

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION

ACCEPTED FOR RECORD

AUG 3 2015

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

RECEIVED

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM94651
2. Name of Operator OXY USA INCORPORATED		6. If Indian, Allottee or Tribe Name
Contact: DAVID STEWART		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 5 GREENWAY PLAZA STE 110 HOUSTON, TX 77046-0521	3b. Phone No. (include area code) Ph: 432.685.5717	8. Well Name and No. CEDAR CANYON 28 FEDERAL 6H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 28 T24S R29E NESE 1870FSL 200FEL		9. API Well No. 30-015-43234
		10. Field and Pool, or Exploratory PIERCE CROSSING
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original APD
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

OXY USA Inc. respectfully requests approval for the following changes to the drilling plan:

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

Description of Operations

1. Spudder rig contractor Transcend Drilling will move in their rig to drill the surface hole and pre-set surface casing on all of the wells on a given pad.
- a. After drilling each surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- b. Rig will utilize fresh water based mud to drill 14-3/4" surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.

Accepted for record  
LSD NMOCD 8/12/15

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #309875 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER SANCHEZ on 07/23/2015 (15JAS0435SE)	
Name (Printed/Typed) DAVID STEWART	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 07/22/2015
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
Conditions of approval, if any, are attached. Approval of this notice 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.	Office _____
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.	

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

**Additional data for EC transaction #309875 that would not fit on the form**

**32. Additional remarks, continued**

2. The wellhead will be installed and tested as soon as the 10-3/4" surface casing is cut off and the WOC time has been reached.

3. A blind flange as the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves. A means for intervention will be maintained while the drilling rig is not over the well.

4. Spudder rig operations is expected to take 2-3 days on a single well pad and 7-10 days on a four well pad.

5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.

6. Drilling operation will start with a larger rig and an approved BOP stack will be nipped up and tested on the wellhead before drilling operations resumes on each well.

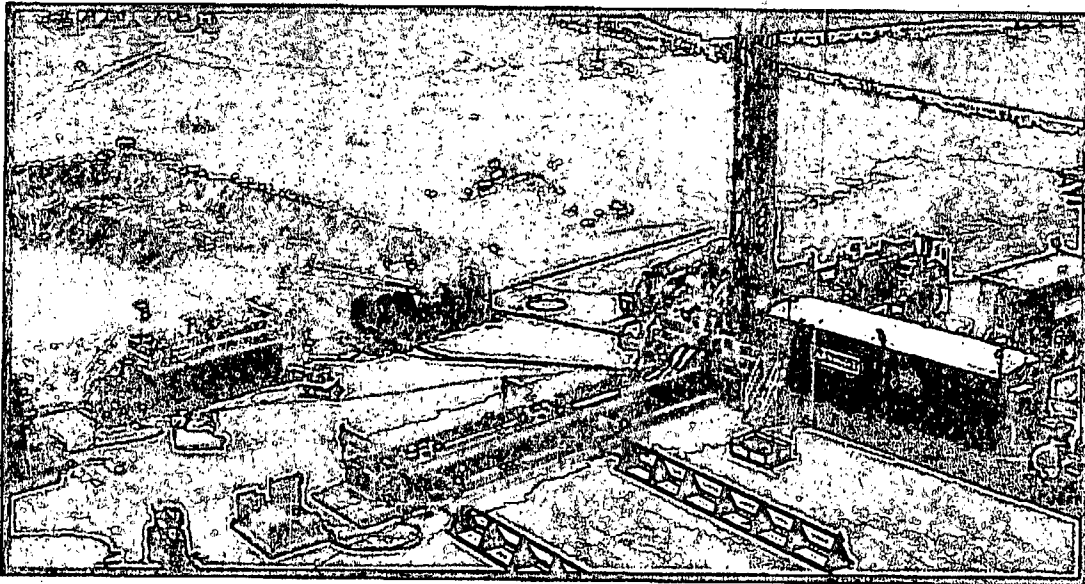
a. On multi-well pads the rig will skid and move as each well is drilled and casing run and cemented to TD as planned.

b. The BLM will be contacted/notified 24 hours before the larger rig moves back on the pre-set locations.

7. Oxy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.

# TRANSCEND DRILLING

Transcend Drilling is a drilling contractor that specializes in pre-setting surface casing in the Permian Basin. With a fleet of two Atlas Copco top drive rigs, we have completed various projects for customers since we began operations in 2010. Drilling depths range from 300'-2,300'. Casing sizes range from 8 5/8" to 13 3/8".



## 2012

TD Rig #1 had 131 well starts while drilling and running surface casing with total feet drilled at over 171,000'.

## 2013

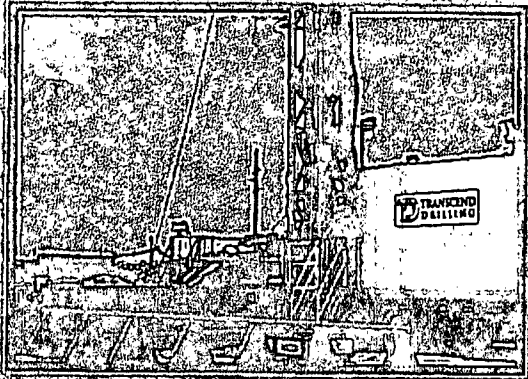
TD Rig #1 has had 120 well starts and drilled over 150,000 feet in the area; throughout the first three quarters of the year. With the addition of TD Rig #2, it's operations have seen similar success and performance.

Keith Boyd  
Drilling Manager  
432-438-5889 (Cell)  
kboyd@transcendrig.com

Kerry Nicholson  
Drilling Superintendent  
432-557-1628 (Cell)  
knicholson@transcendrig.com

## Rig Summaries

In most of the over 400 wells we have pre-set casing on, we have drilled with fluid. However, both rigs are capable of drilling with air or fluid.



### TD Rig #1

Atlas Copco RD20-III - 755 HP top drive includes 120,000 pounds of pullback. This rig is also accompanied by a state of the art ABL (Automatic Pipe Loader) and casing handling system.

### TD Rig #2

Atlas Copco RD20-III-XG - 755 HP top drive includes 120,000 pounds of pullback. This rig includes an added safety feature that allows for a hands free tip out hydraulic lift, elevator & slip system.

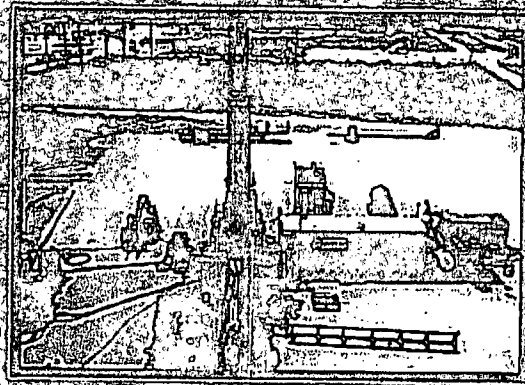
## Performance

Over the last few years, Transcend Drilling has developed a reputation second to none in the industry. We have had spud to release times in as little as eight hours, while deeper wells usually take less than 48 hours. Our mobilization times also average just a few hours. Both rigs work 24 hours a day and have four to five men crews and two pushers on location.

Our strategic alliances allow us to perform a variety of operations which include surface drilling, rat & mouse holes, pit lining and more.

## Personnel

Keith Boyd joined Transcend Drilling in 2013. He comes to the company with an extensive background in drilling throughout the Permian Basins as well as other areas. Keith was with a large contract drilling company for over 25 years prior to joining the Transcend Drilling team. His knowledge of various drilling conditions is a beneficial tool to our customers as we work to provide cost savings solutions.



## Safety

The most important component to our operation is safety. On every single job, our main goal is zero incidents. We have a very clean safety record with no lost time accidents. We require JSAs throughout every step of a job, as well as during mobilization. Safety meetings are held every shift change and during the well process. We have developed and maintained a culture among all of our employees that fosters safety first.

## **Transcend Rig #2**

### **Supplemental Rig Information**

#### **TOP DRIVE**

**Model:** 4SF-2-12 spur gear head

**RPM:** 0 to 120

**Torque:** 8,000 ft-lb. (10,848 N-m) maximum

**Swivel:** 3 in. (76-mm) swivel with chevron packing

**Piping:** Circulation piping rated at 3,000 psi (10.3 MPa) working pressure. 3 in. (76 mm) manifold provided for auxiliary compressor and booster connection. Remotely operated main air valve and blow down valves.

#### **TOP DRIVE CASING RUNNING ADAPTER**

This includes bales and casing elevators that can safely and efficiently handle casing up to 13 3/8".

#### **PIPE HANDLING SYSTEM**

The hydraulically powered pipe changer holds one 4-1/2 in. (114 mm) drill pipe and one 5-1/2 in. (140 mm) drill collar. The loader is set up to handle 30 ft. (9.14 m) long drill pipe or drill collars

#### **PETOL FLOOR TONG**

**Type:** Hydraulically powered, self-adjusting

**Rating:** 20,000 ft-lb. (27,120 N-m) torque with torque gauge in console

#### **POWER TRAIN**

**Standard:** Cummins QSK-19C

**HP/RP:** 755 hp / 563 KW @ 1,800 RPM

#### **POWER PLANT GENERATOR SYSTEM**

One 85k generator to run all of Transcend Drilling auxiliary rig related equipment.

#### **MAST**

**RAISING AND LOWERING BY TWIN HYDRAULIC CYLINDERS - RATED 120,000lb**

##### **Dimensions**

**Length:** 61 ft. 11-1/2 in. (18.88 m)

**Width:** 48-1/2 in. (1231.9 mm)

**Depth:** 41 in. (1041.4 mm)

**Top of Table to Spindle:** 51 ft. 6 in. (15.70 m)

**Table to Ground (rig sitting on tires):** 44 in. (1117.6 mm)

**Table to Ground (jacks fully extended):** 92 in. (2336.8 mm)

#### **SUBSTRUCTURE**

The unique RD20III centralizer table folds up and down as the derrick is lowered and raised for travel and drilling operations. The centralizer table has two manually operated stabilizer jacks that provide easy leveling and excellent load support. The table has removable pins that allow it to be opened for casing and drill tool handling. The drilling platform provides a safe, convenient work area with good, clear access. The substructure has a 4 FT drill floor height with 120,00LBS master bushing load.

#### **DRILLER CONTROLS**

A lockable, aluminum cover protects the operator console from vandals and operated by hydraulics.

#### **MUD PUMPS**

The rig has one Gardner Denver PZ-8 Tri-plex. The pump is driven by CAT C15 / Pump has 8" stroke with 6 1/2" liners. Total pump output is 390 gpm.

#### **MUD SYSTEM**

The rig will supply a 150 bbl active (pre mix) system, including one 4 x 4 centrifugal pump.

#### **ADDITIONAL FEATURES:**

Hydraulic links and elevators on top drive

Optional Hydraulic slips for up to 4 in O.D. pipe

17 1/2 in (445 mm) API split master bushings

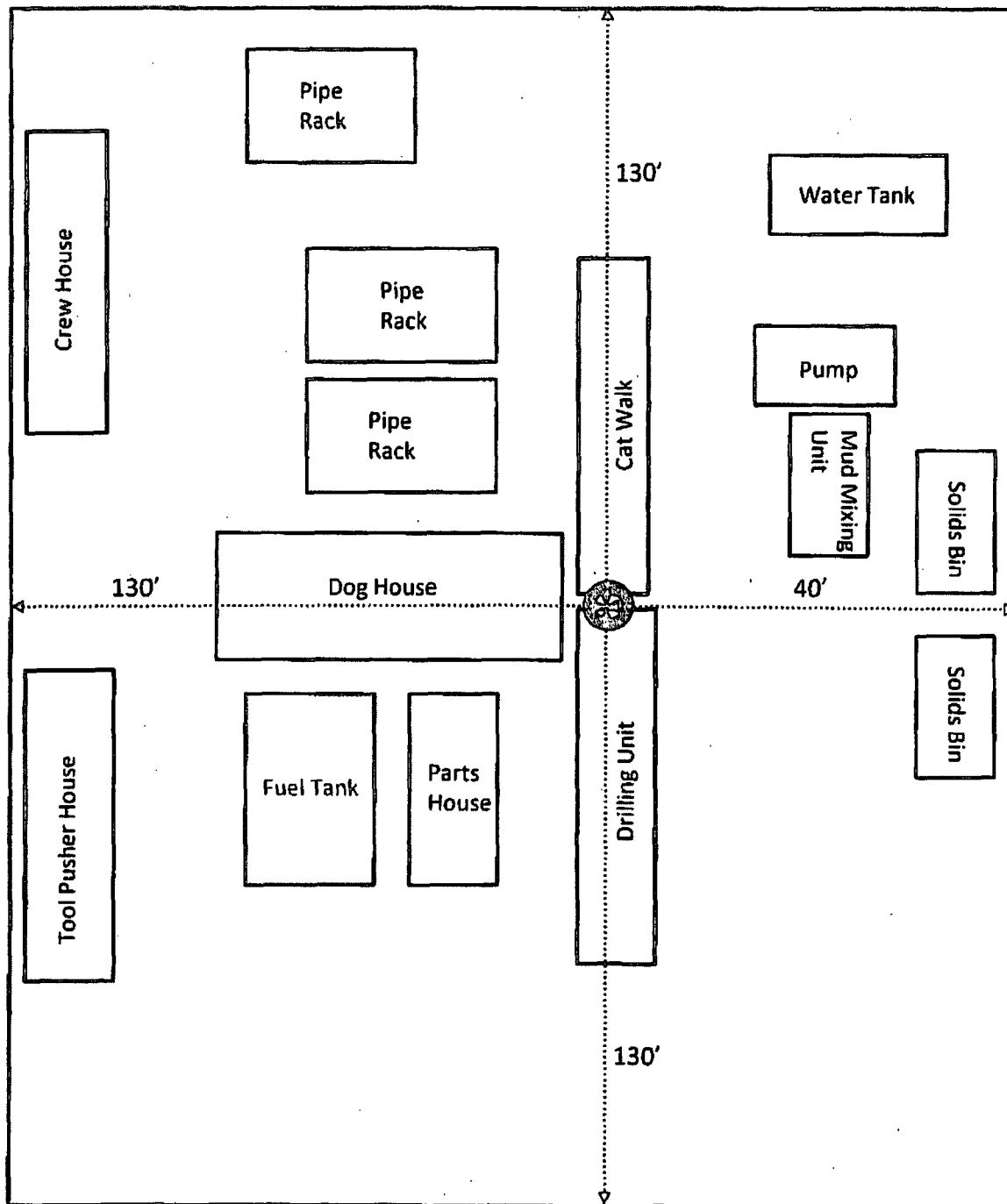
Hydraulic make up and break out wrenches

3,000 psi (206.8 bar) mud piping

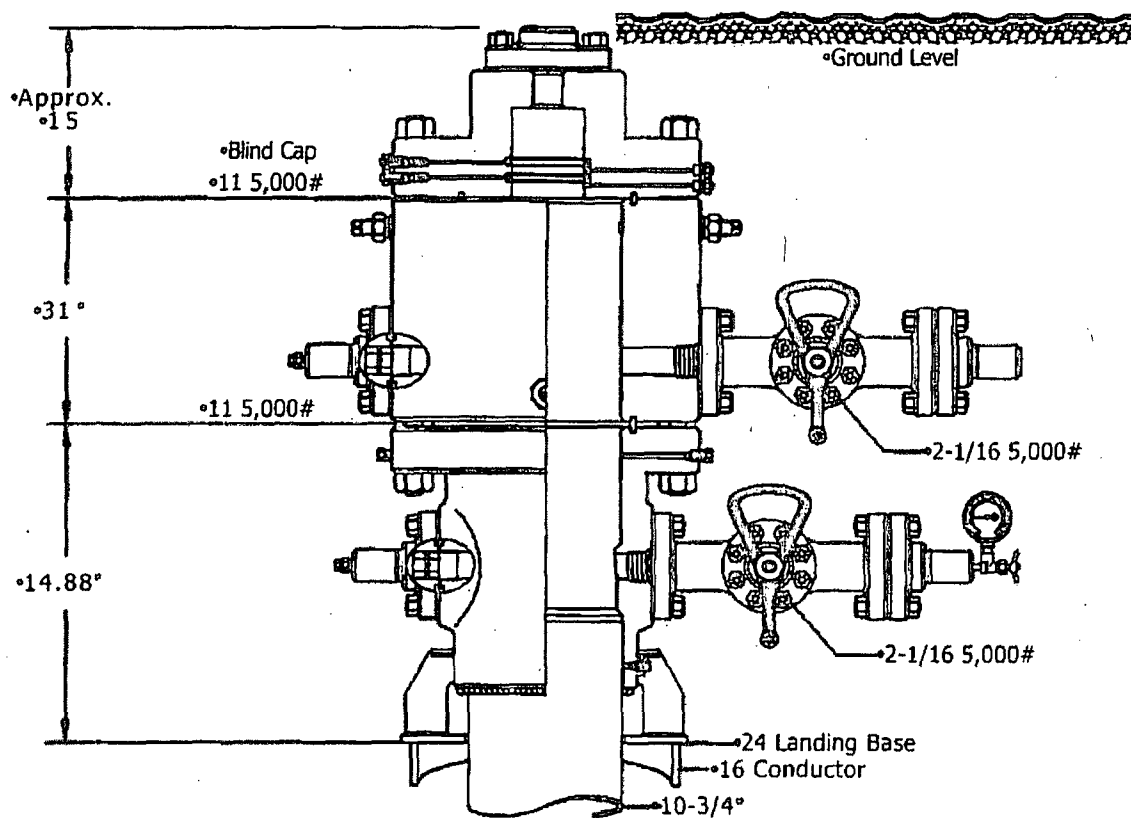
Directional disc brake

# TRANSCEND DRILLING

## Rig #2 Layout (Equipment Layout)



- Note: Dimensional information reflected on this drawing are estimated measurements only.



- 11 5KMBSw/5.5 Mandrel  
Turnkey Spud Rig  
• SENM



• Jeanette	• 6-29-15	• #	• J-9579-2
• Name:	• Date:	• Working Pressure:	

AUG 3 2015

**PECOS DISTRICT  
CONDITIONS OF APPROVAL**

RECEIVED

OPERATOR'S NAME:	OXY USA, Inc
LEASE NO.:	NMNM94651
WELL NAME & NO.:	Cedar Canyon 28 Federal 6H
SURFACE HOLE FOOTAGE:	1820'/S & 240'/E
BOTTOM HOLE FOOTAGE:	1700'/S & 180'/W
LOCATION:	Section 28, T.24 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

**The original COAs still stand with the following drilling modifications:****I. DRILLING****A. DRILLING OPERATIONS 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

1. **Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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.**
2. Setting surface casing with Transcend Drilling Spudder Rig
  - a. Notify the BLM when removing the Transcend Drilling Spudder Rig.
  - b. Notify the BLM when moving in the H&P Flex Rig. Rig to be moved in within 90 days of notification that Transcend Drilling Spudder Rig has left the location. Failure to notify or have rig on location within 90 days will result in an Incident of Non-Compliance.
  - c. Once the H&P Flex Rig is on location, it will drill the Cedar Canyon 28 Federal 6H and 7H and the Cedar Canyon 27 Federal 6H and 7H in conjunction using batch drilling.



- d. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as H&P Flex Rig is rigged up on well. CIT for the surface casing shall be performed and results recorded on subsequent sundry.
3. 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 is located, this does not include the dog house or stairway area.
4. **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.**

## **B. CASING**

**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.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

### **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.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Medium Cave/Karst**

**Possibility of water flows in the Castile and Salado.**

**Possibility of lost circulation in the Rustler, Salado, and Delaware.**

1. The **10-3/4** inch surface casing shall be set at approximately **400** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
  - 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 is to include the lead cement slurry.**
  - 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.

**Formation below the 10-3/4" shoe to be tested according to Onshore Order**

**2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.**

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing, which shall be set at approximately **2900** feet, is:

- ☒ 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.**

**If cement does not circulate to surface on the intermediate casing, the cement on the production casing must come to surface.**

**Formation below the 7-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

**Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.**

3. The minimum required fill of cement behind the 5-1/2 X 4-1/2 inch production casing is:

☒ Cement as proposed by operator. Operator shall provide method of verification. **Excess calculates to 24% - Additional cement may be required.**

4. 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.

### **C. 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. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

Option 1 - BOP testing if wells are drilled conventionally- BOP is not removed between casing strings.

3. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.**
- 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. **Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
- 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.**

**5M 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.**

Option 2 - BOP testing for Batch Drilling-BOP is removed between casing strings

- 4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi. 5M 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.** BOP/BOPE shall be tested after nipple up according to Onshore Order #2.
- 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. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer.**
  - c. 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.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes 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.

#### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### **E. 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.

**JAM 072415**