Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
JUN 07 2019
RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM015091

6. If Indian, Allotee or Tribe Name:

1a. Type of work: [✓] DRILL [ ] REENTER

1b. Type of Well: [✓] Oil Well [ ] Gas Well [ ] Other

1c. Type of Completion: [ ] Hydraulic Fracturing [✓] Single Zone [ ] Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: ROJO 7811 22 FEDERAL COM 27H (322775)

2. Name of Operator: BTA OIL PRODUCERS LLC 260297

9. API Well No.: 30-025-46089

3a. Address: 104 S. Pecos Midland TX 79701

3b. Phone No. *(include area code)*: (432)682-3753

10. Field and Pool, or Exploratory: BOBCAT DRAW / UPPER WOLFCAMP (98054)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SESE / 420 FSL / 1280 FEL / LAT 32.109935 / LONG -103.555792

At proposed prod. zone: NENE / 100 FNL / 990 FEL / LAT 32.123021 / LONG -103.554861

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 22 / T25S / R33E / NMP

14. Distance in miles and direction from nearest town or post office*: 21 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 50 feet

16. No of acres in lease: 840

17. Spacing Unit dedicated to this well: 160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 640 feet

19. Proposed Depth: 12680 feet / 17600 feet

20. BLM/BIA Bond No. in file: FED: NMB000849

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3345 feet

22. Approximate date work will start*: 03/15/2019

23. Estimated duration: 30 days

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Sammy Hajar / Ph: (432)682-3753	11/08/2018

Title: Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	05/24/2019

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

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

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

GCP Rec 06/07/19

APPROVED WITH CONDITIONS

06/07/19

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 05/24/2019

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

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

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160
PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.
ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.
EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

1. SHL: SESE / 420 FSL / 1280 FEL / TWSP: 25S / RANGE: 33E / SECTION: 22 / LAT: 32.109935 / LONG: -103.555792 (TVD: 0 feet, MD: 0 feet)
   PPP: SESE / 330 FSL / 990 FEL / TWSP: 25S / RANGE: 33E / SECTION: 22 / LAT: 32.109688 / LONG: -103.554855 (TVD: 12265 feet, MD: 12281 feet)
   PPP: SENE / 2557 FNL / 851 FEL / TWSP: 25S / RANGE: 33E / SECTION: 22 / LAT: 32.116239 / LONG: -103.554396 (TVD: 12680 feet, MD: 15100 feet)
   BHL: NENE / 100 FNL / 990 FEL / TWSP: 25S / RANGE: 33E / SECTION: 22 / LAT: 32.123021 / LONG: -103.554861 (TVD: 12680 feet, MD: 17600 feet)

BLM Point of Contact

Name: Ciji Methola
Title: GIS Support - Adjudicator
Phone: 5752345924
Email: cmethola@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BTA Oil Producers LLC**
LEASE NO.:	**NMNM015091**
WELL NAME & NO.:	ROJO 7811 22 FEDERAL COM 27H
SURFACE HOLE FOOTAGE:	420'/S & 1280'/E
BOTTOM HOLE FOOTAGE	100'/N & 990'/E
LOCATION:	Section 22, T.25 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	( ) Multibowl	(•) Both
Other	[ ] 4 String Area	[ ] Capitan Reef	[ ] WIPP
Other	[x] Fluid Filled	[ ] Cement Squeeze	[ ] Pilot Hole
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1160 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 minimum required fill of cement behind the **9-5/8** inch intermediate casing shall be set at approximately **5000 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

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.

3. The minimum required fill of cement behind the 7 inch production casing is:

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

4. The minimum required fill of cement behind the **4-1/2** inch production liner is:

- Cement should tie-back **100 feet** into the previous casing. 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 **5000 (5M)** 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 Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, 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.

GENERAL REQUIREMENTS

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

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

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

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

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

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

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

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.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the

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

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

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.

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).

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).

APD ID: 10400035908 **Submission Date:** 11/08/2018

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

Show Final Text

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

APD ID: 10400035908 **Tie to previous NOS?** 10400030894 **Submission Date:** 11/08/2018

BLM Office: CARLSBAD **User:** Sammy Hajar **Title:** Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM015091 **Lease Acres:** 840

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** BTA OIL PRODUCERS LLC

Operator letter of designation:

Operator Info

Operator Organization Name: BTA OIL PRODUCERS LLC

Operator Address: 104 S. Pecos **Zip:** 79701

Operator PO Box:

Operator City: Midland **State:** TX

Operator Phone: (432)682-3753

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BOBCAT DRAW **Pool Name:** UPPER WOLFCAMP

Is the proposed well in an area containing other mineral resources? NONE

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** ROJO 7811 22 FEDERAL COM **Number:** 26-29

Well Class: HORIZONTAL **Number of Legs:**

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 21 Miles **Distance to nearest well:** 640 FT **Distance to lease line:** 50 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Rojo_7811_FED_COM_27H_c102_20181106064935.pdf

Well work start Date: 03/15/2019 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NGVD29

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	[redacted]		[redacted]	FEL	25S	33E	22	Aliquot SESE	32.109935	-103.555792	LEA	NEW MEXICO	NEW MEXICO	F	FEE	3345	0	0
KOP Leg #1	[redacted]		[redacted]	FEL	25S	33E	22	Aliquot SESE	32.109688	-103.554855	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8762	12119	12107
PPP Leg #1	[redacted]		[redacted]	FEL	25S	33E	22	Aliquot SESE	32.109688	-103.554855	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8920	12281	12265

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

	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
PPP Leg #1	255	FNL	661	FEL	25S	33E	22	Aliquot SENE	32.116239	-103.554396	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 015091	-9335	15100	12680
EXIT Leg #1	330	FNL	990	FEL	25S	33E	22	Aliquot NENE	32.122389	-103.554861	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 015091	-9335	17320	12680
BHL Leg #1	330	FNL	990	FEL	25S	33E	22	Aliquot NENE	32.123021	-103.554861	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 015091	-9335	17600	12680

10M_choke_mannifold_20190326145956.pdf

Choke_Hose___Test_Chart_and_Specs_20190326145957.pdf

5M_annular_well_control_plan_for_BLM_20190326150012.docx

BLM_10M_BOP_with_5M_annular_20190326150013.pdf

10M_annular_variance_20190326150012.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	1040	0	1040			1040	J-55	54.5	STC	2.5	6.1	DRY	9.1	DRY	15
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5050	0	5050			5050	J-55	40	LTC	1.7	1.5	DRY	2.6	DRY	3.1
3	PRODUCTION	8.75	7.0	NEW	API	N	0	12720	0	12600			12720	P-110	29	LTC	1.4	1.9	DRY	2.2	DRY	2.5
4	LINER	6.125	4.5	NEW	API	N	12090	17600	12078	12680			5510	P-110	13.5	LTC	1.4	2.6	DRY	2	DRY	2.5

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Rojo_27H_Casing_Assumption_20181108081037.JPG

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Rojo_27H_Casing_Assumption_20181108081058.JPG

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Rojo_27H_Casing_Assumption_20181108081105.JPG

Casing ID: 4 **String Type:** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Rojo_27H_Casing_Assumption_20181108081115.JPG

Section 4 - Cement

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	850	690	1.8	13.5	1242	100	Class C	2% CaCl2
SURFACE	Tail		850	1040	200	1.34	14.8	268	100	Class C	2% CaCl2
INTERMEDIATE	Lead		0	4400	1195	2.18	12.7	2605.1	100	Class C	0.5%CaCl2
INTERMEDIATE	Tail		4400	5050	250	1.33	14.8	332.5	25	Class C	1% CaCl2
PRODUCTION	Lead		4050	11220	450	2.99	10.5	1345.5	15	25% Poz 75% Class C	0.4% Fluid Loss
PRODUCTION	Tail		11220	12720	200	1.19	15.6	238	15	Class H	0.2% LT Retarder
LINER	Lead		12090	17600	315	1.86	13.2	585.9	10	25% Poz 75% Class C	0.1% Fluid Loss

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 will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1040	OTHER : FW SPUD	8.3	8.4							

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1040	5050	OTHER : SATURATED BRINE	10	10.2							
5050	12600	OTHER : CUT BRINE	8.6	9.2							
12600	12680	OIL-BASED MUD	11	11.5							

Section 6 - Test, Logging, Coring

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

Drill Stem Tests will be based on geological sample shows.

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

CBL,GR,MUDLOG

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7583 **Anticipated Surface Pressure:** 4793.39

Anticipated Bottom Hole Temperature(F): 183

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:

Rojo_7811_27_Fed_Com___H2S_Equipment_Schematic_03_24_2017_20181105161814.pdf

Rojo_7811_27_Fed_Com___H2S_Plan_03_24_2017_20181105161814.pdf

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Rojo__27H_directional_plan_20181101164053.pdf

Rojo__27H_Wall_plot_20181102084631.pdf

Other proposed operations facets description:

A variance is requested for a Multi Bowl Wellhead. See the attached schematic and running procedure. *All strings will be kept 1/3 full while running.

Other proposed operations facets attachment:

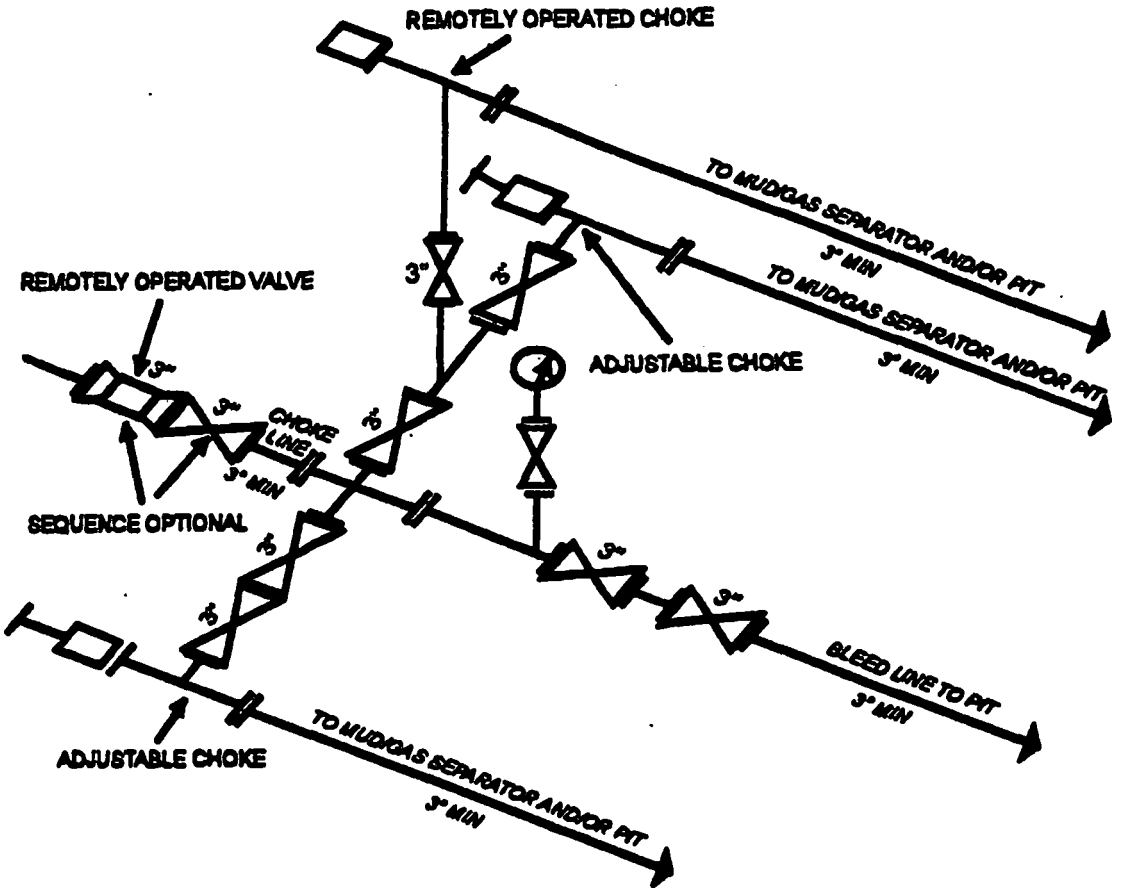
BTA_Oil_Producers_LLC___EMERGENCY_CALL_LIST_9_11_17_20171005093924.pdf

Other Variance attachment:

Multi_Bowl_Diagram_20180420093359_20180810091253.pdf

Rojo_7811_27_Fed_Com___Casing_Head_Running_Procedure_03-24-2017.pdf

27H_Gas_Capture_Plan_20181108140816.pdf



10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
[53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989]

Continental

ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 599/ 2014 Page: 16 / 176

Rig 94 Asset 24455

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1592
PURCHASER: ContiTech Oil & Marine Corp.				P.O. N°: 4500461753
CONTITECH ORDER N°: 539225	HOSE TYPE: 3" ID	Choke & Kill Hose		
HOSE SERIAL N°: [redacted]	NOMINAL / ACTUAL LENGTH:	7,62 m / 7,66 m		
W.P. 68,9 MPa 10000 psi	T.P. 103,4 MPa 15000 psi	Duration: 60 min.		

Pressure test with water at ambient temperature

See attachment. (1 page)

→ 10 Min.

↑ 50 MPa

COUPLINGS Type	Serial N°		Quality	Heat N°	
3" coupling with	2574	5533	AISI 4130	A1582N	H8672
4 1/16" 10K API Swivel Flange end			AISI 4130	58855	
Hub			AISI 4130	A1199N	A1423N

Not Designed For Well Testing **API Spec 16 C**

Fire Rated **Temperature rate:"B"**

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

Date:	Inspector	Quality Control
04. September 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept.

BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Rojo 7811 22 Fed Com #27H
TVD: 12680
MD: 17600

DRILLING PLAN

Casing Program

Hole Size	Csg. Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1040	0	1040	No	54.5	J-55	STC	2.5	6.1	15.0	9.1	Dry	8.3
12 1/4	9 5/8	0	5050	0	5050	No	40	J-55	LTC	1.7	1.5	3.1	2.6	Dry	10
8 3/4	7	0	12720	0	12600	No	29	P110	LTC	1.4	1.9	2.5	2.2	Dry	9.2
6 1/8	4 1/2	12090	17600	12078	12680	No	13.5	P110	LTC	1.4	2.6	2.5	2.0	Dry	11.5

BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: **Rojo 7811 22 Fed Com #27H**
TVD: 12680
MD: 17600

DRILLING PLAN

Casing Program

Hole Size	Csg. Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1040	0	1040	No	54.5	J-55	STC	2.5	6.1	15.0	9.1	Dry	8.3
12 1/4	9 5/8	0	5050	0	5050	No	40	J-55	LTC	1.7	1.5	3.1	2.6	Dry	10
8 3/4	7	0	12720	0	12600	No	29	P110	LTC	1.4	1.9	2.6	2.2	Dry	9.2
6 1/8	4 1/2	12090	17600	12078	12680	No	13.5	P110	LTC	1.4	2.6	2.5	2.0	Dry	11.5

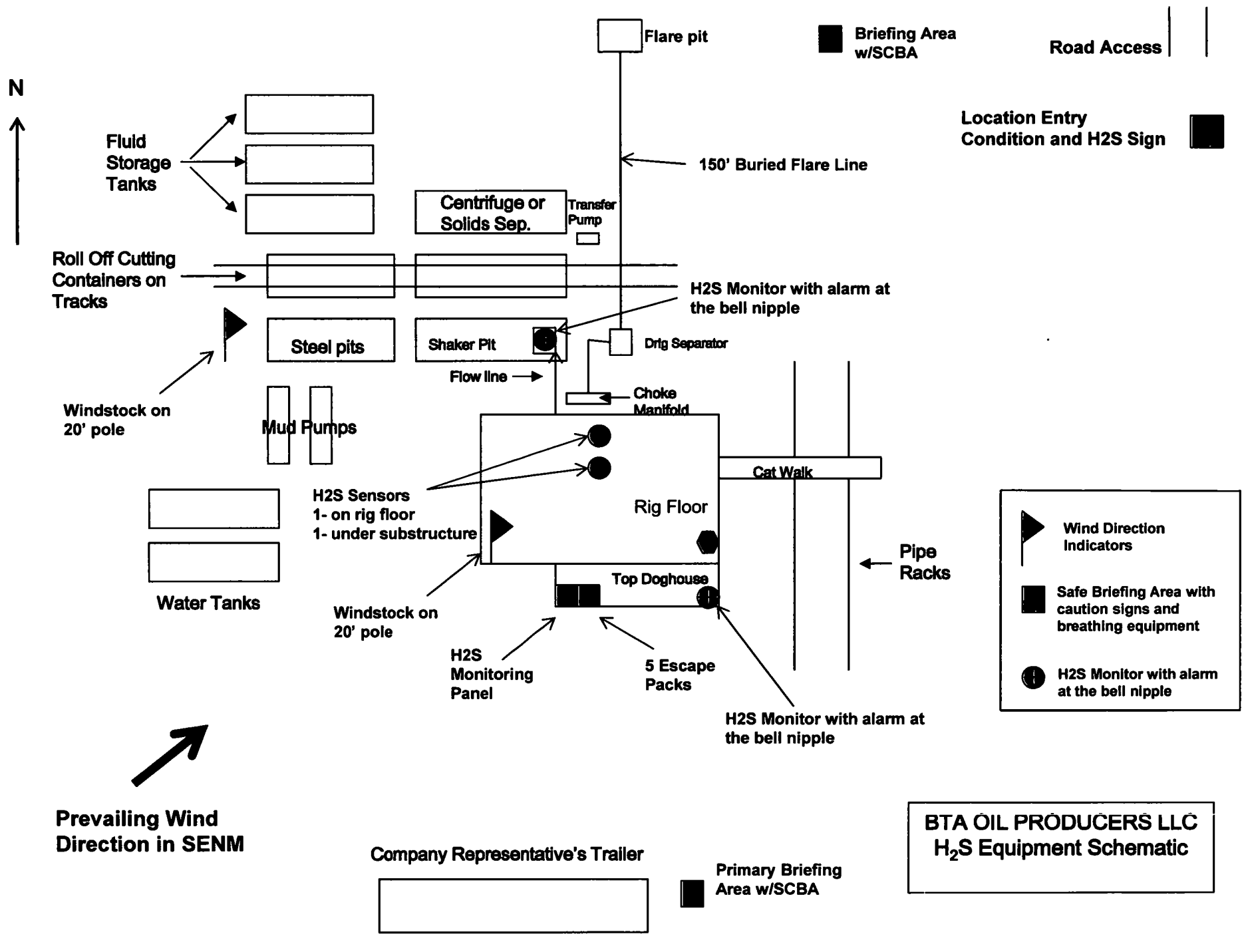
BTA Oil Producers, LLC
104 S Pecos
Midland, TX 79701

WELL: Rojo 7811 22 Fed Com #27H
TVD: 12680
MD: 17600

DRILLING PLAN

Casing Program

Hole Size	Csg. Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
17 1/2	13 3/8	0	1040	0	1040	No	54.5	J-55	STC	2.5	6.1	15.0	9.1	Dry	8.3
12 1/4	9 5/8	0	5050	0	5050	No	40	J-55	LTC	1.7	1.5	3.1	2.6	Dry	10
8 3/4	7	0	12720	0	12600	No	29	P110	LTC	1.4	1.9	2.5	2.2	Dry	9.2
6 1/8	4 1/2	12090	17600	12078	12680	No	13.5	P110	LTC	1.4	2.6	2.5	2.0	Dry	11.5



BTA OIL PRODUCERS LLC
H_2S Equipment Schematic

BTA OIL PRODUCERS LLC

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

a. The hazards and characteristics of hydrogen sulfide (H_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
c. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S equipment.

a. Well Control Equipment:
Flare line.
Choke manifold with remotely operated choke.
Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.
b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
c. H2S detection and monitoring equipment:

2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.

f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

g. Communication:
Company vehicles equipped with cellular telephone.

WARNING

YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

1. ***BEARDS OR CONTACT LENSES NOT ALLOWED***
2. ***HARD HATS REQUIRED***
3. ***SMOKING IN DESIGNATED AREAS ONLY***
4. ***BE WIND CONSCIOUS AT ALL TIMES***
5. ***CK WITH BTA OIL PRODUCERS LLC FOREMAN AT MAIN OFFICE***

BTA OIL PRODUCERS LLC

1-432-682-3753

BTA

Planning Report - Geographic

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Rojo #27H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3345.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3345.0usft
Site:	Rojo	**North Reference:**	Grid
Well:	Rojo #27H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
100.0	0.00	0.00	100.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
200.0	0.00	0.00	200.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
300.0	0.00	0.00	300.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
400.0	0.00	0.00	400.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
500.0	0.00	0.00	500.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
600.0	0.00	0.00	600.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
700.0	0.00	0.00	700.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
800.0	0.00	0.00	800.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
900.0	0.00	0.00	900.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,300.0	0.00	0.00	1,300.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,500.0	0.00	0.00	1,500.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,700.0	0.00	0.00	1,700.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
1,900.0	0.00	0.00	1,900.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,000.0	0.00	0.00	2,000.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,100.0	0.00	0.00	2,100.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,200.0	0.00	0.00	2,200.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,300.0	0.00	0.00	2,300.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,400.0	0.00	0.00	2,400.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,500.0	0.00	0.00	2,500.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,600.0	0.00	0.00	2,600.0	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,626.5	0.00	0.00	2,626.5	0.0	0.0	404,599.00	782,081.00	32° 6' 35.766 N	103° 33' 20.854 W
2,700.0	1.47	143.37	2,700.0	-0.8	0.6	404,598.24	782,081.56	32° 6' 35.758 N	103° 33' 20.848 W
2,776.5	3.00	143.37	2,776.4	-3.2	2.3	404,595.85	782,083.34	32° 6' 35.734 N	103° 33' 20.827 W
2,800.0	3.00	143.37	2,799.9	-4.1	3.1	404,594.86	782,084.08	32° 6' 35.724 N	103° 33' 20.819 W
2,900.0	3.00	143.37	2,899.8	-8.3	6.2	404,590.66	782,087.20	32° 6' 35.683 N	103° 33' 20.783 W
3,000.0	3.00	143.37	2,999.6	-12.5	9.3	404,586.46	782,090.32	32° 6' 35.641 N	103° 33' 20.747 W
3,100.0	3.00	143.37	3,099.5	-16.7	12.4	404,582.26	782,093.44	32° 6' 35.599 N	103° 33' 20.711 W
3,200.0	3.00	143.37	3,199.4	-20.9	15.6	404,578.06	782,096.57	32° 6' 35.557 N	103° 33' 20.675 W
3,300.0	3.00	143.37	3,299.2	-25.1	18.7	404,573.86	782,099.69	32° 6' 35.515 N	103° 33' 20.639 W
3,400.0	3.00	143.37	3,399.1	-29.3	21.8	404,569.66	782,102.81	32° 6' 35.474 N	103° 33' 20.603 W
3,500.0	3.00	143.37	3,498.9	-33.5	24.9	404,565.46	782,105.94	32° 6' 35.432 N	103° 33' 20.567 W
3,600.0	3.00	143.37	3,598.8	-37.7	28.1	404,561.26	782,109.06	32° 6' 35.390 N	103° 33' 20.531 W
3,700.0	3.00	143.37	3,698.7	-41.9	31.2	404,557.06	782,112.18	32° 6' 35.348 N	103° 33' 20.495 W
3,800.0	3.00	143.37	3,798.5	-46.1	34.3	404,552.86	782,115.30	32° 6' 35.307 N	103° 33' 20.459 W
3,900.0	3.00	143.37	3,898.4	-50.3	37.4	404,548.66	782,118.43	32° 6' 35.265 N	103° 33' 20.423 W
4,000.0	3.00	143.37	3,998.3	-54.5	40.6	404,544.46	782,121.55	32° 6' 35.223 N	103° 33' 20.387 W
4,100.0	3.00	143.37	4,098.1	-58.7	43.7	404,540.26	782,124.67	32° 6' 35.181 N	103° 33' 20.351 W
4,200.0	3.00	143.37	4,198.0	-62.9	46.8	404,536.06	782,127.79	32° 6' 35.139 N	103° 33' 20.315 W
4,300.0	3.00	143.37	4,297.8	-67.1	49.9	404,531.86	782,130.92	32° 6' 35.098 N	103° 33' 20.279 W
4,400.0	3.00	143.37	4,397.7	-71.3	53.0	404,527.67	782,134.04	32° 6' 35.056 N	103° 33' 20.243 W
4,500.0	3.00	143.37	4,497.6	-75.5	56.2	404,523.47	782,137.16	32° 6' 35.014 N	103° 33' 20.207 W
4,600.0	3.00	143.37	4,597.4	-79.7	59.3	404,519.27	782,140.29	32° 6' 34.972 N	103° 33' 20.171 W
4,700.0	3.00	143.37	4,697.3	-83.9	62.4	404,515.07	782,143.41	32° 6' 34.931 N	103° 33' 20.135 W
4,800.0	3.00	143.37	4,797.2	-88.1	65.5	404,510.87	782,146.53	32° 6' 34.889 N	103° 33' 20.099 W
4,900.0	3.00	143.37	4,897.0	-92.3	68.7	404,506.67	782,149.65	32° 6' 34.847 N	103° 33' 20.064 W
5,000.0	3.00	143.37	4,996.9	-96.5	71.8	404,502.47	782,152.78	32° 6' 34.805 N	103° 33' 20.028 W
5,100.0	3.00	143.37	5,096.7	-100.7	74.9	404,498.27	782,155.90	32° 6' 34.763 N	103° 33' 19.992 W
5,200.0	3.00	143.37	5,196.6	-104.9	78.0	404,494.07	782,159.02	32° 6' 34.722 N	103° 33' 19.956 W

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Rojo #27H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3345.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3345.0usft
Site:	Rojo	**North Reference:**	Grid
Well:	Rojo #27H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	*Design #1*		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,300.0	3.00	143.37	5,296.5	-109.1	81.2	404,489.87	782,162.15	32° 6' 34.680 N	103° 33' 19.920 W
5,400.0	3.00	143.37	5,396.3	-113.3	84.3	404,485.67	782,165.27	32° 6' 34.638 N	103° 33' 19.884 W
5,500.0	3.00	143.37	5,496.2	-117.5	87.4	404,481.47	782,168.39	32° 6' 34.596 N	103° 33' 19.848 W
5,600.0	3.00	143.37	5,596.1	-121.7	90.5	404,477.27	782,171.51	32° 6' 34.555 N	103° 33' 19.812 W
5,700.0	3.00	143.37	5,695.9	-125.9	93.6	404,473.07	782,174.64	32° 6' 34.513 N	103° 33' 19.776 W
5,800.0	3.00	143.37	5,795.8	-130.1	96.8	404,468.87	782,177.76	32° 6' 34.471 N	103° 33' 19.740 W
5,900.0	3.00	143.37	5,895.7	-134.3	99.9	404,464.67	782,180.88	32° 6' 34.429 N	103° 33' 19.704 W
6,000.0	3.00	143.37	5,995.5	-138.5	103.0	404,460.47	782,184.01	32° 6' 34.387 N	103° 33' 19.668 W
6,100.0	3.00	143.37	6,095.4	-142.7	106.1	404,456.27	782,187.13	32° 6' 34.346 N	103° 33' 19.632 W
6,200.0	3.00	143.37	6,195.2	-146.9	109.3	404,452.07	782,190.25	32° 6' 34.304 N	103° 33' 19.596 W
6,300.0	3.00	143.37	6,295.1	-151.1	112.4	404,447.87	782,193.37	32° 6' 34.262 N	103° 33' 19.560 W
6,400.0	3.00	143.37	6,395.0	-155.3	115.5	404,443.67	782,196.50	32° 6' 34.220 N	103° 33' 19.524 W
6,500.0	3.00	143.37	6,494.8	-159.5	118.6	404,439.47	782,199.62	32° 6' 34.179 N	103° 33' 19.488 W
6,600.0	3.00	143.37	6,594.7	-163.7	121.7	404,435.27	782,202.74	32° 6' 34.137 N	103° 33' 19.452 W
6,700.0	3.00	143.37	6,694.6	-167.9	124.9	404,431.07	782,205.87	32° 6' 34.095 N	103° 33' 19.416 W
6,800.0	3.00	143.37	6,794.4	-172.1	128.0	404,426.87	782,208.99	32° 6' 34.053 N	103° 33' 19.380 W
6,900.0	3.00	143.37	6,894.3	-176.3	131.1	404,422.67	782,212.11	32° 6' 34.011 N	103° 33' 19.344 W
7,000.0	3.00	143.37	6,994.1	-180.5	134.2	404,418.47	782,215.23	32° 6' 33.970 N	103° 33' 19.309 W
7,100.0	3.00	143.37	7,094.0	-184.7	137.4	404,414.27	782,218.36	32° 6' 33.928 N	103° 33' 19.273 W
7,200.0	3.00	143.37	7,193.9	-188.9	140.5	404,410.07	782,221.48	32° 6' 33.886 N	103° 33' 19.237 W
7,300.0	3.00	143.37	7,293.7	-193.1	143.6	404,405.88	782,224.60	32° 6' 33.844 N	103° 33' 19.201 W
7,400.0	3.00	143.37	7,393.6	-197.3	146.7	404,401.68	782,227.73	32° 6' 33.802 N	103° 33' 19.165 W
7,500.0	3.00	143.37	7,493.5	-201.5	149.9	404,397.48	782,230.85	32° 6' 33.761 N	103° 33' 19.129 W
7,600.0	3.00	143.37	7,593.3	-205.7	153.0	404,393.28	782,233.97	32° 6' 33.719 N	103° 33' 19.093 W
7,700.0	3.00	143.37	7,693.2	-209.9	156.1	404,389.08	782,237.09	32° 6' 33.677 N	103° 33' 19.057 W
7,800.0	3.00	143.37	7,793.0	-214.1	159.2	404,384.88	782,240.22	32° 6' 33.635 N	103° 33' 19.021 W
7,900.0	3.00	143.37	7,892.9	-218.3	162.3	404,380.68	782,243.34	32° 6' 33.594 N	103° 33' 18.985 W
8,000.0	3.00	143.37	7,992.8	-222.5	165.5	404,376.48	782,246.46	32° 6' 33.552 N	103° 33' 18.949 W
8,100.0	3.00	143.37	8,092.6	-226.7	168.6	404,372.28	782,249.59	32° 6' 33.510 N	103° 33' 18.913 W
8,200.0	3.00	143.37	8,192.5	-230.9	171.7	404,368.08	782,252.71	32° 6' 33.468 N	103° 33' 18.877 W
8,300.0	3.00	143.37	8,292.4	-235.1	174.8	404,363.88	782,255.83	32° 6' 33.426 N	103° 33' 18.841 W
8,400.0	3.00	143.37	8,392.2	-239.3	178.0	404,359.68	782,258.95	32° 6' 33.385 N	103° 33' 18.805 W
8,500.0	3.00	143.37	8,492.1	-243.5	181.1	404,355.48	782,262.08	32° 6' 33.343 N	103° 33' 18.769 W
8,600.0	3.00	143.37	8,592.0	-247.7	184.2	404,351.28	782,265.20	32° 6' 33.301 N	103° 33' 18.733 W
8,700.0	3.00	143.37	8,691.8	-251.9	187.3	404,347.08	782,268.32	32° 6' 33.259 N	103° 33' 18.697 W
8,800.0	3.00	143.37	8,791.7	-256.1	190.5	404,342.88	782,271.44	32° 6' 33.218 N	103° 33' 18.661 W
8,900.0	3.00	143.37	8,891.5	-260.3	193.6	404,338.68	782,274.57	32° 6' 33.176 N	103° 33' 18.625 W
9,000.0	3.00	143.37	8,991.4	-264.5	196.7	404,334.48	782,277.69	32° 6' 33.134 N	103° 33' 18.589 W
9,100.0	3.00	143.37	9,091.3	-268.7	199.8	404,330.28	782,280.81	32° 6' 33.092 N	103° 33' 18.553 W
9,200.0	3.00	143.37	9,191.1	-272.9	202.9	404,326.08	782,283.94	32° 6' 33.050 N	103° 33' 18.518 W
9,300.0	3.00	143.37	9,291.0	-277.1	206.1	404,321.88	782,287.06	32° 6' 33.009 N	103° 33' 18.482 W
9,400.0	3.00	143.37	9,390.9	-281.3	209.2	404,317.68	782,290.18	32° 6' 32.967 N	103° 33' 18.446 W
9,500.0	3.00	143.37	9,490.7	-285.5	212.3	404,313.48	782,293.30	32° 6' 32.925 N	103° 33' 18.410 W
9,600.0	3.00	143.37	9,590.6	-289.7	215.4	404,309.28	782,296.43	32° 6' 32.883 N	103° 33' 18.374 W
9,700.0	3.00	143.37	9,690.4	-293.9	218.6	404,305.08	782,299.55	32° 6' 32.842 N	103° 33' 18.338 W
9,800.0	3.00	143.37	9,790.3	-298.1	221.7	404,300.88	782,302.67	32° 6' 32.800 N	103° 33' 18.302 W
9,900.0	3.00	143.37	9,890.2	-302.3	224.8	404,296.68	782,305.80	32° 6' 32.758 N	103° 33' 18.266 W
10,000.0	3.00	143.37	9,990.0	-306.5	227.9	404,292.48	782,308.92	32° 6' 32.716 N	103° 33' 18.230 W
10,100.0	3.00	143.37	10,089.9	-310.7	231.0	404,288.28	782,312.04	32° 6' 32.674 N	103° 33' 18.194 W
10,200.0	3.00	143.37	10,189.8	-314.9	234.2	404,284.08	782,315.16	32° 6' 32.633 N	103° 33' 18.158 W
10,300.0	3.00	143.37	10,289.6	-319.1	237.3	404,279.89	782,318.29	32° 6' 32.591 N	103° 33' 18.122 W
10,400.0	3.00	143.37	10,389.5	-323.3	240.4	404,275.69	782,321.41	32° 6' 32.549 N	103° 33' 18.086 W
10,500.0	3.00	143.37	10,489.3	-327.5	243.5	404,271.49	782,324.53	32° 6' 32.507 N	103° 33' 18.050 W
10,600.0	3.00	143.37	10,589.2	-331.7	246.7	404,267.29	782,327.66	32° 6' 32.466 N	103° 33' 18.014 W
10,700.0	3.00	143.37	10,689.1	-335.9	249.8	404,263.09	782,330.78	32° 6' 32.424 N	103° 33' 17.978 W

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Rojo #27H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3345.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3345.0usft
Site:	Rojo	**North Reference:**	Grid
Well:	Rojo #27H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,800.0	3.00	143.37	10,788.9	-340.1	252.9	404,258.89	782,333.90	32° 6' 32.382 N	103° 33' 17.942 W
10,900.0	3.00	143.37	10,888.8	-344.3	256.0	404,254.69	782,337.02	32° 6' 32.340 N	103° 33' 17.906 W
11,000.0	3.00	143.37	10,988.7	-348.5	259.2	404,250.49	782,340.15	32° 6' 32.298 N	103° 33' 17.870 W
11,100.0	3.00	143.37	11,088.5	-352.7	262.3	404,246.29	782,343.27	32° 6' 32.257 N	103° 33' 17.834 W
11,200.0	3.00	143.37	11,188.4	-356.9	265.4	404,242.09	782,346.39	32° 6' 32.215 N	103° 33' 17.798 W
11,300.0	3.00	143.37	11,288.3	-361.1	268.5	404,237.89	782,349.52	32° 6' 32.173 N	103° 33' 17.762 W
11,400.0	3.00	143.37	11,388.1	-365.3	271.6	404,233.69	782,352.64	32° 6' 32.131 N	103° 33' 17.727 W
11,500.0	3.00	143.37	11,488.0	-369.5	274.8	404,229.49	782,355.76	32° 6' 32.090 N	103° 33' 17.691 W
11,600.0	3.00	143.37	11,587.8	-373.7	277.9	404,225.29	782,358.88	32° 6' 32.048 N	103° 33' 17.655 W
11,700.0	3.00	143.37	11,687.7	-377.9	281.0	404,221.09	782,362.01	32° 6' 32.006 N	103° 33' 17.619 W
11,800.0	3.00	143.37	11,787.6	-382.1	284.1	404,216.89	782,365.13	32° 6' 31.964 N	103° 33' 17.583 W
11,900.0	3.00	143.37	11,887.4	-386.3	287.3	404,212.69	782,368.25	32° 6' 31.922 N	103° 33' 17.547 W
11,912.7	3.00	143.37	11,900.1	-386.8	287.7	404,212.16	782,368.65	32° 6' 31.917 N	103° 33' 17.542 W
12,000.0	1.25	143.37	11,987.3	-389.5	289.6	404,209.56	782,370.58	32° 6' 31.891 N	103° 33' 17.520 W
12,062.7	0.00	0.00	12,050.0	-390.0	290.0	404,209.01	782,370.99	32° 6' 31.886 N	103° 33' 17.515 W
12,100.0	0.00	0.00	12,087.3	-390.0	290.0	404,209.01	782,370.99	32° 6' 31.886 N	103° 33' 17.515 W
12,119.7	0.00	0.00	12,107.0	-390.0	290.0	404,209.01	782,370.99	32° 6' 31.886 N	103° 33' 17.515 W
12,200.0	8.03	359.60	12,187.1	-384.4	290.0	404,214.63	782,370.95	32° 6' 31.941 N	103° 33' 17.515 W
12,300.0	18.03	359.60	12,284.4	-361.9	289.8	404,237.14	782,370.79	32° 6' 32.164 N	103° 33' 17.515 W
12,400.0	28.03	359.60	12,376.3	-322.8	289.5	404,276.21	782,370.52	32° 6' 32.551 N	103° 33' 17.515 W
12,500.0	38.03	359.60	12,460.0	-268.4	289.2	404,330.65	782,370.15	32° 6' 33.089 N	103° 33' 17.515 W
12,600.0	48.03	359.60	12,533.0	-200.2	288.7	404,398.80	782,369.67	32° 6' 33.764 N	103° 33' 17.515 W
12,700.0	58.03	359.60	12,593.1	-120.4	288.1	404,478.59	782,369.12	32° 6' 34.553 N	103° 33' 17.514 W
12,800.0	68.03	359.60	12,638.4	-31.4	287.5	404,567.59	782,368.50	32° 6' 35.434 N	103° 33' 17.514 W
12,900.0	78.03	359.60	12,667.5	64.1	286.8	404,663.11	782,367.84	32° 6' 36.379 N	103° 33' 17.514 W
13,000.0	88.03	359.60	12,679.7	163.2	286.2	404,762.24	782,367.15	32° 6' 37.360 N	103° 33' 17.513 W
13,019.7	90.00	359.60	12,680.0	182.9	286.0	404,781.94	782,367.01	32° 6' 37.555 N	103° 33' 17.513 W
13,100.0	90.00	359.60	12,680.0	263.2	285.5	404,862.23	782,366.45	32° 6' 38.350 N	103° 33' 17.513 W
13,200.0	90.00	359.60	12,680.0	363.2	284.8	404,962.23	782,365.76	32° 6' 39.339 N	103° 33' 17.513 W
13,300.0	90.00	359.60	12,680.0	463.2	284.1	405,062.22	782,365.06	32° 6' 40.329 N	103° 33' 17.513 W
13,400.0	90.00	359.60	12,680.0	563.2	283.4	405,162.22	782,364.37	32° 6' 41.319 N	103° 33' 17.512 W
13,500.0	90.00	359.60	12,680.0	663.2	282.7	405,262.22	782,363.67	32° 6' 42.308 N	103° 33' 17.512 W
13,600.0	90.00	359.60	12,680.0	763.2	282.0	405,362.21	782,362.98	32° 6' 43.298 N	103° 33' 17.512 W
13,700.0	90.00	359.60	12,680.0	863.2	281.3	405,462.21	782,362.28	32° 6' 44.287 N	103° 33' 17.511 W
13,800.0	90.00	359.60	12,680.0	963.2	280.6	405,562.20	782,361.59	32° 6' 45.277 N	103° 33' 17.511 W
13,900.0	90.00	359.60	12,680.0	1,063.2	279.9	405,662.20	782,360.90	32° 6' 46.266 N	103° 33' 17.511 W
14,000.0	90.00	359.60	12,680.0	1,163.2	279.2	405,762.19	782,360.20	32° 6' 47.256 N	103° 33' 17.510 W
14,100.0	90.00	359.60	12,680.0	1,263.2	278.5	405,862.19	782,359.51	32° 6' 48.245 N	103° 33' 17.510 W
14,200.0	90.00	359.60	12,680.0	1,363.2	277.8	405,962.18	782,358.81	32° 6' 49.235 N	103° 33' 17.510 W
14,300.0	90.00	359.60	12,680.0	1,463.2	277.1	406,062.18	782,358.12	32° 6' 50.224 N	103° 33' 17.509 W
14,400.0	90.00	359.60	12,680.0	1,563.2	276.4	406,162.17	782,357.42	32° 6' 51.214 N	103° 33' 17.509 W
14,500.0	90.00	359.60	12,680.0	1,663.2	275.7	406,262.17	782,356.73	32° 6' 52.203 N	103° 33' 17.509 W
14,600.0	90.00	359.60	12,680.0	1,763.2	275.0	406,362.16	782,356.03	32° 6' 53.193 N	103° 33' 17.508 W
14,700.0	90.00	359.60	12,680.0	1,863.2	274.3	406,462.16	782,355.34	32° 6' 54.183 N	103° 33' 17.508 W
14,800.0	90.00	359.60	12,680.0	1,963.2	273.7	406,562.15	782,354.64	32° 6' 55.172 N	103° 33' 17.508 W
14,900.0	90.00	359.60	12,680.0	2,063.2	273.0	406,662.15	782,353.95	32° 6' 56.162 N	103° 33' 17.507 W
15,000.0	90.00	359.60	12,680.0	2,163.2	272.3	406,762.14	782,353.25	32° 6' 57.151 N	103° 33' 17.507 W
15,100.0	90.00	359.60	12,680.0	2,263.2	271.6	406,862.14	782,352.56	32° 6' 58.141 N	103° 33' 17.507 W
15,200.0	90.00	359.60	12,680.0	2,363.2	270.9	406,962.13	782,351.87	32° 6' 59.130 N	103° 33' 17.506 W
15,300.0	90.00	359.60	12,680.0	2,463.2	270.2	407,062.13	782,351.17	32° 7' 0.120 N	103° 33' 17.506 W
15,400.0	90.00	359.60	12,680.0	2,563.2	269.5	407,162.12	782,350.48	32° 7' 1.109 N	103° 33' 17.506 W
15,500.0	90.00	359.60	12,680.0	2,663.2	268.8	407,262.12	782,349.78	32° 7' 2.099 N	103° 33' 17.505 W
15,600.0	90.00	359.60	12,680.0	2,763.2	268.1	407,362.11	782,349.09	32° 7' 3.088 N	103° 33' 17.505 W
15,700.0	90.00	359.60	12,680.0	2,863.2	267.4	407,462.11	782,348.39	32° 7' 4.078 N	103° 33' 17.505 W
15,800.0	90.00	359.60	12,680.0	2,963.2	266.7	407,562.10	782,347.70	32° 7' 5.067 N	103° 33' 17.504 W

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Rojo #27H
Company:	BTA Oil Producers, LLC	**TVD Reference:**	GL @ 3345.0usft
Project:	Lea County, NM (NAD 83)	**MD Reference:**	GL @ 3345.0usft
Site:	Rojo	**North Reference:**	Grid
Well:	Rojo #27H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,900.0	90.00	359.60	12,680.0	3,063.2	266.0	407,662.10	782,347.00	32° 7' 6.057 N	103° 33' 17.504 W
16,000.0	90.00	359.60	12,680.0	3,163.2	265.3	407,762.09	782,346.31	32° 7' 7.046 N	103° 33' 17.504 W
16,100.0	90.00	359.60	12,680.0	3,263.2	264.6	407,862.09	782,345.61	32° 7' 8.036 N	103° 33' 17.503 W
16,200.0	90.00	359.60	12,680.0	3,363.2	263.9	407,962.08	782,344.92	32° 7' 9.026 N	103° 33' 17.503 W
16,300.0	90.00	359.60	12,680.0	3,463.2	263.2	408,062.08	782,344.22	32° 7' 10.015 N	103° 33' 17.503 W
16,400.0	90.00	359.60	12,680.0	3,563.2	262.5	408,162.07	782,343.53	32° 7' 11.005 N	103° 33' 17.503 W
16,500.0	90.00	359.60	12,680.0	3,663.2	261.8	408,262.07	782,342.84	32° 7' 11.994 N	103° 33' 17.502 W
16,600.0	90.00	359.60	12,680.0	3,763.2	261.1	408,362.06	782,342.14	32° 7' 12.984 N	103° 33' 17.502 W
16,700.0	90.00	359.60	12,680.0	3,863.2	260.5	408,462.06	782,341.45	32° 7' 13.973 N	103° 33' 17.502 W
16,800.0	90.00	359.60	12,680.0	3,963.2	259.8	408,562.05	782,340.75	32° 7' 14.963 N	103° 33' 17.501 W
16,900.0	90.00	359.60	12,680.0	4,063.2	259.1	408,662.05	782,340.06	32° 7' 15.952 N	103° 33' 17.501 W
17,000.0	90.00	359.60	12,680.0	4,163.1	258.4	408,762.04	782,339.36	32° 7' 16.942 N	103° 33' 17.501 W
17,100.0	90.00	359.60	12,680.0	4,263.1	257.7	408,862.04	782,338.67	32° 7' 17.931 N	103° 33' 17.500 W
17,200.0	90.00	359.60	12,680.0	4,363.1	257.0	408,962.04	782,337.97	32° 7' 18.921 N	103° 33' 17.500 W
17,300.0	90.00	359.60	12,680.0	4,463.1	256.3	409,062.03	782,337.28	32° 7' 19.910 N	103° 33' 17.500 W
17,400.0	90.00	359.60	12,680.0	4,563.1	255.6	409,162.03	782,336.58	32° 7' 20.900 N	103° 33' 17.499 W
17,500.0	90.00	359.60	12,680.0	4,663.1	254.9	409,262.02	782,335.89	32° 7' 21.889 N	103° 33' 17.499 W
17,599.6	90.00	359.60	12,680.0	4,762.7	254.2	409,361.60	782,335.20	32° 7' 22.875 N	103° 33' 17.499 W

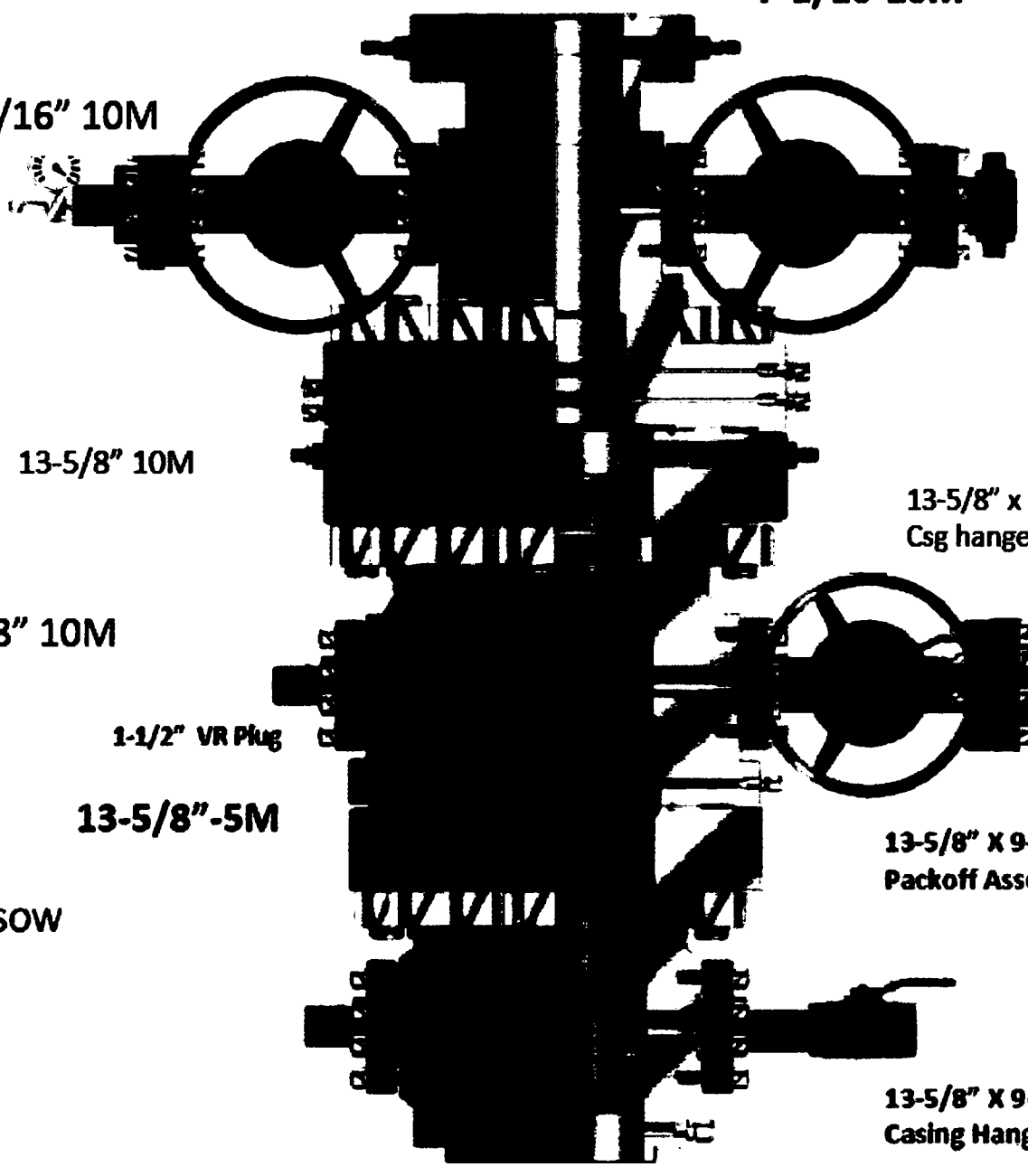
Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Rojo #27H BHL - plan hits target center - Point	0.00	0.00	12,680.0	4,762.7	254.2	409,361.60	782,335.20	32° 7' 22.875 N	103° 33' 17.499 W

Multi-Bowl System

13-5/8" x 9-5/8" x 7"

With 4-1/2" liner downhole



ng head

/8" 10M x 7-1/16" 10M

g spool

8" 5M x 13-5/8" 10M

g Head- MBS

"-5M X 13-3/8" SOW

Uncontrolled Copy

WFT Casing Head (Slip on Weld with O-Ring) Running Procedure

Publication RP-001

October 21, 2010

Recommended Procedure for Field Welding Pipe to Wellhead Parts for Pressure Seal

1. **Introduction and Scope.** The following recommended procedure has been prepared with particular regard to attaining pressure-tight weld when attaching casing heads, flanges, etc., to casing. Although most of the high strength casing used (such as N-80) is not normally considered field weldable, some success may be obtained by using the following or similar procedures.

   Caution: In some wellheads, the seal weld is also a structural weld and can be subjected to high tensile stresses. Consideration must therefore be given by competent authority to the mechanical properties of the weld and its heat affected zone.

   a. The steels used in wellhead parts and in casing are high strength steels that are susceptible to cracking when welded. It is imperative that the finished weld and adjacent metal be free from cracks. The heat from welding also affects the mechanical properties. This is especially serious if the weld is subjected to service tension stresses.

   b. This procedure is offered only as a recommendation. The responsibility for welding lies with the user and results are largely governed by the welder's skill. Weldability of the several makes and grades of casing varies widely, thus placing added responsibility on the welder. Transporting a qualified welder to the job, rather than using a less-skilled man who may be at hand, will, in most cases, prove economical. The responsible operating representative should ascertain the welder's qualifications and, if necessary, assure himself by instruction or demonstration, that the welder is able to perform the work satisfactorily.

2. **Welding Conditions.** Unfavorable welding conditions must be avoided or minimized in every way possible, as even the most skilled welder cannot successfully weld steels that are susceptible to cracking under adverse working conditions, or when the work is rushed. Work above the welder on the drilling floor should be avoided> The weld should be protected from dripping mud, water, and oil and from wind, rain, or other adverse weather conditions. The drilling mud, water, or other fluids must be lowered in the casing and kept at a low level until the weld has properly cooled. It is the responsibility of the user to provide supervision that will assure favorable working conditions, adequate time, and the necessary cooperation of the rig personnel.

3. **Welding.** The welding should be done by the shielded metal-arc or other approved process.

4. **Filler Metal.** Filler Metals. For root pass, it's recommended to use E6010, E6011 (AC), E6019 or equivalent electrodes. The E7018 or E7018-A1 electrodes may also be used for root pass operations but has the tendency to trap slag in tight grooves. The E6010, E6011 and E6019 offer good penetration and weld deposit ductility with relatively high intrinsic hydrogen content. Since the E7018 and E7018-A1 are less susceptible to hydrogen induced cracking, it is recommended for use as the filler metal for completion of the weld groove after the root pass is completed. The E6010, E6011 (AC), E6019, E7018 and E7018-A1 are classified under one of the following codes AWS A5.1 (latest edition): Mild Steel covered electrodes or the AWS A5.5 (latest edition): Low Alloy Steel Covered Arc-Welding Electrodes. The low hydrogen electrodes, E7018 and E7018-A1, should not be exposed to the atmosphere until ready for use. It's recommended that hydrogen electrodes remain in their sealed containers. When a job arises, the container shall be opened and all unused remaining electrodes to be stored in heat electrode storage ovens. Low hydrogen electrodes exposed to the atmosphere, except water, for more than two hours should be dried 1 to 2 hours at 600°F to 700 °F (316°C to 371 °C) just before use. It's recommended for any low hydrogen electrode containing water on the surface should be scrapped.

5. **Preparation of Base Metal.** The area to be welded should be dry and free of any paint, grease/oil and dirt. All rust and heat-treat surface scale shall be ground to bright metal before welding.

6. **Preheating.** Prior to any heating, the wellhead member shall be inspected for the presence of any o-rings or other polymeric seals. If any o-rings or seals are identified then preheating requires close monitoring as noted in paragraph 6a. Before applying preheat, the fluid should be bailed out of the casing to a point several inches (>6" or 150 mm) below the weld joint/location. Preheat both the casing and wellhead member for a minimum distance of three (3) inches on each side of the weld joint using a suitable preheating torch in accordance with the temperatures shown below in a and b. The preheat temperature should be checked by the use of heat sensitive crayons. Special attention must be given to preheating the thick sections of wellhead parts to be welded, to insure uniform heating and expansion with respect to the relatively thin casing.

   a. Wellhead members containing o-rings and other polymeric seals have tight limits on the preheat and interpass temperatures. Those temperatures must be controlled at 200°F to 325°F or 93 °C to 160°C and closely monitored to prevent damage to the o-ring or seals.

   b. Wellhead members not containing o-rings and other polymeric seals should be maintained at a preheat and interpass temperature of 400°F to 600°F or 200°C to 300°C.

Recommended Procedure for Field Welding Pipe to Wellhead Parts for Pressure Seal (continued)

7. **Welding Technique.** Use a 1/8 or 5/32-inch (3.2 or 4.0 mm) E6010 or E7018 electrode and step weld the first bead (root pass); that, weld approximately 2 to 4 inches (50 to 100 mm) and then move diametrically opposite this point and weld 2 to 4 inches (50 to 100 mm) halfway between the first two welds, move diametrically opposite this weld, and so on until the first pass is completed. This second pass should be made with a 5/32-inch (4.0 mm) low hydrogen electrode of the proper strength and may be continuous. The balance of the welding groove may then be filled with continuous passes without back stepping or lacing, using a 3/16-inch (4.8 mm) low hydrogen electrode. All beads should be stringer beads with good penetration. There should be no undercutting and weld shall be workmanlike in appearance.

   a. Test ports should be open when welding is performed to prevent pressure buildup within the test cavity.

   b. During welding the temperature of the base metal on either side of the weld should be maintained at 200 to 300°F (93 to 149°C).

   c. Care should be taken to insure that the welding cable is properly grounded to the casing, but ground wire should not be welded to the casing or the wellhead. Ground wire should be firmly clamped to the casing, the wellhead, or fixed in position between pipe slips. Bad contact may cause sparking, with resultant hard spots beneath which incipient cracks may develop. The welding cable should not be grounded to the steel derrick, nor to the rotary-table base.

8. **Cleaning.** All slag or flux remaining on any welding bead should be removed before laying the next bead. This also applies to the completed weld.

9. **Defects.** Any cracks or blow holes that appear on any bead should be removed to sound metal by chipping or grinding before depositing the next bead.

10. **Postheating.** Post-heating should be performed at the temperatures shown below and held at that temperature for no less than one hour followed by a slow cooling. The post-heating temperature should be in accordance with the following paragraphs.

    a. Wellhead members containing o-rings and other polymeric seals have tight limits on the post-heating temperatures. Those temperatures must be controlled at 250°F to 300°F or 120 °C to 150°C and closely monitored to prevent damage to the o-ring or seals.

    b. Wellhead members not containing o-rings and other polymeric seals should be post-heated at a temperature of 400°F to 600°F or 200°C to 300°C.

11. **Cooling. Rapid cooling must be avoided.** To assure slow cooling, welds should be protected from extreme weather conditions (cold, rain, high winds, etc.) by the use of suitable insulating material. (Specially designed insulating blankets are available at many welding supply stores.) Particular attention should be given to maintaining uniform cooling of the thick sections of the wellhead parts and the relatively thin casing, as the relatively thin casing will pull away from the head or hanger if allowed to cool more rapidly. The welds should cool in air to less than 200°F (93°C) (measured with a heat sensitive crayon) prior to permitting the mud to rise in the casing.

12. **Test the Weld.** After cooling, test the weld. The weld must be cool otherwise the test media will crack the weld. The test pressure should be no more than 80% of the casing collapse pressure.

Test Media	
Acceptable Medias	**Unacceptable Medias**
Water Water Soluable Oil Inert Gas •Nitrogen •Argon Gas	Oxygen Acetylene Hydraulic Oil Motor Oil Brake Fluid

Weatherford®

Wellhead Field Service Manual

WFT-SB Wellhead System Running Procedure

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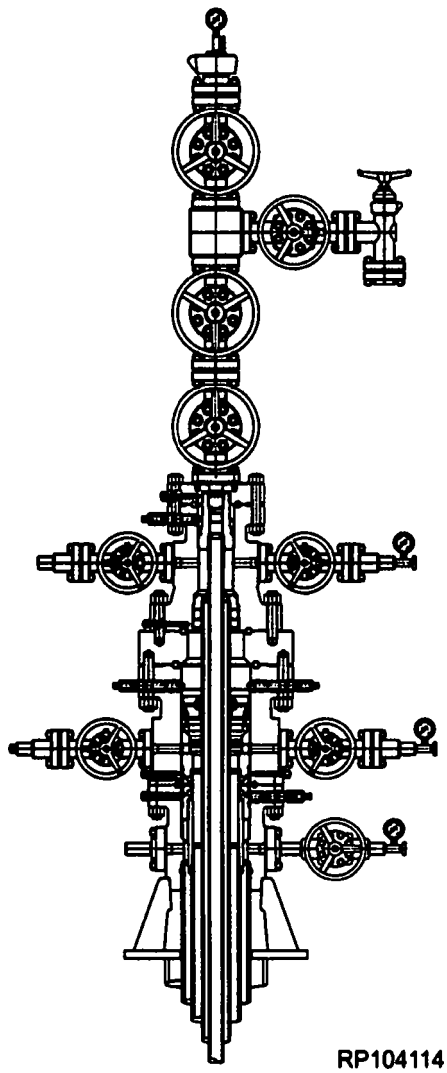
Release Date: December 2014



RP104114

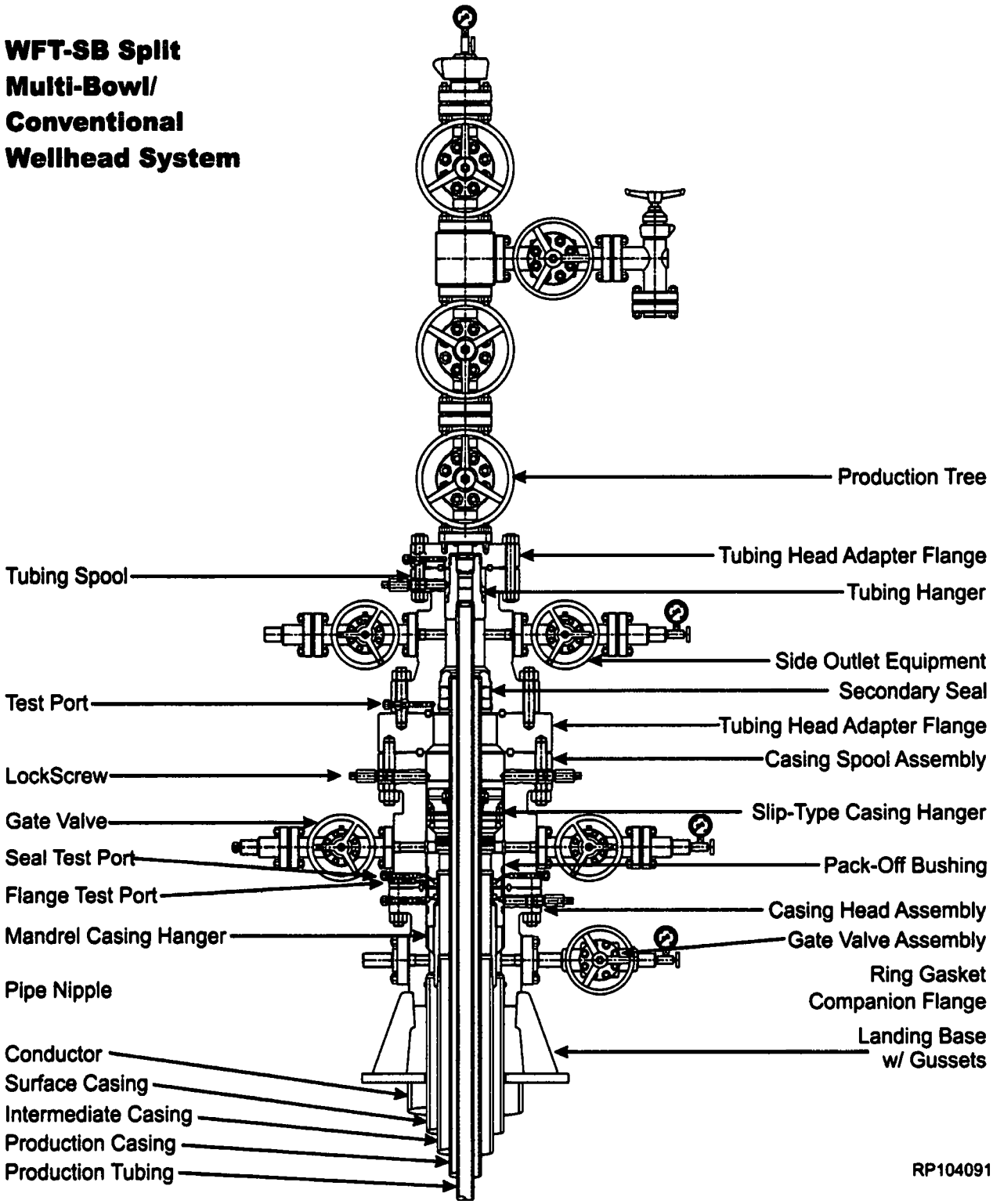
Weatherford	Field Service Manual	Prepared By:	Reviewed By:	Approved By:	SM-11-1
		Marion Robertson	Bruce Ross	Manuel Zaragoza	Rev WIP
5-3-GL-GL-WES-00XXX		Dec 2014	Dec 2014	Dec 2014	Page 1 of 24

Table of Content

WFT-Split Bowl (SB) Wellhead System

Running Procedure

WFT-SB Split Multi-Bowl/ Conventional Wellhead System



WFT-SB Casing Head/Spool Assembly Rig Up and Installation

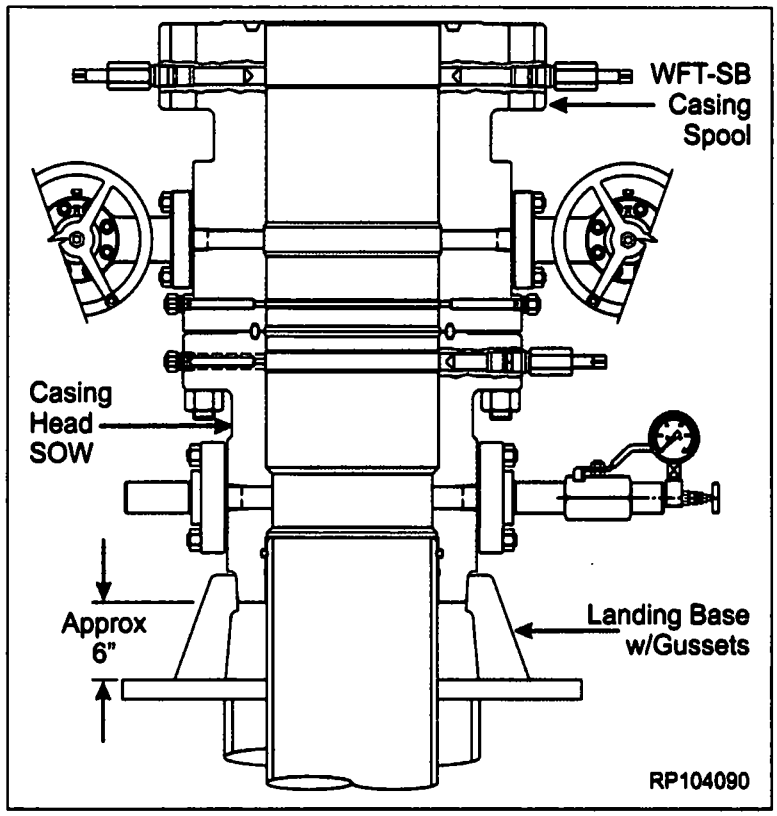
1. Determine the correct elevation for the wellhead system, and cut the conductor pipe at a comfortable elevation, below the surface casing final cut.

NOTE

Ensure that the cut on the conductor is level, as this will determine the orientation of all remaining wellhead equipment.

2. Remove any excess conductor pipe and set aside.
3. Grind the conductor pipe and remove any sharp edges, ensuring that the conductor pipe cut is level.
4. Run the surface casing to the required depth and cement casing in place. Allow the cement to set.
5. Lift the blow-out preventer (BOP) or diverter and prepare to cut off the surface casing at a sufficient height above the cellar deck to facilitate the installation of the WFT-SB Casing Head/Spool Assembly with Base Plate.
6. Once the surface casing is released from the rig floor, cut it approximately 12 inches (or more) above the final cut location.
7. Remove the excess surface casing, and the BOP or diverter, and set aside.
8. Bevel the surface casing outer diameter (3/16" x 3/8") and inner diameter (1/8" x 45 degrees). Remove any sharp edges.
9. Examine the Casing Head with Slip-On Weld (SOW) bottom prep. Verify the following:

- O-ring seal, bore, ports and exposed ring grooves are clean and in good condition.
- Test fittings, studs and nuts, valves, flanges and bull plugs are intact and in good condition.



10. Determine the correct elevation for the wellhead assembly. Measure depth of the surface casing socket in SOW with O-ring bottom prep.
11. Lightly lubricate the casing stub with an oil or light grease.

WARNING

Excessive oil or grease will prevent a positive seal from forming.

12. Align and level the WFT-SB Casing Head/Spool Assembly over the casing stub, orienting the outlets to drilling equipment, per the drilling supervisor's direction.

14. Slowly and carefully lower the assembly over the casing stub until the stub bottoms in the casing socket.
15. Remove the test fitting from the casing head test port, and set aside.
16. Ensure that the WFT-SB Casing Head/Spool Assembly is plumb and level.
17. Weld and test the surface casing using the recommended welding procedure located in the Appendices Section of this manual.

Testing the BOP Stack

1. Examine the Test Plug/Running & Retrieval Tool. Verify the following:

- Elastomer seals, threads and plugs are intact and in good condition.
- Drill pipe threads are correct size, clean and in good condition.

2. Install a new, appropriately sized ring gasket in the ring groove of the WFT-SB Spool and make up the BOP stack.

NOTE

Immediately after make-up of the BOP stack and periodically during drilling of hole for the casing string, the BOP stack (flanged connections and rams) must be tested.

3. Orient the test plug with elastomer down/ACME threads up, and make up a joint of drill pipe to the test plug.

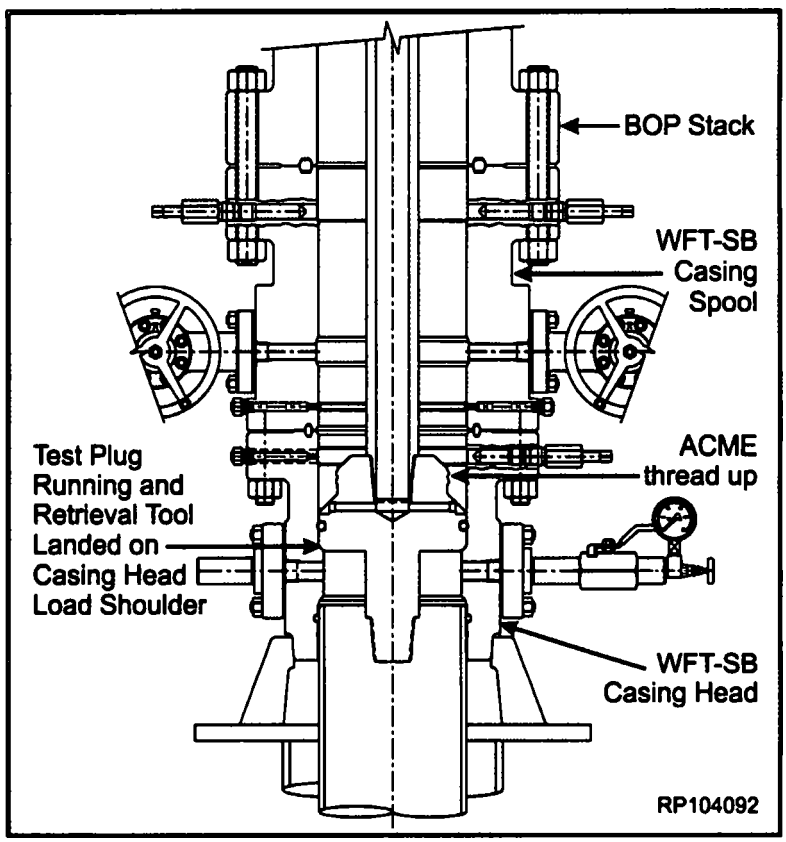
NOTE

If pressure is to be supplied through the drill pipe, remove the pipe plug from the weep port.

CAUTION

Ensure that the test plug elastomer is down and Acme threads are up when testing.

4. Fully retract all lockscrews in the entire WFT-SB casing head/spool assembly.
5. Lubricate the test plug elastomer seal with a light oil or grease.
6. Lower the test plug through the BOP stack into the WFT-SB assembly, until it lands on the casing head load shoulder.



7. Open lower casing head side outlet valve. Monitor any leakage past the test plug seal.
8. Close the BOP rams on the drill pipe, and test to **5,000 psi or as required by the drilling supervisor**.
9. After a satisfactory test is achieved, release pressure and open the rams.
10. Remove as much fluid from the BOP stack as possible.
11. Retrieve the test plug assembly slowly to avoid damage to the seal.
12. Close all outlet valves on WFT-SB Casing Head/Spool Assembly.
13. Repeat Steps 1 thru 12, as required during drilling of the hole.

Running and Retrieval of the Long Bowl Protector

NOTE

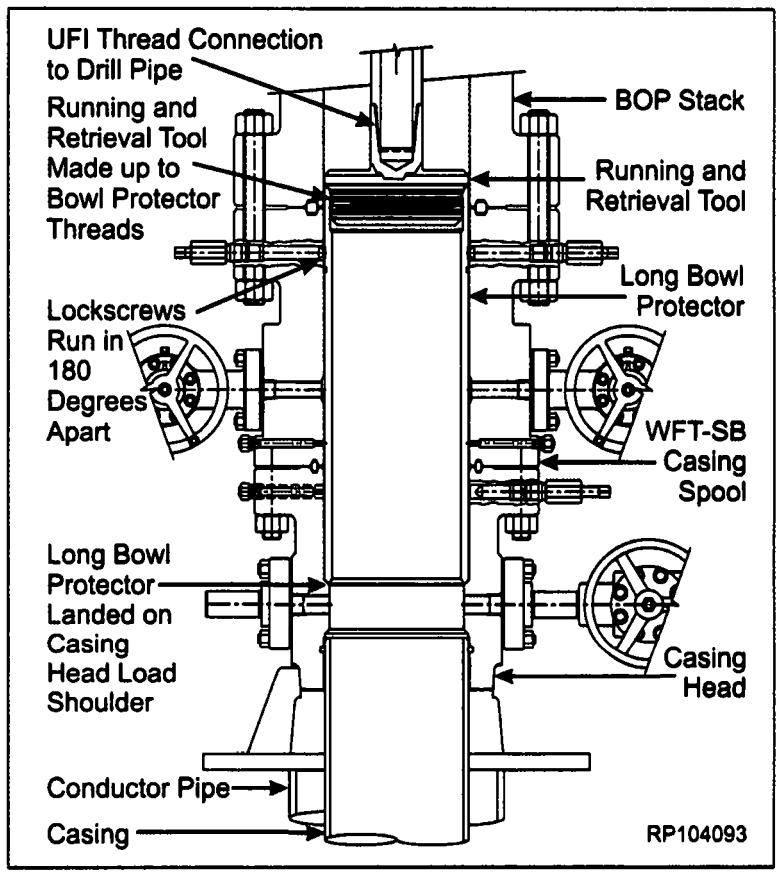
Always use a bowl protector while drilling to protect wellhead load shoulders from damage by drill bit or rotating drill pipe. The bowl protector must be retrieved prior to running the casing string.

Running in the Bowl Protector prior to Drilling

1. Examine the Long Bowl Protector. Verify the following:
   - Bore drift is correct size, clean, in good condition, and free of debris
   - Threads are clean and undamaged
   - O-ring seals are properly installed, clean, and undamaged.
2. Examine the Bowl Protector Running/Retrieval Tool. Verify the following:
   - Threads are clean, undamaged and free of debris
   - Ports are clean and unobstructed.
   - Drill Pipe threads are correct size, clean and in good condition.
3. Orient the Bowl Protector Running Tool with Acme threads down.

▲CAUTION▲

Ensure that the left hand (LH) Acme threads are down prior to engaging Bowl Protector Running Tool into Long Bowl Protector.



4. Make-up a drill pipe joint to the Running Tool.
5. Thread Running Tool into the Long Bowl Protector, rotating two turns counterclockwise.
6. Verify that all lockscrews in the WFT-SB Casing Head/Spool Assembly are fully retracted.
7. Slowly lower the Running Tool/Bowl Protector Assembly through the BOP stack and into the WFT-SB Casing Head/Spool Assembly, until it lands securely on the casing head load shoulder.
8. On WFT-SB Casing Spool, run in two Lockscrews ("snug" tight **ONLY**), 180 degrees apart, to hold Bowl Protector in place.

⚠WARNING⚠

Do NOT over tighten the lockscrews, as this will cause damage to the Bowl Protector and the lockscrews.

9. Remove the running tool from the bowl protector, by rotating the drill pipe clockwise two turns while lifting straight up.
10. Drill out and prepare to run the casing string per the drilling supervisor's instruction.

Retrieving the Bowl Protector after Drilling

1. Make-up the retrieval tool to the drill pipe, with Acme threads down.
2. Slowly lower the retrieval tool through the BOP Stack into the Bowl Protector.
3. Rotate the retrieval Tool counterclockwise, two turns, to engage with bowl protector Acme threads.
4. Fully retract both lockscrews on the WFT-SB casing spool, and retrieve the bowl protector.

NOTE

Ensure that all lockscrews in both the upper flange (casing spool) and lower flange (casing head) of the wellhead Assembly are fully retracted from well bore.

5. Remove the bowl protector and the running and retrieval tool from the drill floor.

Hanging off the Intermediate Casing

1. Run the intermediate casing as required and space out appropriately for the mandrel casing hanger.

NOTE

If the intermediate casing becomes stuck and the mandrel casing hanger cannot be landed, refer to STAGE 4B.

2. Examine the WFT-SBD-SN Mandrel Casing Hanger. Verify the following:
   - Bore drift is correct size, clean and free of debris
   - All threads are clean and undamaged.
   - Flow-By flutes are clear and unobstructed.
   - Slick Neck seal area is clean and undamaged.
3. Examine the Mandrel Casing Hanger Running Tool. Verify the following:
   - Threads are clean and in good condition.
   - O-ring seals are clean and undamaged.
4. Thread the mandrel hanger onto the last joint of casing to be run. Torque the connection thread to manufacturer's optimum "make-up" torque value.
5. Make up a landing joint to the top of the running tool. Torque the connection to thread manufacturer's maximum "make-up" torque valve.

⚠CAUTION⚠

If Steps 4 and 5 were performed prior to being shipped to location, the hanger running tool should be backed off and made back up to ensure it will back off freely.

6. Liberally lubricate the outer diameter of the hanger neck and inner diameter of the running tool O-ring seals with a light oil or grease.

WARNING

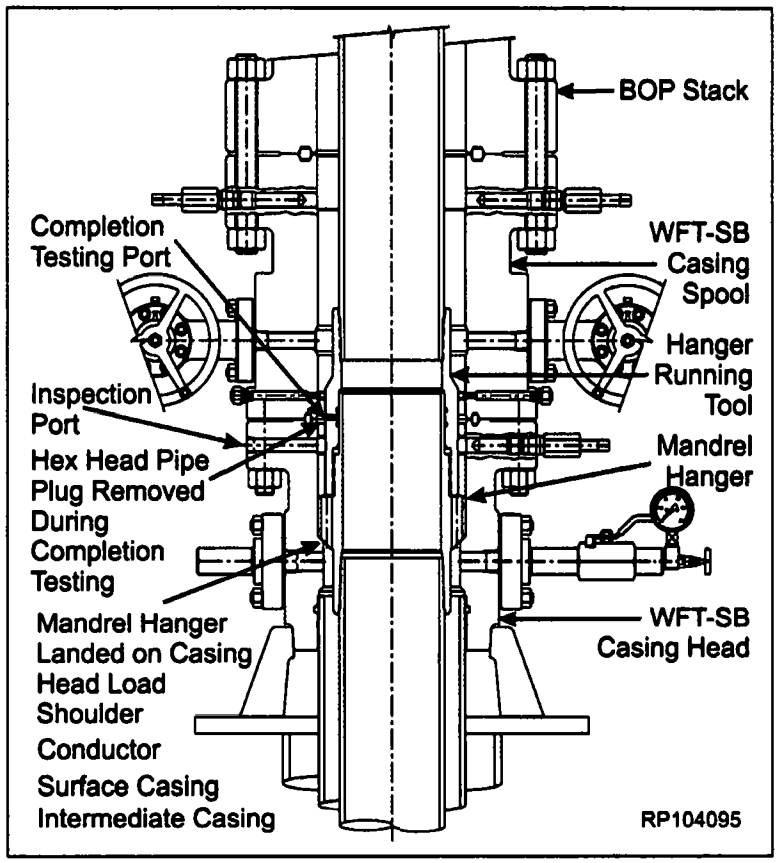
Do NOT use pipe dope or other metal based compounds. This will cause galling.

7. Maintaining a neutral weight, rotate the hanger running tool with chain tongs, first clockwise until a thread "jump" can be felt, then counterclockwise, approximately eight turns, to a positive stop, and then back off (clockwise) one quarter (1/4) turn.

CAUTION

Do NOT torque the running tool to the casing hanger connection. Do NOT back off more than one quarter (1/4) turn.

8. Remove the flush fitting hex head pipe plug from the outer diameter of the running tool and attach a test pump.
9. Apply hydraulic test pressure to **5,000 psi and hold for 15 minutes or as required by the drilling supervisor.**
10. Upon completion of a successful test, bleed off test pressure through the test pump and remove the pump. Replace the pipe plug.
11. Locate indicator groove machined in outer diameter of Running Tool, coat with white paint.
12. Verify that all lockscrews in the WFT-SB casing head/casing spool assembly are fully retracted.
13. Slowly and carefully lower the mandrel hanger through the BOP stack, and land the hanger onto the casing head load shoulder.
14. Slack off weight on the casing.
15. Check that the well is stable and no pressure buildup or mud flow is occurring.



16. Drain the BOP stack through the casing head side outlet valves.
17. Remove the pipe plug from the casing head flange port marked "Inspection Port."
18. Visually verify that the running tool groove is in the center of the inspection port, and that the mandrel hanger has landed properly.
19. Reinstall the pipe plug and tighten securely.
20. Place a paint mark on the landing joint level with the rig floor, and cement casing as required.

NOTE

If the casing is to be reciprocated during cementing, it is advisable to pick up the mandrel hanger a minimum of eight feet above the landing point. Place a mark on the landing joint, level with the rig floor, and then reciprocate above that point. If at any time resistance is felt, land the mandrel casing hanger immediately.

21. Retrieve the hanger running tool and landing joint by rotating landing joint clockwise (to the right), fourteen full turns.

Hanging off Intermediate Casing – Contingency Completion

NOTE

The following procedure should ONLY be followed if the intermediate casing should become stuck in the hole. If the casing did NOT get stuck and is successfully hung off with the mandrel casing hanger, skip this stage.

1. Cement the intermediate casing in accordance with the program, taking returns through the flow-by flutes of the mandrel casing hanger as required.
2. Drain the casing head bowl through the side outlet.
3. Separate the WFT-SB casing spool from the casing head.
4. Pull up on WFT-SB casing spool and suspend it above casing head, high enough to install a WFT-21 Slip Type Casing Hanger.
5. Wash out as required.
6. Examine the WFT-21 slip type casing hanger. Verify the following:
   - Hanger is correct size, clean and undamaged.
   - Slip segments are sharp and in proper position.
   - All screws are in place.
7. Remove the latch screw to open the slip type hanger.
8. Place two boards on the casing head flange, against the casing, to support the hanger.
9. Wrap the hanger around the casing and replace the latch screw.
10. Prepare to lower the hanger into the casing head bowl.
11. Grease the WFT-21 slip type casing hanger body and remove the slip retaining cap screws.
12. Remove the boards and allow the hanger to slide down into the casing head.

13. Once the hanger has landed securely on the casing head bowl load shoulder, pull tension on the casing to the desired hanging weight, and then slack off.

NOTE

A sharp decrease on weight indicator will signify that the hanger has taken weight. If this does not occur, pull tension again and slack once more.

14. Rough cut the casing approximately eight inches, or more, above the top of the casing head flange. Remove the excess casing.
15. Final cut the casing at 2 1/2" +/- 1/8" above casing head flange.
16. Bevel the casing outer diameter (1/4" x 30 degrees) and inner diameter (1/8" x 30 degrees).
17. Remove and discard the used gasket ring from the casing head.
18. Clean the mating ring grooves on the WFT-SB casing spool and casing head. Lightly wipe with oil or grease.

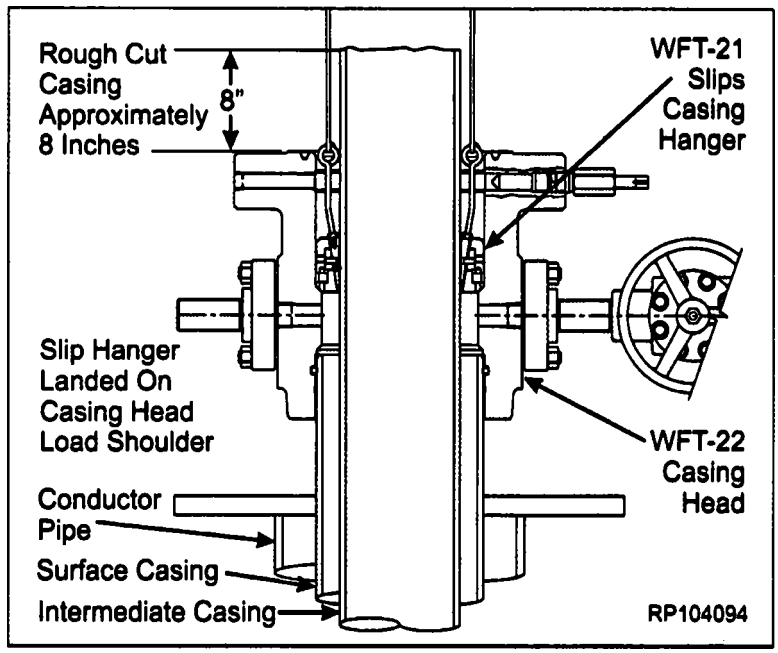
WARNING

Excessive oil or grease will prevent a positive seal from forming.

19. Install a new appropriately sized ring gasket into the casing head groove.
20. Loosely reconnect or make up the WFT-SB casing spool to the casing head.

NOTE

The casing spool to casing head connection will be fully tightened after the pack-off bushing is run and proper setting is verified.



Installation of the Pack-Off Bushing and Energizing the P-Seals

WFT-SB Pack-Off Bushing Installation

NOTE

Installation procedure is identical for both Standard and Emergency WFT-SB Pack-Off Bushings.

1. Determine which pack-off bushing to use:
   - If casing has been run normally and is hung off with a mandrel casing hanger, use a standard packoff bushing.
2. Examine the appropriate pack-off bushing. Verify the following:
   - All elastomer seals are in place and undamaged.
   - Bore, ports and alignment lugs are clean and in good condition.
   - Coat the lockscrew relief groove with white paint.
3. Liberally lubricate the inner diameter of the double P-seal grooves and outer diameter of dovetail seals with a light oil or grease.

10. Locate the "SEAL TEST" fitting, slightly below and 90 degrees from the injection fittings. Remove the dust cap from this fitting.
11. Attach a test pump to the fitting.
12. Pump clean test fluid between the P-Seals until a test pressure of **5,000 psi or 80% of casing collapse pressure is attained, whichever is lower.**

WARNING

Do NOT exceed 80% of casing collapse pressure when a slip type casing hanger and contingency pack-off bushing are utilized.

13. Hold test pressure for **15 minutes or as required by the drilling supervisor.**
14. If pressure drops, a leak has developed. Take the appropriate action per the following table:

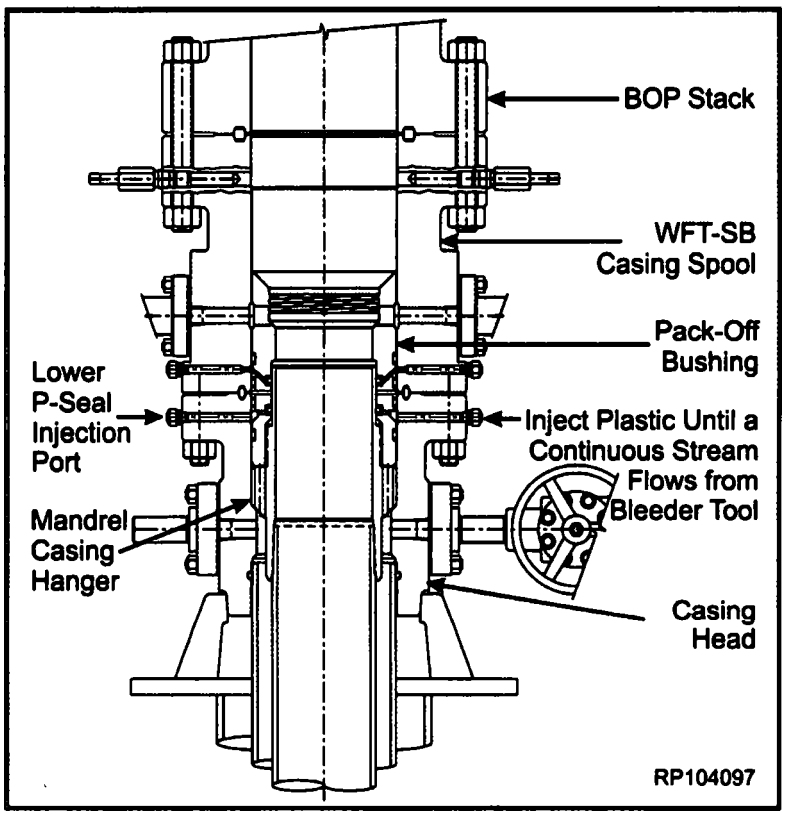
Leak Location	Cause	Action
Into the bore of the casing head	Upper P-seal leaking	Bleed off pressure and re-inject plastic packing into leaking upper P-seal port.
Around the casing	Lower P-Seal leaking	Bleed off pressure and re-inject plastic packing into lower P-seal port.

15. Repeat Steps 12 thru 14 until a satisfactory test is achieved.
16. Once a satisfactory test is achieved, carefully bleed off pressure and remove Test Pump.
17. Attach the bleeder tool to the test port fitting and open the tool to vent any remaining trapped pressure.

CAUTION

Always direct the bleeder tool port away from people and property.

18. Remove the bleeder tool and reinstall dust cap in Test Port Fitting.



Retesting the BOP Stack

1. Examine the Test Plug/Running Tool. Verify the following:
   - Elastomer seals are intact and in good condition.
   - Drill pipe threads are clean and in good condition.

NOTE

Immediately after testing the support bushing seals and periodically during conditioning of the hole prior to running tubing, the BOP stack (flanged connections and rams) must be tested.

2. Orient the test plug with elastomer down/ACME threads up. Make up a joint of drill pipe to the test plug.

NOTE

Remove the pipe plug from the weep port if pressure is to be supplied through the drill pipe.

▲CAUTION▲

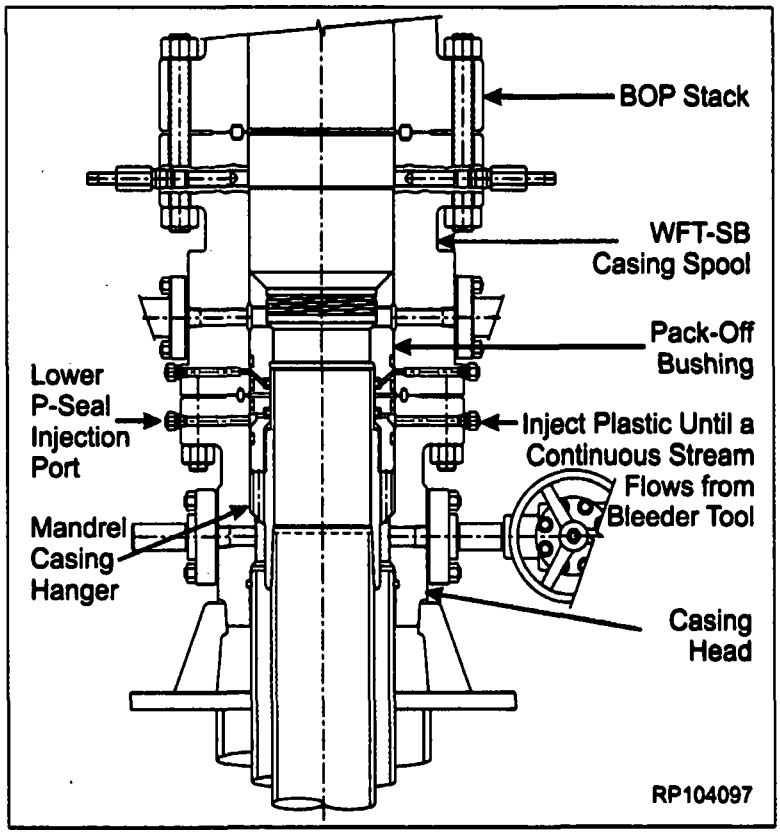
Make sure the elastomer is down and ACME threads are up when testing.

3. Fully retract all lockscrews in the upper WFT-SB Spool Assembly.

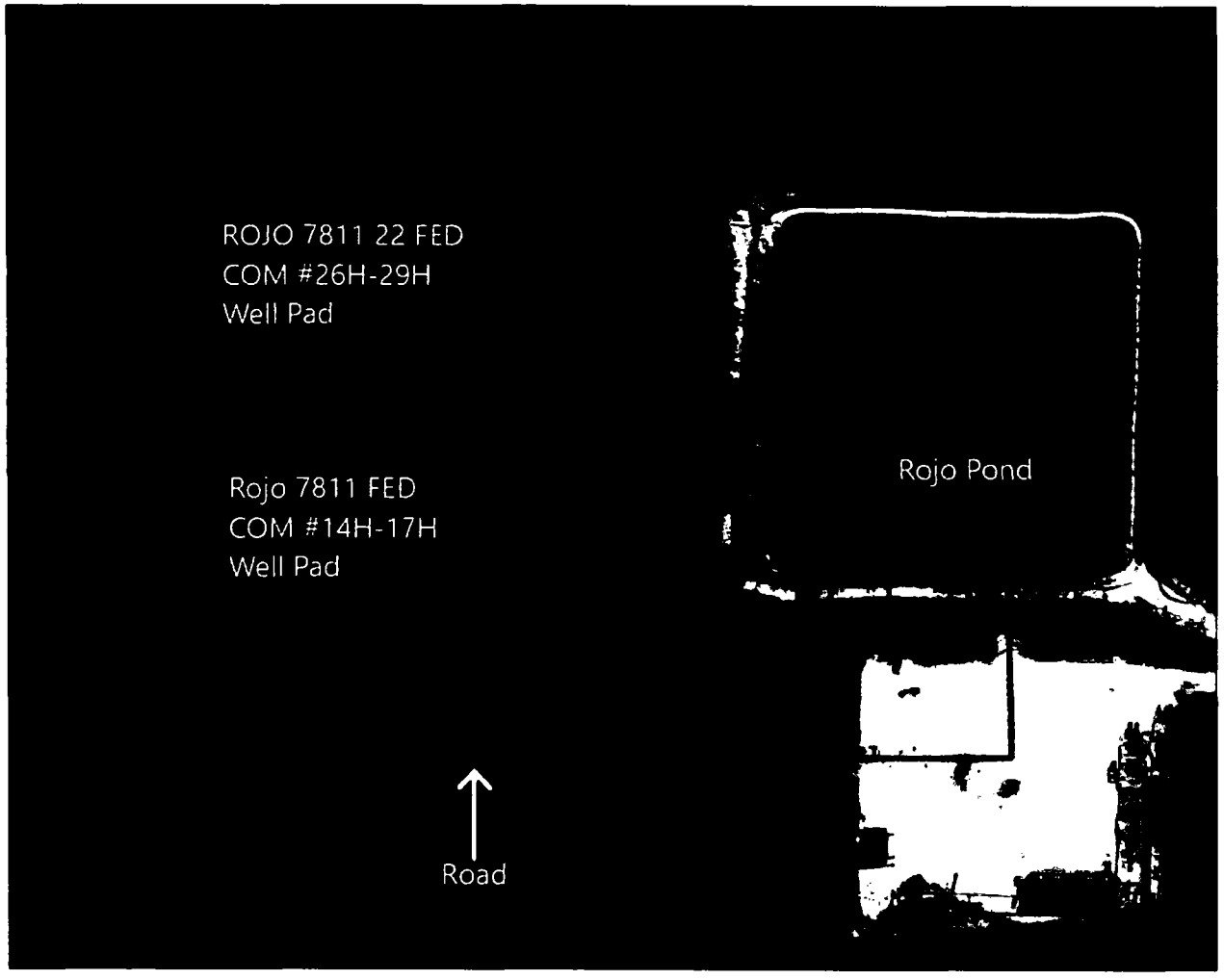
▲WARNING▲

Do NOT retract the lockscrews located in the casing head (lower flange). Doing so could allow the pack-off support bushing to rise out of position.

4. Lubricate the test plug elastomer seal with light oil or grease.

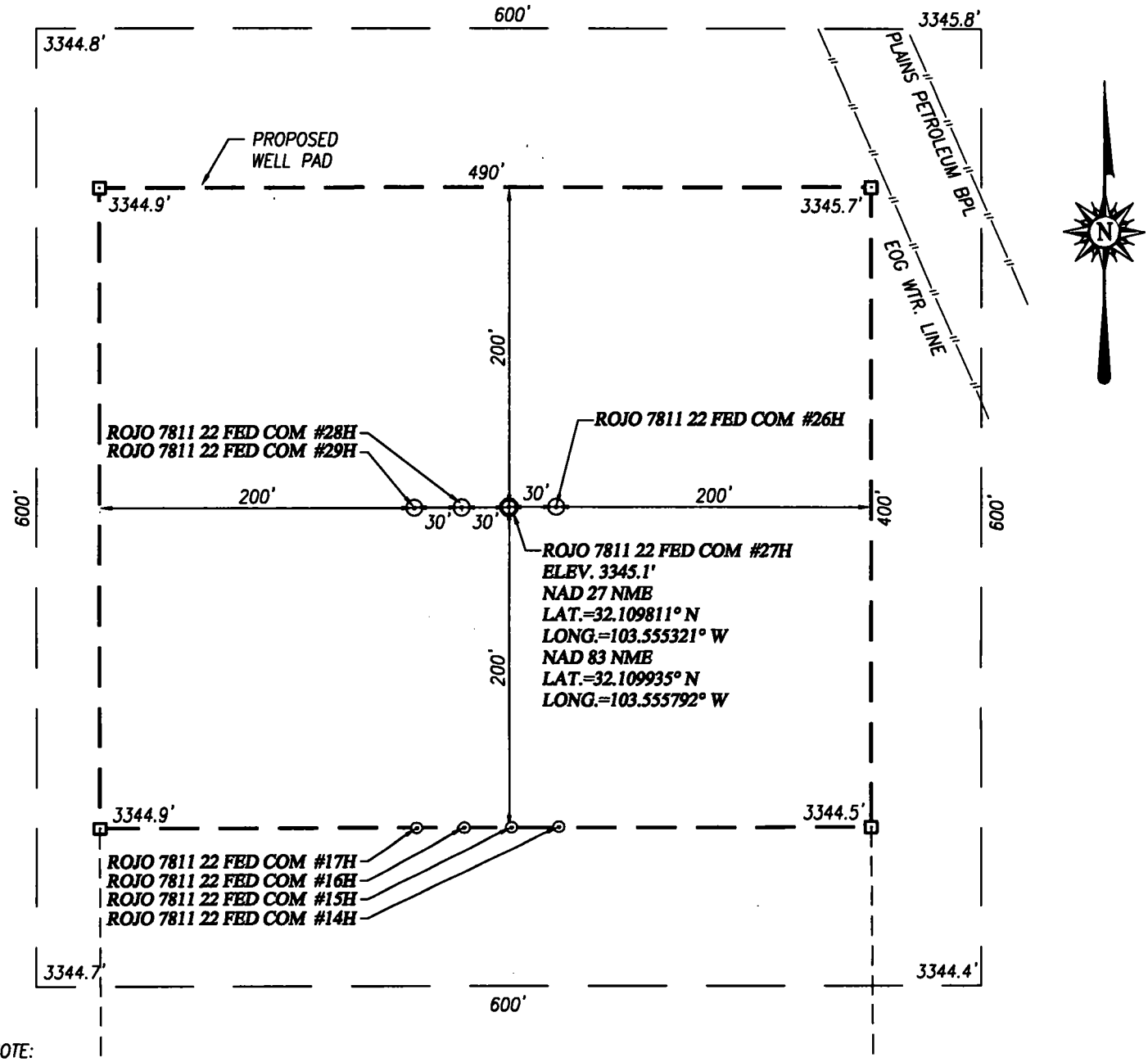


5. Lower the test plug through the BOP stack into the WFT-SB spool assembly until it lands on top of the pack-off bushing.
6. Open the upper WFT-SB casing spool side outlet valves. Monitor for any leakage past the test plug seal.
7. Close the BOP rams on the drill pipe and test to **10,000 psi or as required by the drilling supervisor.**
8. After a satisfactory test is achieved, release all pressure and open the rams.
9. Remove as much fluid from the BOP stack as possible.
10. Retrieve the test plug assembly slowly to avoid damage to the seal.
11. Close all outlet valves on the WFT-SB casing head/spool assembly.



BTA OIL PRODUCERS, LLC
WATER TRANSPORTATION MAP
ROJO 7811 JV-P FED COM #26H - #29H WELLPAD TO ROJO Pond
SEC 22 T25S – R33E
LEA COUNTY, NM

WELL SITE PLAN



NOTE:
1) SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION.

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND ST. HWY. 18 IN JAL. GO WESTERLY ON ST. HWY. 128 APPROX. 14 MILES, TURN LEFT ON CO. RD. J-2(BATTLE AXE). FOLLOW MENDERING CO. RD. J-2 SOUTHWEST APPROX. 13.5 MILES TO EL PASO N.G. ROAD; TURN RIGHT AND GO WEST ON EL PASO N.G. ROAD APPROX. 1.2 MILES, TURN RIGHT AND GO NORTH 3.0 MILES, TURN RIGHT AND GO EAST 0.6 MILES TO EXISTING PAD. WELL IS NORTHEAST 519 FEET.

100 0 100 200 Feet

Scale: 1"=100'

BTA OIL PRODUCERS, LLC

ROJO 7811 22 FED COM #27H WELL LOCATED 420 FEET FROM THE SOUTH LINE AND 1280 FEET FROM THE EAST LINE OF SECTION 22, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 04/24/18	CAD Date: 05/25/18	Drawn By: LSL
W.O. No.: 18110473	Rev: .	Rel. W.O.:	Sheet 1 of 1

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000849

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:

APD ID: 10400035908 **Submission Date:** 11/08/2018

Operator Name: BTA OIL PRODUCERS LLC

Well Name: ROJO 7811 22 FEDERAL COM **Well Number:** 27H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	QUATERNARY	3345	0	0	ALLUVIUM	NONE	No
2	RUSTLER	2329	1017	1017		NONE	No
3	TOP SALT	1757	1589	1589		NONE	No
4	BASE OF SALT	-1493	4839	4839		NONE	No
5	DELAWARE	-1729	5075	5075		NATURAL GAS,OIL	No
6	BONE SPRING	-5832	9178	9178		NATURAL GAS,OIL	No
7	WOLFCAMP	-8919	12265	12265		NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 14000

Equipment: The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (10M system) double ram type (10,000 psi WP) preventer and a bag-type (Hydril) preventer (5000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 5" drill pipe rams on bottom. The BOP's will be installed on the 13-3/8" surface casing and utilized continuously until total depth is reached. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. A remote kill line will be used for the 10M system as per onshore order #2. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 10,000 psi WP rating. The 5M annular on the 10M system will be tested to 100% of rated working pressure.
Requesting Variance? YES

Variance request: A Choke Hose Variance is requested. See attached test chart and spec. 5M annular variance requested.

Testing Procedure: Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. All BOP's and associated equipment will be tested as per BLM drilling Operations Order No. 2.

Choke Diagram Attachment:

10M_choke_mannifold_20190326145956.pdf

Choke_Hose___Test_Chart_and_Specs_20190326145957.pdf

BOP Diagram Attachment:

7. Align and level the production tree above the tubing hanger and carefully lower it over the tubing hanger neck, landing it on the ring gasket.

WARNING

Do NOT damage the hanger neck seals, as this will impair their sealing ability.

8. Make up the connection using the appropriate studs and nuts, and tightening in an alternating cross pattern, as required by API 6A.

Testing the Production Tree Connection

1. Locate the test port fitting on the outer diameter of the tubing head adapter flange. Remove the dust cap from the fitting.
2. Attach a test pump to test port fitting, and open the pump.
3. Pump clean test fluid into void area between flanges, test to 10,000 psi maximum.
4. Hold and monitor pressure for **15 minutes or as required by the production supervisor**.
5. Once a satisfactory test is achieved, carefully bleed off test pressure and remove the test pump.
6. Attach a bleeder tool to the test port fitting, and open the tool to vent any remaining trapped pressure.

CAUTION

Always direct the bleeder tool away from people and property.

7. Remove the bleeder tool and reinstall the dust cap on the test port fitting.
8. Remove the type 'H' back pressure valve (BPV) through the production tree.
9. Ensure that the well is safe and secure by closing all gate valves.