Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 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 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Date Name (Printed/Typed) 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

\*(Instructions on page 2)

# **Additional Operator Remarks**

#### **Location of Well**

0. SHL: LOT 1 / 128 FNL / 1300 FWL / TWSP: 22S / RANGE: 32E / SECTION: 19 / LAT: 32.3839088 / LONG: -103.7187368 ( TVD: 0 feet, MD: 0 feet ) PPP: LOT 1 / 7 FNL / 1004 FWL / TWSP: 22S / RANGE: 32E / SECTION: 30 / LAT: 32.36976 / LONG: -103.719699 ( TVD: 12270 feet, MD: 17832 feet ) PPP: LOT 3 / 2635 FNL / 1002 FWL / TWSP: 22S / RANGE: 32E / SECTION: 30 / LAT: 32.377015 / LONG: -103.719704 ( TVD: 12270 feet, MD: 15192 feet ) PPP: LOT 2 / 1315 FNL / 1001 FWL / TWSP: 22S / RANGE: 32E / SECTION: 30 / LAT: 32.3839816 / LONG: -103.719706 ( TVD: 12270 feet, MD: 13773 feet ) PPP: LOT 1 / 100 FNL / 1000 FWL / TWSP: 22S / RANGE: 32E / SECTION: 19 / LAT: 32.3839816 / LONG: -103.7197084 ( TVD: 12270 feet, MD: 12654 feet ) BHL: LOT 4 / 20 FSL / 1000 FWL / TWSP: 22S / RANGE: 32E / SECTION: 30 / LAT: 32.3852661 / LONG: -103.71969 ( TVD: 12270 feet, MD: 23106 feet )

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

Name: TYLER HILL

Title: LIE

Phone: (575) 234-5972 Email: tjhill@blm.gov

# PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

Lost Tank 30-19 Federal Com 1H	128 FNL and 1,235 FWL	Section 19, Township	BLM
Lost Tank 30-19 Federal Com 11H	128 FNL and 1,200 FWL	22 South, Range 32 East*	
Lost Tank 30-19 Federal Com 32H	128 FNL and 1,335 FWL		
Lost Tank 30-19 Federal Com 33H	128 FNL and 1,370 FWL		
Lost Tank 30-19 Federal Com 41H	128 FNL and 1,300 FWL		
Lost Tank 30-19 Federal Com 71H	128 FNL and 1,270 FWL		
Lost Tank 30-19 Federal Com 72H	128 FNL and 1,405 FWL		

FNL = feet from north line; FWL = feet from west line

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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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**Approval Date: 04/12/2021** 

#### 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)

## <u>Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:</u>

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.

<u>Ground-level Abandoned Well Marker to avoid raptor perching</u>: 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.

- The entirety of the well pads would be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pads. Topsoil would not be used to construct the berm. No water flow from the uphill side(s) of the pads would be allowed to enter the well pads. The berm would be maintained through the life of the wells and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad or facilities during
  the life of the project would be quickly corrected, and proper measures would be taken to
  prevent future erosion.
- Stockpiling of topsoil would be required. The topsoil would be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and would not be used for berming or erosion control.
- Energy dissipation and filtration devices (e.g., certified weed-free hay/straw bales and silt fence) would be used to reduce the velocity of the discharged water and thereby reduce potential for erosion.

# **Cattleguards**

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

# **Fence Requirement**

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

# Livestock Watering Requirement

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Measures to minimize impacts to potash mineral reserves have been considered during the BLM's planning process by establishment of the Martha Deep Drill Island. No additional special mitigation or requirements have been identified by the BLM.



EXHIBIT NO.	1	

Date of Issue: 9/23/2019

Bureau of Land Management, Carlsbad Field Office

IT4RM-P020-2019-1470-EA

620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

BLM Report
No.19-5471

# **NOTICE OF STIPULATIONS**

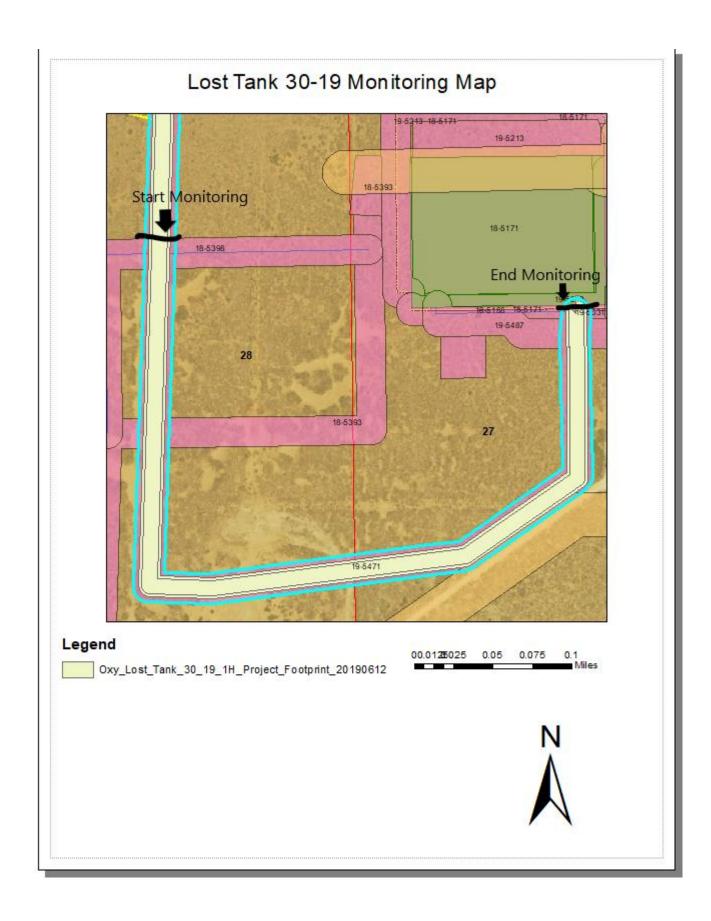
<u>Historic properties</u> in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

<u>Project</u> <u>Name</u> :	Lost Tank 30_19
	1). A 3-day preconstruction call-in notification.
Required	2. Professional archaeological monitoring. Contact your BLM project archaeologist at for assistance.
<b>A</b> . 🖂	These stipulations must be given to your monitor at least 3 days prior to the start of construction.
В. 🖂	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.
	3. Cultural site barrier fencing. (Your monitor will assist you).
А. 🗌	A temporary site protection barrier(s) shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging or blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.
В. 🗌	A permanent, 4-strand barbed wire fence strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.
Required	4. The archaeological monitor shall:
<b>A</b> . 🖂	Because of sensitive archeological resources found within close proximity to a portion of the proposed project, an archaeological monitor should be on site when the ROW is cleared and the pipeline trench is constructed within the area marked on the map below (T22S R32E Sections 28, 27).
В. 🗌	
<b>c</b> . ⊠	Turn in a monitoring report within 30 days of finishing up monitoring of the proposed projects construction state above.
D. 🗌	
	If subsurface cultural resources are encountered during the monitoring, all activities shall cease and a BLM-CFO archaeologist shall be notified immediately.
Other:	IF THE CONTRACT ARCHAEOLOGIST DOES NOT KNOW WHERE THE SITE(S) ARE LOCATED AT PLEASE COME BY THE CARLSBAD BLM AND MAPS AND OTHER DATA WILL BE PROVIDED UPON REQUEST TO THE CONTRACT ARCHAEOLOGIST

<u>Site Protection and Employee Education</u>: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

For assistance contact:

Aaron Whaley (575) 234-5986 Elia Perez (575)-234-6231



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## 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)

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# **Exclosure Fencing**

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

#### G. ON LEASE ACCESS ROADS

#### Road Width

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

#### **Surfacing**

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

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

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

#### **Crowning**

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

#### Ditching

Ditching shall be required on both sides of the road.

#### **Turnouts**

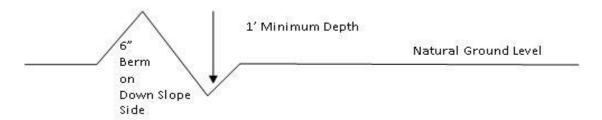
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

# **Drainage**

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

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

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



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

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

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

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

#### Cattle guards

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

#### **Fence Requirement**

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

#### **Livestock Watering Requirement**

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

#### **Public Access**

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

# **Construction Steps**

- 1. Salvage topsoil
- Redistribute topsoil
- 2. Construct road
- 4. Revegetate slopes

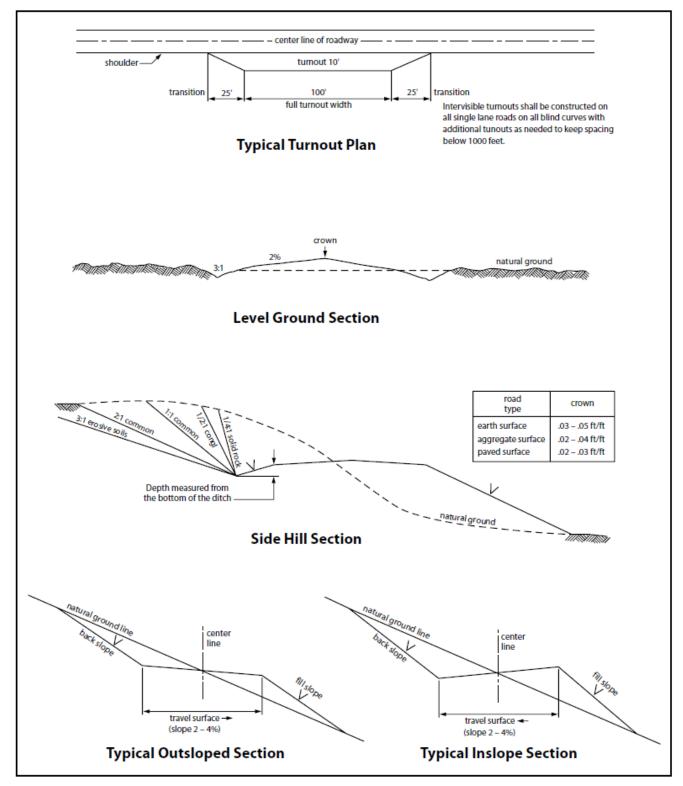


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

# 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 1½ 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 1½ 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 <u>36</u> inches between the top of the pipe and ground level.
- 7. The maximum allowable disturbance for construction in this right-of-way will be 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 d	listurbed areas.	Seeding will be	done a	according to	the attached
seeding requirements, using the	following seed	l mix.			

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

- 13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2.
- 14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.
- 15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.
- 16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
- 17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.
- 18. <u>Escape Ramps</u> The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or

other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

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

#### 19. Special Stipulations:

## <u>Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:</u>

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.

#### 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:

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- 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.

#### VIII. INTERIM RECLAMATION

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

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

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

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

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

#### IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

# **Seed Mixture for LPC Sand/Shinnery Sites**

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

Seed 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). 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. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

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

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

<sup>\*</sup>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

WELL NAME & NO.: LOST TANK 30-19 FEDERAL COM 41H

**SURFACE HOLE FOOTAGE:** 128'/N & 1300'/W **BOTTOM HOLE FOOTAGE** 20'/S & 1000'/W

**LOCATION:** | Section 19, T.22 S., R.32 E., NMP

**COUNTY:** Lea County, New Mexico

COA

H2S	O Yes	⊙ No	
Potash	None	Secretary	© R-111-P
Cave/Karst Potential	• Low	© Medium	C High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	O Multibowl	O Both
Other	☐ 4 String Area	☐ Capitan Reef	□WIPP
Other	Fluid Filled	▼ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit

#### A. HYDROGEN SULFIDE

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

#### **B. CASING**

#### **Primary Casing Design:**

- 1. The 13-3/8 inch surface casing shall be set at approximately 916 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.

# Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The **7-5/8** inch intermediate casing shall be set at approximately **4650** 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.

Operator has proposed to pump down 13-3/8" X 7-5/8" annulus. Operator must run a ECHO-METER/ CBL from TD of the 7-5/8" casing to surface. Submit results to BLM. Excess calculates to negative 24% - additional cement might be required.

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.

## Option 2:

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

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

## **Alternate Casing Design:**

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

2. The 9-5/8 inch intermediate casing shall be set at approximately 4650 feet. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

#### **Option 1 (Single Stage):**

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

#### **Option 2:**

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

- c. 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.
- d. 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 fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the 7-5/8 inch 2<sup>nd</sup> 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.

- e. 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.
- f. 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.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. <u>Operator must run a ECHO-METER/ CBL from TD of the 7-5/8" casing to surface. Submit results to BLM.</u>

4. 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.

#### **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.

- c. 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.
- d. Second stage above DV tool:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

#### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

#### **Option 1:**

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.

#### **Option 2:**

- 1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

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

#### D. SPECIAL REQUIREMENT (S)

#### **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.

#### **Offline Cementing**

• Contact the BLM prior to the commencement of any offline cementing procedure.

#### **BOP Break Testing Variance**

• BOP break testing is not permitted on this well.

# 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 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: 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.

NMK03042021



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

# Operator Certification Data Report 04/12/2021

# **Operator Certification**

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

NAME: LESLIE REEVES Signed on: 01/12/2021

Title: Advisor Regulatory

Street Address: 5 GREENWAY PLAZA, SUITE 110

City: HOUSTON State: TX Zip: 77046

Phone: (713)497-2492

Email address: LESLIE\_REEVES@OXY.COM

## **Field Representative**

Representative Name: JIM WILSON

Street Address: 6001 DEAUVILLE BLVD.

City: MIDLAND State: TX Zip: 79710

Phone: (575)631-2442

Email address: JIM\_WILSON@OXY.COM



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

# Application Data Repor

APD ID: 10400049586

Submission Date: 10/21/2019

Highlighted data reflects the most recent changes

**Operator Name: OXY USA INCORPORATED** 

Well Number: 41H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

#### **Section 1 - General**

Well Name: LOST TANK 30-19 FEDERAL COM

APD ID: 10400049586 Tie to previous NOS?

Submission Date: 10/21/2019

**BLM Office: CARLSBAD** 

**User:** LESLIE REEVES

Title: Advisor Regulatory

Federal/Indian APD: FED

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

Lease number: NMNM090587

**Lease Acres:** 

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

**Permitting Agent? NO** 

APD Operator: OXY USA INCORPORATED

Operator letter of designation:

#### **Operator Info**

**Operator Organization Name: OXY USA INCORPORATED** 

Operator Address: 5 Greenway Plaza, Suite 110

**Operator PO Box:** 

**Zip:** 77046

**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 Number: 41H

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well API Number:

Well Name: LOST TANK 30-19 FEDERAL COM

Field Name: BILBREY BASIN,

Pool Name: BILBREY BASIN,

**BONE SPRING** 

**BONE SPRING** 

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

Page 1 of 3

Field/Pool or Exploratory? Field and Pool

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

Is the proposed well in an area containing other mineral resources? 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: LOST Number: 1H, 11H, 32H, 33H,

Well Class: HORIZONTAL

TANK 30-19 FEDERAL COM 41H, 71H, 72H

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: 8 Miles Distance to nearest well: 35 FT Distance to lease line: 20 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: LostTank30\_19FdCom41H\_C102\_20191021092626.pdf

LostTank30\_19FdCom41H\_Supplemental\_20191021092635.pdf

LostTank30\_19FdCom41H\_SitePlan\_20191021092642.pdf

Well work start Date: 10/01/2020 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	128	FNL	130 0	FW L	22S	32E	19	Lot 1	32.38390 88	- 103.7187 368	LEA	NEW MEXI CO	NEW MEXI CO		NMNM 90587	361 4	0	0	N
KOP Leg #1	50	FNL	100 0	FW L	22S	32E	19	Lot 1	32.38411 91	- 103.7197 085	LEA	NEW MEXI CO			NMNM 90587	- 865 3	126 05	122 67	N

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

_									1										_
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	FNL		FW L	22S	32E	19	Lot 1	32.38398 16	- 103.7197 084	LEA	NEW MEXI CO	1	F	NMNM 90587	- 865 6	126 54	122 70	Υ
PPP Leg #1-2	131 5	FNL	100	FW L	22\$	32E	30	Lot 2	32.38064 2	- 103.7197 06	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 865 6	137 73	122 70	Υ
PPP Leg #1-3	263 5	FNL	100 2	FW L	22\$	32E	30	Lot 3	32.37701 5	- 103.7197 04	LEA	NEW MEXI CO	1	F	NMNM 90587	- 865 6	151 92	122 70	Υ
PPP Leg #1-4	7	FNL	100 4	FW L	22S	32E	30	Lot 1	32.36976	- 103.7196 99	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 90587	- 865 6	178 32	122 70	Y
EXIT Leg #1	100	FSL	100 0	FW L	22S	32E	30	Lot 4	32.35548 61	- 103.7196 902	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 106915	- 865 6	230 25	122 70	Y
BHL Leg #1	20	FSL	100 0	FW L	22S	32E	30	Lot 4	32.35526 61	- 103.7196 9	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 106915	- 865 6	231 06	122 70	N

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

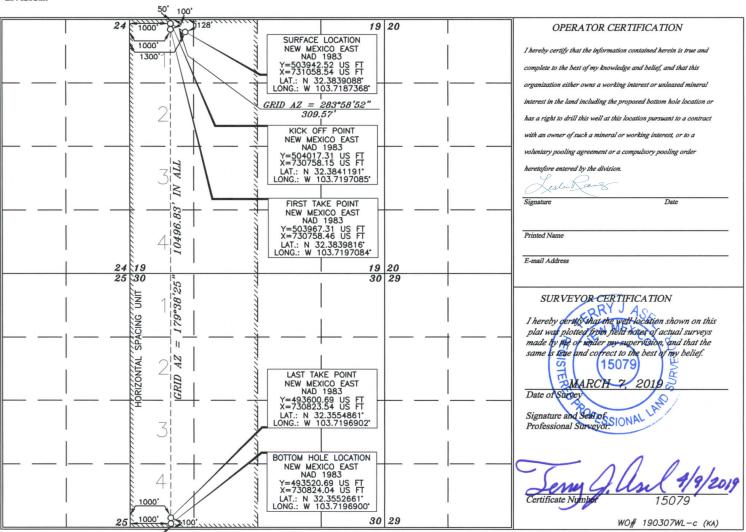
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

	WEL	L LUCATION AND A	CREAGE DEDICATION PLAT	
API Numbe	r	Pool Code	Pool Name	
Property Code		Prop	erty Name	Well Number
		LOST TANK "30_1	9" FEDERAL COM	41H
OGRID No		Oner	ator Name	Flevation

*3613.5* ' OXY USA INC. Surface Location Lot Idn Feet from the UL or lot no. Section Township Range North/South line | Feet from the East/West line County 19 22 SOUTH 32 EAST, N.M.P.M. 128' NORTH 1300' WEST LEA 1 Bottom Hole Location If Different From Surface UL or lot no. Section Township Lot Idn Feet from the North/South line Feet from the East/West line County 32 EAST, N.M.P.M. 30 22 SOUTH 20' SOUTH 1000' WEST LEADedicated Acres Joint or Infill Consolidation Code Order No.

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.



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Inten	t	As Dril	led										
API#													
Ope	rator Nai	me:				Propert	y Nam	ne:					Well Number
/ick (	Off Doint	(KOD)											
UL	Off Point Section	Township	Range	Lot	Feet	Fro	m N/S	Feet		From	E/W	County	
Latitu	nde				Longitu	ıde						NAD	
irst <sup>-</sup>	Гаке Poir	nt (FTP)											
UL	Section	Township	Range	Lot	Feet	Fro	m N/S	Feet		From	E/W	County	
Latitu	ıde	l		1	Longitu	ıde		L				NAD	
UL Latitu	Section	t (LTP)  Township	Range	Lot	Feet Longitu	From N/	'S Fe	eet	From E/		Count	у	
Lutite	Juc				Longito	, uc					147.15		
s this	s well the	defining v	vell for th	ie Hori	zontal Sp	pacing Ur	nit?						
s this	s well an	infill well?											
					_								
	ll is yes p ng Unit.	lease provi	ide API if	availal	ble, Opei	rator Nan	ne and	d well n	umber f	or D	efinir	ng well fo	or Horizontal
API#													
Ope	rator Nai	me:	1			Propert	y Nan	ne:					Well Number

KZ 06/29/2018

Asel Surveying P.O. BOX 393 - 310 W. TAYLOR

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#### OXY USA INC. LOST TANK "30\_19" FEDERAL COM #41H SITE PLAN FAA PERMIT: NO LOST TANK "30\_19" FEDERAL #72H LOST TANK "30\_19" PROPOSED ROAD IS NORTH OF FEDERAL #33H AND PARALLEL TO AN ELECTRIC LINE WITH A TOTAL LENGTH OF 1953.1 FEET WEST LAT.=32.3844346°N LOST TANK "30\_19" $LONG. = -103.7113280^{\circ}W$ LAT.=32.3844226°N WITH WATERBARS EVERY 200' FEDERAL #32H LONG. =-103.7176548°W 20' ADDITIONAL DISTURBANCE AREA SECTION LINE GLO 1/4 B.C. "1916" 3615.2 3607.4 B.C. PROPOSED ROAD IS 287.2 FEET SOUTH THROUGH PASTURE WITH TOP SOIL STOCK PILE 180 WATERBARS EVERY 200' 170 -LAT.=32.3836333°N 3615.3' 3616.0' LONG. =-103.7176498°W 3608.8 PROPOSED ROAD IS LOST TANK "30\_19" 70.8 FEET SOUTHWEST THROUGH PASTURE FEDERAL #11H PROPOSED LAT.=32.3834948°N LOST TANK "30\_19" FEDERAL #1H WELL PAD LONG. =-103.7178109°W LOST TANK "30\_19" FEDERAL #41H ELEV. 3613.5' (NAD 83) LAT.=32.3839088°N LONG.=-103.7187368°W LOST TANK "30\_19" FEDERAL #71H **LEGEND** DENOTES PROPOSED WELL PAD - DENOTES PROPOSED ROAD POFESSIONAL ZZZ - DENOTES STOCK PILE AREA SURVEYORS CERTIFICATE I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR 300' 300' 600' FEET NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS SCALE: 1"=300 TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMIUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW OXY USA INC. MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS. LOST TANK "30\_19" FEDERAL COM #41H LOCATED AT 128' FNL & 1300' FWL IN M.M. R.P.L.S. No. 15079

SECTION 19, TOWNSHIP 22 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

Survey Date: 03/07/19	Sheet 1 of 1 Sheets
<b>W.O. Number:</b> 190307WL-c	Drawn By: KA Rev:
Date: 04/02/19	190307WL-c <b>Scale:</b> 1"=300'



APD ID: 10400049586

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

# Drilling Plan Data Report

**Submission Date: 10/21/2019** 

Operator Name: OXY USA INCORPORATED

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

**Show Final Text** 

# **Section 1 - Geologic Formations**

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
564002	RUSTLER	3614	854	854	ANHYDRITE, DOLOMITE, SHALE	USEABLE WATER	N
564003	SALADO	2467	1147	1147	ANHYDRITE, DOLOMITE, HALITE, SHALE	OTHER : SALT	N
564000	CASTILE	747	2867	2867	ANHYDRITE	OTHER : salt	N
564004	LAMAR	-971	4585	4585	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	N
564005	BELL CANYON	-1054	4668	4668	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER, USEABLE WATER : BRINE	N
564006	CHERRY CANYON	-1884	5498	5498	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	N
564007	BRUSHY CANYON	-3115	6729	6729	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, OTHER : BRINE	N
564001	BONE SPRING	-4866	8480	8500	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
564009	BONE SPRING 1ST	-5959	9573	9608	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
567829	BONE SPRING 2ND	-6590	10204	10250	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
567830	BONE SPRING 3RD	-7599	11213	11272	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y
567831	WOLFCAMP	-8099	11713	11773	SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y

#### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 10M Rating Depth: 12270

Equipment: 13-5/8" 5/10M 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. The 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

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

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 wellhead 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 will be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. 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:**

LostTank30\_19FdCom41H\_ChokeManifold\_20191021094341.pdf

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

LostTank30\_19FdCom41H\_FlexHoseCert\_20191021094350.pdf

LostTank30\_19FdCom41H\_BOP\_20191021094358.pdf

LostTank30\_19FedCom41H\_WellControlPlan\_30DayLetter\_20210112064643.pdf

# **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	904	0	904	3614	2710	904	J-55	54.5	BUTT	1.12 5	1.2	BUOY	1.4	BUOY	1.4
2	INTERMED IATE	12.2 5	7.625	NEW	API	N	0	5548	0	5548		-1934	5548	J-55	26.4	BUTT	1.12 5	1.2	BUOY	1.4	BUOY	1.4
3	INTERMED IATE	9.87 5	7.625	NEW	API	N	5548	11758	5548	11698	-1934	-8084	l	HCL -80	26.4	BUTT	1.12 5	1.2	BUOY	1.4	BUOY	1.4
	PRODUCTI ON	6.75	5.5	NEW	API	N	0	23105	0	12270	3614	-8656	23105	P- 110			1.12 5	1.2	BUOY	1.4	BUOY	1.4

#### Casing Attachments

**Operator Name: OXY USA INCORPORATED** Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H **Casing Attachments** Casing ID: 1 String Type: SURFACE **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s): LostTank30\_19FdCom41H\_CsgCriteria\_20191021094442.pdf Casing ID: 2 String Type: INTERMEDIATE **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s): LostTank30\_19FdCom41H\_CsgCriteria\_20191021094558.pdf Casing ID: 3 String Type: INTERMEDIATE **Inspection Document: Spec Document: Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

LostTank30\_19FdCom41H\_CsgCriteria\_20191021094725.pdf

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

#### **Casing Attachments**

Casing ID: 4 String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

## Casing Design Assumptions and Worksheet(s):

LostTank30\_19FdCom41H\_CsgCriteria\_20191021094824.pdf

LostTank30\_19FdCom41H\_5.500in\_x\_20\_20191021094828.00

LostTank30\_19FdCom41H\_5.500in\_x\_20\_20191021094832.00

LostTank30\_19FdCom41H\_5.500in\_x\_20\_20191021094837.00

2310

5

1125

8

868

1.38

13.2

1198

CI H

20

# **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	904	956	1.33	14.8	1271	100	CI C	Accelerator
INTERMEDIATE	Lead		0	6979	1771	1.92	12.9	3400	10	CIC	Accelerator
INTERMEDIATE	Lead		6979	1175 8	660	1.65	13.2	1089	5	CIH	Retarder, Dispersant, Salt

Retarder, Dispersant,

Salt

Lead

**PRODUCTION** 

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

# **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 (Ibs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
904	1175 8	OTHER: Saturated Brine- Based Mud or Oil-Based Mud	8	10							
1175 8	2310 5	OTHER: Water- Based and/or Oil-Based Mud	9.5	12							
0	904	WATER-BASED MUD	8.6	8.8							

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

# **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 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: 8295 Anticipated Surface Pressure: 5595

Anticipated Bottom Hole Temperature(F): 179

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

Describe:

Contingency Plans geoharzards description:

**Contingency Plans geohazards attachment:** 

# Hydrogen Sulfide drilling operations plan required? YES

#### Hydrogen sulfide drilling operations plan:

LostTank30\_19FdCom41H\_H2S1\_20191021095220.pdf LostTank30\_19FdCom41H\_H2S2\_20191021095225.pdf LostTank30\_19FdCom41H\_H2SEmerCont\_20191021095230.pdf

#### **Section 8 - Other Information**

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

LostTank30\_19FdCom41H\_DirectPlan\_20191021095243.pdf LostTank30\_19FdCom41H\_DirectPlot\_20191021095248.pdf

# Other proposed operations facets description:

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 cancelation cone and not pump the second stage.

OXY requests a variance to cement the 9-5/8 and/or 7-5/8 intermediate casing strings offline, see attached drill plan for additional information.

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

Annular Clearance Variance Request - As per the agreement reached in the Oxy/BLM meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422 annular clearance requirement from

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

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.

Well will be drilled with a walking/skidding operation. Plan to drill the multiple 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 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.

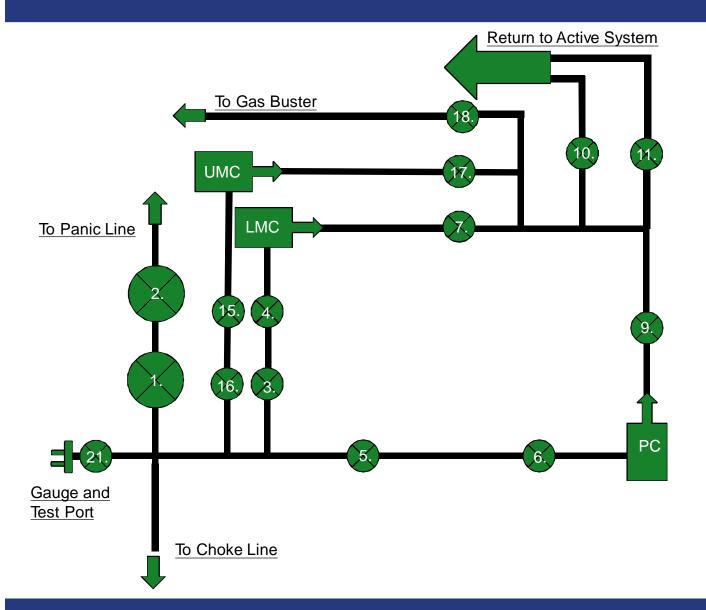
#### Other proposed operations facets attachment:

LostTank30\_19FdCom41H\_SpudRigData\_20191021095314.pdf LostTank30\_19FdCom41H\_DrillPlan\_20191021095326.pdf

#### Other Variance attachment:

LostTank30\_19FdCom1H\_OfflineCmtgDetail\_20190830125441.pdf LostTank30\_19FedCom41H\_WellControlPlan\_30DayLetter\_20210112064750.pdf

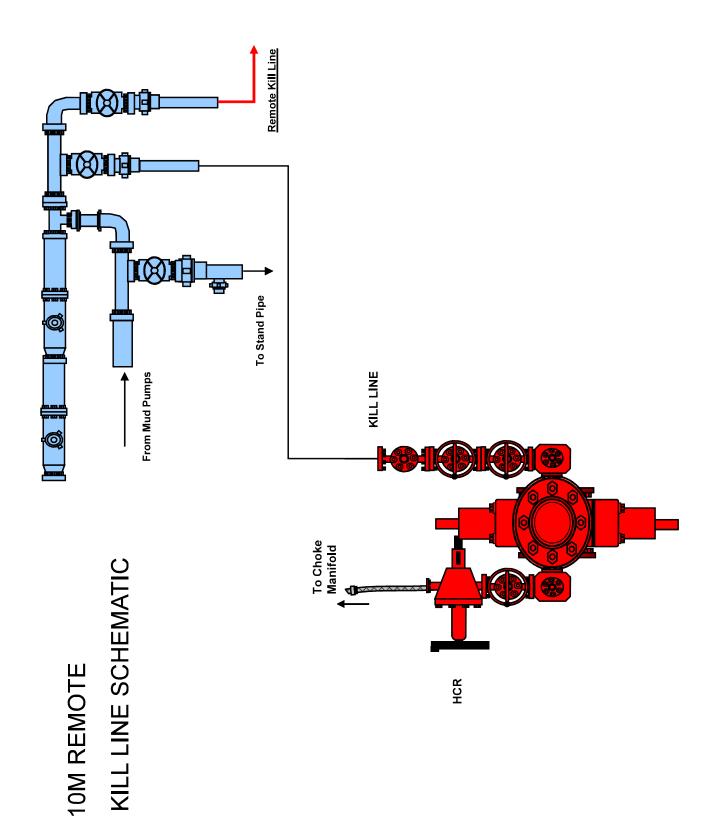
# 10M Choke Panel



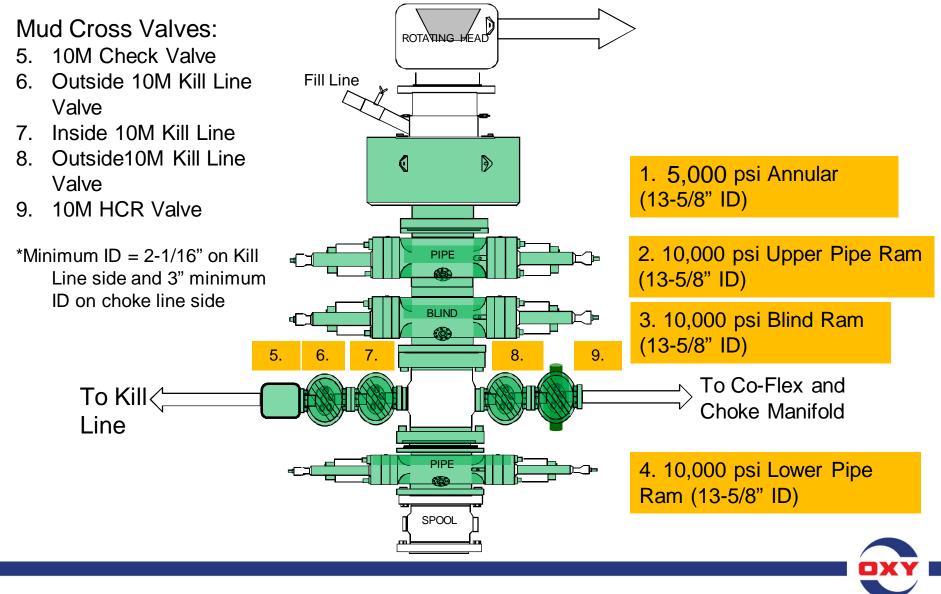
- 1. Choke Manifold Valve
- 2. Choke Manifold Valve
- 3. Choke Manifold Valve
- 4. Choke Manifold Valve
- 5. Choke Manifold Valve
- 6. Choke Manifold Valve
- 7. Choke Manifold Valve
- 8. PC Power Choke
- 9. Choke Manifold Valve
- 10. Choke Manifold Valve
- 11. Choke Manifold Valve
- 12. LMC Lower Manual Choke
- 13. UMC Upper manual choke
- 15. Choke Manifold Valve
- 16. Choke Manifold Valve
- 17. Choke Manifold Valve
- 18. Choke Manifold Valve
- 21. Vertical Choke Manifold Valve

\*All Valves 3" minimum

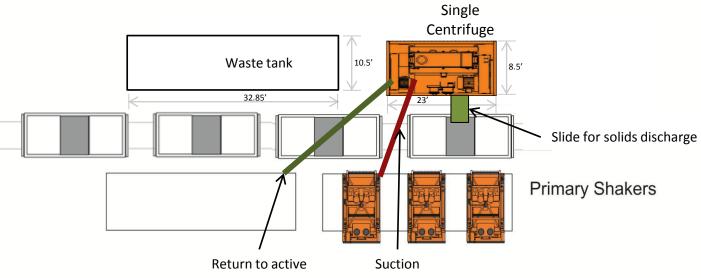




# 5/10M BOP Stack

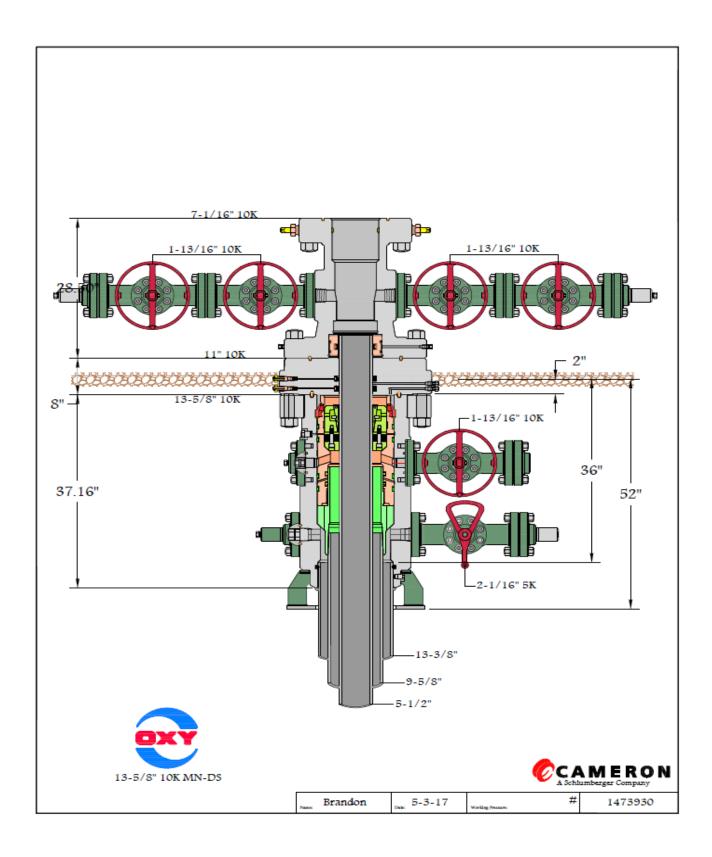






Well Head

Oxy Single Centrifuge Closed Loop System – New Mexico Flex III May 28, 2013



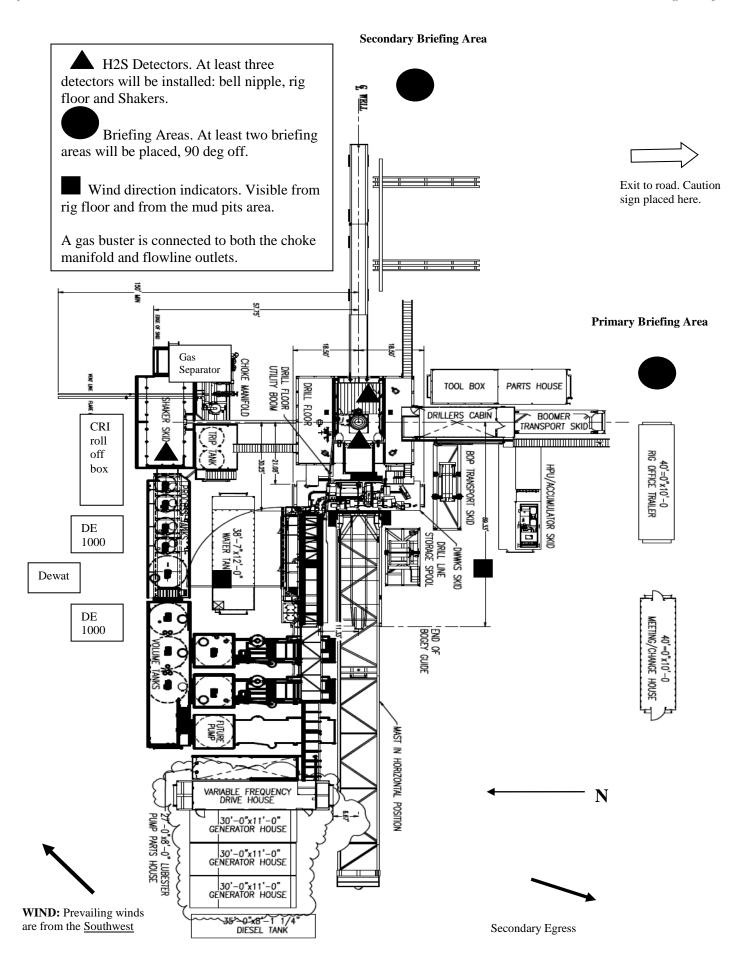


# Permian Drilling Hydrogen Sulfide Drilling Operations Plan Lost Tank 30\_19 Fed Com 71H

Open drill site. No homes or buildings are near the proposed location.

#### 1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.



# OXY

PRD NM DIRECTIONAL PLANS (NAD 1983) LOST TANK 30-19 FED Lost Tank 30\_19 Federal Com 41H

Wellbore #1

Plan: Permitting Plan

# **Standard Planning Report**

16 April, 2019

# Oxy **Planning Report**

Database: HOPSPP

Company: **ENGINEERING DESIGNS** Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site:

LOST TANK 30-19 FED

Well: Wellbore: Lost Tank 30 19 Federal Com 41H

Wellbore #1 Design: Permitting Plan Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

**Survey Calculation Method:** 

Well Lost Tank 30\_19 Federal Com 41H

RKB=26.5' @ 3640.00ft

RKB=26.5' @ 3640.00ft

Grid Minimum Curvature

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System: Geo Datum:

Map Zone:

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone

System Datum:

Mean Sea Level

Using geodetic scale factor

Site LOST TANK 30-19 FED

Site Position: From:

Lat/Long

Northing: Easting:

503,826.03 usft 0.00 usft

Latitude: Longitude: **Grid Convergence:** 

32° 22' 22.416967 N 106° 5' 11.999469 W

-0.94 °

**Position Uncertainty:** 50.00 ft Slot Radius: 13.200 in

**Well Position** 

Well

+N/-S

+E/-W

116.46 ft 730,881.14 ft

Lost Tank 30\_19 Federal Com 41H

Northing: Easting:

503,942.52 usft 731,058.54 usft Latitude: Longitude:

32° 23' 2.071558 N 103° 43' 7.452546 W

**Position Uncertainty** 2.00 ft Wellhead Elevation: 0.00 ft **Ground Level:** 3,613.50 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/16/2019	6.80	60.13	48,078

Design	Permitting Plan					
Audit Notes:						
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(ft)	(ft)	(ft)	(°)	
		0.00	0.00	0.00	181.29	

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			
6,862.00	0.00	0.00	6,862.00	0.00	0.00	0.00	0.00	0.00	0.00			
7,362.03	10.00	335.74	7,359.50	39.68	-17.89	2.00	2.00	0.00	335.74			
10,879.78	10.00	335.74	10,823.79	596.60	-268.93	0.00	0.00	0.00	0.00			
11,857.91	10.00	179.64	11,796.54	589.03	-303.64	2.00	0.00	-15.96	-167.87			
12,657.91	90.00	179.64	12,270.00	24.79	-300.10	10.00	10.00	0.00	0.00	FTP (Lost Tank		
23,105.28	90.00	179.64	12,270.00	-10,422.37	-234.51	0.00	0.00	0.00	0.00	PBHL (Lost Tank		

# **Oxy** Planning Report

Database: HOPSPP Company: ENGINEE

ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: LOST TANK 30-19 FED

Well: Lost Tank 30\_19 Federal Com 41H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Lost Tank 30\_19 Federal Com 41H

RKB=26.5' @ 3640.00ft RKB=26.5' @ 3640.00ft

Grid

Design:	Permitting Plan								
Planned Survey									
Flaillieu 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
2,500.00	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
1									
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
5,500.00	0.00	0.00	0,000.00	0.00	0.00	0.00	0.00	0.00	0.00

# Оху Planning Report

Database: Company:

Project:

HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: LOST TANK 30-19 FED

Well: Lost Tank 30\_19 Federal Com 41H Wellbore: Wellbore #1 Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Lost Tank 30\_19 Federal Com 41H

RKB=26.5' @ 3640.00ft RKB=26.5' @ 3640.00ft

Design:	Permitting Pia	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			
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,862.00	0.00	0.00	6,862.00	0.00	0.00	0.00	0.00	0.00	0.00			
6,900.00	0.76	335.74	6,900.00	0.23	-0.10	-0.23	2.00	2.00	0.00			
7,000.00	2.76	335.74	6,999.95	3.03	-1.37	-3.00	2.00	2.00	0.00			
7,100.00	4.76	335.74	7,099.73	9.01	-4.06	-8.91	2.00	2.00	0.00			
7,200.00	6.76	335.74	7,199.22	18.16	-8.18	-17.97	2.00	2.00	0.00			
7,300.00	8.76	335.74	7,298.30	30.47	-13.73	-30.15	2.00	2.00	0.00			
7,362.03	10.00	335.74	7,359.50	39.68	-17.89	-39.27	2.00	2.00	0.00			
7,400.00	10.00	335.74	7,396.89	45.69	-20.60	-45.22	0.00	0.00	0.00			
7,500.00	10.00	335.74	7,495.37	61.53	-27.73	-60.89	0.00	0.00	0.00			
7,600.00	10.00	335.74	7,593.85	77.36	-34.87	-76.55	0.00	0.00	0.00			
7,700.00	10.00	335.74	7,692.33	93.19	-42.01	-92.22	0.00	0.00	0.00			
7,800.00	10.00	335.74	7,790.81	109.02	-49.14	-107.89	0.00	0.00	0.00			
7,900.00	10.00	335.74	7,889.29	124.85	-56.28	-123.55	0.00	0.00	0.00			
8,000.00	10.00	335.74	7,987.77	140.68	-63.42	-139.22	0.00	0.00	0.00			
8,100.00	10.00	335.74	8,086.25	156.52	-70.55	-154.89	0.00	0.00	0.00			
8,200.00	10.00	335.74	8,184.73	172.35	-77.69	-170.56	0.00	0.00	0.00			
8,300.00	10.00	335.74	8,283.21	188.18	-84.83	-186.22	0.00	0.00	0.00			
8,400.00	10.00	335.74	8,381.69	204.01	-91.96	-201.89	0.00	0.00	0.00			
8,500.00	10.00	335.74	8,480.17	219.84	-99.10	-217.56	0.00	0.00	0.00			
8,600.00	10.00	335.74	8,578.66	235.67	-106.24	-233.23	0.00	0.00	0.00			
8,700.00	10.00	335.74	8,677.14	251.51	-113.37	-248.89	0.00	0.00	0.00			
8,800.00	10.00	335.74	8,775.62	267.34	-120.51	-264.56	0.00	0.00	0.00			
8,900.00	10.00	335.74	8,874.10	283.17	-127.64	-280.23	0.00	0.00	0.00			
9,000.00	10.00	335.74	8,972.58	299.00	-134.78	-295.89	0.00	0.00	0.00			
9,100.00	10.00	335.74	9,071.06	314.83	-141.92	-311.56	0.00	0.00	0.00			
9,200.00	10.00	335.74	9,169.54	330.67	-149.05	-327.23	0.00	0.00	0.00			
9,300.00	10.00	335.74	9,268.02	346.50	-156.19	-342.90	0.00	0.00	0.00			
9,400.00	10.00	335.74	9,366.50	362.33	-163.33	-358.56	0.00	0.00	0.00			
9.500.00	10.00	335.74	9,464.98	378.16	-170.46	-374.23	0.00	0.00	0.00			
9,600.00	10.00	335.74	9,563.46	393.99	-177.60	-389.90	0.00	0.00	0.00			
9,700.00	10.00	335.74	9,661.94	409.82	-184.74	-405.56	0.00	0.00	0.00			
9,800.00	10.00	335.74	9,760.42	425.66	-191.87	-421.23	0.00	0.00	0.00			
9,900.00	10.00	335.74	9,858.90	441.49	-199.01	-436.90	0.00	0.00	0.00			
10,000.00	10.00	335.74	9,957.38	457.32	-206.15	-452.57	0.00	0.00	0.00			
10,100.00	10.00	335.74	10,055.86	473.15	-213.28	-468.23	0.00	0.00	0.00			
10,200.00	10.00	335.74	10,154.34	488.98	-220.42	-483.90	0.00	0.00	0.00			
10,300.00	10.00	335.74	10,252.83	504.81	-227.56	-499.57	0.00	0.00	0.00			
10,400.00	10.00	335.74	10,351.31	520.65	-234.69	-515.24	0.00	0.00	0.00			
10,500.00	10.00	335.74	10,449.79	536.48	-241.83	-530.90	0.00	0.00	0.00			

# **Oxy** Planning Report

Database: HOPSPP Company: ENGINEE

ENGINEERING DESIGNS

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: LOST TANK 30-19 FED

Well: Lost Tank 30\_19 Federal Com 41H

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Lost Tank 30\_19 Federal Com 41H

RKB=26.5' @ 3640.00ft RKB=26.5' @ 3640.00ft

Grid

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)
10,600.00 10,700.00	10.00 10.00	335.74 335.74	10,548.27 10,646.75	552.31 568.14	-248.96 -256.10	-546.57 -562.24	0.00 0.00	0.00 0.00	0.00 0.00
10,800.00 10,879.78	10.00 10.00	335.74 335.74	10,745.23 10,823.79	583.97 596.60	-263.24 -268.93	-577.90 -590.40	0.00 0.00	0.00 0.00	0.00 0.00
10,900.00 11,000.00	9.61 7.67	335.23 331.95	10,843.72 10,942.58	599.74 613.20	-270.36 -276.99	-593.50 -606.81	2.00 2.00	-1.95 -1.94	-2.52 -3.28
11,100.00	5.77	326.50	11,041.89	623.28	-282.90	-616.76	2.00	-1.90	-5.45
11,200.00 11,300.00	3.97 2.50	315.95 291.06	11,141.53 11,241.37	629.96 633.23	-288.09 -292.53	-623.32 -626.49	2.00 2.00	-1.80 -1.47	-10.54 -24.89
11,400.00	2.18	241.10	11,341.30	633.10	-296.24	-626.27	2.00	-0.32	-49.96
11,500.00 11,600.00	3.35 5.07	206.23 191.98	11,441.19 11,540.92	629.55 622.60	-299.20 -301.41	-622.66 -615.67	2.00 2.00	1.17 1.72	-34.87 -14.25
11,700.00 11,800.00	6.94 8.87	185.14 181.22	11,640.36 11,739.41	612.26 598.53	-302.87 -303.57	-605.29 -591.55	2.00 2.00	1.87 1.93	-6.84 -3.92
11,857.91	10.00	179.64	11,796.54	589.03	-303.64	-582.05	2.00	1.95	-2.73
11,900.00 12,000.00	14.21 24.21	179.64 179.64	11,837.68 11,931.99	580.21 547.35	-303.58 -303.38	-573.23 -540.39	10.00 10.00	10.00 10.00	0.00 0.00
12,100.00	34.21	179.64	12,019.17	498.61	-303.07	-491.67	10.00	10.00	0.00
12,200.00 12,300.00	44.21 54.21	179.64 179.64	12,096.55 12,161.80	435.48 359.87	-302.67 -302.20	-428.56 -352.98	10.00 10.00	10.00 10.00	0.00 0.00
12,400.00	64.21	179.64	12,212.93	274.08	-301.66	-267.22	10.00	10.00	0.00
12,500.00	74.21	179.64	12,248.38	180.71	-301.07	-173.89	10.00	10.00	0.00
12,600.00 12,657.91	84.21 90.00	179.64 179.64	12,267.08 12,270.00	82.60 24.79	-300.46 -300.10	-75.82 -18.03	10.00 10.00	10.00 10.00	0.00 0.00
12,700.00	90.00	179.64	12,270.00	-17.30	-299.83	24.04	0.00	0.00	0.00
12,800.00 12,900.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-117.29 -217.29	-299.20 -298.58	123.99 223.95	0.00 0.00	0.00 0.00	0.00 0.00
13,000.00 13,100.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-317.29 -417.29	-297.95 -297.32	323.91 423.87	0.00 0.00	0.00 0.00	0.00 0.00
13,200.00	90.00	179.64	12,270.00	-517.29	-296.69	523.83	0.00	0.00	0.00
13,300.00	90.00	179.64	12,270.00	-617.28	-296.06	623.79	0.00	0.00	0.00
13,400.00 13,500.00	90.00	179.64 179.64	12,270.00 12,270.00	-717.28 -817.28	-295.44 -294.81	723.75 823.70	0.00 0.00	0.00 0.00	0.00 0.00
13,600.00	90.00	179.64	12,270.00	-917.28	-294.01	923.66	0.00	0.00	0.00
13,700.00	90.00	179.64	12,270.00	-1,017.28	-293.55	1,023.62	0.00	0.00	0.00
13,800.00 13,900.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-1,117.27 -1,217.27	-292.93 -292.30	1,123.58 1,223.54	0.00 0.00	0.00 0.00	0.00 0.00
14,000.00	90.00	179.64	12,270.00	-1,317.27	-291.67	1,323.50	0.00	0.00	0.00
14,100.00 14,200.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-1,417.27 -1,517.27	-291.04 -290.42	1,423.46 1,523.41	0.00 0.00	0.00 0.00	0.00 0.00
14,300.00	90.00	179.64	12,270.00	-1,617.26	-289.79	1,623.41	0.00	0.00	0.00
14,400.00	90.00	179.64	12,270.00	-1,717.26	-289.16	1,723.33	0.00	0.00	0.00
14,500.00 14,600.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-1,817.26 -1,917.26	-288.53 -287.90	1,823.29 1,923.25	0.00 0.00	0.00 0.00	0.00 0.00
14,700.00	90.00	179.64	12,270.00	-2,017.26	-287.28	2,023.21	0.00	0.00	0.00
14,800.00 14,900.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-2,117.25 -2,217.25	-286.65 -286.02	2,123.17 2,223.13	0.00 0.00	0.00 0.00	0.00 0.00
15,000.00	90.00	179.64	12,270.00	-2,217.25	-285.39	2,323.08	0.00	0.00	0.00
15,100.00	90.00	179.64	12,270.00	-2,417.25	-284.77	2,423.04	0.00	0.00	0.00
15,200.00	90.00	179.64	12,270.00	-2,517.25 2,617.24	-284.14	2,523.00	0.00	0.00	0.00
15,300.00 15,400.00	90.00 90.00	179.64 179.64	12,270.00 12,270.00	-2,617.24 -2,717.24	-283.51 -282.88	2,622.96 2,722.92	0.00 0.00	0.00 0.00	0.00 0.00
15,500.00	90.00	179.64	12,270.00	-2,817.24	-282.25	2,822.88	0.00	0.00	0.00
15,600.00	90.00	179.64	12,270.00	-2,917.24	-281.63	2,922.84	0.00	0.00	0.00

# **Oxy** Planning Report

Database: Company:

Project:

HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: LOST TANK 30-19 FED

Well: Lost Tank 30\_19 Federal Com 41H
Wellbore: Wellbore #1

Wellbore: Wellbore #1

Design: Permitting Plan

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Lost Tank 30\_19 Federal Com 41H

RKB=26.5' @ 3640.00ft RKB=26.5' @ 3640.00ft

Grid

Design.	remitting Fig	411							
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	179.64	12,270.00	-3,017.24	-281.00	3,022.79	0.00	0.00	0.00
15,800.00	90.00	179.64	12,270.00	-3,117.23	-280.37	3,122.75	0.00	0.00	0.00
15,900.00	90.00	179.64	12,270.00	-3,217.23	-279.74	3,222.71	0.00	0.00	0.00
16,000.00	90.00	179.64	12,270.00	-3,317.23	-279.12	3,322.67	0.00	0.00	0.00
16,100.00	90.00	179.64	12,270.00	-3,417.23	-278.49	3,422.63	0.00	0.00	0.00
16,200.00	90.00	179.64	12,270.00	-3,517.23	-277.86	3,522.59	0.00	0.00	0.00
16,300.00	90.00	179.64	12,270.00	-3,617.22	-277.23	3,622.55	0.00	0.00	0.00
16,400.00	90.00	179.64	12,270.00	-3,717.22	-276.60	3,722.50	0.00	0.00	0.00
16,500.00	90.00	179.64	12,270.00	-3,817.22	-275.98	3,822.46	0.00	0.00	0.00
16,600.00	90.00	179.64	12,270.00	-3,917.22	-275.35	3,922.42	0.00	0.00	0.00
16,700.00	90.00	179.64	12,270.00	-4,017.22	-274.72	4,022.38	0.00	0.00	0.00
16,800.00	90.00	179.64	12,270.00	-4,117.22	-274.09	4,122.34	0.00	0.00	0.00
16,900.00	90.00	179.64	12,270.00	-4,217.21	-273.47	4,222.30	0.00	0.00	0.00
17,000.00	90.00	179.64	12,270.00	-4,317.21	-272.84	4,322.26	0.00	0.00	0.00
17,100.00	90.00	179.64	12,270.00	-4,417.21	-272.21	4,422.21	0.00	0.00	0.00
17,200.00	90.00	179.64	12,270.00	-4,517.21	-271.58	4,522.17	0.00	0.00	0.00
17,300.00	90.00	179.64	12,270.00	-4,617.21	-270.95	4,622.13	0.00	0.00	0.00
17,400.00	90.00	179.64	12,270.00	-4,717.20	-270.33	4,722.09	0.00	0.00	0.00
17,500.00	90.00	179.64	12,270.00	-4,817.20	-269.70	4,822.05	0.00	0.00	0.00
17,600.00	90.00	179.64	12,270.00	-4,917.20	-269.07	4,922.01	0.00	0.00	0.00
17,700.00	90.00	179.64	12,270.00	-5,017.20	-268.44	5,021.97	0.00	0.00	0.00
17,800.00	90.00	179.64	12,270.00	-5,117.20	-267.82	5,121.92	0.00	0.00	0.00
17,900.00	90.00	179.64	12,270.00	-5,217.19	-267.19	5,221.88	0.00	0.00	0.00
18,000.00	90.00	179.64	12,270.00	-5,317.19	-266.56	5,321.84	0.00	0.00	0.00
18,100.00	90.00	179.64	12,270.00	-5,417.19	-265.93	5,421.80	0.00	0.00	0.00
18,200.00	90.00	179.64	12,270.00	-5,517.19	-265.31	5,521.76	0.00	0.00	0.00
18,300.00	90.00	179.64	12,270.00	-5,617.19	-264.68	5,621.72	0.00	0.00	0.00
18,400.00	90.00	179.64	12,270.00	-5,717.18	-264.05	5,721.68	0.00	0.00	0.00
18,500.00	90.00	179.64	12,270.00	-5,817.18	-263.42	5,821.64	0.00	0.00	0.00
18,600.00	90.00	179.64	12,270.00	-5,917.18	-262.79	5,921.59	0.00	0.00	0.00
18,700.00	90.00	179.64	12,270.00	-6,017.18	-262.17	6,021.55	0.00	0.00	0.00
18,800.00	90.00	179.64	12,270.00	-6,117.18	-261.54	6,121.51	0.00	0.00	0.00
18,900.00	90.00	179.64	12,270.00	-6,217.17	-260.91	6,221.47	0.00	0.00	0.00
19,000.00	90.00	179.64	12,270.00	-6,317.17	-260.28	6,321.43	0.00	0.00	0.00
19,100.00	90.00	179.64	12,270.00	-6,417.17	-259.66	6,421.39	0.00	0.00	0.00
19,200.00	90.00	179.64	12,270.00	-6,517.17	-259.03	6,521.35	0.00	0.00	0.00
19,300.00	90.00	179.64	12,270.00	-6,617.17	-258.40	6,621.30	0.00	0.00	0.00
19,400.00	90.00	179.64	12,270.00	-6,717.16	-257.77	6,721.26	0.00	0.00	0.00
19,500.00	90.00	179.64	12,270.00	-6,817.16	-257.14	6,821.22	0.00	0.00	0.00
19,600.00	90.00	179.64	12,270.00	-6,917.16	-256.52	6,921.18	0.00	0.00	0.00
19,700.00	90.00	179.64	12,270.00	-7,017.16	-255.89	7,021.14	0.00	0.00	0.00
19,800.00	90.00	179.64	12,270.00	-7,117.16	-255.26	7,121.10	0.00	0.00	0.00
19,900.00	90.00	179.64	12,270.00	-7,217.15	-254.63	7,221.06	0.00	0.00	0.00
20,000.00	90.00	179.64	12,270.00	-7,317.15	-254.01	7,321.01	0.00	0.00	0.00
20,100.00	90.00	179.64	12,270.00	-7,417.15	-253.38	7,420.97	0.00	0.00	0.00
20,200.00	90.00	179.64	12,270.00	-7,517.15	-252.75	7,520.93	0.00	0.00	0.00
20,300.00	90.00	179.64	12,270.00	-7,617.15	-252.12	7,620.89	0.00	0.00	0.00
20,400.00	90.00	179.64	12,270.00	-7,717.14	-251.49	7,720.85	0.00	0.00	0.00
20,500.00	90.00	179.64	12,270.00	-7,817.14	-250.87	7,820.81	0.00	0.00	0.00
20,600.00	90.00	179.64	12,270.00	-7,917.14	-250.24	7,920.77	0.00	0.00	0.00
20,700.00	90.00	179.64	12,270.00	-8,017.14	-249.61	8,020.72	0.00	0.00	0.00
20,800.00	90.00	179.64	12,270.00	-8,117.14	-248.98	8,120.68	0.00	0.00	0.00
20,900.00	90.00	179.64	12,270.00	-8,217.13	-248.36	8,220.64	0.00	0.00	0.00
21,000.00	90.00	179.64	12,270.00	-8,317.13	-247.73	8,320.60	0.00	0.00	0.00

# Оху **Planning Report**

Database: Company: HOPSPP

**ENGINEERING DESIGNS** 

PRD NM DIRECTIONAL PLANS (NAD 1983) Project:

Site: LOST TANK 30-19 FED

Well: Lost Tank 30\_19 Federal Com 41H

Wellbore: Wellbore #1 Design: Permitting Plan Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Lost Tank 30\_19 Federal Com 41H

RKB=26.5' @ 3640.00ft RKB=26.5' @ 3640.00ft

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)
21,100.00	90.00	179.64	12,270.00	-8,417.13	-247.10	8,420.56	0.00	0.00	0.00
21,200.00	90.00	179.64	12,270.00	-8,517.13	-246.47	8,520.52	0.00	0.00	0.00
21,300.00	90.00	179.64	12,270.00	-8,617.13	-245.84	8,620.48	0.00	0.00	0.00
21,400.00	90.00	179.64	12,270.00	-8,717.12	-245.22	8,720.43	0.00	0.00	0.00
21,500.00	90.00	179.64	12,270.00	-8,817.12	-244.59	8,820.39	0.00	0.00	0.00
21,600.00	90.00	179.64	12,270.00	-8,917.12	-243.96	8,920.35	0.00	0.00	0.00
21,700.00	90.00	179.64	12,270.00	-9,017.12	-243.33	9,020.31	0.00	0.00	0.00
21,800.00	90.00	179.64	12,270.00	-9,117.12	-242.71	9,120.27	0.00	0.00	0.00
21,900.00	90.00	179.64	12,270.00	-9,217.11	-242.08	9,220.23	0.00	0.00	0.00
22,000.00	90.00	179.64	12,270.00	-9,317.11	-241.45	9,320.19	0.00	0.00	0.00
22,100.00	90.00	179.64	12,270.00	-9,417.11	-240.82	9,420.15	0.00	0.00	0.00
22,200.00	90.00	179.64	12,270.00	-9,517.11	-240.20	9,520.10	0.00	0.00	0.00
22,300.00	90.00	179.64	12,270.00	-9,617.11	-239.57	9,620.06	0.00	0.00	0.00
22,400.00	90.00	179.64	12,270.00	-9,717.10	-238.94	9,720.02	0.00	0.00	0.00
22,500.00	90.00	179.64	12,270.00	-9,817.10	-238.31	9,819.98	0.00	0.00	0.00
22,600.00	90.00	179.64	12,270.00	-9,917.10	-237.68	9,919.94	0.00	0.00	0.00
22,700.00	90.00	179.64	12,270.00	-10,017.10	-237.06	10,019.90	0.00	0.00	0.00
22,800.00	90.00	179.64	12,270.00	-10,117.10	-236.43	10,119.86	0.00	0.00	0.00
22,900.00	90.00	179.64	12,270.00	-10,217.10	-235.80	10,219.81	0.00	0.00	0.00
23,000.00	90.00	179.64	12,270.00	-10,317.09	-235.17	10,319.77	0.00	0.00	0.00
23,100.00	90.00	179.64	12,270.00	-10,417.09	-234.55	10,419.73	0.00	0.00	0.00
23,105.28	90.00	179.64	12,270.00	-10,422.37	-234.51	10,425.01	0.00	0.00	0.00

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
PBHL (Lost Tank - plan hits target cer - Point	0.00 nter	0.00	12,270.00	-10,422.37	-234.51	493,520.69	730,824.04	32° 21' 18.958092 N	103° 43' 10.884076
FTP (Lost Tank 30_19 - plan hits target cer - Point	0.00 nter	0.00	12,270.00	24.79	-300.10	503,967.31	730,758.46	32° 23′ 2.333908 N	103° 43' 10.950280

lan Annota	itions				
	Measured	Vertical	Local Coor	dinates	
	Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
	6,862.00	6.862.00	0.00	0.00	Build 2.00°/100'
	7,362.03	7,359.50	39.68	-17.89	Hold 10.00° Tangent
	10,879.78	10,823.79	596.60	-268.93	Turn 2.00°/100'
	11,857.91	11,796.54	589.03	-303.64	KOP, Build 10.00°/100'
	12,657.91	12,270.00	24.79	-300.10	Landing Point
	23,105.28	12,270.00	-10,422.37	-234.51	TD at 23105.28' MD

## PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Project: PRD NM DIRECTIONAL PLANS (NAD 1983)

Site: LOST TANK 30-19 FED

Well: Lost Tank 30\_19 Federal Com 41H

Wellbore: Wellbore #1 Design: Permitting Plan Geodetic System: US State Plane 1983 Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level



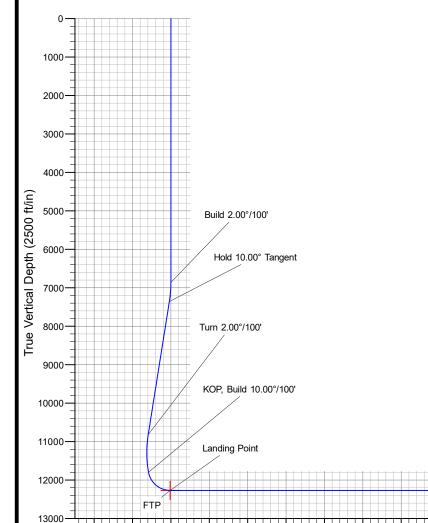
Azimuths to Grid North True North: -0.33° Magnetic North: 6.47°

Magnetic Field Strength: 48078.1snT Dip Angle: 60.13° Date: 4/16/2019 Model: HDGM

WELL DETAILS:	Lost Tank 30_19 Federal Com 41H

+N/-S 0.00 +E/-W Northing 503942.52 Latittude Longitude 103° 43' 7.452545 W Fasting

				S	ECTION D	ETAILS				
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6862.00	0.00	0.00	6862.00	0.00	0.00	0.00	0.00	0.00	Build 2.00°/100'	
7362.03	10.00	335.74	7359.50	39.68	-17.89	2.00	335.74	-39.27	Hold 10.00° Tangent	
10879.78	10.00	335.74	10823.79	596.60	-268.93	0.00	0.00	-590.40	Turn 2.00°/100'	
11857.91	10.00	179.64	11796.54	589.03	-303.64	2.00	-167.87	-582.05	KOP, Build 10.00°/100'	
12657.91	90.00	179.64	12270.00	24.79	-300.10	10.00	0.00	-18.03	Landing Point	
23105.28	90.00	179.64	12270.00	-10422.37	-234.51	0.00	0.00	10425.01	TD at 23105.28' MD	

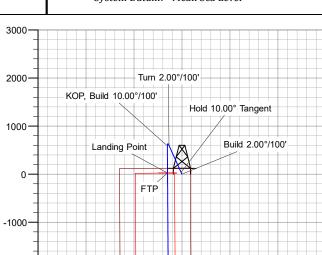


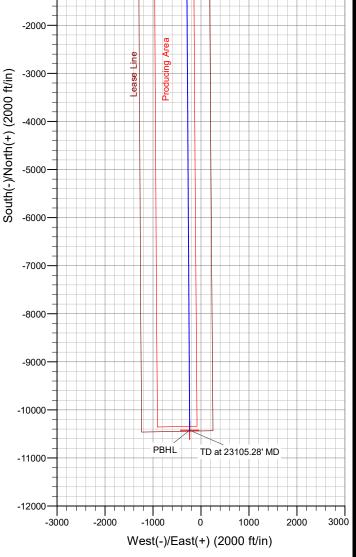
2000

4000

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6000





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#### Oxy USA Inc. - Lost Tank 30 19 FED COM 41H

1. Geologic Formations

TVD of target	12270'	Pilot Hole Depth	N/A
MD at TD:	23105'	Deepest Expected fresh water:	854'

#### **Delaware Basin**

Formation	TVD - RKB	<b>Expected Fluids</b>
Rustler	854	
Salado	1,147	Salt
Castile	2,867	Salt
Lamar/Delaware	4,585	Oil/Gas/Brine
Bell Canyon	4,668	Oil/Gas/Brine
Cherry Canyon	5,498	Oil/Gas/Brine
Brushy Canyon	6,729	Losses
Bone Spring	8,480	Oil/Gas
1st Bone Spring	9,571	Oil/Gas
2nd Bone Spring	10,204	Oil/Gas
3rd Bone Spring	11,213	Oil/Gas
Wolfcamp	11,713	Oil/Gas

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

## 2. Casing Program

									Buoyant	Buoyant
Hole Size (in)	Casing Int	Csg. Size	Weight	Grade	C	SF	SF Burst	Body SF	Joint SF	
	From (ft)	To (ft)	(in)	(lbs)	Grade	Conn.	Collapse	SF Burst	Tension	Tension
17.5	0	904	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	5548	7.625	26.4	L-80 HC	BTC	1.125	1.2	1.4	1.4
9.875	5548	11758	7.625	26.4	L-80 HC	BTC	1.125	1.2	1.4	1.4
6.75	0	23105	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
	-	SF Value	s will meet o	or Exceed						

The planned well design is to drill a 12-1/4" hole past the deepest injector in the area (~5,600-6200').

- A) If there is H2S/Flow, Oxy requests the option to set a 9-5/8" contingency string and cement to surface. An 8.5" hole will then be drilled to the originally planned ICP and 7-5/8" 26.4# FJxSF casing will be set and cemented to 500ft above the previous shoe.
- B) If no flow/H2S is seen, the 12-1/4" hole will be continued until ROP falls (expected 6200-7800'). At this point the hole size will be switched to 9-7/8".

# **Contingency Casing:**

									Buoyant	Buoyant	
Hala Sina (in)	Casing Int	terval	Csg. Size	Weight	Condo	Comm	SF	SF Burst	Body SF	Joint SF	
Hole Size (in)	From (ft)	To (ft)	(in)	(lbs)	Grade Conn.		) Grade	Collapse	Sr Burst	Tension	Tension
17.5	0	904	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4	
12.25	0	5,548	9.625	40	L-80	BTC	1.125	1.2	1.4	1.4	
8.5	0	11758	7.625	26.4	L-80 HC	SF (0 ft to ~ 5548 ft) FJ (~5548ft to 11758 ft)	1.125	1.2	1.4	1.4	
6.75	0	23105	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4	
	· ·					_	SF Value	s will meet o	r Exceed		

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

## **Annular Clearance Variance Request**

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

# Oxy USA Inc. - Lost Tank 30\_19 FED COM 41H

As per the agreement reached in the Oxy/BLM 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 <sup>rd</sup> 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 <sup>nd</sup> 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?	

3. Cementing Program

nting 110g1am						
Casing String	# Sks	Wt.	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	956	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate 1st Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 1st Stage (Tail)	660	13.2	1.65	8.640	11:54	Class H Cement, Retarder, Dispersant, Salt
Intermediate 2nd Stage (Tail Slurry) to be pumped as Bradenhead Squeeze from surface, down the Intermediate annulus						
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	1771	12.9	1.92	10.41	23:10	Class C Cement, Accelerator
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	868	13.2	1.38	6.686	3:39	Class H Cement, Retarder, Dispersant, Salt

Oxy USA Inc. - Lost Tank 30 19 FED COM 41H

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	904	100%
Intermediate 1st Stage (Lead)	N/A	N/A	N/A
Intermediate 1st Stage (Tail)	6979	11758	5%
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	0	6979	10%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	11258	23105	20%

# **Contingency Casing Cement Job:**

									Buoyant	Buoyant
H-1-6' (')	Casing Int	erval	Csg. Size	Weight	C. I.	G	SF	CE D	Body SF	Joint SF
Hole Size (in)	From (ft)	To (ft)	(in)	(lbs) Grade	Grade Conn.		Collapse	SF Burst	Tension	Tension
17.5	0	904	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	5,548	9.625	40	L-80	BTC	1.125	1.2	1.4	1.4
8.5	0	11758	7.625	26.4	L-80 HC	SF (0 ft to ~ 5548 ft) FJ (~5548ft to 11758 ft)	1.125	1.2	1.4	1.4
6.75	0	23105	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
			-		-		SF Value	es will meet o	or Exceed	

		51 V	alues will meet or Exceed
Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	904	100%
Intermediate (Lead)	0	5048	50%
Intermediate (Tail)	5048	5548	20%
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	6979	11758	5%
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	5900	6979	25%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	11258	23105	20%

\*Note: Oxy requests option to cement 2<sup>nd</sup> Intermediate Casing (7-5/8") with a conventional cement job rather than two stage bradenhead squeeze if formation integrity test shows adequate strength. In this case, the Tail would be a 13.2ppg from 2<sup>nd</sup> Intermediate Casing point to 500ft above shoe. Lead would be a 11.0ppg from 500ft above shoe to 500ft above previous casing shoe.

Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

The summarized operational sequence will be as follows:

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
- 2. Land casing.
- 3. Fill pipe with kill weight fluid, and confirm well is static.
  - a. If well is not static notify BLM and kill well.
  - b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
- 4. Set and pressure test annular packoff.

# Oxy USA Inc. - Lost Tank 30\_19 FED COM 41H

- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange.
- 8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
- 9. Install offline cement tool.
- 10. Rig up cement equipment.
  - a. Notify BLM prior to cement job.
- 11. Perform cement job.
- 12. Confirm well is static and floats are holding after cement job.
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре	Туре		Туре		Tested to:
		3M	Annular		✓	70% of working pressure		
12.25" Hole	13-5/8"		Blind Ra	am	✓			
12.25 Hote		3M	Pipe Ram			250 psi / 3000 psi		
			Double Ram		✓			
			Other*					
	5M Annular		ır	✓	70% of working pressure			
6.75" Hole	13-5/8"		Blind Ram		✓			
0./3 Hole		10M	Pipe Ram			250 psi / 10000 psi		
		10101	Double R	lam	✓	230 psi / 10000 psi		
			Other*					

<sup>\*</sup>Specify if additional ram is utilized.

Per BLM's Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see attached Well Control Plan.

Oxy will utilize a 5M annular with a 10M BOPE stack. The 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?

## Oxy USA Inc. - Lost Tank 30\_19 FED COM 41H

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**

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

# 5. Mud Program

Depth		Tymo	Weight	Vigaasity	Water Loss	
From (ft)	To (ft)	Туре	(ppg)	Viscosity	water Loss	
0	904	Water-Based Mud	8.6-8.8	40-60	N/C	
904	11758	Saturated Brine- Based or Oil-Based Mud	8.0-10.0	35-45	N/C	
11758	23105	Water-Based or Oil- Based Mud	9.5-12.0	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

6. Logging and Testing Procedures

Logg	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				

#### Oxy USA Inc. - Lost Tank 30 19 FED COM 41H

Addi	tional 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	8295 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	179°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 (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S 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.

	1
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation	
Will the well be drilled with a walking/skidding operation? If yes, describe.	
• We plan to drill the six 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.	
Will more than one drilling rig be used for drilling operations? If yes, describe.	Yes
<ul> <li>Oxy requests the option to contract a Surface Rig to drill, set surface casing,</li> </ul>	
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.	

Total estimated cuttings volume: 2036.4 bbls.

#### 9. Company Personnel

Name	<u>Title</u>	Office Phone	Mobile Phone
John Rodriguez	Drilling Engineer	713-513-6641	361-759-4650
William Turner	Drilling Engineer Supervisor	713-350-4951	661-817-4586
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
John Willis	Drilling Manager	713-366-5556	713-259-1417

OXY USA Inc. APD Attachment Offline Cementing

OXY respectfully requests a variance to cement the 9-5/8" and/or 7-5/8" intermediate casing strings offline.

The summarized operational sequence will be as follows:

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
- 2. Land casing.
- 3. Fill pipe with kill weight fluid, and confirm well is static.
  - a. If well is not static notify BLM and kill well.
  - b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
- 4. Set and pressure test annular packoff.
- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange.
- 8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
- 9. Install offline cement tool.
- 10. Rig up cement equipment.
  - a. Notify BLM prior to cement job.
- 11. Perform cement job.
- 12. Confirm well is static and floats are holding after cement job.
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

#### OXY USA Inc - Well Control Plan -

## A. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the >5M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Pilot Hole and/or Lateral Sections, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
HWDP	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
Drill collars and MWD tools	4-3/4" – 5-1/2"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
Mud Motor	4-3/4"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
Production casing	5-1/2"	Lower 3-1/2 - 5-1/2" VBR	10M
		Upper 3-1/2 - 5-1/2" VBR	
ALL	0" - 13-5/8"	Annular	5M
Open-hole	6-3/4"	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.

HWDP = Heavy Weight Drill Pipe

MWD = Measurement While Drilling

#### **B.** Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the Bottom Hole Assembly (BHA) through the Blowout Preventers (BOP). The pressure at which control is swapped from the annular to another compatible ram will occur when the anticipated pressure is approaching or envisioned to exceed 70% of the 5M annular Rated Working Pressure (RWP) or 3500 PSI.

### General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position).
- 5. Confirm shut-in
- 6. Notify tool pusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or expected to reach 70% of the annular RWP during kill operations, crew will reconfirm spacing and swap to the upper pipe ram

#### OXY USA Inc - Well Control Plan -

# **General Procedure While Tripping**

- 1. Sound alarm (alert crew)
- 2. Stab full opening safety valve and close
- 3. Space out drill string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position)
- 5. Confirm shut-in
- 6. Notify tool pusher/company representative
- 7. Read and record the following
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan
  - e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram

## General Procedure While Running Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full opening safety valve and close
- 3. Space out string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position).
- 5. Confirm shut-in
- 6. Notify tool pusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan.
  - e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

## General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position)
- 3. Confirm shut-in
- 4. Notify tool pusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

### **OXY USA Inc - Well Control Plan -**

### General Procedures While Pulling BHA thru Stack

- 1. PRIOR to pulling last joint of drill pipe thru the stack.
  - a. Perform flow check, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper pipe ram
  - e. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
  - f. Confirm shut-in
  - g. Notify tool pusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
    - iv. Regroup and identify forward plan
- 2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the compatible pipe ram
  - d. Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify tool pusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
    - iv. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario
  - c. If impossible to pick up high enough to pull the string clear of the stack
  - d. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
  - e. Space out drill string with tool joint just beneath the upper pipe ram
  - f. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
  - g. Confirm shut-in
  - h. Notify tool pusher/company representative
  - i. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
- j. Regroup and identify forward plan



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

SUPO Data Report

**APD ID:** 10400049586

Well Type: OIL WELL

Submission Date: 10/21/2019

Highlighted data reflects the most recent changes

Operator Name: OXY USA INCORPORATED

Well Name: LOST TANK 30-19 FEDERAL COM

Well Number: 41H

Show Final Text

Well Work Type: Drill

# **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

LostTank30\_19FdCom41H\_ExistRoads\_20191021095342.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

#### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

**New Road Map:** 

LostTank30\_19FdCom41H\_NewRoads\_20191021095401.pdf

New road type: LOCAL

Length: 2279

Feet

Width (ft.): 25

Max slope (%): 0

Max grade (%): 0

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Watershed Diversion every 200' if needed.

New road access plan or profile prepared? Y

New road access plan attachment:

LostTank30\_19FdCom41H\_NewRoads\_20191021095453.pdf

Access road engineering design? N

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 0

Offsite topsoil source description:

Onsite topsoil removal process: If available

Access other construction information: None

Access miscellaneous information: A new access road will be built. The access road will run approximately 1422 west, 369.2' south, and 50' southwest from an existing road to the southeast corner of the location. A new access road to the Lost Tank 18 CTB will follow the surveyed route; survey of a strip of land 30 wide and 103.3 (0.02mi) in length crossing USA land in section 17 & 18, T22S, R32E, NMPM, Lea County, NM, and being 15 left and 15 right of centerline survey. A new access road to the Lost Tank 24 CGL pad will run approximately 124.1 (0.024mi) in length crossing USA land in section 24, T22S, R31E, NMPM, Eddy County, NM and being 15 left and 15 right of the centerline survey. A new access road to the Lost Tank 19 CGL pad will run approximately 210.6 (0.04mi) in length crossing USA land in section 19, T22S, R32E, NMPM, Lea County, NM, and being 25 left and 25 right of the centerline survey. \*25'-construction width 14'-travel width unless otherwise specified on survey\*

Number of access turnouts: Access turnout map:

# **Drainage Control**

New road drainage crossing: CULVERT

Drainage Control comments: Watershed Diversion every 200' if needed.

Road Drainage Control Structures (DCS) description: Watershed Diversion every 200' if needed.

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

**Access Additional Attachments** 

## **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

Attach Well map:

LostTank30\_19FdCom41H\_ExistWells\_20191021095551.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** a. In the event the wells are found productive, the Lost Tank 18 CTB will be utilized and the necessary production equipment will be installed at the well site. See the proposed Lost Tank 18 CTB pad, flare pad layout diagram (#19110887). In addition, the Lost Tank 24 CGL, the Lost Tank 19 CGL and the Lost Tank 19 Sales

Page 2 of 11

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

Compression Station (9.470 acre surface site) will be constructed, see attached pad layouts (#19110826, #19110825, #30.004724.0000). b. A water treatment plant will be constructed for the Lost Tank area, Lost Tank 18 WTP, will include a SWD pipeline that follows the surveyed route. Survey of a strip of land 30 wide and 1492.5 (0.283mi) in length crossing USA land in section 18, T22S, R32E, NMPM, Lea County, NM, and being 15 left and 15 right of the centerline survey. c. All flow lines will adhere to API standards and will follow a route approved by the BLM. Flowlines routed to the Lost Tank 18 CTB will consist of 3-4 composite flowlines per well operating 75% MAWP, lines to follow surveyed route. Survey of a strip of land 30 wide and 6140.9 (1.163mi) in length crossing USA land in sections 17, 18 & 19, T22S, R32E, NMPM, Lea County, NM, and being 15 left and 15 right of the centerline survey. Gas lines consist of 2-8 buried steel gas lines operating 1500psig and 1 buried fiber optic cable, lines to follow surveyed route. Survey of a strip of land 30 wide and 4707.6 (0.892mi) in length crossing USA land in section 24, T22S, R32E, NMPM, Eddy County, and sections 18 & 19, T22S, R32E, NMPM, Lea County, NM, and being 15 left and 15 right of the centerline survey. d. Two multi-use ROWs will follow a route approved by the BLM. They will include 1-20 buried composite water line operating 750psig; 1-20 buried steel gas line operating 1500psig; and 1 buried fiber optic cable, lines to follow surveyed route. Survey of a strip of land 50 wide and 23,289.8 (4.411mi) in length crossing USA land in sections 17, 18, 19 & 30, T22S, R32E, Lea County and section 13, 24 & 25, T22S, R31E, NMPM, Eddy County, NM and being 25 left and 25 right of centerline survey. Survey of a strip of land 30 wide and 10,643.7 (2.016mi) in length crossing USA land in sections 12 & 13, T22S, R31E, NMPM, Eddy County, NM, and being 15 left and 15 right of the centerline survey. e. Electric lines will follow a route approved by the BLM. Survey a strip of land 30 wide and 24,759.9 (4.689mi) in length crossing USA land in sections 17, 18, 19 & 20, T22S, R32E, NMPM, Lea County, and sections 13 & 24, T22S, R31E, NMPM, Eddy County, NM, and being 15 left and 15 right of centerline survey. An electric line to the Lost Tank 18 CTB will follow the surveyed route. Survey a strip of land 30 wide and 679.3 (0.129mi) in length crossing USA land in section 18, T22S, R32E, NMPM, Lea County, NM, and being 15 left and 15 right of the centerline survey. f. See attached for additional information on the Lost Tank Production Facilities.

**Production Facilities map:** 

LostTank30\_19FdCom41H\_LeaseFacilityInfo\_20191021095612.pdf

# **Section 5 - Location and Types of Water Supply**

### **Water Source Table**

Water source type: GW WELL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING

OTHER Describe use type: Drilling

Source latitude: Source longitude:

Source datum:

Water source permit type: WATER WELL

Water source transport method: TRUCKING

**PIPELINE** 

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2000 Source volume (acre-feet): 0.25778618

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

Source volume (gal): 84000

#### Water source and transportation map:

LostTank30\_19FdCom41H\_GRRWtrSrc\_20191021095728.pdf LostTank30\_19FdCom41H\_MesqWtrSrc\_20191021095733.pdf

Water source comments: This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations (Gregory Rockhouse, Mesquite) in the area and will be hauled to location by transport truck using existing and proposed roads.

New water well? N

## **New Water Well Info**

Well latitude: Well Longitude: Well datum:

Well target aquifer:

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

**Aquifer comments:** 

Aquifer documentation:

Well depth (ft): Well casing type:

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

New water well casing?

Used casing source:

Drilling method: Drill material:

Grout material: Grout depth:

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

Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

**Additional information attachment:** 

## **Section 6 - Construction Materials**

Using any construction materials: YES

Construction Materials description: Primary - All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit or from prevailing deposits found on the location. Will use BLM recommended extra caliche from other locations close by for roads, if available. Secondary - The secondary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cubic yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel: a. The top 6" of topsoil is pushed off and stockpiled along the side of the location. b. An approximate 120' X 120' area is used within the proposed well site to remove caliche. c. Subsoil is removed and piled alongside the 120' X 120' within the pad site. d. When caliche is found, material will be stockpiled within the pad site to build the location and road. e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road. f. Once the well is drilled the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

of the pad. Caliche will be provided from a pit located in Section 25 T23S R31E. Water will be provided from a frac pond located in Sections 26 T23S R31E.

**Construction Materials source location attachment:** 

# Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water-Based Cuttings, Water-Based Mud, Oil-Based Cuttings, Oil-Based Mud, Produced Water

Amount of waste: 2036.4 barrels

Waste disposal frequency : Daily

Safe containment description: Haul-Off Bins

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

**Disposal location description:** An approved facility that can process drill cuttings, drill fluids, flowback water, produced water, contaminated soils, and other non-hazardous wastes.

## **Reserve Pit**

Reserve Pit being used? N

Temporary disposal of produced water into reserve pit? NO

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

# **Cuttings Area**

Cuttings Area being used? NO

Are you storing cuttings on location? Y

**Description of cuttings location** A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility.

Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

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

**WCuttings** area liner

Cuttings area liner specifications and installation description

Well Number: 41H Well Name: LOST TANK 30-19 FEDERAL COM

# **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities attachment:** 

Comments:

**Section 9 - Well Site Layout** 

**Well Site Layout Diagram:** 

LostTank30\_19FdCom41H\_WellSiteCL\_20191021095808.pdf

Comments: V-Door-East - CL Tanks-North - 280' X 670' - 7 Well Pad - Extend existing well pad east.

# Section 10 - Plans for Surface Reclamation

Multiple Well Pad Name: LOST TANK 30-19 FEDERAL COM Type of disturbance: New Surface Disturbance

Multiple Well Pad Number: 1H, 11H, 32H, 33H, 41H, 71H, 72H

**Recontouring attachment:** 

Drainage/Erosion control construction: Reclamation to be wind rowed as needed to control erosion

Drainage/Erosion control reclamation: Reclamation to be wind rowed as needed to control erosion

Well pad proposed disturbance

(acres): 4.31

Road proposed disturbance (acres):

1.89

Powerline proposed disturbance

(acres): 17.52

Pipeline proposed disturbance

(acres): 31.87

Other proposed disturbance (acres): 0

Total proposed disturbance: 55.59

Well pad interim reclamation (acres):

Powerline interim reclamation (acres):

17.52

Pipeline interim reclamation (acres):

Other interim reclamation (acres): 0

Total interim reclamation: 40.71

Well pad long term disturbance

(acres): 3.38

Road interim reclamation (acres): 1.01 Road long term disturbance (acres):

Powerline long term disturbance

(acres): 0

Pipeline long term disturbance

(acres): 10.62

Other long term disturbance (acres): 0

**Total long term disturbance:** 

14.87999999999999

**Disturbance Comments:** See Below

Reconstruction method: If the well is deemed commercially productive, caliche from the areas of the pad site not required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original topsoil will again be returned to the pad and contoured, as close as possible, to the original topography, and the area will be seeded with

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

an approved BLM mixture to re-establish vegetation.

**Topsoil redistribution:** The original topsoil will be returned to the area of the drill pad not necessary to operate the well.

**Soil treatment:** To be determined by the BLM.

Existing Vegetation at the well pad: To be determined by the BLM at Onsite.

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

Existing Vegetation Community at the road: To be determined by the BLM at Onsite.

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

Existing Vegetation Community at the pipeline: To be determined by the BLM at Onsite.

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

Existing Vegetation Community at other disturbances: To be determined by the BLM at Onsite.

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

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

**Seed Management** 

**Seed Table** 

Seed Summary
Seed Type Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

**Operator Contact/Responsible Official Contact Info** 

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

First Name: Last Name:

Phone: (575)631-2442 Email: Jim\_Wilson@oxy.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

**Existing invasive species treatment attachment:** 

Weed treatment plan description: To be determined by the BLM.

Weed treatment plan attachment:

Monitoring plan description: To be determined by the BLM.

Monitoring plan attachment:

Success standards: To be determined by the BLM.

Pit closure description: NA

Pit closure attachment:

# **Section 11 - Surface Ownership**

Disturbance type: WELL PAD

Describe:

**Surface Owner:** 

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

NPS Local Office:
State Local Office:

Military Local Office:

**USFWS Local Office:** 

Other Local Office:

**USFS** Region:

**USFS Forest/Grassland:** 

**USFS Ranger District:** 

**Operator Name: OXY USA INCORPORATED** Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H Disturbance type: PIPELINE Describe: **Surface Owner:** Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS** Region: **USFS Forest/Grassland: USFS Ranger District:** Disturbance type: OTHER Describe: Electric Line **Surface Owner:** Other surface owner description: **BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office: State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS** Region:

**USFS Ranger District:** 

**USFS Forest/Grassland:** 

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

Disturbance type: NEW ACCESS ROAD

Describe:

**Surface Owner:** 

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

**NPS Local Office:** 

**State Local Office:** 

**Military Local Office:** 

**USFWS Local Office:** 

**Other Local Office:** 

**USFS** Region:

**USFS Forest/Grassland:** 

**USFS Ranger District:** 

# **Section 12 - Other Information**

Right of Way needed? Y

Use APD as ROW? Y

ROW Type(s): 281001 ROW - ROADS, 285003 ROW - POWER TRANS, 288100 ROW - O&G Pipeline, 288101 ROW - O&G Facility Sites, 289001 ROW- O&G Well Pad

**ROW Applications** 

SUPO Additional Information: Permian Basin MOA - To be submitted after APD acceptance. GIS Shapefiles available for BLM download from shared FTP site after APD submittal. Use a previously conducted onsite? N

**Previous Onsite information:** 

**Other SUPO Attachment** 

LostTank30\_19FdCom41H\_SUPO\_20191021100017.pdf

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

LostTank30\_19FdCom41H\_StakeForm\_20191021100023.pdf
LostTank30\_19FdCom41H\_GasCapPlan\_20191021100028.pdf
LostTank30\_19FdCom41H\_MiscSvyPlats\_20191021100038.pdf
LostTank30\_19FedCom41H\_WellControlPlan\_30DayLetter\_20210112064833.pdf

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

Date: 10/8/2019

# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

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

#### GAS CAPTURE PLAN

□ Original		Operator &	OGRID No.: <u>OXY U</u>	SA INC 16	696	
☐ Amended - Reason for Amended	ment:	•				
This Gas Capture Plan outlines ac		e taken by the O	perator to reduce we	ll/production	facility flaring	ng/venting for
new completion (new drill, recomp		-	-	1	•	
Note: Form C-129 must be submitted at				e (Subsection A	of 19.15.18.12	NMAC).
Well(s)/Production Facility - Na				•		,
The well(s) that will be located at t	he produc	tion facility are s	shown in the table bel	ow.		
Well Name	API	Well Location	Footages	Expected	Flared or	Comments
		(ULSTR)		MCF/D	Vented	
Lost Tank 30-19 Federal Com 2H	Pending	C-19-22S-32E	303 FNL 1822 FWL	1728	0	
Lost Tank 30-19 Federal Com 11H	Pending	D-19-22S-32E	128 FNL 1200 FWL	2760	0	
Lost Tank 30-19 Federal Com 12H	Pending	C-19-22S-32E	338 FNL 1762 FWL	2760	0	
Lost Tank 30-19 Federal Com 13H	Pending	C-19-22S-32E	288 FNL 1848 FWL	2760	0	
Lost Tank 30-19 Federal Com 21H	Pending	C-19-22S-32E	391 FNL 1671 FWL	2375	0	
Lost Tank 30-19 Federal Com 22H	Pending	C-19-22S-32E	373 FNL 1701 FWL	2375	0	
Lost Tank 30-19 Federal Com 23H	Pending	C-19-22S-32E	356 FNL 1731 FWL	2375	0	
Lost Tank 30-19 Federal Com 32H	Pending	D-19-22S-32E	128 FNL 1335 FWL	3418	0	
Lost Tank 30-19 Federal Com 33H	Pending	D-19-22S-32E	128 FNL 1370 FWL	3418	0	
Lost Tank 30-19 Federal Com 41H	Pending	D-19-22S-32E	128 FNL 1300 FWL	7244	0	
Lost Tank 30-19 Federal Com 42H	Pending	C-19-22S-32E	321 FNL 1792 FWL	7244	0	

#### **Gathering System and Pipeline Notification**

Pending

Pending

D-19-22S-32E

D-19-22S-32E

Lost Tank 30-19 Federal Com 71H

Lost Tank 30-19 Federal Com 72H

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 the production facility currently flows to Enterprise Field Services, LLC ("Enterprise") and is connected to Enterprise's low pressure gathering system located in Eddy, New Mexico. OXY USA INC. ("OXY") may also install compression and deliver to Enterprise's high pressure network and/or to DCP Midstream, LP ("DCP"). It will require 10,600' of pipeline to connect the facility to Enterprise's high pressure gathering system and 1,960' of pipeline to connect the facility to DCP's high pressure gathering system. OXY provides (periodically) to Enterprise and DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, OXY, Enterprise, and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Enterprise's Processing Plant located in Sec. 23, Twn. 21S, Rng. 23E, Eddy County, New Mexico or DCP's Processing Plant located in Sec. 30, 31, Twn. 22S, Rng. 32E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

128 FNL 1270 FWL

128 FNL 1405 FWL

2584

2584

0

0

#### 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 Enterprise's or DCP's systems 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
  - o Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease
  - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



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

PWD Data Report

PWD disturbance (acres):

**Operator Name: OXY USA INCORPORATED** 

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

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:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

**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:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

**Unlined pit Monitor description:** 

**Unlined pit Monitor attachment:** 

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

**TDS lab results:** 

Geologic and hydrologic evidence:

State authorization:

**Unlined Produced Water Pit Estimated percolation:** 

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

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

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):

Well Name: LOST TANK 30-19 FEDERAL COM Well Number: 41H

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

APD ID: 10400049586

**Operator Name: OXY USA INCORPORATED** 

Well Name: LOST TANK 30-19 FEDERAL COM

Well Type: OIL WELL

Submission Date: 10/21/2019

Highlighted data reflects the most recent changes

**Show Final Text** 

Well Number: 41H

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:

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 23807

#### **CONDITIONS OF APPROVAL**

Operator:		OGRID:	Action Number:	Action Type:
OXY USA INC P.O. Box 4294	Houston, TX772104294	16696	23807	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string