

District I1625 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

Form C-101

August 1, 2011

Permit 287125

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701		2. OGRID Number 229137
		3. API Number 30-015-47520
4. Property Code 329730	5. Property Name MERCURY STATE COM	6. Well No. 701H

7. Surface Location

UL - Lot O	Section 18	Township 26S	Range 28E	Lot Idn O	Feet From 220	N/S Line S	Feet From 1400	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot A	Section 7	Township 26S	Range 28E	Lot Idn A	Feet From 50	N/S Line N	Feet From 550	E/W Line E	County Eddy
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9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220
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Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3070
16. Multiple N	17. Proposed Depth 19462	18. Formation Wolfcamp	19. Contractor	20. Spud Date 10/14/2020
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	14.75	10.75	45.5	675	450	0
Int1	9.875	7.625	29.7	8600	800	0
Prod	6.75	5.5	20	19462	1350	8100

Casing/Cement Program: Additional Comments

Drill 14-3/4" hole to ~675' w/ fresh water. Run 10-3/4" 45.5# J-55 BTC casing to TD and cement to surface in one stage. Drill 9-7/8" hole to ~8,600' with cut brine emulsion. Run 7-5/8 29.7# L-80 BTC to TD and cement to surface in single stage. Drill 6-3/4" vertical hole, curve & lateral to 19462' with OBM. Run 5-1/2" 20# P110 BTC casing from TD to surface and cement to 8100' in one stage.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
 I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

Printed Name: Electronically filed by Diane Kuykendall

Title: Production Accounting Director

Email Address: dkuykendall@concho.com

Date: 10/6/2020

Phone: 432-685-4372

OIL CONSERVATION DIVISION

Approved By: Scott Cox

Title: Petroleum Engineer Supervisor

Approved Date: 10/14/2020 Expiration Date: 10/14/2022

Conditions of Approval Attached

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GAS CAPTURE PLAN

Date: 10/14/2020

☒ Original

Operator & OGRID No.: [229137] COG OPERATING LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
MERCURY STATE COM #701H	30-015-47520	O-18-26S-28E	0220S 1400E	5429	None	It will require additional line to connect to the facility but the amount is unknown currently. Processing Plant Location: Sec 35, Blk 57, T2S, Culberson County, TX

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to ETC Texas Pipeline, Ltd. and will be connected to ETC Texas Pipeline, Ltd. Low Pressure gathering system located in Eddy County, New Mexico. It will require 0' of pipeline to connect the facility to Low Pressure gathering system. COG OPERATING LLC provides (periodically) to ETC Texas Pipeline, Ltd. a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COG OPERATING LLC and ETC Texas Pipeline, Ltd. have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at ETC Texas Pipeline, Ltd. Processing Plant located in Sec. 02, Twn. 26S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on ETC Texas Pipeline, Ltd. system at that time. Based on current information, it is COG OPERATING LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Form APD Comments

Permit 287125

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-015-47520
		Well: MERCURY STATE COM #701H

Created By	Comment	Comment Date
mreyes4	COG Operating has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore we do not believe that an H2S Contingency Plan would be necessary.	10/1/2020

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Form APD Conditions

Permit 287125

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	API Number: 30-015-47520
	Well: MERCURY STATE COM #701H

OCD Reviewer	Condition
ksimmons	Will require a directional survey with the C-104
ksimmons	Will require a administrative order for non-standard location prior to placing the well on production.
ksimmons	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days

DELAWARE BASIN WEST

**ATLAS PROSPECT (NM-E)
MERCURY STATE COM PROJECT
MERCURY ST COM #701H**

OWB

Plan: PWP1

Standard Survey Report

28 September, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well MERCURY ST COM #701H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3100.0usft (TBD)
Site:	MERCURY STATE COM PROJECT	MD Reference:	*KB=30' @ 3100.0usft (TBD)
Well:	MERCURY ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	ATLAS 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	MERCURY ST COM #701H				
Well Position	+N/-S	0.0 usft	Northing:	376,761.19 usft	Latitude: 32° 2' 8.359 N
	+E/-W	0.0 usft	Easting:	565,450.87 usft	Longitude: 104° 7' 19.619 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level: 3,070.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	9/28/2020	6.87	59.67	47,401.26045579

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	4.36	

Survey Tool Program	Date	9/28/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	19,461.9	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	

Concho Resources LLC

Survey Report

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Well:	MERCURY ST COM #701H	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	98.10	2,600.0	-0.2	1.7	-0.1	2.00	2.00	0.00
2,700.0	4.00	98.10	2,699.8	-1.0	6.9	-0.5	2.00	2.00	0.00
2,749.3	4.99	98.10	2,749.0	-1.5	10.7	-0.7	2.00	2.00	0.00
Start 6000.7 hold at 2749.3 MD									
2,800.0	4.99	98.10	2,799.5	-2.1	15.1	-1.0	0.00	0.00	0.00
2,900.0	4.99	98.10	2,899.1	-3.4	23.7	-1.6	0.00	0.00	0.00
3,000.0	4.99	98.10	2,998.7	-4.6	32.3	-2.1	0.00	0.00	0.00
3,100.0	4.99	98.10	3,098.4	-5.8	40.9	-2.7	0.00	0.00	0.00
3,200.0	4.99	98.10	3,198.0	-7.0	49.5	-3.3	0.00	0.00	0.00
3,300.0	4.99	98.10	3,297.6	-8.3	58.1	-3.8	0.00	0.00	0.00
3,400.0	4.99	98.10	3,397.2	-9.5	66.7	-4.4	0.00	0.00	0.00
3,500.0	4.99	98.10	3,496.8	-10.7	75.3	-5.0	0.00	0.00	0.00
3,600.0	4.99	98.10	3,596.5	-11.9	83.9	-5.5	0.00	0.00	0.00
3,700.0	4.99	98.10	3,696.1	-13.2	92.5	-6.1	0.00	0.00	0.00
3,800.0	4.99	98.10	3,795.7	-14.4	101.1	-6.7	0.00	0.00	0.00
3,900.0	4.99	98.10	3,895.3	-15.6	109.7	-7.2	0.00	0.00	0.00
4,000.0	4.99	98.10	3,995.0	-16.8	118.3	-7.8	0.00	0.00	0.00
4,100.0	4.99	98.10	4,094.6	-18.1	126.9	-8.4	0.00	0.00	0.00
4,200.0	4.99	98.10	4,194.2	-19.3	135.5	-8.9	0.00	0.00	0.00
4,300.0	4.99	98.10	4,293.8	-20.5	144.1	-9.5	0.00	0.00	0.00
4,400.0	4.99	98.10	4,393.4	-21.7	152.7	-10.1	0.00	0.00	0.00
4,500.0	4.99	98.10	4,493.1	-23.0	161.4	-10.6	0.00	0.00	0.00
4,600.0	4.99	98.10	4,592.7	-24.2	170.0	-11.2	0.00	0.00	0.00
4,700.0	4.99	98.10	4,692.3	-25.4	178.6	-11.8	0.00	0.00	0.00
4,800.0	4.99	98.10	4,791.9	-26.6	187.2	-12.3	0.00	0.00	0.00
4,900.0	4.99	98.10	4,891.5	-27.9	195.8	-12.9	0.00	0.00	0.00
5,000.0	4.99	98.10	4,991.2	-29.1	204.4	-13.5	0.00	0.00	0.00
5,100.0	4.99	98.10	5,090.8	-30.3	213.0	-14.0	0.00	0.00	0.00
5,200.0	4.99	98.10	5,190.4	-31.5	221.6	-14.6	0.00	0.00	0.00
5,300.0	4.99	98.10	5,290.0	-32.8	230.2	-15.2	0.00	0.00	0.00
5,400.0	4.99	98.10	5,389.7	-34.0	238.8	-15.7	0.00	0.00	0.00
5,500.0	4.99	98.10	5,489.3	-35.2	247.4	-16.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well MERCURY ST COM #701H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3100.0usft (TBD)
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Well:	MERCURY ST COM #701H	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)	
5,600.0	4.99	98.10	5,588.9	-36.4	256.0	-16.9	0.00	0.00	0.00	
5,700.0	4.99	98.10	5,688.5	-37.7	264.6	-17.4	0.00	0.00	0.00	
5,800.0	4.99	98.10	5,788.1	-38.9	273.2	-18.0	0.00	0.00	0.00	
5,900.0	4.99	98.10	5,887.8	-40.1	281.8	-18.6	0.00	0.00	0.00	
6,000.0	4.99	98.10	5,987.4	-41.3	290.4	-19.1	0.00	0.00	0.00	
6,100.0	4.99	98.10	6,087.0	-42.6	299.0	-19.7	0.00	0.00	0.00	
6,200.0	4.99	98.10	6,186.6	-43.8	307.6	-20.2	0.00	0.00	0.00	
6,300.0	4.99	98.10	6,286.3	-45.0	316.2	-20.8	0.00	0.00	0.00	
6,400.0	4.99	98.10	6,385.9	-46.2	324.8	-21.4	0.00	0.00	0.00	
6,500.0	4.99	98.10	6,485.5	-47.5	333.4	-21.9	0.00	0.00	0.00	
6,600.0	4.99	98.10	6,585.1	-48.7	342.0	-22.5	0.00	0.00	0.00	
6,700.0	4.99	98.10	6,684.7	-49.9	350.6	-23.1	0.00	0.00	0.00	
6,800.0	4.99	98.10	6,784.4	-51.1	359.2	-23.6	0.00	0.00	0.00	
6,900.0	4.99	98.10	6,884.0	-52.3	367.8	-24.2	0.00	0.00	0.00	
7,000.0	4.99	98.10	6,983.6	-53.6	376.4	-24.8	0.00	0.00	0.00	
7,100.0	4.99	98.10	7,083.2	-54.8	385.0	-25.3	0.00	0.00	0.00	
7,200.0	4.99	98.10	7,182.8	-56.0	393.6	-25.9	0.00	0.00	0.00	
7,300.0	4.99	98.10	7,282.5	-57.2	402.2	-26.5	0.00	0.00	0.00	
7,400.0	4.99	98.10	7,382.1	-58.5	410.9	-27.0	0.00	0.00	0.00	
7,500.0	4.99	98.10	7,481.7	-59.7	419.5	-27.6	0.00	0.00	0.00	
7,600.0	4.99	98.10	7,581.3	-60.9	428.1	-28.2	0.00	0.00	0.00	
7,700.0	4.99	98.10	7,681.0	-62.1	436.7	-28.7	0.00	0.00	0.00	
7,800.0	4.99	98.10	7,780.6	-63.4	445.3	-29.3	0.00	0.00	0.00	
7,900.0	4.99	98.10	7,880.2	-64.6	453.9	-29.9	0.00	0.00	0.00	
8,000.0	4.99	98.10	7,979.8	-65.8	462.5	-30.4	0.00	0.00	0.00	
8,100.0	4.99	98.10	8,079.4	-67.0	471.1	-31.0	0.00	0.00	0.00	
8,200.0	4.99	98.10	8,179.1	-68.3	479.7	-31.6	0.00	0.00	0.00	
8,300.0	4.99	98.10	8,278.7	-69.5	488.3	-32.1	0.00	0.00	0.00	
8,400.0	4.99	98.10	8,378.3	-70.7	496.9	-32.7	0.00	0.00	0.00	
8,500.0	4.99	98.10	8,477.9	-71.9	505.5	-33.3	0.00	0.00	0.00	
8,600.0	4.99	98.10	8,577.6	-73.2	514.1	-33.8	0.00	0.00	0.00	
8,700.0	4.99	98.10	8,677.2	-74.4	522.7	-34.4	0.00	0.00	0.00	
8,750.0	4.99	98.10	8,727.0	-75.0	527.0	-34.7	0.00	0.00	0.00	
Start DLS 12.00 TFO -76.38										
8,800.0	8.65	55.62	8,776.7	-73.2	532.3	-32.5	12.00	7.33	-84.98	
8,900.0	19.75	35.42	8,873.5	-55.1	548.3	-13.2	12.00	11.10	-20.21	
9,000.0	31.51	29.71	8,963.5	-18.5	571.1	25.0	12.00	11.76	-5.70	
9,100.0	43.39	26.91	9,042.8	35.0	599.7	80.6	12.00	11.88	-2.80	
9,200.0	55.32	25.13	9,107.8	103.1	632.9	151.0	12.00	11.92	-1.78	
9,300.0	67.26	23.80	9,155.7	182.8	669.1	233.2	12.00	11.94	-1.33	
9,400.0	79.21	22.69	9,184.5	270.7	706.8	323.7	12.00	11.95	-1.11	
9,487.7	89.70	21.79	9,193.0	351.4	739.8	406.6	12.00	11.96	-1.03	
Start DLS 4.00 TFO -90.06										
9,500.0	89.70	21.30	9,193.0	362.8	744.3	418.4	4.00	0.00	-4.00	

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well MERCURY ST COM #701H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3100.0usft (TBD)
Site:	MERCURY STATE COM PROJECT	MD Reference:	*KB=30' @ 3100.0usft (TBD)
Well:	MERCURY ST COM #701H	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)
9,600.0	89.70	17.30	9,193.6	457.2	777.3	515.0	4.00	0.00	-4.00
9,700.0	89.69	13.30	9,194.1	553.6	803.7	613.1	4.00	0.00	-4.00
9,800.0	89.69	9.30	9,194.6	651.6	823.3	712.4	4.00	0.00	-4.00
9,900.0	89.70	5.30	9,195.2	750.8	836.0	812.2	4.00	0.00	-4.00
10,000.0	89.70	1.30	9,195.7	850.6	841.7	912.2	4.00	0.00	-4.00
10,038.4	89.70	359.76	9,195.9	889.0	842.1	950.5	4.00	0.00	-4.00
Start 4183.3 hold at 10038.4 MD									
10,100.0	89.70	359.76	9,196.2	950.6	841.8	1,011.9	0.00	0.00	0.00
10,200.0	89.70	359.76	9,196.7	1,050.6	841.4	1,111.6	0.00	0.00	0.00
10,300.0	89.70	359.76	9,197.3	1,150.6	841.0	1,211.2	0.00	0.00	0.00
10,400.0	89.70	359.76	9,197.8	1,250.6	840.6	1,310.9	0.00	0.00	0.00
10,500.0	89.70	359.76	9,198.3	1,350.6	840.2	1,410.6	0.00	0.00	0.00
10,600.0	89.70	359.76	9,198.8	1,450.6	839.7	1,510.3	0.00	0.00	0.00
10,700.0	89.70	359.76	9,199.4	1,550.6	839.3	1,610.0	0.00	0.00	0.00
10,800.0	89.70	359.76	9,199.9	1,650.6	838.9	1,709.6	0.00	0.00	0.00
10,900.0	89.70	359.76	9,200.4	1,750.6	838.5	1,809.3	0.00	0.00	0.00
11,000.0	89.70	359.76	9,200.9	1,850.6	838.1	1,909.0	0.00	0.00	0.00
11,100.0	89.70	359.76	9,201.5	1,950.6	837.7	2,008.7	0.00	0.00	0.00
11,200.0	89.70	359.76	9,202.0	2,050.6	837.2	2,108.3	0.00	0.00	0.00
11,300.0	89.70	359.76	9,202.5	2,150.6	836.8	2,208.0	0.00	0.00	0.00
11,400.0	89.70	359.76	9,203.0	2,250.6	836.4	2,307.7	0.00	0.00	0.00
11,500.0	89.70	359.76	9,203.6	2,350.6	836.0	2,407.4	0.00	0.00	0.00
11,600.0	89.70	359.76	9,204.1	2,450.6	835.6	2,507.0	0.00	0.00	0.00
11,700.0	89.70	359.76	9,204.6	2,550.6	835.2	2,606.7	0.00	0.00	0.00
11,800.0	89.70	359.76	9,205.1	2,650.6	834.7	2,706.4	0.00	0.00	0.00
11,900.0	89.70	359.76	9,205.6	2,750.6	834.3	2,806.1	0.00	0.00	0.00
12,000.0	89.70	359.76	9,206.2	2,850.6	833.9	2,905.7	0.00	0.00	0.00
12,100.0	89.70	359.76	9,206.7	2,950.6	833.5	3,005.4	0.00	0.00	0.00
12,200.0	89.70	359.76	9,207.2	3,050.6	833.1	3,105.1	0.00	0.00	0.00
12,300.0	89.70	359.76	9,207.7	3,150.6	832.7	3,204.8	0.00	0.00	0.00
12,400.0	89.70	359.76	9,208.3	3,250.6	832.2	3,304.5	0.00	0.00	0.00
12,500.0	89.70	359.76	9,208.8	3,350.6	831.8	3,404.1	0.00	0.00	0.00
12,600.0	89.70	359.76	9,209.3	3,450.6	831.4	3,503.8	0.00	0.00	0.00
12,700.0	89.70	359.76	9,209.8	3,550.6	831.0	3,603.5	0.00	0.00	0.00
12,800.0	89.70	359.76	9,210.4	3,650.5	830.6	3,703.2	0.00	0.00	0.00
12,900.0	89.70	359.76	9,210.9	3,750.5	830.2	3,802.8	0.00	0.00	0.00
13,000.0	89.70	359.76	9,211.4	3,850.5	829.7	3,902.5	0.00	0.00	0.00
13,100.0	89.70	359.76	9,211.9	3,950.5	829.3	4,002.2	0.00	0.00	0.00
13,200.0	89.70	359.76	9,212.5	4,050.5	828.9	4,101.9	0.00	0.00	0.00
13,300.0	89.70	359.76	9,213.0	4,150.5	828.5	4,201.5	0.00	0.00	0.00
13,400.0	89.70	359.76	9,213.5	4,250.5	828.1	4,301.2	0.00	0.00	0.00
13,500.0	89.70	359.76	9,214.0	4,350.5	827.7	4,400.9	0.00	0.00	0.00
13,600.0	89.70	359.76	9,214.5	4,450.5	827.2	4,500.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well MERCURY ST COM #701H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3100.0usft (TBD)
Site:	MERCURY STATE COM PROJECT	MD Reference:	*KB=30' @ 3100.0usft (TBD)
Well:	MERCURY ST COM #701H	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)
13,700.0	89.70	359.76	9,215.1	4,550.5	826.8	4,600.2	0.00	0.00	0.00
13,800.0	89.70	359.76	9,215.6	4,650.5	826.4	4,699.9	0.00	0.00	0.00
13,900.0	89.70	359.76	9,216.1	4,750.5	826.0	4,799.6	0.00	0.00	0.00
14,000.0	89.70	359.76	9,216.6	4,850.5	825.6	4,899.3	0.00	0.00	0.00
14,100.0	89.70	359.76	9,217.2	4,950.5	825.2	4,998.9	0.00	0.00	0.00
14,200.0	89.70	359.76	9,217.7	5,050.5	824.7	5,098.6	0.00	0.00	0.00
14,221.7	89.70	359.76	9,217.8	5,072.2	824.7	5,120.3	0.00	0.00	0.00
Start DLS 2.00 TFO -89.19									
14,230.5	89.70	359.59	9,217.8	5,081.0	824.6	5,129.0	2.00	0.03	-2.00
Start 5231.4 hold at 14230.5 MD									
14,300.0	89.70	359.59	9,218.2	5,150.5	824.1	5,198.3	0.00	0.00	0.00
14,400.0	89.70	359.59	9,218.7	5,250.5	823.4	5,297.9	0.00	0.00	0.00
14,500.0	89.70	359.59	9,219.2	5,350.5	822.7	5,397.6	0.00	0.00	0.00
14,600.0	89.70	359.59	9,219.8	5,450.5	821.9	5,497.2	0.00	0.00	0.00
14,700.0	89.70	359.59	9,220.3	5,550.5	821.2	5,596.9	0.00	0.00	0.00
14,800.0	89.70	359.59	9,220.8	5,650.5	820.5	5,696.5	0.00	0.00	0.00
14,900.0	89.70	359.59	9,221.3	5,750.5	819.8	5,796.2	0.00	0.00	0.00
15,000.0	89.70	359.59	9,221.8	5,850.5	819.0	5,895.8	0.00	0.00	0.00
15,100.0	89.70	359.59	9,222.4	5,950.5	818.3	5,995.5	0.00	0.00	0.00
15,200.0	89.70	359.59	9,222.9	6,050.5	817.6	6,095.1	0.00	0.00	0.00
15,300.0	89.70	359.59	9,223.4	6,150.5	816.9	6,194.8	0.00	0.00	0.00
15,400.0	89.70	359.59	9,223.9	6,250.5	816.1	6,294.4	0.00	0.00	0.00
15,500.0	89.70	359.59	9,224.4	6,350.5	815.4	6,394.1	0.00	0.00	0.00
15,600.0	89.70	359.59	9,225.0	6,450.5	814.7	6,493.7	0.00	0.00	0.00
15,700.0	89.70	359.59	9,225.5	6,550.5	814.0	6,593.4	0.00	0.00	0.00
15,800.0	89.70	359.59	9,226.0	6,650.5	813.3	6,693.1	0.00	0.00	0.00
15,900.0	89.70	359.59	9,226.5	6,750.5	812.5	6,792.7	0.00	0.00	0.00
16,000.0	89.70	359.59	9,227.0	6,850.4	811.8	6,892.4	0.00	0.00	0.00
16,100.0	89.70	359.59	9,227.5	6,950.4	811.1	6,992.0	0.00	0.00	0.00
16,200.0	89.70	359.59	9,228.1	7,050.4	810.4	7,091.7	0.00	0.00	0.00
16,300.0	89.70	359.59	9,228.6	7,150.4	809.6	7,191.3	0.00	0.00	0.00
16,400.0	89.70	359.59	9,229.1	7,250.4	808.9	7,291.0	0.00	0.00	0.00
16,500.0	89.70	359.59	9,229.6	7,350.4	808.2	7,390.6	0.00	0.00	0.00
16,600.0	89.70	359.59	9,230.1	7,450.4	807.5	7,490.3	0.00	0.00	0.00
16,700.0	89.70	359.59	9,230.7	7,550.4	806.7	7,589.9	0.00	0.00	0.00
16,800.0	89.70	359.59	9,231.2	7,650.4	806.0	7,689.6	0.00	0.00	0.00
16,900.0	89.70	359.59	9,231.7	7,750.4	805.3	7,789.2	0.00	0.00	0.00
17,000.0	89.70	359.59	9,232.2	7,850.4	804.6	7,888.9	0.00	0.00	0.00
17,100.0	89.70	359.59	9,232.7	7,950.4	803.8	7,988.5	0.00	0.00	0.00
17,200.0	89.70	359.59	9,233.3	8,050.4	803.1	8,088.2	0.00	0.00	0.00
17,300.0	89.70	359.59	9,233.8	8,150.4	802.4	8,187.8	0.00	0.00	0.00
17,400.0	89.70	359.59	9,234.3	8,250.4	801.7	8,287.5	0.00	0.00	0.00
17,500.0	89.70	359.59	9,234.8	8,350.4	801.0	8,387.1	0.00	0.00	0.00
17,600.0	89.70	359.59	9,235.3	8,450.4	800.2	8,486.8	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well MERCURY ST COM #701H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3100.0usft (TBD)
Site:	MERCURY STATE COM PROJECT	MD Reference:	*KB=30' @ 3100.0usft (TBD)
Well:	MERCURY ST COM #701H	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)
17,700.0	89.70	359.59	9,235.9	8,550.4	799.5	8,586.4	0.00	0.00	0.00
17,800.0	89.70	359.59	9,236.4	8,650.4	798.8	8,686.1	0.00	0.00	0.00
17,900.0	89.70	359.59	9,236.9	8,750.4	798.1	8,785.7	0.00	0.00	0.00
18,000.0	89.70	359.59	9,237.4	8,850.4	797.3	8,885.4	0.00	0.00	0.00
18,100.0	89.70	359.59	9,237.9	8,950.4	796.6	8,985.0	0.00	0.00	0.00
18,200.0	89.70	359.59	9,238.4	9,050.4	795.9	9,084.7	0.00	0.00	0.00
18,300.0	89.70	359.59	9,239.0	9,150.4	795.2	9,184.3	0.00	0.00	0.00
18,400.0	89.70	359.59	9,239.5	9,250.4	794.4	9,284.0	0.00	0.00	0.00
18,500.0	89.70	359.59	9,240.0	9,350.3	793.7	9,383.6	0.00	0.00	0.00
18,600.0	89.70	359.59	9,240.5	9,450.3	793.0	9,483.3	0.00	0.00	0.00
18,700.0	89.70	359.59	9,241.0	9,550.3	792.3	9,582.9	0.00	0.00	0.00
18,800.0	89.70	359.59	9,241.6	9,650.3	791.6	9,682.6	0.00	0.00	0.00
18,900.0	89.70	359.59	9,242.1	9,750.3	790.8	9,782.2	0.00	0.00	0.00
19,000.0	89.70	359.59	9,242.6	9,850.3	790.1	9,881.9	0.00	0.00	0.00
19,100.0	89.70	359.59	9,243.1	9,950.3	789.4	9,981.5	0.00	0.00	0.00
19,200.0	89.70	359.59	9,243.6	10,050.3	788.7	10,081.2	0.00	0.00	0.00
19,300.0	89.70	359.59	9,244.2	10,150.3	787.9	10,180.8	0.00	0.00	0.00
19,400.0	89.70	359.59	9,244.7	10,250.3	787.2	10,280.5	0.00	0.00	0.00
19,461.9	89.70	359.59	9,245.0	10,312.2	786.8	10,342.2	0.00	0.00	0.00
TD at 19461.9									

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 (MERCURY ST C - plan misses target center by 373.7usft at 9121.0usft MD (9057.7 TVD, 48.2 N, 606.4 E) - Circle (radius 50.0)	0.00	0.00	9,193.0	-199.9	850.9	376,561.33	566,301.74	32° 2' 6.364 N	104° 7' 9.738 W
T1 (MERCURY ST C - plan hits target center - Rectangle (sides W100.0 H5,292.0 D20.0)	-0.30	179.76	9,217.8	5,072.2	824.7	381,833.41	566,275.52	32° 2' 58.540 N	104° 7' 9.922 W
PBHL/LTP (MERCUR - plan hits target center - Rectangle (sides W100.0 H5,235.0 D20.0)	-0.30	179.59	9,245.0	10,312.2	786.8	387,073.38	566,237.63	32° 3' 50.399 N	104° 7' 10.241 W

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well MERCURY ST COM #701H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3100.0usft (TBD)
Site:	MERCURY STATE COM PROJECT	MD Reference:	*KB=30' @ 3100.0usft (TBD)
Well:	MERCURY ST COM #701H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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
2749	2749	-2	11	Start 6000.7 hold at 2749.3 MD
8750	8727	-75	527	Start DLS 12.00 TFO -76.38
9488	9193	351	740	Start DLS 4.00 TFO -90.06
10,038	9196	889	842	Start 4183.3 hold at 10038.4 MD
14,222	9218	5072	825	Start DLS 2.00 TFO -89.19
14,230	9218	5081	825	Start 5231.4 hold at 14230.5 MD
19,462	9245	10,312	787	TD at 19461.9

Checked By: _____ Approved By: _____ Date: _____



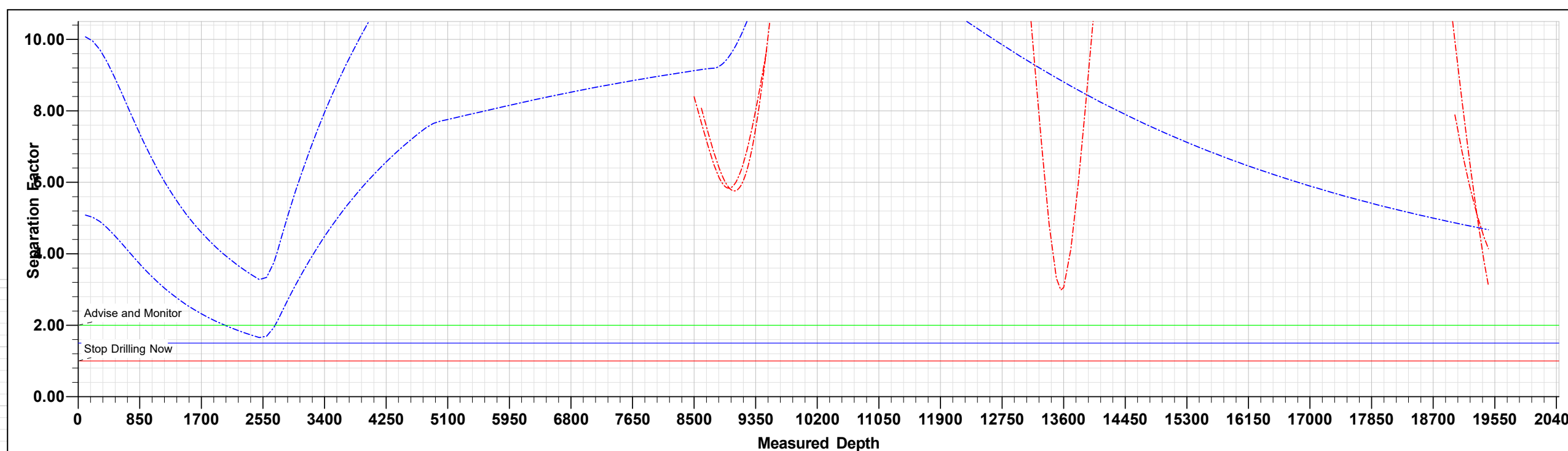
Project: ATLAS PROSPECT (NM-E)
Site: MERCURY STATE COM PROJECT
Well: MERCURY ST COM #701H
Wellbore: OWB
Design: PWP-1
GL: 3070.0
*KB=30' @ 3100.0usft (TBD)

WELL DETAILS: MERCURY ST COM #701H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	376761.19	565450.86	32° 2' 8.359 N	104° 7' 19.619 W

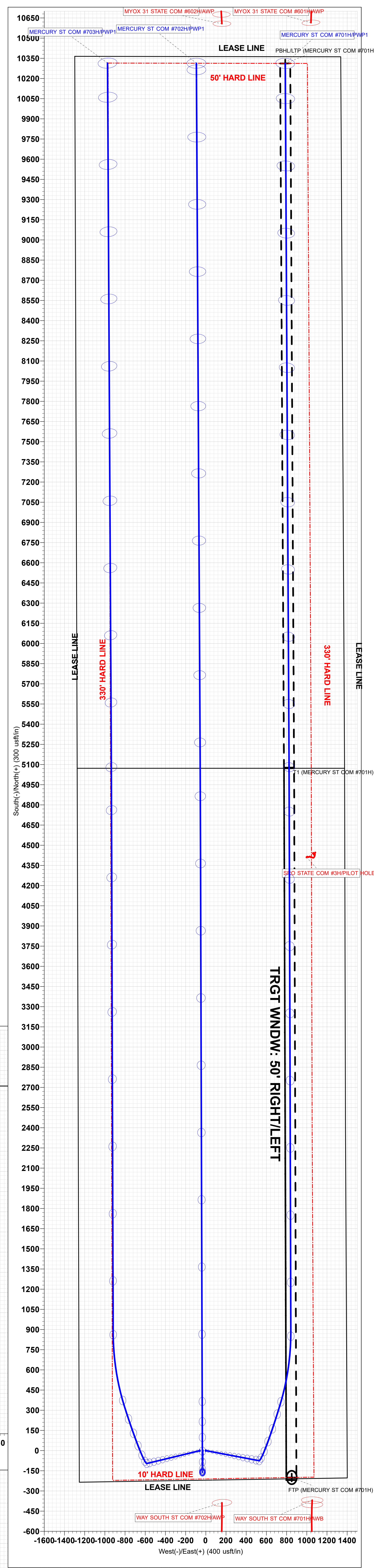
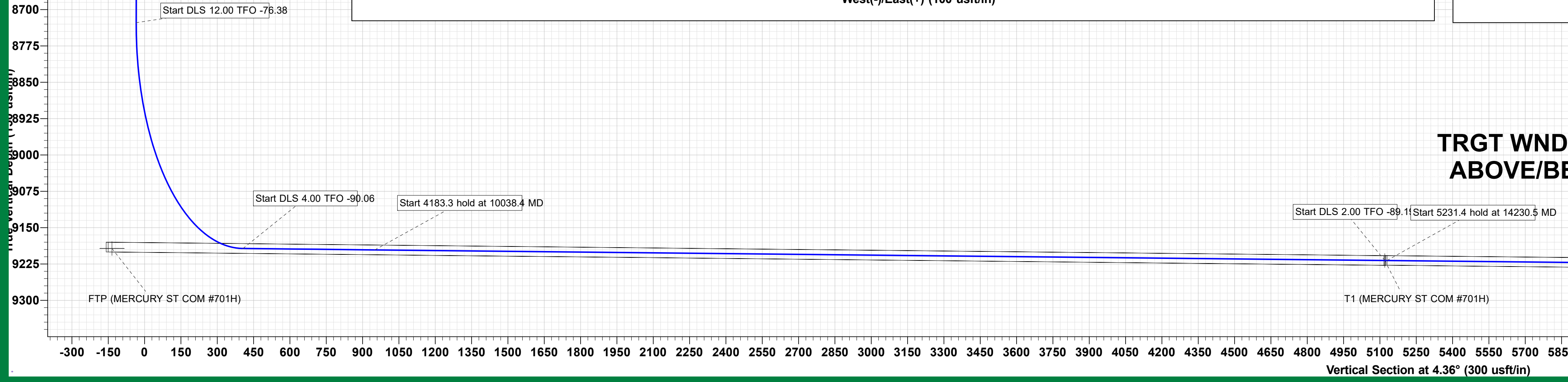
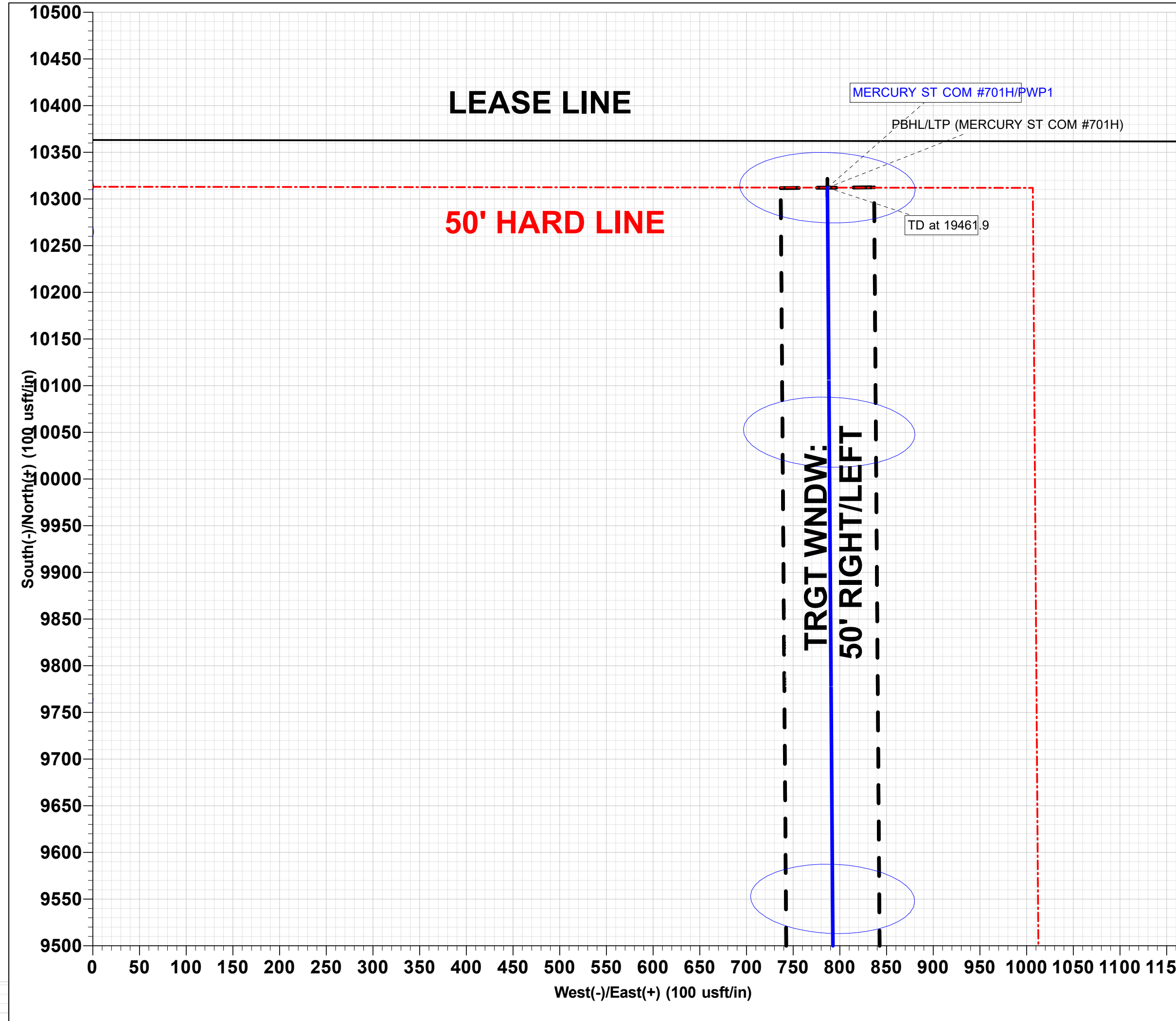
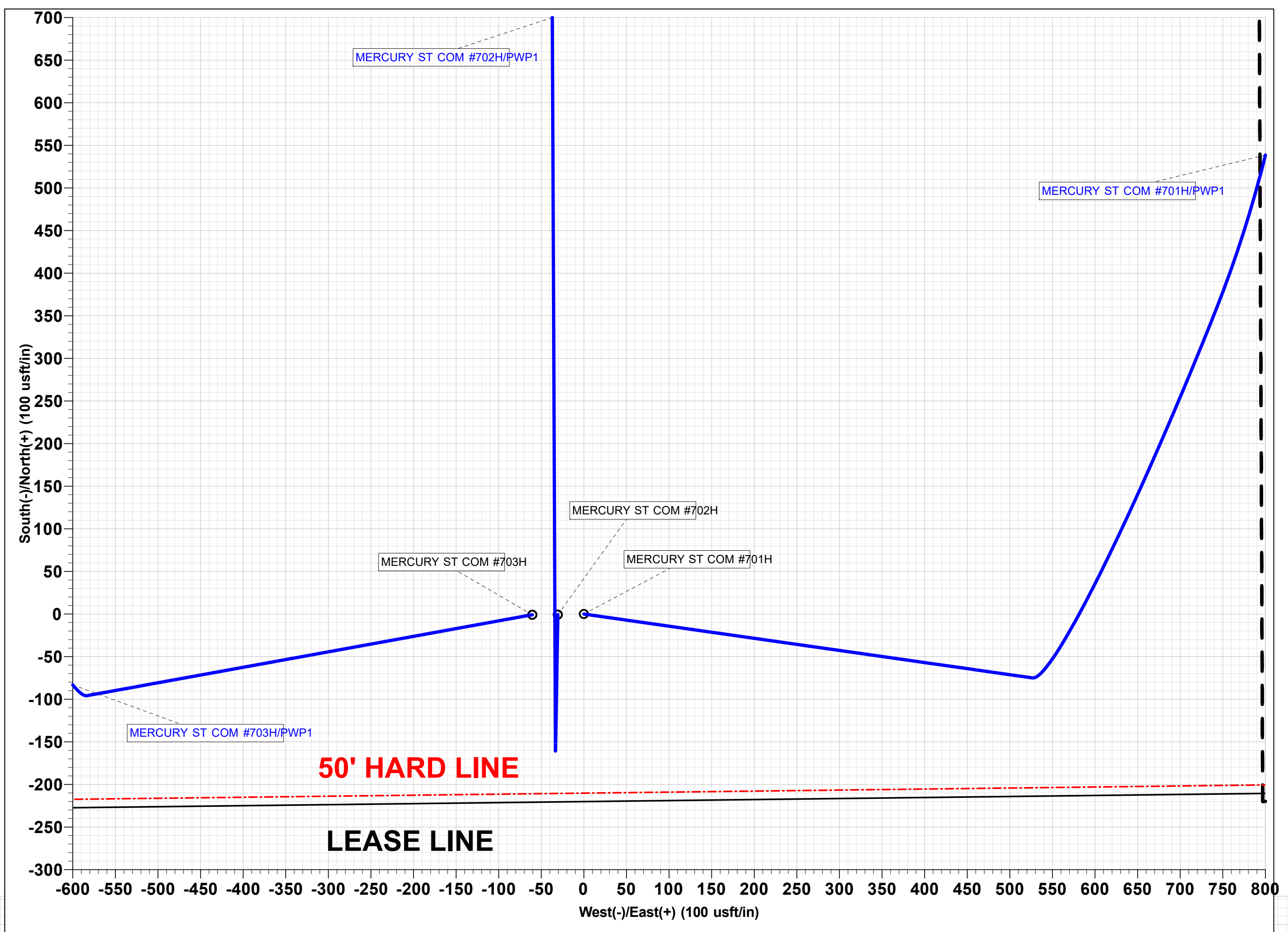
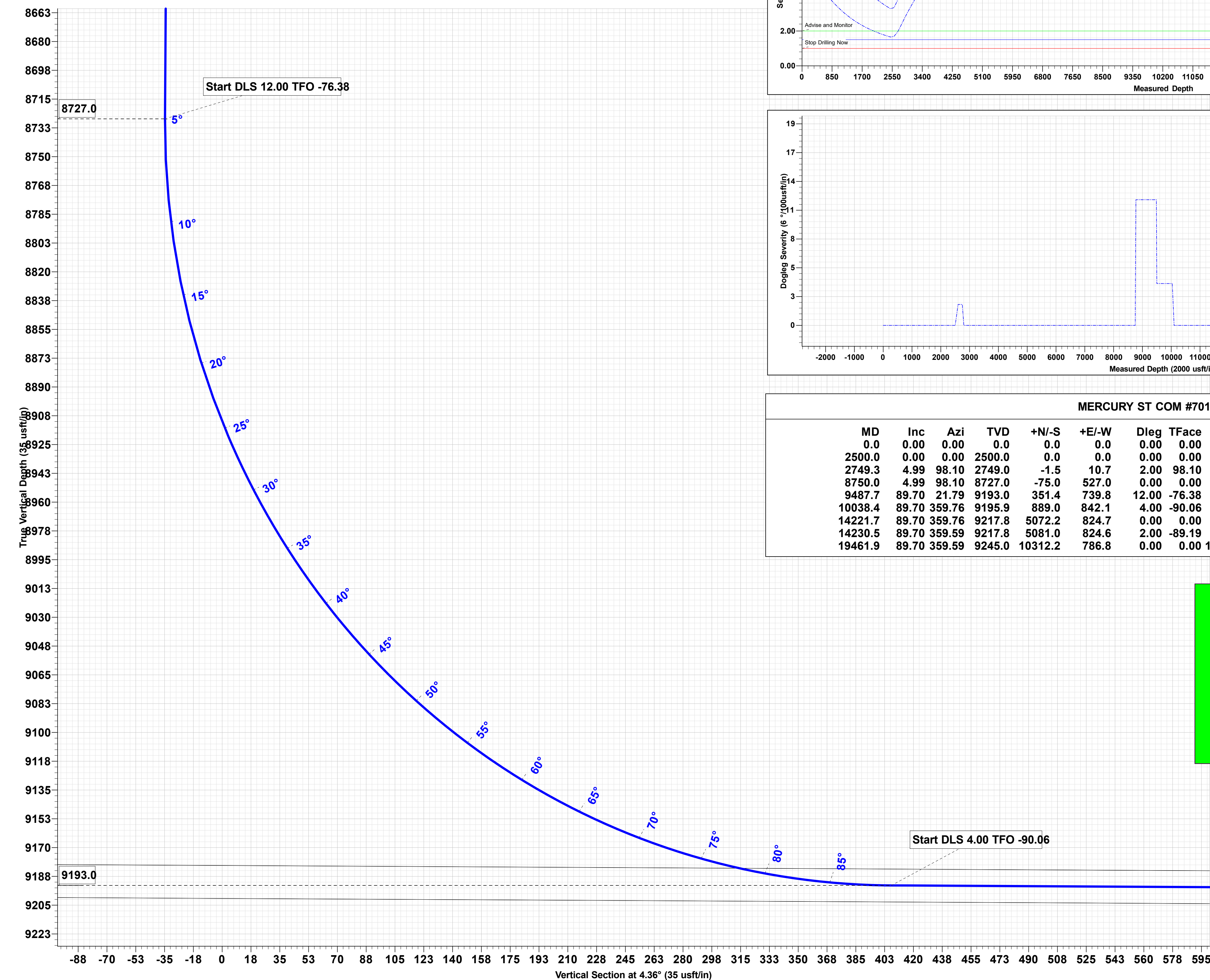
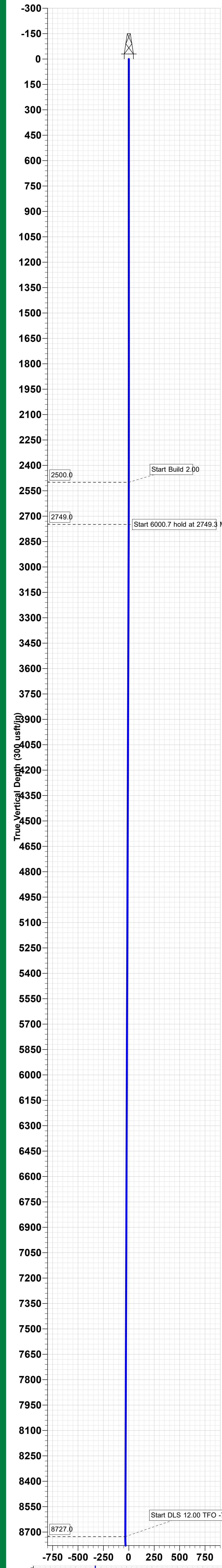
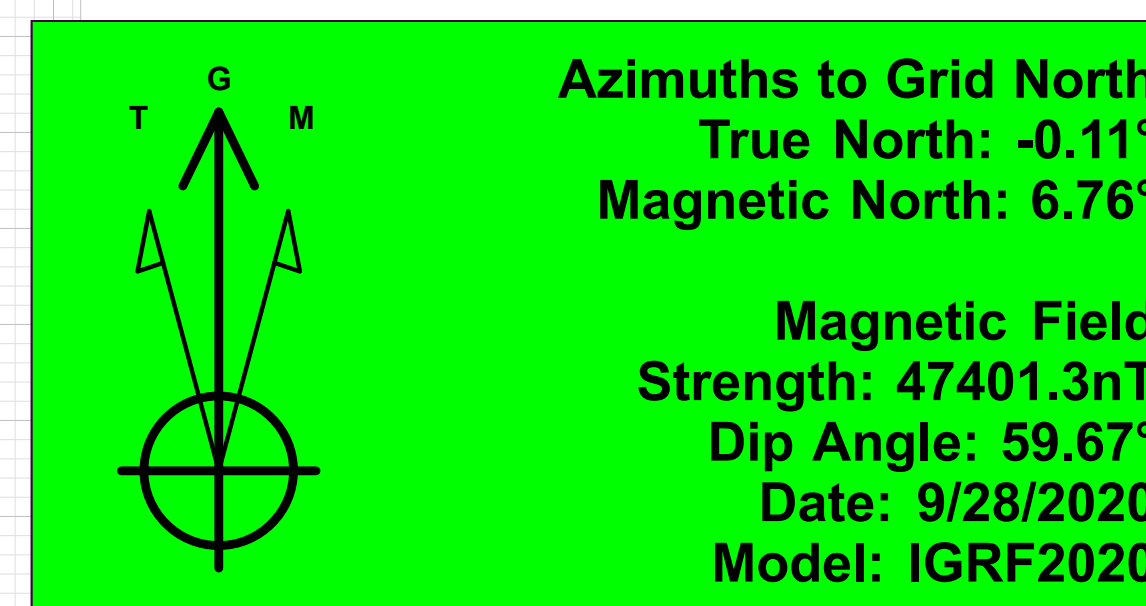
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (MERCURY ST COM #701H)	9193.0	-199.9	850.9	376581.33	566301.74	32° 2' 6.364 N	104° 7' 9.738 W
T1 (MERCURY ST COM #701H)	9217.8	5072.2	824.7	381833.41	566275.52	32° 2' 58.540 N	104° 7' 9.922 W
PBHL/LTP (MERCURY ST COM #701H)	9245.0	10312.2	786.8	387073.38	566237.63	32° 3' 50.399 N	104° 7' 10.241 W



MERCURY ST COM #701H

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start 6000.7 hold at 2749.3 MD
2749.3	4.99	98.10	2749.0	-1.5	10.7	2.00	98.10	-0.7	Start DLS 12.00 TFO -76.38
8750.0	4.99	98.10	8727.0	-75.0	527.0	0.00	0.00	-34.7	Start DLS 4.00 TFO -90.06
9487.7	89.70	21.79	9193.0	351.4	739.8	12.00	-76.38	406.6	Start 4183.3 hold at 10038.4 MD
10038.4	89.70	359.76	9195.9	889.0	842.1	4.00	-90.06	950.5	Start DLS 2.00 TFO -89.19
14221.7	89.70	359.76	9217.8	5072.2	824.7	0.00	0.00	5120.3	Start DLS 2.00 TFO -89.19
14230.5	89.70	359.59	9217.8	5081.0	824.6	2.00	-89.19	5129.0	Start 5231.4 hold at 14230.5 MD
19461.9	89.70	359.59	9245.0	10312.2	786.8	0.00	0.00	10342.2	TD at 19461.9



Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

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

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018