

Well Name: POKER LAKE UNIT 23 DTD	Well Location: T24S / R30E / SEC 14 / SESE /	County or Parish/State:
Well Number: 179H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM068905	Unit or CA Name:	Unit or CA Number: NMNM71016X
US Well Number:	Well Status: Approved Application for Permit to Drill	Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2764691

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 12/05/2023	Time Sundry Submitted: 05:58
Date proposed operation will begin: 12/12/2023	

**Procedure Description:** XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD (ID 10400078496): SHL, BHL, FTP, LTP, casing and cement changes. SHL: FROM: 455' FSL & 476' FEL of Section 14-T24S-R30E TO: 845' FSL & 578' FEL of Section 14-T24S-R30E BHL: FROM: 200' FNL & 1210' FEL of Section 2-T24S-R30E TO: 230' FNL & 2510' FEL of Section 2-T24S-R30E FTP: FROM: 100' FSL & 1210' FEL of Section 14-T24S-R30E TO: 500' FNL & 2510' FEL of Section 23-T24S-R30E LTP: FROM: 330' FNL & 1210' FEL of Section 2-T24S-R30E TO: 330' FNL & 2510' FEL of Section 2-T24S-R30E Casing and cement changes are listed on the attached drilling plan. Will be using a 4-string casing program. C-102, Drilling Plan, Directional Plan, Casing Spec Sheet and MultiBowl Schematic attached.

NOI Attachments

Procedure Description

- Proprietary\_Connections\_Performance\_Data\_6.0000\_26.0000\_0.4360\_\_P110\_RY\_20231205175802.pdf
- 4\_String\_Slimhole\_SDT\_3301\_1\_20231205175748.pdf
- Well\_Plan\_Report\_\_\_\_POKER\_LAKE\_UNIT\_23\_DTD\_179H\_20231205175712.pdf
- Drilling\_Plan\_\_\_\_PLU\_23\_DTD\_179H\_20231205175619.pdf
- POKER\_LAKE\_UNIT\_23\_DTD\_179H\_C\_102\_signed\_12\_4\_2023\_20231205175600.pdf

<b>Well Name:</b> POKER LAKE UNIT 23 DTD	<b>Well Location:</b> T24S / R30E / SEC 14 / SESE /	<b>County or Parish/State:</b>
<b>Well Number:</b> 179H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
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<b>US Well Number:</b>	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> XTO PERMIAN OPERATING LLC

Conditions of Approval

Additional

Sec\_14\_24S\_30E\_NMP\_Sundry\_2764691\_Poker\_Lake\_Unit\_23\_DTD\_Federal\_Com\_179H\_COAs\_20231226102340.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

<b>Operator Electronic Signature:</b> RANELL (RUSTY) KLEIN	<b>Signed on:</b> DEC 05, 2023 05:58 PM
<b>Name:</b> XTO PERMIAN OPERATING LLC	
<b>Title:</b> Regulatory Analyst	
<b>Street Address:</b> 6401 HOLIDAY HILL ROAD BLDG 5	
<b>City:</b> MIDLAND	<b>State:</b> TX
<b>Phone:</b> (432) 620-6700	
<b>Email address:</b> RANELL.KLEIN@EXXONMOBIL.COM	

Field

<b>Representative Name:</b>		
<b>Street Address:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip:</b>
<b>Phone:</b>		
<b>Email address:</b>		

BLM Point of Contact

<b>BLM POC Name:</b> CHRISTOPHER WALLS	<b>BLM POC Title:</b> Petroleum Engineer
<b>BLM POC Phone:</b> 5752342234	<b>BLM POC Email Address:</b> cwalls@blm.gov
<b>Disposition:</b> Approved	<b>Disposition Date:</b> 12/26/2023
<b>Signature:</b> Chris Walls	

Form 3160-5  
(June 2019)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**5. Lease Serial No. **NMLC068905**

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator **XTO PERMIAN OPERATING LLC**3a. Address **6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND,** 3b. Phone No. (include area code)  
**(432) 683-2277**4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SEC 14/T24S/R30E/NMP**7. If Unit of CA/Agreement, Name and/or No.  
**NMNM71016X**8. Well Name and No. **POKER LAKE UNIT 23 DTD/179H**

9. API Well No.

10. Field and Pool or Exploratory Area  
**PURPLE SAGE/WOLFCAMP (GAS)**11. Country or Parish, State  
**EDDY/NM****12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

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

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

XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD (ID 10400078496): SHL, BHL, FTP, LTP, casing and cement changes.

SHL: FROM: 455' FSL & 476' FEL of Section 14-T24S-R30E TO: 845' FSL & 578' FEL of Section 14-T24S-R30E

BHL: FROM: 200' FNL & 1210' FEL of Section 2-T24S-R30E TO: 230' FNL & 2510' FEL of Section 2-T24S-R30E

FTP: FROM: 100' FSL & 1210' FEL of Section 14-T24S-R30E TO: 500' FNL & 2510' FEL of Section 23-T24S-R30E

LTP: FROM: 330' FNL & 1210' FEL of Section 2-T24S-R30E TO: 330' FNL & 2510' FEL of Section 2-T24S-R30E

Casing and cement changes are listed on the attached drilling plan. Will be using a 4-string casing program.

C-102, Drilling Plan, Directional Plan, Casing Spec Sheet and MultiBowl Schematic attached.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
**RANELL (RUSTY) KLEIN / Ph: (432) 620-6700**

Title **Regulatory Analyst**

(Electronic Submission)  
Signature

Date **12/05/2023**

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved**

Title **Petroleum Engineer**

Date **12/26/2023**

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

Office **CARLSBAD**

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

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

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 Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Location of Well

0. SHL: SESE / 455 FSL / 476 FEL / TWSP: 24S / RANGE: 30E / SECTION: 14 / LAT: 32.21189 / LONG: -103.844826 ( TVD: 0 feet, MD: 0 feet )

PPP: SESE / 100 FSL / 1210 FEL / TWSP: 24S / RANGE: 30E / SECTION: 14 / LAT: 32.210912 / LONG: -103.846879 ( TVD: 11380 feet, MD: 11800 feet )

BHL: LOT 1 / 200 FNL / 1210 FEL / TWSP: 24S / RANGE: 30E / SECTION: 2 / LAT: 32.253591 / LONG: -103.846859 ( TVD: 11380 feet, MD: 27304 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating LLC
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 23 DTD 179H
<b>LOCATION:</b>	Sec 14-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2764691** on 12/26/2023. Any previous COAs not addressed within the updated COAs still apply.*

### COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
<b>Potash / WIPP</b>	<input type="radio"/> None	<input checked="" type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
<b>Variance</b>	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
<b>Variance</b>	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> <b>Batch APD / Sundry</b>				

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 843 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) 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

**24 hours in the Potash Area** 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.

*Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required.* If these quantities are exceeded / procedure needs to be changed, contact the PE on-call line to discuss further remediation options.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

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

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 6293'**
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to tie back at least **500 feet** into previous casing string. Operator should provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

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

**Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the 7-5/8" casing to surface after the second stage BH to verify TOC. Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**



4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

### 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. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. 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 43 CFR 3172 must be followed.

### D. SPECIAL REQUIREMENT (S)

#### Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.



- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

### **Offline Cementing**

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

## **GENERAL REQUIREMENTS**

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
  - **Eddy County (API No. / US Well No. contains 30-015-#####)**  
Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, **BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV**  
(575) 361-2822
  - **Lea County (API No. / US Well No. contains 30-025-#####)**  
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

**B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** 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 cement), 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170**

**Subpart 3172** 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 **43 CFR part 3170 Subpart 3172**.

#### 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.

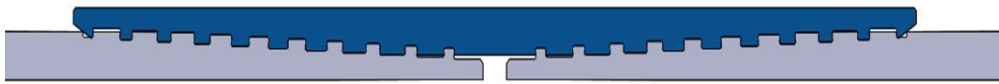
Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.



# U. S. Steel Tubular Products

8/27/2021 1:46:58 PM

## 6.000" 26.00lb/ft (0.436" Wall) P110 RY USS-TALON HTQ™



MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™		--
Outside Diameter	6.000	6.875	in.	--
Wall Thickness	0.436	--	in.	--
Inside Diameter	5.128	5.128	in.	--
Standard Drift	5.003	5.003	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	26.00	--	lb/ft	--
Plain End Weight	25.93	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™		--
Critical Area	7.621	7.621	sq. in.	--
Joint Efficiency	--	100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™		--
Minimum Collapse Pressure	13,570	13,570	psi	--
Minimum Internal Yield Pressure	14,010	14,010	psi	--
Minimum Pipe Body Yield Strength	838,000	--	lb	--
Joint Strength	--	838,000	lb	--
Compression Rating	--	838,000	lb	--
Reference Length	--	21,490	ft	[5]
Maximum Uniaxial Bend Rating	--	84.0	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	22,500	ft-lb	[4]
Maximum Make-Up Torque	--	25,500	ft-lb	[4]
Maximum Operating Torque	--	48,900	ft-lb	[4]

UNCONTROLLED

## Notes

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

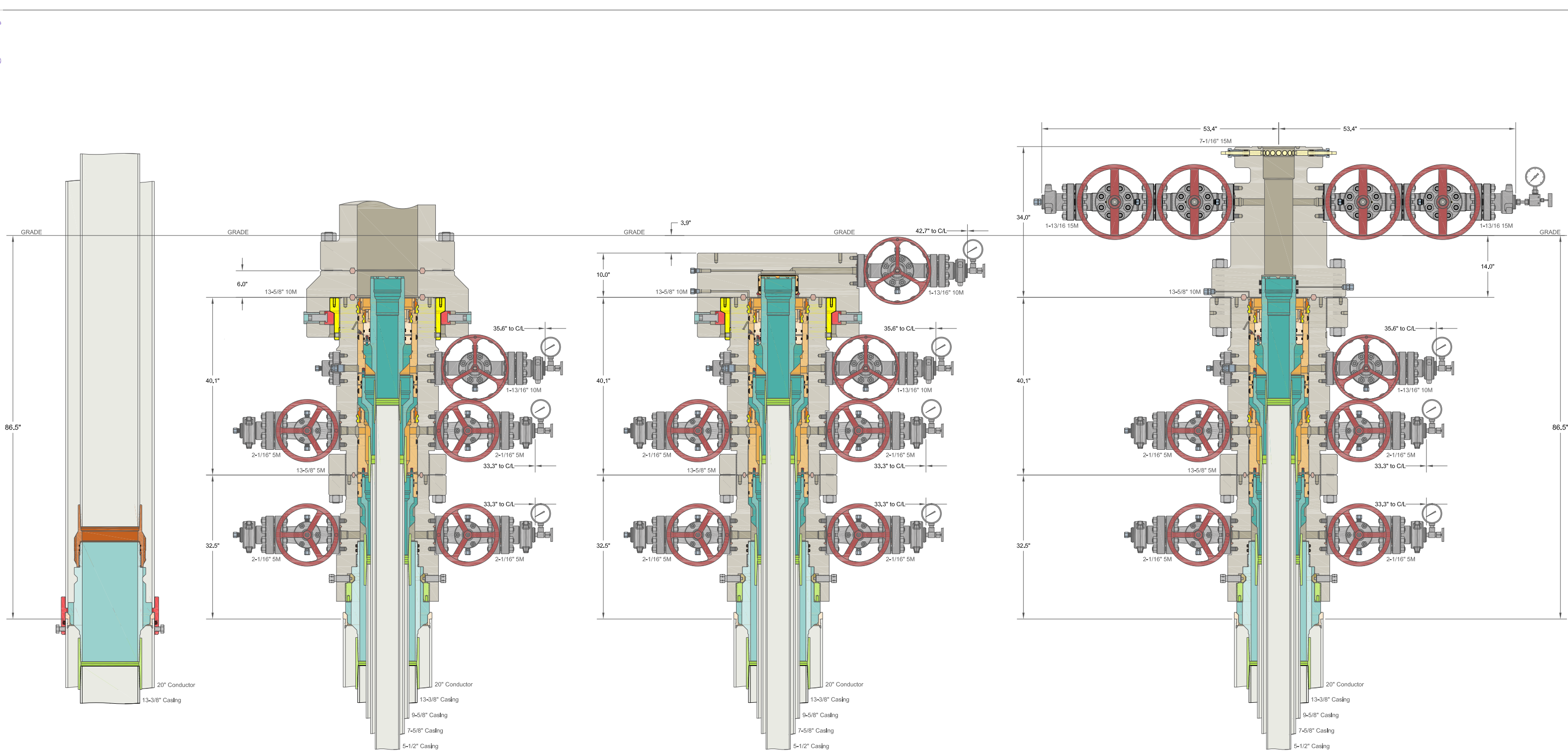
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ALL DIMENSIONS APPROXIMATE			
CACTUS WELLHEAD LLC			
(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations			
XTO ENERGY INC DELAWARE BASIN		31MAR22	
DRAWN	VJK		
APPRV			
DRAWING NO.		SDT-3301	



## Well Plan Report - POKER LAKE UNIT 23 DTD 179H

Measured Depth: 29361.43 ft

TVD RKB: 12228.00 ft

**Location**

Cartographic Reference System: New Mexico East - NAD 27

Northing: 441493.90 ft

Easting: 651234.60 ft

RKB: 3477.00 ft

Ground Level: 3444.00 ft

North Reference: Grid

Convergence Angle: 0.26 Deg

Site: PLU 23D

Slot: POKER LAKE UNIT 23  
DTD 179H**Plan Sections**

POKER LAKE UNIT 23 DTD 179H

Measured			TVD			Build	Turn	Dogleg		
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Target	
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)		
0.00	0.00	0.00	1.00	-0.00	0.00	0.00	0.00	0.00		
1100.00	0.00	0.00	1101.00	-0.00	0.00	0.00	0.00	0.00		
2458.41	27.17	222.93	2409.08	-231.43	-215.27	2.00	0.00	2.00		
7272.39	27.17	222.93	6691.92	-1840.86	-1712.37	0.00	0.00	0.00		
8630.80	0.00	0.00	8000.00	-2072.29	-1927.64	-2.00	0.00	2.00		
12143.60	0.00	0.00	11512.80	-2072.29	-1927.64	0.00	0.00	0.00		
13268.60	90.00	359.77	12229.00	-1356.10	-1930.50	8.00	0.00	8.00	FTP	8
29261.43	90.00	359.77	12229.00	14636.60	-1994.30	0.00	0.00	0.00	LTP	8
29361.43	90.00	359.77	12229.00	14736.60	-1994.70	0.00	0.00	0.00	BHL	8

**Position Uncertainty**

POKER LAKE UNIT 23 DTD 179H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.310	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.326	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.347	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.375	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.407	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.445	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.487	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.533	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.583	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.636	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	222.929	1199.980	5.083	-0.000	4.206	0.000	2.693	0.000	0.000	5.087	4.204	130.106	MWD+IFR1+MS
1300.000	4.000	222.929	1299.838	5.837	-0.000	4.576	0.000	2.753	0.000	0.000	5.852	4.569	-43.080	MWD+IFR1+MS
1400.000	6.000	222.929	1399.452	6.517	-0.000	4.946	0.000	2.819	0.000	0.000	6.559	4.918	-40.151	MWD+IFR1+MS
1500.000	8.000	222.929	1498.702	7.144	-0.000	5.315	0.000	2.892	0.000	0.000	7.215	5.265	-38.547	MWD+IFR1+MS
1600.000	10.000	222.929	1597.465	7.727	-0.000	5.687	0.000	2.975	0.000	0.000	7.832	5.614	-37.527	MWD+IFR1+MS
1700.000	12.000	222.929	1695.623	8.277	-0.000	6.061	0.000	3.070	0.000	0.000	8.416	5.968	-36.804	MWD+IFR1+MS
1800.000	14.000	222.929	1793.055	8.798	-0.000	6.440	0.000	3.178	0.000	0.000	8.973	6.329	-36.246	MWD+IFR1+MS
1900.000	16.000	222.929	1889.643	9.295	-0.000	6.825	0.000	3.301	0.000	0.000	9.508	6.696	-35.782	MWD+IFR1+MS
2000.000	18.000	222.929	1985.268	9.770	-0.000	7.218	0.000	3.441	0.000	0.000	10.024	7.072	-35.369	MWD+IFR1+MS
2100.000	20.000	222.929	2079.816	10.228	-0.000	7.619	0.000	3.599	0.000	0.000	10.523	7.458	-34.978	MWD+IFR1+MS
2200.000	22.000	222.929	2173.169	10.669	-0.000	8.031	0.000	3.776	0.000	0.000	11.009	7.856	-34.589	MWD+IFR1+MS
2300.000	24.000	222.929	2265.215	11.096	-0.000	8.455	0.000	3.972	0.000	0.000	11.481	8.266	-34.184	MWD+IFR1+MS
2400.000	26.000	222.929	2355.841	11.510	-0.000	8.894	0.000	4.190	0.000	0.000	11.943	8.691	-33.745	MWD+IFR1+MS
2458.411	27.168	222.929	2408.076	11.661	-0.000	9.148	0.000	4.276	0.000	0.000	12.138	8.944	-33.542	MWD+IFR1+MS
2500.000	27.168	222.929	2445.076	11.785	-0.000	9.330	0.000	4.328	0.000	0.000	12.251	9.127	-33.388	MWD+IFR1+MS
2600.000	27.168	222.929	2534.043	12.089	-0.000	9.786	0.000	4.468	0.000	0.000	12.525	9.582	-32.829	MWD+IFR1+MS
2700.000	27.168	222.929	2623.010	12.412	-0.000	10.259	0.000	4.621	0.000	0.000	12.819	10.050	-32.044	MWD+IFR1+MS
2800.000	27.168	222.929	2711.977	12.744	-0.000	10.740	0.000	4.782	0.000	0.000	13.122	10.522	-31.146	MWD+IFR1+MS
2900.000	27.168	222.929	2800.944	13.086	-0.000	11.227	0.000	4.948	0.000	0.000	13.434	11.000	-30.120	MWD+IFR1+MS

3000.000	27.168	222.929	2889.911	13.437	-0.000	11.720	0.000	5.121	0.000	0.000	13.756	11.480	-28.946	MWD+IFR1+MS
3100.000	27.168	222.929	2978.878	13.795	-0.000	12.217	0.000	5.299	0.000	0.000	14.086	11.963	-27.601	MWD+IFR1+MS
3200.000	27.168	222.929	3067.845	14.161	-0.000	12.719	0.000	5.483	0.000	0.000	14.426	12.447	-26.058	MWD+IFR1+MS
3300.000	27.168	222.929	3156.812	14.534	-0.000	13.224	0.000	5.670	0.000	0.000	14.775	12.931	-24.288	MWD+IFR1+MS
3400.000	27.168	222.929	3245.779	14.913	-0.000	13.733	0.000	5.862	0.000	0.000	15.133	13.415	-22.262	MWD+IFR1+MS
3500.000	27.168	222.929	3334.746	15.298	-0.000	14.245	0.000	6.058	0.000	0.000	15.501	13.896	-19.950	MWD+IFR1+MS
3600.000	27.168	222.929	3423.713	15.688	-0.000	14.759	0.000	6.257	0.000	0.000	15.880	14.375	-17.333	MWD+IFR1+MS
3700.000	27.168	222.929	3512.680	16.083	-0.000	15.276	0.000	6.459	0.000	0.000	16.271	14.848	-14.406	MWD+IFR1+MS
3800.000	27.168	222.929	3601.647	16.483	-0.000	15.795	0.000	6.664	0.000	0.000	16.673	15.316	-11.189	MWD+IFR1+MS
3900.000	27.168	222.929	3690.614	16.888	-0.000	16.317	0.000	6.872	0.000	0.000	17.089	15.777	-7.737	MWD+IFR1+MS
4000.000	27.168	222.929	3779.581	17.296	-0.000	16.839	0.000	7.082	0.000	0.000	17.518	16.229	-4.136	MWD+IFR1+MS
4100.000	27.168	222.929	3868.548	17.708	-0.000	17.364	0.000	7.295	0.000	0.000	17.960	16.674	-0.502	MWD+IFR1+MS
4200.000	27.168	222.929	3957.515	18.124	-0.000	17.890	0.000	7.510	0.000	0.000	18.415	17.110	3.046	MWD+IFR1+MS
4300.000	27.168	222.929	4046.482	18.542	-0.000	18.417	0.000	7.727	0.000	0.000	18.882	17.539	6.405	MWD+IFR1+MS
4400.000	27.168	222.929	4135.449	18.964	-0.000	18.946	0.000	7.946	0.000	0.000	19.359	17.961	9.503	MWD+IFR1+MS
4500.000	27.168	222.929	4224.416	19.389	-0.000	19.475	0.000	8.167	0.000	0.000	19.846	18.378	12.301	MWD+IFR1+MS
4600.000	27.168	222.929	4313.382	19.816	-0.000	20.006	0.000	8.389	0.000	0.000	20.341	18.790	14.794	MWD+IFR1+MS
4700.000	27.168	222.929	4402.349	20.246	-0.000	20.538	0.000	8.614	0.000	0.000	20.842	19.199	16.995	MWD+IFR1+MS
4800.000	27.168	222.929	4491.316	20.678	-0.000	21.071	0.000	8.840	0.000	0.000	21.349	19.606	18.928	MWD+IFR1+MS
4900.000	27.168	222.929	4580.283	21.113	-0.000	21.604	0.000	9.067	0.000	0.000	21.861	20.011	20.624	MWD+IFR1+MS
5000.000	27.168	222.929	4669.250	21.549	-0.000	22.138	0.000	9.296	0.000	0.000	22.376	20.415	22.113	MWD+IFR1+MS
5100.000	27.168	222.929	4758.217	21.987	-0.000	22.673	0.000	9.527	0.000	0.000	22.896	20.818	23.422	MWD+IFR1+MS
5200.000	27.168	222.929	4847.184	22.428	-0.000	23.209	0.000	9.758	0.000	0.000	23.417	21.221	24.577	MWD+IFR1+MS
5300.000	27.168	222.929	4936.151	22.869	-0.000	23.745	0.000	9.992	0.000	0.000	23.942	21.623	25.600	MWD+IFR1+MS
5400.000	27.168	222.929	5025.118	23.313	-0.000	24.282	0.000	10.226	0.000	0.000	24.468	22.026	26.510	MWD+IFR1+MS
5500.000	27.168	222.929	5114.085	23.758	-0.000	24.819	0.000	10.462	0.000	0.000	24.996	22.429	27.321	MWD+IFR1+MS
5600.000	27.168	222.929	5203.052	24.204	-0.000	25.357	0.000	10.699	0.000	0.000	25.526	22.833	28.049	MWD+IFR1+MS
5700.000	27.168	222.929	5292.019	24.652	-0.000	25.896	0.000	10.937	0.000	0.000	26.057	23.237	28.703	MWD+IFR1+MS
5800.000	27.168	222.929	5380.986	25.101	-0.000	26.434	0.000	11.177	0.000	0.000	26.590	23.642	29.294	MWD+IFR1+MS
5900.000	27.168	222.929	5469.953	25.552	-0.000	26.974	0.000	11.418	0.000	0.000	27.123	24.047	29.829	MWD+IFR1+MS
6000.000	27.168	222.929	5558.920	26.003	-0.000	27.513	0.000	11.660	0.000	0.000	27.657	24.453	30.316	MWD+IFR1+MS
6100.000	27.168	222.929	5647.887	26.456	-0.000	28.053	0.000	11.903	0.000	0.000	28.193	24.860	30.761	MWD+IFR1+MS
6200.000	27.168	222.929	5736.854	26.910	-0.000	28.593	0.000	12.147	0.000	0.000	28.729	25.267	31.168	MWD+IFR1+MS

6300.000	27.168	222.929	5825.821	27.364	-0.000	29.134	0.000	12.393	0.000	0.000	29.266	25.675	31.541	MWD+IFR1+MS
6400.000	27.168	222.929	5914.788	27.820	-0.000	29.675	0.000	12.639	0.000	0.000	29.803	26.084	31.885	MWD+IFR1+MS
6500.000	27.168	222.929	6003.755	28.276	-0.000	30.216	0.000	12.887	0.000	0.000	30.341	26.494	32.202	MWD+IFR1+MS
6600.000	27.168	222.929	6092.722	28.734	-0.000	30.758	0.000	13.136	0.000	0.000	30.880	26.904	32.495	MWD+IFR1+MS
6700.000	27.168	222.929	6181.689	29.192	-0.000	31.300	0.000	13.386	0.000	0.000	31.419	27.315	32.768	MWD+IFR1+MS
6800.000	27.168	222.929	6270.656	29.651	-0.000	31.842	0.000	13.637	0.000	0.000	31.959	27.726	33.021	MWD+IFR1+MS
6900.000	27.168	222.929	6359.623	30.110	-0.000	32.384	0.000	13.890	0.000	0.000	32.499	28.139	33.256	MWD+IFR1+MS
7000.000	27.168	222.929	6448.590	30.571	-0.000	32.927	0.000	14.143	0.000	0.000	33.040	28.552	33.476	MWD+IFR1+MS
7100.000	27.168	222.929	6537.557	31.032	-0.000	33.469	0.000	14.398	0.000	0.000	33.581	28.966	33.682	MWD+IFR1+MS
7200.000	27.168	222.929	6626.524	31.494	-0.000	34.012	0.000	14.654	0.000	0.000	34.122	29.380	33.874	MWD+IFR1+MS
7272.387	27.168	222.929	6690.924	31.826	-0.000	34.404	0.000	14.839	0.000	0.000	34.511	29.679	34.024	MWD+IFR1+MS
7300.000	26.616	222.929	6715.551	31.976	-0.000	34.551	0.000	14.909	0.000	0.000	34.658	29.793	34.084	MWD+IFR1+MS
7400.000	24.616	222.929	6805.718	32.520	-0.000	35.075	0.000	15.169	0.000	0.000	35.182	30.228	34.154	MWD+IFR1+MS
7500.000	22.616	222.929	6897.338	33.064	-0.000	35.581	0.000	15.432	0.000	0.000	35.693	30.697	34.005	MWD+IFR1+MS
7600.000	20.616	222.929	6990.301	33.557	-0.000	36.065	0.000	15.675	0.000	0.000	36.182	31.161	33.833	MWD+IFR1+MS
7700.000	18.616	222.929	7084.492	33.997	-0.000	36.528	0.000	15.901	0.000	0.000	36.650	31.618	33.638	MWD+IFR1+MS
7800.000	16.616	222.929	7179.798	34.384	-0.000	36.969	0.000	16.110	0.000	0.000	37.097	32.067	33.423	MWD+IFR1+MS
7900.000	14.616	222.929	7276.102	34.719	-0.000	37.389	0.000	16.303	0.000	0.000	37.523	32.506	33.188	MWD+IFR1+MS
8000.000	12.616	222.929	7373.287	35.000	-0.000	37.788	0.000	16.483	0.000	0.000	37.928	32.934	32.934	MWD+IFR1+MS
8100.000	10.616	222.929	7471.234	35.227	-0.000	38.165	0.000	16.650	0.000	0.000	38.313	33.351	32.663	MWD+IFR1+MS
8200.000	8.616	222.929	7569.824	35.401	-0.000	38.523	0.000	16.805	0.000	0.000	38.678	33.755	32.376	MWD+IFR1+MS
8300.000	6.616	222.929	7668.936	35.521	-0.000	38.860	0.000	16.951	0.000	0.000	39.023	34.145	32.075	MWD+IFR1+MS
8400.000	4.616	222.929	7768.451	35.588	-0.000	39.179	0.000	17.088	0.000	0.000	39.349	34.520	31.761	MWD+IFR1+MS
8500.000	2.616	222.929	7868.247	35.602	-0.000	39.478	0.000	17.218	0.000	0.000	39.657	34.881	31.435	MWD+IFR1+MS
8600.000	0.616	222.929	7968.202	35.564	-0.000	39.760	0.000	17.342	0.000	0.000	39.947	35.225	31.100	MWD+IFR1+MS
8630.798	0.000	0.000	7999.000	36.626	0.000	38.821	0.000	17.379	0.000	0.000	40.025	35.306	31.117	MWD+IFR1+MS
8700.000	0.000	0.000	8068.202	36.806	0.000	38.979	0.000	17.463	0.000	0.000	40.185	35.485	31.205	MWD+IFR1+MS
8800.000	0.000	0.000	8168.202	37.067	0.000	39.213	0.000	17.587	0.000	0.000	40.420	35.747	31.311	MWD+IFR1+MS
8900.000	0.000	0.000	8268.202	37.331	0.000	39.449	0.000	17.715	0.000	0.000	40.656	36.013	31.409	MWD+IFR1+MS
9000.000	0.000	0.000	8368.202	37.597	0.000	39.687	0.000	17.845	0.000	0.000	40.894	36.281	31.507	MWD+IFR1+MS
9100.000	0.000	0.000	8468.202	37.865	0.000	39.927	0.000	17.979	0.000	0.000	41.133	36.551	31.605	MWD+IFR1+MS
9200.000	0.000	0.000	8568.202	38.134	0.000	40.169	0.000	18.116	0.000	0.000	41.375	36.822	31.703	MWD+IFR1+MS
9300.000	0.000	0.000	8668.202	38.404	0.000	40.413	0.000	18.257	0.000	0.000	41.618	37.094	31.801	MWD+IFR1+MS

9400.000	0.000	0.000	8768.202	38.676	0.000	40.658	0.000	18.401	0.000	0.000	41.863	37.368	31.899	MWD+IFR1+MS
9500.000	0.000	0.000	8868.202	38.949	0.000	40.905	0.000	18.548	0.000	0.000	42.109	37.643	31.997	MWD+IFR1+MS
9600.000	0.000	0.000	8968.202	39.224	0.000	41.153	0.000	18.699	0.000	0.000	42.358	37.920	32.095	MWD+IFR1+MS
9700.000	0.000	0.000	9068.202	39.500	0.000	41.404	0.000	18.853	0.000	0.000	42.607	38.198	32.193	MWD+IFR1+MS
9800.000	0.000	0.000	9168.202	39.777	0.000	41.655	0.000	19.011	0.000	0.000	42.859	38.477	32.290	MWD+IFR1+MS
9900.000	0.000	0.000	9268.202	40.056	0.000	41.909	0.000	19.172	0.000	0.000	43.112	38.758	32.388	MWD+IFR1+MS
10000.000	0.000	0.000	9368.202	40.335	0.000	42.164	0.000	19.337	0.000	0.000	43.366	39.040	32.486	MWD+IFR1+MS
10100.000	0.000	0.000	9468.202	40.616	0.000	42.420	0.000	19.506	0.000	0.000	43.622	39.323	32.583	MWD+IFR1+MS
10200.000	0.000	0.000	9568.202	40.899	0.000	42.678	0.000	19.678	0.000	0.000	43.879	39.607	32.681	MWD+IFR1+MS
10300.000	0.000	0.000	9668.202	41.182	0.000	42.937	0.000	19.854	0.000	0.000	44.138	39.892	32.779	MWD+IFR1+MS
10400.000	0.000	0.000	9768.202	41.467	0.000	43.198	0.000	20.033	0.000	0.000	44.398	40.179	32.876	MWD+IFR1+MS
10500.000	0.000	0.000	9868.202	41.752	0.000	43.460	0.000	20.216	0.000	0.000	44.660	40.467	32.974	MWD+IFR1+MS
10600.000	0.000	0.000	9968.202	42.039	0.000	43.723	0.000	20.403	0.000	0.000	44.922	40.755	33.071	MWD+IFR1+MS
10700.000	0.000	0.000	10068.202	42.327	0.000	43.988	0.000	20.593	0.000	0.000	45.187	41.045	33.169	MWD+IFR1+MS
10800.000	0.000	0.000	10168.202	42.616	0.000	44.254	0.000	20.787	0.000	0.000	45.452	41.336	33.266	MWD+IFR1+MS
10900.000	0.000	0.000	10268.202	42.906	0.000	44.521	0.000	20.985	0.000	0.000	45.719	41.628	33.363	MWD+IFR1+MS
11000.000	0.000	0.000	10368.202	43.198	0.000	44.790	0.000	21.186	0.000	0.000	45.987	41.921	33.460	MWD+IFR1+MS
11100.000	0.000	0.000	10468.202	43.490	0.000	45.060	0.000	21.391	0.000	0.000	46.257	42.215	33.558	MWD+IFR1+MS
11200.000	0.000	0.000	10568.202	43.783	0.000	45.331	0.000	21.600	0.000	0.000	46.527	42.510	33.655	MWD+IFR1+MS
11300.000	0.000	0.000	10668.202	44.077	0.000	45.604	0.000	21.813	0.000	0.000	46.799	42.805	33.752	MWD+IFR1+MS
11400.000	0.000	0.000	10768.202	44.372	0.000	45.877	0.000	22.030	0.000	0.000	47.072	43.102	33.849	MWD+IFR1+MS
11500.000	0.000	0.000	10868.202	44.668	0.000	46.152	0.000	22.250	0.000	0.000	47.346	43.400	33.945	MWD+IFR1+MS
11600.000	0.000	0.000	10968.202	44.965	0.000	46.428	0.000	22.474	0.000	0.000	47.621	43.698	34.042	MWD+IFR1+MS
11700.000	0.000	0.000	11068.202	45.262	0.000	46.705	0.000	22.702	0.000	0.000	47.898	43.998	34.139	MWD+IFR1+MS
11800.000	0.000	0.000	11168.202	45.561	0.000	46.983	0.000	22.933	0.000	0.000	48.175	44.298	34.236	MWD+IFR1+MS
11900.000	0.000	0.000	11268.202	45.860	0.000	47.262	0.000	23.169	0.000	0.000	48.454	44.599	34.332	MWD+IFR1+MS
12000.000	0.000	0.000	11368.202	46.161	0.000	47.542	0.000	23.408	0.000	0.000	48.733	44.901	34.429	MWD+IFR1+MS
12100.000	0.000	0.000	11468.202	46.462	0.000	47.823	0.000	23.651	0.000	0.000	49.014	45.204	34.525	MWD+IFR1+MS
12143.601	0.000	0.000	11511.803	46.592	0.000	47.945	0.000	23.758	0.000	0.000	49.137	45.334	34.574	MWD+IFR1+MS
12200.000	4.512	359.771	11568.144	46.111	0.000	48.085	0.000	23.896	0.000	0.000	49.299	45.514	34.793	MWD+IFR1+MS
12300.000	12.512	359.771	11666.962	45.230	0.000	48.343	0.000	24.166	0.000	0.000	49.716	46.157	38.693	MWD+IFR1+MS
12400.000	20.512	359.771	11762.760	44.120	0.000	48.577	0.000	24.544	0.000	0.000	50.259	46.887	45.189	MWD+IFR1+MS
12500.000	28.512	359.771	11853.674	42.518	0.000	48.785	0.000	25.080	0.000	0.000	50.805	47.438	51.009	MWD+IFR1+MS



12600.000	36.512	359.771	11937.933	40.566	0.000	48.966	0.000	25.812	0.000	0.000	51.308	47.842	55.535	MWD+IFR1+MS
12700.000	44.512	359.771	12013.898	38.446	0.000	49.118	0.000	26.757	0.000	0.000	51.728	48.137	58.706	MWD+IFR1+MS
12800.000	52.512	359.771	12080.091	36.386	0.000	49.243	0.000	27.907	0.000	0.000	52.041	48.349	60.750	MWD+IFR1+MS
12900.000	60.512	359.771	12135.222	34.652	0.000	49.341	0.000	29.235	0.000	0.000	52.246	48.501	61.948	MWD+IFR1+MS
13000.000	68.512	359.771	12178.220	33.523	0.000	49.412	0.000	30.700	0.000	0.000	52.351	48.606	62.563	MWD+IFR1+MS
13100.000	76.512	359.771	12208.246	33.233	0.000	49.459	0.000	32.250	0.000	0.000	52.379	48.677	62.842	MWD+IFR1+MS
13200.000	84.512	359.771	12224.717	33.904	0.000	49.480	0.000	33.832	0.000	0.000	52.358	48.723	63.038	MWD+IFR1+MS
13268.601	90.000	359.771	12228.000	34.470	0.000	49.479	0.000	34.470	0.000	0.000	52.332	48.744	63.274	MWD+IFR1+MS
13300.000	90.000	359.771	12228.000	34.585	0.000	49.475	0.000	34.585	0.000	0.000	52.320	48.752	63.424	MWD+IFR1+MS
13400.000	90.000	359.771	12228.000	34.914	0.000	49.479	0.000	34.914	0.000	0.000	52.285	48.790	63.815	MWD+IFR1+MS
13500.000	90.000	359.771	12228.000	35.260	0.000	49.500	0.000	35.260	0.000	0.000	52.254	48.843	64.113	MWD+IFR1+MS
13600.000	90.000	359.771	12228.000	35.620	0.000	49.537	0.000	35.620	0.000	0.000	52.226	48.908	64.328	MWD+IFR1+MS
13700.000	90.000	359.771	12228.000	35.993	0.000	49.590	0.000	35.993	0.000	0.000	52.202	48.986	64.454	MWD+IFR1+MS
13800.000	90.000	359.771	12228.000	36.380	0.000	49.658	0.000	36.380	0.000	0.000	52.180	49.077	64.483	MWD+IFR1+MS
13900.000	90.000	359.771	12228.000	36.779	0.000	49.742	0.000	36.779	0.000	0.000	52.162	49.181	64.405	MWD+IFR1+MS
14000.000	90.000	359.771	12228.000	37.191	0.000	49.841	0.000	37.191	0.000	0.000	52.147	49.298	64.207	MWD+IFR1+MS
14100.000	90.000	359.771	12228.000	37.615	0.000	49.955	0.000	37.615	0.000	0.000	52.135	49.427	63.867	MWD+IFR1+MS
14200.000	90.000	359.771	12228.000	38.050	0.000	50.085	0.000	38.050	0.000	0.000	52.127	49.568	63.362	MWD+IFR1+MS
14300.000	90.000	359.771	12228.000	38.496	0.000	50.230	0.000	38.496	0.000	0.000	52.123	49.721	62.654	MWD+IFR1+MS
14400.000	90.000	359.771	12228.000	38.952	0.000	50.389	0.000	38.952	0.000	0.000	52.124	49.885	61.696	MWD+IFR1+MS
14500.000	90.000	359.771	12228.000	39.420	0.000	50.564	0.000	39.420	0.000	0.000	52.130	50.059	60.420	MWD+IFR1+MS
14600.000	90.000	359.771	12228.000	39.897	0.000	50.753	0.000	39.897	0.000	0.000	52.142	50.241	58.736	MWD+IFR1+MS
14700.000	90.000	359.771	12228.000	40.383	0.000	50.957	0.000	40.383	0.000	0.000	52.163	50.429	56.519	MWD+IFR1+MS
14800.000	90.000	359.771	12228.000	40.879	0.000	51.175	0.000	40.879	0.000	0.000	52.196	50.621	53.610	MWD+IFR1+MS
14900.000	90.000	359.771	12228.000	41.384	0.000	51.407	0.000	41.384	0.000	0.000	52.245	50.811	49.829	MWD+IFR1+MS
15000.000	90.000	359.771	12228.000	41.898	0.000	51.654	0.000	41.898	0.000	0.000	52.317	50.994	45.030	MWD+IFR1+MS
15100.000	90.000	359.771	12228.000	42.420	0.000	51.914	0.000	42.420	0.000	0.000	52.418	51.161	39.242	MWD+IFR1+MS
15200.000	90.000	359.771	12228.000	42.949	0.000	52.187	0.000	42.949	0.000	0.000	52.557	51.304	32.829	MWD+IFR1+MS
15300.000	90.000	359.771	12228.000	43.487	0.000	52.474	0.000	43.487	0.000	0.000	52.737	51.420	26.457	MWD+IFR1+MS
15400.000	90.000	359.771	12228.000	44.032	0.000	52.774	0.000	44.032	0.000	0.000	52.958	51.509	20.764	MWD+IFR1+MS
15500.000	90.000	359.771	12228.000	44.584	0.000	53.087	0.000	44.584	0.000	0.000	53.214	51.575	16.057	MWD+IFR1+MS
15600.000	90.000	359.771	12228.000	45.143	0.000	53.413	0.000	45.143	0.000	0.000	53.500	51.626	12.328	MWD+IFR1+MS
15700.000	90.000	359.771	12228.000	45.709	0.000	53.751	0.000	45.709	0.000	0.000	53.810	51.665	9.421	MWD+IFR1+MS

15800.000	90.000	359.771	12228.000	46.281	0.000	54.102	0.000	46.281	0.000	0.000	54.141	51.696	7.155	MWD+IFR1+MS
15900.000	90.000	359.771	12228.000	46.859	0.000	54.464	0.000	46.859	0.000	0.000	54.490	51.722	5.373	MWD+IFR1+MS
16000.000	90.000	359.771	12228.000	47.443	0.000	54.838	0.000	47.443	0.000	0.000	54.854	51.744	3.958	MWD+IFR1+MS
16100.000	90.000	359.771	12228.000	48.033	0.000	55.224	0.000	48.033	0.000	0.000	55.233	51.764	2.821	MWD+IFR1+MS
16200.000	90.000	359.771	12228.000	48.628	0.000	55.621	0.000	48.628	0.000	0.000	55.626	51.782	1.897	MWD+IFR1+MS
16300.000	90.000	359.771	12228.000	49.229	0.000	56.029	0.000	49.229	0.000	0.000	56.031	51.799	1.138	MWD+IFR1+MS
16400.000	90.000	359.771	12228.000	49.835	0.000	56.447	0.000	49.835	0.000	0.000	56.448	51.815	0.510	MWD+IFR1+MS
16500.000	90.000	359.771	12228.000	50.446	0.000	56.877	0.000	50.446	0.000	0.000	56.877	51.831	-0.015	MWD+IFR1+MS
16600.000	90.000	359.771	12228.000	51.061	0.000	57.316	0.000	51.061	0.000	0.000	57.316	51.847	-0.456	MWD+IFR1+MS
16700.000	90.000	359.771	12228.000	51.681	0.000	57.766	0.000	51.681	0.000	0.000	57.767	51.863	-0.830	MWD+IFR1+MS
16800.000	90.000	359.771	12228.000	52.306	0.000	58.226	0.000	52.306	0.000	0.000	58.227	51.878	-1.148	MWD+IFR1+MS
16900.000	90.000	359.771	12228.000	52.934	0.000	58.695	0.000	52.934	0.000	0.000	58.698	51.894	-1.419	MWD+IFR1+MS
17000.000	90.000	359.771	12228.000	53.567	0.000	59.173	0.000	53.567	0.000	0.000	59.178	51.911	-1.652	MWD+IFR1+MS
17100.000	90.000	359.771	12228.000	54.204	0.000	59.661	0.000	54.204	0.000	0.000	59.667	51.927	-1.853	MWD+IFR1+MS
17200.000	90.000	359.771	12228.000	54.845	0.000	60.158	0.000	54.845	0.000	0.000	60.165	51.945	-2.026	MWD+IFR1+MS
17300.000	90.000	359.771	12228.000	55.489	0.000	60.663	0.000	55.489	0.000	0.000	60.672	51.962	-2.175	MWD+IFR1+MS
17400.000	90.000	359.771	12228.000	56.137	0.000	61.177	0.000	56.137	0.000	0.000	61.188	51.980	-2.305	MWD+IFR1+MS
17500.000	90.000	359.771	12228.000	56.789	0.000	61.699	0.000	56.789	0.000	0.000	61.712	51.999	-2.417	MWD+IFR1+MS
17600.000	90.000	359.771	12228.000	57.443	0.000	62.229	0.000	57.443	0.000	0.000	62.244	52.018	-2.514	MWD+IFR1+MS
17700.000	90.000	359.771	12228.000	58.101	0.000	62.768	0.000	58.101	0.000	0.000	62.784	52.038	-2.598	MWD+IFR1+MS
17800.000	90.000	359.771	12228.000	58.762	0.000	63.313	0.000	58.762	0.000	0.000	63.332	52.058	-2.671	MWD+IFR1+MS
17900.000	90.000	359.771	12228.000	59.426	0.000	63.867	0.000	59.426	0.000	0.000	63.887	52.079	-2.735	MWD+IFR1+MS
18000.000	90.000	359.771	12228.000	60.093	0.000	64.427	0.000	60.093	0.000	0.000	64.450	52.100	-2.789	MWD+IFR1+MS
18100.000	90.000	359.771	12228.000	60.763	0.000	64.995	0.000	60.763	0.000	0.000	65.019	52.122	-2.836	MWD+IFR1+MS
18200.000	90.000	359.771	12228.000	61.436	0.000	65.570	0.000	61.436	0.000	0.000	65.595	52.144	-2.876	MWD+IFR1+MS
18300.000	90.000	359.771	12228.000	62.111	0.000	66.151	0.000	62.111	0.000	0.000	66.178	52.167	-2.910	MWD+IFR1+MS
18400.000	90.000	359.771	12228.000	62.789	0.000	66.739	0.000	62.789	0.000	0.000	66.768	52.191	-2.939	MWD+IFR1+MS
18500.000	90.000	359.771	12228.000	63.469	0.000	67.333	0.000	63.469	0.000	0.000	67.364	52.215	-2.963	MWD+IFR1+MS
18600.000	90.000	359.771	12228.000	64.152	0.000	67.934	0.000	64.152	0.000	0.000	67.966	52.240	-2.983	MWD+IFR1+MS
18700.000	90.000	359.771	12228.000	64.836	0.000	68.540	0.000	64.836	0.000	0.000	68.574	52.266	-3.000	MWD+IFR1+MS
18800.000	90.000	359.771	12228.000	65.524	0.000	69.153	0.000	65.524	0.000	0.000	69.188	52.292	-3.013	MWD+IFR1+MS
18900.000	90.000	359.771	12228.000	66.213	0.000	69.771	0.000	66.213	0.000	0.000	69.807	52.319	-3.023	MWD+IFR1+MS
19000.000	90.000	359.771	12228.000	66.904	0.000	70.395	0.000	66.904	0.000	0.000	70.432	52.346	-3.030	MWD+IFR1+MS



19100.000	90.000	359.771	12228.000	67.598	0.000	71.024	0.000	67.598	0.000	0.000	71.063	52.374	-3.036	MWD+IFR1+MS
19200.000	90.000	359.771	12228.000	68.293	0.000	71.658	0.000	68.293	0.000	0.000	71.698	52.402	-3.039	MWD+IFR1+MS
19300.000	90.000	359.771	12228.000	68.990	0.000	72.298	0.000	68.990	0.000	0.000	72.339	52.431	-3.040	MWD+IFR1+MS
19400.000	90.000	359.771	12228.000	69.690	0.000	72.943	0.000	69.690	0.000	0.000	72.985	52.461	-3.039	MWD+IFR1+MS
19500.000	90.000	359.771	12228.000	70.391	0.000	73.592	0.000	70.391	0.000	0.000	73.636	52.491	-3.037	MWD+IFR1+MS
19600.000	90.000	359.771	12228.000	71.093	0.000	74.247	0.000	71.093	0.000	0.000	74.291	52.522	-3.034	MWD+IFR1+MS
19700.000	90.000	359.771	12228.000	71.798	0.000	74.906	0.000	71.798	0.000	0.000	74.951	52.553	-3.029	MWD+IFR1+MS
19800.000	90.000	359.771	12228.000	72.504	0.000	75.569	0.000	72.504	0.000	0.000	75.616	52.585	-3.023	MWD+IFR1+MS
19900.000	90.000	359.771	12228.000	73.212	0.000	76.237	0.000	73.212	0.000	0.000	76.284	52.618	-3.016	MWD+IFR1+MS
20000.000	90.000	359.771	12228.000	73.921	0.000	76.909	0.000	73.921	0.000	0.000	76.958	52.651	-3.008	MWD+IFR1+MS
20100.000	90.000	359.771	12228.000	74.632	0.000	77.586	0.000	74.632	0.000	0.000	77.635	52.685	-3.000	MWD+IFR1+MS
20200.000	90.000	359.771	12228.000	75.344	0.000	78.266	0.000	75.344	0.000	0.000	78.316	52.720	-2.991	MWD+IFR1+MS
20300.000	90.000	359.771	12228.000	76.058	0.000	78.951	0.000	76.058	0.000	0.000	79.001	52.755	-2.981	MWD+IFR1+MS
20400.000	90.000	359.771	12228.000	76.773	0.000	79.639	0.000	76.773	0.000	0.000	79.690	52.790	-2.970	MWD+IFR1+MS
20500.000	90.000	359.771	12228.000	77.489	0.000	80.331	0.000	77.489	0.000	0.000	80.383	52.826	-2.960	MWD+IFR1+MS
20600.000	90.000	359.771	12228.000	78.207	0.000	81.027	0.000	78.207	0.000	0.000	81.079	52.863	-2.948	MWD+IFR1+MS
20700.000	90.000	359.771	12228.000	78.926	0.000	81.726	0.000	78.926	0.000	0.000	81.779	52.900	-2.936	MWD+IFR1+MS
20800.000	90.000	359.771	12228.000	79.646	0.000	82.429	0.000	79.646	0.000	0.000	82.482	52.938	-2.924	MWD+IFR1+MS
20900.000	90.000	359.771	12228.000	80.368	0.000	83.135	0.000	80.368	0.000	0.000	83.189	52.977	-2.912	MWD+IFR1+MS
21000.000	90.000	359.771	12228.000	81.090	0.000	83.844	0.000	81.090	0.000	0.000	83.899	53.016	-2.899	MWD+IFR1+MS
21100.000	90.000	359.771	12228.000	81.814	0.000	84.557	0.000	81.814	0.000	0.000	84.612	53.055	-2.886	MWD+IFR1+MS
21200.000	90.000	359.771	12228.000	82.539	0.000	85.273	0.000	82.539	0.000	0.000	85.328	53.095	-2.873	MWD+IFR1+MS
21300.000	90.000	359.771	12228.000	83.265	0.000	85.991	0.000	83.265	0.000	0.000	86.048	53.136	-2.860	MWD+IFR1+MS
21400.000	90.000	359.771	12228.000	83.992	0.000	86.713	0.000	83.992	0.000	0.000	86.770	53.177	-2.846	MWD+IFR1+MS
21500.000	90.000	359.771	12228.000	84.720	0.000	87.438	0.000	84.720	0.000	0.000	87.495	53.219	-2.832	MWD+IFR1+MS
21600.000	90.000	359.771	12228.000	85.449	0.000	88.166	0.000	85.449	0.000	0.000	88.223	53.261	-2.819	MWD+IFR1+MS
21700.000	90.000	359.771	12228.000	86.179	0.000	88.896	0.000	86.179	0.000	0.000	88.954	53.304	-2.805	MWD+IFR1+MS
21800.000	90.000	359.771	12228.000	86.910	0.000	89.629	0.000	86.910	0.000	0.000	89.687	53.348	-2.791	MWD+IFR1+MS
21900.000	90.000	359.771	12228.000	87.642	0.000	90.365	0.000	87.642	0.000	0.000	90.423	53.392	-2.777	MWD+IFR1+MS
22000.000	90.000	359.771	12228.000	88.375	0.000	91.103	0.000	88.375	0.000	0.000	91.162	53.437	-2.763	MWD+IFR1+MS
22100.000	90.000	359.771	12228.000	89.109	0.000	91.844	0.000	89.109	0.000	0.000	91.903	53.482	-2.749	MWD+IFR1+MS
22200.000	90.000	359.771	12228.000	89.843	0.000	92.587	0.000	89.843	0.000	0.000	92.646	53.528	-2.735	MWD+IFR1+MS
22300.000	90.000	359.771	12228.000	90.579	0.000	93.333	0.000	90.579	0.000	0.000	93.392	53.574	-2.721	MWD+IFR1+MS

22400.000	90.000	359.771	12228.000	91.315	0.000	94.081	0.000	91.315	0.000	0.000	94.140	53.621	-2.707	MWD+IFR1+MS
22500.000	90.000	359.771	12228.000	92.052	0.000	94.831	0.000	92.052	0.000	0.000	94.891	53.668	-2.693	MWD+IFR1+MS
22600.000	90.000	359.771	12228.000	92.790	0.000	95.583	0.000	92.790	0.000	0.000	95.643	53.716	-2.679	MWD+IFR1+MS
22700.000	90.000	359.771	12228.000	93.528	0.000	96.338	0.000	93.528	0.000	0.000	96.398	53.764	-2.665	MWD+IFR1+MS
22800.000	90.000	359.771	12228.000	94.268	0.000	97.095	0.000	94.268	0.000	0.000	97.155	53.813	-2.651	MWD+IFR1+MS
22900.000	90.000	359.771	12228.000	95.008	0.000	97.854	0.000	95.008	0.000	0.000	97.914	53.863	-2.637	MWD+IFR1+MS
23000.000	90.000	359.771	12228.000	95.749	0.000	98.614	0.000	95.749	0.000	0.000	98.675	53.913	-2.624	MWD+IFR1+MS
23100.000	90.000	359.771	12228.000	96.490	0.000	99.377	0.000	96.490	0.000	0.000	99.438	53.963	-2.610	MWD+IFR1+MS
23200.000	90.000	359.771	12228.000	97.232	0.000	100.142	0.000	97.232	0.000	0.000	100.203	54.015	-2.596	MWD+IFR1+MS
23300.000	90.000	359.771	12228.000	97.975	0.000	100.909	0.000	97.975	0.000	0.000	100.970	54.066	-2.583	MWD+IFR1+MS
23400.000	90.000	359.771	12228.000	98.719	0.000	101.677	0.000	98.719	0.000	0.000	101.738	54.118	-2.569	MWD+IFR1+MS
23500.000	90.000	359.771	12228.000	99.463	0.000	102.448	0.000	99.463	0.000	0.000	102.509	54.171	-2.556	MWD+IFR1+MS
23600.000	90.000	359.771	12228.000	100.207	0.000	103.220	0.000	100.207	0.000	0.000	103.281	54.224	-2.542	MWD+IFR1+MS
23700.000	90.000	359.771	12228.000	100.953	0.000	103.994	0.000	100.953	0.000	0.000	104.055	54.278	-2.529	MWD+IFR1+MS
23800.000	90.000	359.771	12228.000	101.699	0.000	104.769	0.000	101.699	0.000	0.000	104.830	54.332	-2.516	MWD+IFR1+MS
23900.000	90.000	359.771	12228.000	102.445	0.000	105.546	0.000	102.445	0.000	0.000	105.607	54.387	-2.503	MWD+IFR1+MS
24000.000	90.000	359.771	12228.000	103.192	0.000	106.325	0.000	103.192	0.000	0.000	106.386	54.442	-2.490	MWD+IFR1+MS
24100.000	90.000	359.771	12228.000	103.940	0.000	107.105	0.000	103.940	0.000	0.000	107.167	54.498	-2.477	MWD+IFR1+MS
24200.000	90.000	359.771	12228.000	104.688	0.000	107.887	0.000	104.688	0.000	0.000	107.948	54.555	-2.464	MWD+IFR1+MS
24300.000	90.000	359.771	12228.000	105.437	0.000	108.671	0.000	105.437	0.000	0.000	108.732	54.611	-2.451	MWD+IFR1+MS
24400.000	90.000	359.771	12228.000	106.186	0.000	109.456	0.000	106.186	0.000	0.000	109.517	54.669	-2.439	MWD+IFR1+MS
24500.000	90.000	359.771	12228.000	106.936	0.000	110.242	0.000	106.936	0.000	0.000	110.303	54.727	-2.426	MWD+IFR1+MS
24600.000	90.000	359.771	12228.000	107.686	0.000	111.030	0.000	107.686	0.000	0.000	111.091	54.785	-2.414	MWD+IFR1+MS
24700.000	90.000	359.771	12228.000	108.437	0.000	111.819	0.000	108.437	0.000	0.000	111.880	54.844	-2.401	MWD+IFR1+MS
24800.000	90.000	359.771	12228.000	109.188	0.000	112.609	0.000	109.188	0.000	0.000	112.670	54.903	-2.389	MWD+IFR1+MS
24900.000	90.000	359.771	12228.000	109.940	0.000	113.401	0.000	109.940	0.000	0.000	113.462	54.963	-2.377	MWD+IFR1+MS
25000.000	90.000	359.771	12228.000	110.692	0.000	114.194	0.000	110.692	0.000	0.000	114.255	55.023	-2.365	MWD+IFR1+MS
25100.000	90.000	359.771	12228.000	111.444	0.000	114.989	0.000	111.444	0.000	0.000	115.050	55.084	-2.353	MWD+IFR1+MS
25200.000	90.000	359.771	12228.000	112.197	0.000	115.784	0.000	112.197	0.000	0.000	115.845	55.145	-2.341	MWD+IFR1+MS
25300.000	90.000	359.771	12228.000	112.951	0.000	116.581	0.000	112.951	0.000	0.000	116.642	55.207	-2.330	MWD+IFR1+MS
25400.000	90.000	359.771	12228.000	113.705	0.000	117.379	0.000	113.705	0.000	0.000	117.440	55.270	-2.318	MWD+IFR1+MS
25500.000	90.000	359.771	12228.000	114.459	0.000	118.178	0.000	114.459	0.000	0.000	118.239	55.332	-2.306	MWD+IFR1+MS
25600.000	90.000	359.771	12228.000	115.214	0.000	118.979	0.000	115.214	0.000	0.000	119.040	55.396	-2.295	MWD+IFR1+MS

25700.000	90.000	359.771	12228.000	115.969	0.000	119.780	0.000	115.969	0.000	0.000	119.841	55.460	-2.284	MWD+IFR1+MS
25800.000	90.000	359.771	12228.000	116.724	0.000	120.583	0.000	116.724	0.000	0.000	120.644	55.524	-2.272	MWD+IFR1+MS
25900.000	90.000	359.771	12228.000	117.480	0.000	121.387	0.000	117.480	0.000	0.000	121.447	55.589	-2.261	MWD+IFR1+MS
26000.000	90.000	359.771	12228.000	118.236	0.000	122.192	0.000	118.236	0.000	0.000	122.252	55.654	-2.250	MWD+IFR1+MS
26100.000	90.000	359.771	12228.000	118.993	0.000	122.997	0.000	118.993	0.000	0.000	123.058	55.719	-2.239	MWD+IFR1+MS
26200.000	90.000	359.771	12228.000	119.750	0.000	123.804	0.000	119.750	0.000	0.000	123.864	55.786	-2.229	MWD+IFR1+MS
26300.000	90.000	359.771	12228.000	120.507	0.000	124.612	0.000	120.507	0.000	0.000	124.672	55.852	-2.218	MWD+IFR1+MS
26400.000	90.000	359.771	12228.000	121.265	0.000	125.421	0.000	121.265	0.000	0.000	125.481	55.919	-2.207	MWD+IFR1+MS
26500.000	90.000	359.771	12228.000	122.023	0.000	126.231	0.000	122.023	0.000	0.000	126.290	55.987	-2.197	MWD+IFR1+MS
26600.000	90.000	359.771	12228.000	122.782	0.000	127.041	0.000	122.782	0.000	0.000	127.101	56.055	-2.186	MWD+IFR1+MS
26700.000	90.000	359.771	12228.000	123.540	0.000	127.853	0.000	123.540	0.000	0.000	127.913	56.124	-2.176	MWD+IFR1+MS
26800.000	90.000	359.771	12228.000	124.299	0.000	128.666	0.000	124.299	0.000	0.000	128.725	56.192	-2.166	MWD+IFR1+MS
26900.000	90.000	359.771	12228.000	125.059	0.000	129.479	0.000	125.059	0.000	0.000	129.538	56.262	-2.155	MWD+IFR1+MS
27000.000	90.000	359.771	12228.000	125.818	0.000	130.293	0.000	125.818	0.000	0.000	130.353	56.332	-2.145	MWD+IFR1+MS
27100.000	90.000	359.771	12228.000	126.578	0.000	131.109	0.000	126.578	0.000	0.000	131.168	56.402	-2.135	MWD+IFR1+MS
27200.000	90.000	359.771	12228.000	127.339	0.000	131.925	0.000	127.339	0.000	0.000	131.984	56.473	-2.125	MWD+IFR1+MS
27300.000	90.000	359.771	12228.000	128.099	0.000	132.741	0.000	128.099	0.000	0.000	132.800	56.544	-2.116	MWD+IFR1+MS
27400.000	90.000	359.771	12228.000	128.860	0.000	133.559	0.000	128.860	0.000	0.000	133.618	56.616	-2.106	MWD+IFR1+MS
27500.000	90.000	359.771	12228.000	129.621	0.000	134.378	0.000	129.621	0.000	0.000	134.436	56.688	-2.096	MWD+IFR1+MS
27600.000	90.000	359.771	12228.000	130.382	0.000	135.197	0.000	130.382	0.000	0.000	135.255	56.761	-2.087	MWD+IFR1+MS
27700.000	90.000	359.771	12228.000	131.144	0.000	136.017	0.000	131.144	0.000	0.000	136.075	56.834	-2.077	MWD+IFR1+MS
27800.000	90.000	359.771	12228.000	131.906	0.000	136.838	0.000	131.906	0.000	0.000	136.896	56.907	-2.068	MWD+IFR1+MS
27900.000	90.000	359.771	12228.000	132.668	0.000	137.659	0.000	132.668	0.000	0.000	137.717	56.981	-2.058	MWD+IFR1+MS
28000.000	90.000	359.771	12228.000	133.431	0.000	138.481	0.000	133.431	0.000	0.000	138.539	57.056	-2.049	MWD+IFR1+MS
28100.000	90.000	359.771	12228.000	134.194	0.000	139.304	0.000	134.194	0.000	0.000	139.362	57.131	-2.040	MWD+IFR1+MS
28200.000	90.000	359.771	12228.000	134.957	0.000	140.128	0.000	134.957	0.000	0.000	140.186	57.206	-2.031	MWD+IFR1+MS
28300.000	90.000	359.771	12228.000	135.720	0.000	140.952	0.000	135.720	0.000	0.000	141.010	57.282	-2.022	MWD+IFR1+MS
28400.000	90.000	359.771	12228.000	136.483	0.000	141.777	0.000	136.483	0.000	0.000	141.835	57.358	-2.013	MWD+IFR1+MS
28500.000	90.000	359.771	12228.000	137.247	0.000	142.603	0.000	137.247	0.000	0.000	142.660	57.434	-2.004	MWD+IFR1+MS
28600.000	90.000	359.771	12228.000	138.011	0.000	143.429	0.000	138.011	0.000	0.000	143.487	57.511	-1.996	MWD+IFR1+MS
28700.000	90.000	359.771	12228.000	138.775	0.000	144.256	0.000	138.775	0.000	0.000	144.313	57.589	-1.987	MWD+IFR1+MS
28800.000	90.000	359.771	12228.000	139.540	0.000	145.084	0.000	139.540	0.000	0.000	145.141	57.667	-1.978	MWD+IFR1+MS
28900.000	90.000	359.771	12228.000	140.304	0.000	145.912	0.000	140.304	0.000	0.000	145.969	57.745	-1.970	MWD+IFR1+MS

29000.000	90.000	359.771	12228.000	141.069	0.000	146.741	0.000	141.069	0.000	0.000	146.798	57.824	-1.961	MWD+IFR1+MS
29100.000	90.000	359.771	12228.000	141.834	0.000	147.570	0.000	141.834	0.000	0.000	147.627	57.903	-1.953	MWD+IFR1+MS
29200.000	90.000	359.771	12228.000	142.600	0.000	148.400	0.000	142.600	0.000	0.000	148.457	57.983	-1.945	MWD+IFR1+MS
29261.428	90.000	359.771	12228.000	143.069	0.000	148.910	0.000	143.069	0.000	0.000	148.966	58.032	-1.940	MWD+IFR1+MS
29300.000	90.000	359.771	12228.000	143.364	0.000	149.229	0.000	143.364	0.000	0.000	149.286	58.063	-1.937	MWD+IFR1+MS
29361.431	90.000	359.771	12228.000	143.834	0.000	149.739	0.000	143.834	0.000	0.000	149.795	58.112	-1.932	MWD+IFR1+MS

## Plan Targets

POKER LAKE UNIT 23 DTD 179H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 8	13269.60	440137.80	649304.10	8752.00	RECTANGLE
LTP 8	29262.43	456130.50	649240.30	8752.00	RECTANGLE
BHL 8	29362.43	456230.50	649239.90	8752.00	RECTANGLE

**DRILLING PLAN: BLM COMPLIANCE**  
(Supplement to BLM 3160-3)

XTO Energy Inc.  
POKER LAKE UNIT 23 DTD 179H  
Projected TD: 29361' MD / 12229' TVD  
SHL: 845' FSL & 578' FEL , Section 14, T24S, R30E  
BHL: 230' FNL & 2510' FEL , Section 2, T24S, R30E  
Eddy County, NM

**1. Geologic Name of Surface Formation**

A. Quaternary

**2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas**

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	558'	Water
Top of Salt	868'	Water
Base of Salt	3876'	Water
Delaware	4088'	Water
Brushy Canyon	6293'	Water/Oil/Gas
Bone Spring	7950'	Water
1st Bone Spring Ss	8892'	Water/Oil/Gas
2nd Bone Spring Ss	9717'	Water/Oil/Gas
3rd Bone Spring Sh	10389'	Water/Oil/Gas
Wolfcamp	11323'	Water/Oil/Gas
Wolfcamp X	11245'	Water/Oil/Gas
Wolfcamp Y	11329'	Water/Oil/Gas
Wolfcamp A	11377'	Water/Oil/Gas
Wolfcamp B	11814'	Water/Oil/Gas
Wolfcamp D	12129'	Water/Oil/Gas
Target/Land Curve	12229'	Water/Oil/Gas

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 843' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9.625 inch casing at 3976' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 7.625 inch casing at 11313' and cementing to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 29361 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 11013 feet) per Potash regulations.

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 843'	13.375	54.5	J-55	BTC	New	3.10	3.18	19.79
12.25	0' – 3976'	9.625	40	J-55	BTC	New	1.41	3.06	3.96
8.75	0' – 4076'	7.625	29.7	RY P-110	Flush Joint	New	1.70	2.80	1.66
8.75	4076' – 11313'	7.625	29.7	HC L-80	Flush Joint	New	1.23	2.83	1.89
6.75	0' – 11213'	5.5	23	RY P-110	Semi-Premium	New	1.21	1.92	1.68
6.75	11213' - 29361'	5.5	23	RY P-110	Semi-Flush	New	1.21	1.76	4.00

· Production casing meets the clearance requirements as tapered string crosses over before encountering the intermediate shoe, per Onshore Order 2.3.B.1

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry

· XTO requests to not utilize centralizers in the curve and lateral

· 9.625 Collapse analyzed using 50% evacuation based on regional experience.

· 7.625 Collapse analyzed using 50% evacuation based on regional experience.

· 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

· XTO requests the option to use 5" BTC Float equipment for the the production casing

**Wellhead:**

*Permanent Wellhead – Multibowl System*

A. Starting Head: 13-5/8" 10M top flange x 13-3/8" bottom

B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange

· Wellhead will be installed by manufacturer's representatives.

· Manufacturer will monitor welding process to ensure appropriate temperature of seal.

· Operator will test the 7-5/8" casing per BLM Onshore Order 2

· Wellhead Manufacturer representative will not be present for BOP test plug installation

#### 4. Cement Program

##### **Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 843'**

Optional Lead: 560 sxs EconoCem-HLTRRC (mixed at 12.8 ppg, 1.33 ft<sup>3</sup>/sx, 10.13 gal/sx water)

Tail: 310 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 250 psi 24 hr = 500 psi

Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required.

##### **1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 3976'**

Lead: 830 sxs Class C (mixed at 14.8 ppg, 2.06 ft<sup>3</sup>/sx, 10.13 gal/sx water)

Tail: 60 sxs Class C + 2% CaCl (mixed at 15.6 ppg, 2.06 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

##### **2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 11313'**

###### 1st Stage

Optional Lead: 120 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)

TOC: 3676

Tail: 530 sxs Class C (mixed at 14.8 ppg, 1.27 ft<sup>3</sup>/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6293

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

###### 2nd Stage - bradenhead contingency

Tail: 130 sxs Class C (mixed at 14.8 ppg, 2.77 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: 3676

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6293') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per wellhead provider procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

##### **Production Casing: 5.5, 23 New Semi-Flush, RY P-110 casing to be set at +/- 29361'**

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 11013 feet

Tail: 1090 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 12144 feet

Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

## 5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 10M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 5576 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be conducted to at least 50% of the rated working pressure. When nipping up on the 13.375, 10M bradenhead and flange, the BOP test will be limited to 10000 psi. When nipping up on the 7.625, the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.



**6. Proposed Mud Circulation System**

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 843'	17.5	FW/Native	8.1-8.6	35-40	NC
843' - 3976'	12.25	Brine	8.5-9	30-32	NC
3976' to 11313'	8.75	BDE/OBM or FW/Brine	9-9.5	30-32	NC
11313' to 29361'	6.75	OBM	13-13.5	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

**7. Auxiliary Well Control and Monitoring Equipment**

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 13.375 casing.

**8. Logging, Coring and Testing Program**

Mud Logger: Mud Logging Unit (2 man) below intermediate casing where necessary. Otherwise, gamma ray will be utilized while actively drilling.

Open hole logging will not be done on this well.

**9. Abnormal Pressures and Temperatures / Potential Hazards**

None Anticipated. BHT of 185 to 205 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 8267 psi.

**10. Anticipated Starting Date and Duration of Operations**

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

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

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

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

☒ AMENDED REPORT

APD ID 10400078496

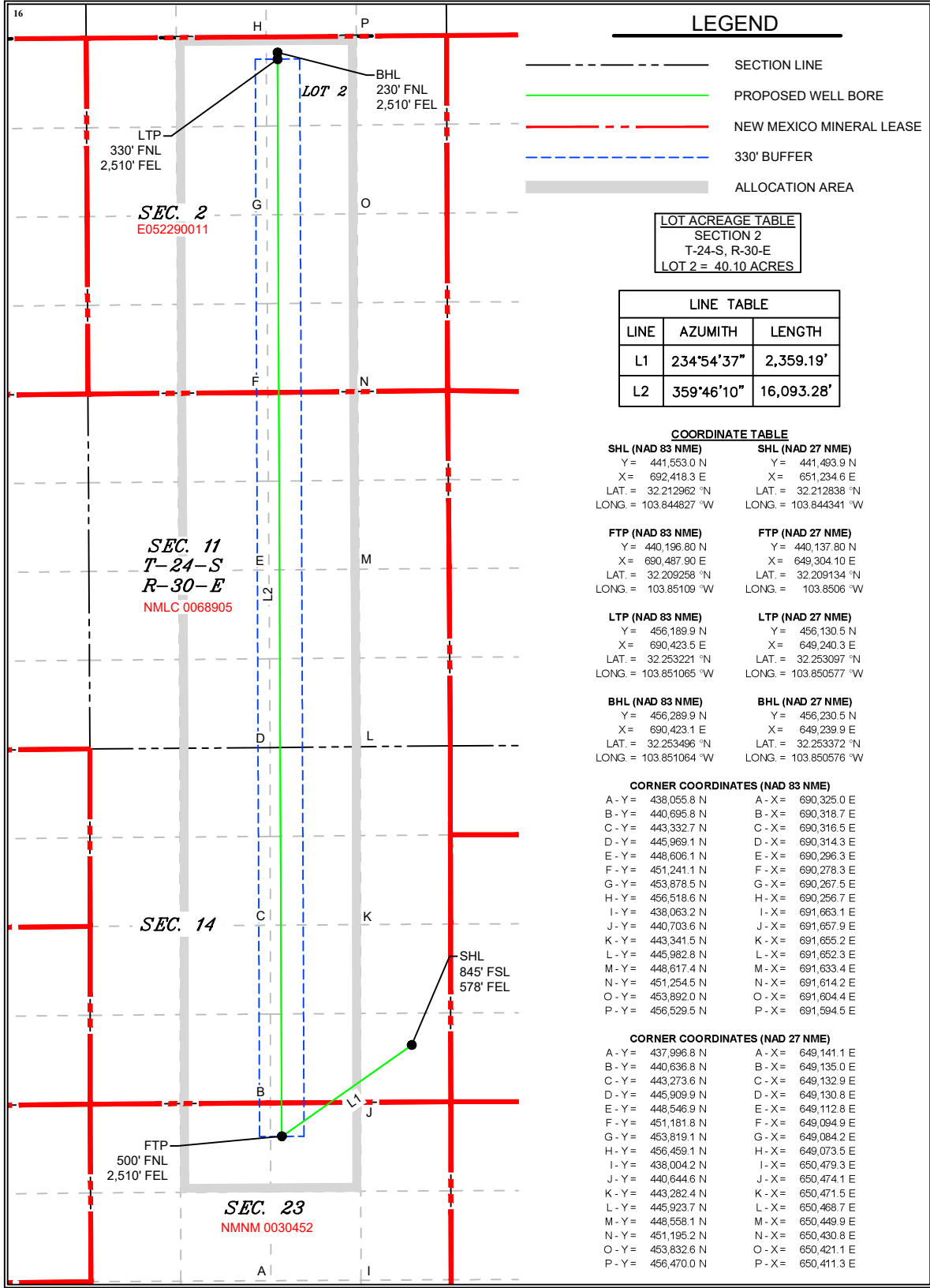
WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-</b>	<sup>2</sup> Pool Code 98220	<sup>3</sup> Pool Name Purple Sage; Wolfcamp (gas)
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>POKER LAKE UNIT 23 DTD</b>	<sup>6</sup> Well Number <b>179H</b>
<sup>7</sup> OGRID No. <b>373075</b>	<sup>8</sup> Operator Name <b>XTO PERMIAN OPERATING, LLC.</b>	<sup>9</sup> Elevation <b>3,445'</b>

<sup>10</sup> Surface Location									
UL or lot no. <b>P</b>	Section <b>14</b>	Township <b>24S</b>	Range <b>30E</b>	Lot Idn	Feet from the <b>845</b>	North/South line <b>SOUTH</b>	Feet from the <b>578</b>	East/West line <b>EAST</b>	County <b>EDDY</b>

<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no. <b>2</b>	Section <b>2</b>	Township <b>24S</b>	Range <b>30E</b>	Lot Idn	Feet from the <b>230</b>	North/South line <b>NORTH</b>	Feet from the <b>2,510</b>	East/West line <b>EAST</b>	County <b>EDDY</b>
<sup>12</sup> Dedicated Acres 960	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

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



<sup>17</sup> OPERATOR  
CERTIFICATION

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

Rusty Klein 12-4-23  
Signature Date

RUSTY KLEIN  
Printed Name

ranell.klein@exxonmobil.com  
E-mail Address

<sup>18</sup> SURVEYOR  
CERTIFICATION

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

11-01-2023

Date of Survey

Signature and Seal of  
Professional Surveyor:



MARK DILLON HARP 23786  
Certificate Number

DB/AI/RP 618.013003.09-15

Intent ☒ As Drilled ☐

API # <b>30015</b>		
Operator Name: <b>XTO PERMIAN OPERATING, LLC</b>	Property Name: <b>Poker Lake Unit 23 DTD</b>	Well Number <b>179H</b>

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## First Take Point (FTP)

UL <b>B</b>	Section <b>23</b>	Township <b>24S</b>	Range <b>30E</b>	Lot	Feet <b>500</b>	From N/S <b>North</b>	Feet <b>2,510</b>	From E/W <b>East</b>	County <b>Eddy</b>
Latitude <b>32.209258</b>					Longitude <b>103.85109</b>				NAD <b>83</b>

## Last Take Point (LTP)

UL <b>2</b>	Section <b>2</b>	Township <b>24S</b>	Range <b>30E</b>	Lot	Feet <b>330</b>	From N/S <b>North</b>	Feet <b>2,510</b>	From E/W <b>East</b>	County <b>Eddy</b>
Latitude <b>32.253221</b>					Longitude <b>103.851065</b>				NAD <b>83</b>

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

CONDITIONS  
  
Action 298273

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 298273
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply.	12/29/2023