

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**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.

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address

3b. Phone No. (include area code)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

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		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

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)

Additional Information

Location of Well

0. SHL: NENE / 210 FNL / 940 FEL / TWSP: 25S / RANGE: 29E / SECTION: 24 / LAT: 32.1222294 / LONG: -103.9324221 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 330 FNL / 2200 FEL / TWSP: 25S / RANGE: 29E / SECTION: 24 / LAT: 32.1218818 / LONG: -103.936491 (TVD: 10595 feet, MD: 10700 feet)

BHL: SWSE / 200 FSL / 2200 FEL / TWSP: 25S / RANGE: 29E / SECTION: 25 / LAT: 32.0941292 / LONG: -103.9363982 (TVD: 10738 feet, MD: 20577 feet)

CONFIDENTIAL

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III

1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-47663	2 Pool Code 98220	3 Pool Name Purple Sage; Wolfcamp (Gas)
4 Property Code 329794	5 Property Name CABO WABO FEDERAL COM	6 Well Number 703H
7 OGRID No. 217955	8 Operator Name COG PRODUCTION LLC	9 Elevation 3146'

10 Surface Location

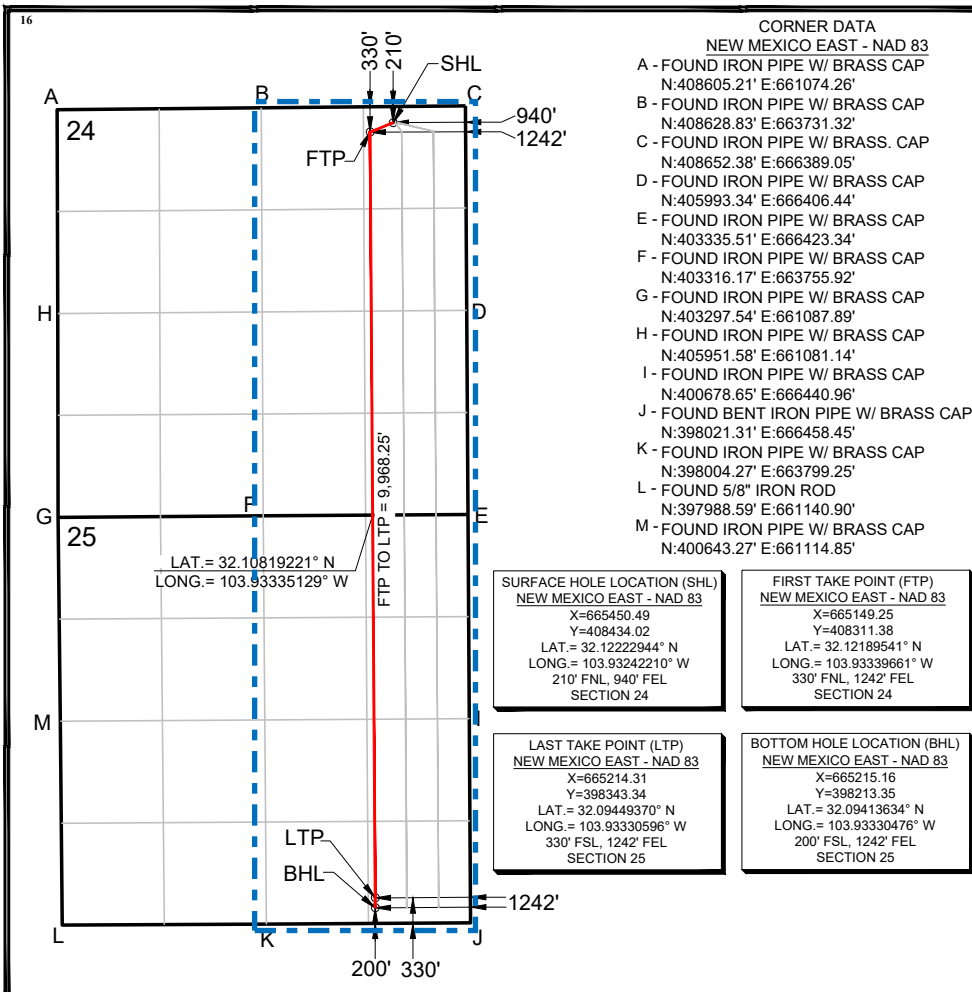
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	24	25-S	29-E		210'	NORTH	940'	EAST	EDDY

11 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
O	25	25-S	29-E		200'	SOUTH	1242'	EAST	EDDY

12 Dedicated Acres 640	13 Joint or Infill	14 Consolidation Code	15 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.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Stan Wagner Date 10/11/2021

Printed Name Stan Wagner

E-mail Address _____

18 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.

Date of Survey _____
Signature and Seal of Professional Surveyor: _____

Certificate Number 12177 8/16/2021

ConocoPhillips - Cabo Wabo Fed Com #703H

1. Geologic Formations

TVD of target	10,618' EOL	Pilot hole depth	NA
MD at TD:	20,785'	Deepest expected fresh water:	53'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	517	Water	
Top of Salt	904	Salt	
Base of Salt	3174	Salt	
Lamar	3387	Salt Water	
Bell Canyon	3432	Salt Water	
Cherry Canyon	4325	Oil/Gas	
Brushy Canyon	5554	Oil/Gas	
Bone Spring Lime	7216	Oil/Gas	
1st Bone Spring Sand	8185	Oil/Gas	
2nd Bone Spring Sand	8798	Oil/Gas	
3rd Bone Spring Sand	10130	Oil/Gas	
Wolfcamp A	10604	Target	
Wolfcamp B	0	Not Penetrated	
Wolfcamp D	0	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1350	10.75"	45.5	N80	BTC	4.00	1.67	16.93	17.86
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.56	1.25	2.88	2.90
8.750"	8500	10100	7.625"	29.7	P110 RY	W 513	1.56	1.67	3.13	1.88
6.75"	0	9600	5.5"	20	P110	BTC	2.33	2.75	3.80	3.77
6.75"	9600	20,785	5.5"	20	P110	W441	1.61	2.16	3.02	2.46
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5 1/2" talon casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

ConocoPhillips - Cabo Wabo Fed Com #703H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

ConocoPhillips - Cabo Wabo Fed Com #703H

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	644	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter. Stage 1	770	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	446	12.7	2	10.7	72	Lead: 50:50:10 H Blend
	1055	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

If losses are encountered in the intermediate section a DV/ECP tool will be run ~50' above the Lamar Lime top, cement will be adjusted accordingly if this contingency is necessary.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	9,600'	35% OH in Lateral (KOP to EOL)

ConocoPhillips - Cabo Wabo Fed Com #703H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	5000psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

ConocoPhillips - Cabo Wabo Fed Com #703H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 12.5	35-45	<20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

ConocoPhillips - Cabo Wabo Fed Com #703H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	6905 psi at 10618' TVD
Abnormal Temperature	NO 165 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

CABO WABO FEDERAL PROJECT (ATLAS 2529)

CABO WABO FED COM #703H

OWB

PWP1

Anticollision Report

19 May, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	5/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,239.1	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,239.1	20,577.8	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
ATLAS						
CABO WABO 25 FEDERAL #3H - LATERAL 01 - AWP-L	8,084.9	17,373.7	330.3	161.5	1.957	Advise and Monitor, CC, I
CABO WABO 25 FEDERAL #3H - OWB-PILOT HOLE -	20,310.0	10,400.0	575.2	479.0	5.981	CC, ES, SF
CABO WABO FEDERAL PROJECT (ATLAS 2529)						
CABO WABO FED COM #501H - OWB - PWP0	4,152.5	4,150.6	111.5	91.7	5.626	CC, ES
CABO WABO FED COM #501H - OWB - PWP0	4,200.0	4,197.3	111.9	91.8	5.584	SF
CABO WABO FED COM #502H - OWB - PWP0	6,486.2	6,469.3	203.6	173.6	6.787	CC
CABO WABO FED COM #502H - OWB - PWP0	9,000.0	9,022.3	205.0	163.1	4.895	ES, SF
CABO WABO FED COM #503H - OWB - PWP0						Out of range
CABO WABO FED COM #701H - OWB - PWP1	2,416.3	2,417.3	59.9	47.5	4.840	CC
CABO WABO FED COM #701H - OWB - PWP1	2,500.0	2,501.0	59.9	47.2	4.721	ES, SF
CABO WABO FED COM #702H - OWB - PWP1	2,500.0	2,500.0	29.9	17.2	2.360	CC, ES, SF
CABO WABO FED COM #704H - OWB - PWP1	12,289.3	12,488.8	917.1	856.9	15.245	CC
CABO WABO FED COM #704H - OWB - PWP1	20,577.8	20,777.2	918.4	736.1	5.039	ES, SF
CABO WABO FED COM #705H - OWB - PWP1						Out of range
CABO WABO FED COM #706H - OWB - PWP1						Out of range
CABO WABO FED COM #801H - OWB - PWP0	4,454.2	4,446.6	66.9	55.4	5.859	CC, ES
CABO WABO FED COM #801H - OWB - PWP0	4,500.0	4,492.1	67.0	55.5	5.817	SF
CABO WABO FED COM #802H - OWB - PWP0	4,227.4	4,214.0	178.2	158.1	8.853	CC
CABO WABO FED COM #802H - OWB - PWP0	4,300.0	4,286.2	178.3	157.9	8.720	ES
CABO WABO FED COM #802H - OWB - PWP0	4,900.0	4,883.5	189.3	166.3	8.239	SF
CABO WABO FED COM #803H - OWB - PWP0	3,879.0	3,857.0	253.4	235.2	13.924	CC
CABO WABO FED COM #803H - OWB - PWP0	4,300.0	4,277.5	254.3	234.2	12.659	ES
CABO WABO FED COM #803H - OWB - PWP0	20,571.7	21,604.6	695.3	530.3	4.215	SF
CABO WABO FED COM #804H - OWB - PWP0						Out of range
CABO WABO FED COM #805H - OWB - PWP0						Out of range

Offset Design												ATLAS - CABO WABO 25 FEDERAL #3H - LATERAL 01 - AWP-LAT 01		Offset Site Error:		0.0 usft	
Survey Program:												25- VES GyroFlex, 7336-MWD		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				

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 ATLAS - CABO WABO 25 FEDERAL #3H - LATERAL 01 - AWP-LAT 01												Offset Site Error:	0.0 usft
Survey Program: 25- VES GyroFlex, 7336-MWD												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
7,200.0	7,175.3	17,377.8	7,943.7	8.4	160.5	18.89	-200.1	-862.5	944.5	834.5	110.00	8.586	
7,300.0	7,274.8	17,377.4	7,943.7	8.5	160.5	18.81	-200.6	-862.5	851.5	738.1	113.45	7.506	
7,400.0	7,374.3	17,376.9	7,943.7	8.6	160.5	18.72	-201.1	-862.5	760.4	642.6	117.75	6.458	
7,500.0	7,473.7	17,376.4	7,943.6	8.7	160.5	18.64	-201.5	-862.5	671.7	548.5	123.18	5.453	
7,600.0	7,573.2	17,376.0	7,943.6	8.8	160.5	18.56	-202.0	-862.5	586.7	456.6	130.10	4.510	
7,700.0	7,672.6	17,375.5	7,943.6	8.9	160.4	18.48	-202.5	-862.5	507.2	368.4	138.81	3.654	
7,800.0	7,772.1	17,375.0	7,943.6	9.0	160.4	18.40	-203.0	-862.4	436.2	286.9	149.28	2.922	
7,900.0	7,871.5	17,374.6	7,943.6	9.1	160.4	18.32	-203.4	-862.4	378.5	218.2	160.31	2.361	
8,000.0	7,971.0	17,374.1	7,943.6	9.3	160.4	18.24	-203.9	-862.4	341.1	172.8	168.28	2.027	
8,084.9	8,055.4	17,373.7	7,943.6	9.3	160.4	18.17	-204.3	-862.4	330.3	161.5	168.80	1.957	Advise and Monitor, CC, ES, SF
8,100.0	8,070.4	17,373.6	7,943.6	9.4	160.4	18.15	-204.4	-862.4	330.7	162.5	168.13	1.967	Advise and Monitor
8,200.0	8,169.9	17,373.1	7,943.6	9.5	160.4	18.07	-204.8	-862.4	349.8	191.1	158.70	2.204	
8,300.0	8,269.3	17,372.7	7,943.5	9.6	160.4	17.99	-205.3	-862.4	394.2	249.5	144.74	2.724	
8,400.0	8,368.8	17,372.2	7,943.5	9.7	160.4	17.91	-205.8	-862.3	456.5	325.1	131.44	3.473	
8,500.0	8,468.2	17,371.7	7,943.5	9.8	160.4	17.83	-206.2	-862.3	530.5	409.6	120.91	4.388	
8,600.0	8,567.7	17,371.3	7,943.5	9.9	160.4	17.75	-206.7	-862.3	611.9	498.7	113.22	5.405	
8,700.0	8,667.1	17,370.8	7,943.5	10.0	160.4	17.67	-207.2	-862.3	698.2	590.4	107.78	6.478	
8,800.0	8,766.6	17,370.3	7,943.5	10.2	160.4	17.58	-207.6	-862.3	787.7	683.8	103.96	7.577	
8,900.0	8,866.0	17,369.9	7,943.5	10.3	160.4	17.50	-208.1	-862.3	879.5	778.2	101.29	8.683	
9,000.0	8,965.5	17,369.4	7,943.4	10.4	160.3	17.42	-208.6	-862.3	972.9	873.5	99.41	9.787	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 ATLAS - CABO WABO 25 FEDERAL #3H - OWB-PILOT HOLE - AWP-PH												Offset Site Error:	0.0 usft
Survey Program: 25- VES GyroFlex												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 Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,500.0	10,736.9	10,400.0	10,398.3	77.3	8.5	-63.08	-9,955.8	-682.4	993.5	934.8	58.68	16.930	
19,600.0	10,737.0	10,400.0	10,398.3	78.1	8.5	-63.08	-9,955.8	-682.4	913.8	851.0	62.80	14.550	
19,700.0	10,737.1	10,400.0	10,398.3	79.0	8.5	-63.08	-9,955.8	-682.4	838.5	771.0	67.51	12.420	
19,800.0	10,737.2	10,400.0	10,398.3	79.8	8.5	-63.08	-9,955.8	-682.4	768.8	696.0	72.79	10.561	
19,900.0	10,737.3	10,400.0	10,398.3	80.7	8.5	-63.08	-9,955.8	-682.4	706.4	627.9	78.53	8.996	
20,000.0	10,737.4	10,400.0	10,398.3	81.5	8.5	-63.08	-9,955.8	-682.4	653.5	569.1	84.40	7.743	
20,100.0	10,737.5	10,400.0	10,398.3	82.4	8.5	-63.08	-9,955.8	-682.4	612.4	522.5	89.82	6.817	
20,200.0	10,737.6	10,400.0	10,398.3	83.2	8.5	-63.08	-9,955.8	-682.4	585.7	491.7	94.00	6.231	
20,300.0	10,737.7	10,400.0	10,398.3	84.1	8.5	-63.08	-9,955.8	-682.4	575.3	479.2	96.10	5.987	
20,310.0	10,737.7	10,400.0	10,398.3	84.2	8.5	-63.08	-9,955.8	-682.4	575.2	479.0	96.18	5.981	CC, ES, SF
20,400.0	10,737.8	10,400.0	10,398.3	84.9	8.5	-63.08	-9,955.8	-682.4	582.2	486.5	95.71	6.083	
20,500.0	10,737.9	10,400.0	10,398.3	85.8	8.5	-63.08	-9,955.8	-682.4	605.8	512.8	93.03	6.512	
20,577.8	10,738.0	10,400.0	10,398.3	86.4	8.5	-63.08	-9,955.8	-682.4	634.5	544.7	89.81	7.065	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #501H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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	1.0	1.0	3.0	3.0	-131.44	-201.9	-228.7	305.0					
100.0	100.0	101.0	101.0	3.0	3.0	-131.44	-201.9	-228.7	305.0	299.0	6.00	50.813		
200.0	200.0	201.0	201.0	3.0	3.0	-131.44	-201.9	-228.7	305.0	299.0	6.04	50.481		
300.0	300.0	301.0	301.0	3.0	3.1	-131.44	-201.9	-228.7	305.0	298.9	6.13	49.788		
400.0	400.0	401.0	401.0	3.0	3.2	-131.44	-201.9	-228.7	305.0	298.8	6.25	48.788		
500.0	500.0	501.0	501.0	3.1	3.4	-131.44	-201.9	-228.7	305.0	298.6	6.42	47.547		
600.0	600.0	601.0	601.0	3.1	3.6	-131.44	-201.9	-228.7	305.0	298.4	6.61	46.134		
700.0	700.0	701.0	701.0	3.1	3.8	-131.44	-201.9	-228.7	305.0	298.2	6.84	44.614		
800.0	800.0	801.0	801.0	3.2	4.0	-131.44	-201.9	-228.7	305.0	297.9	7.09	43.039		
900.0	900.0	901.0	901.0	3.2	4.2	-131.44	-201.9	-228.7	305.0	297.7	7.36	41.451		
1,000.0	1,000.0	1,001.0	1,001.0	3.2	4.5	-131.44	-201.9	-228.7	305.0	297.4	7.65	39.881		
1,100.0	1,100.0	1,101.0	1,101.0	3.3	4.8	-131.44	-201.9	-228.7	305.0	297.1	7.95	38.349		
1,200.0	1,200.0	1,201.0	1,201.0	3.4	5.1	-131.44	-201.9	-228.7	305.0	296.8	8.27	36.870		
1,300.0	1,300.0	1,301.0	1,301.0	3.4	5.4	-131.44	-201.9	-228.7	305.0	296.4	8.60	35.453		
1,400.0	1,400.0	1,401.0	1,401.0	3.5	5.7	-131.44	-201.9	-228.7	305.0	296.1	8.95	34.101		
1,500.0	1,500.0	1,501.0	1,501.0	3.5	6.0	-131.44	-201.9	-228.7	305.0	295.7	9.30	32.816		
1,600.0	1,600.0	1,601.0	1,601.0	3.6	6.3	-131.44	-201.9	-228.7	305.0	295.4	9.65	31.599		
1,700.0	1,700.0	1,701.0	1,701.0	3.7	6.6	-131.44	-201.9	-228.7	305.0	295.0	10.02	30.447		
1,800.0	1,800.0	1,801.0	1,801.0	3.8	6.9	-131.44	-201.9	-228.7	305.0	294.6	10.39	29.358		
1,900.0	1,900.0	1,901.0	1,901.0	3.9	7.2	-131.44	-201.9	-228.7	305.0	294.3	10.77	28.329		
2,000.0	2,000.0	2,001.0	2,001.0	3.9	7.6	-131.44	-201.9	-228.7	305.0	293.9	11.15	27.357		
2,100.0	2,100.0	2,101.0	2,101.0	4.0	7.9	-131.44	-201.9	-228.7	305.0	293.5	11.54	26.439		
2,200.0	2,200.0	2,201.0	2,201.0	4.1	8.2	-131.44	-201.9	-228.7	305.0	293.1	11.93	25.572		
2,300.0	2,300.0	2,301.0	2,301.0	4.2	8.6	-131.44	-201.9	-228.7	305.0	292.7	12.32	24.751		
2,400.0	2,400.0	2,401.0	2,401.0	4.3	8.9	-131.44	-201.9	-228.7	305.0	292.3	12.72	23.975		
2,500.0	2,500.0	2,501.1	2,501.1	4.4	9.2	-131.44	-201.9	-228.7	305.0	291.9	13.13	23.240		
2,600.0	2,600.0	2,612.0	2,611.9	4.4	9.6	-21.75	-201.1	-226.6	301.6	288.1	13.52	22.309		
2,700.0	2,699.8	2,721.9	2,721.7	4.5	10.0	-22.72	-199.0	-220.6	291.3	277.5	13.87	21.013		
2,800.0	2,799.5	2,821.9	2,821.3	4.5	10.3	-24.22	-196.1	-212.8	275.8	261.6	14.21	19.411		
2,900.0	2,898.9	2,920.1	2,919.2	4.5	10.6	-25.91	-193.4	-205.2	258.9	244.3	14.56	17.777		
3,000.0	2,998.4	3,018.4	3,017.2	4.5	11.0	-27.83	-190.6	-197.6	242.2	227.2	14.92	16.229		
3,100.0	3,097.8	3,116.6	3,115.1	4.5	11.3	-30.04	-187.8	-189.9	225.8	210.5	15.29	14.767		
3,200.0	3,197.3	3,214.9	3,213.0	4.6	11.6	-32.57	-185.0	-182.3	209.8	194.1	15.67	13.389		
3,300.0	3,296.7	3,313.1	3,310.9	4.6	12.0	-35.52	-182.2	-174.6	194.2	178.2	16.05	12.099		
3,400.0	3,396.2	3,411.4	3,408.8	4.6	12.3	-38.96	-179.4	-167.0	179.3	162.8	16.45	10.898		
3,500.0	3,495.6	3,509.6	3,506.7	4.7	12.6	-43.00	-176.7	-159.3	165.1	148.2	16.86	9.792		
3,600.0	3,595.1	3,607.9	3,604.6	4.7	13.0	-47.76	-173.9	-151.7	151.8	134.6	17.28	8.786		
3,700.0	3,694.5	3,706.1	3,702.5	4.8	13.3	-53.37	-171.1	-144.0	139.8	122.1	17.72	7.893		
3,800.0	3,794.0	3,804.4	3,800.4	4.8	13.7	-59.92	-168.3	-136.4	129.4	111.3	18.17	7.123		
3,900.0	3,893.4	3,902.6	3,898.3	4.9	14.0	-67.47	-165.5	-128.8	121.0	102.4	18.64	6.494		
4,000.0	3,992.9	4,000.8	3,996.2	4.9	14.3	-75.93	-162.7	-121.1	115.1	96.0	19.11	6.021		
4,100.0	4,092.3	4,099.1	4,094.1	5.0	14.7	-85.07	-160.0	-113.5	111.9	92.4	19.58	5.717		
4,152.5	4,144.5	4,150.6	4,145.5	5.0	14.9	-90.00	-158.5	-109.5	111.5	91.7	19.82	5.626 CC, ES		
4,200.0	4,191.8	4,197.3	4,192.0	5.0	15.0	-94.47	-157.2	-105.8	111.9	91.8	20.03	5.584 SF		
4,300.0	4,291.2	4,295.6	4,290.0	5.1	15.4	-103.63	-154.4	-98.2	114.9	94.4	20.46	5.614		
4,400.0	4,390.7	4,393.8	4,387.9	5.2	15.7	-112.14	-151.6	-90.5	120.7	99.8	20.87	5.784		
4,500.0	4,490.1	4,492.1	4,485.8	5.2	16.1	-119.73	-148.8	-82.9	129.0	107.7	21.26	6.068		
4,600.0	4,589.6	4,590.3	4,583.7	5.3	16.4	-126.33	-146.0	-75.2	139.3	117.7	21.64	6.437		
4,700.0	4,689.0	4,688.6	4,681.6	5.4	16.8	-131.98	-143.3	-67.6	151.2	129.2	22.03	6.865		
4,800.0	4,788.5	4,786.8	4,779.5	5.5	17.1	-136.78	-140.5	-59.9	164.4	142.0	22.41	7.334		
4,900.0	4,887.9	4,885.0	4,877.4	5.6	17.4	-140.85	-137.7	-52.3	178.5	155.7	22.81	7.828		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #501H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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	
5,000.0	4,987.4	4,983.3	4,975.3	5.6	17.8	-144.32	-134.9	-44.7	193.5	170.2	23.21	8.336		
5,100.0	5,086.9	5,081.5	5,073.2	5.7	18.1	-147.29	-132.1	-37.0	209.0	185.4	23.61	8.850		
5,200.0	5,186.3	5,179.8	5,171.1	5.8	18.5	-149.85	-129.4	-29.4	225.0	200.9	24.03	9.364		
5,300.0	5,285.8	5,278.0	5,269.0	5.9	18.8	-152.06	-126.6	-21.7	241.3	216.9	24.44	9.874		
5,400.0	5,385.2	5,376.3	5,366.9	6.0	19.2	-154.00	-123.8	-14.1	258.0	233.2	24.87	10.377		
5,500.0	5,484.7	5,474.5	5,464.8	6.1	19.5	-155.70	-121.0	-6.4	275.0	249.7	25.29	10.872		
5,600.0	5,584.1	5,572.8	5,562.8	6.2	19.9	-157.20	-118.2	1.2	292.1	266.4	25.72	11.357		
5,700.0	5,683.6	5,671.0	5,660.7	6.3	20.2	-158.54	-115.4	8.9	309.4	283.3	26.16	11.831		
5,800.0	5,783.0	5,769.3	5,758.6	6.4	20.6	-159.73	-112.7	16.5	326.9	300.3	26.59	12.293		
5,900.0	5,882.5	5,867.5	5,856.5	6.5	20.9	-160.80	-109.9	24.1	344.5	317.5	27.03	12.744		
6,000.0	5,981.9	5,965.7	5,954.4	6.6	21.3	-161.77	-107.1	31.8	362.2	334.7	27.47	13.183		
6,100.0	6,081.4	6,064.0	6,052.3	6.7	21.6	-162.65	-104.3	39.4	380.0	352.1	27.92	13.611		
6,200.0	6,180.8	6,162.2	6,150.2	6.8	22.0	-163.45	-101.5	47.1	397.9	369.5	28.37	14.026		
6,300.0	6,280.3	6,260.5	6,248.1	6.9	22.3	-164.18	-98.7	54.7	415.8	387.0	28.81	14.431		
6,400.0	6,379.7	6,358.7	6,346.0	7.0	22.7	-164.85	-96.0	62.4	433.8	404.5	29.26	14.823		
6,500.0	6,479.2	6,457.0	6,443.9	7.1	23.0	-165.47	-93.2	70.0	451.8	422.1	29.72	15.205		
6,600.0	6,578.6	6,555.2	6,541.8	7.2	23.4	-166.04	-90.4	77.7	469.9	439.8	30.17	15.576		
6,700.0	6,678.1	6,653.5	6,639.7	7.3	23.7	-166.57	-87.6	85.3	488.1	457.5	30.63	15.937		
6,800.0	6,777.5	6,751.7	6,737.6	7.4	24.1	-167.06	-84.8	92.9	506.3	475.2	31.08	16.287		
6,900.0	6,877.0	6,849.9	6,835.6	7.5	24.4	-167.51	-82.1	100.6	524.5	492.9	31.54	16.628		
7,000.0	6,976.4	6,948.2	6,933.5	7.6	24.8	-167.94	-79.3	108.2	542.7	510.7	32.00	16.959		
7,100.0	7,075.9	7,046.4	7,031.4	7.7	25.2	-168.34	-76.5	115.9	561.0	528.5	32.46	17.281		
7,200.0	7,175.3	7,144.7	7,129.3	7.8	25.5	-168.71	-73.7	123.5	579.3	546.3	32.92	17.594		
7,300.0	7,274.8	7,242.9	7,227.2	8.0	25.9	-169.06	-70.9	131.2	597.6	564.2	33.39	17.898		
7,400.0	7,374.3	7,341.2	7,325.1	8.1	26.2	-169.39	-68.1	138.8	615.9	582.1	33.85	18.194		
7,500.0	7,473.7	7,439.4	7,423.0	8.2	26.6	-169.70	-65.4	146.5	634.3	600.0	34.32	18.482		
7,600.0	7,573.2	7,537.7	7,520.9	8.3	26.9	-169.99	-62.6	154.1	652.6	617.9	34.78	18.763		
7,700.0	7,672.6	7,635.9	7,618.8	8.4	27.3	-170.27	-59.8	161.8	671.0	635.8	35.25	19.036		
7,800.0	7,772.1	7,734.2	7,716.7	8.5	27.6	-170.53	-57.0	169.4	689.4	653.7	35.72	19.301		
7,900.0	7,871.5	7,832.4	7,814.6	8.6	28.0	-170.78	-54.2	177.0	707.8	671.7	36.19	19.560		
8,000.0	7,971.0	7,930.6	7,912.5	8.8	28.3	-171.01	-51.4	184.7	726.3	689.6	36.66	19.812		
8,100.0	8,070.4	8,028.9	8,010.4	8.9	28.7	-171.24	-48.7	192.3	744.7	707.6	37.13	20.057		
8,200.0	8,169.9	8,127.1	8,108.4	9.0	29.0	-171.45	-45.9	200.0	763.2	725.6	37.60	20.296		
8,300.0	8,269.3	8,225.4	8,206.3	9.1	29.4	-171.65	-43.1	207.6	781.6	743.5	38.07	20.529		
8,400.0	8,368.8	8,323.6	8,304.2	9.2	29.7	-171.85	-40.3	215.3	800.1	761.5	38.55	20.756		
8,500.0	8,468.2	8,421.9	8,402.1	9.3	30.1	-172.03	-37.5	222.9	818.6	779.5	39.02	20.978		
8,600.0	8,567.7	8,520.1	8,500.0	9.5	30.4	-172.21	-34.7	230.6	837.0	797.5	39.49	21.194		
8,700.0	8,667.1	8,643.3	8,622.6	9.6	30.9	-172.05	-36.9	240.2	854.7	814.7	40.00	21.368		
8,800.0	8,766.6	8,779.9	8,754.9	9.7	31.3	-170.00	-68.0	250.6	868.2	827.7	40.52	21.427		
8,900.0	8,866.0	8,898.4	8,860.9	9.8	31.7	-166.68	-119.9	259.2	879.2	838.2	41.04	21.422		
9,000.0	8,965.5	8,994.4	8,937.5	10.0	31.9	-163.06	-177.2	265.4	891.1	849.5	41.56	21.441		
9,100.0	9,064.9	9,069.7	8,990.3	10.1	32.1	-159.72	-230.7	269.8	906.6	864.5	42.04	21.565		
9,200.0	9,164.4	9,128.5	9,026.4	10.2	32.2	-156.85	-277.0	272.9	927.7	885.3	42.46	21.852		
9,300.0	9,263.8	9,174.8	9,051.3	10.3	32.3	-154.47	-315.9	275.0	955.7	912.9	42.80	22.330		
9,400.0	9,363.3	9,211.8	9,068.9	10.4	32.3	-152.51	-348.3	276.5	990.7	947.6	43.05	23.012		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #502H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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	7.0	7.0	3.0	3.0	-128.03	-202.3	-258.7	328.4					
100.0	100.0	107.0	107.0	3.0	3.0	-128.03	-202.3	-258.7	328.4	322.4	6.00	54.700		
200.0	200.0	207.0	207.0	3.0	3.0	-128.03	-202.3	-258.7	328.4	322.3	6.04	54.332		
300.0	300.0	307.0	307.0	3.0	3.1	-128.03	-202.3	-258.7	328.4	322.3	6.13	53.580		
400.0	400.0	407.0	407.0	3.0	3.2	-128.03	-202.3	-258.7	328.4	322.1	6.25	52.501		
500.0	500.0	507.0	507.0	3.1	3.4	-128.03	-202.3	-258.7	328.4	322.0	6.42	51.166		
600.0	600.0	607.0	607.0	3.1	3.6	-128.03	-202.3	-258.7	328.4	321.8	6.61	49.649		
700.0	700.0	707.0	707.0	3.1	3.8	-128.03	-202.3	-258.7	328.4	321.5	6.84	48.018		
800.0	800.0	807.0	807.0	3.2	4.0	-128.03	-202.3	-258.7	328.4	321.3	7.09	46.330		
900.0	900.0	907.0	907.0	3.2	4.2	-128.03	-202.3	-258.7	328.4	321.0	7.36	44.629		
1,000.0	1,000.0	1,007.0	1,007.0	3.2	4.5	-128.03	-202.3	-258.7	328.4	320.7	7.65	42.947		
1,100.0	1,100.0	1,107.0	1,107.0	3.3	4.8	-128.03	-202.3	-258.7	328.4	320.4	7.95	41.306		
1,200.0	1,200.0	1,207.0	1,207.0	3.4	5.1	-128.03	-202.3	-258.7	328.4	320.1	8.27	39.722		
1,300.0	1,300.0	1,307.0	1,307.0	3.4	5.4	-128.03	-202.3	-258.7	328.4	319.8	8.60	38.204		
1,400.0	1,400.0	1,407.0	1,407.0	3.5	5.7	-128.03	-202.3	-258.7	328.4	319.5	8.93	36.756		
1,500.0	1,500.0	1,507.0	1,507.0	3.5	6.0	-128.03	-202.3	-258.7	328.4	319.1	9.28	35.380		
1,600.0	1,600.0	1,607.0	1,607.0	3.6	6.3	-128.03	-202.3	-258.7	328.4	318.8	9.64	34.075		
1,700.0	1,700.0	1,707.0	1,707.0	3.7	6.6	-128.03	-202.3	-258.7	328.4	318.4	10.00	32.841		
1,800.0	1,800.0	1,807.0	1,807.0	3.8	6.9	-128.03	-202.3	-258.7	328.4	318.0	10.37	31.673		
1,900.0	1,900.0	1,907.0	1,907.0	3.9	7.2	-128.03	-202.3	-258.7	328.4	317.6	10.74	30.570		
2,000.0	2,000.0	2,007.0	2,007.0	3.9	7.6	-128.03	-202.3	-258.7	328.4	317.3	11.12	29.528		
2,100.0	2,100.0	2,107.0	2,107.0	4.0	7.9	-128.03	-202.3	-258.7	328.4	316.9	11.51	28.543		
2,200.0	2,200.0	2,207.0	2,207.0	4.1	8.2	-128.03	-202.3	-258.7	328.4	316.5	11.89	27.611		
2,300.0	2,300.0	2,307.0	2,307.0	4.2	8.6	-128.03	-202.3	-258.7	328.4	316.1	12.29	26.731		
2,400.0	2,400.0	2,407.0	2,407.0	4.3	8.9	-128.03	-202.3	-258.7	328.4	315.7	12.68	25.897		
2,414.2	2,414.2	2,421.2	2,421.2	4.3	9.0	-128.03	-202.3	-258.7	328.4	315.7	12.74	25.783		
2,500.0	2,500.0	2,506.6	2,506.6	4.4	9.2	-128.03	-202.3	-258.7	328.4	315.3	13.08	25.111		
2,600.0	2,600.0	2,600.0	2,600.0	4.4	9.6	-17.86	-201.7	-260.3	327.7	314.3	13.41	24.442		
2,700.0	2,699.8	2,695.0	2,694.9	4.5	9.9	-17.42	-200.0	-264.9	325.5	311.8	13.70	23.758		
2,800.0	2,799.5	2,791.5	2,791.0	4.5	10.2	-16.71	-197.4	-272.3	321.6	307.6	14.00	22.972		
2,900.0	2,898.9	2,891.3	2,890.4	4.5	10.5	-15.93	-194.4	-280.5	316.4	302.1	14.32	22.093		
3,000.0	2,998.4	2,991.0	2,989.8	4.5	10.9	-15.13	-191.4	-288.6	311.3	296.6	14.65	21.246		
3,100.0	3,097.8	3,090.8	3,089.2	4.5	11.2	-14.30	-188.4	-296.8	306.2	291.2	14.99	20.431		
3,200.0	3,197.3	3,190.6	3,188.6	4.6	11.5	-13.45	-185.5	-305.0	301.2	285.8	15.33	19.646		
3,300.0	3,296.7	3,290.4	3,288.0	4.6	11.9	-12.57	-182.5	-313.2	296.2	280.6	15.68	18.892		
3,400.0	3,396.2	3,390.1	3,387.4	4.6	12.2	-11.65	-179.5	-321.3	291.4	275.3	16.04	18.167		
3,500.0	3,495.6	3,489.9	3,486.8	4.7	12.6	-10.71	-176.5	-329.5	286.6	270.2	16.40	17.470		
3,600.0	3,595.1	3,589.7	3,586.2	4.7	12.9	-9.73	-173.6	-337.7	281.9	265.1	16.78	16.801		
3,700.0	3,694.5	3,689.4	3,685.6	4.8	13.3	-8.73	-170.6	-345.8	277.2	260.1	17.16	16.159		
3,800.0	3,794.0	3,789.2	3,784.9	4.8	13.6	-7.68	-167.6	-354.0	272.7	255.1	17.54	15.543		
3,900.0	3,893.4	3,889.0	3,884.3	4.9	13.9	-6.61	-164.6	-362.2	268.2	250.3	17.94	14.953		
4,000.0	3,992.9	3,988.8	3,983.7	4.9	14.3	-5.49	-161.7	-370.4	263.9	245.6	18.34	14.387		
4,100.0	4,092.3	4,088.5	4,083.1	5.0	14.6	-4.35	-158.7	-378.5	259.6	240.9	18.75	13.846		
4,200.0	4,191.8	4,188.3	4,182.5	5.0	15.0	-3.16	-155.7	-386.7	255.5	236.3	19.17	13.329		
4,300.0	4,291.2	4,288.1	4,281.9	5.1	15.3	-1.93	-152.7	-394.9	251.5	231.9	19.59	12.836		
4,400.0	4,390.7	4,387.8	4,381.3	5.2	15.7	-0.67	-149.8	-403.0	247.6	227.6	20.02	12.364		
4,500.0	4,490.1	4,487.6	4,480.7	5.2	16.0	0.64	-146.8	-411.2	243.8	223.3	20.46	11.915		
4,600.0	4,589.6	4,587.4	4,580.1	5.3	16.4	1.98	-143.8	-419.4	240.1	219.2	20.91	11.488		
4,700.0	4,689.0	4,687.2	4,679.5	5.4	16.8	3.36	-140.8	-427.6	236.6	215.3	21.36	11.081		
4,800.0	4,788.5	4,786.9	4,778.9	5.5	17.1	4.79	-137.9	-435.7	233.3	211.5	21.81	10.695		
4,900.0	4,887.9	4,886.7	4,878.3	5.6	17.5	6.26	-134.9	-443.9	230.0	207.8	22.27	10.329		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #502H - OWB - PWP0												Offset Site Error: 3.0 usft		
Survey Program: 0-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	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
				(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,000.0	4,987.4	4,986.5	4,977.6	5.6	17.8	7.76	-131.9	-452.1	227.0	204.2	22.74	9.982		
5,100.0	5,086.9	5,086.2	5,077.0	5.7	18.2	9.31	-129.0	-460.2	224.1	200.9	23.21	9.654		
5,200.0	5,186.3	5,186.0	5,176.4	5.8	18.5	10.90	-126.0	-468.4	221.3	197.6	23.69	9.344		
5,300.0	5,285.8	5,285.8	5,275.8	5.9	18.9	12.52	-123.0	-476.6	218.8	194.6	24.17	9.053		
5,400.0	5,385.2	5,385.6	5,375.2	6.0	19.2	14.18	-120.0	-484.8	216.4	191.7	24.65	8.779		
5,500.0	5,484.7	5,485.3	5,474.6	6.1	19.6	15.88	-117.1	-492.9	214.2	189.1	25.14	8.522		
5,600.0	5,584.1	5,585.1	5,574.0	6.2	19.9	17.61	-114.1	-501.1	212.2	186.6	25.62	8.281		
5,700.0	5,683.6	5,684.9	5,673.4	6.3	20.3	19.37	-111.1	-509.3	210.4	184.3	26.12	8.056		
5,800.0	5,783.0	5,784.6	5,772.8	6.4	20.7	21.16	-108.1	-517.4	208.8	182.2	26.61	7.846		
5,900.0	5,882.5	5,884.4	5,872.2	6.5	21.0	22.98	-105.2	-525.6	207.4	180.3	27.10	7.652		
6,000.0	5,981.9	5,984.2	5,971.6	6.6	21.4	24.82	-102.2	-533.8	206.2	178.6	27.60	7.472		
6,100.0	6,081.4	6,084.0	6,071.0	6.7	21.7	26.68	-99.2	-542.0	205.2	177.1	28.09	7.306		
6,200.0	6,180.8	6,183.7	6,170.3	6.8	22.1	28.55	-96.2	-550.1	204.5	175.9	28.59	7.154		
6,300.0	6,280.3	6,283.5	6,269.7	6.9	22.4	30.43	-93.3	-558.3	204.0	174.9	29.08	7.014		
6,400.0	6,379.7	6,383.3	6,369.1	7.0	22.8	32.33	-90.3	-566.5	203.7	174.1	29.57	6.887		
6,486.2	6,465.4	6,469.3	6,454.8	7.1	23.1	33.96	-87.7	-573.5	203.6	173.6	29.99	6.787 CC		
6,500.0	6,479.2	6,483.0	6,468.5	7.1	23.1	34.22	-87.3	-574.6	203.6	173.5	30.06	6.772		
6,600.0	6,578.6	6,582.8	6,567.9	7.2	23.5	36.12	-84.3	-582.8	203.7	173.2	30.55	6.668		
6,700.0	6,678.1	6,682.6	6,667.3	7.3	23.9	38.01	-81.4	-591.0	204.1	173.0	31.04	6.575		
6,800.0	6,777.5	6,782.4	6,766.7	7.4	24.2	39.89	-78.4	-599.2	204.7	173.2	31.52	6.493		
6,900.0	6,877.0	6,882.1	6,866.1	7.5	24.6	41.76	-75.4	-607.3	205.5	173.5	32.00	6.421		
7,000.0	6,976.4	6,981.9	6,965.5	7.6	24.9	43.61	-72.4	-615.5	206.5	174.0	32.48	6.358		
7,100.0	7,075.9	7,081.7	7,064.9	7.7	25.3	45.45	-69.5	-623.7	207.7	174.8	32.96	6.303		
7,200.0	7,175.3	7,181.4	7,164.3	7.8	25.7	47.26	-66.5	-631.8	209.2	175.8	33.43	6.257		
7,300.0	7,274.8	7,281.2	7,263.7	8.0	26.0	49.04	-63.5	-640.0	210.9	177.0	33.90	6.219		
7,400.0	7,374.3	7,381.0	7,363.1	8.1	26.4	50.79	-60.5	-648.2	212.7	178.4	34.37	6.189		
7,500.0	7,473.7	7,480.8	7,462.4	8.2	26.7	52.51	-57.6	-656.4	214.8	179.9	34.84	6.165		
7,600.0	7,573.2	7,580.5	7,561.8	8.3	27.1	54.20	-54.6	-664.5	217.0	181.7	35.30	6.148		
7,700.0	7,672.6	7,680.3	7,661.2	8.4	27.5	55.85	-51.6	-672.7	219.5	183.7	35.76	6.136		
7,800.0	7,772.1	7,780.1	7,760.6	8.5	27.8	57.47	-48.6	-680.9	222.1	185.8	36.22	6.131		
7,900.0	7,871.5	7,879.9	7,860.0	8.6	28.2	59.04	-45.7	-689.0	224.9	188.2	36.68	6.130		
8,000.0	7,971.0	7,979.6	7,959.4	8.8	28.5	60.58	-42.7	-697.2	227.8	190.7	37.14	6.134		
8,100.0	8,070.4	8,079.4	8,058.8	8.9	28.9	62.07	-39.7	-705.4	230.9	193.3	37.59	6.142		
8,200.0	8,169.9	8,179.2	8,158.2	9.0	29.3	63.53	-36.8	-713.6	234.2	196.1	38.05	6.155		
8,300.0	8,269.3	8,278.9	8,257.6	9.1	29.6	64.94	-33.8	-721.7	237.6	199.1	38.50	6.171		
8,400.0	8,368.8	8,378.7	8,357.0	9.2	30.0	66.32	-30.8	-729.9	241.1	202.2	38.95	6.190		
8,500.0	8,468.2	8,478.5	8,456.4	9.3	30.3	67.65	-27.8	-738.1	244.8	205.4	39.41	6.213		
8,600.0	8,567.7	8,580.3	8,557.8	9.5	30.7	68.96	-24.9	-746.4	248.6	208.8	39.87	6.236		
8,700.0	8,667.1	8,712.0	8,687.8	9.6	31.2	67.37	-37.4	-761.4	245.2	204.8	40.38	6.072		
8,800.0	8,766.6	8,833.9	8,801.9	9.7	31.5	60.16	-74.4	-781.3	231.0	190.1	40.90	5.648		
8,900.0	8,866.0	8,937.8	8,890.6	9.8	31.8	48.34	-124.1	-802.2	213.6	172.1	41.50	5.148		
8,999.7	8,965.2	9,022.1	8,954.6	10.0	32.1	34.49	-175.4	-821.3	205.0	163.1	41.88	4.895		
9,000.0	8,965.5	9,022.3	8,954.7	10.0	32.1	34.45	-175.5	-821.4	205.0	163.1	41.88	4.895 ES, SF		
9,100.0	9,064.9	9,089.5	8,999.5	10.1	32.2	21.51	-222.8	-837.7	216.8	175.2	41.58	5.213		
9,200.0	9,164.4	9,142.9	9,030.8	10.2	32.3	11.15	-263.9	-851.3	252.7	212.0	40.64	6.217		
9,300.0	9,263.8	9,185.7	9,052.9	10.3	32.4	3.39	-298.8	-862.3	308.1	268.6	39.49	7.803		
9,400.0	9,363.3	9,220.3	9,068.8	10.4	32.5	-2.32	-328.2	-871.4	376.7	338.2	38.49	9.787		
9,500.0	9,462.7	9,250.0	9,080.9	10.6	32.6	-6.75	-354.1	-879.3	453.6	415.8	37.76	12.011		
9,600.0	9,562.2	9,272.5	9,089.1	10.7	32.6	-9.82	-374.2	-885.2	536.0	498.8	37.25	14.390		
9,700.0	9,661.7	9,300.0	9,098.1	10.8	32.7	-13.25	-399.2	-892.5	622.3	585.3	37.04	16.802		
9,800.0	9,761.1	9,300.0	9,098.1	10.9	32.7	-13.25	-399.2	-892.5	711.2	674.5	36.68	19.387		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #502H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-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	
9,900.0	9,860.6	9,324.1	9,104.9	11.1	32.7	-15.96	-421.3	-898.9	801.8	765.1	36.73	21.832	
10,000.0	9,960.0	9,350.0	9,111.1	11.2	32.8	-18.61	-445.6	-905.8	894.3	857.5	36.86	24.260	
10,100.0	10,059.5	9,350.0	9,111.1	11.3	32.8	-18.61	-445.6	-905.8	987.5	950.6	36.86	26.794	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
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Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #701H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program: 0-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 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	1.0	1.0	3.0	3.0	89.55	0.5	59.9	59.9				
100.0	100.0	101.0	101.0	3.0	3.0	89.55	0.5	59.9	59.9	53.9	6.00	9.977	
200.0	200.0	201.0	201.0	3.0	3.0	89.55	0.5	59.9	59.9	53.9	6.04	9.913	
300.0	300.0	301.0	301.0	3.0	3.1	89.55	0.5	59.9	59.9	53.8	6.12	9.781	
400.0	400.0	401.0	401.0	3.0	3.2	89.55	0.5	59.9	59.9	53.6	6.24	9.592	
500.0	500.0	501.0	501.0	3.1	3.4	89.55	0.5	59.9	59.9	53.5	6.40	9.357	
600.0	600.0	601.0	601.0	3.1	3.6	89.55	0.5	59.9	59.9	53.3	6.59	9.090	
700.0	700.0	701.0	701.0	3.1	3.8	89.55	0.5	59.9	59.9	53.1	6.80	8.802	
800.0	800.0	801.0	801.0	3.2	4.0	89.55	0.5	59.9	59.9	52.8	7.04	8.504	
900.0	900.0	901.0	901.0	3.2	4.2	89.55	0.5	59.9	59.9	52.6	7.30	8.204	
1,000.0	1,000.0	1,001.0	1,001.0	3.2	4.5	89.55	0.5	59.9	59.9	52.3	7.58	7.906	
1,100.0	1,100.0	1,101.0	1,101.0	3.3	4.8	89.55	0.5	59.9	59.9	52.0	7.86	7.616	
1,200.0	1,200.0	1,201.0	1,201.0	3.4	5.1	89.55	0.5	59.9	59.9	51.7	8.17	7.335	
1,300.0	1,300.0	1,301.0	1,301.0	3.4	5.4	89.55	0.5	59.9	59.9	51.4	8.48	7.065	
1,400.0	1,400.0	1,401.0	1,401.0	3.5	5.7	89.55	0.5	59.9	59.9	51.1	8.80	6.808	
1,500.0	1,500.0	1,501.0	1,501.0	3.5	6.0	89.55	0.5	59.9	59.9	50.8	9.13	6.563	
1,600.0	1,600.0	1,601.0	1,601.0	3.6	6.3	89.55	0.5	59.9	59.9	50.4	9.46	6.330	
1,700.0	1,700.0	1,701.0	1,701.0	3.7	6.6	89.55	0.5	59.9	59.9	50.1	9.80	6.110	
1,800.0	1,800.0	1,801.0	1,801.0	3.8	6.9	89.55	0.5	59.9	59.9	49.7	10.15	5.901	
1,900.0	1,900.0	1,901.0	1,901.0	3.9	7.2	89.55	0.5	59.9	59.9	49.4	10.50	5.704	
2,000.0	2,000.0	2,001.0	2,001.0	3.9	7.6	89.55	0.5	59.9	59.9	49.0	10.86	5.517	
2,100.0	2,100.0	2,101.0	2,101.0	4.0	7.9	89.55	0.5	59.9	59.9	48.7	11.22	5.340	
2,200.0	2,200.0	2,201.0	2,201.0	4.1	8.2	89.55	0.5	59.9	59.9	48.3	11.58	5.172	
2,300.0	2,300.0	2,301.0	2,301.0	4.2	8.6	89.55	0.5	59.9	59.9	47.9	11.95	5.014	
2,400.0	2,400.0	2,401.0	2,401.0	4.3	8.9	89.55	0.5	59.9	59.9	47.6	12.31	4.863	
2,416.3	2,416.3	2,417.3	2,417.3	4.3	9.0	89.55	0.5	59.9	59.9	47.5	12.38	4.840 CC	
2,500.0	2,500.0	2,501.0	2,501.0	4.4	9.2	89.55	0.5	59.9	59.9	47.2	12.69	4.721 ES, SF	
2,600.0	2,600.0	2,598.9	2,598.9	4.4	9.6	-161.47	1.1	61.5	63.2	50.1	13.04	4.844	
2,700.0	2,699.8	2,697.0	2,696.8	4.5	9.9	-163.92	2.7	66.1	72.9	59.5	13.40	5.443	
2,800.0	2,799.5	2,795.9	2,795.6	4.5	10.2	-166.49	4.6	71.4	86.8	73.1	13.76	6.310	
2,900.0	2,898.9	2,894.6	2,894.2	4.5	10.6	-168.59	6.6	76.7	102.6	88.4	14.13	7.260	
3,000.0	2,998.4	2,993.3	2,992.7	4.5	10.9	-170.13	8.5	82.0	118.4	103.9	14.50	8.167	
3,100.0	3,097.8	3,092.0	3,091.2	4.5	11.2	-171.31	10.4	87.2	134.3	119.4	14.87	9.031	
3,200.0	3,197.3	3,190.7	3,189.8	4.6	11.6	-172.24	12.4	92.5	150.3	135.0	15.25	9.853	
3,300.0	3,296.7	3,289.4	3,288.3	4.6	11.9	-172.99	14.3	97.8	166.2	150.6	15.63	10.636	
3,400.0	3,396.2	3,388.1	3,386.8	4.6	12.2	-173.60	16.2	103.1	182.2	166.2	16.02	11.379	
3,500.0	3,495.6	3,486.8	3,485.4	4.7	12.6	-174.12	18.1	108.4	198.3	181.9	16.40	12.086	
3,600.0	3,595.1	3,585.5	3,583.9	4.7	12.9	-174.56	20.1	113.7	214.3	197.5	16.80	12.759	
3,700.0	3,694.5	3,684.2	3,682.4	4.8	13.2	-174.94	22.0	119.0	230.3	213.1	17.19	13.398	
3,800.0	3,794.0	3,782.9	3,781.0	4.8	13.6	-175.27	23.9	124.3	246.4	228.8	17.59	14.006	
3,900.0	3,893.4	3,881.6	3,879.5	4.9	13.9	-175.56	25.8	129.6	262.5	244.5	18.00	14.584	
4,000.0	3,992.9	3,980.3	3,978.0	4.9	14.3	-175.82	27.8	134.9	278.5	260.1	18.40	15.134	
4,100.0	4,092.3	4,079.0	4,076.6	5.0	14.6	-176.05	29.7	140.1	294.6	275.8	18.81	15.658	
4,200.0	4,191.8	4,177.7	4,175.1	5.0	15.0	-176.25	31.6	145.4	310.7	291.4	19.23	16.157	
4,300.0	4,291.2	4,276.3	4,273.6	5.1	15.3	-176.44	33.5	150.7	326.7	307.1	19.64	16.633	
4,400.0	4,390.7	4,375.0	4,372.2	5.2	15.6	-176.60	35.5	156.0	342.8	322.8	20.06	17.086	
4,500.0	4,490.1	4,473.7	4,470.7	5.2	16.0	-176.76	37.4	161.3	358.9	338.4	20.49	17.519	
4,600.0	4,589.6	4,572.4	4,569.2	5.3	16.3	-176.90	39.3	166.6	375.0	354.1	20.91	17.932	
4,700.0	4,689.0	4,671.1	4,667.8	5.4	16.7	-177.02	41.2	171.9	391.1	369.7	21.34	18.326	
4,800.0	4,788.5	4,769.8	4,766.3	5.5	17.0	-177.14	43.2	177.2	407.2	385.4	21.77	18.702	
4,900.0	4,887.9	4,868.5	4,864.8	5.6	17.4	-177.25	45.1	182.5	423.2	401.0	22.20	19.062	

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

Concho Resources LLC

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Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #701H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-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	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	4,987.4	4,967.2	4,963.4	5.6	17.7	-177.35		47.0	187.8	439.3	416.7	22.64	19.407	
5,100.0	5,086.9	5,065.9	5,061.9	5.7	18.1	-177.44		48.9	193.0	455.4	432.4	23.08	19.736	
5,200.0	5,186.3	5,164.6	5,160.4	5.8	18.4	-177.53		50.9	198.3	471.5	448.0	23.52	20.052	
5,300.0	5,285.8	5,263.3	5,259.0	5.9	18.8	-177.61		52.8	203.6	487.6	463.7	23.96	20.354	
5,400.0	5,385.2	5,362.0	5,357.5	6.0	19.1	-177.69		54.7	208.9	503.7	479.3	24.40	20.644	
5,500.0	5,484.7	5,460.7	5,456.0	6.1	19.5	-177.76		56.6	214.2	519.8	495.0	24.84	20.922	
5,600.0	5,584.1	5,559.4	5,554.6	6.2	19.8	-177.83		58.6	219.5	535.9	510.6	25.29	21.189	
5,700.0	5,683.6	5,658.1	5,653.1	6.3	20.2	-177.89		60.5	224.8	552.0	526.3	25.74	21.446	
5,800.0	5,783.0	5,756.8	5,751.6	6.4	20.5	-177.95		62.4	230.1	568.1	541.9	26.19	21.692	
5,900.0	5,882.5	5,855.5	5,850.2	6.5	20.9	-178.01		64.3	235.4	584.2	557.6	26.64	21.929	
6,000.0	5,981.9	5,954.1	5,948.7	6.6	21.2	-178.06		66.3	240.7	600.3	573.2	27.09	22.157	
6,100.0	6,081.4	6,052.8	6,047.2	6.7	21.6	-178.11		68.2	245.9	616.4	588.9	27.55	22.376	
6,200.0	6,180.8	6,151.5	6,145.8	6.8	21.9	-178.16		70.1	251.2	632.5	604.5	28.00	22.587	
6,300.0	6,280.3	6,250.2	6,244.3	6.9	22.3	-178.21		72.0	256.5	648.6	620.1	28.46	22.790	
6,400.0	6,379.7	6,348.9	6,342.8	7.0	22.6	-178.25		74.0	261.8	664.7	635.8	28.92	22.986	
6,500.0	6,479.2	6,447.6	6,441.4	7.1	23.0	-178.29		75.9	267.1	680.8	651.4	29.38	23.175	
6,600.0	6,578.6	6,546.3	6,539.9	7.2	23.3	-178.33		77.8	272.4	696.9	667.1	29.84	23.358	
6,700.0	6,678.1	6,645.0	6,638.4	7.3	23.7	-178.37		79.7	277.7	713.0	682.7	30.30	23.534	
6,800.0	6,777.5	6,743.7	6,737.0	7.4	24.0	-178.40		81.7	283.0	729.1	698.4	30.76	23.704	
6,900.0	6,877.0	6,842.4	6,835.5	7.5	24.4	-178.44		83.6	288.3	745.2	714.0	31.22	23.868	
7,000.0	6,976.4	6,941.1	6,934.0	7.6	24.7	-178.47		85.5	293.6	761.3	729.6	31.69	24.027	
7,100.0	7,075.9	7,039.8	7,032.6	7.7	25.1	-178.50		87.4	298.8	777.4	745.3	32.15	24.181	
7,200.0	7,175.3	7,138.5	7,131.1	7.8	25.4	-178.53		89.4	304.1	793.5	760.9	32.62	24.329	
7,300.0	7,274.8	7,237.2	7,229.6	8.0	25.8	-178.56		91.3	309.4	809.6	776.5	33.08	24.473	
7,400.0	7,374.3	7,335.9	7,328.2	8.1	26.1	-178.59		93.2	314.7	825.7	792.2	33.55	24.612	
7,500.0	7,473.7	7,434.6	7,426.7	8.2	26.5	-178.62		95.1	320.0	841.8	807.8	34.02	24.747	
7,600.0	7,573.2	7,533.2	7,525.2	8.3	26.8	-178.64		97.1	325.3	857.9	823.5	34.49	24.877	
7,700.0	7,672.6	7,631.9	7,623.8	8.4	27.2	-178.67		99.0	330.6	874.0	839.1	34.96	25.004	
7,800.0	7,772.1	7,730.6	7,722.3	8.5	27.5	-178.69		100.9	335.9	890.1	854.7	35.43	25.127	
7,900.0	7,871.5	7,829.3	7,820.8	8.6	27.9	-178.72		102.8	341.2	906.3	870.4	35.90	25.246	
8,000.0	7,971.0	7,928.0	7,919.4	8.8	28.2	-178.74		104.8	346.5	922.4	886.0	36.37	25.362	
8,100.0	8,070.4	8,026.7	8,017.9	8.9	28.6	-178.76		106.7	351.7	938.5	901.6	36.84	25.474	
8,200.0	8,169.9	8,125.4	8,116.4	9.0	28.9	-178.78		108.6	357.0	954.6	917.3	37.31	25.583	
8,300.0	8,269.3	8,224.1	8,215.0	9.1	29.3	-178.80		110.5	362.3	970.7	932.9	37.79	25.689	
8,400.0	8,368.8	8,322.8	8,313.5	9.2	29.7	-178.82		112.5	367.6	986.8	948.5	38.26	25.791	

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
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Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1												Offset Site Error: 3.0 usft	
Survey Program: 0-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	89.54	0.2	29.9	29.9				
100.0	100.0	100.0	100.0	3.0	3.0	89.54	0.2	29.9	29.9	23.9	6.00	4.986	
200.0	200.0	200.0	200.0	3.0	3.0	89.54	0.2	29.9	29.9	23.9	6.04	4.955	
300.0	300.0	300.0	300.0	3.0	3.1	89.54	0.2	29.9	29.9	23.8	6.12	4.889	
400.0	400.0	400.0	400.0	3.0	3.2	89.54	0.2	29.9	29.9	23.7	6.24	4.795	
500.0	500.0	500.0	500.0	3.1	3.4	89.54	0.2	29.9	29.9	23.5	6.40	4.677	
600.0	600.0	600.0	600.0	3.1	3.6	89.54	0.2	29.9	29.9	23.3	6.59	4.544	
700.0	700.0	700.0	700.0	3.1	3.8	89.54	0.2	29.9	29.9	23.1	6.80	4.400	
800.0	800.0	800.0	800.0	3.2	4.0	89.54	0.2	29.9	29.9	22.9	7.04	4.252	
900.0	900.0	900.0	900.0	3.2	4.2	89.54	0.2	29.9	29.9	22.6	7.30	4.101	
1,000.0	1,000.0	1,000.0	1,000.0	3.2	4.5	89.54	0.2	29.9	29.9	22.4	7.57	3.953	
1,100.0	1,100.0	1,100.0	1,100.0	3.3	4.8	89.54	0.2	29.9	29.9	22.1	7.86	3.807	
1,200.0	1,200.0	1,200.0	1,200.0	3.4	5.1	89.54	0.2	29.9	29.9	21.8	8.16	3.667	
1,300.0	1,300.0	1,300.0	1,300.0	3.4	5.4	89.54	0.2	29.9	29.9	21.5	8.47	3.532	
1,400.0	1,400.0	1,400.0	1,400.0	3.5	5.7	89.54	0.2	29.9	29.9	21.1	8.79	3.403	
1,500.0	1,500.0	1,500.0	1,500.0	3.5	6.0	89.54	0.2	29.9	29.9	20.8	9.12	3.281	
1,600.0	1,600.0	1,600.0	1,600.0	3.6	6.3	89.54	0.2	29.9	29.9	20.5	9.46	3.165	
1,700.0	1,700.0	1,700.0	1,700.0	3.7	6.6	89.54	0.2	29.9	29.9	20.1	9.80	3.054	
1,800.0	1,800.0	1,800.0	1,800.0	3.8	6.9	89.54	0.2	29.9	29.9	19.8	10.15	2.950	
1,900.0	1,900.0	1,900.0	1,900.0	3.9	7.2	89.54	0.2	29.9	29.9	19.4	10.50	2.851	
2,000.0	2,000.0	2,000.0	2,000.0	3.9	7.6	89.54	0.2	29.9	29.9	19.1	10.85	2.758	
2,100.0	2,100.0	2,100.0	2,100.0	4.0	7.9	89.54	0.2	29.9	29.9	18.7	11.21	2.669	
2,200.0	2,200.0	2,200.0	2,200.0	4.1	8.2	89.54	0.2	29.9	29.9	18.4	11.58	2.586	
2,300.0	2,300.0	2,300.0	2,300.0	4.2	8.6	89.54	0.2	29.9	29.9	18.0	11.94	2.506	
2,400.0	2,400.0	2,400.0	2,400.0	4.3	8.9	89.54	0.2	29.9	29.9	17.6	12.31	2.431	
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	89.54	0.2	29.9	29.9	17.2	12.68	2.360	CC, ES, SF
2,600.0	2,600.0	2,600.0	2,600.0	4.4	9.6	-161.51	0.2	29.9	31.6	18.5	13.06	2.418	
2,700.0	2,699.8	2,699.8	2,699.8	4.5	9.9	-164.08	0.2	29.9	36.6	23.1	13.44	2.723	
2,800.0	2,799.5	2,799.5	2,799.5	4.5	10.3	-167.09	0.2	29.9	45.0	31.2	13.81	3.260	
2,900.0	2,898.9	2,898.9	2,898.9	4.5	10.6	-169.51	0.2	29.9	55.3	41.1	14.19	3.894	
3,000.0	2,998.4	2,998.4	2,998.4	4.5	10.9	-171.17	0.2	29.9	65.6	51.0	14.57	4.499	
3,100.0	3,097.8	3,097.8	3,097.8	4.5	11.3	-172.38	0.2	29.9	75.9	61.0	14.96	5.076	
3,200.0	3,197.3	3,197.3	3,197.3	4.6	11.6	-173.30	0.2	29.9	86.3	71.0	15.34	5.624	
3,300.0	3,296.7	3,296.7	3,296.7	4.6	12.0	-174.02	0.2	29.9	96.7	81.0	15.73	6.146	
3,400.0	3,396.2	3,396.2	3,396.2	4.6	12.3	-174.61	0.2	29.9	107.1	91.0	16.12	6.642	
3,500.0	3,495.6	3,495.6	3,495.6	4.7	12.7	-175.09	0.2	29.9	117.5	101.0	16.52	7.113	
3,600.0	3,595.1	3,595.1	3,595.1	4.7	13.0	-175.49	0.2	29.9	127.9	111.0	16.92	7.561	
3,700.0	3,694.5	3,694.5	3,694.5	4.8	13.4	-175.83	0.2	29.9	138.3	121.0	17.32	7.987	
3,800.0	3,794.0	3,794.0	3,794.0	4.8	13.7	-176.12	0.2	29.9	148.8	131.0	17.73	8.393	
3,900.0	3,893.4	3,893.4	3,893.4	4.9	14.1	-176.37	0.2	29.9	159.2	141.1	18.13	8.779	
4,000.0	3,992.9	3,992.9	3,992.9	4.9	14.4	-176.60	0.2	29.9	169.6	151.1	18.55	9.146	
4,100.0	4,092.3	4,092.3	4,092.3	5.0	14.8	-176.80	0.2	29.9	180.1	161.1	18.96	9.496	
4,200.0	4,191.8	4,191.8	4,191.8	5.0	15.1	-176.97	0.2	29.9	190.5	171.1	19.38	9.830	
4,300.0	4,291.2	4,291.2	4,291.2	5.1	15.4	-177.13	0.2	29.9	200.9	181.1	19.80	10.148	
4,400.0	4,390.7	4,390.7	4,390.7	5.2	15.8	-177.27	0.2	29.9	211.4	191.2	20.23	10.451	
4,500.0	4,490.1	4,490.1	4,490.1	5.2	16.1	-177.40	0.2	29.9	221.8	201.2	20.65	10.741	
4,600.0	4,589.6	4,589.6	4,589.6	5.3	16.5	-177.52	0.2	29.9	232.3	211.2	21.08	11.018	
4,700.0	4,689.0	4,689.0	4,689.0	5.4	16.9	-177.62	0.2	29.9	242.7	221.2	21.51	11.282	
4,800.0	4,788.5	4,788.5	4,788.5	5.5	17.2	-177.72	0.2	29.9	253.2	231.2	21.95	11.535	
4,900.0	4,887.9	4,887.9	4,887.9	5.6	17.6	-177.81	0.2	29.9	263.6	241.2	22.38	11.777	
5,000.0	4,987.4	4,987.4	4,987.4	5.6	17.9	-177.89	0.2	29.9	274.0	251.2	22.82	12.009	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program: 0-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
5,100.0	5,086.9	5,086.9	5,086.9	5.7	18.3	-177.97	0.2	29.9	284.5	261.2	23.26	12.231	
5,200.0	5,186.3	5,186.3	5,186.3	5.8	18.6	-178.04	0.2	29.9	294.9	271.2	23.70	12.443	
5,300.0	5,285.8	5,285.8	5,285.8	5.9	19.0	-178.11	0.2	29.9	305.4	281.2	24.15	12.647	
5,400.0	5,385.2	5,385.2	5,385.2	6.0	19.3	-178.17	0.2	29.9	315.8	291.2	24.59	12.843	
5,500.0	5,484.7	5,484.7	5,484.7	6.1	19.7	-178.23	0.2	29.9	326.3	301.2	25.04	13.031	
5,600.0	5,584.1	5,595.3	5,595.2	6.2	20.0	-178.31	-0.2	28.4	335.3	309.8	25.50	13.152	
5,700.0	5,683.6	5,708.5	5,708.3	6.3	20.4	-178.43	-1.7	22.6	340.5	314.6	25.93	13.133	
5,800.0	5,783.0	5,811.7	5,811.2	6.4	20.8	-178.56	-3.9	14.5	342.9	316.5	26.35	13.010	
5,900.0	5,882.5	5,911.7	5,910.8	6.5	21.1	-178.69	-6.0	6.6	345.1	318.3	26.79	12.884	
6,000.0	5,981.9	6,011.6	6,010.4	6.6	21.4	-178.81	-8.1	-1.4	347.4	320.1	27.22	12.762	
6,100.0	6,081.4	6,111.6	6,110.1	6.7	21.8	-178.94	-10.3	-9.3	349.6	322.0	27.65	12.643	
6,200.0	6,180.8	6,211.6	6,209.7	6.8	22.1	-179.06	-12.4	-17.3	351.9	323.8	28.09	12.527	
6,300.0	6,280.3	6,311.6	6,309.3	6.9	22.5	-179.18	-14.5	-25.2	354.1	325.6	28.53	12.414	
6,400.0	6,379.7	6,411.5	6,409.0	7.0	22.8	-179.31	-16.7	-33.1	356.4	327.4	28.97	12.303	
6,500.0	6,479.2	6,511.5	6,508.6	7.1	23.1	-179.42	-18.8	-41.1	358.6	329.2	29.41	12.195	
6,600.0	6,578.6	6,611.5	6,608.2	7.2	23.5	-179.54	-20.9	-49.0	360.9	331.0	29.85	12.090	
6,700.0	6,678.1	6,711.4	6,707.9	7.3	23.8	-179.66	-23.0	-57.0	363.2	332.9	30.30	11.987	
6,800.0	6,777.5	6,811.4	6,807.5	7.4	24.2	-179.77	-25.2	-64.9	365.4	334.7	30.74	11.887	
6,900.0	6,877.0	6,911.4	6,907.1	7.5	24.5	-179.89	-27.3	-72.9	367.7	336.5	31.19	11.789	
7,000.0	6,976.4	7,011.4	7,006.8	7.6	24.8	-180.00	-29.4	-80.8	369.9	338.3	31.64	11.694	
7,100.0	7,075.9	7,111.3	7,106.4	7.7	25.2	179.89	-31.6	-88.8	372.2	340.1	32.09	11.600	
7,200.0	7,175.3	7,211.3	7,206.0	7.8	25.5	179.78	-33.7	-96.7	374.5	341.9	32.54	11.509	
7,300.0	7,274.8	7,311.3	7,305.7	8.0	25.9	179.68	-35.8	-104.7	376.7	343.8	32.99	11.421	
7,400.0	7,374.3	7,411.2	7,405.3	8.1	26.2	179.57	-38.0	-112.6	379.0	345.6	33.44	11.334	
7,500.0	7,473.7	7,511.2	7,504.9	8.2	26.6	179.46	-40.1	-120.6	381.3	347.4	33.89	11.249	
7,600.0	7,573.2	7,611.2	7,604.6	8.3	26.9	179.36	-42.2	-128.5	383.6	349.2	34.35	11.166	
7,700.0	7,672.6	7,711.2	7,704.2	8.4	27.3	179.26	-44.3	-136.4	385.8	351.0	34.81	11.085	
7,800.0	7,772.1	7,811.1	7,803.8	8.5	27.6	179.16	-46.5	-144.4	388.1	352.8	35.26	11.006	
7,900.0	7,871.5	7,911.1	7,903.5	8.6	28.0	179.06	-48.6	-152.3	390.4	354.7	35.72	10.929	
8,000.0	7,971.0	8,011.1	8,003.1	8.8	28.3	178.96	-50.7	-160.3	392.7	356.5	36.18	10.853	
8,100.0	8,070.4	8,111.1	8,102.7	8.9	28.7	178.86	-52.9	-168.2	394.9	358.3	36.64	10.780	
8,200.0	8,169.9	8,211.0	8,202.4	9.0	29.0	178.76	-55.0	-176.2	397.2	360.1	37.10	10.707	
8,300.0	8,269.3	8,311.0	8,302.0	9.1	29.4	178.67	-57.1	-184.1	399.5	361.9	37.56	10.637	
8,400.0	8,368.8	8,411.0	8,401.6	9.2	29.7	178.57	-59.2	-192.1	401.8	363.8	38.02	10.568	
8,500.0	8,468.2	8,510.9	8,501.3	9.3	30.1	178.48	-61.4	-200.0	404.1	365.6	38.48	10.500	
8,600.0	8,567.7	8,610.9	8,600.9	9.5	30.4	178.38	-63.5	-208.0	406.3	367.4	38.94	10.434	
8,700.0	8,667.1	8,710.9	8,700.5	9.6	30.8	178.29	-65.6	-215.9	408.6	369.2	39.41	10.369	
8,800.0	8,766.6	8,810.9	8,800.2	9.7	31.1	178.20	-67.8	-223.9	410.9	371.0	39.87	10.306	
8,900.0	8,866.0	8,910.8	8,899.8	9.8	31.5	178.11	-69.9	-231.8	413.2	372.9	40.34	10.244	
9,000.0	8,965.5	9,010.8	8,999.4	10.0	31.8	178.02	-72.0	-239.7	415.5	374.7	40.80	10.183	
9,100.0	9,064.9	9,110.8	9,099.1	10.1	32.2	177.94	-74.1	-247.7	417.8	376.5	41.27	10.123	
9,200.0	9,164.4	9,210.7	9,198.7	10.2	32.5	177.85	-76.3	-255.6	420.1	378.3	41.73	10.065	
9,300.0	9,263.8	9,310.7	9,298.3	10.3	32.9	177.76	-78.4	-263.6	422.4	380.2	42.20	10.008	
9,400.0	9,363.3	9,410.7	9,398.0	10.4	33.2	177.68	-80.5	-271.5	424.7	382.0	42.67	9.952	
9,500.0	9,462.7	9,510.7	9,497.6	10.6	33.6	177.60	-82.7	-279.5	426.9	383.8	43.14	9.897	
9,600.0	9,562.2	9,610.6	9,597.2	10.7	33.9	177.51	-84.8	-287.4	429.2	385.6	43.61	9.844	
9,700.0	9,661.7	9,710.6	9,696.9	10.8	34.3	177.43	-86.9	-295.4	431.5	387.5	44.07	9.791	
9,800.0	9,761.1	9,810.6	9,796.5	10.9	34.6	177.35	-89.1	-303.3	433.8	389.3	44.54	9.739	
9,900.0	9,860.6	9,910.5	9,896.1	11.1	35.0	177.27	-91.2	-311.3	436.1	391.1	45.01	9.689	
10,000.0	9,960.0	10,010.5	9,995.8	11.2	35.3	177.19	-93.3	-319.2	438.4	392.9	45.48	9.639	
10,100.0	10,059.5	10,110.5	10,095.4	11.3	35.7	177.11	-95.4	-327.1	440.7	394.8	45.96	9.590	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program: 0-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	
10,200.0	10,158.9	10,215.2	10,199.8	11.5	36.1	177.06	-97.9	-335.5	443.0	396.5	46.43	9.541	
10,239.1	10,197.8	10,270.5	10,254.6	11.5	36.3	177.52	-103.3	-339.8	442.7	396.1	46.59	9.502	
10,250.0	10,208.6	10,285.8	10,269.6	11.5	36.3	-175.60	-105.7	-341.0	442.5	395.8	46.63	9.489	
10,299.4	10,257.4	10,354.0	10,335.8	11.5	36.5	-157.73	-121.4	-346.2	442.0	395.1	46.83	9.438	
10,300.0	10,258.0	10,354.8	10,336.6	11.5	36.5	-157.59	-121.6	-346.2	442.0	395.1	46.83	9.438	
10,350.0	10,306.6	10,422.0	10,399.4	11.5	36.8	-148.80	-144.8	-351.1	442.6	395.5	47.05	9.406	
10,400.0	10,354.1	10,487.0	10,457.2	11.5	37.0	-142.92	-174.0	-355.5	444.5	397.2	47.29	9.399	
10,450.0	10,400.1	10,549.6	10,509.5	11.6	37.1	-138.16	-208.2	-359.5	447.9	400.3	47.54	9.421	
10,500.0	10,444.2	10,609.8	10,555.9	11.6	37.3	-133.90	-246.3	-363.0	453.0	405.2	47.80	9.476	
10,550.0	10,486.1	10,667.5	10,596.5	11.6	37.4	-129.88	-287.2	-365.9	459.8	411.8	48.07	9.566	
10,600.0	10,525.6	10,722.8	10,631.3	11.7	37.6	-125.97	-330.1	-368.4	468.6	420.3	48.34	9.694	
10,650.0	10,562.2	10,776.0	10,660.8	11.7	37.7	-122.14	-374.3	-370.5	479.3	430.6	48.61	9.860	
10,700.0	10,595.7	10,827.2	10,685.2	11.8	37.8	-118.35	-419.2	-372.2	491.7	442.9	48.88	10.061	
10,750.0	10,625.9	10,876.5	10,704.8	11.9	37.9	-114.60	-464.4	-373.4	505.9	456.8	49.14	10.295	
10,800.0	10,652.5	10,924.2	10,720.0	12.0	38.0	-110.90	-509.6	-374.4	521.7	472.3	49.40	10.560	
10,850.0	10,675.4	10,970.5	10,731.2	12.1	38.1	-107.25	-554.5	-374.9	538.8	489.2	49.66	10.851	
10,900.0	10,694.3	11,015.5	10,738.5	12.2	38.1	-103.68	-598.9	-375.2	557.1	507.2	49.91	11.163	
10,950.0	10,709.1	11,059.4	10,742.3	12.3	38.2	-100.20	-642.7	-375.3	576.3	526.2	50.15	11.493	
11,000.0	10,719.7	11,103.2	10,743.0	12.5	38.3	-96.84	-686.5	-375.0	596.3	545.9	50.38	11.835	
11,050.0	10,726.0	11,148.4	10,743.0	12.6	38.3	-93.87	-731.6	-374.7	616.5	565.9	50.61	12.181	
11,097.3	10,728.0	11,191.5	10,743.1	12.8	38.4	-91.51	-774.7	-374.5	635.7	584.9	50.82	12.508	
11,100.0	10,728.0	11,194.0	10,743.1	12.8	38.4	-91.51	-777.2	-374.4	636.8	586.0	50.83	12.527	
11,200.0	10,728.1	11,286.2	10,743.2	13.2	38.5	-91.40	-869.4	-373.9	675.5	624.2	51.32	13.164	
11,300.0	10,728.2	11,379.7	10,743.3	13.6	38.7	-91.31	-962.9	-373.3	711.0	659.2	51.86	13.710	
11,400.0	10,728.3	11,474.3	10,743.4	14.1	38.9	-91.24	-1,057.6	-372.6	743.2	690.8	52.46	14.168	
11,500.0	10,728.4	11,570.1	10,743.5	14.6	39.1	-91.18	-1,153.3	-372.0	772.1	719.0	53.11	14.537	
11,600.0	10,728.5	11,666.7	10,743.6	15.1	39.3	-91.13	-1,250.0	-371.4	797.6	743.8	53.82	14.820	
11,700.0	10,728.7	11,764.2	10,743.7	15.7	39.5	-91.09	-1,347.5	-370.8	819.8	765.2	54.58	15.021	
11,800.0	10,728.8	11,862.5	10,743.8	16.3	39.8	-91.05	-1,445.7	-370.1	838.5	783.1	55.37	15.142	
11,900.0	10,728.9	11,961.3	10,743.9	16.8	40.0	-91.03	-1,544.5	-369.5	853.8	797.6	56.22	15.188	
12,000.0	10,729.0	12,060.6	10,744.0	17.4	40.3	-91.01	-1,643.8	-368.9	865.6	808.5	57.09	15.161	
12,100.0	10,729.1	12,160.2	10,744.1	18.0	40.6	-90.99	-1,743.5	-368.2	874.0	816.0	58.01	15.066	
12,200.0	10,729.2	12,260.1	10,744.2	18.7	40.9	-90.98	-1,843.3	-367.6	878.8	819.9	58.95	14.907	
12,289.8	10,729.3	12,349.8	10,744.3	19.2	41.2	-90.98	-1,933.1	-367.0	880.2	820.4	59.83	14.713	
12,300.0	10,729.3	12,360.1	10,744.3	19.3	41.3	-90.98	-1,943.3	-366.9	880.2	820.3	59.93	14.689	
12,400.0	10,729.4	12,460.1	10,744.4	19.9	41.6	-90.98	-2,043.3	-366.3	880.2	819.3	60.93	14.446	
12,500.0	10,729.5	12,560.1	10,744.5	20.6	42.0	-90.98	-2,143.3	-365.6	880.2	818.3	61.97	14.205	
12,600.0	10,729.6	12,660.1	10,744.6	21.2	42.3	-90.98	-2,243.3	-365.0	880.2	817.2	63.03	13.965	
12,700.0	10,729.7	12,760.1	10,744.7	21.9	42.7	-90.98	-2,343.3	-364.4	880.2	816.1	64.12	13.727	
12,800.0	10,729.8	12,860.1	10,744.8	22.6	43.1	-90.98	-2,443.3	-363.7	880.2	815.0	65.24	13.492	
12,900.0	10,729.9	12,960.1	10,744.9	23.3	43.6	-90.98	-2,543.3	-363.1	880.2	813.9	66.38	13.261	
13,000.0	10,730.0	13,060.1	10,745.0	24.0	44.0	-90.98	-2,643.3	-362.4	880.2	812.7	67.54	13.032	
13,100.0	10,730.1	13,160.1	10,745.1	24.7	44.4	-90.98	-2,743.3	-361.8	880.2	811.5	68.72	12.808	
13,200.0	10,730.2	13,260.1	10,745.3	25.5	44.9	-90.98	-2,843.3	-361.1	880.2	810.3	69.93	12.588	
13,300.0	10,730.3	13,360.1	10,745.4	26.2	45.4	-90.98	-2,943.3	-360.5	880.2	809.1	71.15	12.371	
13,400.0	10,730.4	13,460.1	10,745.5	27.0	45.8	-90.98	-3,043.3	-359.9	880.2	807.8	72.39	12.159	
13,500.0	10,730.6	13,560.1	10,745.6	27.7	46.3	-90.98	-3,143.3	-359.2	880.2	806.6	73.65	11.952	
13,600.0	10,730.7	13,660.1	10,745.7	28.5	46.8	-90.98	-3,243.3	-358.6	880.2	805.3	74.92	11.749	
13,700.0	10,730.8	13,760.1	10,745.8	29.2	47.3	-90.98	-3,343.3	-357.9	880.2	804.0	76.21	11.550	
13,800.0	10,730.9	13,860.1	10,745.9	30.0	47.9	-90.98	-3,443.3	-357.3	880.2	802.7	77.51	11.356	
13,900.0	10,731.0	13,960.1	10,746.0	30.8	48.4	-90.98	-3,543.3	-356.6	880.2	801.4	78.83	11.166	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-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
14,000.0	10,731.1	14,060.1	10,746.1	31.6	48.9	-90.98	-3,643.3	-356.0	880.2	800.1	80.16	10.981		
14,100.0	10,731.2	14,160.1	10,746.2	32.4	49.5	-90.98	-3,743.3	-355.3	880.2	798.7	81.51	10.799		
14,200.0	10,731.3	14,260.1	10,746.3	33.1	50.0	-90.98	-3,843.3	-354.7	880.2	797.4	82.86	10.623		
14,300.0	10,731.4	14,360.1	10,746.4	33.9	50.6	-90.98	-3,943.3	-354.1	880.2	796.0	84.23	10.450		
14,400.0	10,731.5	14,460.1	10,746.5	34.7	51.2	-90.98	-4,043.3	-353.4	880.2	794.6	85.61	10.282		
14,500.0	10,731.6	14,560.1	10,746.6	35.5	51.8	-90.98	-4,143.3	-352.8	880.2	793.2	87.00	10.118		
14,600.0	10,731.7	14,660.1	10,746.7	36.3	52.4	-90.98	-4,243.3	-352.1	880.2	791.8	88.40	9.957		
14,700.0	10,731.8	14,760.1	10,746.8	37.1	53.0	-90.98	-4,343.3	-351.5	880.2	790.4	89.81	9.801		
14,800.0	10,731.9	14,860.1	10,746.9	37.9	53.6	-90.98	-4,443.3	-350.8	880.2	789.0	91.23	9.649		
14,900.0	10,732.0	14,960.1	10,747.0	38.8	54.2	-90.98	-4,543.3	-350.2	880.2	787.5	92.65	9.500		
15,000.0	10,732.1	15,060.1	10,747.1	39.6	54.8	-90.98	-4,643.3	-349.5	880.2	786.1	94.09	9.355		
15,100.0	10,732.2	15,160.1	10,747.2	40.4	55.4	-90.98	-4,743.2	-348.9	880.2	784.7	95.54	9.213		
15,200.0	10,732.3	15,260.1	10,747.4	41.2	56.0	-90.98	-4,843.2	-348.3	880.2	783.2	96.99	9.075		
15,300.0	10,732.4	15,360.1	10,747.5	42.0	56.7	-90.98	-4,943.2	-347.6	880.2	781.7	98.45	8.941		
15,400.0	10,732.6	15,460.1	10,747.6	42.8	57.3	-90.98	-5,043.2	-347.0	880.2	780.3	99.92	8.809		
15,500.0	10,732.7	15,560.1	10,747.7	43.7	58.0	-90.98	-5,143.2	-346.3	880.2	778.8	101.39	8.681		
15,600.0	10,732.8	15,660.1	10,747.8	44.5	58.6	-90.98	-5,243.2	-345.7	880.2	777.3	102.88	8.556		
15,700.0	10,732.9	15,760.1	10,747.9	45.3	59.3	-90.98	-5,343.2	-345.0	880.2	775.8	104.36	8.434		
15,800.0	10,733.0	15,860.1	10,748.0	46.1	59.9	-90.98	-5,443.2	-344.4	880.2	774.3	105.86	8.315		
15,900.0	10,733.1	15,960.1	10,748.1	47.0	60.6	-90.98	-5,543.2	-343.7	880.2	772.8	107.36	8.198		
16,000.0	10,733.2	16,060.1	10,748.2	47.8	61.3	-90.98	-5,643.2	-343.1	880.2	771.3	108.87	8.085		
16,100.0	10,733.3	16,160.1	10,748.3	48.6	62.0	-90.98	-5,743.2	-342.5	880.2	769.8	110.38	7.974		
16,200.0	10,733.4	16,260.1	10,748.4	49.4	62.7	-90.98	-5,843.2	-341.8	880.2	768.3	111.90	7.866		
16,300.0	10,733.5	16,360.1	10,748.5	50.3	63.3	-90.98	-5,943.2	-341.2	880.2	766.8	113.42	7.760		
16,400.0	10,733.6	16,460.1	10,748.6	51.1	64.0	-90.98	-6,043.2	-340.5	880.2	765.2	114.95	7.657		
16,500.0	10,733.7	16,560.1	10,748.7	51.9	64.7	-90.98	-6,143.2	-339.9	880.2	763.7	116.48	7.556		
16,600.0	10,733.8	16,660.1	10,748.8	52.8	65.4	-90.98	-6,243.2	-339.2	880.2	762.2	118.02	7.458		
16,700.0	10,733.9	16,760.1	10,748.9	53.6	66.1	-90.98	-6,343.2	-338.6	880.2	760.6	119.56	7.362		
16,800.0	10,734.0	16,860.1	10,749.0	54.4	66.8	-90.98	-6,443.2	-338.0	880.2	759.1	121.11	7.267		
16,900.0	10,734.1	16,960.1	10,749.1	55.3	67.6	-90.98	-6,543.2	-337.3	880.2	757.5	122.66	7.176		
17,000.0	10,734.2	17,060.1	10,749.2	56.1	68.3	-90.98	-6,643.2	-336.7	880.2	756.0	124.22	7.086		
17,100.0	10,734.3	17,160.1	10,749.3	57.0	69.0	-90.98	-6,743.2	-336.0	880.2	754.4	125.78	6.998		
17,200.0	10,734.4	17,260.1	10,749.5	57.8	69.7	-90.98	-6,843.2	-335.4	880.2	752.8	127.34	6.912		
17,300.0	10,734.6	17,360.1	10,749.6	58.6	70.4	-90.98	-6,943.2	-334.7	880.2	751.3	128.91	6.828		
17,400.0	10,734.7	17,460.1	10,749.7	59.5	71.2	-90.98	-7,043.2	-334.1	880.2	749.7	130.48	6.746		
17,500.0	10,734.8	17,560.1	10,749.8	60.3	71.9	-90.98	-7,143.2	-333.4	880.2	748.1	132.05	6.665		
17,600.0	10,734.9	17,660.1	10,749.9	61.2	72.6	-90.98	-7,243.2	-332.8	880.2	746.5	133.63	6.587		
17,700.0	10,735.0	17,760.1	10,750.0	62.0	73.4	-90.98	-7,343.2	-332.2	880.2	744.9	135.21	6.510		
17,800.0	10,735.1	17,860.1	10,750.1	62.8	74.1	-90.98	-7,443.2	-331.5	880.2	743.4	136.80	6.434		
17,900.0	10,735.2	17,960.1	10,750.2	63.7	74.8	-90.98	-7,543.2	-330.9	880.2	741.8	138.38	6.360		
18,000.0	10,735.3	18,060.1	10,750.3	64.5	75.6	-90.98	-7,643.2	-330.2	880.2	740.2	139.97	6.288		
18,100.0	10,735.4	18,160.1	10,750.4	65.4	76.3	-90.98	-7,743.2	-329.6	880.2	738.6	141.57	6.217		
18,200.0	10,735.5	18,260.1	10,750.5	66.2	77.1	-90.98	-7,843.2	-328.9	880.2	737.0	143.16	6.148		
18,300.0	10,735.6	18,360.1	10,750.6	67.1	77.8	-90.98	-7,943.2	-328.3	880.2	735.4	144.76	6.080		
18,400.0	10,735.7	18,460.1	10,750.7	67.9	78.6	-90.98	-8,043.2	-327.6	880.1	733.8	146.36	6.014		
18,500.0	10,735.8	18,560.1	10,750.8	68.7	79.3	-90.98	-8,143.2	-327.0	880.1	732.2	147.96	5.948		
18,600.0	10,735.9	18,660.1	10,750.9	69.6	80.1	-90.98	-8,243.2	-326.4	880.1	730.6	149.57	5.884		
18,700.0	10,736.0	18,760.1	10,751.0	70.4	80.9	-90.98	-8,343.2	-325.7	880.1	729.0	151.18	5.822		
18,800.0	10,736.1	18,860.1	10,751.1	71.3	81.6	-90.98	-8,443.2	-325.1	880.1	727.4	152.79	5.760		
18,900.0	10,736.2	18,960.1	10,751.2	72.1	82.4	-90.98	-8,543.2	-324.4	880.1	725.7	154.40	5.700		
19,000.0	10,736.3	19,060.1	10,751.3	73.0	83.2	-90.98	-8,643.2	-323.8	880.1	724.1	156.02	5.641		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #702H - OWB - PWP1										Offset Site Error:		3.0 usft	
Survey Program: 0-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
19,100.0	10,736.4	19,160.1	10,751.4	73.8	83.9	-90.98	-8,743.2	-323.1	880.1	722.5	157.64	5.583	
19,200.0	10,736.6	19,260.1	10,751.6	74.7	84.7	-90.98	-8,843.2	-322.5	880.1	720.9	159.26	5.527	
19,300.0	10,736.7	19,360.1	10,751.7	75.5	85.5	-90.98	-8,943.2	-321.9	880.1	719.3	160.88	5.471	
19,400.0	10,736.8	19,460.1	10,751.8	76.4	86.2	-90.98	-9,043.2	-321.2	880.1	717.6	162.50	5.416	
19,500.0	10,736.9	19,560.1	10,751.9	77.2	87.0	-90.98	-9,143.2	-320.6	880.1	716.0	164.13	5.363	
19,600.0	10,737.0	19,660.1	10,752.0	78.1	87.8	-90.98	-9,243.2	-319.9	880.1	714.4	165.75	5.310	
19,700.0	10,737.1	19,760.1	10,752.1	78.9	88.6	-90.98	-9,343.2	-319.3	880.1	712.7	167.38	5.258	
19,800.0	10,737.2	19,860.1	10,752.2	79.8	89.3	-90.98	-9,443.1	-318.6	880.1	711.1	169.01	5.207	
19,900.0	10,737.3	19,960.1	10,752.3	80.6	90.1	-90.98	-9,543.1	-318.0	880.1	709.5	170.65	5.158	
20,000.0	10,737.4	20,060.1	10,752.4	81.5	90.9	-90.98	-9,643.1	-317.3	880.1	707.8	172.28	5.109	
20,100.0	10,737.5	20,160.1	10,752.5	82.3	91.7	-90.98	-9,743.1	-316.7	880.1	706.2	173.92	5.061	
20,200.0	10,737.6	20,260.1	10,752.6	83.2	92.5	-90.98	-9,843.1	-316.1	880.1	704.6	175.55	5.013	
20,300.0	10,737.7	20,360.1	10,752.7	84.0	93.3	-90.98	-9,943.1	-315.4	880.1	702.9	177.19	4.967	
20,400.0	10,737.8	20,460.1	10,752.8	84.9	94.0	-90.98	-10,043.1	-314.8	880.1	701.3	178.83	4.921	
20,500.0	10,737.9	20,560.1	10,752.9	85.7	94.8	-90.98	-10,143.1	-314.1	880.1	699.6	180.47	4.877	
20,577.8	10,738.0	20,637.9	10,753.0	86.4	95.4	-90.98	-10,220.9	-313.6	880.1	698.4	181.75	4.842	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #704H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program: 0-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 Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,600.0	10,728.5	11,806.1	10,724.2	15.1	39.7	88.84	-1,261.4	-2,168.3	999.6	945.5	54.12	18.469	
11,700.0	10,728.7	11,903.6	10,724.3	15.7	39.9	88.83	-1,358.9	-2,167.6	977.5	922.6	54.88	17.811	
11,800.0	10,728.8	12,001.8	10,724.5	16.3	40.2	88.82	-1,457.2	-2,167.0	958.8	903.1	55.68	17.218	
11,900.0	10,728.9	12,100.7	10,724.6	16.8	40.5	88.81	-1,556.0	-2,166.4	943.5	887.0	56.53	16.690	
12,000.0	10,729.0	12,200.0	10,724.8	17.4	40.8	88.81	-1,655.3	-2,165.8	931.7	874.3	57.41	16.228	
12,100.0	10,729.1	12,299.6	10,724.9	18.0	41.1	88.80	-1,754.9	-2,165.2	923.3	865.0	58.33	15.829	
12,200.0	10,729.2	12,399.5	10,725.1	18.7	41.4	88.80	-1,854.8	-2,164.5	918.5	859.2	59.28	15.493	
12,289.3	10,729.3	12,488.8	10,725.2	19.2	41.7	88.81	-1,944.1	-2,164.0	917.1	856.9	60.16	15.245 CC	
12,289.8	10,729.3	12,489.2	10,725.2	19.2	41.7	88.81	-1,944.5	-2,164.0	917.1	856.9	60.16	15.244	
12,300.0	10,729.3	12,499.5	10,725.2	19.3	41.7	88.81	-1,954.8	-2,163.9	917.1	856.8	60.26	15.218	
12,400.0	10,729.4	12,599.5	10,725.4	19.9	42.1	88.81	-2,054.8	-2,163.3	917.1	855.8	61.27	14.967	
12,500.0	10,729.5	12,699.5	10,725.5	20.6	42.4	88.81	-2,154.8	-2,162.6	917.1	854.8	62.31	14.718	
12,600.0	10,729.6	12,799.5	10,725.7	21.2	42.8	88.82	-2,254.8	-2,162.0	917.1	853.7	63.38	14.469	
12,700.0	10,729.7	12,899.5	10,725.8	21.9	43.2	88.82	-2,354.8	-2,161.4	917.1	852.7	64.48	14.224	
12,800.0	10,729.8	12,999.5	10,726.0	22.6	43.6	88.82	-2,454.8	-2,160.8	917.2	851.6	65.60	13.981	
12,900.0	10,729.9	13,099.5	10,726.1	23.3	44.1	88.83	-2,554.8	-2,160.1	917.2	850.4	66.75	13.741	
13,000.0	10,730.0	13,199.5	10,726.3	24.0	44.5	88.83	-2,654.8	-2,159.5	917.2	849.3	67.91	13.505	
13,100.0	10,730.1	13,299.5	10,726.5	24.7	44.9	88.83	-2,754.8	-2,158.9	917.2	848.1	69.10	13.273	
13,200.0	10,730.2	13,399.5	10,726.6	25.5	45.4	88.84	-2,854.8	-2,158.2	917.2	846.9	70.31	13.046	
13,300.0	10,730.3	13,499.5	10,726.8	26.2	45.9	88.84	-2,954.8	-2,157.6	917.2	845.7	71.53	12.822	
13,400.0	10,730.4	13,599.5	10,726.9	27.0	46.4	88.84	-3,054.8	-2,157.0	917.3	844.5	72.78	12.603	
13,500.0	10,730.6	13,699.5	10,727.1	27.7	46.9	88.85	-3,154.8	-2,156.4	917.3	843.2	74.04	12.389	
13,600.0	10,730.7	13,799.5	10,727.2	28.5	47.4	88.85	-3,254.8	-2,155.7	917.3	842.0	75.32	12.179	
13,700.0	10,730.8	13,899.5	10,727.4	29.2	47.9	88.85	-3,354.8	-2,155.1	917.3	840.7	76.61	11.974	
13,800.0	10,730.9	13,999.5	10,727.5	30.0	48.4	88.85	-3,454.8	-2,154.5	917.3	839.4	77.92	11.773	
13,900.0	10,731.0	14,099.5	10,727.7	30.8	48.9	88.86	-3,554.8	-2,153.8	917.3	838.1	79.24	11.577	
14,000.0	10,731.1	14,199.5	10,727.8	31.6	49.5	88.86	-3,654.8	-2,153.2	917.4	836.8	80.57	11.385	
14,100.0	10,731.2	14,299.5	10,728.0	32.4	50.0	88.86	-3,754.8	-2,152.6	917.4	835.4	81.92	11.198	
14,200.0	10,731.3	14,399.5	10,728.2	33.1	50.6	88.87	-3,854.7	-2,152.0	917.4	834.1	83.28	11.016	
14,300.0	10,731.4	14,499.5	10,728.3	33.9	51.2	88.87	-3,954.7	-2,151.3	917.4	832.7	84.65	10.838	
14,400.0	10,731.5	14,599.5	10,728.5	34.7	51.7	88.87	-4,054.7	-2,150.7	917.4	831.4	86.03	10.664	
14,500.0	10,731.6	14,699.5	10,728.6	35.5	52.3	88.88	-4,154.7	-2,150.1	917.4	830.0	87.42	10.494	
14,600.0	10,731.7	14,799.5	10,728.8	36.3	52.9	88.88	-4,254.7	-2,149.4	917.4	828.6	88.83	10.329	
14,700.0	10,731.8	14,899.5	10,728.9	37.1	53.5	88.88	-4,354.7	-2,148.8	917.5	827.2	90.24	10.167	
14,800.0	10,731.9	14,999.5	10,729.1	37.9	54.1	88.89	-4,454.7	-2,148.2	917.5	825.8	91.66	10.010	
14,900.0	10,732.0	15,099.5	10,729.2	38.8	54.7	88.89	-4,554.7	-2,147.5	917.5	824.4	93.09	9.856	
15,000.0	10,732.1	15,199.5	10,729.4	39.6	55.4	88.89	-4,654.7	-2,146.9	917.5	823.0	94.53	9.706	
15,100.0	10,732.2	15,299.5	10,729.5	40.4	56.0	88.90	-4,754.7	-2,146.3	917.5	821.5	95.98	9.560	
15,200.0	10,732.3	15,399.5	10,729.7	41.2	56.6	88.90	-4,854.7	-2,145.7	917.5	820.1	97.43	9.417	
15,300.0	10,732.4	15,499.5	10,729.9	42.0	57.3	88.90	-4,954.7	-2,145.0	917.6	818.7	98.90	9.278	
15,400.0	10,732.6	15,599.5	10,730.0	42.8	57.9	88.90	-5,054.7	-2,144.4	917.6	817.2	100.37	9.142	
15,500.0	10,732.7	15,699.5	10,730.2	43.7	58.6	88.91	-5,154.7	-2,143.8	917.6	815.7	101.84	9.010	
15,600.0	10,732.8	15,799.5	10,730.3	44.5	59.2	88.91	-5,254.7	-2,143.1	917.6	814.3	103.33	8.881	
15,700.0	10,732.9	15,899.5	10,730.5	45.3	59.9	88.91	-5,354.7	-2,142.5	917.6	812.8	104.82	8.754	
15,800.0	10,733.0	15,999.5	10,730.6	46.1	60.5	88.92	-5,454.7	-2,141.9	917.6	811.3	106.31	8.631	
15,900.0	10,733.1	16,099.5	10,730.8	47.0	61.2	88.92	-5,554.7	-2,141.3	917.6	809.8	107.82	8.511	
16,000.0	10,733.2	16,199.5	10,730.9	47.8	61.9	88.92	-5,654.7	-2,140.6	917.7	808.3	109.33	8.394	
16,100.0	10,733.3	16,299.5	10,731.1	48.6	62.6	88.93	-5,754.7	-2,140.0	917.7	806.8	110.84	8.279	
16,200.0	10,733.4	16,399.5	10,731.2	49.4	63.3	88.93	-5,854.7	-2,139.4	917.7	805.3	112.36	8.167	
16,300.0	10,733.5	16,499.5	10,731.4	50.3	63.9	88.93	-5,954.7	-2,138.7	917.7	803.8	113.89	8.058	
16,400.0	10,733.6	16,599.5	10,731.6	51.1	64.6	88.94	-6,054.7	-2,138.1	917.7	802.3	115.42	7.951	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #704H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program: 0-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
16,500.0	10,733.7	16,699.5	10,731.7	51.9	65.3	88.94	-6,154.7	-2,137.5	917.7	800.8	116.95	7.847	
16,600.0	10,733.8	16,799.5	10,731.9	52.8	66.0	88.94	-6,254.7	-2,136.9	917.8	799.3	118.49	7.745	
16,700.0	10,733.9	16,899.5	10,732.0	53.6	66.7	88.94	-6,354.7	-2,136.2	917.8	797.7	120.04	7.646	
16,800.0	10,734.0	16,999.5	10,732.2	54.4	67.4	88.95	-6,454.7	-2,135.6	917.8	796.2	121.58	7.549	
16,900.0	10,734.1	17,099.5	10,732.3	55.3	68.2	88.95	-6,554.7	-2,135.0	917.8	794.7	123.14	7.454	
17,000.0	10,734.2	17,199.5	10,732.5	56.1	68.9	88.95	-6,654.7	-2,134.3	917.8	793.1	124.69	7.361	
17,100.0	10,734.3	17,299.5	10,732.6	57.0	69.6	88.96	-6,754.7	-2,133.7	917.8	791.6	126.26	7.270	
17,200.0	10,734.4	17,399.5	10,732.8	57.8	70.3	88.96	-6,854.7	-2,133.1	917.9	790.0	127.82	7.181	
17,300.0	10,734.6	17,499.5	10,732.9	58.6	71.0	88.96	-6,954.7	-2,132.5	917.9	788.5	129.39	7.094	
17,400.0	10,734.7	17,599.5	10,733.1	59.5	71.8	88.97	-7,054.7	-2,131.8	917.9	786.9	130.96	7.009	
17,500.0	10,734.8	17,699.5	10,733.2	60.3	72.5	88.97	-7,154.7	-2,131.2	917.9	785.4	132.54	6.926	
17,600.0	10,734.9	17,799.5	10,733.4	61.2	73.2	88.97	-7,254.7	-2,130.6	917.9	783.8	134.12	6.844	
17,700.0	10,735.0	17,899.5	10,733.6	62.0	74.0	88.98	-7,354.7	-2,129.9	917.9	782.2	135.70	6.765	
17,800.0	10,735.1	17,999.5	10,733.7	62.8	74.7	88.98	-7,454.7	-2,129.3	917.9	780.7	137.28	6.687	
17,900.0	10,735.2	18,099.5	10,733.9	63.7	75.5	88.98	-7,554.7	-2,128.7	918.0	779.1	138.87	6.610	
18,000.0	10,735.3	18,199.5	10,734.0	64.5	76.2	88.98	-7,654.7	-2,128.1	918.0	777.5	140.46	6.535	
18,100.0	10,735.4	18,299.5	10,734.2	65.4	77.0	88.99	-7,754.7	-2,127.4	918.0	775.9	142.06	6.462	
18,200.0	10,735.5	18,399.5	10,734.3	66.2	77.7	88.99	-7,854.7	-2,126.8	918.0	774.4	143.65	6.390	
18,300.0	10,735.6	18,499.5	10,734.5	67.1	78.5	88.99	-7,954.7	-2,126.2	918.0	772.8	145.25	6.320	
18,400.0	10,735.7	18,599.5	10,734.6	67.9	79.2	89.00	-8,054.7	-2,125.5	918.0	771.2	146.86	6.251	
18,500.0	10,735.8	18,699.5	10,734.8	68.7	80.0	89.00	-8,154.7	-2,124.9	918.1	769.6	148.46	6.184	
18,600.0	10,735.9	18,799.5	10,734.9	69.6	80.7	89.00	-8,254.7	-2,124.3	918.1	768.0	150.07	6.118	
18,700.0	10,736.0	18,899.5	10,735.1	70.4	81.5	89.01	-8,354.7	-2,123.6	918.1	766.4	151.68	6.053	
18,800.0	10,736.1	18,999.5	10,735.3	71.3	82.2	89.01	-8,454.7	-2,123.0	918.1	764.8	153.29	5.989	
18,900.0	10,736.2	19,099.5	10,735.4	72.1	83.0	89.01	-8,554.6	-2,122.4	918.1	763.2	154.90	5.927	
19,000.0	10,736.3	19,199.5	10,735.6	73.0	83.8	89.02	-8,654.6	-2,121.8	918.1	761.6	156.52	5.866	
19,100.0	10,736.4	19,299.5	10,735.7	73.8	84.5	89.02	-8,754.6	-2,121.1	918.2	760.0	158.14	5.806	
19,200.0	10,736.6	19,399.5	10,735.9	74.7	85.3	89.02	-8,854.6	-2,120.5	918.2	758.4	159.76	5.747	
19,300.0	10,736.7	19,499.5	10,736.0	75.5	86.1	89.02	-8,954.6	-2,119.9	918.2	756.8	161.38	5.689	
19,400.0	10,736.8	19,599.5	10,736.2	76.4	86.9	89.03	-9,054.6	-2,119.2	918.2	755.2	163.01	5.633	
19,500.0	10,736.9	19,699.5	10,736.3	77.2	87.6	89.03	-9,154.6	-2,118.6	918.2	753.6	164.64	5.577	
19,600.0	10,737.0	19,799.5	10,736.5	78.1	88.4	89.03	-9,254.6	-2,118.0	918.2	752.0	166.26	5.523	
19,700.0	10,737.1	19,899.5	10,736.6	78.9	89.2	89.04	-9,354.6	-2,117.4	918.3	750.4	167.89	5.469	
19,800.0	10,737.2	19,999.5	10,736.8	79.8	90.0	89.04	-9,454.6	-2,116.7	918.3	748.7	169.53	5.417	
19,900.0	10,737.3	20,099.5	10,737.0	80.6	90.8	89.04	-9,554.6	-2,116.1	918.3	747.1	171.16	5.365	
20,000.0	10,737.4	20,199.5	10,737.1	81.5	91.5	89.05	-9,654.6	-2,115.5	918.3	745.5	172.80	5.314	
20,100.0	10,737.5	20,299.5	10,737.3	82.3	92.3	89.05	-9,754.6	-2,114.8	918.3	743.9	174.43	5.265	
20,200.0	10,737.6	20,399.5	10,737.4	83.2	93.1	89.05	-9,854.6	-2,114.2	918.3	742.3	176.07	5.216	
20,300.0	10,737.7	20,499.5	10,737.6	84.0	93.9	89.06	-9,954.6	-2,113.6	918.3	740.6	177.71	5.168	
20,400.0	10,737.8	20,599.5	10,737.7	84.9	94.7	89.06	-10,054.6	-2,113.0	918.4	739.0	179.35	5.120	
20,500.0	10,737.9	20,699.5	10,737.9	85.7	95.5	89.06	-10,154.6	-2,112.3	918.4	737.4	181.00	5.074	
20,577.8	10,738.0	20,777.2	10,738.0	86.4	96.1	89.06	-10,232.4	-2,111.8	918.4	736.1	182.27	5.039 ES, SF	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #801H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10877-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	2.0	2.0	3.0	3.0	-90.48	-1.7	-200.1	200.1				
100.0	100.0	102.0	102.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.00	33.350	
200.0	200.0	202.0	202.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.00	33.334	
300.0	300.0	302.0	302.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.01	33.301	
400.0	400.0	402.0	402.0	3.0	3.0	-90.48	-1.7	-200.1	200.1	194.1	6.02	33.249	
500.0	500.0	502.0	502.0	3.1	3.1	-90.48	-1.7	-200.1	200.1	194.1	6.03	33.180	
600.0	600.0	602.0	602.0	3.1	3.1	-90.48	-1.7	-200.1	200.1	194.1	6.05	33.094	
700.0	700.0	702.0	702.0	3.1	3.1	-90.48	-1.7	-200.1	200.1	194.0	6.07	32.991	
800.0	800.0	802.0	802.0	3.2	3.2	-90.48	-1.7	-200.1	200.1	194.0	6.09	32.871	
900.0	900.0	902.0	902.0	3.2	3.2	-90.48	-1.7	-200.1	200.1	194.0	6.11	32.736	
1,000.0	1,000.0	1,002.0	1,002.0	3.2	3.2	-90.48	-1.7	-200.1	200.1	194.0	6.14	32.586	
1,100.0	1,100.0	1,102.0	1,102.0	3.3	3.3	-90.48	-1.7	-200.1	200.1	193.9	6.17	32.421	
1,200.0	1,200.0	1,202.0	1,202.0	3.4	3.4	-90.48	-1.7	-200.1	200.1	193.9	6.21	32.242	
1,300.0	1,300.0	1,302.0	1,302.0	3.4	3.4	-90.48	-1.7	-200.1	200.1	193.9	6.24	32.050	
1,400.0	1,400.0	1,402.0	1,402.0	3.5	3.5	-90.48	-1.7	-200.1	200.1	193.8	6.28	31.846	
1,500.0	1,500.0	1,502.0	1,502.0	3.5	3.5	-90.48	-1.7	-200.1	200.1	193.8	6.33	31.630	
1,600.0	1,600.0	1,602.0	1,602.0	3.6	3.6	-90.48	-1.7	-200.1	200.1	193.7	6.37	31.403	
1,700.0	1,700.0	1,702.0	1,702.0	3.7	3.7	-90.48	-1.7	-200.1	200.1	193.7	6.42	31.167	
1,800.0	1,800.0	1,802.0	1,802.0	3.8	3.8	-90.48	-1.7	-200.1	200.1	193.6	6.47	30.921	
1,900.0	1,900.0	1,902.0	1,902.0	3.9	3.9	-90.48	-1.7	-200.1	200.1	193.6	6.53	30.667	
2,000.0	2,000.0	2,002.0	2,002.0	3.9	3.9	-90.48	-1.7	-200.1	200.1	193.5	6.58	30.405	
2,100.0	2,100.0	2,102.0	2,102.0	4.0	4.0	-90.48	-1.7	-200.1	200.1	193.5	6.64	30.137	
2,200.0	2,200.0	2,202.0	2,202.0	4.1	4.1	-90.48	-1.7	-200.1	200.1	193.4	6.70	29.863	
2,300.0	2,300.0	2,302.0	2,302.0	4.2	4.2	-90.48	-1.7	-200.1	200.1	193.3	6.76	29.583	
2,400.0	2,400.0	2,402.0	2,402.0	4.3	4.3	-90.48	-1.7	-200.1	200.1	193.3	6.83	29.299	
2,500.0	2,500.0	2,502.0	2,502.0	4.4	4.4	-90.48	-1.7	-200.1	200.1	193.2	6.90	29.011	
2,600.0	2,600.0	2,602.0	2,602.0	4.4	4.5	19.70	-1.7	-200.1	198.5	191.5	6.97	28.483	
2,700.0	2,699.8	2,701.8	2,701.8	4.5	4.6	20.25	-1.7	-200.1	193.5	186.5	7.04	27.480	
2,800.0	2,799.5	2,801.5	2,801.5	4.5	4.7	21.25	-1.7	-200.1	185.4	178.3	7.13	26.013	
2,900.0	2,898.9	2,900.9	2,900.9	4.5	4.8	22.48	-1.7	-200.1	175.7	168.5	7.22	24.330	
3,000.0	2,998.4	3,000.4	3,000.4	4.5	4.9	23.86	-1.7	-200.1	166.1	158.7	7.33	22.668	
3,100.0	3,097.8	3,099.8	3,099.8	4.5	5.0	25.40	-1.7	-200.1	156.6	149.1	7.44	21.033	
3,200.0	3,197.3	3,199.3	3,199.3	4.6	5.1	27.15	-1.7	-200.1	147.2	139.6	7.57	19.430	
3,300.0	3,296.7	3,298.7	3,298.7	4.6	5.2	29.13	-1.7	-200.1	137.9	130.2	7.72	17.863	
3,400.0	3,396.2	3,398.2	3,398.2	4.6	5.3	31.39	-1.7	-200.1	128.9	121.0	7.89	16.339	
3,500.0	3,495.6	3,497.6	3,497.6	4.7	5.4	33.98	-1.7	-200.1	120.1	112.0	8.08	14.864	
3,600.0	3,595.1	3,597.1	3,597.1	4.7	5.5	36.98	-1.7	-200.1	111.5	103.3	8.30	13.445	
3,700.0	3,694.5	3,696.5	3,696.5	4.8	5.7	40.46	-1.7	-200.1	103.4	94.8	8.55	12.092	
3,800.0	3,794.0	3,796.0	3,796.0	4.8	5.8	44.51	-1.7	-200.1	95.6	86.8	8.84	10.818	
3,900.0	3,893.4	3,895.4	3,895.4	4.9	5.9	49.25	-1.7	-200.1	88.5	79.3	9.18	9.639	
4,000.0	3,992.9	3,994.9	3,994.9	4.9	6.0	54.77	-1.7	-200.1	82.0	72.4	9.56	8.575	
4,100.0	4,092.3	4,094.3	4,094.3	5.0	6.1	61.16	-1.7	-200.1	76.4	66.4	9.99	7.651	
4,200.0	4,191.8	4,193.8	4,193.8	5.0	6.2	68.43	-1.7	-200.1	71.9	61.5	10.44	6.894	
4,300.0	4,291.2	4,293.2	4,293.2	5.1	6.3	76.52	-1.7	-200.1	68.8	57.9	10.87	6.327	
4,400.0	4,390.7	4,392.7	4,392.7	5.2	6.4	85.18	-1.7	-200.1	67.1	55.9	11.25	5.967	
4,454.2	4,444.6	4,446.6	4,446.6	5.2	6.5	90.00	-1.7	-200.1	66.9	55.4	11.41	5.859 CC, ES	
4,500.0	4,490.1	4,492.1	4,492.1	5.2	6.6	94.07	-1.7	-200.1	67.0	55.5	11.52	5.817 SF	
4,600.0	4,589.6	4,591.6	4,591.6	5.3	6.7	102.77	-1.7	-200.1	68.6	56.9	11.69	5.866	
4,700.0	4,689.0	4,691.0	4,691.0	5.4	6.8	110.91	-1.7	-200.1	71.6	59.9	11.76	6.093	
4,800.0	4,788.5	4,790.5	4,790.5	5.5	6.9	118.26	-1.7	-200.1	76.0	64.2	11.76	6.465	
4,900.0	4,887.9	4,889.9	4,889.9	5.6	7.0	124.73	-1.7	-200.1	81.5	69.8	11.72	6.951	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #801H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10877-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 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	4,987.4	4,989.4	4,989.4	5.6	7.2	130.32	-1.7	-200.1	87.9	76.2	11.69	7.520	
5,100.0	5,086.9	5,088.9	5,088.9	5.7	7.3	135.12	-1.7	-200.1	95.0	83.3	11.66	8.147	
5,200.0	5,186.3	5,188.3	5,188.3	5.8	7.4	139.23	-1.7	-200.1	102.7	91.0	11.66	8.811	
5,300.0	5,285.8	5,287.8	5,287.8	5.9	7.5	142.75	-1.7	-200.1	110.8	99.2	11.67	9.498	
5,400.0	5,385.2	5,387.2	5,387.2	6.0	7.6	145.78	-1.7	-200.1	119.3	107.6	11.71	10.196	
5,500.0	5,484.7	5,486.7	5,486.7	6.1	7.8	148.41	-1.7	-200.1	128.1	116.4	11.76	10.896	
5,600.0	5,584.1	5,582.6	5,582.6	6.2	7.8	150.85	-1.3	-199.0	138.3	126.4	11.83	11.685	
5,700.0	5,683.6	5,677.2	5,677.1	6.3	7.9	153.46	0.3	-195.0	151.6	139.6	11.92	12.710	
5,800.0	5,783.0	5,772.6	5,772.2	6.4	8.0	156.08	2.9	-188.2	167.9	155.9	12.03	13.963	
5,900.0	5,882.5	5,870.8	5,870.1	6.5	8.0	158.37	5.8	-180.6	185.2	173.1	12.13	15.269	
6,000.0	5,981.9	5,969.1	5,968.0	6.6	8.1	160.27	8.7	-173.0	202.7	190.5	12.26	16.541	
6,100.0	6,081.4	6,067.3	6,065.9	6.7	8.2	161.87	11.6	-165.5	220.4	208.0	12.40	17.779	
6,200.0	6,180.8	6,165.6	6,163.9	6.8	8.3	163.23	14.5	-157.9	238.3	225.7	12.55	18.980	
6,300.0	6,280.3	6,263.8	6,261.8	6.9	8.3	164.40	17.4	-150.3	256.2	243.5	12.72	20.145	
6,400.0	6,379.7	6,362.1	6,359.7	7.0	8.4	165.41	20.3	-142.7	274.3	261.4	12.89	21.272	
6,500.0	6,479.2	6,460.3	6,457.6	7.1	8.5	166.31	23.3	-135.2	292.4	279.3	13.08	22.362	
6,600.0	6,578.6	6,558.6	6,555.5	7.2	8.6	167.09	26.2	-127.6	310.6	297.3	13.26	23.417	
6,700.0	6,678.1	6,656.8	6,653.4	7.3	8.6	167.79	29.1	-120.0	328.8	315.4	13.46	24.438	
6,800.0	6,777.5	6,755.1	6,751.3	7.4	8.7	168.42	32.0	-112.4	347.1	333.5	13.65	25.424	
6,900.0	6,877.0	6,853.3	6,849.2	7.5	8.8	168.98	34.9	-104.8	365.4	351.6	13.85	26.377	
7,000.0	6,976.4	6,951.6	6,947.2	7.6	8.9	169.49	37.8	-97.3	383.8	369.7	14.06	27.299	
7,100.0	7,075.9	7,049.8	7,045.1	7.7	9.0	169.96	40.7	-89.7	402.1	387.9	14.26	28.191	
7,200.0	7,175.3	7,148.1	7,143.0	7.8	9.0	170.38	43.6	-82.1	420.5	406.1	14.47	29.052	
7,300.0	7,274.8	7,246.3	7,240.9	8.0	9.1	170.77	46.5	-74.5	438.9	424.3	14.69	29.886	
7,400.0	7,374.3	7,344.6	7,338.8	8.1	9.2	171.13	49.4	-66.9	457.4	442.5	14.90	30.692	
7,500.0	7,473.7	7,442.8	7,436.7	8.2	9.3	171.45	52.3	-59.4	475.8	460.7	15.12	31.472	
7,600.0	7,573.2	7,541.1	7,534.6	8.3	9.4	171.76	55.3	-51.8	494.3	478.9	15.34	32.226	
7,700.0	7,672.6	7,639.3	7,632.5	8.4	9.5	172.04	58.2	-44.2	512.8	497.2	15.56	32.957	
7,800.0	7,772.1	7,737.6	7,730.5	8.5	9.6	172.30	61.1	-36.6	531.2	515.5	15.78	33.664	
7,900.0	7,871.5	7,835.8	7,828.4	8.6	9.7	172.55	64.0	-29.0	549.7	533.7	16.01	34.348	
8,000.0	7,971.0	7,934.1	7,926.3	8.8	9.8	172.78	66.9	-21.5	568.2	552.0	16.23	35.011	
8,100.0	8,070.4	8,032.3	8,024.2	8.9	9.8	172.99	69.8	-13.9	586.8	570.3	16.46	35.653	
8,200.0	8,169.9	8,130.6	8,122.1	9.0	9.9	173.19	72.7	-6.3	605.3	588.6	16.69	36.275	
8,300.0	8,269.3	8,228.8	8,220.0	9.1	10.0	173.38	75.6	1.3	623.8	606.9	16.92	36.877	
8,400.0	8,368.8	8,327.1	8,317.9	9.2	10.1	173.56	78.5	8.9	642.3	625.2	17.15	37.462	
8,500.0	8,468.2	8,425.3	8,415.8	9.3	10.2	173.73	81.4	16.4	660.9	643.5	17.38	38.028	
8,600.0	8,567.7	8,523.5	8,513.7	9.5	10.3	173.89	84.4	24.0	679.4	661.8	17.61	38.578	
8,700.0	8,667.1	8,621.8	8,611.7	9.6	10.4	174.04	87.3	31.6	698.0	680.1	17.85	39.111	
8,800.0	8,766.6	8,720.0	8,709.6	9.7	10.5	174.19	90.2	39.2	716.5	698.4	18.08	39.628	
8,900.0	8,866.0	8,818.3	8,807.5	9.8	10.6	174.32	93.1	46.8	735.1	716.8	18.32	40.130	
9,000.0	8,965.5	8,916.5	8,905.4	10.0	10.7	174.45	96.0	54.3	753.6	735.1	18.55	40.617	
9,100.0	9,064.9	9,014.8	9,003.3	10.1	10.8	174.57	98.9	61.9	772.2	753.4	18.79	41.090	
9,200.0	9,164.4	9,113.0	9,101.2	10.2	10.9	174.69	101.8	69.5	790.8	771.7	19.03	41.550	
9,300.0	9,263.8	9,211.3	9,199.1	10.3	11.0	174.80	104.7	77.1	809.3	790.1	19.27	41.996	
9,400.0	9,363.3	9,309.5	9,297.0	10.4	11.1	174.91	107.6	84.7	827.9	808.4	19.51	42.430	
9,500.0	9,462.7	9,407.8	9,395.0	10.6	11.2	175.01	110.5	92.2	846.5	826.7	19.75	42.852	
9,600.0	9,562.2	9,506.0	9,492.9	10.7	11.3	175.11	113.4	99.8	865.1	845.1	20.00	43.262	
9,700.0	9,661.7	9,604.3	9,590.8	10.8	11.4	175.20	116.4	107.4	883.7	863.4	20.24	43.660	
9,800.0	9,761.1	9,702.5	9,688.7	10.9	11.6	175.29	119.3	115.0	902.2	881.8	20.48	44.048	
9,900.0	9,860.6	9,800.8	9,786.6	11.1	11.7	175.38	122.2	122.6	920.8	900.1	20.73	44.425	
10,000.0	9,960.0	9,899.0	9,884.5	11.2	11.8	175.46	125.1	130.1	939.4	918.4	20.97	44.792	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #801H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 10877-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	10,059.5	9,997.3	9,982.4	11.3	11.9	175.54	128.0	137.7	958.0	936.8	21.22	45.149	
10,200.0	10,158.9	10,095.5	10,080.3	11.5	12.0	175.62	130.9	145.3	976.6	955.1	21.47	45.497	
10,239.1	10,197.8	10,133.9	10,118.6	11.5	12.0	175.65	132.0	148.3	983.9	962.2	21.64	45.469	
10,250.0	10,208.6	10,144.6	10,129.3	11.5	12.0	-177.53	132.4	149.1	986.0	964.3	21.65	45.532	
10,300.0	10,258.0	10,193.2	10,177.7	11.5	12.1	-160.08	133.8	152.8	997.5	975.8	21.74	45.893	

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #802H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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	2.0	2.0	3.0	3.0	-90.50	-2.0	-230.0	230.0					
100.0	100.0	102.0	102.0	3.0	3.0	-90.50	-2.0	-230.0	230.0	224.0	6.00	38.320		
200.0	200.0	202.0	202.0	3.0	3.0	-90.50	-2.0	-230.0	230.0	224.0	6.04	38.077		
300.0	300.0	302.0	302.0	3.0	3.1	-90.50	-2.0	-230.0	230.0	223.9	6.12	37.573		
400.0	400.0	402.0	402.0	3.0	3.2	-90.50	-2.0	-230.0	230.0	223.8	6.24	36.846		
500.0	500.0	502.0	502.0	3.1	3.4	-90.50	-2.0	-230.0	230.0	223.6	6.40	35.945		
600.0	600.0	602.0	602.0	3.1	3.6	-90.50	-2.0	-230.0	230.0	223.5	6.59	34.919		
700.0	700.0	702.0	702.0	3.1	3.8	-90.50	-2.0	-230.0	230.0	223.2	6.80	33.815		
800.0	800.0	802.0	802.0	3.2	4.0	-90.50	-2.0	-230.0	230.0	223.0	7.04	32.670		
900.0	900.0	902.0	902.0	3.2	4.2	-90.50	-2.0	-230.0	230.0	222.7	7.30	31.515		
1,000.0	1,000.0	1,002.0	1,002.0	3.2	4.5	-90.50	-2.0	-230.0	230.0	222.5	7.57	30.372		
1,100.0	1,100.0	1,102.0	1,102.0	3.3	4.8	-90.50	-2.0	-230.0	230.0	222.2	7.86	29.256		
1,200.0	1,200.0	1,202.0	1,202.0	3.4	5.1	-90.50	-2.0	-230.0	230.0	221.9	8.16	28.177		
1,300.0	1,300.0	1,302.0	1,302.0	3.4	5.4	-90.50	-2.0	-230.0	230.0	221.6	8.48	27.142		
1,400.0	1,400.0	1,402.0	1,402.0	3.5	5.7	-90.50	-2.0	-230.0	230.0	221.2	8.80	26.153		
1,500.0	1,500.0	1,502.0	1,502.0	3.5	6.0	-90.50	-2.0	-230.0	230.0	220.9	9.12	25.211		
1,600.0	1,600.0	1,602.0	1,602.0	3.6	6.3	-90.50	-2.0	-230.0	230.0	220.6	9.46	24.318		
1,700.0	1,700.0	1,702.0	1,702.0	3.7	6.6	-90.50	-2.0	-230.0	230.0	220.2	9.80	23.471		
1,800.0	1,800.0	1,802.0	1,802.0	3.8	6.9	-90.50	-2.0	-230.0	230.0	219.9	10.15	22.670		
1,900.0	1,900.0	1,902.0	1,902.0	3.9	7.2	-90.50	-2.0	-230.0	230.0	219.5	10.50	21.911		
2,000.0	2,000.0	2,002.0	2,002.0	3.9	7.6	-90.50	-2.0	-230.0	230.0	219.2	10.85	21.193		
2,100.0	2,100.0	2,102.0	2,102.0	4.0	7.9	-90.50	-2.0	-230.0	230.0	218.8	11.21	20.513		
2,200.0	2,200.0	2,202.0	2,202.0	4.1	8.2	-90.50	-2.0	-230.0	230.0	218.5	11.58	19.870		
2,300.0	2,300.0	2,302.0	2,302.0	4.2	8.6	-90.50	-2.0	-230.0	230.0	218.1	11.94	19.260		
2,400.0	2,400.0	2,402.0	2,402.0	4.3	8.9	-90.50	-2.0	-230.0	230.0	217.7	12.31	18.682		
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	-90.50	-2.0	-230.0	230.0	217.4	12.68	18.145		
2,516.4	2,516.4	2,517.4	2,517.4	4.4	9.3	19.52	-2.0	-230.1	230.0	217.3	12.74	18.052		
2,600.0	2,600.0	2,596.5	2,596.5	4.4	9.6	19.93	-0.8	-231.2	229.6	216.6	13.04	17.613		
2,700.0	2,699.8	2,693.3	2,693.2	4.5	9.9	21.19	2.4	-234.4	228.1	214.7	13.40	17.022		
2,800.0	2,799.5	2,793.0	2,792.7	4.5	10.2	22.95	6.1	-238.1	223.8	210.1	13.79	16.237		
2,900.0	2,898.9	2,892.5	2,892.1	4.5	10.6	24.93	9.7	-241.8	218.2	204.0	14.18	15.385		
3,000.0	2,998.4	2,992.1	2,991.5	4.5	10.9	27.01	13.4	-245.5	212.9	198.3	14.60	14.586		
3,100.0	3,097.8	3,091.6	3,091.0	4.5	11.2	29.20	17.1	-249.2	207.9	192.8	15.02	13.842		
3,200.0	3,197.3	3,191.2	3,190.4	4.6	11.6	31.49	20.7	-252.9	203.1	187.7	15.45	13.149		
3,300.0	3,296.7	3,290.7	3,289.8	4.6	11.9	33.88	24.4	-256.6	198.7	182.9	15.89	12.509		
3,400.0	3,396.2	3,390.3	3,389.2	4.6	12.3	36.38	28.1	-260.3	194.7	178.4	16.34	11.921		
3,500.0	3,495.6	3,489.8	3,488.6	4.7	12.6	38.97	31.8	-264.0	191.1	174.3	16.79	11.382		
3,600.0	3,595.1	3,589.4	3,588.0	4.7	13.0	41.66	35.4	-267.7	187.9	170.6	17.25	10.893		
3,700.0	3,694.5	3,688.9	3,687.4	4.8	13.3	44.44	39.1	-271.4	185.1	167.4	17.71	10.451		
3,800.0	3,794.0	3,788.5	3,786.8	4.8	13.6	47.30	42.8	-275.1	182.8	164.6	18.17	10.056		
3,900.0	3,893.4	3,888.0	3,886.3	4.9	14.0	50.22	46.4	-278.8	180.9	162.3	18.64	9.706		
4,000.0	3,992.9	3,987.6	3,985.7	4.9	14.3	53.19	50.1	-282.5	179.5	160.4	19.10	9.400		
4,100.0	4,092.3	4,087.1	4,085.1	5.0	14.7	56.20	53.8	-286.2	178.6	159.1	19.55	9.134		
4,200.0	4,191.8	4,186.7	4,184.5	5.0	15.0	59.23	57.5	-289.9	178.2	158.2	20.01	8.909		
4,227.4	4,219.0	4,214.0	4,211.7	5.1	15.1	60.06	58.5	-290.9	178.2	158.1	20.13	8.853 CC		
4,300.0	4,291.2	4,286.2	4,283.9	5.1	15.4	62.27	61.1	-293.6	178.3	157.9	20.45	8.720 ES		
4,400.0	4,390.7	4,385.8	4,383.3	5.2	15.7	65.29	64.8	-297.3	179.0	158.1	20.89	8.567		
4,500.0	4,490.1	4,485.3	4,482.7	5.2	16.1	68.28	68.5	-301.0	180.1	158.7	21.32	8.446		
4,600.0	4,589.6	4,584.9	4,582.1	5.3	16.4	71.23	72.1	-304.7	181.7	159.9	21.75	8.355		
4,700.0	4,689.0	4,684.4	4,681.6	5.4	16.8	74.13	75.8	-308.4	183.8	161.6	22.16	8.292		
4,800.0	4,788.5	4,784.0	4,781.0	5.5	17.1	76.95	79.5	-312.0	186.3	163.7	22.57	8.254		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #802H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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	
4,900.0	4,887.9	4,883.5	4,880.4	5.6	17.5	79.68	83.2	-315.7	189.3	166.3	22.98	8.239 SF		
5,000.0	4,987.4	4,983.1	4,979.8	5.6	17.8	82.33	86.8	-319.4	192.7	169.3	23.37	8.244		
5,100.0	5,086.9	5,082.6	5,079.2	5.7	18.2	84.88	90.5	-323.1	196.5	172.7	23.77	8.267		
5,200.0	5,186.3	5,182.2	5,178.6	5.8	18.5	87.34	94.2	-326.8	200.7	176.5	24.16	8.307		
5,300.0	5,285.8	5,281.7	5,278.0	5.9	18.9	89.68	97.8	-330.5	205.2	180.7	24.55	8.361		
5,400.0	5,385.2	5,381.3	5,377.4	6.0	19.3	91.93	101.5	-334.2	210.1	185.2	24.93	8.426		
5,500.0	5,484.7	5,480.8	5,476.9	6.1	19.6	94.07	105.2	-337.9	215.3	189.9	25.32	8.502		
5,600.0	5,584.1	5,580.4	5,576.3	6.2	20.0	96.10	108.9	-341.6	220.7	195.0	25.70	8.587		
5,700.0	5,683.6	5,679.9	5,675.7	6.3	20.3	98.04	112.5	-345.3	226.5	200.4	26.09	8.679		
5,800.0	5,783.0	5,779.5	5,775.1	6.4	20.7	99.88	116.2	-349.0	232.4	206.0	26.48	8.778		
5,900.0	5,882.5	5,879.0	5,874.5	6.5	21.0	101.62	119.9	-352.7	238.6	211.8	26.87	8.881		
6,000.0	5,981.9	5,978.5	5,973.9	6.6	21.4	103.28	123.5	-356.4	245.1	217.8	27.26	8.989		
6,100.0	6,081.4	6,078.1	6,073.3	6.7	21.7	104.85	127.2	-360.1	251.7	224.0	27.66	9.099		
6,200.0	6,180.8	6,177.6	6,172.7	6.8	22.1	106.34	130.9	-363.8	258.4	230.4	28.06	9.212		
6,300.0	6,280.3	6,277.2	6,272.2	6.9	22.4	107.75	134.6	-367.5	265.4	236.9	28.46	9.327		
6,400.0	6,379.7	6,376.7	6,371.6	7.0	22.8	109.09	138.2	-371.2	272.5	243.6	28.86	9.442		
6,500.0	6,479.2	6,476.3	6,471.0	7.1	23.1	110.37	141.9	-374.9	279.8	250.5	29.27	9.558		
6,600.0	6,578.6	6,576.5	6,571.1	7.2	23.5	111.58	145.6	-378.6	287.1	257.4	29.68	9.674		
6,700.0	6,678.1	6,683.3	6,677.8	7.3	23.9	113.15	147.9	-380.9	293.2	263.1	30.10	9.741		
6,800.0	6,777.5	6,785.0	6,779.5	7.4	24.2	115.01	148.0	-381.0	297.6	267.1	30.50	9.757		
6,900.0	6,877.0	6,884.5	6,879.0	7.5	24.6	116.80	148.0	-381.0	302.2	271.3	30.90	9.778		
7,000.0	6,976.4	6,983.9	6,978.4	7.6	24.9	118.53	148.0	-381.0	307.0	275.7	31.31	9.806		
7,100.0	7,075.9	7,083.4	7,077.9	7.7	25.3	120.21	148.0	-381.0	312.2	280.5	31.72	9.841		
7,200.0	7,175.3	7,182.9	7,177.3	7.8	25.6	121.84	148.0	-381.0	317.6	285.5	32.14	9.881		
7,300.0	7,274.8	7,282.3	7,276.8	8.0	26.0	123.40	148.0	-381.0	323.3	290.7	32.56	9.927		
7,400.0	7,374.3	7,381.8	7,376.3	8.1	26.3	124.92	148.0	-381.0	329.1	296.2	32.99	9.976		
7,500.0	7,473.7	7,481.2	7,475.7	8.2	26.7	126.38	148.0	-381.0	335.3	301.8	33.42	10.030		
7,600.0	7,573.2	7,580.7	7,575.2	8.3	27.1	127.78	148.0	-381.0	341.6	307.7	33.86	10.088		
7,700.0	7,672.6	7,680.1	7,674.6	8.4	27.4	129.14	148.0	-381.0	348.1	313.8	34.30	10.148		
7,800.0	7,772.1	7,779.6	7,774.1	8.5	27.8	130.44	148.0	-381.0	354.8	320.1	34.75	10.211		
7,900.0	7,871.5	7,879.0	7,873.5	8.6	28.1	131.70	148.0	-381.0	361.7	326.5	35.20	10.277		
8,000.0	7,971.0	7,978.5	7,973.0	8.8	28.5	132.91	148.0	-381.0	368.8	333.1	35.65	10.344		
8,100.0	8,070.4	8,077.9	8,072.4	8.9	28.8	134.07	148.0	-381.0	376.0	339.9	36.10	10.414		
8,200.0	8,169.9	8,177.4	8,171.9	9.0	29.2	135.19	148.0	-381.0	383.3	346.8	36.56	10.484		
8,300.0	8,269.3	8,276.8	8,271.3	9.1	29.5	136.27	148.0	-381.0	390.9	353.8	37.03	10.556		
8,400.0	8,368.8	8,376.3	8,370.8	9.2	29.9	137.31	148.0	-381.0	398.5	361.0	37.49	10.629		
8,500.0	8,468.2	8,475.7	8,470.2	9.3	30.2	138.30	148.0	-381.0	406.3	368.3	37.96	10.703		
8,600.0	8,567.7	8,575.2	8,569.7	9.5	30.6	139.26	148.0	-381.0	414.1	375.7	38.43	10.778		
8,700.0	8,667.1	8,674.6	8,669.1	9.6	30.9	140.19	148.0	-381.0	422.1	383.2	38.90	10.853		
8,800.0	8,766.6	8,774.1	8,768.6	9.7	31.3	141.08	148.0	-381.0	430.2	390.9	39.37	10.928		
8,900.0	8,866.0	8,873.5	8,868.0	9.8	31.6	141.93	148.0	-381.0	438.4	398.6	39.84	11.004		
9,000.0	8,965.5	8,973.0	8,967.5	10.0	32.0	142.76	148.0	-381.0	446.7	406.4	40.32	11.080		
9,100.0	9,064.9	9,072.4	9,066.9	10.1	32.3	143.55	148.0	-381.0	455.1	414.3	40.80	11.155		
9,200.0	9,164.4	9,171.9	9,166.4	10.2	32.7	144.32	148.0	-381.0	463.6	422.3	41.28	11.231		
9,300.0	9,263.8	9,271.3	9,265.8	10.3	33.1	145.06	148.0	-381.0	472.1	430.4	41.75	11.307		
9,400.0	9,363.3	9,370.8	9,365.3	10.4	33.4	145.77	148.0	-381.0	480.7	438.5	42.24	11.382		
9,500.0	9,462.7	9,470.3	9,464.7	10.6	33.8	146.46	148.0	-381.0	489.4	446.7	42.72	11.457		
9,600.0	9,562.2	9,569.7	9,564.2	10.7	34.1	147.12	148.0	-381.0	498.2	455.0	43.20	11.532		
9,700.0	9,661.7	9,669.2	9,663.7	10.8	34.5	147.76	148.0	-381.0	507.0	463.3	43.68	11.606		
9,800.0	9,761.1	9,768.6	9,763.1	10.9	34.8	148.38	148.0	-381.0	515.9	471.7	44.17	11.680		
9,900.0	9,860.6	9,868.1	9,862.6	11.1	35.2	148.98	148.0	-381.0	524.8	480.2	44.65	11.754		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #802H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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		
10,000.0	9,960.0	9,967.5	9,962.0	11.2	35.5	149.55	148.0	-381.0	533.8	488.7	45.14	11.827		
10,100.0	10,059.5	10,067.0	10,061.5	11.3	35.9	150.11	148.0	-381.0	542.9	497.3	45.62	11.899		
10,200.0	10,158.9	10,166.4	10,160.9	11.5	36.2	150.65	148.0	-381.0	552.0	505.9	46.11	11.971		
10,239.1	10,197.8	10,205.3	10,199.8	11.5	36.4	150.86	148.0	-381.0	555.6	509.2	46.32	11.993		
10,250.0	10,208.6	10,216.1	10,210.6	11.5	36.4	157.62	148.0	-381.0	556.6	510.3	46.36	12.006		
10,300.0	10,258.0	10,265.5	10,260.0	11.5	36.6	174.75	148.0	-381.0	564.2	517.6	46.55	12.119		
10,350.0	10,306.6	10,314.1	10,308.6	11.5	36.8	-177.79	148.0	-381.0	575.8	529.0	46.75	12.316		
10,400.0	10,354.1	10,361.6	10,356.1	11.5	36.9	-173.63	148.0	-381.0	591.4	544.4	46.95	12.595		
10,450.0	10,400.1	10,407.6	10,402.1	11.6	37.1	-170.90	148.0	-381.0	610.8	563.7	47.15	12.954		
10,500.0	10,444.2	10,451.7	10,446.2	11.6	37.3	-168.87	148.0	-381.0	634.0	586.7	47.36	13.388		
10,550.0	10,486.1	10,493.6	10,488.1	11.6	37.4	-167.20	148.0	-381.0	660.8	613.3	47.56	13.895		
10,600.0	10,525.6	10,533.1	10,527.6	11.7	37.5	-165.67	148.0	-381.0	691.0	643.2	47.76	14.468		
10,650.0	10,562.2	10,569.7	10,564.2	11.7	37.7	-164.12	148.0	-381.0	724.4	676.4	47.96	15.105		
10,700.0	10,595.7	10,603.2	10,597.7	11.8	37.8	-162.42	148.0	-381.0	760.7	712.6	48.15	15.800		
10,750.0	10,625.9	10,633.4	10,627.9	11.9	37.9	-160.40	148.0	-381.0	799.8	751.4	48.33	16.549		
10,800.0	10,652.5	10,660.0	10,654.5	12.0	38.0	-157.86	148.0	-381.0	841.2	792.7	48.49	17.347		
10,850.0	10,675.4	10,682.9	10,677.4	12.1	38.1	-154.46	148.0	-381.0	884.8	836.2	48.65	18.189		
10,900.0	10,694.3	11,941.5	11,435.0	12.2	40.8	-147.15	-598.9	-376.2	923.6	874.8	48.79	18.931		
10,916.4	10,699.6	11,955.5	11,435.0	12.2	40.8	-146.67	-612.9	-376.1	923.4	874.5	48.90	18.882		
10,950.0	10,709.1	11,984.7	11,435.0	12.3	40.8	-145.64	-642.1	-375.9	924.3	875.2	49.13	18.813		
11,000.0	10,719.7	12,029.0	11,435.0	12.5	40.9	-144.00	-686.4	-375.6	929.0	879.5	49.46	18.783		
11,050.0	10,726.0	12,074.2	11,435.0	12.6	40.9	-142.26	-731.6	-375.3	937.5	887.7	49.77	18.836		
11,097.3	10,728.0	12,117.3	11,435.0	12.8	41.0	-140.53	-774.7	-375.0	948.7	898.7	50.05	18.957		
11,100.0	10,728.0	12,119.8	11,435.0	12.8	41.0	-140.47	-777.2	-375.0	949.5	899.4	50.06	18.965		
11,200.0	10,728.1	12,212.0	11,435.0	13.2	41.1	-138.38	-869.4	-374.4	975.8	925.1	50.63	19.271		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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		CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0											Offset Site Error:		3.0 usft
Survey Program:		0-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	Offset	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	2.0	2.0	3.0	3.0	-90.48	-2.2	-260.0	260.0						
100.0	100.0	102.0	102.0	3.0	3.0	-90.48	-2.2	-260.0	260.0	254.0	6.00	43.320			
200.0	200.0	202.0	202.0	3.0	3.0	-90.48	-2.2	-260.0	260.0	254.0	6.04	43.044			
300.0	300.0	302.0	302.0	3.0	3.1	-90.48	-2.2	-260.0	260.0	253.9	6.12	42.474			
400.0	400.0	402.0	402.0	3.0	3.2	-90.48	-2.2	-260.0	260.0	253.8	6.24	41.653			
500.0	500.0	502.0	502.0	3.1	3.4	-90.48	-2.2	-260.0	260.0	253.6	6.40	40.634			
600.0	600.0	602.0	602.0	3.1	3.6	-90.48	-2.2	-260.0	260.0	253.5	6.59	39.474			
700.0	700.0	702.0	702.0	3.1	3.8	-90.48	-2.2	-260.0	260.0	253.2	6.80	38.226			
800.0	800.0	802.0	802.0	3.2	4.0	-90.48	-2.2	-260.0	260.0	253.0	7.04	36.932			
900.0	900.0	902.0	902.0	3.2	4.2	-90.48	-2.2	-260.0	260.0	252.7	7.30	35.627			
1,000.0	1,000.0	1,002.0	1,002.0	3.2	4.5	-90.48	-2.2	-260.0	260.0	252.5	7.57	34.334			
1,100.0	1,100.0	1,102.0	1,102.0	3.3	4.8	-90.48	-2.2	-260.0	260.0	252.2	7.86	33.073			
1,200.0	1,200.0	1,202.0	1,202.0	3.4	5.1	-90.48	-2.2	-260.0	260.0	251.9	8.16	31.853			
1,300.0	1,300.0	1,302.0	1,302.0	3.4	5.4	-90.48	-2.2	-260.0	260.0	251.6	8.48	30.682			
1,400.0	1,400.0	1,402.0	1,402.0	3.5	5.7	-90.48	-2.2	-260.0	260.0	251.3	8.80	29.564			
1,500.0	1,500.0	1,502.0	1,502.0	3.5	6.0	-90.48	-2.2	-260.0	260.0	250.9	9.12	28.501			
1,600.0	1,600.0	1,602.0	1,602.0	3.6	6.3	-90.48	-2.2	-260.0	260.0	250.6	9.46	27.491			
1,700.0	1,700.0	1,702.0	1,702.0	3.7	6.6	-90.48	-2.2	-260.0	260.0	250.2	9.80	26.533			
1,800.0	1,800.0	1,802.0	1,802.0	3.8	6.9	-90.48	-2.2	-260.0	260.0	249.9	10.15	25.627			
1,900.0	1,900.0	1,902.0	1,902.0	3.9	7.2	-90.48	-2.2	-260.0	260.0	249.6	10.50	24.769			
2,000.0	2,000.0	2,002.0	2,002.0	3.9	7.6	-90.48	-2.2	-260.0	260.0	249.2	10.85	23.958			
2,100.0	2,100.0	2,102.0	2,102.0	4.0	7.9	-90.48	-2.2	-260.0	260.0	248.8	11.21	23.189			
2,200.0	2,200.0	2,202.0	2,202.0	4.1	8.2	-90.48	-2.2	-260.0	260.0	248.5	11.58	22.462			
2,300.0	2,300.0	2,302.0	2,302.0	4.2	8.6	-90.48	-2.2	-260.0	260.0	248.1	11.94	21.773			
2,400.0	2,400.0	2,402.0	2,402.0	4.3	8.9	-90.48	-2.2	-260.0	260.0	247.7	12.31	21.119			
2,416.0	2,416.0	2,418.0	2,418.0	4.3	9.0	-90.48	-2.2	-260.0	260.0	247.7	12.37	21.018			
2,500.0	2,500.0	2,500.0	2,500.0	4.4	9.2	-90.48	-2.2	-260.0	260.1	247.4	12.68	20.512			
2,600.0	2,600.0	2,593.6	2,593.6	4.4	9.5	19.70	-1.9	-261.5	260.0	247.0	13.02	19.972			
2,700.0	2,699.8	2,685.4	2,685.3	4.5	9.8	20.23	-1.1	-265.9	259.9	246.6	13.35	19.474			
2,800.0	2,799.5	2,779.5	2,779.1	4.5	10.2	21.14	0.2	-273.3	259.6	245.9	13.69	18.966			
2,900.0	2,898.9	2,879.4	2,878.6	4.5	10.5	22.28	1.7	-281.9	258.5	244.4	14.07	18.372			
3,000.0	2,998.4	2,979.2	2,978.1	4.5	10.8	23.42	3.2	-290.5	257.5	243.0	14.46	17.804			
3,100.0	3,097.8	3,079.1	3,077.5	4.5	11.2	24.57	4.7	-299.0	256.6	241.8	14.86	17.264			
3,200.0	3,197.3	3,179.0	3,177.0	4.6	11.5	25.72	6.2	-307.6	255.8	240.6	15.27	16.752			
3,300.0	3,296.7	3,278.8	3,276.5	4.6	11.8	26.89	7.7	-316.2	255.2	239.5	15.69	16.265			
3,400.0	3,396.2	3,378.7	3,376.0	4.6	12.2	28.05	9.2	-324.7	254.6	238.5	16.11	15.804			
3,500.0	3,495.6	3,478.6	3,475.5	4.7	12.5	29.23	10.7	-333.3	254.1	237.6	16.54	15.368			
3,600.0	3,595.1	3,578.4	3,575.0	4.7	12.9	30.41	12.3	-341.9	253.8	236.8	16.97	14.956			
3,700.0	3,694.5	3,678.3	3,674.4	4.8	13.2	31.59	13.8	-350.5	253.5	236.1	17.41	14.566			
3,800.0	3,794.0	3,778.1	3,773.9	4.8	13.6	32.77	15.3	-359.0	253.4	235.5	17.85	14.199			
3,879.0	3,872.5	3,857.0	3,852.5	4.8	13.8	33.70	16.5	-365.8	253.4	235.2	18.20	13.924 CC			
3,900.0	3,893.4	3,878.0	3,873.4	4.9	13.9	33.95	16.8	-367.6	253.4	235.1	18.29	13.853			
4,000.0	3,992.9	3,977.9	3,972.9	4.9	14.2	35.13	18.3	-376.2	253.4	234.7	18.74	13.527			
4,100.0	4,092.3	4,077.7	4,072.4	5.0	14.6	36.31	19.8	-384.7	253.6	234.4	19.19	13.220			
4,200.0	4,191.8	4,177.6	4,171.8	5.0	14.9	37.49	21.3	-393.3	253.9	234.3	19.64	12.931			
4,300.0	4,291.2	4,277.5	4,271.3	5.1	15.3	38.67	22.8	-401.9	254.3	234.2	20.09	12.659 ES			
4,400.0	4,390.7	4,377.3	4,370.8	5.2	15.6	39.84	24.3	-410.5	254.8	234.3	20.54	12.404			
4,500.0	4,490.1	4,477.2	4,470.3	5.2	16.0	41.01	25.9	-419.0	255.4	234.4	21.00	12.164			
4,600.0	4,589.6	4,577.0	4,569.8	5.3	16.3	42.17	27.4	-427.6	256.2	234.7	21.46	11.939			
4,700.0	4,689.0	4,676.9	4,669.3	5.4	16.7	43.32	28.9	-436.2	257.0	235.1	21.91	11.728			
4,800.0	4,788.5	4,776.8	4,768.7	5.5	17.0	44.47	30.4	-444.7	257.9	235.5	22.37	11.530			

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-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
4,900.0	4,887.9	4,876.6	4,868.2	5.6	17.4	45.61	31.9	-453.3	258.9	236.1	22.83	11.344	
5,000.0	4,987.4	4,976.5	4,967.7	5.6	17.8	46.73	33.4	-461.9	260.1	236.8	23.28	11.170	
5,100.0	5,086.9	5,076.4	5,067.2	5.7	18.1	47.85	34.9	-470.5	261.3	237.6	23.74	11.007	
5,200.0	5,186.3	5,176.2	5,166.7	5.8	18.5	48.96	36.4	-479.0	262.6	238.4	24.20	10.854	
5,300.0	5,285.8	5,276.1	5,266.2	5.9	18.8	50.05	37.9	-487.6	264.1	239.4	24.65	10.711	
5,400.0	5,385.2	5,376.0	5,365.6	6.0	19.2	51.14	39.5	-496.2	265.6	240.5	25.11	10.577	
5,500.0	5,484.7	5,475.8	5,465.1	6.1	19.5	52.21	41.0	-504.7	267.2	241.6	25.57	10.452	
5,600.0	5,584.1	5,575.7	5,564.6	6.2	19.9	53.26	42.5	-513.3	268.9	242.9	26.02	10.335	
5,700.0	5,683.6	5,675.5	5,664.1	6.3	20.2	54.31	44.0	-521.9	270.7	244.2	26.48	10.225	
5,800.0	5,783.0	5,775.4	5,763.6	6.4	20.6	55.34	45.5	-530.5	272.6	245.7	26.93	10.123	
5,900.0	5,882.5	5,875.3	5,863.1	6.5	20.9	56.35	47.0	-539.0	274.6	247.2	27.38	10.028	
6,000.0	5,981.9	5,975.1	5,962.5	6.6	21.3	57.35	48.5	-547.6	276.6	248.8	27.84	9.938	
6,100.0	6,081.4	6,075.0	6,062.0	6.7	21.7	58.34	50.0	-556.2	278.8	250.5	28.29	9.855	
6,200.0	6,180.8	6,174.9	6,161.5	6.8	22.0	59.31	51.5	-564.7	281.0	252.3	28.74	9.778	
6,300.0	6,280.3	6,274.7	6,261.0	6.9	22.4	60.26	53.1	-573.3	283.3	254.1	29.19	9.705	
6,400.0	6,379.7	6,374.6	6,360.5	7.0	22.7	61.20	54.6	-581.9	285.7	256.1	29.64	9.638	
6,500.0	6,479.2	6,474.4	6,460.0	7.1	23.1	62.12	56.1	-590.5	288.2	258.1	30.10	9.575	
6,600.0	6,578.6	6,574.3	6,559.4	7.2	23.5	63.03	57.6	-599.0	290.7	260.2	30.55	9.517	
6,700.0	6,678.1	6,674.2	6,658.9	7.3	23.8	63.92	59.1	-607.6	293.3	262.3	31.00	9.462	
6,800.0	6,777.5	6,774.0	6,758.4	7.4	24.2	64.80	60.6	-616.2	296.0	264.5	31.45	9.412	
6,900.0	6,877.0	6,873.9	6,857.9	7.5	24.5	65.66	62.1	-624.7	298.7	266.8	31.90	9.365	
7,000.0	6,976.4	6,973.8	6,957.4	7.6	24.9	66.50	63.6	-633.3	301.5	269.2	32.35	9.321	
7,100.0	7,075.9	7,073.6	7,056.8	7.7	25.2	67.33	65.1	-641.9	304.4	271.6	32.80	9.281	
7,200.0	7,175.3	7,173.5	7,156.3	7.8	25.6	68.14	66.7	-650.5	307.3	274.1	33.25	9.243	
7,300.0	7,274.8	7,273.3	7,255.8	8.0	26.0	68.94	68.2	-659.0	310.3	276.6	33.70	9.208	
7,400.0	7,374.3	7,373.2	7,355.3	8.1	26.3	69.72	69.7	-667.6	313.4	279.2	34.15	9.176	
7,500.0	7,473.7	7,473.1	7,454.8	8.2	26.7	70.48	71.2	-676.2	316.5	281.9	34.60	9.146	
7,600.0	7,573.2	7,572.9	7,554.3	8.3	27.0	71.24	72.7	-684.7	319.7	284.6	35.06	9.119	
7,700.0	7,672.6	7,672.8	7,653.7	8.4	27.4	71.97	74.2	-693.3	322.9	287.4	35.51	9.093	
7,800.0	7,772.1	7,772.7	7,753.2	8.5	27.8	72.69	75.7	-701.9	326.2	290.2	35.96	9.069	
7,900.0	7,871.5	7,872.5	7,852.7	8.6	28.1	73.40	77.2	-710.4	329.5	293.1	36.42	9.048	
8,000.0	7,971.0	7,972.4	7,952.2	8.8	28.5	74.09	78.8	-719.0	332.8	296.0	36.87	9.028	
8,100.0	8,070.4	8,072.2	8,051.7	8.9	28.8	74.77	80.3	-727.6	336.3	298.9	37.32	9.009	
8,200.0	8,169.9	8,172.1	8,151.2	9.0	29.2	75.44	81.8	-736.2	339.7	302.0	37.78	8.992	
8,300.0	8,269.3	8,272.0	8,250.6	9.1	29.6	76.09	83.3	-744.7	343.2	305.0	38.24	8.977	
8,400.0	8,368.8	8,371.8	8,350.1	9.2	29.9	76.73	84.8	-753.3	346.8	308.1	38.69	8.963	
8,500.0	8,468.2	8,471.7	8,449.6	9.3	30.3	77.36	86.3	-761.9	350.4	311.2	39.15	8.950	
8,600.0	8,567.7	8,571.6	8,549.1	9.5	30.6	77.97	87.8	-770.4	354.0	314.4	39.61	8.938	
8,700.0	8,667.1	8,671.4	8,648.6	9.6	31.0	78.57	89.3	-779.0	357.7	317.6	40.07	8.927	
8,800.0	8,766.6	8,771.3	8,748.1	9.7	31.4	79.16	90.8	-787.6	361.4	320.9	40.53	8.917	
8,900.0	8,866.0	8,871.1	8,847.5	9.8	31.7	79.73	92.4	-796.2	365.2	324.2	40.99	8.908	
9,000.0	8,965.5	8,971.0	8,947.0	10.0	32.1	80.30	93.9	-804.7	369.0	327.5	41.46	8.900	
9,100.0	9,064.9	9,070.9	9,046.5	10.1	32.4	80.85	95.4	-813.3	372.8	330.9	41.92	8.893	
9,200.0	9,164.4	9,170.7	9,146.0	10.2	32.8	81.39	96.9	-821.9	376.7	334.3	42.39	8.887	
9,300.0	9,263.8	9,270.6	9,245.5	10.3	33.2	81.92	98.4	-830.4	380.6	337.7	42.85	8.881	
9,400.0	9,363.3	9,370.5	9,344.9	10.4	33.5	82.44	99.9	-839.0	384.5	341.2	43.32	8.876	
9,500.0	9,462.7	9,470.3	9,444.4	10.6	33.9	82.95	101.4	-847.6	388.4	344.7	43.79	8.871	
9,600.0	9,562.2	9,570.2	9,543.9	10.7	34.2	83.45	102.9	-856.2	392.4	348.2	44.26	8.867	
9,700.0	9,661.7	9,670.0	9,643.4	10.8	34.6	83.94	104.4	-864.7	396.4	351.7	44.73	8.864	
9,800.0	9,761.1	9,769.9	9,742.9	10.9	35.0	84.42	106.0	-873.3	400.5	355.3	45.20	8.860	
9,900.0	9,860.6	9,869.8	9,842.4	11.1	35.3	84.89	107.5	-881.9	404.6	358.9	45.67	8.858	

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Concho Resources LLC

Anticollision Report

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Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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		
10,000.0	9,960.0	9,969.6	9,941.8	11.2	35.7	85.35	109.0	-890.4	408.6	362.5	46.14	8.856		
10,100.0	10,059.5	10,069.5	10,041.3	11.3	36.1	85.80	110.5	-899.0	412.8	366.2	46.62	8.854		
10,200.0	10,158.9	10,169.4	10,140.8	11.5	36.4	86.24	112.0	-907.6	416.9	369.8	47.10	8.853		
10,239.1	10,197.8	10,208.4	10,179.7	11.5	36.6	86.41	112.6	-910.9	418.5	371.3	47.26	8.857		
10,250.0	10,208.6	10,219.3	10,190.5	11.5	36.6	93.11	112.8	-911.9	419.1	371.8	47.29	8.861		
10,300.0	10,258.0	10,268.9	10,240.0	11.5	36.8	110.05	113.5	-916.1	423.3	375.8	47.47	8.918		
10,350.0	10,306.6	10,317.9	10,288.8	11.5	37.0	117.51	114.2	-920.3	430.6	383.0	47.63	9.041		
10,400.0	10,354.1	10,365.8	10,336.5	11.5	37.1	121.78	115.0	-924.5	441.0	393.2	47.79	9.229		
10,450.0	10,400.1	10,412.3	10,382.8	11.6	37.3	124.65	115.7	-928.4	454.7	406.7	47.94	9.485		
10,500.0	10,444.2	10,457.0	10,427.4	11.6	37.5	126.72	116.4	-932.3	471.6	423.5	48.08	9.809		
10,550.0	10,486.1	10,499.6	10,469.8	11.6	37.6	128.24	117.0	-935.9	492.0	443.8	48.23	10.201		
10,600.0	10,525.6	10,539.8	10,509.8	11.7	37.8	129.28	117.6	-939.4	515.7	467.4	48.37	10.662		
10,650.0	10,562.2	10,577.2	10,547.1	11.7	37.9	129.83	118.2	-942.6	542.9	494.4	48.51	11.190		
10,700.0	10,595.7	10,611.5	10,581.3	11.8	38.0	129.84	118.7	-945.5	573.3	524.6	48.65	11.782		
10,750.0	10,625.9	10,642.6	10,612.3	11.9	38.1	129.24	119.2	-948.2	606.7	557.9	48.79	12.435		
10,800.0	10,652.5	10,670.2	10,639.7	12.0	38.2	127.89	119.6	-950.6	643.1	594.2	48.93	13.144		
10,850.0	10,675.4	10,694.0	10,663.4	12.1	38.3	125.59	119.9	-952.6	682.0	633.0	49.05	13.904		
10,900.0	10,694.3	10,713.9	10,683.3	12.2	38.4	122.09	120.2	-954.3	723.3	674.1	49.17	14.711		
10,950.0	10,709.1	10,729.7	10,699.0	12.3	38.4	117.00	120.5	-955.7	766.4	717.2	49.26	15.558		
11,000.0	10,719.7	12,030.0	11,435.0	12.5	41.8	161.04	-647.9	-1,212.7	754.4	707.8	46.57	16.198		
11,050.0	10,726.0	12,082.4	11,435.0	12.6	41.8	162.16	-699.6	-1,221.2	744.4	697.7	46.63	15.964		
11,097.3	10,728.0	12,131.8	11,435.0	12.8	41.9	163.22	-748.5	-1,228.5	738.7	692.0	46.67	15.827		
11,100.0	10,728.0	12,134.7	11,435.0	12.8	41.9	163.28	-751.3	-1,228.9	738.5	691.8	46.67	15.821		
11,200.0	10,728.1	12,238.5	11,435.0	13.2	42.1	165.23	-854.4	-1,241.2	730.8	684.0	46.81	15.611		
11,300.0	10,728.2	12,341.2	11,435.0	13.6	42.3	167.23	-956.7	-1,249.7	724.0	677.0	47.04	15.391		
11,400.0	10,728.3	12,442.9	11,435.0	14.1	42.5	169.26	-1,058.3	-1,254.4	718.2	670.8	47.36	15.165		
11,500.0	10,728.4	12,543.4	11,435.0	14.6	42.7	171.32	-1,158.8	-1,255.6	713.3	665.6	47.77	14.933		
11,600.0	10,728.5	12,640.1	11,435.0	15.1	42.9	173.21	-1,255.5	-1,255.2	709.7	661.4	48.26	14.706		
11,700.0	10,728.7	12,737.7	11,435.0	15.7	43.2	174.89	-1,353.1	-1,254.7	707.3	658.4	48.84	14.481		
11,800.0	10,728.8	12,835.9	11,435.0	16.3	43.4	176.34	-1,451.3	-1,254.2	705.7	656.2	49.50	14.258		
11,900.0	10,728.9	12,934.8	11,435.0	16.8	43.7	177.53	-1,550.2	-1,253.8	704.8	654.6	50.21	14.036		
12,000.0	10,729.0	13,034.1	11,435.0	17.4	43.9	178.47	-1,649.5	-1,253.3	704.3	653.3	50.98	13.815		
12,100.0	10,729.1	13,133.7	11,435.0	18.0	44.2	179.13	-1,749.1	-1,252.8	704.0	652.2	51.78	13.597		
12,200.0	10,729.2	13,233.6	11,435.0	18.7	44.5	179.51	-1,849.0	-1,252.3	703.8	651.2	52.60	13.381		
12,289.8	10,729.3	13,323.4	11,435.0	19.2	44.8	179.61	-1,938.8	-1,251.9	703.7	650.4	53.35	13.190		
12,300.0	10,729.3	13,333.6	11,435.0	19.3	44.8	179.61	-1,949.0	-1,251.8	703.7	650.3	53.44	13.168		
12,400.0	10,729.4	13,433.6	11,435.0	19.9	45.2	179.59	-2,049.0	-1,251.4	703.6	649.3	54.31	12.956		
12,500.0	10,729.5	13,533.6	11,435.0	20.6	45.5	179.58	-2,149.0	-1,250.9	703.5	648.3	55.20	12.744		
12,600.0	10,729.6	13,633.6	11,435.0	21.2	45.8	179.57	-2,249.0	-1,250.4	703.4	647.3	56.13	12.531		
12,700.0	10,729.7	13,733.6	11,435.0	21.9	46.2	179.55	-2,349.0	-1,249.9	703.3	646.2	57.09	12.320		
12,800.0	10,729.8	13,833.6	11,435.0	22.6	46.6	179.54	-2,449.0	-1,249.4	703.2	645.1	58.07	12.110		
12,900.0	10,729.9	13,933.6	11,435.0	23.3	47.0	179.53	-2,549.0	-1,249.0	703.1	644.0	59.08	11.901		
13,000.0	10,730.0	14,033.6	11,435.0	24.0	47.4	179.51	-2,649.0	-1,248.5	703.0	642.9	60.11	11.695		
13,100.0	10,730.1	14,133.6	11,435.0	24.7	47.8	179.50	-2,749.0	-1,248.0	702.9	641.7	61.16	11.492		
13,200.0	10,730.2	14,233.6	11,435.0	25.5	48.2	179.49	-2,849.0	-1,247.5	702.8	640.5	62.24	11.291		
13,300.0	10,730.3	14,333.6	11,435.0	26.2	48.7	179.47	-2,949.0	-1,247.0	702.7	639.3	63.34	11.094		
13,400.0	10,730.4	14,433.6	11,435.0	27.0	49.1	179.46	-3,049.0	-1,246.6	702.6	638.1	64.45	10.900		
13,500.0	10,730.6	14,533.6	11,435.0	27.7	49.6	179.44	-3,149.0	-1,246.1	702.5	636.9	65.59	10.710		
13,600.0	10,730.7	14,633.6	11,435.0	28.5	50.1	179.43	-3,249.0	-1,245.6	702.4	635.6	66.74	10.524		
13,700.0	10,730.8	14,733.6	11,435.0	29.2	50.6	179.42	-3,349.0	-1,245.1	702.3	634.3	67.91	10.341		
13,800.0	10,730.9	14,833.6	11,435.0	30.0	51.0	179.40	-3,449.0	-1,244.7	702.2	633.1	69.10	10.162		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0												Offset Site Error:	3.0 usft
Survey Program: 0-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	Highside Toolface (°)	Offset Wellbore Centre	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)			+N/-S (usft)	+E/-W (usft)				
13,900.0	10,731.0	14,933.6	11,435.0	30.8	51.6	179.39		-3,549.0	-1,244.2	702.0	631.8	70.30	9.987
14,000.0	10,731.1	15,033.6	11,435.0	31.6	52.1	179.38		-3,649.0	-1,243.7	701.9	630.4	71.51	9.816
14,100.0	10,731.2	15,133.6	11,435.0	32.4	52.6	179.36		-3,749.0	-1,243.2	701.8	629.1	72.74	9.649
14,200.0	10,731.3	15,233.6	11,435.0	33.1	53.1	179.35		-3,849.0	-1,242.7	701.7	627.8	73.98	9.486
14,300.0	10,731.4	15,333.6	11,435.0	33.9	53.7	179.34		-3,949.0	-1,242.3	701.6	626.4	75.23	9.326
14,400.0	10,731.5	15,433.6	11,435.0	34.7	54.2	179.32		-4,049.0	-1,241.8	701.5	625.0	76.50	9.171
14,500.0	10,731.6	15,533.6	11,435.0	35.5	54.8	179.31		-4,149.0	-1,241.3	701.4	623.7	77.77	9.019
14,600.0	10,731.7	15,633.6	11,435.0	36.3	55.3	179.29		-4,249.0	-1,240.8	701.3	622.3	79.06	8.871
14,700.0	10,731.8	15,733.6	11,435.0	37.1	55.9	179.28		-4,349.0	-1,240.3	701.2	620.9	80.36	8.726
14,800.0	10,731.9	15,833.6	11,435.0	37.9	56.5	179.27		-4,449.0	-1,239.9	701.1	619.5	81.66	8.585
14,900.0	10,732.0	15,933.6	11,435.0	38.8	57.1	179.25		-4,549.0	-1,239.4	701.0	618.0	82.98	8.448
15,000.0	10,732.1	16,033.6	11,435.0	39.6	57.6	179.24		-4,649.0	-1,238.9	700.9	616.6	84.30	8.314
15,100.0	10,732.2	16,133.6	11,435.0	40.4	58.2	179.23		-4,749.0	-1,238.4	700.8	615.2	85.63	8.184
15,200.0	10,732.3	16,233.6	11,435.0	41.2	58.9	179.21		-4,849.0	-1,237.9	700.7	613.7	86.97	8.057
15,300.0	10,732.4	16,333.6	11,435.0	42.0	59.5	179.20		-4,949.0	-1,237.5	700.6	612.3	88.32	7.932
15,400.0	10,732.6	16,433.6	11,435.0	42.8	60.1	179.19		-5,049.0	-1,237.0	700.5	610.8	89.68	7.811
15,500.0	10,732.7	16,533.6	11,435.0	43.7	60.7	179.17		-5,149.0	-1,236.5	700.4	609.4	91.04	7.694
15,600.0	10,732.8	16,633.6	11,435.0	44.5	61.3	179.16		-5,249.0	-1,236.0	700.3	607.9	92.41	7.578
15,700.0	10,732.9	16,733.6	11,435.0	45.3	62.0	179.14		-5,349.0	-1,235.5	700.2	606.4	93.78	7.466
15,800.0	10,733.0	16,833.6	11,435.0	46.1	62.6	179.13		-5,449.0	-1,235.1	700.1	604.9	95.16	7.357
15,900.0	10,733.1	16,933.6	11,435.0	47.0	63.3	179.12		-5,549.0	-1,234.6	700.0	603.4	96.55	7.250
16,000.0	10,733.2	17,033.6	11,435.0	47.8	63.9	179.10		-5,649.0	-1,234.1	699.9	602.0	97.94	7.146
16,100.0	10,733.3	17,133.6	11,435.0	48.6	64.6	179.09		-5,749.0	-1,233.6	699.8	600.5	99.34	7.045
16,200.0	10,733.4	17,233.6	11,435.0	49.4	65.2	179.08		-5,849.0	-1,233.1	699.7	598.9	100.74	6.946
16,300.0	10,733.5	17,333.6	11,435.0	50.3	65.9	179.06		-5,949.0	-1,232.7	699.6	597.4	102.14	6.849
16,400.0	10,733.6	17,433.6	11,435.0	51.1	66.6	179.05		-6,049.0	-1,232.2	699.5	595.9	103.56	6.755
16,500.0	10,733.7	17,533.6	11,435.0	51.9	67.2	179.03		-6,149.0	-1,231.7	699.4	594.4	104.97	6.663
16,600.0	10,733.8	17,633.6	11,435.0	52.8	67.9	179.02		-6,249.0	-1,231.2	699.3	592.9	106.39	6.573
16,700.0	10,733.9	17,733.6	11,435.0	53.6	68.6	179.01		-6,349.0	-1,230.7	699.2	591.4	107.82	6.485
16,800.0	10,734.0	17,833.6	11,435.0	54.4	69.3	178.99		-6,449.0	-1,230.3	699.1	589.8	109.24	6.399
16,900.0	10,734.1	17,933.6	11,435.0	55.3	70.0	178.98		-6,549.0	-1,229.8	699.0	588.3	110.68	6.316
17,000.0	10,734.2	18,033.6	11,435.0	56.1	70.7	178.97		-6,649.0	-1,229.3	698.9	586.8	112.11	6.234
17,100.0	10,734.3	18,133.6	11,435.0	57.0	71.4	178.95		-6,748.9	-1,228.8	698.8	585.2	113.55	6.154
17,200.0	10,734.4	18,233.6	11,435.0	57.8	72.1	178.94		-6,848.9	-1,228.3	698.7	583.7	114.99	6.076
17,300.0	10,734.6	18,333.6	11,435.0	58.6	72.8	178.92		-6,948.9	-1,227.9	698.6	582.1	116.44	5.999
17,400.0	10,734.7	18,433.6	11,435.0	59.5	73.5	178.91		-7,048.9	-1,227.4	698.5	580.6	117.89	5.925
17,500.0	10,734.8	18,533.6	11,435.0	60.3	74.2	178.90		-7,148.9	-1,226.9	698.4	579.0	119.34	5.852
17,600.0	10,734.9	18,633.6	11,435.0	61.2	74.9	178.88		-7,248.9	-1,226.4	698.3	577.5	120.79	5.781
17,700.0	10,735.0	18,733.6	11,435.0	62.0	75.6	178.87		-7,348.9	-1,225.9	698.2	575.9	122.25	5.711
17,800.0	10,735.1	18,833.6	11,435.0	62.8	76.3	178.86		-7,448.9	-1,225.5	698.1	574.3	123.71	5.643
17,900.0	10,735.2	18,933.6	11,435.0	63.7	77.1	178.84		-7,548.9	-1,225.0	698.0	572.8	125.17	5.576
18,000.0	10,735.3	19,033.6	11,435.0	64.5	77.8	178.83		-7,648.9	-1,224.5	697.9	571.2	126.64	5.511
18,100.0	10,735.4	19,133.6	11,435.0	65.4	78.5	178.81		-7,748.9	-1,224.0	697.7	569.6	128.11	5.447
18,200.0	10,735.5	19,233.6	11,435.0	66.2	79.3	178.80		-7,848.9	-1,223.5	697.6	568.1	129.58	5.384
18,300.0	10,735.6	19,333.6	11,435.0	67.1	80.0	178.79		-7,948.9	-1,223.1	697.5	566.5	131.05	5.323
18,400.0	10,735.7	19,433.6	11,435.0	67.9	80.7	178.77		-8,048.9	-1,222.6	697.4	564.9	132.52	5.263
18,500.0	10,735.8	19,533.6	11,435.0	68.7	81.5	178.76		-8,148.9	-1,222.1	697.3	563.3	134.00	5.204
18,600.0	10,735.9	19,633.6	11,435.0	69.6	82.2	178.75		-8,248.9	-1,221.6	697.2	561.8	135.48	5.146
18,700.0	10,736.0	19,733.6	11,435.0	70.4	83.0	178.73		-8,348.9	-1,221.1	697.1	560.2	136.96	5.090
18,800.0	10,736.1	19,833.6	11,435.0	71.3	83.7	178.72		-8,448.9	-1,220.7	697.0	558.6	138.44	5.035
18,900.0	10,736.2	19,933.6	11,435.0	72.1	84.5	178.70		-8,548.9	-1,220.2	696.9	557.0	139.93	4.981

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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 CABO WABO FEDERAL PROJECT (ATLAS 2529) - CABO WABO FED COM #803H - OWB - PWP0													Offset Site Error:	3.0 usft
Survey Program: 0-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		
19,000.0	10,736.3	20,033.6	11,435.0	73.0	85.2	178.69	-8,648.9	-1,219.7	696.8	555.4	141.41	4.928		
19,100.0	10,736.4	20,133.6	11,435.0	73.8	86.0	178.68	-8,748.9	-1,219.2	696.7	553.8	142.90	4.876		
19,200.0	10,736.6	20,233.6	11,435.0	74.7	86.7	178.66	-8,848.9	-1,218.7	696.6	552.2	144.39	4.825		
19,300.0	10,736.7	20,333.6	11,435.0	75.5	87.5	178.65	-8,948.9	-1,218.3	696.5	550.7	145.88	4.775		
19,400.0	10,736.8	20,433.6	11,435.0	76.4	88.2	178.63	-9,048.9	-1,217.8	696.4	549.1	147.38	4.726		
19,500.0	10,736.9	20,533.6	11,435.0	77.2	89.0	178.62	-9,148.9	-1,217.3	696.3	547.5	148.87	4.677		
19,600.0	10,737.0	20,633.6	11,435.0	78.1	89.8	178.61	-9,248.9	-1,216.8	696.2	545.9	150.37	4.630		
19,700.0	10,737.1	20,733.6	11,435.0	78.9	90.5	178.59	-9,348.9	-1,216.4	696.1	544.3	151.87	4.584		
19,800.0	10,737.2	20,833.6	11,435.0	79.8	91.3	178.58	-9,448.9	-1,215.9	696.0	542.7	153.36	4.538		
19,900.0	10,737.3	20,933.6	11,435.0	80.6	92.1	178.57	-9,548.9	-1,215.4	695.9	541.1	154.86	4.494		
20,000.0	10,737.4	21,033.6	11,435.0	81.5	92.8	178.55	-9,648.9	-1,214.9	695.8	539.5	156.37	4.450		
20,100.0	10,737.5	21,133.6	11,435.0	82.3	93.6	178.54	-9,748.9	-1,214.4	695.7	537.9	157.87	4.407		
20,200.0	10,737.6	21,233.6	11,435.0	83.2	94.4	178.52	-9,848.9	-1,214.0	695.6	536.3	159.37	4.365		
20,300.0	10,737.7	21,333.6	11,435.0	84.0	95.1	178.51	-9,948.9	-1,213.5	695.5	534.6	160.88	4.323		
20,400.0	10,737.8	21,433.6	11,435.0	84.9	95.9	178.50	-10,048.9	-1,213.0	695.4	533.0	162.39	4.283		
20,500.0	10,737.9	21,533.6	11,435.0	85.7	96.7	178.48	-10,148.9	-1,212.5	695.3	531.4	163.89	4.243		
20,571.7	10,738.0	21,604.6	11,435.0	86.3	97.3	178.47	-10,219.9	-1,212.2	695.3	530.3	164.96	4.215 SF		
20,577.8	10,738.0	21,604.6	11,435.0	86.4	97.3	178.47	-10,219.9	-1,212.2	695.3	530.3	164.97	4.215		

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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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=27' @ 3173.0usft (Nabors 893)

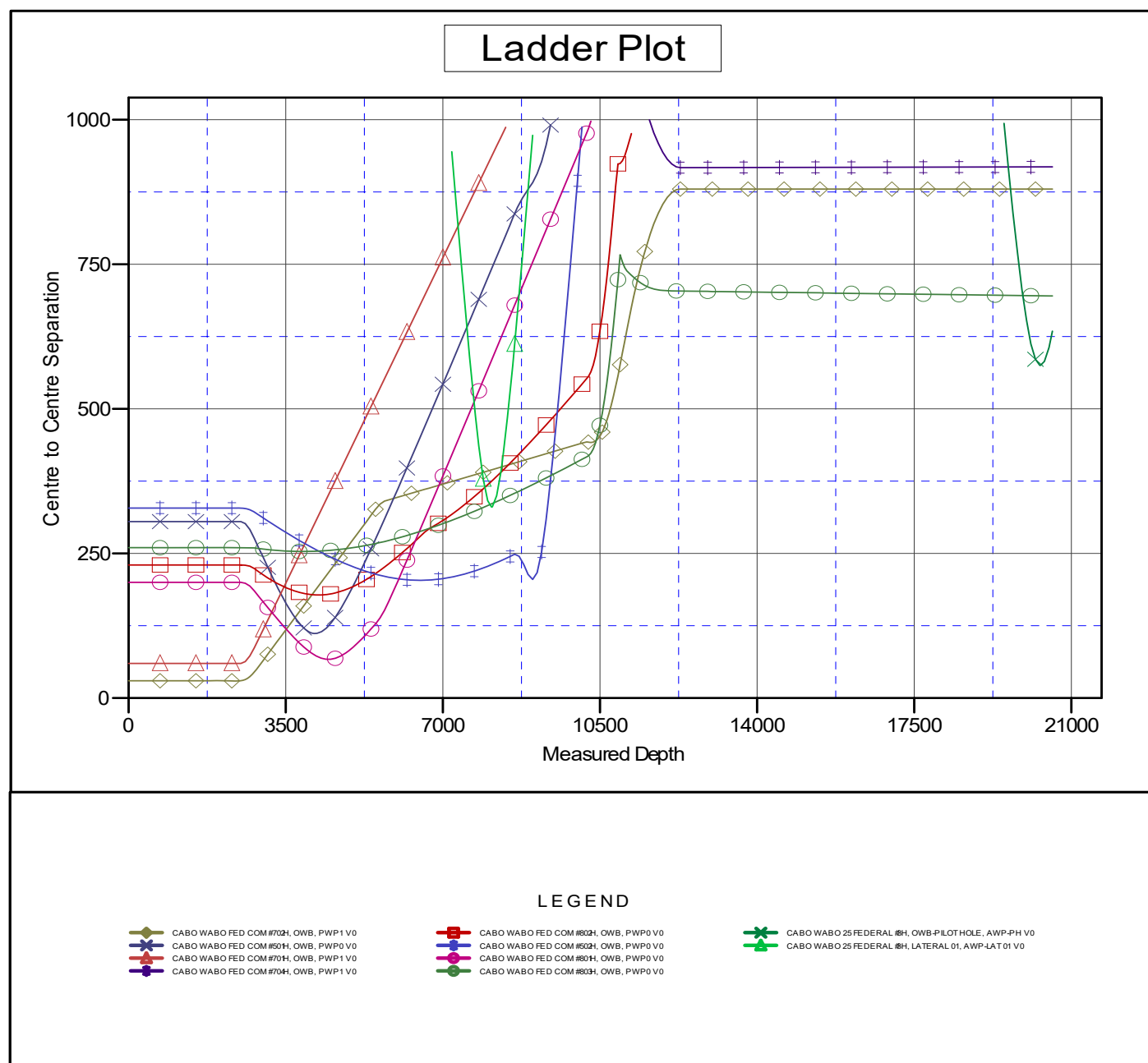
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: CABO WABO FED COM #703H

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

Grid Convergence at Surface is: 0.21°



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 WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Reference Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	CABO WABO FED COM #703H	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=27' @ 3173.0usft (Nabors 893)

Offset Depths are relative to Offset Datum

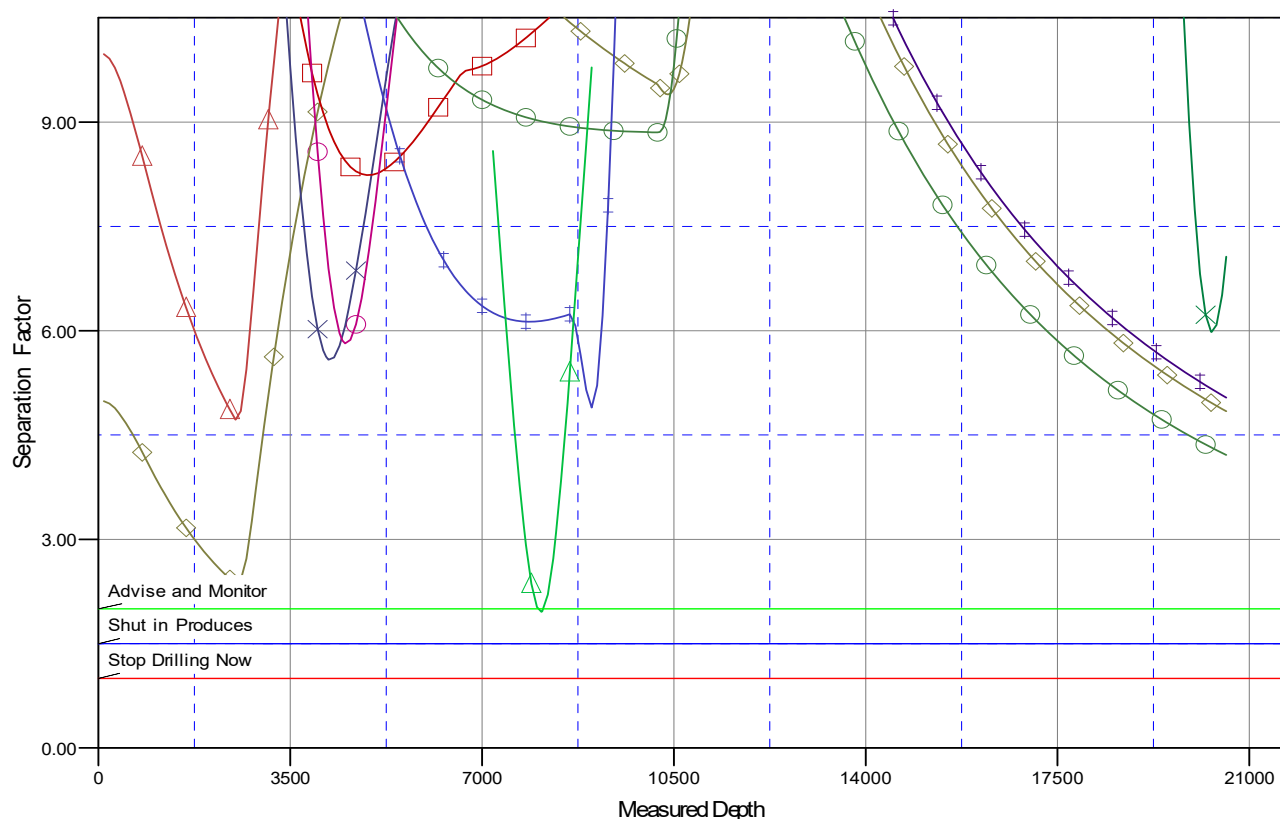
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: CABO WABO FED COM #703H

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

Grid Convergence at Surface is: 0.21°

Separation Factor Plot



LEGEND

CABO WABO FED COM #702H, OWB, PWP1 V0	CABO WABO FED COM #802H, OWB, PWP0 V0	CABO WABO 25 FEDERAL #8H, OWB-PILOT HOLE, AWP-PH V0
CABO WABO FED COM #50H, OWB, PWP0 V0	CABO WABO FED COM #502H, OWB, PWP0 V0	CABO WABO 25 FEDERAL #8H, LATERAL 01, AWP-LAT 01 V0
CABO WABO FED COM #70H, OWB, PWP1 V0	CABO WABO FED COM #80H, OWB, PWP0 V0	
CABO WABO FED COM #704H, OWB, PWP1 V0	CABO WABO FED COM #803H, OWB, PWP0 V0	

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

5/19/2020 8:28:31AM

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COMPASS 5000.15 Build 91E

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

CABO WABO FEDERAL PROJECT (ATLAS 2529)

CABO WABO FED COM #703H

OWB

Plan: PWP1

Standard Survey Report

19 May, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Project	ATLAS PROSPECT (NM-E)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	CABO WABO FED COM #703H			
Well Position	+N/-S	0.0 usft	Northing:	408,375.85 usfi
	+E/-W	0.0 usft	Easting:	624,265.52 usfi
Position Uncertainty		3.0 usft	Wellhead Elevation:	usfi
			Latitude:	32° 7' 19.579 N
			Longitude:	103° 55' 54.979 W
			Ground Level:	3,146.0 usfi

Wellbore	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/19/2020	6.83	59.79	47,509.69530774

Design	PWP1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	186.66

Survey Tool Program	Date	5/19/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	10,239.1	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
10,239.1	20,577.8	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	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)
1,400.0	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	250.00	2,600.0	-0.6	-1.6	0.8	2.00	2.00	0.00
2,700.0	4.00	250.00	2,699.8	-2.4	-6.6	3.1	2.00	2.00	0.00
2,800.0	6.00	250.00	2,799.5	-5.4	-14.7	7.0	2.00	2.00	0.00
Start 7439.1 hold at 2800.0 MD									
2,900.0	6.00	250.00	2,898.9	-8.9	-24.6	11.7	0.00	0.00	0.00
3,000.0	6.00	250.00	2,998.4	-12.5	-34.4	16.4	0.00	0.00	0.00
3,100.0	6.00	250.00	3,097.8	-16.1	-44.2	21.1	0.00	0.00	0.00
3,200.0	6.00	250.00	3,197.3	-19.7	-54.0	25.8	0.00	0.00	0.00
3,300.0	6.00	250.00	3,296.7	-23.2	-63.9	30.5	0.00	0.00	0.00
3,400.0	6.00	250.00	3,396.2	-26.8	-73.7	35.2	0.00	0.00	0.00
3,500.0	6.00	250.00	3,495.6	-30.4	-83.5	39.9	0.00	0.00	0.00
3,600.0	6.00	250.00	3,595.1	-34.0	-93.3	44.6	0.00	0.00	0.00
3,700.0	6.00	250.00	3,694.5	-37.5	-103.1	49.2	0.00	0.00	0.00
3,800.0	6.00	250.00	3,794.0	-41.1	-113.0	53.9	0.00	0.00	0.00
3,900.0	6.00	250.00	3,893.4	-44.7	-122.8	58.6	0.00	0.00	0.00
4,000.0	6.00	250.00	3,992.9	-48.3	-132.6	63.3	0.00	0.00	0.00
4,100.0	6.00	250.00	4,092.3	-51.8	-142.4	68.0	0.00	0.00	0.00
4,200.0	6.00	250.00	4,191.8	-55.4	-152.3	72.7	0.00	0.00	0.00
4,300.0	6.00	250.00	4,291.2	-59.0	-162.1	77.4	0.00	0.00	0.00
4,400.0	6.00	250.00	4,390.7	-62.6	-171.9	82.1	0.00	0.00	0.00
4,500.0	6.00	250.00	4,490.1	-66.1	-181.7	86.8	0.00	0.00	0.00
4,600.0	6.00	250.00	4,589.6	-69.7	-191.6	91.5	0.00	0.00	0.00
4,700.0	6.00	250.00	4,689.0	-73.3	-201.4	96.1	0.00	0.00	0.00
4,800.0	6.00	250.00	4,788.5	-76.9	-211.2	100.8	0.00	0.00	0.00
4,900.0	6.00	250.00	4,887.9	-80.4	-221.0	105.5	0.00	0.00	0.00
5,000.0	6.00	250.00	4,987.4	-84.0	-230.8	110.2	0.00	0.00	0.00
5,100.0	6.00	250.00	5,086.9	-87.6	-240.7	114.9	0.00	0.00	0.00
5,200.0	6.00	250.00	5,186.3	-91.2	-250.5	119.6	0.00	0.00	0.00
5,300.0	6.00	250.00	5,285.8	-94.7	-260.3	124.3	0.00	0.00	0.00
5,400.0	6.00	250.00	5,385.2	-98.3	-270.1	129.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,500.0	6.00	250.00	5,484.7	-101.9	-280.0	133.7	0.00	0.00	0.00
5,600.0	6.00	250.00	5,584.1	-105.5	-289.8	138.4	0.00	0.00	0.00
5,700.0	6.00	250.00	5,683.6	-109.0	-299.6	143.0	0.00	0.00	0.00
5,800.0	6.00	250.00	5,783.0	-112.6	-309.4	147.7	0.00	0.00	0.00
5,900.0	6.00	250.00	5,882.5	-116.2	-319.2	152.4	0.00	0.00	0.00
6,000.0	6.00	250.00	5,981.9	-119.8	-329.1	157.1	0.00	0.00	0.00
6,100.0	6.00	250.00	6,081.4	-123.3	-338.9	161.8	0.00	0.00	0.00
6,200.0	6.00	250.00	6,180.8	-126.9	-348.7	166.5	0.00	0.00	0.00
6,300.0	6.00	250.00	6,280.3	-130.5	-358.5	171.2	0.00	0.00	0.00
6,400.0	6.00	250.00	6,379.7	-134.1	-368.4	175.9	0.00	0.00	0.00
6,500.0	6.00	250.00	6,479.2	-137.6	-378.2	180.6	0.00	0.00	0.00
6,600.0	6.00	250.00	6,578.6	-141.2	-388.0	185.2	0.00	0.00	0.00
6,700.0	6.00	250.00	6,678.1	-144.8	-397.8	189.9	0.00	0.00	0.00
6,800.0	6.00	250.00	6,777.5	-148.4	-407.6	194.6	0.00	0.00	0.00
6,900.0	6.00	250.00	6,877.0	-151.9	-417.5	199.3	0.00	0.00	0.00
7,000.0	6.00	250.00	6,976.4	-155.5	-427.3	204.0	0.00	0.00	0.00
7,100.0	6.00	250.00	7,075.9	-159.1	-437.1	208.7	0.00	0.00	0.00
7,200.0	6.00	250.00	7,175.3	-162.7	-446.9	213.4	0.00	0.00	0.00
7,300.0	6.00	250.00	7,274.8	-166.2	-456.8	218.1	0.00	0.00	0.00
7,400.0	6.00	250.00	7,374.3	-169.8	-466.6	222.8	0.00	0.00	0.00
7,500.0	6.00	250.00	7,473.7	-173.4	-476.4	227.5	0.00	0.00	0.00
7,600.0	6.00	250.00	7,573.2	-177.0	-486.2	232.1	0.00	0.00	0.00
7,700.0	6.00	250.00	7,672.6	-180.5	-496.0	236.8	0.00	0.00	0.00
7,800.0	6.00	250.00	7,772.1	-184.1	-505.9	241.5	0.00	0.00	0.00
7,900.0	6.00	250.00	7,871.5	-187.7	-515.7	246.2	0.00	0.00	0.00
8,000.0	6.00	250.00	7,971.0	-191.3	-525.5	250.9	0.00	0.00	0.00
8,100.0	6.00	250.00	8,070.4	-194.8	-535.3	255.6	0.00	0.00	0.00
8,200.0	6.00	250.00	8,169.9	-198.4	-545.2	260.3	0.00	0.00	0.00
8,300.0	6.00	250.00	8,269.3	-202.0	-555.0	265.0	0.00	0.00	0.00
8,400.0	6.00	250.00	8,368.8	-205.6	-564.8	269.7	0.00	0.00	0.00
8,500.0	6.00	250.00	8,468.2	-209.1	-574.6	274.4	0.00	0.00	0.00
8,600.0	6.00	250.00	8,567.7	-212.7	-584.4	279.0	0.00	0.00	0.00
8,700.0	6.00	250.00	8,667.1	-216.3	-594.3	283.7	0.00	0.00	0.00
8,800.0	6.00	250.00	8,766.6	-219.9	-604.1	288.4	0.00	0.00	0.00
8,900.0	6.00	250.00	8,866.0	-223.4	-613.9	293.1	0.00	0.00	0.00
9,000.0	6.00	250.00	8,965.5	-227.0	-623.7	297.8	0.00	0.00	0.00
9,100.0	6.00	250.00	9,064.9	-230.6	-633.6	302.5	0.00	0.00	0.00
9,200.0	6.00	250.00	9,164.4	-234.2	-643.4	307.2	0.00	0.00	0.00
9,300.0	6.00	250.00	9,263.8	-237.7	-653.2	311.9	0.00	0.00	0.00
9,400.0	6.00	250.00	9,363.3	-241.3	-663.0	316.6	0.00	0.00	0.00
9,500.0	6.00	250.00	9,462.7	-244.9	-672.9	321.2	0.00	0.00	0.00
9,600.0	6.00	250.00	9,562.2	-248.5	-682.7	325.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	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)
9,700.0	6.00	250.00	9,661.7	-252.0	-692.5	330.6	0.00	0.00	0.00
9,800.0	6.00	250.00	9,761.1	-255.6	-702.3	335.3	0.00	0.00	0.00
9,900.0	6.00	250.00	9,860.6	-259.2	-712.1	340.0	0.00	0.00	0.00
10,000.0	6.00	250.00	9,960.0	-262.8	-722.0	344.7	0.00	0.00	0.00
10,100.0	6.00	250.00	10,059.5	-266.3	-731.8	349.4	0.00	0.00	0.00
10,200.0	6.00	250.00	10,158.9	-269.9	-741.6	354.1	0.00	0.00	0.00
10,239.1	6.00	250.00	10,197.8	-271.3	-745.4	355.9	0.00	0.00	0.00
Start DLS 10.00 TFO -46.68									
10,300.0	11.10	226.36	10,258.0	-276.5	-752.7	361.9	10.00	8.37	-38.82
10,400.0	20.66	215.15	10,354.1	-297.6	-769.9	384.8	10.00	9.56	-11.21
10,500.0	30.50	210.92	10,444.2	-333.9	-793.1	423.6	10.00	9.84	-4.23
10,600.0	40.41	208.62	10,525.6	-384.2	-821.7	476.9	10.00	9.91	-2.30
10,700.0	50.35	207.10	10,595.7	-447.1	-854.9	543.2	10.00	9.94	-1.52
10,800.0	60.31	205.97	10,652.5	-520.6	-891.5	620.5	10.00	9.96	-1.13
10,900.0	70.27	205.04	10,694.3	-602.5	-930.6	706.3	10.00	9.96	-0.93
11,000.0	80.24	204.23	10,719.7	-690.3	-970.8	798.2	10.00	9.97	-0.82
11,097.3	89.94	203.48	10,728.0	-778.8	-1,010.0	890.7	10.00	9.97	-0.77
Start DLS 2.00 TFO -90.01									
11,100.0	89.94	203.43	10,728.0	-781.4	-1,011.0	893.3	2.00	0.00	-2.00
11,200.0	89.94	201.43	10,728.1	-873.8	-1,049.2	989.5	2.00	0.00	-2.00
11,300.0	89.94	199.43	10,728.2	-967.5	-1,084.1	1,086.6	2.00	0.00	-2.00
11,400.0	89.94	197.43	10,728.3	-1,062.4	-1,115.7	1,184.5	2.00	0.00	-2.00
11,500.0	89.94	195.43	10,728.4	-1,158.3	-1,144.0	1,283.1	2.00	0.00	-2.00
11,600.0	89.94	193.43	10,728.5	-1,255.1	-1,168.9	1,382.2	2.00	0.00	-2.00
11,700.0	89.94	191.43	10,728.7	-1,352.8	-1,190.4	1,481.6	2.00	0.00	-2.00
11,800.0	89.94	189.43	10,728.8	-1,451.1	-1,208.5	1,581.4	2.00	0.00	-2.00
11,900.0	89.94	187.43	10,728.9	-1,550.0	-1,223.1	1,681.4	2.00	0.00	-2.00
12,000.0	89.94	185.43	10,729.0	-1,649.4	-1,234.3	1,781.4	2.00	0.00	-2.00
12,100.0	89.94	183.43	10,729.1	-1,749.1	-1,242.0	1,881.3	2.00	0.00	-2.00
12,200.0	89.94	181.43	10,729.2	-1,849.0	-1,246.3	1,981.0	2.00	0.00	-2.00
12,289.8	89.94	179.63	10,729.3	-1,938.7	-1,247.1	2,070.2	2.00	0.00	-2.00
Start 8288.0 hold at 12289.8 MD									
12,300.0	89.94	179.63	10,729.3	-1,949.0	-1,247.0	2,080.4	0.00	0.00	0.00
12,400.0	89.94	179.63	10,729.4	-2,049.0	-1,246.4	2,179.7	0.00	0.00	0.00
12,500.0	89.94	179.63	10,729.5	-2,149.0	-1,245.7	2,278.9	0.00	0.00	0.00
12,600.0	89.94	179.63	10,729.6	-2,249.0	-1,245.1	2,378.2	0.00	0.00	0.00
12,700.0	89.94	179.63	10,729.7	-2,349.0	-1,244.5	2,477.4	0.00	0.00	0.00
12,800.0	89.94	179.63	10,729.8	-2,449.0	-1,243.8	2,576.7	0.00	0.00	0.00
12,900.0	89.94	179.63	10,729.9	-2,549.0	-1,243.2	2,675.9	0.00	0.00	0.00
13,000.0	89.94	179.63	10,730.0	-2,649.0	-1,242.5	2,775.2	0.00	0.00	0.00
13,100.0	89.94	179.63	10,730.1	-2,749.0	-1,241.9	2,874.4	0.00	0.00	0.00
13,200.0	89.94	179.63	10,730.2	-2,849.0	-1,241.2	2,973.7	0.00	0.00	0.00
13,300.0	89.94	179.63	10,730.3	-2,949.0	-1,240.6	3,072.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	89.94	179.63	10,730.4	-3,049.0	-1,239.9	3,172.2	0.00	0.00	0.00
13,500.0	89.94	179.63	10,730.6	-3,149.0	-1,239.3	3,271.4	0.00	0.00	0.00
13,600.0	89.94	179.63	10,730.7	-3,249.0	-1,238.6	3,370.7	0.00	0.00	0.00
13,700.0	89.94	179.63	10,730.8	-3,349.0	-1,238.0	3,469.9	0.00	0.00	0.00
13,800.0	89.94	179.63	10,730.9	-3,449.0	-1,237.3	3,569.1	0.00	0.00	0.00
13,900.0	89.94	179.63	10,731.0	-3,549.0	-1,236.7	3,668.4	0.00	0.00	0.00
14,000.0	89.94	179.63	10,731.1	-3,649.0	-1,236.1	3,767.6	0.00	0.00	0.00
14,100.0	89.94	179.63	10,731.2	-3,749.0	-1,235.4	3,866.9	0.00	0.00	0.00
14,200.0	89.94	179.63	10,731.3	-3,849.0	-1,234.8	3,966.1	0.00	0.00	0.00
14,300.0	89.94	179.63	10,731.4	-3,948.9	-1,234.1	4,065.4	0.00	0.00	0.00
14,400.0	89.94	179.63	10,731.5	-4,048.9	-1,233.5	4,164.6	0.00	0.00	0.00
14,500.0	89.94	179.63	10,731.6	-4,148.9	-1,232.8	4,263.9	0.00	0.00	0.00
14,600.0	89.94	179.63	10,731.7	-4,248.9	-1,232.2	4,363.1	0.00	0.00	0.00
14,700.0	89.94	179.63	10,731.8	-4,348.9	-1,231.5	4,462.4	0.00	0.00	0.00
14,800.0	89.94	179.63	10,731.9	-4,448.9	-1,230.9	4,561.6	0.00	0.00	0.00
14,900.0	89.94	179.63	10,732.0	-4,548.9	-1,230.2	4,660.9	0.00	0.00	0.00
15,000.0	89.94	179.63	10,732.1	-4,648.9	-1,229.6	4,760.1	0.00	0.00	0.00
15,100.0	89.94	179.63	10,732.2	-4,748.9	-1,229.0	4,859.4	0.00	0.00	0.00
15,200.0	89.94	179.63	10,732.3	-4,848.9	-1,228.3	4,958.6	0.00	0.00	0.00
15,300.0	89.94	179.63	10,732.4	-4,948.9	-1,227.7	5,057.9	0.00	0.00	0.00
15,400.0	89.94	179.63	10,732.6	-5,048.9	-1,227.0	5,157.1	0.00	0.00	0.00
15,500.0	89.94	179.63	10,732.7	-5,148.9	-1,226.4	5,256.4	0.00	0.00	0.00
15,600.0	89.94	179.63	10,732.8	-5,248.9	-1,225.7	5,355.6	0.00	0.00	0.00
15,700.0	89.94	179.63	10,732.9	-5,348.9	-1,225.1	5,454.9	0.00	0.00	0.00
15,800.0	89.94	179.63	10,733.0	-5,448.9	-1,224.4	5,554.1	0.00	0.00	0.00
15,900.0	89.94	179.63	10,733.1	-5,548.9	-1,223.8	5,653.4	0.00	0.00	0.00
16,000.0	89.94	179.63	10,733.2	-5,648.9	-1,223.1	5,752.6	0.00	0.00	0.00
16,100.0	89.94	179.63	10,733.3	-5,748.9	-1,222.5	5,851.9	0.00	0.00	0.00
16,200.0	89.94	179.63	10,733.4	-5,848.9	-1,221.9	5,951.1	0.00	0.00	0.00
16,300.0	89.94	179.63	10,733.5	-5,948.9	-1,221.2	6,050.4	0.00	0.00	0.00
16,400.0	89.94	179.63	10,733.6	-6,048.9	-1,220.6	6,149.6	0.00	0.00	0.00
16,500.0	89.94	179.63	10,733.7	-6,148.9	-1,219.9	6,248.9	0.00	0.00	0.00
16,600.0	89.94	179.63	10,733.8	-6,248.9	-1,219.3	6,348.1	0.00	0.00	0.00
16,700.0	89.94	179.63	10,733.9	-6,348.9	-1,218.6	6,447.4	0.00	0.00	0.00
16,800.0	89.94	179.63	10,734.0	-6,448.9	-1,218.0	6,546.6	0.00	0.00	0.00
16,900.0	89.94	179.63	10,734.1	-6,548.9	-1,217.3	6,645.9	0.00	0.00	0.00
17,000.0	89.94	179.63	10,734.2	-6,648.9	-1,216.7	6,745.1	0.00	0.00	0.00
17,100.0	89.94	179.63	10,734.3	-6,748.9	-1,216.0	6,844.4	0.00	0.00	0.00
17,200.0	89.94	179.63	10,734.4	-6,848.9	-1,215.4	6,943.6	0.00	0.00	0.00
17,300.0	89.94	179.63	10,734.6	-6,948.9	-1,214.8	7,042.9	0.00	0.00	0.00
17,400.0	89.94	179.63	10,734.7	-7,048.9	-1,214.1	7,142.1	0.00	0.00	0.00
17,500.0	89.94	179.63	10,734.8	-7,148.9	-1,213.5	7,241.4	0.00	0.00	0.00
17,600.0	89.94	179.63	10,734.9	-7,248.9	-1,212.8	7,340.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,700.0	89.94	179.63	10,735.0	-7,348.9	-1,212.2	7,439.9	0.00	0.00	0.00
17,800.0	89.94	179.63	10,735.1	-7,448.9	-1,211.5	7,539.1	0.00	0.00	0.00
17,900.0	89.94	179.63	10,735.2	-7,548.9	-1,210.9	7,638.3	0.00	0.00	0.00
18,000.0	89.94	179.63	10,735.3	-7,648.9	-1,210.2	7,737.6	0.00	0.00	0.00
18,100.0	89.94	179.63	10,735.4	-7,748.9	-1,209.6	7,836.8	0.00	0.00	0.00
18,200.0	89.94	179.63	10,735.5	-7,848.9	-1,208.9	7,936.1	0.00	0.00	0.00
18,300.0	89.94	179.63	10,735.6	-7,948.9	-1,208.3	8,035.3	0.00	0.00	0.00
18,400.0	89.94	179.63	10,735.7	-8,048.9	-1,207.7	8,134.6	0.00	0.00	0.00
18,500.0	89.94	179.63	10,735.8	-8,148.9	-1,207.0	8,233.8	0.00	0.00	0.00
18,600.0	89.94	179.63	10,735.9	-8,248.9	-1,206.4	8,333.1	0.00	0.00	0.00
18,700.0	89.94	179.63	10,736.0	-8,348.9	-1,205.7	8,432.3	0.00	0.00	0.00
18,800.0	89.94	179.63	10,736.1	-8,448.9	-1,205.1	8,531.6	0.00	0.00	0.00
18,900.0	89.94	179.63	10,736.2	-8,548.9	-1,204.4	8,630.8	0.00	0.00	0.00
19,000.0	89.94	179.63	10,736.3	-8,648.8	-1,203.8	8,730.1	0.00	0.00	0.00
19,100.0	89.94	179.63	10,736.4	-8,748.8	-1,203.1	8,829.3	0.00	0.00	0.00
19,200.0	89.94	179.63	10,736.6	-8,848.8	-1,202.5	8,928.6	0.00	0.00	0.00
19,300.0	89.94	179.63	10,736.7	-8,948.8	-1,201.8	9,027.8	0.00	0.00	0.00
19,400.0	89.94	179.63	10,736.8	-9,048.8	-1,201.2	9,127.1	0.00	0.00	0.00
19,500.0	89.94	179.63	10,736.9	-9,148.8	-1,200.5	9,226.3	0.00	0.00	0.00
19,600.0	89.94	179.63	10,737.0	-9,248.8	-1,199.9	9,325.6	0.00	0.00	0.00
19,700.0	89.94	179.63	10,737.1	-9,348.8	-1,199.3	9,424.8	0.00	0.00	0.00
19,800.0	89.94	179.63	10,737.2	-9,448.8	-1,198.6	9,524.1	0.00	0.00	0.00
19,900.0	89.94	179.63	10,737.3	-9,548.8	-1,198.0	9,623.3	0.00	0.00	0.00
20,000.0	89.94	179.63	10,737.4	-9,648.8	-1,197.3	9,722.6	0.00	0.00	0.00
20,100.0	89.94	179.63	10,737.5	-9,748.8	-1,196.7	9,821.8	0.00	0.00	0.00
20,200.0	89.94	179.63	10,737.6	-9,848.8	-1,196.0	9,921.1	0.00	0.00	0.00
20,300.0	89.94	179.63	10,737.7	-9,948.8	-1,195.4	10,020.3	0.00	0.00	0.00
20,400.0	89.94	179.63	10,737.8	-10,048.8	-1,194.7	10,119.6	0.00	0.00	0.00
20,500.0	89.94	179.63	10,737.9	-10,148.8	-1,194.1	10,218.8	0.00	0.00	0.00
20,577.8	89.94	179.63	10,738.0	-10,226.6	-1,193.6	10,296.0	0.00	0.00	0.00
TD at 20577.8									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well CABO WABO FED COM #703H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Site:	CABO WABO FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=27' @ 3173.0usft (Nabors 893)
Well:	CABO WABO FED COM #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (CABO WABO FI - plan misses target center by 529.9usft at 10700.0usft MD (10595.7 TVD, -447.1 N, -854.9 E) - Circle (radius 50.0)	0.00	0.01	10,728.0	-131.1	-1,259.2	408,244.73	623,006.32	32° 7' 18.328 N	103° 56' 9.627 W
PBHL (CABO WABO - plan hits target center - Rectangle (sides W100.0 H10,067.0 D20.0)	-0.06	359.63	10,738.0	-10,226.6	-1,193.6	398,149.26	623,071.93	32° 5' 38.417 N	103° 56' 9.297 W
LTP (CABO WABO FE - plan misses target center by 0.1usft at 20447.8usft MD (10737.9 TVD, -10096.6 N, -1194.4 E) - Point	0.00	0.00	10,738.0	-10,096.6	-1,194.4	398,279.25	623,071.08	32° 5' 39.704 N	103° 56' 9.301 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
2800	2799	-5	-15	Start 7439.1 hold at 2800.0 MD
10,239	10,198	-271	-745	Start DLS 10.00 TFO -46.68
11,097	10,728	-779	-1010	Start DLS 2.00 TFO -90.01
12,290	10,729	-1939	-1247	Start 8288.0 hold at 12289.8 MD
20,578	10,738	-10,227	-1194	TD at 20577.8

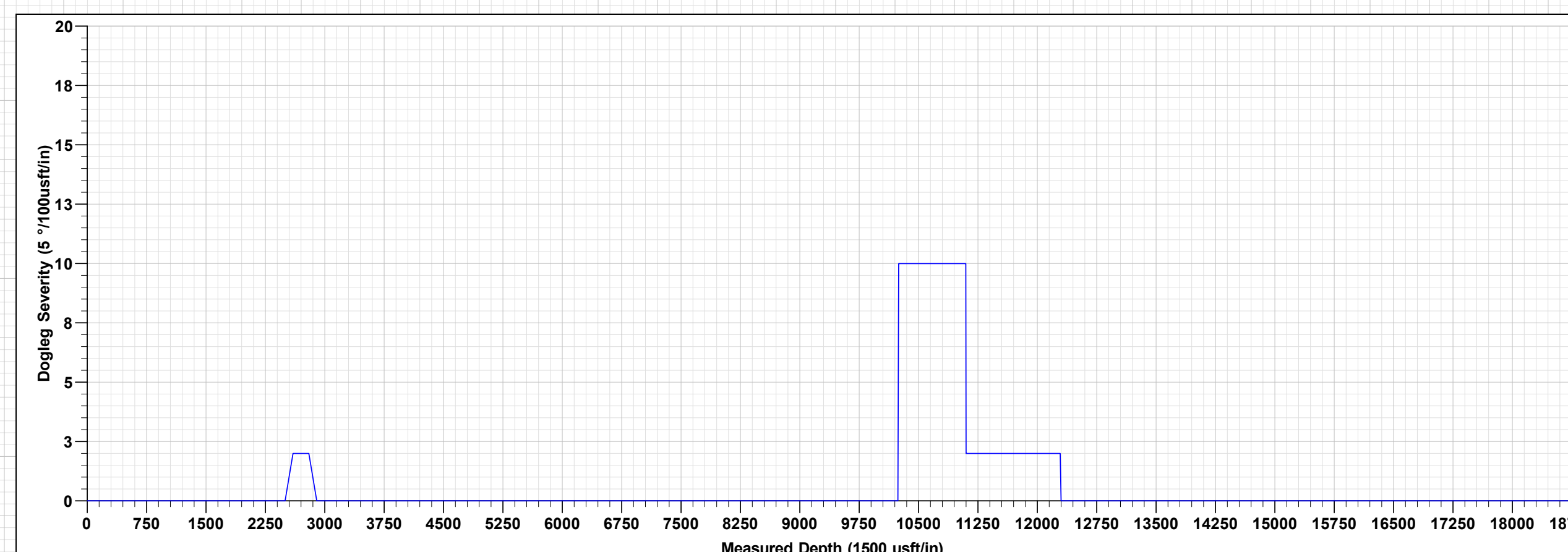
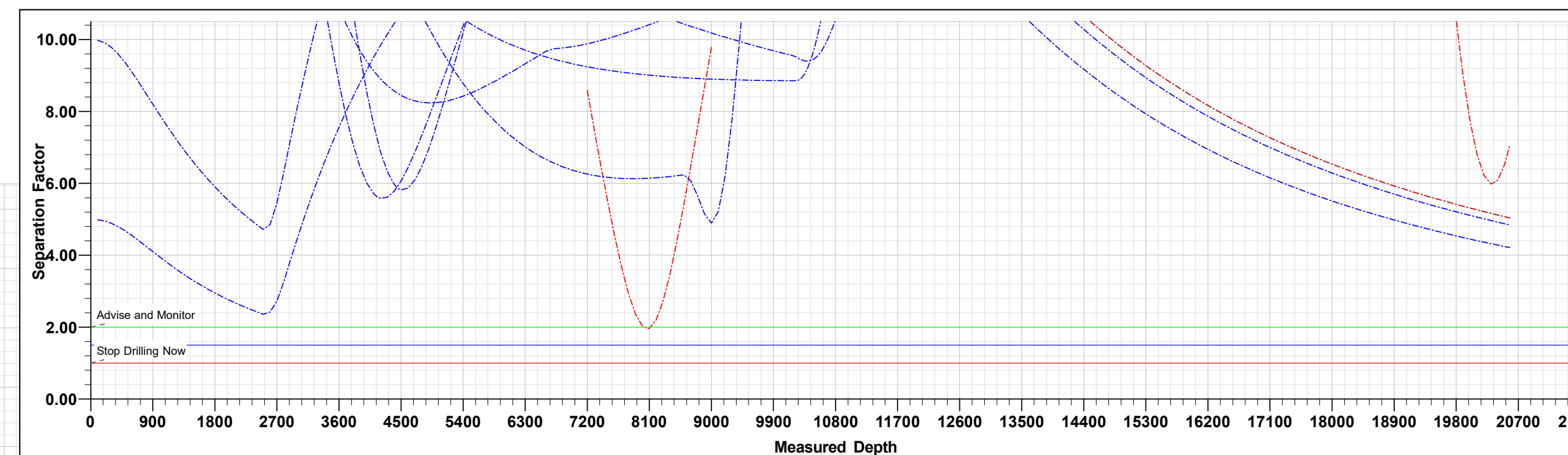
Checked By: _____ Approved By: _____ Date: _____



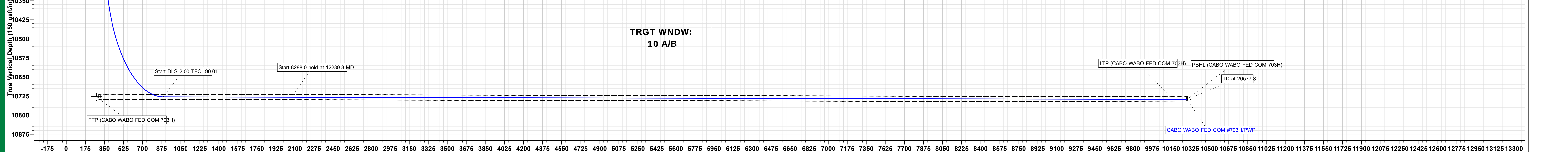
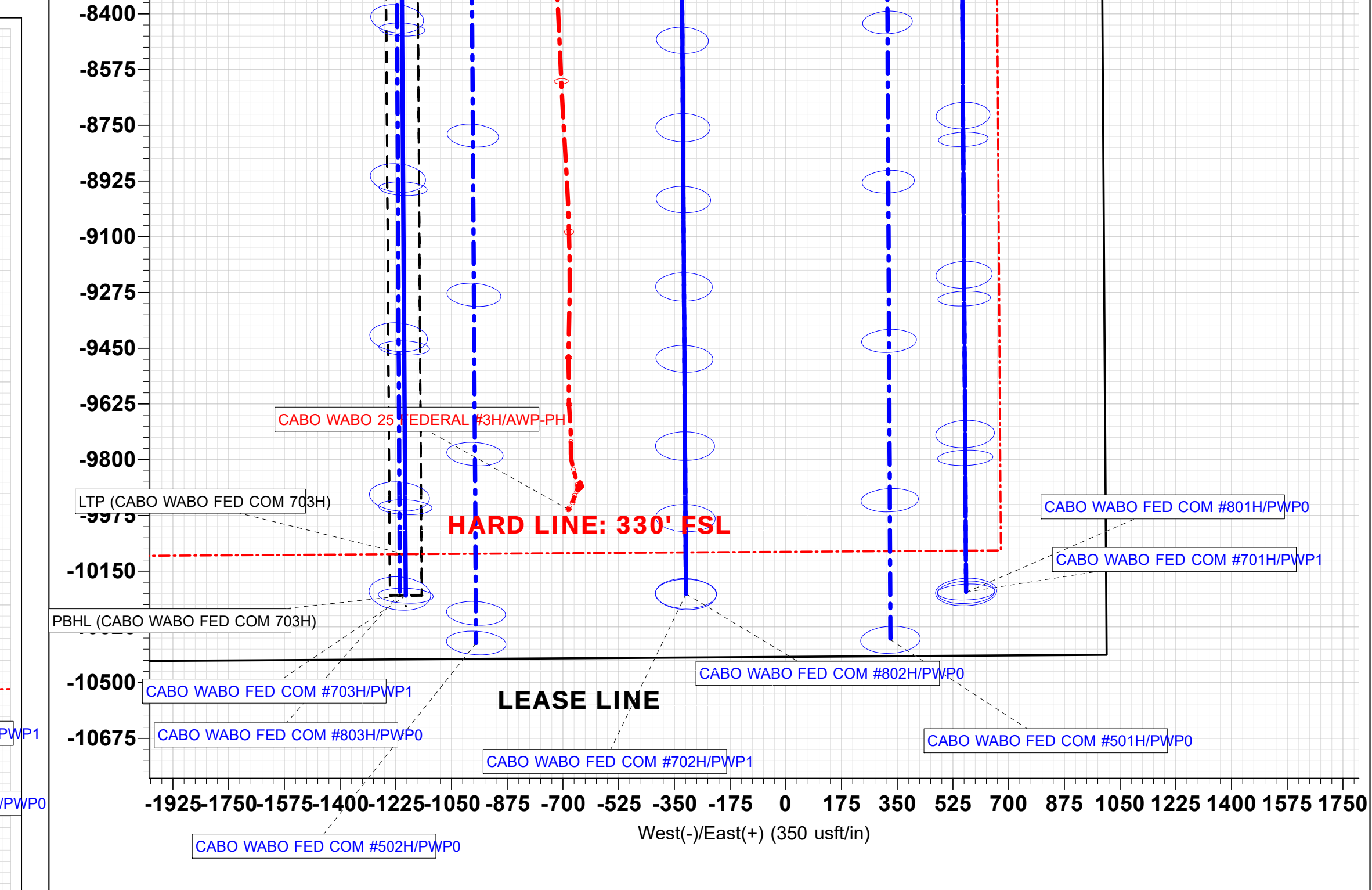
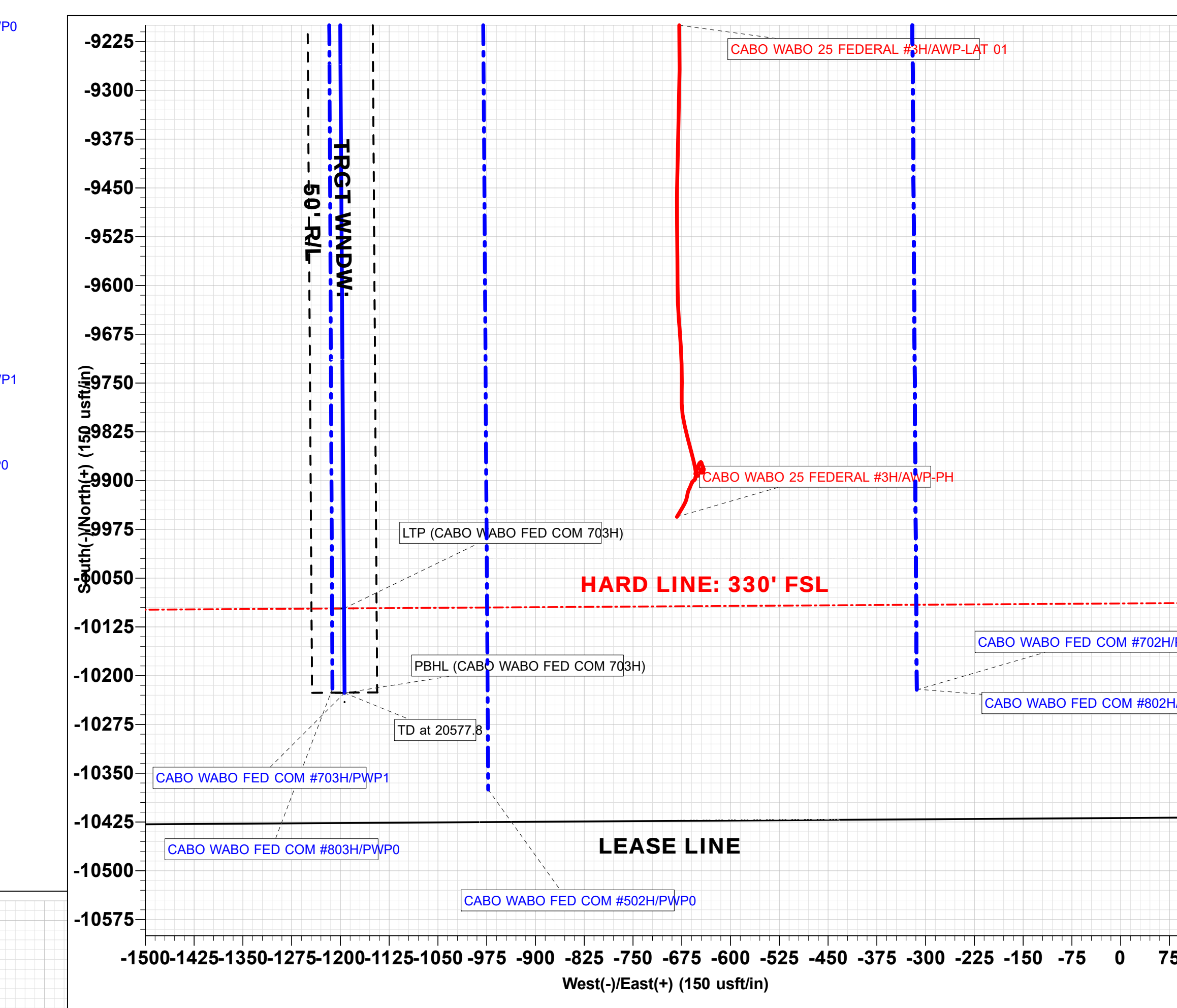
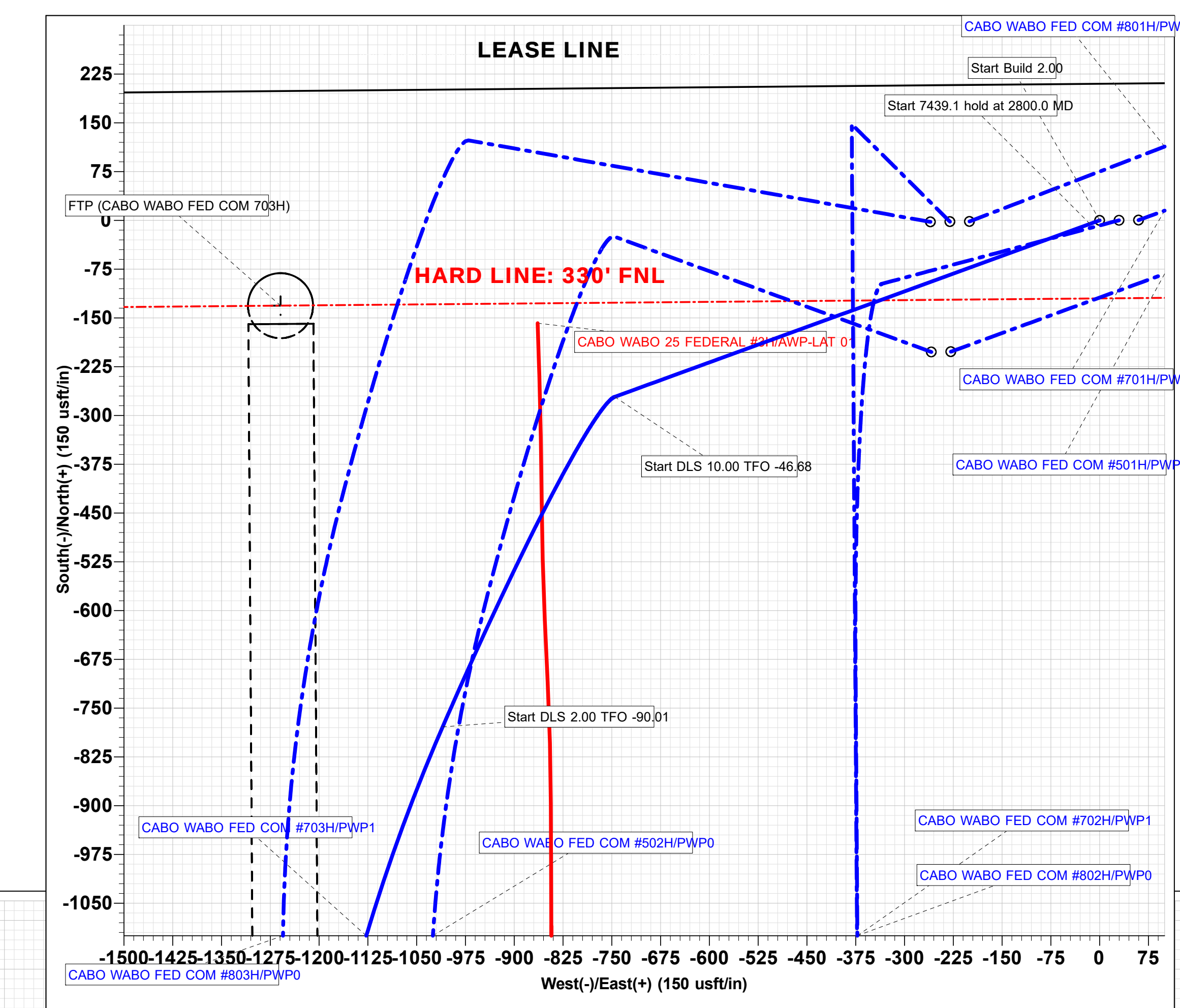
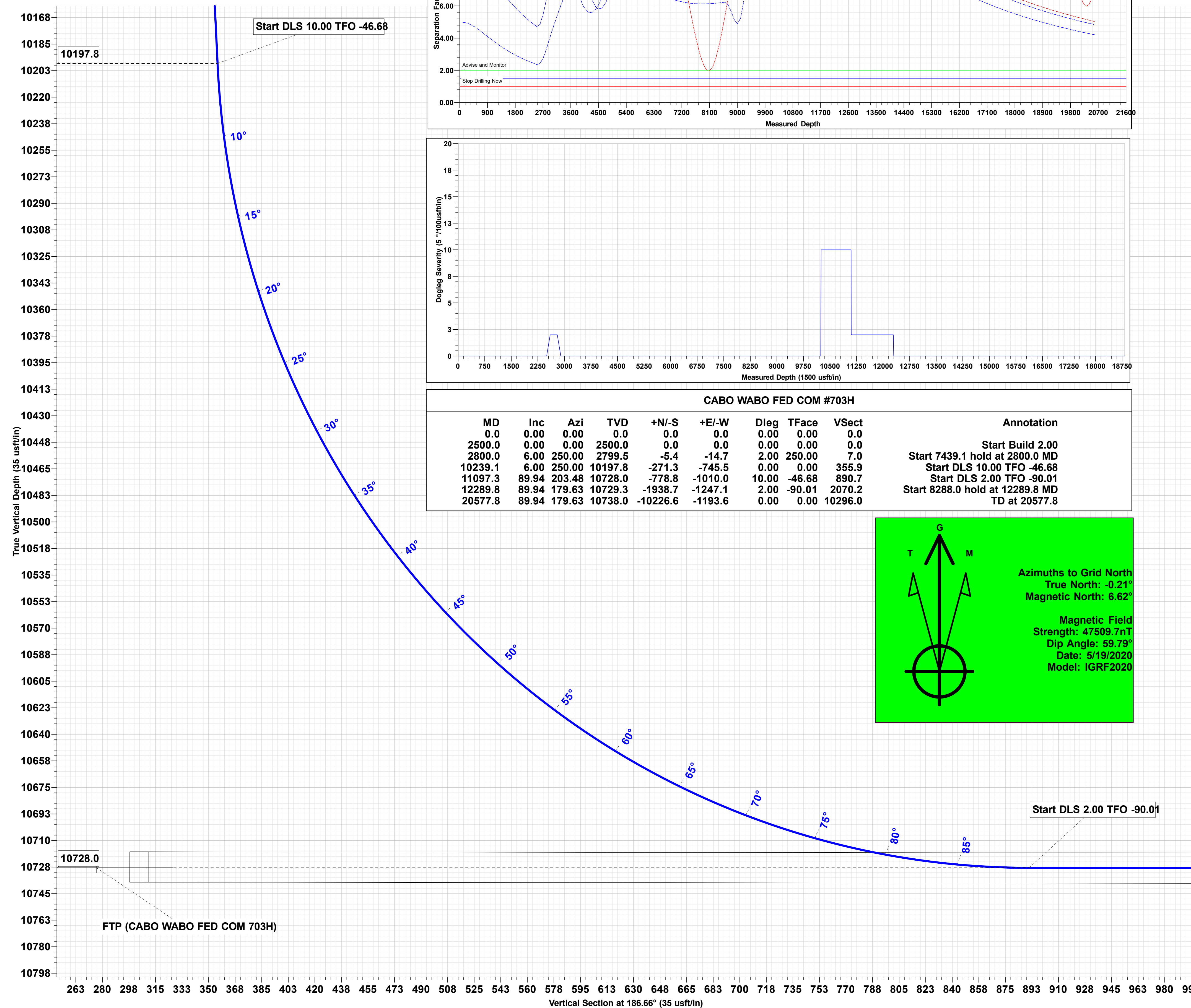
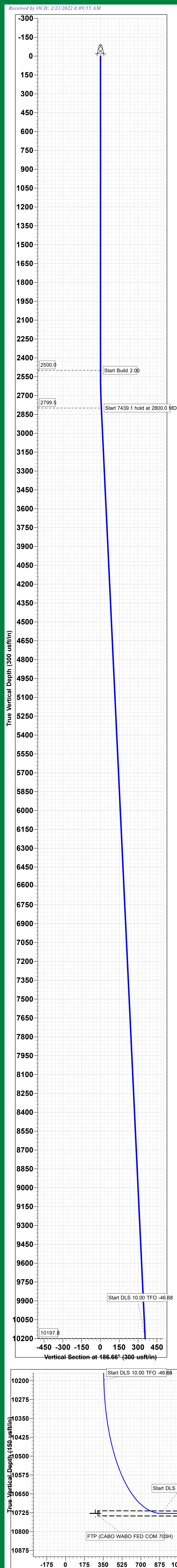
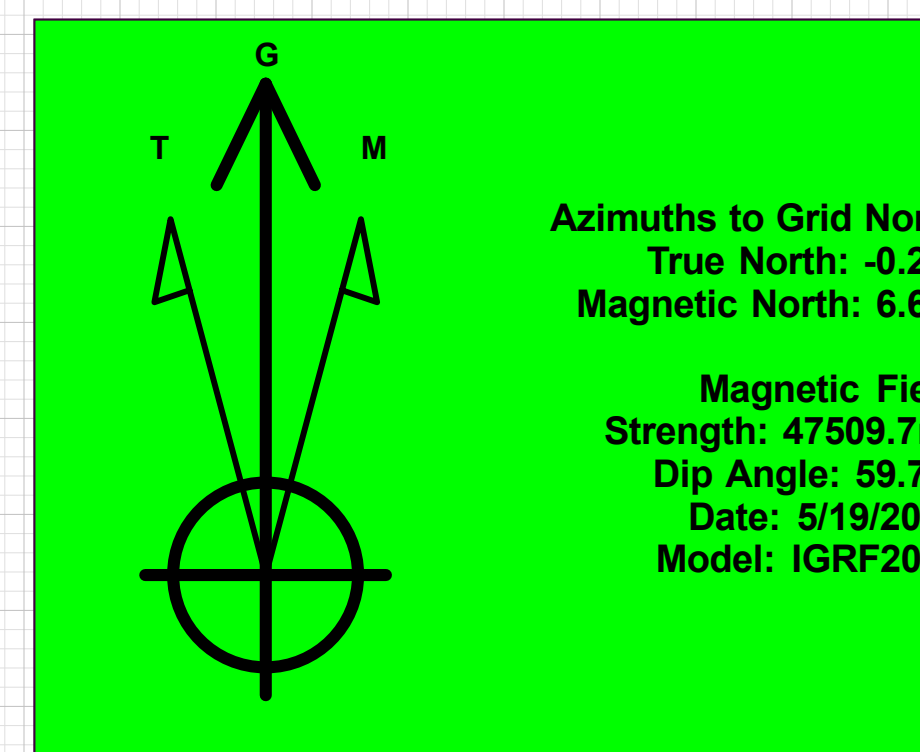
Project: ATLAS PROSPECT (NM-E)
Site: CABO WABO FEDERAL PROJECT (ATLAS 2529)
Well: CABO WABO FED COM #703H
Wellbore: OWB
Design: PWP1
GL: 3146.0
KB=27' @ 3173.0usft (Nabors 893)

WELL DETAILS: CABO WABO FED COM #703H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	408375.85	624265.52	32° 7' 19.579 N	103° 55' 54.979 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (CABO WABO FED COM 703H)	10728.0	-131.1	-1259.2	408244.73	623006.32	32° 7' 18.328 N	103° 56' 9.627 W
LTP (CABO WABO FED COM 703H)	10738.0	-10096.6	-1194.4	398279.25	623071.08	32° 5' 39.704 N	103° 56' 9.301 W
PBHL (CABO WABO FED COM 703H)	10738.0	-10226.6	-1193.6	398149.26	623071.93	32° 5' 38.417 N	103° 56' 9.297 W



CABO WABO FED COM #703H									
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	Start Build 2.00
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start 7439.1 hold at 2800.0 MD
2800.0	6.00	250.00	2799.5	-5.4	-14.7	2.00	250.00	7.0	Start DLS 10.00 TFO -46.68
10239.1	6.00	250.00	10197.8	-271.3	-745.5	0.00	0.00	355.9	Start DLS 2.00 TFO -90.01
11097.3	89.94	203.48	10728.0	-778.8	-1010.0	10.00	-46.68	890.7	Start 8288.0 hold at 12289.8 MD
12289.8	89.94	179.63	10729.3	-1938.7	-1247.1	2.00	-90.01	2070.2	TD at 20577.8
20577.8	89.94	179.63	10738.0	-10226.6	-1193.6	0.00	0.00	10296.0	



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 82885

COMMENTS

Operator: COG PRODUCTION, LLC 600 W. Illinois Ave Midland, TX 79701	OGRID: 217955
	Action Number: 82885
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO review 2/23/2022	2/23/2022

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CONDITIONS

Action 82885

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	Action Number: 82885
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	2/23/2022