

**HOBBS OCD**  
**JAN 03 2018**  
**RECEIVED**

**PECOS DISTRICT**  
**DRILLING CONDITIONS OF APPROVAL**

<b>OPERATOR'S NAME:</b>	Chevron USA Incorporated
<b>LEASE NO.:</b>	NMNM27506
<b>WELL NAME &amp; NO.:</b>	SD EA 29 32 Fed Com P11 16H
<b>SURFACE HOLE FOOTAGE:</b>	195'/N & 903'/W
<b>BOTTOM HOLE FOOTAGE:</b>	180'/S & 1590'/W
<b>LOCATION:</b>	Section 29, T.26 S., R.33 E., NMPM
<b>COUNTY:</b>	Lea County, New Mexico

**COA**

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

**A. Hydrogen Sulfide**

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 **822** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Operator shall fill casing with fluid 2/3<sup>rd</sup> of the intermediate casing while running 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. **Additional cement may be required. Excess calculates to 19%.**
- b. Second stage above DV tool: Cement to surface. If cement does not circulate, contact the appropriate BLM office.

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

**Operator shall fill casing with fluid 1/3<sup>rd</sup> of the liner while running casing to maintain collapse safety factor.**

3. The minimum required fill of cement behind the 7-5/8 inch liner is:
  - Cement should tie-back at least 100 feet into previous casing string. Operator shall provide method of verification. **Additional cement may be required. Excess calculates to 8%.**
4. The minimum required fill of cement behind the 5-1/2 x 5 inch production casing is:
  - Cement should tie-back 200' into the previous casing. Operator shall provide method of verification. **Additional cement may be required. Excess calculates to -24%.**

### **C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi.**
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be **10,000 (10M) psi.**

## GENERAL REQUIREMENTS

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

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

☒ Lea County

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

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

## A. CASING

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

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

## B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. **If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:**
  - a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
  - b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
  - c. **Manufacturer representative shall install the test plug for the initial BOP test.**
  - d. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**
  - e. **Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.**
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the

plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

### C. DRILLING MUD

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

#### **D. WASTE MATERIAL AND FLUIDS**

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

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

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

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

**ZS 112017**

**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Chevron USA Incorporated
LEASE NO.:	NMNM27506
WELL NAME & NO.:	SD EA 29 32 Fed Com P11 16H
SURFACE HOLE	195'/N & 903'/W
FOOTAGE:	
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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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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

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

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

### **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.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

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

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

### **B. TOPSOIL**

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

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

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

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

### **D. FEDERAL MINERAL MATERIALS PIT**

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

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

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

## **F. EXCLOSURE FENCING (CELLARS & PITS)**

### **Exclosure Fencing**

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

## **G. ON LEASE ACCESS ROADS**

### **Road Width**

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

### **Surfacing**

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

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

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

### **Crowning**

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

### **Ditching**

Ditching shall be required on both sides of the road.

### **Turnouts**

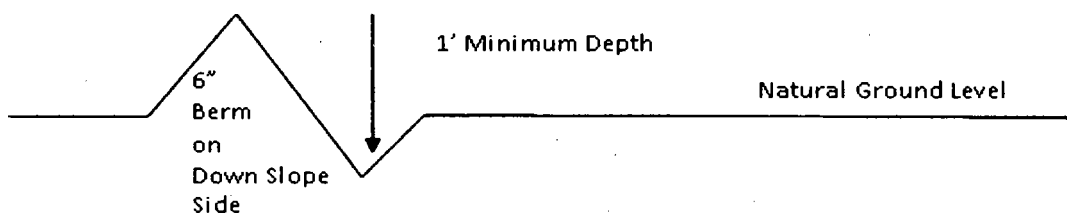
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

### **Drainage**

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

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

#### **Cross Section of a Typical Lead-off Ditch**



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

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

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

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

### **Cattle guards**

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

### **Fence Requirement**

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

**Public Access**

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

## Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

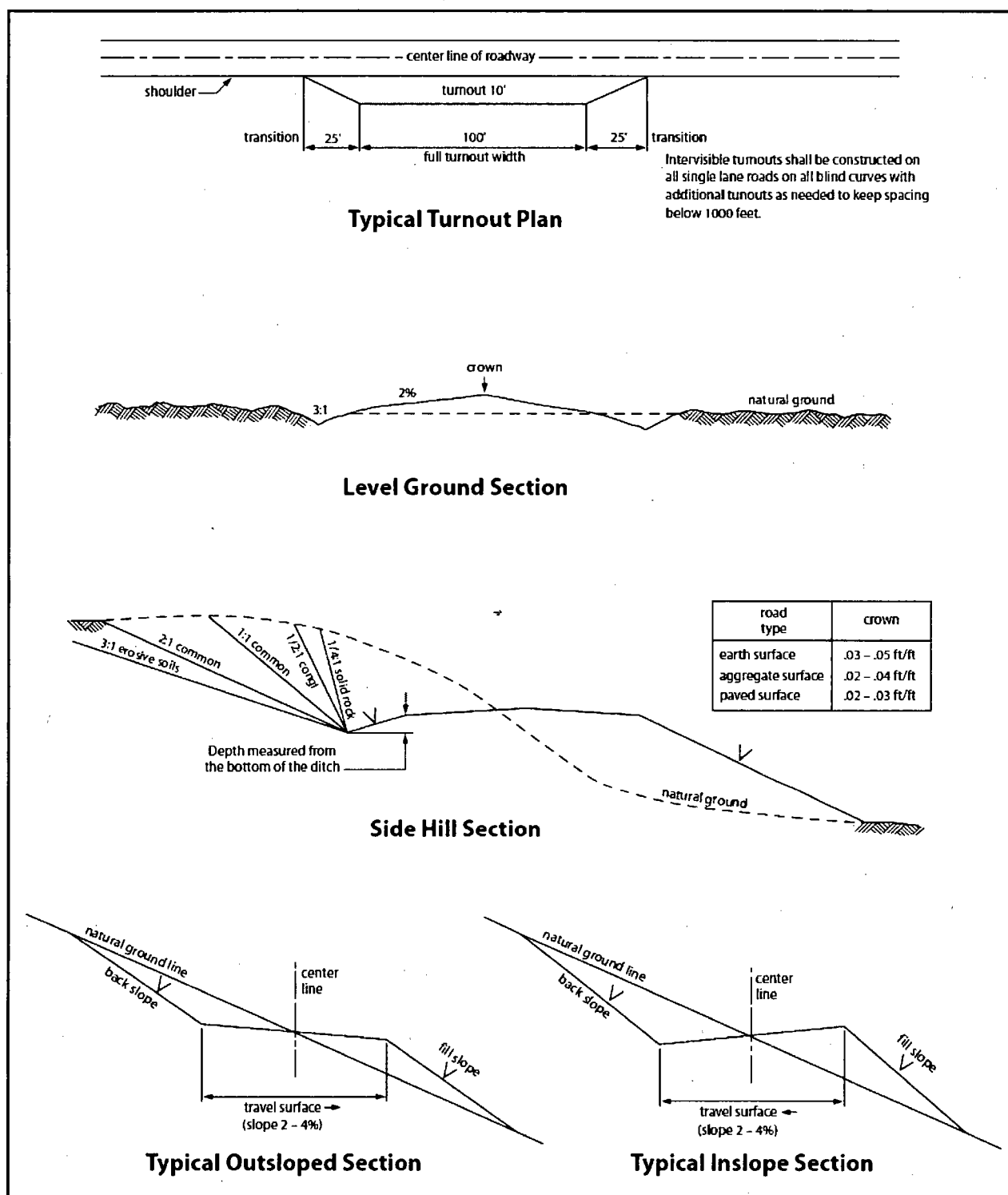


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.



## **VII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

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

#### **Exclosure Netting (Open-top Tanks)**

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

#### **Chemical and Fuel Secondary Containment and Exclosure Screening**

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

#### **Open-Vent Exhaust Stack Exclosures**

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

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

#### **Containment Structures**

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

#### **Painting Requirement**

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

### **B. BURIED PIPELINE STIPULATIONS**

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

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

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

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

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

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

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

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

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.)*)

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

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

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately   6   inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

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

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

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

- |  |  |
|--|--|
| <input type="checkbox"/> seed mixture 1            | <input type="checkbox"/> seed mixture 3          |
| <input checked="" type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4          |
| <input type="checkbox"/> seed mixture 2/LPC        | <input type="checkbox"/> Aplomado Falcon Mixture |

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

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

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

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

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

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

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

## **VIII. INTERIM RECLAMATION**

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

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

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

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

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

## **IX. FINAL ABANDONMENT & RECLAMATION**

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a

satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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

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

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

### **Seed Mixture 2, for Sandy Sites**

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

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

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

<u>Species</u>	<u>lb/acre</u>
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sand love grass ( <i>Eragrostis trichodes</i> )	1.0
Plains bristlegass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

Pounds of seed  $\times$  percent purity  $\times$  percent germination = pounds pure live seed





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

**SD EA 29 32 Fed Com P11 13H**

**SD EA 29 32 Fed Com P11 14H**

**SD EA 29 32 Fed Com P11 15H**

**SD EA 29 32 Fed Com P11 16H**

## Training

MCBU Drilling and Completions H<sub>2</sub>S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H<sub>2</sub>S.

### Awareness Level

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

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

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

### Advanced Level H<sub>2</sub>S Training

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

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

## 6. MUD PROGRAM

From	To	Type	Weight	F. Vis	Filtrate
0'	800'	Spud Mud	8.3 - 8.7	32 - 34	NC - NC
800'	11,150'	Oil Based Mud	8.7-9.2	28 - 30	25-30
11,150'	12,300'	Oil Based Mud	9.5-13.5	70 - 75	25 - 30
12,300'	23,000'	Oil Based Mud	12.0-15.0	70 - 75	25 - 30

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

All fluids and cuttings will be disposed of in accordance with 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:

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

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

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

## 8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi  
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 9830 psi
- Hydrogen sulfide gas is not anticipated. An H<sub>2</sub>S Contingency plan is attached with this APD in the event that H<sub>2</sub>S is encountered



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

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

All employees and visitors will be issued an H<sub>2</sub>S training certification card (or certificate) upon successful completion of the appropriate H<sub>2</sub>S training course. Personnel working in an H<sub>2</sub>S environment will carry a current H<sub>2</sub>S training certification card as proof of having received the proper training on their person at all times.

## Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be 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.

## H<sub>2</sub>S Equipment

### Respiratory Protection

- a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.
- b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

### Visual Warning System

- a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.
- b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

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

- a) H<sub>2</sub>S monitoring system (sensor head, warning light and siren) placed throughout rig.
  - Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
  - Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.



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

## Well Control Equipment

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

## Mud Program

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

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

## Public Safety - Emergency Assistance

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

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

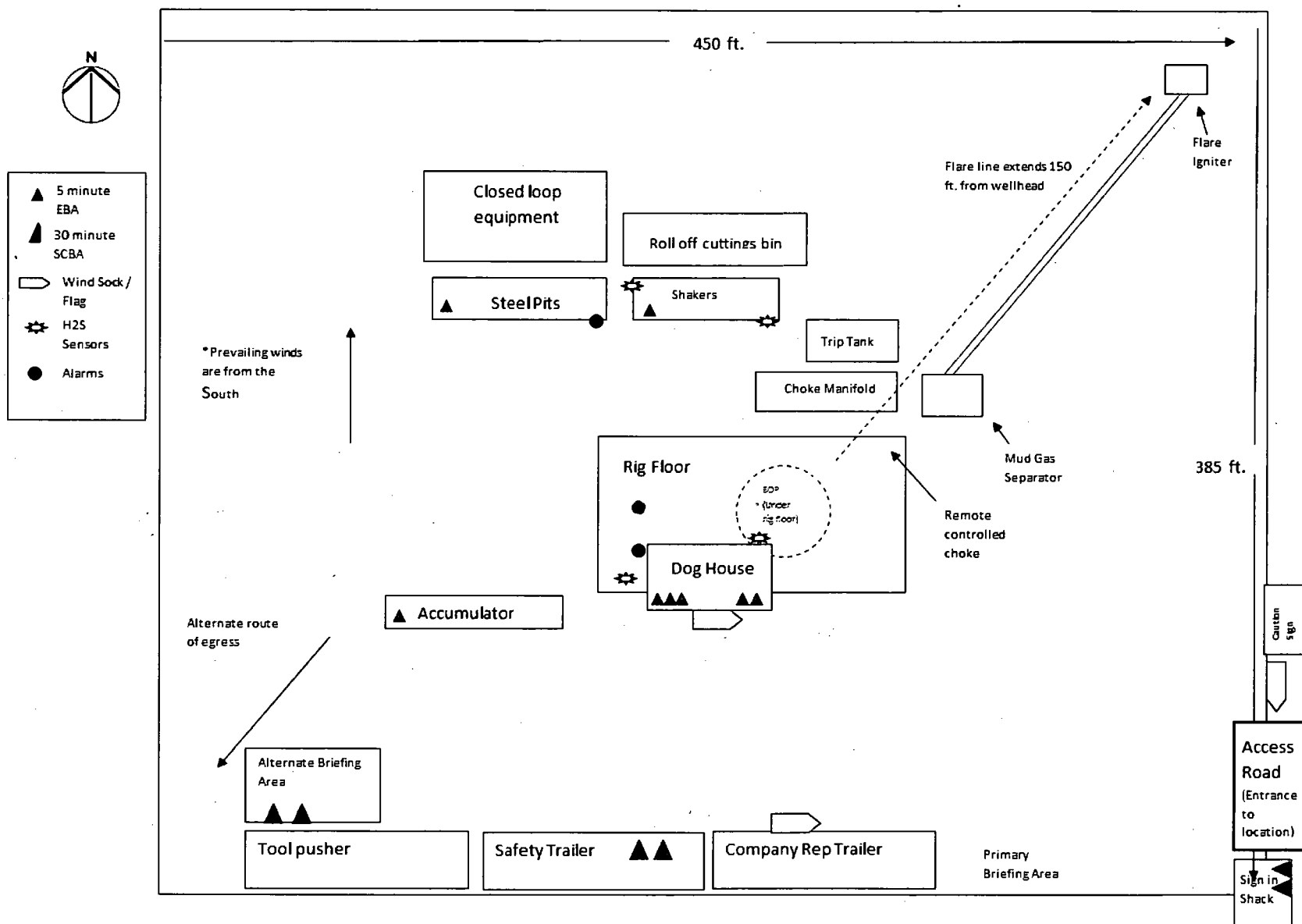


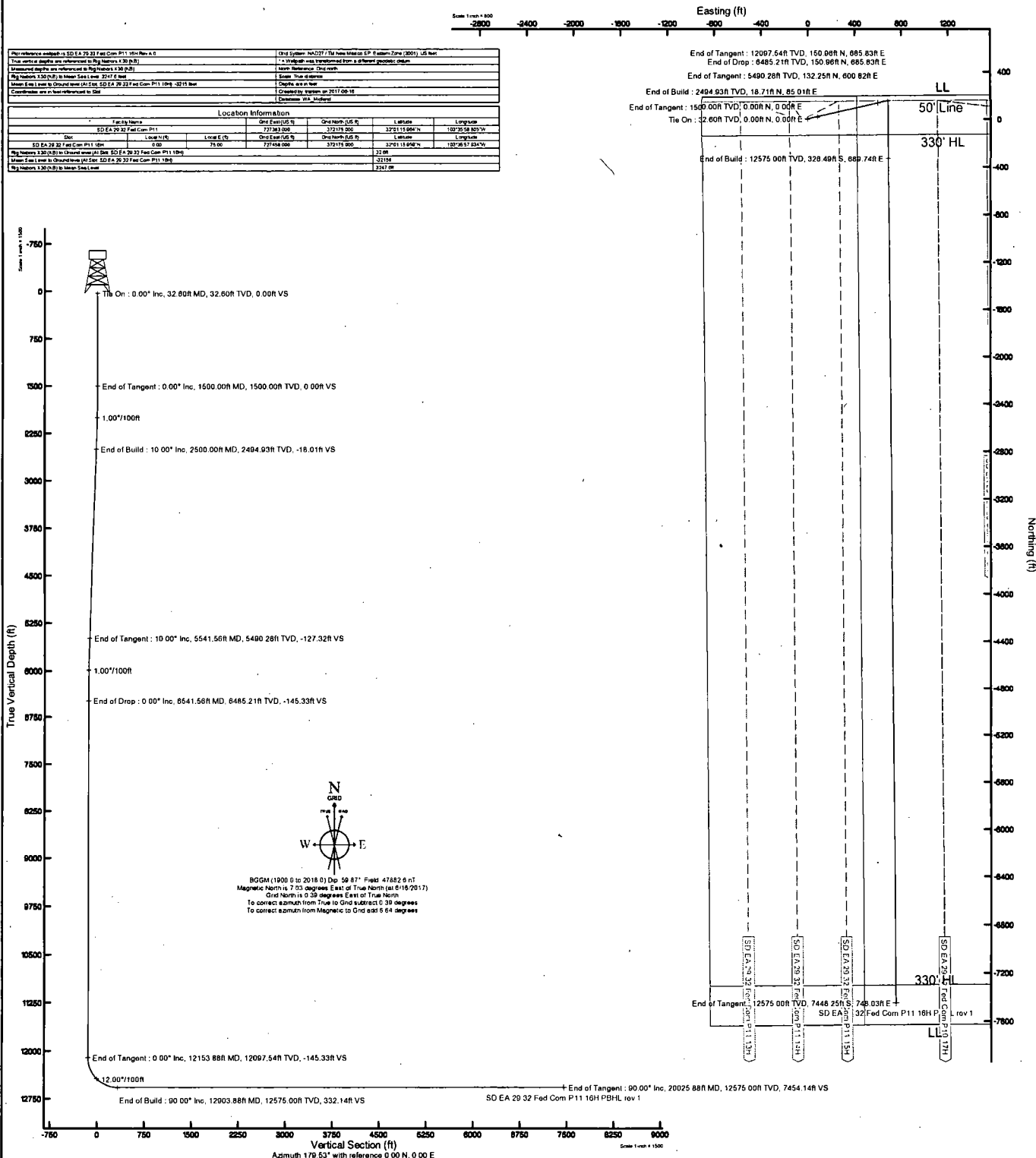
## Chevron MCBU D&C Emergency Notifications

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

	Name	Title	Office Number	Cell Phone
1.	<b>Bryson Abney</b>	Drilling Engineer	(713) 372-6447	(832) 683-0938
2.	Yung Wilson	Superintendent	(713) 372-6475	(713) 205-7624
5.	Ikenna Chukwumaeze	Drilling Manager	(713) 372-7591	(713) 615-0701
6.	Scott Nash	Operations Manager	(713) 372-5747	(281) 814-9713
7.	Luke Meaux	D&C HES	(432) 687-7133	(432) 208 -3572
8.	Markquale Fields	Completion Engineer	(713) 372-0233	(832) 714-0724

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







# Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev A.0

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Tranlam
Scale	0.999968	Report Generated	6/16/2017 at 1:41:44 PM
Convergence at slot	0.39° East	Database/Source file	WA_Midland/SD_EA_29_32_Fed_Com_P11_16H_Rev_A.0.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	75.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W
Facility Reference Pt			727383.00	372175.00	32°01'15.964"N	103°35'58.805"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig Nabors X30 (KB) to Facility Vertical Datum	3247.60ft
Horizontal Reference Pt	Slot	Rig Nabors X30 (KB) to Mean Sea Level	3247.60ft
Vertical Reference Pt	Rig Nabors X30 (KB)	Rig Nabors X30 (KB) to Ground Level at Slot (SD EA 29 32 Fed Com P11 16H)	32.60ft
MD Reference Pt	Rig Nabors X30 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.53°





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## WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	77.587	0.00	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
32.60	0.000	77.587	32.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	Tie On
132.60†	0.000	77.587	132.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
232.60†	0.000	77.587	232.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
332.60†	0.000	77.587	332.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
432.60†	0.000	77.587	432.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
532.60†	0.000	77.587	532.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
632.60†	0.000	77.587	632.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
732.60†	0.000	77.587	732.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
832.60†	0.000	77.587	832.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
932.60†	0.000	77.587	932.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
1032.60†	0.000	77.587	1032.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
1132.60†	0.000	77.587	1132.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
1232.60†	0.000	77.587	1232.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
1332.60†	0.000	77.587	1332.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
1432.60†	0.000	77.587	1432.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
1500.00	0.000	77.587	1500.00	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	End of Tangent
1532.60†	0.326	77.587	1532.60	-0.02	0.02	0.09	727458.09	372175.02	32°01'15.959"N	103°35'57.933"W	1.00	1.00	238.00	
1632.60†	1.326	77.587	1632.59	-0.32	0.33	1.50	727459.50	372175.33	32°01'15.962"N	103°35'57.916"W	1.00	1.00	0.00	
1732.60†	2.326	77.587	1732.54	-0.98	1.01	4.61	727462.61	372176.01	32°01'15.969"N	103°35'57.880"W	1.00	1.00	0.00	
1832.60†	3.326	77.587	1832.41	-2.00	2.07	9.43	727467.43	372177.07	32°01'15.979"N	103°35'57.824"W	1.00	1.00	0.00	
1932.60†	4.326	77.587	1932.19	-3.38	3.51	15.94	727473.94	372178.51	32°01'15.993"N	103°35'57.748"W	1.00	1.00	0.00	
2032.60†	5.326	77.587	2031.83	-5.12	5.32	24.16	727482.16	372180.32	32°01'16.010"N	103°35'57.653"W	1.00	1.00	0.00	
2132.60†	6.326	77.587	2131.32	-7.22	7.50	34.07	727492.07	372182.50	32°01'16.031"N	103°35'57.537"W	1.00	1.00	0.00	
2232.60†	7.326	77.587	2230.61	-9.68	10.05	45.68	727503.68	372185.05	32°01'16.056"N	103°35'57.402"W	1.00	1.00	0.00	
2332.60†	8.326	77.587	2329.67	-12.50	12.98	58.98	727516.97	372187.98	32°01'16.084"N	103°35'57.248"W	1.00	1.00	0.00	
2432.60†	9.326	77.587	2428.49	-15.67	16.28	73.96	727531.96	372191.28	32°01'16.115"N	103°35'57.073"W	1.00	1.00	0.00	
2500.00	10.000	77.587	2494.93	-18.01	18.71	85.01	727543.01	372193.71	32°01'16.139"N	103°35'56.945"W	1.00	1.00	0.00	End of Build
2532.60†	10.000	77.587	2527.04	-19.19	19.93	90.54	727548.54	372194.93	32°01'16.150"N	103°35'56.880"W	0.00	0.00	0.00	
2632.60†	10.000	77.587	2625.52	-22.78	23.66	107.50	727565.49	372198.66	32°01'16.186"N	103°35'56.683"W	0.00	0.00	0.00	



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Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (208 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2732.60†	10.000	77.587	2724.00	-26.37	27.39	124.46	727582.45	372202.39	32°01'16.222"N	103°35'56.486"W	0.00	0.00	0.00	
2832.60†	10.000	77.587	2822.48	-29.97	31.13	141.42	727599.41	372206.13	32°01'16.258"N	103°35'56.289"W	0.00	0.00	0.00	
2932.60†	10.000	77.587	2920.96	-33.56	34.86	158.37	727616.37	372209.86	32°01'16.293"N	103°35'56.091"W	0.00	0.00	0.00	
3032.60†	10.000	77.587	3019.44	-37.15	38.59	175.33	727633.33	372213.59	32°01'16.329"N	103°35'55.894"W	0.00	0.00	0.00	
3132.60†	10.000	77.587	3117.92	-40.75	42.33	192.29	727650.29	372217.32	32°01'16.365"N	103°35'55.697"W	0.00	0.00	0.00	
3232.60†	10.000	77.587	3216.40	-44.34	46.06	209.25	727667.24	372221.06	32°01'16.401"N	103°35'55.500"W	0.00	0.00	0.00	
3332.60†	10.000	77.587	3314.88	-47.93	49.79	226.21	727684.20	372224.79	32°01'16.437"N	103°35'55.302"W	0.00	0.00	0.00	
3432.60†	10.000	77.587	3413.36	-51.53	53.52	243.17	727701.16	372228.52	32°01'16.472"N	103°35'55.105"W	0.00	0.00	0.00	
3532.60†	10.000	77.587	3511.84	-55.12	57.26	260.13	727718.12	372232.26	32°01'16.508"N	103°35'54.908"W	0.00	0.00	0.00	
3632.60†	10.000	77.587	3610.32	-58.71	60.99	277.09	727735.08	372235.99	32°01'16.544"N	103°35'54.711"W	0.00	0.00	0.00	
3732.60†	10.000	77.587	3708.80	-62.31	64.72	294.05	727752.04	372239.72	32°01'16.580"N	103°35'54.513"W	0.00	0.00	0.00	
3832.60†	10.000	77.587	3807.29	-65.90	68.46	311.00	727768.99	372243.45	32°01'16.616"N	103°35'54.316"W	0.00	0.00	0.00	
3932.60†	10.000	77.587	3905.77	-69.50	72.19	327.96	727785.95	372247.19	32°01'16.651"N	103°35'54.119"W	0.00	0.00	0.00	
4032.60†	10.000	77.587	4004.25	-73.09	75.92	344.92	727802.91	372250.92	32°01'16.687"N	103°35'53.922"W	0.00	0.00	0.00	
4132.60†	10.000	77.587	4102.73	-76.68	79.65	361.88	727819.87	372254.65	32°01'16.723"N	103°35'53.724"W	0.00	0.00	0.00	
4232.60†	10.000	77.587	4201.21	-80.28	83.39	378.84	727836.83	372258.38	32°01'16.759"N	103°35'53.527"W	0.00	0.00	0.00	
4332.60†	10.000	77.587	4299.69	-83.87	87.12	395.80	727853.78	372262.12	32°01'16.795"N	103°35'53.330"W	0.00	0.00	0.00	
4432.60†	10.000	77.587	4398.17	-87.46	90.85	412.76	727870.74	372265.85	32°01'16.830"N	103°35'53.132"W	0.00	0.00	0.00	
4532.60†	10.000	77.587	4496.65	-91.06	94.59	429.72	727887.70	372269.58	32°01'16.866"N	103°35'52.935"W	0.00	0.00	0.00	
4632.60†	10.000	77.587	4595.13	-94.65	98.32	446.67	727904.66	372273.31	32°01'16.902"N	103°35'52.738"W	0.00	0.00	0.00	
4732.60†	10.000	77.587	4693.61	-98.24	102.05	463.63	727921.62	372277.05	32°01'16.938"N	103°35'52.541"W	0.00	0.00	0.00	
4832.60†	10.000	77.587	4792.09	-101.84	105.78	480.59	727938.58	372280.78	32°01'16.974"N	103°35'52.343"W	0.00	0.00	0.00	
4932.60†	10.000	77.587	4890.57	-105.43	109.52	497.55	727955.53	372284.51	32°01'17.009"N	103°35'52.146"W	0.00	0.00	0.00	
5032.60†	10.000	77.587	4989.05	-109.03	113.25	514.51	727972.49	372288.25	32°01'17.045"N	103°35'51.949"W	0.00	0.00	0.00	
5132.60†	10.000	77.587	5087.54	-112.62	116.98	531.47	727989.45	372291.98	32°01'17.081"N	103°35'51.752"W	0.00	0.00	0.00	
5232.60†	10.000	77.587	5186.02	-116.21	120.72	548.43	728006.41	372295.71	32°01'17.117"N	103°35'51.554"W	0.00	0.00	0.00	
5332.60†	10.000	77.587	5284.50	-119.81	124.45	565.39	728023.37	372299.44	32°01'17.153"N	103°35'51.357"W	0.00	0.00	0.00	
5432.60†	10.000	77.587	5382.98	-123.40	128.18	582.35	728040.33	372303.18	32°01'17.188"N	103°35'51.160"W	0.00	0.00	0.00	
5532.60†	10.000	77.587	5481.46	-126.99	131.91	599.30	728057.28	372306.91	32°01'17.224"N	103°35'50.963"W	0.00	0.00	0.00	
5541.56	10.000	77.587	5490.28	-127.32	132.25	600.82	728058.80	372307.24	32°01'17.227"N	103°35'50.945"W	0.00	0.00	0.00	End of Tangent



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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

## WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
5632.60†	9.090	77.587	5580.06	-130.44	135.49	615.57	728073.55	372310.49	32°01'17.258"N	103°35'50.773"W	1.00	-1.00	0.00	
5732.60†	8.090	77.587	5678.94	-133.53	138.70	630.15	728088.13	372313.70	32°01'17.289"N	103°35'50.604"W	1.00	-1.00	0.00	
5832.60†	7.090	77.587	5778.06	-136.26	141.54	643.05	728101.03	372316.54	32°01'17.316"N	103°35'50.454"W	1.00	-1.00	0.00	
5932.60†	6.090	77.587	5877.40	-138.64	144.01	654.26	728112.24	372319.00	32°01'17.340"N	103°35'50.323"W	1.00	-1.00	0.00	
6032.60†	5.090	77.587	5976.92	-140.65	146.10	663.77	728121.75	372321.10	32°01'17.360"N	103°35'50.213"W	1.00	-1.00	0.00	
6132.60†	4.090	77.587	6076.60	-142.31	147.82	671.59	728129.56	372322.82	32°01'17.377"N	103°35'50.122"W	1.00	-1.00	0.00	
6232.60†	3.090	77.587	6176.40	-143.61	149.17	677.70	728135.68	372324.16	32°01'17.390"N	103°35'50.051"W	1.00	-1.00	0.00	
6332.60†	2.090	77.587	6276.30	-144.54	150.14	682.11	728140.09	372325.14	32°01'17.399"N	103°35'49.999"W	1.00	-1.00	0.00	
6432.60†	1.090	77.587	6376.26	-145.11	150.74	684.82	728142.80	372325.73	32°01'17.405"N	103°35'49.968"W	1.00	-1.00	0.00	
6532.60†	0.090	77.587	6476.25	-145.33	150.96	685.83	728143.80	372325.95	32°01'17.407"N	103°35'49.956"W	1.00	-1.00	0.00	
6541.56	0.000	179.531	6485.21	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	1.00	-1.00	-865.78	End of Drop
6632.60†	0.000	179.531	6576.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
6732.60†	0.000	179.531	6676.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
6832.60†	0.000	179.531	6776.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
6932.60†	0.000	179.531	6876.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7032.60†	0.000	179.531	6976.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7132.60†	0.000	179.531	7076.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7232.60†	0.000	179.531	7176.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7332.60†	0.000	179.531	7276.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7432.60†	0.000	179.531	7376.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7532.60†	0.000	179.531	7476.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7632.60†	0.000	179.531	7576.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7732.60†	0.000	179.531	7676.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7832.60†	0.000	179.531	7776.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
7932.60†	0.000	179.531	7876.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8032.60†	0.000	179.531	7976.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8132.60†	0.000	179.531	8076.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8232.60†	0.000	179.531	8176.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8332.60†	0.000	179.531	8276.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8432.60†	0.000	179.531	8376.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	



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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

## WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8532.60†	0.000	179.531	8476.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8632.60†	0.000	179.531	8576.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8732.60†	0.000	179.531	8676.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8832.60†	0.000	179.531	8776.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
8932.60†	0.000	179.531	8876.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9032.60†	0.000	179.531	8976.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9132.60†	0.000	179.531	9076.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9232.60†	0.000	179.531	9176.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9332.60†	0.000	179.531	9276.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9432.60†	0.000	179.531	9376.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9532.60†	0.000	179.531	9476.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9632.60†	0.000	179.531	9576.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9732.60†	0.000	179.531	9676.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9832.60†	0.000	179.531	9776.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
9932.60†	0.000	179.531	9876.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10032.60†	0.000	179.531	9976.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10132.60†	0.000	179.531	10076.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10232.60†	0.000	179.531	10176.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10332.60†	0.000	179.531	10276.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10432.60†	0.000	179.531	10376.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10532.60†	0.000	179.531	10476.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10632.60†	0.000	179.531	10576.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10732.60†	0.000	179.531	10676.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10832.60†	0.000	179.531	10776.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
10932.60†	0.000	179.531	10876.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11032.60†	0.000	179.531	10976.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11132.60†	0.000	179.531	11076.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11232.60†	0.000	179.531	11176.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11332.60†	0.000	179.531	11276.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11432.60†	0.000	179.531	11376.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

## WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
11532.60†	0.000	179.531	11476.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11632.60†	0.000	179.531	11576.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11732.60†	0.000	179.531	11676.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11832.60†	0.000	179.531	11776.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
11932.60†	0.000	179.531	11876.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
12032.60†	0.000	179.531	11976.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
12132.60†	0.000	179.531	12076.25	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	
12153.88	0.000	179.531	12097.54	-145.33	150.96	685.83	728143.81	372325.95	32°01'17.407"N	103°35'49.956"W	0.00	0.00	0.00	End of Tangent
12232.60†	9.446	179.531	12175.90	-138.85	144.49	685.89	728143.86	372319.48	32°01'17.343"N	103°35'49.956"W	12.00	12.00	228.07	
12332.60†	21.446	179.531	12272.11	-112.27	117.90	686.11	728144.08	372292.90	32°01'17.080"N	103°35'49.956"W	12.00	12.00	0.00	
12432.60†	33.446	179.531	12360.69	-66.26	71.90	686.48	728144.46	372246.89	32°01'16.624"N	103°35'49.955"W	12.00	12.00	0.00	
12532.60†	45.446	179.531	12437.77	-2.84	8.48	687.00	728144.98	372183.48	32°01'15.997"N	103°35'49.954"W	12.00	12.00	0.00	
12632.60†	57.446	179.531	12499.98	75.22	-69.58	687.64	728145.62	372105.42	32°01'15.224"N	103°35'49.953"W	12.00	12.00	0.00	
12732.60†	69.446	179.531	12544.61	164.50	-158.86	688.37	728146.35	372016.14	32°01'14.341"N	103°35'49.951"W	12.00	12.00	0.00	
12832.60†	81.446	179.531	12569.69	261.12	-255.47	689.16	728147.14	371919.53	32°01'13.385"N	103°35'49.950"W	12.00	12.00	0.00	
12903.88	90.000	179.531	12575.00	332.14	-326.49	689.74	728147.72	371848.52	32°01'12.682"N	103°35'49.948"W	12.00	12.00	0.00	End of Build
12932.60†	90.000	179.531	12575.00	360.85	-355.21	689.98	728147.95	371819.81	32°01'12.398"N	103°35'49.948"W	0.00	0.00	0.00	
13032.60†	90.000	179.531	12575.00	460.85	-455.20	690.80	728148.77	371719.81	32°01'11.408"N	103°35'49.946"W	0.00	0.00	0.00	
13132.60†	90.000	179.531	12575.00	560.85	-555.20	691.61	728149.59	371619.82	32°01'10.419"N	103°35'49.945"W	0.00	0.00	0.00	
13232.60†	90.000	179.531	12575.00	660.85	-655.20	692.43	728150.41	371519.83	32°01'09.429"N	103°35'49.943"W	0.00	0.00	0.00	
13332.60†	90.000	179.531	12575.00	760.85	-755.19	693.25	728151.23	371419.83	32°01'08.439"N	103°35'49.942"W	0.00	0.00	0.00	
13432.60†	90.000	179.531	12575.00	860.85	-855.19	694.07	728152.05	371319.84	32°01'07.450"N	103°35'49.940"W	0.00	0.00	0.00	
13532.60†	90.000	179.531	12575.00	960.85	-955.19	694.89	728152.86	371219.85	32°01'06.460"N	103°35'49.938"W	0.00	0.00	0.00	
13632.60†	90.000	179.531	12575.00	1060.85	-1055.18	695.71	728153.68	371119.85	32°01'05.471"N	103°35'49.937"W	0.00	0.00	0.00	
13732.60†	90.000	179.531	12575.00	1160.85	-1155.18	696.52	728154.50	371019.86	32°01'04.481"N	103°35'49.935"W	0.00	0.00	0.00	
13832.60†	90.000	179.531	12575.00	1260.85	-1255.18	697.34	728155.32	370919.87	32°01'03.491"N	103°35'49.934"W	0.00	0.00	0.00	
13932.60†	90.000	179.531	12575.00	1360.85	-1355.17	698.16	728156.14	370819.87	32°01'02.502"N	103°35'49.932"W	0.00	0.00	0.00	
14032.60†	90.000	179.531	12575.00	1460.85	-1455.17	698.98	728156.96	370719.88	32°01'01.512"N	103°35'49.930"W	0.00	0.00	0.00	
14132.60†	90.000	179.531	12575.00	1560.85	-1555.17	699.80	728157.77	370619.89	32°01'00.523"N	103°35'49.929"W	0.00	0.00	0.00	
14232.60†	90.000	179.531	12575.00	1660.85	-1655.16	700.62	728158.59	370519.89	32°00'59.533"N	103°35'49.927"W	0.00	0.00	0.00	



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

## WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14332.60†	90.000	179.531	12575.00	1760.85	-1755.16	701.43	728159.41	370419.90	32°00'58.544"N	103°35'49.926"W	0.00	0.00	0.00	
14432.60†	90.000	179.531	12575.00	1860.85	-1855.16	702.25	728160.23	370319.91	32°00'57.554"N	103°35'49.924"W	0.00	0.00	0.00	
14532.60†	90.000	179.531	12575.00	1960.85	-1955.15	703.07	728161.05	370219.91	32°00'56.564"N	103°35'49.923"W	0.00	0.00	0.00	
14632.60†	90.000	179.531	12575.00	2060.85	-2055.15	703.89	728161.87	370119.92	32°00'55.575"N	103°35'49.921"W	0.00	0.00	0.00	
14732.60†	90.000	179.531	12575.00	2160.85	-2155.15	704.71	728162.68	370019.93	32°00'54.585"N	103°35'49.919"W	0.00	0.00	0.00	
14832.60†	90.000	179.531	12575.00	2260.85	-2255.14	705.53	728163.50	369919.93	32°00'53.596"N	103°35'49.918"W	0.00	0.00	0.00	
14932.60†	90.000	179.531	12575.00	2360.85	-2355.14	706.34	728164.32	369819.94	32°00'52.606"N	103°35'49.916"W	0.00	0.00	0.00	
15032.60†	90.000	179.531	12575.00	2460.85	-2455.14	707.16	728165.14	369719.95	32°00'51.617"N	103°35'49.915"W	0.00	0.00	0.00	
15132.60†	90.000	179.531	12575.00	2560.85	-2555.13	707.98	728165.96	369619.95	32°00'50.627"N	103°35'49.913"W	0.00	0.00	0.00	
15232.60†	90.000	179.531	12575.00	2660.85	-2655.13	708.80	728166.78	369519.96	32°00'49.637"N	103°35'49.911"W	0.00	0.00	0.00	
15332.60†	90.000	179.531	12575.00	2760.85	-2755.13	709.62	728167.59	369419.97	32°00'48.648"N	103°35'49.910"W	0.00	0.00	0.00	
15432.60†	90.000	179.531	12575.00	2860.85	-2855.12	710.44	728168.41	369319.97	32°00'47.658"N	103°35'49.908"W	0.00	0.00	0.00	
15532.60†	90.000	179.531	12575.00	2960.85	-2955.12	711.25	728169.23	369219.98	32°00'46.669"N	103°35'49.907"W	0.00	0.00	0.00	
15632.60†	90.000	179.531	12575.00	3060.85	-3055.12	712.07	728170.05	369119.99	32°00'45.679"N	103°35'49.905"W	0.00	0.00	0.00	
15732.60†	90.000	179.531	12575.00	3160.85	-3155.11	712.89	728170.87	369019.99	32°00'44.689"N	103°35'49.903"W	0.00	0.00	0.00	
15832.60†	90.000	179.531	12575.00	3260.85	-3255.11	713.71	728171.69	368920.00	32°00'43.700"N	103°35'49.902"W	0.00	0.00	0.00	
15932.60†	90.000	179.531	12575.00	3360.85	-3355.11	714.53	728172.50	368820.01	32°00'42.710"N	103°35'49.900"W	0.00	0.00	0.00	
16032.60†	90.000	179.531	12575.00	3460.85	-3455.10	715.35	728173.32	368720.01	32°00'41.721"N	103°35'49.899"W	0.00	0.00	0.00	
16132.60†	90.000	179.531	12575.00	3560.85	-3555.10	716.16	728174.14	368620.02	32°00'40.731"N	103°35'49.897"W	0.00	0.00	0.00	
16232.60†	90.000	179.531	12575.00	3660.85	-3655.10	716.98	728174.96	368520.03	32°00'39.742"N	103°35'49.895"W	0.00	0.00	0.00	
16332.60†	90.000	179.531	12575.00	3760.85	-3755.09	717.80	728175.78	368420.03	32°00'38.752"N	103°35'49.894"W	0.00	0.00	0.00	
16432.60†	90.000	179.531	12575.00	3860.85	-3855.09	718.62	728176.60	368320.04	32°00'37.762"N	103°35'49.892"W	0.00	0.00	0.00	
16532.60†	90.000	179.531	12575.00	3960.85	-3955.09	719.44	728177.41	368220.05	32°00'36.773"N	103°35'49.891"W	0.00	0.00	0.00	
16632.60†	90.000	179.531	12575.00	4060.85	-4055.08	720.26	728178.23	368120.05	32°00'35.783"N	103°35'49.889"W	0.00	0.00	0.00	
16732.60†	90.000	179.531	12575.00	4160.85	-4155.08	721.07	728179.05	368020.06	32°00'34.794"N	103°35'49.887"W	0.00	0.00	0.00	
16832.60†	90.000	179.531	12575.00	4260.85	-4255.08	721.89	728179.87	367920.07	32°00'33.804"N	103°35'49.886"W	0.00	0.00	0.00	
16932.60†	90.000	179.531	12575.00	4360.85	-4355.07	722.71	728180.69	367820.07	32°00'32.815"N	103°35'49.884"W	0.00	0.00	0.00	
17032.60†	90.000	179.531	12575.00	4460.85	-4455.07	723.53	728181.51	367720.08	32°00'31.825"N	103°35'49.883"W	0.00	0.00	0.00	
17132.60†	90.000	179.531	12575.00	4560.85	-4555.07	724.35	728182.32	367620.09	32°00'30.835"N	103°35'49.881"W	0.00	0.00	0.00	
17232.60†	90.000	179.531	12575.00	4660.85	-4655.06	725.17	728183.14	367520.09	32°00'29.846"N	103°35'49.879"W	0.00	0.00	0.00	



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

## WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
17332.60†	90.000	179.531	12575.00	4760.85	-4755.06	725.98	728183.96	367420.10	32°00'28.856"N	103°35'49.878"W	0.00	0.00	0.00	
17432.60†	90.000	179.531	12575.00	4860.85	-4855.06	726.80	728184.78	367320.11	32°00'27.867"N	103°35'49.876"W	0.00	0.00	0.00	
17532.60†	90.000	179.531	12575.00	4960.85	-4955.05	727.62	728185.60	367220.11	32°00'26.877"N	103°35'49.875"W	0.00	0.00	0.00	
17632.60†	90.000	179.531	12575.00	5060.85	-5055.05	728.44	728186.42	367120.12	32°00'25.887"N	103°35'49.873"W	0.00	0.00	0.00	
17732.60†	90.000	179.531	12575.00	5160.85	-5155.05	729.26	728187.23	367020.13	32°00'24.898"N	103°35'49.872"W	0.00	0.00	0.00	
17832.60†	90.000	179.531	12575.00	5260.85	-5255.04	730.08	728188.05	366920.13	32°00'23.908"N	103°35'49.870"W	0.00	0.00	0.00	
17932.60†	90.000	179.531	12575.00	5360.85	-5355.04	730.89	728188.87	366820.14	32°00'22.919"N	103°35'49.868"W	0.00	0.00	0.00	
18032.60†	90.000	179.531	12575.00	5460.85	-5455.04	731.71	728189.69	366720.15	32°00'21.929"N	103°35'49.867"W	0.00	0.00	0.00	
18132.60†	90.000	179.531	12575.00	5560.85	-5555.03	732.53	728190.51	366620.15	32°00'20.940"N	103°35'49.865"W	0.00	0.00	0.00	
18232.60†	90.000	179.531	12575.00	5660.85	-5655.03	733.35	728191.33	366520.16	32°00'19.950"N	103°35'49.864"W	0.00	0.00	0.00	
18332.60†	90.000	179.531	12575.00	5760.85	-5755.03	734.17	728192.14	366420.17	32°00'18.960"N	103°35'49.862"W	0.00	0.00	0.00	
18432.60†	90.000	179.531	12575.00	5860.85	-5855.02	734.99	728192.96	366320.17	32°00'17.971"N	103°35'49.860"W	0.00	0.00	0.00	
18532.60†	90.000	179.531	12575.00	5960.85	-5955.02	735.80	728193.78	366220.18	32°00'16.981"N	103°35'49.859"W	0.00	0.00	0.00	
18632.60†	90.000	179.531	12575.00	6060.85	-6055.02	736.62	728194.60	366120.19	32°00'15.992"N	103°35'49.857"W	0.00	0.00	0.00	
18732.60†	90.000	179.531	12575.00	6160.85	-6155.01	737.44	728195.42	366020.19	32°00'15.002"N	103°35'49.856"W	0.00	0.00	0.00	
18832.60†	90.000	179.531	12575.00	6260.85	-6255.01	738.26	728196.24	365920.20	32°00'14.013"N	103°35'49.854"W	0.00	0.00	0.00	
18932.60†	90.000	179.531	12575.00	6360.85	-6355.01	739.08	728197.05	365820.21	32°00'13.023"N	103°35'49.852"W	0.00	0.00	0.00	
19032.60†	90.000	179.531	12575.00	6460.85	-6455.00	739.90	728197.87	365720.22	32°00'12.033"N	103°35'49.851"W	0.00	0.00	0.00	
19132.60†	90.000	179.531	12575.00	6560.85	-6555.00	740.71	728198.69	365620.22	32°00'11.044"N	103°35'49.849"W	0.00	0.00	0.00	
19232.60†	90.000	179.531	12575.00	6660.85	-6655.00	741.53	728199.51	365520.23	32°00'10.054"N	103°35'49.848"W	0.00	0.00	0.00	
19332.60†	90.000	179.531	12575.00	6760.85	-6754.99	742.35	728200.33	365420.24	32°00'09.065"N	103°35'49.846"W	0.00	0.00	0.00	
19432.60†	90.000	179.531	12575.00	6860.85	-6854.99	743.17	728201.15	365320.24	32°00'08.075"N	103°35'49.844"W	0.00	0.00	0.00	
19532.60†	90.000	179.531	12575.00	6960.85	-6954.99	743.99	728201.96	365220.25	32°00'07.085"N	103°35'49.843"W	0.00	0.00	0.00	
19632.60†	90.000	179.531	12575.00	7060.85	-7054.98	744.81	728202.78	365120.26	32°00'06.096"N	103°35'49.841"W	0.00	0.00	0.00	
19732.60†	90.000	179.531	12575.00	7160.85	-7154.98	745.63	728203.60	365020.26	32°00'05.106"N	103°35'49.840"W	0.00	0.00	0.00	
19832.60†	90.000	179.531	12575.00	7260.85	-7254.98	746.44	728204.42	364920.27	32°00'04.117"N	103°35'49.838"W	0.00	0.00	0.00	
19932.60†	90.000	179.531	12575.00	7360.85	-7354.97	747.26	728205.24	364820.28	32°00'03.127"N	103°35'49.836"W	0.00	0.00	0.00	
20025.88	90.000	179.531	12575.00 <sup>1</sup>	7454.14	-7448.25	748.03	728206.00	364727.00	32°00'02.204"N	103°35'49.835"W	0.00	0.00	0.00	End of Tangent



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Jennings / Upper BN SPRN Shale (Lea County, NM)	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) SD EA 29 32 Fed Com P11 16H PBHL rev 1	20025.88	12575.00	-7448.25	748.03	728206.00	364727.00	32°00'02.204"N	103°35'49.835"W	point

## SURVEY PROGRAM - Ref Wellbore: SD EA 29 32 Fed Com P11 16H Ref Wellpath: SD EA 29 32 Fed Com P11 16H Rev A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	20025.88	BHI NaviTrak (Standard)		SD EA 29 32 Fed Com P11 16H



# APD Surface Use Plan of Operations

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## Existing Roads (Road Plat Attached)

- The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.
- Driving Directions – 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 1.8 miles on lease road to the well location.

## New or Reconstructed Access Roads (Well Plat Attached)

- There will be 34.37' 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'.
- 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.
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggestion

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

**NOTE:**

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

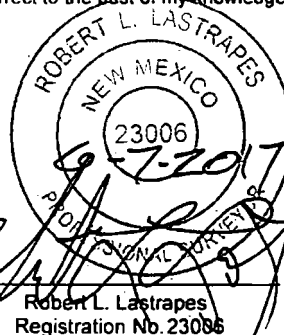
**NOTE:**

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

NW ARCH. AREA CORNER			NE ARCH. AREA CORNER		
X=	727,080	NAD 27	X=	727,755	NAD 27
Y=	372,472		Y=	372,478	
LAT.	32.021923		LAT.	32.021928	
LONG.	103.600640		LONG.	103.598462	
X=	768,267	NAD83	X=	768,942	NAD83
Y=	372,529		Y=	372,535	
LAT.	32.022049		LAT.	32.022053	
LONG.	103.601107		LONG.	103.598929	
ELEVATION +3211' NAVD 88			ELEVATION +3220' NAVD 88		
SW ARCH. AREA CORNER			SE ARCH. AREA CORNER		
X=	727,085	NAD 27	X=	727,760	NAD 27
Y=	371,872		Y=	371,878	
LAT.	32.020274		LAT.	32.020279	
LONG.	103.600635		LONG.	103.598457	
X=	768,273	NAD83	X=	768,948	NAD83
Y=	371,929		Y=	371,935	
LAT.	32.020400		LAT.	32.020404	
LONG.	103.601102		LONG.	103.598923	
ELEVATION +3198' NAVD 88			ELEVATION +3209' NAVD 88		

NW PAD CORNER			NE PAD CORNER		
X=	727,172	NAD 27	X=	727,667	NAD 27
Y=	372,293		Y=	372,297	
LAT.	32.021430		LAT.	32.021431	
LONG.	103.600346		LONG.	103.598749	
X=	768,360	NAD83	X=	768,855	NAD83
Y=	372,350		Y=	372,354	
LAT.	32.021556		LAT.	32.021556	
LONG.	103.600813		LONG.	103.599215	
ELEVATION +3208' NAVD 88			ELEVATION +3214' NAVD 88		
SW PAD CORNER			SE PAD CORNER		
X=	727,175	NAD 27	X=	727,670	NAD 27
Y=	371,913		Y=	371,917	
LAT.	32.020386		LAT.	32.020386	
LONG.	103.600345		LONG.	103.598748	
X=	768,362	NAD83	X=	768,857	NAD83
Y=	371,970		Y=	371,974	
LAT.	32.020511		LAT.	32.020511	
LONG.	103.600812		LONG.	103.599215	
ELEVATION +3200' NAVD 88			ELEVATION +3210' NAVD 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.



PAD PLAT

PAGE 2 OF 2

**CHEVRON U.S.A. INC.**

INTERIM RECLAMATION

SD EA 29 32 FED COM P11 NO. 13H-16H WELLS

SECTION 29, T26S-R33E

LEA COUNTY, NEW MEXICO

DRAWN BY: AMT

REVISIONS

PROJ. MGR.: VHV

No.

DATE:

REVISED BY:

DATE: 06/05/2017

No.

DATE:

REVISED BY:

FILENAME: T:\2015\2152314\DWG\SD EA 29 32 Fed Com P11 No. 13H-16H\_IR.dwg



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

CHEVRON U.S.A. Inc.

SD EA 29 32 FED Com P11 No. 16H

NMNM 27506 & STATE VB 1838

SECTION 29, T26S-R33E

SECTION 32, T26S, R33E

SHL 195' FNL & 903' FWL

BHL 180' FSL & 1590' FWL

- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.
- Type of Surfacing Material: Caliche. The road will also have a dust abatement polymer coating to decrease dust as well as help maintain the road, Envirotac II.

#### **Location of Existing Wells (Diagram Attached)**

- 1-Mile radius map is attached

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

- Facilities:
  - Existing production facilities are located in the SE quarter of Sec. 19, T26S-R33E where oil and gas sales will take place.
  - The facility located in Sec. 19, T26S-R33E; NM 27506 lease, off-lease measurement and sales will be required.
  - 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.

#### **Location of Proposed ROW (Well Plat Attached)**

- Pipelines: 8 - 4" buried pipelines, approximately 2,497.98', will be laid from well running to lease road then adjacent to lease road to production facility in Section 19.
  - A ROW will be applied for through the BLM.
  - 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 23.13', will be laid from the well pad to an existing ROW to connect to the gas lift line already permitted by Chevron.

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

- Existing ponds in Section 19, T26S-R33E will be utilized for fresh water and Section 23 T26S-R33 and Section 13 T26S-R33 for recycled and brackish water.
- Fresh water will be obtained from a private water source.
- A temporary 10" expanding pipe transfer line will run east from frac pond in Section 19 and will run along proposed access road approx. 7,672.96'. to the well location in section 29.
  - A fresh water line will run parallel to road and will stay within 10' of access road.
  - A BLM ROW will not be required for the water transfer line.
- A temporary 10" expanding pipe transfer line will run east along lease road along lease road approx. 8,445.41' from frac ponds located in Sections 13 & 23, T26S - R32E to the well location in Section 29, T26S-R33E.
  - Recycled water line will run parallel to road and will stay within 10' of access road.
  - A BLM ROW will not be required for the water transfer line.

### **Construction Material**

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

### **Methods for Handling Waste**

- Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.

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- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.
- The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

## **Ancillary Facilities**

None

## **Well Site Layout (Well Plat Attached)**

- Well Plat
  - Exterior well pad dimensions are 380' x 495'.
  - Interior well pad dimensions from point of entry (well head) of the easternmost well are N-120', S-260', E-285', W-210'. The length to the west includes 25' spacing for next well on multi-well pad (five wells). Total disturbance area needed for construction of well pad will be 4.32 acres.
  - Topsoil placement is on the east where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

## **Proposed Pad Cut & Fill (Plat Attached)**

- Cut and fill: will be minimal.

## **Rig Layout (Attached)**

## **Plans for Surface Reclamation (Pad Plat Attached)**

### **Reclamation Objectives**

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.
- The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
- If circumstances allow, interim reclamation and/or final reclamation actions will be

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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 2.5 acres from the proposed size of 4.32 acres. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production. A plan will be submitted showing where interim reclamation will be completed in order to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book".
- In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM #2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation has reestablished

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

- Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
- All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends in distinguishably with the surrounding

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landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

- After all the disturbed areas have been properly prepared; the areas will be seeded with the proper BLM seed mixture (BLM #2), free of noxious weeds.
- Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

### Surface Ownership

- All operations for the proposed well are on surface owned by the BLM.
- **Nearest Post Office:** Jal Post Office; 33 Miles East

### Other Information

- On-site performed by BLM NRS: Paul Murphy 4/26/2017
- Cultural report attached: N/A Participating Agreement attached: **Yes**
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road by the use of any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.
- 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 contaminants from leaving the well pad.
- Water wells: No known water wells within the 1- mile radius.
- Residences and Buildings: No dwellings within the immediate vicinity of the proposed location.
- Well Signs: Well signs will be in compliance per federal and state requirements and specifications.

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### Chevron Representatives

Primary point of contact:  
Dale Caddell  
432-687-7752

### Chevron Functional Contacts

<b>Project Manager</b> Name: Antonio Paez  Address: 6301 Deauville Midland, Texas 79706  Phone: (432) 687-7744  Email: <a href="mailto:antoniopaez@chevron.com">antoniopaez@chevron.com</a>	<b>Drilling Engineer</b> Name: Bryson Abney  Address: 1400 Smith Street Houston, TX 77002  Phone: (713) 372-6447  Email: <a href="mailto:BAbney@chevron.com">BAbney@chevron.com</a>
<b>Surface Land Representative</b> Name: Dale Caddell  Address: 6301 Deauville Midland, Texas 79706  Phone: (432) 687-7752  Email: <a href="mailto:Dale.Caddell@Chevron.com">Dale.Caddell@Chevron.com</a>	<b>Facility Lead</b> Name: Caleb Brown  Address: 6301 Deauville Midland, Texas 79706  Phone: (432) 687-7726  Email: <a href="mailto:Caleb.Brown@chevron.com">Caleb.Brown@chevron.com</a>
<b>Geologist</b> Name: Cameron Griffin  Address: 1400 Smith Street Houston, TX 77002  Phone: (713) 372-5812  Email: <a href="mailto:Cameron.Griffin@chevron.com">Cameron.Griffin@chevron.com</a>	<b>Regulatory Specialist</b> Name: Denise Pinkerton  Address: 6301 Deauville Midland, Texas 79706  Office: (432) 687-7375  Email: <a href="mailto:leakejd@chevron.com">leakejd@chevron.com</a>



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

## PWD Data Report

12/21/2017

### Section 1 - General

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

### Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines