

OCD - HOBBS
10/05/2020
RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
		8. Lease Name and Well No. [329746]
2. Name of Operator [16696]		9. API Well No. 30-025-47835
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory [5695]
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 10/05/2020

SL

(Continued on page 2)

APPROVED WITH CONDITIONS
Approval Date: 09/30/2020

Kz
10/19/2020

*(Instructions on page 2)

Additional Operator Remarks

Location of Well

0. SHL: LOT 4 / 490 FSL / 835 FWL / TWSP: 22S / RANGE: 32E / SECTION: 18 / LAT: 32.3856012 / LONG: -103.7202427 (TVD: 0 feet, MD: 0 feet)

PPP: LOT 4 / 1325 FSL / 440 FWL / TWSP: 22S / RANGE: 32E / SECTION: 18 / LAT: 32.4024 / LONG: -103.721514 (TVD: 10433 feet, MD: 16747 feet)

PPP: LOT 4 / 5 FSL / 420 FWL / TWSP: 22S / RANGE: 32E / SECTION: 18 / LAT: 32.398772 / LONG: -103.721516 (TVD: 10433 feet, MD: 15427 feet)

PPP: LOT 4 / 2364 FNL / 440 FWL / TWSP: 22S / RANGE: 32E / SECTION: 18 / LAT: 32.391517 / LONG: -103.721519 (TVD: 10433 feet, MD: 12788 feet)

PPP: LOT 4 / 100 FSL / 440 FWL / TWSP: 22S / RANGE: 32E / SECTION: 18 / LAT: 32.3845238 / LONG: -103.7215224 (TVD: 10433 feet, MD: 10807 feet)

BHL: LOT 1 / 20 FNL / 440 FWL / TWSP: 22S / RANGE: 32E / SECTION: 7 / LAT: 32.4132138 / LONG: -103.7215088 (TVD: 10433 feet, MD: 20642 feet)

BLM Point of Contact

Name: Tenille Ortiz

Title: Legal Instruments Examiner

Phone: (575) 234-2224

Email: tortiz@blm.gov

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

Proposed Well Name	Surface Hole Location	Legal Location*	Surface Ownership
I Prefer Pi 18-7 Federal Com 1H	490 FSL and 1,660 FWL	Section 18, Township 22 South, Range 32 East	BLM
I Prefer Pi 18-7 Federal Com 2H	490 FSL and 1,695 FWL		
I Prefer Pi 18-7 Federal Com 3H	744 FSL and 768 FEL		
I Prefer Pi 18-7 Federal Com 4H	749 FSL and 733 FEL		
I Prefer Pi 18-7 Federal Com 11H	490 FSL and 1,350 FWL		
I Prefer Pi 18-7 Federal Com 12H	490 FSL and 1,385 FWL		
I Prefer Pi 18-7 Federal Com 13H	490 FSL and 1,420 FWL		
I Prefer Pi 18-7 Federal Com 14H	700 FSL and 1,075 FEL		
I Prefer Pi 18-7 Federal Com 15H	705 FSL and 1,040 FEL		
I Prefer Pi 18-7 Federal Com 16H	710 FSL and 1,005 FEL		
I Prefer Pi 18-7 Federal Com 21H	450 FSL and 835 FWL		
I Prefer Pi 18-7 Federal Com 22H	449 FSL and 870 FWL		
I Prefer Pi 18-7 Federal Com 23H	490 FSL and 905 FWL		
I Prefer Pi 18-7 Federal Com 24H	170 FSL and 1,120 FEL		
I Prefer Pi 18-7 Federal Com 25H	170 FSL and 1,085 FEL		
I Prefer Pi 18-7 Federal Com 26H	170 FSL and 1,050 FEL		
I Prefer Pi 18-7 Federal Com 31H	310 FSL and 1,625 FWL		
I Prefer Pi 18-7 Federal Com 32H	310 FSL and 1,690 FWL		
I Prefer Pi 18-7 Federal Com 33H	310 FSL and 1,725 FWL		
I Prefer Pi 18-7 Federal Com 34H	170 FSL and 1,430 FEL		
I Prefer Pi 18-7 Federal Com 35H	170 FSL and 1,360 FEL		
I Prefer Pi 18-7 Federal Com 41H	310 FSL and 835 FWL		
I Prefer Pi 18-7 Federal Com 42H	310 FSL and 870 FWL		
I Prefer Pi 18-7 Federal Com 43H	170 FSL and 810 FEL		
I Prefer Pi 18-7 Federal Com 44H	170 FSL and 775 FEL		
I Prefer Pi 18-7 Federal Com 71H	310 FSL and 1,350 FWL		
I Prefer Pi 18-7 Federal Com 72H	310 FSL and 1,385 FWL		
I Prefer Pi 18-7 Federal Com 73H	170 FSL and 535 FEL		
I Prefer Pi 18-7 Federal Com 74H	170 FSL and 500 FEL		
I Prefer Pi 18-7 Federal Com 311H	310 FSL and 1,655 FWL		
I Prefer Pi 18-7 Federal Com 312H	170 FSL and 1,460 FEL		

Proposed Well Name	Surface Hole Location	Legal Location*	Surface Ownership
I Prefer Pi 18-7 Federal Com 313H	170 FSL and 1,395 FEL		

FSL = feet from south line; FWL = feet from west line; FEL = feet from east line

*NMPM

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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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- ☐ **Noxious Weeds**
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Ground-level Abandoned Well Marker

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 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads

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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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period.

Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted.

Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

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

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

G. ON LEASE ACCESS ROADS**Road Width**

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

Surfacing

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

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

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

Crowning

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

Ditching

Ditching shall be required on both sides of the road.

Turnouts

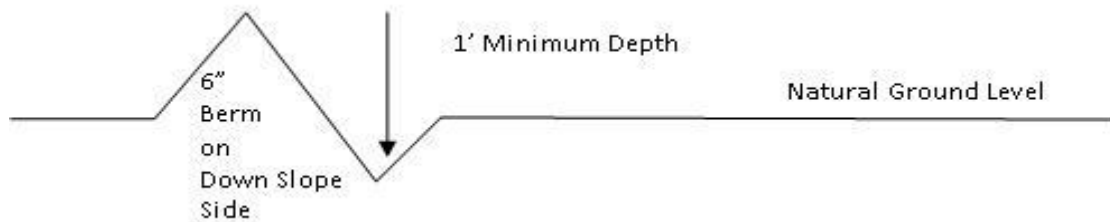
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

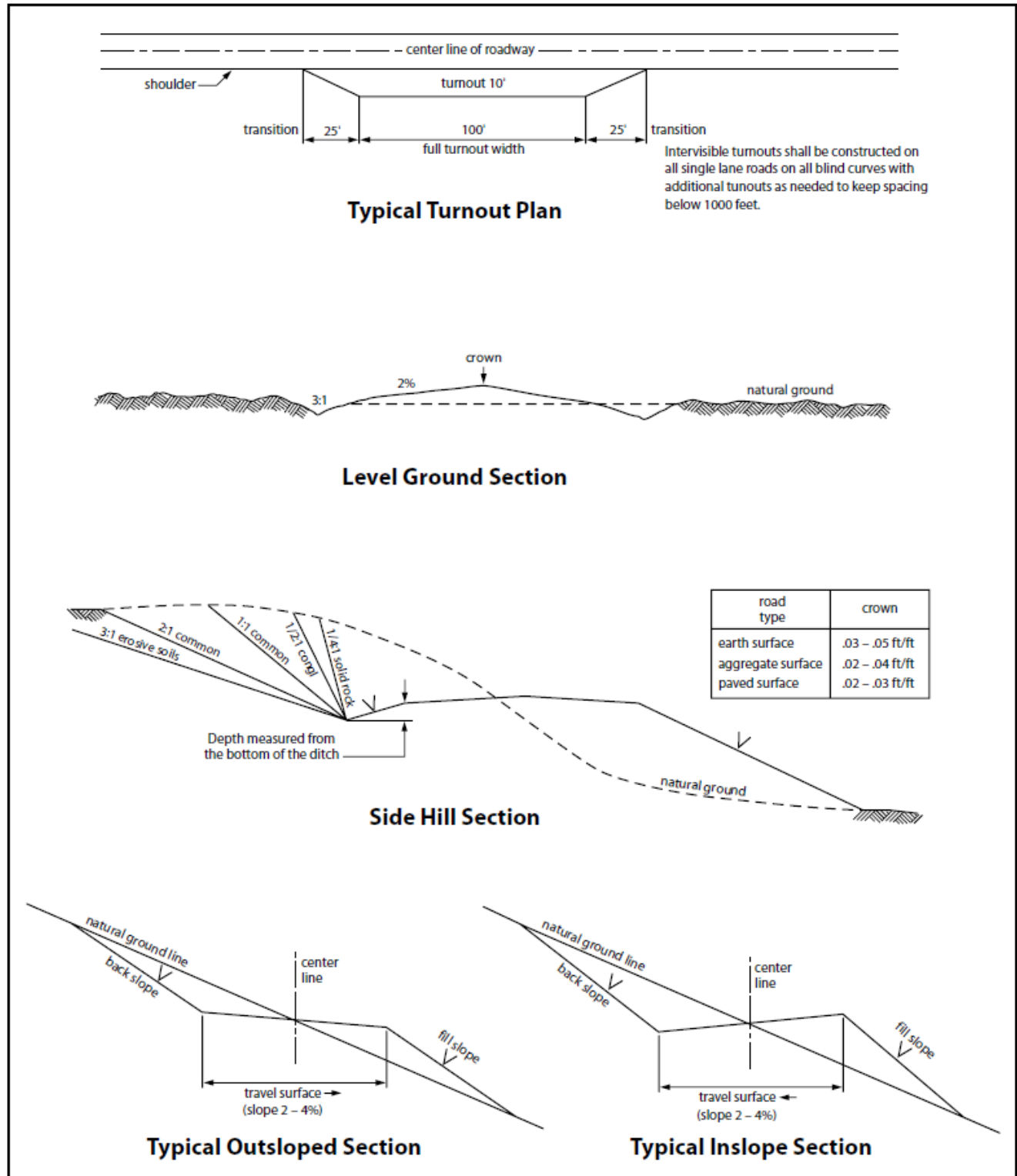


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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. PIPELINES

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.

19. Special Stipulations:

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

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

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

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

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 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 activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

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

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

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

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

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

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

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

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

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

11. In those areas where erosion control structures are required to stabilize soil

conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

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

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

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

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

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

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

18. Special Stipulations:

- a. **Lesser Prairie-Chicken:** Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am

to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 *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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

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

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

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

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

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

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

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

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

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

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture 2, for Sandy Sites

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

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

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

Species

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

*Pounds of pure live seed:

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

PECOS DISTRICT

DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INCORPORATED
LEASE NO.:	NMNM090587
WELL NAME & NO.:	I PREFER PI 18-7 FEDERAL COM 21H
SURFACE HOLE FOOTAGE:	490'/S & 835'/W
BOTTOM HOLE FOOTAGE:	20'/N & 440'/W
LOCATION:	Section 18, T.22 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
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
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

Break Testing	<input checked="" type="radio"/> Yes	<input type="radio"/> No
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A. HYDROGEN SULFIDE

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

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **900 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **7-5/8** Intermediate casing shall be set at **9807 feet**. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Intermediate casing must be kept 2/3 fluid filled to meet BLM minimum collapse requirement.

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

Option 1 (Single Stage):

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

- Excess cement calculates to less than 25% ; More cement may be required.

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. BOP Requirements

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

1. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
2. 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.
3. Manufacturer representative shall install the test plug for the initial BOP test.
4. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

BOPE Break Testing Variance (Note: For 5M BOPE or less)

- BOPE Break Testing is ONLY permitted for 5M BOPE or less.
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required.
- The BLM is to be contacted (575-393-3612 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.

A separate sundry will be sent prior to spud that reflects the pad based break testing plan

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing 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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

RI09192020



APD ID: 10400055791

Submission Date: 04/03/2020

Highlighted data
reflects the most
recent changes

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400055791

Tie to previous NOS? N

Submission Date: 04/03/2020

BLM Office: CARLSBAD

User: April Hood

Title: Regulatory Coordinator

Federal/Indian APD: FED

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

Lease number: NMNM090587

Lease Acres: 343.55

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? N

Permitting Agent? NO

APD Operator: OXY USA INCORPORATED

Operator letter of designation:

Operator Info

Operator Organization Name: OXY USA INCORPORATED

Operator Address: 5 Greenway Plaza, Suite 110

Zip: 77046

Operator PO Box:

Operator City: Houston

State: TX

Operator Phone: (713)366-5716

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BILBREY BASIN
BONE SPRING

Pool Name: BILBREY BASIN
BONE SPRING

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

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

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

Is the proposed well in a Helium production area? N

Use Existing Well Pad? N

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: I
PREFER PI "18_7" FEDERAL
COM

Number: 21H 22H 23H 41H
42H

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 24 Miles

Distance to nearest well: 35 FT

Distance to lease line: 20 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: IPreferPI18_7Fed_Com21H_C_102_20200403091355.pdf

IPreferPI18_7Fed_Com21H_SitePlan_20200403091417.pdf

Well work start Date: 06/01/2021

Duration: 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	490	FSL	835	FW L	22S	32E	18	Lot 4	32.3856012	-103.7202427	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 090587	3612	0	0	Y
KOP Leg #1	50	FSL	440	FW L	22S	32E	18	Lot 4	32.3843863	-103.7215225	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 090587	-6248	9907	9860	Y

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	100	FSL	440	FW L	22S	32E	18	Lot 4	32.3845238	- 103.7215224	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 090587	- 6821	10807	10433	Y
PPP Leg #1-2	2364	FNL	440	FW L	22S	32E	18	Lot 4	32.391517	- 103.721519	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 090588	- 6821	12788	10433	Y
PPP Leg #1-3	5	FSL	420	FW L	22S	32E	18	Lot 4	32.398772	- 103.721516	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 090588	- 6821	15427	10433	Y
PPP Leg #1-4	1325	FSL	440	FW L	22S	32E	18	Lot 4	32.4024	- 103.721514	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 137458	- 6821	16747	10433	Y
EXIT Leg #1	100	FNL	440	FW L	22S	32E	7	Lot 1	32.4129939	- 103.7215089	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 137458	- 6821	20562	10433	Y
BHL Leg #1	20	FNL	440	FW L	22S	32E	7	Lot 1	32.4132138	- 103.7215088	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 137458	- 6821	20642	10433	Y



APD ID: 10400055791

Submission Date: 04/03/2020

Highlighted data
reflects the most
recent changes

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
704630	RUSTLER	3272	850	850	ANHYDRITE, DOLOMITE, SHALE	USEABLE WATER	N
704631	SALADO	2128	1144	1144	ANHYDRITE, HALITE, SANDSTONE, SHALE	OTHER : SALT	N
704632	CASTILE	405	2867	2867	ANHYDRITE	OTHER : SALT	N
704629	LAMAR	-1292	4564	4564	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
704628	BELL CANYON	-1378	4650	4650	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
704627	CHERRY CANYON	-2199	5471	5471	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
704636	BRUSHY CANYON	-3445	6717	6720	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	Y
704639	BONE SPRING	-5191	8463	8493	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
704640	BONE SPRING 1ST	-6286	9558	9604	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
704641	BONE SPRING 2ND	-6493	9765	9812	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 10433

Equipment: 13-5/8" 5M Annular, Blind Ram, Double Ram

Requesting Variance? YES

Variance request: Request for the use of a flexible choke line from the BOP to Choke Manifold.

Testing Procedure: OXY will utilize a 5M annular with a 10M BOPE stack. BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. BOP Break Testing Request Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. A separate sundry will be sent prior to spud that reflects the pad based break testing plan. BOP break test under the following conditions: After a full BOP test is conducted - When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower. - When skidding to drill a production section that does not penetrate into the third Bone Spring or deeper. If the kill line is broken prior to skid, two tests will be performed. 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams 2) Wellhead flange, HCR valve, check valve, upper pipe rams If the kill line is not broken prior to skid, only one test will be performed. 1) Wellhead flange, co-flex hose, check valve, upper pipe rams

Choke Diagram Attachment:

IPreferPI18_7Fed_Com21H_ChkManifold_20200401131326.pdf

BOP Diagram Attachment:

IPreferPI18_7Fed_Com21H_BOP_20200401131351.pdf

IPreferPI18_7Fed_Com21H_FlexHoseCert_20200401131409.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	900	0	900	3612	2712	900	J-55	40.5	BUTT	1.125	1.2	BUOY	1.4	BUOY	1.4
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	9807	0	9807	0	-6195	9807	OTHER	26.4	BUTT	1.125	1.2	BUOY	1.4	BUOY	1.4
3	PRODUCTION	6.75	5.5	NEW	API	N	0	20642	0	20642		-17030	20642	P-110	20	OTHER - DQX/DQWT ORQ/TORQ SFW	1.125	1.2	BUOY	1.4	BUOY	1.4

Casing Attachments

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

IPreferPI18_7Fed_Com21H_CsgCriteria_20200401122910.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

IPreferPI18_7Fed_Com21H_CsgCriteria_20200401121711.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

IPreferPI18_7Fed_Com21H_TMK_UP_DQX_5.500in_x_20_20200403142931.00

Section 4 - Cement

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	900	745	1.33	14.8	991	100	Class C Cement	Accelerator

INTERMEDIATE	Lead	4614	0	4614	1082	1.67	13.6	1807	100	Class C Cement	Accelerator, Retarder
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INTERMEDIATE	Lead		4514	8807	790	2.58	10.2	2038	20	Pozzolan Cement	Retarder
INTERMEDIATE	Tail		8807	9807	167	1.61	13.2	269	20	Class H Cement	Retarder, Dispersant, Salt
PRODUCTION	Lead		9307	2064 2	831	1.38	13.2	1147	20	Class H Cement	Retarder, Dispersant, Salt

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CaCl₂.

Describe the mud monitoring system utilized: PVT/MD Totco/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
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Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
900	9807	OTHER : Saturated Brine-Based Mud or Oil-Based Mud	9	9.6							
0	900	WATER-BASED MUD	8.6	8.8							
9807	2064 2	OTHER : Water-Based Mud or Oil-Based Mud	8	9.6							

Section 6 - Test, Logging, Coring

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

GR from TD to surface (horizontal well vertical portion of hole). Mud Log from Intermediate casing shoe to TD.

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

GAMMA RAY LOG,MUD LOG/GEOLOGIC LITHOLOGY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No coring is planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5209

Anticipated Surface Pressure: 2913

Anticipated Bottom Hole Temperature(F): 164

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

IPreferPI18_7Fed_Com21H_H2S1_20200401130912.pdf

IPreferPI18_7Fed_Com21H_H2S2_20200401130940.pdf

IPreferPI18_7Fed_Com21H_H2S2EmerContact_20200401130955.pdf

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

IPreferPI18_7Fed_Com21H_DirectPlan_20200401131042.pdf

IPreferPI18_7Fed_Com21H_DirectPlot_20200401131100.pdf

Other proposed operations facets description:

Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.

We plan to drill the three well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.

*Oxy requests the option to run production casing with DQX, TORQ DQW, and/or TORQ SFW connections to accommodate hole conditions or drilling operations.

Annular Clearance Variance Request As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422 annular clearance requirement from Onshore Order #2 under the following conditions: 1. Annular clearance to meet or exceed 0.422 between intermediate casing ID and production casing coupling only on the first 500 overlap between both casings. 2. Annular clearance less than 0.422 is acceptable for the curve and lateral portions of the production open hole section.

Other proposed operations facets attachment:

IPreferPI18_7Fed_Com21H_DrillPlan_20200401131222.pdf

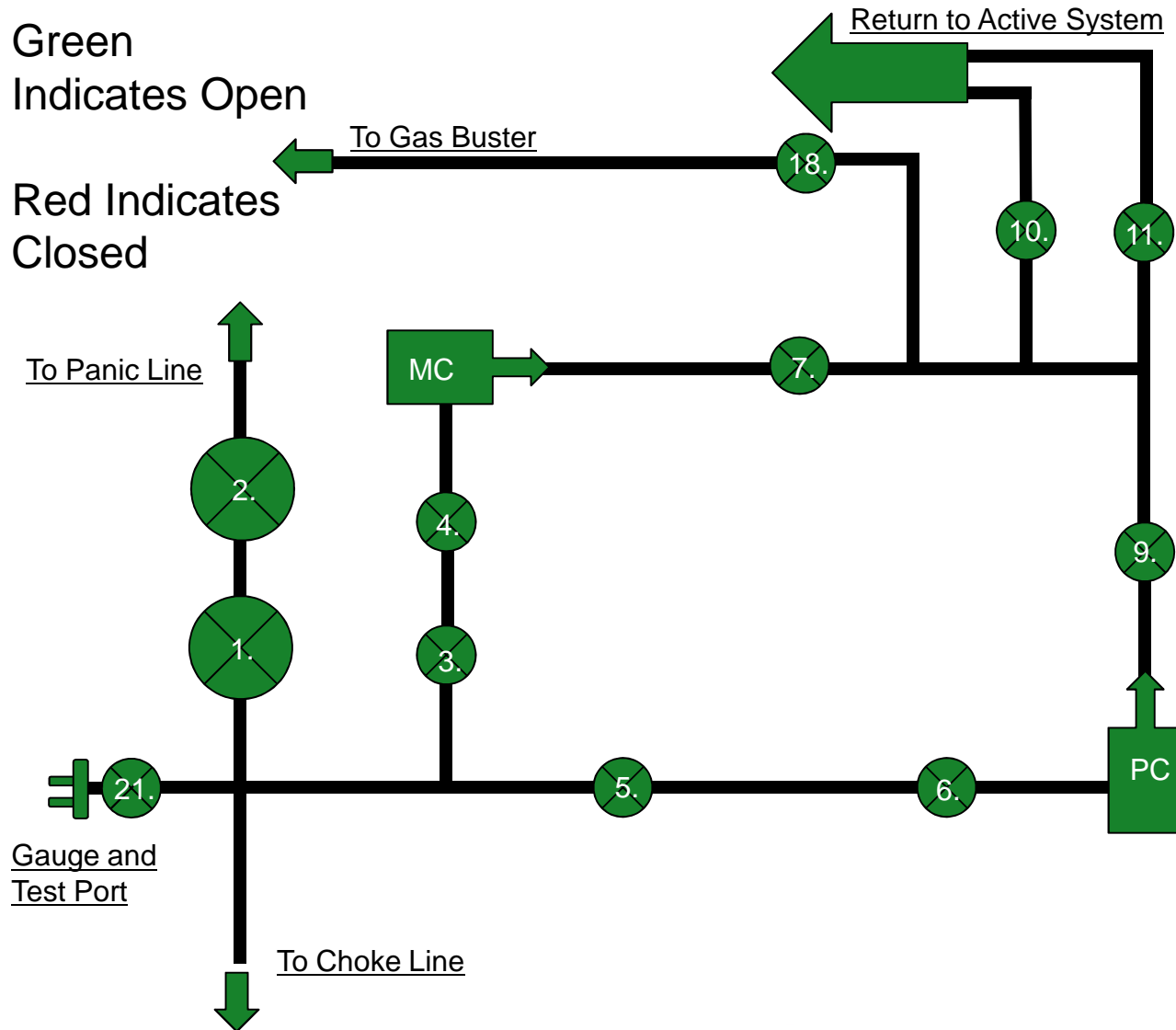
IPreferPI18_7Fed_Com21H_SpudRigData_20200401131240.pdf

Other Variance attachment:

5M Choke Panel

Green
Indicates Open

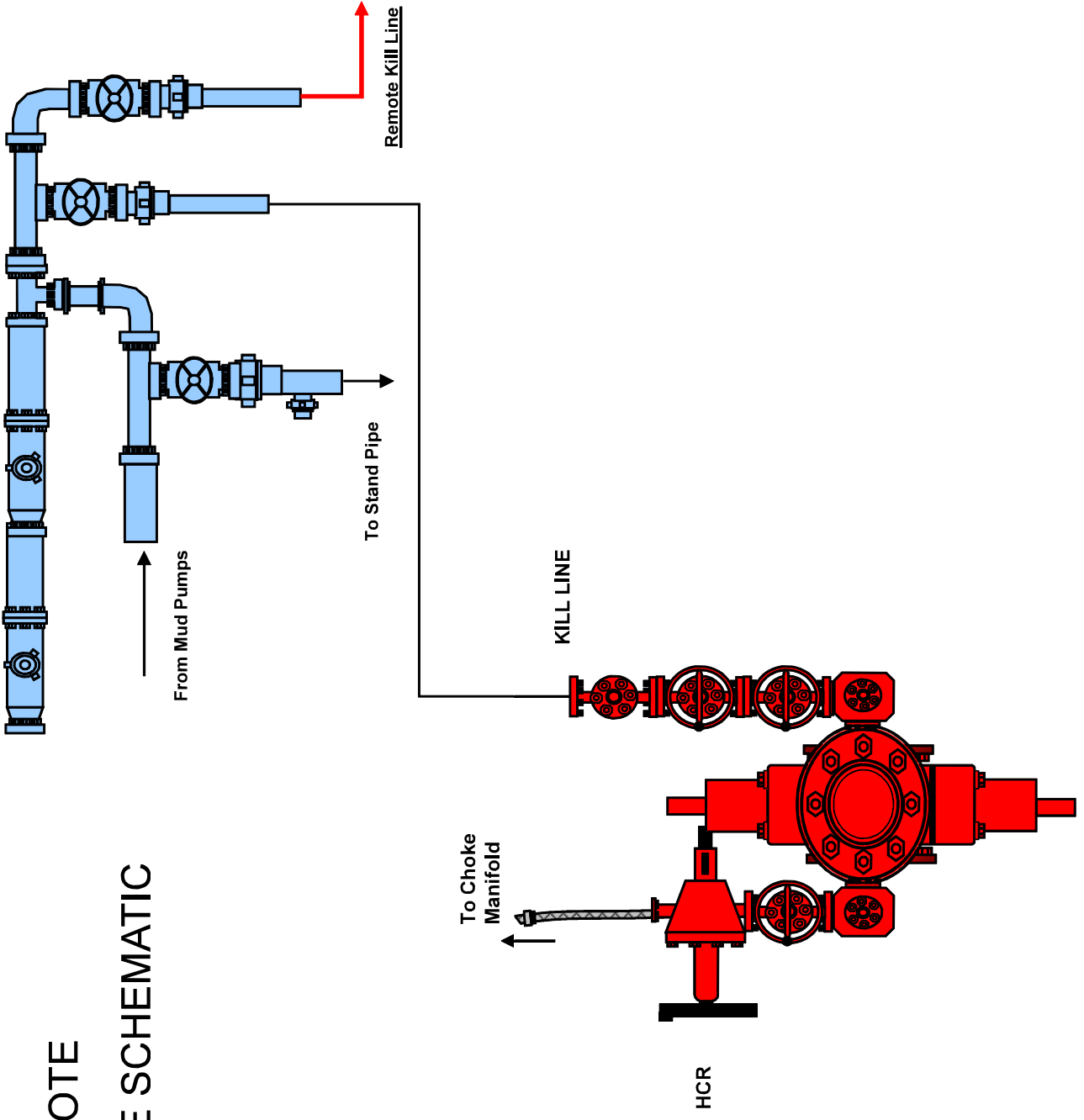
Red Indicates
Closed



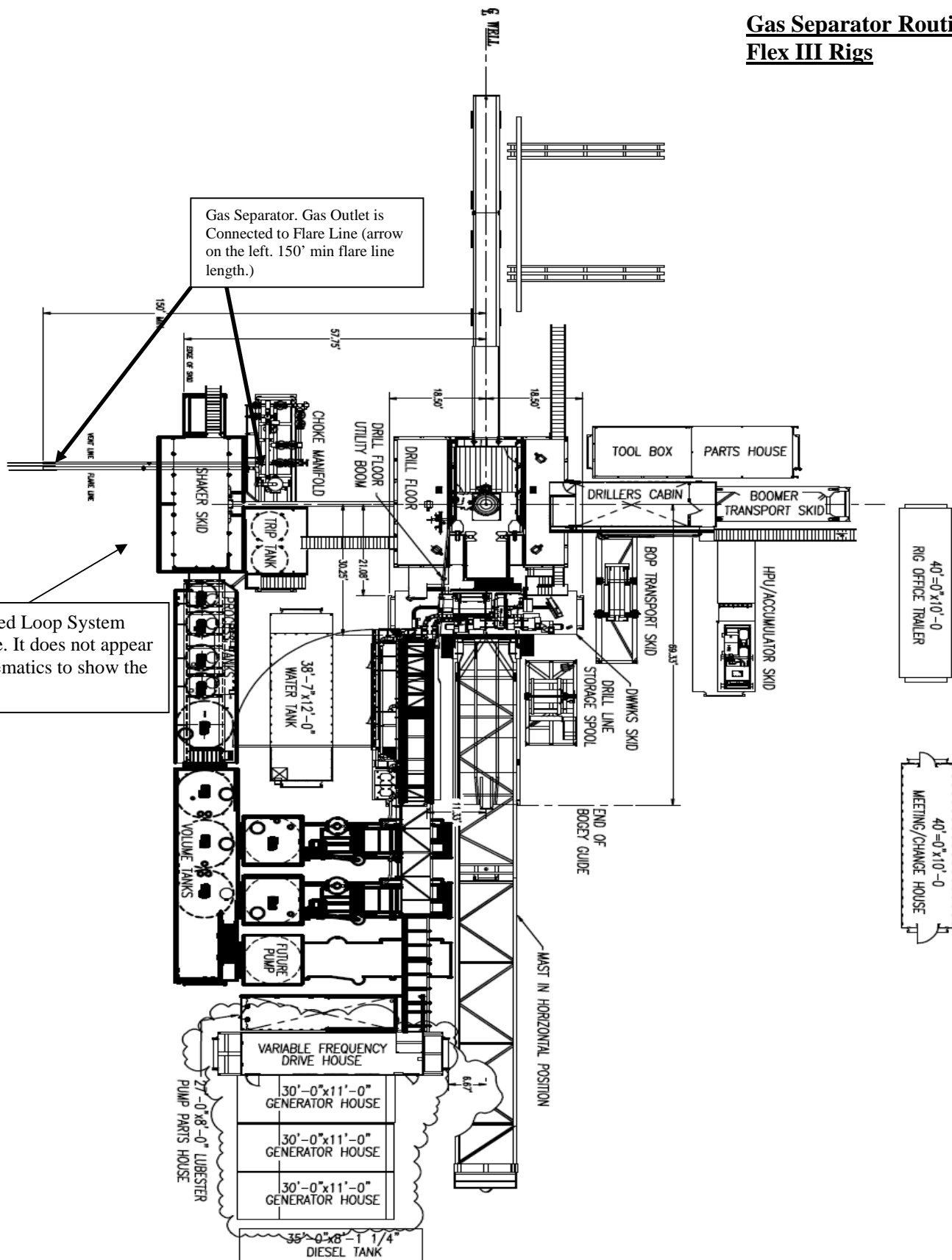
1. 4" Choke Manifold Valve
2. 4" Choke Manifold Valve
3. 3" Choke Manifold Valve
4. 3" Choke Manifold Valve
5. 3" Choke Manifold Valve
6. 3" Choke Manifold Valve
7. 3" Choke Manifold Valve
8. PC – Power Choke
9. 3" Choke Manifold Valve
10. 3" Choke Manifold Valve
11. Choke Manifold Valve
12. MC – Manual Choke
18. Choke Manifold Valve
21. Vertical Choke Manifold Valve

***All Valves 3" minimum**

10M REMOTE KILL LINE SCHEMATIC

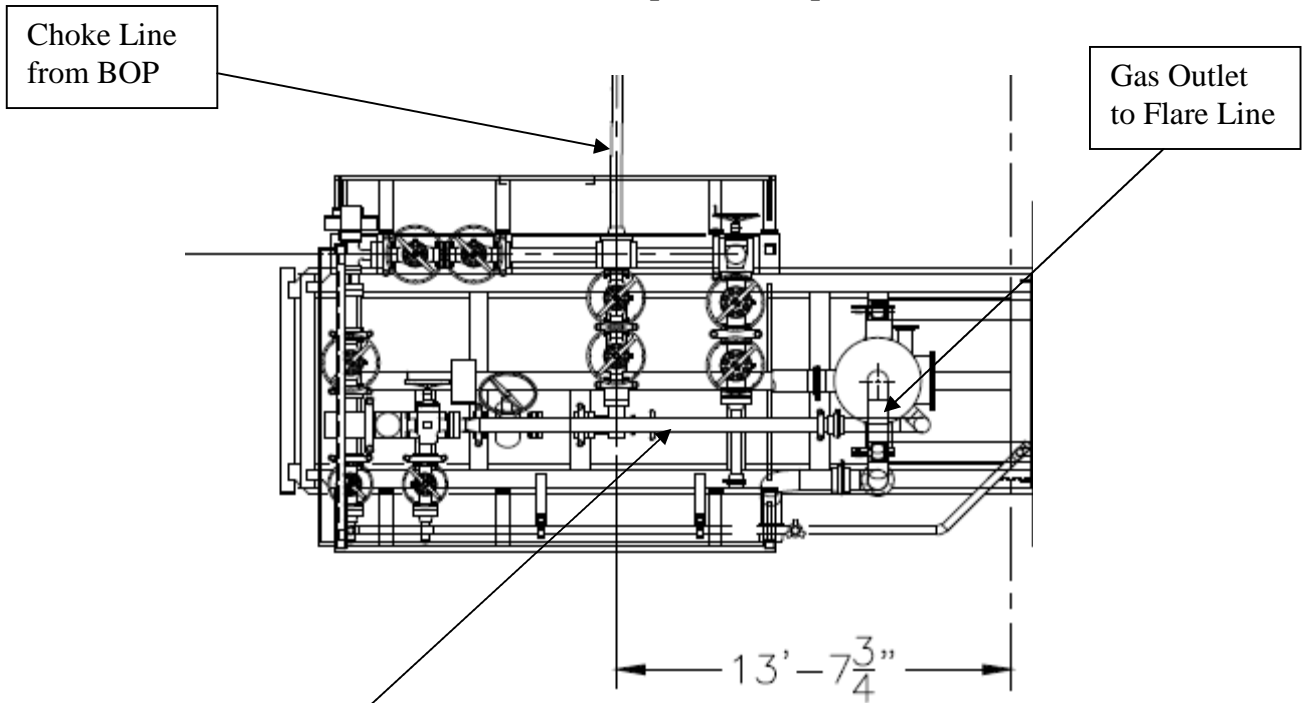


Gas Separator Routing Flex III Rigs

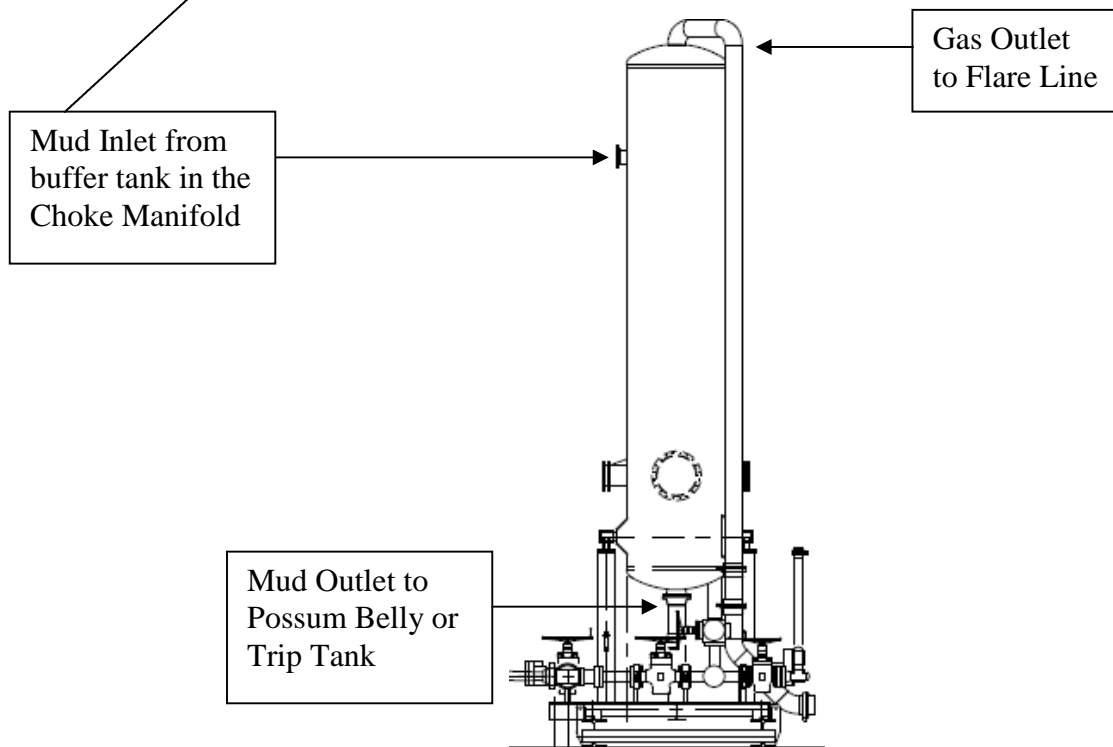


Note: Closed Loop System placed here. It does not appear on the schematics to show the flare line.

Choke Manifold – Gas Separator (Top View)



Choke Manifold – Gas Separator (Side View)

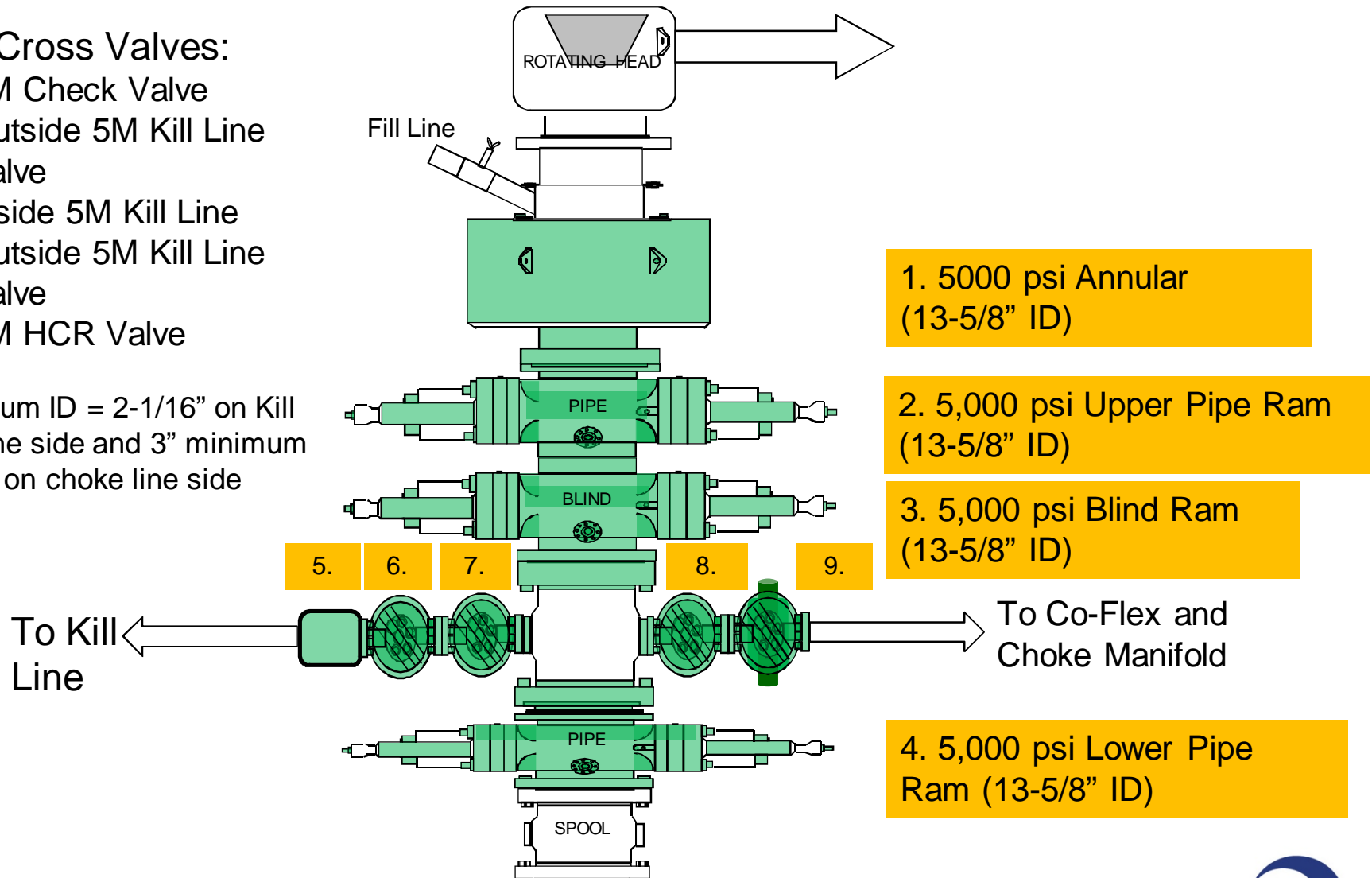


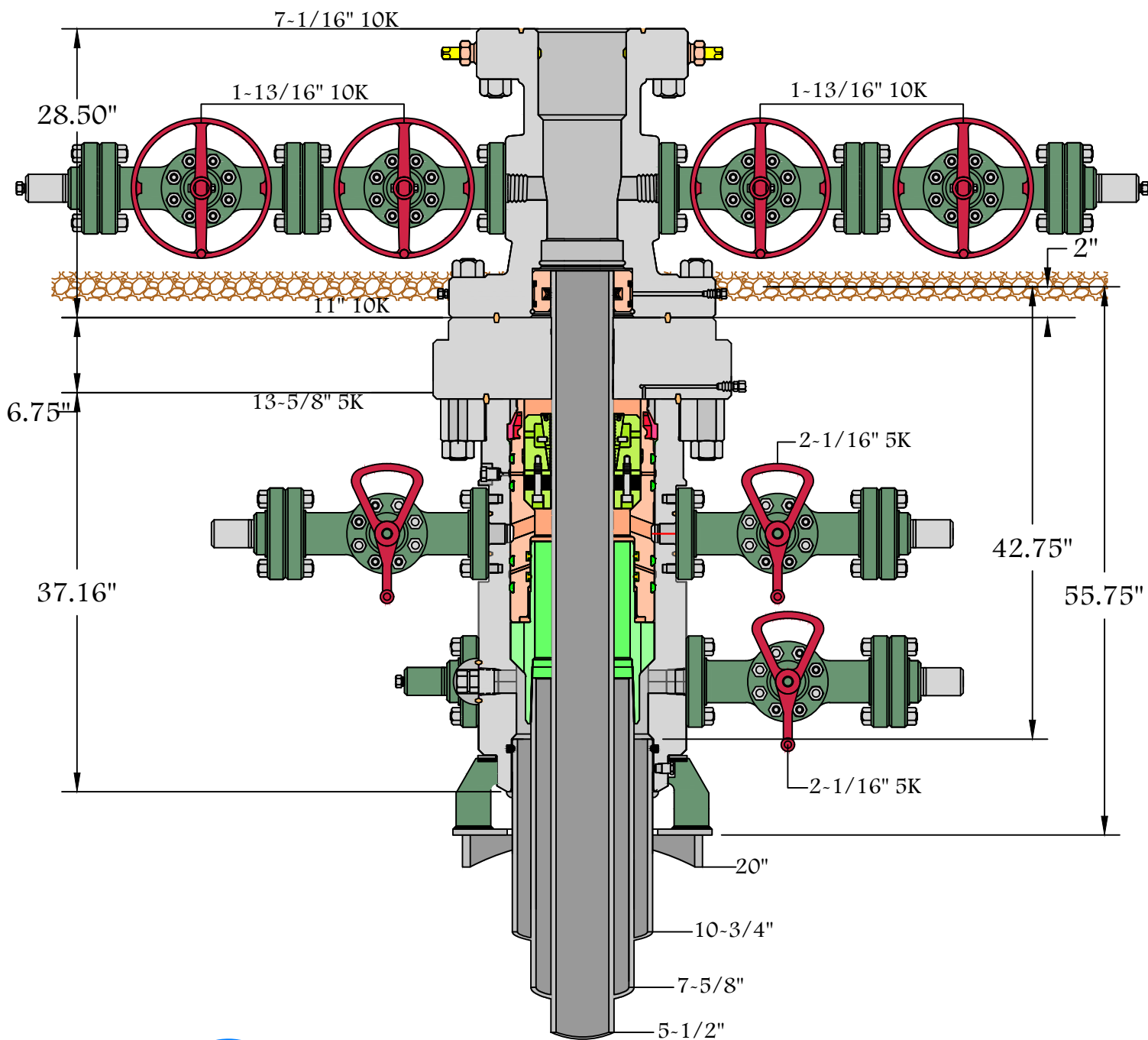
5M BOP Stack

Mud Cross Valves:

5. 5M Check Valve
6. Outside 5M Kill Line Valve
7. Inside 5M Kill Line Valve
8. Outside 5M Kill Line Valve
9. 5M HCR Valve

*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side





13-5/8" 5K MN-DS



Name:	Date:	Working Pressure:	#
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OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)

I PREFER PI 18_7 FED COM

I PREFER PI 18_7 FED COM 21H

WB00

Plan: Permitting Plan

Standard Planning Report

20 August, 2018

Oxy Planning Report

Database:	HOPSP	Local Co-ordinate Reference:	Well I PREFER PI 18_7 FED COM 21H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 3636.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 3636.60ft
Site:	I PREFER PI 18_7 FED COM	North Reference:	Grid
Well:	I PREFER PI 18_7 FED COM 21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

Project	PRD NM DIRECTIONAL PLANS (NAD 1983)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site	I PREFER PI 18_7 FED COM		
Site Position:		Northing:	504,515.55 usft
From:	Map	Easting:	730,590.36 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Latitude:	32° 23' 7.768414 N
		Longitude:	103° 43' 12.873943 W
		Grid Convergence:	0.33 °

Well	I PREFER PI 18_7 FED COM 21H		
Well Position	+N/-S	0.00 ft	Northing: 504,515.55 usft
	+E/-W	0.00 ft	Easting: 730,590.36 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft
		Latitude:	32° 23' 7.768414 N
		Longitude:	103° 43' 12.873943 W
		Ground Level:	3,610.10 ft

Wellbore	WB00				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/20/2018	6.87	60.17	48,155

Design	Permitting Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	357.44

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,160.00	0.00	0.00	6,160.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,659.35	9.99	224.19	6,656.83	-31.13	-30.26	2.00	2.00	0.00	224.19	
9,407.89	9.99	224.19	9,363.71	-372.93	-362.49	0.00	0.00	0.00	0.00	
9,907.24	0.00	359.70	9,860.54	-404.06	-392.75	2.00	-2.00	0.00	180.00	I_PREFER_21H_K
10,807.24	90.00	359.70	10,433.50	168.89	-395.80	10.00	10.00	0.00	-0.30	
20,642.23	90.00	359.70	10,433.50	10,003.74	-448.11	0.00	0.00	0.00	0.00	I_PREFER_21H_B

Oxy

Planning Report

Database:	HOPSP	Local Co-ordinate Reference:	Well I PREFER PI 18_7 FED COM 21H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 3636.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 3636.60ft
Site:	I PREFER PI 18_7 FED COM	North Reference:	Grid
Well:	I PREFER PI 18_7 FED COM 21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Oxy

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well I PREFER PI 18_7 FED COM 21H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 3636.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 3636.60ft
Site:	I PREFER PI 18_7 FED COM	North Reference:	Grid
Well:	I PREFER PI 18_7 FED COM 21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,160.00	0.00	0.00	6,160.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.80	224.19	6,200.00	-0.20	-0.19	-0.19	2.00	2.00	0.00
6,300.00	2.80	224.19	6,299.94	-2.45	-2.38	-2.34	2.00	2.00	0.00
6,400.00	4.80	224.19	6,399.72	-7.20	-7.00	-6.88	2.00	2.00	0.00
6,500.00	6.80	224.19	6,499.20	-14.45	-14.05	-13.81	2.00	2.00	0.00
6,600.00	8.80	224.19	6,598.27	-24.18	-23.51	-23.11	2.00	2.00	0.00
6,659.35	9.99	224.19	6,656.83	-31.13	-30.26	-29.74	2.00	2.00	0.00
6,700.00	9.99	224.19	6,696.86	-36.18	-35.17	-34.57	0.00	0.00	0.00
6,800.00	9.99	224.19	6,795.34	-48.62	-47.26	-46.46	0.00	0.00	0.00
6,900.00	9.99	224.19	6,893.83	-61.05	-59.35	-58.34	0.00	0.00	0.00
7,000.00	9.99	224.19	6,992.31	-73.49	-71.43	-70.22	0.00	0.00	0.00
7,100.00	9.99	224.19	7,090.80	-85.93	-83.52	-82.10	0.00	0.00	0.00
7,200.00	9.99	224.19	7,189.28	-98.36	-95.61	-93.99	0.00	0.00	0.00
7,300.00	9.99	224.19	7,287.77	-110.80	-107.70	-105.87	0.00	0.00	0.00
7,400.00	9.99	224.19	7,386.25	-123.23	-119.78	-117.75	0.00	0.00	0.00
7,500.00	9.99	224.19	7,484.74	-135.67	-131.87	-129.63	0.00	0.00	0.00
7,600.00	9.99	224.19	7,583.22	-148.11	-143.96	-141.52	0.00	0.00	0.00
7,700.00	9.99	224.19	7,681.71	-160.54	-156.05	-153.40	0.00	0.00	0.00
7,800.00	9.99	224.19	7,780.19	-172.98	-168.14	-165.28	0.00	0.00	0.00
7,900.00	9.99	224.19	7,878.68	-185.41	-180.22	-177.16	0.00	0.00	0.00
8,000.00	9.99	224.19	7,977.16	-197.85	-192.31	-189.05	0.00	0.00	0.00
8,100.00	9.99	224.19	8,075.65	-210.29	-204.40	-200.93	0.00	0.00	0.00
8,200.00	9.99	224.19	8,174.13	-222.72	-216.49	-212.81	0.00	0.00	0.00
8,300.00	9.99	224.19	8,272.61	-235.16	-228.57	-224.69	0.00	0.00	0.00
8,400.00	9.99	224.19	8,371.10	-247.59	-240.66	-236.58	0.00	0.00	0.00
8,500.00	9.99	224.19	8,469.58	-260.03	-252.75	-248.46	0.00	0.00	0.00
8,600.00	9.99	224.19	8,568.07	-272.46	-264.84	-260.34	0.00	0.00	0.00
8,700.00	9.99	224.19	8,666.55	-284.90	-276.93	-272.22	0.00	0.00	0.00
8,800.00	9.99	224.19	8,765.04	-297.34	-289.01	-284.11	0.00	0.00	0.00
8,900.00	9.99	224.19	8,863.52	-309.77	-301.10	-295.99	0.00	0.00	0.00
9,000.00	9.99	224.19	8,962.01	-322.21	-313.19	-307.87	0.00	0.00	0.00
9,100.00	9.99	224.19	9,060.49	-334.64	-325.28	-319.75	0.00	0.00	0.00
9,200.00	9.99	224.19	9,158.98	-347.08	-337.36	-331.64	0.00	0.00	0.00
9,300.00	9.99	224.19	9,257.46	-359.52	-349.45	-343.52	0.00	0.00	0.00
9,400.00	9.99	224.19	9,355.95	-371.95	-361.54	-355.40	0.00	0.00	0.00
9,407.89	9.99	224.19	9,363.71	-372.93	-362.49	-356.34	0.00	0.00	0.00
9,500.00	8.14	224.19	9,454.67	-383.34	-372.61	-366.28	2.00	-2.00	0.00
9,600.00	6.14	224.19	9,553.89	-392.26	-381.28	-374.80	2.00	-2.00	0.00
9,700.00	4.14	224.19	9,653.48	-398.69	-387.53	-380.95	2.00	-2.00	0.00
9,800.00	2.14	224.19	9,753.33	-402.62	-391.35	-384.71	2.00	-2.00	0.00
9,900.00	0.14	224.19	9,853.30	-404.05	-392.74	-386.07	2.00	-2.00	0.00
9,907.24	0.00	359.70	9,860.54	-404.06	-392.75	-386.08	2.00	-2.00	0.00
10,000.00	9.28	359.70	9,952.90	-396.57	-392.79	-378.59	10.00	10.00	0.00
10,100.00	19.28	359.70	10,049.69	-371.94	-392.92	-353.99	10.00	10.00	0.00
10,200.00	29.28	359.70	10,140.73	-330.88	-393.14	-312.96	10.00	10.00	0.00
10,300.00	39.28	359.70	10,223.26	-274.63	-393.44	-256.75	10.00	10.00	0.00

Oxy

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well I PREFER PI 18_7 FED COM 21H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 3636.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 3636.60ft
Site:	I PREFER PI 18_7 FED COM	North Reference:	Grid
Well:	I PREFER PI 18_7 FED COM 21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,400.00	49.28	359.70	10,294.76	-204.91	-393.81	-187.08	10.00	10.00	0.00	
10,500.00	59.28	359.70	10,353.08	-123.83	-394.24	-106.07	10.00	10.00	0.00	
10,600.00	69.28	359.70	10,396.43	-33.86	-394.72	-16.16	10.00	10.00	0.00	
10,700.00	79.28	359.70	10,423.49	62.27	-395.23	79.90	10.00	10.00	0.00	
10,800.00	89.28	359.70	10,433.45	161.65	-395.76	179.20	10.00	10.00	0.00	
10,807.24	90.00	359.70	10,433.50	168.89	-395.80	186.43	10.00	10.00	0.00	
10,900.00	90.00	359.70	10,433.50	261.65	-396.29	279.12	0.00	0.00	0.00	
11,000.00	90.00	359.70	10,433.50	361.65	-396.82	379.04	0.00	0.00	0.00	
11,100.00	90.00	359.70	10,433.50	461.64	-397.36	478.96	0.00	0.00	0.00	
11,200.00	90.00	359.70	10,433.50	561.64	-397.89	578.89	0.00	0.00	0.00	
11,300.00	90.00	359.70	10,433.50	661.64	-398.42	678.81	0.00	0.00	0.00	
11,400.00	90.00	359.70	10,433.50	761.64	-398.95	778.73	0.00	0.00	0.00	
11,500.00	90.00	359.70	10,433.50	861.64	-399.48	878.65	0.00	0.00	0.00	
11,600.00	90.00	359.70	10,433.50	961.64	-400.02	978.57	0.00	0.00	0.00	
11,700.00	90.00	359.70	10,433.50	1,061.64	-400.55	1,078.50	0.00	0.00	0.00	
11,800.00	90.00	359.70	10,433.50	1,161.63	-401.08	1,178.42	0.00	0.00	0.00	
11,900.00	90.00	359.70	10,433.50	1,261.63	-401.61	1,278.34	0.00	0.00	0.00	
12,000.00	90.00	359.70	10,433.50	1,361.63	-402.14	1,378.26	0.00	0.00	0.00	
12,100.00	90.00	359.70	10,433.50	1,461.63	-402.67	1,478.19	0.00	0.00	0.00	
12,200.00	90.00	359.70	10,433.50	1,561.63	-403.21	1,578.11	0.00	0.00	0.00	
12,300.00	90.00	359.70	10,433.50	1,661.63	-403.74	1,678.03	0.00	0.00	0.00	
12,400.00	90.00	359.70	10,433.50	1,761.63	-404.27	1,777.95	0.00	0.00	0.00	
12,500.00	90.00	359.70	10,433.50	1,861.62	-404.80	1,877.87	0.00	0.00	0.00	
12,600.00	90.00	359.70	10,433.50	1,961.62	-405.33	1,977.80	0.00	0.00	0.00	
12,700.00	90.00	359.70	10,433.50	2,061.62	-405.87	2,077.72	0.00	0.00	0.00	
12,800.00	90.00	359.70	10,433.50	2,161.62	-406.40	2,177.64	0.00	0.00	0.00	
12,900.00	90.00	359.70	10,433.50	2,261.62	-406.93	2,277.56	0.00	0.00	0.00	
13,000.00	90.00	359.70	10,433.50	2,361.62	-407.46	2,377.49	0.00	0.00	0.00	
13,100.00	90.00	359.70	10,433.50	2,461.62	-407.99	2,477.41	0.00	0.00	0.00	
13,200.00	90.00	359.70	10,433.50	2,561.61	-408.53	2,577.33	0.00	0.00	0.00	
13,300.00	90.00	359.70	10,433.50	2,661.61	-409.06	2,677.25	0.00	0.00	0.00	
13,400.00	90.00	359.70	10,433.50	2,761.61	-409.59	2,777.17	0.00	0.00	0.00	
13,500.00	90.00	359.70	10,433.50	2,861.61	-410.12	2,877.10	0.00	0.00	0.00	
13,600.00	90.00	359.70	10,433.50	2,961.61	-410.65	2,977.02	0.00	0.00	0.00	
13,700.00	90.00	359.70	10,433.50	3,061.61	-411.19	3,076.94	0.00	0.00	0.00	
13,800.00	90.00	359.70	10,433.50	3,161.61	-411.72	3,176.86	0.00	0.00	0.00	
13,900.00	90.00	359.70	10,433.50	3,261.60	-412.25	3,276.79	0.00	0.00	0.00	
14,000.00	90.00	359.70	10,433.50	3,361.60	-412.78	3,376.71	0.00	0.00	0.00	
14,100.00	90.00	359.70	10,433.50	3,461.60	-413.31	3,476.63	0.00	0.00	0.00	
14,200.00	90.00	359.70	10,433.50	3,561.60	-413.85	3,576.55	0.00	0.00	0.00	
14,300.00	90.00	359.70	10,433.50	3,661.60	-414.38	3,676.47	0.00	0.00	0.00	
14,400.00	90.00	359.70	10,433.50	3,761.60	-414.91	3,776.40	0.00	0.00	0.00	
14,500.00	90.00	359.70	10,433.50	3,861.60	-415.44	3,876.32	0.00	0.00	0.00	
14,600.00	90.00	359.70	10,433.50	3,961.59	-415.97	3,976.24	0.00	0.00	0.00	
14,700.00	90.00	359.70	10,433.50	4,061.59	-416.50	4,076.16	0.00	0.00	0.00	
14,800.00	90.00	359.70	10,433.50	4,161.59	-417.04	4,176.09	0.00	0.00	0.00	
14,900.00	90.00	359.70	10,433.50	4,261.59	-417.57	4,276.01	0.00	0.00	0.00	
15,000.00	90.00	359.70	10,433.50	4,361.59	-418.10	4,375.93	0.00	0.00	0.00	
15,100.00	90.00	359.70	10,433.50	4,461.59	-418.63	4,475.85	0.00	0.00	0.00	
15,200.00	90.00	359.70	10,433.50	4,561.59	-419.16	4,575.77	0.00	0.00	0.00	
15,300.00	90.00	359.70	10,433.50	4,661.58	-419.70	4,675.70	0.00	0.00	0.00	
15,400.00	90.00	359.70	10,433.50	4,761.58	-420.23	4,775.62	0.00	0.00	0.00	
15,500.00	90.00	359.70	10,433.50	4,861.58	-420.76	4,875.54	0.00	0.00	0.00	
15,600.00	90.00	359.70	10,433.50	4,961.58	-421.29	4,975.46	0.00	0.00	0.00	

Oxy

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well I PREFER PI 18_7 FED COM 21H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 3636.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 3636.60ft
Site:	I PREFER PI 18_7 FED COM	North Reference:	Grid
Well:	I PREFER PI 18_7 FED COM 21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,700.00	90.00	359.70	10,433.50	5,061.58	-421.82	5,075.39	0.00	0.00	0.00
15,800.00	90.00	359.70	10,433.50	5,161.58	-422.36	5,175.31	0.00	0.00	0.00
15,900.00	90.00	359.70	10,433.50	5,261.58	-422.89	5,275.23	0.00	0.00	0.00
16,000.00	90.00	359.70	10,433.50	5,361.58	-423.42	5,375.15	0.00	0.00	0.00
16,100.00	90.00	359.70	10,433.50	5,461.57	-423.95	5,475.07	0.00	0.00	0.00
16,200.00	90.00	359.70	10,433.50	5,561.57	-424.48	5,575.00	0.00	0.00	0.00
16,300.00	90.00	359.70	10,433.50	5,661.57	-425.02	5,674.92	0.00	0.00	0.00
16,400.00	90.00	359.70	10,433.50	5,761.57	-425.55	5,774.84	0.00	0.00	0.00
16,500.00	90.00	359.70	10,433.50	5,861.57	-426.08	5,874.76	0.00	0.00	0.00
16,600.00	90.00	359.70	10,433.50	5,961.57	-426.61	5,974.69	0.00	0.00	0.00
16,700.00	90.00	359.70	10,433.50	6,061.57	-427.14	6,074.61	0.00	0.00	0.00
16,800.00	90.00	359.70	10,433.50	6,161.56	-427.68	6,174.53	0.00	0.00	0.00
16,900.00	90.00	359.70	10,433.50	6,261.56	-428.21	6,274.45	0.00	0.00	0.00
17,000.00	90.00	359.70	10,433.50	6,361.56	-428.74	6,374.37	0.00	0.00	0.00
17,100.00	90.00	359.70	10,433.50	6,461.56	-429.27	6,474.30	0.00	0.00	0.00
17,200.00	90.00	359.70	10,433.50	6,561.56	-429.80	6,574.22	0.00	0.00	0.00
17,300.00	90.00	359.70	10,433.50	6,661.56	-430.33	6,674.14	0.00	0.00	0.00
17,400.00	90.00	359.70	10,433.50	6,761.56	-430.87	6,774.06	0.00	0.00	0.00
17,500.00	90.00	359.70	10,433.50	6,861.55	-431.40	6,873.99	0.00	0.00	0.00
17,600.00	90.00	359.70	10,433.50	6,961.55	-431.93	6,973.91	0.00	0.00	0.00
17,700.00	90.00	359.70	10,433.50	7,061.55	-432.46	7,073.83	0.00	0.00	0.00
17,800.00	90.00	359.70	10,433.50	7,161.55	-432.99	7,173.75	0.00	0.00	0.00
17,900.00	90.00	359.70	10,433.50	7,261.55	-433.53	7,273.67	0.00	0.00	0.00
18,000.00	90.00	359.70	10,433.50	7,361.55	-434.06	7,373.60	0.00	0.00	0.00
18,100.00	90.00	359.70	10,433.50	7,461.55	-434.59	7,473.52	0.00	0.00	0.00
18,200.00	90.00	359.70	10,433.50	7,561.54	-435.12	7,573.44	0.00	0.00	0.00
18,300.00	90.00	359.70	10,433.50	7,661.54	-435.65	7,673.36	0.00	0.00	0.00
18,400.00	90.00	359.70	10,433.50	7,761.54	-436.19	7,773.29	0.00	0.00	0.00
18,500.00	90.00	359.70	10,433.50	7,861.54	-436.72	7,873.21	0.00	0.00	0.00
18,600.00	90.00	359.70	10,433.50	7,961.54	-437.25	7,973.13	0.00	0.00	0.00
18,700.00	90.00	359.70	10,433.50	8,061.54	-437.78	8,073.05	0.00	0.00	0.00
18,800.00	90.00	359.70	10,433.50	8,161.54	-438.31	8,172.97	0.00	0.00	0.00
18,900.00	90.00	359.70	10,433.50	8,261.53	-438.85	8,272.90	0.00	0.00	0.00
19,000.00	90.00	359.70	10,433.50	8,361.53	-439.38	8,372.82	0.00	0.00	0.00
19,100.00	90.00	359.70	10,433.50	8,461.53	-439.91	8,472.74	0.00	0.00	0.00
19,200.00	90.00	359.70	10,433.50	8,561.53	-440.44	8,572.66	0.00	0.00	0.00
19,300.00	90.00	359.70	10,433.50	8,661.53	-440.97	8,672.59	0.00	0.00	0.00
19,400.00	90.00	359.70	10,433.50	8,761.53	-441.51	8,772.51	0.00	0.00	0.00
19,500.00	90.00	359.70	10,433.50	8,861.53	-442.04	8,872.43	0.00	0.00	0.00
19,600.00	90.00	359.70	10,433.50	8,961.52	-442.57	8,972.35	0.00	0.00	0.00
19,700.00	90.00	359.70	10,433.50	9,061.52	-443.10	9,072.27	0.00	0.00	0.00
19,800.00	90.00	359.70	10,433.50	9,161.52	-443.63	9,172.20	0.00	0.00	0.00
19,900.00	90.00	359.70	10,433.50	9,261.52	-444.17	9,272.12	0.00	0.00	0.00
20,000.00	90.00	359.70	10,433.50	9,361.52	-444.70	9,372.04	0.00	0.00	0.00
20,100.00	90.00	359.70	10,433.50	9,461.52	-445.23	9,471.96	0.00	0.00	0.00
20,200.00	90.00	359.70	10,433.50	9,561.52	-445.76	9,571.88	0.00	0.00	0.00
20,300.00	90.00	359.70	10,433.50	9,661.51	-446.29	9,671.81	0.00	0.00	0.00
20,400.00	90.00	359.70	10,433.50	9,761.51	-446.82	9,771.73	0.00	0.00	0.00
20,500.00	90.00	359.70	10,433.50	9,861.51	-447.36	9,871.65	0.00	0.00	0.00
20,600.00	90.00	359.70	10,433.50	9,961.51	-447.89	9,971.57	0.00	0.00	0.00
20,642.23	90.00	359.70	10,433.50	10,003.74	-448.11	10,013.77	0.00	0.00	0.00

Oxy

Planning Report

Database:	HOPSPP	Local Co-ordinate Reference:	Well I PREFER PI 18_7 FED COM 21H
Company:	ENGINEERING DESIGNS	TVD Reference:	DATUM @ 3636.60ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	DATUM @ 3636.60ft
Site:	I PREFER PI 18_7 FED COM	North Reference:	Grid
Well:	I PREFER PI 18_7 FED COM 21H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB00		
Design:	Permitting Plan		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
I_PREFER_21H_KOP - plan hits target center - Point	0.00	0.00	9,860.54	-404.06	-392.75	504,111.51	730,197.63	32° 23' 3.792589 N	103° 43' 17.480807
I_PREFER_21H_BHL - plan hits target center - Point	0.00	0.00	10,433.50	10,003.74	-448.11	514,518.77	730,142.27	32° 24' 46.777901 N	103° 43' 17.431970

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,160.00	6,160.00	0.00	0.00	STEP OUT DLS 2.00
6,659.35	6,656.83	-31.13	-30.26	HOLD 10 DEG TANGENT
9,407.89	9,363.71	-372.93	-362.49	DROP BACK TO VERTICAL DLS 2.00
9,907.24	9,860.54	-404.06	-392.75	BUILD CURVE 10 DEG / 100
10,807.24	10,433.50	168.89	-395.80	LANDING POINT
20,642.23	10,433.50	10,003.74	-448.11	TD at 20642.23



Project: PRD NM DIRECTIONAL PLANS (NAD 1983)
Site: I PREFER PI 18_7 FED COM
Well: I PREFER PI 18_7 FED COM 21H
Wellbore: WB00
Design: Permitting Plan

WELL DETAILS: I PREFER PI 18_7 FED COM 21H

+N/-S
0.00

+E/-W
0.00

Northing
504515.55

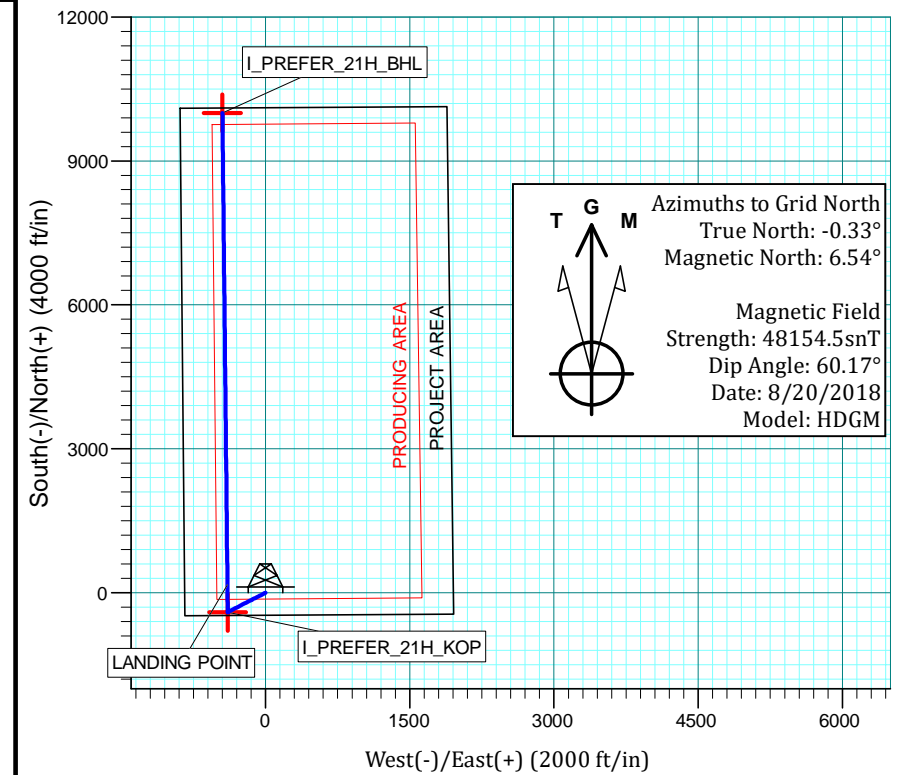
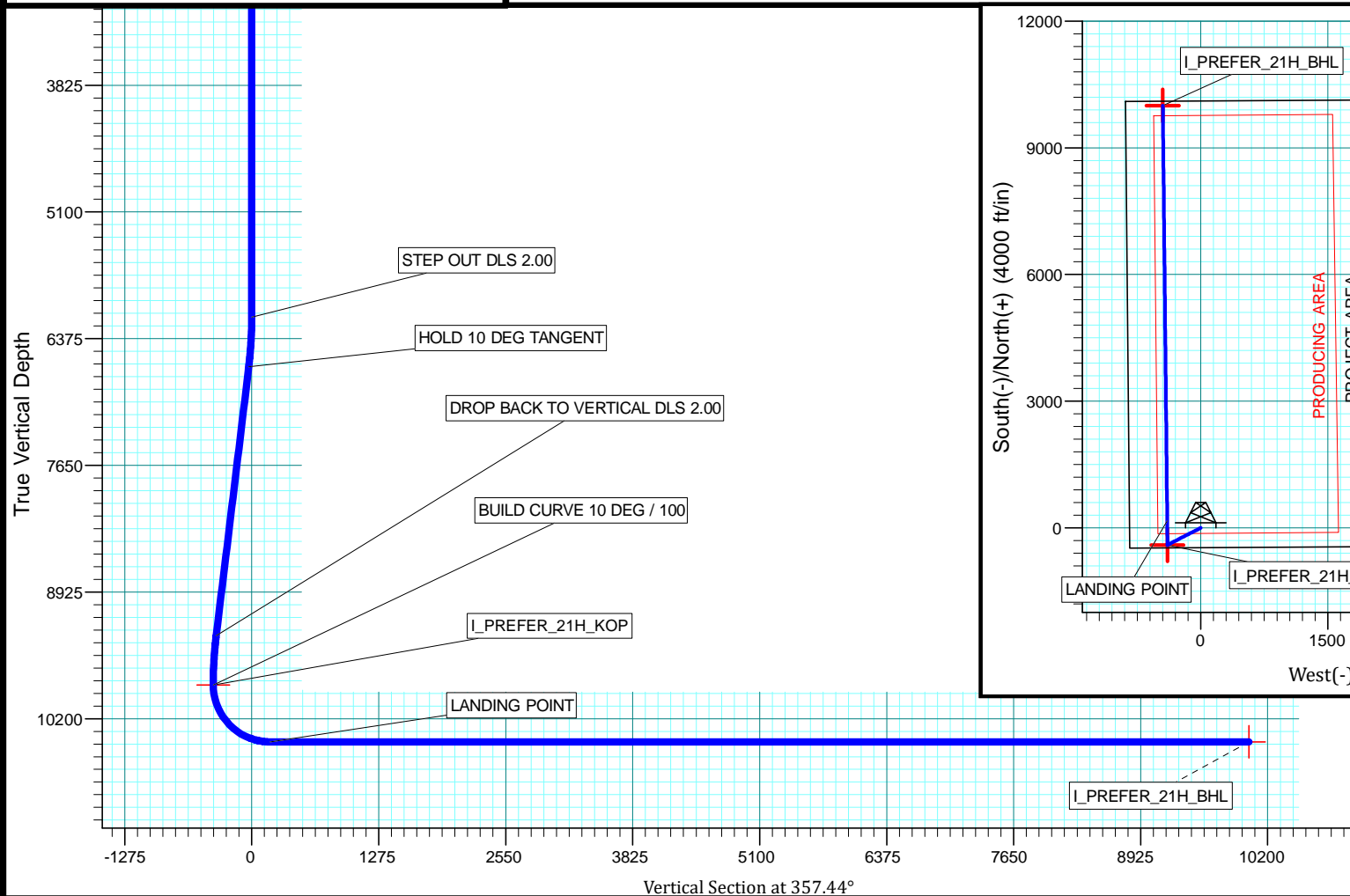
Ground Level: 3610.10

Easting
730590.36

Latitude
32° 23' 7.768414 N

Longitude
103° 43' 12.873943 W

DATUM @ 3636.60ft



Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.54°
Magnetic Field
Strength: 48154.5snT
Dip Angle: 60.17°
Date: 8/20/2018
Model: HDGM

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	6160.00	0.00	0.00	6160.00	0.00	0.00	0.00	0.00	0.00		STEP OUT DLS 2.00
3	6659.35	9.99	224.19	6656.83	-31.13	-30.26	2.00	224.19	-29.74		HOLD 10 DEG TANGENT
4	9407.89	9.99	224.19	9363.71	-372.93	-362.49	0.00	0.00	-356.34		DROP BACK TO VERTICAL DLS 2.00
5	9907.24	0.00	359.70	9860.54	-404.06	-392.75	2.00	180.00	-386.08		BUILD CURVE 10 DEG / 100
6	10807.24	90.00	359.70	10433.50	168.89	-395.80	10.00	-0.30	186.43		LANDING POINT
7	20642.23	90.00	359.70	10433.50	10003.74	-448.11	0.00	0.00	10013.77		TD at 20642.23

Oxy USA Inc. - I Prefer PI 18_7 Fed Com 21H

1. Geologic Formations

TVD of target	10433'	Pilot Hole Depth	N/A
MD at TD:	20642'	Deepest Expected fresh water:	850'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	850	
Salado	1,144	Salt
Castile	2,867	Salt
Lamar/Delaware	4,564	Oil/Gas/Brine
Bell Canyon	4,650	Oil/Gas/Brine
Cherry Canyon	5,471	Oil/Gas/Brine
Brushy Canyon	6,717	Losses
Bone Spring	8,463	Oil/Gas
1st Bone Spring	9,558	Oil/Gas
2nd Bone Spring	9,765	Oil/Gas

*H₂S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	Buoyant	Buoyant
	From (ft)	To (ft)							Body SF Tension	Joint SF Tension
14.75	0	900	10.75	40.5	J-55	BTC	1.125	1.2	1.4	1.4
9.875	0	9807	7.625	26.4	L-80	BTC	1.125	1.2	1.4	1.4
6.75	0	20642	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
SF Values will meet or Exceed										

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

*Oxy requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage we will drop a cancellation cone and not pump the second stage.

Oxy USA Inc. - I Prefer PI 18_7 Fed Com 21H

Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement from Onshore Order #2 under the following conditions:

1. Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casings.
2. Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Oxy USA Inc. - I Prefer PI 18_7 Fed Com 21H

3. Cementing Program

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	745	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate 1st Stage (Lead)	790	10.2	2.58	11.568	6:59	Pozzolan Cement, Retarder
Intermediate 1st Stage (Tail)	167	13.2	1.61	7.804	7:11	Class H Cement, Retarder, Dispersant, Salt
DV/ECP Tool @ 4614 (We request the option to cancel the second stage if cement is circulated to surface during the first stage of cement operations)						
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	1082	13.6	1.67	8.765	7:32	Class C Cement, Accelerator, Retarder
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	831	13.2	1.38	6.686	3:39	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	900	100%
Intermediate 1st Stage (Lead)	4514	8807	20%
Intermediate 1st Stage (Tail)	8807	9807	20%
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	0	4614	100%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	9307	20642	20%

Include Pilot Hole Cementing specs:

Pilot hole depth: N/A

KOP: N/A

Plug top	Plug Bottom	% Excess	No. Sacks	Wt. lb/gal	Yld ft3/sack	Water gal/sk	Slurry Description and Cement Type
N/A							
N/A							

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
9.875" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
			Blind Ram	✓	250/5000psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

BOP Break Testing Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow BOP Break Testing under the following conditions:

- After a full BOP test is conducted on the first well on the pad.
- When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.
- Full BOP test will be required prior to drilling any production hole.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	900	Water-Based Mud	8.6-8.8	40-60	N/C
900	9807	Saturated Brine-Based or Oil-Based Mud	9.0-9.6	35-45	N/C
9807	20642	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Additional logs planned		Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5209 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	164°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. <ul style="list-style-type: none"> We plan to drill the three well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well. 	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. <ul style="list-style-type: none"> Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and 	Yes

Oxy USA Inc. - I Prefer PI 18_7 Fed Com 21H

drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	
--	--

Total estimated cuttings volume: 1513.5 bbls.

Attachments

- ☒ Directional Plan
- ☒ H2S Contingency Plan
- ☒ Flex III Attachments
- ☒ Spudder Rig Attachment
- ☒ Premium Connection Specs

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Derek Adam	Drilling Engineer	713-366-5170	916-802-8873
Randy Neel	Drilling Engineer Supervisor	713-215-7987	713-517-5544
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417



APD ID: 10400055791

Submission Date: 04/03/2020

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Well Type: OIL WELL

Well Work Type: Drill

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? N

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:

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



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

Bond Info Data Report

10/05/2020

APD ID: 10400055791

Submission Date: 04/03/2020

Highlighted data
reflects the most
recent changes

Operator Name: OXY USA INCORPORATED

Well Name: I PREFER PI "18_7" FEDERAL COM

Well Number: 21H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number: ESB000226

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

OCD - HOBBS
10/05/2020
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30025-47835	Pool Code 5695	Pool Name Bilbrey Basin, Bone Spring
Property Code 329746	Property Name I PREFER PI "18_7" FEDERAL COM	
OGRID No. 16696	Operator Name OXY USA INC.	Well Number 21H
		Elevation 3611.9'

Surface Location

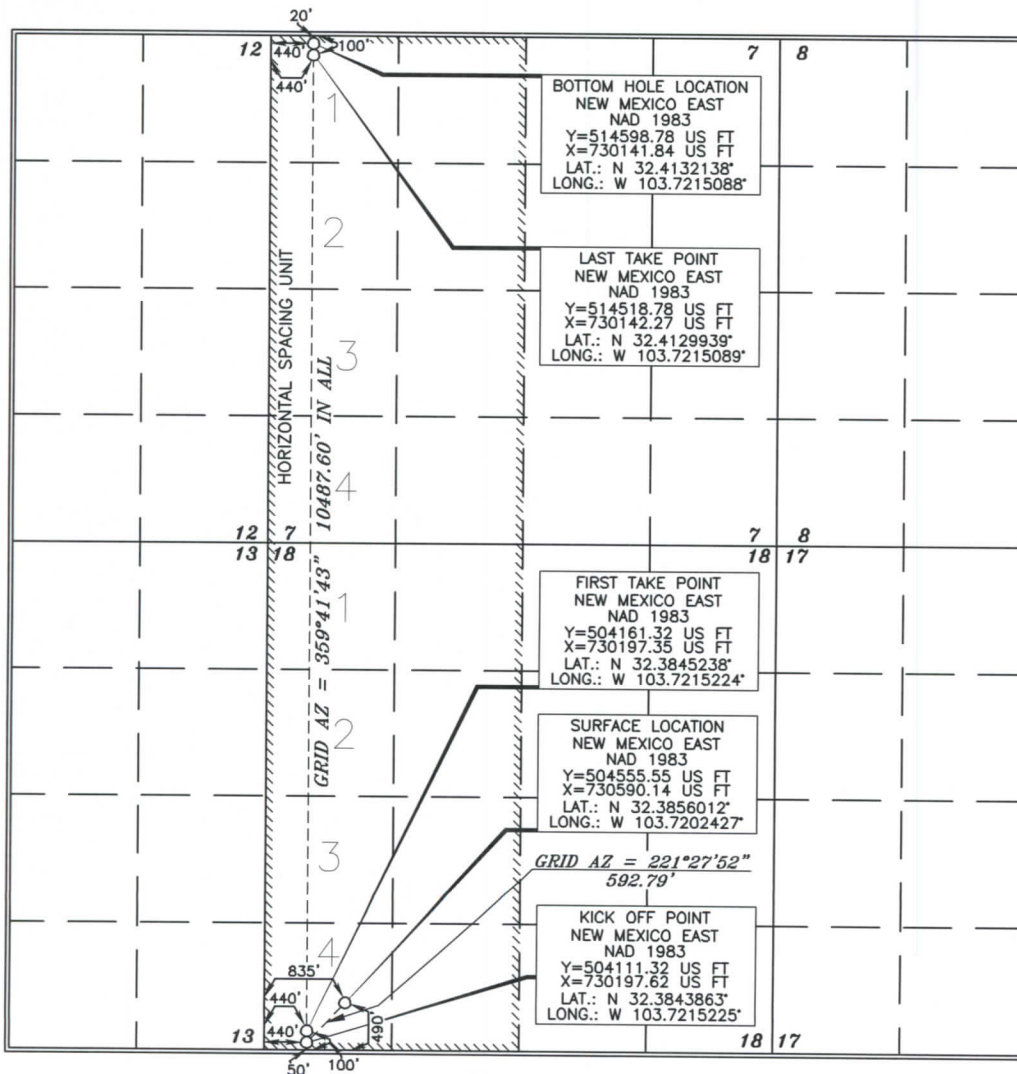
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	18	22 SOUTH	32 EAST, N.M.P.M.		490'	SOUTH	835'	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	7	22 SOUTH	32 EAST, N.M.P.M.		20'	NORTH	440'	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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



OPERATOR CERTIFICATION

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

April Santos 03/12/2020
Signature Date
Printed Name
April_Hood@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

TERY J. ASH
15079
MAY 10, 2018
Date of Survey
Signature and Seal of Professional Surveyor

Terry J. Ash 1/25/2019
Certificate Number 15079

WO# 180510WL-a (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

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GAS CAPTURE PLAN

Date: 02-12-2020

☒ Original

Operator & OGRID No.: OXY USA INC. - 16696

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
I PREFER PI 18_7 FED COM 1H	Pending	N-18-22S-32E	490 FSL 1660 FWL	1,728	0	
I PREFER PI 18_7 FED COM 2H	Pending	N-18-22S-32E	490 FSL 1695 FWL	1,728	0	
I PREFER PI 18_7 FED COM 3H	Pending	P-18-22S-32E	744 FSL 768 FEL	1,728	0	
I PREFER PI 18_7 FED COM 4H	Pending	P-18-22S-32E	749 FSL 733 FEL	1,728	0	
I PREFER PI 18_7 FED COM 11H	Pending	4-18-22S-32E	490 FSL 1350 FWL	2,760	0	
I PREFER PI 18_7 FED COM 12H	Pending	4-18-22S-32E	490 FSL 1385 FWL	2,760	0	
I PREFER PI 18_7 FED COM 13H	Pending	4-18-22S-32E	490 FSL 1490 FWL	2,760	0	
I PREFER PI 18_7 FED COM 14H	Pending	P-18-22S-32E	700 FSL 1075 FEL	2,760	0	
I PREFER PI 18_7 FED COM 15H	Pending	P-18-22S-32E	705 FSL 1040 FEL	2,760	0	
I PREFER PI 18_7 FED COM 16H	Pending	P-18-22S-32E	710 FSL 1005 FEL	2,760	0	
I PREFER PI 18_7 FED COM 21H	Pending	4-18-22S-32E	490 FSL 835 FWL	2,375	0	
I PREFER PI 18_7 FED COM 22H	Pending	4-18-22S-32E	490 FSL 870 FWL	2,375	0	
I PREFER PI 18_7 FED COM 23H	Pending	4-18-22S-32E	490 FSL 905 FWL	2,375	0	
I PREFER PI 18_7 FED COM 24H	Pending	P-18-22S-32E	170 FSL 1120 FEL	2,375	0	
I PREFER PI 18_7 FED COM 25H	Pending	P-18-22S-32E	170 FSL 1085 FEL	2,375	0	
I PREFER PI 18_7 FED COM 26H	Pending	P-18-22S-32E	170 FSL 1050 FEL	2,375	0	

30-025-47835

[illegible]

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream, LP (“DCP”) and will be connected to DCP’s low/high pressure gathering system located in Lea County, New Mexico. OXY USA INC. (“OXY”) provides (periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP’s Zia Processing Plant located in Sec. 19, Twn. 19S, Rng. 32E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP’s system at that time. Based on current information, it is OXY’s belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines