ACCESS ROAD
20' x ±431.76'
±26.17 Rods
±0.20 Acres

Sec. 3
Bureau of Land Management

Existing Pipeline ROW
Existing Pipeline
Existing Pipeline
Whites City Road

N 65°35'10" W 1,556.85'
N 82°50'47" W 1,749.68'

Point of Commencement/ Fnd. 1 1/2" Iron Pipe w/Cap @ the SE Corner of Section 3

Sec. 10
Bureau of Land Management

Sec. 10 Compressor Access

NAD 27 NEW MEXICO EAST ZONE

LEGEND
- Proposed Pad
- Proposed Access
- Existing Pipeline
- Existing ROW
- Section Line
- Existing Road
- Fnd. Monument

Scale: 1" = 300'
300' 0 150' 300'

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
07/26/2019
Robert L. Lastrapes
Registration No. 23006

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www.fenstermaker.com

WELL PLAT

CHEVRON U.S.A. INC.
PROPOSED PAD
CICADA UNIT NO. 29H WELL
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: DMB	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	2	KJD	12/14/2018	Pad size changed
DATE: 11/09/2017	3	KJD	05/03/2019	Pad size change
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 29H 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.

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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 PAD CORNER			NE PAD CORNER		
X=	548,987'	NAD 27	X=	549,367'	NAD 27
Y=	388,084'		Y=	388,076'	
LAT.	32.066859° N		LAT.	32.066837° N	
LONG.	104.175194° W		LONG.	104.173967° W	
X=	590,171'	NAD83/86	X=	590,551'	NAD83/86
Y=	388,141'		Y=	388,133'	
LAT.	32.066981° N		LAT.	32.066959° N	
LONG.	104.175686° W		LONG.	104.174459° W	
ELEV.	+3261'	NAVD88	ELEV.	+3254'	NAVD88
SW PAD CORNER			SE PAD CORNER		
X=	548,977'	NAD 27	X=	549,357'	NAD 27
Y=	387,589'		Y=	387,581'	
LAT.	32.065498° N		LAT.	32.065476° N	
LONG.	104.175227° W		LONG.	104.174001° W	
X=	590,161'	NAD83/86	X=	590,541'	NAD83/86
Y=	387,646'		Y=	387,638'	
LAT.	32.065620° N		LAT.	32.065598° N	
LONG.	104.175720° W		LONG.	104.174493° W	
ELEV.	+3256'	NAVD88	ELEV.	+3251'	NAVD88

METES AND BOUNDS DESCRIPTION OF A
PROPOSED PAD
BUREAU OF LAND MANAGEMENT, SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

Survey of a proposed pad being 4.32 acres on the Bureau of Land Management Land, Section 3, T26S-R27E, Eddy County, New Mexico.

COMMENCING at a Found 1 ½" Iron Pipe w/Cap at the Southeast Corner of said Section 3; **Thence** North 65 degrees 35 minutes 10 seconds West 1,556.85 feet to the **POINT OF BEGINNING** having the following coordinates: X= 549,357.11 and Y= 387,581.30 (New Mexico East State Plane Coordinate System, NAD 27);

Thence North 88 degrees 52 minutes 31 seconds West 380.00 feet to a point;
Thence North 01 degrees 07 minutes 29 seconds East 495.00 feet to a point;
Thence South 88 degrees 52 minutes 31 seconds East 380.00 feet to a point;
Thence South 01 degrees 07 minutes 29 seconds West 495.00 feet to a point back to the said **POINT OF BEGINNING**;

The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.
This description represents a survey made on the ground of a proposed pad. This description does not represent a boundary survey.

PROPOSED PAD		
COURSE	BEARING	DISTANCE
1	N 88° 52' 31" W	380.00'
2	N 01° 07' 29" E	495.00'
3	S 88° 52' 31" E	380.00'
4	S 01° 07' 29" W	495.00'

CENTERLINE PROPOSED MAIN ACCESS ROAD		
COURSE	BEARING	DISTANCE
A5	N 01° 07' 29" E	431.76'

CENTERLINE PROPOSED SECONDARY ACCESS ROAD		
COURSE	BEARING	DISTANCE
A6	N 88° 52' 31" W	95.00'
A7	S 01° 07' 29" E	565.00'
A8	S 88° 52' 31" E	105.00'
A9	S 01° 07' 29" W	35.00'

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
NEW MEXICO
23006
PROFESSIONAL SURVEYOR

07/26/2019
Robert L. Lastrapes
Registration No. 23006

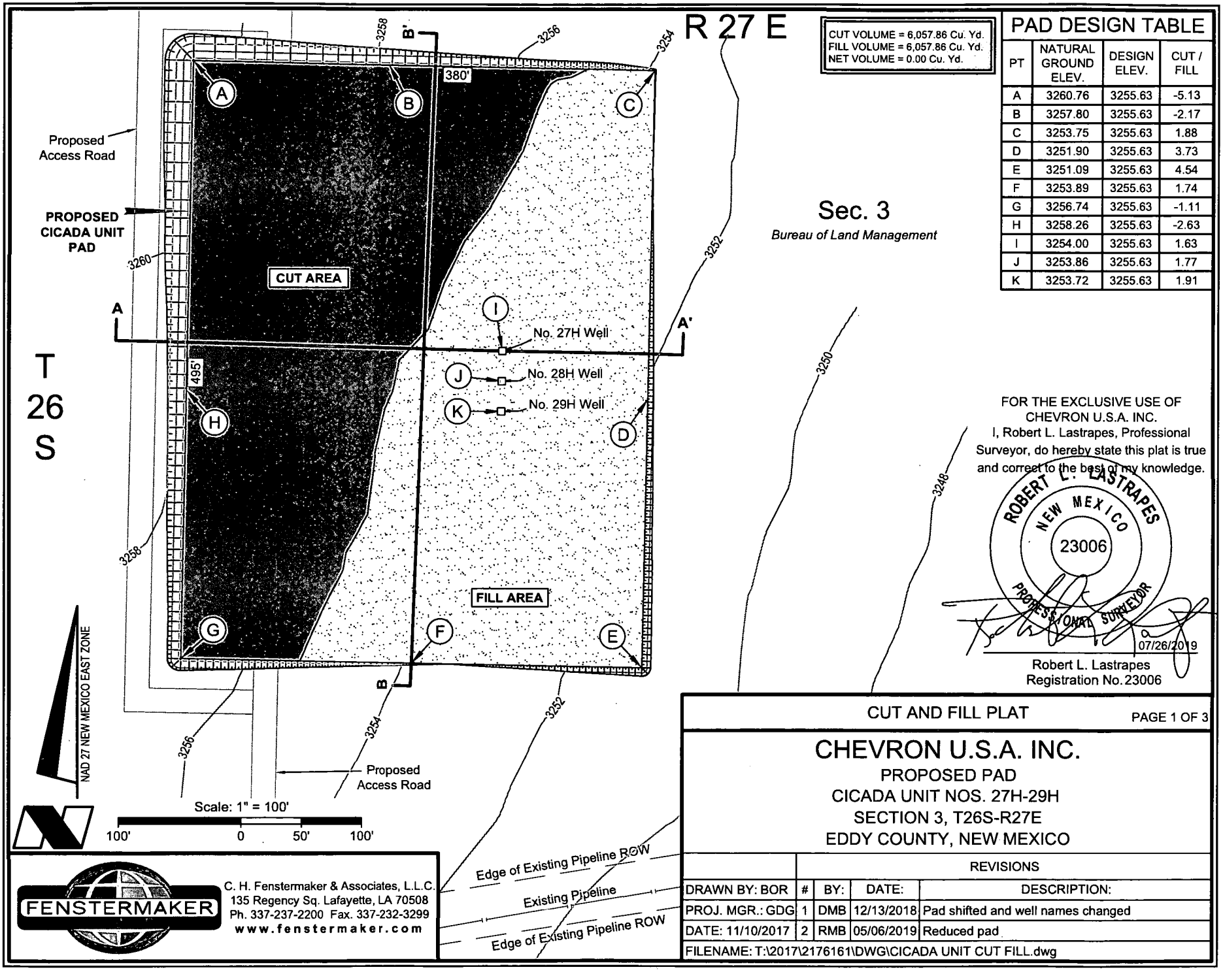
FENSTERMAKER
C. H. Fenstermaker & Associates, L.L.C.
135 Regency Sq. Lafayette, LA 70508
Ph. 337-237-2200 Fax. 337-232-3299
www.fenstermaker.com

WELL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
CICADA UNIT NO. 29H WELL
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: DMB	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	2	KJD	12/14/2018	Pad size changed
DATE: 11/09/2017	3	KJD	05/03/2019	Pad size change
FILENAME: T:\2017\2176161\DWG\CICADA UNIT 29H WELL PLAT.dwg				



CUT VOLUME = 6,057.86 Cu. Yd.
FILL VOLUME = 6,057.86 Cu. Yd.
NET VOLUME = 0.00 Cu. Yd.

PAD DESIGN TABLE

PT	NATURAL GROUND ELEV.	DESIGN ELEV.	CUT / FILL
A	3260.76	3255.63	-5.13
B	3257.80	3255.63	-2.17
C	3253.75	3255.63	1.88
D	3251.90	3255.63	3.73
E	3251.09	3255.63	4.54
F	3253.89	3255.63	1.74
G	3256.74	3255.63	-1.11
H	3258.26	3255.63	-2.63
I	3254.00	3255.63	1.63
J	3253.86	3255.63	1.77
K	3253.72	3255.63	1.91

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

07/26/2019

Robert L. Lastrapes
Registration No. 23006

CUT AND FILL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
CICADA UNIT NOS. 27H-29H
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

FENSTERMAKER
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135 Regency Sq. Lafayette, LA 70508
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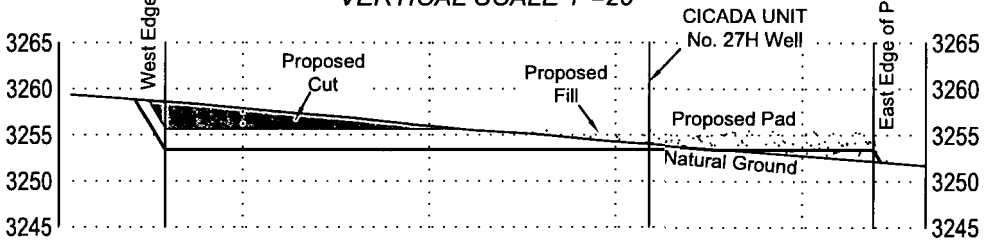
www.fenstermaker.com

	REVISIONS			
DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	1	DMB	12/13/2018	Pad shifted and well names changed
DATE: 11/10/2017	2	RMB	05/06/2019	Reduced pad
FILENAME: T:\2017\2176161\DWG\CICADA UNIT CUT FILL.dwg				

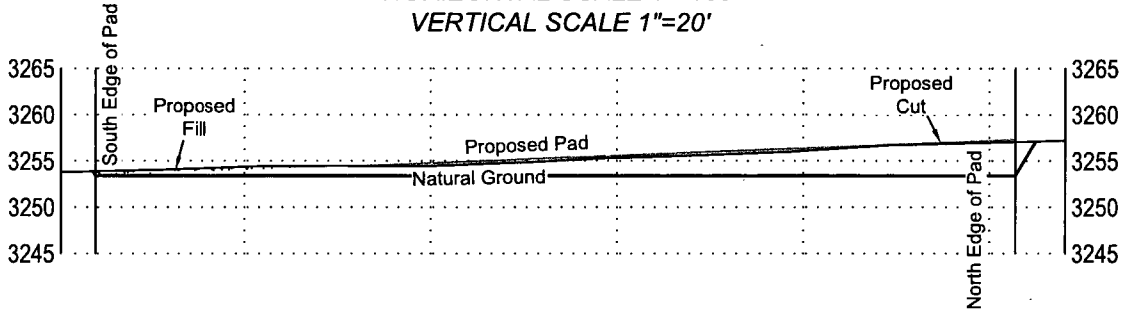
CROSS SECTION A-A'

HORIZONTAL SCALE 1"=100'
VERTICAL SCALE 1"=20'



CROSS SECTION B-B'

HORIZONTAL SCALE 1"=100'
VERTICAL SCALE 1"=20'



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NEW MEXICO
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PROFESSIONAL SURVEYOR

07/26/2019
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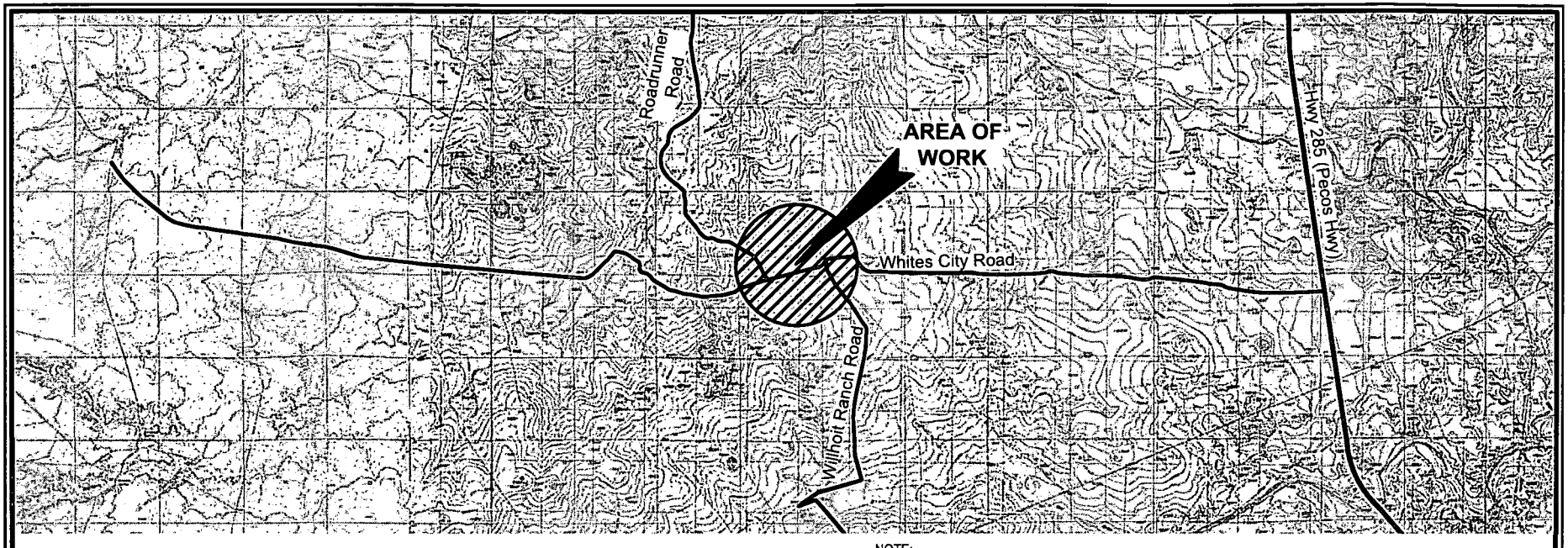
CUT AND FILL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
CICADA UNIT NOS. 27H-32H
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	1	DMB	12/13/2018	Pad shifted and well names changed
DATE: 11/10/2017	2	RMB	05/06/2019	Pad reduced
FILENAME: T:\2017\2176161\DWG\CICADA UNIT CUT FILL.dwg				



NOTE:

1. 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.nmonecall.org.

2. The design pad elevation recommendation is based solely on a cut and fill (1:1 ratio) balance of the pad and does not include material required for the access roads. A detailed soil test and slope stability analysis shall be performed prior to construction to ensure proper compaction and working performance of the pad under the anticipated loadings. This material balance sheet does not constitute a foundation design and C. H. Fenstermaker & Associates, L.L.C. makes no warranty to the structural integrity of the site layout as shown. Fenstermaker also makes no recommendation or warranty about the layout relative to flood hazards, erosion control, or soil stability issues. Elevations refer to the North American Vertical Datum of 1988.

3.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.

NAD 27 EAST NEW MEXICO EAST ZONE

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Scale: 1" = 10,000'

10,000' 0 5,000' 10,000'

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

07/26/2019

Robert L. Lastrapes
Registration No.23006

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CUT AND FILL PLAT

CHEVRON U.S.A. INC.

PROPOSED PAD
CICADA UNIT NOS. 27H-32H
SECTION 3, T26S-R27E
EDDY COUNTY, NEW MEXICO

	REVISIONS			
DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
PROJ. MGR.: GDG	1	DMB	12/13/2018	Pad shifted and well names changed
DATE: 11/10/2017	2	RMB	05/06/2019	Pad reduced
FILENAME: T:\2017\2176161\DWG\CICADA UNIT CUT FILL.dwg				

CHEVRON U.S.A. Inc
Cicada Unit 29H ("Package 9")
NMNM 121473 (NMNM 137168X - Cicada Unit)
SHL-SECTION 3, T26S-R27E (Off Lease SHL) BHL-SECTION 15, T26S, R27E
29H: SHL 835' FSL & 1550' FEL BHL 50' FSL & 792' FEL

APD Surface Use Plan of Operations

This Surface Use Plan of Operations has been designed to be reviewed in conjunction with Hayhurst Development Area (HDA) Master Development Plan

HDA Master Development Plan Reference Table
The contents referenced below apply to all HDA APD's

Existing Roads	Exhibit 1, MDP SUPO Page 1
Construction Materials	MDP SUPO Page 6
Methods for Handling Waste	MDP SUPO Page 6
Reclamation Objectives	MDP SUPO Page 6-8
Final Surface Reclamation	MDP SUPO Page 6-8

Driving Directions

- Driving Directions – From Malaga, New Mexico. The location is approximately 11.5 miles from the nearest town, which is Malaga, New Mexico. From Malaga, proceed South on Highway 285 approximately 11.5 miles and turn right (West) onto White City Rd and go approximately 7.5 miles on White City Road until the road reaches an intersection ½ mile East of the intersection of Whites City Road and Roadrunner Road, then turn right onto lease road and travel for another 1/8 mile to the well location.

New or Reconstructed Access Roads – (MDP SUPO Pg. 1)

- There will be 1,231.76' (74.65 rods) of new road construction for this proposal.
- Ditches: See MDP SUPO
- Culverts: See MDP SUPO
- Road Cuts: See MDP SUPO

Location of Existing Wells

- 1-Mile radius map is attached

CHEVRON U.S.A. Inc
Cicada Unit 29H ("Package 9")
NMNM 121473 (NMNM 137168X - Cicada Unit)
SHL-SECTION 3, T26S-R27E (Off Lease SHL) BHL-SECTION 15, T26S, R27E
29H: SHL 835' FSL & 1550' FEL BHL 50' FSL & 792' FEL

Location of Existing and/or Proposed Production Facilities (MDP SUPO Pg. 2)

- Facilities: Existing production facilities located in the SW corner of Sec. 10, T26S-R27E where oil and gas sales will take place.
    - The facility and frac pond are in Sec. 10, T26S-R27E
    - Gas purchaser pipeline is in place at the tank battery.
    - 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.
    - Water disposal will be sent from facility to Gravitas disposal well on State Lands in Section 2, T26S R27E, or Dignitas SWD on State Lands in Section 26, T25S T27E to be disposed of in the well, in a 3rd party system, or processed in the adjacent SWD facility and recycled.
- Pipelines: See Detail
    - Pipelines Include:
        - 30' ROW containing (see attached detail):
            - 1,739' (106 rods) of Flowlines (4" Flexpipe) carrying production (buried), Gas Lift Line carrying pressurized gas (buried), & a Temporary Water line carrying fresh water (surface laid)
    - Rights-of-Way will be applied for where necessary
    - All construction activity will be confined to the approved ROW (where applicable).

Location and Types of Water Supply (MDP SUPO Pg. 5)

- Proposed pond in Section 10, T26S-R27E will be utilized for frac water (fresh/recycled).

- Fresh/Recycled water may also be pulled from ponds in Section 2 (State Lands); ROW Acquired.

Construction Materials (MDP SUPO Pg. 6)

- Caliche will be used from Chevron-owned pit in Section 16, T26S R27E or a private caliche pit in vicinity (no BLM pits available in the area)

Well Site Layout (Well Plat)

- Surveyor Plat
  - Exterior well pad dimensions are 545' x 380'
  - Interior well pad dimensions from point of entry (well head) are shown on attached well plats. Total disturbance area needed for construction of well pad will be approximately 4.75 acres
  - Topsoil placement is on the west where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.
  - Cut and fill: will be minimal.
- Rig Layout (attached)

Plans for Surface Reclamation (MDP SUPA Pg. 8)

Interim Reclamation Procedures

- Reclaimed pad size: 400' x 250' (approximately 2.45 acres)
- See Exhibit for reclaimed pad layout, topsoil location & erosion control features

Surface Ownership

- BLM Surface
  - Surface Tenant – Forehand Ranches, Inc.
- **Nearest Post Office:** Malaga Post Office; 11.4 Miles north

Other Information

- On-site performed by BLM NRS: Paul Murphy 11/2/2017
- Cultural report attached: **MDP** Participating Agreement attached: N/A

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