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# Carlsbad Field Office OCD Artesia

Form 3160-3  
(March 2012)

MAY 16 2018

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DISTRICT II-ARTESIA  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NMNM119754

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.  
CB SE 5 32 FED COM 3 3H **321443**

9. API Well No.  
**30-015-44976**

1a. Type of work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
CHEVRON USA INCORPORATED

3a. Address  
6301 Deauville Blvd. Midland TX 79706

3b. Phone No. (include area code)  
**4323**  
(432)687-7866

10. Field and Pool, or Exploratory  
PURPLE SAGE / WOLFCAMP, (GAS)

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*  
At surface **SESW / 295 FSL / 1592 FWL / LAT 32.240224 / LONG -104.010042**  
At proposed prod. zone **NENW / 180 FNL / 2178 FWL / LAT 32.268093 / LONG -104.008464**

11. Sec., T. R. M. or Blk. and Survey or Area  
SEC 5 / T24S / R29E / NMP

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

12. County or Parish  
EDDY

13. State  
NM

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

16. No. of acres in lease  
359.88

17. Spacing Unit dedicated to this well  
640

18. Distance from proposed location\* to nearest well, drilling, completed, 500 feet applied for, on this lease, ft.

19. Proposed Depth  
10234 feet / 20309 feet

20. BLM/BIA Bond No. on file  
FED: CA0329

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3016 feet

22. Approximate date work will start\*  
05/01/2018

23. Estimated duration  
130 days

### 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature  
(Electronic Submission)

Name (Printed/Typed)  
Dorian K Fuentes / Ph: (432)687-7631

Date  
12/12/2017

Title  
Permitting Specialist

Approved by (Signature)  
(Electronic Submission)

Name (Printed/Typed)  
Cody Layton / Ph: (575)234-5959

Date  
05/11/2018

Title  
Supervisor Multiple Resources

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.

(Continued on page 2)

\*(Instructions on page 2)

**APPROVED WITH CONDITIONS**  
Approval Date: 05/11/2018

*R Kleen*  
5-18-2018

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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**Approval Date: 05/11/2018**

## **Additional Operator Remarks**

### **Location of Well**

1. SHL: SESW / 295 FSL / 1592 FWL / TWSP: 24S / RANGE: 29E / SECTION: 5 / LAT: 32.240224 / LONG: -104.010042 ( TVD: 0 feet, MD: 0 feet )

PPP: SESW / 330 FSL / 2178 FWL / TWSP: 24S / RANGE: 29E / SECTION: 5 / LAT: 32.240429 / LONG: -104.008146 ( TVD: 10234 feet, MD: 20309 feet )

BHL: NENW / 180 FNL / 2178 FWL / TWSP: 23S / RANGE: 29E / SECTION: 32 / LAT: 32.268093 / LONG: -104.008464 ( TVD: 10234 feet, MD: 20309 feet )

## **BLM Point of Contact**

Name: Sipra Dahal

Title: Legal Instruments Examiner

Phone: 5752345983

Email: sdahal@blm.gov

### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

**PECOS DISTRICT  
DRILLING CONDITIONS OF APPROVAL**

<b>OPERATOR'S NAME:</b>	<b>Chevron USA Inc</b>
<b>LEASE NO.:</b>	<b>NM119754</b>
<b>WELL NAME &amp; NO.:</b>	<b>3H – CB SE 5 32 Fed Com</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>295'/S &amp; 1592'/W</b>
<b>BOTTOM HOLE FOOTAGE</b>	<b>180'/N &amp; 2178'/W, sec. 32-T23S-R29E</b>
<b>LOCATION:</b>	<b>Sec. 5, T. 24 S, R. 29 E</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP

**A. Hydrogen Sulfide**

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

**B. CASING**

1. The 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 25 feet 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.

**Operator shall filled 1/3<sup>rd</sup> casing with fluid while running intermediate casing to maintain collapse safety factor.**

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is: **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

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. **Additional cement maybe required. Excess calculates to 9%.**
  - b. Second stage above DV tool: Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Additional cement maybe required. Excess calculates to 8%.**
- ❖ 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 5-1/2 inch production casing is:
- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Additional cement maybe required. Excess calculates to 17%.**

**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. 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.**

## 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)

Chaves and Roosevelt Counties  
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.  
During office hours call (575) 627-0272.  
After office hours call (575)

Eddy County  
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

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

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

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. 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.
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. The results of the test shall be reported to the appropriate BLM office.
- 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. 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.
- f. 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. This test shall be performed prior to the test at full stack pressure.
- g. 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.

#### **Waste Minimization Plan (WMP)**

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

**ZS 050318**



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Tranlam
Scale	0.999921	Report Generated	12/6/2017 at 2:08:21 PM
Convergence at slot	0.18° East	Database/Source file	WA_Midland/CB_SE_5_32_FED_COM_3_3H_Prelim_1.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	50.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W
Facility Reference Pt			600058.00	451263.00	32°14'24.809"N	104°00'34.971"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig: ?????? (KB) to Facility Vertical Datum	3044.00ft
Horizontal Reference Pt	Slot	Rig: ?????? (KB) to Mean Sea Level	3044.00ft
Vertical Reference Pt	Rig: ?????? (KB)	Rig: ?????? (KB) to Ground Level at Slot (CB SE 5 32 FED COM 3 3H)	28.00ft
MD Reference Pt	Rig: ?????? (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.27°

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	112.671	0.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
28.00	0.000	112.671	28.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	Tie On
128.00†	0.000	112.671	128.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
228.00†	0.000	112.671	228.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
328.00†	0.000	112.671	328.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
428.00†	0.000	112.671	428.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
528.00†	0.000	112.671	528.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
628.00†	0.000	112.671	628.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
728.00†	0.000	112.671	728.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
828.00†	0.000	112.671	828.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
928.00†	0.000	112.671	928.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	
1000.00	0.000	112.671	1000.00	0.00	0.00	0.00	600108.00	451263.00	32°14'24.807"N	104°00'34.389"W	0.00	0.00	0.00	End of Tangent
1028.00†	0.420	112.671	1028.00	-0.04	-0.04	0.09	600108.09	451262.96	32°14'24.807"N	104°00'34.388"W	1.50	1.50	402.40	
1128.00†	1.920	112.671	1127.98	-0.85	-0.83	1.98	600109.98	451262.17	32°14'24.799"N	104°00'34.366"W	1.50	1.50	0.00	
1228.00†	3.420	112.671	1227.86	-2.70	-2.62	6.28	600114.28	451260.38	32°14'24.781"N	104°00'34.316"W	1.50	1.50	0.00	
1328.00†	4.920	112.671	1327.60	-5.59	-5.42	12.99	600120.99	451257.58	32°14'24.753"N	104°00'34.238"W	1.50	1.50	0.00	
1428.00†	6.420	112.671	1427.10	-9.51	-9.23	22.10	600130.10	451253.77	32°14'24.715"N	104°00'34.132"W	1.50	1.50	0.00	
1466.67	7.000	112.671	1465.51	-11.31	-10.97	26.27	600134.27	451252.03	32°14'24.698"N	104°00'34.084"W	1.50	1.50	0.00	End of Build
1528.00†	7.000	112.671	1526.38	-14.28	-13.86	33.17	600141.17	451249.15	32°14'24.669"N	104°00'34.003"W	0.00	0.00	0.00	
1628.00†	7.000	112.671	1625.64	-19.12	-18.55	44.41	600152.41	451244.45	32°14'24.622"N	104°00'33.873"W	0.00	0.00	0.00	
1728.00†	7.000	112.671	1724.89	-23.96	-23.25	55.66	600163.65	451239.75	32°14'24.575"N	104°00'33.742"W	0.00	0.00	0.00	
1828.00†	7.000	112.671	1824.15	-28.80	-27.95	66.90	600174.90	451235.06	32°14'24.529"N	104°00'33.611"W	0.00	0.00	0.00	
1928.00†	7.000	112.671	1923.40	-33.64	-32.64	78.15	600186.14	451230.36	32°14'24.482"N	104°00'33.480"W	0.00	0.00	0.00	
2028.00†	7.000	112.671	2022.66	-38.48	-37.34	89.40	600197.39	451225.66	32°14'24.435"N	104°00'33.350"W	0.00	0.00	0.00	
2128.00†	7.000	112.671	2121.91	-43.32	-42.04	100.64	600208.63	451220.96	32°14'24.388"N	104°00'33.219"W	0.00	0.00	0.00	
2228.00†	7.000	112.671	2221.17	-48.16	-46.74	111.89	600219.88	451216.27	32°14'24.341"N	104°00'33.088"W	0.00	0.00	0.00	
2328.00†	7.000	112.671	2320.42	-53.00	-51.43	123.13	600231.12	451211.57	32°14'24.295"N	104°00'32.957"W	0.00	0.00	0.00	
2428.00†	7.000	112.671	2419.67	-57.84	-56.13	134.38	600242.37	451206.87	32°14'24.248"N	104°00'32.827"W	0.00	0.00	0.00	
2528.00†	7.000	112.671	2518.93	-62.68	-60.83	145.62	600253.61	451202.18	32°14'24.201"N	104°00'32.696"W	0.00	0.00	0.00	
2628.00†	7.000	112.671	2618.18	-67.52	-65.53	156.87	600264.85	451197.48	32°14'24.154"N	104°00'32.565"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

## WELLPATH DATA (211 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2728.00†	7.000	112.671	2717.44	-72.36	-70.22	168.11	600276.10	451192.78	32°14'24.107"N	104°00'32.434"W	0.00	0.00	0.00	
2828.00†	7.000	112.671	2816.69	-77.20	-74.92	179.36	600287.34	451188.09	32°14'24.060"N	104°00'32.304"W	0.00	0.00	0.00	
2928.00†	7.000	112.671	2915.95	-82.04	-79.62	190.60	600298.59	451183.39	32°14'24.014"N	104°00'32.173"W	0.00	0.00	0.00	
3028.00†	7.000	112.671	3015.20	-86.88	-84.32	201.85	600309.83	451178.69	32°14'23.967"N	104°00'32.042"W	0.00	0.00	0.00	
3128.00†	7.000	112.671	3114.46	-91.72	-89.01	213.09	600321.08	451173.99	32°14'23.920"N	104°00'31.911"W	0.00	0.00	0.00	
3228.00†	7.000	112.671	3213.71	-96.56	-93.71	224.34	600332.32	451169.30	32°14'23.873"N	104°00'31.781"W	0.00	0.00	0.00	
3328.00†	7.000	112.671	3312.97	-101.40	-98.41	235.58	600343.56	451164.60	32°14'23.826"N	104°00'31.650"W	0.00	0.00	0.00	
3428.00†	7.000	112.671	3412.22	-106.24	-103.10	246.83	600354.81	451159.90	32°14'23.780"N	104°00'31.519"W	0.00	0.00	0.00	
3528.00†	7.000	112.671	3511.48	-111.08	-107.80	258.07	600366.05	451155.21	32°14'23.733"N	104°00'31.388"W	0.00	0.00	0.00	
3628.00†	7.000	112.671	3610.73	-115.92	-112.50	269.32	600377.30	451150.51	32°14'23.686"N	104°00'31.258"W	0.00	0.00	0.00	
3728.00†	7.000	112.671	3709.98	-120.76	-117.20	280.57	600388.54	451145.81	32°14'23.639"N	104°00'31.127"W	0.00	0.00	0.00	
3828.00†	7.000	112.671	3809.24	-125.60	-121.89	291.81	600399.79	451141.12	32°14'23.592"N	104°00'30.996"W	0.00	0.00	0.00	
3928.00†	7.000	112.671	3908.49	-130.44	-126.59	303.06	600411.03	451136.42	32°14'23.545"N	104°00'30.865"W	0.00	0.00	0.00	
4028.00†	7.000	112.671	4007.75	-135.28	-131.29	314.30	600422.28	451131.72	32°14'23.499"N	104°00'30.734"W	0.00	0.00	0.00	
4128.00†	7.000	112.671	4107.00	-140.12	-135.99	325.55	600433.52	451127.03	32°14'23.452"N	104°00'30.604"W	0.00	0.00	0.00	
4228.00†	7.000	112.671	4206.26	-144.96	-140.68	336.79	600444.76	451122.33	32°14'23.405"N	104°00'30.473"W	0.00	0.00	0.00	
4328.00†	7.000	112.671	4305.51	-149.80	-145.38	348.04	600456.01	451117.63	32°14'23.358"N	104°00'30.342"W	0.00	0.00	0.00	
4428.00†	7.000	112.671	4404.77	-154.64	-150.08	359.28	600467.25	451112.93	32°14'23.311"N	104°00'30.211"W	0.00	0.00	0.00	
4528.00†	7.000	112.671	4504.02	-159.48	-154.78	370.53	600478.50	451108.24	32°14'23.265"N	104°00'30.081"W	0.00	0.00	0.00	
4628.00†	7.000	112.671	4603.28	-164.32	-159.47	381.77	600489.74	451103.54	32°14'23.218"N	104°00'29.950"W	0.00	0.00	0.00	
4728.00†	7.000	112.671	4702.53	-169.16	-164.17	393.02	600500.99	451098.84	32°14'23.171"N	104°00'29.819"W	0.00	0.00	0.00	
4828.00†	7.000	112.671	4801.79	-174.00	-168.87	404.26	600512.23	451094.15	32°14'23.124"N	104°00'29.688"W	0.00	0.00	0.00	
4928.00†	7.000	112.671	4901.04	-178.84	-173.56	415.51	600523.47	451089.45	32°14'23.077"N	104°00'29.558"W	0.00	0.00	0.00	
5028.00†	7.000	112.671	5000.29	-183.68	-178.26	426.75	600534.72	451084.75	32°14'23.030"N	104°00'29.427"W	0.00	0.00	0.00	
5128.00†	7.000	112.671	5099.55	-188.52	-182.96	438.00	600545.96	451080.06	32°14'22.984"N	104°00'29.296"W	0.00	0.00	0.00	
5228.00†	7.000	112.671	5198.80	-193.36	-187.66	449.24	600557.21	451075.36	32°14'22.937"N	104°00'29.165"W	0.00	0.00	0.00	
5328.00†	7.000	112.671	5298.06	-198.21	-192.35	460.49	600568.45	451070.66	32°14'22.890"N	104°00'29.035"W	0.00	0.00	0.00	
5428.00†	7.000	112.671	5397.31	-203.05	-197.05	471.73	600579.70	451065.96	32°14'22.843"N	104°00'28.904"W	0.00	0.00	0.00	
5528.00†	7.000	112.671	5496.57	-207.89	-201.75	482.98	600590.94	451061.27	32°14'22.796"N	104°00'28.773"W	0.00	0.00	0.00	
5628.00†	7.000	112.671	5595.82	-212.73	-206.45	494.23	600602.19	451056.57	32°14'22.750"N	104°00'28.642"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

## WELLPATH DATA (211 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
5728.00†	7.000	112.671	5695.08	-217.57	-211.14	505.47	600613.43	451051.87	32°14'22.703"N	104°00'28.512"W	0.00	0.00	0.00	
5828.00†	7.000	112.671	5794.33	-222.41	-215.84	516.72	600624.67	451047.18	32°14'22.656"N	104°00'28.381"W	0.00	0.00	0.00	
5928.00†	7.000	112.671	5893.59	-227.25	-220.54	527.96	600635.92	451042.48	32°14'22.609"N	104°00'28.250"W	0.00	0.00	0.00	
6028.00†	7.000	112.671	5992.84	-232.09	-225.24	539.21	600647.16	451037.78	32°14'22.562"N	104°00'28.119"W	0.00	0.00	0.00	
6128.00†	7.000	112.671	6092.10	-236.93	-229.93	550.45	600658.41	451033.09	32°14'22.515"N	104°00'27.989"W	0.00	0.00	0.00	
6228.00†	7.000	112.671	6191.35	-241.77	-234.63	561.70	600669.65	451028.39	32°14'22.469"N	104°00'27.858"W	0.00	0.00	0.00	
6242.79	7.000	112.671	6206.03	-242.48	-235.32	563.36	600671.31	451027.69	32°14'22.462"N	104°00'27.839"W	0.00	0.00	0.00	End of Tangent
6328.00†	5.722	112.671	6290.71	-246.23	-238.96	572.07	600680.02	451024.06	32°14'22.425"N	104°00'27.737"W	1.50	-1.50	0.00	
6428.00†	4.222	112.671	6390.33	-249.67	-242.30	580.07	600688.02	451020.72	32°14'22.392"N	104°00'27.644"W	1.50	-1.50	0.00	
6528.00†	2.722	112.671	6490.15	-252.08	-244.64	585.66	600693.61	451018.38	32°14'22.369"N	104°00'27.579"W	1.50	-1.50	0.00	
6628.00†	1.222	112.671	6590.09	-253.45	-245.96	588.83	600696.78	451017.06	32°14'22.356"N	104°00'27.542"W	1.50	-1.50	0.00	
6709.46	0.000	359.271	6671.53	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	1.50	-1.50	-138.32	End of Drop
6728.00†	0.000	359.271	6690.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
6828.00†	0.000	359.271	6790.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
6928.00†	0.000	359.271	6890.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7028.00†	0.000	359.271	6990.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7128.00†	0.000	359.271	7090.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7228.00†	0.000	359.271	7190.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7328.00†	0.000	359.271	7290.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7428.00†	0.000	359.271	7390.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7528.00†	0.000	359.271	7490.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7628.00†	0.000	359.271	7590.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7728.00†	0.000	359.271	7690.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7828.00†	0.000	359.271	7790.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
7928.00†	0.000	359.271	7890.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8028.00†	0.000	359.271	7990.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8128.00†	0.000	359.271	8090.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8228.00†	0.000	359.271	8190.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8328.00†	0.000	359.271	8290.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8428.00†	0.000	359.271	8390.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8528.00†	0.000	359.271	8490.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8628.00†	0.000	359.271	8590.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8728.00†	0.000	359.271	8690.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8828.00†	0.000	359.271	8790.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
8928.00†	0.000	359.271	8890.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9028.00†	0.000	359.271	8990.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9128.00†	0.000	359.271	9090.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9228.00†	0.000	359.271	9190.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9328.00†	0.000	359.271	9290.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9428.00†	0.000	359.271	9390.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9528.00†	0.000	359.271	9490.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9628.00†	0.000	359.271	9590.08	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	
9638.96	0.000	359.271	9601.04	-253.79	-246.30	589.63	600697.58	451016.72	32°14'22.352"N	104°00'27.533"W	0.00	0.00	0.00	End of Tangent
9728.00†	8.904	359.271	9689.72	-246.89	-239.39	589.54	600697.50	451023.62	32°14'22.421"N	104°00'27.534"W	10.00	10.00	-0.82	
9828.00†	18.904	359.271	9786.67	-222.89	-215.40	589.24	600697.19	451047.62	32°14'22.658"N	104°00'27.537"W	10.00	10.00	0.00	
9928.00†	28.904	359.271	9877.98	-182.42	-174.93	588.72	600696.68	451088.08	32°14'23.059"N	104°00'27.541"W	10.00	10.00	0.00	
10028.00†	38.904	359.271	9960.87	-126.71	-119.23	588.01	600695.97	451143.78	32°14'23.610"N	104°00'27.547"W	10.00	10.00	0.00	
10128.00†	48.904	359.271	10032.83	-57.45	-49.98	587.13	600695.09	451213.03	32°14'24.295"N	104°00'27.555"W	10.00	10.00	0.00	
10228.00†	58.904	359.271	10091.67	23.25	30.72	586.11	600694.06	451293.71	32°14'25.094"N	104°00'27.564"W	10.00	10.00	0.00	
10328.00†	68.904	359.271	10135.60	112.94	120.40	584.97	600692.92	451383.39	32°14'25.981"N	104°00'27.574"W	10.00	10.00	0.00	
10428.00†	78.904	359.271	10163.29	208.90	216.35	583.75	600691.70	451479.33	32°14'26.931"N	104°00'27.585"W	10.00	10.00	0.00	
10528.00†	88.904	359.271	10173.90	308.20	315.65	582.48	600690.43	451578.63	32°14'27.913"N	104°00'27.596"W	10.00	10.00	0.00	
10538.96	90.000	359.271	10174.00	319.17	326.61	582.34	600690.29	451589.59	32°14'28.022"N	104°00'27.598"W	10.00	10.00	0.00	End of Build
10628.00†	90.000	359.271	10174.00	408.20	415.64	581.21	600689.16	451678.61	32°14'28.903"N	104°00'27.608"W	0.00	0.00	0.00	
10728.00†	90.000	359.271	10174.00	508.20	515.63	579.94	600687.89	451778.59	32°14'29.892"N	104°00'27.619"W	0.00	0.00	0.00	
10828.00†	90.000	359.271	10174.00	608.20	615.63	578.66	600686.62	451878.58	32°14'30.882"N	104°00'27.630"W	0.00	0.00	0.00	
10928.00†	90.000	359.271	10174.00	708.20	715.62	577.39	600685.35	451978.56	32°14'31.871"N	104°00'27.642"W	0.00	0.00	0.00	
11028.00†	90.000	359.271	10174.00	808.20	815.61	576.12	600684.07	452078.54	32°14'32.861"N	104°00'27.653"W	0.00	0.00	0.00	
11128.00†	90.000	359.271	10174.00	908.20	915.60	574.85	600682.80	452178.53	32°14'33.850"N	104°00'27.664"W	0.00	0.00	0.00	
11228.00†	90.000	359.271	10174.00	1008.20	1015.59	573.58	600681.53	452278.51	32°14'34.840"N	104°00'27.675"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

## WELLPATH DATA (211 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
11328.00†	90.000	359.271	10174.00	1108.20	1115.59	572.30	600680.26	452378.50	32°14'35.829"N	104°00'27.687"W	0.00	0.00	0.00	
11428.00†	90.000	359.271	10174.00	1208.20	1215.58	571.03	600678.98	452478.48	32°14'36.819"N	104°00'27.698"W	0.00	0.00	0.00	
11528.00†	90.000	359.271	10174.00	1308.20	1315.57	569.76	600677.71	452578.46	32°14'37.808"N	104°00'27.709"W	0.00	0.00	0.00	
11628.00†	90.000	359.271	10174.00	1408.20	1415.56	568.49	600676.44	452678.45	32°14'38.798"N	104°00'27.721"W	0.00	0.00	0.00	
11728.00†	90.000	359.271	10174.00	1508.20	1515.55	567.21	600675.17	452778.43	32°14'39.787"N	104°00'27.732"W	0.00	0.00	0.00	
11828.00†	90.000	359.271	10174.00	1608.20	1615.55	565.94	600673.90	452878.41	32°14'40.777"N	104°00'27.743"W	0.00	0.00	0.00	
11928.00†	90.000	359.271	10174.00	1708.20	1715.54	564.67	600672.62	452978.40	32°14'41.766"N	104°00'27.754"W	0.00	0.00	0.00	
12028.00†	90.000	359.271	10174.00	1808.20	1815.53	563.40	600671.35	453078.38	32°14'42.756"N	104°00'27.766"W	0.00	0.00	0.00	
12128.00†	90.000	359.271	10174.00	1908.20	1915.52	562.12	600670.08	453178.37	32°14'43.745"N	104°00'27.777"W	0.00	0.00	0.00	
12228.00†	90.000	359.271	10174.00	2008.20	2015.51	560.85	600668.81	453278.35	32°14'44.735"N	104°00'27.788"W	0.00	0.00	0.00	
12328.00†	90.000	359.271	10174.00	2108.20	2115.51	559.58	600667.53	453378.33	32°14'45.724"N	104°00'27.800"W	0.00	0.00	0.00	
12428.00†	90.000	359.271	10174.00	2208.20	2215.50	558.31	600666.26	453478.32	32°14'46.714"N	104°00'27.811"W	0.00	0.00	0.00	
12528.00†	90.000	359.271	10174.00	2308.20	2315.49	557.04	600664.99	453578.30	32°14'47.703"N	104°00'27.822"W	0.00	0.00	0.00	
12628.00†	90.000	359.271	10174.00	2408.20	2415.48	555.76	600663.72	453678.28	32°14'48.693"N	104°00'27.833"W	0.00	0.00	0.00	
12728.00†	90.000	359.271	10174.00	2508.20	2515.47	554.49	600662.45	453778.27	32°14'49.682"N	104°00'27.845"W	0.00	0.00	0.00	
12828.00†	90.000	359.271	10174.00	2608.20	2615.46	553.22	600661.17	453878.25	32°14'50.672"N	104°00'27.856"W	0.00	0.00	0.00	
12928.00†	90.000	359.271	10174.00	2708.20	2715.46	551.95	600659.90	453978.24	32°14'51.661"N	104°00'27.867"W	0.00	0.00	0.00	
13028.00†	90.000	359.271	10174.00	2808.20	2815.45	550.67	600658.63	454078.22	32°14'52.651"N	104°00'27.879"W	0.00	0.00	0.00	
13128.00†	90.000	359.271	10174.00	2908.20	2915.44	549.40	600657.36	454178.20	32°14'53.640"N	104°00'27.890"W	0.00	0.00	0.00	
13228.00†	90.000	359.271	10174.00	3008.20	3015.43	548.13	600656.08	454278.19	32°14'54.630"N	104°00'27.901"W	0.00	0.00	0.00	
13328.00†	90.000	359.271	10174.00	3108.20	3115.42	546.86	600654.81	454378.17	32°14'55.619"N	104°00'27.912"W	0.00	0.00	0.00	
13428.00†	90.000	359.271	10174.00	3208.20	3215.42	545.58	600653.54	454478.15	32°14'56.609"N	104°00'27.924"W	0.00	0.00	0.00	
13528.00†	90.000	359.271	10174.00	3308.20	3315.41	544.31	600652.27	454578.14	32°14'57.598"N	104°00'27.935"W	0.00	0.00	0.00	
13628.00†	90.000	359.271	10174.00	3408.20	3415.40	543.04	600651.00	454678.12	32°14'58.588"N	104°00'27.946"W	0.00	0.00	0.00	
13728.00†	90.000	359.271	10174.00	3508.20	3515.39	541.77	600649.72	454778.11	32°14'59.577"N	104°00'27.958"W	0.00	0.00	0.00	
13828.00†	90.000	359.271	10174.00	3608.20	3615.38	540.50	600648.45	454878.09	32°15'00.567"N	104°00'27.969"W	0.00	0.00	0.00	
13928.00†	90.000	359.271	10174.00	3708.20	3715.38	539.22	600647.18	454978.07	32°15'01.556"N	104°00'27.980"W	0.00	0.00	0.00	
14028.00†	90.000	359.271	10174.00	3808.20	3815.37	537.95	600645.91	455078.06	32°15'02.546"N	104°00'27.991"W	0.00	0.00	0.00	
14128.00†	90.000	359.271	10174.00	3908.20	3915.36	536.68	600644.63	455178.04	32°15'03.535"N	104°00'28.003"W	0.00	0.00	0.00	
14228.00†	90.000	359.271	10174.00	4008.20	4015.35	535.41	600643.36	455278.02	32°15'04.525"N	104°00'28.014"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14328.00†	90.000	359.271	10174.00	4108.20	4115.34	534.13	600642.09	455378.01	32°15'05.514"N	104°00'28.025"W	0.00	0.00	0.00	
14428.00†	90.000	359.271	10174.00	4208.20	4215.34	532.86	600640.82	455477.99	32°15'06.504"N	104°00'28.037"W	0.00	0.00	0.00	
14528.00†	90.000	359.271	10174.00	4308.20	4315.33	531.59	600639.55	455577.98	32°15'07.493"N	104°00'28.048"W	0.00	0.00	0.00	
14628.00†	90.000	359.271	10174.00	4408.20	4415.32	530.32	600638.27	455677.96	32°15'08.483"N	104°00'28.059"W	0.00	0.00	0.00	
14728.00†	90.000	359.271	10174.00	4508.20	4515.31	529.04	600637.00	455777.94	32°15'09.472"N	104°00'28.070"W	0.00	0.00	0.00	
14828.00†	90.000	359.271	10174.00	4608.20	4615.30	527.77	600635.73	455877.93	32°15'10.462"N	104°00'28.082"W	0.00	0.00	0.00	
14928.00†	90.000	359.271	10174.00	4708.20	4715.29	526.50	600634.46	455977.91	32°15'11.451"N	104°00'28.093"W	0.00	0.00	0.00	
15028.00†	90.000	359.271	10174.00	4808.20	4815.29	525.23	600633.18	456077.89	32°15'12.441"N	104°00'28.104"W	0.00	0.00	0.00	
15128.00†	90.000	359.271	10174.00	4908.20	4915.28	523.96	600631.91	456177.88	32°15'13.430"N	104°00'28.115"W	0.00	0.00	0.00	
15228.00†	90.000	359.271	10174.00	5008.20	5015.27	522.68	600630.64	456277.86	32°15'14.420"N	104°00'28.127"W	0.00	0.00	0.00	
15328.00†	90.000	359.271	10174.00	5108.20	5115.26	521.41	600629.37	456377.85	32°15'15.409"N	104°00'28.138"W	0.00	0.00	0.00	
15428.00†	90.000	359.271	10174.00	5208.20	5215.25	520.14	600628.10	456477.83	32°15'16.399"N	104°00'28.149"W	0.00	0.00	0.00	
15528.00†	90.000	359.271	10174.00	5308.20	5315.25	518.87	600626.82	456577.81	32°15'17.388"N	104°00'28.161"W	0.00	0.00	0.00	
15628.00†	90.000	359.271	10174.00	5408.20	5415.24	517.59	600625.55	456677.80	32°15'18.378"N	104°00'28.172"W	0.00	0.00	0.00	
15728.00†	90.000	359.271	10174.00	5508.20	5515.23	516.32	600624.28	456777.78	32°15'19.367"N	104°00'28.183"W	0.00	0.00	0.00	
15828.00†	90.000	359.271	10174.00	5608.20	5615.22	515.05	600623.01	456877.76	32°15'20.357"N	104°00'28.194"W	0.00	0.00	0.00	
15928.00†	90.000	359.271	10174.00	5708.20	5715.21	513.78	600621.73	456977.75	32°15'21.346"N	104°00'28.206"W	0.00	0.00	0.00	
16028.00†	90.000	359.271	10174.00	5808.20	5815.21	512.50	600620.46	457077.73	32°15'22.335"N	104°00'28.217"W	0.00	0.00	0.00	
16128.00†	90.000	359.271	10174.00	5908.20	5915.20	511.23	600619.19	457177.72	32°15'23.325"N	104°00'28.228"W	0.00	0.00	0.00	
16228.00†	90.000	359.271	10174.00	6008.20	6015.19	509.96	600617.92	457277.70	32°15'24.314"N	104°00'28.240"W	0.00	0.00	0.00	
16328.00†	90.000	359.271	10174.00	6108.20	6115.18	508.69	600616.65	457377.68	32°15'25.304"N	104°00'28.251"W	0.00	0.00	0.00	
16428.00†	90.000	359.271	10174.00	6208.20	6215.17	507.42	600615.37	457477.67	32°15'26.293"N	104°00'28.262"W	0.00	0.00	0.00	
16528.00†	90.000	359.271	10174.00	6308.20	6315.17	506.14	600614.10	457577.65	32°15'27.283"N	104°00'28.273"W	0.00	0.00	0.00	
16628.00†	90.000	359.271	10174.00	6408.20	6415.16	504.87	600612.83	457677.63	32°15'28.272"N	104°00'28.285"W	0.00	0.00	0.00	
16728.00†	90.000	359.271	10174.00	6508.20	6515.15	503.60	600611.56	457777.62	32°15'29.262"N	104°00'28.296"W	0.00	0.00	0.00	
16828.00†	90.000	359.271	10174.00	6608.20	6615.14	502.33	600610.29	457877.60	32°15'30.251"N	104°00'28.307"W	0.00	0.00	0.00	
16928.00†	90.000	359.271	10174.00	6708.20	6715.13	501.05	600609.01	457977.59	32°15'31.241"N	104°00'28.319"W	0.00	0.00	0.00	
17028.00†	90.000	359.271	10174.00	6808.20	6815.12	499.78	600607.74	458077.57	32°15'32.230"N	104°00'28.330"W	0.00	0.00	0.00	
17128.00†	90.000	359.271	10174.00	6908.20	6915.12	498.51	600606.47	458177.55	32°15'33.220"N	104°00'28.341"W	0.00	0.00	0.00	
17228.00†	90.000	359.271	10174.00	7008.20	7015.11	497.24	600605.20	458277.54	32°15'34.209"N	104°00'28.352"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17328.00†	90.000	359.271	10174.00	7108.20	7115.10	495.96	600603.92	458377.52	32°15'35.199"N	104°00'28.364"W	0.00	0.00	0.00	
17428.00†	90.000	359.271	10174.00	7208.20	7215.09	494.69	600602.65	458477.50	32°15'36.188"N	104°00'28.375"W	0.00	0.00	0.00	
17528.00†	90.000	359.271	10174.00	7308.20	7315.08	493.42	600601.38	458577.49	32°15'37.178"N	104°00'28.386"W	0.00	0.00	0.00	
17628.00†	90.000	359.271	10174.00	7408.20	7415.08	492.15	600600.11	458677.47	32°15'38.167"N	104°00'28.398"W	0.00	0.00	0.00	
17728.00†	90.000	359.271	10174.00	7508.20	7515.07	490.88	600598.84	458777.46	32°15'39.157"N	104°00'28.409"W	0.00	0.00	0.00	
17828.00†	90.000	359.271	10174.00	7608.20	7615.06	489.60	600597.56	458877.44	32°15'40.146"N	104°00'28.420"W	0.00	0.00	0.00	
17928.00†	90.000	359.271	10174.00	7708.20	7715.05	488.33	600596.29	458977.42	32°15'41.136"N	104°00'28.431"W	0.00	0.00	0.00	
18028.00†	90.000	359.271	10174.00	7808.20	7815.04	487.06	600595.02	459077.41	32°15'42.125"N	104°00'28.443"W	0.00	0.00	0.00	
18128.00†	90.000	359.271	10174.00	7908.20	7915.04	485.79	600593.75	459177.39	32°15'43.115"N	104°00'28.454"W	0.00	0.00	0.00	
18228.00†	90.000	359.271	10174.00	8008.20	8015.03	484.51	600592.47	459277.38	32°15'44.104"N	104°00'28.465"W	0.00	0.00	0.00	
18328.00†	90.000	359.271	10174.00	8108.20	8115.02	483.24	600591.20	459377.36	32°15'45.094"N	104°00'28.477"W	0.00	0.00	0.00	
18428.00†	90.000	359.271	10174.00	8208.20	8215.01	481.97	600589.93	459477.34	32°15'46.083"N	104°00'28.488"W	0.00	0.00	0.00	
18528.00†	90.000	359.271	10174.00	8308.20	8315.00	480.70	600588.66	459577.33	32°15'47.073"N	104°00'28.499"W	0.00	0.00	0.00	
18628.00†	90.000	359.271	10174.00	8408.20	8415.00	479.42	600587.39	459677.31	32°15'48.062"N	104°00'28.510"W	0.00	0.00	0.00	
18728.00†	90.000	359.271	10174.00	8508.20	8514.99	478.15	600586.11	459777.29	32°15'49.052"N	104°00'28.522"W	0.00	0.00	0.00	
18828.00†	90.000	359.271	10174.00	8608.20	8614.98	476.88	600584.84	459877.28	32°15'50.041"N	104°00'28.533"W	0.00	0.00	0.00	
18928.00†	90.000	359.271	10174.00	8708.20	8714.97	475.61	600583.57	459977.26	32°15'51.031"N	104°00'28.544"W	0.00	0.00	0.00	
19028.00†	90.000	359.271	10174.00	8808.20	8814.96	474.34	600582.30	460077.25	32°15'52.020"N	104°00'28.556"W	0.00	0.00	0.00	
19128.00†	90.000	359.271	10174.00	8908.20	8914.95	473.06	600581.02	460177.23	32°15'53.010"N	104°00'28.567"W	0.00	0.00	0.00	
19228.00†	90.000	359.271	10174.00	9008.20	9014.95	471.79	600579.75	460277.21	32°15'53.999"N	104°00'28.578"W	0.00	0.00	0.00	
19328.00†	90.000	359.271	10174.00	9108.20	9114.94	470.52	600578.48	460377.20	32°15'54.989"N	104°00'28.589"W	0.00	0.00	0.00	
19428.00†	90.000	359.271	10174.00	9208.20	9214.93	469.25	600577.21	460477.18	32°15'55.978"N	104°00'28.601"W	0.00	0.00	0.00	
19528.00†	90.000	359.271	10174.00	9308.20	9314.92	467.97	600575.94	460577.16	32°15'56.968"N	104°00'28.612"W	0.00	0.00	0.00	
19628.00†	90.000	359.271	10174.00	9408.20	9414.91	466.70	600574.66	460677.15	32°15'57.957"N	104°00'28.623"W	0.00	0.00	0.00	
19728.00†	90.000	359.271	10174.00	9508.20	9514.91	465.43	600573.39	460777.13	32°15'58.947"N	104°00'28.635"W	0.00	0.00	0.00	
19828.00†	90.000	359.271	10174.00	9608.20	9614.90	464.16	600572.12	460877.12	32°15'59.936"N	104°00'28.646"W	0.00	0.00	0.00	
19928.00†	90.000	359.271	10174.00	9708.20	9714.89	462.88	600570.85	460977.10	32°16'00.926"N	104°00'28.657"W	0.00	0.00	0.00	
20028.00†	90.000	359.271	10174.00	9808.20	9814.88	461.61	600569.57	461077.08	32°16'01.915"N	104°00'28.668"W	0.00	0.00	0.00	
20128.00†	90.000	359.271	10174.00	9908.20	9914.87	460.34	600568.30	461177.07	32°16'02.905"N	104°00'28.680"W	0.00	0.00	0.00	
20228.00†	90.000	359.271	10174.00	10008.20	10014.87	459.07	600567.03	461277.05	32°16'03.894"N	104°00'28.691"W	0.00	0.00	0.00	

Approval Date: 05/11/2018



# Planned Wellpath Report

CB SE 5 32 FED COM 3 3H Prelim 1

Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 3H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 3H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 3H
Facility	CB Pad 3		

WELLPATH DATA (211 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
20308.96	90.000	359.271	10174.00	10089.17	10095.82	458.04	600566.00	461358.00	32°16'04.695"N	104°00'28.700"W	0.00	0.00	0.00	End of Tangent

TARGETS										
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
CB SE 5 32 FED COM 3 3H FTP		10174.00	32.00	586.05	600694.00	451295.00	32°14'25.106"N	104°00'27.565"W	point	
CB SE 5 32 FED COM 3 3H LTP		10174.00	9945.81	461.04	600569.00	461208.00	32°16'03.211"N	104°00'28.671"W	point	
1) CB SE 5 32 FED COM 3 3H PBHL rev 1	20308.96	10174.00	10095.82	458.04	600566.00	461358.00	32°16'04.695"N	104°00'28.700"W	point	

SURVEY PROGRAM - Ref Wellbore: CB SE 5 32 FED COM 3 3H Ref Wellpath: CB SE 5 32 FED COM 3 3H Prelim 1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.00	20308.96	BHI NaviTrak (Standard)		CB SE 5 32 FED COM 3 3H

Approval Date: 05/11/2018

**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Chevron USA Inc
LEASE NO.:	NM119754
WELL NAME & NO.:	3H - CB SE 5 32 Fed Com 3
SURFACE HOLE FOOTAGE:	295'/S & 1592'/W
BOTTOM HOLE FOOTAGE:	180'/N & 2178'/W, sec.32-T23S-R29E
LOCATION:	Section 5, T. 24 S., R. 29 E.
COUNTY:	Eddy County, New Mexico

**TABLE OF CONTENTS**

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

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
  - Cave/Karst
  - Watershed
  - Cultural
- Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Production (Post Drilling)**
  - Well Structures & Facilities
- Interim Reclamation**
- Final Abandonment & Reclamation**

## **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**

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

#### **Cave/Karst Surface Mitigation**

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

#### **Construction:**

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

#### **No Blasting:**

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

#### **Pad Berming:**

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

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

#### **Tank Battery Liners and Berms:**

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

**Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating valves 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 valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

**Cave/Karst Subsurface Mitigation**

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

**Rotary Drilling with Fresh Water:**

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

**Directional Drilling:**

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

**Lost Circulation:**

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

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

**Abandonment Cementing:**

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

**Pressure Testing:**

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has

occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

### **Watershed**

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. 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 berm shall be maintained through the life of the well and 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.

## **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**

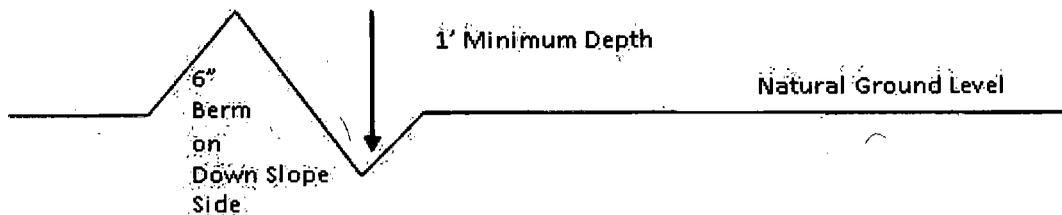
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

### **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g., ditches, sidehill out-sloping and in-sloping, 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:

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

**Cattle guards**

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

**Fence Requirement**

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

**Public Access**

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

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

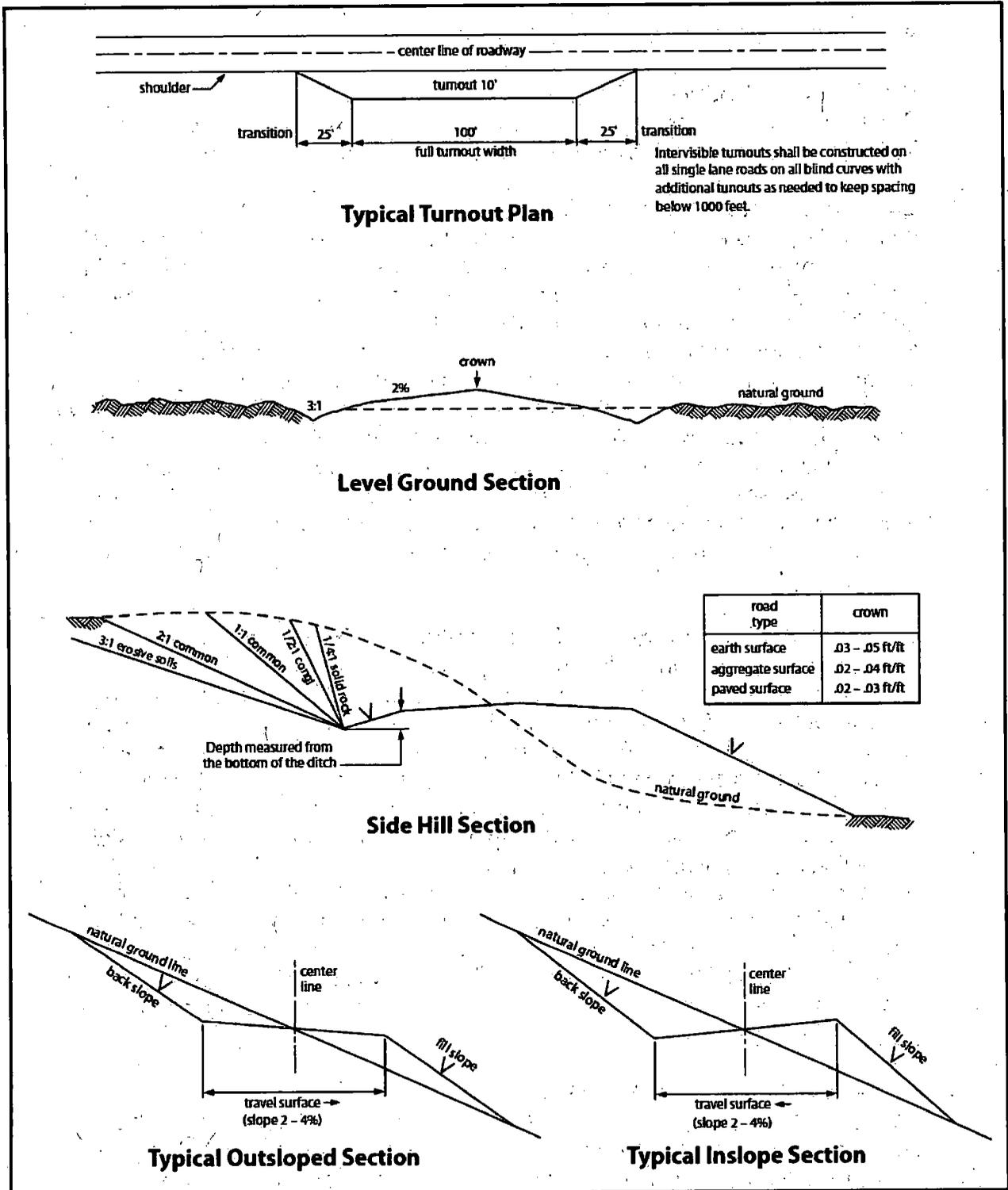


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## **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).

### **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 3, for Shallow Sites**

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

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

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

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass ( <i>Setaria macrostachya</i> )	1.0
Green Sprangletop ( <i>Leptochloa dubia</i> )	2.0
Sideoats Grama ( <i>Bouteloua curtipendula</i> )	5.0

\*Pounds of pure live seed:

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



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

# Operator Certification Data Report

05/11/2018

## Operator Certification

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

**NAME:** Dorian K Fuentes

**Signed on:** 12/12/2017

**Title:** Permitting Specialist

**Street Address:** 6301 Deauville Blvd

**City:** Midland

**State:** TX

**Zip:** 79706

**Phone:** (432)687-7631

**Email address:** djvo@chevron.com

## Field Representative

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



**APD ID:** 10400025468

**Submission Date:** 12/12/2017

Highlighted data reflects the most recent changes

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

[Show Final Text](#)

**Well Type:** CONVENTIONAL GAS WELL

**Well Work Type:** Drill

## Section 1 - General

**APD ID:** 10400025468

**Tie to previous NOS?**

**Submission Date:** 12/12/2017

**BLM Office:** CARLSBAD

**User:** Dorian K Fuentes

**Title:** Permitting Specialist

**Federal/Indian APD:** FED

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

**Lease number:** NMNM119754

**Lease Acres:** 359.88

**Surface access agreement in place?**

**Allotted?**

**Reservation:**

**Agreement in place?** NO

**Federal or Indian agreement:**

**Agreement number:**

**Agreement name:**

**Keep application confidential?** NO

**Permitting Agent?** NO

**APD Operator:** CHEVRON USA INCORPORATED

**Operator letter of designation:**

## Operator Info

**Operator Organization Name:** CHEVRON USA INCORPORATED

**Operator Address:** 6301 Deauville Blvd.

**Zip:** 79706

**Operator PO Box:**

**Operator City:** Midland

**State:** TX

**Operator Phone:** (432)687-7866

**Operator Internet Address:**

## Section 2 - Well Information

**Well in Master Development Plan?** NO

**Mater Development Plan name:**

**Well in Master SUPO?** NO

**Master SUPO name:**

**Well in Master Drilling Plan?** NO

**Master Drilling Plan name:**

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

**Well API Number:**

**Field/Pool or Exploratory?** Field and Pool

**Field Name:** PURPLE SAGE

**Pool Name:** WOLFCAMP, (GAS)

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

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

**Describe other minerals:**

**Is the proposed well in a Helium production area?** N    **Use Existing Well Pad?** NO    **New surface disturbance?**

**Type of Well Pad:** MULTIPLE WELL

**Multiple Well Pad Name:** CB SE **Number:** 3H 2H 1H  
5 32 FED COM 3

**Well Class:** HORIZONTAL

**Number of Legs:** 1

**Well Work Type:** Drill

**Well Type:** CONVENTIONAL GAS WELL

**Describe Well Type:**

**Well sub-Type:** INFILL

**Describe sub-type:**

**Distance to town:** 3 Miles

**Distance to nearest well:** 500 FT

**Distance to lease line:** 330 FT

**Reservoir well spacing assigned acres Measurement:** 640 Acres

**Well plat:** CB\_SE\_5\_32\_FED\_COM\_3\_3H\_C\_102\_cert\_4Dec2017\_20171211121609.pdf

**Well work start Date:** 05/01/2018

**Duration:** 130 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Survey number:**

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	295	FSL	159 2	FWL	24S	29E	5	Aliquot SESW 4	32.24022 4	- 104.0100 42	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 119754	301 6	0	0
KOP Leg #1	295	FSL	159 2	FWL	24S	29E	5	Aliquot SESW 7	32.24034 7	- 104.0100 42	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 119754	301 6	0	0
PPP Leg #1	330	FSL	217 8	FWL	24S	29E	5	Aliquot SESW 9	32.24042 9	- 104.0081 46	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 119754	- 721 8	203 09	102 34



APD ID: 10400025468

Submission Date: 12/12/2017

Highlighted data reflects the most recent changes

Operator Name: CHEVRON USA INCORPORATED

Well Name: CB SE 5 32 FED COM 3

Well Number: 3H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	CASTILE	3016	758	758	LIMESTONE, ANHYDRITE, GYPSUM	NONE	No
2	LAMAR	148	2868	2868	LIMESTONE	NONE	No
3	BELL CANYON	110	2906	2906	SANDSTONE	NONE	No
4	CHERRY CANYON	-794	3810	3810	SANDSTONE	NONE	No
5	BRUSHY CANYON	-2008	5024	5024	SANDSTONE	NONE	No
6	BONE SPRING	-3628	6644	6644	LIMESTONE	NONE	No
7	AVALON SAND	-3700	6716	6716	SANDSTONE	NONE	No
8	BONE SPRING 1ST	-4656	7672	7672	SANDSTONE	NONE	No
9	BONE SPRING 2ND	-5422	8438	8438	SANDSTONE	NONE	No
10	BONE SPRING 3RD	-5810	8826	8826	LIMESTONE	NONE	No
11	WOLFCAMP	-6895	9911	9911	MUDSTONE	USEABLE WATER, NATURAL GAS, OIL	Yes

### Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 10234

**Equipment:** Chevron will have a minimum of a 5,000 psi rig stack (see proposed schematic) for drill out below surface casing. Wolfcamp is not exposed until drill out of the intermediate casing. Stack will be tested as specified in the attached testing requirements.

**Requesting Variance?** YES

**Variance request:** 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 nipped 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.

**Testing Procedure:** Test BOP from 250 psi to 5000 psi in Ram and 250 psi to 3500 psi in annular. BOP/BOPE will be tested

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements.

**Choke Diagram Attachment:**

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_CHOKE\_20171212152021.pdf

**BOP Diagram Attachment:**

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_BOPE\_20171212152037.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	450	0	450			450	J-55	54.5	STC	1.43	5.73	DRY	1.58	DRY	3.42
2	INTERMEDIATE	12.25	9.625	NEW	API	Y	0	9000	0	9000			9000	L-80	43.5	LTC	1.29	2.42	DRY	1.4	DRY	1.9
3	PRODUCTION	8.5	5.5	NEW	API	N	0	20309	0	20309			20309	P-110	20	OTHER - TXP	1.33	1.47	DRY	1.4	DRY	2.39

**Casing Attachments**

**Casing ID:** 1      **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_9PT\_PLAN\_20171212152645.pdf

Operator Name: CHEVRON USA INCORPORATED

Well Name: CB SE 5 32 FED COM 3

Well Number: 3H

Casing Attachments

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_INT\_Casing\_Specs\_20171212152714.pdf

Casing Design Assumptions and Worksheet(s):

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_INT\_Casing\_Specs\_20171212152732.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_Prod\_Casing\_Specs\_20171212152751.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	450	311	1.33	14.8	6.37	10	Class C	Class C

INTERMEDIATE	Lead	2500	0	1600	230	2.41	11.9	2.43	10	Class C	50/50 Poz, Class C, extender, antifoam, retarder, salt, viscosifier
INTERMEDIATE	Tail		1600	2500	233	1.33	14.8	1.33	10	Class C	Class C, antifoam, retarder
INTERMEDIATE	Lead	2500	2500	8000	764	2.43	11.9	13.66	10	Class C	Class C, antifoam, extender, salt, retarder

Operator Name: CHEVRON USA INCORPORATED

Well Name: CB SE 5 32 FED COM 3

Well Number: 3H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		8000	9000	310	1.21	15.6	5.34	10	Class C	Class C, retarder, dispersant
PRODUCTION	Lead		8000	20309	2585	1.2	15.6	7.62	10	C	50/50 Poz, Class C + Extender, antifoam, dispersant, retarder

### Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

**Describe what will be on location to control well or mitigate other conditions:** A closed system will be utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill. All fluids and cuttings will be disposed of in accordance with NMOCD regulations.

**Describe the mud monitoring system utilized:** 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 - in compliance with Onshore Order #2.

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
450	9000	OIL-BASED MUD	8.8	9.8							
0	450	SPUD MUD	8.3	10							
9000	20309	OIL-BASED MUD	9.5	12.5							The mud weights will range depending on the targeted formation. The Wolfcamp A

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
											pore pressure will exceed 9.5 ppg, but due to wellbore stability, the mud program will exceed the pore pressure. To control pressure we are using 13 and may end up using heavier mud weight to 14.0 to 15.0 ppg.

### Section 6 - Test, Logging, Coring

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

Drill Stem Tests are not planned

The logging program will be as follows:

Mudlogs 2 man mudlog INT CSG to TD Drill out of INT CSG

LWD MWD Gamma INT. & PROD. HOLE While Drilling

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

GR,MWD,MUDLOG

**Coring operation description for the well:**

Conventional whole core samples are not planned; a direction survey will be run - will send log(s) when run.

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 6652

**Anticipated Surface Pressure:** 4400.52

**Anticipated Bottom Hole Temperature(F):** 150

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_H2S\_20171212150512.pdf

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

## Section 8 - Other Information

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

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_DIRECTIONAL\_PLAN\_20171212150659.pdf

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_Rig\_Layout\_20171212150700.pdf

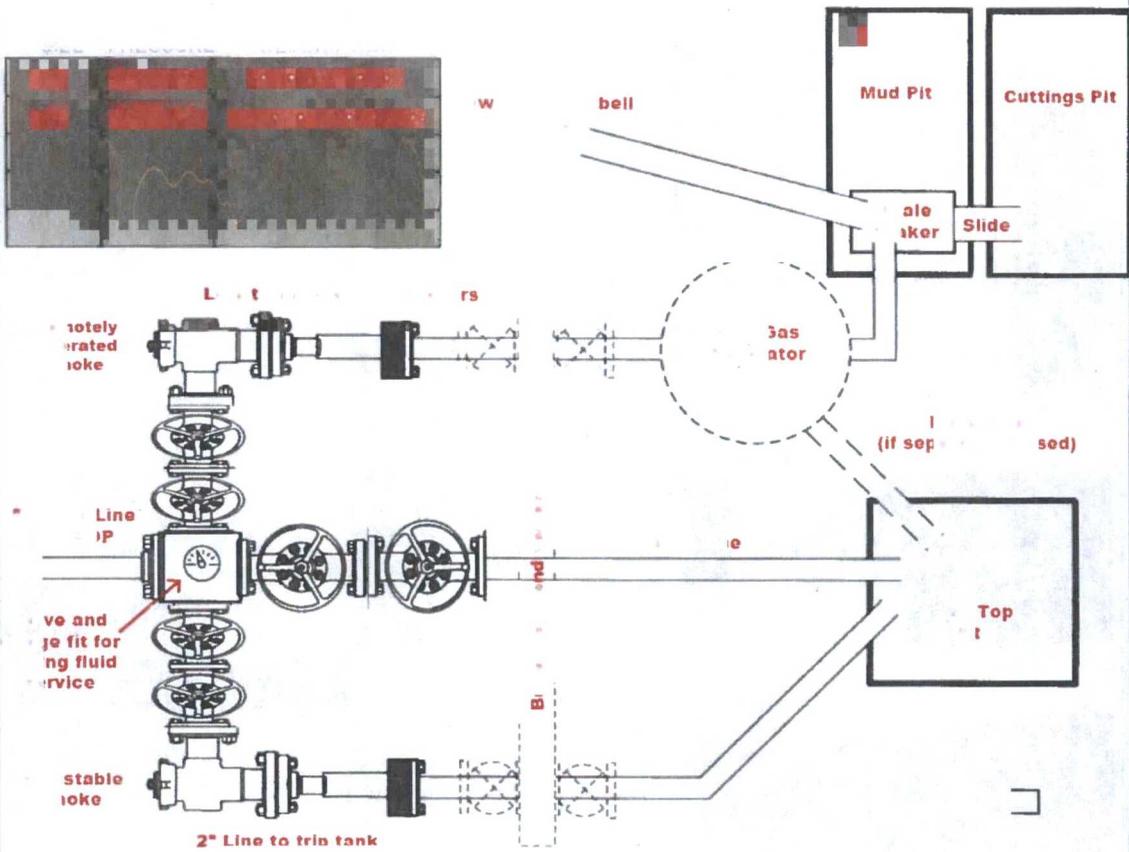
**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

**Other Variance attachment:**

# WELFOLD SCHEMATIC

## Minimum Requirements for Well Section



... for or -ss. x -s ng of BOP equipment.

Minimum requirements (rating, type, size, configuration) as shown on or equivalent equipment rated to higher pressures. Additional meet or exceed the minimum pressure rating of the system.

will have backup hand pump for hydraulic actuation in case of loss

150' from the wellhead. These lines will terminate at a location as

will be straight unless turns use tee blocks or are targeted with and reduce vibration. This excludes the line between mud gas

and choke manifold will be full opening and will allow straight mud gas separator and shale shakers.

Ignition

and (no threaded connections like hammer unions)

will be at any entry or exit point to or from the buffer tank.

li s

eer

# SCHEMATIC

lements

med: en

i n

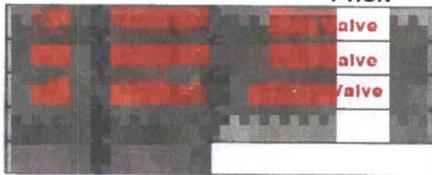
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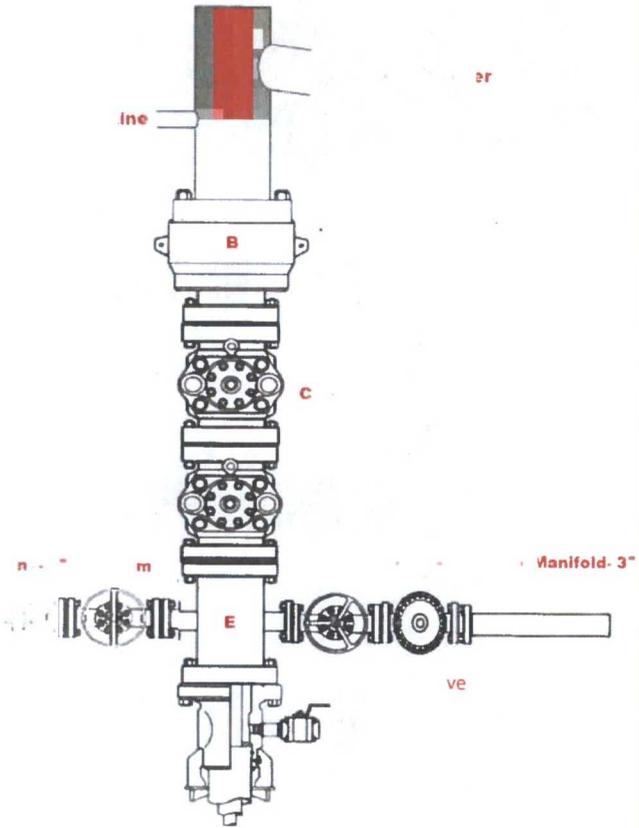
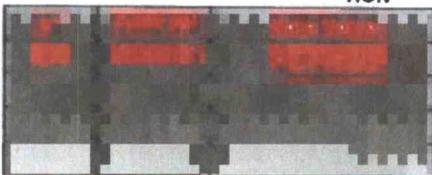
IN

	N/A	Bell Nipple
13-5/8"	5,000 psi	Annular
13-5/8"	5,000 psi	Pipe Ram
11-7/8"	5,000 psi	Blind Ram
11-7/8"	5,000 psi	Mud Cross
As required for each hole size		
13-5/8" 5K x 11" 5K		
13-3/8" SOW x 13-5/8" 5K		

PTION



PTION



equipment.

type, size, configuration) as shown on  
to higher pressures. Additional  
pressure rating of the system.

ht though flow.

argeted with running tess,

reverters. Hand wheels will also be

eventer to act as a locking device.

y valve and subs to fit all drill string

skist is cor e, w eeer

ellname: \_\_\_\_\_

entative: \_\_\_\_\_

Date: \_\_\_\_\_

S

st  
at least once per well prior to low/high  
6 months on the same well.

below. Bottles may be further charged  
ation

Minimum acceptable charge pressure	Minimum acceptable precharge pressure
80 psi	700 psi
110 psi	900 psi
110 psi	900 psi

led, close all  
precharge  
b, p-r-f ad

Fluid level  
or capacity will  
be kept on

g a accumulator bottles) to close the  
t the pumps will automatically start

hydraulically-operated choke line valve  
minutes and obtain a minimum of 200  
using manifold. S and

ill be capable of opening and closing  
the driller and located on the rig  
enters.

checked off prior to beginning test  
eginning BOPE testing

ied during the BOPE testing and then checked off

ied, whenever any seal subject to test pressure is broken,  
days intervals. S y a 3rd

quipment will be tested to 250 psi (low) and 5,000 psi (high).

ow) and 3,500 psi (high).

ide with all down stream valves open. The check valve will be

h no allowable leak off.

g unit (accumulator) must be function tested as part of the BOP testing

orts and IADC sheet

with any/a B.O.P. and accumulator test charts and reports from parties.  
or along

Wellname:

Representative:

Date:



**U. S. Steel Tubular Products**  
**9.625 40/0.395 L80 HC**

9/29/2015 7:34:21 AM

<b>MECHANICAL PROPERTIES</b>	<b>Pipe</b>	<b>BTC</b>	<b>LTC</b>	<b>STC</b>	
Minimum Yield Strength	80,000	--	--	--	psi
Maximum Yield Strength	95,000	--	--	--	psi
Minimum Tensile Strength	95,000	--	--	--	psi

<b>DIMENSIONS</b>	<b>Pipe</b>	<b>BTC</b>	<b>LTC</b>	<b>STC</b>	
Outside Diameter	9.625	10.625	10.625	--	in.
Wall Thickness	0.395	--	--	--	in.
Inside Diameter	8.835	8.835	8.835	--	in.
Standard Drift	8.679	8.679	8.679	--	in.
Alternate Drift	8.750	8.750	8.750	--	in.
Nominal Linear Weight, T&C	40.00	--	--	--	lbs/ft
Plain End Weight	38.97	--	--	--	lbs/ft

<b>PERFORMANCE</b>	<b>Pipe</b>	<b>BTC</b>	<b>LTC</b>	<b>STC</b>	
Minimum Collapse Pressure	3,870	3,870	3,870	--	psi
Minimum Internal Yield Pressure	5,750	5,750	5,750	--	psi
Minimum Pipe Body Yield Strength	916,000.00	--	--	--	lbs
Joint Strength	--	947	727	--	1000 lbs
Reference Length	--	15,785	12,119	--	ft

<b>MAKE-UP DATA</b>	<b>Pipe</b>	<b>BTC</b>	<b>LTC</b>	<b>STC</b>	
Make-Up Loss	--	4.81	4.75	--	in.
Minimum Make-Up Torque	--	--	5,450	--	ft-lbs
Maximum Make-Up Torque	--	--	9,090	--	ft-lbs

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 Houston, TX 77064

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 connections@uss.com  
 www.usstubular.com

**FORMATION TOPS**

The estimated depths of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Castille		758	
Lamar		2868	
Bell		2906	
Cherry		3810	
Brushy		5024	
Bone Spring Lime		6644	
Avalon		6716	
First Bone Spring Sand		7672	
SBSG Sand		8438	
Third Bone Spring Carbonate		8826	
Third Bone Spring Sand		9558	
Wolfcamp A		9911	
Wolfcamp B		10511	
Lateral TVD Wolfcamp A		10234	20309



**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 encountered are as follows:

be

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		450
Water	Castille	758
Water	Cherry Canyon	3810
Oil/Gas	Brushy Canyon	5024
Oil/Gas	First Bone Spring Sand	7672
Oil/Gas	SBSG Sand	8438
Oil/Gas	Third Bone Spring Carbonate	8826
Oil/Gas	Third Bone Spring Sand	9558
Oil/Gas	Wolfcamp A	9911

All shows of fresh water and minerals and protected.

**3. BOP EQUIPMENT**

Will have a minimum of a 5000 psi rig stack (see proposed schematic). Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs) BOP test will be conducted by a third party.

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

**CASING PROGRAM**

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	450'	17-1/2"	13-3/8"	54.5 #	J-55	STC	New
Intermediate	0'	9,000'	12-1/4"	9-5/8"	43.5#	L-80	LTC	New
Production	0'	20,309'	8-1/2"	5-1/2"	20.0 #	P-110	TXP	New

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

Surface Casing: 450'

Intermediate Casing: 9,000' MD

Production Casing: 20,402' MD/10,234' TVD (10,234' VS g inc)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.43	5.73	3.42	1.58
Intermediate	1.29	2.42	1.9	1.4
Production	1.33	1.47	2.39	1.4

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

Burst Design	Surf	Int	Prod
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X		
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 15 ppg Frac Gradient		X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid			X
Tubing leak- Prod Csg (packer at KOP) P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid			X
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X



COM 3 3H

T HOLE  
G PLAN  
3

E M

						Less	Sacks	Water
Intermediate						10	311	6.37
	C	0'		11.9	2.41	10	30	.43
Stage 2 Tail				.8		10	33	1.33
			30'					
Stage 1 Lead	C			11.9	.13	10	34	13.66
	C							
Stage 1 Tail		8,000'	9,000'	.6	1.21	10	10	.34
Pr d ct n								
Tail	C	8,000'	20,309'	.6	1.2	10	35	.32

shoe

om TD, then every other  
DP to intermediate casing.

- TIGHT HOLE  
FILLING PLAN  
4

AM

Type	Weight	F. Vis	Filtrate
Spud Mud	8.3 - 10	32 - 34	NC - NC
OBM	8.8 - 9.8	50 - 70	5.0 - 10
OBM	9.5 - 12.5	50 - 70	5.0 - 10

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

s and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and  
ons.

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

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

ting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole

IG CO IG

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

stem tests are not planned.  
logging program will be as follows:

	Interval	Timing	Vendor
mudlog	Int Csg to TD	Drillout of Int Csg	TBD
gamma	Int CSG & Prod	While Drilling	TBD

ventional whole core samples are not planned.  
irectional Survey will be run.

S DE

nticipated. Reference Attached H2S Contingency Plan.



**U. S. Steel Tubular Products**  
**9.625 40/0.395 L80 HC**

9/29/2015 7:34:21 AM

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	80,000	--	--	--	psi
Maximum Yield Strength	95,000	--	--	--	psi
Minimum Tensile Strength	95,000	--	--	--	psi

DIMENSIONS	Pipe	BTC	LTC	STC	
Outside Diameter	9.625	10.625	10.625	--	in.
Wall Thickness	0.395	--	--	--	in.
Inside Diameter	8.835	8.835	8.835	--	in.
Standard Drift	8.679	8.679	8.679	--	in.
Alternate Drift	8.750	8.750	8.750	--	in.
Nominal Linear Weight, T&C	40.00	--	--	--	lbs/ft
Plain End Weight	38.97	--	--	--	lbs/ft

PERFORMANCE	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	3,870	3,870	3,870	--	psi
Minimum Internal Yield Pressure	5,750	5,750	5,750	--	psi
Minimum Pipe Body Yield Strength	916,000.00	--	--	--	lbs
Joint Strength	--	947	727	--	1000 lbs
Reference Length	--	15,785	12,119	--	ft

MAKE-UP DATA	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	4.75	--	in.
Minimum Make-Up Torque	--	--	5,450	--	ft-lbs
Maximum Make-Up Torque	--	--	9,090	--	ft-lbs

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 www.usstubular.com

For the latest performance data, always visit our website: [www.tenaris.com](http://www.tenaris.com)

May 22 2016



**Connection:** TenarisXP® BTC  
**Casing/Tubing:** CAS  
**Coupling Option:** REGULAR

**Size:** 5.500 in.  
**Wall:** 0.361 in.  
**Weight:** 20.00 lbs/ft  
**Grade:** P110  
**Min. Wall Thickness:** 90.0 %

PIPE BODY DATA			
GEOMETRY			
Nominal OD	<b>5.500 in.</b>	Nominal Weight	<b>20.00 lbs/ft</b>
Nominal ID	<b>4.778 in.</b>	Wall Thickness	<b>0.361 in.</b>
Plain End Weight	<b>19.83 lbs/ft</b>	Standard Drift Diameter	<b>4.653 in.</b>
		Special Drift Diameter	<b>N/A</b>
PERFORMANCE			
Body Yield Strength	<b>641 x 1000 lbs</b>	Internal Yield	<b>13000 psi</b>
Collapse	<b>11100 psi</b>	SMYS	<b>110000 psi</b>
TENARISXP® BTC CONNECTION DATA			
GEOMETRY			
Connection OD	<b>6.100 in.</b>	Coupling Length	<b>9.450 in.</b>
Critical Section Area	<b>5.828 sq. in.</b>	Threads per in.	<b>5.00</b>
		Connection ID	<b>4.766 in.</b>
		Make-Up Loss	<b>4.204 in.</b>
PERFORMANCE			
Tension Efficiency	<b>100 %</b>	Joint Yield Strength	<b>641 x 1000 lbs</b>
Structural Compression Efficiency	<b>100 %</b>	Structural Compression Strength	<b>641 x 1000 lbs</b>
External Pressure Capacity	<b>11100 psi</b>	Internal Pressure Capacity <sup>(1)</sup>	<b>13000 psi</b>
		Structural Bending <sup>(2)</sup>	<b>92 °/100 ft</b>
ESTIMATED MAKE-UP TORQUES <sup>(3)</sup>			
Minimum	<b>11270 ft-lbs</b>	Optimum	<b>12520 ft-lbs</b>
		Maximum	<b>13770 ft-lbs</b>
OPERATIONAL LIMIT TORQUES			
Operating Torque	<b>21500 ft-lbs</b>	Yield Torque	<b>23900 ft-lbs</b>
BLANKING DIMENSIONS			

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Blanking Dimensions

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**(1)** Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per section 10.3 API 5C3 / ISO 10400 - 2007.

**(2)** Structural rating, pure bending to yield (i.e no other loads applied)

**(3)** Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at [licensees@oilfield.tenaris.com](mailto:licensees@oilfield.tenaris.com). Torque values may be further reviewed.

For additional information, please contact us at [contact-tenarishydril@tenaris.com](mailto:contact-tenarishydril@tenaris.com)



# H<sub>2</sub>S Preparedness and Contingency Plan Summary

## Training

MCBU Drilling and Completions H<sub>2</sub>S 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<sub>2</sub>S.

## Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S, who are not required to perform work in H<sub>2</sub>S areas, will be provided with an awareness level of H<sub>2</sub>S training prior to entering any H<sub>2</sub>S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H<sub>2</sub>S
2. Health hazards of H<sub>2</sub>S
3. Personal protective equipment
4. Information regarding potential sources of H<sub>2</sub>S
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<sub>2</sub>S Training

Employees and contractors required to work in areas that may contain H<sub>2</sub>S will be provided with Advanced Level H<sub>2</sub>S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H<sub>2</sub>S training will include:

1. H<sub>2</sub>S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H<sub>2</sub>S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H<sub>2</sub>S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H<sub>2</sub>S 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<sub>2</sub>S training;



## H<sub>2</sub>S Preparedness and Contingency Plan Summary

6. Proficiency examination covering all course material.

Advanced H<sub>2</sub>S training courses will be instructed by personnel who have successfully completed an appropriate H<sub>2</sub>S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

## H<sub>2</sub>S Training Certification

All employees and visitors will be issued an H<sub>2</sub>S training certification card (or certificate) upon successful completion of the appropriate H<sub>2</sub>S training course. Personnel working in an H<sub>2</sub>S environment will carry a current H<sub>2</sub>S 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<sub>2</sub>S 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<sub>2</sub>S Preparedness and Contingency Plan Summary

## H<sub>2</sub>S Detection and Monitoring System

- a) H<sub>2</sub>S 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



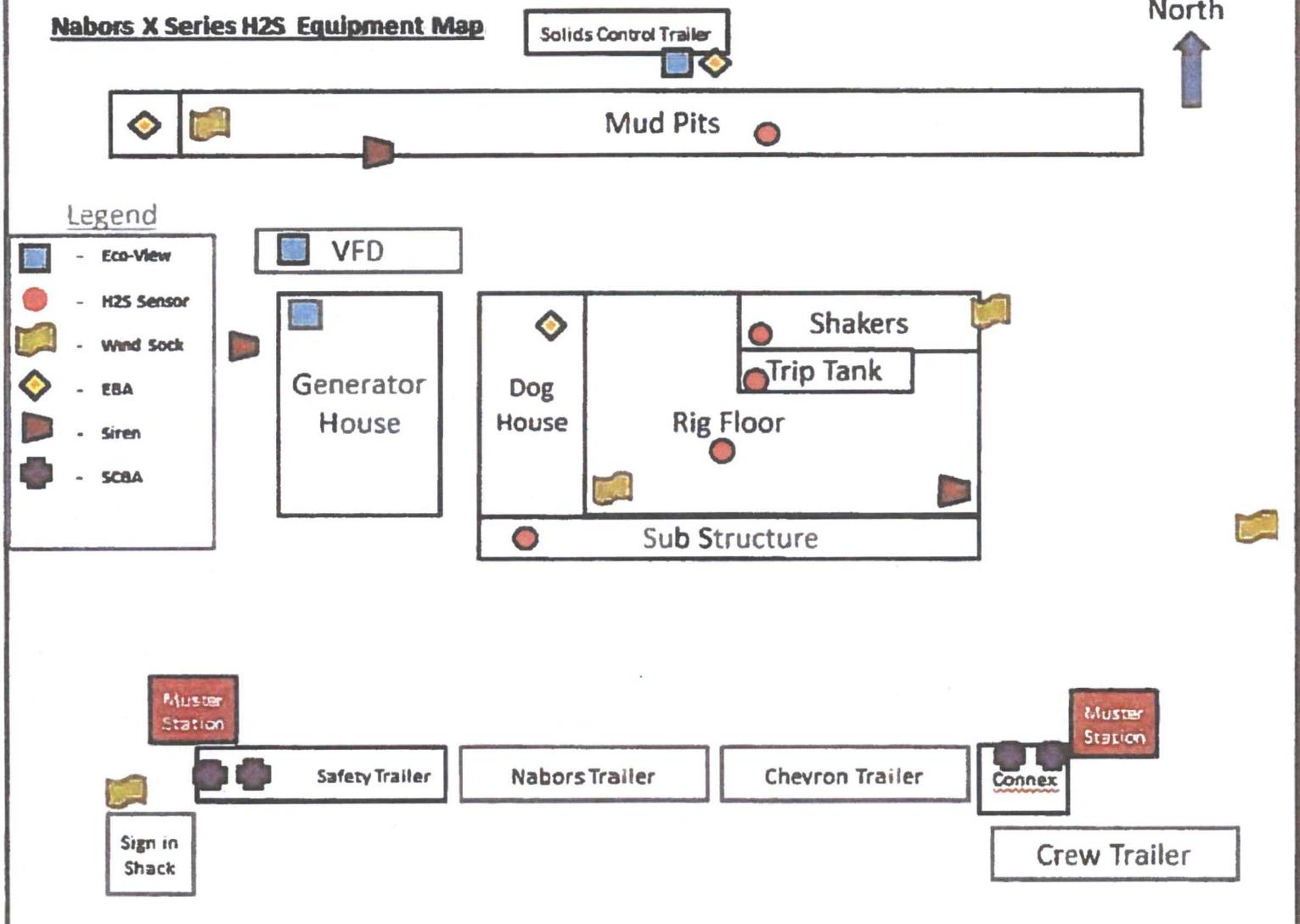
## H<sub>2</sub>S Preparedness and Contingency Plan Summary

<u>Agency</u>	<u>Telephone Number</u>
Eddy County Sheriff's Department	575-887-7551
Fire Department:	
Carlsbad	575-885-3125
Artesia	575-746-5050
Carlsbad Medical Center	575-887-4100
Eddy County Emergency Management	575-628-5450
Poison Control Center	800-222-1222

# H<sub>2</sub>S Preparedness and Contingency Plan Summary



**Nabors X Series H<sub>2</sub>S Equipment Map**



**Legend**

- Eco-View
- H<sub>2</sub>S Sensor
- Wind Sock
- EBA
- Siren
- SCBA

VFD



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Tranlam
Scale	0.999921	Report Generated	12/6/2017 at 1:58:25 PM
Convergence at slot	0.18° East	Database/Source file	WA_Midland/CB_SE_5_32_FED_COM_3_1H_Prelim_1.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W
Facility Reference Pt			600058.00	451263.00	32°14'24.809"N	104°00'34.971"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig: ?????? (KB) to Facility Vertical Datum	3043.00ft
Horizontal Reference Pt	Slot	Rig: ?????? (KB) to Mean Sea Level	3043.00ft
Vertical Reference Pt	Rig: ?????? (KB)	Rig: ?????? (KB) to Ground Level at Slot (CB SE 5 32 FED COM 3 1H)	28.00ft
MD Reference Pt	Rig: ?????? (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.27°



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	259.073	0.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
28.00	0.000	259.073	28.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	Tie On
128.00†	0.000	259.073	128.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
228.00†	0.000	259.073	228.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
328.00†	0.000	259.073	328.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
428.00†	0.000	259.073	428.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
528.00†	0.000	259.073	528.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
628.00†	0.000	259.073	628.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
728.00†	0.000	259.073	728.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
828.00†	0.000	259.073	828.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	
850.00	0.000	259.073	850.00	0.00	0.00	0.00	600058.00	451263.00	32°14'24.809"N	104°00'34.971"W	0.00	0.00	0.00	End of Tangent
928.00†	1.170	259.073	927.99	-0.14	-0.15	-0.78	600057.22	451262.85	32°14'24.807"N	104°00'34.980"W	1.50	1.50	-129.39	
1028.00†	2.670	259.073	1027.94	-0.73	-0.79	-4.07	600053.93	451262.21	32°14'24.801"N	104°00'35.019"W	1.50	1.50	0.00	
1128.00†	4.170	259.073	1127.75	-1.79	-1.92	-9.93	600048.07	451261.08	32°14'24.790"N	104°00'35.087"W	1.50	1.50	0.00	
1228.00†	5.670	259.073	1227.38	-3.31	-3.54	-18.35	600039.65	451259.46	32°14'24.774"N	104°00'35.185"W	1.50	1.50	0.00	
1328.00†	7.170	259.073	1326.75	-5.29	-5.66	-29.33	600028.67	451257.34	32°14'24.753"N	104°00'35.313"W	1.50	1.50	0.00	
1428.00†	8.670	259.073	1425.80	-7.73	-8.27	-42.86	600015.15	451254.73	32°14'24.728"N	104°00'35.471"W	1.50	1.50	0.00	
1528.00†	10.170	259.073	1524.45	-10.62	-11.38	-58.93	599999.08	451251.62	32°14'24.698"N	104°00'35.658"W	1.50	1.50	0.00	
1628.00†	11.670	259.073	1622.63	-13.98	-14.97	-77.53	599980.48	451248.03	32°14'24.663"N	104°00'35.874"W	1.50	1.50	0.00	
1728.00†	13.170	259.073	1720.29	-17.79	-19.04	-98.64	599959.36	451243.96	32°14'24.623"N	104°00'36.120"W	1.50	1.50	0.00	
1785.28	14.029	259.073	1775.97	-20.17	-21.60	-111.87	599946.14	451241.40	32°14'24.598"N	104°00'36.274"W	1.50	1.50	0.00	End of Build
1828.00†	14.029	259.073	1817.41	-22.00	-23.56	-122.04	599935.97	451239.44	32°14'24.579"N	104°00'36.393"W	0.00	0.00	0.00	
1928.00†	14.029	259.073	1914.43	-26.30	-28.16	-145.84	599912.17	451234.85	32°14'24.534"N	104°00'36.670"W	0.00	0.00	0.00	
2028.00†	14.029	259.073	2011.44	-30.59	-32.75	-169.64	599888.37	451230.25	32°14'24.490"N	104°00'36.947"W	0.00	0.00	0.00	
2128.00†	14.029	259.073	2108.46	-34.88	-37.35	-193.44	599864.57	451225.66	32°14'24.445"N	104°00'37.225"W	0.00	0.00	0.00	
2228.00†	14.029	259.073	2205.48	-39.17	-41.94	-217.24	599840.77	451221.06	32°14'24.400"N	104°00'37.502"W	0.00	0.00	0.00	
2328.00†	14.029	259.073	2302.49	-43.46	-46.54	-241.05	599816.97	451216.47	32°14'24.355"N	104°00'37.779"W	0.00	0.00	0.00	
2428.00†	14.029	259.073	2399.51	-47.75	-51.13	-264.85	599793.17	451211.87	32°14'24.311"N	104°00'38.057"W	0.00	0.00	0.00	
2528.00†	14.029	259.073	2496.53	-52.05	-55.73	-288.65	599769.37	451207.28	32°14'24.266"N	104°00'38.334"W	0.00	0.00	0.00	
2628.00†	14.029	259.073	2593.55	-56.34	-60.32	-312.45	599745.57	451202.68	32°14'24.221"N	104°00'38.611"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2728.00†	14.029	259.073	2690.56	-60.63	-64.92	-336.26	599721.77	451198.09	32°14'24.176"N	104°00'38.888"W	0.00	0.00	0.00	
2828.00†	14.029	259.073	2787.58	-64.92	-69.51	-360.06	599697.97	451193.49	32°14'24.132"N	104°00'39.166"W	0.00	0.00	0.00	
2928.00†	14.029	259.073	2884.60	-69.21	-74.11	-383.86	599674.17	451188.90	32°14'24.087"N	104°00'39.443"W	0.00	0.00	0.00	
3028.00†	14.029	259.073	2981.61	-73.50	-78.70	-407.66	599650.37	451184.30	32°14'24.042"N	104°00'39.720"W	0.00	0.00	0.00	
3128.00†	14.029	259.073	3078.63	-77.80	-83.30	-431.47	599626.57	451179.71	32°14'23.997"N	104°00'39.997"W	0.00	0.00	0.00	
3228.00†	14.029	259.073	3175.65	-82.09	-87.89	-455.27	599602.77	451175.11	32°14'23.952"N	104°00'40.275"W	0.00	0.00	0.00	
3328.00†	14.029	259.073	3272.67	-86.38	-92.49	-479.07	599578.97	451170.52	32°14'23.908"N	104°00'40.552"W	0.00	0.00	0.00	
3428.00†	14.029	259.073	3369.68	-90.67	-97.08	-502.87	599555.17	451165.92	32°14'23.863"N	104°00'40.829"W	0.00	0.00	0.00	
3528.00†	14.029	259.073	3466.70	-94.96	-101.68	-526.67	599531.37	451161.33	32°14'23.818"N	104°00'41.107"W	0.00	0.00	0.00	
3628.00†	14.029	259.073	3563.72	-99.25	-106.28	-550.48	599507.57	451156.73	32°14'23.773"N	104°00'41.384"W	0.00	0.00	0.00	
3728.00†	14.029	259.073	3660.73	-103.54	-110.87	-574.28	599483.77	451152.14	32°14'23.729"N	104°00'41.661"W	0.00	0.00	0.00	
3828.00†	14.029	259.073	3757.75	-107.84	-115.47	-598.08	599459.97	451147.54	32°14'23.684"N	104°00'41.938"W	0.00	0.00	0.00	
3928.00†	14.029	259.073	3854.77	-112.13	-120.06	-621.88	599436.17	451142.95	32°14'23.639"N	104°00'42.216"W	0.00	0.00	0.00	
4028.00†	14.029	259.073	3951.79	-116.42	-124.66	-645.69	599412.37	451138.35	32°14'23.594"N	104°00'42.493"W	0.00	0.00	0.00	
4128.00†	14.029	259.073	4048.80	-120.71	-129.25	-669.49	599388.57	451133.76	32°14'23.550"N	104°00'42.770"W	0.00	0.00	0.00	
4228.00†	14.029	259.073	4145.82	-125.00	-133.85	-693.29	599364.77	451129.16	32°14'23.505"N	104°00'43.047"W	0.00	0.00	0.00	
4328.00†	14.029	259.073	4242.84	-129.29	-138.44	-717.09	599340.97	451124.57	32°14'23.460"N	104°00'43.325"W	0.00	0.00	0.00	
4428.00†	14.029	259.073	4339.86	-133.59	-143.04	-740.89	599317.17	451119.97	32°14'23.415"N	104°00'43.602"W	0.00	0.00	0.00	
4528.00†	14.029	259.073	4436.87	-137.88	-147.63	-764.70	599293.37	451115.38	32°14'23.370"N	104°00'43.879"W	0.00	0.00	0.00	
4628.00†	14.029	259.073	4533.89	-142.17	-152.23	-788.50	599269.57	451110.78	32°14'23.326"N	104°00'44.157"W	0.00	0.00	0.00	
4728.00†	14.029	259.073	4630.91	-146.46	-156.82	-812.30	599245.77	451106.19	32°14'23.281"N	104°00'44.434"W	0.00	0.00	0.00	
4828.00†	14.029	259.073	4727.92	-150.75	-161.42	-836.10	599221.97	451101.59	32°14'23.236"N	104°00'44.711"W	0.00	0.00	0.00	
4928.00†	14.029	259.073	4824.94	-155.04	-166.01	-859.91	599198.16	451097.00	32°14'23.191"N	104°00'44.988"W	0.00	0.00	0.00	
5028.00†	14.029	259.073	4921.96	-159.34	-170.61	-883.71	599174.36	451092.40	32°14'23.147"N	104°00'45.266"W	0.00	0.00	0.00	
5128.00†	14.029	259.073	5018.98	-163.63	-175.20	-907.51	599150.56	451087.81	32°14'23.102"N	104°00'45.543"W	0.00	0.00	0.00	
5228.00†	14.029	259.073	5115.99	-167.92	-179.80	-931.31	599126.76	451083.21	32°14'23.057"N	104°00'45.820"W	0.00	0.00	0.00	
5328.00†	14.029	259.073	5213.01	-172.21	-184.39	-955.11	599102.96	451078.62	32°14'23.012"N	104°00'46.098"W	0.00	0.00	0.00	
5428.00†	14.029	259.073	5310.03	-176.50	-188.99	-978.92	599079.16	451074.03	32°14'22.968"N	104°00'46.375"W	0.00	0.00	0.00	
5528.00†	14.029	259.073	5407.04	-180.79	-193.59	-1002.72	599055.36	451069.43	32°14'22.923"N	104°00'46.652"W	0.00	0.00	0.00	
5628.00†	14.029	259.073	5504.06	-185.09	-198.18	-1026.52	599031.56	451064.84	32°14'22.878"N	104°00'46.929"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
5728.00†	14.029	259.073	5601.08	-189.38	-202.78	-1050.32	599007.76	451060.24	32°14'22.833"N	104°00'47.207"W	0.00	0.00	0.00	
5828.00†	14.029	259.073	5698.10	-193.67	-207.37	-1074.13	598983.96	451055.65	32°14'22.788"N	104°00'47.484"W	0.00	0.00	0.00	
5922.76	14.029	259.073	5790.03	-197.74	-211.73	-1096.68	598961.41	451051.29	32°14'22.746"N	104°00'47.747"W	0.00	0.00	0.00	End of Tangent
5928.00†	13.951	259.073	5795.11	-197.96	-211.97	-1097.92	598960.17	451051.05	32°14'22.744"N	104°00'47.761"W	1.50	-1.50	0.00	
6028.00†	12.451	259.073	5892.47	-202.00	-216.29	-1120.35	598937.75	451046.72	32°14'22.702"N	104°00'48.022"W	1.50	-1.50	0.00	
6128.00†	10.951	259.073	5990.39	-205.59	-220.14	-1140.26	598917.84	451042.88	32°14'22.664"N	104°00'48.254"W	1.50	-1.50	0.00	
6228.00†	9.451	259.073	6088.80	-208.73	-223.50	-1157.65	598900.45	451039.52	32°14'22.631"N	104°00'48.457"W	1.50	-1.50	0.00	
6328.00†	7.951	259.073	6187.65	-211.41	-226.36	-1172.50	598885.60	451036.66	32°14'22.603"N	104°00'48.630"W	1.50	-1.50	0.00	
6428.00†	6.451	259.073	6286.86	-213.63	-228.74	-1184.81	598873.29	451034.28	32°14'22.580"N	104°00'48.773"W	1.50	-1.50	0.00	
6528.00†	4.951	259.073	6386.36	-215.38	-230.62	-1194.56	598863.54	451032.40	32°14'22.562"N	104°00'48.887"W	1.50	-1.50	0.00	
6628.00†	3.451	259.073	6486.09	-216.68	-232.01	-1201.75	598856.35	451031.01	32°14'22.548"N	104°00'48.971"W	1.50	-1.50	0.00	
6728.00†	1.951	259.073	6585.98	-217.51	-232.90	-1206.38	598851.72	451030.12	32°14'22.540"N	104°00'49.024"W	1.50	-1.50	0.00	
6828.00†	0.451	259.073	6685.95	-217.89	-233.30	-1208.43	598849.66	451029.72	32°14'22.536"N	104°00'49.048"W	1.50	-1.50	0.00	
6858.05	0.000	359.271	6716.00	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	1.50	-1.50	335.88	End of Drop
6928.00†	0.000	359.271	6785.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7028.00†	0.000	359.271	6885.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7128.00†	0.000	359.271	6985.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7228.00†	0.000	359.271	7085.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7328.00†	0.000	359.271	7185.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7428.00†	0.000	359.271	7285.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7528.00†	0.000	359.271	7385.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7628.00†	0.000	359.271	7485.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7728.00†	0.000	359.271	7585.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7828.00†	0.000	359.271	7685.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
7928.00†	0.000	359.271	7785.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8028.00†	0.000	359.271	7885.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8128.00†	0.000	359.271	7985.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8228.00†	0.000	359.271	8085.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8328.00†	0.000	359.271	8185.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8428.00†	0.000	359.271	8285.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

## WELLPATH DATA (211 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8528.00†	0.000	359.271	8385.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8628.00†	0.000	359.271	8485.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8728.00†	0.000	359.271	8585.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8828.00†	0.000	359.271	8685.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
8928.00†	0.000	359.271	8785.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9028.00†	0.000	359.271	8885.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9128.00†	0.000	359.271	8985.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9228.00†	0.000	359.271	9085.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9328.00†	0.000	359.271	9185.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9428.00†	0.000	359.271	9285.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9528.00†	0.000	359.271	9385.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9628.00†	0.000	359.271	9485.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9728.00†	0.000	359.271	9585.95	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	
9743.09	0.000	359.271	9601.04	-217.91	-233.32	-1208.55	598849.55	451029.70	32°14'22.536"N	104°00'49.050"W	0.00	0.00	0.00	End of Tangent
9828.00†	8.491	359.271	9685.64	-211.63	-227.04	-1208.63	598849.47	451035.97	32°14'22.598"N	104°00'49.051"W	10.00	10.00	-0.86	
9928.00†	18.491	359.271	9782.76	-188.33	-203.75	-1208.93	598849.17	451059.27	32°14'22.828"N	104°00'49.053"W	10.00	10.00	0.00	
10028.00†	28.491	359.271	9874.35	-148.52	-163.94	-1209.43	598848.67	451099.07	32°14'23.222"N	104°00'49.058"W	10.00	10.00	0.00	
10128.00†	38.491	359.271	9957.65	-93.41	-108.83	-1210.13	598847.96	451154.18	32°14'23.768"N	104°00'49.064"W	10.00	10.00	0.00	
10228.00†	48.491	359.271	10030.10	-24.67	-40.10	-1211.01	598847.09	451222.90	32°14'24.448"N	104°00'49.072"W	10.00	10.00	0.00	
10328.00†	58.491	359.271	10089.52	55.60	40.17	-1212.03	598846.07	451303.16	32°14'25.242"N	104°00'49.081"W	10.00	10.00	0.00	
10428.00†	68.491	359.271	10134.10	144.98	129.53	-1213.17	598844.93	451392.52	32°14'26.126"N	104°00'49.091"W	10.00	10.00	0.00	
10528.00†	78.491	359.271	10162.48	240.73	225.28	-1214.39	598843.71	451488.26	32°14'27.074"N	104°00'49.102"W	10.00	10.00	0.00	
10628.00†	88.491	359.271	10173.80	339.96	324.50	-1215.65	598842.45	451587.47	32°14'28.056"N	104°00'49.113"W	10.00	10.00	0.00	
10643.09	90.000	359.271	10174.00	355.05	339.59	-1215.84	598842.26	451602.56	32°14'28.205"N	104°00'49.115"W	10.00	10.00	0.00	End of Build
10728.00†	90.000	359.271	10174.00	439.96	424.49	-1216.92	598841.18	451687.46	32°14'29.045"N	104°00'49.124"W	0.00	0.00	0.00	
10828.00†	90.000	359.271	10174.00	539.96	524.48	-1218.19	598839.91	451787.44	32°14'30.035"N	104°00'49.136"W	0.00	0.00	0.00	
10928.00†	90.000	359.271	10174.00	639.96	624.47	-1219.46	598838.63	451887.42	32°14'31.024"N	104°00'49.147"W	0.00	0.00	0.00	
11028.00†	90.000	359.271	10174.00	739.96	724.47	-1220.74	598837.36	451987.41	32°14'32.014"N	104°00'49.158"W	0.00	0.00	0.00	
11128.00†	90.000	359.271	10174.00	839.96	824.46	-1222.01	598836.09	452087.39	32°14'33.003"N	104°00'49.170"W	0.00	0.00	0.00	
11228.00†	90.000	359.271	10174.00	939.96	924.45	-1223.28	598834.82	452187.37	32°14'33.993"N	104°00'49.181"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
11328.00†	90.000	359.271	10174.00	1039.96	1024.44	-1224.55	598833.55	452287.36	32°14'34.982"N	104°00'49.193"W	0.00	0.00	0.00	
11428.00†	90.000	359.271	10174.00	1139.96	1124.43	-1225.83	598832.27	452387.34	32°14'35.972"N	104°00'49.204"W	0.00	0.00	0.00	
11528.00†	90.000	359.271	10174.00	1239.96	1224.43	-1227.10	598831.00	452487.33	32°14'36.961"N	104°00'49.215"W	0.00	0.00	0.00	
11628.00†	90.000	359.271	10174.00	1339.96	1324.42	-1228.37	598829.73	452587.31	32°14'37.951"N	104°00'49.227"W	0.00	0.00	0.00	
11728.00†	90.000	359.271	10174.00	1439.96	1424.41	-1229.64	598828.46	452687.29	32°14'38.940"N	104°00'49.238"W	0.00	0.00	0.00	
11828.00†	90.000	359.271	10174.00	1539.96	1524.40	-1230.92	598827.18	452787.28	32°14'39.930"N	104°00'49.249"W	0.00	0.00	0.00	
11928.00†	90.000	359.271	10174.00	1639.96	1624.39	-1232.19	598825.91	452887.26	32°14'40.919"N	104°00'49.261"W	0.00	0.00	0.00	
12028.00†	90.000	359.271	10174.00	1739.96	1724.39	-1233.46	598824.64	452987.24	32°14'41.909"N	104°00'49.272"W	0.00	0.00	0.00	
12128.00†	90.000	359.271	10174.00	1839.96	1824.38	-1234.73	598823.37	453087.23	32°14'42.898"N	104°00'49.283"W	0.00	0.00	0.00	
12228.00†	90.000	359.271	10174.00	1939.96	1924.37	-1236.00	598822.10	453187.21	32°14'43.888"N	104°00'49.295"W	0.00	0.00	0.00	
12328.00†	90.000	359.271	10174.00	2039.96	2024.36	-1237.28	598820.82	453287.20	32°14'44.877"N	104°00'49.306"W	0.00	0.00	0.00	
12428.00†	90.000	359.271	10174.00	2139.96	2124.35	-1238.55	598819.55	453387.18	32°14'45.867"N	104°00'49.317"W	0.00	0.00	0.00	
12528.00†	90.000	359.271	10174.00	2239.96	2224.34	-1239.82	598818.28	453487.16	32°14'46.856"N	104°00'49.329"W	0.00	0.00	0.00	
12628.00†	90.000	359.271	10174.00	2339.96	2324.34	-1241.09	598817.01	453587.15	32°14'47.846"N	104°00'49.340"W	0.00	0.00	0.00	
12728.00†	90.000	359.271	10174.00	2439.96	2424.33	-1242.37	598815.73	453687.13	32°14'48.835"N	104°00'49.351"W	0.00	0.00	0.00	
12828.00†	90.000	359.271	10174.00	2539.96	2524.32	-1243.64	598814.46	453787.11	32°14'49.825"N	104°00'49.363"W	0.00	0.00	0.00	
12928.00†	90.000	359.271	10174.00	2639.96	2624.31	-1244.91	598813.19	453887.10	32°14'50.814"N	104°00'49.374"W	0.00	0.00	0.00	
13028.00†	90.000	359.271	10174.00	2739.96	2724.30	-1246.18	598811.92	453987.08	32°14'51.804"N	104°00'49.385"W	0.00	0.00	0.00	
13128.00†	90.000	359.271	10174.00	2839.96	2824.30	-1247.46	598810.65	454087.07	32°14'52.793"N	104°00'49.397"W	0.00	0.00	0.00	
13228.00†	90.000	359.271	10174.00	2939.96	2924.29	-1248.73	598809.37	454187.05	32°14'53.783"N	104°00'49.408"W	0.00	0.00	0.00	
13328.00†	90.000	359.271	10174.00	3039.96	3024.28	-1250.00	598808.10	454287.03	32°14'54.772"N	104°00'49.420"W	0.00	0.00	0.00	
13428.00†	90.000	359.271	10174.00	3139.96	3124.27	-1251.27	598806.83	454387.02	32°14'55.762"N	104°00'49.431"W	0.00	0.00	0.00	
13528.00†	90.000	359.271	10174.00	3239.96	3224.26	-1252.54	598805.56	454487.00	32°14'56.751"N	104°00'49.442"W	0.00	0.00	0.00	
13628.00†	90.000	359.271	10174.00	3339.96	3324.26	-1253.82	598804.28	454586.99	32°14'57.741"N	104°00'49.454"W	0.00	0.00	0.00	
13728.00†	90.000	359.271	10174.00	3439.96	3424.25	-1255.09	598803.01	454686.97	32°14'58.730"N	104°00'49.465"W	0.00	0.00	0.00	
13828.00†	90.000	359.271	10174.00	3539.96	3524.24	-1256.36	598801.74	454786.95	32°14'59.720"N	104°00'49.476"W	0.00	0.00	0.00	
13928.00†	90.000	359.271	10174.00	3639.96	3624.23	-1257.63	598800.47	454886.94	32°15'00.709"N	104°00'49.488"W	0.00	0.00	0.00	
14028.00†	90.000	359.271	10174.00	3739.96	3724.22	-1258.91	598799.20	454986.92	32°15'01.699"N	104°00'49.499"W	0.00	0.00	0.00	
14128.00†	90.000	359.271	10174.00	3839.96	3824.22	-1260.18	598797.92	455086.90	32°15'02.688"N	104°00'49.510"W	0.00	0.00	0.00	
14228.00†	90.000	359.271	10174.00	3939.96	3924.21	-1261.45	598796.65	455186.89	32°15'03.678"N	104°00'49.522"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

## WELLPATH DATA (211 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14328.00†	90.000	359.271	10174.00	4039.96	4024.20	-1262.72	598795.38	455286.87	32°15'04.667"N	104°00'49.533"W	0.00	0.00	0.00	
14428.00†	90.000	359.271	10174.00	4139.96	4124.19	-1264.00	598794.11	455386.86	32°15'05.657"N	104°00'49.544"W	0.00	0.00	0.00	
14528.00†	90.000	359.271	10174.00	4239.96	4224.18	-1265.27	598792.84	455486.84	32°15'06.646"N	104°00'49.556"W	0.00	0.00	0.00	
14628.00†	90.000	359.271	10174.00	4339.96	4324.17	-1266.54	598791.56	455586.82	32°15'07.636"N	104°00'49.567"W	0.00	0.00	0.00	
14728.00†	90.000	359.271	10174.00	4439.96	4424.17	-1267.81	598790.29	455686.81	32°15'08.625"N	104°00'49.578"W	0.00	0.00	0.00	
14828.00†	90.000	359.271	10174.00	4539.96	4524.16	-1269.08	598789.02	455786.79	32°15'09.615"N	104°00'49.590"W	0.00	0.00	0.00	
14928.00†	90.000	359.271	10174.00	4639.96	4624.15	-1270.36	598787.75	455886.77	32°15'10.604"N	104°00'49.601"W	0.00	0.00	0.00	
15028.00†	90.000	359.271	10174.00	4739.96	4724.14	-1271.63	598786.47	455986.76	32°15'11.594"N	104°00'49.612"W	0.00	0.00	0.00	
15128.00†	90.000	359.271	10174.00	4839.96	4824.13	-1272.90	598785.20	456086.74	32°15'12.583"N	104°00'49.624"W	0.00	0.00	0.00	
15228.00†	90.000	359.271	10174.00	4939.96	4924.13	-1274.17	598783.93	456186.73	32°15'13.573"N	104°00'49.635"W	0.00	0.00	0.00	
15328.00†	90.000	359.271	10174.00	5039.96	5024.12	-1275.45	598782.66	456286.71	32°15'14.562"N	104°00'49.646"W	0.00	0.00	0.00	
15428.00†	90.000	359.271	10174.00	5139.96	5124.11	-1276.72	598781.39	456386.69	32°15'15.552"N	104°00'49.658"W	0.00	0.00	0.00	
15528.00†	90.000	359.271	10174.00	5239.96	5224.10	-1277.99	598780.11	456486.68	32°15'16.541"N	104°00'49.669"W	0.00	0.00	0.00	
15628.00†	90.000	359.271	10174.00	5339.96	5324.09	-1279.26	598778.84	456586.66	32°15'17.531"N	104°00'49.681"W	0.00	0.00	0.00	
15728.00†	90.000	359.271	10174.00	5439.96	5424.09	-1280.54	598777.57	456686.64	32°15'18.520"N	104°00'49.692"W	0.00	0.00	0.00	
15828.00†	90.000	359.271	10174.00	5539.96	5524.08	-1281.81	598776.30	456786.63	32°15'19.510"N	104°00'49.703"W	0.00	0.00	0.00	
15928.00†	90.000	359.271	10174.00	5639.96	5624.07	-1283.08	598775.02	456886.61	32°15'20.499"N	104°00'49.715"W	0.00	0.00	0.00	
16028.00†	90.000	359.271	10174.00	5739.96	5724.06	-1284.35	598773.75	456986.60	32°15'21.488"N	104°00'49.726"W	0.00	0.00	0.00	
16128.00†	90.000	359.271	10174.00	5839.96	5824.05	-1285.62	598772.48	457086.58	32°15'22.478"N	104°00'49.737"W	0.00	0.00	0.00	
16228.00†	90.000	359.271	10174.00	5939.96	5924.05	-1286.90	598771.21	457186.56	32°15'23.467"N	104°00'49.749"W	0.00	0.00	0.00	
16328.00†	90.000	359.271	10174.00	6039.96	6024.04	-1288.17	598769.94	457286.55	32°15'24.457"N	104°00'49.760"W	0.00	0.00	0.00	
16428.00†	90.000	359.271	10174.00	6139.96	6124.03	-1289.44	598768.66	457386.53	32°15'25.446"N	104°00'49.771"W	0.00	0.00	0.00	
16528.00†	90.000	359.271	10174.00	6239.96	6224.02	-1290.71	598767.39	457486.51	32°15'26.436"N	104°00'49.783"W	0.00	0.00	0.00	
16628.00†	90.000	359.271	10174.00	6339.96	6324.01	-1291.99	598766.12	457586.50	32°15'27.425"N	104°00'49.794"W	0.00	0.00	0.00	
16728.00†	90.000	359.271	10174.00	6439.96	6424.00	-1293.26	598764.85	457686.48	32°15'28.415"N	104°00'49.805"W	0.00	0.00	0.00	
16828.00†	90.000	359.271	10174.00	6539.96	6524.00	-1294.53	598763.57	457786.47	32°15'29.404"N	104°00'49.817"W	0.00	0.00	0.00	
16928.00†	90.000	359.271	10174.00	6639.96	6623.99	-1295.80	598762.30	457886.45	32°15'30.394"N	104°00'49.828"W	0.00	0.00	0.00	
17028.00†	90.000	359.271	10174.00	6739.96	6723.98	-1297.08	598761.03	457986.43	32°15'31.383"N	104°00'49.839"W	0.00	0.00	0.00	
17128.00†	90.000	359.271	10174.00	6839.96	6823.97	-1298.35	598759.76	458086.42	32°15'32.373"N	104°00'49.851"W	0.00	0.00	0.00	
17228.00†	90.000	359.271	10174.00	6939.96	6923.96	-1299.62	598758.49	458186.40	32°15'33.362"N	104°00'49.862"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

WELLPATH DATA (211 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17328.00†	90.000	359.271	10174.00	7039.96	7023.96	-1300.89	598757.21	458286.38	32°15'34.352"N	104°00'49.873"W	0.00	0.00	0.00	
17428.00†	90.000	359.271	10174.00	7139.96	7123.95	-1302.17	598755.94	458386.37	32°15'35.341"N	104°00'49.885"W	0.00	0.00	0.00	
17528.00†	90.000	359.271	10174.00	7239.96	7223.94	-1303.44	598754.67	458486.35	32°15'36.331"N	104°00'49.896"W	0.00	0.00	0.00	
17628.00†	90.000	359.271	10174.00	7339.96	7323.93	-1304.71	598753.40	458586.34	32°15'37.320"N	104°00'49.908"W	0.00	0.00	0.00	
17728.00†	90.000	359.271	10174.00	7439.96	7423.92	-1305.98	598752.12	458686.32	32°15'38.310"N	104°00'49.919"W	0.00	0.00	0.00	
17828.00†	90.000	359.271	10174.00	7539.96	7523.92	-1307.25	598750.85	458786.30	32°15'39.299"N	104°00'49.930"W	0.00	0.00	0.00	
17928.00†	90.000	359.271	10174.00	7639.96	7623.91	-1308.53	598749.58	458886.29	32°15'40.289"N	104°00'49.942"W	0.00	0.00	0.00	
18028.00†	90.000	359.271	10174.00	7739.96	7723.90	-1309.80	598748.31	458986.27	32°15'41.278"N	104°00'49.953"W	0.00	0.00	0.00	
18128.00†	90.000	359.271	10174.00	7839.96	7823.89	-1311.07	598747.04	459086.25	32°15'42.268"N	104°00'49.964"W	0.00	0.00	0.00	
18228.00†	90.000	359.271	10174.00	7939.96	7923.88	-1312.34	598745.76	459186.24	32°15'43.257"N	104°00'49.976"W	0.00	0.00	0.00	
18328.00†	90.000	359.271	10174.00	8039.96	8023.88	-1313.62	598744.49	459286.22	32°15'44.247"N	104°00'49.987"W	0.00	0.00	0.00	
18428.00†	90.000	359.271	10174.00	8139.96	8123.87	-1314.89	598743.22	459386.21	32°15'45.236"N	104°00'49.998"W	0.00	0.00	0.00	
18528.00†	90.000	359.271	10174.00	8239.96	8223.86	-1316.16	598741.95	459486.19	32°15'46.226"N	104°00'50.010"W	0.00	0.00	0.00	
18628.00†	90.000	359.271	10174.00	8339.96	8323.85	-1317.43	598740.67	459586.17	32°15'47.215"N	104°00'50.021"W	0.00	0.00	0.00	
18728.00†	90.000	359.271	10174.00	8439.96	8423.84	-1318.71	598739.40	459686.16	32°15'48.205"N	104°00'50.032"W	0.00	0.00	0.00	
18828.00†	90.000	359.271	10174.00	8539.96	8523.83	-1319.98	598738.13	459786.14	32°15'49.194"N	104°00'50.044"W	0.00	0.00	0.00	
18928.00†	90.000	359.271	10174.00	8639.96	8623.83	-1321.25	598736.86	459886.12	32°15'50.184"N	104°00'50.055"W	0.00	0.00	0.00	
19028.00†	90.000	359.271	10174.00	8739.96	8723.82	-1322.52	598735.59	459986.11	32°15'51.173"N	104°00'50.066"W	0.00	0.00	0.00	
19128.00†	90.000	359.271	10174.00	8839.96	8823.81	-1323.79	598734.31	460086.09	32°15'52.163"N	104°00'50.078"W	0.00	0.00	0.00	
19228.00†	90.000	359.271	10174.00	8939.96	8923.80	-1325.07	598733.04	460186.08	32°15'53.152"N	104°00'50.089"W	0.00	0.00	0.00	
19328.00†	90.000	359.271	10174.00	9039.96	9023.79	-1326.34	598731.77	460286.06	32°15'54.142"N	104°00'50.101"W	0.00	0.00	0.00	
19428.00†	90.000	359.271	10174.00	9139.96	9123.79	-1327.61	598730.50	460386.04	32°15'55.131"N	104°00'50.112"W	0.00	0.00	0.00	
19528.00†	90.000	359.271	10174.00	9239.96	9223.78	-1328.88	598729.22	460486.03	32°15'56.121"N	104°00'50.123"W	0.00	0.00	0.00	
19628.00†	90.000	359.271	10174.00	9339.96	9323.77	-1330.16	598727.95	460586.01	32°15'57.110"N	104°00'50.135"W	0.00	0.00	0.00	
19728.00†	90.000	359.271	10174.00	9439.96	9423.76	-1331.43	598726.68	460685.99	32°15'58.100"N	104°00'50.146"W	0.00	0.00	0.00	
19828.00†	90.000	359.271	10174.00	9539.96	9523.75	-1332.70	598725.41	460785.98	32°15'59.089"N	104°00'50.157"W	0.00	0.00	0.00	
19928.00†	90.000	359.271	10174.00	9639.96	9623.75	-1333.97	598724.14	460885.96	32°16'00.079"N	104°00'50.169"W	0.00	0.00	0.00	
20028.00†	90.000	359.271	10174.00	9739.96	9723.74	-1335.25	598722.86	460985.95	32°16'01.068"N	104°00'50.180"W	0.00	0.00	0.00	
20128.00†	90.000	359.271	10174.00	9839.96	9823.73	-1336.52	598721.59	461085.93	32°16'02.058"N	104°00'50.191"W	0.00	0.00	0.00	
20228.00†	90.000	359.271	10174.00	9939.96	9923.72	-1337.79	598720.32	461185.91	32°16'03.047"N	104°00'50.203"W	0.00	0.00	0.00	



# Planned Wellpath Report

CB SE 5 32 FED COM 3 1H Prelim 1

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	CB SE 5 32 FED COM 3 1H
Area	Eddy County, NM	Well	CB SE 5 32 FED COM 3 1H
Field	Hayhurst South(Eddy Co., NM) Nad 27	Wellbore	CB SE 5 32 FED COM 3 1H
Facility	CB Pad 3		

## WELLPATH DATA (211 stations)

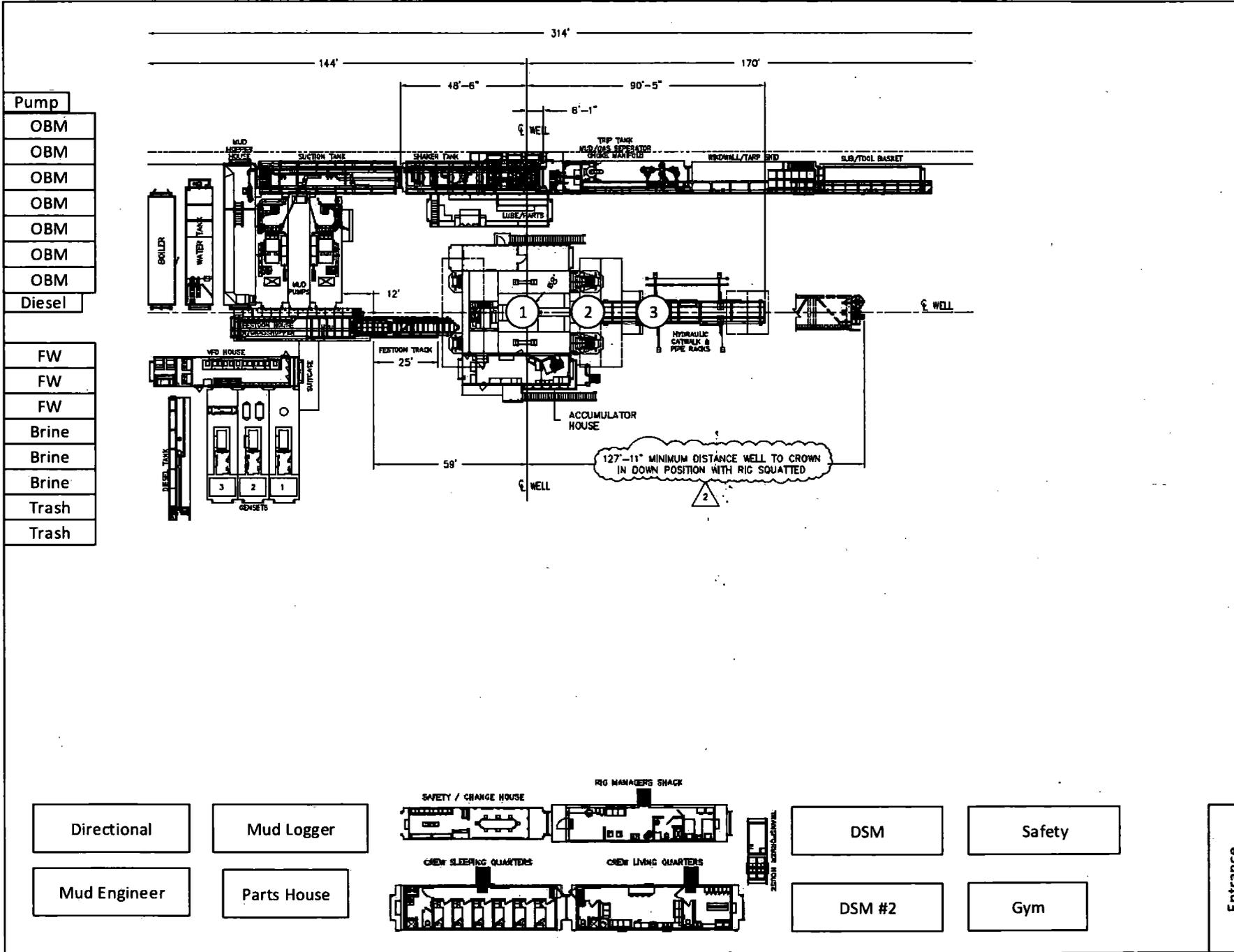
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
20253.09	90.000	359.271	10174.00 <sup>1</sup>	9965.05	9948.81	-1338.11	598720.00	461211.00	32°16'03.296"N	104°00'50.206"W	0.00	0.00	0.00	End of Tangent

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
CB SE 5 32 FED COM 3 1H FTP		10174.00	42.00	-1212.10	598846.00	451305.00	32°14'25.260"N	104°00'49.082"W	point
CB SE 5 32 FED COM 3 1H LTP		10174.00	9948.81	-1338.11	598720.00	461211.00	32°16'03.296"N	104°00'50.206"W	point
1) CB SE 5 32 FED COM 3 1H PBHL	20253.09	10174.00	9948.81	-1338.11	598720.00	461211.00	32°16'03.296"N	104°00'50.206"W	point

## SURVEY PROGRAM - Ref Wellbore: CB SE 5 32 FED COM 3 1H Ref Wellpath: CB SE 5 32 FED COM 3 1H Prelim 1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.00	20262.81	BHI NaviTrak (Standard)		CB SE 5 32 FED COM 3 1H



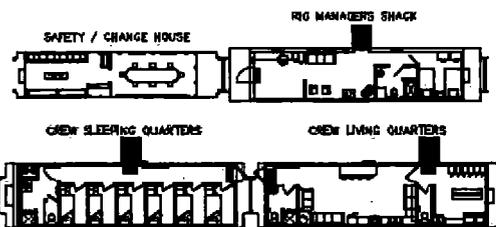
- Pump
- OBM
- OBM
- OBM
- OBM
- OBM
- OBM
- Diesel
- FW
- FW
- FW
- Brine
- Brine
- Brine
- Trash
- Trash

Directional

Mud Logger

Mud Engineer

Parts House



DSM

Safety

DSM #2

Gym

Entrance

APD ID: 10400025468

Submission Date: 12/12/2017

Highlighted data  
reflects the most  
recent changes

Operator Name: CHEVRON USA INCORPORATED

Well Name: CB SE 5 32 FED COM 3

Well Number: 3H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CB\_SE\_5\_32\_FED\_COM\_\_003\_3H\_Road\_Plat\_20171211124530.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

### ROW ID(s)

ID:

Do the existing roads need to be improved? YES

**Existing Road Improvement Description:** The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

**Existing Road Improvement Attachment:**

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

CB\_SE\_5\_32\_FED\_COM\_\_003\_3H\_New\_Roads\_20171211124735.pdf

New road type: LOCAL

Length: 1787

Feet

Width (ft.): 20

Max slope (%): 2

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

**New road access erosion control:** Erosion/Drainage: Drainage control system shall be constructed on the entire length of road by the use of any of the following: ditching and will be graveled as needed for drilling, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossing, culverts, and water bars where needed: straw wattles will be used on the down-slope side of new roads where undisturbed grades away from the roadway are 5% or greater.

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

**New road access plan or profile prepared?** NO

**New road access plan attachment:**

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Access surfacing type:** NONE

**Access topsoil source:** ONSITE

**Access surfacing type description:**

**Access onsite topsoil source depth:** 0

**Offsite topsoil source description:**

**Onsite topsoil removal process:** None needed

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### Drainage Control

**New road drainage crossing:** CULVERT,OTHER

**Drainage Control comments:** Sediment traps (hay bales suggested by BLM) we don't use every time but keep handy.

**Road Drainage Control Structures (DCS) description:** Ditching will be constructed on both sides of road.

**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

**Additional Attachment(s):**

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES

**Attach Well map:**

CB\_SE\_5\_\_32\_FED\_COM\_3\_3H\_Radius\_Map\_20171211125403.pdf

**Existing Wells description:**

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

**Submit or defer a Proposed Production Facilities plan?** DEFER

**Estimated Production Facilities description:** New facilities will be constructed; the location of which are pending and will be submitted at a future date. • Pipelines: Buried pipelines will be laid from well to facility to new production facility. - A ROW will be applied for through the BLM (if necessary). - All construction activity will be confined to the approved ROW. - Pipeline will run parallel to the road and will stay within approved ROW.

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source use type:** INTERMEDIATE/PRODUCTION CASING,  
SURFACE CASING

**Water source type:** GW WELL

**Describe type:**

**Source latitude:**

**Source longitude:**

**Source datum:** NAD83

**Water source permit type:** PRIVATE CONTRACT

**Source land ownership:** FEDERAL

**Water source transport method:** PIPELINE,TRUCKING

**Source transportation land ownership:** FEDERAL

**Water source volume (barrels):** 700000

**Source volume (acre-feet):** 90.22517

**Source volume (gal):** 29400000

**Water source and transportation map:**

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_Detail\_20171211130232.pdf

**Water source comments:** • Fresh water will be obtained from a private water source (Currently Breakwater) the specific location of which to be provided before use. • A temporary 10" expanding pipe transfer line will run from pond along existing disturbance to well pad. • Fresh water line will run parallel to existing disturbance and will stay within 10' of access road. • A BLM ROW will be applied for through the BLM.

**New water well?** NO

### New Water Well Info

**Well latitude:**

**Well Longitude:**

**Well datum:**

**Well target aquifer:**

**Est. depth to top of aquifer(ft):**

**Est thickness of aquifer:**

**Aquifer comments:**

**Aquifer documentation:**

**Well depth (ft):**

**Well casing type:**

**Well casing outside diameter (in.):**

**Well casing inside diameter (in.):**

**New water well casing?**

**Used casing source:**

**Drilling method:**

**Drill material:**

**Grout material:**

**Grout depth:**

**Casing length (ft.):**

**Casing top depth (ft.):**

**Well Production type:**

**Completion Method:**

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

**Water well additional information:**

**State appropriation permit:**

**Additional information attachment:**

### Section 6 - Construction Materials

**Construction Materials description:** Caliche will be sourced from a Chevron operated NMSLO pit in S2 NW4 Section 16 T26S R27E or an alternate private pit in Section 13, T24S R27E in Eddy County, NM. Caliche will be used to construct well pad and roads. Material will be purchased from the nearest federal, state, or private permitted pit. 2 specific locations will be provided prior to APD approval. - The proposed source of construction material will be located and purchased by construction contractor. - Payment shall be made by contractor prior to any removal of federal minerals material by contacting agent at (575) 234-5972. - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.

**Construction Materials source location attachment:**

### Section 7 - Methods for Handling Waste

**Waste type:** GARBAGE

**Waste content description:** • Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal. • Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.

**Amount of waste:** 200 pounds

**Waste disposal frequency :** Daily

**Safe containment description:** • Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.

**Safe containant attachment:**

**Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** STATE

**Disposal type description:**

**Disposal location description:** State approved facility

### Reserve Pit

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?**

**Reserve pit length (ft.)** **Reserve pit width (ft.)**

**Reserve pit depth (ft.)** **Reserve pit volume (cu. yd.)**

**Is at least 50% of the reserve pit in cut?**

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

Operator Name: CHEVRON USA INCORPORATED

Well Name: CB SE 5 32 FED COM 3

Well Number: 3H

### Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

### Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

### Section 9 - Well Site Layout

Well Site Layout Diagram:

CB\_SE\_5\_32\_FED\_COM\_\_003\_3H\_Well\_Plat\_20171212142641.pdf

**Comments:** Surveyor Plat o Exterior well pad dimensions are 380' x 470'. o Interior well pad dimensions from point of entry (well head) of the easternmost well are N-120', S-260', E-230', W-240'. The length to the west includes 25' spacing for next well on multi-well pad (four wells). Total disturbance area needed for construction of well pad will be 4.1 acres. o Topsoil placement is on the west where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices. o Cut and fill: will be minimal.

### Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: CB SE 5 32 FED COM 3

Multiple Well Pad Number: 3H 2H 1H

Recontouring attachment:

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_SUP\_20171212143349.pdf

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_CUT\_FILL\_20171212143349.pdf

CB\_SE\_5\_32\_FED\_COM\_3\_3H\_IR\_Plat\_20171212143350.pdf

**Drainage/Erosion control construction:** Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

**Drainage/Erosion control reclamation:** The well pad, road, and surrounding area will be cleared of material, trash, and equipment. All surfacing material will be removed and returned to the original mineral pit or recycled to repair for build roads and well pads.

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

<b>Well pad proposed disturbance (acres):</b> 4.1	<b>Well pad interim reclamation (acres):</b> 1.68	<b>Well pad long term disturbance (acres):</b> 2.42
<b>Road proposed disturbance (acres):</b> 0.82	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 0.82
<b>Powerline proposed disturbance (acres):</b> 0.32	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 0.32
<b>Pipeline proposed disturbance (acres):</b> 0.32	<b>Pipeline interim reclamation (acres):</b> 0	<b>Pipeline long term disturbance (acres):</b> 0.32
<b>Other proposed disturbance (acres):</b> 0	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 0
<b>Total proposed disturbance:</b> 5.56	<b>Total interim reclamation:</b> 1.68	<b>Total long term disturbance:</b> 3.88

**Disturbance Comments:**

**Reconstruction method:** Reducing the pad size to 2.42 acres from the proposed size of 4.1 acres. within 30 days of well completion, the well location and surrounding areas well be cleared of, and maintained free of, all materials, trash, and equipment not required for production.

**Topsoil redistribution:** Topsoil will be evenly re-spread and aggressively re-vegetated over the entire disturbed area not needed for all-weather operations including cuts and fills.

**Soil treatment:** To seed the area, the proper BLM mixture free of noxious weeds, will be used.

**Existing Vegetation at the well pad:** mesquite, shrubs, grass

**Existing Vegetation at the well pad attachment:**

**Existing Vegetation Community at the road:** mesquite, shrubs, grass

**Existing Vegetation Community at the road attachment:**

**Existing Vegetation Community at the pipeline:** mesquite, shrubs, grass

**Existing Vegetation Community at the pipeline attachment:**

**Existing Vegetation Community at other disturbances:** mesquite, shrubs, grass

**Existing Vegetation Community at other disturbances attachment:**

**Non native seed used?** NO

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?** NO

**Seedling transplant description attachment:**

**Will seed be harvested for use in site reclamation?** NO

**Seed harvest description:**

**Seed harvest description attachment:**

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

**Seed Management**

**Seed Table**

**Seed type:**

**Seed source:**

**Seed name:**

**Source name:**

**Source address:**

**Source phone:**

**Seed cultivar:**

**Seed use location:**

**PLS pounds per acre:**

**Proposed seeding season:**

**Seed Summary**

**Total pounds/Acre:**

Seed Type	Pounds/Acre
-----------	-------------

**Seed reclamation attachment:**

**Operator Contact/Responsible Official Contact Info**

**First Name:** Kevin

**Last Name:** Dickerson

**Phone:**

**Email:** LFUH@Chevron.com

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** Treat with BLM seen mixture (BLM #2) free of noxious weeds.

**Weed treatment plan attachment:**

**Monitoring plan description:** The interim reclamation will be monitored periodically to ensure that vegetation has re-established.

**Monitoring plan attachment:**

**Success standards:** As per BLM requirements

**Pit closure description:** None

**Pit closure attachment:**

**Operator Name:** CHEVRON USA INCORPORATED

**Well Name:** CB SE 5 32 FED COM 3

**Well Number:** 3H

### Section 11 - Surface Ownership

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

### Section 12 - Other Information

**Right of Way needed?** YES

**Use APD as ROW?** YES

**ROW Type(s):** 281001 ROW - ROADS,289001 ROW- O&G Well Pad,Other

### ROW Applications

**SUPO Additional Information:** • Cultural report attached: In Progress • Participating Agreement attached: N/A • Erosion / Drainage: Drainage control system shall be constructed on the entire length of road by the use of any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings. • Exclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.

**Use a previously conducted onsite?** YES

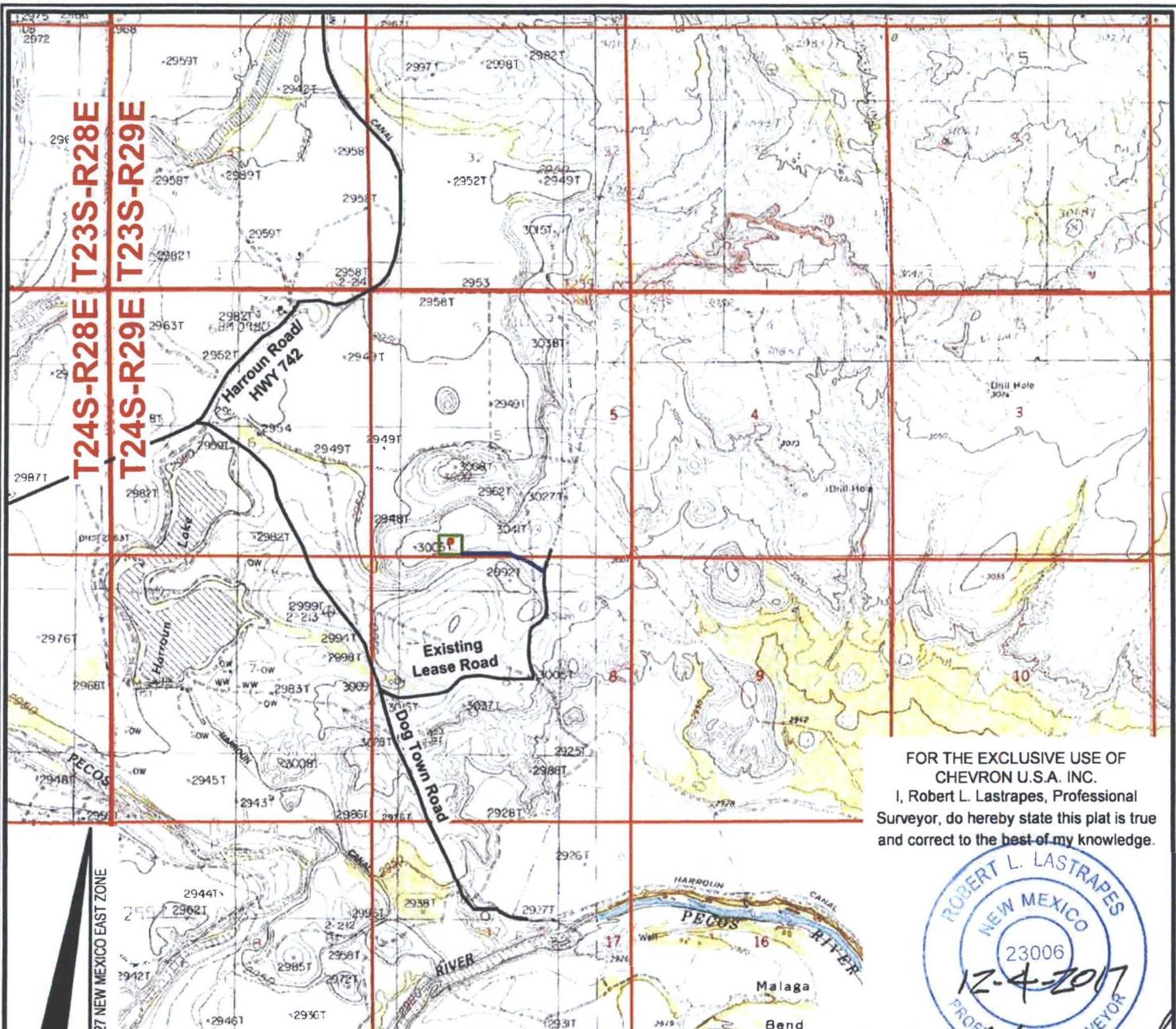
**Previous Onsite information:** On-site performed by BLM NRS: Paul Murphy on 10/13/2017

### Other SUPO Attachment

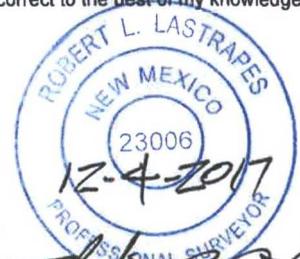
**Operator Name: CHEVRON USA INCORPORATED**

**Well Name: CB SE 5 32 FED COM 3**

**Well Number: 3H**



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*  
Robert L. Lastrapes  
Registration No. 23006

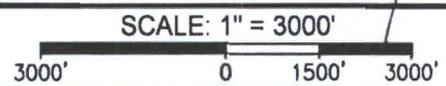
NAD 27 NEW MEXICO EAST ZONE



**DIRECTIONS TO LOCATION:**

From Harroun Road (Hwy 742), head East on Dog Town Road for approximately 1.30 miles to a Lease road on East side of Dog Town Road. Head East on said Lease road for approximately 0.60 miles to a Lease road on North side of road. Head North on said Lease road for approximately 0.50 miles to proposed access located on West side of Lease road.

**ROAD PLAT**



**LEGEND**

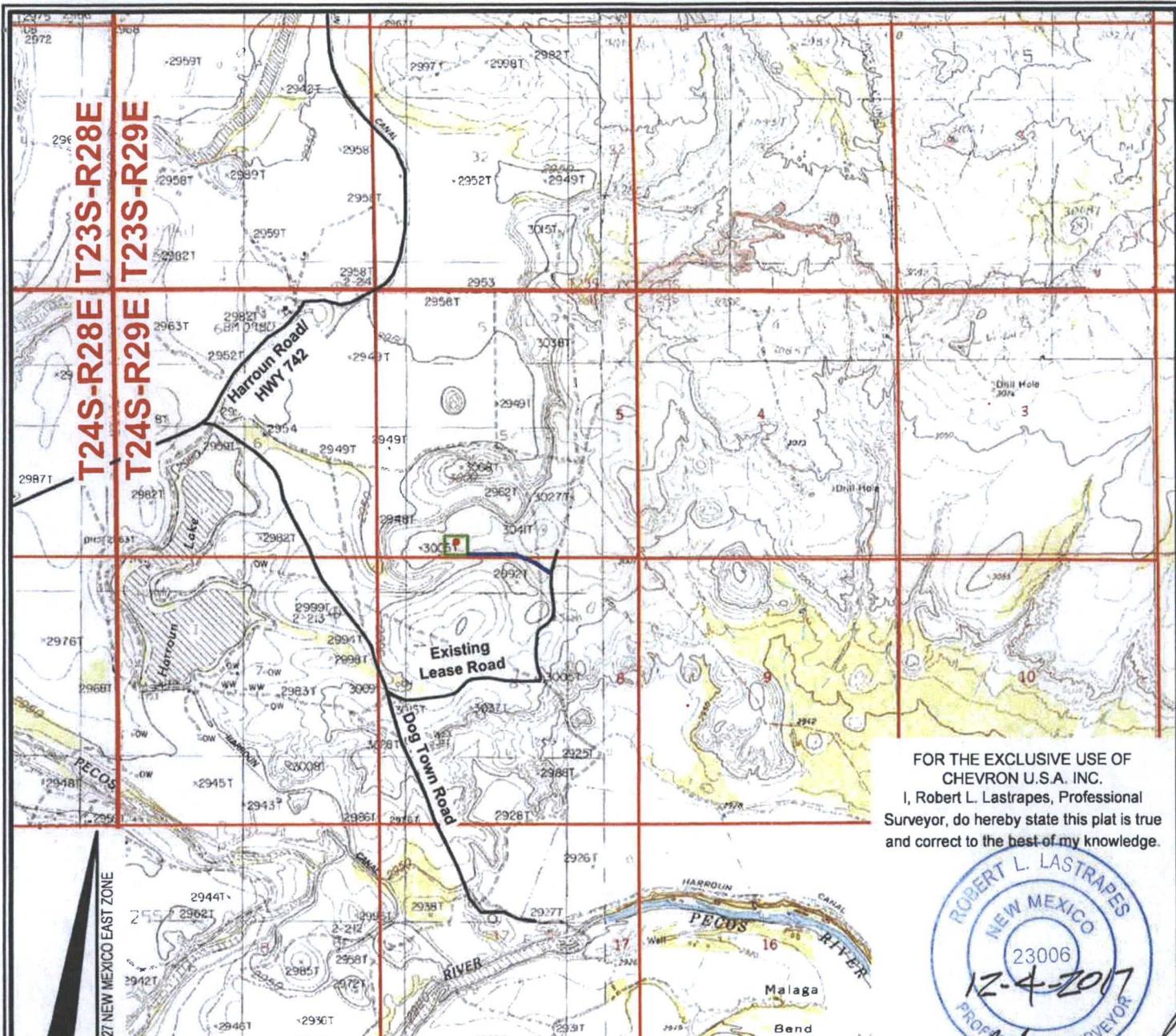
- Proposed Well
- Proposed Access Road
- Proposed Drillsite
- Existing Road
- Section Line
- Township & Range

**CHEVRON U.S.A. INC.**  
CB SE 5 32 FED COM 3 NO. 3H WELL  
LOCATED 295' FSL AND 1592' FWL  
SECTION 5, T24S-R29E  
EDDY COUNTY, NEW MEXICO



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

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PROJ. MGR.: GDG	No.	DATE:	REVISED BY:
DATE: 11/29/2017	No.	DATE:	REVISED BY:
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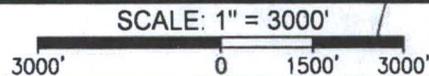
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I, Robert L. Lastrapes, Professional  
Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.



**DIRECTIONS TO LOCATION:**

From Harroun Road(Hwy742), head East on Dog Town Road for approximately 1.30 miles to a Lease road on East side of Dog Town Road. Head East on said Lease road for approximately 0.60 miles to a Lease road on North side of road. Head North on said Lease road for approximately 0.50 miles to proposed access located on West side of Lease road.

**ROAD PLAT**



**LEGEND**

- Proposed Well
- Proposed Access Road
- Proposed Drillsite
- Existing Road
- Section Line
- Township & Range

**CHEVRON U.S.A. INC.**  
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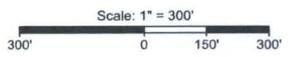
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DATE: 11/29/2017	No.	DATE:	REVISED BY:
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	ORA R HALL-FEDERAL 1	SOUTHERN CALIFORNIA PETROLEUM CORP
	YARBOROUGH-FED 1	EL CAPITAN OIL
	COCHITA `5` FEDERAL 1	MARALO LLC
	COCHITA `8` FEDERAL 2	MARALO LLC
	MALAGA `7` FEDERAL 31	MEWBOURNE OIL COMPANY
	COCHITA `5` FEDERAL 1	MARALO LLC
	COCHITI `8` FEDERAL 13	LOUIS DREYFUS NATURA
	BETTIE H REID-FEDER 3	SOUTHERN CA GAS CO
	JUNIPER BIP FEDERAL 8H	EOG Y RESOURCES INC
	BALSAM BNL FEDERAL 1H	EOG Y RESOURCES INC
30015374070000	JUNIPER BIP FEDERAL 9H	EOG Y RESOURCES INC
30015372120000	JUNIPER BIP FEDERAL 7H	YATES PETROLEUM CORP
30015377860000	CHEVRON BOT 5H	EOG Y RESOURCES INC
30015379310000	CHEVRON BOT 6H	EOG Y RESOURCES INC

3000

	CHEVRON BUY OR	TATES PETROLEUM CORP
	MALAGA-HRROUN `6` COM 1	GETTY OIL COMPANY
	HARROUN TRUST `6` F 1H	DEVON ENERGY PROD
	HARROUN TRUST `6` F 2H	DEVON ENERGY PROD
	HARROUN TRUST `6` S 1	DEVON ENERGY PROD
	CEDAR CANYON SWD 001	MESQUITE SWD INC
	HARROUN `32` STATE COM 1	TEXACO EXPL&PROD INC
	HARROUN `5` FEDERAL COM 1	TEXACO EXPL&PROD INC
	COCHITA `8` FEDERAL COM 1	MARALO INCORPORATED
	MALAGA 7-31 STATE 31	LOUIS DREYFUS NATURA
	BLACK BEAN FEDERAL COM 1	COG OPERATING LLC
000010085510000	BIG OIL FEE COM 2H	MARBOB ENERGY CORP
CB_PAD3_2H	CB_PAD3_2H	Chevron
CB_PAD3_1H	CB_PAD3_1H	Chevron
CB_PAD3_3H	CB_PAD3_3H	Chevron



LEGEND	
	FLOWLINE
	PROPOSED ACCESS ROAD
	PROPOSED PAD
	EXISTING ROW
	UTILITY LINE
	PROPERTY LINES
	SECTION LINES

DETAIL

**CHEVRON U.S.A. INC.**  
 PROPOSED PAD & ACCESS ROAD  
 CB SE 5 32 FED COM 3 NOS. 1H-3H WELLS  
 SECTIONS 5 & 8, T24S-R29E  
 EDDY COUNTY, NEW MEXICO



C. H. Fenstermaker & Associates, L.L.C.  
 135 Regency Sq. Lafayette, LA 70508  
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 www.fenstermaker.com

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DMB				
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DATE:	12/04/2017			
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R 29 E

Sec. 5

Bureau of Land Management  
Access ±1095.51', ±66.39 Rods, ±0.50 Acres

COCHITI 5 Federal  
Com. 1 (PNA)



T  
24  
S

John Draper Jr.

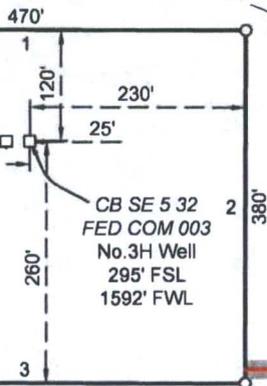
Edge of Existing Enterprise Pipeline ROW

Old Access

N 73° 12' 46" E 1,410.98'

PROPOSED PAD  
±4.10 ACRES

CENTERLINE  
PROPOSED  
ACCESS ROAD  
20' x ±1787.00'  
±108.30 Rods  
±0.82 Acres



Old Road to Cochiti 8 FED 2 (PNA)

Existing Pipeline

W/PAGE

Point of  
Commencement/  
Fnd. 1 1/2" Iron Pipe  
w/U.S. General Land  
Office Cap @ the SW  
Corner of Section 5

Existing Powerline

Existing Powerline

Sec. 8

Bureau of Land Management  
Access ±691.49', ±41.91 Rods,  
±0.32 Acres

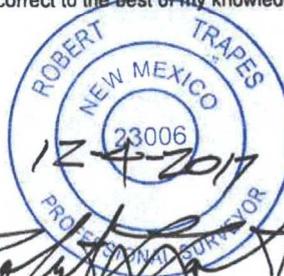
LEGEND

- Proposed Pad
- Property Line
- Section Line
- Existing Road/Pad
- Existing Powerline
- Existing Pipeline ROW
- Centerline Access
- Existing Powerpole
- Existing P&A Well
- Fnd. Monument

Scale: 1" = 200'

200' 0 100' 200'

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

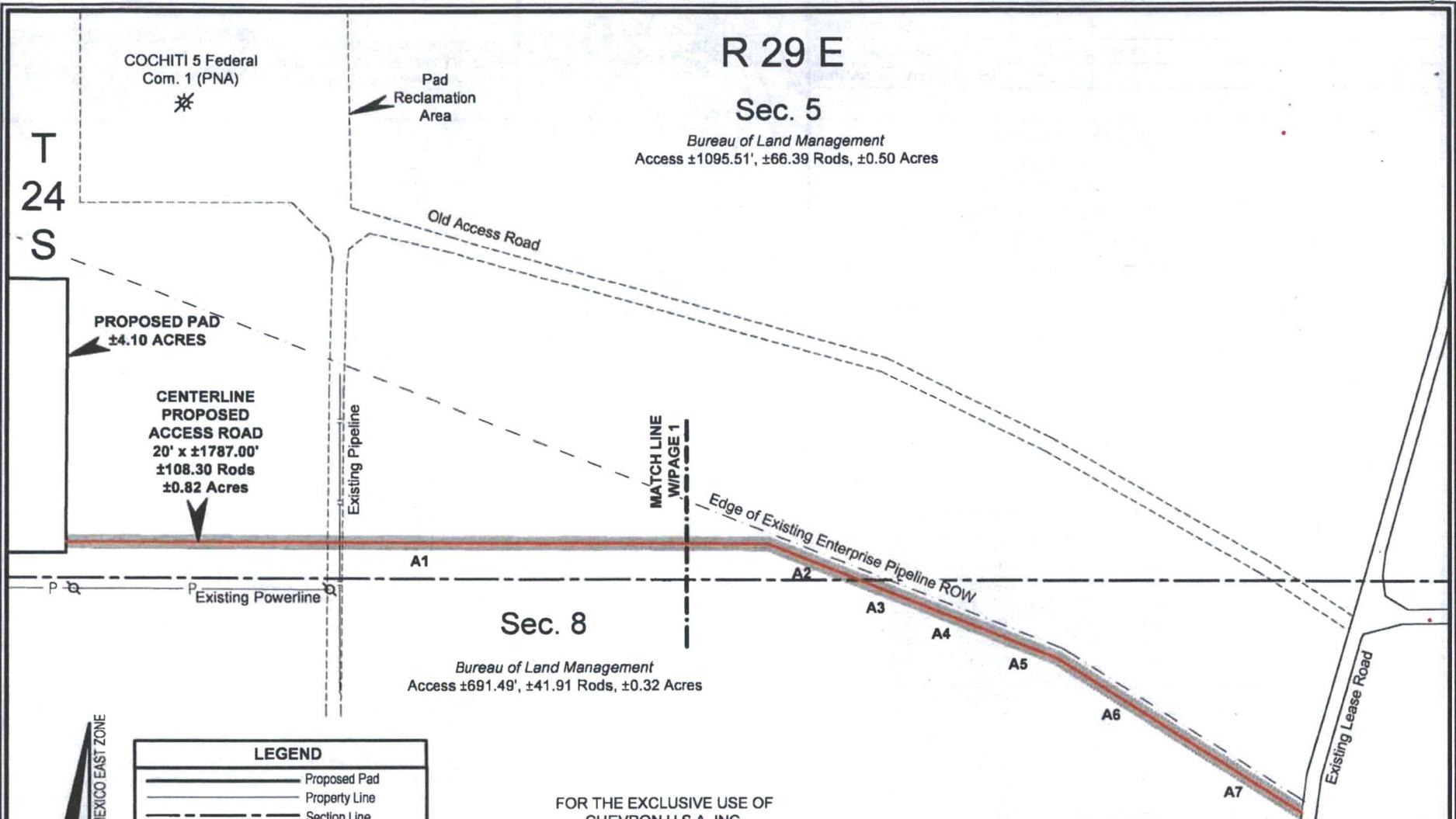
WELL PL

CHEVRON U  
PROPOSED PAD &  
CB SE 5 32 FED COM  
SECTION 5 & 8,  
EDDY COUNTY, N

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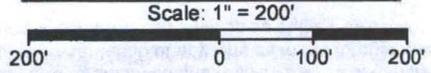


C. H. Fenstermaker & Associates, L.L.C.  
135 Regency Sq. Lafayette, LA 70508  
Ph. :  
www



**LEGEND**

	Proposed Pad
	Property Line
	Section Line
	Existing Road/Pad
	Existing Powerline
	Existing Pipeline ROW
	Centerline Access
	Existing Powerpole
	Existing P&A Well
	Fnd. Monument



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*Robert L. Lastrapes*  
Robert L. Lastrapes  
Registration No. 23006

WELL |  
**CHEVRON |**  
PROPOSED PAD &  
CB SE 5 32 FED CO  
SECTION 5 & 8  
EDDY COUNTY,

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C. H. Fenstermaker & Associates, L.L.C.  
135 Re  
Ph. 337  
www

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:**

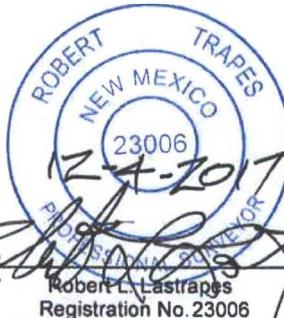
Many states maintain information centers that establish links between those who dig (excavators) and those who own and operate underground facilities (operators). It is advisable and in most states, law, for the contractor to contact the center for assistance in locating and marking underground utilities.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

PROPOSED PAD		
COURSE	BEARING	DISTANCE
1	S 89° 41' 11" E	470.00'
2	S 00° 19' 25" W	380.00'
3	N 89° 41' 11" W	470.00'
4	N 00° 19' 25" E	380.00'

CENTERLINE PROPOSED ACCESS ROAD		
COURSE	BEARING	DISTANCE
A1	S 89° 41' 08" E	959.93'
A2	S 68° 03' 41" E	135.58'
A3	S 68° 03' 41" E	64.52'
A4	S 68° 13' 24" E	130.57'
A5	S 68° 05' 18" E	97.19'
A6	S 57° 13' 22" E	200.66'
A7	S 57° 06' 31" E	198.55'

NW PAD CORNER		NE PAD	
X=	599,869 NAD 27	X=	61
Y=	451,384	Y=	4
LAT.	32.240559	LAT.	32.2
LONG.	104.010324	LONG.	104.0
X=	641,053 NAD83	X=	6
Y=	451,443	Y=	4
LAT.	32.240682	LAT.	32.2
LONG.	104.010815	LONG.	104.0
ELEVATION +3009' NAVD 88		ELEVATION +	
SW PAD CORNER		SE PAD	
X=	599,867 NAD 27	X=	61
Y=	451,004	Y=	4
LAT.	32.239515	LAT.	32.2
LONG.	104.010335	LONG.	104.0
X=	641,051 NAD83	X=	6
Y=	451,063	Y=	4
LAT.	32.239637	LAT.	32.2
LONG.	104.010825	LONG.	104.0
ELEVATION +3005' NAVD 88		ELEVATION +	

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.



WELL PLAT			
<b>CHEVRON U.S.A.</b> PROPOSED PAD & ACCESS ROAD CB SE 5 32 FED COM SECTION 5 & 8, T EDDY COUNTY, NE			
R			
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C. H. Fenstermaker & Associates, L.L.C.  
 135 Regency Sq. Lafayette, LA 70508  
 Ph. 337-237-2200 Fax. 337-232-3299

# APD Surface Use Plan of Operations

---

## Existing Roads

- The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.
- Driving Directions – From Malaga, New Mexico. The location is approximately 3 miles from the nearest town, which is Malaga, New Mexico. From the intersection of HWY 285 (Pecos Highway) and Black River Village Road (in Malaga) head north for 100 yards and veer right onto Onsurez Road (County Road 731). Follow CR 731 for .6 miles then turn right onto Bramble Road (becomes Harroun Road, or CR 745) Follow this road through a low water crossing then keep traveling until the intersection of Harroun and Dog Town Roads (3.5 miles). Once on Dog Town Road, travel 1.25 miles to the junction of a lease road. Turn left on lease road and head .6 miles to a fork in the road. Follow the road left (north) for .5 miles to an intersection and turn left. The location is  $\frac{3}{4}$  mile on the left at the end of the lease road.

## New or Reconstructed Access Roads – Survey plat

- There will be 1787' of road construction for the well pad.
- Road Width: The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 20'. The maximum width of surface disturbance shall not exceed 25'.
- Maximum Grade: 3%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.
- Turnouts: none needed

CHEVRON U.S.A. Inc  
CB SE 5 32 FED COM 3 3H  
NMNM 119754  
SECTION 5, T24S-R29E  
SHL 295' FSL & 1592' FWL

SECTION 32, T24S-R29E  
BHL 180' FNL & 2178' FWL

- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: none needed
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.
- Type of Surfacing Material: Caliche

### Location of Existing Wells

- 1-Mile radius map is attached

### Location of Existing and/or Proposed Production Facilities

- Facilities: New facilities will be constructed; the location of which are pending and will be submitted at a future date.
- Pipelines: Buried pipelines will be laid from well to facility to new production facility.
  - A ROW will be applied for through the BLM (if necessary).
  - All construction activity will be confined to the approved ROW.
  - Pipeline will run parallel to the road and will stay within approved ROW.

### Location and Types of Water Supply

- Fresh water will be obtained from a private water source (Currently Breakwater) the specific location of which to be provided before use.
- A temporary 10" expanding pipe transfer line will run from pond along existing disturbance to well pad.
  - Fresh water line will run parallel to existing disturbance and will stay within 10' of access road.
  - A BLM ROW will be applied for through the BLM.

### Construction Material

- Caliche will be used to construct well pad and roads. Material will be purchased from the nearest federal, state, or private permitted pit. 2 specific locations will be provided prior to APD approval.
- The proposed source of construction material will be located and purchased by construction contractor.
  - Payment shall be made by contractor prior to any removal of federal minerals material by contacting agent at (575) 234-5972.
  - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.

## Methods for Handling Waste

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

## Ancillary Facilities

A compressor station will be constructed adjacent to the new Facilities and detail will be provided at a future date.

## Well Site Layout

- Surveyor Plat
  - Exterior well pad dimensions are 380' x 470'.
  - Interior well pad dimensions from point of entry (well head) of the easternmost well are N-120', S-260', E-230', W-240'. The length to the west includes 25' spacing for next well on multi-well pad (four wells). Total disturbance area needed for construction of well pad will be 4.1 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.

## Plans for Surface Reclamation

### Reclamation Objectives

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition

similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

- The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
- If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.
- Reclamation will be performed by using the following procedures:

#### **Interim Reclamation Procedures**

- Within 6 months, Chevron will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim reclamation include reducing the pad size to **approximately 1.2 acres from the proposed size of 4 acres**. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production. A plan will be submitted showing where interim reclamation will be completed in order to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book".
- In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM #2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation

CHEVRON U.S.A. Inc  
CB SE 5 32 FED COM 3 3H  
NMNM 119754  
SECTION 5, T24S-R29E  
SHL 295' FSL & 1592' FWL

SECTION 32, T24S-R29E  
BHL 180' FNL & 2178' FWL

has reestablished

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

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

#### **Surface Ownership**

- Private Surface
  - Surface Owner – BLM
- **Nearest Post Office:** Malaga Post Office; 3 Miles West

#### **Other Information**

- On-site performed by BLM NRS: Paul Murphy on 10/13/2017
- Cultural report attached: In Progress
- Participating Agreement attached: N/A
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road by the use of any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.
- Exclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.

#### **Chevron Representatives**

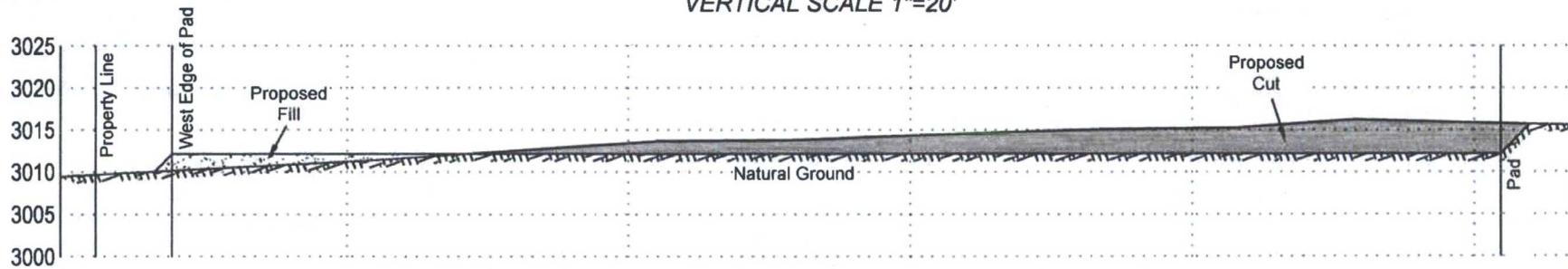
CHEVRON U.S.A. Inc  
CB SE 5 32 FED COM 3 3H  
NMNM 119754  
SECTION 5, T24S-R29E  
SHL 295' FSL & 1592' FWL

SECTION 32, T24S-R29E  
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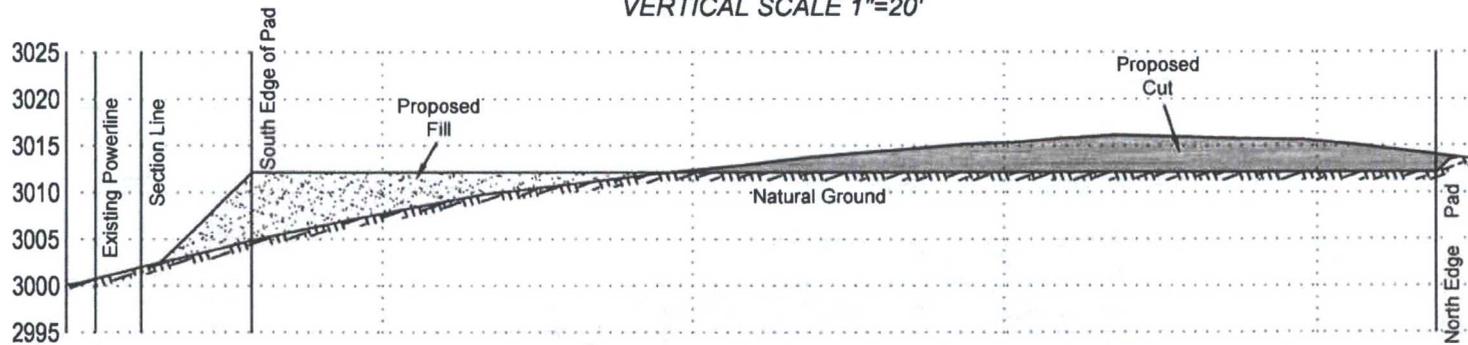
Primary point of contact:  
Kevin Dickerson  
[kevin.dickerson@chevron.com](mailto:kevin.dickerson@chevron.com)  
M- 432-250-4489



CROSS SECTION A-A'  
 HORIZONTAL SCALE 1"=60'  
 VERTICAL SCALE 1"=20'



CROSS SECTION B-B'  
 HORIZONTAL SCALE 1"=60'  
 VERTICAL SCALE 1"=20'

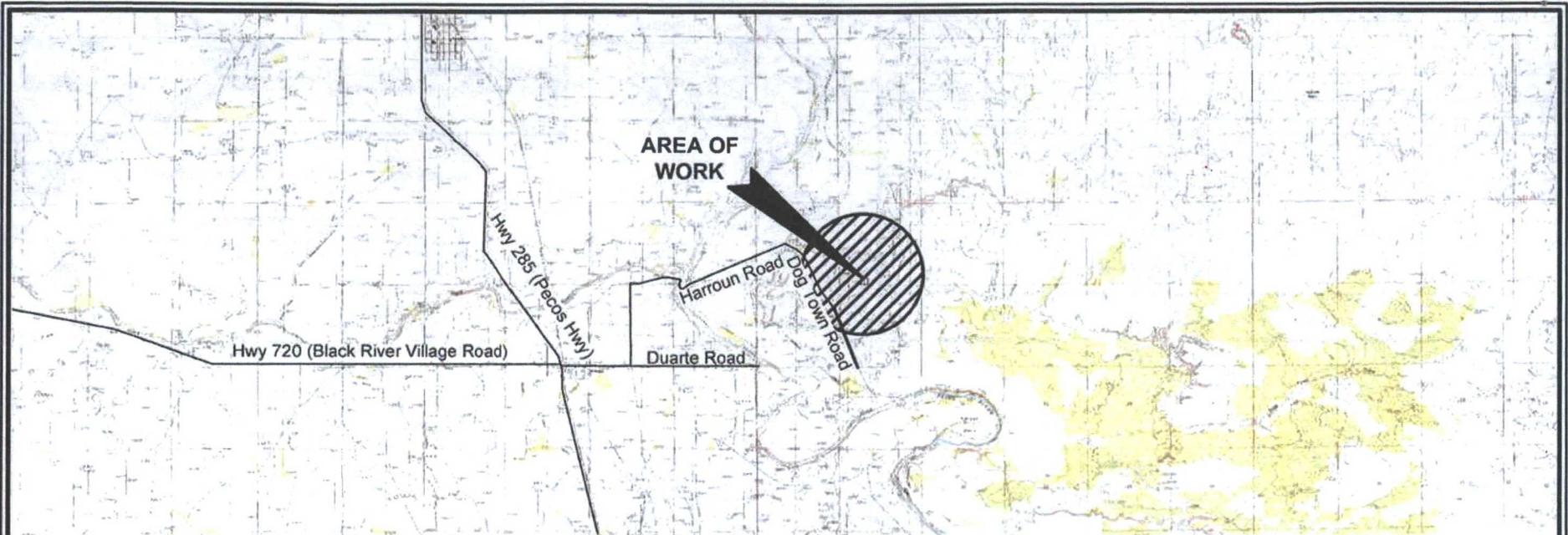


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 CHEVRON U.S.A. INC.  
 I, Robert L. Lastrapes, Professional  
 Surveyor, do hereby state this plat is true  
 and correct to the best of my knowledge.



C. H. Fenstermaker & Associates, L.L.C.  
 135 Regency Sq. Lafayette, LA 70508  
 Ph. 3  
 ww

<b>CUT AND FILL</b>			
<b>CHEVRON U.</b>			
PROPOSED			
CB SE 5 32 FED COM 003			
SECTION 5 & 8, 1			
EDDY COUNTY, NI			
f			
DRAWN BY: BOR	#	BY:	DATE:
PROJ. MGR.: GDG			
DATE: 11/30/2017			
FILENAME: T:\2017\2176655\DWG\CB SE 5 32 FE			H-3H_CutFill.dwg



**NOTE:**

1. Many states maintain information centers that establish links between those who own and operate underground facilities (operators). It is the contractor's responsibility to contact the center for assistance in locating and marking underground facilities. New Mexico One Call [www.nmonecall.org](http://www.nmonecall.org).

2. The design pad elevation recommendation is based solely on a cut and fill analysis and does not include material required for the access roads. A detailed soil test performed prior to construction to ensure proper compaction and working anticipated loadings. This material balance sheet does not constitute a warranty to the structural integrity of the site layout as shown. Fenstermaker makes no warranty or representation about the layout relative to flood hazards, erosion control, or the North American Vertical Datum of 1988.

3. Please be advised, that while reasonable efforts are made to locate using our standard pipeline locating equipment, it is impossible to guarantee the absence of underground utilities. Advise using caution when performing work as there is a possibility that such as fiber optic cables, PVC pipelines, etc. may exist undetected.

**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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and correct to the best of my knowledge.



Robert L. Lastrapes  
Registration No. 23006

**CUT AND FILL PLAT**

**CHEVRON U.S.A.**  
PROPOSED PAD  
CB SE 5 32 FED COM 003 NOS.  
SECTION 5 & 8, T24S-F  
EDDY COUNTY, NEW MEXICO

REVISION

DRAWN BY: BOR	#	BY:	DATE:
PROJ. MGR.: GDG			
DATE: 11/30/2017			

FILENAME: T:\2017\2176655\DWG\CB SE 5 32 FED COM



Scale: 1" = 100'



C. H. Fenstermaker & Associates, L.L.C.  
135 Regency Sq. Lafayette, LA 70508  
Ph. 504.885.1111  
www.fenstermaker.com

R 29 E

Sec. 5

Bureau of Land Management

CB SE 5 32 FED COM 3 NO. 1H WELL

T  
24  
S

John Draper Jr.

COCHITI 5 Federal  
Com. 1 (P&A)

Edge of Existing Enterprise Pipeline ROW

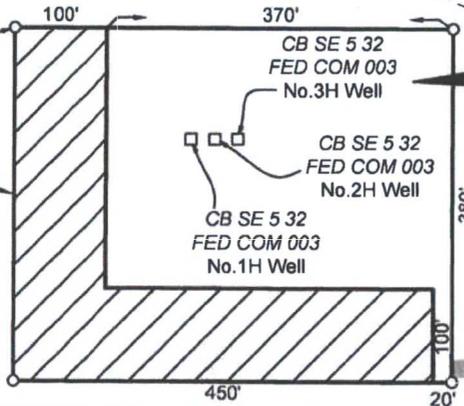
Old Access Road

N 73° 12' 46" E 1,410.98'

PROPOSED  
TEMPORARY  
PAD AREA  
±1.68 ACRES

PROPOSED  
PERMANENT  
PAD AREA  
±2.42 ACRES

Point of  
Commencement/  
Fnd. 1 1/2" Iron Pipe  
w/U.S. General Land  
Office Cap @ the SW  
Corner of Section 5



Old Road to Cochiti 8 FED 2 (P&A)

Existing Pipeline

Existing Powerline

Existing Powerline

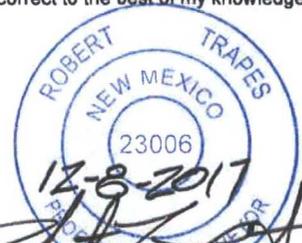
Sec. 8

Bureau of Land Management

LEGEND

	Proposed Pad
	Property Line
	Section Line
	Existing Road/Pad
	Existing Powerline
	Existing Pipeline ROW
	Existing Powerpole
	Existing P&A Well
	Fnd. Monument

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WELL P

CHEVRON U  
INTERIM RECL  
CB SE 5 32 FED COM 3  
SECTION 5, T:  
EDDY COUNTY, N

Scale: 1" = 200'

200' 0 100' 200'



C. H. Fenstermaker & Associates, L.L.C.  
135 Regency Sq. Lafayette, LA 70508  
Ph.:  
w v

Robert L. Lastrapes  
Registration No. 23006

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PROJ. MGR.: GDG				
DATE: 12/06/2017				
FILENAME: T:\2017\2176655\DWG\CB SE 5 32 F				

**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](http://www.nmonecall.org)

NW PAD C	
X=	599
Y=	451
LAT.	32.240
LONG.	104.010
X=	641
Y=	451
LAT.	32.240
LONG.	104.010
ELEVATION +30	
SW PAD C	
X=	599
Y=	451
LAT.	32.230
LONG.	104.010
X=	641
Y=	451
LAT.	32.230
LONG.	104.010
ELEVATION +30	

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Surveyor, do hereby state this plat is true  
and correct to the best of my knowledge.



<b>CHE</b>			
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DATE: 12/06/2017			
FILENAME: T:\2017\2176655\			



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135 Regency Sq. Lafayette, LA 70508  
Ph. 337-237-2200 Fax. 337-232-3299  
[www.fenstermaker.com](http://www.fenstermaker.com)

*Robert L. Lastrapes*  
Robert L. Lastrapes  
Registration No. 23006

**Section 1 - General**

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

**Section 2 - Lined Pits**

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

### Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

### Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

**Injection well type:**

**Injection well number:**

**Assigned injection well API number?**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

**Underground Injection Control (UIC) Permit?**

**UIC Permit attachment:**

**Injection well name:**

**Injection well API number:**

### **Section 5 - Surface Discharge**

**Would you like to utilize Surface Discharge PWD options? NO**

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

**PWD surface owner:**

**PWD disturbance (acres):**

**Surface discharge PWD discharge volume (bbl/day):**

**Surface Discharge NPDES Permit?**

**Surface Discharge NPDES Permit attachment:**

**Surface Discharge site facilities information:**

**Surface discharge site facilities map:**

### **Section 6 - Other**

**Would you like to utilize Other PWD options? NO**

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

**PWD surface owner:**

**PWD disturbance (acres):**

**Other PWD discharge volume (bbl/day):**

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



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

**Bond Information**

**Federal/Indian APD:** FED

**BLM Bond number:** CA0329

**BIA Bond number:**

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

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

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

**BLM reclamation bond number:**

**Forest Service reclamation bond number:**

**Forest Service reclamation bond attachment:**

**Reclamation bond number:**

**Reclamation bond amount:**

**Reclamation bond rider amount:**

**Additional reclamation bond information attachment:**