

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

Form C-101
August 1, 2011

Permit 293690

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 30-015-48101
4. Property Code 316035	5. Property Name BIGFOOT STATE COM	6. Well No. 501H

7. Surface Location

UL - Lot P	Section 19	Township 19S	Range 28E	Lot Idn P	Feet From 1065	N/S Line S	Feet From 250	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot P	Section 21	Township 19S	Range 28E	Lot Idn P	Feet From 330	N/S Line S	Feet From 50	E/W Line E	County Eddy
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9. Pool Information

WINCHESTER; BONE SPRING, WEST	97569
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3502
16. Multiple N	17. Proposed Depth 17651	18. Formation Bone Spring	19. Contractor	20. Spud Date 1/1/2022
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	17.5	13.375	54.5	250	200	0
Int1	12.25	9.625	40	3380	850	0
Prod	8.75	5.5	17	17651	3000	2800

Casing/Cement Program: Additional Comments

After setting 13-3/8" casing and installing 3000 psi casing head, NU 13-5/8" Cameron BOP. Test annular and casing to 1500 psi and other BOP equipment to 3000 psi. After setting 9-5/8" casing and installing 3000 psi casing spool, NU 13-5/8" Cameron BOP. Test annular to 1500 psi and other BOP equipment to 3000 psi.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	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.

OIL CONSERVATION DIVISION

Signature:

Printed Name: Electronically filed by Robyn Russell

Title: Regulatory Compliance Lead

Email Address: robyn.m.russell@conocophillips.com

Date: 3/17/2021

Phone: 432-685-4385

Approved By: Kurt Simmons

Title: Petroleum Specialist - A

Approved Date: 3/19/2021

Expiration Date: 3/19/2023

Conditions of Approval Attached

☐ AMENDED REPORT

Certificate Number

RWP 7/15/2020

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

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Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 3/19/2021

☒ 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, recomple 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
BIGFOOT STATE COM #501H	30-015-48101	P-19-19S-28E	1065S 0250E	1400	None	

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 DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP High/Low Pressure gathering system located in Eddy County, New Mexico. It will require 0' of pipeline to connect the facility to High/Low Pressure gathering system. COG OPERATING LLC provides (periodically) to DCP OPERATING COMPANY, LP 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 DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 07, Twn. 18S, 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 DCP OPERATING COMPANY, LP 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 293690

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-015-48101
		Well: BIGFOOT STATE COM #501H
Created By	Comment	Comment Date
stanwagner	Replacement for expired APD	3/17/2021

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Form APD Conditions

Permit 293690

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	API Number: 30-015-48101
	Well: BIGFOOT STATE COM #501H

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Surface casing must be set 25' below top of Rustler Anhydrite or salt in order to seal off protectable water
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 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
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

Bigfoot State Com #501H

Casing and Cement

<u>String</u>	<u>Hole Size</u>	<u>Csg OD</u>	<u>PPE</u>	<u>Depth</u>	<u>Sx Cement</u>	<u>TOC</u>
Surface	17-1/2"	13-3/8"	54.5#	250'	200	0'
Intermediate	12-1/4"	9-5/8"	40#	3,380'	850	0'
Production	8-3/4"	5-1/2"	17#	17,651'	3,000	2,800'

Well Plan

Drill 17-1/2" hole to 250' with Saturated Brine. Run 13-3/8" 54.5# J55 STC casing to TD and cement to surface in one stage to cover the Salt.

Drill 12-1/4" hole to ~3,380' with Cut Brine. Run 9-5/8" 40# J-55 casing to TD and cement to surface in one stage.

Drill 8-3/4" vertical hole, curve & lateral to 17,651' with Cut Brine. Run 5-1/2" 17# P110 BTC casing to TD and cement to 2,800' in one stage.

Well Control

After setting 13-3/8" casing and installing 3000 psi casing head, NU 13-5/8" Cameron BOP. Test annular and casing to 1500 psi and other BOP equipment to 3000 psi.

After setting 9-5/8" casing and installing 3000 psi casing spool, NU 13-5/8" Cameron BOP. Test annular to 1500 psi and other BOP equipment to 3000 psi.

DELAWARE BASIN WEST

EDDY COUNTY, NM

ZEUS

BIGFOOT ST COM 501H

OWB

Plan: PWP1

Standard Survey Report

12 May, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well BIGFOOT ST COM 501H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=28' @ 3530.0usft (TBD)
Site:	ZEUS	MD Reference:	KB=28' @ 3530.0usft (TBD)
Well:	BIGFOOT ST COM 501H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	EDDY COUNTY, NM		
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	BIGFOOT ST COM 501H				
Well Position	+N/-S	0.0 usft	Northing:	597,117.75 usft	Latitude: 32° 38' 29.455 N
	+E/-W	0.0 usft	Easting:	538,942.19 usft	Longitude: 104° 12' 24.561 W
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level: 3,502.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/12/2020	7.00	60.22	47,787.28068313

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	93.42	

Survey Tool Program	Date	5/12/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,643.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
6,643.0	17,650.9	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

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well BIGFOOT ST COM 501H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=28' @ 3530.0usft (TBD)
Site:	ZEUS	MD Reference:	KB=28' @ 3530.0usft (TBD)
Well:	BIGFOOT ST COM 501H	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
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
5,600.0	2.00	160.00	5,600.0	-1.6	0.6	0.7	2.00	2.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well BIGFOOT ST COM 501H
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Site:	ZEUS	MD Reference:	KB=28' @ 3530.0usft (TBD)
Well:	BIGFOOT ST COM 501H	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)
5,700.0	4.00	160.00	5,699.8	-6.6	2.4	2.8	2.00	2.00	0.00
5,800.0	6.00	160.00	5,799.5	-14.7	5.4	6.2	2.00	2.00	0.00
Start 843.2 hold at 5800.0 MD									
5,900.0	6.00	160.00	5,898.9	-24.6	8.9	10.4	0.00	0.00	0.00
6,000.0	6.00	160.00	5,998.4	-34.4	12.5	14.5	0.00	0.00	0.00
6,100.0	6.00	160.00	6,097.8	-44.2	16.1	18.7	0.00	0.00	0.00
6,200.0	6.00	160.00	6,197.3	-54.0	19.7	22.9	0.00	0.00	0.00
6,300.0	6.00	160.00	6,296.7	-63.9	23.2	27.0	0.00	0.00	0.00
6,400.0	6.00	160.00	6,396.2	-73.7	26.8	31.2	0.00	0.00	0.00
6,500.0	6.00	160.00	6,495.6	-83.5	30.4	35.3	0.00	0.00	0.00
6,600.0	6.00	160.00	6,595.1	-93.3	34.0	39.5	0.00	0.00	0.00
6,643.2	6.00	160.00	6,638.0	-97.6	35.5	41.3	0.00	0.00	0.00
Start DLS 10.00 TFO -42.56									
6,700.0	10.88	139.23	6,694.2	-104.4	40.0	46.2	10.00	8.60	-36.55
6,800.0	20.50	128.53	6,790.4	-122.5	59.9	67.1	10.00	9.61	-10.70
6,900.0	30.36	124.55	6,880.6	-147.8	94.5	103.2	10.00	9.86	-3.98
7,000.0	40.28	122.40	6,962.1	-179.6	142.8	153.2	10.00	9.92	-2.15
7,100.0	50.23	120.98	7,032.4	-216.8	203.2	215.7	10.00	9.95	-1.42
7,200.0	60.19	119.93	7,089.4	-258.3	273.9	288.8	10.00	9.96	-1.05
7,300.0	70.16	119.06	7,131.3	-302.9	352.8	370.2	10.00	9.97	-0.86
7,400.0	80.14	118.31	7,156.9	-349.2	437.5	457.5	10.00	9.97	-0.76
7,477.6	87.88	117.75	7,165.0	-385.5	505.6	527.7	10.00	9.97	-0.72
Start DLS 2.00 TFO -90.57									
7,500.0	87.88	117.30	7,165.8	-395.8	525.4	548.1	2.00	-0.02	-2.00
7,600.0	87.86	115.30	7,169.6	-440.1	615.0	640.1	2.00	-0.02	-2.00
7,700.0	87.84	113.30	7,173.3	-481.2	706.1	733.5	2.00	-0.02	-2.00
7,800.0	87.83	111.30	7,177.1	-519.1	798.5	828.0	2.00	-0.01	-2.00
7,900.0	87.82	109.30	7,180.9	-553.8	892.3	923.7	2.00	-0.01	-2.00
8,000.0	87.81	107.30	7,184.7	-585.1	987.1	1,020.2	2.00	-0.01	-2.00
8,100.0	87.81	105.29	7,188.5	-613.2	1,083.0	1,117.6	2.00	0.00	-2.00
8,200.0	87.81	103.29	7,192.4	-637.9	1,179.9	1,215.8	2.00	0.00	-2.00
8,300.0	87.81	101.29	7,196.2	-659.1	1,277.5	1,314.5	2.00	0.00	-2.00
8,400.0	87.81	99.29	7,200.0	-677.0	1,375.8	1,413.7	2.00	0.00	-2.00
8,500.0	87.82	97.29	7,203.8	-691.4	1,474.7	1,513.3	2.00	0.01	-2.00
8,600.0	87.82	95.29	7,207.6	-702.3	1,574.0	1,613.1	2.00	0.01	-2.00
8,700.0	87.84	93.29	7,211.4	-709.8	1,673.6	1,713.0	2.00	0.01	-2.00
8,800.0	87.85	91.28	7,215.2	-713.8	1,773.5	1,812.9	2.00	0.01	-2.00
8,890.5	87.86	89.47	7,218.6	-714.4	1,863.9	1,903.2	2.00	0.02	-2.00
Start 8760.4 hold at 8890.5 MD									
8,900.0	87.86	89.47	7,218.9	-714.3	1,873.4	1,912.6	0.00	0.00	0.00
9,000.0	87.86	89.47	7,222.6	-713.4	1,973.3	2,012.3	0.00	0.00	0.00
9,100.0	87.86	89.47	7,226.4	-712.4	2,073.3	2,112.0	0.00	0.00	0.00
9,200.0	87.86	89.47	7,230.1	-711.5	2,173.2	2,211.7	0.00	0.00	0.00
9,300.0	87.86	89.47	7,233.8	-710.6	2,273.1	2,311.4	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well BIGFOOT ST COM 501H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=28' @ 3530.0usft (TBD)
Site:	ZEUS	MD Reference:	KB=28' @ 3530.0usft (TBD)
Well:	BIGFOOT ST COM 501H	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)
9,400.0	87.86	89.47	7,237.5	-709.7	2,373.0	2,411.1	0.00	0.00	0.00
9,500.0	87.86	89.47	7,241.3	-708.8	2,473.0	2,510.8	0.00	0.00	0.00
9,600.0	87.86	89.47	7,245.0	-707.8	2,572.9	2,610.5	0.00	0.00	0.00
9,700.0	87.86	89.47	7,248.7	-706.9	2,672.8	2,710.2	0.00	0.00	0.00
9,800.0	87.86	89.47	7,252.5	-706.0	2,772.8	2,809.9	0.00	0.00	0.00
9,900.0	87.86	89.47	7,256.2	-705.1	2,872.7	2,909.6	0.00	0.00	0.00
10,000.0	87.86	89.47	7,259.9	-704.2	2,972.6	3,009.3	0.00	0.00	0.00
10,100.0	87.86	89.47	7,263.6	-703.2	3,072.5	3,109.0	0.00	0.00	0.00
10,200.0	87.86	89.47	7,267.4	-702.3	3,172.5	3,208.7	0.00	0.00	0.00
10,300.0	87.86	89.47	7,271.1	-701.4	3,272.4	3,308.4	0.00	0.00	0.00
10,400.0	87.86	89.47	7,274.8	-700.5	3,372.3	3,408.1	0.00	0.00	0.00
10,500.0	87.86	89.47	7,278.5	-699.6	3,472.2	3,507.8	0.00	0.00	0.00
10,600.0	87.86	89.47	7,282.3	-698.7	3,572.2	3,607.4	0.00	0.00	0.00
10,700.0	87.86	89.47	7,286.0	-697.7	3,672.1	3,707.1	0.00	0.00	0.00
10,800.0	87.86	89.47	7,289.7	-696.8	3,772.0	3,806.8	0.00	0.00	0.00
10,900.0	87.86	89.47	7,293.4	-695.9	3,871.9	3,906.5	0.00	0.00	0.00
11,000.0	87.86	89.47	7,297.2	-695.0	3,971.9	4,006.2	0.00	0.00	0.00
11,100.0	87.86	89.47	7,300.9	-694.1	4,071.8	4,105.9	0.00	0.00	0.00
11,200.0	87.86	89.47	7,304.6	-693.1	4,171.7	4,205.6	0.00	0.00	0.00
11,300.0	87.86	89.47	7,308.3	-692.2	4,271.6	4,305.3	0.00	0.00	0.00
11,400.0	87.86	89.47	7,312.1	-691.3	4,371.6	4,405.0	0.00	0.00	0.00
11,500.0	87.86	89.47	7,315.8	-690.4	4,471.5	4,504.7	0.00	0.00	0.00
11,600.0	87.86	89.47	7,319.5	-689.5	4,571.4	4,604.4	0.00	0.00	0.00
11,700.0	87.86	89.47	7,323.3	-688.5	4,671.4	4,704.1	0.00	0.00	0.00
11,800.0	87.86	89.47	7,327.0	-687.6	4,771.3	4,803.8	0.00	0.00	0.00
11,900.0	87.86	89.47	7,330.7	-686.7	4,871.2	4,903.5	0.00	0.00	0.00
12,000.0	87.86	89.47	7,334.4	-685.8	4,971.1	5,003.2	0.00	0.00	0.00
12,100.0	87.86	89.47	7,338.2	-684.9	5,071.1	5,102.9	0.00	0.00	0.00
12,200.0	87.86	89.47	7,341.9	-683.9	5,171.0	5,202.5	0.00	0.00	0.00
12,300.0	87.86	89.47	7,345.6	-683.0	5,270.9	5,302.2	0.00	0.00	0.00
12,400.0	87.86	89.47	7,349.3	-682.1	5,370.8	5,401.9	0.00	0.00	0.00
12,500.0	87.86	89.47	7,353.1	-681.2	5,470.8	5,501.6	0.00	0.00	0.00
12,600.0	87.86	89.47	7,356.8	-680.3	5,570.7	5,601.3	0.00	0.00	0.00
12,700.0	87.86	89.47	7,360.5	-679.3	5,670.6	5,701.0	0.00	0.00	0.00
12,800.0	87.86	89.47	7,364.2	-678.4	5,770.5	5,800.7	0.00	0.00	0.00
12,900.0	87.86	89.47	7,368.0	-677.5	5,870.5	5,900.4	0.00	0.00	0.00
13,000.0	87.86	89.47	7,371.7	-676.6	5,970.4	6,000.1	0.00	0.00	0.00
13,100.0	87.86	89.47	7,375.4	-675.7	6,070.3	6,099.8	0.00	0.00	0.00
13,200.0	87.86	89.47	7,379.1	-674.7	6,170.2	6,199.5	0.00	0.00	0.00
13,300.0	87.86	89.47	7,382.9	-673.8	6,270.2	6,299.2	0.00	0.00	0.00
13,400.0	87.86	89.47	7,386.6	-672.9	6,370.1	6,398.9	0.00	0.00	0.00
13,500.0	87.86	89.47	7,390.3	-672.0	6,470.0	6,498.6	0.00	0.00	0.00
13,600.0	87.86	89.47	7,394.1	-671.1	6,570.0	6,598.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well BIGFOOT ST COM 501H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=28' @ 3530.0usft (TBD)
Site:	ZEUS	MD Reference:	KB=28' @ 3530.0usft (TBD)
Well:	BIGFOOT ST COM 501H	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	87.86	89.47	7,397.8	-670.1	6,669.9	6,698.0	0.00	0.00	0.00	
13,800.0	87.86	89.47	7,401.5	-669.2	6,769.8	6,797.7	0.00	0.00	0.00	
13,900.0	87.86	89.47	7,405.2	-668.3	6,869.7	6,897.3	0.00	0.00	0.00	
14,000.0	87.86	89.47	7,409.0	-667.4	6,969.7	6,997.0	0.00	0.00	0.00	
14,100.0	87.86	89.47	7,412.7	-666.5	7,069.6	7,096.7	0.00	0.00	0.00	
14,200.0	87.86	89.47	7,416.4	-665.5	7,169.5	7,196.4	0.00	0.00	0.00	
14,300.0	87.86	89.47	7,420.1	-664.6	7,269.4	7,296.1	0.00	0.00	0.00	
14,400.0	87.86	89.47	7,423.9	-663.7	7,369.4	7,395.8	0.00	0.00	0.00	
14,500.0	87.86	89.47	7,427.6	-662.8	7,469.3	7,495.5	0.00	0.00	0.00	
14,600.0	87.86	89.47	7,431.3	-661.9	7,569.2	7,595.2	0.00	0.00	0.00	
14,700.0	87.86	89.47	7,435.0	-660.9	7,669.1	7,694.9	0.00	0.00	0.00	
14,800.0	87.86	89.47	7,438.8	-660.0	7,769.1	7,794.6	0.00	0.00	0.00	
14,900.0	87.86	89.47	7,442.5	-659.1	7,869.0	7,894.3	0.00	0.00	0.00	
15,000.0	87.86	89.47	7,446.2	-658.2	7,968.9	7,994.0	0.00	0.00	0.00	
15,100.0	87.86	89.47	7,449.9	-657.3	8,068.8	8,093.7	0.00	0.00	0.00	
15,200.0	87.86	89.47	7,453.7	-656.3	8,168.8	8,193.4	0.00	0.00	0.00	
15,300.0	87.86	89.47	7,457.4	-655.4	8,268.7	8,293.1	0.00	0.00	0.00	
15,400.0	87.86	89.47	7,461.1	-654.5	8,368.6	8,392.8	0.00	0.00	0.00	
15,500.0	87.86	89.47	7,464.9	-653.6	8,468.6	8,492.5	0.00	0.00	0.00	
15,600.0	87.86	89.47	7,468.6	-652.7	8,568.5	8,592.1	0.00	0.00	0.00	
15,700.0	87.86	89.47	7,472.3	-651.7	8,668.4	8,691.8	0.00	0.00	0.00	
15,800.0	87.86	89.47	7,476.0	-650.8	8,768.3	8,791.5	0.00	0.00	0.00	
15,900.0	87.86	89.47	7,479.8	-649.9	8,868.3	8,891.2	0.00	0.00	0.00	
16,000.0	87.86	89.47	7,483.5	-649.0	8,968.2	8,990.9	0.00	0.00	0.00	
16,100.0	87.86	89.47	7,487.2	-648.1	9,068.1	9,090.6	0.00	0.00	0.00	
16,200.0	87.86	89.47	7,490.9	-647.1	9,168.0	9,190.3	0.00	0.00	0.00	
16,300.0	87.86	89.47	7,494.7	-646.2	9,268.0	9,290.0	0.00	0.00	0.00	
16,400.0	87.86	89.47	7,498.4	-645.3	9,367.9	9,389.7	0.00	0.00	0.00	
16,500.0	87.86	89.47	7,502.1	-644.4	9,467.8	9,489.4	0.00	0.00	0.00	
16,600.0	87.86	89.47	7,505.8	-643.5	9,567.7	9,589.1	0.00	0.00	0.00	
16,700.0	87.86	89.47	7,509.6	-642.5	9,667.7	9,688.8	0.00	0.00	0.00	
16,800.0	87.86	89.47	7,513.3	-641.6	9,767.6	9,788.5	0.00	0.00	0.00	
16,900.0	87.86	89.47	7,517.0	-640.7	9,867.5	9,888.2	0.00	0.00	0.00	
17,000.0	87.86	89.47	7,520.7	-639.8	9,967.4	9,987.9	0.00	0.00	0.00	
17,100.0	87.86	89.47	7,524.5	-638.9	10,067.4	10,087.6	0.00	0.00	0.00	
17,200.0	87.86	89.47	7,528.2	-637.9	10,167.3	10,187.2	0.00	0.00	0.00	
17,300.0	87.86	89.47	7,531.9	-637.0	10,267.2	10,286.9	0.00	0.00	0.00	
17,400.0	87.86	89.47	7,535.7	-636.1	10,367.2	10,386.6	0.00	0.00	0.00	
17,500.0	87.86	89.47	7,539.4	-635.2	10,467.1	10,486.3	0.00	0.00	0.00	
17,600.0	87.86	89.47	7,543.1	-634.3	10,567.0	10,586.0	0.00	0.00	0.00	
17,650.9	87.86	89.47	7,545.0	-633.8	10,617.9	10,636.8	0.00	0.00	0.00	
TD at 17650.9										

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well BIGFOOT ST COM 501H
Project:	EDDY COUNTY, NM	TVD Reference:	KB=28' @ 3530.0usft (TBD)
Site:	ZEUS	MD Reference:	KB=28' @ 3530.0usft (TBD)
Well:	BIGFOOT ST COM 501H	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 (BIGFOOT ST COM 501H) - plan misses target center by 377.2usft at 7496.2usft MD (7165.7 TVD, -394.0 N, 522.0 E) - Circle (radius 50.0)	0.00	0.00	7,175.0	-728.3	347.4	596,389.46	539,289.64	32° 38' 22.244 N	104° 12' 20.508 W
PBHL (BIGFOOT ST COM 501H) - plan hits target center - Rectangle (sides W100.0 H10,221.0 D20.0)	-2.13	269.47	7,545.0	-633.8	10,617.9	596,483.96	549,560.07	32° 38' 23.041 N	104° 10' 20.394 W
LTP (BIGFOOT ST COM 501H) - plan misses target center by 2.1usft at 17600.0usft MD (7543.1 TVD, -634.3 N, 10567.0 E) - Point	0.00	0.00	7,545.0	-634.2	10,567.9	596,483.52	549,510.07	32° 38' 23.038 N	104° 10' 20.979 W

Plan Annotations

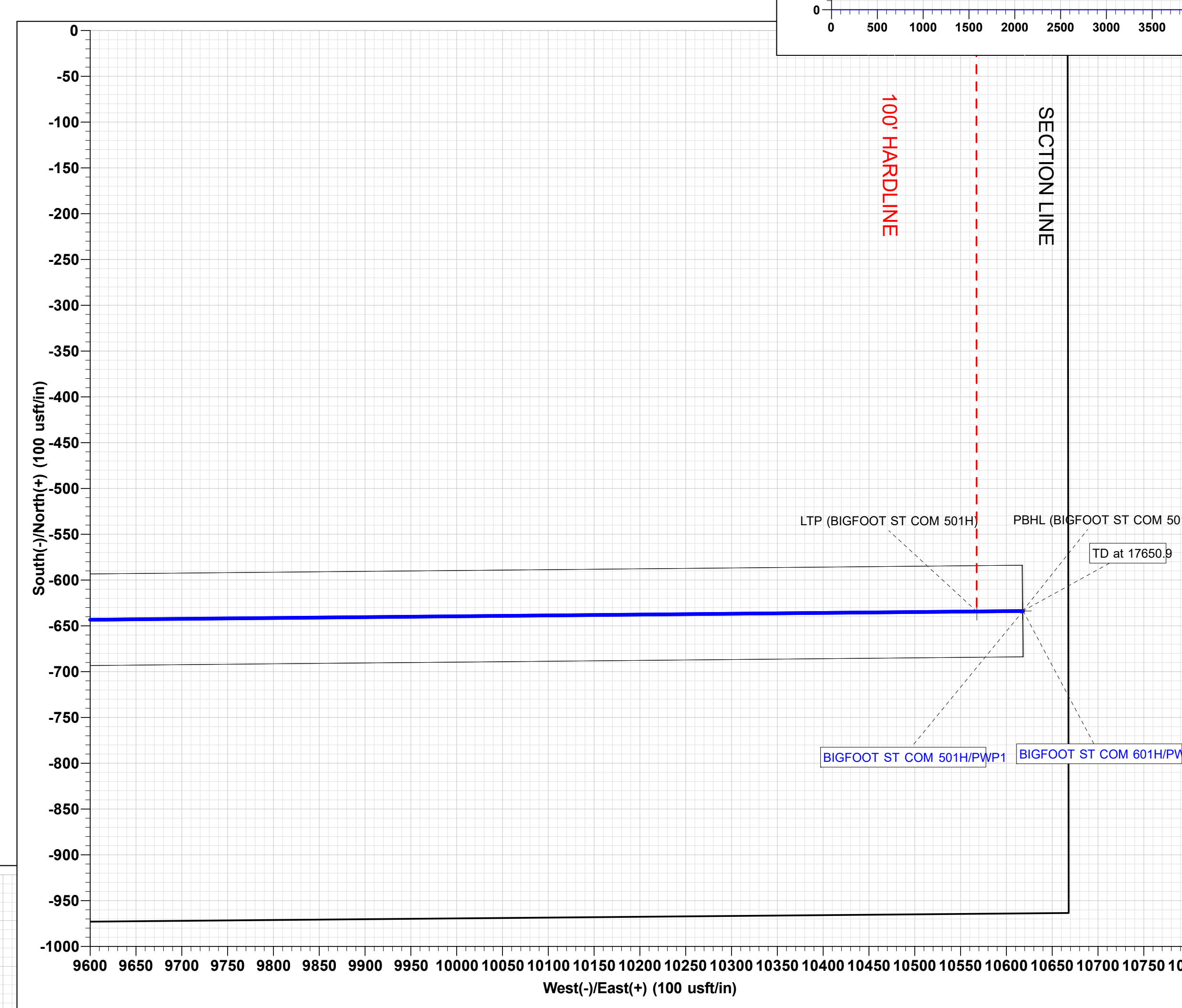
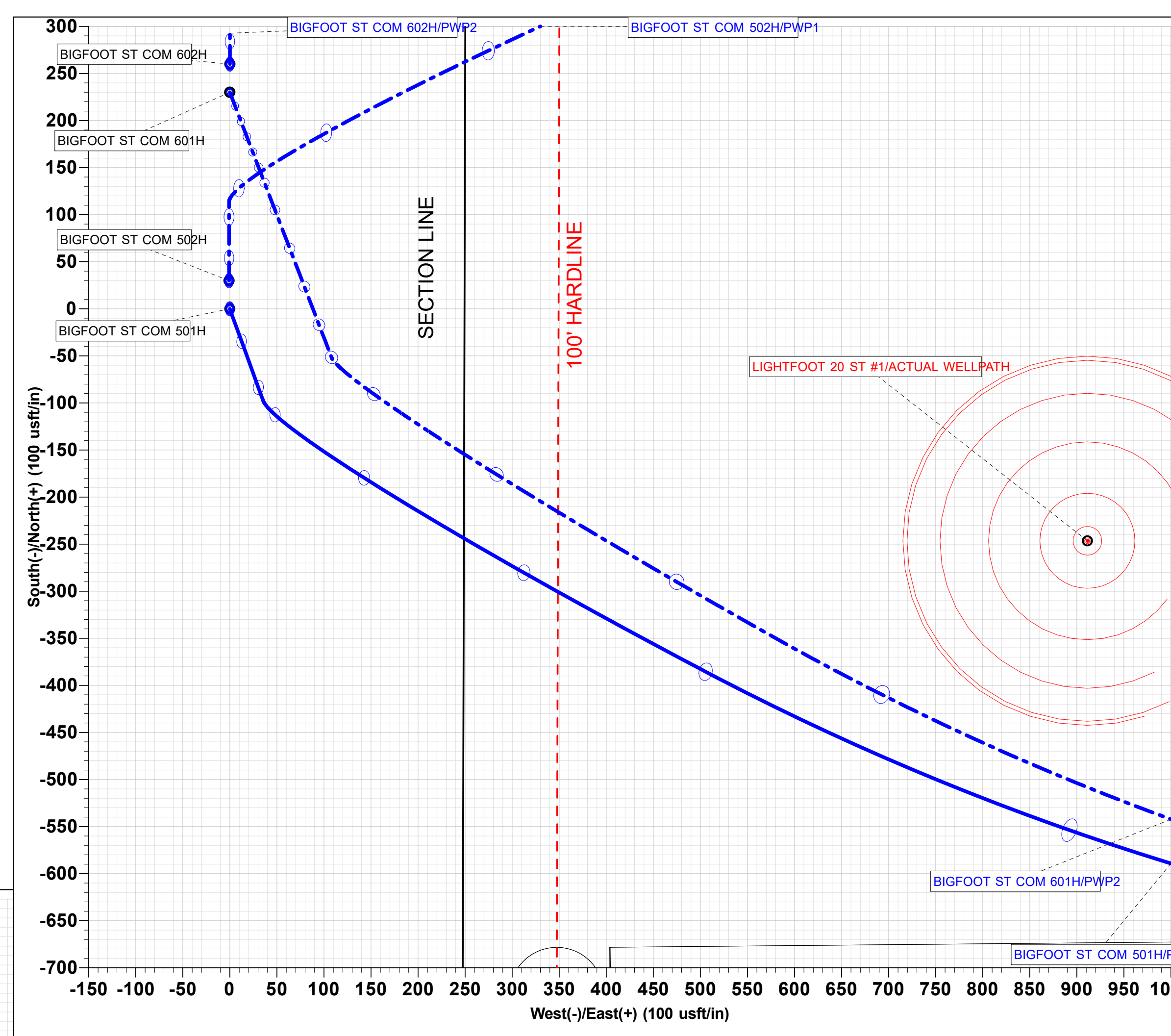
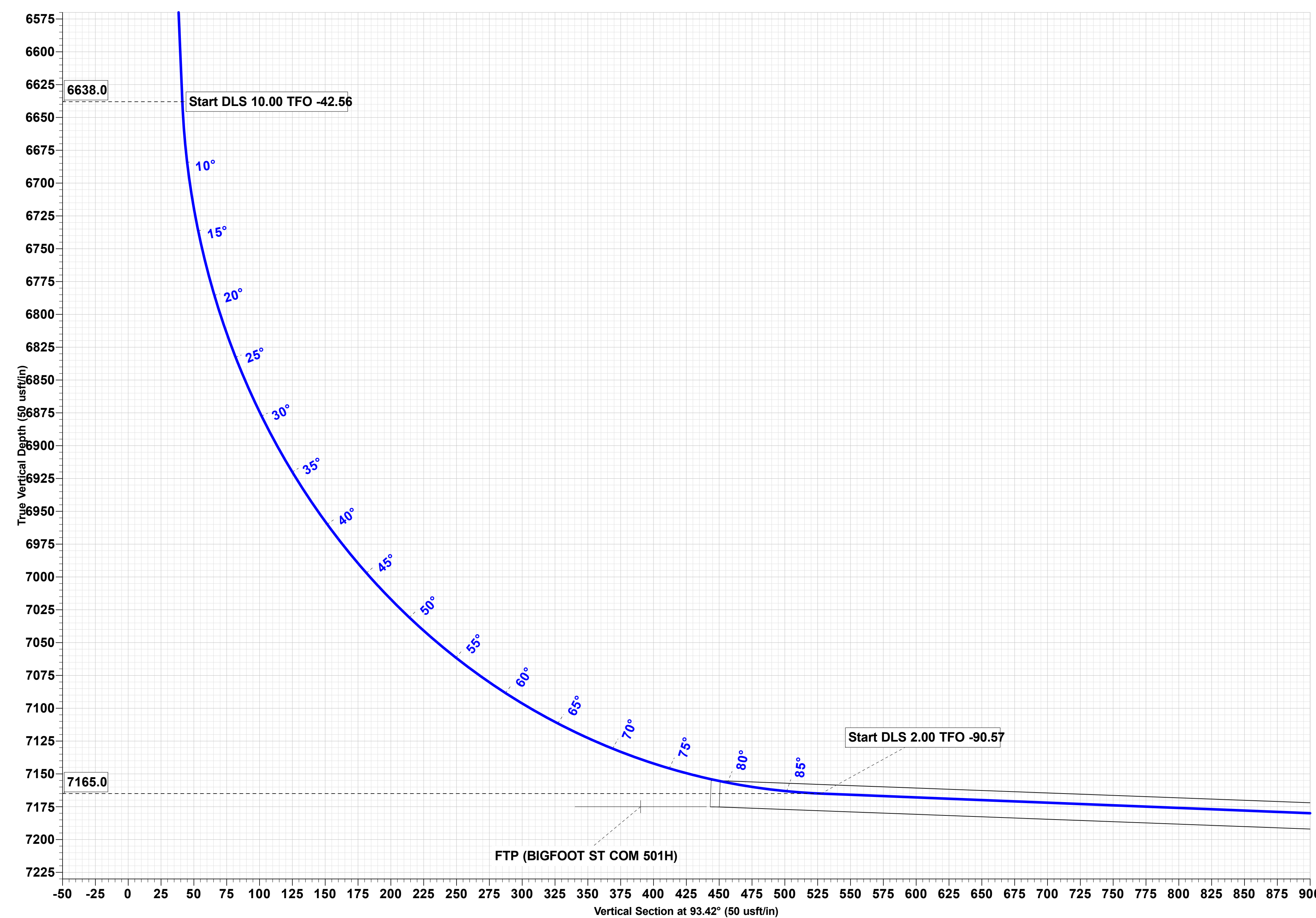
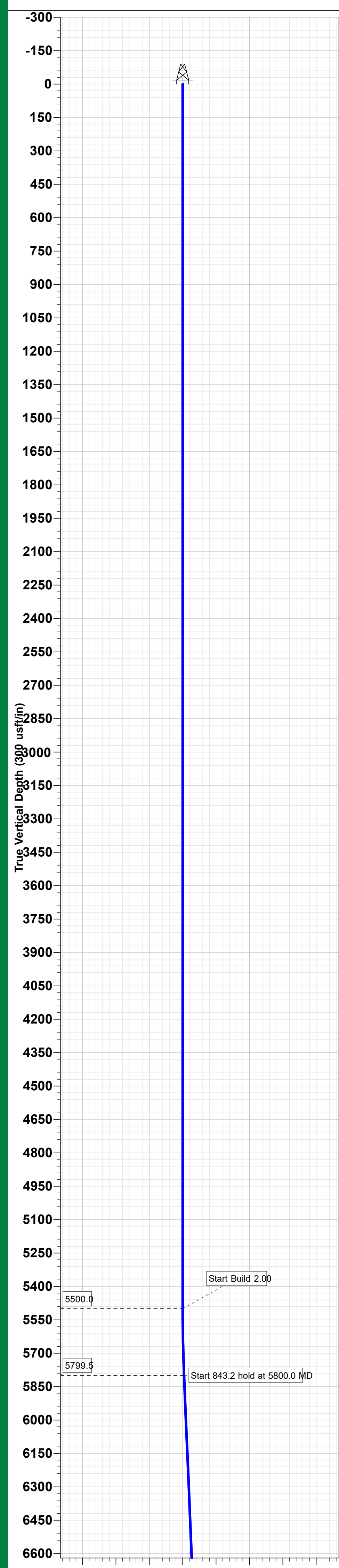
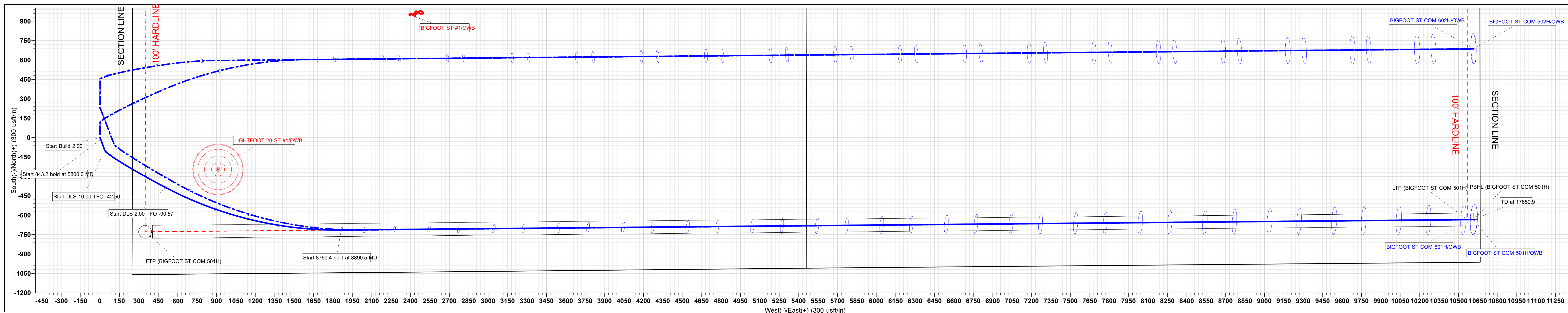
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5500	5500	0	0	Start Build 2.00
5800	5799	-15	5	Start 843.2 hold at 5800.0 MD
6643	6638	-98	36	Start DLS 10.00 TFO -42.56
7478	7165	-385	506	Start DLS 2.00 TFO -90.57
8891	7219	-714	1864	Start 8760.4 hold at 8890.5 MD
17,651	7545	-634	10,618	TD at 17650.9

Checked By: _____ Approved By: _____ Date: _____

Project: EDDY COUNTY, NM
Site: ZEUS
Well: BIGFOOT ST COM 501H
Wellbore: OWB
Design: PWP1
GL: 3502.0
KB=28' @ 3530.0usft (TBD)

WELL DETAILS: BIGFOOT ST COM 501H

Northing 597117.75 Easting 538942.19 Latitude 32° 38' 29.455 N Longitude 104° 12' 24.561 W



BIGFOOT ST COM 501H										Annotation
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		Start Build 2.00
5500.0	0.00	0.00	5500.0	0.0	0.0	0.00	0.00	0.0		
5800.0	6.00	160.00	5799.5	-14.7	5.4	2.00	160.00	6.2		Start 843.2 hold at 5800.0 MD
6643.2	6.00	160.00	6638.0	-97.6	35.5	0.00	0.00	41.3		Start DLS 10.00 TFO -42.56
7477.6	87.88	117.75	7165.0	-385.5	505.6	10.00	-42.56	527.7		Start DLS 2.00 TFO -90.57
8890.5	87.86	89.47	7218.6	-714.4	1863.9	2.00	-90.57	1903.2		Start 8760.4 hold at 8890.5 MD
17650.9	87.86	89.47	7545.0	-633.8	10617.9	0.00	0.00	10636.8		TD at 17650.9

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (BIGFOOT ST COM 501H)	7175.0	-728.3	347.5	596389.46	539289.64
LTP (BIGFOOT ST COM 501H)	7545.0	-634.2	10567.9	596483.52	549510.07
PBHL (BIGFOOT ST COM 501H)	7545.0	-633.8	10617.9	596483.96	549560.07

