

Well Name: DOUBLE ABJ 16 FED COM	Well Location: T24S / R32E / SEC 16 / SESE / 32.2111214 / -103.6725149	County or Parish/State: LEA / NM
Well Number: 502H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number:	Unit or CA Name:	Unit or CA Number:
US Well Number: 300254728600X1	Well Status: Approved Application for Permit to Drill	Operator: COG OPERATING LLC

Notice of Intent

Type of Submission: Notice of Intent	Type of Action Other
Date Sundry Submitted: 05/25/2021	Time Sundry Submitted: 01:16
Date proposed operation will begin: 05/24/2021	
Procedure Description: COG Operating requests an amendment to our approved APD for this well to reflect a change in BHL. New BHL is 50' FNL & 1640' FEL NWNE - 9-24S-32E Lea County. Revised C-102 and directional plan attached.	

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

- DOUBLE_ABJ_16_FED_COM_502H_PWP1_AC_RPT_20210525131620.pdf
- Double_ABJ_16_Federal_Com_502H_C_102_5_24_21_20210525131620.pdf
- DOUBLE_ABJ_16_FED_COM_502H_PWP1_WPlot_20210525131620.pdf
- DOUBLE_ABJ_16_FED_COM_502H_PWP1_SVY_RPT_20210525131620.pdf

Received by OCD: 7/12/2021 2:43:43 PM

Well Name: DOUBLE ABJ 16 FED COM

Well Number: 502H

Lease Number:

US Well Number: 300254728600X1

Well Location: T24S / R32E / SEC 16 / SESE / 32.2111214 / -103.6725149

Type of Well: OIL WELL

Unit or CA Name:

Well Status: Approved Application for Permit to Drill

County or Parish/State: LEA / NM

Allottee or Tribe Name:

Unit or CA Number:

Operator: COG OPERATING LLC

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: STAN WAGNER
Signed on: MAY 25, 2021 01:16 PM
Name: COG OPERATING LLC
Title: Regulatory Advisor
Street Address: 600 WEST ILLINOIS AVE
City: MIDLAND State: TX
Phone: (432) 253-9685
Email address: STAN.S.WAGNER@CONOCOPHILLIPS.COM

Field Representative

Representative Name:
Street Address:
City: State: Zip:
Phone:
Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS
BLM POC Phone: 5752342234
Disposition: Approved
Signature: Chris Walls
BLM POC Title: Petroleum Engineer
BLM POC Email Address: cwalls@blm.gov
Disposition Date: 07/12/2021

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
511 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 746-1283 Fax: (575) 746-9720

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) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-47286	Pool Code 96229	Pool Name Mesa Verde; Bone Spring
Property Code 328130	Property Name DOUBLE ABJ 16 FEDERAL COM	Well Number 502H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3584.5'

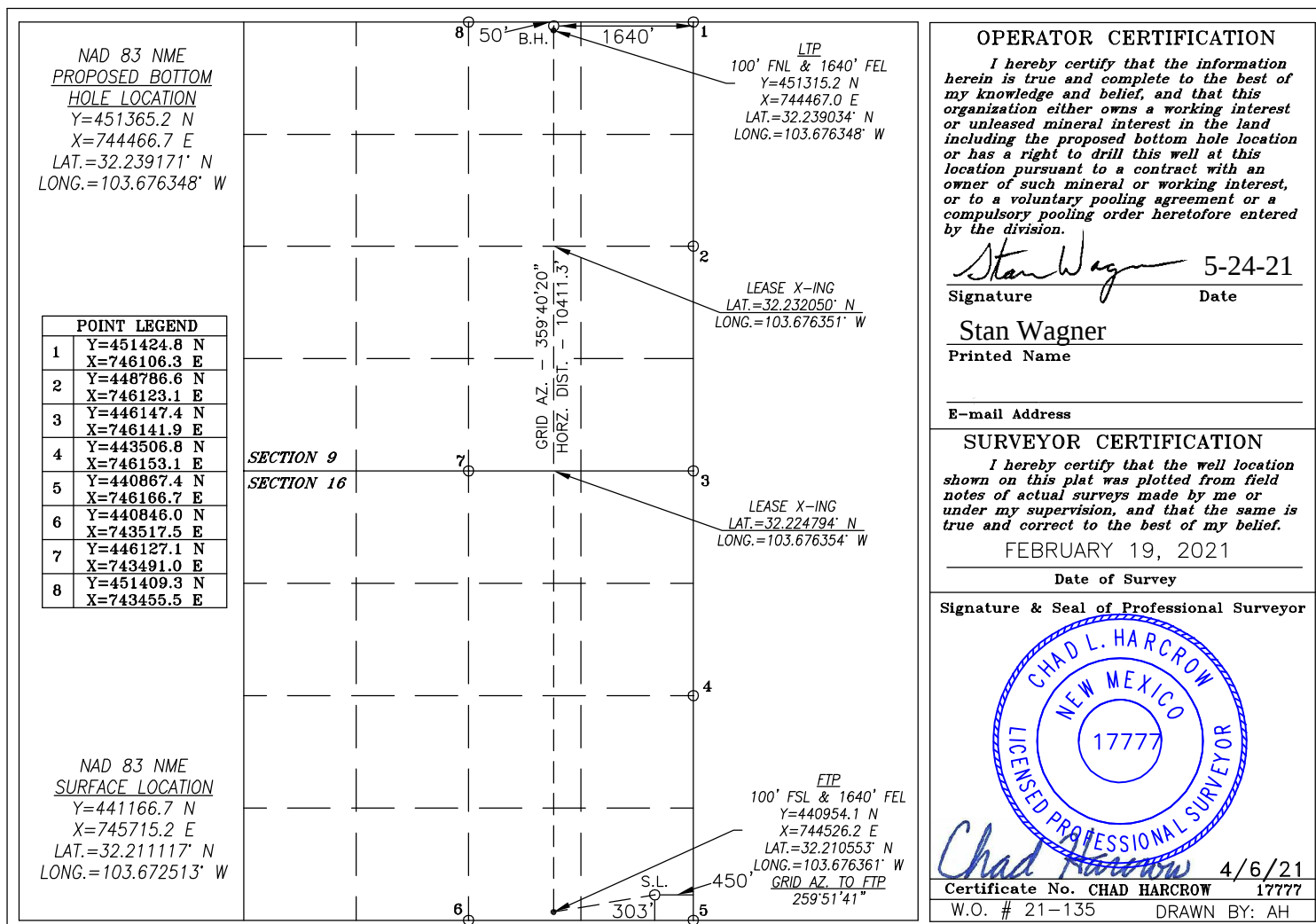
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	24-S	32-E		303	SOUTH	450	EAST	LEA

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
B	9	24-S	32-E		50	NORTH	1640	EAST	LEA
Dedicated Acres 640	Joint or Infill	Consolidation Code	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



DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
DOUBLE ABJ FED COM PROJECT
DOUBLE ABJ 16 FED COM 502H**

OWB

Plan: PWP1

Standard Survey Report

04 May, 2021



ConocoPhillips

Survey Report



Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well DOUBLE ABJ 16 FED COM 502H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3614.5usft (TBD)
Site:	DOUBLE ABJ FED COM PROJECT	MD Reference:	*KB=30' @ 3614.5usft (TBD)
Well:	DOUBLE ABJ 16 FED COM 502H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	BULLDOG PROSPECT (NM-E)		
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		

Well	DOUBLE ABJ 16 FED COM 502H				
Well Position	+N/-S	0.0 usft	Northing:	441,108.00 usft	Latitude: 32° 12' 39.576 N
	+E/-W	0.0 usft	Easting:	704,530.80 usft	Longitude: 103° 40' 19.318 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level: 3,584.5 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/4/2021	6.60	59.88	47,486.55981167

Design	PWP1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	353.02	

Survey Tool Program	Date	5/4/2021			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,468.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,468.0	21,860.5	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	

ConocoPhillips

Survey Report



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Well:	DOUBLE ABJ 16 FED COM 502H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	257.00	2,600.0	-0.4	-1.7	-0.2	2.00	2.00	0.00
2,700.0	4.00	257.00	2,699.8	-1.6	-6.8	-0.7	2.00	2.00	0.00
2,750.0	5.00	257.00	2,749.7	-2.5	-10.6	-1.1	2.00	2.00	0.00
Start 8389.3 hold at 2750.0 MD									
2,800.0	5.00	257.00	2,799.5	-3.4	-14.9	-1.6	0.00	0.00	0.00
2,900.0	5.00	257.00	2,899.1	-5.4	-23.4	-2.5	0.00	0.00	0.00
3,000.0	5.00	257.00	2,998.7	-7.4	-31.9	-3.4	0.00	0.00	0.00
3,100.0	5.00	257.00	3,098.4	-9.3	-40.3	-4.3	0.00	0.00	0.00
3,200.0	5.00	257.00	3,198.0	-11.3	-48.8	-5.3	0.00	0.00	0.00
3,300.0	5.00	257.00	3,297.6	-13.2	-57.3	-6.2	0.00	0.00	0.00
3,400.0	5.00	257.00	3,397.2	-15.2	-65.8	-7.1	0.00	0.00	0.00
3,500.0	5.00	257.00	3,496.8	-17.2	-74.3	-8.0	0.00	0.00	0.00
3,600.0	5.00	257.00	3,596.4	-19.1	-82.8	-8.9	0.00	0.00	0.00
3,700.0	5.00	257.00	3,696.1	-21.1	-91.3	-9.8	0.00	0.00	0.00
3,800.0	5.00	257.00	3,795.7	-23.0	-99.8	-10.7	0.00	0.00	0.00
3,900.0	5.00	257.00	3,895.3	-25.0	-108.3	-11.7	0.00	0.00	0.00
4,000.0	5.00	257.00	3,994.9	-27.0	-116.8	-12.6	0.00	0.00	0.00
4,100.0	5.00	257.00	4,094.5	-28.9	-125.3	-13.5	0.00	0.00	0.00
4,200.0	5.00	257.00	4,194.2	-30.9	-133.8	-14.4	0.00	0.00	0.00
4,300.0	5.00	257.00	4,293.8	-32.8	-142.3	-15.3	0.00	0.00	0.00
4,400.0	5.00	257.00	4,393.4	-34.8	-150.7	-16.2	0.00	0.00	0.00
4,500.0	5.00	257.00	4,493.0	-36.8	-159.2	-17.1	0.00	0.00	0.00
4,600.0	5.00	257.00	4,592.6	-38.7	-167.7	-18.1	0.00	0.00	0.00
4,700.0	5.00	257.00	4,692.3	-40.7	-176.2	-19.0	0.00	0.00	0.00
4,800.0	5.00	257.00	4,791.9	-42.6	-184.7	-19.9	0.00	0.00	0.00
4,900.0	5.00	257.00	4,891.5	-44.6	-193.2	-20.8	0.00	0.00	0.00
5,000.0	5.00	257.00	4,991.1	-46.6	-201.7	-21.7	0.00	0.00	0.00
5,100.0	5.00	257.00	5,090.7	-48.5	-210.2	-22.6	0.00	0.00	0.00
5,200.0	5.00	257.00	5,190.4	-50.5	-218.7	-23.5	0.00	0.00	0.00
5,300.0	5.00	257.00	5,290.0	-52.4	-227.2	-24.5	0.00	0.00	0.00
5,400.0	5.00	257.00	5,389.6	-54.4	-235.7	-25.4	0.00	0.00	0.00

ConocoPhillips

Survey Report



Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well DOUBLE ABJ 16 FED COM 502H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3614.5usft (TBD)
Site:	DOUBLE ABJ FED COM PROJECT	MD Reference:	*KB=30' @ 3614.5usft (TBD)
Well:	DOUBLE ABJ 16 FED COM 502H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)	
5,500.0	5.00	257.00	5,489.2	-56.4	-244.2	-26.3	0.00	0.00	0.00	
5,600.0	5.00	257.00	5,588.8	-58.3	-252.6	-27.2	0.00	0.00	0.00	
5,700.0	5.00	257.00	5,688.5	-60.3	-261.1	-28.1	0.00	0.00	0.00	
5,800.0	5.00	257.00	5,788.1	-62.2	-269.6	-29.0	0.00	0.00	0.00	
5,900.0	5.00	257.00	5,887.7	-64.2	-278.1	-29.9	0.00	0.00	0.00	
6,000.0	5.00	257.00	5,987.3	-66.2	-286.6	-30.9	0.00	0.00	0.00	
6,100.0	5.00	257.00	6,086.9	-68.1	-295.1	-31.8	0.00	0.00	0.00	
6,200.0	5.00	257.00	6,186.6	-70.1	-303.6	-32.7	0.00	0.00	0.00	
6,300.0	5.00	257.00	6,286.2	-72.1	-312.1	-33.6	0.00	0.00	0.00	
6,400.0	5.00	257.00	6,385.8	-74.0	-320.6	-34.5	0.00	0.00	0.00	
6,500.0	5.00	257.00	6,485.4	-76.0	-329.1	-35.4	0.00	0.00	0.00	
6,600.0	5.00	257.00	6,585.0	-77.9	-337.6	-36.3	0.00	0.00	0.00	
6,700.0	5.00	257.00	6,684.7	-79.9	-346.1	-37.3	0.00	0.00	0.00	
6,800.0	5.00	257.00	6,784.3	-81.9	-354.6	-38.2	0.00	0.00	0.00	
6,900.0	5.00	257.00	6,883.9	-83.8	-363.0	-39.1	0.00	0.00	0.00	
7,000.0	5.00	257.00	6,983.5	-85.8	-371.5	-40.0	0.00	0.00	0.00	
7,100.0	5.00	257.00	7,083.1	-87.7	-380.0	-40.9	0.00	0.00	0.00	
7,200.0	5.00	257.00	7,182.7	-89.7	-388.5	-41.8	0.00	0.00	0.00	
7,300.0	5.00	257.00	7,282.4	-91.7	-397.0	-42.8	0.00	0.00	0.00	
7,400.0	5.00	257.00	7,382.0	-93.6	-405.5	-43.7	0.00	0.00	0.00	
7,500.0	5.00	257.00	7,481.6	-95.6	-414.0	-44.6	0.00	0.00	0.00	
7,600.0	5.00	257.00	7,581.2	-97.5	-422.5	-45.5	0.00	0.00	0.00	
7,700.0	5.00	257.00	7,680.8	-99.5	-431.0	-46.4	0.00	0.00	0.00	
7,800.0	5.00	257.00	7,780.5	-101.5	-439.5	-47.3	0.00	0.00	0.00	
7,900.0	5.00	257.00	7,880.1	-103.4	-448.0	-48.2	0.00	0.00	0.00	
8,000.0	5.00	257.00	7,979.7	-105.4	-456.5	-49.2	0.00	0.00	0.00	
8,100.0	5.00	257.00	8,079.3	-107.3	-465.0	-50.1	0.00	0.00	0.00	
8,200.0	5.00	257.00	8,178.9	-109.3	-473.4	-51.0	0.00	0.00	0.00	
8,300.0	5.00	257.00	8,278.6	-111.3	-481.9	-51.9	0.00	0.00	0.00	
8,400.0	5.00	257.00	8,378.2	-113.2	-490.4	-52.8	0.00	0.00	0.00	
8,500.0	5.00	257.00	8,477.8	-115.2	-498.9	-53.7	0.00	0.00	0.00	
8,600.0	5.00	257.00	8,577.4	-117.1	-507.4	-54.6	0.00	0.00	0.00	
8,700.0	5.00	257.00	8,677.0	-119.1	-515.9	-55.6	0.00	0.00	0.00	
8,800.0	5.00	257.00	8,776.7	-121.1	-524.4	-56.5	0.00	0.00	0.00	
8,900.0	5.00	257.00	8,876.3	-123.0	-532.9	-57.4	0.00	0.00	0.00	
9,000.0	5.00	257.00	8,975.9	-125.0	-541.4	-58.3	0.00	0.00	0.00	
9,100.0	5.00	257.00	9,075.5	-126.9	-549.9	-59.2	0.00	0.00	0.00	
9,200.0	5.00	257.00	9,175.1	-128.9	-558.4	-60.1	0.00	0.00	0.00	
9,300.0	5.00	257.00	9,274.8	-130.9	-566.9	-61.0	0.00	0.00	0.00	
9,400.0	5.00	257.00	9,374.4	-132.8	-575.4	-62.0	0.00	0.00	0.00	
9,500.0	5.00	257.00	9,474.0	-134.8	-583.8	-62.9	0.00	0.00	0.00	
9,600.0	5.00	257.00	9,573.6	-136.8	-592.3	-63.8	0.00	0.00	0.00	
9,700.0	5.00	257.00	9,673.2	-138.7	-600.8	-64.7	0.00	0.00	0.00	
9,800.0	5.00	257.00	9,772.9	-140.7	-609.3	-65.6	0.00	0.00	0.00	

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9,900.0	5.00	257.00	9,872.5	-142.6	-617.8	-66.5	0.00	0.00	0.00
10,000.0	5.00	257.00	9,972.1	-144.6	-626.3	-67.4	0.00	0.00	0.00
10,100.0	5.00	257.00	10,071.7	-146.6	-634.8	-68.4	0.00	0.00	0.00
10,200.0	5.00	257.00	10,171.3	-148.5	-643.3	-69.3	0.00	0.00	0.00
10,300.0	5.00	257.00	10,271.0	-150.5	-651.8	-70.2	0.00	0.00	0.00
10,400.0	5.00	257.00	10,370.6	-152.4	-660.3	-71.1	0.00	0.00	0.00
10,500.0	5.00	257.00	10,470.2	-154.4	-668.8	-72.0	0.00	0.00	0.00
10,600.0	5.00	257.00	10,569.8	-156.4	-677.3	-72.9	0.00	0.00	0.00
10,700.0	5.00	257.00	10,669.4	-158.3	-685.8	-73.8	0.00	0.00	0.00
10,800.0	5.00	257.00	10,769.0	-160.3	-694.2	-74.8	0.00	0.00	0.00
10,900.0	5.00	257.00	10,868.7	-162.2	-702.7	-75.7	0.00	0.00	0.00
11,000.0	5.00	257.00	10,968.3	-164.2	-711.2	-76.6	0.00	0.00	0.00
11,100.0	5.00	257.00	11,067.9	-166.2	-719.7	-77.5	0.00	0.00	0.00
11,139.3	5.00	257.00	11,107.1	-166.9	-723.1	-77.9	0.00	0.00	0.00
Start DLS 12.00 TFO 79.20									
11,200.0	9.57	305.50	11,167.3	-164.6	-729.7	-74.7	12.00	7.53	79.96
11,300.0	20.78	323.07	11,263.7	-145.5	-747.2	-53.7	12.00	11.22	17.57
11,400.0	32.55	328.42	11,352.9	-108.3	-772.1	-13.7	12.00	11.77	5.35
11,500.0	44.43	331.13	11,431.1	-54.5	-803.2	43.5	12.00	11.88	2.71
11,600.0	56.36	332.88	11,494.7	13.4	-839.2	115.3	12.00	11.92	1.75
11,700.0	68.30	334.20	11,541.1	92.6	-878.5	198.6	12.00	11.94	1.32
11,800.0	80.25	335.31	11,568.1	179.5	-919.5	289.9	12.00	11.95	1.11
11,880.6	89.89	336.15	11,575.0	252.6	-952.4	366.5	12.00	11.96	1.04
Start DLS 2.00 TFO 90.04									
11,900.0	89.89	336.54	11,575.1	270.4	-960.2	385.1	2.00	0.00	2.00
12,000.0	89.89	338.54	11,575.2	362.8	-998.4	481.4	2.00	0.00	2.00
12,100.0	89.89	340.54	11,575.4	456.5	-1,033.4	578.7	2.00	0.00	2.00
12,200.0	89.89	342.54	11,575.6	551.4	-1,065.0	676.7	2.00	0.00	2.00
12,300.0	89.89	344.54	11,575.8	647.3	-1,093.4	775.3	2.00	0.00	2.00
12,400.0	89.89	346.54	11,576.0	744.1	-1,118.3	874.4	2.00	0.00	2.00
12,500.0	89.89	348.54	11,576.2	841.7	-1,139.9	974.0	2.00	0.00	2.00
12,600.0	89.88	350.54	11,576.4	940.1	-1,158.1	1,073.8	2.00	0.00	2.00
12,700.0	89.88	352.54	11,576.6	1,039.0	-1,172.8	1,173.7	2.00	0.00	2.00
12,800.0	89.88	354.54	11,576.8	1,138.3	-1,184.1	1,273.7	2.00	0.00	2.00
12,900.0	89.88	356.54	11,577.0	1,238.0	-1,191.8	1,373.6	2.00	0.00	2.00
13,000.0	89.88	358.54	11,577.2	1,337.9	-1,196.1	1,473.3	2.00	0.00	2.00
13,056.5	89.89	359.67	11,577.4	1,394.4	-1,197.0	1,529.5	2.00	0.00	2.00
Start 8804.0 hold at 13056.5 MD									
13,100.0	89.89	359.67	11,577.4	1,437.9	-1,197.3	1,572.7	0.00	0.00	0.00
13,200.0	89.89	359.67	11,577.6	1,537.9	-1,197.8	1,672.0	0.00	0.00	0.00
13,300.0	89.89	359.67	11,577.8	1,637.9	-1,198.4	1,771.4	0.00	0.00	0.00
13,400.0	89.89	359.67	11,578.0	1,737.9	-1,199.0	1,870.7	0.00	0.00	0.00
13,500.0	89.89	359.67	11,578.2	1,837.9	-1,199.6	1,970.0	0.00	0.00	0.00

ConocoPhillips

Survey Report



Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well DOUBLE ABJ 16 FED COM 502H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3614.5usft (TBD)
Site:	DOUBLE ABJ FED COM PROJECT	MD Reference:	*KB=30' @ 3614.5usft (TBD)
Well:	DOUBLE ABJ 16 FED COM 502H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)	
13,600.0	89.89	359.67	11,578.4	1,937.9	-1,200.2	2,069.3	0.00	0.00	0.00	
13,700.0	89.89	359.67	11,578.6	2,037.9	-1,200.7	2,168.7	0.00	0.00	0.00	
13,800.0	89.89	359.67	11,578.8	2,137.9	-1,201.3	2,268.0	0.00	0.00	0.00	
13,900.0	89.89	359.67	11,579.0	2,237.9	-1,201.9	2,367.3	0.00	0.00	0.00	
14,000.0	89.89	359.67	11,579.2	2,337.9	-1,202.5	2,466.6	0.00	0.00	0.00	
14,100.0	89.89	359.67	11,579.4	2,437.9	-1,203.1	2,566.0	0.00	0.00	0.00	
14,200.0	89.89	359.67	11,579.6	2,537.9	-1,203.6	2,665.3	0.00	0.00	0.00	
14,300.0	89.89	359.67	11,579.8	2,637.9	-1,204.2	2,764.6	0.00	0.00	0.00	
14,400.0	89.89	359.67	11,580.0	2,737.9	-1,204.8	2,864.0	0.00	0.00	0.00	
14,500.0	89.89	359.67	11,580.2	2,837.9	-1,205.4	2,963.3	0.00	0.00	0.00	
14,600.0	89.89	359.67	11,580.4	2,937.9	-1,206.0	3,062.6	0.00	0.00	0.00	
14,700.0	89.89	359.67	11,580.6	3,037.9	-1,206.5	3,161.9	0.00	0.00	0.00	
14,800.0	89.89	359.67	11,580.8	3,137.9	-1,207.1	3,261.3	0.00	0.00	0.00	
14,900.0	89.89	359.67	11,581.0	3,237.9	-1,207.7	3,360.6	0.00	0.00	0.00	
15,000.0	89.89	359.67	11,581.2	3,337.9	-1,208.3	3,459.9	0.00	0.00	0.00	
15,100.0	89.89	359.67	11,581.4	3,437.9	-1,208.9	3,559.3	0.00	0.00	0.00	
15,200.0	89.89	359.67	11,581.6	3,537.9	-1,209.4	3,658.6	0.00	0.00	0.00	
15,300.0	89.89	359.67	11,581.9	3,637.9	-1,210.0	3,757.9	0.00	0.00	0.00	
15,400.0	89.89	359.67	11,582.1	3,737.9	-1,210.6	3,857.2	0.00	0.00	0.00	
15,500.0	89.89	359.67	11,582.3	3,837.9	-1,211.2	3,956.6	0.00	0.00	0.00	
15,600.0	89.89	359.67	11,582.5	3,937.9	-1,211.8	4,055.9	0.00	0.00	0.00	
15,700.0	89.89	359.67	11,582.7	4,037.9	-1,212.4	4,155.2	0.00	0.00	0.00	
15,800.0	89.89	359.67	11,582.9	4,137.9	-1,212.9	4,254.6	0.00	0.00	0.00	
15,900.0	89.89	359.67	11,583.1	4,237.9	-1,213.5	4,353.9	0.00	0.00	0.00	
16,000.0	89.89	359.67	11,583.3	4,337.8	-1,214.1	4,453.2	0.00	0.00	0.00	
16,100.0	89.89	359.67	11,583.5	4,437.8	-1,214.7	4,552.5	0.00	0.00	0.00	
16,200.0	89.89	359.67	11,583.7	4,537.8	-1,215.3	4,651.9	0.00	0.00	0.00	
16,300.0	89.89	359.67	11,583.9	4,637.8	-1,215.8	4,751.2	0.00	0.00	0.00	
16,400.0	89.89	359.67	11,584.1	4,737.8	-1,216.4	4,850.5	0.00	0.00	0.00	
16,500.0	89.89	359.67	11,584.3	4,837.8	-1,217.0	4,949.8	0.00	0.00	0.00	
16,600.0	89.89	359.67	11,584.5	4,937.8	-1,217.6	5,049.2	0.00	0.00	0.00	
16,700.0	89.89	359.67	11,584.7	5,037.8	-1,218.2	5,148.5	0.00	0.00	0.00	
16,800.0	89.89	359.67	11,584.9	5,137.8	-1,218.7	5,247.8	0.00	0.00	0.00	
16,900.0	89.89	359.67	11,585.1	5,237.8	-1,219.3	5,347.2	0.00	0.00	0.00	
17,000.0	89.89	359.67	11,585.3	5,337.8	-1,219.9	5,446.5	0.00	0.00	0.00	
17,100.0	89.89	359.67	11,585.5	5,437.8	-1,220.5	5,545.8	0.00	0.00	0.00	
17,200.0	89.89	359.67	11,585.7	5,537.8	-1,221.1	5,645.1	0.00	0.00	0.00	
17,300.0	89.89	359.67	11,585.9	5,637.8	-1,221.6	5,744.5	0.00	0.00	0.00	
17,400.0	89.89	359.67	11,586.1	5,737.8	-1,222.2	5,843.8	0.00	0.00	0.00	
17,500.0	89.89	359.67	11,586.3	5,837.8	-1,222.8	5,943.1	0.00	0.00	0.00	
17,600.0	89.89	359.67	11,586.5	5,937.8	-1,223.4	6,042.5	0.00	0.00	0.00	
17,700.0	89.89	359.67	11,586.7	6,037.8	-1,224.0	6,141.8	0.00	0.00	0.00	
17,800.0	89.89	359.67	11,586.9	6,137.8	-1,224.5	6,241.1	0.00	0.00	0.00	
17,900.0	89.89	359.67	11,587.1	6,237.8	-1,225.1	6,340.4	0.00	0.00	0.00	

ConocoPhillips

Survey Report



Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well DOUBLE ABJ 16 FED COM 502H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3614.5usft (TBD)
Site:	DOUBLE ABJ FED COM PROJECT	MD Reference:	*KB=30' @ 3614.5usft (TBD)
Well:	DOUBLE ABJ 16 FED COM 502H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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)
18,000.0	89.89	359.67	11,587.3	6,337.8	-1,225.7	6,439.8	0.00	0.00	0.00
18,100.0	89.89	359.67	11,587.5	6,437.8	-1,226.3	6,539.1	0.00	0.00	0.00
18,200.0	89.89	359.67	11,587.7	6,537.8	-1,226.9	6,638.4	0.00	0.00	0.00
18,300.0	89.89	359.67	11,587.9	6,637.8	-1,227.4	6,737.8	0.00	0.00	0.00
18,400.0	89.89	359.67	11,588.1	6,737.8	-1,228.0	6,837.1	0.00	0.00	0.00
18,500.0	89.89	359.67	11,588.3	6,837.8	-1,228.6	6,936.4	0.00	0.00	0.00
18,600.0	89.89	359.67	11,588.5	6,937.8	-1,229.2	7,035.7	0.00	0.00	0.00
18,700.0	89.89	359.67	11,588.7	7,037.8	-1,229.8	7,135.1	0.00	0.00	0.00
18,800.0	89.89	359.67	11,588.9	7,137.8	-1,230.3	7,234.4	0.00	0.00	0.00
18,900.0	89.89	359.67	11,589.1	7,237.8	-1,230.9	7,333.7	0.00	0.00	0.00
19,000.0	89.89	359.67	11,589.3	7,337.8	-1,231.5	7,433.0	0.00	0.00	0.00
19,100.0	89.89	359.67	11,589.5	7,437.8	-1,232.1	7,532.4	0.00	0.00	0.00
19,200.0	89.89	359.67	11,589.7	7,537.8	-1,232.7	7,631.7	0.00	0.00	0.00
19,300.0	89.89	359.67	11,589.9	7,637.8	-1,233.2	7,731.0	0.00	0.00	0.00
19,400.0	89.89	359.67	11,590.1	7,737.8	-1,233.8	7,830.4	0.00	0.00	0.00
19,500.0	89.89	359.67	11,590.3	7,837.8	-1,234.4	7,929.7	0.00	0.00	0.00
19,600.0	89.89	359.67	11,590.5	7,937.8	-1,235.0	8,029.0	0.00	0.00	0.00
19,700.0	89.89	359.67	11,590.7	8,037.8	-1,235.6	8,128.3	0.00	0.00	0.00
19,800.0	89.89	359.67	11,590.9	8,137.8	-1,236.1	8,227.7	0.00	0.00	0.00
19,900.0	89.89	359.67	11,591.1	8,237.8	-1,236.7	8,327.0	0.00	0.00	0.00
20,000.0	89.89	359.67	11,591.3	8,337.8	-1,237.3	8,426.3	0.00	0.00	0.00
20,100.0	89.89	359.67	11,591.5	8,437.8	-1,237.9	8,525.7	0.00	0.00	0.00
20,200.0	89.89	359.67	11,591.7	8,537.8	-1,238.5	8,625.0	0.00	0.00	0.00
20,300.0	89.89	359.67	11,591.9	8,637.8	-1,239.0	8,724.3	0.00	0.00	0.00
20,400.0	89.89	359.67	11,592.1	8,737.8	-1,239.6	8,823.6	0.00	0.00	0.00
20,500.0	89.89	359.67	11,592.3	8,837.8	-1,240.2	8,923.0	0.00	0.00	0.00
20,600.0	89.89	359.67	11,592.5	8,937.8	-1,240.8	9,022.3	0.00	0.00	0.00
20,700.0	89.89	359.67	11,592.7	9,037.8	-1,241.4	9,121.6	0.00	0.00	0.00
20,800.0	89.89	359.67	11,592.9	9,137.8	-1,241.9	9,221.0	0.00	0.00	0.00
20,900.0	89.89	359.67	11,593.1	9,237.8	-1,242.5	9,320.3	0.00	0.00	0.00
21,000.0	89.89	359.67	11,593.3	9,337.8	-1,243.1	9,419.6	0.00	0.00	0.00
21,100.0	89.89	359.67	11,593.5	9,437.8	-1,243.7	9,518.9	0.00	0.00	0.00
21,200.0	89.89	359.67	11,593.7	9,537.8	-1,244.3	9,618.3	0.00	0.00	0.00
21,300.0	89.89	359.67	11,593.9	9,637.7	-1,244.8	9,717.6	0.00	0.00	0.00
21,400.0	89.89	359.67	11,594.1	9,737.7	-1,245.4	9,816.9	0.00	0.00	0.00
21,500.0	89.89	359.67	11,594.3	9,837.7	-1,246.0	9,916.3	0.00	0.00	0.00
21,600.0	89.89	359.67	11,594.5	9,937.7	-1,246.6	10,015.6	0.00	0.00	0.00
21,700.0	89.89	359.67	11,594.7	10,037.7	-1,247.2	10,114.9	0.00	0.00	0.00
21,800.0	89.89	359.67	11,594.9	10,137.7	-1,247.7	10,214.2	0.00	0.00	0.00
21,860.5	89.89	359.67	11,595.0	10,198.2	-1,248.1	10,274.3	0.00	0.00	0.00
TD at 21860.5									

ConocoPhillips

Survey Report



Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well DOUBLE ABJ 16 FED COM 502H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3614.5usft (TBD)
Site:	DOUBLE ABJ FED COM PROJECT	MD Reference:	*KB=30' @ 3614.5usft (TBD)
Well:	DOUBLE ABJ 16 FED COM 502H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (DOUBLE ABJ FI - plan misses target center by 424.2usft at 11600.0usft MD (11494.7 TVD, 13.4 N, -839.2 E) - Circle (radius 50.0)	0.00	0.00	11,575.0	-212.6	-1,189.0	440,895.40	703,341.80	32° 12' 37.544 N	103° 40' 33.172 W
PBHL (DOUBLE ABJ - plan hits target center - Rectangle (sides W100.0 H10,458.0 D20.0)	-0.11	179.67	11,595.0	10,198.2	-1,248.1	451,306.20	703,282.70	32° 14' 20.571 N	103° 40' 33.119 W
LTP (DOUBLE ABJ FI - plan misses target center by 10.5usft at 21800.0usft MD (11594.9 TVD, 10137.7 N, -1247.7 E) - Point	0.00	0.00	11,595.0	10,148.2	-1,247.8	451,256.20	703,283.00	32° 14' 20.076 N	103° 40' 33.119 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2500	2500	0	0	Start Build 2.00
2750	2750	-2	-11	Start 8389.3 hold at 2750.0 MD
11,139	11,107	-167	-723	Start DLS 12.00 TFO 79.20
11,881	11,575	253	-952	Start DLS 2.00 TFO 90.04
13,056	11,577	1394	-1197	Start 8804.0 hold at 13056.5 MD
21,860	11,595	10,198	-1248	TD at 21860.5

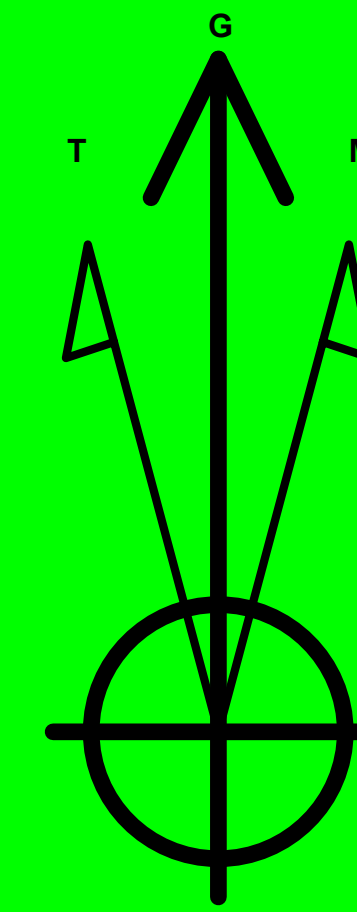
Checked By: _____ Approved By: _____ Date: _____

WELL DETAILS: DOUBLE ABJ 16 FED COM 502H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	441108.00	704530.80	32° 12' 39.576 N	103° 40' 19.318 W

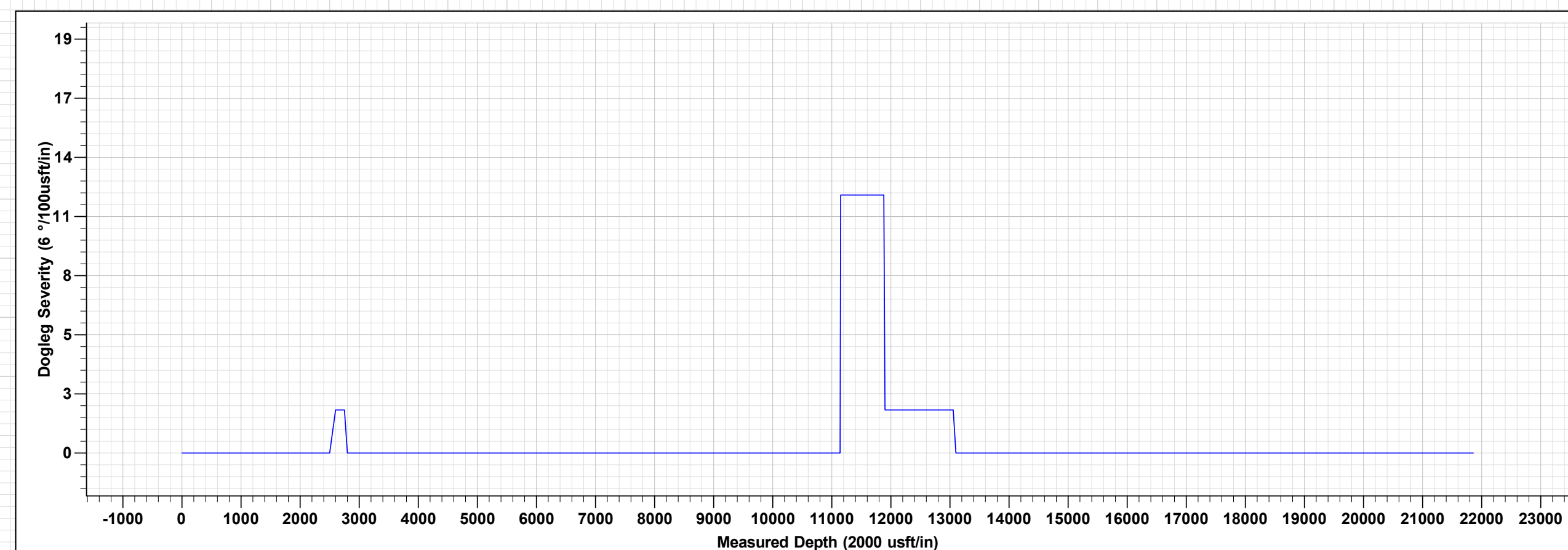
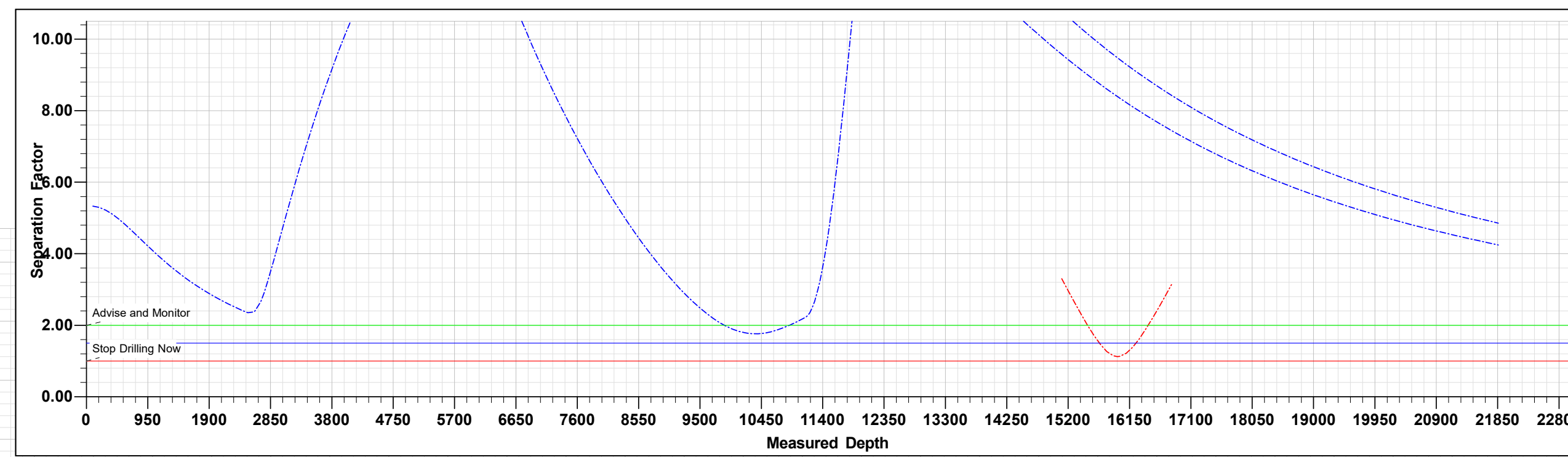
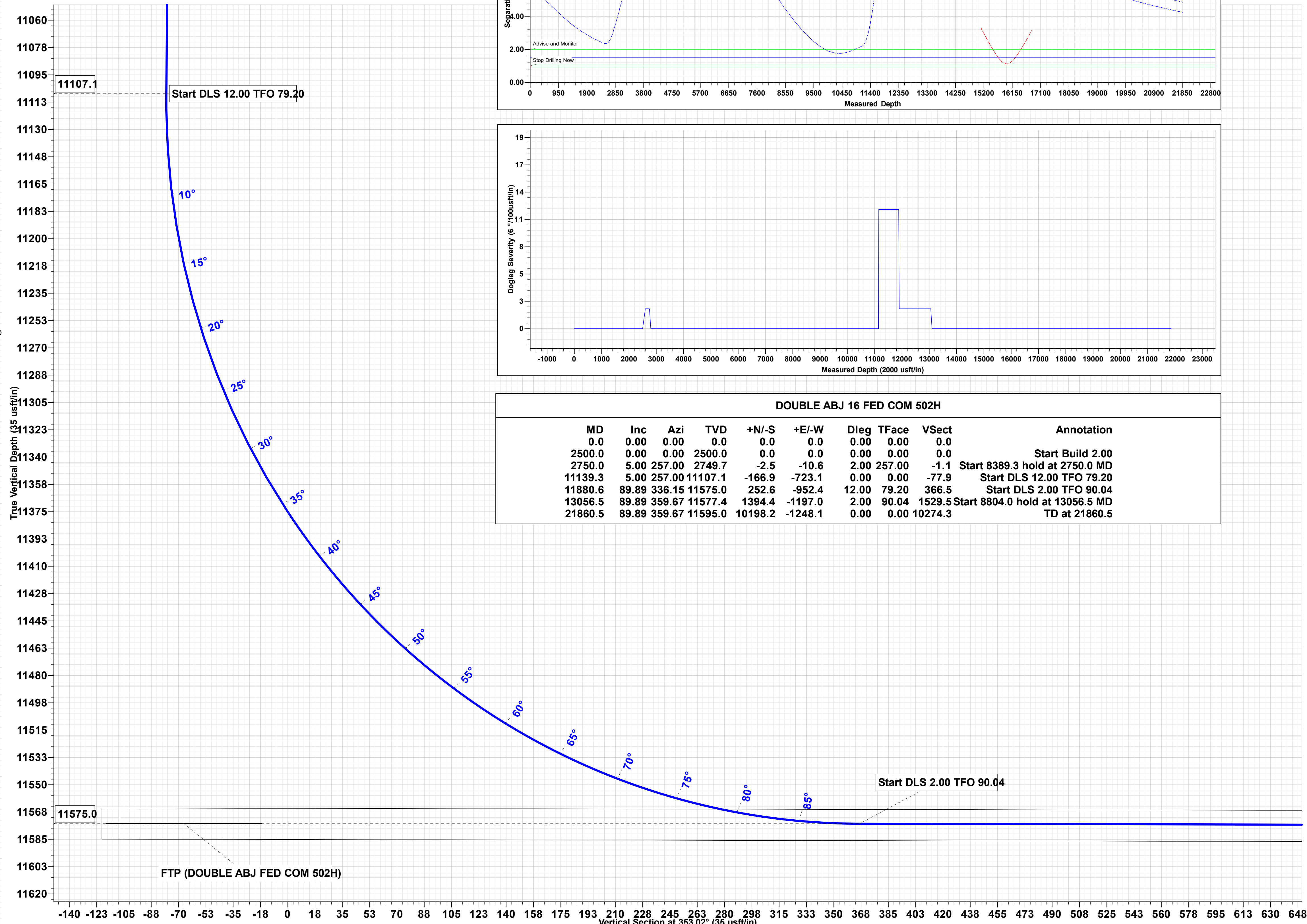
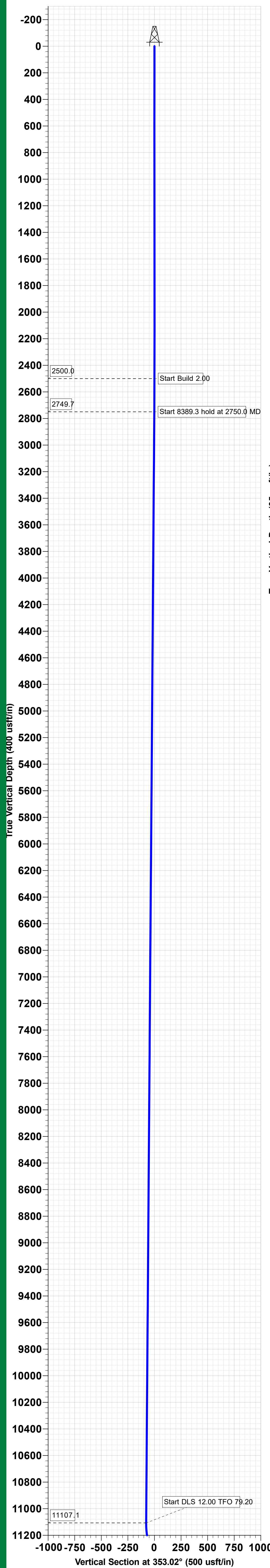
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (DOUBLE ABJ FED COM 502H)	11575.0	-212.6	-1189.0	440895.40	703341.80	32° 12' 37.544 N	103° 40' 33.172 W
LTP (DOUBLE ABJ FED COM 502H)	11595.0	10148.2	-1247.8	451256.20	703283.00	32° 14' 20.076 N	103° 40' 33.119 W
PBHL (DOUBLE ABJ FED COM 502H)	11595.0	10198.2	-1248.1	451306.20	703282.70	32° 14' 20.571 N	103° 40' 33.119 W



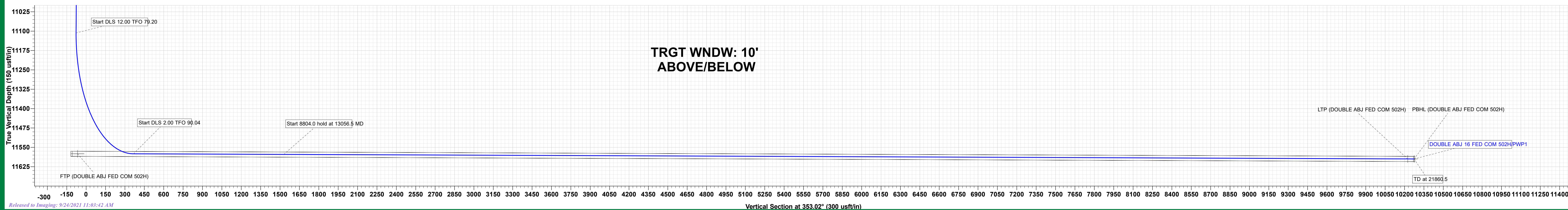
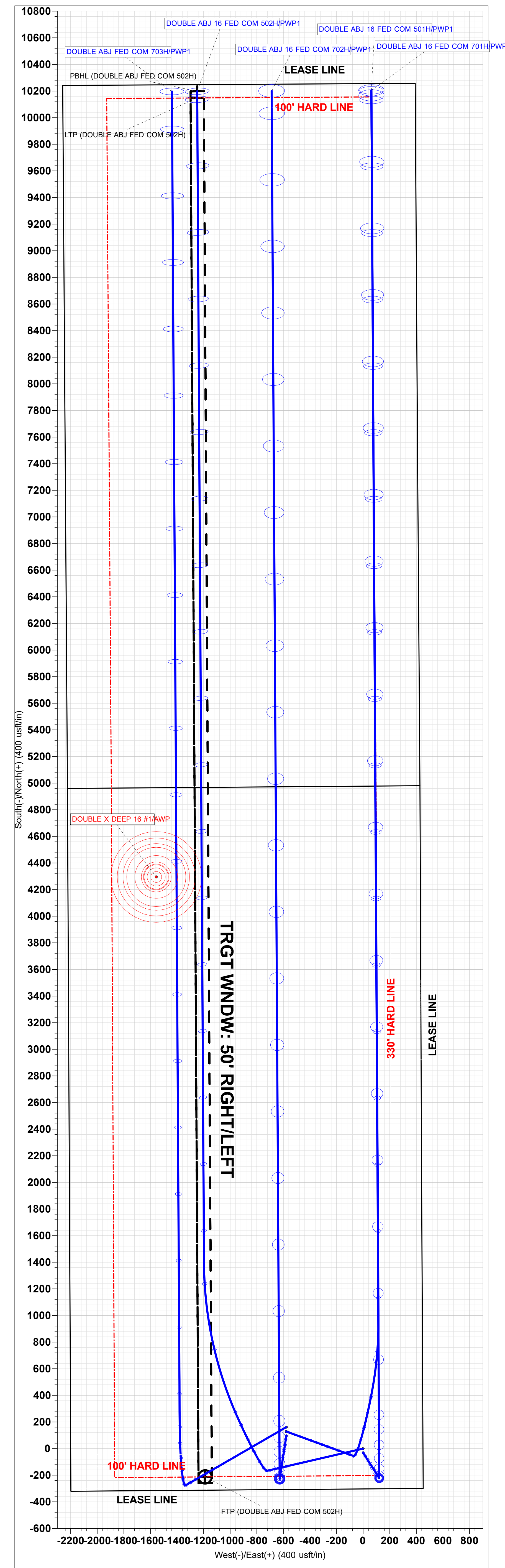
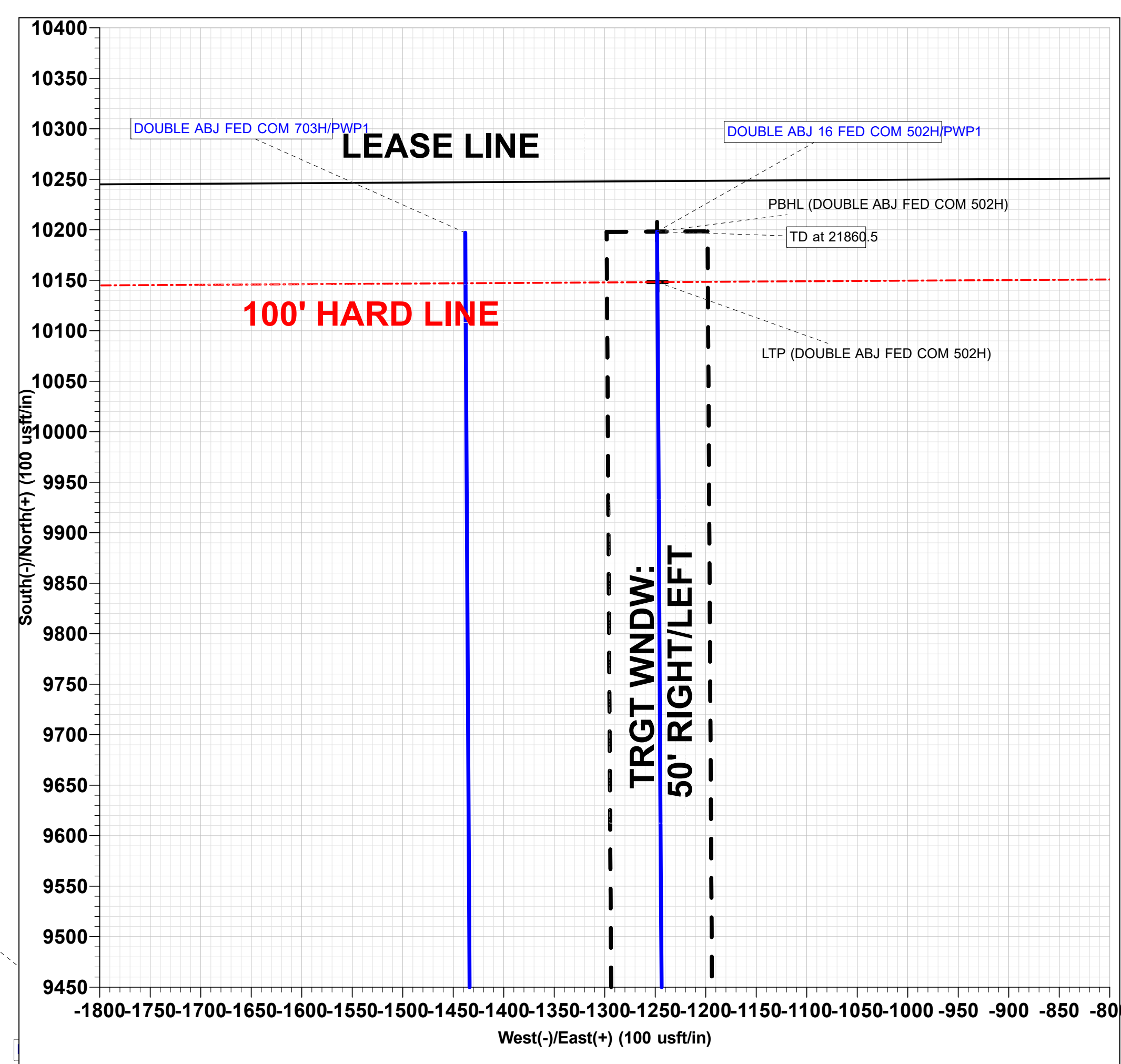
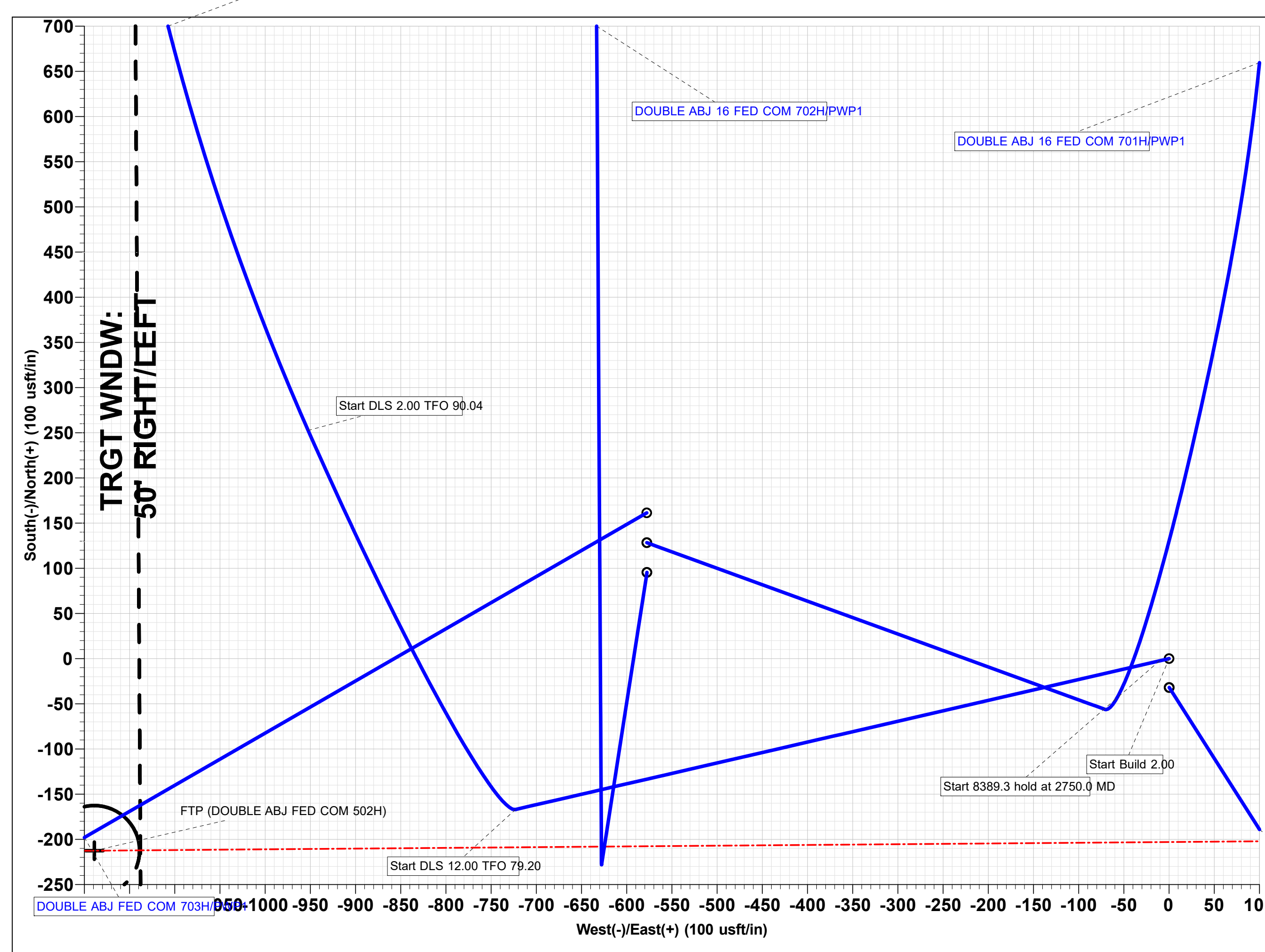
Azimuths to Grid North
True North: -0.35°
Magnetic North: 6.25°

Magnetic Field
Strength: 47486.6nT
Dip Angle: 59.88°
Date: 5/4/2021
Model: IGRF2020



DOUBLE ABJ 16 FED COM 502H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2750.0	5.00	257.00	2749.7	-2.5	-10.6	2.00	257.00	-1.1	Start 8389.3 hold at 2750.0 MD
11139.3	5.00	257.00	11107.1	-186.9	-723.1	0.00	0.00	-77.9	Start DLS 12.00 TFO 79.20
11880.6	89.89	336.15	11575.0	252.6	-952.4	12.00	79.20	366.5	Start DLS 2.00 TFO 90.04
13056.5	89.89	359.67	11577.4	1394.4	-1197.0	2.00	90.04	1529.5	Start 8804.0 hold at 13056.5 MD
21860.5	89.89	359.67	11595.0	10198.2	-1248.1	0.00	0.00	10274.3	TD at 21860.5



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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 36062

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 36062
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	9/24/2021