

Form 3160-5  
(June 2019)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**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.***FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 20215. Lease Serial No.  
**NMMW84728**

6. If Indian, Allottee or Tribe Name

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

1. Type of Well

 Oil Well     Gas Well     Other

7. If Unit of CA/Agreement, Name and/or No.

2. Name of Operator **MARATHON OIL PERMIAN LLC**8. Well Name and No.  
**BING CLAWSBY 15-10 TB FEDERA**3a. Address **990 TOWN & COUNTRY BLVD, HOUSTON, TX**3b. Phone No. (include area code)  
**(713) 296-2113**

10. Field and Pool or Exploratory Area

**DIAMONDTAIL; BONE SPRING**

4. Location of Well (Footage, Sec., T.R.M., or Survey Description)

**SEC 15/T23S/R32E/NMP**

11. Country or Parish, State

**LEA/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 checked="" type="checkbox"/> Other
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Temporarily Abandon	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Plug Back	<input type="checkbox"/>	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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 recomplete 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 recompletion 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 determined that the site is ready for final inspection.)

Marathon Oil Permian LLC. requests to make the following changes to the Approved APD.

## Name Change:

From: Bing Clawsby 15-10 TB Federal Com 3H

To: Bing Clawsby WC Federal Com 703H

## Formation Target Change:

From: Diamondtail; Bone Spring

To: Diamondtail; Wolfcamp

## BHL Change:

From: 100 FNL 1390 FEL of Sec 10, T23S-R32E

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name ( <i>Printed/Typed</i> ) <b>ADRIAN COVARRUBIAS / Ph: (713) 296-3368</b>	Title <b>regulatory Compliance Representative</b>
Signature <b>Adrian Covarrubias</b>	Date <b>04/25/2023</b>

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

Approved by

**ZOTA M STEVENS / Ph: (575) 234-5998 / Approved**

Petroleum Engineer

Date **06/27/2023**

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.

Title **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

### Additional Remarks

To: 100 FNL 990 FEL Sec 3, T23S-R32E

Please see attached updated C-102, Drill Plan, and Directional Survey.

### Location of Well

0. SHL: SWSE / 393 FSL / 1403 FEL / TWSP: 23S / RANGE: 32E / SECTION: 15 / LAT: 32.2984831 / LONG: -103.6585041 ( TVD: 0 feet, MD: 0 feet )  
PPP: SWSE / 0 FSL / 1390 FEL / TWSP: 23S / RANGE: 32E / SECTION: 10 / LAT: 32.3119264 / LONG: -103.6584669 ( TVD: 12083 feet, MD: 17500 feet )  
PPP: SWSE / 100 FSL / 1390 FEL / TWSP: 23S / RANGE: 32E / SECTION: 15 / LAT: 32.2976784 / LONG: -103.6584626 ( TVD: 1300 feet, MD: 1300 feet )  
BHL: NWNE / 100 FNL / 1390 FEL / TWSP: 23S / RANGE: 32E / SECTION: 10 / LAT: 32.3261767 / LONG: -103.6584719 ( TVD: 12083 feet, MD: 22277 feet )

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-025-51266</b>		<sup>2</sup> Pool Code <b>17645</b>		<sup>3</sup> Pool Name <b>DIAMONDTAIL; WOLFCAMP</b>			
<sup>4</sup> Property Code <b>333888</b>		<sup>5</sup> Property Name <b>BING CLAWSBY WC FEDERAL COM</b>				<sup>6</sup> Well Number <b>703H</b>	
<sup>7</sup> OGRID No. <b>372098</b>		<sup>8</sup> Operator Name <b>MARATHON OIL PERMIAN LLC</b>				<sup>9</sup> Elevation <b>3709'</b>	

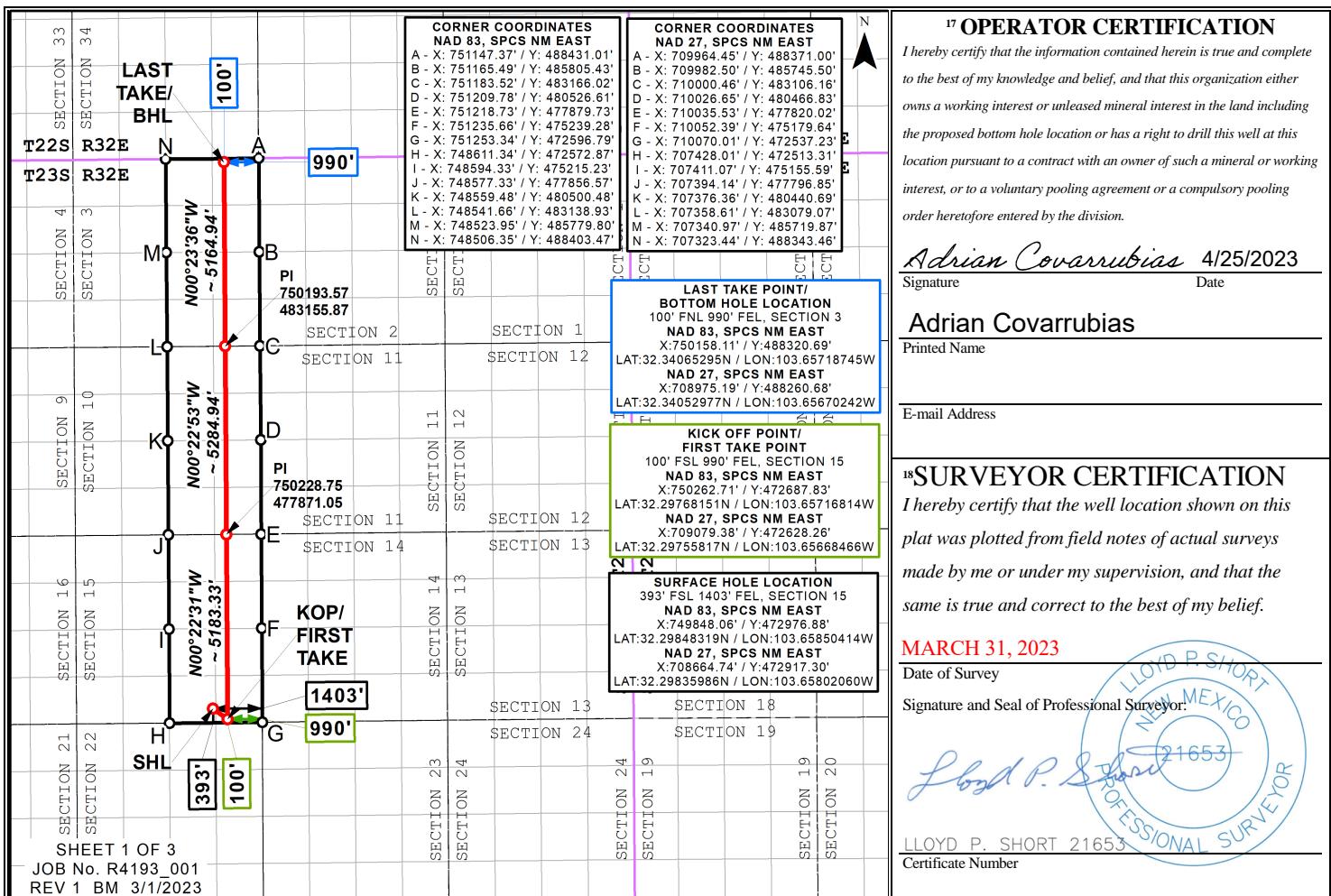
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	15	23S	32E		393	SOUTH	1403	EAST	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

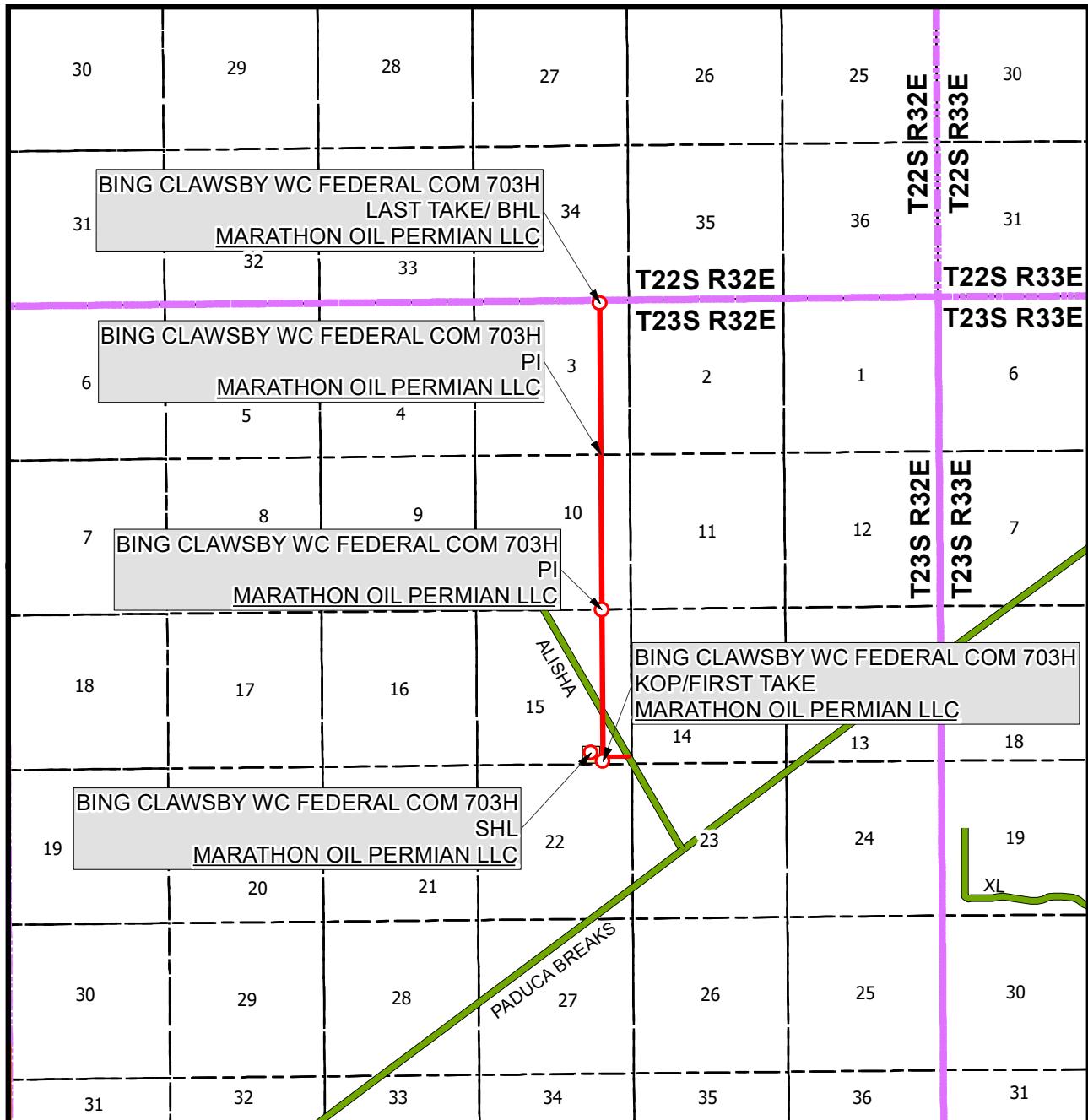
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L 1	3	23S	32E		100	NORTH	990	EAST	LEA
<sup>12</sup> Dedicated Acres <b>959.22</b>	<sup>13</sup> Joint or Infill			<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99914426 Convergence Angle: 00°07'17.93119"

# PUBLIC ACCESS ROAD MAP



SEC. 15 TWP 23-S RGE 32-E

SEC. 15 Twp. 25-S  
SURVEY N M P M

CORTEZ, N.M.  
COUNTY: LEA

OPERATOR: MARATHON OIL PERMIA LLC

DESCRIPTION: 393' ESI & 1403' EEI

DESCRIPTION: 39  
ELEVATION: 3700'

LEASE: BING CLAWSBY FEDERAL.COM

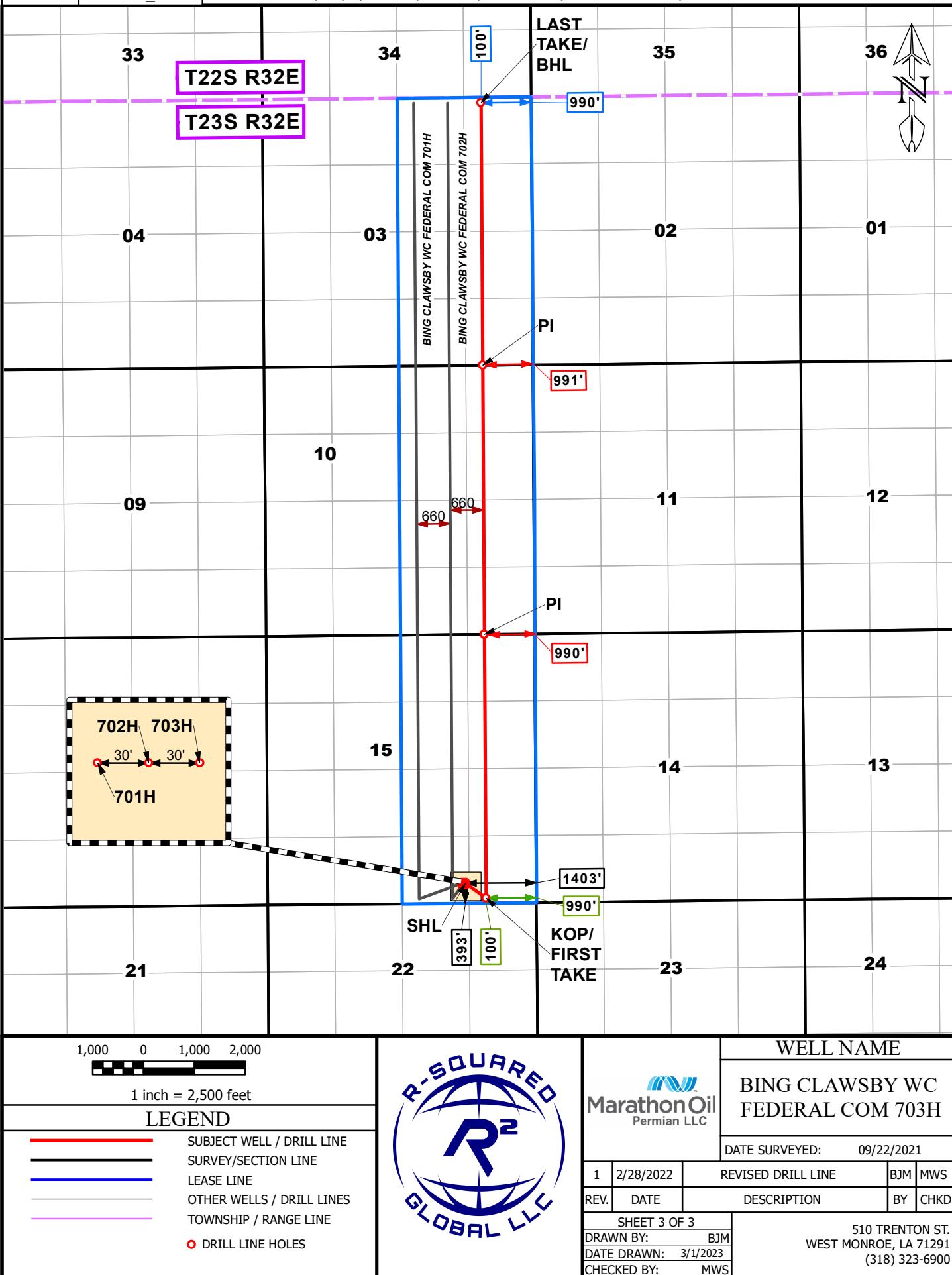
LEASE: BING CLAWSBY FEDERAL COM  
U.S.G.S. TOPOGRAPHIC MAP: BOOTLEG RIDGE, NM

1 " = 1 MILE



**SHEET 2 OF 3**  
**PREPARED BY:**  
**SQUARED GLOBAL, LLC**  
510 TRENTON ST,  
WEST MONROE, LA 71291  
318-323-6900 OFFICE  
JOB No. P4193\_001

JOB No. R4193\_001 SECTIONS 10, 15, 3, T-23-S, R-32-E, N.M.P.M., LEA COUNTY, NEW MEXICO



MARATHON OIL PERMIAN, LLC.  
**DRILLING AND OPERATIONS PLAN**



WELL NAME &amp; NUMBER:

**BING CLAWSBY WC FEDERAL COM 703H**

LOCATION:

SECTION **15** TOWNSHIP **23S** RANGE **32E**  
 LEA COUNTY, **NEW MEXICO**

**Section 1:****GEOLOGICAL FORMATIONS**

Name of Surface Formation: Permian  
 Elevation: 3709 feet

**Estimated Tops of Important Geological Markers:**

Formation	TVD (ft)	MD (ft)	Elevation (ft SS)	Lithologies	Mineral Resources	Producing Formation?
Rustler	1221	1248	2488	Anhydrite	Brine	No
Salado	1696	1723	2013	Salt/Anhydrite	Brine	No
Castile	3604	3631	105	Salt/Anhydrite	Brine	No
Base of Salt (BX)	4942	4969	-1233	Salt/Anhydrite	Brine	No
Lamar	4942	4969	-1233	Sandstone/Shale	None	No
Bell Canyon	4994	5021	-1285	Sandstone	Oil	No
Cherry Canyon	6117	6144	-2408	Sandstone	Oil	No
Brushy Canyon	7094	7121	-3385	Sandstone	Oil	No
Bone Spring Lime	8757	8784	-5048	Limestone	None	No
Upper Avalon Shale	8887	8914	-5178	Shale	Oil	Yes
1st Bone Spring Sand	9940	9967	-6231	Sandstone	Oil	Yes
2nd Bone Spring Carbonate	10242	10269	-6533	Limestone/Shale	None	No
2nd Bone Spring Sand	10607	10634	-6898	Sandstone	Oil	Yes
3rd Bone Spring Carbonate	11115	11142	-7406	Limestone	Oil	No
3rd Bone Spring Sand	11890	11917	-8181	Sandstone	Oil	Yes
Wolfcamp	12176	12203	-8467	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp A	12395	12422	-8686	Sandstone/Shale/Carbonates	Natural Gas / Oil	Yes
Wolfcamp B	12831	12858	-9122	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp C	12997	13024	-9288	Sandstone/Shale/Carbonates	Natural Gas / Oil	No
Wolfcamp D	13108	13135	-9399	Sandstone/Shale/Carbonates	Natural Gas / Oil	No

**Section 2:****BLOWOUT PREVENTER TESTING PROCEDURE**

Pressure Rating (PSI): 10M

Rating Depth: 10000

Equipment: 13 5/8 BOP Annular (5,000 psi WP) and BOP Stack (10,000 psi WP) will be installed and tested before drilling all holes.

Requesting Variance?: Yes

Variance Request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

Testing Procedure: BOP/BOPE will be tested to 250 psi low and a high of 100% WP for the Annular and 5,000psi for the BOP Stack before drilling the intermediate hole, 10,000psi for the BOP Stacking before drilling the production hole. Testing will be conducted by an independent service company per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the Equipment Description above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams and Blind rams will be operationally checked on each trip out of the hole, but not to exceed more than once per day. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock, full opening safety valve / inside BOP and choke lines and choke manifold. See attached schematics.

Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i. A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. See attached schematic.

Marathon Oil Permian LLC.

Drilling &amp; Operations Plan - Page 2 of 4

**Section 3:****CASING PROGRAM**

String Type	Hole Size	Casing Size	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Weight (lbs/ft)	Grade	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	17.5	13.375	0	1318	0	1291	3709	2418	54.5	J55	BTC	5.22	1.81	BUOY	4.52	BUOY	4.52
Intermediate	12.25	9.625	0	11556	0	11520	3709	-7811	40	P110HC	BTC	1.20	1.42	BUOY	2.44	BUOY	2.44
Production	8.75	5.5	0	27666	0	12193	3709	-8484	23	P110HC	TLW	2.53	1.26	BUOY	2.22	BUOY	2.22

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

Safety Factors will Meet or Exceed

**Casing Condition:** New**Casing Standard:** API**Tapered String?** No

Yes or No

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

**Section 4:****CEMENT PROGRAM**

String Type	Lead/Tail	Top MD	Bottom MD	Quantity (sks)	Yield (ft³/sks)	Density (ppg)	Slurry Volume (ft³)	Excess (%)	Cement Type	Additives
Surface	Lead	0	1168	501	2.12	12.5	1063	25	Class C	Extender, Accelerator, LCM
Surface	Tail	1168	1318	99	1.32	14.8	130	25	Class C	Accelerator
Intermediate	Lead	0	11056	2023	2.18	12.4	4410	25	Class C	Extender, Accelerator, LCM
Intermediate	Tail	11056	11556	147	1.33	14.8	196	25	Class C	Retarder
Production	Tail	11256	27666	3125	1.68	13	5250	25	Class H	Retarder, Extender, Fluid Loss, Suspension Agent

Stage tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Stage tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

**Pilot Hole?**

No

**Pilot Hole Depth:**

N/A

**KOP Depth:**

N/A

**Plugging Procedure for Pilot Hole:**

N/A

Plug Top	Plug Bottom	Excess (%)	Quantity (sx)	Density (ppg)	Yield (ft³/sks)	Water gal/sk	Slurry Description and Cement Type

Marathon Oil Permian LLC.

Drilling &amp; Operations Plan - Page 3 of 4

**Section 5:****CIRCULATING MEDIUM**

**Mud System Type:** Closed  
**Will an air or gas system be used?** No

**Describe what will be on location to control well or mitigate other conditions:**

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

**Describe the mud monitoring system utilized:**

Losses or gains in the mud system will be monitored visually/manually as well as with an electronic PVT.

**Circulating Medium Table:**

Top Depth	Bottom Depth	Mud Type	Min. Weight (ppg)	Max Weight (ppg)
0	1318	Water Based Mud	8.4	8.8
1318	11556	Brine or Oil Based Mud	9.2	10.2
11556	27666	Oil Based Mud	10.5	12.5

**Section 6:****TESTING, LOGGING, CORING****List of production tests including testing procedures, equipment and safety measures:**

GR from TD to surface (horizontal well - vertical portion of hole)

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

GR while drilling from Intermediate casing shoe to TD.

**Coring operation description for the well:**

Run gamma-ray (GR) and corrected neutron log (CNL) or analogous to surface for future development of the area, one per shared well pad not to exceed 200' radial distance.

**Section 7:****ANTICIPATED PRESSURE**

**Anticipated Bottom Hole Pressure:**

**7925** PSI

**Anticipated Bottom Hole Temperature:**

**195** °F

**Anticipated Abnormal Pressure?**

**No**

**Anticipated Abnormal Temperature?**

**No**

**Potential Hazards:**

H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. See attached H2S Contingency Plan.

**Section 8:****OTHER INFORMATION****Auxiliary Well Control and Monitoring Equipment:**

A Kelly cock will be in the drill string at all times. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.

Hydrogen Sulfide detection equipment will be in operation after drilling out the surface casing shoe until the production casing is cemented. Breathing equipment will be on location upon drilling the surface casing shoe until total depth is reached. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM.

**Anticipated Starting Date and Duration of Operations:**

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days.

Marathon Oil Permian LLC.

Drilling &amp; Operations Plan - Page 4 of 4

## DRILL PLAN CHANGE REGISTER

**BING CLAWSBY WC FEDERAL COM 703H**  
 SECTION 15, TOWNSHIP 23S, RANGE 32E  
 LEA COUNTY, NEW MEXICO

Original Document Date:  
 Prepared By:  
 Submitted By:

Friday, April 21, 2023  
 Court Nelson  
 Adrian Covarrubias

Revised Date:	Monday, October 18, 2021	Submittal Date:	Monday, November 1, 2021
Revised By:	Court Nelson (Drilling Engineer) Matt Baker (Geologist)	Submittal Type:	NOI Change to AAPD Sundry Notice
		Submitted By:	Melissa Szudera

**Summary of Revisions:**

Section	Description
2 - Casing	Removed second intermediate string
4 - Cement	Removed second intermediate string
5 - Mud	Removed second intermediate string

Revised Date:	Submittal Date:
Revised By:	Submittal Type:
	Submitted By:

**Summary of Revisions:**

Section	Description

Revised Date:	Submittal Date:
Revised By:	Submittal Type:
	Submitted By:

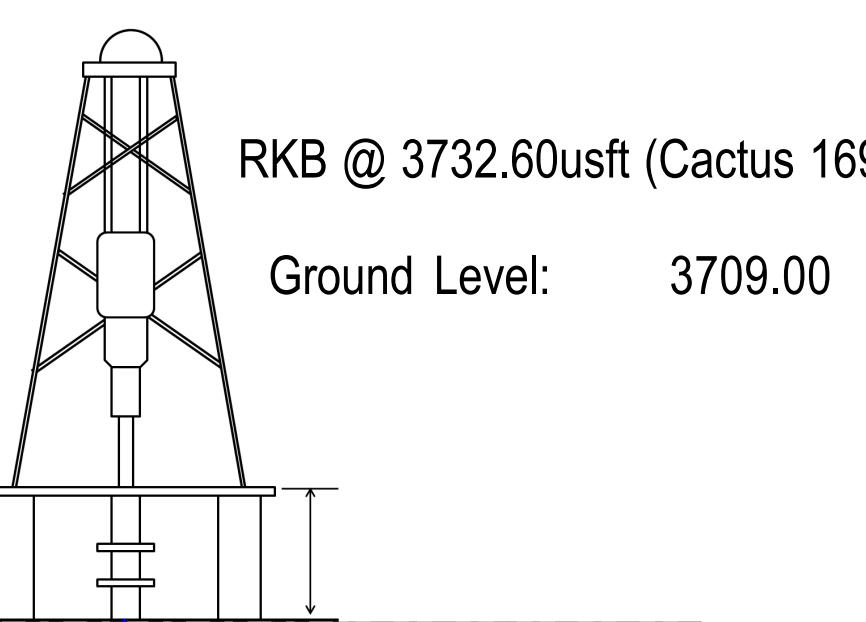
**Summary of Revisions:**

Section	Description

Revised Date:	Submittal Date:
Revised By:	Submittal Type:
	Submitted By:

**Summary of Revisions:**

Section	Description

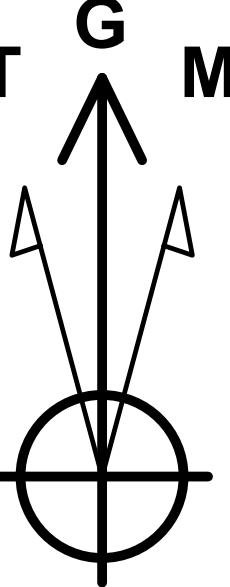


**MarathonOil**  
Corporation™

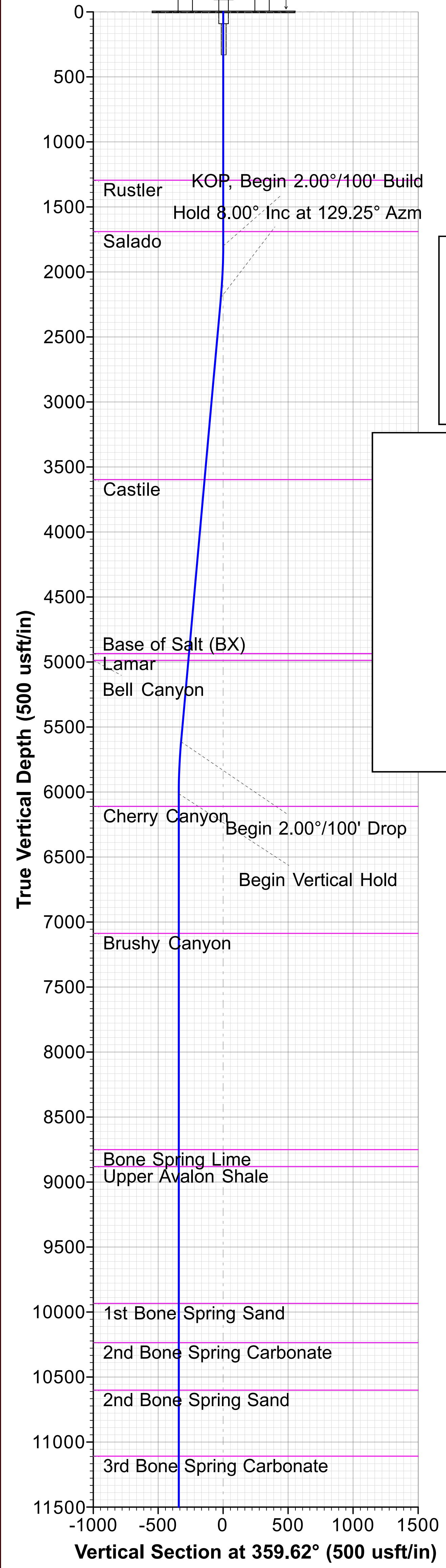
**Project: Lea County, NM (NAD27 NME)**  
**Site: Bing Clawsby 15-10**  
**Well: Bing Clawsby WC Federal Com 703H**  
**Wellbore: OH**  
**Design: Plan 2 04-13-23**  
**Rig: Cactus 169**



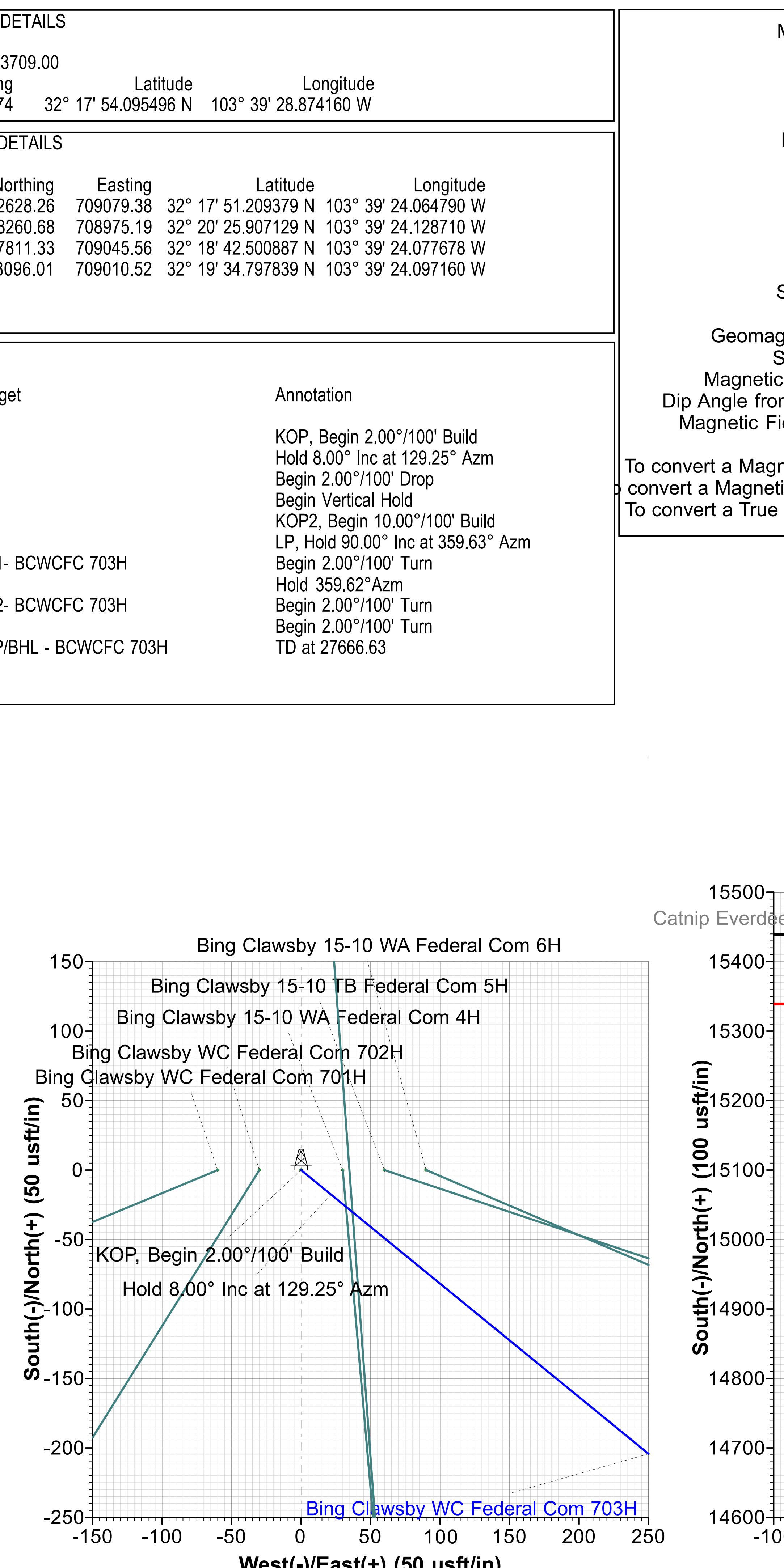
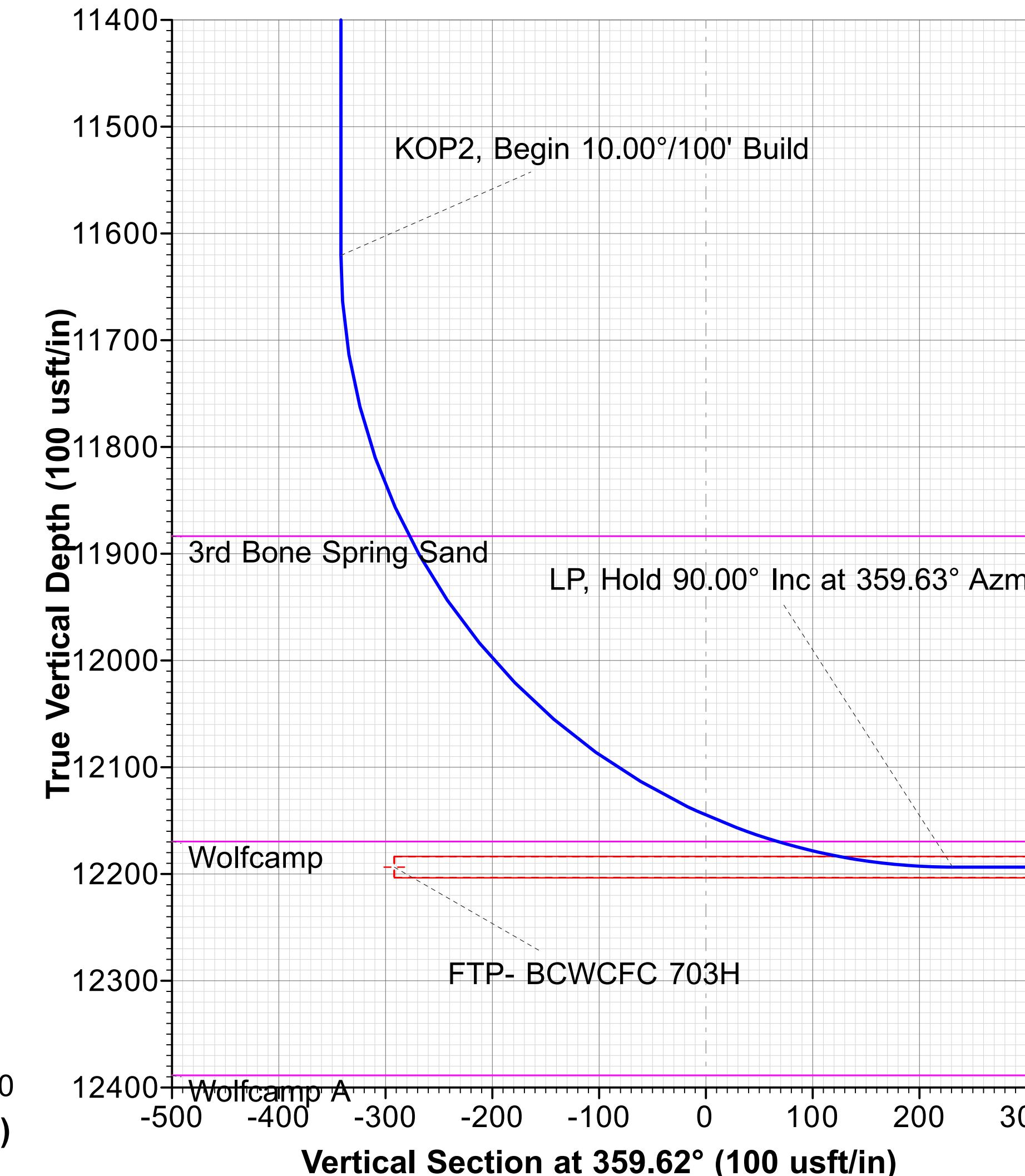
**PHOENIX**  
TECHNOLOGY SERVICES



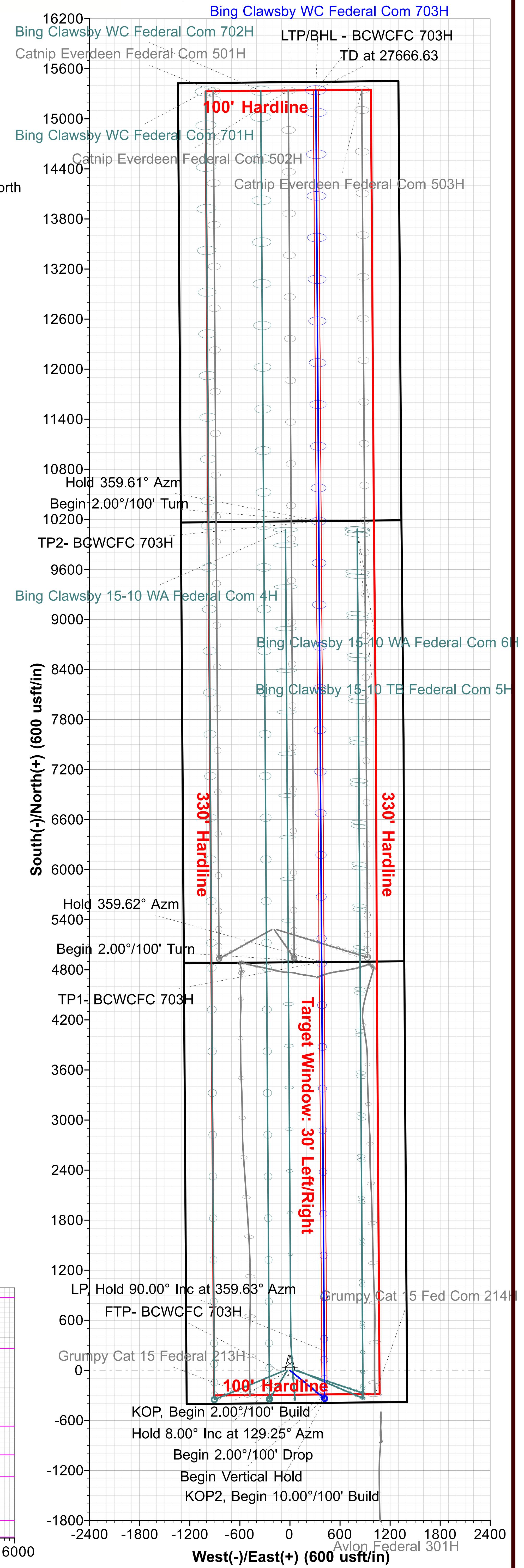
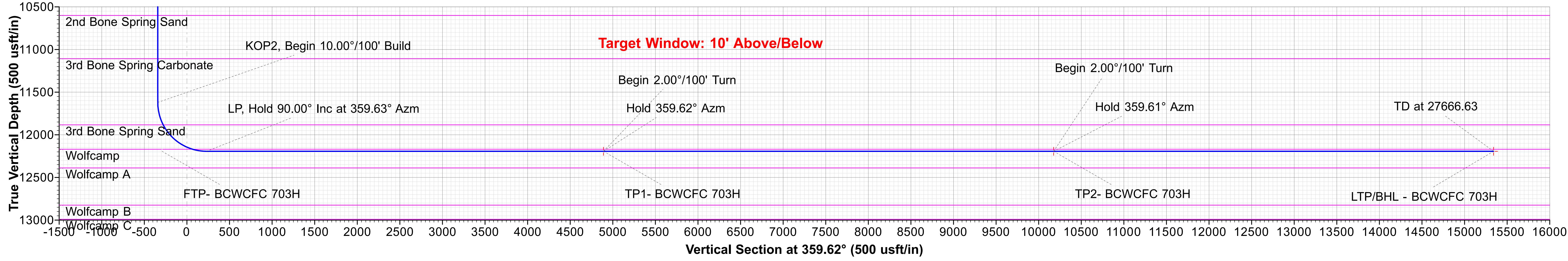
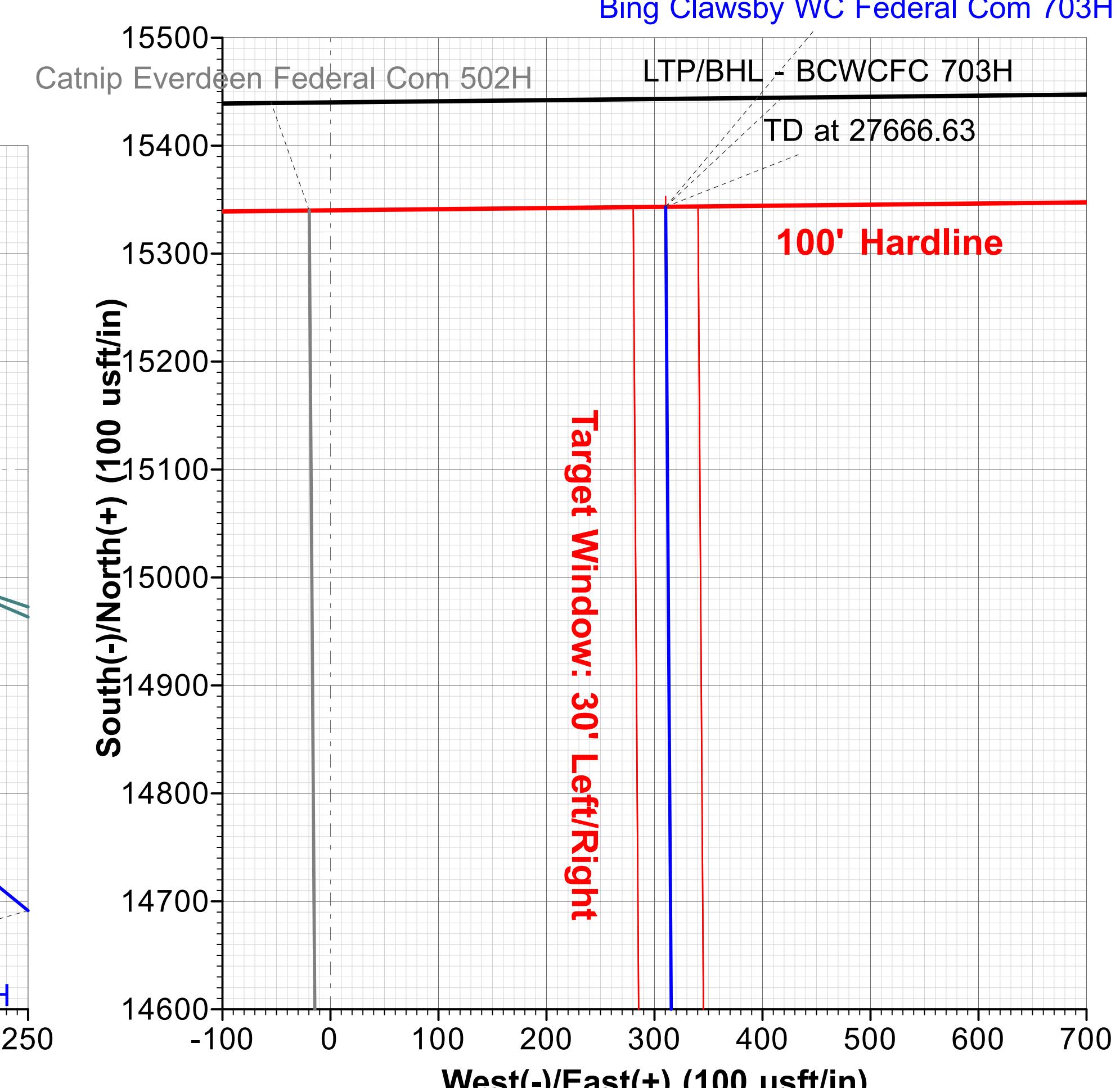
**Azimuths to Grid North**  
True North: -0.36°  
Magnetic North: 5.99°  
  
Magnetic Field Strength: 47658.3nT  
Dip Angle: 59.90°  
Date: 7/03/2022  
Model: MVHD



WELL DETAILS											
	+N/S 0.00	+E/W 0.00	Northing 472917.30	Easting 708664.74	3709.00	Latitude 32° 17' 54.095496 N	Longitude 103° 39' 28.874160 W				
DESIGN TARGET DETAILS											
Name	TVD	+N/S	+E/W	Northing	Easting	Latitude	Longitude				
FTP- BCWCFC 703H	12193.60	-289.04	414.64	472628.26	709079.38	32° 17' 51.209379 N	103° 39' 24.064790 W				
LTP/BHL - BCWCFC 703H	12193.60	15343.38	310.45	488260.68	708975.19	32° 20' 25.907129 N	103° 39' 24.128710 W				
TP1- BCWCFC 703H	12193.60	4894.03	380.82	477811.33	709045.56	32° 18' 42.500887 N	103° 39' 24.077678 W				
TP2- BCWCFC 703H	12193.60	10178.71	345.78	483096.01	709010.52	32° 19' 34.797839 N	103° 39' 24.097160 W				



Map System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone Name: New Mexico East 3001  
  
Local Origin: Well Bing Clawsby WC Federal Com 703H, Grid North  
Latitude: 32° 17' 54.095496 N  
Longitude: 103° 39' 28.874160 W  
Grid East: 708664.74  
Grid North: 472917.30  
Scale Factor: 1.000  
  
Geomagnetic Model: MVHD  
Sample Date: 03-Jul-22  
Magnetic Declination: 6.349°  
Dip Angle from Horizontal: 59.895°  
Magnetic Field Strength: 47658.33259084nT  
  
To convert a Magnetic Direction to a Grid Direction, Add 5.988°  
To convert a Magnetic Direction to a True Direction, Add 6.349° East  
To convert a True Direction to a Grid Direction, Subtract 0.361°





# Marathon Oil Permian LLC

Lea County, NM (NAD27 NME)

Bing Clawsby 15-10

Bing Clawsby WC Federal Com 703H

OH

**Plan: Plan 2 04-13-23**

# Standard Planning Report

13 April, 2023





# Phoenix

## Planning Report



<b>Database:</b>	USAEDMDB	<b>Local Co-ordinate Reference:</b>	Well Bing Clawsby WC Federal Com 703H
<b>Company:</b>	Marathon Oil Permian LLC	<b>TVD Reference:</b>	RKB @ 3732.60usft (Cactus 169)
<b>Project:</b>	Lea County, NM (NAD27 NME)	<b>MD Reference:</b>	RKB @ 3732.60usft (Cactus 169)
<b>Site:</b>	Bing Clawsby 15-10	<b>North Reference:</b>	Grid
<b>Well:</b>	Bing Clawsby WC Federal Com 703H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 2 04-13-23		

<b>Project</b>	Lea County, NM (NAD27 NME)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b>	Bing Clawsby 15-10				
<b>Site Position:</b>	Map	<b>Northing:</b>	472,917.30 usft	<b>Latitude:</b>	32° 17' 54.097368 N
<b>From:</b>		<b>Easting:</b>	708,634.73 usft	<b>Longitude:</b>	103° 39' 29.223684 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "		

<b>Well</b>	Bing Clawsby WC Federal Com 703H				
<b>Well Position</b>	+N/S +E/W	0.00 usft 0.00 usft	<b>Northing:</b> <b>Easting:</b>	472,917.30 usfl 708,664.74 usfl	<b>Latitude:</b> <b>Longitude:</b>
<b>Position Uncertainty</b>		1.00 usft	<b>Wellhead Elevation:</b>	usfl	<b>Ground Level:</b>
<b>Grid Convergence:</b>		0.361 °			3,709.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	MVHD	7/03/22	6.349	59.895	47,658.33259084

<b>Design</b>	Plan 2 04-13-23				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>		<b>Depth From (TVD) (usft)</b>	+N/S (usft)	+E/W (usft)	<b>Direction (°)</b>
		0.00	0.00	0.00	359.62

<b>Plan Survey Tool Program</b>	<b>Date</b>	4/13/23		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1 0.00	27,666.63	Plan 2 04-13-23 (OH)	MWD+IFR1+MS OWSG Rev. 2 MWD + IFR1	



# Phoenix

## Planning Report



<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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**Plan Sections**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,200.06	8.00	129.25	2,198.76	-17.65	21.60	2.00	2.00	0.00	129.250	
5,649.11	8.00	129.25	5,614.24	-321.40	393.38	0.00	0.00	0.00	0.000	
6,049.17	0.00	0.00	6,013.00	-339.04	414.97	2.00	-2.00	0.00	180.000	
11,656.82	0.00	0.00	11,620.64	-339.04	414.97	0.00	0.00	0.00	0.000	
12,556.82	90.00	359.63	12,193.60	233.90	411.23	10.00	10.00	0.00	359.626	
17,217.04	90.00	359.63	12,193.60	4,894.03	380.82	0.00	0.00	0.00	0.000	TP1- BCWCFC 703
17,217.34	90.00	359.62	12,193.60	4,894.32	380.82	2.00	0.00	-2.00	-90.000	
22,501.84	90.00	359.62	12,193.60	10,178.71	345.78	0.00	0.00	0.00	0.000	TP2- BCWCFC 703
22,502.44	90.00	359.61	12,193.60	10,179.31	345.78	2.00	0.00	-2.00	-90.000	
27,666.63	90.00	359.61	12,193.60	15,343.38	310.45	0.00	0.00	0.00	0.000	LTP/BHL - BCWCFC

<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,294.60	0.00	0.00	1,294.60	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Rustler</b>										
1,689.60	0.00	0.00	1,689.60	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Salado</b>										
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>KOP, Begin 2.00°/100' Build</b>										
1,900.00	2.00	129.25	1,899.98	-1.10	1.35	-1.11	2.00	2.00	0.00	
2,000.00	4.00	129.25	1,999.84	-4.42	5.40	-4.45	2.00	2.00	0.00	
2,100.00	6.00	129.25	2,099.45	-9.93	12.15	-10.01	2.00	2.00	0.00	
2,200.00	8.00	129.25	2,198.70	-17.64	21.59	-17.78	2.00	2.00	0.00	
2,200.06	8.00	129.25	2,198.76	-17.65	21.60	-17.79	2.00	2.00	0.00	
<b>Hold 8.00° Inc at 129.25° Azm</b>										
2,300.00	8.00	129.25	2,297.73	-26.45	32.37	-26.66	0.00	0.00	0.00	
2,400.00	8.00	129.25	2,396.75	-35.25	43.15	-35.54	0.00	0.00	0.00	
2,500.00	8.00	129.25	2,495.78	-44.06	53.93	-44.42	0.00	0.00	0.00	
2,600.00	8.00	129.25	2,594.81	-52.87	64.71	-53.29	0.00	0.00	0.00	
2,700.00	8.00	129.25	2,693.83	-61.67	75.49	-62.17	0.00	0.00	0.00	
2,800.00	8.00	129.25	2,792.86	-70.48	86.27	-71.05	0.00	0.00	0.00	
2,900.00	8.00	129.25	2,891.89	-79.29	97.04	-79.93	0.00	0.00	0.00	
3,000.00	8.00	129.25	2,990.91	-88.09	107.82	-88.81	0.00	0.00	0.00	
3,100.00	8.00	129.25	3,089.94	-96.90	118.60	-97.69	0.00	0.00	0.00	
3,200.00	8.00	129.25	3,188.97	-105.71	129.38	-106.56	0.00	0.00	0.00	
3,300.00	8.00	129.25	3,287.99	-114.51	140.16	-115.44	0.00	0.00	0.00	
3,400.00	8.00	129.25	3,387.02	-123.32	150.94	-124.32	0.00	0.00	0.00	
3,500.00	8.00	129.25	3,486.05	-132.13	161.72	-133.20	0.00	0.00	0.00	
3,600.00	8.00	129.25	3,585.07	-140.94	172.50	-142.08	0.00	0.00	0.00	
3,612.65	8.00	129.25	3,597.60	-142.05	173.86	-143.20	0.00	0.00	0.00	
<b>Castile</b>										
3,700.00	8.00	129.25	3,684.10	-149.74	183.28	-150.95	0.00	0.00	0.00	
3,800.00	8.00	129.25	3,783.13	-158.55	194.06	-159.83	0.00	0.00	0.00	
3,900.00	8.00	129.25	3,882.15	-167.36	204.84	-168.71	0.00	0.00	0.00	
4,000.00	8.00	129.25	3,981.18	-176.16	215.62	-177.59	0.00	0.00	0.00	
4,100.00	8.00	129.25	4,080.21	-184.97	226.39	-186.47	0.00	0.00	0.00	
4,200.00	8.00	129.25	4,179.23	-193.78	237.17	-195.34	0.00	0.00	0.00	
4,300.00	8.00	129.25	4,278.26	-202.58	247.95	-204.22	0.00	0.00	0.00	
4,400.00	8.00	129.25	4,377.28	-211.39	258.73	-213.10	0.00	0.00	0.00	
4,500.00	8.00	129.25	4,476.31	-220.20	269.51	-221.98	0.00	0.00	0.00	
4,600.00	8.00	129.25	4,575.34	-229.00	280.29	-230.86	0.00	0.00	0.00	
4,700.00	8.00	129.25	4,674.36	-237.81	291.07	-239.74	0.00	0.00	0.00	
4,800.00	8.00	129.25	4,773.39	-246.62	301.85	-248.61	0.00	0.00	0.00	
4,900.00	8.00	129.25	4,872.42	-255.42	312.63	-257.49	0.00	0.00	0.00	
4,963.80	8.00	129.25	4,935.60	-261.04	319.51	-263.16	0.00	0.00	0.00	
<b>Base of Salt (BX) - Lamar</b>										
5,000.00	8.00	129.25	4,971.44	-264.23	323.41	-266.37	0.00	0.00	0.00	
5,016.32	8.00	129.25	4,987.60	-265.67	325.17	-267.82	0.00	0.00	0.00	
<b>Bell Canyon</b>										
5,100.00	8.00	129.25	5,070.47	-273.04	334.19	-275.25	0.00	0.00	0.00	
5,200.00	8.00	129.25	5,169.50	-281.84	344.97	-284.13	0.00	0.00	0.00	
5,300.00	8.00	129.25	5,268.52	-290.65	355.74	-293.00	0.00	0.00	0.00	
5,400.00	8.00	129.25	5,367.55	-299.46	366.52	-301.88	0.00	0.00	0.00	
5,500.00	8.00	129.25	5,466.58	-308.27	377.30	-310.76	0.00	0.00	0.00	
5,600.00	8.00	129.25	5,565.60	-317.07	388.08	-319.64	0.00	0.00	0.00	

<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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<b>Planned Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
5,649.11	8.00	129.25	5,614.24	-321.40	393.38	-324.00	0.00	0.00	0.00	
<b>Begin 2.00°/100' Drop</b>										
5,700.00	6.98	129.25	5,664.69	-325.60	398.51	-328.23	2.00	-2.00	0.00	
5,800.00	4.98	129.25	5,764.14	-332.19	406.59	-334.88	2.00	-2.00	0.00	
5,900.00	2.98	129.25	5,863.89	-336.59	411.97	-339.31	2.00	-2.00	0.00	
6,000.00	0.98	129.25	5,963.83	-338.78	414.65	-341.52	2.00	-2.00	0.00	
6,049.17	0.00	0.00	6,013.00	-339.04	414.97	-341.79	2.00	-2.00	0.00	
<b>Begin Vertical Hold</b>										
6,146.77	0.00	0.00	6,110.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>Cherry Canyon</b>										
7,123.77	0.00	0.00	7,087.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>Brushy Canyon</b>										
8,786.77	0.00	0.00	8,750.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>Bone Spring Lime</b>										
8,916.77	0.00	0.00	8,880.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>Upper Avalon Shale</b>										
9,969.77	0.00	0.00	9,933.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>1st Bone Spring Sand</b>										
10,271.77	0.00	0.00	10,235.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>2nd Bone Spring Carbonate</b>										
10,636.77	0.00	0.00	10,600.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>2nd Bone Spring Sand</b>										
11,144.77	0.00	0.00	11,108.60	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>3rd Bone Spring Carbonate</b>										
11,656.82	0.00	0.00	11,620.64	-339.04	414.97	-341.79	0.00	0.00	0.00	
<b>KOP2, Begin 10.00°/100' Build</b>										
11,700.00	4.32	359.63	11,663.79	-337.42	414.96	-340.16	10.00	10.00	0.00	
11,800.00	14.32	359.63	11,762.34	-321.24	414.86	-323.99	10.00	10.00	0.00	
11,900.00	24.32	359.63	11,856.59	-288.21	414.64	-290.95	10.00	10.00	0.00	
11,930.01	27.32	359.63	11,883.60	-275.14	414.56	-277.88	10.00	10.00	0.00	
<b>3rd Bone Spring Sand</b>										
12,000.00	34.32	359.63	11,943.67	-239.30	414.32	-242.05	10.00	10.00	0.00	
12,100.00	44.32	359.63	12,020.94	-176.02	413.91	-178.76	10.00	10.00	0.00	
12,200.00	54.32	359.63	12,086.04	-100.28	413.41	-103.02	10.00	10.00	0.00	
12,300.00	64.32	359.63	12,137.00	-14.39	412.85	-17.13	10.00	10.00	0.00	
12,390.40	73.36	359.63	12,169.60	69.82	412.30	67.08	10.00	10.00	0.00	
<b>Wolfcamp</b>										
12,400.00	74.32	359.63	12,172.27	79.04	412.24	76.30	10.00	10.00	0.00	
12,500.00	84.32	359.63	12,190.79	177.18	411.60	174.45	10.00	10.00	0.00	
12,556.82	90.00	359.63	12,193.60	233.90	411.23	231.17	10.00	10.00	0.00	
<b>LP, Hold 90.00° Inc at 359.63° Azm</b>										
12,600.00	90.00	359.63	12,193.60	277.09	410.95	274.35	0.00	0.00	0.00	
12,700.00	90.00	359.63	12,193.60	377.08	410.30	374.35	0.00	0.00	0.00	
12,800.00	90.00	359.63	12,193.60	477.08	409.65	474.35	0.00	0.00	0.00	
12,900.00	90.00	359.63	12,193.60	577.08	408.99	574.35	0.00	0.00	0.00	
13,000.00	90.00	359.63	12,193.60	677.08	408.34	674.35	0.00	0.00	0.00	
13,100.00	90.00	359.63	12,193.60	777.08	407.69	774.35	0.00	0.00	0.00	
13,200.00	90.00	359.63	12,193.60	877.07	407.04	874.35	0.00	0.00	0.00	
13,300.00	90.00	359.63	12,193.60	977.07	406.38	974.35	0.00	0.00	0.00	
13,400.00	90.00	359.63	12,193.60	1,077.07	405.73	1,074.35	0.00	0.00	0.00	
13,500.00	90.00	359.63	12,193.60	1,177.07	405.08	1,174.35	0.00	0.00	0.00	
13,600.00	90.00	359.63	12,193.60	1,277.06	404.43	1,274.35	0.00	0.00	0.00	
13,700.00	90.00	359.63	12,193.60	1,377.06	403.77	1,374.35	0.00	0.00	0.00	



# Phoenix

## Planning Report



<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,800.00	90.00	359.63	12,193.60	1,477.06	403.12	1,474.35	0.00	0.00	0.00
13,900.00	90.00	359.63	12,193.60	1,577.06	402.47	1,574.35	0.00	0.00	0.00
14,000.00	90.00	359.63	12,193.60	1,677.06	401.81	1,674.35	0.00	0.00	0.00
14,100.00	90.00	359.63	12,193.60	1,777.05	401.16	1,774.35	0.00	0.00	0.00
14,200.00	90.00	359.63	12,193.60	1,877.05	400.51	1,874.35	0.00	0.00	0.00
14,300.00	90.00	359.63	12,193.60	1,977.05	399.86	1,974.35	0.00	0.00	0.00
14,400.00	90.00	359.63	12,193.60	2,077.05	399.20	2,074.35	0.00	0.00	0.00
14,500.00	90.00	359.63	12,193.60	2,177.05	398.55	2,174.35	0.00	0.00	0.00
14,600.00	90.00	359.63	12,193.60	2,277.04	397.90	2,274.35	0.00	0.00	0.00
14,700.00	90.00	359.63	12,193.60	2,377.04	397.25	2,374.35	0.00	0.00	0.00
14,800.00	90.00	359.63	12,193.60	2,477.04	396.59	2,474.35	0.00	0.00	0.00
14,900.00	90.00	359.63	12,193.60	2,577.04	395.94	2,574.35	0.00	0.00	0.00
15,000.00	90.00	359.63	12,193.60	2,677.03	395.29	2,674.35	0.00	0.00	0.00
15,100.00	90.00	359.63	12,193.60	2,777.03	394.64	2,774.35	0.00	0.00	0.00
15,200.00	90.00	359.63	12,193.60	2,877.03	393.98	2,874.35	0.00	0.00	0.00
15,300.00	90.00	359.63	12,193.60	2,977.03	393.33	2,974.35	0.00	0.00	0.00
15,400.00	90.00	359.63	12,193.60	3,077.03	392.68	3,074.35	0.00	0.00	0.00
15,500.00	90.00	359.63	12,193.60	3,177.02	392.03	3,174.35	0.00	0.00	0.00
15,600.00	90.00	359.63	12,193.60	3,277.02	391.37	3,274.35	0.00	0.00	0.00
15,700.00	90.00	359.63	12,193.60	3,377.02	390.72	3,374.35	0.00	0.00	0.00
15,800.00	90.00	359.63	12,193.60	3,477.02	390.07	3,474.35	0.00	0.00	0.00
15,900.00	90.00	359.63	12,193.60	3,577.02	389.41	3,574.35	0.00	0.00	0.00
16,000.00	90.00	359.63	12,193.60	3,677.01	388.76	3,674.35	0.00	0.00	0.00
16,100.00	90.00	359.63	12,193.60	3,777.01	388.11	3,774.35	0.00	0.00	0.00
16,200.00	90.00	359.63	12,193.60	3,877.01	387.46	3,874.35	0.00	0.00	0.00
16,300.00	90.00	359.63	12,193.60	3,977.01	386.80	3,974.35	0.00	0.00	0.00
16,400.00	90.00	359.63	12,193.60	4,077.01	386.15	4,074.35	0.00	0.00	0.00
16,500.00	90.00	359.63	12,193.60	4,177.00	385.50	4,174.35	0.00	0.00	0.00
16,600.00	90.00	359.63	12,193.60	4,277.00	384.85	4,274.35	0.00	0.00	0.00
16,700.00	90.00	359.63	12,193.60	4,377.00	384.19	4,374.35	0.00	0.00	0.00
16,800.00	90.00	359.63	12,193.60	4,477.00	383.54	4,474.35	0.00	0.00	0.00
16,900.00	90.00	359.63	12,193.60	4,576.99	382.89	4,574.35	0.00	0.00	0.00
17,000.00	90.00	359.63	12,193.60	4,676.99	382.24	4,674.35	0.00	0.00	0.00
17,100.00	90.00	359.63	12,193.60	4,776.99	381.58	4,774.35	0.00	0.00	0.00
17,200.00	90.00	359.63	12,193.60	4,876.99	380.93	4,874.35	0.00	0.00	0.00
17,217.04	90.00	359.63	12,193.60	4,894.03	380.82	4,891.39	0.00	0.00	0.00
<b>Begin 2.00°/100' Turn</b>									
17,217.34	90.00	359.62	12,193.60	4,894.33	380.82	4,891.69	1.99	0.00	-1.99
<b>Hold 359.62° Azm</b>									
17,300.00	90.00	359.62	12,193.60	4,976.99	380.27	4,974.35	0.00	0.00	0.00
17,400.00	90.00	359.62	12,193.60	5,076.98	379.61	5,074.35	0.00	0.00	0.00
17,500.00	90.00	359.62	12,193.60	5,176.98	378.94	5,174.35	0.00	0.00	0.00
17,600.00	90.00	359.62	12,193.60	5,276.98	378.28	5,274.35	0.00	0.00	0.00
17,700.00	90.00	359.62	12,193.60	5,376.98	377.62	5,374.35	0.00	0.00	0.00
17,800.00	90.00	359.62	12,193.60	5,476.97	376.95	5,474.35	0.00	0.00	0.00
17,900.00	90.00	359.62	12,193.60	5,576.97	376.29	5,574.35	0.00	0.00	0.00
18,000.00	90.00	359.62	12,193.60	5,676.97	375.63	5,674.35	0.00	0.00	0.00
18,100.00	90.00	359.62	12,193.60	5,776.97	374.97	5,774.35	0.00	0.00	0.00
18,200.00	90.00	359.62	12,193.60	5,876.97	374.30	5,874.35	0.00	0.00	0.00
18,300.00	90.00	359.62	12,193.60	5,976.96	373.64	5,974.35	0.00	0.00	0.00
18,400.00	90.00	359.62	12,193.60	6,076.96	372.98	6,074.35	0.00	0.00	0.00
18,500.00	90.00	359.62	12,193.60	6,176.96	372.31	6,174.35	0.00	0.00	0.00
18,600.00	90.00	359.62	12,193.60	6,276.96	371.65	6,274.35	0.00	0.00	0.00



# Phoenix

## Planning Report



<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,700.00	90.00	359.62	12,193.60	6,376.96	370.99	6,374.35	0.00	0.00	0.00
18,800.00	90.00	359.62	12,193.60	6,476.95	370.32	6,474.35	0.00	0.00	0.00
18,900.00	90.00	359.62	12,193.60	6,576.95	369.66	6,574.35	0.00	0.00	0.00
19,000.00	90.00	359.62	12,193.60	6,676.95	369.00	6,674.35	0.00	0.00	0.00
19,100.00	90.00	359.62	12,193.60	6,776.95	368.33	6,774.35	0.00	0.00	0.00
19,200.00	90.00	359.62	12,193.60	6,876.94	367.67	6,874.35	0.00	0.00	0.00
19,300.00	90.00	359.62	12,193.60	6,976.94	367.01	6,974.35	0.00	0.00	0.00
19,400.00	90.00	359.62	12,193.60	7,076.94	366.35	7,074.35	0.00	0.00	0.00
19,500.00	90.00	359.62	12,193.60	7,176.94	365.68	7,174.35	0.00	0.00	0.00
19,600.00	90.00	359.62	12,193.60	7,276.94	365.02	7,274.35	0.00	0.00	0.00
19,700.00	90.00	359.62	12,193.60	7,376.93	364.36	7,374.35	0.00	0.00	0.00
19,800.00	90.00	359.62	12,193.60	7,476.93	363.69	7,474.35	0.00	0.00	0.00
19,900.00	90.00	359.62	12,193.60	7,576.93	363.03	7,574.35	0.00	0.00	0.00
20,000.00	90.00	359.62	12,193.60	7,676.93	362.37	7,674.35	0.00	0.00	0.00
20,100.00	90.00	359.62	12,193.60	7,776.92	361.70	7,774.35	0.00	0.00	0.00
20,200.00	90.00	359.62	12,193.60	7,876.92	361.04	7,874.35	0.00	0.00	0.00
20,300.00	90.00	359.62	12,193.60	7,976.92	360.38	7,974.35	0.00	0.00	0.00
20,400.00	90.00	359.62	12,193.60	8,076.92	359.72	8,074.35	0.00	0.00	0.00
20,500.00	90.00	359.62	12,193.60	8,176.92	359.05	8,174.35	0.00	0.00	0.00
20,600.00	90.00	359.62	12,193.60	8,276.91	358.39	8,274.35	0.00	0.00	0.00
20,700.00	90.00	359.62	12,193.60	8,376.91	357.73	8,374.35	0.00	0.00	0.00
20,800.00	90.00	359.62	12,193.60	8,476.91	357.06	8,474.35	0.00	0.00	0.00
20,900.00	90.00	359.62	12,193.60	8,576.91	356.40	8,574.35	0.00	0.00	0.00
21,000.00	90.00	359.62	12,193.60	8,676.90	355.74	8,674.35	0.00	0.00	0.00
21,100.00	90.00	359.62	12,193.60	8,776.90	355.07	8,774.35	0.00	0.00	0.00
21,200.00	90.00	359.62	12,193.60	8,876.90	354.41	8,874.35	0.00	0.00	0.00
21,300.00	90.00	359.62	12,193.60	8,976.90	353.75	8,974.35	0.00	0.00	0.00
21,400.00	90.00	359.62	12,193.60	9,076.90	353.08	9,074.35	0.00	0.00	0.00
21,500.00	90.00	359.62	12,193.60	9,176.89	352.42	9,174.35	0.00	0.00	0.00
21,600.00	90.00	359.62	12,193.60	9,276.89	351.76	9,274.35	0.00	0.00	0.00
21,700.00	90.00	359.62	12,193.60	9,376.89	351.10	9,374.35	0.00	0.00	0.00
21,800.00	90.00	359.62	12,193.60	9,476.89	350.43	9,474.35	0.00	0.00	0.00
21,900.00	90.00	359.62	12,193.60	9,576.88	349.77	9,574.35	0.00	0.00	0.00
22,000.00	90.00	359.62	12,193.60	9,676.88	349.11	9,674.35	0.00	0.00	0.00
22,100.00	90.00	359.62	12,193.60	9,776.88	348.44	9,774.35	0.00	0.00	0.00
22,200.00	90.00	359.62	12,193.60	9,876.88	347.78	9,874.35	0.00	0.00	0.00
22,300.00	90.00	359.62	12,193.60	9,976.88	347.12	9,974.35	0.00	0.00	0.00
22,400.00	90.00	359.62	12,193.60	10,076.87	346.45	10,074.35	0.00	0.00	0.00
22,500.00	90.00	359.62	12,193.60	10,176.87	345.79	10,174.35	0.00	0.00	0.00
22,501.84	90.00	359.62	12,193.60	10,178.71	345.78	10,176.19	0.00	0.00	0.00
<b>Begin 2.00°/100' Turn</b>									
22,502.44	90.00	359.61	12,193.60	10,179.31	345.78	10,176.79	2.01	0.00	-2.01
<b>Hold 359.61° Azm</b>									
22,600.00	90.00	359.61	12,193.60	10,276.87	345.11	10,274.35	0.00	0.00	0.00
22,700.00	90.00	359.61	12,193.60	10,376.87	344.42	10,374.35	0.00	0.00	0.00
22,800.00	90.00	359.61	12,193.60	10,476.86	343.74	10,474.35	0.00	0.00	0.00
22,900.00	90.00	359.61	12,193.60	10,576.86	343.06	10,574.35	0.00	0.00	0.00
23,000.00	90.00	359.61	12,193.60	10,676.86	342.37	10,674.35	0.00	0.00	0.00
23,100.00	90.00	359.61	12,193.60	10,776.86	341.69	10,774.35	0.00	0.00	0.00
23,200.00	90.00	359.61	12,193.60	10,876.86	341.00	10,874.35	0.00	0.00	0.00
23,300.00	90.00	359.61	12,193.60	10,976.85	340.32	10,974.35	0.00	0.00	0.00
23,400.00	90.00	359.61	12,193.60	11,076.85	339.64	11,074.35	0.00	0.00	0.00
23,500.00	90.00	359.61	12,193.60	11,176.85	338.95	11,174.35	0.00	0.00	0.00
23,600.00	90.00	359.61	12,193.60	11,276.85	338.27	11,274.35	0.00	0.00	0.00

<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
23,700.00	90.00	359.61	12,193.60	11,376.84	337.58	11,374.35	0.00	0.00	0.00
23,800.00	90.00	359.61	12,193.60	11,476.84	336.90	11,474.35	0.00	0.00	0.00
23,900.00	90.00	359.61	12,193.60	11,576.84	336.22	11,574.35	0.00	0.00	0.00
24,000.00	90.00	359.61	12,193.60	11,676.84	335.53	11,674.35	0.00	0.00	0.00
24,100.00	90.00	359.61	12,193.60	11,776.83	334.85	11,774.35	0.00	0.00	0.00
24,200.00	90.00	359.61	12,193.60	11,876.83	334.16	11,874.35	0.00	0.00	0.00
24,300.00	90.00	359.61	12,193.60	11,976.83	333.48	11,974.35	0.00	0.00	0.00
24,400.00	90.00	359.61	12,193.60	12,076.83	332.79	12,074.35	0.00	0.00	0.00
24,500.00	90.00	359.61	12,193.60	12,176.82	332.11	12,174.35	0.00	0.00	0.00
24,600.00	90.00	359.61	12,193.60	12,276.82	331.43	12,274.35	0.00	0.00	0.00
24,700.00	90.00	359.61	12,193.60	12,376.82	330.74	12,374.35	0.00	0.00	0.00
24,800.00	90.00	359.61	12,193.60	12,476.82	330.06	12,474.35	0.00	0.00	0.00
24,900.00	90.00	359.61	12,193.60	12,576.82	329.37	12,574.35	0.00	0.00	0.00
25,000.00	90.00	359.61	12,193.60	12,676.81	328.69	12,674.35	0.00	0.00	0.00
25,100.00	90.00	359.61	12,193.60	12,776.81	328.01	12,774.35	0.00	0.00	0.00
25,200.00	90.00	359.61	12,193.60	12,876.81	327.32	12,874.35	0.00	0.00	0.00
25,300.00	90.00	359.61	12,193.60	12,976.81	326.64	12,974.35	0.00	0.00	0.00
25,400.00	90.00	359.61	12,193.60	13,076.80	325.95	13,074.35	0.00	0.00	0.00
25,500.00	90.00	359.61	12,193.60	13,176.80	325.27	13,174.35	0.00	0.00	0.00
25,600.00	90.00	359.61	12,193.60	13,276.80	324.59	13,274.35	0.00	0.00	0.00
25,700.00	90.00	359.61	12,193.60	13,376.80	323.90	13,374.35	0.00	0.00	0.00
25,800.00	90.00	359.61	12,193.60	13,476.79	323.22	13,474.35	0.00	0.00	0.00
25,900.00	90.00	359.61	12,193.60	13,576.79	322.53	13,574.35	0.00	0.00	0.00
26,000.00	90.00	359.61	12,193.60	13,676.79	321.85	13,674.35	0.00	0.00	0.00
26,100.00	90.00	359.61	12,193.60	13,776.79	321.17	13,774.35	0.00	0.00	0.00
26,200.00	90.00	359.61	12,193.60	13,876.79	320.48	13,874.35	0.00	0.00	0.00
26,300.00	90.00	359.61	12,193.60	13,976.78	319.80	13,974.35	0.00	0.00	0.00
26,400.00	90.00	359.61	12,193.60	14,076.78	319.11	14,074.35	0.00	0.00	0.00
26,500.00	90.00	359.61	12,193.60	14,176.78	318.43	14,174.35	0.00	0.00	0.00
26,600.00	90.00	359.61	12,193.60	14,276.78	317.75	14,274.35	0.00	0.00	0.00
26,700.00	90.00	359.61	12,193.60	14,376.77	317.06	14,374.35	0.00	0.00	0.00
26,800.00	90.00	359.61	12,193.60	14,476.77	316.38	14,474.35	0.00	0.00	0.00
26,900.00	90.00	359.61	12,193.60	14,576.77	315.69	14,574.35	0.00	0.00	0.00
27,000.00	90.00	359.61	12,193.60	14,676.77	315.01	14,674.35	0.00	0.00	0.00
27,100.00	90.00	359.61	12,193.60	14,776.76	314.33	14,774.35	0.00	0.00	0.00
27,200.00	90.00	359.61	12,193.60	14,876.76	313.64	14,874.35	0.00	0.00	0.00
27,300.00	90.00	359.61	12,193.60	14,976.76	312.96	14,974.35	0.00	0.00	0.00
27,400.00	90.00	359.61	12,193.60	15,076.76	312.27	15,074.35	0.00	0.00	0.00
27,500.00	90.00	359.61	12,193.60	15,176.75	311.59	15,174.35	0.00	0.00	0.00
27,600.00	90.00	359.61	12,193.60	15,276.75	310.91	15,274.35	0.00	0.00	0.00
27,666.63	90.00	359.61	12,193.60	15,343.38	310.45	15,340.98	0.00	0.00	0.00

**TD at 27666.63**



# Phoenix

## Planning Report



<b>Database:</b> <b>Company:</b> <b>Project:</b> <b>Site:</b> <b>Well:</b> <b>Wellbore:</b> <b>Design:</b>	USAEDMDB Marathon Oil Permian LLC Lea County, NM (NAD27 NME) Bing Clawsby 15-10 Bing Clawsby WC Federal Com 703H OH Plan 2 04-13-23	<b>Local Co-ordinate Reference:</b> <b>TVD Reference:</b> <b>MD Reference:</b> <b>North Reference:</b> <b>Survey Calculation Method:</b>	Well Bing Clawsby WC Federal Com 703H RKB @ 3732.60usft (Cactus 169) RKB @ 3732.60usft (Cactus 169) Grid Minimum Curvature
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Design Targets										
Target Name	- hit/miss target	Dip Angle	Dip Dir.	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
	- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
TP2- BCWCFC 703H	- plan hits target center	0.00	0.00	12,193.60	10,178.71	345.78	483,096.01	709,010.52	2° 19' 34.797839 N	3° 39' 24.097160 W
- Point										
FTP- BCWCFC 703H	- plan misses target center by 202.90usft at 12126.88usft MD (12039.72 TVD, -156.80 N, 413.78 E)	0.00	0.00	12,193.60	-289.04	414.64	472,628.26	709,079.38	2° 17' 51.209379 N	3° 39' 24.064790 W
- Point										
LTP/BHL - BCWCFC 1	- plan hits target center	0.00	359.62	12,193.60	15,343.38	310.45	488,260.68	708,975.19	2° 20' 25.907129 N	3° 39' 24.128710 W
- Rectangle (sides W60.00 H15,632.77 D20.00)										
TP1- BCWCFC 703H	- plan hits target center	0.00	0.00	12,193.60	4,894.03	380.82	477,811.33	709,045.56	2° 18' 42.500887 N	3° 39' 24.077679 W
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,294.60	1,294.60	Rustler		0.000	359.62	
1,689.60	1,689.60	Salado		0.000	359.62	
3,612.65	3,597.60	Castile		0.000	359.62	
4,963.80	4,935.60	Base of Salt (BX)		0.000	359.62	
4,963.80	4,935.60	Lamar		0.000	359.62	
5,016.32	4,987.60	Bell Canyon		0.000	359.62	
6,146.77	6,110.60	Cherry Canyon		0.000	359.62	
7,123.77	7,087.60	Brushy Canyon		0.000	359.62	
8,786.77	8,750.60	Bone Spring Lime		0.000	359.62	
8,916.77	8,880.60	Upper Avalon Shale		0.000	359.62	
9,969.77	9,933.60	1st Bone Spring Sand		0.000	359.62	
10,271.77	10,235.60	2nd Bone Spring Carbonate		0.000	359.62	
10,636.77	10,600.60	2nd Bone Spring Sand		0.000	359.62	
11,144.77	11,108.60	3rd Bone Spring Carbonate		0.000	359.62	
11,930.01	11,883.60	3rd Bone Spring Sand		0.000	359.62	
12,390.40	12,169.60	Wolfcamp		0.000	359.62	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N-S (usft)	+E-W (usft)		
1,800.00	1,800.00	0.00	0.00	KOP, Begin 2.00°/100' Build	
2,200.06	2,198.76	-17.65	21.60	Hold 8.00° Inc at 129.25° Azm	
5,649.11	5,614.24	-321.40	393.38	Begin 2.00°/100' Drop	
6,049.17	6,013.00	-339.04	414.97	Begin Vertical Hold	
11,656.82	11,620.64	-339.04	414.97	KOP2, Begin 10.00°/100' Build	
12,556.82	12,193.60	233.90	411.23	LP, Hold 90.00° Inc at 359.63° Azm	
17,217.04	12,193.60	4,894.03	380.82	Begin 2.00°/100' Turn	
17,217.34	12,193.60	4,894.33	380.82	Hold 359.62° Azm	
22,501.84	12,193.60	10,178.71	345.78	Begin 2.00°/100' Turn	
22,502.44	12,193.60	10,179.31	345.78	Hold 359.61° Azm	
27,666.63	12,193.60	15,343.38	310.45	TD at 27666.63	

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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 234464

#### CONDITIONS

Operator:  MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID:  372098
	Action Number:  234464
	Action Type:  [C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition	Condition Date
pkautz	IN ADDITION TO PRVIOUS COA, IF ON ANY STRING CEMENT DOES NOT CIRCULATE, A CBL MUST BE RUN ON THAT STRING OF CASING.	8/10/2023