Form 3160-3 (June 2015) UNITED STATE DEPARTMENT OF THE BUREAU OF LAND MAN APPLICATION FOR PERMIT TO 1a. Type of work: Ib. Type of Well: Ib. Type of Well: Ib. Type of Well: Ic. Type of Completion: Hydraulic Fracturing State 2. Name of Operator CHEVRON USA INCORPORATED (432-3)	OCI ES INTERIOR NAGEMENT DRILL OR REENTER Other Single Zone	D Hobb	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	FORM OMB N Expires: Ja 5. Lease Serial No. NMNM118722 6. If Indian, Allotee	APPROV o. 1004-0 anuary 31	ED 137 , 2018
DEPARTMENT OF THE BUREAU OF LAND MAN APPLICATION FOR PERMIT TO D 1a. Type of work: 1b. Type of Well: 1c. Type of Completion: Hydraulic Fracturing 2. Name of Operator CHEVRON USA INCORPORATED (432.2)	INTERIOR NAGEMENT DRILL OR REENTER Other Single Zone	REALFIER MAR O Multiple Zone	SCD 82019 EINE	<ol> <li>5. Lease Serial No.</li> <li>NMNM118722</li> <li>6. If Indian, Allotee</li> </ol>	or Tribe l	
APPLICATION FOR PERMIT TO I	DRILL OR REENTER Other Single Zone		32019	6. If Indian, Allotee	or Tribe l	
1a. Type of work:       Image: Completion in the image:	REENTER Other Single Zone [	Multiple Zone	ENE			Name
1b. Type of Well:       Image: Children of Operator         1c. Type of Completion:       Hydraulic Fracturing         2. Name of Operator         CHEVRON USA INCORPORATED	Other Single Zone	Multiple Zone		9. If Unit or CA Ag	reement, 1	Name and No.
1c. Type of Completion: Hydraulic Fracturing	Single Zone	Multiple Zone	<i>م</i> ار	8 Lesse Name and	Well No.	
2. Name of Operator CHEVRON USA INCORPORATED (4323)				SD 14 23 FED P1 15H	9 ( <b>3</b> 2	24 [38)
	1			9. API Well No. <b>30-025</b> -	- 4-4	705
3a. Address J 6301 Deauville Blvd. Midland TX 79706	3b. Phone N (432)687-78	lo. <i>(include area cod</i> <b>866</b>	e)	10. Field and Pool, WC025G09S2633	or Explora <del>27G-</del> / UF	atory <b>(95</b> ) PPER WOLFCA
<ol> <li>Location of Well (Report location clearly and in accordance At surface NWNE / 455 FNL / 1505 FEL / LAT 32.049 At proposed prod. zone SWSE / 180 FSL / 2440 FEL /</li> </ol>	e with any State 9054 / LONG - LAT 32.02139	reguirements.*) 103.641857 11 / LONG -103.644	1919	11. Sec., T. R. M. of SEC 14 / T26S / R	r Blk. and 32E / NN	Survey or Area
14. Distance in miles and direction from nearest town or post of <b>33 miles</b>	ffice*	·		12. County or Paris	h	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft.	16. No of ac 3080	eres in lease	17. Spacin 640	ng Unit dedicated to t	his well	
<ul> <li>(Also to nearest drig. unit line, if any)</li> <li>18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.</li> <li>4740 feet</li> </ul>	19. Proposed	d Depth / 22386 feet	20. BLM/ FED: CA	BIA Bond No. in file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3217 feet	22. Approxii 07/05/2019	mate date work will	start*	23. Estimated durat 146 days	ion	
	24. Attac	hments		,		
<ul> <li>The following, completed in accordance with the requirements as applicable)</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO must be filed with the appropriate Forest Service Office</li> </ul>	of Onshore Oil tem Lands, the ce).	<ol> <li>and Gas Order No. 1</li> <li>Bond to cover th Item 20 above).</li> <li>Operator certific</li> <li>Such other site sp BLM.</li> </ol>	, and the H e operation ation. ecific infor	lydraulic Fracturing r is unless covered by an mation and/or plans as	rule per 43 n existing s may be re	CFR 3162.3-3 bond on file (see
25. Signature (Electronic Submission)	Name L <b>aura</b>	(Printed/Typed) Becerra / Ph: (432	)687-7665	5	Date 06/12/2	018
Fitle Permitting Specialist	1				<b>.</b>	
Approved by (Signature) (Electronic Submission)	Name	(Printed/Typed)	34-5050		Date 01/30/2	019
Fitle	Office	Office				
Assistant Field Manager Lands & Wirterals Application approval does not warrant or certify that the applica applicant to conduct operations thereon. Conditions of approval, if any, are attached.	ant holds legal o	or equitable title to the	ose rights	in the subject lease w	hich woul	ld entitle the
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, of the United States any false, fictitious or fraudulent statements	make it a crime s or representati	for any person know ons as to any matter	vingly and within its j	willfully to make to a urisdiction.	any depart	tment or agency
GCP 14 03/08/19	F WEN WI	TH CONDIT	IONS	K-	KUT	-19
(Continued on page 2)	oval Date:	: 01/30/2019		*(In	struction	ns on page 2)

#### **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 I: 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 wen, 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 directionany 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.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### 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 wen 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 win 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 conects this information to anow 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

#### **Additional Operator Remarks**

#### Location of Well

SHL: NWNE / 455 FNL / 1505 FEL / TWSP: 26S / RANGE: 32E / SECTION: 14 / LAT: 32.049054 / LONG: -103.641857 (TVD: 0 feet, MD: 0 feet)
 PPP: NWNE / 330 FNL / 2440 FEL / TWSP: 26S / RANGE: 32E / SECTION: 14 / LAT: 32.049398 / LONG: -103.644875 (TVD: 12148 feet, MD: 12148 feet)
 BHL: SWSE / 180 FSL / 2440 FEL / TWSP: 26S / RANGE: 32E / SECTION: 23 / LAT: 32.021391 / LONG: -103.644919 (TVD: 12148 feet, MD: 22386 feet )

#### **BLM Point of Contact**

Name: Katrina Ponder Title: Geologist Phone: 5752345969 Email: kponder@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>	Chevron USA Incorporated
LEASE NO.:	NMNM118722
WELL NAME & NO.:	SD 14 23 Fed P19 15H
SURFACE HOLE FOOTAGE:	455'/N & 1505'/E
<b>BOTTOM HOLE FOOTAGE</b>	180'/S & 2440'/E
LOCATION:	Section 14, T.26 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico



H2S	• Yes	∩ No	
Potash	None	C Secretary	⊂ R-111-P
Cave/Karst Potential	∩ Low	Medium	High     High
Variance	∩ None	Flex Hose	C Other
Wellhead	Conventional	Multibowl	← Both
Other	<b>4</b> String Area	Capitan Reef	<b>□</b> WIPP
Other	Fluid Filled	□     □     □     Cement Squeeze     □	Pilot Hole
Special Requirements		ГСОМ	□ Unit     □

## A. HYDROGEN SULFIDE

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

## **B.** CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 800 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 <u>8</u> <u>hours</u> or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

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- 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 50% of 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:
  - Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.
    - a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
    - b. Second stage above DV tool:Cement to surface. If cement does not circulate, contact the appropriate BLM office.

# Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- In <u>Medium Cave/Karst Areas</u> 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.

## C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.

- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

# **GENERAL REQUIREMENTS**

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

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

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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.
- <u>Wait on cement (WOC) for Potash Areas:</u> 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 <u>24</u> hours. WOC time will be recorded in the driller's log.
- <u>Wait on cement (WOC) for Water Basin:</u> 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 <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - e. The results of the test shall be reported to the appropriate BLM office.
  - f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

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h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### C. DRILLING MUD

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

#### D. WASTE MATERIAL AND FLUIDS

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

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

ZS 012919

# PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

#### OPERATOR'S NAME: Chevron USA Incorporated LEASE NO: NMNM118722 LOCATION: Section 14, T.26 S., R.32 E., NMPM

#### SD 14 23 FED P18 9H

Surface Hole Location: Sec. 14, NENW, T. 26 S., R. 32 E., 455' FNL & 1380' FWL Bottom Hole Location: Sec. 14, SWSW, T. 26 S., R. 32 E., 180' FSL & 330' FWL

#### SD 14 23 FED P18 10H

Surface Hole Location: Sec. 14, NENW, T. 26 S., R. 32 E., 455' FNL & 1405' FWL Bottom Hole Location: Sec. 14, SWSW, T. 26 S., R. 32 E., 180' FSL & 740' FWL

#### SD 14 23 FED P18 11H

Surface Hole Location: Sec. 14, NENW, T. 26 S., R. 32 E., 455' FNL & 1430' FWL Bottom Hole Location: Sec. 14, SWSW, T. 26 S., R. 32 E., 180' FSL & 11500' FWL

#### SD 14 23 FED P18 12H

Surface Hole Location: Sec. 14, NENW, T. 26 S., R. 32 E., 455' FNL & 1455' FWL Bottom Hole Location: Sec. 14, SESW, T. 26 S., R. 32 E., 180' FSL & 1560' FWL

#### SD 14 23 FED P18 13H

Surface Hole Location: Sec. 14, NENW, T. 26 S., R. 32 E., 455' FNL & 1480' FWL Bottom Hole Location: Sec. 14, SESW, T. 26 S., R. 32 E., 180' FSL & 1970' FWL

#### SD 14 23 FED P18 14H

Surface Hole Location: Sec. 14, NENW, T. 26 S., R. 32 E., 455' FNL & 1505' FWL Bottom Hole Location: Sec. 14, SESW, T. 26 S., R. 32 E., 180' FSL & 2380' FWL

#### SD 14 23 FED P19 15H

Surface Hole Location: Sec. 14, NWNE, T. 26 S., R. 32 E., 455' FNL & 1505' FEL Bottom Hole Location: Sec. 14, SWSE, T. 26 S., R. 32 E., 180' FSL & 2440' FEL

#### SD 14 23 FED P19 16H

Surface Hole Location: Sec. 14, NWNE, T. 26 S., R. 32 E., 455' FNL & 1480' FEL Bottom Hole Location: Sec. 14, SWSE, T. 26 S., R. 32 E., 180' FSL & 2040' FEL

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#### SD 14 23 FED P19 17H

Surface Hole Location: Sec. 14, NWNE, T. 26 S., R. 32 E., 455' FNL & 1455' FEL Bottom Hole Location: Sec. 14, SWSE, T. 26 S., R. 32 E., 180' FSL & 1640' FEL

#### SD 14 23 FED P19 18H

Surface Hole Location: Sec. 14, NWNE, T. 26 S., R. 32 E., 455' FNL & 1430' FEL Bottom Hole Location: Sec. 14, SESE, T. 26 S., R. 32 E., 180' FSL & 1240' FEL

#### SD 14 23 FED P19 19H

Surface Hole Location: Sec. 14, NWNE, T. 26 S., R. 32 E., 455' FNL & 1405' FEL Bottom Hole Location: Sec. 14, SESE, T. 26 S., R. 32 E., 180' FSL & 840' FEL

#### SD 14 23 FED P19 20H

Surface Hole Location: Sec. 14, NWNE, T. 26 S., R. 32 E., 455' FNL & 1380' FEL Bottom Hole Location: Sec. 14, SESE, T. 26 S., R. 32 E., 180' FSL & 440' FEL

## **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
Hydrology
Cave/Karst
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
Production (Post Drilling)
Well Structures & Facilities
Pipelines
Interim Reclamation
Final Abandonment & Reclamation

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# 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

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acceptable weed control methods, which include following EPA and BLM requirements and policies.

# V. SPECIAL REQUIREMENT(S)

# Hydrology:

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

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Electric Lines: Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion.

## **Cave/Karst Surface Mitigation**

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

# **Construction:**

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

#### No Blasting:

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

#### Pad Berming:

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

## Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1  $\frac{1}{2}$  times the content of the largest tank.

## Leak Detection System:

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

## Automatic Shut-off Systems:

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

# **Cave/Karst Subsurface Mitigation**

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

## **Rotary Drilling with Fresh Water:**

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

## **Directional Drilling:**

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

#### **Lost Circulation:**

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

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

## **Abandonment Cementing:**

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

#### **Pressure Testing:**

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

## FLOWLINES (SURFACE):

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.

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- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

# **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.

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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.

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#### 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

on

Down Stope Side

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

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



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

#### Formula for Spacing Interval of Lead-off Ditches

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

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

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#### **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.

#### **Livestock Watering Requirement**

During the operations throughout the life of the well, any damage to structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

#### **Public Access**

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



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

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# 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  $\frac{1}{2}$  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 exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. <u>Use a maximum netting mesh size of 1 ½ inches.</u>

## **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, <u>Shale Green</u> from the BLM Standard Environmental Color Chart (CC-001: June 2008).

#### **B. PIPELINES**

#### STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

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

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

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

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

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

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing.
  - (2) Earth-disturbing and earth-moving work.
  - (3) Blasting.
  - (4) Vandalism and sabotage.
- c. Acts of God.

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

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

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

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

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

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

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

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

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

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

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

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

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14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

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

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

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

18. Special Stipulations:

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

## **BURIED PIPELINE STIPULATIONS**

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

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

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

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

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

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such

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action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

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

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

7. The maximum allowable disturbance for construction in this right-of-way will be <u>30</u> feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed <u>30</u> feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately \_\_\_\_6\_\_\_ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to

cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

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

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

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

(X) seed mixture 1	(	) seed mixture 3
() seed mixture 2	(	) seed mixture 4
( ) seed mixture 2/LPC		( ) Aplomado Falcon Mixture

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

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

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

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

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

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

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.
- 19. Special Stipulations:
  - The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
  - If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
  - Special restoration stipulations or realignment may be required at such intersections, if any.
  - A leak detection plan <u>will be submitted to the BLM Carlsbad Field</u> <u>Office for approval</u> prior to pipeline installation. The method could

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incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

## C. ELECTRIC LINES

# STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, <u>et seq</u>. or the Resource

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Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

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

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced

Page 22 of 25

facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

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

- 11. Special Stipulations:
  - For reclamation remove poles, lines, transformer, etc. and dispose of properly.
  - Fill in any holes from the poles removed.
  - Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
  - The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
  - No further construction will be done until clearance has been issued by the Authorized Officer.
  - Special restoration stipulations or realignment may be required.

## VIII. INTERIM RECLAMATION

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

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

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to

Page 23 of 25

drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

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

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

# **IX. FINAL ABANDONMENT & RECLAMATION**

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

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

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

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

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

## Seed Mixture 1 for Loamy Sites

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

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

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

Species	<u>lb/acre</u>
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

\*Pounds of pure live seed:

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


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: Laura Becerra		Signed on: 06/12/2018			
Title: Permitting Speciali	ist				
Street Address: 6301 D	eauville Blvd., S2211				
City: Midland	State: TX	<b>Zip</b> : 79706			
Phone: (432)687-7665					
Email address: LBecerr	a@Chevron.com				
Representative Name	<del>3</del> :				
Street Address:					
Citv:	State:	Zip:			

Phone:

Email address:

# **WAFMSS**

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

Submission Date: 06/12/2018

Zip: 79706

0ate: 06/12/2018 15H

Application Data Report



02/13/2019

Show Final Text

APD ID: 10400031087 Operator Name: CHEVRON USA INCORPORATED Well Name: SD 14 23 FED P19 Well Type: OIL WELL

Well Number: 15H Well Work Type: Drill

APD ID:	10400031087	Tie to previous NOS?	10400019749	Submission Date: 06/12/2018			
BLM Office:	CARLSBAD	User: Laura Becerra	Title:	Permitting Specialist			
Federal/Indi	an APD: FED	Is the first lease penet	rated for productio	n Federal or Indian? FED			
Lease num	<b>ber:</b> NMNM118722	Lease Acres: 3080					
Surface acc	ess agreement in place?	Allotted?	Reservation:				
Agreement	in place? NO	Federal or Indian agreement:					
Agreement	number:						
Agreement	name:						
Keep applic	ation confidential? NO						
Permitting /	Agent? NO	APD Operator: CHEVR	ON USA INCORPO	RATED			
Operator let	ter of designation:						

Operator Organization Name: CHEVRON USA INCORPORATED								
Operator Address: 6301 Deauville Blvd.								
Operator PO Box:								
Operator City: Midland	State: TX							
Operator Phone: (432)687-7866								

**Operator Internet Address:** 

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: SD 14 23 FED P19	Well Number: 15H	Well API Number:				
Field/Pool or Exploratory? Field and Pool	Field Name: WC025G09S263327G	Pool Name: UPPER				
Is the proposed well in an area containing other min	eral resources? USEABLE WA	TER.NATURAL GAS.OIL				

Well Number: 15H

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 Weil Pad Name: SD 14 Number: 23 FED P19 15H,16H,17H,18H,19H,20H Well Class: HORIZONTAL Number of Legs: 1 Well Work Type: Drill Well Type: OIL WELL **Describe Well Type:** Well sub-Type: INFILL Describe sub-type: Distance to town: 33 Miles Distance to nearest well: 4740 FT Distance to lease line: 330 FT Reservoir well spacing assigned acres Measurement: 640 Acres Well plat: SD 14 23 Fed P19 15H C 102 20180612111127.pdf SD\_14\_23\_Fed\_P19\_15H\_Pad\_Plat\_20180612123300.pdf Well work start Date: 07/05/2019 Duration: 146 DAYS

#### Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83 Survey number: Vertical Datum: NAVD88

	ā	0	

	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	455	FNL	150	FEL	26S	32E	14	Aliquot	32.04905	-	LEA	NEW	NEW	F	NMNM		ģī.	<u>@</u> ₹
Leg			5					NWNE	4	103.6418		MEXI	MEXI		118722	1		
#1										57		CO	co				المرجر المراجع	
КОР	455	FNL	150	FEL	26S	32E	14	Aliquot	32.04905	-	LEA	NEW	NEW	F	NMNM	3941 -	٥r I	
Leg			5					NWNE	4	103.6418		MEXI	MEXI		118722			2
#1										57		co	co			augitition the second	ا کی کرد کرد. محمد میں میں	an the starter
PPP	330	FNL	244	FEL	26S	32E	14	Aliquot	32.04939	-	LEA	NEW	NEW	F	NMNM	, t		121
Leg			0					NWNE	8	103.6448		MEXI	MEXI		118722		٩¢	
#1										75		co	co					· · · · ·

### Operator Name: CHEVRON USA INCORPORATED

Well Name: SD 14 23 FED P19

#### Well Number: 15H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	DM	DVT
EXIT Leg #1	330	FSL	244 0	FEL	26S	32E	23	Aliquot SWSE	32.02180 3	- 103.6449 18	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 118722		121 48	
BHL Leg #1	180	FSL	244 0	FEL	26S	32E	23	Aliquot SWSE	32.02139 1	- 103.6449 19	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 118722			



CENTERLINE PROPOSED ACCESS ROAD								
COURSE	BEARING	DISTANCE						
1	N 04° 23' 43" E	200.39'						
2	N 02° 16' 06" E	202.77'						
3	N 02° 12' 12" E	323.63'						
4	N 01° 44' 36" E	470.28'						
5	N 02° 21' 04" E	299.31'						
6	N 02° 08' 00" E	483.86'						
7	N 01° 24' 42" E	333.54'						
8	N 00° 29' 22" E	287.50'						
9	N 02° 43' 01" E	450.30'						
10	N 02° 10' 55" E	475.05						
11	N 02° 14' 55" E	543.91'						
12	N 02° 44' 25" E	411.97'						
13	N 01° 01' 03" E	380.57						
14	N 89° 37' 01" E	1975.44'						
15	N 00° 17' 31" W	74.02						

NW AF	RCH. AREA C	DRNER	NE ARCH. AREA CORNER				
X=	714,085	NAD 27	X=	714,810	NAD 27		
Y=	382,510		Y=	382,517			
LAT.	32.049751		LAT.	32 049757			
LONG.	103 642358		LONG.	103.640018			
X=	755,272	NAD83	X=	755,997	NAD83		
Y=	382,567		Y=	382,574			
LAT.	32.049876		LAT.	32.049882			
LONG.	103.642828		LONG.	103.640488			
ELEVA	TION +3213' N	AVD 88	ELEVA	TION +3224' N	AVD 88		
SW ARCH. AREA CORNER			SE ARCH. AREA CORNER				
SW AF	RCH. AREA CO	ORNER	SE AF	CH. AREA CO	DRNER		
SW AF X=	714,091	ORNER NAD 27	SE AF X=	CH. AREA CO 714,816	ORNER NAD 27		
SW AF X= Y=	RCH. AREA CO 714,091 381,910	ORNER NAD 27	SE AR X= Y=	CH. AREA CO 714,816 381,917	NAD 27		
SW AF X= Y= LAT	714,091 381,910 32.048102	ORNER NAD 27	SE AF X= Y= LAT.	CH. AREA CO 714,816 381,917 32 048108	ORNER NAD 27		
SW AF X= Y= LAT LONG.	RCH. AREA CO 714,091 381,910 32.048102 103.642353	ORNER NAD 27	SE AR X= Y= LAT. LONG.	CH. AREA CC 714,816 381,917 32 048108 103,640013	DRNER NAD 27		
SW AF X= Y= LAT LONG. X=	RCH. AREA CO 714,091 381,910 32.048102 103.642353 755,278	NAD 27	SE AF X= Y= LAT. LONG. X=	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003	NAD 27		
SW AF X= Y= LAT LONG. X= Y=	CH. AREA CO 714,091 381,910 32.048102 103.642353 755,278 381,967	NAD 27	SE AF X= Y= LAT. LONG. X= Y=	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003 381,974	NAD 27 NAD 83		
SW AF X= LAT LONG. X= Y= LAT.	CH. AREA CO 714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227	NAD 27 NAD 27 NAD83	SE AF X= Y= LAT. LONG. X= Y= LAT.	CH. AREA CC 714,816 381,917 32 048108 103,640013 756,003 381,974 32 048233	NAD 27 NAD 83		
SW AF X= LAT LONG. X= Y= LAT. LONG.	CH. AREA Co 714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227 103.642823	NAD 27 NAD 27 NAD83	SE AF X= LAT. LONG. X= Y= LAT. LONG.	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003 381,974 32 048233 103.640483	NAD 27 NAD 83		

N1	N PAD CORN	ER	NE PAD CORNER				
X=	714,177	NAD 27	X=	714,722	NAD 27		
Y=	382,331		Y=	382,336			
LAT.	32 049257		LAT	32.049263			
LONG.	103.642066		LONG.	103.640307			
X=	755,364	NAD83	X=	755,909	NAD83		
Y=	382,388		Y=	382,393			
LAT.	32.049382		LAT.	32 049388			
LONG.	103.642536		LONG.	103.640777			
ELEVA	TION +3214' N	AVD 88	ELEVATION +3221' NAVD 88				
SI	N PAD CORN	ER	S	E PAD CORN	ER		
X=	W PAD CORN 714,181	ER NAD 27	S X=	E PAD CORNE 714,725	ER NAD 27		
	W PAD CORN 714,181 381,951	ER NAD 27	S X= Y=	E PAD CORNI 714,725 381,956	ER NAD 27		
X= Y= LAT.	W PAD CORN 714,181 381,951 32.048213	ER NAD 27	S X= Y= LAT	E PAD CORNI 714,725 381,956 32.048218	ER NAD 27		
SI X= Y= LAT. LONG.	W PAD CORN 714,181 381,951 32.048213 103.642062	ER NAD 27	S X= Y= LAT LONG	E PAD CORNI 714,725 381,956 32.048218 103.640303	ER NAD 27		
SI X= Y= LAT. LONG. X=	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368	ER NAD 27 NAD83	S X= Y= LAT LONG X=	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913	ER NAD 27 NAD83		
SI X= Y= LAT. LONG. X= Y=	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008	ER NAD 27 NAD83	S X= Y= LAT LONG X= Y=	E PAD CORNE 714,725 381,956 32,048218 103,640303 755,913 382,013	ER NAD 27 NAD83		
SI X= LAT. LONG. X= Y= LAT.	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008 32.048338	ER NAD 27 NAD83	S X= LAT LONG X= Y= LAT.	E PAD CORNI 714,725 381,956 32,048218 103,640303 755,913 382,013 32,048343	ER NAD 27 NAD83		
SI X= LAT. LONG. X= Y= LAT. LONG.	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008 32.048338 103.642532	ER NAD 27 NAD83	S X= LAT LONG X= Y= LAT. LONG	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913 382,013 32.048343 103.640773	ER NAD 27 NAD83		

PROPOSED PAD								
COURSE	BEARING	DISTANCE						
16	S 00° 34' 15" E	380.00'						
17	S 89° 25' 45" W	545.00'						
18	N 00° 34' 15" W	380.00'						
19	N 89° 25' 45" E	545.00'						

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

#### 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

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.



WELL PLAT Page 3 of 3 CHEVRON U.S.A. INC. **PROPOSED PAD & ACCESS ROAD** SD 14 23 FED P19 NO. 15H WELL SECTIONS 14 & 23, T26S-R32E LEA COUNTY, NEW MEXICO REVISIONS C H. Fenstermaker & Associates, L.L.C. DRAWN BY: DMB # BY: DATE: **DESCRIPTION** 135 Regency Sq Lafayette, LA 70508 FENS AKER PROJ. MGR.: VHV Ph 337-237-2200 Fax 337-232-3299 www.fenstermaker.com DATE: 01/18/2018 FILENAME: T:\2017\2176220\DWG\SD 14 23 Fed P19 15H\_Well Plat.dwg



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



#### APD ID: 10400031087

**Operator Name: CHEVRON USA INCORPORATED** 

Submission Date: 06/12/2018



Show Final Text

Well Name: SD 14 23 FED P19

Well Number: 15H Well Work Type: Drill

...

Well Type: OIL WELL

# 

Formation			True Vertical	Measured			Producing
		Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
2							
3						NONE	
4							
5							
6					CANIES IN INC.		
7	BONG GRENGIUME						
8							
9	LOILE SERVICE IST						
10						Internet.	
11			1845				
12				10,000	LIMES DEMESSION DES INDESIDENTES		
13				10 - 2000 - 200 10	HIM SCHOOL ST AUSSA DUCTIONS		

#### Operator Name: CHEVRON USA INCORPORATED

Well Name: SD 14 23 FED P19

#### Well Number: 15H

#### Pressure Rating (PSI): 10M

**Equipment:** Will have a minimum of a 10000 psi rig stack for drill out below intermediate casing (Wolfcamp is not exposed until drillout of the intermediate casing). Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise.

#### Requesting Variance? YES

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**Testing Procedure:** Test BOP from 250 psi to 7,500 psi in Ram and 250 psi to 3500 psi in annular (annular will be 5M with rest of BOP at 10M per previous discussion with BLM). BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from the BLM is received otherwise. BOP test will be conducted by a third party.

#### **Choke Diagram Attachment:**

CoFlex\_Hose\_Variance\_Request\_20181128150447.pdf

Choke\_Flex\_Hose\_Specs\_20181128150511.pdf

#### **BOP Diagram Attachment:**

10K\_BOP\_and\_Choke\_Schematic\_20181128150647.pdf

BOPE\_Choke\_Testing\_Procedures\_20181128150723.pdf

UHS\_Multibowl\_Wellhead\_Specs\_20181128150837.pdf

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	800	0	800			800	J-55	54.5	STC	3.12	1.36	DRY	3.38	DRY	3.38
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	10910	0	10910			10910	L-80	43.5	LTC	1.44	1.24	DRY	1.93	DRY	1.93
3	PRODUCTI ON	8.5	5.5	NEW	API	Y	0	22386	0	12148			22386	Р- 110	20	OTHER - TXP BTC	1.37	1.11	DRY	2.02	DRY	2.02

#### **Casing Attachments**

Casing ID: 1 String Type: SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

13\_3\_8\_casing\_spec\_sheet\_20180913152526.pdf

Casing ID: 2 String Type: INTERMEDIATE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

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

9.625\_L80IC\_Collapse\_4830\_20181129113436.pdf

Casing ID: 3 String Type: PRODUCTION

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

5.5\_20lb\_TXP\_P110ICY\_20180612135107.pdf

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

SD\_14\_23\_FED\_P19\_15H\_9pt\_Plan\_v2\_20181129113840.pdf

### Operator Name: CHEVRON USA INCORPORATED Well Name: SD 14 23 FED P19

#### Well Number: 15H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0		
SURFACE	Tail		0	800	872	1.33	14.8	206	100	CLASS C	Extender Anthem Kanader
PRODUCTION	Lead		0	0	0	0	0	0			
PRODUCTION	Tail		1007 5	2238 6	3126	1.2	15.6	668	35	CLASS H	Alfonije om Divepone (m) Blong Dovo Belender Višeo allen
INTERMEDIATE	Lead	4630	0	4330	1484	2.43	11.9	642	200	ionno Poz GLAÉS G	Autom Exercity Self- Releaser Visconius
INTERMEDIATE	Tail		4330	4630	106	1.33	14.8	25	50	CLASS C	Zimiliacult Retendense. Viteocritica
INTERMEDIATE	Lead		4630	1041 0	1118	2.43	11.9	484	50		Multicens Resented Morechitetr
INTERMEDIATE	Tail		1041 0	1091 0	205	1.33	14.8	49	50	CLASS C	Anillann Rollinder Bligterciant

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 by utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical portatoilet and then hauled to an approved sanitary landfill. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

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

### Operator Name: CHEVRON USA INCORPORATED Well Name: SD 14 23 FED P19

#### Well Number: 15H

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Н	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1091 0	2238 6	OIL-BASED MUD	9.5	14.1							F VIS: 70-75 FILTRATE: 25-30
0	800	SPUD MUD	8.3	8.7							F VIS: 32-34 FILTRATE: NC-NC
800	1091 0	OIL-BASED MUD	9.5	11.1							F VIS: 28-30 FILTRATE: 25-30

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

Drill stem tests are not planned.

The logging program will be as follows:

Type: Mudlogs Logs: 2 Man Mudlog Interval: Int Csg to TD Timing: Drillout of Csg Vendor : TBD Type: LWD Logs: MDW Gamma Interval: Int & Prod Hole Timing: While Drilling Vendor : TBD 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 directional survey will be run and logs will be submitted.

Anticipated Bottom Hole Pressure: 7653

Anticipated Surface Pressure: 4980.44

Anticipated Bottom Hole Temperature(F): 150

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S\_Summary\_20180612150846.pdf

Well Number: 15H

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

Rig\_Layout\_20180612151015.pdf

SD\_14\_23\_FED\_P19\_15H\_Prelim\_1\_Plot\_20180612151116.pdf

SD\_14\_23\_FED\_P19\_15H\_Prelim\_Wellpath\_20180612151139.pdf

SD\_14\_23\_FED\_P19\_Gas\_Capture\_Plan\_20181130094940.pdf

#### Other proposed operations facets description:

Channa inquests containadon ta use the partition to spirit the null and car sould a casing. The diffing ne will not a high the first devents contain difficient pressions. Fig broads coorded.

#### Other proposed operations facets attachment:

CUSA\_Spudder\_Rig\_Data\_20181129140048.pdf

Other Variance attachment:

Delaware Basin Changes to APD for Federal Well



# **CHEVRON CONTACT:**

Tony Bacon Drilling Engineer 1400 Smith St. Houston, TX 77002

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

Summary of Changes to MPD Submission

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

# BOP Equipment - CoFlex Hose

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

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

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ContiTech

#### **Hose Data Sheet**

CRI Order No.	538332
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500412631 CBC544771, CBC544769, CBC544767, CBC544763, CBC544768, CBC544745, CBC544744, CBC544746
Item No.	1
Hose Type	Flexible Hose
Standard	API SPEC 16 C
Inside dia in inches	3
Length	45 ft
Type of coupling one end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE SOURC/W BX155 ST/ST INLAID R.GR.
Type of coupling other end	FLANGE 4.1/16" 10KPSI API SPEC 17D SV SWIVEL FLANGE SOUR C/W BX155 ST/ST INLAID R.GR.
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	Yes
Lifting collar	Yes
Element C	Yes
Safety chain	Yes
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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ContiTech

QUAL INSPECTION	ITY CONT	ROL CERTIFI	CATE		CERT. N	10.	594			
PURCHASER:	ContiTech C	Dil & Marine C	Corp.		P.O. Nº:		450041263	1		
CONTITECH ORDER Nº:	HOSE TYPE:	HOSE TYPE: 3" ID			Choke & Kill Hose					
HOSE SERIAL Nº:	NOMINAL / AC	CTUAL LI	ENGTH:	13,72 m / 13,85 m						
W.P. 68,9 MPa	10000 psi	T.P. 103,4	MPa	1500	)O psi	Duration:	60	min.		
10 mm = 10 M → 10 mm = 25 M	See attachment. (1 page)									
COUPLINGS T	ype	Sen	al Nº		Quality		Heat N°			
3" coupting w	ith	1435	143	6	AIS	4130	A1258U			
4 1/16" 10K API Swivel	Flange end				AIS	a 4130	03493	19 IN		
Not Designed For	Well Testing					A	PI Spec 16 (	C		
Tag No.: 66 - 1198	}					Temp	perature rat	e:" <b>B</b> "		
Ail metal parts are flawless						•				
WE CERTIFY THAT THE ABO	VE HOSE HAS BEI		RED IN A	CCORDA	NCE WIT	H THE TERM	S OF THE ORDER	२		
STATEMENT OF CONFORM conditions and specifications accordance with the references	AITY: We hereby of so fitted and the above Purce of the above Purce of standards, codes	certify that the abo chaser Order and i and specification	ove items/ that these s and mee	equipmen litems/equ of the rele	t supplied upment we vant accep	by us are in c are fabricated stance criterta	conformity with the inspected and tes and design require	terms, ted in ements.		
O3. April 2014.     Inspector     Quality Control								ab		

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No: 594, 596, 597

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No: 594, 596, 597 Page: 1/1

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Diagram C

# **10M Choke Manifold SCHEMATIC** Minimum Requirements **OPERATION:** Production and Open Hole Sections Minimum System Pressure Rating: 10,000 PSI REMOTELY OPERATED CHOKE CAMPA REMOTELY OPERATED VALVE PATCH ANDD ADJUSTABLE CHOKE SEDUENCE OFTIONAL NETON ADJUSTABLE CHOKE 10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY [53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989]

# **Chevron BOPE Testing – 5K and 10K Systems**

#### Minimum Requirements

#### **Closing Unit and Accumulator Checklist**

The following item must be performed, verified, and checked off at least once per well prior to low/high pressure testing of BOP equipment. This must be repeated after 6 months on the same well.

Precharge pressure for each accumulator bottle must fall within the range below. Bottles may be further charged with nitrogen gas only. Tested precharge pressures must be recorded for each individual bottle and kept on location through the end of the well. Test will be conducted prior to connecting unit to BOP stack.

Check one that applies	Accumulator working pressure rating	Minimum acceptable operating pressure	Desired precharge pressure	Maximum acceptable precharge pressure	Minimum acceptable precharge pressure
	1500 psi	1500 psi	750 psi	800 psi	700 psi
	2000 psi	2000 psi	1000 psi	1100 psi	900 psi
	3000 psi	3000 psi	1000 psi	1100 psi	900 psi

Accumulator will have sufficient capacity to open the hydraulically-controlled choke line valve (if used), close all rams, close the annular preventer, and retain a minimum of 200 psi above the maximum acceptable precharge pressure (see table above) on the closing manifold without the use of the closing pumps. This test will be performed with test pressure recorded and kept on location through the end of the well

Accumulator fluid reservoir will be double the usable fluid volume of the accumulator system capacity. Fluid level will be maintained at manufacturer's recommendations. Usable fluid volume will be recorded. Reservior capacity will be recorded. Reservoir fluid level will be recorded along with manufacturer's recommendation. All will be kept on location through the end of the well.

Closing unit system will have two independent power sources (not counting accumulator bottles) to close the preventers.

Power for the closing unit pumps will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure decreases to the pre-set level. It is recommonded to check that air line to accumulator pump is "ON" during each tour change.

With accumulator bottles isolated, closing unit will be capable of opening the hydraulically-operated choke line valve (if used) plus close the annular preventer on the smallest size drill pipe within 2 minutes and obtain a minimum of 200 psi above maximum acceptable precharge pressure (see table above) on the closing manifold. Test pressure and closing time will be recorded and kept on location through the end of the well.

Master controls for the BOPE system will be located at the accumulator and will be capable of opening and closing all preventer and the choke line valve (if used)

Remote controls for the BOPE system will be readily accessible (clear path) to the driller and located on the rig floor (not in the dog house). Remote controls will be capable of closing all preventers.

**Record accumulator tests in drilling reports and IADC sheet** 

### **BOPE 5K Test Checklist**

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

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

The following items must be performed during the BOPE testing:

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

□ Record BOP tests and pressures in drilling reports and IADC sheet.

### BOPE 10K (with 5K annular) Test Checklist

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

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

The following items must be performed during the BOPE testing:

- BOPE will be pressure tested when initially installed, whenever any seal subject to test pressure is broken, following related repairs, and at a minimum of 30 day intervals. Test pressure and times will be recorded by a 3<sup>rd</sup> party on a test charge and kept on location through the end of the well.
- □ Test plug will be used.
- Ram type preventer and all related well control equipment will be tested to 250 psi (low) and 7,500 psi (high).
- □ Annular type preventer will be tested to 250 psi (low) and 5,000 psi (high).
- Valves will be tested from the working pressure side with all downstream valves open.
   The check valve will be held open to test the kill line valve(s).
- □ Each pressure test will be held for 10 minutes with no allowable leak off.
- □ Master controls and remote controls to the closing unit (accumulator) must be function tested as part of the BOPE test.
- **C** Record BOP tests and pressures in drilling reports and IADC sheet.



Printed on: 05/25/2017

For the latest performance data, always visit our website: www.tenaris.com

TXP® BTC



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	5.500 in.	Min, Wall Thickness Connection OD	87.5% REGULAR	(*) Grade P110- ICY	6.1.17
Wall Thickness	0.361 in.	Option		COUPLING Body: White	PIPE BODY 1st Band: Whit
Grade	P110-ICY*	Drift	API Standard	1st Band: Pale	2nd Band: Pale
		Туре	Casing	2nd Band: - 3rd Band: -	3rd Band: Pale Green 4th Band: -
PIPE BODY DAT	A				
GEOMETRY				_	
Nominal OD	5.500 in.	Nominal Weight	20 lbs/ft	Drift	<b>4.653</b> in.
			· · · · -		
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Plain End Weight	19.83 lbs/ft
	- ΔΡΙ				
	ALI				
PERFORMANCE					
Body Yield Strength	729 x1000 lbs	Internal Yield	14360 psi	SMYS	125000 psi
Collapse	12100 psi			,	
Collapse	12100 psi			· 	
Collapse CONNECTION D	12100 psi			·	
Collapse CONNECTION DA GEOMETRY Connection OD	12100 psi ATA 6,100 in,	Coupling Length	9.45 in.	Connection ID	<b>4.766</b> in.
Collapse CONNECTION D GEOMETRY Connection OD	12100 psi ATA 6.100 in.	Coupling Length	9,45 in.	Connection ID	<b>4.766</b> in.
Collapse CONNECTION D GEOMETRY Connection OD Make-up Loss	12100 psi ATA 6.100 in. 4.204 in.	Coupling Length	9.45 in. 5	Connection ID	4.766 in. REGULAR
Collapse CONNECTION D. GEOMETRY Connection OD Make-up Loss	12100 psi ATA 6,100 in. 4,204 in.	Coupling Length	9.45 in. 5	Connection ID	4.766 in. REGULAR
Collapse CONNECTION D GEOMETRY Connection OD Make-up Loss PERFORMANCE	12100 psi ATA 6.100 in. 4.204 in.	Coupling Length	9.45 in. 5	Connection ID Connection OD Option	4.766 in. REGULAR
Collapse CONNECTION D. GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency	12100 psi ATA 6.100 in. 4.204 in. 100 %	Coupling Length	9.45 in. 5 729.000 ×1000 Ibs	Connection ID	4.766 in. REGULAR 14360.000 p
Collapse CONNECTION D. GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency Compression Efficiency	12100 psi ATA 6.100 in. 4.204 in. 100 %	Coupling Length Threads per in Joint Yield Strength Compression Strength	9.45 in. 5 729.000 ×1000 lbs 729.000 ×1000 lbs	Connection ID Connection OD Option Internal Pressure Capacity <sup>(1)</sup> Max. Allowable Bending	4.766 in. REGULAR 14360.000 p 104 */100 ft
Collapse CONNECTION D GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency Compression Efficiency External Pressure Capacit	12100 psi ATA 6,100 in. 4.204 in. 100 % 100 %	Coupling Length Threads per in Joint Yield Strength Compression Strength	9.45 in. 5 729.000 ×1000 lbs 729.000 ×1000 lbs	Connection ID Connection OD Option	4.766 in. REGULAR 14360.000 p 104 */100 ft
Collapse CONNECTION D GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency Compression Efficiency External Pressure Capacit	12100 psi ATA 6.100 in. 4.204 in. 100 % 100 % 100 % 100 %	Coupling Length Threads per in Joint Yield Strength Compression Strength	9.45 in. 5 729.000 ×1000 lbs 729.000 ×1000 lbs	Connection ID Connection OD Option Internal Pressure Capacity <sup>[1]</sup> Max. Allowable Bending	4.766 in. REGULAR 14360.000 p 104 */100 ft
Collapse CONNECTION D. GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency Compression Efficiency External Pressure Capacit MAKE-UP TORQ	12100 psi ATA 6.100 in. 4.204 in. 100 % 100 %	Coupling Length Threads per in Joint Yield Strength Compression Strength	9.45 in. 5 729.000 ×1000 lbs 729.000 ×1000 lbs	Connection ID Connection OD Option Internal Pressure Capacity <sup>[1]</sup> Max. Allowable Bending	4.766 in. REGULAR 14360.000 p 104 */100 ft
Collapse CONNECTION D GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency Compression Efficiency External Pressure Capacil MAKE-UP TORQ Minimum	12100 psi ATA 6.100 in. 4.204 in. 100 % 100 % 100 % ty 12100.000 psi HUES 11540 ft-lbs	Coupling Length Threads per in Joint Yield Strength Compression Strength Optimum	9.45 in. 5 729.000 ×1000 lbs 729.000 ×1000 lbs 12820 ft-lbs	Connection ID Connection OD Option Internal Pressure Capacity <sup>[1]</sup> Max. Atlowable Bending Maximum	4.766 in. REGULAR 14360.000 p 104 */100 ft 14100 ft-lbs
Collapse CONNECTION D GEOMETRY Connection OD Make-up Loss PERFORMANCE Tension Efficiency Compression Efficiency External Pressure Capacit MAKE-UP TORQ Minimum QPERATION LIM	12100 psi ATA 6.100 in. 4.204 in. 100 % 100 % 100 % 100 % 1100 %	Coupling Length Threads per in Joint Yield Strength Compression Strength Optimum	9.45 in. 5 729.000 ×1000 lbs 729.000 ×1000 lbs 12820 ft-lbs	Connection ID Connection OD Option Internal Pressure Capacity (1) Max. Allowable Bending Maximum	4.766 in. REGULAR 14360.000 p 104 */100 ft 14100 ft-lbs

#### Notes

This connection is fully interchangeable with:

TXP® BTC - 5.5 in. - 15.5 / 17 / 23 / 26 lbs/ft

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

ONSHORE ORDER NO. 1 Chevron SD 14 23 FED P19 15H Lea County, NM

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#### 1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler		662	
Castile		2838	
Lamar		4615	
Bell Canyon		4674	
Cherry Canyon		5647	
Brushy Canyon		7237	
Bone Spring Limestone		8843	
Upr. Avalon		8883	
Top Bone Spring 1		9727	
Top Bone Spring 2		10336	
SBSG 3rd Carb		10785	
Top Bone Spring 3		11475	
Wolfcamp		11905	
Lateral TD (Wolfcamp A1)		12,148	22,386

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

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

Substance	Formation	Depth				
Deepest Expect	Deepest Expected Base of Fresh Water					
Water	Rustler	662				
Water	Bell Canyon	4674				
Water	Cherry Canyon	5647				
Oil/Gas	Brushy Canyon	7237				
Oil/Gas	Bone Spring Limestone	8843				
Oil/Gas	Upr. Avalon	8883				
Oil/Gas	Top Bone Spring 1	9727				
Oil/Gas	Top Bone Spring 2	10336				
Oil/Gas	Top Bone Spring 3	11475				
Oil/Gas	Wolfcamp	11905				
Oil/Gas						
Oil/Gas						

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

#### 3. BOP EQUIPMENT

Will have a minimum of a 10000 psi rig stack (see proposed schematic) for drill out below intermediate casing (Wolfcamp is not exposed until drillout of the intermediate casing). Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise.

Chevron requests a variance to use a FMC UH2 Multibowl wellhead, which will be run through the rig foor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal. CoFlex choke hose will be used for all wells on the pad (variance request and specs attached)

#### 4. CASING PROGRAM

a. The proposed casing program will be as follows:

Purpose	From	То	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	800'	17-1/2"	13-3/8"	54.5 #	J55	STC	New
Intermediate	0'	10,910'	12-1/4"	9-5/8"	43.5#	L80	LTC	New
Production	0'	22,386'	8-1/2"	5-1/2"	20.0 #	P-110-ICY	TXP BTC	New

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

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

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

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

Surface Casing:	800'			
Intermediate Casing	: 10,800' 7	TVD		
Production Casing:	22,386'	MD/12,148' TVD (10,07'	1' VS @ 90 deg inc)	
Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.36	3.12	3.38	1.70
Intermediate	1.24	1.44	1.93	1.50
Production	1.11	1.37	2.02	1.37

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

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

#### 5. CEMENTING PROGRAM

Slurry	Туре	Тор	Bottom	Weight	Yield	%Excess	Sacks	Water	Additives
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk	
Tail	Class C	0'	800'	14.8	1.33	100	872	6.38	Extender Antifoam Retarder
Intermediate									
Stage 2 Lead	50:50 Poz Class C	0'	4330	11.9	2.43	200	1484	13.75	Antifoam Extender Salt Retarder Viscosifier
Stage 2 Tail	Class C	4330_	4630	14.8	1.33	50	<u>106</u>	<u>6.36</u>	Antifoam Retarder Viscosifier
Stage 1 Lead	50:50 Poz Class C	4,630'	10,410'	11.9	2.43	50	1118	13.75	Antifoam Retarder Viscosifier
Stage 1 Tail	Class C	10,410'	10,910'	14.8	1.33	50	205	6.36	Antifoam Retarder Dispersent
Production									
Tail	Class H	10,075'	22,386'	15.6	1.2	35	3126	5.05	Antifoam Dispersent Fluid Loss Retarder Viscosifier

1. Final cement volumes will be determined by caliper.

2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.

3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

#### 6. MUD PROGRAM

From	То	Туре	Weight	F. Vis	Filtrate
0'	800'	Spud Mud	8.3 - 8.7	32 - 34	NC - NC
800'	10,910'	Oil Based Mud	9.5-11.1	28 - 30	25 - 30
10,910'	22,386'	Oil Based Mud	9.5-14.1	70 - 75	25 - 30

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

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

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

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

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

#### 7. TESTING, LOGGING, AND CORING

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

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

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

c. Conventional whole core samples are not planned.

d. A Directional Survey will be run.

#### 8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. No abnormal pressures or temperatures are expected. Estimated BHP is: 7653 psi

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



# Casing and Tubing Performance Data

#### PIPE BODY DATA

GEOMETR)

Outside Diameter	13.375 in	Wall Thickness	0.380 in	API Drift Diameter	12.459 in
Nominal Weight	54.50 lbs/ft	Nominal ID	12.615 in	Alternative Drift Diameter	n.a.
Plain End Weight	52.79 lbs/ft	Nominal cross section	15.513 in		
		PER	FORMANCI		
Steel Grade	J55	Minimum Yield	55,000 psi	Minimum Ultimate	75,000 psi
Tension Yield	853,000 in	Internal Pressure Yield	2,730 psi	Collapse Pressure	1,130 psi
Available Seamless	Yes	Available Welded	Yes		
		CONNE		TA	
TYPE: STC		G	EOMETR		
Coupling Reg OD	14.375 in	Threads per in	8	Thread turns make up	3.5
		PER	RFORMANCI		
Steel Grade	J55	Coupling Min Yield	55,000 psi	Coupling Min Ultimate	75,000 psi
Joint Strength	514,000 lbs			Internal Pressure Resistance	2,730 psi

3



#### Oute Sheet

#### TH DS-12.0880 12 Dec 13 Rev 00

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		ગે∾તે સંવ્યુ	× 500 m		
Nominal OD	9.625 in.	Nominal Weight	43.50 lbs/ft	Standard Drift Diameter	8.599 in.
Nominal ID	8.755 in.	Wall Thickness	0.435 in.	Special Drift Diameter	8.625 in.
Plain End Weight	42.73 lbs/ft				
Body Yield Strength	1005 x 1000 lbs	internal Yield	6330 psi	Collapse	4830 psi
	••••••••••••••••••••••••••••••••••••••	CAPER 1	07 0X, 2		····
Coupling Regular OD	10.625 in.	Threads per inch	8	Hand-Tight Standoff Thread Turns	3.5
Joint Strength	813 x 1000 lbs.	Internal Pressure Resistance	6330 psi		

(1) Non API size/grade combination for LTC.

Performance calculated according to API Standards 5CT and 5B and API Technical Report 5C3. Joint Strength as per API TR 5C3 1st Edition/ISO 10400:2007 - Section 9 Internal Pressure Resistance as per API TR 5C3 1st Edition/ISO 10400:2007 - Section 10



### SD 14 23 FED P19 15H, 16H, 17H, 18H, 19H, 20H

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.

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

- 1. Physical and chemical properties of H<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.

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.
- 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;
- 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;
- 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.



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.

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

- 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.
- 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.
- 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.

- a) Flare Line 150' from wellhead with igniter.
- b) Choke manifold with a remotely operated choke.
- c) Mud / gas separator

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

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



Page 4 of 4

.





#### PLANNED WELLPATH REPORT (CSV version) Prepared by Baker Hughes Software System: WellArchitect<sup>®</sup> 5.0

#### REFERENCE WELLPATH IDENTIFICATION

 Operator
 Chevron U.S.A. Inc.

 Area
 Lea County, NM

 Field
 Bone Spring (Lea County, NM) NAD 27

 Facility
 Salado Draw Pad 19

 Slot
 SD 14 23 FED P19 15H

 Well
 SD 14 23 FED P19 15H

 Wellpath
 SD 14 23 FED P19 15H

 Wellpath
 SD 14 23 FED P19 15H

 Sidetrack
 (none)

#### REPORT SETUP INFORMATION

 Projection S NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet

 North Reference
 Grid

 Scale
 0.999962

 Convergence at slot
 0.37° East

 Software System
 WellArchitect\* 5.0

 User
 Tranlam

 Report Generated
 5/1/2018 at 9:13:54 AM

 DataBase/Source file
 WA\_Midland/ev90.xml

#### WELLPATH LOCATION

	Local														
	North	Local East	Easting	Northing	Latitude	Longitude									
	[ft]	(ft)	[US ft]	[US ft]											
Slot Location	(	o c	714388	382213	32°02'56.148"N	103°38'28.993"W									
Facility Reference Pt			714388	382213	32°02'56.148"N	103°38'28.993"W									
Field Reference Pt			152400.3	0	30°59'42.846"N	105°26'33.659"W									
WELLPATH DATUM															
Calculation method					Minimum curvature										
Horizontal Reference Po	oint				Slot										
Vertical Reference Point	t				Unknown rig (KB)										
MD Reference Point					Unknown rig (KB)										
Field Vertical Reference					Mean Sea Level										
Unknown rig (KB) to Fac	cility Verti	ical Datum			3250.60ft										
Unknown rig (KB) to Me	ean Sea Le	vel			3250.60ft										
Unknown rig (KB) to Gre	ound Leve	el at Slot (SD	14 23 FED I	P19 15H)	32.60ft										
Section Origin					N 0.00, E 0.00 ft										
Section Azimuth					180.03°										
		<b>a</b>		AL 000'00 00 000	N. 77.00 70 70	C: /	C'00/CT /	C/:T00-	64:457	CT		100.007	CT.	0.7666	
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	0	U 0	<u> </u>	M.C19 98,85,801	NuLCP 85,00,75	LOCHTOC	BUELELL	91.200-	20 922	70 / 17.	28 39/28	190 981	31 CT	3 CESE	
	0	0	·	141.0CE 32.8E.201	N. (CT 85.CU, CE	L USVC82	L 354614	10.000-	33 710	76.802-	20.0225	100 686	31 CT	9.7505	
	<u>~</u>	0	o 0	M TO/ CC 90 COT	N.7/1 90.70 70	C CCVC82	2.408211	E8.E8C-	78.002	15'007-	10.1248	186'887	51	9.2555	<u> </u>
	<u> </u>	0	0	M. 1/+'CS 95 501	N. CZL 85.CO.CE	8 21VL82	/ 07051/	00.000-	5'76T	11 761-	04-U0CC	106.902	ct	9'75#5	
	0	0	<u> </u>	AN #61'CC 95 501	N 700'95 70 75	/60700	1.000011	20.460-	96'591	/'581-	88.0355	186'887	эт ст	97555	· · ·
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	0	0	0	M.979'#F.8F.FOT	N	1.085285	1.20651/	\$6'S85-	\$T.\al	68'991-	1.0/02	186'887	ST	9'7515	
	0	0	0	W"EAE.45'46'85'E01	N.87/ 15.20.2E	/'T/EZ8E	9'926ET2	97'197-	£4'85T	87.821-	1.4/92	186.882	51	9.2505	i
	0	0	0	M. 650'7E.8E.EOL	N. 299'/5.20.22	£'£9£Z8E	LSGELL	66'927-	TE'OST	-120.08	TS.7782	186'88Z	st	9'7267	+
	0	0	0	M.SLL'EE.8E.EDT	N.845 45 20 28	6'752782	5.279517	15.514-	141.89	141.67	26.0872	186'88Z	ST	9'7587	+
	0	0	0	M. 167 EE.8E.E01	N. 267 / S.ZO.ZE	5'972782	174000	<del>7</del> 0.885-	733.47	72.551-	2684.33	T86'88Z	ST	9.2572	+
	0	0	0	M.,802'EE.8E.E0T	N.807 45.20.2E	1.855285	5.420417	95'£9£-	\$0'5ZT	98.421-	£7.7822	T86.882	ST	9.2592	+
	0	0	0	M., 726.22.82.201	N. 778'45.70.78	9.625285	6.840417	60.655-	116.63	97'911-	2491.14	186'88Z	ST	5235.6	+
	0	0	0	M079.38.35.940M	N. 682 25.20.28	2.125285	114073.4	19'716-	708.22	50'80T-	2394.55	186.882	ST	9'7872	4
	0	0	0	M.LSE'ZE,8E.EOI	N., #ST'25, 20, 28	8.215285	6.760417	ÞT'06Z-	8.66	S9'66-	96'792	186.882	st	9.2552	+
	0	0	0	W"ET0.25'85'ED1	N. 690 LS.ZO.ZE	382304.4	714122.4	<b>765.65</b>	85.16	+7°T6-	5201.36	186.882	ST	5232.6	+
	0	0	0	W" 687.15'85*501	N., 786.95.20.2E	382296	8.841417	61.142-	96'78	£8.28-	77.4012	186.882	ST	9'7877	+
	0	0	0	M.,505'TE.8E.EOT	N.,668'95.20,2E	3.782285	5.171417	Z <i>L</i> '9TZ-	74.54	£4.47-	2008.18	186.882	51	9.2502	ŧ
	0	0	0	M"ZZZ'TE.8E,EOT	N,,718'95,20,22	1.972285	8.201417	¥2.521-	21.99	20.99-	65'TT6T	T86'88Z	st	9'7861	+
	0	0	0	W"859.05'85'EDL	N.021.95.20.22	382270.7	714220.2	<i>LL'L</i> 91-	t <i>L'L</i> S	29.72-	1814'66	186.882	ST	<b>1833'9</b>	+
	0	0	0	W"423.05'88'501	N"579'95.20,2E	387562.3	714244.7	62.841-	62.64	12.94	\$`8TLT	186.882	ST	9'ZELT	+
bliu8 to br3	0	5.1	S'T	W"024.36'38''	N.SLS'95.ZO.ZE	385255.3	714264.9	80.621-	45.33	72.24-	<b>Te38.62</b>	186.882	sī	0591	
	0	5'T	5°T	W"175.35'30.37	N095'95,20,2E	6'ESZZ8E	714269.2	58'8TT-	88.04	28.0 <del>1-</del>	8.1291	186.982	14.739	J635.6	÷
	0	2.I	S'I	W"a01.05'88'E01	N"187'95,20,22	385540	714292	96-	33.02	79.25-	1254.77	186'88Z	13°536	9`785T	+
	0	5'T	5°T	M. 698.62.88.201	N"017'95,70,7E	6EZZ8E	2.515417	SS'SZ-	66°5Z	56.25-	1457.14	186'88Z	6E7.II	1435.6	+
	0	5'T	S'T	M.099'6Z,8E,EOT	N"278'95,20,28	3.252285	714330.5	22.72-	6 <u>7</u> .01	92.61-	1328.97	186.882	562.01	1333'9	+
	0	5'T	5'T	W"eT4.es'88'soit	N., E67 95, 70, 78	382227.4	714346.1	£6'I7-	14 45	-14'4	1230.34	186.882	6E7.8	9'ZEZT	+
	0	5.1	5'T	W"728.29.327W	N.,872.95.20.2E	382222.9	Z.925417	67.82-	6.6	68.6-	1131'35	186.882	652.7	1135.6	+
	0	5'T	2.1	Mu£02.38.38.301	N"TTZ 95.20,2E	2.012285	6.636417	1.81-	6.23	-9'55	1031.96	186.882	6£7.2	1035 <sup>.</sup> 6	+
	0	5'T	5'1	W"801.95'88'29.108"W	N"281.32'50'55	4.912285	1.875417	88.6-	3.4	6E.E <del>.</del>	932.34	186.882	682.4	932.6	+
	0	5°T	5'T	W"140.95'85'E01	N"Z91'95.ZQ,ZE	9.412285	9.585417	51.12	1.42	54.I-	832.53	186.882	2.739	9.228	+
	86'58-	5.1	5.1	W"E00.25'88°201	N.,151'95,20,28	E.ETSS8E	2.786417	48.0-	62.0	62.0-	65'ZEL	186.882	1.239	9.287	+
fineaneT to bn3	0	0	0	W"E99.38'38'93"W	32.02,26.148"N	ETZZBE	714388	0	0	0	059	186.882	0	059	
	0	0	0	W"EEE.85'85'55'	N.871.95.20.2E	382213	714388	0	0	0	9'729	186.882	0	9'729	+
<u>_</u>	0	0	0	W"E66.82'85'55	N"841.82'56'148'N	ETZZBE	714388	0	0	0	233 6	186.882	0	9.252	+
	0	0	0	M. 666'82.88.601	35.05.20°348"N	382213	886417	0	0	0	9'267	186.882	0	97267	+
	0	0	0	M.E66'87.8E.E0T	N.871 95.20.2E	382213	885017	0	0	0	9 288	186 882	0	9.255	+
	0	0	0	W"E69.85'88'99'	N.871.95.20.28	E1228E	2000011	0	0	0	9 252	186.882	0	532 6	+
	0	0	0	W"E69 82'88'28 993'W	N.871 95,20.78	ELCCRE	885417	0	<u> </u>	0	9.56	180 885	0	9751	+
Tie On	0	0		M. 200 80.88.EOI	Nu871 95.00.25	E1668E	BOCHT /	0	0	0	3 (5	106.002	0	9 ()	
	U Dugat / 1	U Dugar / 1	U DUDDT / 2	W1"599 RC'85°EOI	N"921 32'00'25	LICCOL	BAFAIT	50	10	<u>hit</u>	- <u>hu</u>	110 882	<u> </u>	60	+
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		- F. B M	I						L	nottes	e bəteloqer	txa\bateloq	netniŠ ,	ATAG HI	MELLPA

	0	0	0	M,,061.65'85'501	N.,861'65.20.2E S'STS28E	713508.4	9.678-	55.50E	60'Z0E-	8453.64	£0.081	0	9.2528	+
	0	0	0	M.,061'6E,8E,E01	N.,861'65,20.28 5'515288	713208.4	9.678-	302.55	60.205-	¥9'TZE8	180.03	0	9.2548	+
	0	0	0	M.,061'6E,8E,E01	N"891.92'5'22"22"22"52'25'28E	713208.4	9.678-	55.205	-305,09	8221.64	£0.081	0	9.2558	+
	0	0	0	M.061'6E,8E.E01	N,861'65,20.28 S'SISZ88	P.802E17	9.678-	55'202	60.205-	8151.64	180.03	0	9.5528	+
	0	0	0	M.,061'6E,8E,E01	N.861'65.20.28 5'515288	\$'80SET/	9.678-	55.205	60'Z0E-	<del>79</del> .1208	£0.081	0	9'7818	+
	0	0	0	W"001.05'85"501	N.861'65.20.2E 5'51528E	4'80SETL	9.678-	55.205	60.205-	79.12er	£0.081	0	9.2208	+
	0	ō	0	M.061 65.85.501	N.861'65.20.28 5'515288	\$'80SET/	9'6/8-	55.205	60.205-	1821.64	£0.081	0	9.2567	
	0	0	0	M-061'65.85-501	N-861'65.20-2E S'STSZ8E	\$'80SET/	9.6/8-	55.205	60'705-	t9'12//	£0.081	0	9'758/	i
	10	0	0	M-061 65.85-501	N-861'65.70.7E S'SIS78E	7.802E17	9 6/8-	SS'ZOE	60'Z0E-	201794	£0.081	0	9.2577	i
	0	0	0	M-061'65.85-501	N.861'65.70.75 S'SIS785	*'80SET/	9.6/8-	55.202	60'705-	9'T75/	F0'08T	0	9'759/	·
	0	6	6	M.061.65.85.501	N.861'65.70.75 5'515785	\$'80SET/	9.6/8-	55'705	60'705-	9'T77/	E0.081	0	9.752	<u>v</u>
	0	0	0	M-061 65.85-501	N.861'65.70.7E 5'51578E	#'80SET/	9.678-	55.205	60'708-	\$9'TZE/	£0.081	0	9.254/	<u>_</u>
	0	0	0	M.061'65.85.501	N.861'65.70.75 5'515785	*'80SET/	9.6/8-	55.205	60'708-	#9'TZZ/	E0.081	<u>,</u>	9'755/	<u>.</u>
	10	6	0	M.061'65.85.501	N.851'65.70.7515'515785	#'80SET/	9.6/8-	55.205	60.208-	9'I7I/	F0'08T	0	9'757/	¥
		10	0	M.061'65.85.501	N.861'65.70.7E S'STS78E	P.802E11	9.6/8-	55'705	60'705-	t9'T70/	£0'08T	0	9'751/	
	<u> </u>	<u> </u>	<u> </u>	M.061'65.85.501	N. 861'65 70 75 5'515785	*'805£1/	9'6/8-	55.205	50'705-	#9'T769	E0.081	0	9'750/	
	0	<u> </u>	0	M OFT'ES PE SOT	N 961'65 70 75 C'515785	#'90CET /	9.6/8-	55.505	60'705-	+0°T790	CO.061	°	9.7669	<u> </u>
	10	6	<u> </u>	M OFT'SE PE EDT	N 961'66 70 75 C'CTE795	#'90CCT/	9.6/0-	55'70C	60.206-	HO'T7/0	CO 001	<u>~</u>	0.2000	<u>_</u>
	0	<u> </u>	0	M OFT'EC PC COT	N 961'66 70 75 C'CTC795	# 90CCT/	0.210-	53 CO2	60.205-	HQ'T700	CO.061	<u> </u>	0.26/0	<u> </u>
	6	6	0	MINOGT GEISE COT	N 961 65 70 75 5 513685	+ 903CT/	0.610-	33 000	60'705+	+0'TZC0	C0'001	<u> </u>	0.2000	
	<u><u> </u></u>	0	0	AN OFT'ES PS SOT	N OCT CC 70 70 CCTC70C	*'00CCT/	9.610-	33 202	60.205-	HO'T 7 HO	CO 081	<u>~</u>	0'700	
	li l	<u> </u>		AN OCT CC DC COT	N DOT 03,00.00 3 313080	P BOSCIL	9.610-	33 LUC	60.205-	+0'170	CO'001	<u> </u>	0.2640	
		0	0	Ma061 65,36,301	Nu801 05:00.02 3 313080	#'00CCT/	9 048-	33 606	60 COC	+0'T770	CO.081	<u>.</u>	0'7550	<u>+</u>
		<u> </u>	0	M.,061 62,82.201	N. 861 65.00.02 515082	P 803212	9 628-	55 202	60'205-	V9 LCC9	CO'081	0	9 (2259	<u> </u>
	<u><u>v</u></u>	<u> </u>		WINDEL 05:85.501	N.861 65.20.22 515282	V BUSELL	9 018-	55 202	60 202-	V9 1019	EU U81	<u> </u>	9 2223	+
	0		0	W.DEL 05.85.501	N.861 65.00.22 5 515282	V BUSELL	9 628-	55 202	60 20E-	10.1100	180.031	<u> </u>	9 2819	+
	0	<u> </u>		M.,061 68,88.801	N.861 65.00.02 515082	P 805212	9.678-	55 208	60 202-	79 1265	180.03	0	9 2509	+
	0		0	W"OP1 05'85"501	N#861 65.20.22 515282	V 805212	9 628-	55 208	50 202	V9 1285	50 081	0	9 (205	+
	D		0	W"061.95'85*501	N.861 65.20.28 515288	V 805212	9 628-	55 208	60 20E-	791225	50.081	0	9 2885	+
	0		0	W"001.05'88'85'E01	N.861.65'20'5E 2.212585	PROSEIL	9.678-	55.505	60 208-	79 1295	180.03	0	972825	+
	0		0	W"001.05'85'501	N.861 65.20.28 5 515288	713208 9	9 678-	55.505	60.505-	79 1255	180.03	0	9.2592	+
	0	0	0	W"001.05'86*E01	N"891.92'92'512'58'	P.802E17	9 628-	302.55	60'Z0E-	2421.64	£0.081	0	9'7555	+
	0	0	0	W"001.05'85*E01	N"8et.e2'50*55 2.212585	P.802E17	9.678-	22.55	-305°0	2321.64	£0.081	0	2433'9	+
	0	0	0	W"081.85*801	N.861.62'50'55 22'28'	P.802517	9'628-	302.55	60.205-	2221.64	£0.081	0	9.2552	+
aoi O fo bri	1 26.7921	2.1-	5.1	W"001.05'85*501	N"801.02'20'25 2.212'58	4.802ETT	9'628-	302.55	60.205-	22.7522	£0.081	0	2.8522	
	0	5.1-	5'T	W"001.05'85"ED1	N"8215252525285285	P.802517	9.678-	35.205	60'Z0E-	2757.64	186.882	<del>1</del> 80.0	9.2528	+
	0	<u>5'T-</u>	5'T	W"471.95'85°E01	N"EEL.E2*02*2E L.E1258E	8.602ETT	22.878-	80.205	29.105-	2021.65	186.88Z	\$85.I	2135.6	+
	0	5.1-	st	W"951.95'38'501	N"271.22*22*25*2	T.ELZETT	75.278-	300.75	62.00£-	47.1224	186.882	3.084	9.2502	+
	0	5.1-	5'T	W"820.950.056"W	N"251.62'50'56 8.50	025517	20.888-	85.862	ZT.862-	79.1284	186.885	482.4	9.2564	+
	0	5.1-	5.1	W"428.85'85'85'85'	N"221.62'32*02'5.802'85	8.8225£17	92.928-	22.262	1'562-	4,2274	186.882	<b>\$</b> 80.9	9.5584	+
	0	5.1-	5'T	W"428.88'88'80'	N. 880.62'20"25 T. 402285	713240	10.848-	89'162	4 <u>5.195-</u>	71.5234	186.885	\$ <b>*85</b> 'L	9.2574	+
	0	5.1-	2°T	W"258538.85*E01	N.,070'65,05,26 05,28	LIBSSETT	5.458-	76.982	£2.86.53	4224.18	186.882	1780.6	9'7297	+
	0	5.1-	5'T	W"774.85'85'EOL	N"282494.4 32"02"58.58	6.692517	ST'818-	14.182	66'082-	4452.65	186.882	10'28 <del>1</del>	9'785#	+
	0	5.1-	5"I	M., 292, 38, 38, 262"W	N.026.82'50'55 88428E	5.882517	72.997-	20.275	9'\$/2•	9.7284	186.882	12.084	9'ZE##	+
	0	5°1-	S.I	M"610'85,85,801	N"748.82'50'55 8.084285	2.200517	95'8//-	8.7ð <u>2</u>	65.762-	4530.1	186.885	13.584	9.2554	+
fingent to bu	0	0	0	W"E97.75'85'ED1	N"177.82'50'56 5.57458E	2.13631.5	£2.327-	560.22	28.625-	63.8514	186.882	ST	4538.2	
	0	0	0	W"TAT 75'38'37 747	382472.7 32°02'58.766"N	9.259517	91.857-	SZ <sup>1</sup> 6SZ	55.92-	4133'55	186.885	st	9'252'0	+
	0	0	0	W"E34.75'85'E01	N. 189'85.20.22 E'79728E	7.73657.4	89'057-	227:33	76'0SZ-	4036.62	186.882	SI	4735.6	+
	0	0	0	W"081.75'85°E01	N.965 85.20.2E 6'55728E	8.189517	12.807-	242.91	-242.54	3940.03	186.885	SI	4035.6	+

B72.6         0         180.03         827.164         902.95         479.6         173.60         932.55         979.7         173.60         932.55	t
	A51101 N 102°38'30 201'W
Bit 2.6         0         180.03         6821.64	W"272 05 85 85 10 N"001 04'20"
Big2.6         0         180.03         862.1.64         -92.2.9         92.55         -479.6         713506.4         382.1.53           Big2.6         0         180.03         862.1.64         -92.2.9         302.55         -479.6         713506.4         382.1.54           Big2.6         0         180.03         882.1.64         -302.09         302.55         -479.6         713506.4         382.1.54           Big3.6         0         180.03         882.1.64         -302.09         302.55         -479.6         713506.4         382.1.54           Big3.6         0         180.03         922.1.64         -302.09         302.55         -479.6         713506.4         382.1.54           Big3.6         0         180.03         922.1.64         -302.09         302.55         -479.6         713506.4         382.51.5           10032.6         0         180.03         922.1.64         -302.09         302.55         -479.6         713506.4         382.51.5           10032.6         0         180.03         1022.1.64         -302.09         302.55         -479.6         713506.4         382.51.5           10032.6         0         180.03         1022.1.64         -302.09         302.5	32°02'50.098"N 103°38'39.264"W
Bit2.6         0         18003         Bit2.4         902.09         302.55         479.6         713508.4         302.103           Bit32.6         0         18003         Bit2.4         -302.09         302.55         479.6         713508.4         302.155           Bit32.6         0         18003         Bit1.44         -302.09         302.55         479.6         713508.4         302.155           9132.6         0         18003         921.164         -302.09         302.55         479.6         713508.4         302.155           9132.6         0         18003         921.164         -302.09         302.55         479.6         713508.4         302.155           9132.6         0         18003         921.164         -302.09         302.55         479.6         713508.4         302.155           9132.6         0         18003         921.164         -302.09         302.55         479.6         713508.4         302.155           91032.6         0         18003         921.164         -302.09         302.55         479.6         713508.4         302.155           10032.6         0         18003         10221.64         -302.09         302.55         479.6	32*02'51.088"N 103*38'39.256"W
BB32.6         0         180.03         B22.1.64	32"02'52.077"N 103"38'39.248"W
B62.6         0         180.03         B52.1.64	12*02'53.067"N 103*38'39.240"W
BR32.6         0         18003         8271.64         -002.93         902.55         -479.6         713508.4         9825.55         979.6         713508.4<	2*02'53.528"N 103*38'39.236"W
Bizz, 6         0         180,03         822,164         -302,09         302,255         -479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         827,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         827,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         921,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         921,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         921,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         921,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         921,164         -302,09         302,255         479,6         713508.4         38251.5 3           Bizz, 6         0         180,03         1021,164         -302,09 <td< td=""><td>2*02'54.056"N 103*38'39.232"W</td></td<>	2*02'54.056"N 103*38'39.232"W
B722.6         0         1800.3         SE21.64         -902.09         302.55         479.6         71350.4         38221.53           B932.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38221.53           9932.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38221.53           9932.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38221.53           9432.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38221.53           9432.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38221.53           9432.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38251.53           9432.6         0         1800.3         SE21.64         -302.09         302.55         479.6         71350.4         38251.53           9432.6         0         1800.3         SE21.64         -302.09         302.55         479.6	12*02'55.028"N 103*38'39.224"W
B02.6         0         180.03         85.1.64         -902.09         302.55         479.6         713508.4         3825.15         3           8832.6         0         180.03         882.1.64         -902.09         302.55         479.6         713508.4         3825.15         3           9322.6         0         180.03         882.1.64         -902.09         302.55         479.6         713508.4         3825.15         3           9322.6         0         180.03         8921.64         -902.09         302.55         479.6         713508.4         38251.5         3           9322.6         0         180.03         921.164         -902.09         302.55         479.6         713508.4         38251.5         3           932.6         0         180.03         921.164         -302.09         302.55         479.6         713508.4         38251.5         3           932.6         0         180.03         921.164         -302.09         302.55         479.6         713508.4         38251.5         3           10032.6         0         180.03         10021.164         -302.09         302.55         479.6         713508.4         38251.5         3         379.6	2°02'55.954"N 103°38'39.216"W
Big2, 6         0         180,03         82,1.44         -902,09         902,55         -8796         713508.4         9822.5         2796         713508.4         9822.5         -9796         713508.4         9825.5         -9796         713508.4         9825.5         -9796         713508.4         9825.5<	'02'56.807"N 103°38'39.209"W
B03.5         0         180.013         852.1.64         -902.09         902.55         479.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4         932.55.5         979.6         713508.4	02'57.561"N 103"38'39.203"W
B03.5         0         180.03         822.1.64         -902.09         902.55         479.6         713508.4         922.1.55         327.           8932.6         0         180.03         872.1.64         -902.09         902.55         479.6         713508.4         922.1.55         327.           9132.6         0         180.03         882.1.64         -902.09         902.55         479.6         713508.4         923.1.55         327.           9132.6         0         180.03         922.1.64         -902.09         902.55         479.6         713508.4         923.1.55         327.           9132.6         0         180.03         922.1.64         -902.09         902.55         479.6         713508.4         982.1.55         327.           9122.6         0         180.03         922.1.64         -902.09         902.55         479.6         713508.4         982.1.55         327.           9932.6         0         180.03         922.1.64         -902.09         902.55         479.6         713508.4         982.15.5         327.           10032.6         0         180.03         10021.164         -902.09         302.55         479.6         713508.4         982.15.5 <td< td=""><td>02'58.191"N 103"38'39.198"W</td></td<>	02'58.191"N 103"38'39.198"W
B63.5.         D         180.03         852.1.64         -90.2.09         302.55         -879.6         713508.4         3825.15.3         327.           8832.6         0         180.03         8721.64         -302.09         302.55         479.6         713508.4         3825.15.3         327.           932.6         0         180.03         8821.64         -302.09         302.55         479.6         713508.4         38251.5.3         327.           932.6         0         180.03         8821.64         -302.09         302.55         479.6         713508.4         38251.5.3         327.           932.6         0         180.03         921.64         -302.09         302.55         479.6         713508.4         38251.5.3         327.           9532.6         0         180.03         921.64         -302.09         302.55         479.6         713508.4         38251.5.3         327.           9532.6         0         180.03         921.64         -302.09         302.55         479.6         713508.4         38251.5.3         327.           9632.6         0         180.03         1021.64         -302.09         302.55         479.6         713508.4         38251.5.5         327	)2'58.680"N 103"38'39.194"W
B03.5         0         180.03         852.1.64         -902.09         902.55         479.6         713508.4         38251.55         327           8832.6         0         180.03         8721.64         -902.09         302.55         479.6         713508.4         38251.55         327           9322.6         0         180.03         8821.64         -902.09         302.55         479.6         713508.4         38251.55         327           9322.6         0         180.03         921.64         -902.09         302.55         479.6         713508.4         38251.55         327           9322.6         0         180.03         9221.64         -302.09         302.55         479.6         713508.4         38251.55         327           932.6         0         180.03         9221.64         -302.09         302.55         479.6         713508.4         38251.55         327           932.6         0         180.03         9221.64         -302.09         302.55         479.6         713508.4         38251.55         327           1032.6         0         180.03         10021.64         -302.09         302.55         479.6         713508.4         38251.55         327 <td>02'59.013"N 103"38'39.191"W</td>	02'59.013"N 103"38'39.191"W
Biolog         Biolog <thbiolog< th=""> <thbiolog< th=""> <thbiolog< td="" th<=""><td>02'59.179"N 103"38'39.190"W</td></thbiolog<></thbiolog<></thbiolog<>	02'59.179"N 103"38'39.190"W
B732.6         0         1800.3         822.1.64         -902.09         302.55         -879.6         7135084         392.51.5         327           B832.6         0         1800.31         822.1.64         -902.09         302.55         -879.6         7135084         392.1.54         392.1.54         392.1.54         392.1.54         392.1.54         392.1.55         379.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6         7135084         392.1.55         327.6	*02'59.198"N 103*38'39.190"W
BS2.6         1         100.03         822.1.64         -902.09         302.55         -879.6         713508.4         38251.5.32           BS3.6         0         180.03         872.1.64         -902.09         302.55         -879.6         713508.4         38251.5.32           BS3.6         0         180.03         882.1.64         -902.09         302.55         -879.6         713508.4         38251.5.32           S135.6         0         180.03         882.1.64         -302.09         302.55         -879.6         713508.4         38251.5.32           S135.6         0         180.03         921.64         -302.09         302.55         -879.6         713508.4         38251.5.32           S125.6         0         180.03         922.1.64         -302.09         302.55         -879.6         713508.4         38251.5.32           S1003         922.1.64         -302.09         302.55         -879.6         713508.4         38251.5.32           S1003         921.1.64         -302.09         302.55         -879.6         713508.4         38251.5.32           S1003         921.1.64         -302.09         302.55         -879.6         713508.4         38251.5.32           S1033 <td>W"02'59.198"N 103°38'39.190"W</td>	W"02'59.198"N 103°38'39.190"W
B72.6         D         1800.3         822.1.64 822.1.64         -902.09         302.55         -879.6         713508.4         38251.53.2           B832.6         0         1800.31         827.1.64         -302.09         302.55         -879.6         713508.4         38251.53.2           B932.6         0         1800.31         827.1.64         -302.09         302.55         -879.6         713508.4         38251.53.2           932.6         0         1800.31         921.1.64         -302.09         302.55         -879.6         713508.4         38251.5.3.2           932.6         0         1800.31         921.1.64         -302.09         302.55         -879.6         713508.4         38251.5.3.2           9532.6         0         1800.31         921.1.64         -302.09         302.55         -879.6         713508.4         38251.5.3.2           9732.6         0         1800.31         921.1.64         -302.09         302.55         -879.6         713508.4         38251.5.5.3.2           10032.6         0         180.03         1002.1.64         -302.09         302.55         -879.6         713508.4         38251.5.5.3.2           10132.6         0         180.03         1002.1.64	°02'59.198"N 103°38'39.190"W
B732.6         D         1800.3         822.1.64 821.64         -902.09         302.55 827.6         -879.6         71350.4         302.153 322.15.5         327.6           B832.6         0         1800.3         827.1.64 902.0         -302.09         302.55 879.6         -71350.84         38221.5.5         327           B932.6         0         1800.31         827.1.64 902.09         -302.09         302.55 879.6         -71350.84         38221.5.5         327           932.6         0         1800.31         921.1.64 902.09         -302.09         302.55 879.6         -71350.84         38251.5.5         327           932.6         0         180.03         921.1.64 902.09         -302.09         302.55 879.6         -71350.84         38251.5.5         327           932.6         0         180.03         921.1.64 902.09         -302.09         302.55 879.6         71350.84         38251.5.5         327           9932.6         0         180.03         921.164 902.16         -302.09         302.55         -879.6         71350.84         38251.5.5         327           10032.6         0         180.03         1022.1.64         -302.09         302.55         -879.6         71350.84         38251.5.5         327	°02'59.198"N 103°38'39.190"W
B72.6         0         1800.3         822.1.64         -902.09         302.55         -879.6         7135084         392.51.5         327           B832.6         0         1800.31         822.1.64         -902.09         302.55         -879.6         7135084         392.1.55         327           B932.6         0         1800.31         822.1.64         -902.09         302.55         -879.6         7135084         392.1.55         327           9132.6         0         1800.31         921.1.64         -902.09         302.55         -879.6         7135084         382.1.55         32           9132.6         0         1800.31         921.1.64         -902.09         302.55         -879.6         7135084         382.1.55         32           9532.6         0         1800.31         921.1.64         -302.09         302.55         -879.6         7135084         382.1.55         32           9532.6         0         1800.31         921.1.64         -302.09         302.55         -879.6         713508.4         382.1.55         32           9932.6         0         180.03         921.1.64         -302.09         302.55         -879.6         713508.4         382.1.55         32 </td <td>°02'59.198"N 103°38'39.190"W</td>	°02'59.198"N 103°38'39.190"W
Bitz, G         D         1800/3         822.164         -902.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         1800/3         822.164         -302.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         1800/3         822.164         -302.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         1800/3         822.164         -302.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         1800/3         922.164         -302.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         1800/3         922.164         -302.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         180.03         922.164         -302.09         302.55         -879.6         713508.4         38251.5         327           Bitz, G         0         180.03         922.164         -302.09         302.55         -879.6         713508.4         38251.5         327 <td>W"02'59.198"N 103°38'59.190"W</td>	W"02'59.198"N 103°38'59.190"W
BS72.6         0         1800.3         822.1.64         -902.09         302.55         -879.6         713508.4         38221.5         327           B832.6         0         1800.3         827.1.64         -302.09         302.55         -879.6         713508.4         38221.5         322           B932.6         0         1800.3         827.1.64         -302.09         302.55         -879.6         713508.4         38251.5         327           932.6         0         1800.3         827.1.64         -302.09         302.55         -879.6         713508.4         38251.5         327           932.6         0         180.03         927.1.64         -302.09         302.55         -879.6         713508.4         38251.5         327           9532.6         0         180.03         927.1.64         -302.09         302.55         -879.6         713508.4         38251.5         327           9932.6         0         180.03         927.1.64         -302.09         302.55         -879.6         713508.4         38251.5         327           10032.6         0         180.03         927.1.64         -302.09         302.55         -879.6         713508.4         382515.5         327 <td>02'59.198"N 103*38'39.190"W</td>	02'59.198"N 103*38'39.190"W
B32.6         I         B10.03         B22.1.64         -902.09         302.55         -879.6         713508.4         322.1.5.5         32           B32.6         0         180.03         B271.64         -302.09         302.55         -879.6         713508.4         322.1.5.5         32           B32.6         0         180.03         B271.64         -302.09         302.55         -879.6         713508.4         322.1.5.5         32           932.6         0         180.03         B271.64         -302.09         302.55         -879.6         713508.4         322.1.5.5         32           932.6         0         180.03         921.1.64         -302.09         302.55         -879.6         713508.4         322.1.5.5         32           932.6         0         180.03         921.1.64         -302.09         302.55         -879.6         713508.4         322.51.5         32           932.6         0         180.03         921.164         -302.09         302.55         -879.6         713508.4         322.51.5         32           932.6         0         180.03         921.64         -302.09         302.55         -879.6         713508.4         325.55.5         32	°02'59.198"N 103°38'39.190"W
B72.6         0         1800.3         822.164         -902.09         302.55         -879.6         7135084         3922.15         327           B832.6         0         1800.3         827.164         -902.09         302.55         -879.6         7135084         3922.15.5         327           B932.6         0         1800.3         827.164         -902.09         302.55         -879.6         7135084         39251.5.5         327           9132.6         0         1800.3         827.164         -902.09         302.55         -879.6         7135084         38251.5.5         327           9132.6         0         1800.3         921.164         -902.09         302.55         -879.6         7135084         38251.5.5         327           9132.6         0         1800.3         921.164         -902.09         302.55         -879.6         7135084         38251.5.5         32           9532.6         0         1800.3         921.164         -902.09         302.55         -879.6         7135084         38251.5.5         32           9532.6         0         180.03         921.164         -902.09         302.55         -879.6         7135084         38251.5.5         32	°02'59.198"N 103°38'39.190"W
Bitsch         D         180.03         852.1.64         -902.09         902.25         479.6         713508.4         9325.55         327.6           Bitsch         0         180.03         872.1.64         -302.09         302.255         479.6         713508.4         9325.55         327.6           Bitsch         0         180.03         872.1.64         -302.09         302.255         479.6         713508.4         9325.55         327.6           9132.6         0         180.03         8921.64         -302.09         302.55         479.6         713508.4         9325.55         327.6           9132.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         9325.55         327.9           9432.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         98251.5         327.9           9632.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         98251.5         327.9           9632.6         0         180.03         927.164         -302.09         302.55         479.6         713508.4         98251.5         327.	02'59.198"N 103"38'39.190"W
B722.6         0         1800/3         822.1.64         -902.09         902.25         479.6         713508.4         9321.55         327           B832.6         0         180.03         8721.64         -902.09         902.25         479.6         713508.4         9321.55         327           B932.6         0         180.03         8821.64         -902.09         902.25         479.6         713508.4         9321.55         327           9132.6         0         180.03         921.64         -902.09         902.25         479.6         713508.4         9321.55         327           9222.6         0         180.03         9211.64         -902.09         302.25         479.6         713508.4         9321.55         327           932.6         0         180.03         921.64         -902.09         302.55         479.6         713508.4         9321.55         327           9532.6         0         180.03         921.64         -902.09         302.55         479.6         713508.4         9321.55         327           9532.6         0         180.03         921.64         -902.09         302.55         479.6         713508.4         9321.55         327	02'59.198"N 103°38'39.190"W
B722.6         0         180.03         827.1.64         -902.09         302.55         479.6         713508.4         38251.5.5         327           8832.6         0         180.03         872.1.64         -302.09         302.55         479.6         713508.4         38251.5.5         327           8932.6         0         180.03         872.1.64         -302.09         302.55         479.6         713508.4         38251.5.5         327           9132.6         0         180.03         882.1.64         -302.09         302.55         479.6         713508.4         38251.5.5         327           9132.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         38251.5.5         327           932.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         38251.5.5         327           9532.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         38251.5.5         327           9532.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         38251.5.5	02'59.198"N 103"38'39.190"W
B732.6         0         180.03         852.1.64         -902.09         302.55         479.6         713508.4         382.51.5         327.6           8832.6         0         180.03         872.1.64         -902.09         302.55         479.6         713508.4         382.51.5         327.6           8932.6         0         180.03         872.1.64         -902.09         302.55         479.6         713508.4         382.51.5         327.6           9932.6         0         180.03         882.1.64         -302.09         302.55         479.6         713508.4         382.51.5         327.6           9132.6         0         180.03         892.1.64         -302.09         302.55         479.6         713508.4         382.51.5         327.6           9132.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         382.51.5         327.6           9132.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         382.51.5         327.6           9532.6         0         180.03         921.1.64         -302.09         302.55         479.6         713508.4         382.51.5	12'59.198"N 103*38'39.190"W
B652.6         0         1800/3         852.164         -902.09         302.25         -879.6         713508.4         382515.5         3270           8832.6         0         180.03         8871.64         -302.09         302.25         -879.6         713508.4         382515.5         3270           8832.6         0         180.03         8871.64         -302.09         302.25         -879.6         713508.4         382515.5         3270           9932.6         0         180.03         8821.64         -302.09         302.55         -879.6         713508.4         382515.5         3270           9132.6         0         180.03         9021.64         -302.09         302.55         -879.6         713508.4         382515.5         3270           9332.6         0         180.03         9211.64         -302.09         302.55         -879.6         713508.4         382515.5         3270           9432.6         0         180.03         921.64         -302.09         302.55         -879.6         713508.4         382515.5         3270           9432.6         0         180.03         941.64         -302.09         302.55         -879.6         713508.4         382515.5         32	59.198"N 103"38'39.190"W
B632.6         0         1800.9         852.1.64         -902.09         302.25         479.6         713508.4         38251.5.5         327.02           8832.6         0         180.03         8871.64         -902.09         302.25         479.6         713508.4         38251.5.5         327.02           8832.6         0         180.03         8871.64         -902.09         302.25         479.6         713508.4         38251.5.5         327.02           9932.6         0         180.03         8821.64         -302.09         302.55         479.6         713508.4         38251.5.5         327.02           9332.6         0         180.03         8921.64         -302.09         302.55         479.6         713508.4         38251.5.5         327.02           9332.6         0         180.03         921.64         -302.09         302.55         479.6         713508.4         38251.5.5         327.02           9432.6         0         180.03         9221.64         -302.09         302.55         479.6         713508.4         38251.5.5         327.02           9432.6         0         180.03         9221.64         -302.09         302.55         479.6         713508.4         38251.5.5 <td>'59.198"N 103*38'39.190"W</td>	'59.198"N 103*38'39.190"W
B832.6         0         1800.9         827.1.64         -902.09         302.25         -47.96         713508.4         38251.5         327.02           8832.6         0         180.03         827.164         -302.09         302.25         -47.96         713508.4         38251.55         327.02           8832.6         0         180.03         827.164         -302.09         302.25         -87.96         713508.4         38251.55         327.02           9332.6         0         180.03         827.164         -302.09         302.25         -87.96         713508.4         38251.55         327.02           9332.6         0         180.03         8921.64         -302.09         302.55         -87.96         713508.4         38251.55         327.02           9332.6         0         180.03         921.164         -302.09         302.55         -87.96         713508.4         38251.55         327.02           9332.6         0         180.03         921.64         -302.09         302.55         -87.96         713508.4         38251.55         327.02           9332.6         0         180.03         921.64         -302.09         302.55         -87.96         713508.4         38251.55	'59.198"N 103"38'39.190"W
B832.6         0         1800.9         827.1.64         -902.09         302.25         -47.96         713508.4         38251.5         327.02           8832.6         0         180.03         827.1.64         -302.09         302.25         -47.96         713508.4         38251.5         327.02           8832.6         0         180.03         827.1.64         -302.09         302.25         -47.96         713508.4         38251.5.5         327.02           9032.6         0         180.03         827.1.64         -302.09         302.25         -47.96         713508.4         38251.5.5         327.02           9032.6         0         180.03         827.1.64         -302.09         302.25         -47.96         713508.4         38251.5.5         327.02           9132.6         0         180.03         9121.64         -302.09         302.55         -47.96         713508.4         38251.5.5         327.02           9332.6         0         180.03         921.164         -302.09         302.55         -47.96         713508.4         38251.5.5         327.02           9532.6         0         180.03         921.164         -302.09         302.55         -47.96         713508.4         3825	59.198"N 103°38'39.190"W
BF32.6         0         1800.3         8521.64         -902.09         302.55         479.6         /1300.4         38251.51.52         270           8832.6         0         1800.3         8521.64         -902.09         302.55         4879.6         /13508.4         38251.51.52         270           8832.6         0         1800.3         8521.64         -902.09         302.55         4879.6         /13508.4         38251.51.52         270           9932.6         0         1800.3         8521.64         -902.09         302.55         4879.6         /13508.4         38251.51.53         270           9932.6         0         1800.3         921.64         -902.09         302.55         4879.6         /13508.4         38251.53         270           9332.6         0         1800.3         921.64         -902.09         302.55         4879.6         /13508.4         38251.53         270           9332.6         0         1800.3         921.64         -902.09         302.55         4879.6         /13508.4         38251.53         3270           9532.6         0         180.03         921.64         -902.09         302.55         4879.6         /13508.4         38251.53	103*38'39.190"W
6852.6         0         180.03         852.1.64         -902.09         302.25         47.96         713508.4         302515.5         327.02           8832.6         0         180.03         8871.64         -302.09         302.25         47.96         713508.4         302515.5         327.02           8832.6         0         180.03         8871.64         -302.09         302.25         47.96         713508.4         302515.5         327.02           8932.6         0         180.03         8821.64         -302.09         302.55         47.96         713508.4         382515.5         327.02           9332.6         0         180.03         8921.64         -302.09         302.55         47.96         713508.4         382515.5         327.02           9332.6         0         180.03         921.64         -302.09         302.55         47.96         713508.4         382515.5         327.02           9332.6         0         180.03         921.64         -302.09         302.55         47.96         713508.4         382515.5         327.02           9432.6         0         180.03         921.64         -302.09         302.55         47.96         713508.4         382515.5	'59.198"N 103°38'39.190"W
B732.6         0         1800.3         8521.64         -902.09         302.55         479.6         713508.4         38251.53 2° 00           8832.6         0         1800.3         8571.64         -902.09         302.55         479.6         713508.4         38251.53 2° 00           8832.6         0         1800.3         8771.64         -902.09         302.55         479.6         713508.4         38251.53 2° 00           9932.6         0         1800.3         8921.64         -302.09         302.55         479.6         713508.4         38251.53 2° 00           9132.6         0         180.03         8921.64         -302.09         302.55         479.6         713508.4         382515.53 2° 00           9232.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         382515.53 2° 00           932.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         382515.53 2° 00           9432.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         382515.53 2° 00           9632.6         0         180.03         9211.64	V"09.198"N 103*38'39.190"W
B732.6         0         1800.3         8521.64         -902.09         302.35         479.6         713508.4         38231.5         27.0           8832.6         0         1800.3         8721.64         -302.09         302.35         479.6         713508.4         38231.5         27.0           8832.6         0         1800.3         8721.64         -302.09         302.35         479.6         713508.4         38251.5         327.0           8932.6         0         1800.3         8721.64         -302.09         302.35         479.6         713508.4         38251.5         327.0           932.6         0         1800.3         8821.64         -302.09         302.55         479.6         713508.4         38251.5         327.0           932.6         0         1800.3         8921.64         -302.09         302.55         479.6         713508.4         38251.5         327.0           932.6         0         1800.3         9211.64         -302.09         302.55         479.6         713508.4         38251.5         327.0           9332.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         38251.5.5         327.0	2'59.198"N 103*38'39.190"W
8652.6         0         180.03         852.1.64         -90.2.09         302.35         -87.9.6         71350.8.4         38231.5.5         327.0           8832.6         0         180.03         8721.64         -302.09         302.35         -87.9.6         71350.8.4         38231.5.5         327.0.9           8832.6         0         180.03         8721.64         -302.09         302.55         -87.9.6         713508.4         38251.5.5         527.0           8932.6         0         180.03         8721.64         -302.09         302.55         -87.9.6         713508.4         38251.5.5         527.0           9032.6         0         180.03         8821.64         -302.09         302.55         -87.9.6         713508.4         38251.5.5         527.0           9132.6         0         180.03         9021.64         -302.09         302.55         -87.9.6         713508.4         38251.5.5         527.0           9332.6         0         180.03         921.64         -302.09         302.55         -87.9.6         713508.4         38251.5.5         527.0           9432.6         0         180.03         921.64         -302.09         302.55         -87.9.6         713508.4	2'59.198"N 103"38'39.190"W
8632.6         0         180.03         852.1.64         -90.2.09         302.35         -879.6         713508.4         38231.5.5         3270           8832.6         0         180.03         821.64         -302.09         302.35         -879.6         713508.4         38231.5.5         3270           8832.6         0         180.03         8721.64         -302.09         302.35         -879.6         713508.4         38231.5.5         3270           8932.6         0         180.03         8821.64         -302.09         302.35         -879.6         713508.4         38231.5.5         3270           9032.6         0         180.03         8821.64         -302.09         302.35         -879.6         713508.4         38231.5.5         3270           9132.6         0         180.03         921.64         -302.09         302.55         -879.6         713508.4         38251.5.5         3270           9332.6         0         180.03         921.64         -302.09         302.55         -879.6         713508.4         38251.5.5         3270           9332.6         0         180.03         921.64         -302.09         302.55         -879.6         713508.4         38251.5.5	2'59.198"N 103*38'39.190"W
8632.6         0         180/03         8521.64         -902.09         302.55         479.6         713508.4         38251.53         327           8832.6         0         180.03         8721.64         -302.09         302.55         479.6         713508.4         38251.53         327           8832.6         0         180.03         8721.64         -302.09         302.55         479.6         713508.4         38251.53         327           8932.6         0         180.03         8721.64         -302.09         302.55         479.6         713508.4         382515.53         327           9032.6         0         180.03         8821.64         -302.09         302.55         479.6         713508.4         382515.53         327           932.6         0         180.03         921.64         -302.09         302.55         479.6         713508.4         382515.53         327           932.6         0         180.03         9211.64         -302.09         302.55         479.6         713508.4         382515.53         327           932.6         0         180.03         9221.64         -302.09         302.55         479.6         713508.4         38251.55         327 </td <td>02'59.198"N 103"38'39.190"W</td>	02'59.198"N 103"38'39.190"W
873.76         0         1800.33         852.164         -902.09         3072.55         479.6         173508.4         38251.55.32           873.76         0         1800.31         852.164         -902.09         3072.55         479.6         173508.4         38251.55.32           8832.76         0         1800.31         872.164         -302.09         302.55         479.6         713508.4         38251.55.32           9932.76         0         1800.31         882.164         -302.09         302.55         479.6         713508.4         38251.55.32           9032.76         0         1800.31         882.164         -302.09         302.55         479.6         713508.4         38251.55.32           9132.76         0         1800.31         8921.64         -302.09         302.55         479.6         713508.4         38251.55.32           9132.76         0         180.03         9021.64         -302.09         302.55         479.6         713508.4         38251.55.32           9232.6         0         180.03         911.64         -302.09         302.55         479.6         713508.4         38251.5.532           9232.6         0         180.03         911.64         -302.09	02'59.198"N 103*38'39.190"W
8652.6         0         180/03         8521.64         -302.09         302.55         -47.9x         1/3300.44         382515.51         27           8732.6         0         180.03         8621.64         -302.09         302.55         -879.6         /13508.4         382515.51         27           8832.6         0         180.03         8621.64         -302.09         302.55         -879.6         /13508.4         382515.51         32*           8832.6         0         180.03         8821.64         -302.09         302.55         -879.6         /13508.4         382515.53         32*           9032.6         0         180.03         8821.64         -302.09         302.55         -879.6         /13508.4         382515.53         32*           9032.6         0         180.03         8821.64         -302.09         302.55         -879.6         /13508.4         382515.53         32*           9132.6         0         180.03         9021.64         -302.09         302.55         -879.6         /13508.4         382515.53         32*           9132.6         0         180.03         9021.64         -302.09         302.55         -879.6         /13508.4         382515.53	02'59.198"N 103"38'39.190"W
8652.6         0         180.03         8521.64         -502.09         302.55         -879.6         713508.4         382315.532°C           8832.6         0         180.03         8721.64         -302.09         302.55         -879.6         713508.4         382315.532°C           8832.6         0         180.03         8721.64         -302.09         302.55         -879.6         713508.4         382315.532°C           8932.6         0         180.03         8821.64         -302.09         302.55         -879.6         713508.4         382515.532°C           9932.6         0         180.03         8821.64         -302.09         302.55         -879.6         713508.4         382515.532°C           9932.6         0         180.03         8821.64         -302.09         302.55         -879.6         713508.4         382515.532°C           9932.6         0         180.03         8921.64         -302.09         302.55         -879.6         713508.4         382515.532°C	)2'59.198"N 103°38'39.190"W
8932.6         0         180.03         827.164         -902.09         302.25         479.61         13300.44         362.51.54         202.09         302.25         879.6         713508.4         38251.55         327.02           8832.6         0         180.03         8271.64         -302.09         302.25         -879.6         713508.4         38251.55         327.02           8832.6         0         180.03         8721.64         -302.09         302.55         -879.6         713508.4         382515.5         327.02           8932.6         0         180.03         8871.64         -302.09         302.55         -879.6         713508.4         382515.5         327.02           8932.6         0         180.03         8871.64         -302.09         302.55         -879.6         713508.4         382515.5         327.02	59.198"N 103"38"39.190"W
8632.6 0 15003 8521.64 -902.19 302.55 -87.56 713508-4 382215.532703 8732.6 0 15003 8621.64 -302.09 302.55 -879.6 713508.4 382215.532703 8832.6 0 15003 8721.64 -302.09 302.55 -879.6 713508.4 382215.532703	59.198"N 103"38'39.190"W
8532.6 0 180.03 8521.64 -902.09 902.55 -879.6 713508.4 982515.592°0	2'59.198"N 103"38'39.190"W
20 26 20 20 20 20 20 20 20 20 20 20 20 20 20	'59.198"N 103"38'39.190"W
	'59.198"N 103*38'39.190"W

		0	103*38'39.665"W	96.2 32"02'00.620"N	713505.3 3765	-882.7	-5617	5617.47	12148	180.03	90	17932.6	+
		0	103°38'39.657"W	96.2 32*02'01.610"N	713505.4 37669	-882.65	-5517	5517.47	12148	180.03	96	17832.6	+
		•	103°38'39.649"W	96.2 32*02'02.600"N	713505.4 37679	-882.6	-5417	5417.47	12148	180.03	06	17732.6	+
		0	103°38'39.641"W	96.2 32°02'03.589"N	713505.5 3768	-882.55	-5317	5317.47	12148	180.03	90	17632.6	+
		0	103°38'39.633"W	96.2 32°02'04.579"N	713505.5 37699	-882.49	-5217	5217.47	12148	180.03	90	17532.6	+
		0	103°38'39.625"W	96.2 32°02'05.568"N	713505.6 3770	-882.44	-5117	5117.47	12148	180.03	96	17432.6	+
0		0	103*38'39.617"W	96.2 32°02'06.558"N	713505.7 3771	-882.39	-5017	5017.47	12148	180.03	06	17332.6	+
0		0 0	103*38'39.609"W	96.2 32°02'07.547"N	713505.7 37729	-882.34	-4917	4917.47	12148	180.03	06	17232.6	+
0		0	103°38'39.601"W	96.2 32°02'08.537"N	713505.8 3773	-882.28	-4817	4817.47	12148	180.03	06	17132.6	+
		0	103°38'39.593"W	96.2 32°02'09.526"N	713505.8 37749	-882.23	4717	4717.47	12148	180.03	06	17032.6	+
0		0	103°38'39.584"W	96.2 32°02'10.516"N	713505.9 37759	-882.18	-4617	4617.47	12148	180.03	90	16932.6	+
		0	103°38'39.576"W	96.2 32°02'11.506"N	713505.9 3776	-882.13	-4517	4517.47	12148	180.03	06	16832.6	+
		0	103°38'39.568"W	96.2 32°02'12.495"N	713506 37779	-882.08	-4417	4417.47	12148	180.03	06	16732.6	+
		0	103"38'39.560"W	96.2 32°02'13.485"N	713506 37789	-882.02	-4317.01	4317.47	12148	180.03	90	16632.6	+
		0	103°38'39.552"W	96.2 32*02'14.474"N	713506.1 37799	-881.97	-4217.01	4217.47	12148	180.03	06	16532.6	+
		0	103°38'39.544"W	96.2 32°02'15.464"N	713506.1 37809	-881.92	4117.01	4117.47	12148	180.03	06	16432.6	+
		0	103°38'39.536"W	96.2 32"02'16.453"N	713506.2 37819	-881.87	4017.01	4017.47	12148	180.03	96	16332.6	+
		0	103°38'39.528"W	96.2 32"02'17.443"N	713506.2 37829	-881.81	-3917.01	3917.47	12148	180.03	90	16232.6	+
		<u> </u>	103*38'39.520"W	96.2 32°02'18.432"N	713506.3 37839	-881.76	-3817.01	3817.47	12148	180.03	06	16132.6	+
		0	103°38'39.512"W	96.1 32°02'19.422"N	713506.3 37849	-881.71	-3717.01	3717.47	12148	180.03	06	16032.6	+
0		0	103°38'39.504"W	96.1 32°02'20.412"N	713506.4 37859	-881.66	-3617.01	3617.47	12148	180.03	06	15932.6	+
0		0	103°38'39.496"W	96.1 32"02'21.401"N	713506.4 37869	-881.6	-3517.01	3517.47	12148	180.03	06	15832.6	+
		0	103*38'39.488"W	96.1 32*02'22.391"N	713506.5 37879	-881.55	-3417.01	3417.47	12148	180.03	06	15732.6	+
		0	103*38'39.480"W	96.1 32°02'23.380"N	713506.5 37889	-881.5	-3317.01	3317.47	12148	180.03	90	15632.6	+
		0	103*38'39.472"W	36.1 32"02'24.370"N	713506.6 37899	-881.45	-3217.01	3217.47	12148	180.03	06	15532.6	+
		0	103°38'39.464"W	96.1 32*02'25.359"N	713506.6 37909	-881.39	-3117.01	3117.47	12148	180.03	90	15432.6	+
		0	103*38'39.456"W	96.1 32"02'26.349"N	713506.7 37919	-881.34	-3017.01	3017.47	12148	180.03	90	15332.6	+
0		0	103°38'39.448"W	96.1 32"02'27.338"N	713506.8 37929	-881.29	-2917.01	2917.47	12148	180.03	06	15232.6	+
		0	103°38'39.440"W	96.1 32°02'28.328"N	713506.8 37939	-881.24	-2817.01	2817.47	12148	180.03	06	15132.6	+
		0	103*38'39.432"W	96.1 32"02'29.317"N	713506.9 37949	-881.19	-2717.01	2717.47	12148	180.03	06	15032.6	+
		0	103"38'39.424"W	96.1 32°02'30.307"N	713506.9 37959	-881.13	-2617.01	2617.47	12148	180.03	90	14932.6	+
		0	103°38'39.416"W	96.1 32*02'31.297"N	713507 37969	-881.08	-2517.01	2517.47	12148	180.03	06	14832.6	+
		0	103*38'39.408"W	96.1 32*02'32.286"N	713507 37979	-881.03	-2417.01	2417.47	12148	180.03	06	14732.6	+
		0	103*38'39.400"W	96.1 32"02'33.276"N	713507.1 37989	-880.98	-2317.01	2317.47	12148	180.03	06	14632.6	+
2		0 0	103°38'39.392"W	96.1 32°02'34.265"N	713507.1 37999	-880.92	-2217.01	2217.47	12148	180.03	06	14532.6	+
3		o  o	103°38'39.384"W	96.1 32°02'35.255"N	713507.2 38009	-880.87	-2117.01	2117.47	12148	180.03	06	14432.6	7
0		0 0	103°38'39.376"W	96.132°02'36.244"N	713507.2 38019	-880.8Z	-2017.01	2017.47	12148	180.03	06	14332.6	+
0		0 0	103°38'39.368"W	96.1 32°02'37.234"N	713507.3 38029	-880.77	-1917.01	1917.47	12148	180.03	06	14232.6	+
		0	103°38'39.360"W	96.1 32*02'38.223"N	713507.3 38039	-880.71	-1817.01	1817.47	12148	180.03	06	14132.6	+
		0	103*38'39.352"W	96.1 32*02'39.213"N	713507.4 38049	-880.66	-1717.01	1717.47	12148	180.03	06	14032.6	+
		0	103°38'39.344"W	96.1 32°02'40.203"N	713507.4 38059	-880.61	-1617.01	1617.47	12148	180.03	06	13932.6	+
		0	103"38'39.336"W	96.1 32*02'41.192"N	713507.5 38069	-880.56	-1517.01	1517.47	12148	180.03	06	13832.6	+
		0	103*38'39.328"W	96.1 32°02'42.182"N	713507.5 38079	-880.5	-1417.01	1417.47	12148	180.03	06	13732.6	+
0		0	103*38'39.320"W	96.1 32°02'43.171"N	713507.6 38089	-880.45	-1317.01	1317.47	12148	180.03	06	13632.6	+
		0 0	103°38'39.312"W	996 32°02'44.161"N	713507.6 380	-880.4	-1217.01	1217.47	12148	180.03	06	13532.6	+
	-	0 0	103°38'39.304"W	096 32*02'45.150"N	713507.7 381	-880.35	-1117.01	1117.47	12148	180.03	06	13432.6	+
2	~	0 0	103*38'39.296"W	196 32°02'46.140"N	713507.7 381	-880.3	-1017.01	1017.47	12148	180.03	98	13332.6	+
2		0	103°38'39.288"W	296 32°02'47.129"N	713507.8 381	-880.24	-917.01	917.47	12148	180.03	96	13232.6	₹

fingent to brain the second	0	0	0	W"220.04'86*601	N"2223.01'16.552'N	E E05ET2	10.288-	\$.07001-	78.07001	12148	£0.081	06	98622	
	0	0	Ö	W"710.04'88"E01	N"080.71'10*5E 4.8et	LE EOSETL	T0'S88-	21001-	74.71001	12148	£0.081	06	22332.6	+
	0	0	0	W"e00.04'85°501	N"020'81,10,2E 7'962	22E [1'EOSET/	96'788-	LT66-	74.712 <u>8</u>	12148	£0.081	06	9'7£777	ŧ
	0	0	0	W"100.04'88*E01	N.650'61.10.7E 7'96E	22E T'EOSET	6'788-	L186-	£4.7188	15148	£0.081	06	52135'9	ŧ
	0	0	0	M"E66'6E.8E.EOT	N.670'07.10.2E 7'967	2 E 2 E 05 E L	58.488-	1116-	LD. TITE	17148	£0.08£	06	22032.6	+
	0	0	0	M"S86'68,88.80T	N.860.121.00°26 4.868	275 S.EO251	8.488-	LT96-	<i>L1</i> 7196	15148	£0.081	06	21932.6	÷
	0	0	0	W"778.35.95*501	N"820.52'00'55 4.868	22E E EOSET	57.488-	2126-	74.712e	15148	£0.081	06	57835.6	+
	0	0	0	W"eae.35"ee.85	N"710.52'10"55 4.867	228 8'80581	69'1788-	1146-	74.714e	15148	£0.081	06	21732.6	+
	0	0	0	M"T96'6E,8E,EOT	N"700.42'00'55 4.007''N	22E 7'EOSET	79'788-	L156-	74.71EE	15148	£0.08£	06	51632.6	ŧ
	0	0	0	W"E22.95.95*E01	N"796.42"01'24.997"N	228 5.60261	65'#88-	1126-	74.7158	15148	£0.08£	06	57235'9	÷
	0	0	0	M.,576'68,88,20T	N.986'5Z,T0,ZE 7'960	22E S'EOSET	-884'24	2116-	74.7112	15148	£0.081	06	21432.6	ŧ
	0	0	0	M"LE6'6E,8E.EOT	N.926'97,10,2E 7'961	ELE 9'EOSEL	87'788-	LT06-	74.710e	12148	£0.08£	06	51335 6	+
	0	0	0	W"e20.95'88'85'E01	N"\$96'Z3,T0,ZE 7'96Z	275 3.EO2EL	Et.488-	L168-	T4.7198	15148	£0.081	06	27237.6	+
	0	0	0	W"128.85*501	N.SS6'87,T0,78 7968	LE L'EOSET	86.488-	1188-	74.7188	15148	£0.081	06	21132.6	+
	0	0	0	W"E10.05'85'501	N., 776'67, TO., ZE 7'967	LE L'EOSET	884 33	1178-	74.7178	12148	£0.081	06	9'Z£01Z	ŧ
	0	0	0	W"209.95" W 209.95" W	N"456.05'10'25 5.362	ELE 8.EOSEL	75.488-	L198-	74.7188	12148	£0.081	06	9.2£605	+
	0	0	0	M., 268 68, 88, 801	N., 276'TE, TO, 7E 2'969	22E 8'EOSET	22.488-	1158-	74.7128	15148	£0.081	06	20832.6	+
	0	0	0	W"e88.e5'85*501	N"ETG'ZE,TO,ZE E'96/	ELE 6'EOSET	11 1/88	1148-	74.7148	15148	£0.081	06	9'ZEL0Z	÷
	0	0	0	M"T88'6E,8E,EOT	N.,206'EE,10,2E E'968	22E 6'EOSET	21.488-	1158-	74.71E8	12148	E0.081	06	20632.6	+
	0	0	0	W"ET8.95'85'E01	N"Z68'7E,TO.ZE E'966	113204 313	70.488-	1128-	74.7128	15148	£0.081	06	50235'6	+
	0	0	0	W"238.99.05"85"EOL	N., 288'SE, TO, 2E E'960	113204 314	10.488-	2118-	74.7118	15148	£0.081	06	20432.6	+
	0	0	0	W"728.95'85'85'E01	N"128'98,10,28 8'961	728 1.40281	96'888-	L108-	74.7108	15148	E0'08T	06	9.25502	+
	0	0	0	W"648.85'85'EOL	N"188.75'10"55 E.862	7/E T'#05ET	16'888-	LI62-	<i>L</i> ⊅' <i>L</i> I6 <i>L</i>	12148	£0.081	06	20232.6	+
	0	0	0	W"148.85'85'501	N058'88,T0.ZE E'968	728 Z'#05ET	98.588-	T187-	TA.T25	12148	£0.081	06	20133'e	+
	0	0	0	W"EE8.95'85'EO1	N"078'6E,T0,ZE E'967	725 2.402EL	8.588-	1111-	L4. TITT	12148	E0.081	06	9.2£002	+
	0	0	0	W"228.85'82'82'	N.678'07.T0.72 E'965	72E E'#05EL	52.588-	1192-	LP. T137	12148	E0.081	06	9'ZE66I	+
	0	0	0	W"718.85'85'EOL	N.,618'17,10,28 8'969	725 5.40551	7.588-	122-	74.712T	15148	£0.081	06	79833.6	+
	0	0	0	W"e08.e5'85°501	N"808.24'10°25 8.867	72204'4 31	29,588-	1141-	74.71A7	17148	E0.081	06	19.22761	+
	0	0	0	W"108.85'85'EOI	N.,867.54'10*25 5.368	72E 17 70SET	65'888-	12557-	74.71ET	12148	E0.081	06	9.2£961	+
	0	0	0	W"EE7.EE'8E*EO1	N"887.44'10*25 E.8ee	728 5'70581	Þ5.588-	1227-	7217.47	15148	£0.08£	06	19233°9	ŧ
	0	0	0	W"287.95'85'EOI	N"LLL'S7, t0.28 8.960	5ZE 9'705EL	67 888-	2112-	74.7II7	12148	180'03	06	19433.6	+
	0	0	0	W"TTT.85'85'EOL	N"L9L'97,TO,ZE E'96T	13204 P 31	44.588-	202-	74.7107	12148	180.03	06	9.2££61	+
	0	0	0	M. 692 68.88.EOT	N"827.74'10*15 8.862	575 T.40251	85.588-	L169-	74.71eð	12148	£0.08£	06	<b>19232.6</b>	ŧ
	0	0	0	M. 192 68,88.801	N"847.20°25 8.865	13204.7 37	EE.E88-	L189-	74.718ð	15148	£0.08£	06	9.2EI 6I	+
	0	0	0	W"E27.95'85'E01	N"257.04'LO"25 5.864	275 8.40251	82.588-	L177a-	74.717a	12148	£0'08T	06	19033'9	+
	0	0	0	M.SPL 68.88.201	N"227.02'10°28 8.862	275 8.402EL	-883 53	L199-	74.71 <i>8</i> 8	15148	£0.081	06	1863 <b>3</b> .6	+
	0	0	0	W"TET. 85'85'EDI	N	52E 6'70SET	81.588-	LT29-	24°2159	84121	£0.081	06	1883S'P	+
	0	0	0	W"est.ee'85°Eot	N"407.52'10*5E E.867	5ZE 6.402EL	21.888-	2119-	24 ZI 49	15148	180'03	06	9.2E781	+
	0	0	0	W"ILST 88'39 721"W	N.,769'ES,TO,ZE E'968	52E 50SET2	70.E88-	LIE9-	74.7168	15148	£0.081	06	<b>18632.6</b>	+
	0	0	0	W"EIT 85'85'EOT	N. 89775. TO. 28 8.966	SLE SOSETL	20.588-	2129-	74.7128	15148	£0.081	06	18233 9	+
	0	0	0	W"207.95'85'501	N_EL9'55,T0,ZE Z'960	733505°I 376	L6 288-	2119-	74.7118	12148	£0.08I	06	18435.6	+
	0	0	0	M"269.65'85°501	N"299'95,T0,22 2'96T	LE L'SOSEL	16.288-	2109-	74.7103	15148	£0.08£	06	9'ZEE8T	+
	0	0	0	M. 689 68.88 EDT	N.,759'/5,T0,78 7'967	2 SOSET	98 788-	L162-	<i>L</i> Þ <u>7</u> 162	15148	£0.081	06	18535.6	+
	0	0	0	W"183.95'85'501	N"143.52 32"0"55 52 5.365	LE Z'SOSEL	18.288-	2T85-	74.7182	17148	£0.08£	06	18135'9	+
	0	0	0	W"ET3.95*85*ED1	N"TE9'65,T0,ZE Z'96#	975 E.202E1	97.288-	LT72-	74.7172	15148	£0.081	06	18035'P	+

TARGETS									
Name	MD	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Shape
	[ft]	[ft]	(ft)	(ft)	[US ft]	[US ft]			
(1) SD 14 23 FED P19 15H PBHL rev 1	22386	12148	-10070.4	-885.04	713503	372143 3	2°01'16.552"N	103*38'40.022"W	point
SD 14 23 FED P19 OH PBHL rev 1		12475	-10057.4	1115.04	715503	372156 3	2°01'16.554"N	103°38'16.791"W	point

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 SURVEY PROGRAM
 Ref Wellbore:
 SD 14 23 FED P19 15H
 Ref Wellbare:
 SD 14 23 FED P19 15H Prelim 1

 Start MD
 End MD
 Pos Unc Model
 Wellbore

 [ft]
 [ft]
 [ft]
 32.6
 22386
 BHI NaviTrak (Standard)
 SD 14 23 FED P19 15H

a State State

COMMENTS

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

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

#### 1. **SUMMARY OF REQUEST:**

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

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

#### 2. **Description of Operations**

- 1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
  - a. After drilling the surface hole section, the spudder rig will run casing and cement following all the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
  - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used
- 2. The wellhead will be installed and then tested offline after the WOC time has been reached.
- 3. An abandonment cap at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on one wing-valve. a. A means for intervention will be maintained while the drilling rig is not over the well.
- 4. Spudder rig operations are expected to take 2-3 days per well on the pad.
- 5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 6. Drilling operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
  - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
  - b. The BLM will be contacted / notified 24 hours before the larger rig moves back on the pre-set locations.
- 7. CUSA will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
- 8. Once the rig is removed, CUSA will secure the wellhead area by placing a guard rail around the cellar area.

# Surface Rig Layout



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## **WAFMSS**

APD ID: 10400031087

Well Type: OIL WELL

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

Well Name: SD 14 23 FED P19

Submission Date: 06/12/2018

Architechine de la car callète de la caracita a secto de marco de Show Final Text

02/13/2019

SUPO Data Report

Well Number: 15H Well Work Type: Drill

11

**Operator Name: CHEVRON USA INCORPORATED** 

Will existing roads be used? YES

Existing Road Map:

SD\_14\_23\_Fed\_P19\_15H\_Road\_Plat\_20180612151222.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

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:** 

Will new roads be needed? YES

New Road Map:

SD\_14\_23\_Fed\_P19\_15H\_New\_Roads\_20180612151256.pdf SD\_14\_23\_Fed\_P19\_15H\_Cut\_Fill\_20180612151305.pdf

Feet

New road type: LOCAL

Length: 6913

Width (ft.): 64

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:** Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area. Drainage control system shall be constructed on the entire length of road using any ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.

Well Name: SD 14 23 FED P19

Well Number: 15H

### 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: Pipelines: 12 - 4" buried pipelines, approximately 7,694', will be laid from well running to lease road then adjacent to lease road to production facility in Section 23. -A ROW will not be required for these pipelines. -All construction activity will be confined to the approved ROW. -Pipeline will run parallel to the road and will stay within approved ROW. Pipelines: 2 - 4" buried gas lift pipelines, approximately 6,900', will be laid from well to the existing lease road and tie into the existing gas lift line running to Compressor facility in Section 23. -A ROW will not be required for these pipelines. -All construction activity will be confined to the approved ROW. -Pipeline will run parallel to existing disturbances and will stay within approved ROW. Power lines: A powerline, approximately measuring approximately 6,709' in length, will be installed from the existing powerline on the lease road and will be routed to the proposed well. -A ROW will not be required for the road and will stay within approved ROW.

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

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:

Additional Attachment(s):

Existing Wells Map? YES

Attach Well map:

SD\_14\_23\_Fed\_P19\_15H\_1\_Mile\_Radius\_20180612151722.pdf

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Existing Wells description:

Operator Name: CHEVRON USA INCORPORATED Well Name: SD 14 23 FED P19

Well Number: 15H

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Submit or defer a Proposed Production Facilities plan? DEFER

**Estimated Production Facilities description:** Existing production facilities (CTB 23) are in the S2 of Sec. 23, T26S-R32E where oil and gas sales will take place. Gas purchaser pipeline is existing at the tank battery. Open top tanks or open containments will be netted. Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting. Facilities will have a secondary containment 1.5 times the holding capacity of largest storage tank. All above ground structures will be painted non-reflective shale green for blending with surrounding environment. The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.

Water source use type: INTERMEDIATE/PRODUCTION CASING,	
STIMULATION, SURFACE CASING	
Describe type: Frac ponds	

Water source type: OTHER

Source volume (acre-feet): 2.1482182

Source longitude:

Source latitude:

Source datum:

Water source permit type: OTHER, PRIVATE CONTRACT

Source land ownership: FEDERAL

Water source transport method: PIPELINE, TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 16666.666

Source volume (gal): 700000

Water source and transportation map:

SD\_14\_23\_Fed\_P19\_15H\_Aerial\_Detail\_20180612152027.pdf

SD\_14\_23\_Fed\_P19\_15H\_Temp\_Water\_Line\_Plat\_20180612152039.pdf

Water source comments: Existing frac ponds in Section 23, T26S-R32E will be utilized for fresh water and Section 13 T26S-R32E for recycled water. Fresh water will also be obtained from a private water source. A temporary 10" expanding water transfer line will run south along the proposed lease road then west along existing lease road a total of approx. 10,322' from the well location to the existing frac pond in Sec 23. Fresh water line will run parallel to the existing lease road, then north within an existing pipeline right of way. A BLM ROW will not be required for the water transfer line. New water well? NO

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness of	faquifer:

Operator Name: CHEVRON USA INCORPORATED Well Name: SD 14 23 FED P19

Well Number: 15H

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:	<b>Completion Method:</b>
Water well additional information:	
State appropriation permit:	
Additional information attachment:	

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

### 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. 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. 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. 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 containmant attachment:** 

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

Disposal location description: STATE APPROVED FACILITY

Well Name: SD 14 23 FED P19

Well Number: 15H

Temporary disposa	l of	<sup>i</sup> produced	water	into	reserve	pit?
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Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area being used? NO

Are you storing cuttings on location? YES

**Description of cuttings location** 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.

Cuttings area length (ft.)

Cuttings area depth (ft.)

Cuttings area width (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

Are you requesting any Ancillary Facilities?: NO

**Ancillary Facilities attachment:** 

**Comments:** 

### Well Site Layout Diagram:

SD\_14\_23\_Fed\_P19\_15H\_Well\_Plat\_20180612152221.pdf

**Comments:** Exterior well pad dimensions are 380' x 545'. Interior well pad dimensions from point of entry (well head) of the westernmost well are N-120', S-260', W-210', E-335'. The length to the east includes 25' spacing for next well on multi-well pad (six wells). Total disturbance area needed for construction of well pad will be 4.75 acres. Topsoil placement is on the east where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

Well Name: SD 14 23 FED P19

Well Number: 15H

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: SD 14 23 FED P19

### Multiple Well Pad Number: 15H,16H,17H,18H,19H,20H

### Recontouring attachment:

SD\_14\_23\_Fed\_P19\_15H\_Gas\_Lift\_Line\_Plat\_20180612152325.pdf

SD\_14\_23\_Fed\_P19\_15H\_\_Pad\_IR\_Plat\_20180612152351.pdf

SD\_14\_23\_Fed\_P19\_15H\_EDS\_Line\_20180612152416.pdf

SD\_14\_23\_Fed\_P19\_15H\_Flowlines\_20180612152438.pdf

SD\_14\_23\_Fed\_P19\_15H\_APD\_SUPO\_20180612152457.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:** Well pad, road, and surrounding area will be cleared of material, trash, and equipment. 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. 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.

Well pad proposed disturbance	Well pad interim reclamation (acres):	Well pad long term disturbance
(acres): 2.73	2.02	(acres): 2.73
Road proposed disturbance (acres): 3.97	Road interim reclamation (acres): 3.97	<b>Road long term disturbance (acres):</b> 3.17
Powerline proposed disturbance (acres): 2.31 Pipeline proposed disturbance	Powerline interim reclamation (acres): 2.31 Pipeline interim reclamation (acres): 0	Powerline long term disturbance (acres): 2.31 Pipeline long term disturbance
(acres): 0 Other proposed disturbance (acres):	Other interim reclamation (acres): 22.6	(acres): 0 Other long term disturbance (acres):
22.6	Total interim reclamation: 30.9	6.7
Total proposed disturbance: 31.61		Total long term disturbance: 14.91

### **Disturbance Comments:**

**Reconstruction method:** All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Reduce the pad size to approximately 2.01 acres from the proposed size of 2.74 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 to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book".

**Topsoil redistribution:** 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.

Soil treatment: 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:

**Operator Name: CHEVRON USA INCORPORATED** Well Name: SD 14 23 FED P19

Well Number: 15H

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:

· · · ·	
Seed type:	Seed source:
Seed name:	
Source name:	Source address:
Source phone:	
Seed cultivar:	
Seed use location:	
PLS pounds per acre:	Proposed seeding season:
	Total pounds/Acre:

Seed Type Pounds/Acre

Seed reclamation attachment:

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First Name: Mark

Well Name: SD 14 23 FED P19

Well Number: 15H

Phone: (432)687-7999

Email: MarkWoodard@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 seed 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 reestablished.

Monitoring plan attachment:

Success standards: As per BLM requirements

Pit closure description: None

Pit closure attachment:

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: USFWS Local Office: USFS Region: USFS Forest/Grassland:

**USFS Ranger District:** 

Well Name: SD 14 23 FED P19

Well	Number:	15H
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Disturbance type: NEW ACCESS ROAD **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:** 

**Disturbance type: PIPELINE 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:** 

Well Name: SD 14 23 FED P19

Well Number: 15H	
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Disturbance type: OTHER	
Describe: Flowline, gas line, EDS Line, power lines	
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:

Right of Way needed? YES

Use APD as ROW? YES

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

**SUPO Additional Information:** ROW will not be required for buried pipelines or EDS line. Compressor facility pipelines will run parallel to existing disturbances and will stay within approved ROW. Power line will run parallel to the road and will stay within approved ROW.

Use a previously conducted onsite? YES

Previous Onsite information: On-site performed by BLM NRS: Paul Murphy 9/29/2017.

SD\_14\_23\_Fed\_P19\_15H\_APD\_SUPO\_20180612153248.pdf







CENTERLINE PROPOSED ACCESS ROAD						
COURSE	BEARING	DISTANCE				
1	N 04° 23' 43" E	200.39'				
2	N 02° 16' 06" E	202.77				
3	N 02° 12' 12" E	323.63'				
4	N 01° 44' 36" E	470.28'				
5	N 02° 21' 04" E	299.31'				
6	N 02° 08' 00" E	483.86'				
7	N 01° 24' 42" E	333.54'				
8	N 00° 29' 22" E	287.50'				
9	N 02° 43' 01" E	450.30'				
10	N 02° 10' 55" E	475.05'				
11	N 02° 14' 55" E	543.91'				
12	N 02° 44' 25" E	411.97'				
13	N 01° 01' 03" E	380.57				
14	N 89° 37' 01" E	1975.44'				
15	N 00° 17' 31" W	74.02'				

NW ARCH. AREA CORNER			NE AR	CH. AREA CO	RNER
X=	714,085	NAD 27	X=	714,810	NAD 27
Y=	382,510		Y=	382,517	
LAT.	32.049751		LAT.	32 049757	
LONG.	103 642358		LONG.	103.640018	
X=	755,272	NAD83	X=	755,997	NAD83
Y=	382,567		Y≈	382,574	
LAT.	32.049876		LAT.	32 049882	
LONG.	103 642828		LONG.	103.640488	
ELEVA	TION +3213' N	AVD 88	ELEVA	TION +3224' N	AVD 88
SW AF	RCH. AREA CO	ORNER	SE AF	CH. AREA CO	RNER
SW AF	RCH. AREA CO 714,091	ORNER NAD 27	SE AR X=	CH. AREA CO 714,816	ORNER NAD 27
SW AF X= Y=	RCH. AREA CO 714,091 381,910	ORNER NAD 27	SE AR X= Y=	CH. AREA CC 714,816 381,917	NAD 27
SW AF X= Y= LAT.	RCH. AREA CO 714,091 381,910 32.048102	ORNER NAD 27	SE AR X= Y= LAT.	CH. AREA CO 714,816 381,917 32 048108	ORNER NAD 27
SW AF X= Y= LAT. LONG.	RCH. AREA CO 714,091 381,910 32.048102 103.642353	ORNER NAD 27	SE AR X= Y= LAT. LONG.	RCH. AREA CC 714,816 381,917 32 048108 103.640013	ORNER NAD 27
SW AF X= Y= LAT. LONG. X=	RCH. AREA CO 714,091 381,910 32.048102 103.642353 755,278	DRNER NAD 27 NAD83	SE AR X= Y= LAT. LONG. X=	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003	NAD 27
SW AF Y= LAT. LONG. X= Y=	RCH. AREA CO 714,091 381,910 32.048102 103.642353 755,278 381,967	NAD 27	SE AR X= Y= LAT. LONG. X= Y=	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003 381,974	NAD 27
SW AF X= LAT. LONG. X= Y= LAT.	RCH. AREA CO 714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227	NAD 27	SE AR Y= LAT. LONG. X= Y= LAT.	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003 381,974 32 048233	NAD 27
SW AF X= LAT LONG. X= Y= LAT. LONG.	RCH. AREA CC 714,091 381,910 32,048102 103,642353 755,278 381,967 32,048227 103,642823	DRNER NAD 27 NAD83	SE AR Y= LAT. LONG. X= Y= LAT. LONG.	CH. AREA CC 714,816 381,917 32 048108 103,640013 756,003 381,974 32 048233 103,640483	NAD 27 NAD 27 NAD83

NW PAD CORNER			N	E PAD CORNI	ER	
X=	714,177	NAD 27	X=	714,722	NAD 27	
Y=	382,331		Y=	382,336		
LAT.	32 049257		LAT.	32.049263		
LONG.	103.642066		LONG.	103.640307	_	
X=	755,364	NAD83	X=	755,909	NAD83	
Y=	382,388		Y=	382,393		
LAT.	32.049382		LAT.	32 049388		
LONG.	103.642536		LONG.	103.640777		
ELEVA	TION +3214' N	AVD 88	ELEVA	TION +3221' N	AVD 88	
~	SW PAD CORNER			SE PAD CORNER		
5	N PAD CORN	ER	l S	E PAD CORNI	ER	
X=	714,181	ER NAD 27	X=	E PAD CORN 714,725	ER NAD 27	
X= Y=	714,181 381,951	NAD 27	S X= Y=	E PAD CORNI 714,725 381,956	ER NAD 27	
X= Y= LAT	714,181 381,951 32.048213	NAD 27	X= Y= LAT	E PAD CORNI 714,725 381,956 32.048218	ER NAD 27	
X= Y= LAT LONG.	W PAD CORN 714,181 381,951 32.048213 103.642062	NAD 27	S X= Y= Lat Long.	E PAD CORNI 714,725 381,956 32.048218 103.640303	ER NAD 27	
X= Y= LAT LONG. X=	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368	NAD 27 NAD 83	S X= Y= LAT LONG X=	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913	ER NAD 27 NAD83	
X= Y= LAT LONG. X= Y=	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008	NAD 27 NAD 83	S Y= LAT LONG X= Y=	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913 382,013	ER NAD 27 NAD83	
X= Y= LAT LONG. X= Y= LAT	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008 32.048338	NAD 27 NAD 83	S Y= LAT LONG. X= Y= LAT.	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913 382,013 32.048343	ER NAD 27 NAD83	
X= Y= LAT LONG. X= Y= LAT. LONG.	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008 32.048338 103.642532	NAD 27 NAD 83	S Y= LAT LONG X= Y= LAT. LONG	E PAD CORN 714,725 381,956 32.048218 103.640303 755,913 382,013 32.048343 103.640773	ER NAD 27 NAD83	

PROPOSED PAD						
COURSE	BEARING	DISTANCE				
16	S 00° 34' 15" E	380.00'				
17	S 89° 25' 45" W	545.00'				
18	N 00° 34' 15" W	380.00'				
19	N 89° 25' 45" E	545.00'				

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

Robert L. Lastrapes

Registration No. 23006

#### 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:

Page 3 of 3

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### CHEVRON U.S.A. INC. PROPOSED PAD & ACCESS ROAD SD 14 23 FED P19 NO. 15H WELL SECTIONS 14 & 23, T26S-R32E

### LEA COUNTY, NEW MEXICO

					REVISIONS
C. H. Fenstermaker & Associates, L L.C.	DRAWN BY: DMB	#	BY:	DATE:	DESCRIPTION
FENSTERMAKER Ph 337-237-2200 Fax 337-232-3299	PROJ. MGR .: VHV				
www.fenstermaker.com	DATE: 01/18/2018	Π			
	FILENAME: T:\2017	/21	76220	DWG\SD 1	4 23 Fed P19 15H_Well Plat.dwg







30025082550000	CUFFORD	1
30025082560000	BEN-FEDERAL	1
30025082680000	FED-LITTLEFIELD DR	1
30025082700000	GULF-FEDERAL	2
30025082730000	WILDER-FEDERAL 25	1
30025082740000	WILDER-FEDERAL	2
30025082750000	WILDER-FEDERAL	3
30025082760000	WILDER-FEDERAL	4
30025082770000	WILDER-FEDERAL	6
30025082780000	WILDER-FEDERAL	7
30025082790000	WILDER-FEDERAL	8
30025082800000	WILDER-FEDERAL	9-X
30025082820000	WILDER-FEDERAL	11
30025082850000	WILDER-FEDERAL	14
30025082860000	WILDER-FEDERAL	15
30025082870000	WILDER-FEDERAL	23
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30025082890000	WILDER-FEDERAL	16
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30075082910000	WILDER	18
30025082920000	WILDER-FEDERAL	19
30025082930000	WILDER-FEDERAL	20
30025082930001	EL MAR NORTH UNIT	26
30025082940000	WILDER-FEDERAL	21
30075082950000	WILDER-FEDERAL	22
30025082960000	WILDER-FEDERAL	24
30025082970000	WILDER-FEDERAL	25
30025082980000	WILDER-FEDERAL	26
30025082990000	WILDER-FEDERAL	27
30025083000000	ELLKOTT-FEDERAL	3
30025204480000	LITTLERELD-FRAL DR	2
30025405940000	BUFFLEHEAD 10 FEDERAL	2H
30025406080000	RED HILLS WEST '22' AP FEDERAL COM	1H
30025412890100	MESA 8105 JV-P	2H
30025413250000	BUFFLEHEAD 10 FEDERAL SWD	001
30025423540000	SALADO DRAW SWD 13	001
30025425570000	WAR HAMMER 25 FEDERAL COM	12H
30025425580000	WAR HAMMER 25 FEDERAL COM W1	11H
30025425590000	WAR HAMMER 25 FEDERAL COM W3	009H
30025425600000	ZIA HILLS 25E FEDERAL COM	401H
30025425610000	WAR HAMMER 25 FEDERAL COM W2	10H
30025428000000	SD WE 14 FEDERAL P5	1H
30025428010000	SD WE 14 FEDERAL P5	ZH
30025428020000	SD WE 23 FEDERAL PS	1H

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CHEVRON U S A INCORPO BTA OIL PRODUCERS LLC 2H 001W 4H 005H 6H D07H BTA OIL PRODUCERS LLC 008H 11H 012H 013H 020H 021H BTA OIL PRODUCERS LLC BTA OIL PRODUCERS LLC 22H 001H 2H 12H 010H 023H 3H 4H 3H 4H 1H 402H 403H 403H 403H 001H 003H 403H 001H 003H 403H 001H 003H 00 ITA OIL PRODUCERS LLC CONDECIPHILIPS COMPANY CONDECIPHILIPS COMPANY BTA OIL PRODUCERS LLC BTA OIL PRODUCERS LLC BTA OIL PRODUCERS LLC BTA OIL PRODUCERS LLC OLYVIONU US A INCORPORATEO CHVIONU US A INCORPORATEO CHVIONU US A INCORPORATEO CHEVRON U S A INCORPORATED CONCOPHILUPS COMPANY CONCOPHILUPS COMPANY CONCOPHILUPS COMPANY CONCOPRILIES COMPANY CREWON US A INCORPORATED DEVENDURE OLI COMPANY BRAOLI PRODURE LIC 006H 005H RED HILLS WEST 22 A2AP FEDERAL CO MESA 8105 JV-P MESA 8105 JV-P 002H 029H BTA OIL PRODUCERS LLC BTA OIL PRODUCERS LLC 031H 032H STA OIL PRODUCERS LLC



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### METES AND BOUNDS DESCRIPTION OF PROPOSED TEMPORARY WATER LINE SECTIONS 14, 23 AND 24 OF TOWNSHIP 26 SOUTH RANGE 32 EAST LEA COUNTY, NEW MEXICO

Survey of a proposed temporary water line 11,339.29 feet or 667.23 rods crossing Bureau of Land Management land in Sections 14, 23, and 24 of Township 26 South Range 32 East, N.M.P.M. Lea County, New Mexico.

**COMMENCING** at a Found 1 1/2" Iron Pipe with Cap at the Northeast Corner of said Section 23; Thence South 04 degrees 15 minutes 21 seconds West 858.16 feet to the **POINT OF BEGINNING** having the following coordinates: X=715,858.35 and Y=376,482.74 (New Mexico State Plane Coordinate System, East Zone, NAD 27);

#### Thence East 196.50 feet to a point;

Thence North 14 degrees 17 minutes 41 seconds West 629.15 feet to a point; Thence South 89 degrees 30 minutes 50 seconds West 104.07 feet to a point; Thence South 89 degrees 30 minutes 56 seconds West 751.60 feet to a point; Thence South 44 degrees 30 minutes 19 seconds West 349.62 feet to a point; Thence South 89 degrees 29 minutes 55 seconds West 1,925.05 feet to a point; Thence South 89 degrees 29 minutes 55 seconds West 272.27 feet to a point; Thence North 02 degrees 00 minutes 24 seconds East 2,600.34 feet to a point; Thence North 02 degrees 27 minutes 03 seconds East 390.18 feet to a point; Thence North 01 degrees 01 minutes 03 seconds East 1,975.22 feet to a point;

Thence North 00 degrees 17 minutes 31 seconds West 64.03 feet to the POINT OF ENDING having the following coordinates: X=714,705.48 and Y=381,956.04 (New Mexico State Plane Coordinate System, East Zone, NAD 27)

The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.

This description represents a survey made on the ground of a proposed temporary water line and intended solely for that purpose. This description does not represent a boundary survey.

### NOTE:

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### NOTE:

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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.

PROPOSED TEMPORARY WATER LINE					
COURSE	BEARING	DISTANCE			
1	EAST	196.50'			
2	N 14° 17' 41" W	829.15			
3	S 89° 30' 50" W	104.07'			
4	S 89° 30' 56" W	751.60'			
5	S 44° 30' 19" W	349.62'			
6	S 89° 29' 55" W	1925.05'			
7	S 89° 29' 55" W	272.27			
8	N 02° 00' 24" E	2600.34'			
9	N 02° 27' 06" E	1881.26			
10	N 01° 01' 03" E	390.18'			
11	N 89° 37' 01" E	1975.22'			
12	N 00" 17' 31" W	64.03'			

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



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### TEMPORARY WATER LINE PLAT

### CHEVRON U.S.A. INC. PROPOSED TEMPORARY WATER LINE SD 14 23 FED P19 NOS. 15H-20H WELLS

SECTIONS 14, 23 & 24, T26S-R32E LEA COUNTY, NEW MEXICO

		REVISIONS			
C. H. Fenstermaker & Associates, L.L.C. 135 Regency Sq. Lafayette, LA 70508 Ph. 337-237-2200 Fax 337-232-3299 w ww.fenstermaker.com	DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
	PROJ. MGR.: VHV				
	DATE: 01/29/2018				
	FILENAME: T:\2017	/\21	76220	NDWG\SD 1	4 23 Fed P19 15H-20H_Temp Water Line.dwg





CENTERLINE PROPOSED ACCESS ROAD				
COURSE	BEARING	DISTANCE		
1	N 04° 23' 43" E	200.39'		
2	N 02° 16' 06" E	202.77 <sup>1</sup>		
3	N 02° 12' 12" E	323.63'		
4	N 01° 44' 36" E	470.28		
5	N 02° 21' 04" E	299.31'		
6	N 02° 08' 00" E	483.86'		
7	N 01° 24' 42" E	333.54'		
8	N 00° 29' 22" E	287.50'		
9	N 02° 43' 01" E	450.30'		
10	N 02° 10' 55" E	475.05		
11	N 02° 14' 55" E	543.91'		
12	N 02° 44' 25" E	411.97'		
13	N 01° 01' 03" E	380.57'		
14	N 89° 37' 01" E	1975.44'		
15	N 00° 17' 31" W	74.02		

NW AF	CH. AREA CO	ORNER	NE ARCH. AREA CORNER		
X=	714,085	NAD 27	X=	714,810	NAD 27
Y=	382,510		Y=	382,517	
LAT.	32.049751		LAT.	32 049757	
LONG.	103.642358		LONG.	103.640018	
X=	755,272	NAD83	X=	755,997	NAD83
Y=	382,567		Y=	382,574	
LAT.	32.049876		LAT.	32.049882	
LONG.	103.642828		LONG.	103.640488	
ELEVA	TION +3213' M	AVD 88	ELEVA	TION +3224' N	IAVD 88
SW AF	RCH. AREA C	ORNER	SE AF	CH. AREA CO	ORNER
SW AF X=	RCH. AREA CO 714,091	ORNER NAD 27	SE AF X=	CH. AREA CC 714,816	ORNER NAD 27
SW AF X= Y=	714,091 381,910	ORNER NAD 27	SE AF X= Y=	RCH. AREA CC 714,816 381,917	ORNER NAD 27
SW AF X= Y= LAT.	RCH. AREA C 714,091 381,910 32.048102	ORNER NAD 27	SE AF X= Y= LAT.	RCH. AREA CC 714,816 381,917 32 048108	ORNER NAD 27
SW AF X= Y= LAT. LONG.	RCH. AREA C 714,091 381,910 32.048102 103.642353	ORNER NAD 27	SE AF X= Y= LAT. LONG.	CH. AREA CC 714,816 381,917 32 048108 103.640013	ORNER NAD 27
SW AF X= Y= LAT. LONG. X=	RCH. AREA C 714,091 381,910 32.048102 103.642353 755,278	ORNER NAD 27 NAD83	SE AF X= Y= LAT. LONG. X=	RCH. AREA CC 714,816 381,917 32 048108 103.640013 756,003	NAD 27 NAD 27
SW AF X= LAT LONG. X= Y=	RCH. AREA CO 714,091 381,910 32.048102 103.642353 755,278 381,967	NAD 27 NAD 27	SE AF X= LAT. LONG. X= Y=	RCH. AREA CC 714,816 381,917 32 048108 103.640013 756,003 381,974	NAD 27 NAD 27
SW AF Y= LAT. LONG. X= Y= LAT.	RCH. AREA CO 714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227	NAD 27 NAD 27 NAD83	SE AF Y= LAT. LONG. X= Y= LAT.	CH. AREA CC 714,816 381,917 32 048108 103.640013 756,003 381,974 32 048233	NAD 27 NAD 27
SW AF Y= LAT. LONG. X= Y= LAT. LONG.	RCH. AREA C 714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227 103.642823	NAD 27 NAD 27	SE AF Y= LAT. LONG. X= Y= LAT. LONG.	CH. AREA CC 714,816 381,917 32 048108 103,640013 756,003 381,974 32 048233 103 640483	NAD 27 NAD 27 NAD83

NW PAD CORNER		NE PAD CORNER			
X=	714,177	NAD 27	X=	714,722	NAD 27
Y=	382,331		Y=	382,336	
LAT.	32 049257		LAT	32.049263	
LONG.	103.642066		LONG.	103.640307	
X=	755,364	NAD83	X=	755,909	NAD83
Y=	382,388		Y=	382,393	
LAT.	32.049382		LAT.	32 049388	
LONG.	103.642536		LONG.	103 640777	
ELEVA	TION +3214' N	AVD 88	ELEVA	TION +3221' N	IAVD 88
S	N PAD CORN	ER	S	E PAD CORNI	ER
X=	N PAD CORN 714,181	ER NAD 27	S X=	E PAD CORNI 714,725	ER NAD 27
SI X= Y=	N PAD CORN 714,181 381,951	ER NAD 27	S X= Y=	E PAD CORNI 714,725 381,956	ER NAD 27
X= Y= LAT.	N PAD CORN 714,181 381,951 32.048213	ER NAD 27	S X= Y= LAT	E PAD CORNI 714,725 381,956 32.048218	ER NAD 27
X= Y= LAT. LONG.	W PAD CORN 714,181 381,951 32.048213 103.642062	ER NAD 27	S X= Y= LAT LONG.	E PAD CORNI 714,725 381,956 32.048218 103.640303	ER NAD 27
SI X= Y= LAT LONG X=	N PAD CORN 714,181 381,951 32.048213 103.642062 755,368	ER NAD 27 NAD83	S X= Y= LAT LONG. X=	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913	ER NAD 27 NAD83
SI X= Y= LAT LONG. X= Y=	N PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008	ER NAD 27 NAD83	S Y= LAT LONG. X= Y=	E PAD CORNI 714,725 381,956 32.048218 103.640303 755,913 382,013	ER NAD 27 NAD83
SI X= LAT LONG. X= Y= LAT	N PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008 32.048338	ER NAD 27 NAD83	S X= Y= LAT LONG. X= Y= LAT.	E PAD CORNI 714,725 381,956 32,048218 103.640303 755,913 382,013 32,048343	ER NAD 27 NAD83
X= Y= LAT LONG. X= Y= LAT LONG.	W PAD CORN 714,181 381,951 32.048213 103.642062 755,368 382,008 32.048338 103.642532	ER NAD 27 NAD83	S X= Y= LAT LONG. X= Y= LAT. LONG.	E PAD CORNI 714,725 381,956 32,048218 103,640303 755,913 382,013 32,048343 103,640773	ER NAD 27 NAD83

PROPOSED PAD				
COURSE	BEARING	DISTANCE		
16	S 00° 34' 15" E	380.00'		
17	S 89° 25' 45" W	545.00'		
18	N 00° 34' 15" W	380.00'		
19	N 89° 25' 45" E	545.00'		

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

Robert L. Lastrapes

Registration No.23006

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Page 3 of 3

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### CHEVRON U.S.A. INC. **PROPOSED PAD & ACCESS ROAD** SD 14 23 FED P19 NO. 15H WELL SECTIONS 14 & 23, T26S-R32E

LEA COUNTY, NEW MEXICO

		REVISIONS			
C. H. Fenstermaker & Associates, L.L.C.	DRAWN BY: DMB	#	BY:	DATE:	DESCRIPTION:
FENSTERMAKER Ph. 337-237-2200 Fax 337-232-3299	PROJ. MGR.: VHV				
www.fenstermaker.com	DATE: 01/18/2018				
	FILENAME: T:\2017	7\21	76220	DWG\SD 1	4 23 Fed P19 15H_Well Plat dwg

## WELL PLAT





### METES AND BOUNDS DESCRIPTION OF PROPOSED GAS LIFT LINE SECTIONS 14 AND 23 OF TOWNSHIP 26 SOUTH RANGE 32 EAST LEA COUNTY, NEW MEXICO

Survey of a proposed gas lift line 6,900.30 feet or 418.20 rods crossing Bureau of Land Management land in Sections 14 and 23 of Township 26 South Range 32 East, N.M.P.M. Lea County, New Mexico.

**COMMENCING** at a Found 1 1/2" Iron Pipe with Cap at the Northeast Corner of said Section 14; Thence South 58 degrees 59 minutes 07 seconds West 1,399.80 feet to the **POINT OF BEGINNING** having the following coordinates: X=714,690.48 and Y=381,955.97 (New Mexico State Plane Coordinate System, East Zone, NAD 27);

Thence South 00 degrees 17 minutes 31 seconds East 20.02 feet to a point;
Thence South 89 degrees 36 minutes 59 seconds West 2,003.22 feet to a point
Thence South 01 degrees 01 minutes 03 seconds West 432.46 feet to a point;
Thence South 02 degrees 44 minutes 25 seconds West 411.39 feet to a point;
Thence South 02 degrees 14 minutes 55 seconds West 544.18 feet to a point;
Thence South 02 degrees 10 minutes 55 seconds West 474.82 feet to a point;
Thence South 02 degrees 43 minutes 01 seconds West 451.10 feet to a point;
Thence South 00 degrees 29 minutes 22 seconds West 288.12 feet to a point;
Thence South 01 degrees 24 minutes 42 seconds West 332.76 feet to a point;
Thence South 02 degrees 08 minutes 00 seconds West 483.42 feet to a point;
Thence South 02 degrees 21 minutes 04 seconds West 299.49 feet to a point;
Thence South 01 degrees 44 minutes 36 seconds West 470.35 feet to a point;
Thence South 02 degrees 12 minutes 12 seconds West 323.38 feet to a point;
Thence South 02 degrees 16 minutes 06 seconds West 201.74 feet to a point;

Thence South 04 degrees 23 minutes 43 seconds West 163.85 feet to the **POINT OF ENDING** having the following coordinates: X=712,511.02 and Y=377,049.08 (New Mexico State Plane Coordinate System, East Zone, NAD 27)

The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.

This description represents a survey made on the ground of a proposed gas lift line and intended solely for that purpose. This description does not represent a boundary survey.

### 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.nmonccall.org

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

PROPOSED GAS LIFT LINE				
COURSE	BEARING	DISTANCE		
1	S 00° 17' 31" E	20.02'		
2	S 89° 36' 59" W	2003.22'		
3	S 01° 01' 03" W	432.46'		
4	S 02° 44' 25" W	411.39		
5	S 02° 14' 55" W	544.18'		
6	S 02° 10' 55" W	474.82'		
7	S 02° 43' 01" W	451.10		
8	S 00° 29' 22" W	288.12'		
9	S 01° 24' 42" W	332.76		
10	S 02° 08' 00" W	483.42'		
11	S 02° 21' 04" W	299.49		
12	S 01° 44' 36" W	470.35'		
13	S 02" 12' 12" W	323.38'		
14	S 02" 16' 06" W	201.74'		
15	S 04° 23' 43" W	163.85		

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

Page 3 of 3					
CHEVF	RON U.S.A	<b>\.</b> I	NC		
PROPOSED GAS LIFT LINE					
SD 14 23 FED P19 NOS. 15H-20H WELLS					
SECTIONS 14 & 23, 126S-R32E					
					REVISIONS
		<b> </b>		·····	
C. H. Fenstermaker & Associates, L L C.	DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
FENSTERMAKER Ph. 337-237-2200 Fax. 337-232-3299	PROJ. MGR.: VHV				
www.fenstermaker.com	DATE: 01/29/2018				
FILENAME: T:\2017\2176220\DWG\SD 14 23 Fed P19 15H-20H_Gas Lift Line.dwg					3 Fed P19 15H-20H_Gas Lift Line.dwg

GAS LIFT LINE PLAT


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, Fensternaker 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 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 <u>www.nmonecall.org</u>

NW ARCH AREA CORNER		NE ARCH. AREA CORNER				
X=	714,085	NAD 27	X=	714,810	NAD 27	
Y=	382,510		Y=	382,517		
LAT.	32 049751		LAT	32 049757		
LONG.	103.642358		LONG.	103.640018		
X=	755,272	NAD83	X=	755,997	NAD83	
Y=	382,567		Y=	382,574		
LAT	32.049876		LAT.	32 049882		
LONG.	103.642828		LONG.	103 640488		
ELEVA	TION +3213' N	AVD 88	ELEVA	TION +3224' N	AVD 88	
SW/AF	CH ADEA C	TONED	05.45			
1 011 74		JUNER	SE AM	ich, area cu	RNER	
X=	714,091	NAD 27	X=	714,816	NAD 27	
X= Y=	714,091 381,910	NAD 27	X= Y=	714,816 381,917	NAD 27	
X= Y= LAT.	714,091 381,910 32.048102	NAD 27	X= Y= LAT.	714,816 381,917 32 048108	NAD 27	
X= Y= LAT. LONG.	714,091 381,910 32.048102 103.642353	NAD 27	X= Y= LAT. LONG.	714,816 381,917 32 048108 103 640013	NAD 27	
X= Y= LAT. LONG. X=	714,091 381,910 32.048102 103.642353 755,278	NAD 27	X= Y= LAT. LONG. X=	714,816 381,917 32 048108 103 640013 756,003	NAD 27	
X= Y= LAT. LONG. X= Y=	714,091 381,910 32.048102 103.642353 755,278 381,967	NAD 27	X= Y= LAT. LONG. X= Y=	714,816 381,917 32 048108 103 640013 756,003 381,974	NAD 27 NAD 83	
X= Y= LAT. LONG. X= Y= LAT.	714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227	NAD 27	SE AF Y= LAT. LONG. X= Y= LAT.	CH AREA CC 714,816 381,917 32 048108 103 640013 756,003 381,974 32,048233	NAD 27	
X= Y= LAT. LONG. X= Y= LAT. LONG.	714,091 381,910 32.048102 103.642353 755,278 381,967 32.048227 103.642823	NAD 27	SE AF Y= LAT. LONG. X= Y= LAT. LONG.	714,816 381,917 32 048108 103 640013 756,003 381,974 32.048233 103 640483	NAD 27	

NW PAD CORNER		NE PAD CORNER				
X=	714,177	NAD 27	X=	714,722	NAD 27	
Y=	382,331		Y=	382,336		
LAT.	32.049257		LAT.	32.049263		
LONG.	103.642066		LONG.	103 640307		
X=	755,364	NAD83	X=	755,909	NAD83	
Y=	382,388		Y=	382,393		
LAT.	32.049382		LAT.	32.049388		
LONG.	103 642536		LONG.	103.640777		
ELEVA	TION +3214" N	AVD 66	ELEVA	TION +3221' N	IAVD 88	
S	V PAD CORN	ER	S	E PAD CORNI	ER	
X=	714,181	NAD 27	X=	714,725	NAD 27	
Y=	361,951		Y=	381,956		
LAT.	32 048213		LAT.	32 048218		
LONG.	103.642062		LONG	103 640303		
X=	755,368	NAD83	X=	755,913	NAD83	
Y=	382,008		Y=	382,013		
LAT	32.048338	į	LAT.	32 048343		
LONG.	103 642532		LONG	103.640773		
ELEVA	TION +3212" N	AVD 88	ELEVA	TION +3217" N	AVD 88	

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.			IN		ECLAMATION PLAT	Page 2 of 2
		CHEVRON U.S.A. INC. INTERIM RECLAMATION SD 14 23 FED P19 NO. 15H-20H WELLS SECTION 14, T26S-R32E LEA COUNTY, NEW MEXICO				
					REVISIONS	
C. H Fenstermaker & Associates, L.L.C.	-1hoat	DRAWN BY: DMB	# 8Y:	DATE:	DESCRIPTION:	
FENSTERMAKER Ph. 337-237-2200 Fax 337-232-3299	KMAXIXX	PROJ. MGR .: VHV				
www.fenstermaker.com	Robert L. Lastrapes /	DATE: 01/18/2018				
	Registration No. 23006	FILENAME: T:\2017	1217622	0\DWG\SD 1	4 23 Fed P19 15H-20H Pad_IR Pla	t.dwg





#### METES AND BOUNDS DESCRIPTION OF PROPOSED EDS LINE SECTIONS 14 AND 23 OF TOWNSHIP 26 SOUTH RANGE 32 EAST LEA COUNTY, NEW MEXICO

Survey of a proposed EDS line 6,708.89 feet or 406.60 rods crossing Bureau of Land Management land in Sections 14 and 23 of Township 26 South Range 32 East, N.M.P.M. Lea County, New Mexico.

**COMMENCING** at a Found 1 1/2" Iron Pipe with Cap at the Northeast Comer of said Section 14; Thence South 74 degrees 32 minutes 59 seconds West 1,784.13 feet to the **POINT OF BEGINNING** having the following coordinates: X=714,170.50 and Y=382,201.93 (New Mexico State Plane Coordinate System, East Zone, NAD 27);

Thence South 00 degrees 34 minutes 15 seconds East 256.96 feet to point; Thence South 89 degrees 36 minutes 59 seconds West 1,497.98 feet to point; Thence South 01 degrees 01 minutes 03 seconds West 444.47 feet to point; Thence South 02 degrees 44 minutes 25 seconds West 441.26 feet to point; Thence South 02 degrees 14 minutes 55 seconds West 544.24 feet to point; Thence South 02 degrees 10 minutes 55 seconds West 474.77 feet to point; Thence South 02 degrees 10 minutes 01 seconds West 474.77 feet to point; Thence South 02 degrees 29 minutes 01 seconds West 451.29 feet to point; Thence South 00 degrees 29 minutes 22 seconds West 332.58 feet to point; Thence South 01 degrees 24 minutes 00 seconds West 483.32 feet to point; Thence South 02 degrees 08 minutes 04 seconds West 483.32 feet to point; Thence South 02 degrees 12 minutes 36 seconds West 370.37 feet to point; Thence South 02 degrees 12 minutes 12 seconds West 323.32 feet to point; Thence South 02 degrees 12 minutes 12 seconds West 323.32 feet to point; Thence South 02 degrees 12 minutes 13 seconds West 323.32 feet to point;

Thence South 04 degrees 23 minutes 43 seconds West 229.03 feet to the **POINT OF** ENDING having the following coordinates: X=712,493.54 and Y=376,984.80 (New Mexico State Plane Coordinate System, East Zone, NAD 27)

The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.

This description represents a survey made on the ground of a proposed EDS line and intended solely for that purpose. This description does not represent a boundary survey.

#### 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 <u>www.nmonecall.org</u>

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.

PROPOSED EDS LINE			
COURSE	BEARING	DISTANCE	
1	S 00° 34' 15" E	256.96'	
2	S 89° 36' 59" W	1497.98'	
3	S 01° 01' 03" W	444.47'	
4	S 02° 44' 25" W	411.26	
5	S 02° 14' 55" W	544.24'	
6	S 02° 10' 55" W	474.77	
7	S 02° 43' 01" W	451.29'	
8	S 00° 29' 22" W	288.26'	
9	S 01° 24' 42" W	332.58'	
10	S 02° 08' 00" W	483.32'	
11	S 02° 21' 04" W	299.54'	
12	S 01° 44' 36" W	470.37'	
13	S 02° 12' 12" W	323.32'	
14	S 02° 16' 06" W	201.50'	
15	S 04° 23' 43" W	229.03'	

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.



Page 3 of 3		_			
CHEVF	RON U.S.A	<b>\</b> .	INC	).	
PROPOSED EDS LINE					
SD 14 23 FED P19 NOS. 15H-20H WELLS					
SECTION	SECTIONS 14 & 23, T26S-R32E				
LEA CO	UNTY, NEW M	EX	ICO		
					REVISIONS
C. H Fenstermaker & Associates, L L C	DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
FENSTERMAKER Ph 337-237-2200 Fax 337-232-3299	PROJ MGR .: VHV				
www.fenstermaker.com DATE: 01/29/2018					

FILENAME: T:\2017\2176220\DWG\SD 14 23 Fed P19 15H-20H\_EDS Line.dwg

#### EDS LINE PLAT





#### METES AND BOUNDS DESCRIPTION OF PROPOSED FLOWLINES SECTIONS 14 AND 23 OF TOWNSHIP 26 SOUTH RANGE 32 EAST LEA COUNTY, NEW MEXICO

Survey of proposed flowlines 7,694.17 feet or 466.31 rods crossing Bureau of Land Management land in Sections 14 and 23 of Township 26 South Range 32 East, N.M.P.M. Lea County, New Mexico.

**COMMENCING** at a Found 1 1/2" Iron Pipe with Cap at the Northeast Corner of said Section 14; Thence South 58 degrees 48 minutes 30 seconds West 1,391.21 feet to the **POINT OF BEGINNING** having the following coordinates: X=714,700.48 and Y=381,956.02 (New Mexico State Plane Coordinate System, East Zone, NAD 27);

Thence South 00 degrees 17 minutes 31 seconds East 35.01 feet to a point; Thence South 89 degrees 36 minutes 58 seconds West 1,992.56 feet to a point; Thence South 01 degrees 01 minutes 03 seconds West 418.29 feet to a point; Thence South 02 degrees 44 minutes 25 seconds West 411.62 feet to a point; Thence South 02 degrees 14 minutes 55 seconds West 544.07 feet to a point; Thence South 02 degrees 10 minutes 55 seconds West 474.91 feet to a point; Thence South 02 degrees 43 minutes 01 seconds West 450.79 feet to a point; Thence South 00 degrees 29 minutes 22 seconds West 287 88 feet to a point; Thence South 01 degrees 24 minutes 42 seconds West 333.06 feet to a point: Thence South 02 degrees 08 minutes 00 seconds West 483.59 feet to a point; Thence South 02 degrees 21 minutes 04 seconds West 299.42 feet to a point; Thence South 01 degrees 44 minutes 36 seconds West 470.32 feet to a point: Thence South 02 degrees 12 minutes 12 seconds West 323.48 feet to a point; Thence South 02 degrees 16 minutes 06 seconds West 202.14 feet to a point; Thence South 04 degrees 23 minutes 43 seconds West 162.94 feet to a point; Thence North 88 degrees 58 minutes 29 seconds East 546.53 feet to a point;

Thence North 00 degrees 31 minutes 09 seconds West 257.56 feet to the **POINT OF** ENDING having the following coordinates: X=713,076.16 and Y=377,316.07 (New Mexico State Plane Coordinate System, East Zone, NAD 27)

The bearings recited hereon are oriented to NAD 27 New Mexico East Zone.

This description represents a survey made on the ground of proposed flowlines and intended solely for that purpose. This description does not represent a boundary survey.

#### NOTE:

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PROPOSED FLOWLINES			
COURSE	BEARING	DISTANCE	
1	S 00° 17' 31" E	35.01'	
2	S 89" 36' 58" W	1992.56'	
3	S 01° 01' 03" W	418.29'	
4	S 02° 44' 25" W	411.62'	
5	S 02° 14' 55" W	544.07'	
6	S 02° 10' 55" W	474.91'	
7	S 02° 43' 01" W	450.79'	
8	S 00° 29' 22" W	287.88'	
9	S 01° 24' 42" W	333.06'	
10	S 02° 08' 00" W	483.59'	
11	S 02° 21' 04" W	299.42'	
12	S 01° 44' 36" W	470.32'	
13	S 02° 12' 12" W	323.48'	
14	S 02° 16' 06" W	202.14'	
15	S 04° 23' 43" W	162.94'	
16	N 88° 58' 29" E	546.53'	
17	N 00° 31' 09" W	257.56'	

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.



Page 3 of 3	OWLINE PLAT				
CHEVF PROP SD 14 23 FED SECTION LEA CO	CON U.S.A OSED FLOWLI P19 NOS. 15H IS 14 & 23, T26 UNTY, NEW M	1.     -20   -20    -20    -20    -20    -20	NC 5 -1 W 32E CO	). /ELLS E	
					REVISIONS
C. H Fenstermaker & Associates, L.L.C	DRAWN BY: BOR	#	BY:	DATE:	DESCRIPTION:
FENSTERMAKER Ph 337-237-2200 Fax 337-232-3299	PROJ. MGR.: VHV				
www.fenstermaker.com	DATE: 01/29/2018				
	FILENAME: T:\2017	/\217	6220	DWG\SD 1	4 23 Fed P19 15H-20H_Flowlines.dwg

SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

# **APD Surface Use Plan of Operations**

- 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 Jal, New Mexico. The location is approximately 33 miles from the nearest town, which is Jal, New Mexico. From Jal, proceed west on Highway 128 approximately 14 miles and turn left (South) onto CR2 and go approximately 13 miles on CR2 until the road reaches the intersection with Dinwiddie Rd (stop sign with "private road" signage). Turn right (west) onto Dinwiddie Rd (Chevron has an agreement and easement for use of this road) and travel west approximately .3 miles, then bear left (south) onto Battle Axe Road (a continuation of CR2). Travel 5 miles on Battle Axe Road, following its bends, until you reach the Chevron lease road into Salado Development Area. Turn right (Northwesterly) and travel 8 miles on lease road to the well location.
- There will be approximately 6,912.54' of new road construction for the well pad and facilities.
- Road Width: The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 20'. The maximum width of surface disturbance shall not exceed 25'. (see "Road Cut/Fill" plat attached.)
- Maximum Grade: 3%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.

- Turnouts: 50-60'
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggestion
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.
- Type of Surfacing Material: Caliche. The road will also have a dust abatement polymer coating to decrease dust as well as help maintain the road, Envirotac II.
- 1-Mile radius map is attached
- Facilities:
  - Existing production facilities (CTB 23) are in the S2 of Sec. 23, T26S-R32E where oil and gas sales will take place.
  - $\circ~$  Gas purchaser pipeline is existing at the tank battery.
  - Open top tanks or open containments will be netted.
  - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting.
  - Facilities will have a secondary containment 1.5 times the holding capacity of largest storage tank.
  - All above ground structures will be painted non-reflective shale green for blending with surrounding environment.
  - The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.
- Pipelines: 12 4" buried pipelines, approximately 7,694.17', will be laid from well running to lease road then adjacent to lease road to production facility in Section 23.
  - A ROW will not be required for these pipelines.
  - All construction activity will be confined to the approved ROW.
  - Pipeline will run parallel to the road and will stay within approved ROW.
- Pipelines: 2 4" buried gas lift pipelines, approximately 6,900.30', will be laid from well to the existing lease road and tie into the existing gas lift line running to Compressor facility in Section 23.
  - A ROW will not be required for these pipelines.

- All construction activity will be confined to the approved ROW.
- Pipeline will run parallel to existing disturbances and will stay within approved ROW.
- Power lines: A powerline, approximately measuring approximately 6,708.89' in length, will be installed from the existing powerline on the lease road and will be routed to the proposed well.
  - A ROW will not be required for this EDS line.
  - All construction activity will be confined to the approved ROW.
  - Power line will run parallel to the road and will stay within approved ROW.
- Existing frac ponds in Section 23, T26S-R32E will be utilized for fresh water and Section 13 T26S-R32E for recycled water.
- Fresh water will be obtained from a private water source.
- A temporary 10" expanding water transfer line will run south along the proposed lease road then west along existing lease road a total of approx. 10,321.65' from the well location to the existing frac pond in Section 23.
  - Fresh water line will run parallel to the existing lease road, then north within an existing pipeline right of way.
  - A BLM ROW will not be required for the water transfer line.
- Caliche will be used to construct well pad and roads. Material will be purchased from the private land owners (Oliver Kiehne) caliche pit located in Sec 27, T26, R33E, Lea County, NM.
- The proposed source of construction material will be located and purchased by Chevron U.S.A. Inc.
  - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.
- 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.

## SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

- 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.

#### None

. .

- Well Plat
  - Exterior well pad dimensions are 380' x 545'.
  - Interior well pad dimensions from point of entry (well head) of the westernmost well are N-120', S-260', W-210', E-335'. The length to the east includes 25' spacing for next well on multi-well pad (six wells). Total disturbance area needed for construction of well pad will be 4.75 acres.
  - Topsoil placement is on the east where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.
  - Cut and fill: will be minimal.

#### **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

#### SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

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

## **Interim Reclamation Procedures**

- Within 6 months, Chevron will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim reclamation include reducing the pad size to approximately 2.01 acres from the proposed size of 2.74 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 to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book".
- In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM #2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation has reestablished

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

SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

- 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.

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- Well pad and all other infrastructure is on Federal Surface.
- Nearest Post Office: Jal Post Office; 33 Miles East
- On-site performed by BLM NRS: Paul Murphy 9/29/2017
- Cultural report attached: <u>N/A</u> Participating Agreement attached: Yes
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road using any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.
- Enclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.
- Terrain: Landscape is flat
- Soil: Sandy loam
- Vegetation: Vegetation present in surrounding area includes mesquite, shrubs, and grass (needle-grass, burro grass, dropseed).
- Wildlife: No wildlife observed, but it is likely that deer, rabbits, coyotes, and rodents pass through the area.
- Surface Water: No surface water concerns.
- Cave Karst: Low Karst area with no caves or visual signs of caves found.
- Watershed Protection: The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminates from leaving the well pad.

- SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL
- Water wells: No known water wells within the 1- mile radius.
- Residences and Buildings: No dwellings within the immediate vicinity of the proposed location.
- Well Signs: Well signs will be complying per federal and state requirements and specifications.

## **Chevron Representatives**

Primary point of contact: W Mark Woodard 432-687-7999 .

Name: Sam Storrick	Name: Kristen Drain
Address: 6301 Deauville Midland, Texas 79706	Address: 1400 Smith Street Houston, TX 77002
Phone: (432) 687-7769	Phone: (713) 372-6003
Email:	Email:
Name: W Mark Woodard	Name: Max Vilmar
Address: 6301 Deauville Midland, Texas 79706	Address: 6301 Deauville Midland, Texas 79706
Phone: (432) 687-7999	Phone: (432) 687-7327
Email:	Email:
Name: Michael Smerilli	Name: Laura Becerra
Address: 6301 Deauville Midland, Texas 79706	Address: 6301 Deauville Midland, Texas 79706
Phone: (713) 687-7887	Office: (432) 687-7665
Email:	Email:

SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

# APD Surface Use Plan of Operations

- 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 Jal, New Mexico. The location is approximately 33 miles from the nearest town, which is Jal, New Mexico. From Jal, proceed west on Highway 128 approximately 14 miles and turn left (South) onto CR2 and go approximately 13 miles on CR2 until the road reaches the intersection with Dinwiddie Rd (stop sign with "private road" signage). Turn right (west) onto Dinwiddie Rd (Chevron has an agreement and easement for use of this road) and travel west approximately .3 miles, then bear left (south) onto Battle Axe Road (a continuation of CR2). Travel 5 miles on Battle Axe Road, following its bends, until you reach the Chevron lease road into Salado Development Area. Turn right (Northwesterly) and travel 8 miles on lease road to the well location.
- There will be approximately 6,912.54' of new road construction for the well pad and facilities.
- Road Width: The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 20'. The maximum width of surface disturbance shall not exceed 25'. (see "Road Cut/Fill" plat attached.)
- 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.

SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

- Turnouts: 50-60'
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggestion
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.
- Type of Surfacing Material: Caliche. The road will also have a dust abatement polymer coating to decrease dust as well as help maintain the road, Envirotac II.
- 1-Mile radius map is attached
- Facilities:
  - Existing production facilities (CTB 23) are in the S2 of Sec. 23, T26S-R32E where oil and gas sales will take place.

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- Gas purchaser pipeline is existing at the tank battery.
- Open top tanks or open containments will be netted.
- Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting.
- Facilities will have a secondary containment 1.5 times the holding capacity of largest storage tank.
- All above ground structures will be painted non-reflective shale green for blending with surrounding environment.
- The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.
- Pipelines: 12 4" buried pipelines, approximately 7,694.17', will be laid from well running to lease road then adjacent to lease road to production facility in Section 23.
  - A ROW will not be required for these pipelines.
  - All construction activity will be confined to the approved ROW.
  - Pipeline will run parallel to the road and will stay within approved ROW.
- Pipelines: 2 4" buried gas lift pipelines, approximately 6,900.30', will be laid from well to the existing lease road and tie into the existing gas lift line running to Compressor facility in Section 23.
  - A ROW will not be required for these pipelines.

- All construction activity will be confined to the approved ROW.
- Pipeline will run parallel to existing disturbances and will stay within approved ROW.
- Power lines: A powerline, approximately measuring approximately 6,708.89' in length, will be installed from the existing powerline on the lease road and will be routed to the proposed well.
  - A ROW will not be required for this EDS line.
  - All construction activity will be confined to the approved ROW.
  - Power line will run parallel to the road and will stay within approved ROW.
- Existing frac ponds in Section 23, T26S-R32E will be utilized for fresh water and Section 13 T26S-R32E for recycled water.
- Fresh water will be obtained from a private water source.
- A temporary 10" expanding water transfer line will run south along the proposed lease road then west along existing lease road a total of approx. 10,321.65' from the well location to the existing frac pond in Section 23.
  - Fresh water line will run parallel to the existing lease road, then north within an existing pipeline right of way.
  - A BLM ROW will not be required for the water transfer line.
- Caliche will be used to construct well pad and roads. Material will be purchased from the private land owners (Oliver Kiehne) caliche pit located in Sec 27, T26, R33E, Lea County, NM.
- The proposed source of construction material will be located and purchased by Chevron U.S.A. Inc.
  - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.
- 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.

### SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

- 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.

## None

- Well Plat
  - Exterior well pad dimensions are 380' x 545'.
  - Interior well pad dimensions from point of entry (well head) of the westernmost well are N-120', S-260', W-210', E-335'. The length to the east includes 25' spacing for next well on multi-well pad (six wells). Total disturbance area needed for construction of well pad will be 4.75 acres.
  - Topsoil placement is on the east where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.
  - Cut and fill: will be minimal.

## **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

### SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

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**

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- On-site performed by BLM NRS: Paul Murphy 9/29/2017
- Cultural report attached: <u>N/A</u> Participating Agreement attached: Yes
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road using any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.
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SECTION 23, T26S, R32E BHL 180' FSL & 2,440' FEL

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- Residences and Buildings: No dwellings within the immediate vicinity of the proposed location.
- Well Signs: Well signs will be complying per federal and state requirements and specifications.

Chevron Representatives

Primary point of contact: W Mark Woodard 432-687-7999

Name: Sam Storrick Address: 6301 Deauville Midland, Texas 79706	Name: Kristen Drain Address: 1400 Smith Street Houston, TX 77002
Phone: (432) 687-7769	Phone: (/13) 372-6003
Email:	Email:
Name: W Mark Woodard	Name: Max Vilmar
Address: 6301 Deauville Midland, Texas 79706	Address: 6301 Deauville Midland, Texas 79706
Phone: (432) 687-7999	Phone: (432) 687-7327
Email:	Email:
Name: Michael Smerilli	Name: Laura Becerra
Address: 6301 Deauville Midland, Texas 79706	Address: 6301 Deauville Midland, Texas 79706
Phone: (713) 687-7887	Office: (432) 687-7665
Email:	Email:



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



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

Would you like to utilize Lined Pit PWD options? NO Produced Water Disposal (PWD) Location: PWD surface owner: 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: Decribe 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:

PWD disturbance (acres):

Would you like to utilize Unlined Pit PWD options? NO

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

**PWD surface owner:** 

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe 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:

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

**PWD surface owner:** 

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

**PWD disturbance (acres):** 

PWD disturbance (acres):

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:

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:Surface Discharge site facilities map:

Would you like to utilize Other PWD options? NO Produced Water Disposal (PWD) Location: PWD surface owner: Other PWD discharge volume (bbl/day): Other PWD type description: Other PWD type attachment: Have other regulatory requirements been met? Other regulatory requirements attachment:

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PWD disturbance (acres):



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



BLM Bond number: CA0329

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

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**Bond Info Data Report** 

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02/13/2019

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: