

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM124664
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
Contact: STAN WAGNER E-Mail: swagner@concho.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701-4287	3b. Phone No. (include area code) Ph: 432.253.9685	8. Well Name and No. GUNNER 8 FEDERAL COM 402H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 5 T26S R34E NWNW 430FNL 958FWL 32.078548 N Lat, 103.497375 W Lon		9. API Well No. 30-025-46761-00-X1
		10. Field and Pool or Exploratory Area WC025G09S263406D-LOWER BS
		11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

COG Operating requests an amendment to our approved APD for this well to reflect a change in BHL as attached.

Change BHL to: 50' FSL & 330' FWL SWSW 8-26S-34E Lea Co, NM.

Entered - KMS NMOC

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #538185 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Hobbs Committed to AFMS for processing by PRISCILLA PEREZ on 11/30/2020 (21PP0619SE)	
Name (Printed/Typed) STAN WAGNER	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 11/20/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JENNIFER SANCHEZ	Title PETROLEUM ENGINEER	Date 11/30/2020
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

DISTRICT I
1825 N. FRENCH DR., HOBBS, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-8720

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) 478-3480 Fax: (505) 478-3482

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 30-025-46761	Pool Code 98038	Pool Name WC-025 G-09 S263406D; Lower Bone Spring
Property Code 39912	Property Name GUNNER 8 FEDERAL COM	Well Number 402H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3339.0'

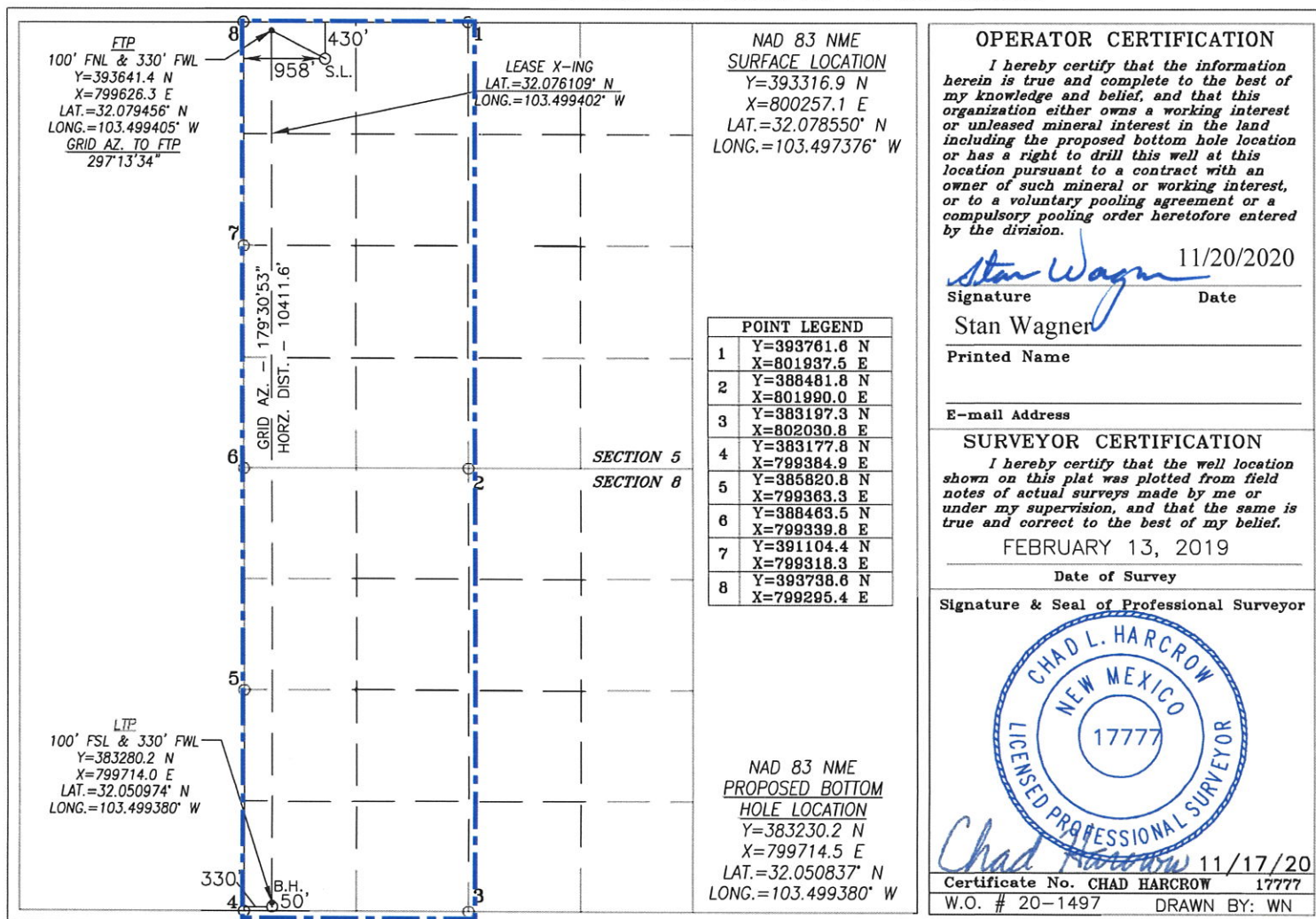
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	5	26-S	34-E		430	NORTH	958	WEST	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
M	8	26-S	34-E		50	SOUTH	330	WEST	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



Intent ☒ As Drilled ☐

API #
30-025-46759

Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	402H

Kick Off Point (KOP)

UL D	Section 5	Township 26S	Range 34E	Lot	Feet	From N/S	Feet	From E/W	County Lea
Latitude					Longitude			NAD 83	

First Take Point (FTP)

UL D	Section 5	Township 26S	Range 34E	Lot	Feet 100	From N/S North	Feet 330	From E/W West	County Lea
Latitude 32.079456					Longitude -103.499405			NAD NAD 83	

Last Take Point (LTP)

UL M	Section 8	Township 26S	Range 34E	Lot	Feet 100	From N/S South	Feet 330	From E/W West	County Lea
Latitude 32.050974					Longitude -103.499380			NAD NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ No

Is this well an infill well? ☐ Yes

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

API #
30-025-

Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	403H

KZ 06/29/2018

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OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3339.0'

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UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	8	26-S	34-E		50	SOUTH	330	WEST	LEA

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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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

FTP 100' FNL & 330' FWL Y=393641.4 N X=799626.3 E LAT.=32.079456° N LONG.=103.499405° W GRID AZ. TO FTP 297°13'34" LEASE X-ING LAT.=32.076109° N LONG.=103.499402° W GRID AZ. - 179°30'53" HORIZ. DIST. - 104°11.6" SECTION 5 SECTION 8 LTP 100' FSL & 330' FWL Y=383280.2 N X=799714.0 E LAT.=32.050974° N LONG.=103.499380° W 330' B.H. 50'	NAD 83 NME SURFACE LOCATION Y=393316.9 N X=800257.1 E LAT.=32.078550° N LONG.=103.497376° W <table border="1"><thead><tr><th colspan="2">POINT LEGEND</th></tr></thead><tbody><tr><td>1</td><td>Y=393761.6 N X=801937.5 E</td></tr><tr><td>2</td><td>Y=388481.8 N X=801990.0 E</td></tr><tr><td>3</td><td>Y=383197.3 N X=802030.8 E</td></tr><tr><td>4</td><td>Y=383177.8 N X=799384.9 E</td></tr><tr><td>5</td><td>Y=385820.8 N X=799363.3 E</td></tr><tr><td>6</td><td>Y=388463.5 N X=799399.8 E</td></tr><tr><td>7</td><td>Y=391104.4 N X=799318.3 E</td></tr><tr><td>8</td><td>Y=393738.6 N X=799295.4 E</td></tr></tbody></table> NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=383230.2 N X=799714.5 E LAT.=32.050837° N LONG.=103.499380° W	POINT LEGEND		1	Y=393761.6 N X=801937.5 E	2	Y=388481.8 N X=801990.0 E	3	Y=383197.3 N X=802030.8 E	4	Y=383177.8 N X=799384.9 E	5	Y=385820.8 N X=799363.3 E	6	Y=388463.5 N X=799399.8 E	7	Y=391104.4 N X=799318.3 E	8	Y=393738.6 N X=799295.4 E	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and 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 such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 11/20/2020 Signature Date Stan Wagner Printed Name E-mail Address SURVEYOR CERTIFICATION 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. FEBRUARY 13, 2019 Date of Survey Signature & Seal of Professional Surveyor <i>Chad L. Harcrow</i> 11/17/20 Certificate No. CHAD HARCROW 17777 W.O. # 20-1497 DRAWN BY: WN
POINT LEGEND																				
1	Y=393761.6 N X=801937.5 E																			
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Intent ☒ As Drilled ☐

API #
30-025-46759

Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	402H

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API #
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Operator Name:	Property Name:	Well Number
COG Operating LLC	Gunner 8 Federal Com	403H

KZ 06/29/2018

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

GUNNER FEDERAL PROJECT (BULLDOG 2634)

GUNNER 8 FEDERAL COM 402H

OWB

PWP1

Anticollision Report

19 November, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference	PWP1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 2,000.0 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	11/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	20,917.2	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
GUNNER FEDERAL PROJECT (BULLDOG 2634)						
GUNNER 8 FED COM 604H - OWB - AWP	4,052.4	4,048.8	204.4	185.5	10.794	CC, ES
GUNNER 8 FED COM 604H - OWB - AWP	4,300.0	4,291.1	210.4	190.5	10.579	SF
GUNNER 8 FED COM 705H - OWB - AWP	10,365.9	10,342.6	103.7	58.7	2.305	CC, ES, SF
GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL WEL	9,789.7	19,727.0	537.6	339.5	2.715	CC
GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL WEL	9,800.0	19,727.0	537.7	339.4	2.712	ES, SF
GUNNER 8 FEDERAL COM 302H - OWB - PWP1	2,500.0	2,499.5	30.0	17.3	2.366	CC, ES, SF

Offset Design		GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 604H - OWB - AWP											Offset Site Error:	0.0 usft
Survey Program:		100-Standard Keeper 104, 11958-MWD+IFR1+FDIR											Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	-66.16	176.5	-399.5	436.9					
100.0	100.0	90.9	90.9	3.0	3.0	-66.21	176.1	-399.6	436.7	430.7	6.00	72.751		
200.0	200.0	190.8	190.8	3.0	3.0	-66.34	175.2	-399.8	436.5	430.4	6.04	72.260		
300.0	300.0	291.6	291.6	3.1	3.0	-66.48	174.1	-400.1	436.3	430.2	6.12	71.287		
400.0	400.0	392.0	392.0	3.2	3.0	-66.61	173.1	-400.2	436.0	429.8	6.24	69.866		
500.0	500.0	491.0	490.9	3.4	3.1	-66.72	172.2	-400.3	435.8	429.4	6.40	68.114		
600.0	600.0	590.7	590.7	3.6	3.1	-66.85	171.3	-400.7	435.7	429.2	6.59	66.170		
658.9	658.9	649.3	649.3	3.7	3.1	-66.91	170.9	-400.8	435.7	429.0	6.71	64.943		
700.0	700.0	690.4	690.3	3.8	3.1	-66.93	170.7	-400.9	435.7	428.9	6.80	64.077		
800.0	800.0	790.0	790.0	4.0	3.1	-66.98	170.4	-401.1	435.8	428.7	7.04	61.928		
900.0	900.0	891.2	891.2	4.2	3.2	-67.02	170.1	-401.1	435.6	428.3	7.30	59.707		
1,000.0	1,000.0	992.7	992.7	4.5	3.2	-67.01	169.9	-400.5	435.1	427.5	7.58	57.419		
1,100.0	1,100.0	1,093.6	1,093.5	4.8	3.2	-67.01	169.7	-399.9	434.5	426.6	7.88	55.154		
1,200.0	1,200.0	1,192.6	1,192.5	5.1	3.2	-67.00	169.5	-399.4	433.9	425.7	8.19	52.968		
1,300.0	1,300.0	1,293.0	1,292.9	5.3	3.3	-67.00	169.3	-398.9	433.3	424.8	8.52	50.855		
1,400.0	1,400.0	1,393.3	1,393.2	5.6	3.3	-66.99	169.1	-398.1	432.5	423.7	8.86	48.810		
1,500.0	1,500.0	1,494.2	1,494.2	6.0	3.4	-66.99	168.8	-397.4	431.8	422.6	9.21	46.863		
1,600.0	1,600.0	1,592.7	1,592.7	6.3	3.4	-66.96	168.7	-396.7	431.1	421.5	9.57	45.025		
1,700.0	1,700.0	1,693.3	1,693.3	6.6	3.4	-66.90	168.8	-395.9	430.4	420.5	9.94	43.290		
1,800.0	1,800.0	1,793.0	1,793.0	6.9	3.5	-66.79	169.4	-395.0	429.7	419.4	10.31	41.687		
1,900.0	1,900.0	1,891.8	1,891.8	7.2	3.5	-66.64	170.2	-394.1	429.2	418.6	10.67	40.218		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 604H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11958-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,000.0	2,000.0	1,991.8	1,991.7	7.6	3.5	-66.46	171.3	-393.2	428.9	417.9	11.04	38.868	
2,100.0	2,100.0	2,104.0	2,103.9	7.9	3.5	-65.98	173.6	-389.6	426.7	415.3	11.41	37.386	
2,200.0	2,200.0	2,205.4	2,205.1	8.2	3.6	-65.37	176.4	-384.6	423.3	411.5	11.80	35.878	
2,300.0	2,300.0	2,316.0	2,315.4	8.6	3.6	-64.64	179.3	-378.2	419.3	407.2	12.19	34.414	
2,400.0	2,400.0	2,429.0	2,427.9	8.9	3.7	-63.63	181.9	-366.8	411.1	398.5	12.57	32.702	
2,500.0	2,500.0	2,532.9	2,531.0	9.2	3.8	-62.57	183.9	-354.5	401.4	388.4	12.97	30.956	
2,600.0	2,600.0	2,634.1	2,631.3	9.6	3.9	9.08	185.9	-341.6	389.4	376.0	13.36	29.136	
2,700.0	2,699.8	2,734.5	2,730.8	9.9	3.9	10.58	188.2	-328.1	373.6	359.8	13.76	27.155	
2,733.0	2,732.8	2,766.6	2,762.5	10.0	4.0	11.14	189.0	-323.6	367.6	353.7	13.89	26.462	
2,800.0	2,799.5	2,833.3	2,828.6	10.2	4.0	12.38	191.0	-314.1	355.2	341.0	14.15	25.094	
2,900.0	2,899.2	2,932.3	2,926.3	10.6	4.1	14.51	194.2	-299.2	336.4	321.8	14.55	23.124	
3,000.0	2,998.9	3,026.9	3,019.9	10.9	4.2	16.80	197.6	-285.3	318.5	303.6	14.95	21.305	
3,100.0	3,098.5	3,124.7	3,116.6	11.2	4.2	19.40	201.1	-271.1	301.5	286.1	15.35	19.645	
3,200.0	3,198.2	3,225.8	3,216.3	11.6	4.3	22.71	205.5	-255.1	284.6	268.9	15.73	18.093	
3,300.0	3,297.9	3,323.9	3,312.9	11.9	4.4	26.53	209.9	-238.2	267.8	251.7	16.12	16.614	
3,400.0	3,397.5	3,418.7	3,406.2	12.3	4.5	30.60	213.8	-222.1	252.3	235.8	16.52	15.273	
3,500.0	3,497.2	3,515.1	3,501.3	12.6	4.6	35.01	218.0	-206.9	239.1	222.2	16.90	14.146	
3,600.0	3,596.9	3,611.9	3,596.8	13.0	4.7	39.98	222.5	-191.4	227.7	210.5	17.28	13.177	
3,700.0	3,696.5	3,706.9	3,690.7	13.3	4.7	44.75	226.4	-178.3	218.8	201.1	17.66	12.390	
3,800.0	3,796.2	3,804.1	3,787.2	13.6	4.8	49.49	230.3	-166.9	212.2	194.2	18.02	11.777	
3,900.0	3,895.9	3,901.8	3,884.1	14.0	4.9	54.39	234.2	-155.8	207.4	189.0	18.39	11.281	
4,000.0	3,995.6	3,998.7	3,980.4	14.3	5.0	59.17	238.4	-145.8	204.8	186.1	18.75	10.924	
4,052.4	4,047.8	4,048.8	4,030.3	14.5	5.1	61.57	240.9	-141.2	204.4	185.5	18.94	10.794 CC, ES	
4,100.0	4,095.2	4,095.8	4,077.0	14.7	5.1	63.81	243.5	-136.8	204.6	185.5	19.11	10.705	
4,200.0	4,194.9	4,192.1	4,172.6	15.0	5.2	68.61	249.4	-127.1	206.8	187.3	19.49	10.609	
4,300.0	4,294.6	4,291.1	4,270.9	15.4	5.3	73.57	255.3	-116.5	210.4	190.5	19.88	10.579 SF	
4,400.0	4,394.2	4,390.8	4,369.8	15.7	5.4	78.41	261.1	-105.7	215.3	195.0	20.30	10.606	
4,500.0	4,493.9	4,493.0	4,471.4	16.1	5.5	83.12	265.3	-95.1	220.0	199.2	20.75	10.602	
4,600.0	4,593.6	4,591.1	4,569.0	16.4	5.6	87.20	269.0	-85.9	225.5	204.3	21.18	10.642	
4,700.0	4,693.2	4,690.5	4,667.8	16.8	5.7	91.09	273.1	-76.6	232.3	210.7	21.64	10.734	
4,800.0	4,792.9	4,794.5	4,771.5	17.2	5.8	94.90	275.7	-67.7	238.3	216.2	22.13	10.771	
4,900.0	4,892.6	4,892.6	4,869.2	17.5	5.9	98.30	277.5	-59.6	244.7	222.1	22.59	10.830	
5,000.0	4,992.2	4,995.5	4,971.8	17.9	6.0	101.84	278.3	-50.9	251.0	227.9	23.09	10.871	
5,100.0	5,091.9	5,094.1	5,070.0	18.2	6.1	105.20	278.3	-42.5	257.6	234.0	23.57	10.929	
5,200.0	5,191.6	5,194.2	5,169.8	18.6	6.3	108.19	278.6	-35.0	264.6	240.6	24.06	11.000	
5,300.0	5,291.3	5,295.1	5,270.5	18.9	6.4	110.87	278.9	-28.5	271.7	247.2	24.55	11.068	
5,400.0	5,390.9	5,394.4	5,369.7	19.3	6.5	113.23	279.4	-22.9	278.9	253.9	25.04	11.141	
5,500.0	5,490.6	5,493.9	5,469.0	19.6	6.6	115.44	280.0	-17.5	286.5	261.0	25.52	11.226	
5,600.0	5,590.3	5,593.4	5,568.4	20.0	6.7	117.50	280.6	-12.3	294.3	268.3	26.01	11.315	
5,700.0	5,689.9	5,694.1	5,668.9	20.3	6.8	119.41	281.3	-7.3	302.4	275.9	26.51	11.408	
5,800.0	5,789.6	5,792.8	5,767.5	20.7	6.9	121.24	281.6	-2.6	310.4	283.4	26.99	11.500	
5,900.0	5,889.3	5,892.7	5,867.3	21.1	7.0	122.88	282.4	1.9	318.7	291.3	27.48	11.598	
6,000.0	5,988.9	5,993.3	5,967.8	21.4	7.2	124.37	283.4	5.9	327.0	299.1	27.98	11.689	
6,100.0	6,088.6	6,091.5	6,065.9	21.8	7.3	125.76	284.3	9.7	335.4	307.0	28.46	11.785	
6,200.0	6,188.3	6,191.5	6,165.8	22.1	7.4	127.06	285.5	13.5	344.1	315.1	28.96	11.882	
6,300.0	6,287.9	6,292.0	6,266.3	22.5	7.5	128.40	286.0	17.4	352.6	323.2	29.46	11.971	
6,400.0	6,387.6	6,390.9	6,365.1	22.8	7.6	129.68	286.4	21.3	361.3	331.3	29.94	12.065	
6,500.0	6,487.3	6,490.2	6,464.3	23.2	7.7	131.00	286.2	25.6	370.2	339.8	30.43	12.166	
6,600.0	6,587.0	6,588.3	6,562.3	23.6	7.8	132.26	286.1	30.0	379.5	348.6	30.91	12.275	
6,700.0	6,686.6	6,688.3	6,662.2	23.9	8.0	133.45	286.1	34.3	388.8	357.4	31.41	12.381	
6,800.0	6,786.3	6,787.4	6,761.2	24.3	8.1	134.43	287.0	38.2	398.4	366.6	31.90	12.492	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 604H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11958-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,900.0	6,886.0	6,886.5	6,860.3	24.6	8.2	135.36	287.9	42.0	408.0	375.7	32.39	12.599		
7,000.0	6,985.6	6,985.8	6,959.5	25.0	8.3	136.23	289.0	45.8	417.9	385.0	32.88	12.709		
7,100.0	7,085.3	7,086.6	7,060.2	25.4	8.4	137.03	290.3	49.4	427.5	394.1	33.38	12.809		
7,200.0	7,185.0	7,185.6	7,159.2	25.7	8.5	137.79	291.4	52.9	437.2	403.3	33.86	12.909		
7,300.0	7,284.6	7,285.6	7,259.1	26.1	8.7	138.50	292.8	56.2	446.9	412.5	34.36	13.007		
7,400.0	7,384.3	7,386.1	7,359.5	26.4	8.8	139.12	294.5	59.3	456.5	421.6	34.85	13.098		
7,500.0	7,484.0	7,485.0	7,458.3	26.8	8.9	139.71	296.3	62.3	466.1	430.8	35.33	13.193		
7,600.0	7,583.6	7,585.7	7,559.0	27.1	9.0	140.28	298.0	65.1	475.5	439.7	35.83	13.274		
7,700.0	7,683.3	7,675.0	7,648.2	27.5	9.1	140.80	299.3	68.0	485.4	449.1	36.26	13.387		
7,800.0	7,783.0	7,766.8	7,739.9	27.9	9.2	141.44	300.5	74.0	498.2	461.5	36.70	13.575		
7,900.0	7,882.7	7,865.8	7,838.6	28.2	9.3	142.11	301.8	80.5	511.3	474.2	37.19	13.749		
8,000.0	7,982.3	7,969.8	7,942.4	28.6	9.5	142.78	303.0	87.0	524.1	486.4	37.70	13.899		
8,100.0	8,082.0	8,072.9	8,045.3	28.9	9.6	143.41	303.9	92.6	536.0	497.8	38.21	14.027		
8,200.0	8,181.7	8,179.0	8,151.3	29.3	9.7	144.03	304.5	97.3	547.0	508.2	38.73	14.122		
8,300.0	8,281.3	8,281.8	8,254.1	29.7	9.8	144.64	304.6	101.0	557.0	517.8	39.23	14.198		
8,400.0	8,381.0	8,382.0	8,354.2	30.0	10.0	145.22	304.4	104.1	566.6	526.9	39.72	14.265		
8,500.0	8,480.7	8,479.6	8,451.8	30.4	10.1	145.76	304.3	107.2	576.3	536.2	40.20	14.338		
8,600.0	8,580.3	8,557.6	8,529.6	30.7	10.2	146.28	303.8	111.9	588.7	548.1	40.57	14.511		
8,700.0	8,680.0	8,657.9	8,629.6	31.1	10.3	146.97	302.9	119.4	602.5	561.4	41.06	14.674		
8,800.0	8,779.7	8,760.7	8,732.2	31.5	10.4	147.66	301.7	126.5	615.8	574.2	41.56	14.817		
8,900.0	8,879.3	8,854.5	8,825.7	31.8	10.5	148.25	300.7	132.7	628.9	586.9	42.01	14.970		
9,000.0	8,979.0	8,942.6	8,913.6	32.2	10.6	148.55	302.6	139.9	644.2	601.7	42.43	15.181		
9,100.0	9,078.7	9,046.9	9,017.5	32.6	10.8	148.88	305.0	148.2	659.4	616.4	42.94	15.354		
9,200.0	9,178.4	9,152.1	9,122.4	32.9	10.9	149.22	307.0	155.6	673.6	630.1	43.46	15.498		
9,300.0	9,278.0	9,237.5	9,207.6	33.3	11.0	149.47	308.7	161.5	687.8	644.0	43.87	15.679		
9,400.0	9,377.7	9,323.2	9,292.8	33.6	11.1	149.74	310.6	170.2	705.1	660.8	44.28	15.923		
9,500.0	9,477.4	9,434.7	9,403.8	34.0	11.3	150.09	312.9	180.8	721.8	677.0	44.83	16.100		
9,600.0	9,577.0	9,547.0	9,515.8	34.4	11.4	150.40	315.0	189.4	736.7	691.3	45.38	16.232		
9,700.0	9,676.7	9,640.9	9,609.4	34.7	11.5	150.67	316.5	196.0	750.9	705.0	45.84	16.380		
9,800.0	9,776.4	9,753.3	9,721.5	35.1	11.7	151.03	317.5	204.0	765.2	718.8	46.39	16.494		
9,900.0	9,876.0	9,857.9	9,826.0	35.4	11.8	151.31	318.8	209.5	777.7	730.8	46.90	16.581		
10,000.0	9,975.7	9,935.7	9,903.6	35.8	11.9	151.51	319.8	214.5	791.3	744.0	47.28	16.737		
10,100.0	10,075.4	10,043.5	10,011.1	36.2	12.0	151.82	321.0	222.7	806.2	758.4	47.81	16.864		
10,200.0	10,175.1	10,154.7	10,122.1	36.5	12.2	152.09	322.4	229.0	819.1	770.7	48.35	16.941		
10,300.0	10,274.7	10,231.2	10,198.4	36.9	12.2	152.30	323.0	234.1	832.9	784.2	48.72	17.095		
10,335.1	10,309.7	10,267.0	10,234.0	37.0	12.3	152.41	323.1	237.0	838.3	789.4	48.90	17.143		
10,350.0	10,324.6	10,283.5	10,250.5	37.1	12.3	175.21	323.2	238.3	840.5	791.5	48.98	17.161		
10,375.0	10,349.5	10,311.4	10,278.4	37.2	12.3	-150.85	323.4	240.3	844.4	795.2	49.11	17.193		
10,400.0	10,374.3	10,338.0	10,304.9	37.2	12.4	-131.91	323.7	242.2	848.3	799.0	49.24	17.229		
10,425.0	10,399.0	10,363.6	10,330.4	37.3	12.4	-121.88	324.1	244.0	852.3	803.0	49.35	17.269		
10,450.0	10,423.5	10,388.9	10,355.6	37.4	12.4	-116.00	324.4	245.7	856.5	807.0	49.47	17.313		
10,475.0	10,447.7	10,413.2	10,379.9	37.5	12.5	-112.21	324.6	247.3	860.8	811.2	49.58	17.362		
10,500.0	10,471.6	10,436.2	10,402.9	37.6	12.5	-109.59	324.9	248.8	865.3	815.6	49.68	17.417		
10,525.0	10,495.1	10,450.0	10,416.6	37.6	12.5	-107.49	325.0	249.8	870.0	820.3	49.74	17.492		
10,550.0	10,518.1	10,467.5	10,434.1	37.7	12.5	-105.91	325.1	251.1	875.1	825.3	49.81	17.570		
10,575.0	10,540.5	10,475.0	10,441.5	37.8	12.6	-104.34	325.1	251.8	880.8	831.0	49.83	17.676		
10,600.0	10,562.4	10,491.6	10,458.0	37.8	12.6	-103.23	325.1	253.5	886.9	837.0	49.89	17.776		
10,625.0	10,583.6	10,504.9	10,471.3	37.9	12.6	-102.17	325.1	255.0	893.5	843.5	49.94	17.892		
10,650.0	10,604.1	10,522.9	10,489.1	38.0	12.6	-101.37	325.1	257.1	900.4	850.4	50.00	18.007		
10,675.0	10,623.8	10,542.2	10,508.3	38.0	12.6	-100.72	325.0	259.5	907.7	857.6	50.07	18.127		
10,700.0	10,642.7	10,560.9	10,526.9	38.1	12.7	-100.13	324.9	261.8	915.3	865.1	50.14	18.255		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 604H - OWB - AWP											Offset Site Error:		0.0 usft
Survey Program: 100-Standard Keeper 104, 11958-MWD+IFR1+FDIR											Offset Well Error:		3.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,725.0	10,660.7	10,578.7	10,544.5	38.1	12.7	-99.56	324.8	263.9	923.2	873.0	50.20	18.392	
10,750.0	10,677.8	10,595.3	10,561.0	38.2	12.7	-98.97	324.8	265.9	931.5	881.2	50.24	18.539	
10,775.0	10,693.9	10,613.1	10,578.6	38.2	12.7	-98.47	324.8	268.1	940.1	889.8	50.29	18.692	
10,800.0	10,709.0	10,630.6	10,596.1	38.3	12.8	-97.98	324.7	270.1	949.1	898.7	50.34	18.853	
10,825.0	10,723.1	10,647.0	10,612.3	38.3	12.8	-97.43	324.7	272.0	958.4	908.1	50.38	19.024	
10,850.0	10,736.0	10,662.8	10,628.1	38.3	12.8	-96.85	324.7	273.8	968.2	917.8	50.41	19.205	
10,875.0	10,747.9	10,677.5	10,642.7	38.4	12.8	-96.20	324.7	275.3	978.3	927.8	50.43	19.397	
10,900.0	10,758.5	10,689.5	10,654.6	38.4	12.8	-95.36	324.7	276.6	988.8	938.4	50.44	19.603	
10,925.0	10,768.0	10,700.3	10,665.3	38.5	12.8	-94.43	324.7	277.7	999.7	949.3	50.44	19.820	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 705H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 12070-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-67.69	176.3	-429.6	464.5				
100.0	100.0	91.7	91.7	3.0	3.0	-67.72	176.0	-429.5	464.2	458.2	6.00	77.332	
200.0	200.0	191.8	191.8	3.0	3.0	-67.81	175.2	-429.4	463.8	457.8	6.04	76.775	
300.0	300.0	291.6	291.6	3.1	3.0	-67.93	174.2	-429.5	463.4	457.3	6.12	75.698	
400.0	400.0	391.2	391.2	3.2	3.0	-68.03	173.2	-429.5	463.1	456.9	6.24	74.173	
500.0	500.0	490.1	490.1	3.4	3.1	-68.14	172.4	-429.7	463.0	456.6	6.40	72.347	
508.9	508.9	498.9	498.9	3.4	3.1	-68.15	172.3	-429.8	463.0	456.6	6.42	72.173	
600.0	600.0	588.4	588.4	3.6	3.1	-68.26	171.6	-430.2	463.2	456.6	6.59	70.328	
700.0	700.0	687.9	687.8	3.8	3.1	-68.39	170.8	-431.1	463.7	456.9	6.80	68.198	
800.0	800.0	787.7	787.7	4.0	3.1	-68.51	170.0	-431.9	464.1	457.1	7.04	65.972	
900.0	900.0	888.1	888.1	4.2	3.2	-68.64	169.2	-432.7	464.6	457.3	7.29	63.704	
1,000.0	1,000.0	988.5	988.5	4.5	3.2	-68.78	168.3	-433.5	465.0	457.4	7.57	61.446	
1,100.0	1,100.0	1,088.0	1,087.9	4.8	3.3	-68.92	167.4	-434.2	465.3	457.5	7.86	59.229	
1,200.0	1,200.0	1,178.6	1,178.6	5.1	3.3	-69.01	167.0	-435.2	466.3	458.2	8.16	57.175	
1,300.0	1,300.0	1,271.2	1,271.1	5.3	3.3	-68.88	169.2	-438.1	470.0	461.5	8.47	55.505	
1,400.0	1,400.0	1,371.3	1,371.1	5.6	3.3	-68.69	172.1	-441.2	474.0	465.2	8.80	53.884	
1,500.0	1,500.0	1,471.5	1,471.2	6.0	3.3	-68.51	175.0	-444.3	477.9	468.8	9.14	52.311	
1,600.0	1,600.0	1,572.3	1,571.9	6.3	3.4	-68.33	177.7	-447.3	481.7	472.2	9.49	50.783	
1,700.0	1,700.0	1,671.3	1,670.8	6.6	3.4	-68.16	180.6	-450.7	485.9	476.1	9.84	49.372	
1,800.0	1,800.0	1,770.4	1,769.8	6.9	3.4	-67.98	183.5	-453.8	490.0	479.8	10.21	48.002	
1,900.0	1,900.0	1,868.5	1,867.8	7.2	3.5	-67.79	186.7	-457.2	494.3	483.7	10.58	46.728	
2,000.0	2,000.0	1,967.0	1,966.1	7.6	3.5	-67.58	190.0	-460.6	498.8	487.9	10.96	45.534	
2,100.0	2,100.0	2,068.9	2,068.0	7.9	3.6	-67.36	193.6	-464.2	503.4	492.1	11.34	44.381	
2,200.0	2,200.0	2,169.3	2,168.2	8.2	3.6	-67.14	197.1	-467.5	507.9	496.1	11.73	43.280	
2,300.0	2,300.0	2,269.9	2,268.7	8.6	3.7	-66.87	201.0	-470.5	512.1	500.0	12.13	42.222	
2,400.0	2,400.0	2,370.0	2,368.7	8.9	3.7	-66.53	205.5	-473.2	516.4	503.8	12.53	41.224	
2,500.0	2,500.0	2,469.9	2,468.4	9.2	3.8	-66.14	210.4	-475.6	520.5	507.6	12.92	40.276	
2,600.0	2,600.0	2,573.9	2,572.3	9.6	3.8	4.75	215.6	-477.6	522.6	509.3	13.32	39.228	
2,700.0	2,699.8	2,676.3	2,674.5	9.9	3.8	5.31	221.1	-478.6	520.5	506.8	13.71	37.961	
2,733.0	2,732.8	2,708.8	2,707.0	10.0	3.9	5.50	222.9	-478.8	519.0	505.1	13.84	37.504	
2,800.0	2,799.5	2,775.4	2,773.5	10.2	3.9	5.91	226.5	-479.3	515.6	501.5	14.10	36.572	
2,900.0	2,899.2	2,875.0	2,872.9	10.6	3.9	6.61	232.8	-479.8	510.6	496.1	14.49	35.250	
3,000.0	2,998.9	2,969.2	2,967.0	10.9	4.0	7.18	238.1	-481.2	506.5	491.6	14.88	34.041	
3,100.0	3,098.5	3,070.7	3,068.3	11.2	4.1	7.78	243.8	-483.1	502.6	487.3	15.29	32.878	
3,200.0	3,198.2	3,177.3	3,174.6	11.6	4.1	8.61	250.8	-483.5	497.9	482.2	15.69	31.729	
3,300.0	3,297.9	3,273.9	3,271.0	11.9	4.2	9.47	257.5	-482.8	492.6	476.5	16.09	30.624	
3,400.0	3,397.5	3,372.1	3,369.0	12.3	4.2	10.25	263.8	-483.2	488.1	471.6	16.49	29.599	
3,500.0	3,497.2	3,464.0	3,460.7	12.6	4.3	11.00	270.4	-484.7	485.1	468.2	16.90	28.711	
3,600.0	3,596.9	3,565.3	3,561.5	13.0	4.4	11.98	278.9	-485.9	482.5	465.2	17.32	27.865	
3,700.0	3,696.5	3,656.1	3,652.0	13.3	4.5	12.85	286.5	-487.3	480.4	462.6	17.72	27.107	
3,782.0	3,778.2	3,734.6	3,730.3	13.6	4.5	13.30	291.8	-491.1	480.2	462.1	18.07	26.572	
3,800.0	3,796.2	3,752.3	3,747.9	13.6	4.5	13.40	292.9	-492.0	480.2	462.0	18.15	26.458	
3,900.0	3,895.9	3,855.2	3,850.5	14.0	4.6	13.84	298.8	-497.8	480.1	461.5	18.59	25.819	
4,000.0	3,995.6	3,956.0	3,950.9	14.3	4.7	13.82	301.0	-505.0	479.4	460.3	19.04	25.182	
4,100.0	4,095.2	4,054.0	4,048.7	14.7	4.8	13.94	304.2	-511.6	478.9	459.4	19.48	24.590	
4,150.3	4,145.3	4,103.0	4,097.6	14.9	4.9	14.09	306.6	-514.5	478.8	459.1	19.70	24.308	
4,200.0	4,194.9	4,150.0	4,144.4	15.0	4.9	14.25	309.0	-517.5	479.0	459.0	19.91	24.053	
4,300.0	4,294.6	4,254.1	4,248.2	15.4	5.0	14.40	312.9	-524.9	479.1	458.7	20.37	23.517	
4,355.9	4,350.3	4,308.7	4,302.6	15.6	5.1	14.33	313.9	-529.3	478.9	458.3	20.62	23.231	
4,400.0	4,394.2	4,350.0	4,343.7	15.7	5.1	14.29	314.8	-532.7	479.0	458.2	20.81	23.024	
4,500.0	4,493.9	4,448.2	4,441.5	16.1	5.2	14.21	317.3	-541.3	479.9	458.6	21.25	22.582	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 705H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 12070-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,600.0	4,593.6	4,580.8	4,573.9	16.4	5.3	14.16	318.6	-548.7	477.0	455.3	21.75	21.932		
4,700.0	4,693.2	4,692.7	4,685.7	16.8	5.4	14.40	318.7	-549.4	469.7	447.5	22.18	21.180		
4,800.0	4,792.9	4,794.7	4,787.7	17.2	5.4	14.88	319.8	-547.7	461.1	438.5	22.54	20.452		
4,900.0	4,892.6	4,906.6	4,899.6	17.5	5.4	15.41	320.0	-544.7	451.2	428.3	22.88	19.722		
5,000.0	4,992.2	5,012.2	5,005.0	17.9	5.4	15.60	316.4	-541.1	438.6	415.4	23.20	18.907		
5,100.0	5,091.9	5,096.3	5,089.1	18.2	5.4	15.72	313.9	-539.2	427.3	403.7	23.57	18.126		
5,200.0	5,191.6	5,194.4	5,187.2	18.6	5.4	15.89	312.4	-538.7	418.1	394.2	23.93	17.473		
5,300.0	5,291.3	5,294.4	5,287.2	18.9	5.4	16.07	310.8	-538.1	408.9	384.6	24.28	16.840		
5,400.0	5,390.9	5,394.1	5,386.9	19.3	5.4	16.28	309.3	-537.4	399.7	375.0	24.64	16.221		
5,500.0	5,490.6	5,492.6	5,485.4	19.6	5.4	16.51	308.0	-536.7	390.6	365.6	25.00	15.623		
5,600.0	5,590.3	5,591.7	5,584.4	20.0	5.4	16.78	307.0	-536.0	381.6	356.2	25.36	15.048		
5,700.0	5,689.9	5,690.0	5,682.7	20.3	5.4	17.08	306.2	-535.6	373.0	347.3	25.72	14.500		
5,800.0	5,789.6	5,787.5	5,780.2	20.7	5.5	17.40	305.6	-535.4	364.8	338.7	26.10	13.977		
5,900.0	5,889.3	5,886.2	5,878.9	21.1	5.5	17.76	305.5	-535.5	357.0	330.5	26.51	13.469		
6,000.0	5,988.9	5,985.5	5,978.2	21.4	5.6	18.12	305.4	-535.8	349.4	322.5	26.93	12.973		
6,100.0	6,088.6	6,085.4	6,078.1	21.8	5.7	18.50	305.3	-536.1	341.9	314.5	27.36	12.494		
6,200.0	6,188.3	6,185.3	6,178.0	22.1	5.8	18.89	305.1	-536.4	334.3	306.5	27.79	12.031		
6,300.0	6,287.9	6,285.1	6,277.8	22.5	5.9	19.31	305.0	-536.6	326.7	298.5	28.21	11.583		
6,400.0	6,387.6	6,384.4	6,377.1	22.8	6.0	19.73	304.8	-536.9	319.2	290.5	28.63	11.149		
6,500.0	6,487.3	6,484.4	6,477.1	23.2	6.0	20.18	304.6	-537.2	311.6	282.6	29.05	10.728		
6,600.0	6,587.0	6,584.0	6,576.7	23.6	6.1	20.65	304.4	-537.5	304.1	274.6	29.47	10.319		
6,700.0	6,686.6	6,683.6	6,676.3	23.9	6.2	21.16	304.4	-537.7	296.7	266.8	29.90	9.921		
6,800.0	6,786.3	6,782.9	6,775.6	24.3	6.3	21.70	304.4	-538.0	289.3	259.0	30.34	9.535		
6,900.0	6,886.0	6,882.8	6,875.5	24.6	6.4	22.26	304.3	-538.3	282.0	251.2	30.77	9.162		
7,000.0	6,985.6	6,982.5	6,975.2	25.0	6.5	22.86	304.3	-538.6	274.6	243.4	31.21	8.800		
7,100.0	7,085.3	7,082.0	7,074.7	25.4	6.6	23.51	304.3	-538.8	267.4	235.7	31.65	8.448		
7,200.0	7,185.0	7,181.4	7,174.1	25.7	6.7	24.19	304.4	-539.1	260.2	228.1	32.09	8.106		
7,300.0	7,284.6	7,280.9	7,273.6	26.1	6.8	24.93	304.6	-539.4	253.1	220.6	32.54	7.779		
7,400.0	7,384.3	7,380.8	7,373.5	26.4	6.9	25.72	304.8	-539.6	246.1	213.1	32.99	7.460		
7,500.0	7,484.0	7,480.5	7,473.2	26.8	7.0	26.59	305.2	-539.8	239.2	205.7	33.44	7.153		
7,600.0	7,583.6	7,580.0	7,572.7	27.1	7.1	27.52	305.6	-540.0	232.4	198.5	33.88	6.858		
7,700.0	7,683.3	7,680.0	7,672.7	27.5	7.2	28.48	305.9	-540.3	225.6	191.3	34.33	6.571		
7,800.0	7,783.0	7,779.9	7,772.6	27.9	7.3	29.47	306.0	-540.5	218.7	183.9	34.77	6.289		
7,900.0	7,882.7	7,879.3	7,872.0	28.2	7.4	30.53	306.0	-540.7	211.8	176.6	35.21	6.016		
8,000.0	7,982.3	7,979.2	7,971.9	28.6	7.5	31.60	306.0	-541.0	205.1	169.4	35.63	5.755		
8,100.0	8,082.0	8,079.0	8,071.7	28.9	7.6	32.69	305.9	-541.5	198.4	162.3	36.04	5.503		
8,200.0	8,181.7	8,179.0	8,171.7	29.3	7.7	33.85	305.6	-542.0	191.7	155.2	36.45	5.259		
8,300.0	8,281.3	8,278.9	8,271.6	29.7	7.8	35.07	305.2	-542.4	184.9	148.0	36.83	5.020		
8,400.0	8,381.0	8,378.8	8,371.5	30.0	7.9	36.39	304.7	-542.8	178.1	140.9	37.20	4.787		
8,500.0	8,480.7	8,478.5	8,471.1	30.4	8.0	37.82	304.2	-543.1	171.3	133.7	37.56	4.560		
8,600.0	8,580.3	8,578.5	8,571.2	30.7	8.0	39.38	303.5	-543.3	164.5	126.5	37.92	4.337		
8,700.0	8,680.0	8,676.6	8,669.2	31.1	8.1	40.98	303.0	-543.7	158.1	119.8	38.30	4.127		
8,800.0	8,779.7	8,776.1	8,768.8	31.5	8.2	42.72	303.2	-544.6	152.6	113.9	38.71	3.942		
8,900.0	8,879.3	8,871.4	8,864.1	31.8	8.3	44.47	304.8	-546.2	148.9	109.8	39.13	3.806		
9,000.0	8,979.0	8,971.6	8,964.2	32.2	8.4	46.40	307.6	-548.5	146.7	107.1	39.54	3.709		
9,100.0	9,078.7	9,071.4	9,063.9	32.6	8.5	48.33	310.2	-550.8	144.5	104.6	39.95	3.617		
9,200.0	9,178.4	9,171.8	9,164.3	32.9	8.6	50.26	312.6	-553.1	142.2	101.9	40.36	3.524		
9,300.0	9,278.0	9,271.7	9,264.1	33.3	8.7	52.16	314.7	-555.6	139.9	99.2	40.77	3.433		
9,400.0	9,377.7	9,372.1	9,364.4	33.6	8.8	54.05	316.6	-558.2	137.7	96.5	41.17	3.344		
9,500.0	9,477.4	9,472.3	9,464.6	34.0	8.9	55.95	318.2	-560.9	135.2	93.7	41.57	3.253		
9,600.0	9,577.0	9,572.5	9,564.7	34.4	9.0	57.77	319.4	-563.8	132.7	90.7	41.96	3.162		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FED COM 705H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 12070-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.0	9,676.7	9,672.7	9,664.9	34.7	9.2	59.49	320.3	-567.1	130.0	87.6	42.36	3.069	
9,800.0	9,776.4	9,773.0	9,765.1	35.1	9.3	60.88	320.8	-571.2	127.2	84.4	42.76	2.974	
9,900.0	9,876.0	9,873.1	9,865.1	35.4	9.4	62.10	320.9	-575.8	124.1	80.9	43.16	2.875	
10,000.0	9,975.7	9,973.6	9,965.5	35.8	9.5	63.25	320.8	-580.6	120.9	77.3	43.56	2.775	
10,100.0	10,075.4	10,074.8	10,066.6	36.2	9.6	64.68	319.8	-585.0	116.8	72.8	43.95	2.657	
10,200.0	10,175.1	10,175.0	10,166.7	36.5	9.7	66.21	318.1	-589.2	112.1	67.8	44.34	2.528	
10,300.0	10,274.7	10,276.2	10,267.8	36.9	9.8	67.85	315.7	-593.5	106.8	62.1	44.73	2.388	
10,335.1	10,309.7	10,311.5	10,303.0	37.0	9.9	68.42	314.6	-595.1	104.7	59.8	44.87	2.333	
10,350.0	10,324.6	10,326.6	10,318.1	37.1	9.9	91.14	314.0	-595.8	104.0	59.1	44.93	2.314	
10,365.9	10,340.4	10,342.6	10,334.1	37.1	9.9	114.46	313.5	-596.6	103.7	58.7	44.99	2.305 CC, ES, SF	
10,375.0	10,349.5	10,351.7	10,343.2	37.2	9.9	125.02	313.1	-597.0	103.8	58.8	45.03	2.306	
10,400.0	10,374.3	10,376.9	10,368.3	37.2	9.9	143.97	312.2	-598.3	104.9	59.8	45.12	2.325	
10,425.0	10,399.0	10,401.7	10,393.1	37.3	10.0	154.07	311.2	-599.6	107.3	62.1	45.21	2.373	
10,450.0	10,423.5	10,426.5	10,417.8	37.4	10.0	160.07	310.2	-600.9	111.0	65.7	45.31	2.449	
10,475.0	10,447.7	10,450.9	10,442.1	37.5	10.0	163.99	309.3	-602.2	116.0	70.6	45.40	2.554	
10,500.0	10,471.6	10,475.6	10,466.8	37.6	10.0	166.72	308.3	-603.6	122.2	76.7	45.49	2.686	
10,525.0	10,495.1	10,499.7	10,490.8	37.6	10.1	168.73	307.2	-605.0	129.6	84.0	45.58	2.843	
10,550.0	10,518.1	10,522.8	10,513.8	37.7	10.1	170.28	306.2	-606.3	138.2	92.6	45.66	3.028	
10,575.0	10,540.5	10,545.8	10,536.8	37.8	10.1	171.50	305.3	-607.6	148.1	102.4	45.74	3.239	
10,600.0	10,562.4	10,568.3	10,559.3	37.8	10.1	172.48	304.3	-608.9	159.2	113.4	45.82	3.475	
10,625.0	10,583.6	10,590.2	10,581.1	37.9	10.1	173.28	303.4	-610.1	171.4	125.5	45.89	3.736	
10,650.0	10,604.1	10,610.9	10,601.8	38.0	10.2	173.95	302.5	-611.3	184.8	138.8	45.96	4.020	
10,675.0	10,623.8	10,630.4	10,621.2	38.0	10.2	174.51	301.7	-612.5	199.3	153.3	46.03	4.330	
10,700.0	10,642.7	10,648.9	10,639.6	38.1	10.2	174.97	301.1	-613.6	215.0	168.9	46.08	4.665	
10,725.0	10,660.7	10,664.2	10,654.9	38.1	10.2	175.35	300.7	-614.6	231.8	185.7	46.13	5.024	
10,750.0	10,677.8	10,678.5	10,669.2	38.2	10.2	175.65	300.6	-615.6	249.8	203.6	46.18	5.409	
10,775.0	10,693.9	10,692.8	10,683.5	38.2	10.3	175.88	300.6	-616.8	268.9	222.6	46.23	5.815	
10,800.0	10,709.0	10,706.5	10,697.0	38.3	10.3	176.08	300.6	-617.9	288.8	242.5	46.28	6.241	
10,825.0	10,723.1	10,719.5	10,710.0	38.3	10.3	176.26	300.7	-619.0	309.6	263.3	46.32	6.684	
10,850.0	10,736.0	10,731.8	10,722.3	38.3	10.3	176.42	300.9	-620.0	331.1	284.8	46.35	7.143	
10,875.0	10,747.9	10,743.4	10,733.8	38.4	10.3	176.58	301.0	-621.0	353.3	306.9	46.38	7.616	
10,900.0	10,758.5	10,753.7	10,744.1	38.4	10.3	176.75	301.1	-621.8	376.0	329.6	46.41	8.102	
10,925.0	10,768.0	10,762.5	10,752.8	38.5	10.3	176.95	301.3	-622.6	399.2	352.8	46.43	8.598	
10,950.0	10,776.2	10,770.1	10,760.4	38.5	10.3	177.20	301.4	-623.2	422.9	376.5	46.45	9.105	
10,975.0	10,783.2	10,776.6	10,766.9	38.5	10.4	177.53	301.4	-623.7	447.0	400.6	46.47	9.621	
11,000.0	10,789.0	10,782.3	10,772.6	38.6	10.4	178.00	301.5	-624.1	471.4	425.0	46.48	10.144	
11,025.0	10,793.4	10,786.7	10,777.0	38.6	10.4	178.79	301.6	-624.4	496.1	449.6	46.49	10.672	
11,050.0	10,796.6	10,789.7	10,780.0	38.6	10.4	-179.51	301.6	-624.6	520.9	474.4	46.49	11.205	
11,075.0	10,798.5	10,791.4	10,781.7	38.6	10.4	-173.04	301.6	-624.7	545.9	499.4	46.49	11.741	
11,095.5	10,799.0	10,791.7	10,782.0	38.6	10.4	-49.73	301.6	-624.8	566.3	519.9	46.50	12.180	
11,100.0	10,799.1	10,791.7	10,782.0	38.6	10.4	-49.49	301.6	-624.8	570.9	524.4	46.50	12.278	
11,200.0	10,799.7	10,790.9	10,781.2	38.7	10.4	-44.52	301.6	-624.7	670.9	624.4	46.50	14.426	
11,300.0	10,800.3	10,790.2	10,780.5	38.8	10.4	-40.28	301.6	-624.7	770.9	724.4	46.51	16.574	
11,400.0	10,800.9	10,789.4	10,779.7	39.0	10.4	-36.67	301.6	-624.6	870.9	824.3	46.52	18.721	
11,500.0	10,801.5	10,788.6	10,778.9	39.1	10.4	-33.58	301.6	-624.6	970.9	924.3	46.53	20.867	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM #9H - OWB - ACTUAL													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9207-MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.0	8,979.0	19,727.0	9,827.3	32.2	166.7	171.81	89.8	-23.9	955.3	826.3	128.96	7.407		
9,100.0	9,078.7	19,727.0	9,827.3	32.6	166.7	171.81	89.8	-23.9	874.4	738.8	135.56	6.450		
9,200.0	9,178.4	19,727.0	9,827.3	32.9	166.7	171.81	89.8	-23.9	797.9	654.4	143.47	5.561		
9,300.0	9,278.0	19,727.0	9,827.3	33.3	166.7	171.81	89.8	-23.9	727.1	574.4	152.78	4.759		
9,400.0	9,377.7	19,727.0	9,827.3	33.6	166.7	171.81	89.8	-23.9	663.9	500.6	163.35	4.064		
9,500.0	9,477.4	19,727.0	9,827.3	34.0	166.7	171.81	89.8	-23.9	610.6	436.0	174.64	3.497		
9,600.0	9,577.0	19,727.0	9,827.3	34.4	166.7	171.81	89.8	-23.9	570.0	384.6	185.43	3.074		
9,700.0	9,676.7	19,727.0	9,827.3	34.7	166.7	171.81	89.8	-23.9	545.0	351.1	193.91	2.811		
9,789.7	9,766.1	19,727.0	9,827.3	35.0	166.7	171.81	89.8	-23.9	537.6	339.5	198.03	2.715 CC		
9,800.0	9,776.4	19,727.0	9,827.3	35.1	166.7	171.81	89.8	-23.9	537.7	339.4	198.25	2.712 ES, SF		
9,900.0	9,876.0	19,727.0	9,827.3	35.4	166.7	171.81	89.8	-23.9	548.8	351.2	197.59	2.777		
10,000.0	9,975.7	19,727.0	9,827.3	35.8	166.7	171.81	89.8	-23.9	577.3	384.7	192.59	2.997		
10,100.0	10,075.4	19,727.0	9,827.3	36.2	166.7	171.81	89.8	-23.9	620.7	435.8	184.89	3.357		
10,200.0	10,175.1	19,727.0	9,827.3	36.5	166.7	171.81	89.8	-23.9	676.3	500.1	176.18	3.839		
10,300.0	10,274.7	19,727.0	9,827.3	36.9	166.7	171.81	89.8	-23.9	741.2	573.6	167.63	4.422		
10,335.1	10,309.7	19,727.0	9,827.3	37.0	166.7	171.81	89.8	-23.9	765.8	601.0	164.80	4.647		
10,350.0	10,324.6	19,727.0	9,827.3	37.1	166.7	-163.92	89.8	-23.9	776.5	612.8	163.63	4.745		
10,375.0	10,349.5	19,727.0	9,827.3	37.2	166.7	-127.40	89.8	-23.9	794.5	632.7	161.74	4.912		
10,400.0	10,374.3	19,727.0	9,827.3	37.2	166.7	-105.80	89.8	-23.9	812.6	652.7	159.94	5.081		
10,425.0	10,399.0	19,727.0	9,827.3	37.3	166.7	-93.07	89.8	-23.9	830.8	672.6	158.22	5.251		
10,450.0	10,423.5	19,727.0	9,827.3	37.4	166.7	-84.48	89.8	-23.9	849.0	692.4	156.58	5.422		
10,475.0	10,447.7	19,727.0	9,827.3	37.5	166.7	-78.01	89.8	-23.9	867.1	712.1	155.03	5.593		
10,500.0	10,471.6	19,727.0	9,827.3	37.6	166.7	-72.78	89.8	-23.9	885.2	731.6	153.55	5.765		
10,525.0	10,495.1	19,727.0	9,827.3	37.6	166.7	-68.35	89.8	-23.9	903.1	751.0	152.15	5.936		
10,550.0	10,518.1	19,727.0	9,827.3	37.7	166.7	-64.48	89.8	-23.9	920.9	770.1	150.83	6.106		
10,575.0	10,540.5	19,727.0	9,827.3	37.8	166.7	-61.05	89.8	-23.9	938.5	788.9	149.57	6.274		
10,600.0	10,562.4	19,727.0	9,827.3	37.8	166.7	-57.98	89.8	-23.9	955.8	807.4	148.38	6.442		
10,625.0	10,583.6	19,727.0	9,827.3	37.9	166.7	-55.19	89.8	-23.9	972.8	825.6	147.24	6.607		
10,650.0	10,604.1	19,727.0	9,827.3	38.0	166.7	-52.67	89.8	-23.9	989.6	843.4	146.17	6.770		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 302H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9869-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	3.0	3.0	89.43	0.3	30.0	30.0					
100.0	100.0	99.5	99.5	3.0	3.0	89.43	0.3	30.0	30.0	24.0	6.00	4.998		
200.0	200.0	199.5	199.5	3.0	3.0	89.43	0.3	30.0	30.0	24.0	6.04	4.967		
300.0	300.0	299.5	299.5	3.1	3.0	89.43	0.3	30.0	30.0	23.9	6.12	4.902		
400.0	400.0	399.5	399.5	3.2	3.0	89.43	0.3	30.0	30.0	23.8	6.24	4.808		
500.0	500.0	499.5	499.5	3.4	3.1	89.43	0.3	30.0	30.0	23.6	6.40	4.690		
600.0	600.0	599.5	599.5	3.6	3.1	89.43	0.3	30.0	30.0	23.4	6.58	4.557		
700.0	700.0	699.5	699.5	3.8	3.1	89.43	0.3	30.0	30.0	23.2	6.80	4.413		
800.0	800.0	799.5	799.5	4.0	3.2	89.43	0.3	30.0	30.0	23.0	7.04	4.264		
900.0	900.0	899.5	899.5	4.2	3.2	89.43	0.3	30.0	30.0	22.7	7.29	4.113		
1,000.0	1,000.0	999.5	999.5	4.5	3.2	89.43	0.3	30.0	30.0	22.4	7.57	3.964		
1,100.0	1,100.0	1,099.5	1,099.5	4.8	3.3	89.43	0.3	30.0	30.0	22.1	7.86	3.818		
1,200.0	1,200.0	1,199.5	1,199.5	5.1	3.4	89.43	0.3	30.0	30.0	21.8	8.16	3.678		
1,300.0	1,300.0	1,299.5	1,299.5	5.3	3.4	89.43	0.3	30.0	30.0	21.5	8.47	3.542		
1,400.0	1,400.0	1,399.5	1,399.5	5.6	3.5	89.43	0.3	30.0	30.0	21.2	8.79	3.413		
1,500.0	1,500.0	1,499.5	1,499.5	6.0	3.5	89.43	0.3	30.0	30.0	20.9	9.12	3.290		
1,600.0	1,600.0	1,599.5	1,599.5	6.3	3.6	89.43	0.3	30.0	30.0	20.5	9.45	3.174		
1,700.0	1,700.0	1,699.5	1,699.5	6.6	3.7	89.43	0.3	30.0	30.0	20.2	9.79	3.063		
1,800.0	1,800.0	1,799.5	1,799.5	6.9	3.8	89.43	0.3	30.0	30.0	19.9	10.14	2.959		
1,900.0	1,900.0	1,899.5	1,899.5	7.2	3.9	89.43	0.3	30.0	30.0	19.5	10.49	2.860		
2,000.0	2,000.0	1,999.5	1,999.5	7.6	3.9	89.43	0.3	30.0	30.0	19.2	10.85	2.766		
2,100.0	2,100.0	2,099.5	2,099.5	7.9	4.0	89.43	0.3	30.0	30.0	18.8	11.21	2.677		
2,200.0	2,200.0	2,199.5	2,199.5	8.2	4.1	89.43	0.3	30.0	30.0	18.4	11.57	2.593		
2,300.0	2,300.0	2,299.5	2,299.5	8.6	4.2	89.43	0.3	30.0	30.0	18.1	11.94	2.513		
2,400.0	2,400.0	2,399.5	2,399.5	8.9	4.3	89.43	0.3	30.0	30.0	17.7	12.31	2.438		
2,500.0	2,500.0	2,499.5	2,499.5	9.2	4.4	89.43	0.3	30.0	30.0	17.3	12.68	2.366 CC, ES, SF		
2,600.0	2,600.0	2,599.9	2,599.9	9.6	4.5	158.02	1.9	29.3	31.0	17.9	13.05	2.373		
2,700.0	2,699.8	2,700.2	2,700.0	9.9	4.6	153.07	6.7	27.2	34.0	20.6	13.42	2.534		
2,733.0	2,732.8	2,733.3	2,733.0	10.0	4.6	151.01	9.0	26.1	35.5	22.0	13.56	2.622		
2,800.0	2,799.5	2,800.1	2,799.6	10.2	4.7	146.65	14.2	23.8	39.0	25.1	13.83	2.816		
2,900.0	2,899.2	2,899.9	2,899.0	10.6	4.8	141.33	22.2	20.2	44.4	30.1	14.26	3.113		
3,000.0	2,998.9	2,999.7	2,998.4	10.9	4.9	137.20	30.1	16.7	50.1	35.4	14.69	3.412		
3,100.0	3,098.5	3,099.5	3,097.8	11.2	5.0	133.92	38.1	13.2	56.0	40.9	15.12	3.707		
3,200.0	3,198.2	3,199.3	3,197.2	11.6	5.1	131.28	46.0	9.6	62.1	46.6	15.54	3.996		
3,300.0	3,297.9	3,299.0	3,296.6	11.9	5.1	129.12	54.0	6.1	68.3	52.3	15.97	4.276		
3,400.0	3,397.5	3,398.8	3,396.0	12.3	5.2	127.31	61.9	2.5	74.6	58.2	16.40	4.547		
3,500.0	3,497.2	3,498.6	3,495.4	12.6	5.4	125.79	69.9	-1.0	80.9	64.1	16.83	4.807		
3,600.0	3,596.9	3,598.4	3,594.8	13.0	5.5	124.48	77.8	-4.5	87.3	70.0	17.25	5.058		
3,700.0	3,696.5	3,698.1	3,694.2	13.3	5.6	123.36	85.7	-8.1	93.7	76.0	17.68	5.299		
3,800.0	3,796.2	3,797.9	3,793.6	13.6	5.7	122.38	93.7	-11.6	100.1	82.0	18.11	5.530		
3,900.0	3,895.9	3,897.7	3,893.0	14.0	5.8	121.52	101.6	-15.2	106.6	88.1	18.53	5.752		
4,000.0	3,995.6	3,997.5	3,992.4	14.3	5.9	120.76	109.6	-18.7	113.1	94.1	18.96	5.965		
4,100.0	4,095.2	4,097.3	4,091.8	14.7	6.0	120.08	117.5	-22.2	119.6	100.2	19.39	6.169		
4,200.0	4,194.9	4,197.0	4,191.2	15.0	6.1	119.47	125.5	-25.8	126.1	106.3	19.82	6.364		
4,300.0	4,294.6	4,296.8	4,290.6	15.4	6.2	118.92	133.4	-29.3	132.7	112.4	20.25	6.552		
4,400.0	4,394.2	4,396.6	4,390.0	15.7	6.3	118.42	141.3	-32.9	139.2	118.5	20.68	6.732		
4,500.0	4,493.9	4,496.4	4,489.4	16.1	6.4	117.97	149.3	-36.4	145.8	124.7	21.11	6.905		
4,600.0	4,593.6	4,596.1	4,588.8	16.4	6.5	117.55	157.2	-39.9	152.4	130.8	21.55	7.071		
4,700.0	4,693.2	4,695.9	4,688.2	16.8	6.6	117.17	165.2	-43.5	158.9	136.9	21.98	7.231		
4,800.0	4,792.9	4,795.7	4,787.6	17.2	6.8	116.83	173.1	-47.0	165.5	143.1	22.41	7.384		
4,900.0	4,892.6	4,895.5	4,887.0	17.5	6.9	116.50	181.1	-50.6	172.1	149.2	22.85	7.532		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 302H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9869-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,992.2	4,995.3	4,986.4	17.9	7.0	116.20	189.0	-54.1	178.7	155.4	23.29	7.673		
5,100.0	5,091.9	5,095.0	5,085.8	18.2	7.1	115.93	196.9	-57.6	185.3	161.6	23.72	7.810		
5,200.0	5,191.6	5,194.8	5,185.2	18.6	7.2	115.67	204.9	-61.2	191.9	167.7	24.16	7.941		
5,300.0	5,291.3	5,294.6	5,284.6	18.9	7.3	115.43	212.8	-64.7	198.5	173.9	24.60	8.068		
5,400.0	5,390.9	5,394.4	5,384.0	19.3	7.4	115.20	220.8	-68.3	205.1	180.1	25.04	8.190		
5,500.0	5,490.6	5,494.2	5,483.4	19.6	7.6	114.99	228.7	-71.8	211.7	186.2	25.48	8.307		
5,600.0	5,590.3	5,593.9	5,582.8	20.0	7.7	114.79	236.7	-75.3	218.3	192.4	25.93	8.421		
5,700.0	5,689.9	5,693.7	5,682.2	20.3	7.8	114.60	244.6	-78.9	224.9	198.6	26.37	8.530		
5,800.0	5,789.6	5,793.5	5,781.6	20.7	7.9	114.43	252.5	-82.4	231.6	204.7	26.81	8.636		
5,900.0	5,889.3	5,893.3	5,881.0	21.1	8.0	114.26	260.5	-86.0	238.2	210.9	27.26	8.737		
6,000.0	5,988.9	5,993.0	5,980.4	21.4	8.1	114.10	268.4	-89.5	244.8	217.1	27.71	8.836		
6,100.0	6,088.6	6,092.8	6,079.8	21.8	8.3	113.95	276.4	-93.0	251.4	223.3	28.15	8.931		
6,200.0	6,188.3	6,192.6	6,179.2	22.1	8.4	113.81	284.3	-96.6	258.0	229.5	28.60	9.023		
6,300.0	6,287.9	6,292.4	6,278.6	22.5	8.5	113.68	292.3	-100.1	264.7	235.6	29.05	9.112		
6,400.0	6,387.6	6,392.2	6,378.0	22.8	8.6	113.55	300.2	-103.7	271.3	241.8	29.50	9.198		
6,500.0	6,487.3	6,491.9	6,477.4	23.2	8.7	113.43	308.1	-107.2	277.9	248.0	29.95	9.281		
6,600.0	6,587.0	6,591.7	6,576.8	23.6	8.9	113.31	316.1	-110.7	284.6	254.2	30.40	9.361		
6,700.0	6,686.6	6,691.5	6,676.2	23.9	9.0	113.20	324.0	-114.3	291.2	260.3	30.85	9.439		
6,800.0	6,786.3	6,791.3	6,775.6	24.3	9.1	113.09	332.0	-117.8	297.8	266.5	31.30	9.515		
6,900.0	6,886.0	6,891.0	6,875.0	24.6	9.2	112.99	339.9	-121.4	304.5	272.7	31.76	9.588		
7,000.0	6,985.6	6,990.8	6,974.4	25.0	9.3	112.89	347.9	-124.9	311.1	278.9	32.21	9.659		
7,100.0	7,085.3	7,092.1	7,075.3	25.4	9.5	112.87	355.5	-128.3	317.6	284.9	32.67	9.722		
7,200.0	7,185.0	7,194.2	7,177.2	25.7	9.6	113.13	361.7	-131.1	323.4	290.3	33.11	9.768		
7,300.0	7,284.6	7,296.3	7,279.1	26.1	9.7	113.67	366.2	-133.1	328.5	295.0	33.52	9.800		
7,400.0	7,384.3	7,398.3	7,381.1	26.4	9.8	114.48	369.1	-134.4	333.0	299.1	33.91	9.820		
7,500.0	7,484.0	7,500.2	7,483.0	26.8	10.0	115.56	370.3	-134.9	336.9	302.6	34.28	9.828		
7,600.0	7,583.6	7,600.4	7,583.1	27.1	10.1	116.79	370.3	-134.9	340.5	305.9	34.65	9.827		
7,700.0	7,683.3	7,700.0	7,682.8	27.5	10.2	117.99	370.3	-134.9	344.2	309.2	35.02	9.829		
7,800.0	7,783.0	7,799.7	7,782.5	27.9	10.3	119.17	370.3	-134.9	348.1	312.8	35.40	9.836		
7,900.0	7,882.7	7,899.4	7,882.2	28.2	10.5	120.32	370.3	-134.9	352.2	316.4	35.77	9.846		
8,000.0	7,982.3	7,999.0	7,981.8	28.6	10.6	121.44	370.3	-134.9	356.4	320.2	36.14	9.860		
8,100.0	8,082.0	8,098.7	8,081.5	28.9	10.7	122.54	370.3	-134.9	360.7	324.2	36.52	9.877		
8,200.0	8,181.7	8,198.4	8,181.2	29.3	10.8	123.62	370.3	-134.9	365.1	328.2	36.89	9.897		
8,300.0	8,281.3	8,298.0	8,280.8	29.7	10.9	124.66	370.3	-134.9	369.7	332.4	37.27	9.920		
8,400.0	8,381.0	8,397.7	8,380.5	30.0	11.1	125.68	370.3	-134.9	374.4	336.7	37.65	9.945		
8,500.0	8,480.7	8,497.4	8,480.2	30.4	11.2	126.68	370.3	-134.9	379.2	341.2	38.03	9.972		
8,600.0	8,580.3	8,597.1	8,579.8	30.7	11.3	127.65	370.3	-134.9	384.1	345.7	38.41	10.002		
8,700.0	8,680.0	8,696.7	8,679.5	31.1	11.4	128.59	370.3	-134.9	389.1	350.4	38.79	10.033		
8,800.0	8,779.7	8,796.4	8,779.2	31.5	11.6	129.51	370.3	-134.9	394.3	355.1	39.17	10.066		
8,900.0	8,879.3	8,896.1	8,878.8	31.8	11.7	130.41	370.3	-134.9	399.5	360.0	39.55	10.101		
9,000.0	8,979.0	8,995.7	8,978.5	32.2	11.8	131.29	370.3	-134.9	404.8	364.9	39.94	10.137		
9,100.0	9,078.7	9,095.4	9,078.2	32.6	11.9	132.14	370.3	-134.9	410.2	369.9	40.32	10.174		
9,200.0	9,178.4	9,195.1	9,177.9	32.9	12.1	132.97	370.3	-134.9	415.8	375.0	40.71	10.213		
9,300.0	9,278.0	9,294.7	9,277.5	33.3	12.2	133.77	370.3	-134.9	421.3	380.2	41.10	10.252		
9,400.0	9,377.7	9,394.4	9,377.2	33.6	12.3	134.56	370.3	-134.9	427.0	385.5	41.49	10.292		
9,500.0	9,477.4	9,494.1	9,476.9	34.0	12.4	135.33	370.3	-134.9	432.8	390.9	41.88	10.333		
9,600.0	9,577.0	9,593.7	9,576.5	34.4	12.6	136.07	370.3	-134.9	438.6	396.3	42.27	10.375		
9,700.0	9,676.7	9,693.4	9,676.2	34.7	12.7	136.80	370.3	-134.9	444.5	401.8	42.67	10.417		
9,800.0	9,776.4	9,793.1	9,775.9	35.1	12.8	137.50	370.3	-134.9	450.5	407.4	43.06	10.460		
9,900.0	9,876.0	9,905.8	9,888.6	35.4	12.9	138.45	368.9	-134.9	456.1	412.7	43.47	10.493		
10,000.0	9,975.7	10,049.2	10,027.7	35.8	13.0	143.18	336.6	-134.6	454.6	410.8	43.86	10.365		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 302H - OWB - PWP1											Offset Site Error: 0.0 usft		
Survey Program: 0-Standard Keeper 104, 9869-MWD+IFR1+FDIR											Offset Well Error: 3.0 usft		
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,075.4	10,163.7	10,128.1	36.2	13.0	150.50	282.0	-134.2	448.9	404.7	44.26	10.144	
10,166.1	10,141.3	10,222.5	10,173.8	36.4	13.1	155.40	245.1	-133.9	447.2	402.6	44.54	10.041	
10,200.0	10,175.1	10,248.1	10,192.2	36.5	13.1	157.75	227.3	-133.7	447.8	403.1	44.69	10.019	
10,300.0	10,274.7	10,309.4	10,232.2	36.9	13.2	163.80	181.0	-133.4	457.7	412.5	45.23	10.120	
10,335.1	10,309.7	10,325.0	10,241.4	37.0	13.2	165.42	168.4	-133.3	464.6	419.2	45.43	10.227	
10,350.0	10,324.6	10,333.8	10,246.4	37.1	13.2	-170.76	161.2	-133.2	468.0	422.5	45.53	10.280	
10,375.0	10,349.5	10,345.6	10,252.9	37.2	13.2	-135.27	151.3	-133.1	474.4	428.7	45.67	10.387	
10,400.0	10,374.3	10,357.4	10,259.2	37.2	13.2	-114.64	141.3	-133.0	481.4	435.6	45.80	10.511	
10,425.0	10,399.0	10,369.3	10,265.3	37.3	13.2	-102.82	131.1	-133.0	489.0	443.1	45.92	10.650	
10,450.0	10,423.5	10,381.2	10,271.1	37.4	13.2	-95.07	120.7	-132.9	497.1	451.1	46.02	10.803	
10,475.0	10,447.7	10,393.2	10,276.7	37.5	13.2	-89.35	110.1	-132.8	505.6	459.5	46.10	10.968	
10,500.0	10,471.6	10,405.2	10,282.0	37.6	13.3	-84.77	99.3	-132.7	514.5	468.3	46.17	11.143	
10,525.0	10,495.1	10,417.2	10,287.1	37.6	13.3	-80.91	88.4	-132.6	523.6	477.3	46.22	11.327	
10,550.0	10,518.1	10,429.2	10,291.9	37.7	13.3	-77.54	77.4	-132.5	532.8	486.6	46.26	11.518	
10,575.0	10,540.5	10,441.3	10,296.4	37.8	13.3	-74.51	66.2	-132.4	542.2	496.0	46.28	11.716	
10,600.0	10,562.4	10,450.0	10,299.5	37.8	13.3	-71.98	58.1	-132.4	551.7	505.5	46.27	11.923	
10,625.0	10,583.6	10,465.5	10,304.6	37.9	13.3	-69.25	43.4	-132.3	561.2	514.9	46.30	12.121	
10,650.0	10,604.1	10,475.0	10,307.5	38.0	13.3	-67.07	34.4	-132.2	570.6	524.3	46.27	12.332	
10,675.0	10,623.8	10,489.8	10,311.7	38.0	13.3	-64.77	20.2	-132.1	579.9	533.6	46.27	12.532	
10,700.0	10,642.7	10,500.0	10,314.3	38.1	13.3	-62.87	10.3	-132.0	589.1	542.9	46.24	12.740	
10,725.0	10,660.7	10,514.1	10,317.6	38.1	13.4	-60.92	-3.4	-131.9	598.1	551.9	46.23	12.938	
10,750.0	10,677.8	10,525.0	10,319.8	38.2	13.4	-59.26	-14.0	-131.8	606.9	560.7	46.19	13.138	
10,775.0	10,693.9	10,538.5	10,322.2	38.2	13.4	-57.62	-27.3	-131.7	615.4	569.2	46.17	13.328	
10,800.0	10,709.0	10,550.0	10,324.0	38.3	13.4	-56.17	-38.7	-131.6	623.6	577.4	46.14	13.516	
10,825.0	10,723.1	10,562.9	10,325.7	38.3	13.4	-54.79	-51.5	-131.5	631.5	585.4	46.11	13.694	
10,850.0	10,736.0	10,575.0	10,327.0	38.3	13.4	-53.54	-63.5	-131.4	639.0	592.9	46.09	13.865	
10,875.0	10,747.9	10,587.4	10,327.9	38.4	13.4	-52.39	-75.8	-131.3	646.2	600.2	46.07	14.027	
10,900.0	10,758.5	10,600.0	10,328.6	38.4	13.4	-51.34	-88.4	-131.2	653.0	607.0	46.05	14.179	
10,925.0	10,768.0	10,611.8	10,328.9	38.5	13.4	-50.39	-100.3	-131.1	659.4	613.3	46.04	14.321	
10,950.0	10,776.2	10,631.8	10,329.1	38.5	13.4	-49.39	-120.2	-130.9	665.2	619.2	46.06	14.444	
10,975.0	10,783.2	10,655.8	10,329.2	38.5	13.4	-48.49	-144.3	-130.7	670.3	624.2	46.08	14.545	
11,000.0	10,789.0	10,680.2	10,329.3	38.6	13.4	-47.76	-168.6	-130.5	674.4	628.3	46.11	14.624	
11,025.0	10,793.4	10,704.8	10,329.5	38.6	13.4	-47.21	-193.3	-130.3	677.6	631.4	46.15	14.681	
11,050.0	10,796.6	10,729.6	10,329.6	38.6	13.4	-46.82	-218.1	-130.1	679.8	633.6	46.20	14.713	
11,075.0	10,798.5	10,754.6	10,329.8	38.6	13.5	-46.61	-243.0	-129.9	681.1	634.8	46.26	14.722	
11,095.5	10,799.0	10,775.0	10,329.9	38.6	13.5	-46.55	-263.5	-129.8	681.4	635.1	46.32	14.712	
11,100.0	10,799.1	10,779.6	10,329.9	38.6	13.5	-46.55	-268.0	-129.7	681.4	635.1	46.33	14.708	
11,200.0	10,799.7	10,879.6	10,330.5	38.7	13.5	-46.55	-368.0	-128.9	681.4	634.8	46.64	14.609	
11,300.0	10,800.3	10,979.6	10,331.1	38.8	13.6	-46.55	-468.0	-128.1	681.4	634.4	47.02	14.493	
11,400.0	10,800.9	11,079.6	10,331.7	39.0	13.7	-46.55	-568.0	-127.3	681.4	634.0	47.45	14.362	
11,500.0	10,801.5	11,179.6	10,332.3	39.1	13.8	-46.55	-668.0	-126.5	681.4	633.5	47.93	14.216	
11,600.0	10,802.1	11,279.6	10,332.9	39.3	14.0	-46.55	-768.0	-125.7	681.5	633.0	48.47	14.059	
11,700.0	10,802.7	11,379.6	10,333.6	39.4	14.3	-46.55	-868.0	-124.9	681.5	632.4	49.06	13.891	
11,800.0	10,803.3	11,479.6	10,334.2	39.6	14.8	-46.55	-968.0	-124.1	681.5	631.8	49.69	13.713	
11,900.0	10,803.9	11,579.6	10,334.8	39.8	15.4	-46.55	-1,068.0	-123.2	681.5	631.1	50.38	13.528	
12,000.0	10,804.5	11,679.6	10,335.4	40.0	16.0	-46.55	-1,167.9	-122.4	681.5	630.4	51.10	13.337	
12,100.0	10,805.2	11,779.6	10,336.0	40.3	16.7	-46.55	-1,267.9	-121.6	681.5	629.6	51.86	13.141	
12,200.0	10,805.8	11,879.6	10,336.6	40.5	17.5	-46.55	-1,367.9	-120.8	681.5	628.9	52.67	12.940	
12,300.0	10,806.4	11,979.6	10,337.2	40.8	18.2	-46.55	-1,467.9	-120.0	681.5	628.0	53.51	12.738	
12,400.0	10,807.0	12,079.6	10,337.8	41.1	19.0	-46.55	-1,567.9	-119.2	681.5	627.2	54.38	12.533	
12,500.0	10,807.6	12,179.6	10,338.4	41.4	19.7	-46.55	-1,667.9	-118.4	681.6	626.3	55.29	12.327	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design		GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 302H - OWB - PWP1										Offset Site Error:		0.0 usft
Survey Program:		0-Standard Keeper 104, 9869-MWD+IFR1+FDIR										Offset Well Error:		3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,600.0	10,808.2	12,279.6	10,339.0	41.7	20.5	-46.55	-1,767.9	-117.6	681.6	625.3	56.23	12.122		
12,700.0	10,808.8	12,379.6	10,339.6	42.0	21.3	-46.55	-1,867.9	-116.8	681.6	624.4	57.20	11.916		
12,800.0	10,809.4	12,479.6	10,340.2	42.4	22.1	-46.55	-1,967.9	-116.0	681.6	623.4	58.19	11.712		
12,900.0	10,810.0	12,579.6	10,340.8	42.7	22.9	-46.55	-2,067.9	-115.1	681.6	622.4	59.22	11.510		
13,000.0	10,810.6	12,679.6	10,341.4	43.1	23.7	-46.55	-2,167.9	-114.3	681.6	621.3	60.27	11.309		
13,100.0	10,811.3	12,779.6	10,342.0	43.5	24.5	-46.55	-2,267.9	-113.5	681.6	620.3	61.34	11.111		
13,200.0	10,811.9	12,879.6	10,342.6	43.9	25.3	-46.55	-2,367.9	-112.7	681.6	619.2	62.44	10.916		
13,300.0	10,812.5	12,979.6	10,343.2	44.3	26.1	-46.55	-2,467.9	-111.9	681.6	618.1	63.56	10.724		
13,400.0	10,813.1	13,079.6	10,343.8	44.7	26.9	-46.55	-2,567.9	-111.1	681.6	616.9	64.70	10.535		
13,500.0	10,813.7	13,179.6	10,344.4	45.2	27.8	-46.55	-2,667.9	-110.3	681.7	615.8	65.86	10.349		
13,600.0	10,814.3	13,279.6	10,345.0	45.6	28.6	-46.55	-2,767.9	-109.5	681.7	614.6	67.04	10.167		
13,700.0	10,814.9	13,379.6	10,345.6	46.1	29.4	-46.55	-2,867.9	-108.7	681.7	613.4	68.24	9.989		
13,800.0	10,815.5	13,479.6	10,346.2	46.5	30.2	-46.55	-2,967.9	-107.9	681.7	612.2	69.46	9.815		
13,900.0	10,816.1	13,579.6	10,346.8	47.0	31.1	-46.55	-3,067.9	-107.0	681.7	611.0	70.69	9.644		
14,000.0	10,816.7	13,679.6	10,347.4	47.5	31.9	-46.55	-3,167.8	-106.2	681.7	609.8	71.94	9.477		
14,100.0	10,817.3	13,779.6	10,348.0	48.0	32.7	-46.55	-3,267.8	-105.4	681.7	608.5	73.20	9.313		
14,200.0	10,818.0	13,879.6	10,348.6	48.5	33.6	-46.55	-3,367.8	-104.6	681.7	607.3	74.48	9.154		
14,300.0	10,818.6	13,979.6	10,349.2	49.1	34.4	-46.55	-3,467.8	-103.8	681.7	606.0	75.77	8.998		
14,400.0	10,819.2	14,079.6	10,349.8	49.6	35.2	-46.55	-3,567.8	-103.0	681.8	604.7	77.07	8.846		
14,500.0	10,819.8	14,179.6	10,350.4	50.1	36.1	-46.55	-3,667.8	-102.2	681.8	603.4	78.38	8.698		
14,600.0	10,820.4	14,279.6	10,351.0	50.7	36.9	-46.55	-3,767.8	-101.4	681.8	602.1	79.71	8.553		
14,700.0	10,821.0	14,379.6	10,351.6	51.3	37.7	-46.55	-3,867.8	-100.6	681.8	600.7	81.05	8.412		
14,800.0	10,821.6	14,479.6	10,352.2	51.8	38.6	-46.55	-3,967.8	-99.7	681.8	599.4	82.40	8.274		
14,900.0	10,822.2	14,579.6	10,352.8	52.4	39.4	-46.55	-4,067.8	-98.9	681.8	598.1	83.76	8.140		
15,000.0	10,822.8	14,679.6	10,353.4	53.0	40.3	-46.55	-4,167.8	-98.1	681.8	596.7	85.13	8.009		
15,100.0	10,823.4	14,779.6	10,354.0	53.6	41.1	-46.55	-4,267.8	-97.3	681.8	595.3	86.51	7.882		
15,200.0	10,824.1	14,879.6	10,354.6	54.2	42.0	-46.55	-4,367.8	-96.5	681.8	593.9	87.89	7.758		
15,300.0	10,824.7	14,979.6	10,355.2	54.8	42.8	-46.55	-4,467.8	-95.7	681.9	592.6	89.29	7.636		
15,400.0	10,825.3	15,079.6	10,355.8	55.4	43.7	-46.55	-4,567.8	-94.9	681.9	591.2	90.70	7.518		
15,500.0	10,825.9	15,179.6	10,356.4	56.0	44.5	-46.55	-4,667.8	-94.1	681.9	589.8	92.11	7.403		
15,600.0	10,826.5	15,279.6	10,357.0	56.6	45.3	-46.55	-4,767.8	-93.3	681.9	588.4	93.53	7.291		
15,682.1	10,827.0	15,361.5	10,357.5	57.2	46.0	-46.55	-4,849.6	-92.6	681.9	587.2	94.70	7.201		
15,683.4	10,827.0	15,362.7	10,357.5	57.2	46.1	-46.55	-4,850.9	-92.6	681.9	587.2	94.72	7.199		
15,700.0	10,827.1	15,379.4	10,357.6	57.3	46.2	-46.55	-4,867.6	-92.4	681.9	586.9	94.95	7.181		
15,800.0	10,827.7	15,479.4	10,358.2	57.9	47.0	-46.54	-4,967.6	-91.6	681.9	585.5	96.39	7.075		
15,900.0	10,828.3	15,579.4	10,358.8	58.6	47.9	-46.54	-5,067.6	-90.8	681.9	584.1	97.83	6.971		
16,000.0	10,828.9	15,679.4	10,359.4	59.2	48.7	-46.54	-5,167.6	-89.9	681.9	582.6	99.27	6.869		
16,100.0	10,829.6	15,779.4	10,360.0	59.9	49.6	-46.54	-5,267.6	-89.1	681.9	581.2	100.73	6.770		
16,200.0	10,830.2	15,879.4	10,360.6	60.5	50.4	-46.54	-5,367.5	-88.2	681.9	579.7	102.19	6.673		
16,300.0	10,830.8	15,979.4	10,361.2	61.2	51.3	-46.54	-5,467.5	-87.4	681.9	578.3	103.65	6.579		
16,400.0	10,831.4	16,079.4	10,361.8	61.9	52.1	-46.54	-5,567.5	-86.5	681.9	576.8	105.12	6.487		
16,500.0	10,832.0	16,179.4	10,362.4	62.5	53.0	-46.54	-5,667.5	-85.7	681.9	575.3	106.60	6.397		
16,600.0	10,832.6	16,279.4	10,363.0	63.2	53.8	-46.54	-5,767.5	-84.8	682.0	573.9	108.08	6.310		
16,700.0	10,833.2	16,379.4	10,363.6	63.9	54.7	-46.54	-5,867.5	-84.0	682.0	572.4	109.56	6.224		
16,800.0	10,833.8	16,479.4	10,364.2	64.6	55.5	-46.54	-5,967.5	-83.1	682.0	570.9	111.05	6.141		
16,900.0	10,834.4	16,579.4	10,364.8	65.3	56.4	-46.54	-6,067.5	-82.3	682.0	569.4	112.55	6.059		
17,000.0	10,835.1	16,679.4	10,365.4	66.0	57.3	-46.54	-6,167.5	-81.4	682.0	567.9	114.04	5.980		
17,100.0	10,835.7	16,779.4	10,366.0	66.7	58.1	-46.54	-6,267.5	-80.6	682.0	566.4	115.55	5.902		
17,200.0	10,836.3	16,879.4	10,366.6	67.4	59.0	-46.54	-6,367.5	-79.7	682.0	564.9	117.05	5.826		
17,300.0	10,836.9	16,979.4	10,367.2	68.1	59.8	-46.54	-6,467.5	-78.9	682.0	563.4	118.56	5.752		
17,400.0	10,837.5	17,079.4	10,367.9	68.8	60.7	-46.53	-6,567.5	-78.0	682.0	561.9	120.08	5.680		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design GUNNER FEDERAL PROJECT (BULLDOG 2634) - GUNNER 8 FEDERAL COM 302H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9869-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,500.0	10,838.1	17,179.4	10,368.5	69.5	61.5	-46.53	-6,667.5	-77.2	682.0	560.4	121.60	5.609		
17,600.0	10,838.7	17,279.4	10,369.1	70.2	62.4	-46.53	-6,767.5	-76.3	682.0	558.9	123.12	5.540		
17,700.0	10,839.3	17,379.4	10,369.7	70.9	63.2	-46.53	-6,867.5	-75.5	682.0	557.4	124.64	5.472		
17,800.0	10,839.9	17,479.4	10,370.3	71.7	64.1	-46.53	-6,967.5	-74.7	682.0	555.9	126.17	5.406		
17,900.0	10,840.6	17,579.4	10,370.9	72.4	64.9	-46.53	-7,067.5	-73.8	682.0	554.3	127.70	5.341		
18,000.0	10,841.2	17,679.4	10,371.5	73.1	65.8	-46.53	-7,167.5	-73.0	682.0	552.8	129.23	5.278		
18,100.0	10,841.8	17,779.4	10,372.1	73.9	66.6	-46.53	-7,267.4	-72.1	682.0	551.3	130.77	5.216		
18,200.0	10,842.4	17,879.4	10,372.7	74.6	67.5	-46.53	-7,367.4	-71.3	682.0	549.7	132.31	5.155		
18,300.0	10,843.0	17,979.4	10,373.3	75.3	68.4	-46.53	-7,467.4	-70.4	682.1	548.2	133.85	5.096		
18,400.0	10,843.6	18,079.4	10,373.9	76.1	69.2	-46.53	-7,567.4	-69.6	682.1	546.7	135.39	5.038		
18,500.0	10,844.2	18,179.4	10,374.5	76.8	70.1	-46.53	-7,667.4	-68.7	682.1	545.1	136.94	4.981		
18,600.0	10,844.8	18,279.4	10,375.1	77.6	70.9	-46.53	-7,767.4	-67.9	682.1	543.6	138.49	4.925		
18,700.0	10,845.4	18,379.4	10,375.7	78.3	71.8	-46.53	-7,867.4	-67.0	682.1	542.0	140.04	4.870		
18,800.0	10,846.1	18,479.4	10,376.3	79.1	72.6	-46.53	-7,967.4	-66.2	682.1	540.5	141.60	4.817		
18,900.0	10,846.7	18,579.4	10,376.9	79.8	73.5	-46.53	-8,067.4	-65.3	682.1	538.9	143.15	4.765		
19,000.0	10,847.3	18,679.4	10,377.5	80.6	74.4	-46.52	-8,167.4	-64.5	682.1	537.4	144.71	4.713		
19,100.0	10,847.9	18,779.4	10,378.1	81.3	75.2	-46.52	-8,267.4	-63.6	682.1	535.8	146.27	4.663		
19,200.0	10,848.5	18,879.4	10,378.7	82.1	76.1	-46.52	-8,367.4	-62.8	682.1	534.3	147.83	4.614		
19,300.0	10,849.1	18,979.4	10,379.3	82.8	76.9	-46.52	-8,467.4	-61.9	682.1	532.7	149.40	4.566		
19,400.0	10,849.7	19,079.4	10,379.9	83.6	77.8	-46.52	-8,567.4	-61.1	682.1	531.1	150.97	4.518		
19,500.0	10,850.3	19,179.4	10,380.5	84.4	78.6	-46.52	-8,667.4	-60.3	682.1	529.6	152.53	4.472		
19,600.0	10,850.9	19,279.4	10,381.1	85.1	79.5	-46.52	-8,767.4	-59.4	682.1	528.0	154.10	4.426		
19,700.0	10,851.6	19,379.4	10,381.7	85.9	80.3	-46.52	-8,867.4	-58.6	682.1	526.5	155.68	4.382		
19,800.0	10,852.2	19,479.4	10,382.3	86.7	81.2	-46.52	-8,967.4	-57.7	682.1	524.9	157.25	4.338		
19,900.0	10,852.8	19,579.4	10,382.9	87.4	82.1	-46.52	-9,067.3	-56.9	682.1	523.3	158.82	4.295		
20,000.0	10,853.4	19,679.4	10,383.5	88.2	82.9	-46.52	-9,167.3	-56.0	682.2	521.8	160.40	4.253		
20,100.0	10,854.0	19,779.4	10,384.1	89.0	83.8	-46.52	-9,267.3	-55.2	682.2	520.2	161.98	4.211		
20,200.0	10,854.6	19,879.4	10,384.7	89.8	84.6	-46.52	-9,367.3	-54.3	682.2	518.6	163.56	4.171		
20,300.0	10,855.2	19,979.4	10,385.3	90.6	85.5	-46.52	-9,467.3	-53.5	682.2	517.0	165.14	4.131		
20,400.0	10,855.8	20,079.4	10,385.9	91.3	86.4	-46.52	-9,567.3	-52.6	682.2	515.5	166.72	4.092		
20,500.0	10,856.4	20,179.4	10,386.5	92.1	87.2	-46.52	-9,667.3	-51.8	682.2	513.9	168.30	4.053		
20,600.0	10,857.1	20,279.4	10,387.1	92.9	88.1	-46.51	-9,767.3	-50.9	682.2	512.3	169.89	4.015		
20,700.0	10,857.7	20,379.4	10,387.7	93.7	88.9	-46.51	-9,867.3	-50.1	682.2	510.7	171.48	3.978		
20,800.0	10,858.3	20,479.4	10,388.3	94.5	89.8	-46.51	-9,967.3	-49.2	682.2	509.1	173.06	3.942		
20,900.0	10,858.9	20,579.4	10,388.9	95.3	90.6	-46.51	-10,067.3	-48.4	682.2	507.6	174.65	3.906		
20,900.6	10,858.9	20,580.0	10,388.9	95.3	90.6	-46.51	-10,067.9	-48.4	682.2	507.5	174.66	3.906		
20,917.7	10,859.0	20,594.0	10,389.0	95.4	90.8	-46.51	-10,081.9	-48.3	682.2	507.4	174.85	3.902		

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=30' @ 3369.0usft (TBD)

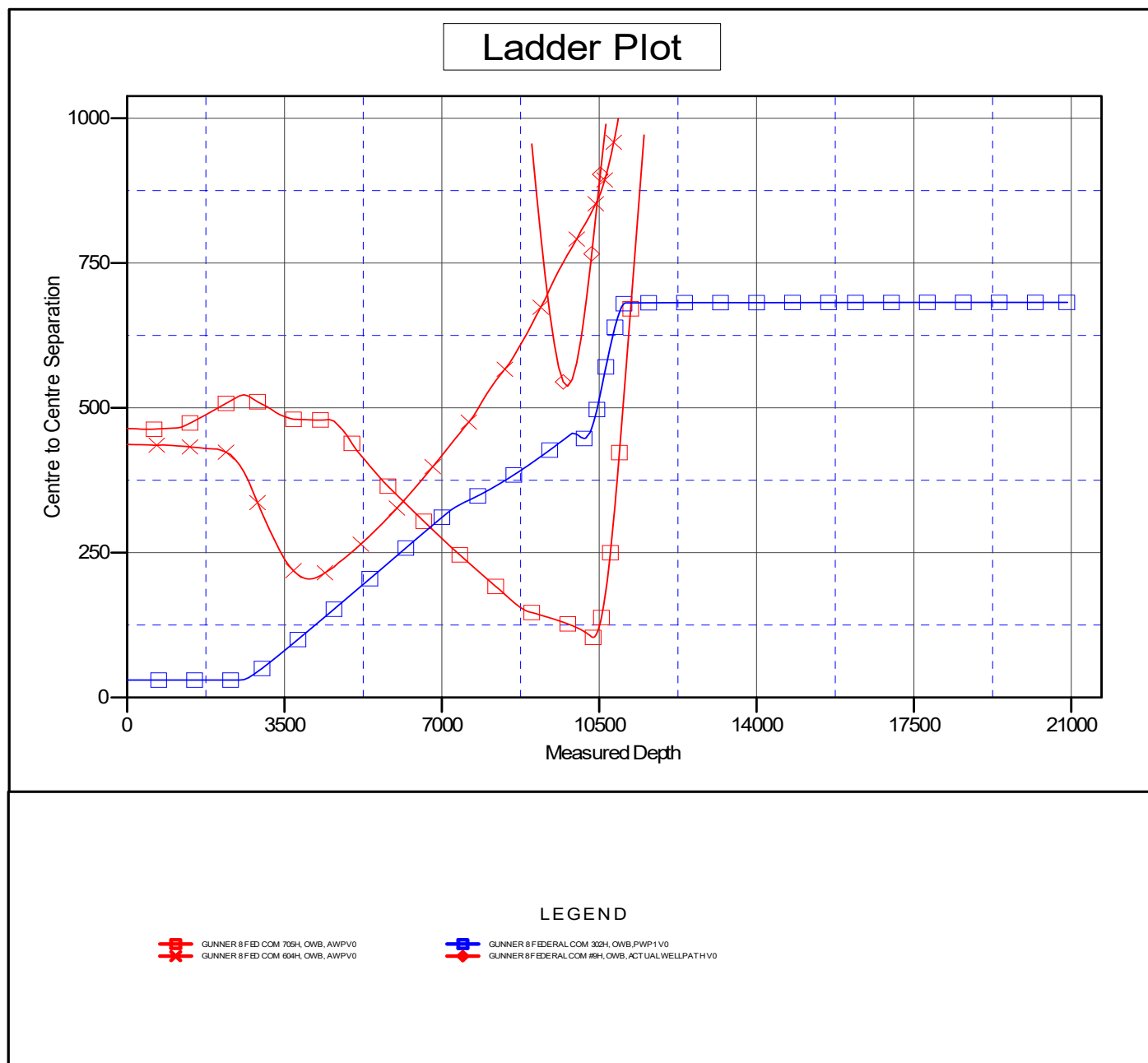
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: GUNNER 8 FEDERAL COM 402H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.44°



Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Reference Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	GUNNER 8 FEDERAL COM 402H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB=30' @ 3369.0usft (TBD)

Offset Depths are relative to Offset Datum

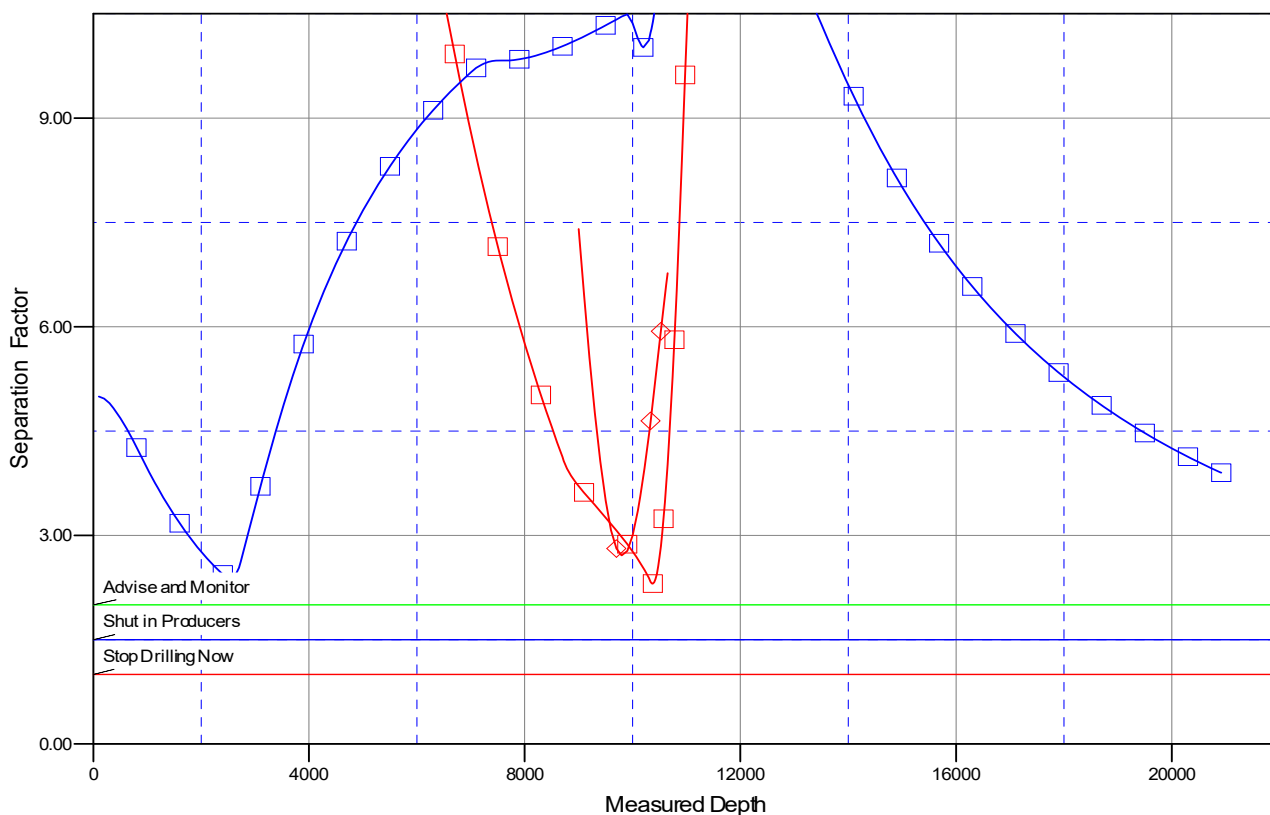
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: GUNNER 8 FEDERAL COM 402H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.44°

Separation Factor Plot



LEGEND

GUNNER 8 FED COM 705H, OWB, AWPV0
GUNNER 8 FED COM 604H, OWB, AWPV0

GUNNER 8 FEDERAL COM 302H, OWB, PWP1 V0
 GUNNER 8 FEDERAL COM 160H, OWB, ACTUAL WELLPATH V0

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

GUNNER FEDERAL PROJECT (BULLDOG 2634)

GUNNER 8 FEDERAL COM 402H

OWB

Plan: PWP1

Standard Survey Report

19 November, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	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		

Site	GUNNER FEDERAL PROJECT (BULLDOG 2634)		
Site Position:		Northing:	419,780.49 usft
From:	Map	Easting:	741,734.30 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 9' 6.058 N
		Longitude:	103° 33' 8.114 W
		Grid Convergence:	0.42 °

Well	GUNNER 8 FEDERAL COM 402H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	3.0 usft	Wellhead Elevation:	
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OWB		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2020	11/19/2020	6.57
			Dip Angle (°)
			59.80
			Field Strength (nT)
			47,475.09251577

Design	PWP1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			183.08

Survey Tool Program	Date	11/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,917.2	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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	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)
1,000.0	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
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	289.56	2,600.0	0.6	-1.6	-0.5	2.00	2.00	0.00
2,700.0	4.00	289.56	2,699.8	2.3	-6.6	-2.0	2.00	2.00	0.00
2,730.9	4.62	289.56	2,730.7	3.1	-8.8	-2.6	2.00	2.00	0.00
Start 7603.7 hold at 2730.9 MD									
2,733.0	4.66	289.56	2,732.8	3.2	-8.9	-2.7	2.00	2.00	0.00
2,800.0	4.66	289.56	2,799.5	5.0	-14.1	-4.2	0.00	0.00	0.00
2,900.0	4.66	289.56	2,899.2	7.7	-21.7	-6.5	0.00	0.00	0.00
3,000.0	4.66	289.56	2,998.9	10.4	-29.4	-8.8	0.00	0.00	0.00
3,100.0	4.66	289.56	3,098.5	13.2	-37.0	-11.1	0.00	0.00	0.00
3,200.0	4.66	289.56	3,198.2	15.9	-44.7	-13.5	0.00	0.00	0.00
3,300.0	4.66	289.56	3,297.9	18.6	-52.3	-15.8	0.00	0.00	0.00
3,400.0	4.66	289.56	3,397.5	21.3	-60.0	-18.1	0.00	0.00	0.00
3,500.0	4.66	289.56	3,497.2	24.0	-67.7	-20.4	0.00	0.00	0.00
3,600.0	4.66	289.56	3,596.9	26.8	-75.3	-22.7	0.00	0.00	0.00
3,700.0	4.66	289.56	3,696.5	29.5	-83.0	-25.0	0.00	0.00	0.00
3,800.0	4.66	289.56	3,796.2	32.2	-90.6	-27.3	0.00	0.00	0.00
3,900.0	4.66	289.56	3,895.9	34.9	-98.3	-29.6	0.00	0.00	0.00
4,000.0	4.66	289.56	3,995.6	37.6	-105.9	-31.9	0.00	0.00	0.00
4,100.0	4.66	289.56	4,095.2	40.4	-113.6	-34.2	0.00	0.00	0.00
4,200.0	4.66	289.56	4,194.9	43.1	-121.2	-36.5	0.00	0.00	0.00
4,300.0	4.66	289.56	4,294.6	45.8	-128.9	-38.8	0.00	0.00	0.00
4,400.0	4.66	289.56	4,394.2	48.5	-136.6	-41.1	0.00	0.00	0.00
4,500.0	4.66	289.56	4,493.9	51.2	-144.2	-43.4	0.00	0.00	0.00
4,600.0	4.66	289.56	4,593.6	54.0	-151.9	-45.7	0.00	0.00	0.00
4,700.0	4.66	289.56	4,693.2	56.7	-159.5	-48.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	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)
4,800.0	4.66	289.56	4,792.9	59.4	-167.2	-50.3	0.00	0.00	0.00
4,900.0	4.66	289.56	4,892.6	62.1	-174.8	-52.6	0.00	0.00	0.00
5,000.0	4.66	289.56	4,992.2	64.8	-182.5	-54.9	0.00	0.00	0.00
5,100.0	4.66	289.56	5,091.9	67.6	-190.2	-57.2	0.00	0.00	0.00
5,200.0	4.66	289.56	5,191.6	70.3	-197.8	-59.6	0.00	0.00	0.00
5,300.0	4.66	289.56	5,291.3	73.0	-205.5	-61.9	0.00	0.00	0.00
5,400.0	4.66	289.56	5,390.9	75.7	-213.1	-64.2	0.00	0.00	0.00
5,500.0	4.66	289.56	5,490.6	78.5	-220.8	-66.5	0.00	0.00	0.00
5,600.0	4.66	289.56	5,590.3	81.2	-228.4	-68.8	0.00	0.00	0.00
5,700.0	4.66	289.56	5,689.9	83.9	-236.1	-71.1	0.00	0.00	0.00
5,800.0	4.66	289.56	5,789.6	86.6	-243.8	-73.4	0.00	0.00	0.00
5,900.0	4.66	289.56	5,889.3	89.3	-251.4	-75.7	0.00	0.00	0.00
6,000.0	4.66	289.56	5,988.9	92.1	-259.1	-78.0	0.00	0.00	0.00
6,100.0	4.66	289.56	6,088.6	94.8	-266.7	-80.3	0.00	0.00	0.00
6,200.0	4.66	289.56	6,188.3	97.5	-274.4	-82.6	0.00	0.00	0.00
6,300.0	4.66	289.56	6,287.9	100.2	-282.0	-84.9	0.00	0.00	0.00
6,400.0	4.66	289.56	6,387.6	102.9	-289.7	-87.2	0.00	0.00	0.00
6,500.0	4.66	289.56	6,487.3	105.7	-297.4	-89.5	0.00	0.00	0.00
6,600.0	4.66	289.56	6,587.0	108.4	-305.0	-91.8	0.00	0.00	0.00
6,700.0	4.66	289.56	6,686.6	111.1	-312.7	-94.1	0.00	0.00	0.00
6,800.0	4.66	289.56	6,786.3	113.8	-320.3	-96.4	0.00	0.00	0.00
6,900.0	4.66	289.56	6,886.0	116.5	-328.0	-98.7	0.00	0.00	0.00
7,000.0	4.66	289.56	6,985.6	119.3	-335.6	-101.0	0.00	0.00	0.00
7,100.0	4.66	289.56	7,085.3	122.0	-343.3	-103.3	0.00	0.00	0.00
7,200.0	4.66	289.56	7,185.0	124.7	-351.0	-105.7	0.00	0.00	0.00
7,300.0	4.66	289.56	7,284.6	127.4	-358.6	-108.0	0.00	0.00	0.00
7,400.0	4.66	289.56	7,384.3	130.1	-366.3	-110.3	0.00	0.00	0.00
7,500.0	4.66	289.56	7,484.0	132.9	-373.9	-112.6	0.00	0.00	0.00
7,600.0	4.66	289.56	7,583.6	135.6	-381.6	-114.9	0.00	0.00	0.00
7,700.0	4.66	289.56	7,683.3	138.3	-389.2	-117.2	0.00	0.00	0.00
7,800.0	4.66	289.56	7,783.0	141.0	-396.9	-119.5	0.00	0.00	0.00
7,900.0	4.66	289.56	7,882.7	143.7	-404.5	-121.8	0.00	0.00	0.00
8,000.0	4.66	289.56	7,982.3	146.5	-412.2	-124.1	0.00	0.00	0.00
8,100.0	4.66	289.56	8,082.0	149.2	-419.9	-126.4	0.00	0.00	0.00
8,200.0	4.66	289.56	8,181.7	151.9	-427.5	-128.7	0.00	0.00	0.00
8,300.0	4.66	289.56	8,281.3	154.6	-435.2	-131.0	0.00	0.00	0.00
8,400.0	4.66	289.56	8,381.0	157.4	-442.8	-133.3	0.00	0.00	0.00
8,500.0	4.66	289.56	8,480.7	160.1	-450.5	-135.6	0.00	0.00	0.00
8,600.0	4.66	289.56	8,580.3	162.8	-458.1	-137.9	0.00	0.00	0.00
8,700.0	4.66	289.56	8,680.0	165.5	-465.8	-140.2	0.00	0.00	0.00
8,800.0	4.66	289.56	8,779.7	168.2	-473.5	-142.5	0.00	0.00	0.00
8,900.0	4.66	289.56	8,879.3	171.0	-481.1	-144.8	0.00	0.00	0.00
9,000.0	4.66	289.56	8,979.0	173.7	-488.8	-147.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	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)
9,100.0	4.66	289.56	9,078.7	176.4	-496.4	-149.4	0.00	0.00	0.00
9,200.0	4.66	289.56	9,178.4	179.1	-504.1	-151.8	0.00	0.00	0.00
9,300.0	4.66	289.56	9,278.0	181.8	-511.7	-154.1	0.00	0.00	0.00
9,400.0	4.66	289.56	9,377.7	184.6	-519.4	-156.4	0.00	0.00	0.00
9,500.0	4.66	289.56	9,477.4	187.3	-527.1	-158.7	0.00	0.00	0.00
9,600.0	4.66	289.56	9,577.0	190.0	-534.7	-161.0	0.00	0.00	0.00
9,700.0	4.66	289.56	9,676.7	192.7	-542.4	-163.3	0.00	0.00	0.00
9,800.0	4.66	289.56	9,776.4	195.4	-550.0	-165.6	0.00	0.00	0.00
9,900.0	4.66	289.56	9,876.0	198.2	-557.7	-167.9	0.00	0.00	0.00
10,000.0	4.66	289.56	9,975.7	200.9	-565.3	-170.2	0.00	0.00	0.00
10,100.0	4.66	289.56	10,075.4	203.6	-573.0	-172.5	0.00	0.00	0.00
10,200.0	4.66	289.56	10,175.1	206.3	-580.7	-174.8	0.00	0.00	0.00
10,300.0	4.66	289.56	10,274.7	209.0	-588.3	-177.1	0.00	0.00	0.00
10,334.6	4.66	289.56	10,309.2	210.0	-591.0	-177.9	0.00	0.00	0.00
Start DLS 12.00 TFO -110.15									
10,335.1	4.66	289.56	10,309.7	210.0	-591.0	-177.9	0.00	0.00	0.00
10,400.0	7.58	214.65	10,374.3	207.4	-595.9	-175.0	12.00	4.50	-115.42
10,500.0	18.69	192.59	10,471.6	186.2	-603.2	-153.5	12.00	11.12	-22.06
10,600.0	30.48	186.99	10,562.4	145.3	-609.8	-112.2	12.00	11.78	-5.60
10,700.0	42.38	184.33	10,642.7	86.3	-615.5	-53.0	12.00	11.90	-2.66
10,800.0	54.31	182.67	10,709.0	11.8	-619.9	21.5	12.00	11.94	-1.66
10,900.0	66.27	181.44	10,758.5	-74.8	-623.0	108.2	12.00	11.95	-1.22
11,000.0	78.23	180.43	10,789.0	-169.9	-624.5	203.2	12.00	11.96	-1.02
11,095.0	89.59	179.54	10,799.0	-264.2	-624.4	297.4	12.00	11.96	-0.93
Start 9822.2 hold at 11095.0 MD									
11,095.5	89.65	179.54	10,799.0	-264.7	-624.4	297.9	12.00	11.96	-0.92
11,100.0	89.65	179.54	10,799.1	-269.2	-624.4	302.4	0.00	0.00	0.00
11,200.0	89.65	179.54	10,799.7	-369.2	-623.6	402.2	0.00	0.00	0.00
11,300.0	89.65	179.54	10,800.3	-469.2	-622.8	502.0	0.00	0.00	0.00
11,400.0	89.65	179.54	10,800.9	-569.2	-622.0	601.8	0.00	0.00	0.00
11,500.0	89.65	179.54	10,801.5	-669.2	-621.2	701.6	0.00	0.00	0.00
11,600.0	89.65	179.54	10,802.1	-769.2	-620.4	801.4	0.00	0.00	0.00
11,700.0	89.65	179.54	10,802.7	-869.2	-619.6	901.2	0.00	0.00	0.00
11,800.0	89.65	179.54	10,803.3	-969.1	-618.8	1,001.0	0.00	0.00	0.00
11,900.0	89.65	179.54	10,803.9	-1,069.1	-618.0	1,100.8	0.00	0.00	0.00
12,000.0	89.65	179.54	10,804.5	-1,169.1	-617.2	1,200.6	0.00	0.00	0.00
12,100.0	89.65	179.54	10,805.2	-1,269.1	-616.4	1,300.4	0.00	0.00	0.00
12,200.0	89.65	179.54	10,805.8	-1,369.1	-615.6	1,400.2	0.00	0.00	0.00
12,300.0	89.65	179.54	10,806.4	-1,469.1	-614.8	1,500.1	0.00	0.00	0.00
12,400.0	89.65	179.54	10,807.0	-1,569.1	-614.0	1,599.9	0.00	0.00	0.00
12,500.0	89.65	179.54	10,807.6	-1,669.1	-613.2	1,699.7	0.00	0.00	0.00
12,600.0	89.65	179.54	10,808.2	-1,769.1	-612.4	1,799.5	0.00	0.00	0.00
12,700.0	89.65	179.54	10,808.8	-1,869.1	-611.6	1,899.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	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)
12,800.0	89.65	179.54	10,809.4	-1,969.1	-610.8	1,999.1	0.00	0.00	0.00
12,900.0	89.65	179.54	10,810.0	-2,069.1	-610.0	2,098.9	0.00	0.00	0.00
13,000.0	89.65	179.54	10,810.6	-2,169.1	-609.1	2,198.7	0.00	0.00	0.00
13,100.0	89.65	179.54	10,811.3	-2,269.1	-608.3	2,298.5	0.00	0.00	0.00
13,200.0	89.65	179.54	10,811.9	-2,369.1	-607.5	2,398.3	0.00	0.00	0.00
13,300.0	89.65	179.54	10,812.5	-2,469.1	-606.7	2,498.1	0.00	0.00	0.00
13,400.0	89.65	179.54	10,813.1	-2,569.1	-605.9	2,597.9	0.00	0.00	0.00
13,500.0	89.65	179.54	10,813.7	-2,669.1	-605.1	2,697.7	0.00	0.00	0.00
13,600.0	89.65	179.54	10,814.3	-2,769.1	-604.3	2,797.5	0.00	0.00	0.00
13,700.0	89.65	179.54	10,814.9	-2,869.1	-603.5	2,897.4	0.00	0.00	0.00
13,800.0	89.65	179.54	10,815.5	-2,969.0	-602.7	2,997.2	0.00	0.00	0.00
13,900.0	89.65	179.54	10,816.1	-3,069.0	-601.9	3,097.0	0.00	0.00	0.00
14,000.0	89.65	179.54	10,816.7	-3,169.0	-601.1	3,196.8	0.00	0.00	0.00
14,100.0	89.65	179.54	10,817.3	-3,269.0	-600.3	3,296.6	0.00	0.00	0.00
14,200.0	89.65	179.54	10,818.0	-3,369.0	-599.5	3,396.4	0.00	0.00	0.00
14,300.0	89.65	179.54	10,818.6	-3,469.0	-598.7	3,496.2	0.00	0.00	0.00
14,400.0	89.65	179.54	10,819.2	-3,569.0	-597.9	3,596.0	0.00	0.00	0.00
14,500.0	89.65	179.54	10,819.8	-3,669.0	-597.1	3,695.8	0.00	0.00	0.00
14,600.0	89.65	179.54	10,820.4	-3,769.0	-596.3	3,795.6	0.00	0.00	0.00
14,700.0	89.65	179.54	10,821.0	-3,869.0	-595.5	3,895.4	0.00	0.00	0.00
14,800.0	89.65	179.54	10,821.6	-3,969.0	-594.7	3,995.2	0.00	0.00	0.00
14,900.0	89.65	179.54	10,822.2	-4,069.0	-593.9	4,095.0	0.00	0.00	0.00
15,000.0	89.65	179.54	10,822.8	-4,169.0	-593.1	4,194.8	0.00	0.00	0.00
15,100.0	89.65	179.54	10,823.4	-4,269.0	-592.3	4,294.7	0.00	0.00	0.00
15,200.0	89.65	179.54	10,824.1	-4,369.0	-591.5	4,394.5	0.00	0.00	0.00
15,300.0	89.65	179.54	10,824.7	-4,469.0	-590.7	4,494.3	0.00	0.00	0.00
15,400.0	89.65	179.54	10,825.3	-4,569.0	-589.9	4,594.1	0.00	0.00	0.00
15,500.0	89.65	179.54	10,825.9	-4,669.0	-589.1	4,693.9	0.00	0.00	0.00
15,600.0	89.65	179.54	10,826.5	-4,769.0	-588.3	4,793.7	0.00	0.00	0.00
15,682.1	89.65	179.54	10,827.0	-4,851.0	-587.6	4,875.6	0.00	0.00	0.00
15,683.4	89.65	179.51	10,827.0	-4,852.3	-587.6	4,876.9	2.00	-0.05	-2.00
15,700.0	89.65	179.51	10,827.1	-4,868.9	-587.5	4,893.5	0.00	0.00	0.00
15,800.0	89.65	179.51	10,827.7	-4,968.9	-586.6	4,993.3	0.00	0.00	0.00
15,900.0	89.65	179.51	10,828.3	-5,068.9	-585.8	5,093.1	0.00	0.00	0.00
16,000.0	89.65	179.51	10,828.9	-5,168.9	-584.9	5,192.9	0.00	0.00	0.00
16,100.0	89.65	179.51	10,829.6	-5,268.9	-584.1	5,292.7	0.00	0.00	0.00
16,200.0	89.65	179.51	10,830.2	-5,368.9	-583.2	5,392.5	0.00	0.00	0.00
16,300.0	89.65	179.51	10,830.8	-5,468.9	-582.4	5,492.3	0.00	0.00	0.00
16,400.0	89.65	179.51	10,831.4	-5,568.9	-581.5	5,592.1	0.00	0.00	0.00
16,500.0	89.65	179.51	10,832.0	-5,668.9	-580.7	5,691.9	0.00	0.00	0.00
16,600.0	89.65	179.51	10,832.6	-5,768.9	-579.8	5,791.7	0.00	0.00	0.00
16,700.0	89.65	179.51	10,833.2	-5,868.9	-579.0	5,891.5	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	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)
16,800.0	89.65	179.51	10,833.8	-5,968.9	-578.1	5,991.3	0.00	0.00	0.00
16,900.0	89.65	179.51	10,834.4	-6,068.9	-577.3	6,091.1	0.00	0.00	0.00
17,000.0	89.65	179.51	10,835.1	-6,168.9	-576.4	6,190.9	0.00	0.00	0.00
17,100.0	89.65	179.51	10,835.7	-6,268.9	-575.6	6,290.8	0.00	0.00	0.00
17,200.0	89.65	179.51	10,836.3	-6,368.9	-574.7	6,390.6	0.00	0.00	0.00
17,300.0	89.65	179.51	10,836.9	-6,468.9	-573.9	6,490.4	0.00	0.00	0.00
17,400.0	89.65	179.51	10,837.5	-6,568.9	-573.0	6,590.2	0.00	0.00	0.00
17,500.0	89.65	179.51	10,838.1	-6,668.8	-572.2	6,690.0	0.00	0.00	0.00
17,600.0	89.65	179.51	10,838.7	-6,768.8	-571.3	6,789.8	0.00	0.00	0.00
17,700.0	89.65	179.51	10,839.3	-6,868.8	-570.5	6,889.6	0.00	0.00	0.00
17,800.0	89.65	179.51	10,839.9	-6,968.8	-569.6	6,989.4	0.00	0.00	0.00
17,900.0	89.65	179.51	10,840.6	-7,068.8	-568.8	7,089.2	0.00	0.00	0.00
18,000.0	89.65	179.51	10,841.2	-7,168.8	-567.9	7,189.0	0.00	0.00	0.00
18,100.0	89.65	179.51	10,841.8	-7,268.8	-567.1	7,288.8	0.00	0.00	0.00
18,200.0	89.65	179.51	10,842.4	-7,368.8	-566.3	7,388.6	0.00	0.00	0.00
18,300.0	89.65	179.51	10,843.0	-7,468.8	-565.4	7,488.4	0.00	0.00	0.00
18,400.0	89.65	179.51	10,843.6	-7,568.8	-564.6	7,588.2	0.00	0.00	0.00
18,500.0	89.65	179.51	10,844.2	-7,668.8	-563.7	7,688.0	0.00	0.00	0.00
18,600.0	89.65	179.51	10,844.8	-7,768.8	-562.9	7,787.8	0.00	0.00	0.00
18,700.0	89.65	179.51	10,845.4	-7,868.8	-562.0	7,887.6	0.00	0.00	0.00
18,800.0	89.65	179.51	10,846.1	-7,968.8	-561.2	7,987.4	0.00	0.00	0.00
18,900.0	89.65	179.51	10,846.7	-8,068.8	-560.3	8,087.2	0.00	0.00	0.00
19,000.0	89.65	179.51	10,847.3	-8,168.8	-559.5	8,187.0	0.00	0.00	0.00
19,100.0	89.65	179.51	10,847.9	-8,268.8	-558.6	8,286.8	0.00	0.00	0.00
19,200.0	89.65	179.51	10,848.5	-8,368.8	-557.8	8,386.6	0.00	0.00	0.00
19,300.0	89.65	179.51	10,849.1	-8,468.8	-556.9	8,486.4	0.00	0.00	0.00
19,400.0	89.65	179.51	10,849.7	-8,568.7	-556.1	8,586.3	0.00	0.00	0.00
19,500.0	89.65	179.51	10,850.3	-8,668.7	-555.2	8,686.1	0.00	0.00	0.00
19,600.0	89.65	179.51	10,850.9	-8,768.7	-554.4	8,785.9	0.00	0.00	0.00
19,700.0	89.65	179.51	10,851.6	-8,868.7	-553.5	8,885.7	0.00	0.00	0.00
19,800.0	89.65	179.51	10,852.2	-8,968.7	-552.7	8,985.5	0.00	0.00	0.00
19,900.0	89.65	179.51	10,852.8	-9,068.7	-551.8	9,085.3	0.00	0.00	0.00
20,000.0	89.65	179.51	10,853.4	-9,168.7	-551.0	9,185.1	0.00	0.00	0.00
20,100.0	89.65	179.51	10,854.0	-9,268.7	-550.1	9,284.9	0.00	0.00	0.00
20,200.0	89.65	179.51	10,854.6	-9,368.7	-549.3	9,384.7	0.00	0.00	0.00
20,300.0	89.65	179.51	10,855.2	-9,468.7	-548.4	9,484.5	0.00	0.00	0.00
20,400.0	89.65	179.51	10,855.8	-9,568.7	-547.6	9,584.3	0.00	0.00	0.00
20,500.0	89.65	179.51	10,856.4	-9,668.7	-546.7	9,684.1	0.00	0.00	0.00
20,600.0	89.65	179.51	10,857.1	-9,768.7	-545.9	9,783.9	0.00	0.00	0.00
20,700.0	89.65	179.51	10,857.7	-9,868.7	-545.0	9,883.7	0.00	0.00	0.00
20,800.0	89.65	179.51	10,858.3	-9,968.7	-544.2	9,983.5	0.00	0.00	0.00
20,900.0	89.65	179.51	10,858.9	-10,068.7	-543.4	10,083.3	0.00	0.00	0.00
20,917.2	89.65	179.51	10,859.0	-10,085.9	-543.2	10,100.5	0.00	0.00	0.00

Concho Resources LLC

Survey Report

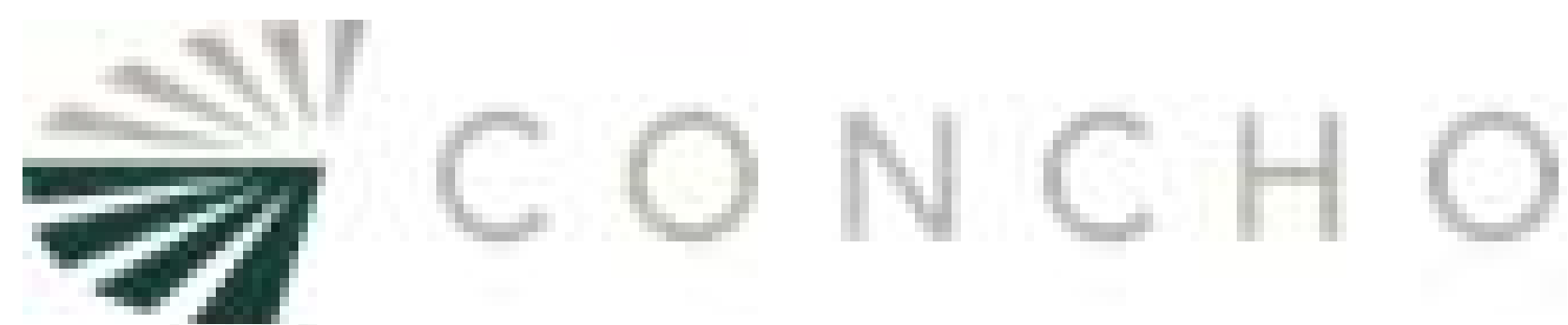
Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well GUNNER 8 FEDERAL COM 402H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=30' @ 3369.0usft (TBD)
Site:	GUNNER FEDERAL PROJECT (BULLDOG 2634)	MD Reference:	KB=30' @ 3369.0usft (TBD)
Well:	GUNNER 8 FEDERAL COM 402H	North Reference:	Grid
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)
TD at 20917.2									
20,917.7	89.65	179.51	10,859.0	-10,086.4	-543.2	10,101.0	0.00	0.00	0.00

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 (GUNNER 8 FEC - plan misses target center by 283.8usft at 10685.8usft MD (10632.0 TVD, 95.7 N, -614.7 E) - Circle (radius 50.0)	0.00	0.01	10,799.0	324.6	-630.8	393,584.10	758,439.30	32° 4' 45.591 N	103° 29' 56.175 W
POI 1 (GUNNER 8 FE - plan hits target center - Rectangle (sides W100.0 H5,222.0 D20.0)	-0.35	359.54	10,827.0	-4,851.0	-587.6	388,408.48	758,482.49	32° 3' 54.372 N	103° 29' 56.139 W
PBHL (GUNNER 8 FE - plan hits target center - Rectangle (sides W100.0 H5,238.0 D20.0)	-0.35	359.51	10,859.0	-10,086.4	-543.2	383,173.10	758,526.90	32° 3' 2.561 N	103° 29' 56.093 W
LTP (GUNNER 8 FED - plan misses target center by 0.3usft at 20867.7usft MD (10858.7 TVD, -10036.4 N, -543.6 E) - Point	0.00	0.00	10,859.0	-10,036.4	-543.6	383,223.10	758,526.50	32° 3' 3.056 N	103° 29' 56.093 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
2731	2731	3	-9	Start 7603.7 hold at 2730.9 MD
10,335	10,309	210	-591	Start DLS 12.00 TFO -110.15
11,095	10,799	-264	-624	Start 9822.2 hold at 11095.0 MD
20,917	10,859	-10,086	-543	TD at 20917.2

Checked By: _____	Approved By: _____	Date: _____
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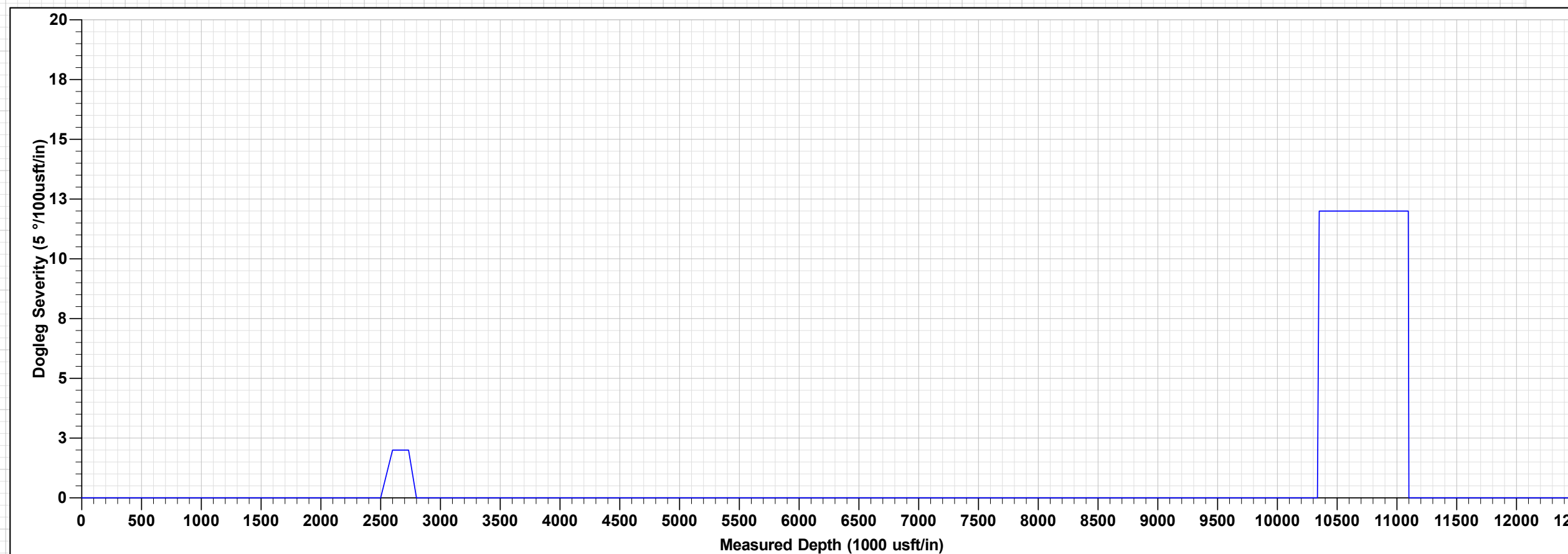
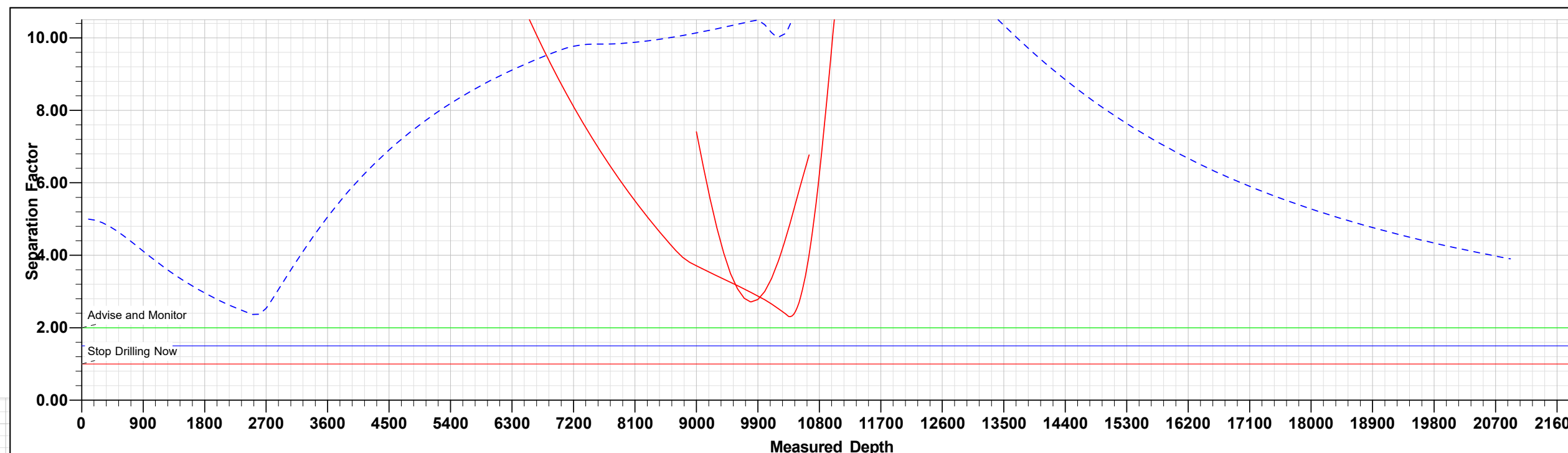
Project: BULLDOG PROSPECT (NM-E)
Site: GUNNER FEDERAL PROJECT (BULLDOG 2634)
Well: GUNNER 8 FEDERAL COM 402H
Wellbore: OWB
Design: PWP1
GL: 3339.0
KB=30' @ 3369.0usft (TBD)

WELL DETAILS: GUNNER 8 FEDERAL COM 402H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	393259.50	759070.10	32° 4' 42.331 N	103° 29' 48.874 W

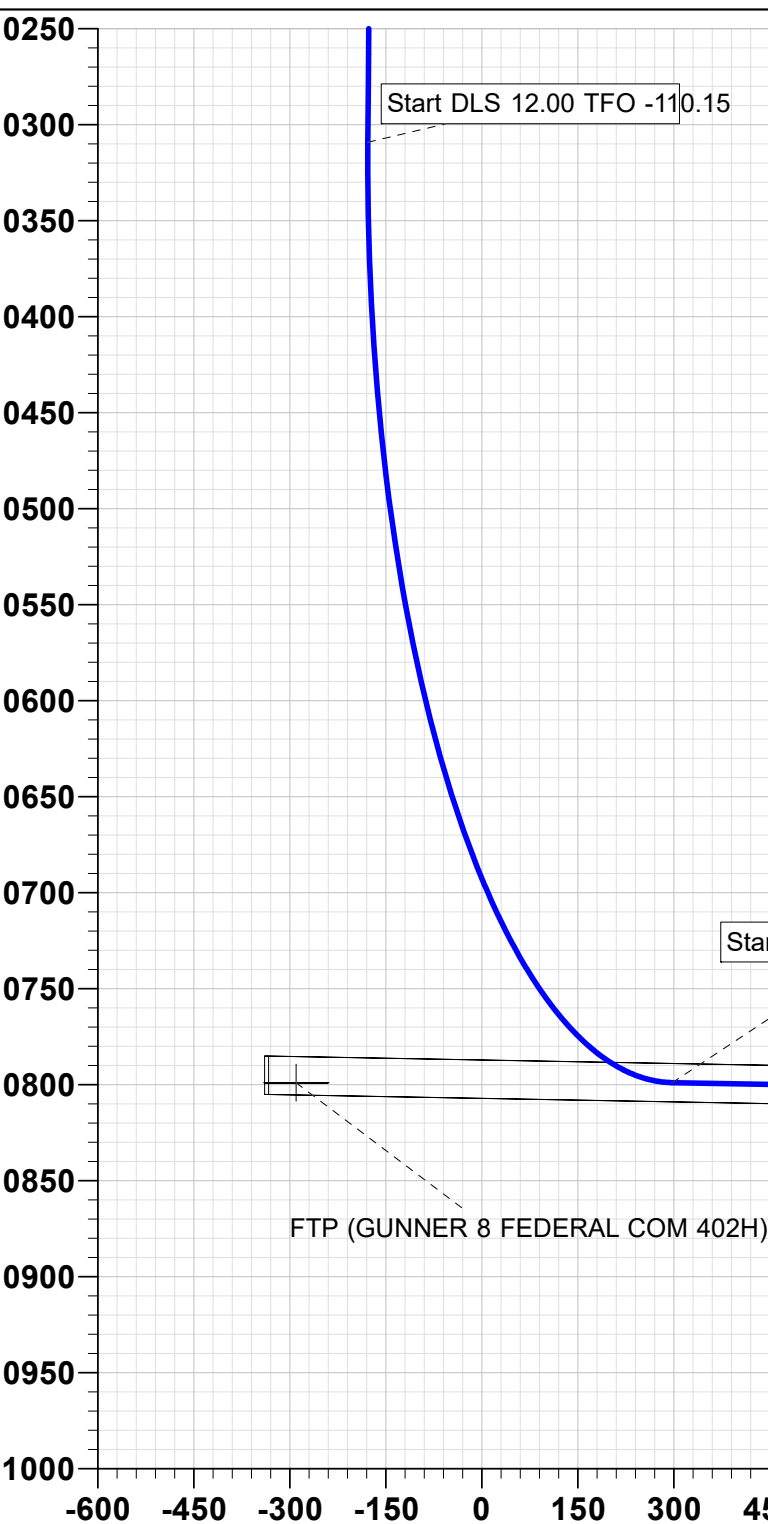
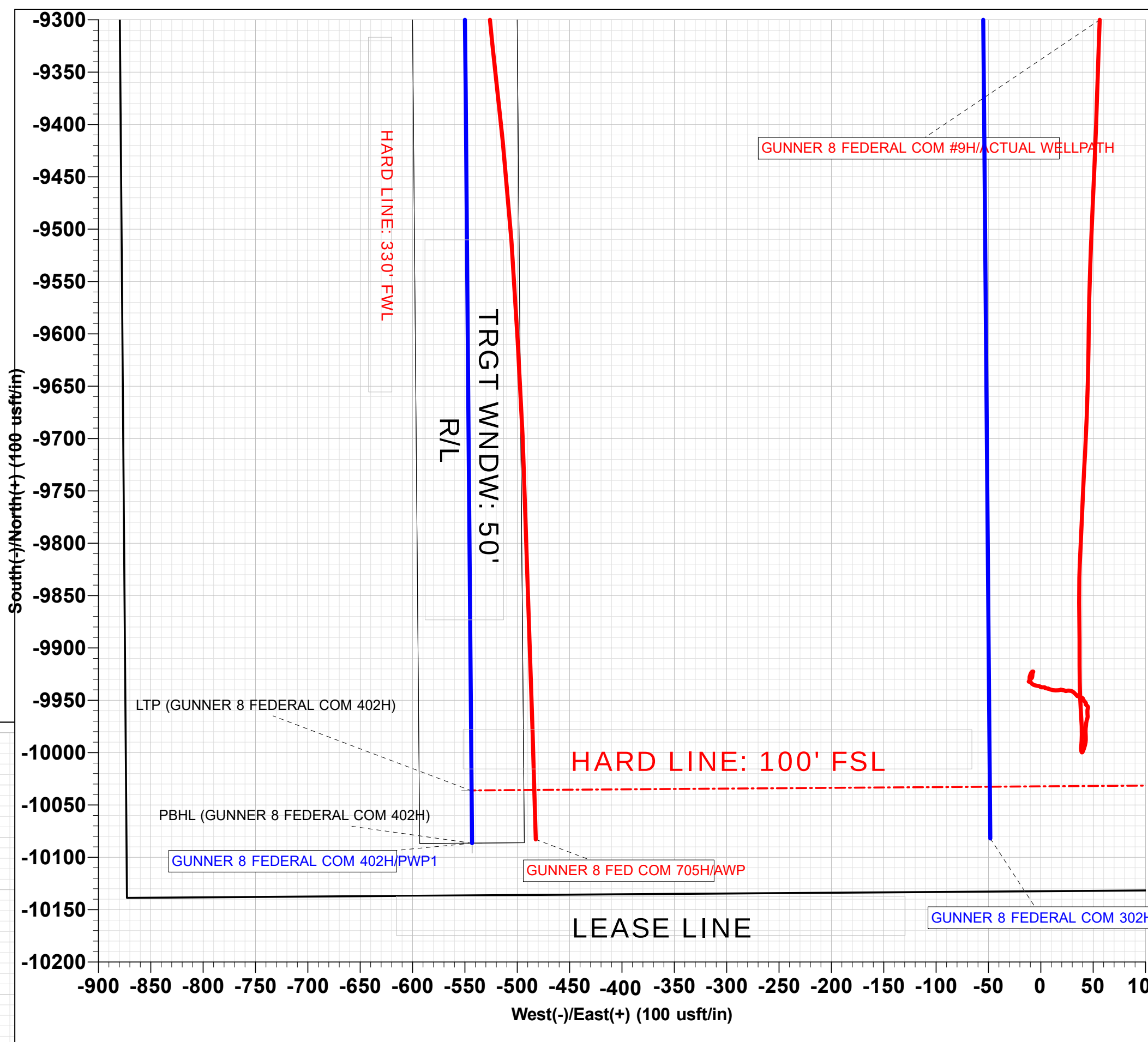
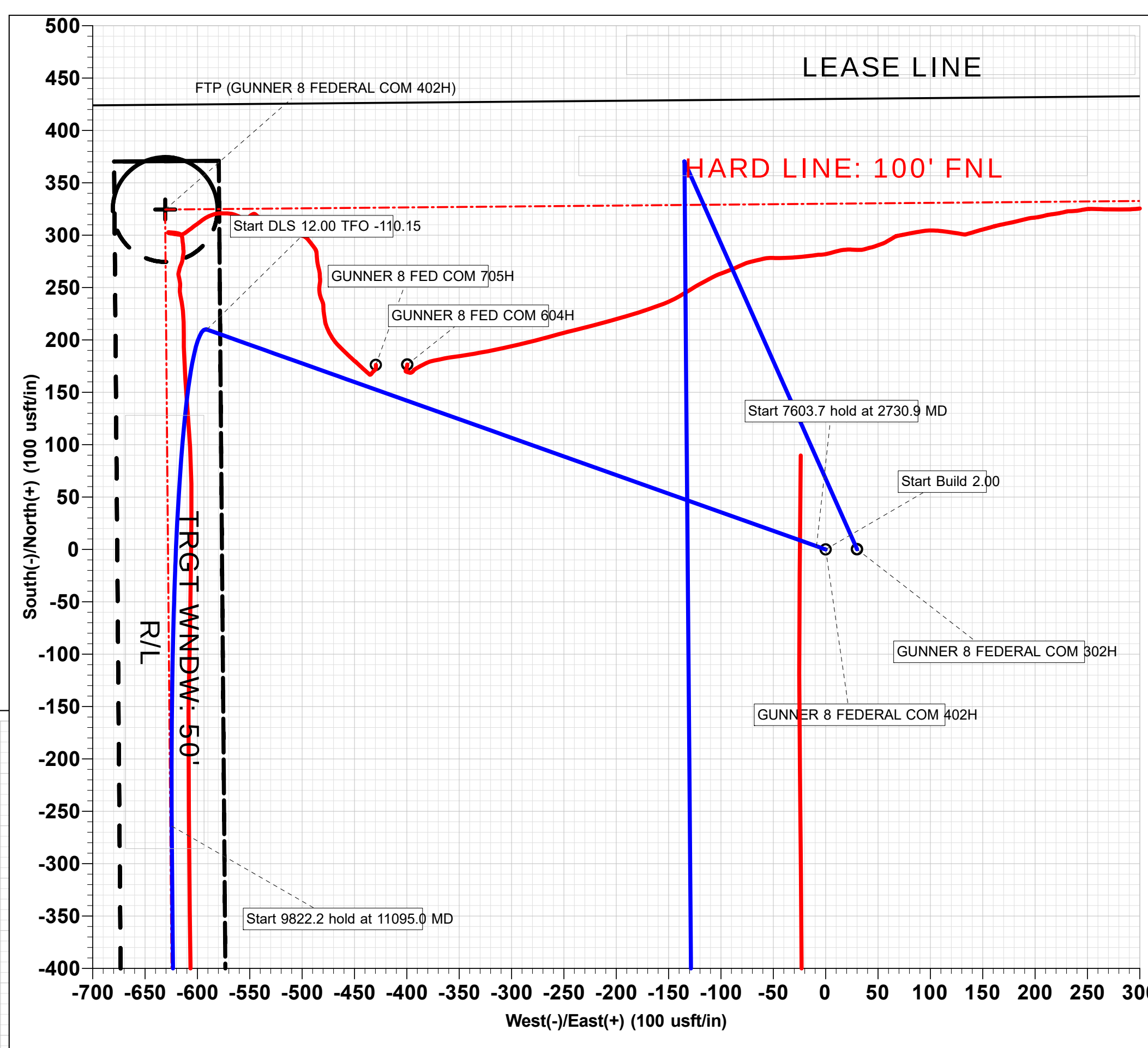
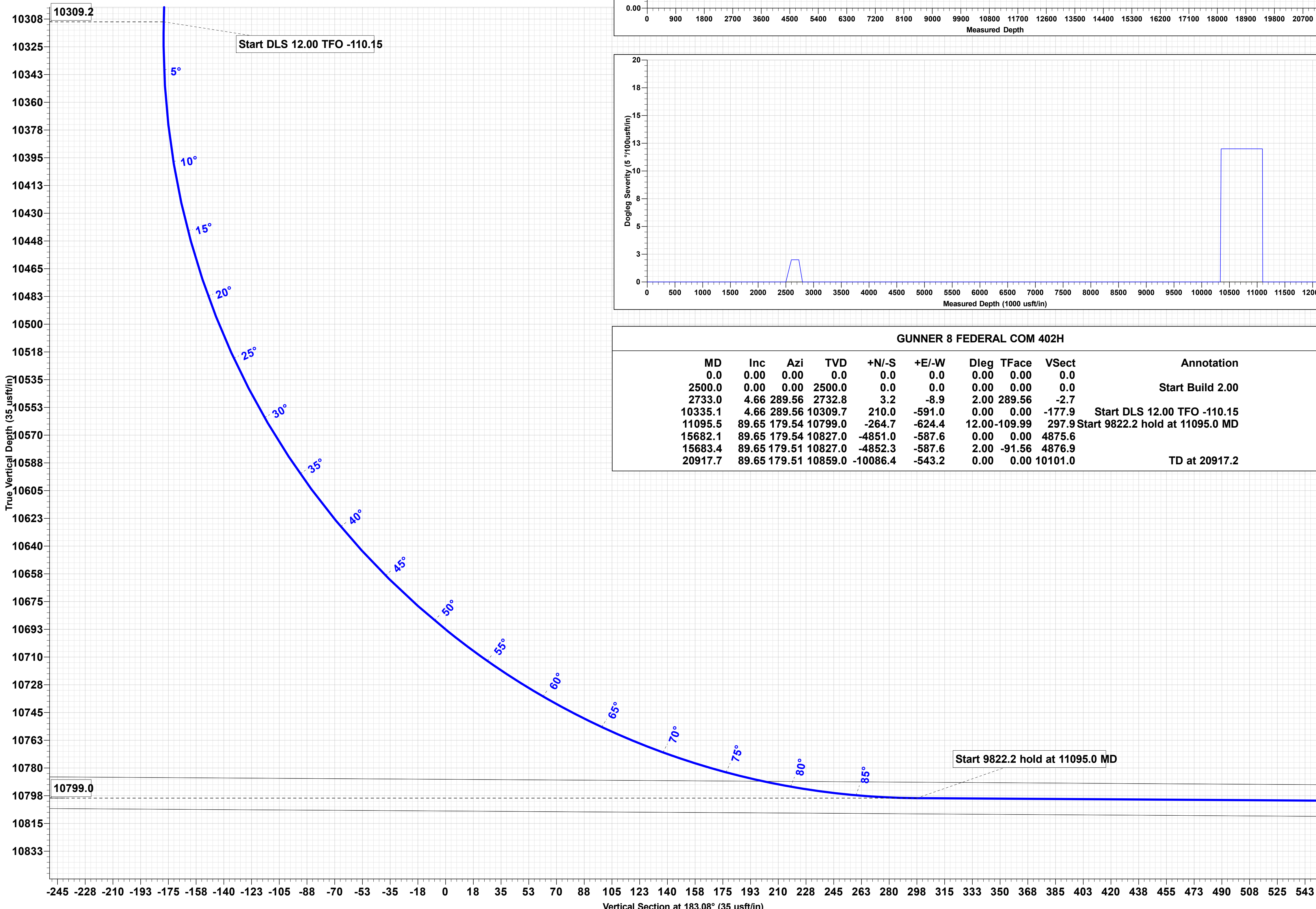
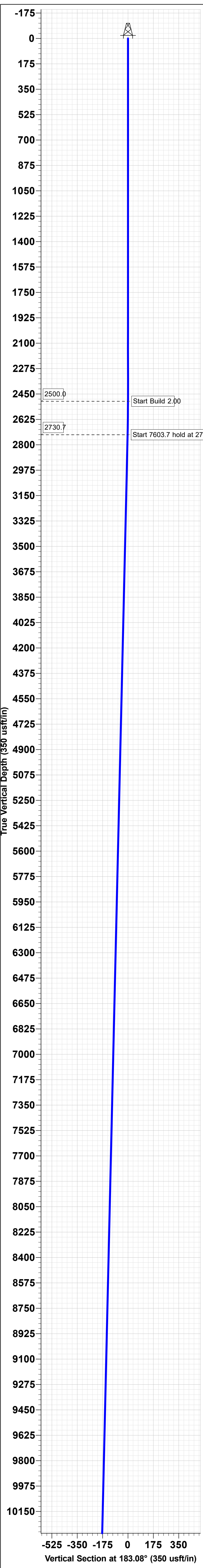
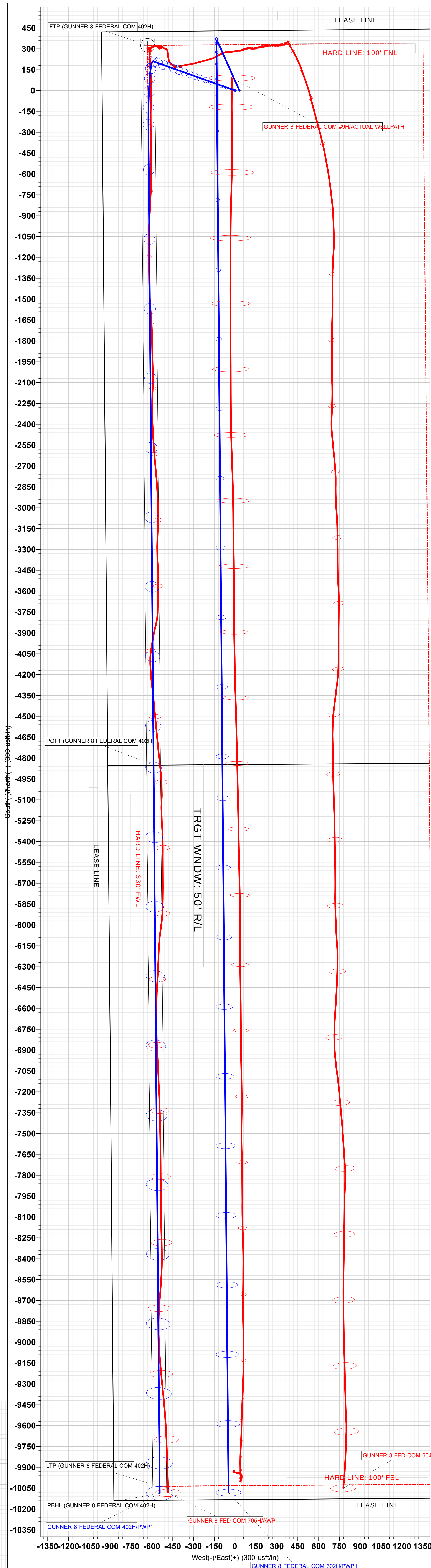
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (GUNNER 8 FEDERAL COM 402H)	10799.0	324.6	-630.8	393584.10	758439.30	32° 4' 45.591 N	103° 29' 56.175 W
POI 1 (GUNNER 8 FEDERAL COM 402H)	10827.0	-4851.0	-587.6	388408.48	758482.49	32° 3' 54.372 N	103° 29' 56.139 W
LTP (GUNNER 8 FEDERAL COM 402H)	10859.0	-10036.4	-543.6	383223.10	758526.50	32° 3' 3.056 N	103° 29' 56.093 W
PBHL (GUNNER 8 FEDERAL COM 402H)	10859.0	-10086.4	-543.2	383173.10	758526.90	32° 3' 2.561 N	103° 29' 56.093 W



GUNNER 8 FEDERAL COM 402H

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
2733.0	4.66	289.56	2732.8	3.2	-8.9	2.00	289.56	-2.7	
10335.1	4.66	289.56	10309.7	210.0	-591.0	0.00	0.00	-177.9	Start DLS 12.00 TFO -110.15
11095.5	89.65	179.54	10799.0	-264.7	-624.4	12.00	-109.99	297.9	Start 9822.2 hold at 11095.0 MD
15682.1	89.65	179.54	10827.0	-4851.0	-587.6	0.00	0.00	4875.6	
15683.4	89.65	179.51	10827.0	-4852.3	-587.6	2.00	-91.56	4876.9	
20917.7	89.65	179.51	10859.0	-10086.4	-543.2	0.00	0.00	10101.0	TD at 20917.2



TRGT WNDW: 10' A/B

POI 1 (GUNNER 8 FEDERAL COM 402H)

LTP (GUNNER 8 FEDERAL COM 402H) PBHL (GUNNER 8 FEDERAL COM 402H)

TD at 20917.2

GUNNER 8 FEDERAL COM 402HPWP1