

Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM
 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-015-49788
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Decimus 5 WXY Fed Com
8. Well Number 1H
9. OGRID Number 372098
10. Pool name or Wildcat Purple Sage; Wolfcamp (Gas)
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3044'

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☐ Gas Well ☒ Other	
2. Name of Operator Marathon Oil Permian LLC	
3. Address of Operator 990 Town & Country Blvd. Houston, TX 77024	
4. Well Location Unit Letter L6 : 1770 feet from the SOUTH line and 303 feet from the WEST line Section 6 Township 23S Range 28E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3044'	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐
DOWNHOLE COMMINGLE ☐	P AND A ☐
CLOSED-LOOP SYSTEM ☐	CASING/CEMENT JOB ☐
OTHER: ☐	OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marathon Oil Permian LLC respectfully request approval to change the well name, FTP, LTP/BHL, and drill plan as described below and on the attached:

Well Name Change
 From: Decimus 5 WXY Fed Com 1H
 To: Decimus Fed Com 702H

FTP
 From: 660 FSL 330 FWL Sec 6-T23S-R28E
 To: 300 FSL 330 FWL Sec 6-T23S-R28E

LTP/BHL
 From: 660 FSL 330 FEL Sec 5-T23S-R28E
 To: 300 FSL 330 FEL Sec 5-T23S-R28E

Continued on next page.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Adrian Covarrubias TITLE Adv. Regulatory Compliance Rep. DATE 9/27/2024

Type or print name Adrian Covarrubias E-mail address: acovarrubias@marathonoil.com PHONE: 713-296-3368

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

DECIMUS FED COM 702H - APD CHANGE

CONTINUED SECTION 13

Casing Design Change:

Intermediate Casing Size

From: 9.625"

To: 8.625"

Intermediate Set Depth

From: 2413'

To: 8892'

Production Set Depth

From: 19303'

To: 19313'

No other changes to the casing design.

Cement Design Changes - Please see attached drill plan.

Please see attached drill plan, directional plan, and C-102s (proposed & previously approved) for review and approval.

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals, & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 PAGE 1 OF 2	
		Submittal Type:	☐ Initial Submittal
			☒ Amended Report
		☐ As Drilled	

WELL LOCATION INFORMATION

API Number 30-015-49788	Pool Code 98220	Pool Name PURPLE SAGE; WOLFCAMP (GAS)
Property Code 333093	Property Name DECIMUS FED COM	Well Number 702H
OGRID No. 372098	Operator Name MARATHON OIL PERMIAN LLC	Ground Level Elevation 3044'
Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal

Surface Location

UL L	Section 06	Township 23S	Range 28E	Lot 6	Ft. from N/S 1770' FSL	Ft. from E/W 303' FWL	Latitude (NAD83) 32.33204521	Longitude (NAD83) -104.13393734	County EDDY
---------	---------------	-----------------	--------------	----------	---------------------------	--------------------------	---------------------------------	------------------------------------	----------------

Bottom Hole Location

UL P	Section 05	Township 23S	Range 28E	Lot	Ft. from N/S 300' FSL	Ft. from E/W 330' FEL	Latitude (NAD83) 32.32797484	Longitude (NAD83) -104.10212384	County EDDY
---------	---------------	-----------------	--------------	-----	--------------------------	--------------------------	---------------------------------	------------------------------------	----------------

Dedicated Acres 1274.98	Infill or Defining Well Defining	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code P
Order Numbers:			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL M	Section 06	Township 23S	Range 28E	Lot 7	Ft. from N/S 300' FSL	Ft. from E/W 330' FWL	Latitude (NAD83) 32.32800487	Longitude (NAD83) -104.13390284	County EDDY
---------	---------------	-----------------	--------------	----------	--------------------------	--------------------------	---------------------------------	------------------------------------	----------------

First Take Point (FTP)

UL M	Section 06	Township 23S	Range 28E	Lot 7	Ft. from N/S 300' FSL	Ft. from E/W 330' FWL	Latitude (NAD83) 32.32800487	Longitude (NAD83) -104.13390284	County EDDY
---------	---------------	-----------------	--------------	----------	--------------------------	--------------------------	---------------------------------	------------------------------------	----------------

Last Take Point (LTP)

UL P	Section 05	Township 23S	Range 28E	Lot	Ft. from N/S 300' FSL	Ft. from E/W 330' FEL	Latitude (NAD83) 32.32797484	Longitude (NAD83) -104.10212384	County EDDY
---------	---------------	-----------------	--------------	-----	--------------------------	--------------------------	---------------------------------	------------------------------------	----------------

Unitized Area or Area of Uniform Interest	Spacing Unit Type: ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3044'
---	---	---------------------------------

OPERATOR CERTIFICATIONS I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division. <u>Adrian Covarrubias</u> 10/14/2024 Signature Date <u>Adrian Covarrubias</u> Printed Name <u>acovarrubias@marathonoil.com</u> Email Address	SURVEYOR CERTIFICATIONS 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.  Signature and Seal of Professional Surveyor <table><tr><td>Certificate Number 29049</td><td>Date of Survey OCTOBER 10, 2024</td></tr></table>	Certificate Number 29049	Date of Survey OCTOBER 10, 2024
Certificate Number 29049	Date of Survey OCTOBER 10, 2024		

ACREAGE DEDICATION PLATS

DECIMUS FED COM 702H

PAGE 2 OF 2



SHL
FSL 1770' FWL 303', SECTION 06
NAD 83, SPCS NM EAST
X:602924.14' / Y:484587.46'
LAT:32.33204521 / LON:-104.13393734
NAD 27, SPCS NM EAST
X:561741.93' / Y:484528.13'
LAT:32.33192544 / LON:-104.13343914

PI-1
FSL 300' FEL 0', SECTION 06
NAD 83, SPCS NM EAST
X:607842.87' / Y:483173.87'
LAT:32.32813330 / LON:-104.11802151
NAD 27, SPCS NM EAST
X:566660.56' / Y:483114.51'
LAT:32.32801328 / LON:-104.11752402

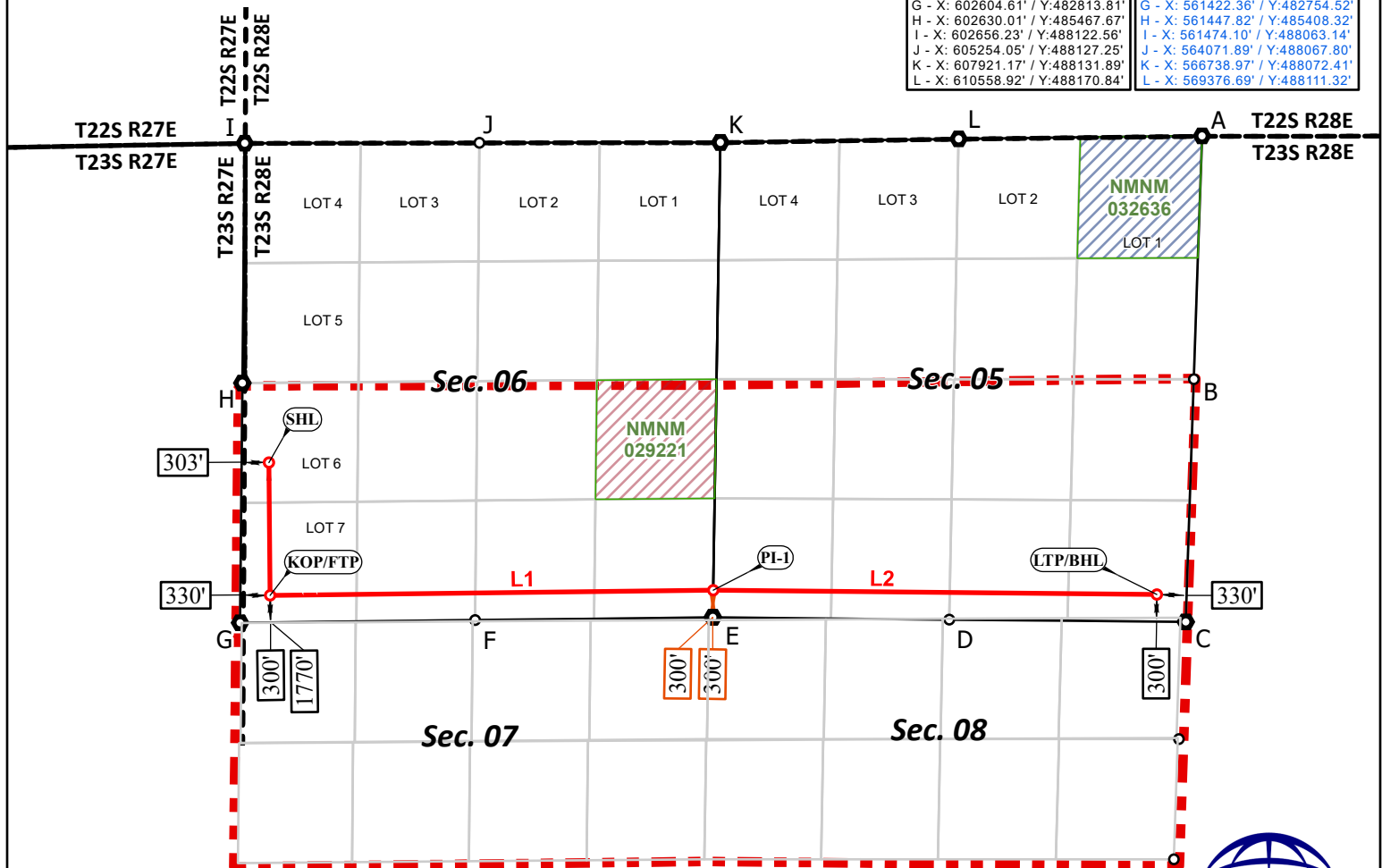
LTP/BHL
FSL 300' FEL 330', SECTION 05
NAD 83, SPCS NM EAST
X:612753.47' / Y:483126.45'
LAT:32.32797484 / LON:-104.10212384
NAD 27, SPCS NM EAST
X:571571.09' / Y:483067.04'
LAT:32.32785459 / LON:-104.10162693

KOP/FTP
FSL 300' FWL 330', SECTION 06
NAD 83, SPCS NM EAST
X:602937.53' / Y:483117.65'
LAT:32.32800487 / LON:-104.13390284
NAD 27, SPCS NM EAST
X:561755.29' / Y:483058.35'
LAT:32.32788507 / LON:-104.13340476

*FTP TO LTP LINE BEARINGS

LINE	BEARING
L1	N 89°20'36" E ~ 4905.66'
L2	S 89°26'48" W ~ 4910.83'

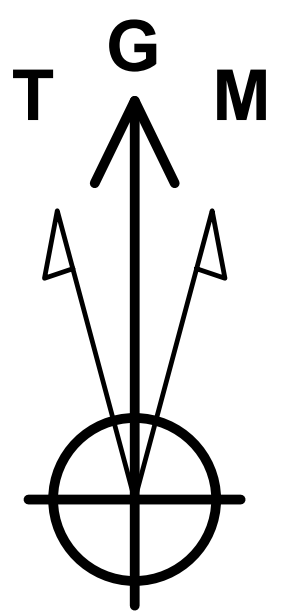
CORNER COORDINATES NAD 83, SPCS NM EAST	CORNER COORDINATES NAD 27, SPCS NM EAST
A - X: 613253.53' / Y:488203.58'	A - X: 572071.26' / Y:488144.03'
B - X: 613163.41' / Y:485510.11'	B - X: 571981.08' / Y:485450.63'
C - X: 613073.51' / Y:482823.35'	C - X: 571891.12' / Y:482763.94'
D - X: 610455.82' / Y:482848.62'	D - X: 569273.46' / Y:482789.24'
E - X: 607838.13' / Y:482873.90'	E - X: 566655.81' / Y:482814.55'
F - X: 605206.57' / Y:482843.69'	F - X: 564024.29' / Y:482784.37'
G - X: 602604.61' / Y:482813.81'	G - X: 561422.36' / Y:482754.52'
H - X: 602630.01' / Y:485467.67'	H - X: 561447.82' / Y:485408.32'
I - X: 602656.23' / Y:488122.56'	I - X: 561474.10' / Y:488063.14'
J - X: 605254.05' / Y:488127.25'	J - X: 564071.89' / Y:488067.80'
K - X: 607921.17' / Y:488131.89'	K - X: 566738.97' / Y:488072.41'
L - X: 610558.92' / Y:488170.84'	L - X: 569376.69' / Y:488111.32'



○ Drill Line Events ● Section Corners — Drill Line — Dimension Lines — Federal Leases — NMSLO — HSU ● HSU Corners
All bearings and coordinates refer to New Mexico State Plane Coordinate System, East Zone, U.S. Survey Feet.

JOB No. R4071_001
REV 4 ANC 10/10/2024

Distances/areas relative to NAD 83 grid measurements. Combined Scale Factor: 0.9999133890 and a Convergence Angle: 0.1060828352°



WELL DETAILS						
	+N/-S	+E/-W	Northing	Ground Level: Easting	3044.00	Latitude
	0.00	0.00	484528.13	561741.93		32° 19' 54.931638 N
						104° 8' 0.380881 W

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00		
2	1608.00	0.00	0.00	1608.00	0.00	0.00	0.00	0.000	0.00		KOP, Begin 2.00°/100' Build
3	2258.02	13.00	190.70	2252.46	-72.15	-13.64	2.00	190.703	-13.70		Hold 13.00° Inc at 190.70° Azm
4	8197.37	13.00	190.70	8039.58	-1385.01	-261.77	0.00	0.000	-262.98		Begin 2.00°/100' Drop
5	8992.76	7.00	89.34	8826.87	-1472.93	-229.72	2.00	154.156	-231.00		KOP2, Begin 10.00°/100' Build
6	9822.76	90.00	89.34	9330.00	-1466.38	338.93	10.00	0.000	337.65		LP, Hold 90.00° Inc at 89.34° Azm
7	14402.76	90.00	89.34	9330.00	-1413.62	4918.63	0.00	0.000	4917.39	PI-1 - Decimus FC 702H	Begin 2.00°/100' Turn
8	14463.84	90.00	90.56	9330.00	-1413.57	4979.71	2.00	90.000	4978.47		Hold 90.56° Azm
9	19313.52	90.00	90.56	9330.00	-1461.10	9829.16	0.00	0.000	9827.88	LTP/BHL - Decimus FC 702H	TD at 19313.52

DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
FTP/PPP-1 - Decimus FC 702H	9330.00	-1469.78	13.36	483058.35	561755.29	32° 19' 40.386221 N	104° 8' 0.257136 W		
LTP/BHL - Decimus FC 702H	9330.00	-1461.10	9829.16	483067.03	571571.09	32° 19' 40.276451 N	104° 6' 5.856907 W		
PI-1 - Decimus FC 702H	9330.00	-1413.62	4918.63	483114.51	566660.56	32° 19' 40.847808 N	104° 7' 3.086426 W		

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

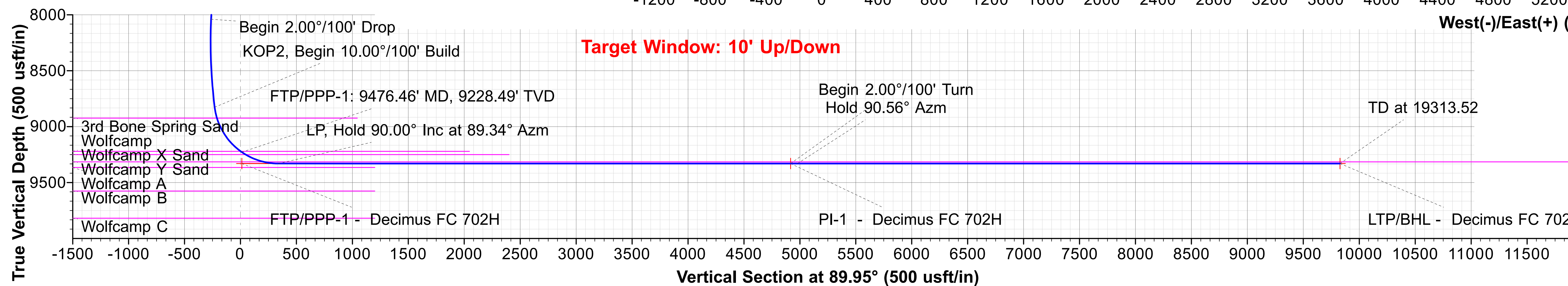
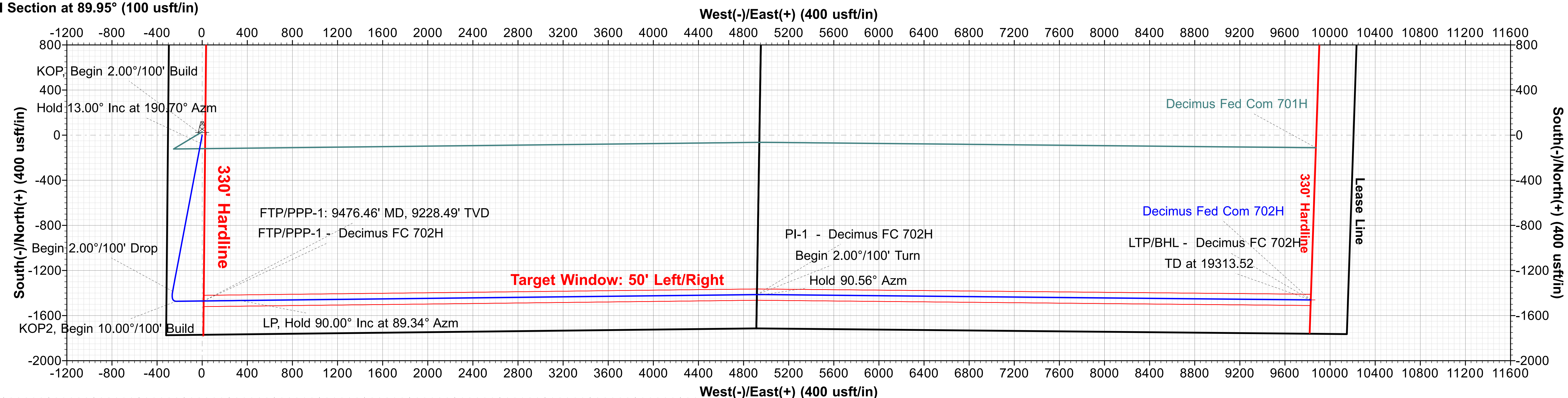
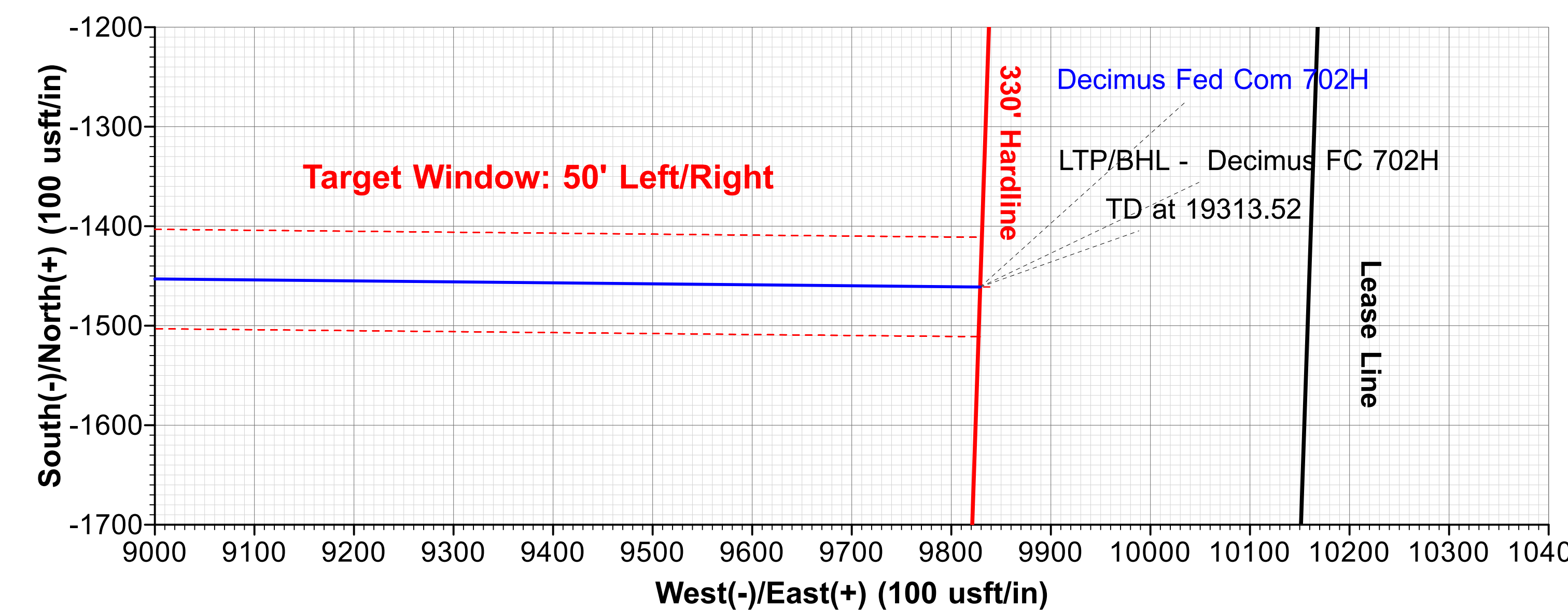
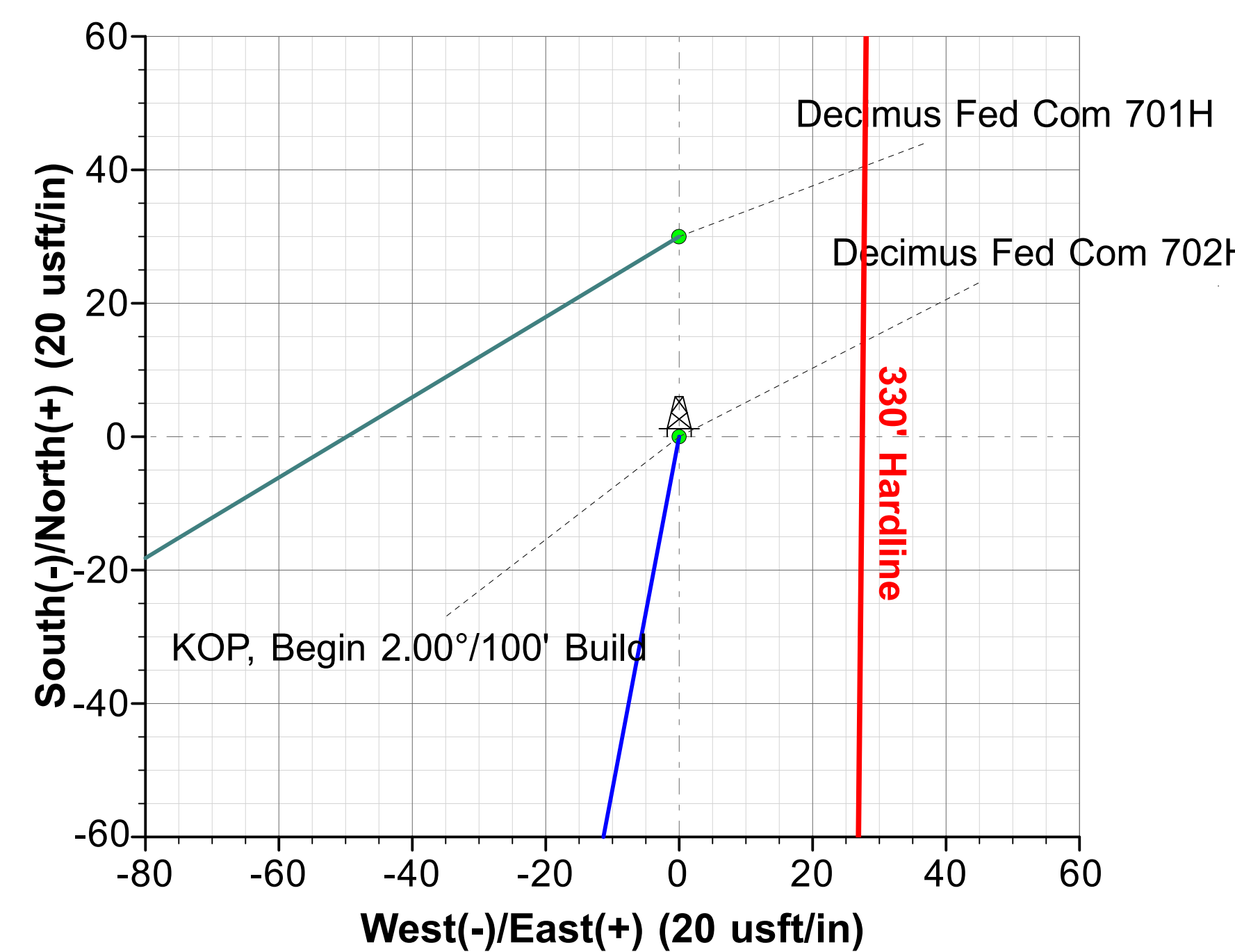
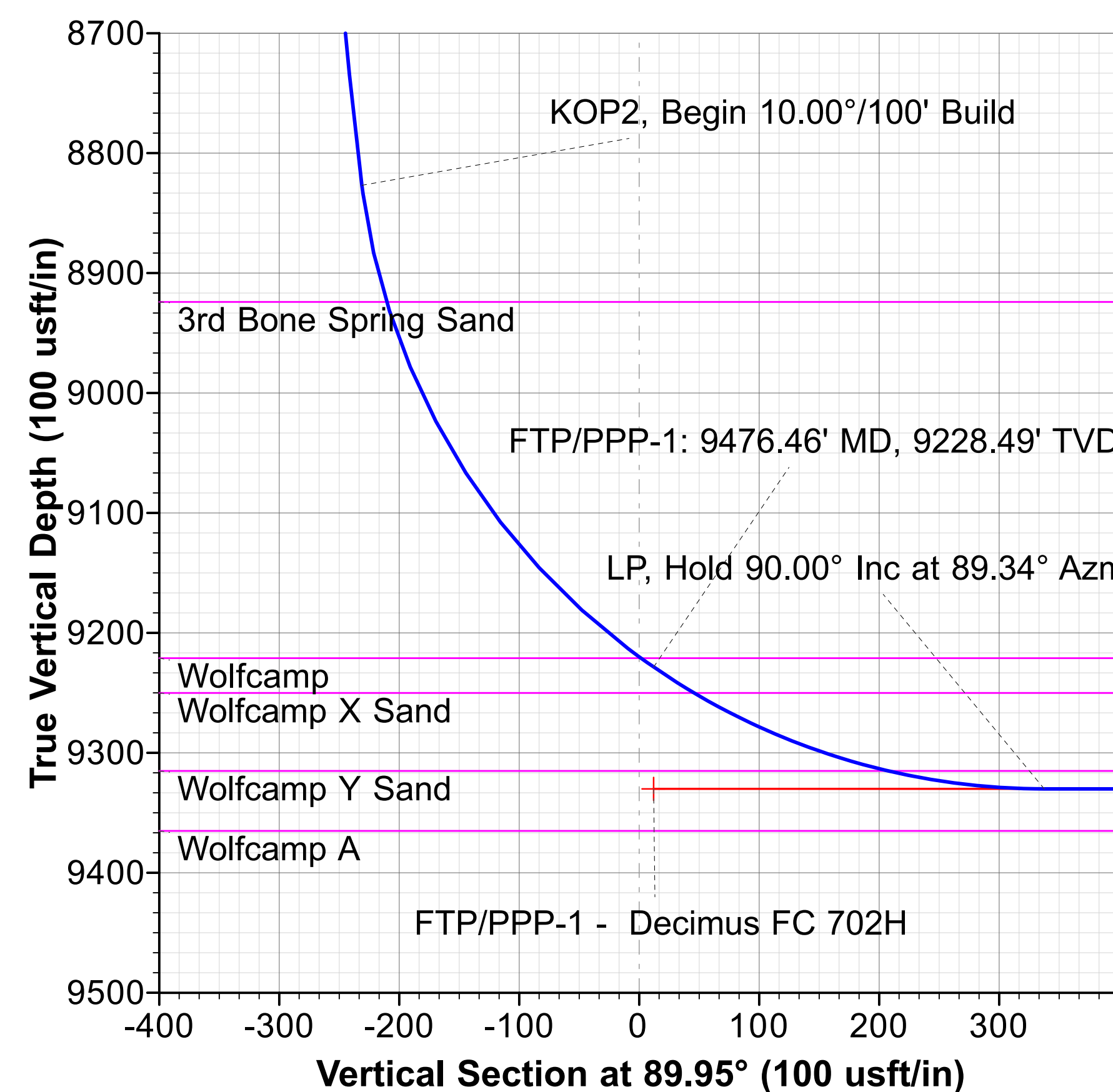
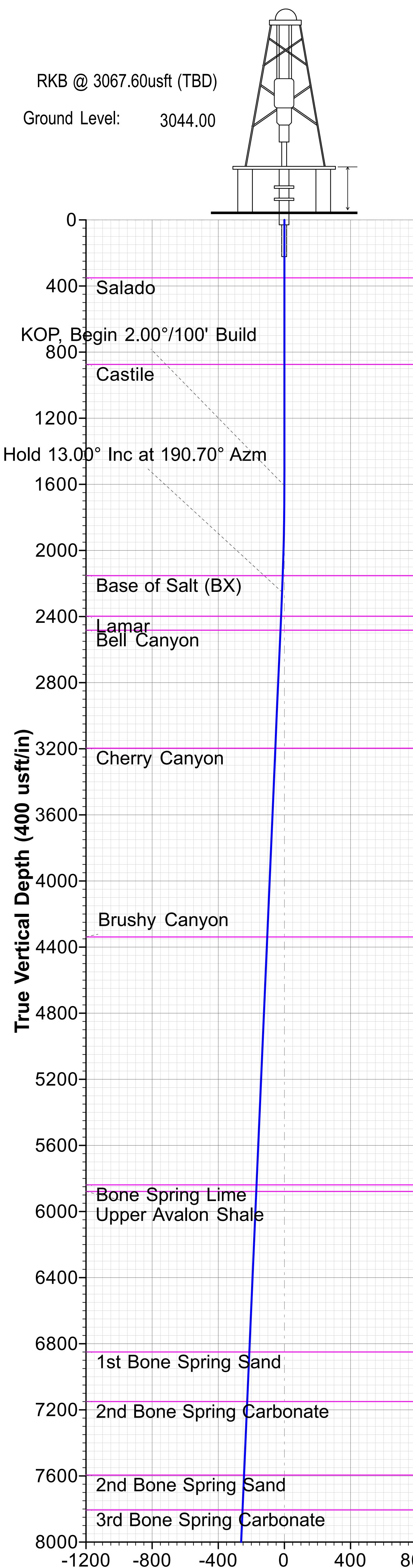
Local Origin: Well Decimus Fed Com 702H, Grid North

Latitude: 32° 19' 54.931638 N
Longitude: 104° 8' 0.380881 W

Grid East: 561741.93
Grid North: 484528.13
Scale Factor: 1.000

Geomagnetic Model: MVHD
Sample Date: 29-Oct-24
Magnetic Declination: 6.719°
Dip Angle from Horizontal: 59.897°
Magnetic Field Strength: 47300.57301791nT

To convert a Magnetic Direction to a Grid Direction, Add 6.612°
To convert a Magnetic Direction to a True Direction, Add 6.719° East
To convert a True Direction to a Grid Direction, Subtract 0.107°





Marathon Oil Permian LLC

Eddy County, NM (NAD27-NME)

Decimus

Decimus Fed Com 702H

OH

Plan: Permit Plan 2

Standard Planning Report

16 September, 2024





Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

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

Site	Decimus				
Site Position:		Northing:	484,528.13 usft	Latitude:	32° 19' 54.931638 N
From:	Map	Easting:	561,741.93 usft	Longitude:	104° 8' 0.380881 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.107 °

Well	Decimus Fed Com 702H					
Well Position	+N/-S	0.00 usft	Northing:	484,528.13 usft	Latitude:	32° 19' 54.931638 N
	+E/-W	0.00 usft	Easting:	561,741.93 usft	Longitude:	104° 8' 0.380881 W
Position Uncertainty		1.00 usft	Wellhead Elevation:		Ground Level:	3,044.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	10/29/24	6.719	59.897	47,300.57301791

Design	Permit Plan 2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.95

Plan Survey Tool Program	Date	9/16/24		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,313.52	Permit Plan 2 (OH)	A008Mc_MWD+IFR1+MS_ MWD+IFR1+MSA

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	
1,608.00	0.00	0.00	1,608.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,258.02	13.00	190.70	2,252.46	-72.15	-13.64	2.00	2.00	0.00	190.703	
8,197.37	13.00	190.70	8,039.58	-1,385.01	-261.77	0.00	0.00	0.00	0.000	
8,992.76	7.00	89.34	8,826.87	-1,472.93	-229.72	2.00	-0.75	-12.74	-154.156	
9,822.76	90.00	89.34	9,330.00	-1,466.38	338.93	10.00	10.00	0.00	0.000	
14,402.76	90.00	89.34	9,330.00	-1,413.62	4,918.63	0.00	0.00	0.00	0.000	PI-1 - Decimus FC
14,463.84	90.00	90.56	9,330.00	-1,413.57	4,979.71	2.00	0.00	2.00	90.000	
19,313.52	90.00	90.56	9,330.00	-1,461.10	9,829.16	0.00	0.00	0.00	0.000	LTP/BHL - Decimu:



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

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
351.00	0.00	0.00	351.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
875.00	0.00	0.00	875.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile									
1,608.00	0.00	0.00	1,608.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 2.00°/100° Build									
1,700.00	1.84	190.70	1,699.98	-1.45	-0.27	-0.28	2.00	2.00	0.00
1,800.00	3.84	190.70	1,799.86	-6.32	-1.19	-1.20	2.00	2.00	0.00
1,900.00	5.84	190.70	1,899.49	-14.61	-2.76	-2.77	2.00	2.00	0.00
2,000.00	7.84	190.70	1,998.78	-26.31	-4.97	-5.00	2.00	2.00	0.00
2,100.00	9.84	190.70	2,097.59	-41.41	-7.83	-7.86	2.00	2.00	0.00
2,156.34	10.97	190.70	2,153.00	-51.41	-9.72	-9.76	2.00	2.00	0.00
Base of Salt (BX)									
2,200.00	11.84	190.70	2,195.80	-59.89	-11.32	-11.37	2.00	2.00	0.00
2,258.02	13.00	190.70	2,252.46	-72.15	-13.64	-13.70	2.00	2.00	0.00
Hold 13.00° Inc at 190.70° Azm									
2,300.00	13.00	190.70	2,293.36	-81.43	-15.39	-15.46	0.00	0.00	0.00
2,400.00	13.00	190.70	2,390.80	-103.54	-19.57	-19.66	0.00	0.00	0.00
2,407.39	13.00	190.70	2,398.00	-105.17	-19.88	-19.97	0.00	0.00	0.00
Lamar									
2,494.63	13.00	190.70	2,483.00	-124.45	-23.52	-23.63	0.00	0.00	0.00
Bell Canyon									
2,500.00	13.00	190.70	2,488.23	-125.64	-23.75	-23.86	0.00	0.00	0.00
2,600.00	13.00	190.70	2,585.67	-147.74	-27.92	-28.05	0.00	0.00	0.00
2,700.00	13.00	190.70	2,683.11	-169.85	-32.10	-32.25	0.00	0.00	0.00
2,800.00	13.00	190.70	2,780.55	-191.95	-36.28	-36.45	0.00	0.00	0.00
2,900.00	13.00	190.70	2,877.98	-214.06	-40.46	-40.64	0.00	0.00	0.00
3,000.00	13.00	190.70	2,975.42	-236.16	-44.64	-44.84	0.00	0.00	0.00
3,100.00	13.00	190.70	3,072.86	-258.27	-48.81	-49.04	0.00	0.00	0.00
3,200.00	13.00	190.70	3,170.29	-280.37	-52.99	-53.24	0.00	0.00	0.00
3,227.41	13.00	190.70	3,197.00	-286.43	-54.14	-54.39	0.00	0.00	0.00
Cherry Canyon									
3,300.00	13.00	190.70	3,267.73	-302.48	-57.17	-57.43	0.00	0.00	0.00
3,400.00	13.00	190.70	3,365.17	-324.58	-61.35	-61.63	0.00	0.00	0.00
3,500.00	13.00	190.70	3,462.60	-346.68	-65.52	-65.83	0.00	0.00	0.00
3,600.00	13.00	190.70	3,560.04	-368.79	-69.70	-70.02	0.00	0.00	0.00
3,700.00	13.00	190.70	3,657.48	-390.89	-73.88	-74.22	0.00	0.00	0.00
3,800.00	13.00	190.70	3,754.91	-413.00	-78.06	-78.42	0.00	0.00	0.00
3,900.00	13.00	190.70	3,852.35	-435.10	-82.24	-82.61	0.00	0.00	0.00
4,000.00	13.00	190.70	3,949.79	-457.21	-86.41	-86.81	0.00	0.00	0.00
4,100.00	13.00	190.70	4,047.22	-479.31	-90.59	-91.01	0.00	0.00	0.00
4,200.00	13.00	190.70	4,144.66	-501.42	-94.77	-95.21	0.00	0.00	0.00
4,300.00	13.00	190.70	4,242.10	-523.52	-98.95	-99.40	0.00	0.00	0.00
4,399.45	13.00	190.70	4,339.00	-545.50	-103.10	-103.58	0.00	0.00	0.00
Brushy Canyon									
4,400.00	13.00	190.70	4,339.53	-545.62	-103.12	-103.60	0.00	0.00	0.00
4,500.00	13.00	190.70	4,436.97	-567.73	-107.30	-107.80	0.00	0.00	0.00
4,600.00	13.00	190.70	4,534.41	-589.83	-111.48	-111.99	0.00	0.00	0.00
4,700.00	13.00	190.70	4,631.85	-611.94	-115.66	-116.19	0.00	0.00	0.00
4,800.00	13.00	190.70	4,729.28	-634.04	-119.84	-120.39	0.00	0.00	0.00
4,900.00	13.00	190.70	4,826.72	-656.15	-124.01	-124.59	0.00	0.00	0.00
5,000.00	13.00	190.70	4,924.16	-678.25	-128.19	-128.78	0.00	0.00	0.00



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

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)
5,100.00	13.00	190.70	5,021.59	-700.36	-132.37	-132.98	0.00	0.00	0.00
5,200.00	13.00	190.70	5,119.03	-722.46	-136.55	-137.18	0.00	0.00	0.00
5,300.00	13.00	190.70	5,216.47	-744.56	-140.72	-141.37	0.00	0.00	0.00
5,400.00	13.00	190.70	5,313.90	-766.67	-144.90	-145.57	0.00	0.00	0.00
5,500.00	13.00	190.70	5,411.34	-788.77	-149.08	-149.77	0.00	0.00	0.00
5,600.00	13.00	190.70	5,508.78	-810.88	-153.26	-153.97	0.00	0.00	0.00
5,700.00	13.00	190.70	5,606.21	-832.98	-157.44	-158.16	0.00	0.00	0.00
5,800.00	13.00	190.70	5,703.65	-855.09	-161.61	-162.36	0.00	0.00	0.00
5,900.00	13.00	190.70	5,801.09	-877.19	-165.79	-166.56	0.00	0.00	0.00
5,938.91	13.00	190.70	5,839.00	-885.79	-167.42	-168.19	0.00	0.00	0.00
Bone Spring Lime									
5,979.96	13.00	190.70	5,879.00	-894.87	-169.13	-169.91	0.00	0.00	0.00
Upper Avalon Shale									
6,000.00	13.00	190.70	5,898.52	-899.30	-169.97	-170.75	0.00	0.00	0.00
6,100.00	13.00	190.70	5,995.96	-921.40	-174.15	-174.95	0.00	0.00	0.00
6,200.00	13.00	190.70	6,093.40	-943.50	-178.32	-179.15	0.00	0.00	0.00
6,300.00	13.00	190.70	6,190.83	-965.61	-182.50	-183.34	0.00	0.00	0.00
6,400.00	13.00	190.70	6,288.27	-987.71	-186.68	-187.54	0.00	0.00	0.00
6,500.00	13.00	190.70	6,385.71	-1,009.82	-190.86	-191.74	0.00	0.00	0.00
6,600.00	13.00	190.70	6,483.15	-1,031.92	-195.04	-195.94	0.00	0.00	0.00
6,700.00	13.00	190.70	6,580.58	-1,054.03	-199.21	-200.13	0.00	0.00	0.00
6,800.00	13.00	190.70	6,678.02	-1,076.13	-203.39	-204.33	0.00	0.00	0.00
6,900.00	13.00	190.70	6,775.46	-1,098.24	-207.57	-208.53	0.00	0.00	0.00
6,976.51	13.00	190.70	6,850.00	-1,115.15	-210.77	-211.74	0.00	0.00	0.00
1st Bone Spring Sand									
7,000.00	13.00	190.70	6,872.89	-1,120.34	-211.75	-212.72	0.00	0.00	0.00
7,100.00	13.00	190.70	6,970.33	-1,142.44	-215.92	-216.92	0.00	0.00	0.00
7,200.00	13.00	190.70	7,067.77	-1,164.55	-220.10	-221.12	0.00	0.00	0.00
7,284.40	13.00	190.70	7,150.00	-1,183.20	-223.63	-224.66	0.00	0.00	0.00
2nd Bone Spring Carbonate									
7,300.00	13.00	190.70	7,165.20	-1,186.65	-224.28	-225.32	0.00	0.00	0.00
7,400.00	13.00	190.70	7,262.64	-1,208.76	-228.46	-229.51	0.00	0.00	0.00
7,500.00	13.00	190.70	7,360.08	-1,230.86	-232.64	-233.71	0.00	0.00	0.00
7,600.00	13.00	190.70	7,457.51	-1,252.97	-236.81	-237.91	0.00	0.00	0.00
7,700.00	13.00	190.70	7,554.95	-1,275.07	-240.99	-242.10	0.00	0.00	0.00
7,741.10	13.00	190.70	7,595.00	-1,284.16	-242.71	-243.83	0.00	0.00	0.00
2nd Bone Spring Sand									
7,800.00	13.00	190.70	7,652.39	-1,297.18	-245.17	-246.30	0.00	0.00	0.00
7,900.00	13.00	190.70	7,749.82	-1,319.28	-249.35	-250.50	0.00	0.00	0.00
7,957.65	13.00	190.70	7,806.00	-1,332.02	-251.76	-252.92	0.00	0.00	0.00
3rd Bone Spring Carbonate									
8,000.00	13.00	190.70	7,847.26	-1,341.38	-253.52	-254.69	0.00	0.00	0.00
8,100.00	13.00	190.70	7,944.70	-1,363.49	-257.70	-258.89	0.00	0.00	0.00
8,197.37	13.00	190.70	8,039.58	-1,385.01	-261.77	-262.98	0.00	0.00	0.00
Begin 2.00°/100' Drop									
8,200.00	12.95	190.60	8,042.14	-1,385.59	-261.88	-263.09	2.00	-1.80	-3.89
8,300.00	11.19	186.09	8,139.92	-1,406.26	-264.97	-266.20	2.00	-1.76	-4.51
8,400.00	9.52	179.96	8,238.29	-1,424.17	-265.99	-267.24	2.00	-1.67	-6.12
8,500.00	7.99	171.40	8,337.13	-1,439.31	-264.95	-266.20	2.00	-1.52	-8.56
8,600.00	6.72	159.27	8,436.31	-1,451.67	-261.84	-263.10	2.00	-1.27	-12.13
8,700.00	5.87	142.67	8,535.71	-1,461.21	-256.66	-257.94	2.00	-0.85	-16.60
8,800.00	5.64	122.77	8,635.22	-1,467.94	-249.43	-250.71	2.00	-0.24	-19.91
8,900.00	6.08	103.57	8,734.71	-1,471.84	-240.15	-241.43	2.00	0.45	-19.20



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

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)
8,992.76	7.00	89.34	8,826.87	-1,472.93	-229.72	-231.00	2.00	0.99	-15.34
KOP2, Begin 10.00°/100' Build									
9,000.00	7.72	89.34	8,834.05	-1,472.92	-228.79	-230.07	10.00	10.00	0.00
9,092.18	16.94	89.34	8,924.00	-1,472.69	-209.12	-210.41	10.00	10.00	0.00
3rd Bone Spring Sand									
9,100.00	17.72	89.34	8,931.47	-1,472.66	-206.79	-208.08	10.00	10.00	0.00
9,200.00	27.72	89.34	9,023.59	-1,472.22	-168.21	-169.50	10.00	10.00	0.00
9,300.00	37.72	89.34	9,107.61	-1,471.60	-114.23	-115.51	10.00	10.00	0.00
9,400.00	47.72	89.34	9,180.98	-1,470.82	-46.47	-47.75	10.00	10.00	0.00
9,463.48	54.07	89.34	9,221.00	-1,470.25	2.77	1.48	10.00	10.00	0.00
Wolfcamp									
9,476.46	55.37	89.34	9,228.49	-1,470.13	13.36	12.08	10.00	10.00	0.00
FTP/PPP-1: 9476.46° MD, 9228.49° TVD									
9,500.00	57.72	89.34	9,241.47	-1,469.90	33.00	31.71	10.00	10.00	0.00
9,516.35	59.36	89.34	9,250.00	-1,469.74	46.94	45.65	10.00	10.00	0.00
Wolfcamp X Sand									
9,600.00	67.72	89.34	9,287.24	-1,468.88	121.76	120.48	10.00	10.00	0.00
9,691.37	76.86	89.34	9,315.00	-1,467.88	208.70	207.42	10.00	10.00	0.00
Wolfcamp Y Sand									
9,700.00	77.72	89.34	9,316.90	-1,467.78	217.12	215.84	10.00	10.00	0.00
9,800.00	87.72	89.34	9,329.55	-1,466.64	316.18	314.90	10.00	10.00	0.00
9,822.76	90.00	89.34	9,330.00	-1,466.38	338.93	337.65	10.00	10.00	0.00
LP, Hold 90.00° Inc at 89.34° Azm									
9,900.00	90.00	89.34	9,330.00	-1,465.49	416.17	414.89	0.00	0.00	0.00
10,000.00	90.00	89.34	9,330.00	-1,464.34	516.16	514.88	0.00	0.00	0.00
10,100.00	90.00	89.34	9,330.00	-1,463.18	616.16	614.88	0.00	0.00	0.00
10,200.00	90.00	89.34	9,330.00	-1,462.03	716.15	714.87	0.00	0.00	0.00
10,300.00	90.00	89.34	9,330.00	-1,460.88	816.14	814.87	0.00	0.00	0.00
10,400.00	90.00	89.34	9,330.00	-1,459.73	916.14	914.86	0.00	0.00	0.00
10,500.00	90.00	89.34	9,330.00	-1,458.58	1,016.13	1,014.86	0.00	0.00	0.00
10,600.00	90.00	89.34	9,330.00	-1,457.42	1,116.12	1,114.85	0.00	0.00	0.00
10,700.00	90.00	89.34	9,330.00	-1,456.27	1,216.12	1,214.84	0.00	0.00	0.00
10,800.00	90.00	89.34	9,330.00	-1,455.12	1,316.11	1,314.84	0.00	0.00	0.00
10,900.00	90.00	89.34	9,330.00	-1,453.97	1,416.10	1,414.83	0.00	0.00	0.00
11,000.00	90.00	89.34	9,330.00	-1,452.82	1,516.10	1,514.83	0.00	0.00	0.00
11,100.00	90.00	89.34	9,330.00	-1,451.66	1,616.09	1,614.82	0.00	0.00	0.00
11,200.00	90.00	89.34	9,330.00	-1,450.51	1,716.08	1,714.82	0.00	0.00	0.00
11,300.00	90.00	89.34	9,330.00	-1,449.36	1,816.08	1,814.81	0.00	0.00	0.00
11,400.00	90.00	89.34	9,330.00	-1,448.21	1,916.07	1,914.80	0.00	0.00	0.00
11,500.00	90.00	89.34	9,330.00	-1,447.06	2,016.06	2,014.80	0.00	0.00	0.00
11,600.00	90.00	89.34	9,330.00	-1,445.90	2,116.06	2,114.79	0.00	0.00	0.00
11,700.00	90.00	89.34	9,330.00	-1,444.75	2,216.05	2,214.79	0.00	0.00	0.00
11,800.00	90.00	89.34	9,330.00	-1,443.60	2,316.04	2,314.78	0.00	0.00	0.00
11,900.00	90.00	89.34	9,330.00	-1,442.45	2,416.04	2,414.78	0.00	0.00	0.00
12,000.00	90.00	89.34	9,330.00	-1,441.30	2,516.03	2,514.77	0.00	0.00	0.00
12,100.00	90.00	89.34	9,330.00	-1,440.15	2,616.02	2,614.77	0.00	0.00	0.00
12,200.00	90.00	89.34	9,330.00	-1,438.99	2,716.02	2,714.76	0.00	0.00	0.00
12,300.00	90.00	89.34	9,330.00	-1,437.84	2,816.01	2,814.75	0.00	0.00	0.00
12,400.00	90.00	89.34	9,330.00	-1,436.69	2,916.00	2,914.75	0.00	0.00	0.00
12,500.00	90.00	89.34	9,330.00	-1,435.54	3,016.00	3,014.74	0.00	0.00	0.00
12,600.00	90.00	89.34	9,330.00	-1,434.39	3,115.99	3,114.74	0.00	0.00	0.00
12,700.00	90.00	89.34	9,330.00	-1,433.23	3,215.98	3,214.73	0.00	0.00	0.00
12,800.00	90.00	89.34	9,330.00	-1,432.08	3,315.98	3,314.73	0.00	0.00	0.00



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

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)	
12,900.00	90.00	89.34	9,330.00	-1,430.93	3,415.97	3,414.72	0.00	0.00	0.00	
13,000.00	90.00	89.34	9,330.00	-1,429.78	3,515.96	3,514.71	0.00	0.00	0.00	
13,100.00	90.00	89.34	9,330.00	-1,428.63	3,615.96	3,614.71	0.00	0.00	0.00	
13,200.00	90.00	89.34	9,330.00	-1,427.47	3,715.95	3,714.70	0.00	0.00	0.00	
13,300.00	90.00	89.34	9,330.00	-1,426.32	3,815.94	3,814.70	0.00	0.00	0.00	
13,400.00	90.00	89.34	9,330.00	-1,425.17	3,915.94	3,914.69	0.00	0.00	0.00	
13,500.00	90.00	89.34	9,330.00	-1,424.02	4,015.93	4,014.69	0.00	0.00	0.00	
13,600.00	90.00	89.34	9,330.00	-1,422.87	4,115.92	4,114.68	0.00	0.00	0.00	
13,700.00	90.00	89.34	9,330.00	-1,421.72	4,215.92	4,214.67	0.00	0.00	0.00	
13,800.00	90.00	89.34	9,330.00	-1,420.56	4,315.91	4,314.67	0.00	0.00	0.00	
13,900.00	90.00	89.34	9,330.00	-1,419.41	4,415.90	4,414.66	0.00	0.00	0.00	
14,000.00	90.00	89.34	9,330.00	-1,418.26	4,515.90	4,514.66	0.00	0.00	0.00	
14,100.00	90.00	89.34	9,330.00	-1,417.11	4,615.89	4,614.65	0.00	0.00	0.00	
14,200.00	90.00	89.34	9,330.00	-1,415.96	4,715.88	4,714.65	0.00	0.00	0.00	
14,300.00	90.00	89.34	9,330.00	-1,414.80	4,815.88	4,814.64	0.00	0.00	0.00	
14,400.00	90.00	89.34	9,330.00	-1,413.65	4,915.87	4,914.63	0.00	0.00	0.00	
14,402.76	90.00	89.34	9,330.00	-1,413.62	4,918.63	4,917.39	0.00	0.00	0.00	
Begin 2.00°/100' Turn										
14,463.84	90.00	90.56	9,330.00	-1,413.57	4,979.71	4,978.47	2.00	0.00	2.00	
Hold 90.56° Azm										
14,500.00	90.00	90.56	9,330.00	-1,413.92	5,015.87	5,014.63	0.00	0.00	0.00	
14,600.00	90.00	90.56	9,330.00	-1,414.90	5,115.86	5,114.63	0.00	0.00	0.00	
14,700.00	90.00	90.56	9,330.00	-1,415.88	5,215.86	5,214.62	0.00	0.00	0.00	
14,800.00	90.00	90.56	9,330.00	-1,416.86	5,315.85	5,314.61	0.00	0.00	0.00	
14,900.00	90.00	90.56	9,330.00	-1,417.84	5,415.85	5,414.61	0.00	0.00	0.00	
15,000.00	90.00	90.56	9,330.00	-1,418.82	5,515.84	5,514.60	0.00	0.00	0.00	
15,100.00	90.00	90.56	9,330.00	-1,419.80	5,615.84	5,614.60	0.00	0.00	0.00	
15,200.00	90.00	90.56	9,330.00	-1,420.78	5,715.83	5,714.59	0.00	0.00	0.00	
15,300.00	90.00	90.56	9,330.00	-1,421.76	5,815.83	5,814.59	0.00	0.00	0.00	
15,400.00	90.00	90.56	9,330.00	-1,422.74	5,915.82	5,914.58	0.00	0.00	0.00	
15,500.00	90.00	90.56	9,330.00	-1,423.72	6,015.82	6,014.57	0.00	0.00	0.00	
15,600.00	90.00	90.56	9,330.00	-1,424.70	6,115.81	6,114.57	0.00	0.00	0.00	
15,700.00	90.00	90.56	9,330.00	-1,425.68	6,215.81	6,214.56	0.00	0.00	0.00	
15,800.00	90.00	90.56	9,330.00	-1,426.66	6,315.80	6,314.56	0.00	0.00	0.00	
15,900.00	90.00	90.56	9,330.00	-1,427.64	6,415.80	6,414.55	0.00	0.00	0.00	
16,000.00	90.00	90.56	9,330.00	-1,428.62	6,515.80	6,514.55	0.00	0.00	0.00	
16,100.00	90.00	90.56	9,330.00	-1,429.60	6,615.79	6,614.54	0.00	0.00	0.00	
16,200.00	90.00	90.56	9,330.00	-1,430.58	6,715.79	6,714.53	0.00	0.00	0.00	
16,300.00	90.00	90.56	9,330.00	-1,431.56	6,815.78	6,814.53	0.00	0.00	0.00	
16,400.00	90.00	90.56	9,330.00	-1,432.54	6,915.78	6,914.52	0.00	0.00	0.00	
16,500.00	90.00	90.56	9,330.00	-1,433.52	7,015.77	7,014.52	0.00	0.00	0.00	
16,600.00	90.00	90.56	9,330.00	-1,434.50	7,115.77	7,114.51	0.00	0.00	0.00	
16,700.00	90.00	90.56	9,330.00	-1,435.48	7,215.76	7,214.51	0.00	0.00	0.00	
16,800.00	90.00	90.56	9,330.00	-1,436.46	7,315.76	7,314.50	0.00	0.00	0.00	
16,900.00	90.00	90.56	9,330.00	-1,437.44	7,415.75	7,414.49	0.00	0.00	0.00	
17,000.00	90.00	90.56	9,330.00	-1,438.42	7,515.75	7,514.49	0.00	0.00	0.00	
17,100.00	90.00	90.56	9,330.00	-1,439.40	7,615.74	7,614.48	0.00	0.00	0.00	
17,200.00	90.00	90.56	9,330.00	-1,440.39	7,715.74	7,714.48	0.00	0.00	0.00	
17,300.00	90.00	90.56	9,330.00	-1,441.37	7,815.73	7,814.47	0.00	0.00	0.00	
17,400.00	90.00	90.56	9,330.00	-1,442.35	7,915.73	7,914.47	0.00	0.00	0.00	
17,500.00	90.00	90.56	9,330.00	-1,443.33	8,015.72	8,014.46	0.00	0.00	0.00	
17,600.00	90.00	90.56	9,330.00	-1,444.31	8,115.72	8,114.45	0.00	0.00	0.00	
17,700.00	90.00	90.56	9,330.00	-1,445.29	8,215.71	8,214.45	0.00	0.00	0.00	
17,800.00	90.00	90.56	9,330.00	-1,446.27	8,315.71	8,314.44	0.00	0.00	0.00	



Phoenix
Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

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)
17,900.00	90.00	90.56	9,330.00	-1,447.25	8,415.70	8,414.44	0.00	0.00	0.00
18,000.00	90.00	90.56	9,330.00	-1,448.23	8,515.70	8,514.43	0.00	0.00	0.00
18,100.00	90.00	90.56	9,330.00	-1,449.21	8,615.69	8,614.43	0.00	0.00	0.00
18,200.00	90.00	90.56	9,330.00	-1,450.19	8,715.69	8,714.42	0.00	0.00	0.00
18,300.00	90.00	90.56	9,330.00	-1,451.17	8,815.68	8,814.42	0.00	0.00	0.00
18,400.00	90.00	90.56	9,330.00	-1,452.15	8,915.68	8,914.41	0.00	0.00	0.00
18,500.00	90.00	90.56	9,330.00	-1,453.13	9,015.68	9,014.40	0.00	0.00	0.00
18,600.00	90.00	90.56	9,330.00	-1,454.11	9,115.67	9,114.40	0.00	0.00	0.00
18,700.00	90.00	90.56	9,330.00	-1,455.09	9,215.67	9,214.39	0.00	0.00	0.00
18,800.00	90.00	90.56	9,330.00	-1,456.07	9,315.66	9,314.39	0.00	0.00	0.00
18,900.00	90.00	90.56	9,330.00	-1,457.05	9,415.66	9,414.38	0.00	0.00	0.00
19,000.00	90.00	90.56	9,330.00	-1,458.03	9,515.65	9,514.38	0.00	0.00	0.00
19,100.00	90.00	90.56	9,330.00	-1,459.01	9,615.65	9,614.37	0.00	0.00	0.00
19,200.00	90.00	90.56	9,330.00	-1,459.99	9,715.64	9,714.36	0.00	0.00	0.00
19,300.00	90.00	90.56	9,330.00	-1,460.97	9,815.64	9,814.36	0.00	0.00	0.00
19,313.52	90.00	90.56	9,330.00	-1,461.10	9,829.16	9,827.88	0.00	0.00	0.00
TD at 19313.52									

Design Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
FTP/PPP-1 - Decimu	0.00	0.00	9,330.00	-1,469.78	13.36	483,058.35	561,755.29	2° 19' 40.386221 N	104° 8' 0.257136 W
- plan misses target center by 86.20usft at 9521.94usft MD (9252.83 TVD, -1469.68 N, 51.76 E)									
- Point									
PI-1 - Decimus FC 7	0.00	0.00	9,330.00	-1,413.62	4,918.63	483,114.51	566,660.56	2° 19' 40.847808 N	104° 7' 3.086426 W
- plan hits target center									
- Point									
LTP/BHL - Decimus F	0.00	0.00	9,330.00	-1,461.10	9,829.16	483,067.03	571,571.09	2° 19' 40.276452 N	104° 6' 5.856907 W
- plan hits target center									
- Point									



Phoenix Planning Report



Database:	USAEDMDB	Local Co-ordinate Reference:	Well Decimus Fed Com 702H
Company:	Marathon Oil Permian LLC	TVD Reference:	RKB @ 3067.60usft (TBD)
Project:	Eddy County, NM (NAD27-NME)	MD Reference:	RKB @ 3067.60usft (TBD)
Site:	Decimus	North Reference:	Grid
Well:	Decimus Fed Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Permit Plan 2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
351.00	351.00	Salado		0.000	89.95
875.00	875.00	Castile		0.000	89.95
2,156.34	2,153.00	Base of Salt (BX)		0.000	89.95
2,407.39	2,398.00	Lamar		0.000	89.95
2,494.63	2,483.00	Bell Canyon		0.000	89.95
3,227.41	3,197.00	Cherry Canyon		0.000	89.95
4,399.45	4,339.00	Brushy Canyon		0.000	89.95
5,938.91	5,839.00	Bone Spring Lime		0.000	89.95
5,979.96	5,879.00	Upper Avalon Shale		0.000	89.95
6,976.51	6,850.00	1st Bone Spring Sand		0.000	89.95
7,284.40	7,150.00	2nd Bone Spring Carbonate		0.000	89.95
7,741.10	7,595.00	2nd Bone Spring Sand		0.000	89.95
7,957.65	7,806.00	3rd Bone Spring Carbonate		0.000	89.95
9,092.18	8,924.00	3rd Bone Spring Sand		0.000	89.95
9,463.48	9,221.00	Wolfcamp		0.000	89.95
9,516.35	9,250.00	Wolfcamp X Sand		0.000	89.95
9,691.37	9,315.00	Wolfcamp Y Sand		0.000	89.95

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,608.00	1,608.00	0.00	0.00	KOP, Begin 2.00°/100' Build
2,258.02	2,252.46	-72.15	-13.64	Hold 13.00° Inc at 190.70° Azm
8,197.37	8,039.58	-1,385.01	-261.77	Begin 2.00°/100' Drop
8,992.76	8,826.87	-1,472.93	-229.72	KOP2, Begin 10.00°/100' Build
9,476.46	9,228.49	-1,470.13	13.36	FTP/PPP-1: 9476.46' MD, 9228.49' TVD
9,822.76	9,330.00	-1,466.38	338.93	LP, Hold 90.00° Inc at 89.34° Azm
14,402.76	9,330.00	-1,413.62	4,918.63	Begin 2.00°/100' Turn
14,463.84	9,330.00	-1,413.57	4,979.71	Hold 90.56° Azm
19,313.52	9,330.00	-1,461.10	9,829.16	TD at 19313.52

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	450	0	450	3044	2594	54.5	J55	BTC	5.22	1.81	BUOY	4.52	BUOY	4.52
Intermediate	9.875	8.625	0	8892	0	9230	3044	-6186	32	P110HC	BTC	1.20	1.42	BUOY	2.44	BUOY	2.44
Production	7.875	5.5	0	19313	0	9330	3044	-6286	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	300	146	2.12	12.5	309	25	Class C	Extender, Accelerator, LCM
Surface	Tail	300	450	99	1.32	14.8	130	25	Class C	Accelerator
Intermediate	Lead	0	8392	694	2.18	12.4	1512	25	Class C	Extender, Accelerator, LCM
Intermediate	Tail	8392	8892	59	1.33	14.8	79	25	Class C	Retarder
Production	Tail	8592	19313	1409	1.68	13	2368	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 & Operations Plan - Page 3 of 3

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	450	Water Based Mud	8.4	8.8
450	8892	Brine or Oil Based Mud	9.2	10.2
8892	19313	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:

None

Section 7:**ANTICIPATED PRESSURE**

Anticipated Bottom Hole Pressure: 6065 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.

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 392352

CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 392352
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	ALL PREVIOUS COA's APPLY	10/15/2024