

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.	
2. Name of Operator		9. API Well No. 30 015 48766	
3a. Address		3b. Phone No. (include area code)	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory 11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish	
13. State		15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	
16. No of acres in lease		17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth	
20. BLM/BIA Bond No. in file		21. Elevations (Show whether DF, KDB, RT, GL, etc.)	
22. Approximate date work will start*		23. Estimated duration	
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Office	
Application approval 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. Conditions of approval, if any, are attached.			
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.			

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 07/20/2021

Additional Operator Remarks

Location of Well

0. SHL: SESW / 220 FSL / 1530 FWL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.094149 / LONG: -103.992925 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 330 FSL / 2420 FWL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.094454 / LONG: -103.990054 (TVD: 10095 feet, MD: 10248 feet)

BHL: NENW / 200 FNL / 2420 FWL / TWSP: 25S / RANGE: 29E / SECTION: 21 / LAT: 32.122179 / LONG: -103.990205 (TVD: 10164 feet, MD: 20289 feet)

BLM Point of Contact

Name: PAMELLA HERNANDEZ

Title: LIE

Phone: (575) 234-5954

Email: PHERANDEZ@BLM.GOV

CONFIDENTIAL

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-8161 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) 478-3480 Fax: (505) 478-3482

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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-		Pool Code 98220	Pool Name Purple Sage; Wolfcamp (Gas)
Property Code	Property Name ADMIRAL FEDERAL COM		Well Number 704H
OGRID No. 229137	Operator Name COG OPERATING, LLC		Elevation 2984.0'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	25-S	29-E		220	SOUTH	1530	WEST	EDDY

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
C	21	25-S	29-E		200	NORTH	2420	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
1280			

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

POINT LEGEND

1	Y=408543.7 N X=645141.6 E
2	Y=405890.8 N X=645148.5 E
3	Y=403236.4 N X=645154.2 E
4	Y=400584.3 N X=645190.7 E
5	Y=397927.6 N X=645225.2 E
6	Y=397939.4 N X=647886.6 E
7	Y=403248.3 N X=647816.8 E
8	Y=408554.9 N X=647798.5 E

NAD 83 NME PROPOSED BOTTOM HOLE LOCATION
 Y=408353.9 N
 X=647562.1 E
 LAT.=32.122179° N
 LONG.=103.990205° W

NAD 83 NME SURFACE LOCATION
 Y=398154.4 N
 X=646752.4 E
 LAT.=32.094149° N
 LONG.=103.992925° W

OPERATOR CERTIFICATION
 I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
 Signature: Stan Wagner Date: 12/21/2020
 Printed Name: Stan Wagner
 E-mail Address: _____

SURVEYOR CERTIFICATION
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
 NOVEMBER 6, 2020
 Date of Survey: _____
 Signature & Seal of Professional Surveyor: Chad L. Harcrow

CHAD L. HARCROW
 NEW MEXICO
 17777
 LICENSED PROFESSIONAL SURVEYOR

Certificate No. CHAD HARCROW 17777
 W.O. # 20-1714 DRAWN BY: AH

Intent ☒ As Drilled ☐

API # 30-015		
Operator Name: COG Operating LLC	Property Name: Admiral Federal Com	Well Number 704H

Kick Off Point (KOP)

UL N	Section 28	Township 25S	Range 29E	Lot	Feet	From N/S	Feet	From E/W	County Eddy
Latitude					Longitude				NAD 83

First Take Point (FTP)

UL N	Section 28	Township 25S	Range 29E	Lot	Feet 330	From N/S South	Feet 2420	From E/W West	County Eddy
Latitude 32.094454					Longitude -103.990054				NAD NAD 83

Last Take Point (LTP)

UL C	Section 21	Township 25S	Range 29E	Lot	Feet 330	From N/S North	Feet 2420	From E/W West	County Eddy
Latitude 32.121822					Longitude -103.990203				NAD NAD 83

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

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

API # 30-015-		
Operator Name: COG Operating LLC	Property Name: Admiral Federal Com	Well Number 704H

KZ 06/29/2018

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: COG Operating LLC

OGRID: 239137

Date: 11/30/2020

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Admiral Federal Com 701H	30-015-	O-28-25S-29E	311 FSL & 1570 FEL	± 1342	± 4687	± 4046
Admiral Federal Com 704H	30-015-	N-28-25S-29E	220 FSL & 1530 FWL	± 1342	± 4687	± 4046
Admiral Federal Com 705H	30-015-	N-28-25S-29E	220 FSL & 1500 FWL	± 1342	± 4687	± 4046
Admiral Federal Com 706H	30-015-	N-28-25S-29E	220 FSL & 1470 FWL	± 1342	± 4687	± 4046
Admiral Federal Com 804H	30-015-	M-28-25S-29E	785 FSL & 860 FWL	± 780	± 8000	± 4251
Admiral Federal Com 805H	30-015-	M-28-25S-29E	785 FSL & 830 FWL	± 1283	± 8000	± 5558
Admiral Federal Com 806H	30-015-	M-28-25S-29E	785 FSL & 800 FWL	± 780	± 8000	± 4251

IV. Central Delivery Point Name: Admiral Fed Com CTB A 778 FSL & 1868 FWL 28-25S-29E [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Admiral Federal Com	Pending	± 10/1/2022	± 25 days from spud	TBD	TBD	TBD
701H, 704H, 705H, 706H, 804H, 805H, 806H						

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

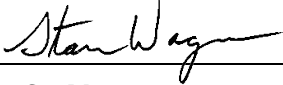
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 07/26/2021
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

All ConocoPhillips production facility equipment will be sized per industry standards (API 12J) with adequate retention time to effectively separate all phases of production. Each project will take into consideration the number of wells and type curves for each formation pool to ensure adequate facility capacity. Design considerations will also include review of all piping, tanks, VRU's and associated equipment to ensure optimized gas capture minimized risk of release.

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

- During drilling, flare stacks will be located a minimum of 100 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety, and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

C. Completion Operations

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- Individual well test separators will be set to properly separate gas and liquids. A temporary test separator will be utilized initially to process volumes. In addition, separators will be tied into flowback tanks which will be tied into the gas processing equipment for sales down a pipeline.

D. Venting and flaring during production operations

- During each phase of well life (drilling, completion and production) of a ConocoPhillips well, COP personnel will follow all necessary procedures to ensure both the operation and the equipment are within the NMAC 19.15.27.8 Subsection D guidelines.
- During well operations that require unloading of the well to atmospheric pressure, all reasonable actions will be taken to minimize vented gas
- Through the life of the well all flaring shall be measured, and venting events quantified using the data available and industry best practice.

E. Performance standards for separation, storage tank and flare equipment

- All storage tanks and separation equipment are designed minimize risk of liquid or vapor release and optimize gas capture. This includes automation for automatic gauging and pressure monitoring.

- All flare stacks are equipped with auto ignition devices and/or continuous pilots and are designed to operate at maximum combustion efficiency pursuant NMAC 19.15.27.8 Subsection E. Flares will follow COP spacing guidelines to ensure they are a safe distance from combustibles and operations equipment.
- COP personnel will conduct routine AVO inspections on a regular basis per NMAC 19.15.27.8 Subsection E guidelines.

F. Measurement of vented and flared natural gas.

- Measurement equipment will be installed to quantify gas flared during drilling, completion and production of the well.
- All measurement devices installed will meet accuracy ratings per AGA and API standards.
- Measurement devices will be installed without manifolds that allow diversion of gas around the metering element, except for the sole purpose of inspection of servicing the measurement device.

VIII. Best Management Practices

- Operator will curtail or shut in production, within reasonable limits, during upset conditions to minimize venting and flaring.
- When feasible, Operator will use equipment to capture gas that would otherwise be vented or flared.
- During completions and production operations Operator will minimize blowdowns to atmosphere
- When feasible, Operator will use electric or air actuated equipment to reduce bleed emissions

COG Operating, LLC - Admiral Federal Com #704H

1. Geologic Formations

TVD of target	10,164' EOL	Pilot hole depth	NA
MD at TD:	20,289'	Deepest expected fresh water:	200'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	552	Water	
Top of Salt	724	Salt	
Base of Salt	2724	Salt	
Lamar	2905	Salt Water	
Bell Canyon	2949	Salt Water	
Cherry Canyon	3795	Oil/Gas	
Brushy Canyon	5075	Oil/Gas	
Bone Spring Lime	6669	Oil/Gas	
U. Avalon Shale	6983	Oil/Gas	
L. Avalon Shale	7174	Oil/Gas	
1st Bone Spring Sand	7583	Oil/Gas	
2nd Bone Spring Sand	8249	Oil/Gas	
3rd Bone Spring Sand	9510	Oil/Gas	
Wolfcamp	9869	Target Oil/Gas	

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	674	10.75"	45.5	N80	BTC	8.19	1.58	33.91	35.77
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.50	1.37	2.88	2.90
8.750"	8500	9530	7.625"	29.7	HCP 110	TL-FJ	1.51	1.42	3.32	2.32
6.75"	0	9330	5.5"	23	P110	BTC	2.29	2.73	3.12	3.10
6.75"	9330	20,289	5.5"	23	P110	Talon HTQ	2.29	2.73	3.12	3.02
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. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

COG Operating, LLC - Admiral Federal Com #704H

	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.	N
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?	

COG Operating, LLC - Admiral Federal Com #704H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	210	13.5	1.75	9	12	Lead: Class C + 4% Gel
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter.	1400	11	2.8	19	48	Lead: NeoCem
	300	16.4	1.1	5	8	Tail: Class H
5.5 Prod	750	12.7	2	10.6	16	Lead: 35:65:6 H Blend
	1200	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

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	8,000'	35%

COG Operating, LLC - Admiral Federal Com #704H

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:
12-1/4"	13-5/8"	3M	Annular	x	2500 psi
			Blind Ram		3M
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8 1/2"	13-5/8"	5M	5M Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP and BOPE will be installed per Onshore Order #2 requirements prior to drilling below the surface casing and will be rated to the above pressure rating or greater, see attached diagrams. Required safety valves, with appropriate wrenches and subs for the drill string being utilized, will be in the open position and accessible on the rig floor.

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 valves (inside BOP and full-opening valve) with appropriate wrenches 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.

COG Operating, LLC - Admiral Federal Com #704H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.4 - 8.6	28-29	N/C
Surf csg	Int shoe	Diesel Brine Emul	8.6 - 9.4	30-40	N/C
Int shoe	Lateral TD	OBM	10.5 - 12	30-40	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
---	-----------------------------

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.
N	Are 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	

COG Operating, LLC - Admiral Federal Com #704H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	6345 psi at 10164' TVD
Abnormal Temperature	NO 160 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
x	5M Annular Variance

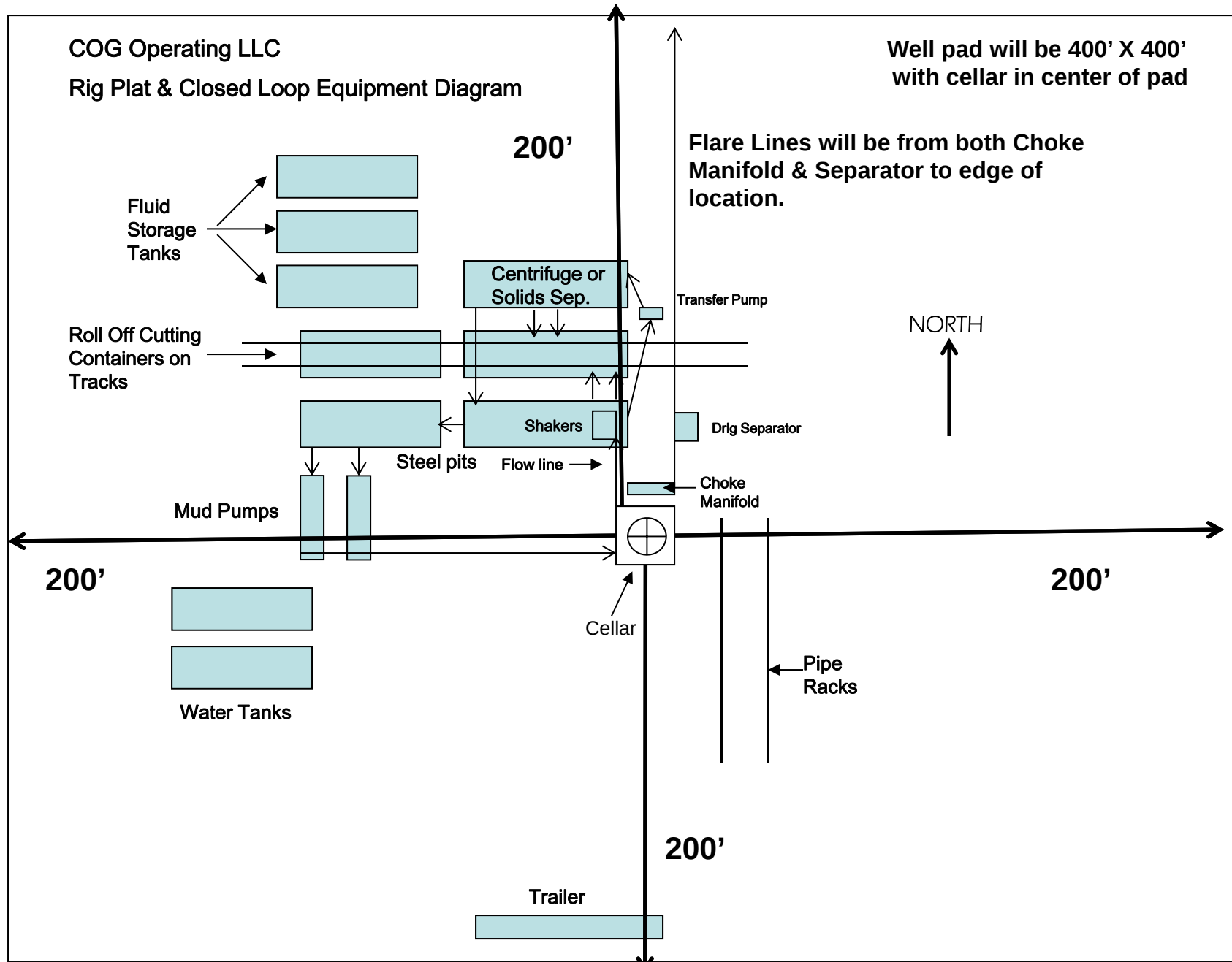


Exhibit 1

"I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

ADMIRAL FEDERAL PROJECT (ATLAS 2529)

ADMIRAL FEDERAL #704H

OWB

PWP1

Anticollision Report

10 December, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	12/10/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	20,289.0	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
ADMIRAL FEDERAL PROJECT (ATLAS 2529)						
ADMIRAL FEDERAL #705H - OWB - PWP1	2,500.1	2,500.3	29.9	17.2	2.357	CC, ES, SF
ADMIRAL FEDERAL #706H - OWB - PWP1	2,414.8	2,420.2	59.9	42.0	3.345	CC
ADMIRAL FEDERAL #706H - OWB - PWP1	2,500.0	2,505.3	59.9	41.4	3.241	ES, SF
ADMIRAL FEDERAL #804H - OWB - PWP1	10,345.7	10,239.8	669.3	596.6	9.201	CC, ES
ADMIRAL FEDERAL #804H - OWB - PWP1	20,161.2	20,576.0	864.3	697.2	5.174	SF
ADMIRAL FEDERAL COM 501H - OWB - AWP	0.0	0.0	649.9			
ADMIRAL FEDERAL COM 501H - OWB - AWP	8,500.0	8,460.7	1,716.0	1,677.3	44.320	SF
ADMIRAL FEDERAL COM 502H - OWB - AWP	6,066.3	6,126.4	424.4	382.7	10.174	CC
ADMIRAL FEDERAL COM 502H - OWB - AWP	6,200.0	6,256.6	425.1	382.4	9.959	ES
ADMIRAL FEDERAL COM 502H - OWB - AWP	6,800.0	6,838.5	438.6	391.7	9.351	SF
ADMIRAL FEDERAL COM 503H - OWB - AWP	8,549.8	8,528.2	574.3	516.1	9.869	CC, ES
ADMIRAL FEDERAL COM 503H - OWB - AWP	20,289.0	18,756.0	1,488.2	1,322.2	8.962	SF

Offset Design	ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1											Offset Site Error:	0.0 usft
Survey Program:	0-Standard Keeper 104, 9672-MWD+IFR1+FDIR											Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		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	Warning
0.0	0.0	0.2	0.2	3.0	3.0	-90.38	-0.2	-29.9	29.9				
100.0	100.0	100.2	100.2	3.0	3.0	-90.38	-0.2	-29.9	29.9	23.9	6.00	4.981	
200.0	200.0	200.2	200.2	3.0	3.0	-90.38	-0.2	-29.9	29.9	23.9	6.04	4.949	
300.0	300.0	300.2	300.2	3.1	3.0	-90.38	-0.2	-29.9	29.9	23.8	6.12	4.883	
400.0	400.0	400.2	400.2	3.2	3.0	-90.38	-0.2	-29.9	29.9	23.7	6.24	4.789	
500.0	500.0	500.2	500.2	3.4	3.1	-90.38	-0.2	-29.9	29.9	23.5	6.40	4.671	
600.0	600.0	600.2	600.2	3.6	3.1	-90.38	-0.2	-29.9	29.9	23.3	6.59	4.538	
700.0	700.0	700.2	700.2	3.8	3.1	-90.38	-0.2	-29.9	29.9	23.1	6.80	4.394	
800.0	800.0	800.2	800.2	4.0	3.2	-90.38	-0.2	-29.9	29.9	22.9	7.04	4.246	
900.0	900.0	900.2	900.2	4.2	3.2	-90.38	-0.2	-29.9	29.9	22.6	7.30	4.096	
1,000.0	1,000.0	1,000.2	1,000.2	4.5	3.2	-90.38	-0.2	-29.9	29.9	22.3	7.58	3.947	
1,100.0	1,100.0	1,100.2	1,100.2	4.8	3.3	-90.38	-0.2	-29.9	29.9	22.0	7.86	3.802	
1,200.0	1,200.0	1,200.2	1,200.2	5.1	3.4	-90.38	-0.2	-29.9	29.9	21.7	8.17	3.662	
1,300.0	1,300.0	1,300.2	1,300.2	5.4	3.4	-90.38	-0.2	-29.9	29.9	21.4	8.48	3.527	
1,400.0	1,400.0	1,400.2	1,400.2	5.7	3.5	-90.38	-0.2	-29.9	29.9	21.1	8.80	3.399	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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
1,500.0	1,500.0	1,500.2	1,500.2	6.0	3.5	-90.38	-0.2	-29.9	29.9	20.8	9.13	3.276	
1,600.0	1,600.0	1,600.2	1,600.2	6.3	3.6	-90.38	-0.2	-29.9	29.9	20.4	9.46	3.160	
1,700.0	1,700.0	1,700.2	1,700.2	6.6	3.7	-90.38	-0.2	-29.9	29.9	20.1	9.80	3.050	
1,800.0	1,800.0	1,800.2	1,800.2	6.9	3.8	-90.38	-0.2	-29.9	29.9	19.8	10.15	2.946	
1,900.0	1,900.0	1,900.2	1,900.2	7.2	3.9	-90.38	-0.2	-29.9	29.9	19.4	10.50	2.847	
2,000.0	2,000.0	2,000.2	2,000.2	7.6	3.9	-90.38	-0.2	-29.9	29.9	19.0	10.86	2.754	
2,100.0	2,100.0	2,100.2	2,100.2	7.9	4.0	-90.38	-0.2	-29.9	29.9	18.7	11.22	2.666	
2,200.0	2,200.0	2,200.2	2,200.2	8.2	4.1	-90.38	-0.2	-29.9	29.9	18.3	11.58	2.582	
2,300.0	2,300.0	2,300.2	2,300.2	8.6	4.2	-90.38	-0.2	-29.9	29.9	18.0	11.95	2.503	
2,400.0	2,400.0	2,400.2	2,400.2	8.9	4.3	-90.38	-0.2	-29.9	29.9	17.6	12.32	2.428	
2,500.0	2,500.0	2,500.2	2,500.2	9.2	4.4	-90.38	-0.2	-29.9	29.9	17.2	12.69	2.357	
2,500.1	2,500.1	2,500.3	2,500.3	9.2	4.4	-90.38	-0.2	-29.9	29.9	17.2	12.69	2.357	CC, ES, SF
2,600.0	2,600.0	2,600.5	2,600.4	9.6	4.4	167.68	-1.9	-29.4	31.2	18.1	13.06	2.387	
2,700.0	2,699.8	2,700.5	2,700.3	9.9	4.4	161.16	-6.9	-27.9	35.3	21.8	13.44	2.625	
2,749.8	2,749.4	2,750.1	2,749.8	10.1	4.4	157.89	-10.2	-26.9	38.6	25.0	13.64	2.831	
2,800.0	2,799.5	2,800.2	2,799.8	10.2	4.4	155.39	-13.6	-26.0	42.5	28.6	13.85	3.069	
2,900.0	2,899.1	2,899.8	2,899.2	10.5	4.3	151.58	-20.3	-24.0	50.4	36.1	14.24	3.537	
3,000.0	2,998.7	2,999.4	2,998.6	10.9	4.3	148.80	-26.9	-22.0	58.4	43.8	14.63	3.992	
3,100.0	3,098.4	3,099.1	3,098.0	11.2	4.3	146.70	-33.6	-20.1	66.6	51.5	15.02	4.432	
3,200.0	3,198.0	3,198.7	3,197.4	11.5	4.3	145.06	-40.3	-18.1	74.8	59.4	15.40	4.855	
3,300.0	3,297.6	3,298.4	3,296.7	11.9	4.3	143.75	-46.9	-16.2	83.1	67.3	15.79	5.261	
3,400.0	3,397.2	3,398.0	3,396.1	12.2	4.3	142.67	-53.6	-14.2	91.4	75.2	16.17	5.650	
3,500.0	3,496.8	3,497.7	3,495.5	12.6	4.3	141.78	-60.3	-12.2	99.7	83.1	16.55	6.023	
3,600.0	3,596.5	3,597.3	3,594.9	12.9	4.3	141.02	-66.9	-10.3	108.0	91.1	16.93	6.381	
3,700.0	3,696.1	3,696.9	3,694.3	13.2	4.3	140.37	-73.6	-8.3	116.4	99.1	17.32	6.722	
3,800.0	3,795.7	3,796.6	3,793.7	13.6	4.3	139.81	-80.3	-6.3	124.8	107.1	17.70	7.050	
3,900.0	3,895.3	3,896.2	3,893.1	13.9	4.3	139.32	-86.9	-4.4	133.2	115.1	18.09	7.363	
4,000.0	3,994.9	3,995.9	3,992.5	14.3	4.3	138.88	-93.6	-2.4	141.6	123.1	18.47	7.663	
4,100.0	4,094.6	4,095.5	4,091.9	14.6	4.3	138.50	-100.3	-0.5	150.0	131.1	18.86	7.950	
4,200.0	4,194.2	4,195.1	4,191.3	15.0	4.4	138.15	-107.0	1.5	158.4	139.1	19.25	8.226	
4,300.0	4,293.8	4,294.8	4,290.7	15.3	4.4	137.85	-113.6	3.5	166.8	147.1	19.65	8.490	
4,400.0	4,393.4	4,394.4	4,390.1	15.7	4.4	137.57	-120.3	5.4	175.2	155.2	20.04	8.743	
4,500.0	4,493.0	4,494.1	4,489.5	16.0	4.5	137.31	-127.0	7.4	183.6	163.2	20.44	8.985	
4,600.0	4,592.7	4,593.7	4,588.9	16.4	4.5	137.08	-133.6	9.3	192.1	171.2	20.84	9.218	
4,700.0	4,692.3	4,693.3	4,688.3	16.7	4.6	136.87	-140.3	11.3	200.5	179.3	21.24	9.441	
4,800.0	4,791.9	4,793.0	4,787.7	17.1	4.6	136.67	-147.0	13.3	208.9	187.3	21.64	9.656	
4,900.0	4,891.5	4,892.6	4,887.1	17.4	4.7	136.49	-153.6	15.2	217.4	195.3	22.04	9.862	
5,000.0	4,991.1	4,992.9	4,987.2	17.8	4.7	136.39	-160.1	17.1	225.7	203.3	22.45	10.055	
5,100.0	5,090.8	5,093.8	5,087.9	18.1	4.8	136.65	-165.1	18.6	233.6	210.8	22.86	10.221	
5,200.0	5,190.4	5,194.7	5,188.8	18.5	4.8	137.31	-168.4	19.6	241.0	217.7	23.26	10.361	
5,300.0	5,290.0	5,295.6	5,289.7	18.8	4.9	138.32	-170.0	20.1	247.9	224.3	23.67	10.476	
5,400.0	5,389.6	5,395.8	5,389.8	19.2	4.9	139.59	-170.2	20.1	254.6	230.5	24.08	10.571	
5,500.0	5,489.2	5,495.4	5,489.4	19.5	5.0	140.82	-170.2	20.1	261.3	236.8	24.50	10.665	
5,600.0	5,588.9	5,595.0	5,589.1	19.9	5.1	142.00	-170.2	20.1	268.1	243.2	24.91	10.761	
5,700.0	5,688.5	5,694.6	5,688.7	20.2	5.1	143.11	-170.2	20.1	275.0	249.7	25.33	10.857	
5,800.0	5,788.1	5,794.2	5,788.3	20.6	5.2	144.17	-170.2	20.1	282.0	256.3	25.74	10.954	
5,900.0	5,887.7	5,893.9	5,887.9	21.0	5.2	145.18	-170.2	20.1	289.1	263.0	26.16	11.052	
6,000.0	5,987.3	5,993.5	5,987.5	21.3	5.3	146.14	-170.2	20.1	296.3	269.8	26.58	11.149	
6,100.0	6,087.0	6,093.1	6,087.2	21.7	5.4	147.06	-170.2	20.1	303.6	276.6	27.00	11.247	
6,200.0	6,186.6	6,192.7	6,186.8	22.0	5.4	147.93	-170.2	20.1	311.0	283.5	27.41	11.344	
6,300.0	6,286.2	6,292.3	6,286.4	22.4	5.5	148.76	-170.2	20.1	318.4	290.5	27.83	11.440	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,400.0	6,385.8	6,392.0	6,386.0	22.7	5.6	149.55	-170.2	20.1	325.9	297.6	28.25	11.536		
6,500.0	6,485.4	6,491.6	6,485.6	23.1	5.7	150.31	-170.2	20.1	333.4	304.7	28.66	11.632		
6,600.0	6,585.1	6,591.2	6,585.3	23.5	5.7	151.03	-170.2	20.1	341.0	311.9	29.08	11.726		
6,700.0	6,684.7	6,690.8	6,684.9	23.8	5.8	151.73	-170.2	20.1	348.7	319.2	29.50	11.820		
6,800.0	6,784.3	6,790.4	6,784.5	24.2	5.9	152.39	-170.2	20.1	356.4	326.4	29.91	11.912		
6,900.0	6,883.9	6,890.1	6,884.1	24.5	6.0	153.02	-170.2	20.1	364.1	333.8	30.33	12.004		
7,000.0	6,983.5	6,989.7	6,983.7	24.9	6.1	153.63	-170.2	20.1	371.9	341.1	30.75	12.094		
7,100.0	7,083.2	7,089.3	7,083.4	25.2	6.2	154.22	-170.2	20.1	379.7	348.5	31.17	12.183		
7,200.0	7,182.8	7,188.9	7,183.0	25.6	6.2	154.77	-170.2	20.1	387.6	356.0	31.58	12.271		
7,300.0	7,282.4	7,288.5	7,282.6	26.0	6.3	155.31	-170.2	20.1	395.5	363.5	32.00	12.358		
7,400.0	7,382.0	7,388.2	7,382.2	26.3	6.4	155.83	-170.2	20.1	403.4	371.0	32.42	12.444		
7,500.0	7,481.6	7,487.8	7,481.8	26.7	6.5	156.32	-170.2	20.1	411.4	378.5	32.84	12.528		
7,600.0	7,581.3	7,587.4	7,581.5	27.0	6.6	156.80	-170.2	20.1	419.4	386.1	33.25	12.611		
7,700.0	7,680.9	7,687.0	7,681.1	27.4	6.7	157.26	-170.2	20.1	427.4	393.7	33.67	12.693		
7,800.0	7,780.5	7,786.6	7,780.7	27.8	6.8	157.70	-170.2	20.1	435.4	401.3	34.09	12.774		
7,900.0	7,880.1	7,886.3	7,880.3	28.1	6.9	158.13	-170.2	20.1	443.5	409.0	34.51	12.853		
8,000.0	7,979.7	7,985.9	7,979.9	28.5	7.0	158.54	-170.2	20.1	451.6	416.7	34.92	12.931		
8,100.0	8,079.4	8,085.5	8,079.6	28.8	7.1	158.94	-170.2	20.1	459.7	424.4	35.34	13.008		
8,200.0	8,179.0	8,185.1	8,179.2	29.2	7.2	159.32	-170.2	20.1	467.9	432.1	35.76	13.083		
8,300.0	8,278.6	8,284.7	8,278.8	29.6	7.3	159.69	-170.2	20.1	476.0	439.8	36.18	13.157		
8,400.0	8,378.2	8,384.4	8,378.4	29.9	7.4	160.05	-170.2	20.1	484.2	447.6	36.60	13.230		
8,500.0	8,477.8	8,484.0	8,478.0	30.3	7.5	160.39	-170.2	20.1	492.4	455.4	37.02	13.302		
8,600.0	8,577.5	8,583.6	8,577.7	30.6	7.6	160.73	-170.2	20.1	500.6	463.2	37.44	13.373		
8,700.0	8,677.1	8,683.2	8,677.3	31.0	7.7	161.05	-170.2	20.1	508.8	471.0	37.85	13.442		
8,800.0	8,776.7	8,782.8	8,776.9	31.4	7.8	161.37	-170.2	20.1	517.1	478.8	38.27	13.511		
8,900.0	8,876.3	8,882.5	8,876.5	31.7	8.0	161.67	-170.2	20.1	525.4	486.7	38.69	13.578		
9,000.0	8,975.9	8,982.1	8,976.1	32.1	8.1	161.96	-170.2	20.1	533.6	494.5	39.11	13.644		
9,100.0	9,075.6	9,081.7	9,075.8	32.4	8.2	162.25	-170.2	20.1	541.9	502.4	39.53	13.708		
9,200.0	9,175.2	9,181.3	9,175.4	32.8	8.3	162.52	-170.2	20.1	550.2	510.3	39.95	13.772		
9,300.0	9,274.8	9,280.9	9,275.0	33.2	8.4	162.79	-170.2	20.1	558.5	518.2	40.37	13.835		
9,400.0	9,374.4	9,380.6	9,374.6	33.5	8.5	163.05	-170.2	20.1	566.9	526.1	40.79	13.897		
9,500.0	9,474.0	9,480.2	9,474.2	33.9	8.6	163.31	-170.2	20.1	575.2	534.0	41.21	13.957		
9,600.0	9,573.7	9,579.8	9,573.9	34.3	8.7	163.55	-170.2	20.1	583.5	541.9	41.63	14.017		
9,684.3	9,657.6	9,663.7	9,657.8	34.6	8.8	163.75	-170.2	20.1	590.6	548.6	41.97	14.072		
9,700.0	9,673.3	9,678.5	9,672.6	34.6	8.8	-176.21	-170.2	20.1	592.0	550.0	42.03	14.086		
9,725.0	9,698.1	9,700.0	9,694.0	34.7	8.8	-154.36	-169.4	19.9	594.8	552.6	42.11	14.123		
9,750.0	9,722.8	9,721.9	9,715.9	34.8	8.8	-142.02	-167.7	19.5	598.1	555.9	42.20	14.173		
9,775.0	9,747.4	9,743.4	9,737.2	34.9	8.8	-134.57	-165.1	18.9	602.1	559.8	42.29	14.237		
9,800.0	9,771.7	9,764.9	9,758.4	35.0	8.8	-129.60	-161.5	18.0	606.6	564.2	42.37	14.315		
9,825.0	9,795.6	9,786.2	9,779.2	35.1	8.8	-125.98	-157.1	17.0	611.7	569.2	42.46	14.406		
9,850.0	9,819.2	9,807.4	9,799.7	35.1	8.8	-123.16	-151.8	15.7	617.4	574.8	42.55	14.510		
9,875.0	9,842.3	9,828.5	9,819.8	35.2	8.9	-120.83	-145.6	14.2	623.6	581.0	42.64	14.626		
9,900.0	9,864.9	9,850.0	9,840.0	35.3	8.9	-118.82	-138.5	12.5	630.3	587.6	42.73	14.753		
9,925.0	9,886.9	9,870.3	9,858.8	35.4	8.9	-117.01	-130.9	10.7	637.6	594.7	42.81	14.892		
9,950.0	9,908.2	9,891.0	9,877.5	35.5	8.9	-115.35	-122.4	8.7	645.3	602.4	42.90	15.042		
9,975.0	9,928.9	9,911.6	9,895.8	35.5	8.9	-113.79	-113.1	6.4	653.5	610.5	42.99	15.201		
10,000.0	9,948.8	9,932.1	9,913.5	35.6	8.9	-112.29	-103.2	4.1	662.1	619.0	43.07	15.371		
10,025.0	9,967.9	9,952.4	9,930.7	35.6	9.0	-110.84	-92.6	1.5	671.1	627.9	43.16	15.550		
10,050.0	9,986.2	9,972.6	9,947.3	35.7	9.0	-109.42	-81.4	-1.2	680.5	637.2	43.24	15.737		
10,075.0	10,003.5	9,992.7	9,963.3	35.8	9.0	-108.01	-69.6	-4.0	690.3	646.9	43.33	15.932		
10,100.0	10,019.9	10,012.8	9,978.7	35.8	9.0	-106.63	-57.2	-7.0	700.4	656.9	43.41	16.134		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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		
10,125.0	10,035.2	10,032.7	9,993.5	35.9	9.1	-105.25	-44.2	-10.1	710.8	667.3	43.49	16.343		
10,150.0	10,049.5	10,052.6	10,007.7	35.9	9.1	-103.88	-30.7	-13.3	721.5	677.9	43.57	16.557		
10,175.0	10,062.8	10,072.4	10,021.3	35.9	9.1	-102.51	-16.6	-16.7	732.4	688.7	43.65	16.778		
10,200.0	10,074.9	10,092.1	10,034.2	36.0	9.1	-101.15	-2.1	-20.1	743.6	699.8	43.73	17.002		
10,225.0	10,085.8	10,111.9	10,046.5	36.0	9.2	-99.80	13.0	-23.7	754.9	711.1	43.81	17.231		
10,250.0	10,095.6	10,131.6	10,058.1	36.0	9.2	-98.46	28.5	-27.5	766.5	722.6	43.89	17.462		
10,275.0	10,104.2	10,151.4	10,069.1	36.1	9.2	-97.14	44.5	-31.3	778.2	734.2	43.97	17.697		
10,300.0	10,111.5	10,171.2	10,079.4	36.1	9.3	-95.83	60.9	-35.2	790.0	745.9	44.05	17.933		
10,325.0	10,117.6	10,191.0	10,089.0	36.1	9.3	-94.53	77.8	-39.3	801.9	757.7	44.13	18.169		
10,350.0	10,122.3	10,211.0	10,097.9	36.2	9.3	-93.27	95.2	-43.4	813.8	769.6	44.21	18.407		
10,375.0	10,125.9	10,231.1	10,106.1	36.2	9.3	-92.03	113.0	-47.7	825.8	781.5	44.30	18.643		
10,400.0	10,128.1	10,251.3	10,113.6	36.2	9.4	-90.82	131.2	-52.0	837.8	793.5	44.38	18.879		
10,425.0	10,129.0	10,271.7	10,120.4	36.2	9.4	-89.65	150.0	-56.5	849.8	805.4	44.46	19.112		
10,428.3	10,129.0	10,274.4	10,121.2	36.2	9.4	-89.50	152.5	-57.1	851.4	806.9	44.48	19.143		
10,500.0	10,129.2	10,335.8	10,136.1	36.3	9.5	-90.59	210.3	-71.0	885.1	840.4	44.74	19.783		
10,600.0	10,129.6	10,430.1	10,144.0	36.4	9.6	-91.06	301.6	-92.8	929.5	884.3	45.16	20.581		
10,700.0	10,130.0	10,568.0	10,144.5	36.5	9.8	-90.98	436.5	-121.2	968.2	922.4	45.85	21.119		
10,800.0	10,130.3	10,712.8	10,145.0	36.7	10.4	-90.92	579.5	-144.0	999.0	952.3	46.69	21.395		
10,900.0	10,130.7	10,863.4	10,145.5	36.9	11.1	-90.87	729.2	-160.1	1,021.5	973.8	47.69	21.419		
11,000.0	10,131.0	11,017.9	10,146.1	37.0	12.0	-90.84	883.5	-168.3	1,035.3	986.5	48.79	21.219		
11,100.0	10,131.4	11,130.1	10,146.5	37.2	12.7	-90.83	995.7	-170.2	1,041.8	992.1	49.70	20.961		
11,200.0	10,131.7	11,230.1	10,146.8	37.4	13.4	-90.82	1,095.6	-171.6	1,044.8	994.2	50.59	20.652		
11,234.8	10,131.9	11,264.8	10,146.9	37.5	13.6	-90.82	1,130.4	-172.1	1,045.0	994.1	50.91	20.528		
11,300.0	10,132.1	11,330.1	10,147.2	37.7	14.1	-90.82	1,195.6	-173.1	1,045.0	993.5	51.51	20.286		
11,400.0	10,132.4	11,430.1	10,147.5	37.9	14.8	-90.82	1,295.6	-174.5	1,045.0	992.5	52.47	19.915		
11,500.0	10,132.8	11,530.1	10,147.9	38.2	15.5	-90.82	1,395.6	-175.9	1,045.0	991.5	53.46	19.546		
11,600.0	10,133.2	11,630.1	10,148.2	38.4	16.2	-90.82	1,495.6	-177.4	1,045.0	990.5	54.49	19.179		
11,700.0	10,133.5	11,730.1	10,148.6	38.7	17.0	-90.82	1,595.6	-178.8	1,045.0	989.5	55.54	18.816		
11,800.0	10,133.9	11,830.1	10,148.9	39.0	17.7	-90.81	1,695.6	-180.3	1,045.0	988.4	56.62	18.458		
11,900.0	10,134.2	11,930.1	10,149.3	39.4	18.5	-90.81	1,795.5	-181.7	1,045.0	987.3	57.72	18.105		
12,000.0	10,134.6	12,030.1	10,149.6	39.7	19.3	-90.81	1,895.5	-183.2	1,045.0	986.1	58.84	17.759		
12,100.0	10,134.9	12,130.1	10,150.0	40.1	20.1	-90.81	1,995.5	-184.6	1,045.0	985.0	59.99	17.419		
12,200.0	10,135.3	12,230.1	10,150.3	40.4	20.9	-90.81	2,095.5	-186.1	1,045.0	983.8	61.16	17.087		
12,300.0	10,135.6	12,330.1	10,150.7	40.8	21.7	-90.81	2,195.5	-187.5	1,045.0	982.6	62.35	16.761		
12,400.0	10,136.0	12,430.1	10,151.0	41.2	22.5	-90.81	2,295.5	-189.0	1,045.0	981.4	63.55	16.443		
12,500.0	10,136.4	12,530.1	10,151.4	41.6	23.3	-90.81	2,395.5	-190.4	1,045.0	980.2	64.78	16.132		
12,600.0	10,136.7	12,630.1	10,151.8	42.1	24.1	-90.81	2,495.5	-191.9	1,045.0	979.0	66.02	15.828		
12,700.0	10,137.1	12,730.1	10,152.1	42.5	24.9	-90.81	2,595.5	-193.3	1,045.0	977.7	67.28	15.532		
12,800.0	10,137.4	12,830.1	10,152.5	43.0	25.7	-90.81	2,695.4	-194.8	1,045.0	976.4	68.55	15.243		
12,900.0	10,137.8	12,930.1	10,152.8	43.4	26.5	-90.81	2,795.4	-196.2	1,045.0	975.1	69.84	14.962		
13,000.0	10,138.1	13,030.1	10,153.2	43.9	27.3	-90.81	2,895.4	-197.7	1,045.0	973.8	71.15	14.687		
13,100.0	10,138.5	13,130.1	10,153.5	44.4	28.2	-90.81	2,995.4	-199.1	1,045.0	972.5	72.47	14.420		
13,200.0	10,138.8	13,230.1	10,153.9	44.9	29.0	-90.81	3,095.4	-200.5	1,045.0	971.2	73.80	14.160		
13,300.0	10,139.2	13,330.1	10,154.2	45.4	29.8	-90.81	3,195.4	-202.0	1,045.0	969.8	75.14	13.907		
13,400.0	10,139.6	13,430.1	10,154.6	45.9	30.7	-90.81	3,295.4	-203.4	1,045.0	968.5	76.50	13.660		
13,500.0	10,139.9	13,530.1	10,154.9	46.5	31.5	-90.81	3,395.4	-204.9	1,045.0	967.1	77.86	13.421		
13,600.0	10,140.3	13,630.1	10,155.3	47.0	32.3	-90.81	3,495.4	-206.3	1,045.0	965.7	79.24	13.187		
13,700.0	10,140.6	13,730.1	10,155.6	47.6	33.2	-90.81	3,595.3	-207.8	1,045.0	964.3	80.63	12.960		
13,800.0	10,141.0	13,830.1	10,156.0	48.1	34.0	-90.81	3,695.3	-209.2	1,045.0	962.9	82.03	12.739		
13,900.0	10,141.3	13,930.1	10,156.3	48.7	34.8	-90.81	3,795.3	-210.7	1,045.0	961.5	83.44	12.523		
14,000.0	10,141.7	14,030.1	10,156.7	49.3	35.7	-90.81	3,895.3	-212.1	1,045.0	960.1	84.86	12.314		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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		
14,100.0	10,142.0	14,130.1	10,157.0	49.9	36.5	-90.81	3,995.3	-213.6	1,045.0	958.7	86.29	12.110		
14,200.0	10,142.4	14,230.1	10,157.4	50.4	37.3	-90.81	4,095.3	-215.0	1,045.0	957.2	87.73	11.912		
14,300.0	10,142.8	14,330.1	10,157.7	51.0	38.2	-90.81	4,195.3	-216.5	1,045.0	955.8	89.17	11.719		
14,400.0	10,143.1	14,430.1	10,158.1	51.7	39.0	-90.81	4,295.3	-217.9	1,045.0	954.3	90.62	11.531		
14,500.0	10,143.5	14,530.1	10,158.5	52.3	39.9	-90.81	4,395.3	-219.4	1,045.0	952.9	92.09	11.348		
14,600.0	10,143.8	14,630.1	10,158.8	52.9	40.7	-90.81	4,495.2	-220.8	1,045.0	951.4	93.56	11.169		
14,700.0	10,144.2	14,730.1	10,159.2	53.5	41.6	-90.81	4,595.2	-222.3	1,045.0	949.9	95.03	10.996		
14,800.0	10,144.5	14,830.1	10,159.5	54.2	42.4	-90.81	4,695.2	-223.7	1,045.0	948.4	96.52	10.827		
14,900.0	10,144.9	14,930.1	10,159.9	54.8	43.3	-90.81	4,795.2	-225.1	1,045.0	946.9	98.01	10.662		
15,000.0	10,145.3	15,030.1	10,160.2	55.4	44.1	-90.81	4,895.2	-226.6	1,045.0	945.5	99.50	10.502		
15,100.0	10,145.6	15,130.1	10,160.6	56.1	44.9	-90.81	4,995.2	-228.0	1,045.0	943.9	101.00	10.346		
15,182.5	10,145.9	15,212.6	10,160.9	56.6	45.6	-90.81	5,077.7	-229.2	1,044.9	942.7	102.25	10.220		
15,182.5	10,145.9	15,212.6	10,160.9	56.6	45.6	-90.81	5,077.7	-229.2	1,044.9	942.7	102.25	10.220		
15,200.0	10,146.0	15,233.6	10,160.9	56.8	45.8	-90.81	5,098.7	-229.5	1,045.0	942.4	102.54	10.191		
15,221.1	10,146.0	15,266.7	10,161.1	56.9	46.1	-90.81	5,131.8	-229.7	1,045.0	942.0	102.97	10.149		
15,223.3	10,146.0	15,270.3	10,161.1	56.9	46.1	-90.81	5,135.4	-229.7	1,045.0	942.0	103.01	10.144		
15,300.0	10,146.3	15,344.1	10,161.3	57.4	46.8	-90.81	5,209.2	-229.8	1,045.0	940.9	104.15	10.034		
15,400.0	10,146.7	15,444.1	10,161.7	58.1	47.6	-90.81	5,309.2	-229.9	1,045.0	939.3	105.67	9.890		
15,500.0	10,147.0	15,544.1	10,162.0	58.8	48.5	-90.81	5,409.2	-230.0	1,045.0	937.8	107.19	9.749		
15,600.0	10,147.4	15,644.1	10,162.4	59.5	49.3	-90.81	5,509.2	-230.1	1,045.0	936.3	108.72	9.612		
15,700.0	10,147.7	15,744.1	10,162.7	60.1	50.1	-90.81	5,609.2	-230.2	1,045.0	934.8	110.25	9.478		
15,800.0	10,148.1	15,844.1	10,163.1	60.8	51.0	-90.81	5,709.2	-230.3	1,045.0	933.2	111.79	9.348		
15,900.0	10,148.4	15,944.1	10,163.5	61.5	51.8	-90.81	5,809.2	-230.4	1,045.0	931.7	113.34	9.221		
16,000.0	10,148.8	16,044.1	10,163.8	62.2	52.7	-90.81	5,909.2	-230.5	1,045.0	930.1	114.88	9.096		
16,100.0	10,149.2	16,144.1	10,164.2	62.9	53.5	-90.81	6,009.2	-230.6	1,045.0	928.6	116.44	8.975		
16,200.0	10,149.5	16,244.1	10,164.5	63.6	54.4	-90.81	6,109.2	-230.7	1,045.0	927.0	117.99	8.857		
16,300.0	10,149.9	16,344.1	10,164.9	64.3	55.2	-90.81	6,209.2	-230.8	1,045.0	925.5	119.55	8.741		
16,400.0	10,150.2	16,444.1	10,165.2	65.0	56.1	-90.81	6,309.2	-230.9	1,045.0	923.9	121.12	8.628		
16,500.0	10,150.6	16,544.1	10,165.6	65.8	56.9	-90.81	6,409.2	-231.0	1,045.0	922.3	122.68	8.518		
16,600.0	10,150.9	16,644.1	10,165.9	66.5	57.8	-90.81	6,509.2	-231.1	1,045.0	920.8	124.26	8.410		
16,700.0	10,151.3	16,744.1	10,166.3	67.2	58.6	-90.81	6,609.2	-231.2	1,045.0	919.2	125.83	8.305		
16,800.0	10,151.6	16,844.1	10,166.6	67.9	59.5	-90.81	6,709.2	-231.4	1,045.0	917.6	127.41	8.202		
16,900.0	10,152.0	16,944.1	10,167.0	68.7	60.4	-90.81	6,809.2	-231.5	1,045.0	916.0	128.99	8.102		
17,000.0	10,152.3	17,044.1	10,167.4	69.4	61.2	-90.81	6,909.2	-231.6	1,045.0	914.5	130.58	8.003		
17,100.0	10,152.7	17,144.1	10,167.7	70.1	62.1	-90.81	7,009.2	-231.7	1,045.0	912.9	132.16	7.907		
17,200.0	10,153.1	17,244.1	10,168.1	70.9	62.9	-90.81	7,109.2	-231.8	1,045.0	911.3	133.76	7.813		
17,300.0	10,153.4	17,344.1	10,168.4	71.6	63.8	-90.81	7,209.2	-231.9	1,045.0	909.7	135.35	7.721		
17,400.0	10,153.8	17,444.1	10,168.8	72.3	64.6	-90.81	7,309.2	-232.0	1,045.1	908.1	136.95	7.631		
17,500.0	10,154.1	17,544.1	10,169.1	73.1	65.5	-90.81	7,409.2	-232.1	1,045.1	906.5	138.55	7.543		
17,600.0	10,154.5	17,644.1	10,169.5	73.8	66.3	-90.81	7,509.2	-232.2	1,045.1	904.9	140.15	7.457		
17,700.0	10,154.8	17,744.1	10,169.8	74.6	67.2	-90.81	7,609.2	-232.3	1,045.1	903.3	141.75	7.372		
17,800.0	10,155.2	17,844.1	10,170.2	75.3	68.0	-90.81	7,709.2	-232.4	1,045.1	901.7	143.36	7.290		
17,900.0	10,155.5	17,944.1	10,170.5	76.1	68.9	-90.81	7,809.2	-232.5	1,045.1	900.1	144.97	7.209		
18,000.0	10,155.9	18,044.1	10,170.9	76.9	69.7	-90.81	7,909.2	-232.6	1,045.1	898.5	146.58	7.129		
18,100.0	10,156.2	18,144.1	10,171.3	77.6	70.6	-90.81	8,009.2	-232.7	1,045.1	896.9	148.20	7.052		
18,200.0	10,156.6	18,244.1	10,171.6	78.4	71.4	-90.81	8,109.2	-232.8	1,045.1	895.3	149.81	6.976		
18,300.0	10,156.9	18,344.1	10,172.0	79.1	72.3	-90.81	8,209.2	-232.9	1,045.1	893.6	151.43	6.901		
18,400.0	10,157.3	18,444.1	10,172.3	79.9	73.2	-90.81	8,309.2	-233.0	1,045.1	892.0	153.05	6.828		
18,500.0	10,157.7	18,544.1	10,172.7	80.7	74.0	-90.81	8,409.2	-233.1	1,045.1	890.4	154.68	6.757		
18,600.0	10,158.0	18,644.1	10,173.0	81.4	74.9	-90.81	8,509.2	-233.2	1,045.1	888.8	156.30	6.686		
18,700.0	10,158.4	18,744.1	10,173.4	82.2	75.7	-90.81	8,609.2	-233.3	1,045.1	887.1	157.93	6.617		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #705H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9672-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
18,800.0	10,158.7	18,844.1	10,173.7	83.0	76.6	-90.81	8,709.2	-233.4	1,045.1	885.5	159.56	6.550	
18,900.0	10,159.1	18,944.1	10,174.1	83.8	77.4	-90.81	8,809.2	-233.6	1,045.1	883.9	161.19	6.484	
19,000.0	10,159.4	19,044.1	10,174.4	84.5	78.3	-90.81	8,909.2	-233.7	1,045.1	882.3	162.82	6.419	
19,100.0	10,159.8	19,144.1	10,174.8	85.3	79.1	-90.81	9,009.2	-233.8	1,045.1	880.6	164.45	6.355	
19,200.0	10,160.1	19,244.1	10,175.2	86.1	80.0	-90.81	9,109.2	-233.9	1,045.1	879.0	166.09	6.292	
19,300.0	10,160.5	19,344.1	10,175.5	86.9	80.8	-90.81	9,209.2	-234.0	1,045.1	877.4	167.73	6.231	
19,400.0	10,160.8	19,444.1	10,175.9	87.7	81.7	-90.81	9,309.2	-234.1	1,045.1	875.7	169.36	6.171	
19,500.0	10,161.2	19,544.1	10,176.2	88.4	82.6	-90.81	9,409.2	-234.2	1,045.1	874.1	171.00	6.112	
19,600.0	10,161.6	19,644.1	10,176.6	89.2	83.4	-90.81	9,509.2	-234.3	1,045.1	872.4	172.65	6.053	
19,700.0	10,161.9	19,744.1	10,176.9	90.0	84.3	-90.81	9,609.2	-234.4	1,045.1	870.8	174.29	5.996	
19,800.0	10,162.3	19,844.1	10,177.3	90.8	85.1	-90.81	9,709.2	-234.5	1,045.1	869.2	175.93	5.940	
19,900.0	10,162.6	19,944.1	10,177.6	91.6	86.0	-90.81	9,809.2	-234.6	1,045.1	867.5	177.58	5.885	
20,000.0	10,163.0	20,044.1	10,178.0	92.4	86.8	-90.81	9,909.2	-234.7	1,045.1	865.9	179.23	5.831	
20,100.0	10,163.3	20,144.1	10,178.3	93.2	87.7	-90.81	10,009.2	-234.8	1,045.1	864.2	180.87	5.778	
20,200.0	10,163.7	20,244.1	10,178.7	94.0	88.6	-90.81	10,109.2	-234.9	1,045.1	862.6	182.52	5.726	
20,208.5	10,163.7	20,252.6	10,178.7	94.0	88.6	-90.81	10,117.7	-234.9	1,045.1	862.4	182.66	5.721	
20,289.0	10,164.0	20,329.8	10,179.0	94.7	89.2	-90.81	10,194.9	-235.0	1,045.1	861.2	183.89	5.683	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 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	
0.0	0.0	5.4	5.4	3.0	3.0	-90.29	-0.3	-59.9	59.9				
100.0	100.0	105.4	105.4	3.0	3.0	-90.29	-0.3	-59.9	59.9	53.9	6.01	9.973	
200.0	200.0	205.4	205.4	3.0	3.0	-90.29	-0.3	-59.9	59.9	53.8	6.08	9.849	
300.0	300.0	305.4	305.4	3.1	3.1	-90.29	-0.3	-59.9	59.9	53.7	6.24	9.600	
400.0	400.0	405.4	405.4	3.2	3.2	-90.29	-0.3	-59.9	59.9	53.4	6.47	9.253	
500.0	500.0	505.4	505.4	3.4	3.4	-90.29	-0.3	-59.9	59.9	53.1	6.78	8.841	
600.0	600.0	605.4	605.4	3.6	3.6	-90.29	-0.3	-59.9	59.9	52.8	7.14	8.394	
700.0	700.0	705.4	705.4	3.8	3.8	-90.29	-0.3	-59.9	59.9	52.4	7.55	7.935	
800.0	800.0	805.4	805.4	4.0	4.0	-90.29	-0.3	-59.9	59.9	51.9	8.00	7.484	
900.0	900.0	905.4	905.4	4.2	4.3	-90.29	-0.3	-59.9	59.9	51.4	8.50	7.051	
1,000.0	1,000.0	1,005.4	1,005.4	4.5	4.5	-90.29	-0.3	-59.9	59.9	50.9	9.02	6.643	
1,100.0	1,100.0	1,105.4	1,105.4	4.8	4.8	-90.29	-0.3	-59.9	59.9	50.3	9.56	6.263	
1,200.0	1,200.0	1,205.4	1,205.4	5.1	5.1	-90.29	-0.3	-59.9	59.9	49.8	10.13	5.911	
1,300.0	1,300.0	1,305.4	1,305.4	5.4	5.4	-90.29	-0.3	-59.9	59.9	49.2	10.72	5.588	
1,400.0	1,400.0	1,405.4	1,405.4	5.7	5.7	-90.29	-0.3	-59.9	59.9	48.6	11.32	5.291	
1,500.0	1,500.0	1,505.4	1,505.4	6.0	6.0	-90.29	-0.3	-59.9	59.9	48.0	11.93	5.019	
1,600.0	1,600.0	1,605.4	1,605.4	6.3	6.3	-90.29	-0.3	-59.9	59.9	47.3	12.56	4.769	
1,700.0	1,700.0	1,705.4	1,705.4	6.6	6.6	-90.29	-0.3	-59.9	59.9	46.7	13.19	4.540	
1,800.0	1,800.0	1,805.4	1,805.4	6.9	6.9	-90.29	-0.3	-59.9	59.9	46.1	13.84	4.329	
1,900.0	1,900.0	1,905.4	1,905.4	7.2	7.2	-90.29	-0.3	-59.9	59.9	45.4	14.49	4.135	
2,000.0	2,000.0	2,005.4	2,005.4	7.6	7.6	-90.29	-0.3	-59.9	59.9	44.8	15.14	3.956	
2,100.0	2,100.0	2,105.4	2,105.4	7.9	7.9	-90.29	-0.3	-59.9	59.9	44.1	15.80	3.791	
2,200.0	2,200.0	2,205.4	2,205.4	8.2	8.2	-90.29	-0.3	-59.9	59.9	43.4	16.47	3.638	
2,300.0	2,300.0	2,305.4	2,305.4	8.6	8.6	-90.29	-0.3	-59.9	59.9	42.8	17.14	3.495	
2,400.0	2,400.0	2,405.4	2,405.4	8.9	8.9	-90.29	-0.3	-59.9	59.9	42.1	17.81	3.363	
2,414.8	2,414.8	2,420.2	2,420.2	8.9	9.0	-90.29	-0.3	-59.9	59.9	42.0	17.91	3.345 CC	
2,500.0	2,500.0	2,505.3	2,505.3	9.2	9.2	-90.29	-0.3	-59.9	59.9	41.4	18.49	3.241 ES, SF	
2,600.0	2,600.0	2,603.1	2,603.1	9.6	9.6	170.75	-0.1	-61.7	63.5	44.4	19.13	3.320	
2,700.0	2,699.8	2,700.0	2,699.8	9.9	9.9	171.70	0.3	-66.9	73.9	54.2	19.73	3.747	
2,749.8	2,749.4	2,748.1	2,747.8	10.1	10.0	172.24	0.6	-70.6	81.7	61.6	20.03	4.077	
2,800.0	2,799.5	2,796.1	2,795.5	10.2	10.2	172.78	1.0	-75.1	90.7	70.4	20.33	4.464	
2,900.0	2,899.1	2,894.1	2,893.0	10.5	10.5	173.61	1.9	-85.3	109.7	88.8	20.97	5.234	
3,000.0	2,998.7	2,992.3	2,990.7	10.9	10.9	174.20	2.8	-95.6	128.8	107.1	21.62	5.957	
3,100.0	3,098.4	3,090.4	3,088.3	11.2	11.2	174.64	3.7	-105.8	147.8	125.5	22.27	6.636	
3,200.0	3,198.0	3,188.6	3,185.9	11.5	11.5	174.98	4.6	-116.0	166.8	143.9	22.93	7.277	
3,300.0	3,297.6	3,286.8	3,283.6	11.9	11.9	175.25	5.5	-126.2	185.9	162.3	23.59	7.880	
3,400.0	3,397.2	3,384.9	3,381.2	12.2	12.2	175.47	6.4	-136.4	204.9	180.7	24.25	8.450	
3,500.0	3,496.8	3,483.1	3,478.8	12.6	12.5	175.65	7.3	-146.7	224.0	199.0	24.92	8.988	
3,600.0	3,596.5	3,581.3	3,576.5	12.9	12.9	175.81	8.2	-156.9	243.0	217.4	25.59	9.498	
3,700.0	3,696.1	3,679.4	3,674.1	13.2	13.2	175.94	9.1	-167.1	262.1	235.8	26.26	9.980	
3,800.0	3,795.7	3,777.6	3,771.7	13.6	13.5	176.05	10.0	-177.3	281.1	254.2	26.93	10.438	
3,900.0	3,895.3	3,875.8	3,869.3	13.9	13.9	176.15	10.9	-187.6	300.2	272.6	27.61	10.872	
4,000.0	3,994.9	3,973.9	3,967.0	14.3	14.2	176.24	11.8	-197.8	319.2	290.9	28.29	11.285	
4,100.0	4,094.6	4,072.1	4,064.6	14.6	14.6	176.31	12.7	-208.0	338.3	309.3	28.97	11.677	
4,200.0	4,194.2	4,170.3	4,162.2	15.0	14.9	176.38	13.6	-218.2	357.3	327.7	29.65	12.051	
4,300.0	4,293.8	4,268.5	4,259.9	15.3	15.3	176.44	14.4	-228.4	376.4	346.0	30.33	12.407	
4,400.0	4,393.4	4,366.6	4,357.5	15.7	15.6	176.50	15.3	-238.7	395.4	364.4	31.02	12.747	
4,500.0	4,493.0	4,464.8	4,455.1	16.0	15.9	176.55	16.2	-248.9	414.5	382.8	31.71	13.072	
4,600.0	4,592.7	4,563.0	4,552.7	16.4	16.3	176.60	17.1	-259.1	433.5	401.2	32.40	13.383	
4,700.0	4,692.3	4,661.1	4,650.4	16.7	16.6	176.64	18.0	-269.3	452.6	419.5	33.09	13.680	
4,800.0	4,791.9	4,759.3	4,748.0	17.1	17.0	176.68	18.9	-279.6	471.7	437.9	33.78	13.964	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1													Offset Site Error:	0.0 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
4,900.0	4,891.5	4,857.5	4,845.6	17.4	17.3	176.72		19.8	-289.8	490.7	456.2	34.47	14.236	
5,000.0	4,991.1	4,955.6	4,943.3	17.8	17.7	176.75		20.7	-300.0	509.8	474.6	35.16	14.498	
5,100.0	5,090.8	5,053.8	5,040.9	18.1	18.0	176.78		21.6	-310.2	528.8	493.0	35.86	14.749	
5,200.0	5,190.4	5,152.0	5,138.5	18.5	18.4	176.81		22.5	-320.4	547.9	511.3	36.55	14.989	
5,300.0	5,290.0	5,250.1	5,236.1	18.8	18.7	176.84		23.4	-330.7	566.9	529.7	37.25	15.221	
5,400.0	5,389.6	5,348.3	5,333.8	19.2	19.1	176.86		24.3	-340.9	586.0	548.1	37.94	15.444	
5,500.0	5,489.2	5,446.5	5,431.4	19.5	19.4	176.88		25.2	-351.1	605.1	566.4	38.64	15.658	
5,600.0	5,588.9	5,544.6	5,529.0	19.9	19.8	176.91		26.1	-361.3	624.1	584.8	39.34	15.864	
5,700.0	5,688.5	5,642.8	5,626.7	20.2	20.1	176.93		27.0	-371.6	643.2	603.1	40.04	16.063	
5,800.0	5,788.1	5,741.0	5,724.3	20.6	20.5	176.95		27.9	-381.8	662.2	621.5	40.74	16.255	
5,900.0	5,887.7	5,839.1	5,821.9	21.0	20.8	176.97		28.8	-392.0	681.3	639.9	41.44	16.440	
6,000.0	5,987.3	5,937.3	5,919.6	21.3	21.2	176.98		29.6	-402.2	700.4	658.2	42.14	16.619	
6,100.0	6,087.0	6,035.5	6,017.2	21.7	21.5	177.00		30.5	-412.4	719.4	676.6	42.84	16.791	
6,200.0	6,186.6	6,133.6	6,114.8	22.0	21.9	177.02		31.4	-422.7	738.5	694.9	43.55	16.958	
6,300.0	6,286.2	6,231.8	6,212.4	22.4	22.3	177.03		32.3	-432.9	757.5	713.3	44.25	17.119	
6,400.0	6,385.8	6,330.0	6,310.1	22.7	22.6	177.04		33.2	-443.1	776.6	731.6	44.95	17.275	
6,500.0	6,485.4	6,428.1	6,407.7	23.1	23.0	177.06		34.1	-453.3	795.6	750.0	45.66	17.426	
6,600.0	6,585.1	6,526.3	6,505.3	23.5	23.3	177.07		35.0	-463.6	814.7	768.3	46.36	17.572	
6,700.0	6,684.7	6,624.5	6,603.0	23.8	23.7	177.08		35.9	-473.8	833.8	786.7	47.07	17.714	
6,800.0	6,784.3	6,722.6	6,700.6	24.2	24.0	177.10		36.8	-484.0	852.8	805.0	47.77	17.851	
6,900.0	6,883.9	6,820.8	6,798.2	24.5	24.4	177.11		37.7	-494.2	871.9	823.4	48.48	17.985	
7,000.0	6,983.5	6,919.0	6,895.8	24.9	24.7	177.12		38.6	-504.4	890.9	841.7	49.19	18.114	
7,100.0	7,083.2	7,017.1	6,993.5	25.2	25.1	177.13		39.5	-514.7	910.0	860.1	49.89	18.239	
7,200.0	7,182.8	7,115.3	7,091.1	25.6	25.4	177.14		40.4	-524.9	929.1	878.5	50.60	18.361	
7,300.0	7,282.4	7,213.5	7,188.7	26.0	25.8	177.15		41.3	-535.1	948.1	896.8	51.31	18.479	
7,400.0	7,382.0	7,311.6	7,286.4	26.3	26.1	177.16		42.2	-545.3	967.2	915.2	52.01	18.594	
7,500.0	7,481.6	7,409.8	7,384.0	26.7	26.5	177.16		43.1	-555.6	986.2	933.5	52.72	18.706	
7,600.0	7,581.3	7,508.0	7,481.6	27.0	26.9	177.17		44.0	-565.8	1,005.3	951.9	53.43	18.814	
7,700.0	7,680.9	7,606.1	7,579.2	27.4	27.2	177.18		44.9	-576.0	1,024.3	970.2	54.14	18.920	
7,800.0	7,780.5	7,704.3	7,676.9	27.8	27.6	177.19		45.7	-586.2	1,043.4	988.6	54.85	19.023	
7,900.0	7,880.1	7,802.5	7,774.5	28.1	27.9	177.20		46.6	-596.4	1,062.5	1,006.9	55.56	19.123	
8,000.0	7,979.7	7,900.6	7,872.1	28.5	28.3	177.20		47.5	-606.7	1,081.5	1,025.3	56.27	19.220	
8,100.0	8,079.4	7,998.8	7,969.8	28.8	28.6	177.21		48.4	-616.9	1,100.6	1,043.6	56.98	19.315	
8,200.0	8,179.0	8,097.0	8,067.4	29.2	29.0	177.22		49.3	-627.1	1,119.6	1,061.9	57.69	19.408	
8,300.0	8,278.6	8,195.1	8,165.0	29.6	29.3	177.22		50.2	-637.3	1,138.7	1,080.3	58.40	19.498	
8,400.0	8,378.2	8,293.3	8,262.7	29.9	29.7	177.23		51.1	-647.6	1,157.8	1,098.6	59.11	19.586	
8,500.0	8,477.8	8,391.5	8,360.3	30.3	30.1	177.24		52.0	-657.8	1,176.8	1,117.0	59.82	19.671	
8,600.0	8,577.5	8,489.6	8,457.9	30.6	30.4	177.24		52.9	-668.0	1,195.9	1,135.3	60.54	19.755	
8,700.0	8,677.1	8,587.8	8,555.5	31.0	30.8	177.25		53.8	-678.2	1,214.9	1,153.7	61.25	19.836	
8,800.0	8,776.7	8,686.0	8,653.2	31.4	31.1	177.25		54.7	-688.4	1,234.0	1,172.0	61.96	19.916	
8,900.0	8,876.3	8,784.1	8,750.8	31.7	31.5	177.26		55.6	-698.7	1,253.0	1,190.4	62.67	19.994	
9,000.0	8,975.9	8,882.3	8,848.4	32.1	31.8	177.26		56.5	-708.9	1,272.1	1,208.7	63.38	20.070	
9,100.0	9,075.6	8,980.5	8,946.1	32.4	32.2	177.27		57.4	-719.1	1,291.2	1,227.1	64.10	20.144	
9,200.0	9,175.2	9,078.6	9,043.7	32.8	32.6	177.27		58.3	-729.3	1,310.2	1,245.4	64.81	20.216	
9,300.0	9,274.8	9,176.8	9,141.3	33.2	32.9	177.28		59.2	-739.6	1,329.3	1,263.8	65.52	20.287	
9,400.0	9,374.4	9,275.0	9,238.9	33.5	33.3	177.28		60.1	-749.8	1,348.3	1,282.1	66.24	20.356	
9,500.0	9,474.0	9,373.1	9,336.6	33.9	33.6	177.29		61.0	-760.0	1,367.4	1,300.5	66.95	20.424	
9,600.0	9,573.7	9,471.3	9,434.2	34.3	34.0	177.29		61.8	-770.2	1,386.5	1,318.8	67.66	20.490	
9,684.3	9,657.6	9,554.0	9,516.5	34.6	34.3	177.30		62.6	-778.8	1,402.5	1,334.3	68.27	20.545	
9,700.0	9,673.3	9,569.5	9,531.8	34.6	34.3	-162.49		62.7	-780.4	1,405.6	1,337.2	68.38	20.555	
9,725.0	9,698.1	9,593.9	9,556.1	34.7	34.4	-140.41		63.0	-783.0	1,410.5	1,342.0	68.56	20.575	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #706H - OWB - PWP1													Offset Site Error:	0.0 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		
9,750.0	9,722.8	9,618.2	9,580.3	34.8	34.5	-127.93	63.2	-785.5	1,415.7	1,346.9	68.73	20.597		
9,775.0	9,747.4	9,642.3	9,604.3	34.9	34.6	-120.43	63.4	-788.0	1,421.0	1,352.1	68.91	20.622		
9,800.0	9,771.7	9,666.1	9,628.0	35.0	34.7	-115.50	63.6	-790.5	1,426.5	1,357.4	69.08	20.650		
9,825.0	9,795.6	9,689.6	9,651.3	35.1	34.8	-112.01	63.8	-793.0	1,432.1	1,362.9	69.25	20.681		
9,850.0	9,819.2	9,712.7	9,674.3	35.1	34.9	-109.39	64.0	-795.4	1,437.9	1,368.5	69.42	20.715		
9,875.0	9,842.3	9,735.3	9,696.7	35.2	34.9	-107.34	64.2	-797.7	1,443.9	1,374.3	69.58	20.752		
9,900.0	9,864.9	9,750.0	9,711.4	35.3	35.0	-105.54	64.4	-799.3	1,450.1	1,380.4	69.69	20.809		
9,925.0	9,886.9	9,759.2	9,720.6	35.4	35.0	-103.88	64.7	-800.3	1,456.6	1,386.9	69.75	20.883		
9,950.0	9,908.2	9,775.0	9,736.2	35.5	35.1	-102.50	65.5	-802.2	1,463.5	1,393.7	69.86	20.949		
9,975.0	9,928.9	9,775.0	9,736.2	35.5	35.1	-100.92	65.5	-802.2	1,470.7	1,400.8	69.85	21.055		
10,000.0	9,948.8	9,785.9	9,746.9	35.6	35.1	-99.65	66.4	-803.6	1,478.2	1,408.3	69.92	21.141		
10,025.0	9,967.9	9,800.0	9,760.8	35.6	35.2	-98.51	67.8	-805.6	1,486.1	1,416.1	70.02	21.224		
10,050.0	9,986.2	9,800.0	9,760.8	35.7	35.2	-97.08	67.8	-805.6	1,494.2	1,424.2	70.00	21.346		
10,075.0	10,003.5	9,810.8	9,771.5	35.8	35.2	-95.94	69.2	-807.2	1,502.6	1,432.5	70.07	21.444		
10,100.0	10,019.9	9,825.0	9,785.3	35.8	35.3	-94.92	71.3	-809.5	1,511.2	1,441.1	70.17	21.537		
10,125.0	10,035.2	9,825.0	9,785.3	35.9	35.3	-93.52	71.3	-809.5	1,520.1	1,449.9	70.15	21.670		
10,150.0	10,049.5	9,833.9	9,793.9	35.9	35.3	-92.39	72.9	-811.0	1,529.2	1,459.0	70.20	21.782		
10,175.0	10,062.8	9,841.0	9,800.8	35.9	35.3	-91.21	74.2	-812.2	1,538.5	1,468.3	70.25	21.901		
10,200.0	10,074.9	9,850.0	9,809.4	36.0	35.4	-90.10	76.0	-813.8	1,548.0	1,477.7	70.31	22.016		
10,225.0	10,085.8	9,850.0	9,809.4	36.0	35.4	-88.71	76.0	-813.8	1,557.7	1,487.4	70.29	22.159		
10,250.0	10,095.6	9,860.9	9,819.8	36.0	35.4	-87.68	78.4	-815.8	1,567.4	1,497.1	70.38	22.271		
10,275.0	10,104.2	9,866.9	9,825.6	36.1	35.4	-86.49	79.9	-817.0	1,577.4	1,506.9	70.43	22.397		
10,300.0	10,111.5	9,875.0	9,833.3	36.1	35.5	-85.39	81.9	-818.6	1,587.4	1,516.9	70.50	22.518		
10,325.0	10,117.6	9,875.0	9,833.3	36.1	35.5	-84.02	81.9	-818.6	1,597.5	1,527.0	70.49	22.662		
10,350.0	10,122.3	9,882.7	9,840.5	36.2	35.5	-82.93	84.0	-820.2	1,607.7	1,537.1	70.57	22.783		
10,375.0	10,125.9	9,887.2	9,844.7	36.2	35.5	-81.74	85.2	-821.1	1,618.0	1,547.3	70.61	22.913		
10,400.0	10,128.1	9,891.2	9,848.5	36.2	35.5	-80.55	86.4	-821.9	1,628.2	1,557.6	70.66	23.044		
10,425.0	10,129.0	9,900.0	9,856.7	36.2	35.5	-79.56	89.0	-823.8	1,638.5	1,567.7	70.75	23.160		
10,428.3	10,129.0	9,900.0	9,856.7	36.2	35.5	-79.39	89.0	-823.8	1,639.8	1,569.1	70.75	23.178		
10,500.0	10,129.2	9,905.4	9,861.7	36.3	35.6	-79.70	90.6	-825.0	1,669.7	1,598.9	70.85	23.568		
10,600.0	10,129.6	9,925.0	9,879.6	36.4	35.6	-80.56	97.2	-829.4	1,712.7	1,641.6	71.08	24.095		
10,700.0	10,130.0	9,944.9	9,897.5	36.5	35.7	-81.39	104.5	-834.2	1,756.9	1,685.6	71.31	24.639		
10,800.0	10,130.3	9,975.0	9,923.8	36.7	35.8	-82.51	116.9	-841.8	1,802.2	1,730.6	71.59	25.172		
10,900.0	10,130.7	10,013.8	9,956.3	36.9	35.9	-83.82	135.2	-852.5	1,848.0	1,776.0	71.92	25.696		
11,000.0	10,131.0	10,068.9	9,999.3	37.0	36.1	-85.44	165.4	-868.9	1,893.7	1,821.4	72.29	26.194		
11,100.0	10,131.4	10,147.4	10,053.3	37.2	36.2	-87.35	216.2	-894.8	1,938.5	1,865.8	72.73	26.654		
11,200.0	10,131.7	10,259.4	10,112.6	37.4	36.4	-89.31	301.7	-935.2	1,981.0	1,907.8	73.22	27.057		
11,234.8	10,131.9	10,307.4	10,131.0	37.5	36.5	-89.89	342.2	-953.3	1,994.9	1,921.5	73.39	27.183		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1												Offset Site Error:	0.0 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	
0.0	0.0	7.5	7.5	3.0	3.0	-50.31	562.0	-677.2	880.0				
100.0	100.0	107.5	107.5	3.0	3.0	-50.31	562.0	-677.2	880.0	874.0	6.01	146.492	
200.0	200.0	207.5	207.5	3.0	3.0	-50.31	562.0	-677.2	880.0	873.9	6.08	144.624	
300.0	300.0	307.5	307.5	3.1	3.1	-50.31	562.0	-677.2	880.0	873.8	6.24	140.931	
400.0	400.0	407.5	407.5	3.2	3.2	-50.31	562.0	-677.2	880.0	873.5	6.48	135.813	
500.0	500.0	507.5	507.5	3.4	3.4	-50.31	562.0	-677.2	880.0	873.2	6.78	129.741	
600.0	600.0	607.5	607.5	3.6	3.6	-50.31	562.0	-677.2	880.0	872.9	7.15	123.158	
700.0	700.0	707.5	707.5	3.8	3.8	-50.31	562.0	-677.2	880.0	872.5	7.56	116.423	
800.0	800.0	807.5	807.5	4.0	4.0	-50.31	562.0	-677.2	880.0	872.0	8.02	109.795	
900.0	900.0	907.5	907.5	4.2	4.3	-50.31	562.0	-677.2	880.0	871.5	8.51	103.442	
1,000.0	1,000.0	1,007.5	1,007.5	4.5	4.5	-50.31	562.0	-677.2	880.0	871.0	9.03	97.457	
1,100.0	1,100.0	1,107.5	1,107.5	4.8	4.8	-50.31	562.0	-677.2	880.0	870.4	9.58	91.884	
1,200.0	1,200.0	1,207.5	1,207.5	5.1	5.1	-50.31	562.0	-677.2	880.0	869.9	10.15	86.734	
1,300.0	1,300.0	1,307.5	1,307.5	5.4	5.4	-50.31	562.0	-677.2	880.0	869.3	10.73	81.994	
1,400.0	1,400.0	1,407.5	1,407.5	5.7	5.7	-50.31	562.0	-677.2	880.0	868.7	11.33	77.642	
1,500.0	1,500.0	1,507.5	1,507.5	6.0	6.0	-50.31	562.0	-677.2	880.0	868.1	11.95	73.651	
1,600.0	1,600.0	1,607.5	1,607.5	6.3	6.3	-50.31	562.0	-677.2	880.0	867.5	12.57	69.989	
1,700.0	1,700.0	1,707.5	1,707.5	6.6	6.6	-50.31	562.0	-677.2	880.0	866.8	13.21	66.627	
1,800.0	1,800.0	1,807.5	1,807.5	6.9	6.9	-50.31	562.0	-677.2	880.0	866.2	13.85	63.536	
1,900.0	1,900.0	1,907.5	1,907.5	7.2	7.3	-50.31	562.0	-677.2	880.0	865.5	14.50	60.690	
2,000.0	2,000.0	2,007.5	2,007.5	7.6	7.6	-50.31	562.0	-677.2	880.0	864.9	15.16	58.065	
2,100.0	2,100.0	2,107.5	2,107.5	7.9	7.9	-50.31	562.0	-677.2	880.0	864.2	15.82	55.639	
2,200.0	2,200.0	2,207.5	2,207.5	8.2	8.3	-50.31	562.0	-677.2	880.0	863.5	16.48	53.392	
2,300.0	2,300.0	2,307.5	2,307.5	8.6	8.6	-50.31	562.0	-677.2	880.0	862.9	17.15	51.307	
2,400.0	2,400.0	2,407.5	2,407.5	8.9	8.9	-50.31	562.0	-677.2	880.0	862.2	17.83	49.369	
2,500.0	2,500.0	2,510.2	2,510.2	9.2	9.3	-50.31	562.0	-677.2	880.0	861.5	18.51	47.542	
2,600.0	2,600.0	2,645.9	2,645.8	9.6	9.7	-149.64	561.4	-673.5	879.2	859.9	19.27	45.628	
2,700.0	2,699.8	2,781.4	2,781.0	9.9	10.2	-149.55	559.9	-663.5	877.3	857.3	19.99	43.897	
2,749.8	2,749.4	2,836.0	2,835.2	10.1	10.3	-149.51	559.1	-658.0	876.3	855.9	20.32	43.132	
2,800.0	2,799.5	2,886.2	2,885.2	10.2	10.5	-149.48	558.3	-652.8	875.5	854.9	20.64	42.412	
2,900.0	2,899.1	2,986.2	2,984.6	10.5	10.8	-149.41	556.7	-642.5	874.1	852.8	21.30	41.039	
3,000.0	2,998.7	3,086.2	3,084.1	10.9	11.2	-149.35	555.1	-632.1	872.7	850.7	21.96	39.739	
3,100.0	3,098.4	3,186.2	3,183.5	11.2	11.5	-149.28	553.6	-621.8	871.2	848.6	22.62	38.509	
3,200.0	3,198.0	3,286.2	3,282.9	11.5	11.8	-149.21	552.0	-611.5	869.8	846.5	23.29	37.342	
3,300.0	3,297.6	3,386.1	3,382.4	11.9	12.2	-149.15	550.4	-601.2	868.4	844.4	23.96	36.236	
3,400.0	3,397.2	3,486.1	3,481.8	12.2	12.5	-149.08	548.8	-590.8	866.9	842.3	24.64	35.186	
3,500.0	3,496.8	3,586.1	3,581.3	12.6	12.9	-149.01	547.3	-580.5	865.5	840.2	25.32	34.187	
3,600.0	3,596.5	3,686.1	3,680.7	12.9	13.2	-148.95	545.7	-570.2	864.1	838.1	26.00	33.238	
3,700.0	3,696.1	3,786.1	3,780.1	13.2	13.5	-148.88	544.1	-559.9	862.6	836.0	26.68	32.334	
3,800.0	3,795.7	3,886.1	3,879.6	13.6	13.9	-148.81	542.5	-549.6	861.2	833.9	27.36	31.472	
3,900.0	3,895.3	3,986.0	3,979.0	13.9	14.2	-148.75	541.0	-539.2	859.8	831.7	28.05	30.650	
4,000.0	3,994.9	4,086.0	4,078.5	14.3	14.6	-148.68	539.4	-528.9	858.4	829.6	28.74	29.866	
4,100.0	4,094.6	4,186.0	4,177.9	14.6	14.9	-148.61	537.8	-518.6	856.9	827.5	29.43	29.116	
4,200.0	4,194.2	4,286.0	4,277.3	15.0	15.3	-148.54	536.2	-508.3	855.5	825.4	30.12	28.399	
4,300.0	4,293.8	4,386.0	4,376.8	15.3	15.6	-148.47	534.7	-497.9	854.1	823.3	30.82	27.713	
4,400.0	4,393.4	4,486.0	4,476.2	15.7	16.0	-148.41	533.1	-487.6	852.7	821.2	31.52	27.056	
4,500.0	4,493.0	4,586.0	4,575.6	16.0	16.3	-148.34	531.5	-477.3	851.3	819.1	32.21	26.427	
4,600.0	4,592.7	4,685.9	4,675.1	16.4	16.7	-148.27	530.0	-467.0	849.9	816.9	32.91	25.823	
4,700.0	4,692.3	4,785.9	4,774.5	16.7	17.0	-148.20	528.4	-456.6	848.4	814.8	33.61	25.243	
4,800.0	4,791.9	4,885.9	4,874.0	17.1	17.4	-148.13	526.8	-446.3	847.0	812.7	34.31	24.686	
4,900.0	4,891.5	4,985.9	4,973.4	17.4	17.7	-148.06	525.2	-436.0	845.6	810.6	35.01	24.151	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1													Offset Site Error:	0.0 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	4,991.1	5,085.9	5,072.8	17.8	18.1	-147.99	523.7	-425.7	844.2	808.5	35.72	23.636		
5,100.0	5,090.8	5,185.9	5,172.3	18.1	18.5	-147.92	522.1	-415.4	842.8	806.4	36.42	23.141		
5,200.0	5,190.4	5,285.8	5,271.7	18.5	18.8	-147.85	520.5	-405.0	841.4	804.2	37.12	22.663		
5,300.0	5,290.0	5,385.8	5,371.1	18.8	19.2	-147.78	518.9	-394.7	840.0	802.1	37.83	22.203		
5,400.0	5,389.6	5,485.8	5,470.6	19.2	19.5	-147.71	517.4	-384.4	838.6	800.0	38.54	21.760		
5,500.0	5,489.2	5,585.8	5,570.0	19.5	19.9	-147.64	515.8	-374.1	837.2	797.9	39.24	21.332		
5,600.0	5,588.9	5,685.8	5,669.5	19.9	20.2	-147.57	514.2	-363.7	835.7	795.8	39.95	20.919		
5,700.0	5,688.5	5,785.8	5,768.9	20.2	20.6	-147.49	512.6	-353.4	834.3	793.7	40.66	20.520		
5,800.0	5,788.1	5,885.8	5,868.3	20.6	21.0	-147.42	511.1	-343.1	832.9	791.6	41.37	20.134		
5,900.0	5,887.7	5,985.7	5,967.8	21.0	21.3	-147.35	509.5	-332.8	831.5	789.5	42.08	19.761		
6,000.0	5,987.3	6,085.7	6,067.2	21.3	21.7	-147.28	507.9	-322.4	830.1	787.4	42.79	19.400		
6,100.0	6,087.0	6,185.7	6,166.6	21.7	22.0	-147.21	506.3	-312.1	828.7	785.2	43.50	19.051		
6,200.0	6,186.6	6,285.7	6,266.1	22.0	22.4	-147.13	504.8	-301.8	827.3	783.1	44.21	18.713		
6,300.0	6,286.2	6,385.7	6,365.5	22.4	22.7	-147.06	503.2	-291.5	826.0	781.0	44.92	18.385		
6,400.0	6,385.8	6,485.7	6,465.0	22.7	23.1	-146.99	501.6	-281.2	824.6	778.9	45.64	18.068		
6,500.0	6,485.4	6,585.7	6,564.4	23.1	23.5	-146.91	500.1	-270.8	823.2	776.8	46.35	17.760		
6,600.0	6,585.1	6,685.6	6,663.8	23.5	23.8	-146.84	498.5	-260.5	821.8	774.7	47.06	17.461		
6,700.0	6,684.7	6,785.6	6,763.3	23.8	24.2	-146.77	496.9	-250.2	820.4	772.6	47.78	17.171		
6,800.0	6,784.3	6,885.6	6,862.7	24.2	24.5	-146.69	495.3	-239.9	819.0	770.5	48.49	16.890		
6,900.0	6,883.9	6,985.6	6,962.2	24.5	24.9	-146.62	493.8	-229.5	817.6	768.4	49.21	16.616		
7,000.0	6,983.5	7,085.6	7,061.6	24.9	25.3	-146.54	492.2	-219.2	816.2	766.3	49.92	16.351		
7,100.0	7,083.2	7,185.6	7,161.0	25.2	25.6	-146.47	490.6	-208.9	814.8	764.2	50.64	16.092		
7,200.0	7,182.8	7,285.5	7,260.5	25.6	26.0	-146.39	489.0	-198.6	813.5	762.1	51.35	15.841		
7,300.0	7,282.4	7,385.5	7,359.9	26.0	26.3	-146.32	487.5	-188.2	812.1	760.0	52.07	15.597		
7,400.0	7,382.0	7,485.5	7,459.3	26.3	26.7	-146.24	485.9	-177.9	810.7	757.9	52.78	15.359		
7,500.0	7,481.6	7,585.5	7,558.8	26.7	27.1	-146.16	484.3	-167.6	809.3	755.8	53.50	15.128		
7,600.0	7,581.3	7,685.5	7,658.2	27.0	27.4	-146.09	482.7	-157.3	807.9	753.7	54.22	14.902		
7,700.0	7,680.9	7,785.5	7,757.7	27.4	27.8	-146.01	481.2	-147.0	806.6	751.6	54.93	14.683		
7,800.0	7,780.5	7,885.5	7,857.1	27.8	28.2	-145.93	479.6	-136.6	805.2	749.5	55.65	14.469		
7,900.0	7,880.1	7,985.4	7,956.5	28.1	28.5	-145.86	478.0	-126.3	803.8	747.5	56.37	14.260		
8,000.0	7,979.7	8,085.4	8,056.0	28.5	28.9	-145.78	476.4	-116.0	802.4	745.4	57.09	14.057		
8,100.0	8,079.4	8,185.4	8,155.4	28.8	29.2	-145.70	474.9	-105.7	801.1	743.3	57.80	13.859		
8,200.0	8,179.0	8,285.4	8,254.8	29.2	29.6	-145.62	473.3	-95.3	799.7	741.2	58.52	13.665		
8,300.0	8,278.6	8,385.4	8,354.3	29.6	30.0	-145.55	471.7	-85.0	798.3	739.1	59.24	13.476		
8,400.0	8,378.2	8,485.4	8,453.7	29.9	30.3	-145.47	470.2	-74.7	797.0	737.0	59.96	13.292		
8,500.0	8,477.8	8,585.3	8,553.2	30.3	30.7	-145.39	468.6	-64.4	795.6	734.9	60.68	13.112		
8,600.0	8,577.5	8,685.3	8,652.6	30.6	31.1	-145.31	467.0	-54.1	794.2	732.9	61.40	12.936		
8,700.0	8,677.1	8,785.3	8,752.0	31.0	31.4	-145.23	465.4	-43.7	792.9	730.8	62.12	12.765		
8,800.0	8,776.7	8,885.3	8,851.5	31.4	31.8	-145.15	463.9	-33.4	791.5	728.7	62.84	12.597		
8,900.0	8,876.3	8,985.3	8,950.9	31.7	32.1	-145.07	462.3	-23.1	790.2	726.6	63.56	12.433		
9,000.0	8,975.9	9,085.3	9,050.3	32.1	32.5	-144.99	460.7	-12.8	788.8	724.5	64.27	12.273		
9,100.0	9,075.6	9,185.3	9,149.8	32.4	32.9	-144.91	459.1	-2.4	787.5	722.5	64.99	12.116		
9,200.0	9,175.2	9,285.2	9,249.2	32.8	33.2	-144.83	457.6	7.9	786.1	720.4	65.71	11.962		
9,300.0	9,274.8	9,385.2	9,348.7	33.2	33.6	-144.75	456.0	18.2	784.8	718.3	66.44	11.812		
9,400.0	9,374.4	9,485.2	9,448.1	33.5	34.0	-144.67	454.4	28.5	783.4	716.2	67.16	11.666		
9,500.0	9,474.0	9,585.2	9,547.5	33.9	34.3	-144.59	452.8	38.9	782.1	714.2	67.88	11.522		
9,600.0	9,573.7	9,685.2	9,647.0	34.3	34.7	-144.51	451.3	49.2	780.7	712.1	68.60	11.381		
9,684.3	9,657.6	9,769.4	9,730.8	34.6	35.0	-144.44	449.9	57.9	779.6	710.4	69.20	11.265		
9,700.0	9,673.3	9,785.2	9,746.4	34.6	35.1	-124.62	449.7	59.5	779.2	709.9	69.32	11.242		
9,725.0	9,698.1	9,810.1	9,771.2	34.7	35.1	-103.27	449.3	62.1	778.2	708.7	69.50	11.197		
9,750.0	9,722.8	9,835.0	9,795.9	34.8	35.2	-91.64	448.9	64.6	776.5	706.8	69.68	11.144		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1													Offset Site Error:	0.0 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	
9,775.0	9,747.4	9,859.6	9,820.5	34.9	35.3	-85.12	448.5	67.2	774.1	704.3	69.85	11.083		
9,800.0	9,771.7	9,884.1	9,844.8	35.0	35.4	-81.28	448.1	69.7	771.2	701.2	70.03	11.013		
9,825.0	9,795.6	9,908.2	9,868.8	35.1	35.5	-79.01	447.8	72.2	767.7	697.5	70.20	10.936		
9,850.0	9,819.2	9,931.9	9,892.4	35.1	35.6	-77.73	447.4	74.7	763.6	693.3	70.36	10.853		
9,875.0	9,842.3	9,955.2	9,915.5	35.2	35.7	-77.15	447.0	77.1	759.1	688.6	70.53	10.763		
9,900.0	9,864.9	9,978.0	9,938.2	35.3	35.8	-77.06	446.7	79.4	754.1	683.4	70.69	10.667		
9,925.0	9,886.9	10,000.2	9,960.3	35.4	35.8	-77.37	446.3	81.7	748.7	677.8	70.85	10.568		
9,950.0	9,908.2	10,021.8	9,981.8	35.5	35.9	-77.99	446.0	83.9	742.9	671.9	71.00	10.464		
9,975.0	9,928.9	10,042.7	10,002.6	35.5	36.0	-78.85	445.6	86.1	736.9	665.8	71.15	10.358		
10,000.0	9,948.8	10,062.9	10,022.6	35.6	36.1	-79.91	445.3	88.2	730.7	659.4	71.29	10.249		
10,025.0	9,967.9	10,082.3	10,041.9	35.6	36.1	-81.13	445.0	90.2	724.3	652.9	71.43	10.141		
10,050.0	9,986.2	10,100.8	10,060.3	35.7	36.2	-82.46	444.7	92.1	717.9	646.4	71.56	10.032		
10,075.0	10,003.5	10,118.4	10,077.8	35.8	36.3	-83.88	444.5	93.9	711.6	639.9	71.69	9.926		
10,100.0	10,019.9	10,135.0	10,094.4	35.8	36.3	-85.35	444.2	95.6	705.4	633.5	71.82	9.822		
10,125.0	10,035.2	10,150.7	10,110.0	35.9	36.4	-86.83	443.9	97.2	699.4	627.4	71.94	9.722		
10,150.0	10,049.5	10,165.3	10,124.5	35.9	36.4	-88.29	443.7	98.8	693.7	621.6	72.05	9.627		
10,175.0	10,062.8	10,178.9	10,138.0	35.9	36.5	-89.70	443.5	100.1	688.4	616.2	72.16	9.540		
10,200.0	10,074.9	10,191.3	10,150.3	36.0	36.5	-91.03	443.3	101.4	683.5	611.3	72.26	9.459		
10,225.0	10,085.8	10,202.5	10,161.5	36.0	36.6	-92.26	443.1	102.6	679.3	607.0	72.36	9.388		
10,250.0	10,095.6	10,212.6	10,171.5	36.0	36.6	-93.36	443.0	103.6	675.7	603.3	72.45	9.327		
10,275.0	10,104.2	10,221.5	10,180.3	36.1	36.6	-94.31	442.8	104.5	672.9	600.4	72.54	9.276		
10,300.0	10,111.5	10,229.1	10,187.9	36.1	36.7	-95.09	442.7	105.3	670.8	598.2	72.62	9.238		
10,325.0	10,117.6	10,235.5	10,194.3	36.1	36.7	-95.70	442.6	106.0	669.7	597.0	72.69	9.213		
10,345.7	10,121.6	10,239.8	10,198.6	36.2	36.7	-96.05	442.5	106.4	669.3	596.6	72.74	9.201 CC, ES		
10,350.0	10,122.3	10,240.6	10,199.4	36.2	36.7	-96.11	442.5	106.5	669.4	596.6	72.75	9.200		
10,375.0	10,125.9	10,244.4	10,203.2	36.2	36.7	-96.32	442.5	106.9	670.0	597.2	72.81	9.202		
10,400.0	10,128.1	10,246.9	10,205.7	36.2	36.7	-96.32	442.4	107.2	671.5	598.7	72.86	9.217		
10,425.0	10,129.0	10,248.1	10,206.9	36.2	36.7	-96.11	442.4	107.3	674.1	601.2	72.90	9.247		
10,428.3	10,129.0	10,248.2	10,206.9	36.2	36.7	-96.07	442.4	107.3	674.5	601.6	72.90	9.252		
10,500.0	10,129.2	10,249.2	10,207.9	36.3	36.7	-96.12	442.4	107.4	686.2	613.2	72.99	9.402		
10,600.0	10,129.6	10,250.3	10,209.1	36.4	36.7	-96.16	442.4	107.5	711.6	638.5	73.10	9.735		
10,700.0	10,130.0	10,251.1	10,209.8	36.5	36.7	-96.13	442.4	107.6	746.4	673.2	73.19	10.199		
10,800.0	10,130.3	10,251.5	10,210.2	36.7	36.7	-96.06	442.4	107.6	789.4	716.2	73.25	10.777		
10,900.0	10,130.7	10,251.5	10,210.2	36.9	36.7	-95.93	442.4	107.7	839.2	765.9	73.29	11.451		
11,000.0	10,131.0	10,251.2	10,209.9	37.0	36.7	-95.76	442.4	107.6	894.7	821.4	73.30	12.205		
11,100.0	10,131.4	10,250.5	10,209.2	37.2	36.7	-95.55	442.4	107.5	954.8	881.5	73.31	13.024		
11,200.0	10,131.7	11,713.4	11,010.6	37.4	40.1	-157.28	1,216.5	508.0	950.6	896.0	54.58	17.417		
11,234.8	10,131.9	11,743.0	11,010.5	37.5	40.2	-157.81	1,244.9	516.0	946.6	892.1	54.48	17.374		
11,300.0	10,132.1	11,800.0	11,010.5	37.7	40.3	-158.68	1,300.0	530.6	939.5	885.2	54.33	17.294		
11,400.0	10,132.4	11,885.4	11,010.4	37.9	40.4	-159.88	1,383.1	550.4	930.1	875.9	54.19	17.165		
11,500.0	10,132.8	11,973.3	11,010.3	38.2	40.6	-160.99	1,469.2	568.3	922.3	868.1	54.18	17.022		
11,600.0	10,133.2	12,062.3	11,010.2	38.4	40.8	-161.96	1,556.9	583.6	915.8	861.5	54.30	16.865		
11,700.0	10,133.5	12,152.3	11,010.1	38.7	41.0	-162.79	1,645.9	596.3	910.6	856.0	54.56	16.691		
11,800.0	10,133.9	12,243.1	11,010.0	39.0	41.2	-163.47	1,736.2	606.3	906.5	851.6	54.94	16.501		
11,900.0	10,134.2	12,334.5	11,009.9	39.4	41.4	-163.98	1,827.3	613.5	903.4	848.0	55.45	16.294		
12,000.0	10,134.6	12,426.4	11,009.8	39.7	41.6	-164.32	1,919.1	617.8	901.3	845.2	56.08	16.073		
12,100.0	10,134.9	12,518.6	11,009.7	40.1	41.8	-164.47	2,011.3	619.1	900.1	843.3	56.83	15.839		
12,200.0	10,135.3	12,615.5	11,009.5	40.4	42.1	-164.48	2,108.2	618.0	899.6	841.8	57.72	15.584		
12,300.0	10,135.6	12,715.5	11,009.4	40.8	42.3	-164.47	2,208.2	616.5	899.1	840.4	58.68	15.322		
12,400.0	10,136.0	12,815.5	11,009.3	41.2	42.6	-164.46	2,308.1	615.1	898.7	839.0	59.67	15.062		
12,500.0	10,136.4	12,915.5	11,009.2	41.6	42.9	-164.45	2,408.1	613.6	898.2	837.5	60.68	14.804		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1													Offset Site Error:	0.0 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	
12,600.0	10,136.7	13,015.5	11,009.1	42.1	43.2	-164.45	2,508.1	612.2	897.8	836.1	61.71	14.548		
12,700.0	10,137.1	13,115.5	11,009.0	42.5	43.6	-164.44	2,608.1	610.7	897.3	834.5	62.77	14.296		
12,800.0	10,137.4	13,215.5	11,008.9	43.0	43.9	-164.43	2,708.1	609.3	896.9	833.0	63.84	14.048		
12,900.0	10,137.8	13,315.5	11,008.8	43.4	44.3	-164.42	2,808.1	607.8	896.4	831.5	64.94	13.803		
13,000.0	10,138.1	13,415.5	11,008.6	43.9	44.6	-164.41	2,908.1	606.4	896.0	829.9	66.06	13.562		
13,100.0	10,138.5	13,515.5	11,008.5	44.4	45.0	-164.41	3,008.1	604.9	895.5	828.3	67.20	13.326		
13,200.0	10,138.8	13,615.5	11,008.4	44.9	45.4	-164.40	3,108.0	603.5	895.1	826.7	68.35	13.094		
13,300.0	10,139.2	13,715.5	11,008.3	45.4	45.8	-164.39	3,208.0	602.0	894.6	825.1	69.53	12.867		
13,400.0	10,139.6	13,815.5	11,008.2	45.9	46.2	-164.38	3,308.0	600.6	894.2	823.4	70.71	12.645		
13,500.0	10,139.9	13,915.5	11,008.1	46.5	46.7	-164.37	3,408.0	599.1	893.7	821.8	71.92	12.427		
13,600.0	10,140.3	14,015.5	11,008.0	47.0	47.1	-164.37	3,508.0	597.7	893.3	820.1	73.13	12.214		
13,700.0	10,140.6	14,115.5	11,007.9	47.6	47.6	-164.36	3,608.0	596.2	892.8	818.4	74.37	12.006		
13,800.0	10,141.0	14,215.5	11,007.8	48.1	48.0	-164.35	3,708.0	594.8	892.4	816.7	75.61	11.802		
13,900.0	10,141.3	14,315.5	11,007.6	48.7	48.5	-164.34	3,808.0	593.3	891.9	815.0	76.87	11.603		
14,000.0	10,141.7	14,415.5	11,007.5	49.3	49.0	-164.33	3,908.0	591.9	891.5	813.3	78.14	11.409		
14,100.0	10,142.0	14,515.5	11,007.4	49.9	49.5	-164.32	4,007.9	590.4	891.0	811.6	79.42	11.219		
14,200.0	10,142.4	14,615.5	11,007.3	50.4	50.0	-164.32	4,107.9	589.0	890.6	809.8	80.71	11.034		
14,300.0	10,142.8	14,715.5	11,007.2	51.0	50.6	-164.31	4,207.9	587.5	890.1	808.1	82.01	10.854		
14,400.0	10,143.1	14,815.5	11,007.1	51.7	51.1	-164.30	4,307.9	586.1	889.7	806.3	83.32	10.678		
14,500.0	10,143.5	14,915.5	11,007.0	52.3	51.6	-164.29	4,407.9	584.7	889.2	804.6	84.64	10.506		
14,600.0	10,143.8	15,015.5	11,006.9	52.9	52.2	-164.28	4,507.9	583.2	888.8	802.8	85.97	10.338		
14,700.0	10,144.2	15,115.5	11,006.7	53.5	52.7	-164.28	4,607.9	581.8	888.3	801.0	87.31	10.174		
14,800.0	10,144.5	15,215.5	11,006.6	54.2	53.3	-164.27	4,707.9	580.3	887.9	799.2	88.65	10.015		
14,900.0	10,144.9	15,315.5	11,006.5	54.8	53.9	-164.26	4,807.8	578.9	887.4	797.4	90.01	9.859		
15,000.0	10,145.3	15,415.5	11,006.4	55.4	54.4	-164.25	4,907.8	577.4	887.0	795.6	91.37	9.707		
15,100.0	10,145.6	15,515.5	11,006.3	56.1	55.0	-164.24	5,007.8	576.0	886.5	793.8	92.74	9.559		
15,182.5	10,145.9	15,598.0	11,006.2	56.6	55.5	-164.24	5,090.3	574.8	886.1	792.3	93.87	9.440		
15,200.0	10,146.0	15,616.9	11,006.2	56.8	55.6	-164.23	5,109.2	574.5	886.1	791.9	94.13	9.413		
15,221.1	10,146.0	15,639.7	11,006.2	56.9	55.8	-164.23	5,132.0	574.4	886.0	791.5	94.45	9.380		
15,300.0	10,146.3	15,718.6	11,006.1	57.4	56.2	-164.22	5,211.0	574.4	885.6	790.1	95.54	9.269		
15,400.0	10,146.7	15,818.6	11,006.0	58.1	56.8	-164.22	5,311.0	574.2	885.2	788.2	96.93	9.132		
15,500.0	10,147.0	15,918.6	11,005.9	58.8	57.5	-164.21	5,411.0	574.1	884.7	786.4	98.32	8.998		
15,600.0	10,147.4	16,018.6	11,005.8	59.5	58.1	-164.20	5,511.0	574.0	884.3	784.6	99.72	8.867		
15,700.0	10,147.7	16,118.6	11,005.7	60.1	58.7	-164.19	5,611.0	573.9	883.9	782.7	101.13	8.740		
15,800.0	10,148.1	16,218.6	11,005.6	60.8	59.3	-164.18	5,711.0	573.8	883.4	780.9	102.54	8.615		
15,900.0	10,148.4	16,318.6	11,005.4	61.5	60.0	-164.17	5,811.0	573.7	883.0	779.0	103.95	8.494		
16,000.0	10,148.8	16,418.6	11,005.3	62.2	60.6	-164.16	5,911.0	573.6	882.5	777.2	105.37	8.375		
16,100.0	10,149.2	16,518.6	11,005.2	62.9	61.3	-164.16	6,011.0	573.5	882.1	775.3	106.80	8.260		
16,200.0	10,149.5	16,618.6	11,005.1	63.6	61.9	-164.15	6,111.0	573.4	881.7	773.4	108.23	8.146		
16,300.0	10,149.9	16,718.6	11,005.0	64.3	62.6	-164.14	6,211.0	573.2	881.2	771.6	109.66	8.036		
16,400.0	10,150.2	16,818.6	11,004.9	65.0	63.3	-164.13	6,311.0	573.1	880.8	769.7	111.10	7.928		
16,500.0	10,150.6	16,918.6	11,004.8	65.8	63.9	-164.12	6,411.0	573.0	880.3	767.8	112.54	7.823		
16,600.0	10,150.9	17,018.6	11,004.7	66.5	64.6	-164.11	6,511.0	572.9	879.9	765.9	113.98	7.719		
16,700.0	10,151.3	17,118.6	11,004.6	67.2	65.3	-164.10	6,611.0	572.8	879.5	764.0	115.43	7.619		
16,800.0	10,151.6	17,218.6	11,004.5	67.9	66.0	-164.10	6,711.0	572.7	879.0	762.1	116.89	7.520		
16,900.0	10,152.0	17,318.6	11,004.4	68.7	66.6	-164.09	6,811.0	572.6	878.6	760.2	118.34	7.424		
17,000.0	10,152.3	17,418.6	11,004.3	69.4	67.3	-164.08	6,911.0	572.5	878.1	758.3	119.80	7.330		
17,100.0	10,152.7	17,518.6	11,004.2	70.1	68.0	-164.07	7,010.9	572.4	877.7	756.4	121.26	7.238		
17,200.0	10,153.1	17,618.6	11,004.1	70.9	68.7	-164.06	7,110.9	572.3	877.3	754.5	122.73	7.148		
17,300.0	10,153.4	17,718.6	11,004.0	71.6	69.4	-164.05	7,210.9	572.1	876.8	752.6	124.20	7.060		
17,400.0	10,153.8	17,818.6	11,003.9	72.3	70.1	-164.04	7,310.9	572.0	876.4	750.7	125.67	6.974		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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		ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL #804H - OWB - PWP1											Offset Site Error:	0.0 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		
17,500.0	10,154.1	17,918.6	11,003.8	73.1	70.8	-164.03	7,410.9	571.9	875.9	748.8	127.14	6.889		
17,600.0	10,154.5	18,018.6	11,003.7	73.8	71.6	-164.03	7,510.9	571.8	875.5	746.9	128.62	6.807		
17,700.0	10,154.8	18,118.6	11,003.6	74.6	72.3	-164.02	7,610.9	571.7	875.1	745.0	130.10	6.726		
17,800.0	10,155.2	18,218.6	11,003.5	75.3	73.0	-164.01	7,710.9	571.6	874.6	743.1	131.58	6.647		
17,900.0	10,155.5	18,318.6	11,003.4	76.1	73.7	-164.00	7,810.9	571.5	874.2	741.1	133.06	6.570		
18,000.0	10,155.9	18,418.6	11,003.3	76.9	74.4	-163.99	7,910.9	571.4	873.8	739.2	134.55	6.494		
18,100.0	10,156.2	18,518.6	11,003.1	77.6	75.2	-163.98	8,010.9	571.3	873.3	737.3	136.04	6.420		
18,200.0	10,156.6	18,618.6	11,003.0	78.4	75.9	-163.97	8,110.9	571.2	872.9	735.3	137.53	6.347		
18,300.0	10,156.9	18,718.6	11,002.9	79.1	76.6	-163.96	8,210.9	571.0	872.4	733.4	139.02	6.275		
18,400.0	10,157.3	18,818.6	11,002.8	79.9	77.4	-163.96	8,310.9	570.9	872.0	731.5	140.52	6.206		
18,500.0	10,157.7	18,918.6	11,002.7	80.7	78.1	-163.95	8,410.9	570.8	871.6	729.5	142.02	6.137		
18,600.0	10,158.0	19,018.6	11,002.6	81.4	78.8	-163.94	8,510.9	570.7	871.1	727.6	143.52	6.070		
18,700.0	10,158.4	19,118.6	11,002.5	82.2	79.6	-163.93	8,610.9	570.6	870.7	725.7	145.02	6.004		
18,800.0	10,158.7	19,218.6	11,002.4	83.0	80.3	-163.92	8,710.9	570.5	870.2	723.7	146.52	5.939		
18,900.0	10,159.1	19,318.6	11,002.3	83.8	81.1	-163.91	8,810.9	570.4	869.8	721.8	148.02	5.876		
19,000.0	10,159.4	19,418.6	11,002.2	84.5	81.8	-163.90	8,910.9	570.3	869.4	719.8	149.53	5.814		
19,100.0	10,159.8	19,518.6	11,002.1	85.3	82.6	-163.89	9,010.9	570.2	868.9	717.9	151.04	5.753		
19,200.0	10,160.1	19,618.6	11,002.0	86.1	83.3	-163.88	9,110.9	570.1	868.5	715.9	152.55	5.693		
19,300.0	10,160.5	19,718.6	11,001.9	86.9	84.1	-163.88	9,210.9	569.9	868.0	714.0	154.06	5.635		
19,400.0	10,160.8	19,818.6	11,001.8	87.7	84.9	-163.87	9,310.9	569.8	867.6	712.0	155.57	5.577		
19,500.0	10,161.2	19,918.6	11,001.7	88.4	85.6	-163.86	9,410.9	569.7	867.2	710.1	157.08	5.520		
19,600.0	10,161.6	20,018.6	11,001.6	89.2	86.4	-163.85	9,510.9	569.6	866.7	708.1	158.60	5.465		
19,700.0	10,161.9	20,118.6	11,001.5	90.0	87.1	-163.84	9,610.9	569.5	866.3	706.2	160.12	5.410		
19,800.0	10,162.3	20,218.6	11,001.4	90.8	87.9	-163.83	9,710.9	569.4	865.9	704.2	161.63	5.357		
19,900.0	10,162.6	20,318.6	11,001.3	91.6	88.7	-163.82	9,810.9	569.3	865.4	702.3	163.15	5.304		
20,000.0	10,163.0	20,418.6	11,001.2	92.4	89.4	-163.81	9,910.9	569.2	865.0	700.3	164.67	5.253		
20,100.0	10,163.3	20,518.6	11,001.1	93.2	90.2	-163.80	10,010.9	569.1	864.5	698.3	166.20	5.202		
20,161.2	10,163.5	20,576.0	11,001.0	93.7	90.7	-163.80	10,068.3	569.0	864.3	697.2	167.06	5.174 SF		
20,200.0	10,163.7	20,576.0	11,001.0	94.0	90.7	-163.80	10,068.3	569.0	865.1	698.4	166.79	5.187		
20,289.0	10,164.0	20,576.0	11,001.0	94.7	90.7	-163.80	10,068.3	569.0	873.7	708.4	165.28	5.286		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 7829-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	-90.25	-2.8	-649.9	649.9					
100.0	100.0	96.0	96.0	3.0	3.0	-90.22	-2.5	-650.1	650.2	644.2	6.00	108.303		
200.0	200.0	196.2	196.2	3.0	3.0	-90.15	-1.7	-650.6	650.7	644.6	6.04	107.674		
300.0	300.0	297.0	297.0	3.1	3.0	-90.06	-0.7	-651.0	651.0	644.9	6.13	106.285		
400.0	400.0	393.9	393.9	3.2	3.0	-89.97	0.4	-651.5	651.6	645.3	6.25	104.278		
500.0	500.0	493.5	493.5	3.4	3.1	-89.90	1.2	-652.5	652.5	646.1	6.41	101.781		
600.0	600.0	596.2	596.2	3.6	3.1	-89.88	1.4	-653.2	653.2	646.6	6.61	98.821		
700.0	700.0	694.9	694.9	3.8	3.1	-89.89	1.2	-653.8	653.8	647.0	6.84	95.602		
800.0	800.0	794.3	794.2	4.0	3.1	-89.96	0.4	-654.5	654.5	647.4	7.09	92.328		
900.0	900.0	891.8	891.8	4.2	3.1	-90.05	-0.6	-655.4	655.5	648.1	7.36	89.068		
1,000.0	1,000.0	986.3	986.2	4.5	3.1	-90.17	-2.0	-656.9	657.0	649.4	7.65	85.912		
1,100.0	1,100.0	1,085.4	1,085.3	4.8	3.2	-90.32	-3.7	-658.9	659.1	651.1	7.95	82.856		
1,200.0	1,200.0	1,198.4	1,198.3	5.1	3.2	-90.40	-4.6	-659.8	659.8	651.6	8.28	79.711		
1,300.0	1,300.0	1,297.0	1,296.9	5.4	3.2	-90.45	-5.2	-660.0	660.0	651.4	8.59	76.788		
1,400.0	1,400.0	1,393.3	1,393.1	5.7	3.3	-90.52	-6.0	-660.5	660.5	651.6	8.93	73.972		
1,500.0	1,500.0	1,484.6	1,484.4	6.0	3.3	-90.57	-6.5	-662.0	662.2	652.9	9.28	71.349		
1,600.0	1,600.0	1,582.9	1,582.7	6.3	3.4	-90.62	-7.2	-664.4	664.6	655.0	9.65	68.893		
1,700.0	1,700.0	1,679.6	1,679.4	6.6	3.4	-90.69	-8.0	-667.1	667.4	657.4	10.02	66.608		
1,800.0	1,800.0	1,784.7	1,784.5	6.9	3.5	-90.74	-8.7	-670.1	670.4	659.9	10.41	64.404		
1,900.0	1,900.0	1,894.9	1,894.6	7.2	3.6	-90.51	-6.0	-671.5	671.5	660.7	10.78	62.279		
2,000.0	2,000.0	1,995.2	1,994.8	7.6	3.6	-90.22	-2.6	-672.1	672.1	661.0	11.14	60.318		
2,100.0	2,100.0	2,098.0	2,097.6	7.9	3.6	-90.00	0.0	-672.7	672.7	661.2	11.51	58.419		
2,200.0	2,200.0	2,198.3	2,197.9	8.2	3.7	-90.06	-0.7	-672.8	672.9	661.0	11.89	56.595		
2,300.0	2,300.0	2,315.5	2,315.0	8.6	3.7	-90.14	-1.6	-672.1	672.3	660.0	12.24	54.944		
2,400.0	2,400.0	2,427.8	2,427.3	8.9	3.7	-90.22	-2.6	-668.0	668.6	656.1	12.56	53.249		
2,500.0	2,500.0	2,513.0	2,512.4	9.2	3.7	-90.43	-5.0	-665.5	665.6	652.7	12.91	51.574		
2,600.0	2,600.0	2,625.6	2,624.8	9.6	3.7	169.75	-10.6	-662.2	664.5	651.3	13.25	50.153		
2,608.4	2,608.4	2,633.2	2,632.4	9.6	3.7	169.72	-11.0	-661.9	664.5	651.2	13.28	50.044		
2,700.0	2,699.8	2,722.3	2,721.3	9.9	3.7	169.48	-14.6	-659.0	666.4	652.8	13.59	49.044		
2,749.8	2,749.4	2,776.2	2,775.2	10.1	3.7	169.37	-16.5	-657.0	668.4	654.6	13.75	48.601		
2,800.0	2,799.5	2,828.0	2,826.9	10.2	3.8	169.30	-18.1	-654.9	670.7	656.8	13.92	48.177		
2,900.0	2,899.1	2,927.2	2,926.0	10.5	3.8	169.16	-21.3	-650.7	675.2	660.9	14.26	47.337		
3,000.0	2,998.7	3,021.4	3,020.1	10.9	3.8	169.02	-24.4	-647.3	680.1	665.5	14.61	46.547		
3,100.0	3,098.4	3,107.1	3,105.7	11.2	3.8	168.89	-27.3	-644.7	685.9	670.9	14.97	45.829		
3,200.0	3,198.0	3,186.7	3,185.3	11.5	3.9	168.89	-28.7	-645.1	695.0	679.6	15.33	45.323		
3,300.0	3,297.6	3,259.4	3,257.9	11.9	3.9	168.83	-30.7	-647.8	707.2	691.5	15.69	45.064		
3,400.0	3,397.2	3,335.0	3,333.3	12.2	4.0	168.72	-33.5	-652.8	722.5	706.5	16.05	45.023		
3,500.0	3,496.8	3,425.0	3,422.8	12.6	4.1	168.60	-36.9	-661.4	740.6	724.2	16.43	45.077		
3,600.0	3,596.5	3,517.1	3,514.4	12.9	4.1	168.53	-39.7	-670.9	759.5	742.7	16.82	45.156		
3,700.0	3,696.1	3,597.3	3,594.0	13.2	4.2	168.52	-41.4	-680.2	779.6	762.5	17.18	45.383		
3,800.0	3,795.7	3,661.4	3,657.4	13.6	4.2	168.55	-42.4	-689.7	803.0	785.5	17.48	45.925		
3,900.0	3,895.3	3,748.4	3,742.9	13.9	4.3	168.62	-43.6	-705.5	829.5	811.6	17.86	46.453		
4,000.0	3,994.9	3,879.5	3,872.3	14.3	4.4	168.65	-46.1	-726.5	853.8	835.4	18.38	46.457		
4,100.0	4,094.6	3,975.0	3,966.8	14.6	4.5	168.64	-48.3	-740.1	876.5	857.8	18.79	46.651		
4,200.0	4,194.2	4,078.7	4,069.5	15.0	4.6	168.60	-51.1	-754.6	899.0	879.8	19.23	46.754		
4,300.0	4,293.8	4,175.0	4,164.8	15.3	4.7	168.54	-54.2	-767.7	921.1	901.5	19.65	46.881		
4,400.0	4,393.4	4,251.6	4,240.5	15.7	4.7	168.46	-57.2	-779.1	944.5	924.5	20.01	47.208		
4,500.0	4,493.0	4,353.3	4,340.8	16.0	4.8	168.34	-61.6	-795.4	969.0	948.6	20.45	47.387		
4,600.0	4,592.7	4,457.3	4,443.5	16.4	4.9	168.20	-66.3	-810.7	992.4	971.5	20.90	47.479		
4,700.0	4,692.3	4,565.9	4,550.8	16.7	5.0	168.05	-71.5	-826.5	1,015.5	994.1	21.37	47.522		
4,800.0	4,791.9	4,678.7	4,662.6	17.1	5.1	167.84	-77.8	-841.0	1,037.0	1,015.2	21.85	47.457		

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 7829-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	4,891.5	4,775.0	4,758.0	17.4	5.2	167.67	-83.2	-852.5	1,057.6	1,035.3	22.29	47.457	
5,000.0	4,991.1	4,827.3	4,809.7	17.8	5.3	167.60	-85.9	-860.3	1,080.8	1,058.3	22.58	47.874	
5,100.0	5,090.8	4,922.7	4,903.6	18.1	5.4	167.48	-90.7	-876.3	1,106.2	1,083.2	23.01	48.076	
5,200.0	5,190.4	5,025.2	5,004.5	18.5	5.5	167.37	-95.7	-893.3	1,131.4	1,107.9	23.47	48.207	
5,300.0	5,290.0	5,149.8	5,127.6	18.8	5.6	167.22	-101.9	-911.9	1,154.9	1,130.9	24.01	48.110	
5,400.0	5,389.6	5,272.6	5,249.3	19.2	5.8	167.08	-108.1	-927.3	1,176.1	1,151.6	24.53	47.943	
5,500.0	5,489.2	5,383.4	5,359.2	19.5	5.9	166.95	-113.7	-939.5	1,195.8	1,170.7	25.02	47.794	
5,600.0	5,588.9	5,492.4	5,467.5	19.9	6.0	166.80	-119.5	-950.6	1,214.7	1,189.2	25.50	47.633	
5,700.0	5,688.5	5,583.0	5,557.6	20.2	6.1	166.71	-123.8	-959.4	1,233.1	1,207.2	25.93	47.553	
5,800.0	5,788.1	5,683.4	5,657.4	20.6	6.2	166.63	-128.2	-969.7	1,252.0	1,225.6	26.39	47.438	
5,900.0	5,887.7	5,754.3	5,727.8	21.0	6.3	166.58	-131.4	-977.3	1,271.6	1,244.8	26.76	47.513	
6,000.0	5,987.3	5,852.1	5,824.7	21.3	6.4	166.52	-135.5	-989.6	1,292.7	1,265.5	27.22	47.495	
6,100.0	6,087.0	5,958.9	5,930.7	21.7	6.5	166.43	-140.5	-1,002.2	1,313.2	1,285.5	27.70	47.401	
6,200.0	6,186.6	6,034.7	6,005.8	22.0	6.6	166.38	-144.0	-1,011.2	1,333.9	1,305.8	28.09	47.486	
6,300.0	6,286.2	6,119.6	6,089.8	22.4	6.7	166.36	-146.9	-1,023.2	1,356.5	1,328.0	28.50	47.588	
6,400.0	6,385.8	6,245.3	6,214.3	22.7	6.8	166.33	-151.4	-1,039.7	1,378.2	1,349.1	29.06	47.432	
6,500.0	6,485.4	6,369.2	6,337.4	23.1	7.0	166.27	-156.5	-1,053.1	1,397.5	1,367.9	29.60	47.215	
6,600.0	6,585.1	6,444.6	6,412.2	23.5	7.0	166.23	-159.6	-1,061.5	1,417.3	1,387.3	29.99	47.260	
6,700.0	6,684.7	6,562.4	6,529.2	23.8	7.2	166.18	-164.4	-1,074.6	1,437.1	1,406.6	30.52	47.095	
6,800.0	6,784.3	6,625.0	6,591.4	24.2	7.3	166.16	-166.7	-1,081.9	1,457.4	1,426.5	30.86	47.219	
6,900.0	6,883.9	6,682.2	6,648.0	24.5	7.3	166.15	-168.6	-1,089.9	1,480.0	1,448.8	31.19	47.453	
7,000.0	6,983.5	6,753.2	6,717.9	24.9	7.4	166.19	-170.1	-1,102.1	1,505.4	1,473.9	31.55	47.709	
7,100.0	7,083.2	6,859.7	6,821.9	25.2	7.6	166.45	-169.8	-1,133.9	1,530.5	1,498.2	32.38	47.271	
7,200.0	7,182.8	7,068.9	7,030.5	25.6	7.7	166.67	-167.2	-1,144.4	1,548.4	1,515.5	32.87	47.107	
7,300.0	7,282.4	7,160.7	7,121.8	26.0	7.8	166.85	-164.8	-1,153.9	1,566.8	1,533.5	33.31	47.041	
7,400.0	7,382.0	7,250.0	7,210.6	26.3	7.9	166.95	-164.3	-1,163.2	1,585.7	1,551.9	33.74	46.991	
7,500.0	7,481.6	7,339.2	7,299.2	26.7	8.0	166.99	-165.8	-1,173.4	1,605.5	1,571.3	34.18	46.968	
7,600.0	7,581.3	7,481.9	7,441.1	27.0	8.2	167.00	-169.1	-1,188.3	1,624.7	1,589.9	34.79	46.699	
7,700.0	7,680.9	7,589.6	7,548.3	27.4	8.5	167.05	-172.8	-1,200.1	1,639.4	1,603.8	35.58	46.075	
7,800.0	7,780.5	7,689.6	7,648.3	27.8	8.6	167.05	-174.1	-1,201.6	1,650.0	1,614.0	35.98	45.855	
7,900.0	7,880.1	7,787.3	7,746.5	28.1	8.6	167.08	-175.1	-1,204.3	1,661.8	1,625.4	36.36	45.709	
8,000.0	7,979.7	7,886.5	7,845.7	28.5	8.6	167.11	-176.1	-1,207.8	1,674.4	1,637.7	36.71	45.608	
8,100.0	8,079.4	7,986.2	7,945.4	28.8	8.7	169.80	-103.1	-1,211.2	1,686.8	1,649.5	37.31	45.214	
8,200.0	8,179.0	8,085.9	8,045.1	29.2	8.8	170.72	-76.5	-1,208.3	1,689.1	1,651.5	37.67	44.835	
8,300.0	8,278.6	8,185.6	8,144.8	29.6	8.8	171.69	-48.6	-1,206.8	1,694.8	1,656.8	38.04	44.558	
8,400.0	8,378.2	8,285.2	8,244.4	29.9	8.9	172.88	-14.0	-1,205.8	1,703.6	1,665.2	38.40	44.360	
8,500.0	8,477.8	8,384.8	8,343.9	30.3	8.9	173.53	5.1	-1,205.8	1,716.0	1,677.3	38.72	44.320 SF	
8,600.0	8,577.5	8,484.5	8,443.6	30.6	9.0	174.43	31.4	-1,207.0	1,732.8	1,693.8	39.04	44.382	
8,700.0	8,677.1	8,584.5	8,543.6	31.0	9.1	175.74	70.5	-1,208.7	1,752.9	1,713.5	39.39	44.500	
8,800.0	8,776.7	8,684.0	8,643.1	31.4	9.2	176.87	104.4	-1,209.7	1,776.4	1,736.7	39.70	44.741	
8,900.0	8,876.3	8,783.0	8,742.1	31.7	9.3	178.13	142.5	-1,210.4	1,803.7	1,763.7	40.01	45.082	
9,000.0	8,975.9	8,882.3	8,841.4	32.1	9.3	179.00	169.0	-1,210.6	1,834.8	1,794.5	40.26	45.569	
9,100.0	9,075.6	8,982.0	8,941.1	32.4	9.4	179.91	196.9	-1,211.4	1,870.2	1,829.7	40.51	46.171	
9,200.0	9,175.2	9,081.6	9,040.7	32.8	9.4	179.91	196.9	-1,211.4	1,909.4	1,868.8	40.63	46.997	
9,300.0	9,274.8	9,181.2	9,140.3	33.2	9.4	179.91	196.9	-1,211.4	1,953.0	1,912.3	40.73	47.949	
9,400.0	9,374.4	9,279.8	9,238.9	33.5	9.5	-179.31	221.3	-1,212.5	1,999.9	1,958.9	40.91	48.884	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 89-MWD, 679-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	-90.25	-2.7	-619.9	619.9				
100.0	100.0	100.1	100.1	3.0	3.0	-90.23	-2.5	-619.8	619.8	613.8	6.01	103.052	
200.0	200.0	199.7	199.7	3.0	3.1	-90.19	-2.1	-619.7	619.7	613.6	6.12	101.275	
300.0	300.0	301.9	301.9	3.1	3.2	-90.21	-2.3	-619.3	619.3	613.0	6.28	98.645	
400.0	400.0	401.9	401.9	3.2	3.3	-90.26	-2.8	-618.8	618.8	612.3	6.51	95.103	
500.0	500.0	502.1	502.1	3.4	3.6	-90.32	-3.5	-618.3	618.3	611.5	6.81	90.850	
600.0	600.0	609.0	609.0	3.6	3.8	-90.41	-4.4	-617.3	617.4	610.3	7.15	86.344	
700.0	700.0	719.5	719.4	3.8	3.9	-90.53	-5.6	-614.3	614.7	607.3	7.44	82.636	
800.0	800.0	820.8	820.6	4.0	3.9	-90.64	-6.8	-610.8	611.2	603.5	7.72	79.222	
900.0	900.0	918.9	918.7	4.2	4.0	-90.83	-8.8	-607.4	607.7	599.7	8.04	75.571	
1,000.0	1,000.0	1,013.9	1,013.6	4.5	4.1	-91.00	-10.6	-604.6	604.9	596.4	8.41	71.911	
1,100.0	1,100.0	1,117.1	1,116.8	4.8	4.2	-91.14	-12.0	-602.0	602.4	593.5	8.83	68.227	
1,200.0	1,200.0	1,214.2	1,213.9	5.1	4.4	-91.25	-13.1	-599.2	599.5	590.3	9.28	64.634	
1,300.0	1,300.0	1,308.0	1,307.6	5.4	4.5	-91.36	-14.2	-597.6	597.8	588.1	9.75	61.335	
1,400.0	1,400.0	1,406.5	1,406.1	5.7	4.7	-91.51	-15.7	-596.5	596.8	586.5	10.25	58.211	
1,500.0	1,500.0	1,511.7	1,511.3	6.0	5.0	-91.79	-18.6	-594.7	595.1	584.3	10.80	55.121	
1,600.0	1,600.0	1,614.0	1,613.5	6.3	5.2	-92.18	-22.5	-592.2	592.8	581.4	11.36	52.194	
1,700.0	1,700.0	1,710.9	1,710.2	6.6	5.5	-92.55	-26.2	-589.8	590.5	578.6	11.92	49.527	
1,800.0	1,800.0	1,804.0	1,803.3	6.9	5.7	-92.95	-30.3	-588.4	589.2	576.7	12.49	47.160	
1,850.6	1,850.6	1,850.3	1,849.5	7.1	5.8	-93.16	-32.4	-588.1	589.0	576.2	12.78	46.078	
1,900.0	1,900.0	1,897.3	1,896.4	7.2	5.9	-93.36	-34.5	-588.1	589.1	576.1	13.07	45.069	
2,000.0	2,000.0	1,997.4	1,996.5	7.6	6.2	-93.79	-39.0	-588.2	589.5	575.9	13.68	43.093	
2,100.0	2,100.0	2,096.5	2,095.5	7.9	6.5	-94.19	-43.1	-588.4	590.0	575.7	14.30	41.267	
2,200.0	2,200.0	2,197.1	2,196.0	8.2	6.8	-94.56	-47.0	-588.8	590.7	575.8	14.93	39.577	
2,300.0	2,300.0	2,313.8	2,312.5	8.6	7.1	-95.05	-51.9	-587.8	590.2	574.6	15.61	37.800	
2,400.0	2,400.0	2,424.1	2,422.6	8.9	7.5	-95.66	-57.8	-583.3	586.6	570.3	16.29	36.015	
2,500.0	2,500.0	2,532.0	2,530.2	9.2	7.8	-96.30	-63.8	-577.6	582.0	565.0	16.96	34.312	
2,600.0	2,600.0	2,648.1	2,645.7	9.6	8.2	163.52	-71.9	-568.8	577.0	559.3	17.64	32.704	
2,700.0	2,699.8	2,758.5	2,755.2	9.9	8.5	162.72	-80.4	-557.5	572.7	554.4	18.30	31.291	
2,749.8	2,749.4	2,808.0	2,804.3	10.1	8.7	162.52	-82.9	-552.2	571.5	552.9	18.63	30.685	
2,800.0	2,799.5	2,855.6	2,851.6	10.2	8.8	162.44	-84.3	-547.4	570.9	551.9	18.95	30.124	
2,879.1	2,878.3	2,928.8	2,924.5	10.5	9.1	162.38	-85.9	-540.7	570.5	551.0	19.46	29.315	
2,900.0	2,899.1	2,949.1	2,944.7	10.5	9.1	162.37	-86.3	-538.9	570.5	550.9	19.60	29.111	
3,000.0	2,998.7	3,046.1	3,041.4	10.9	9.5	162.33	-88.1	-530.9	570.9	550.6	20.25	28.189	
3,100.0	3,098.4	3,144.4	3,139.3	11.2	9.8	162.31	-89.8	-523.2	571.7	550.8	20.91	27.339	
3,200.0	3,198.0	3,244.1	3,238.8	11.5	10.1	162.34	-91.1	-515.7	572.7	551.1	21.58	26.542	
3,300.0	3,297.6	3,372.5	3,366.6	11.9	10.5	162.35	-92.6	-503.4	571.8	549.5	22.27	25.676	
3,400.0	3,397.2	3,485.8	3,478.7	12.2	10.9	162.23	-94.5	-487.4	566.3	543.3	22.94	24.684	
3,500.0	3,496.8	3,581.6	3,573.5	12.6	11.3	162.12	-96.1	-473.4	560.4	536.7	23.62	23.720	
3,600.0	3,596.5	3,679.4	3,670.3	12.9	11.6	162.05	-97.3	-459.7	554.9	530.6	24.31	22.830	
3,700.0	3,696.1	3,773.8	3,763.8	13.2	11.9	162.05	-97.9	-447.0	550.0	525.0	24.99	22.005	
3,800.0	3,795.7	3,868.0	3,857.4	13.6	12.2	162.14	-97.9	-435.9	546.6	520.9	25.68	21.288	
3,900.0	3,895.3	3,977.4	3,966.0	13.9	12.6	162.36	-96.8	-422.4	542.5	516.1	26.36	20.578	
4,000.0	3,994.9	4,079.9	4,067.4	14.3	13.0	162.66	-94.6	-408.5	537.1	510.0	27.05	19.855	
4,100.0	4,094.6	4,177.4	4,164.0	14.6	13.3	163.01	-92.1	-395.6	531.9	504.1	27.74	19.173	
4,200.0	4,194.2	4,273.6	4,259.4	15.0	13.6	163.40	-89.3	-383.4	527.2	498.8	28.43	18.541	
4,300.0	4,293.8	4,367.1	4,352.3	15.3	13.9	163.83	-86.2	-372.4	523.5	494.4	29.13	17.973	
4,400.0	4,393.4	4,463.5	4,448.1	15.7	14.3	164.33	-82.8	-362.2	521.0	491.1	29.82	17.472	
4,500.0	4,493.0	4,559.6	4,543.6	16.0	14.6	164.87	-79.2	-352.5	518.9	488.4	30.51	17.009	
4,600.0	4,592.7	4,653.0	4,636.5	16.4	14.9	165.39	-75.7	-344.1	518.0	486.8	31.19	16.605	
4,700.0	4,692.3	4,783.2	4,765.9	16.7	15.4	166.19	-70.1	-330.9	516.3	484.4	31.89	16.190	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 89-MWD, 679-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
4,800.0	4,791.9	4,911.7	4,892.2	17.1	15.8	167.16	-62.4	-308.2	506.3	473.8	32.50	15.577	
4,900.0	4,891.5	5,011.5	4,989.8	17.4	16.2	167.97	-56.2	-288.8	495.0	461.8	33.20	14.907	
5,000.0	4,991.1	5,116.5	5,092.5	17.8	16.6	168.12	-55.8	-266.9	482.5	448.6	33.88	14.240	
5,100.0	5,090.8	5,209.4	5,183.1	18.1	16.9	167.62	-60.7	-247.2	470.0	435.4	34.63	13.571	
5,200.0	5,190.4	5,300.4	5,272.3	18.5	17.2	167.10	-65.6	-229.9	459.6	424.3	35.39	12.988	
5,300.0	5,290.0	5,396.0	5,366.0	18.8	17.6	166.13	-74.0	-212.5	450.5	414.3	36.13	12.468	
5,400.0	5,389.6	5,489.2	5,457.5	19.2	17.9	165.20	-81.8	-196.4	442.3	405.4	36.87	11.995	
5,500.0	5,489.2	5,581.5	5,548.4	19.5	18.3	164.50	-87.9	-182.3	436.1	398.5	37.62	11.593	
5,600.0	5,588.9	5,676.0	5,641.9	19.9	18.6	163.88	-93.3	-169.1	431.2	392.9	38.34	11.246	
5,700.0	5,688.5	5,769.1	5,733.7	20.2	18.9	162.78	-102.5	-157.0	427.8	388.7	39.07	10.948	
5,800.0	5,788.1	5,864.1	5,827.3	20.6	19.3	161.37	-113.9	-145.8	426.2	386.4	39.79	10.709	
5,900.0	5,887.7	5,962.9	5,924.9	21.0	19.6	159.98	-125.3	-134.5	425.0	384.5	40.52	10.490	
6,000.0	5,987.3	6,061.0	6,021.8	21.3	20.0	158.74	-135.6	-123.9	424.6	383.3	41.24	10.294	
6,066.3	6,053.4	6,126.4	6,086.5	21.6	20.2	157.96	-142.1	-117.0	424.4	382.7	41.72	10.174 CC	
6,100.0	6,087.0	6,159.3	6,119.1	21.7	20.4	157.60	-145.2	-113.6	424.5	382.5	41.96	10.116	
6,200.0	6,186.6	6,256.6	6,215.5	22.0	20.7	156.62	-153.8	-104.1	425.1	382.4	42.68	9.959 ES	
6,300.0	6,286.2	6,354.2	6,312.5	22.4	21.1	155.79	-161.4	-95.4	426.3	382.9	43.39	9.824	
6,400.0	6,385.8	6,452.3	6,410.0	22.7	21.4	155.08	-168.4	-87.2	428.1	384.0	44.11	9.705	
6,500.0	6,485.4	6,548.8	6,506.0	23.1	21.8	154.51	-174.5	-80.0	430.4	385.6	44.81	9.605	
6,600.0	6,585.1	6,656.3	6,613.1	23.5	22.1	154.16	-179.2	-72.5	432.8	387.3	45.56	9.501	
6,700.0	6,684.7	6,748.3	6,704.9	23.8	22.5	154.15	-181.0	-65.9	434.4	388.2	46.24	9.395	
6,800.0	6,784.3	6,838.5	6,795.0	24.2	22.8	154.17	-183.2	-61.8	438.6	391.7	46.90	9.351 SF	
6,900.0	6,883.9	6,929.7	6,886.2	24.5	23.1	154.43	-184.1	-59.9	444.7	397.2	47.54	9.354	
7,000.0	6,983.5	7,028.0	6,984.4	24.9	23.4	154.92	-183.9	-59.6	452.2	404.0	48.22	9.378	
7,100.0	7,083.2	7,130.6	7,087.0	25.2	23.8	155.72	-181.2	-59.6	459.4	410.5	48.92	9.391	
7,200.0	7,182.8	7,226.6	7,182.9	25.6	24.1	156.56	-177.7	-59.7	466.6	417.0	49.57	9.413	
7,300.0	7,282.4	7,317.9	7,274.2	26.0	24.4	157.28	-175.2	-60.8	475.2	425.0	50.17	9.472	
7,400.0	7,382.0	7,411.4	7,367.6	26.3	24.7	157.92	-173.4	-63.3	485.4	434.6	50.77	9.560	
7,500.0	7,481.6	7,511.4	7,467.6	26.7	25.0	158.47	-172.6	-66.4	496.3	444.9	51.45	9.647	
7,600.0	7,581.3	7,614.6	7,570.8	27.0	25.3	158.85	-173.0	-68.6	506.7	454.5	52.16	9.714	
7,700.0	7,680.9	7,707.7	7,663.9	27.4	25.6	159.13	-173.8	-70.7	517.2	464.4	52.77	9.801	
7,800.0	7,780.5	7,801.9	7,758.0	27.8	25.9	159.42	-174.9	-74.0	528.9	475.5	53.39	9.907	
7,900.0	7,880.1	7,910.1	7,866.1	28.1	26.3	159.74	-175.9	-77.5	540.4	486.2	54.15	9.979	
8,000.0	7,979.7	8,025.9	7,981.9	28.5	26.6	160.06	-176.5	-78.4	549.4	494.5	54.99	9.992	
8,100.0	8,079.4	8,141.8	8,097.4	28.8	27.0	161.25	-168.0	-77.6	555.8	500.0	55.78	9.964	
8,200.0	8,179.0	8,249.9	8,203.5	29.2	27.4	163.56	-147.9	-75.8	559.6	503.1	56.49	9.907	
8,300.0	8,278.6	8,358.3	8,306.6	29.6	27.7	167.16	-114.6	-74.0	563.4	506.2	57.18	9.853	
8,400.0	8,378.2	8,435.3	8,377.2	29.9	28.0	170.41	-83.7	-72.7	568.9	511.2	57.67	9.865	
8,500.0	8,477.8	8,501.0	8,435.6	30.3	28.2	173.48	-53.8	-74.1	581.1	523.2	57.89	10.038	
8,600.0	8,577.5	8,564.0	8,490.4	30.6	28.3	176.54	-23.0	-77.8	600.5	542.6	57.86	10.379	
8,700.0	8,677.1	8,635.8	8,546.1	31.0	28.5	-179.20	21.9	-81.4	626.6	568.9	57.68	10.864	
8,800.0	8,776.7	8,708.4	8,588.6	31.4	28.7	-173.77	80.2	-77.8	658.2	601.1	57.07	11.533	
8,900.0	8,876.3	8,731.1	8,598.7	31.7	28.7	-171.91	100.5	-75.7	700.2	644.8	55.39	12.643	
9,000.0	8,975.9	8,746.7	8,604.6	32.1	28.7	-170.62	114.8	-74.2	752.2	698.8	53.40	14.086	
9,100.0	9,075.6	8,768.0	8,611.4	32.4	28.8	-168.83	134.9	-72.2	812.9	761.4	51.50	15.784	
9,200.0	9,175.2	8,768.0	8,611.4	32.8	28.8	-168.83	134.9	-72.2	880.0	830.6	49.46	17.793	
9,300.0	9,274.8	8,781.0	8,615.0	33.2	28.8	-167.73	147.3	-71.0	952.8	905.0	47.80	19.930	
9,400.0	9,374.4	8,800.0	8,620.0	33.5	28.8	-166.16	165.6	-69.6	1,029.8	983.4	46.46	22.166	
9,500.0	9,474.0	8,800.0	8,620.0	33.9	28.8	-166.16	165.6	-69.6	1,110.2	1,065.1	45.11	24.611	
9,600.0	9,573.7	8,812.6	8,623.1	34.3	28.8	-165.14	177.7	-68.8	1,193.4	1,149.3	44.12	27.047	
9,684.3	9,657.6	8,819.7	8,624.8	34.6	28.8	-164.57	184.6	-68.4	1,265.3	1,221.9	43.39	29.157	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 89-MWD, 679-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
9,700.0	9,673.3	8,821.0	8,625.2	34.6	28.8	-141.47	185.9	-68.4	1,278.8	1,235.5	43.27	29.553	
9,725.0	9,698.1	8,831.0	8,627.4	34.7	28.8	-114.36	195.6	-67.9	1,300.4	1,257.2	43.17	30.125	
9,750.0	9,722.8	8,831.0	8,627.4	34.8	28.8	-97.78	195.6	-67.9	1,321.7	1,278.8	42.96	30.770	
9,775.0	9,747.4	8,831.0	8,627.4	34.9	28.8	-86.40	195.6	-67.9	1,343.0	1,300.2	42.75	31.412	
9,800.0	9,771.7	8,831.0	8,627.4	35.0	28.8	-77.86	195.6	-67.9	1,364.0	1,321.4	42.56	32.051	
9,825.0	9,795.6	8,831.0	8,627.4	35.1	28.8	-71.04	195.6	-67.9	1,384.8	1,342.4	42.37	32.684	
9,850.0	9,819.2	8,831.0	8,627.4	35.1	28.8	-65.38	195.6	-67.9	1,405.3	1,363.1	42.19	33.310	
9,875.0	9,842.3	8,845.1	8,630.5	35.2	28.9	-60.18	209.4	-67.5	1,425.3	1,383.2	42.15	33.816	
9,900.0	9,864.9	8,849.6	8,631.4	35.3	28.9	-56.01	213.8	-67.3	1,445.0	1,403.0	42.02	34.385	
9,925.0	9,886.9	8,863.0	8,633.9	35.4	28.9	-52.23	226.9	-67.0	1,464.3	1,422.3	41.98	34.879	
9,950.0	9,908.2	8,863.0	8,633.9	35.5	28.9	-49.20	226.9	-67.0	1,482.9	1,441.1	41.83	35.453	
9,975.0	9,928.9	8,863.0	8,633.9	35.5	28.9	-46.52	226.9	-67.0	1,501.1	1,459.4	41.69	36.010	
10,000.0	9,948.8	8,863.0	8,633.9	35.6	28.9	-44.15	226.9	-67.0	1,518.8	1,477.2	41.55	36.549	
10,025.0	9,967.9	8,878.4	8,636.6	35.6	28.9	-41.93	242.1	-66.7	1,535.7	1,494.1	41.55	36.963	
10,050.0	9,986.2	8,895.0	8,639.1	35.7	28.9	-40.00	258.5	-66.4	1,552.0	1,510.5	41.55	37.354	
10,075.0	10,003.5	8,895.0	8,639.1	35.8	28.9	-38.39	258.5	-66.4	1,567.6	1,526.1	41.44	37.826	
10,100.0	10,019.9	8,895.0	8,639.1	35.8	28.9	-36.94	258.5	-66.4	1,582.5	1,541.1	41.35	38.273	
10,125.0	10,035.2	8,895.0	8,639.1	35.9	28.9	-35.64	258.5	-66.4	1,596.7	1,555.4	41.27	38.692	
10,150.0	10,049.5	8,909.1	8,640.9	35.9	28.9	-34.49	272.5	-66.1	1,610.0	1,568.7	41.28	39.005	
10,175.0	10,062.8	8,926.0	8,642.6	35.9	28.9	-33.48	289.3	-65.8	1,622.8	1,581.5	41.30	39.290	
10,200.0	10,074.9	8,926.0	8,642.6	36.0	28.9	-32.59	289.3	-65.8	1,634.6	1,593.3	41.26	39.620	
10,225.0	10,085.8	8,926.0	8,642.6	36.0	28.9	-31.79	289.3	-65.8	1,645.6	1,604.3	41.23	39.916	
10,250.0	10,095.6	8,926.0	8,642.6	36.0	28.9	-31.07	289.3	-65.8	1,655.8	1,614.6	41.21	40.177	
10,275.0	10,104.2	8,945.6	8,643.9	36.1	29.0	-30.53	308.9	-65.4	1,665.0	1,623.8	41.28	40.335	
10,300.0	10,111.5	8,956.1	8,644.5	36.1	29.0	-30.04	319.3	-65.2	1,673.4	1,632.1	41.32	40.495	
10,325.0	10,117.6	8,966.6	8,645.0	36.1	29.0	-29.63	329.9	-65.0	1,680.8	1,639.4	41.38	40.621	
10,350.0	10,122.3	8,989.0	8,645.8	36.2	29.0	-29.37	352.2	-64.6	1,687.4	1,645.9	41.47	40.688	
10,375.0	10,125.9	8,989.0	8,645.8	36.2	29.0	-29.06	352.2	-64.6	1,692.8	1,651.3	41.52	40.769	
10,400.0	10,128.1	9,010.8	8,646.4	36.2	29.0	-28.97	374.0	-64.3	1,697.3	1,655.6	41.64	40.765	
10,425.0	10,129.0	9,035.0	8,647.1	36.2	29.1	-28.98	398.2	-64.0	1,700.6	1,658.8	41.76	40.720	
10,428.3	10,129.0	9,038.2	8,647.2	36.2	29.1	-28.98	401.4	-64.0	1,700.9	1,659.1	41.78	40.711	
10,500.0	10,129.2	9,105.5	8,649.5	36.3	29.2	-29.63	468.7	-63.7	1,707.9	1,665.8	42.17	40.504	
10,600.0	10,129.6	9,179.0	8,651.6	36.4	29.3	-30.28	542.1	-63.3	1,716.9	1,674.2	42.66	40.248	
10,700.0	10,130.0	9,274.0	8,652.6	36.5	29.4	-30.91	637.1	-62.2	1,725.4	1,682.2	43.17	39.968	
10,800.0	10,130.3	9,331.5	8,651.6	36.7	29.6	-31.24	694.6	-60.9	1,733.8	1,690.2	43.60	39.770	
10,900.0	10,130.7	9,459.8	8,648.3	36.9	29.8	-31.63	822.7	-57.7	1,741.5	1,697.4	44.10	39.487	
11,000.0	10,131.0	9,538.1	8,647.7	37.0	30.0	-31.84	901.1	-56.5	1,746.1	1,701.6	44.56	39.182	
11,100.0	10,131.4	9,622.5	8,645.7	37.2	30.2	-31.93	985.4	-55.0	1,750.1	1,705.1	45.02	38.873	
11,200.0	10,131.7	9,779.1	8,644.1	37.4	30.7	-31.88	1,141.9	-51.7	1,750.9	1,705.2	45.66	38.344	
11,234.8	10,131.9	9,805.3	8,644.7	37.5	30.8	-31.87	1,168.1	-51.8	1,750.3	1,704.5	45.83	38.190	
11,300.0	10,132.1	9,844.0	8,645.8	37.7	30.9	-31.90	1,206.8	-52.9	1,749.5	1,703.4	46.13	37.925	
11,351.1	10,132.3	9,891.0	8,646.7	37.8	31.1	-31.94	1,253.8	-54.4	1,749.3	1,702.8	46.45	37.661	
11,400.0	10,132.4	9,938.0	8,646.6	37.9	31.2	-31.94	1,300.8	-55.1	1,749.5	1,702.8	46.74	37.429	
11,500.0	10,132.8	10,001.1	8,645.6	38.2	31.4	-31.91	1,363.8	-56.0	1,751.0	1,703.7	47.28	37.038	
11,600.0	10,133.2	10,077.5	8,643.7	38.4	31.7	-31.90	1,440.2	-57.8	1,753.9	1,706.0	47.90	36.619	
11,700.0	10,133.5	10,199.1	8,640.7	38.7	32.2	-31.87	1,561.7	-60.9	1,756.9	1,708.2	48.69	36.083	
11,800.0	10,133.9	10,318.0	8,641.7	39.0	32.6	-31.95	1,680.5	-64.9	1,757.3	1,707.7	49.57	35.449	
11,900.0	10,134.2	10,412.0	8,641.9	39.4	33.0	-32.01	1,774.5	-68.6	1,758.7	1,708.3	50.40	34.896	
12,000.0	10,134.6	10,466.0	8,640.5	39.7	33.3	-32.01	1,828.4	-70.4	1,761.9	1,710.8	51.09	34.486	
12,100.0	10,134.9	10,642.2	8,635.9	40.1	34.1	-31.95	2,004.5	-74.0	1,765.3	1,713.1	52.27	33.776	
12,200.0	10,135.3	10,780.7	8,638.3	40.4	34.7	-31.97	2,143.0	-75.5	1,763.9	1,710.5	53.39	33.035	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 89-MWD, 679-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	
12,300.0	10,135.6	10,865.8	8,641.0	40.8	35.1	-32.03	2,228.0	-77.4	1,761.9	1,707.6	54.31	32.439	
12,400.0	10,136.0	10,943.8	8,643.2	41.2	35.5	-32.11	2,305.9	-80.3	1,761.1	1,705.8	55.24	31.882	
12,414.8	10,136.1	10,955.2	8,643.5	41.3	35.6	-32.13	2,317.2	-80.9	1,761.1	1,705.7	55.38	31.801	
12,500.0	10,136.4	11,014.7	8,644.7	41.6	35.9	-32.20	2,376.7	-83.9	1,761.6	1,705.5	56.15	31.371	
12,600.0	10,136.7	11,076.0	8,644.2	42.1	36.2	-32.23	2,437.9	-86.4	1,764.1	1,707.1	57.03	30.934	
12,700.0	10,137.1	11,155.8	8,641.7	42.5	36.6	-32.23	2,517.6	-89.2	1,768.2	1,710.2	58.00	30.485	
12,800.0	10,137.4	11,239.5	8,638.0	43.0	37.1	-32.22	2,601.2	-92.5	1,773.5	1,714.4	59.01	30.053	
12,900.0	10,137.8	11,498.9	8,635.7	43.4	38.6	-32.14	2,860.4	-95.3	1,773.7	1,712.8	60.92	29.117	
13,000.0	10,138.1	11,619.8	8,638.5	43.9	39.3	-32.02	2,981.3	-91.5	1,769.6	1,707.5	62.14	28.476	
13,100.0	10,138.5	11,717.4	8,639.9	44.4	39.8	-31.86	3,078.7	-86.4	1,765.2	1,701.9	63.24	27.911	
13,200.0	10,138.8	11,806.1	8,640.1	44.9	40.4	-31.67	3,167.2	-80.7	1,761.1	1,696.8	64.30	27.388	
13,300.0	10,139.2	11,911.7	8,639.7	45.4	41.0	-31.42	3,272.6	-73.6	1,757.5	1,692.0	65.46	26.849	
13,400.0	10,139.6	12,022.6	8,639.6	45.9	41.7	-31.13	3,383.2	-65.2	1,753.2	1,686.5	66.65	26.304	
13,500.0	10,139.9	12,119.0	8,641.3	46.5	42.3	-30.98	3,479.4	-60.5	1,748.7	1,680.9	67.83	25.781	
13,600.0	10,140.3	12,214.0	8,643.9	47.0	42.9	-30.90	3,574.3	-57.6	1,744.4	1,675.3	69.03	25.269	
13,700.0	10,140.6	12,301.8	8,646.2	47.6	43.4	-30.84	3,662.1	-55.6	1,740.6	1,670.3	70.22	24.788	
13,800.0	10,141.0	12,380.5	8,647.2	48.1	43.9	-30.77	3,740.7	-53.8	1,737.7	1,666.4	71.36	24.352	
13,900.0	10,141.3	12,465.2	8,646.9	48.7	44.5	-30.65	3,825.4	-51.2	1,736.1	1,663.5	72.53	23.935	
14,000.0	10,141.7	12,551.3	8,645.7	49.3	45.1	-30.51	3,911.4	-48.4	1,735.2	1,661.4	73.72	23.537	
14,100.0	10,142.0	12,671.6	8,645.6	49.9	45.9	-30.43	4,031.7	-47.7	1,734.6	1,659.5	75.14	23.085	
14,200.0	10,142.4	12,782.0	8,650.0	50.4	46.6	-30.55	4,142.0	-51.2	1,732.4	1,655.8	76.57	22.625	
14,300.0	10,142.8	12,859.9	8,652.5	51.0	47.1	-30.62	4,219.8	-53.5	1,730.6	1,652.8	77.81	22.243	
14,353.4	10,143.0	12,896.5	8,653.3	51.4	47.4	-30.66	4,256.4	-54.7	1,730.3	1,651.9	78.44	22.061	
14,400.0	10,143.1	12,926.5	8,653.7	51.7	47.6	-30.68	4,286.3	-55.8	1,730.6	1,651.6	78.97	21.914	
14,500.0	10,143.5	12,997.0	8,653.3	52.3	48.1	-30.72	4,356.8	-58.6	1,732.5	1,652.4	80.16	21.614	
14,600.0	10,143.8	13,082.3	8,651.8	52.9	48.7	-30.75	4,442.0	-62.0	1,735.6	1,654.2	81.43	21.313	
14,700.0	10,144.2	13,166.8	8,649.6	53.5	49.3	-30.77	4,526.4	-65.5	1,739.5	1,656.8	82.71	21.031	
14,800.0	10,144.5	13,257.6	8,646.8	54.2	49.9	-30.80	4,617.1	-69.8	1,744.2	1,660.2	84.04	20.754	
14,900.0	10,144.9	13,398.2	8,643.5	54.8	50.9	-30.87	4,757.5	-76.4	1,748.3	1,662.6	85.73	20.394	
15,000.0	10,145.3	13,513.6	8,643.7	55.4	51.7	-30.96	4,872.8	-81.5	1,749.9	1,662.7	87.25	20.056	
15,100.0	10,145.6	13,594.9	8,643.4	56.1	52.3	-31.02	4,954.0	-85.1	1,752.1	1,663.5	88.55	19.786	
15,182.5	10,145.9	13,655.8	8,642.2	56.6	52.8	-31.04	5,014.9	-87.5	1,754.8	1,665.3	89.57	19.591	
15,200.0	10,146.0	13,667.7	8,641.8	56.8	52.8	-31.03	5,026.7	-88.0	1,755.6	1,665.8	89.78	19.554	
15,221.1	10,146.0	13,681.9	8,641.3	56.9	53.0	-31.02	5,040.9	-88.5	1,756.7	1,666.6	90.03	19.512	
15,300.0	10,146.3	13,845.1	8,636.7	57.4	54.1	-31.07	5,203.9	-93.7	1,761.1	1,669.4	91.72	19.201	
15,400.0	10,146.7	13,986.3	8,641.8	58.1	55.2	-31.25	5,345.0	-97.7	1,759.4	1,666.0	93.44	18.829	
15,500.0	10,147.0	14,078.9	8,645.7	58.8	55.9	-31.40	5,437.4	-101.0	1,757.9	1,663.1	94.87	18.529	
15,600.0	10,147.4	14,166.2	8,649.2	59.5	56.5	-31.55	5,524.6	-104.6	1,756.9	1,660.7	96.28	18.248	
15,657.9	10,147.6	14,214.4	8,650.7	59.8	56.9	-31.63	5,572.6	-106.7	1,756.8	1,659.7	97.08	18.096	
15,700.0	10,147.7	14,248.8	8,651.6	60.1	57.1	-31.69	5,607.1	-108.1	1,756.9	1,659.2	97.66	17.990	
15,800.0	10,148.1	14,335.0	8,652.8	60.8	57.8	-31.78	5,693.1	-111.1	1,757.8	1,658.7	99.05	17.747	
15,900.0	10,148.4	14,423.0	8,653.5	61.5	58.4	-31.87	5,781.1	-114.2	1,759.3	1,658.8	100.45	17.514	
16,000.0	10,148.8	14,503.5	8,653.2	62.2	59.0	-31.94	5,861.6	-117.1	1,761.7	1,660.0	101.79	17.308	
16,100.0	10,149.2	14,593.7	8,651.9	62.9	59.7	-32.00	5,951.7	-120.5	1,765.1	1,661.9	103.20	17.104	
16,200.0	10,149.5	14,723.0	8,650.0	63.6	60.7	-32.03	6,081.0	-123.0	1,767.6	1,662.7	104.88	16.854	
16,300.0	10,149.9	14,842.0	8,648.3	64.3	61.6	-31.99	6,200.0	-123.1	1,769.1	1,662.7	106.46	16.618	
16,400.0	10,150.2	14,945.7	8,647.4	65.0	62.4	-31.94	6,303.6	-122.3	1,769.7	1,661.8	107.95	16.394	
16,500.0	10,150.6	15,033.4	8,646.4	65.8	63.1	-31.90	6,391.3	-121.7	1,770.6	1,661.3	109.34	16.194	
16,600.0	10,150.9	15,130.1	8,644.8	66.5	63.8	-31.86	6,488.0	-121.6	1,772.1	1,661.4	110.79	15.996	
16,700.0	10,151.3	15,215.0	8,643.0	67.2	64.5	-31.81	6,572.9	-121.2	1,774.0	1,661.8	112.16	15.817	
16,800.0	10,151.6	15,296.2	8,640.7	67.9	65.1	-31.77	6,654.1	-121.5	1,776.9	1,663.4	113.50	15.655	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 89-MWD, 679-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	
16,900.0	10,152.0	15,420.2	8,636.7	68.7	66.1	-31.68	6,778.0	-120.9	1,779.6	1,664.4	115.14	15.455	
17,000.0	10,152.3	15,580.3	8,636.0	69.4	67.3	-31.56	6,938.1	-117.3	1,778.4	1,661.5	116.98	15.203	
17,100.0	10,152.7	15,667.6	8,637.2	70.1	68.0	-31.56	7,025.3	-117.1	1,777.4	1,659.0	118.41	15.011	
17,151.0	10,152.9	15,708.0	8,637.7	70.5	68.3	-31.58	7,065.7	-117.5	1,777.2	1,658.1	119.12	14.920	
17,200.0	10,153.1	15,746.0	8,638.1	70.9	68.6	-31.60	7,103.8	-118.1	1,777.4	1,657.6	119.79	14.838	
17,300.0	10,153.4	15,818.0	8,638.2	71.6	69.1	-31.64	7,175.7	-119.6	1,778.7	1,657.5	121.11	14.686	
17,400.0	10,153.8	15,902.1	8,637.5	72.3	69.8	-31.69	7,259.8	-122.1	1,781.2	1,658.6	122.52	14.538	
17,500.0	10,154.1	16,148.4	8,640.0	73.1	71.7	-31.82	7,505.8	-126.2	1,783.3	1,658.4	124.88	14.279	
17,600.0	10,154.5	16,226.6	8,643.3	73.8	72.4	-31.82	7,583.9	-124.6	1,778.8	1,652.5	126.31	14.083	
17,700.0	10,154.8	16,307.3	8,645.8	74.6	73.0	-31.82	7,664.6	-123.0	1,775.5	1,647.7	127.74	13.899	
17,800.0	10,155.2	16,386.0	8,647.3	75.3	73.6	-31.80	7,743.3	-121.7	1,773.2	1,644.1	129.14	13.731	
17,900.0	10,155.5	16,481.0	8,649.0	76.1	74.4	-31.81	7,838.2	-121.3	1,771.8	1,641.1	130.64	13.562	
17,998.9	10,155.9	16,556.4	8,650.2	76.8	75.0	-31.84	7,913.6	-122.0	1,771.1	1,639.1	132.02	13.416	
18,000.0	10,155.9	16,557.2	8,650.2	76.9	75.0	-31.84	7,914.4	-122.0	1,771.1	1,639.1	132.03	13.414	
18,100.0	10,156.2	16,637.9	8,650.5	77.6	75.6	-31.87	7,995.1	-123.0	1,771.7	1,638.2	133.44	13.277	
18,200.0	10,156.6	16,735.9	8,650.0	78.4	76.4	-31.88	8,093.1	-124.3	1,773.0	1,638.1	134.96	13.138	
18,300.0	10,156.9	16,837.2	8,650.1	79.1	77.2	-31.92	8,194.4	-126.1	1,774.2	1,637.6	136.50	12.997	
18,400.0	10,157.3	16,946.0	8,650.4	79.9	78.1	-31.97	8,303.2	-128.0	1,775.1	1,637.0	138.10	12.854	
18,500.0	10,157.7	17,031.7	8,650.1	80.7	78.8	-31.98	8,388.9	-128.7	1,776.1	1,636.6	139.54	12.728	
18,600.0	10,158.0	17,127.9	8,648.3	81.4	79.5	-31.94	8,485.0	-128.5	1,777.8	1,636.7	141.04	12.605	
18,700.0	10,158.4	17,305.9	8,649.5	82.2	81.0	-31.89	8,663.0	-126.9	1,776.8	1,633.8	143.02	12.424	
18,800.0	10,158.7	17,414.7	8,652.4	83.0	81.8	-31.88	8,771.7	-124.7	1,773.7	1,629.1	144.59	12.268	
18,900.0	10,159.1	17,508.0	8,655.2	83.8	82.6	-31.88	8,865.0	-123.3	1,770.7	1,624.6	146.10	12.120	
19,000.0	10,159.4	17,581.0	8,656.9	84.5	83.2	-31.88	8,938.0	-122.7	1,768.5	1,621.0	147.50	11.989	
19,100.0	10,159.8	17,660.0	8,657.2	85.3	83.8	-31.86	9,017.0	-122.1	1,767.9	1,619.0	148.92	11.872	
19,130.1	10,159.9	17,687.8	8,657.2	85.5	84.0	-31.86	9,044.8	-121.9	1,767.9	1,618.5	149.37	11.836	
19,200.0	10,160.1	17,756.6	8,657.1	86.1	84.6	-31.84	9,113.6	-121.5	1,767.9	1,617.5	150.44	11.752	
19,300.0	10,160.5	17,857.0	8,656.7	86.9	85.4	-31.79	9,213.9	-120.4	1,768.0	1,616.0	151.97	11.634	
19,400.0	10,160.8	17,962.6	8,656.2	87.7	86.3	-31.74	9,319.5	-119.1	1,768.0	1,614.4	153.53	11.515	
19,494.7	10,161.2	18,052.5	8,655.9	88.4	87.0	-31.68	9,409.4	-117.6	1,767.7	1,612.7	154.95	11.408	
19,500.0	10,161.2	18,057.0	8,655.8	88.4	87.0	-31.68	9,414.0	-117.6	1,767.7	1,612.6	155.03	11.402	
19,600.0	10,161.6	18,146.0	8,655.2	89.2	87.7	-31.64	9,503.0	-116.7	1,768.1	1,611.6	156.50	11.298	
19,700.0	10,161.9	18,242.5	8,654.3	90.0	88.5	-31.61	9,599.4	-116.4	1,768.9	1,610.9	158.01	11.195	
19,800.0	10,162.3	18,345.8	8,653.7	90.8	89.4	-31.59	9,702.7	-116.4	1,769.7	1,610.1	159.58	11.090	
19,900.0	10,162.6	18,445.8	8,653.2	91.6	90.2	-31.57	9,802.7	-116.5	1,770.3	1,609.2	161.13	10.987	
20,000.0	10,163.0	18,541.8	8,652.9	92.4	91.0	-31.57	9,898.8	-116.9	1,771.1	1,608.5	162.65	10.889	
20,100.0	10,163.3	18,640.9	8,652.5	93.2	91.8	-31.57	9,997.8	-117.5	1,772.1	1,607.9	164.20	10.792	
20,200.0	10,163.7	18,734.2	8,651.9	94.0	92.5	-31.57	10,091.2	-118.2	1,773.2	1,607.4	165.71	10.700	
20,289.0	10,164.0	18,821.5	8,651.2	94.7	93.3	-31.57	10,178.4	-119.0	1,774.4	1,607.3	167.08	10.620	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 20-MWD+IFR1+FDIR, 697-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	2.1	2.1	3.0	3.0	89.74	4.9	1,100.1	1,100.1				
100.0	100.0	106.7	106.7	3.0	3.0	89.76	4.7	1,100.0	1,100.0	1,094.0	6.01	183.110	
200.0	200.0	219.1	219.1	3.0	3.1	89.78	4.3	1,098.9	1,099.1	1,093.0	6.09	180.396	
300.0	300.0	326.7	326.7	3.1	3.1	89.79	4.0	1,096.8	1,097.0	1,090.8	6.26	175.132	
400.0	400.0	416.6	416.6	3.2	3.3	89.82	3.4	1,094.9	1,095.0	1,088.5	6.49	168.656	
500.0	500.0	506.0	505.9	3.4	3.4	89.85	2.8	1,094.4	1,094.4	1,087.6	6.78	161.401	
600.0	600.0	611.4	611.4	3.6	3.6	89.87	2.5	1,093.8	1,093.9	1,086.7	7.14	153.223	
700.0	700.0	702.8	702.7	3.8	3.7	89.85	2.8	1,093.4	1,093.5	1,086.0	7.44	147.053	
719.3	719.3	721.5	721.5	3.8	3.7	89.85	2.9	1,093.4	1,093.4	1,086.0	7.48	146.109	
800.0	800.0	799.9	799.8	4.0	3.7	89.82	3.5	1,093.5	1,093.5	1,085.8	7.70	142.008	
900.0	900.0	896.0	896.0	4.2	3.8	89.79	4.0	1,093.9	1,093.9	1,085.9	8.01	136.546	
1,000.0	1,000.0	991.6	991.5	4.5	3.9	89.78	4.3	1,094.6	1,094.7	1,086.3	8.37	130.859	
1,100.0	1,100.0	1,085.9	1,085.9	4.8	4.0	89.77	4.4	1,095.8	1,095.9	1,087.1	8.76	125.151	
1,200.0	1,200.0	1,179.3	1,179.2	5.1	4.1	89.77	4.4	1,097.5	1,097.7	1,088.5	9.18	119.572	
1,300.0	1,300.0	1,275.6	1,275.5	5.4	4.3	89.81	3.7	1,099.7	1,100.0	1,090.4	9.64	114.122	
1,400.0	1,400.0	1,375.4	1,375.3	5.7	4.5	89.87	2.6	1,102.1	1,102.4	1,092.3	10.13	108.794	
1,500.0	1,500.0	1,473.3	1,473.1	6.0	4.7	89.93	1.4	1,104.6	1,105.0	1,094.3	10.65	103.772	
1,600.0	1,600.0	1,571.4	1,571.2	6.3	4.9	89.99	0.2	1,107.2	1,107.7	1,096.5	11.19	99.026	
1,700.0	1,700.0	1,670.6	1,670.3	6.6	5.2	90.07	-1.3	1,110.1	1,110.6	1,098.8	11.74	94.557	
1,800.0	1,800.0	1,773.5	1,773.1	6.9	5.4	90.14	-2.8	1,113.0	1,113.3	1,101.0	12.33	90.286	
1,900.0	1,900.0	1,875.6	1,875.3	7.2	5.7	90.21	-4.1	1,115.5	1,115.8	1,102.9	12.93	86.291	
2,000.0	2,000.0	1,981.1	1,980.7	7.6	6.0	90.27	-5.2	1,117.8	1,118.1	1,104.5	13.55	82.495	
2,100.0	2,100.0	2,082.3	2,081.9	7.9	6.3	90.31	-6.0	1,119.7	1,119.9	1,105.7	14.17	79.006	
2,200.0	2,200.0	2,180.4	2,180.0	8.2	6.6	90.34	-6.7	1,121.5	1,121.7	1,106.9	14.80	75.818	
2,300.0	2,300.0	2,268.2	2,267.7	8.6	6.8	90.39	-7.7	1,123.6	1,124.2	1,108.8	15.39	73.045	
2,400.0	2,400.0	2,348.2	2,347.7	8.9	7.1	90.46	-9.1	1,126.7	1,128.1	1,112.1	15.96	70.666	
2,500.0	2,500.0	2,439.6	2,438.9	9.2	7.4	90.57	-11.3	1,131.7	1,133.6	1,117.0	16.58	68.371	
2,600.0	2,600.0	2,548.6	2,547.7	9.6	7.7	-8.71	-13.1	1,137.5	1,137.1	1,119.9	17.26	65.894	
2,700.0	2,699.8	2,632.9	2,631.9	9.9	8.0	-8.69	-14.1	1,141.8	1,137.1	1,119.3	17.84	63.753	
2,749.8	2,749.4	2,671.2	2,670.1	10.1	8.1	-8.66	-15.2	1,144.3	1,136.6	1,118.5	18.11	62.756	
2,800.0	2,799.5	2,769.1	2,767.7	10.2	8.4	-8.52	-19.4	1,149.3	1,134.9	1,116.3	18.62	60.965	
2,900.0	2,899.1	2,936.3	2,934.7	10.5	8.9	-8.10	-29.6	1,147.0	1,124.1	1,104.7	19.45	57.793	
3,000.0	2,998.7	3,034.8	3,032.8	10.9	9.2	-7.86	-35.5	1,143.9	1,112.6	1,092.5	20.08	55.395	
3,100.0	3,098.4	3,130.9	3,128.7	11.2	9.5	-7.62	-41.0	1,141.2	1,101.2	1,080.5	20.72	53.154	
3,200.0	3,198.0	3,229.3	3,227.0	11.5	9.9	-7.38	-46.6	1,138.5	1,090.1	1,068.8	21.36	51.029	
3,300.0	3,297.6	3,326.2	3,323.8	11.9	10.2	-7.16	-51.9	1,136.1	1,079.1	1,057.1	22.01	49.033	
3,400.0	3,397.2	3,427.0	3,424.4	12.2	10.5	-6.93	-57.1	1,133.6	1,068.2	1,045.6	22.67	47.125	
3,500.0	3,496.8	3,520.9	3,518.1	12.6	10.8	-6.74	-61.5	1,131.4	1,057.5	1,034.2	23.31	45.359	
3,600.0	3,596.5	3,619.0	3,616.2	12.9	11.1	-6.55	-65.8	1,129.5	1,047.2	1,023.2	23.98	43.676	
3,700.0	3,696.1	3,716.2	3,713.2	13.2	11.4	-6.37	-69.9	1,127.8	1,037.0	1,012.3	24.64	42.089	
3,800.0	3,795.7	3,817.9	3,814.8	13.6	11.8	-6.19	-74.0	1,126.0	1,026.7	1,001.4	25.31	40.560	
3,900.0	3,895.3	3,913.2	3,910.0	13.9	12.1	-6.04	-77.6	1,124.4	1,016.7	990.7	25.98	39.137	
4,000.0	3,994.9	4,012.8	4,009.6	14.3	12.4	-5.89	-80.9	1,123.0	1,006.8	980.1	26.65	37.774	
4,100.0	4,094.6	4,115.2	4,111.9	14.6	12.8	-5.75	-84.2	1,121.3	996.7	969.4	27.34	36.458	
4,200.0	4,194.2	4,212.4	4,209.0	15.0	13.1	-5.62	-87.2	1,119.8	986.7	958.7	28.01	35.222	
4,300.0	4,293.8	4,312.9	4,309.5	15.3	13.4	-5.48	-90.3	1,118.3	976.8	948.1	28.70	34.037	
4,400.0	4,393.4	4,415.9	4,412.4	15.7	13.8	-5.35	-93.2	1,116.4	966.4	937.0	29.39	32.883	
4,500.0	4,493.0	4,512.6	4,509.1	16.0	14.1	-5.24	-95.8	1,114.7	956.2	926.1	30.07	31.803	
4,600.0	4,592.7	4,611.7	4,608.2	16.4	14.4	-5.14	-98.1	1,113.1	946.1	915.4	30.75	30.767	
4,700.0	4,692.3	4,713.5	4,709.9	16.7	14.8	-5.03	-100.5	1,111.4	936.0	904.5	31.44	29.767	
4,800.0	4,791.9	4,815.7	4,812.1	17.1	15.1	-4.94	-102.6	1,109.4	925.5	893.3	32.14	28.798	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 20-MWD+IFR1+FDIR, 697-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	4,891.5	4,915.5	4,911.8	17.4	15.5	-4.85	-104.5	1,107.2	914.8	882.0	32.82	27.870	
5,000.0	4,991.1	5,015.2	5,011.4	17.8	15.8	-4.78	-106.4	1,105.1	904.2	870.7	33.51	26.979	
5,100.0	5,090.8	5,116.1	5,112.3	18.1	16.2	-4.70	-108.1	1,102.9	893.4	859.2	34.21	26.119	
5,200.0	5,190.4	5,218.7	5,214.9	18.5	16.5	-4.58	-110.5	1,100.3	882.4	847.5	34.90	25.282	
5,300.0	5,290.0	5,318.9	5,314.9	18.8	16.9	-4.42	-113.4	1,097.4	871.2	835.6	35.60	24.473	
5,400.0	5,389.6	5,418.2	5,414.2	19.2	17.2	-4.25	-116.3	1,094.6	859.9	823.6	36.29	23.694	
5,500.0	5,489.2	5,513.8	5,509.7	19.5	17.5	-4.10	-118.9	1,092.1	848.8	811.9	36.98	22.954	
5,600.0	5,588.9	5,608.4	5,604.3	19.9	17.9	-3.96	-121.4	1,090.0	838.3	800.6	37.67	22.255	
5,700.0	5,688.5	5,707.2	5,703.0	20.2	18.2	-3.79	-124.2	1,088.3	828.1	789.7	38.37	21.584	
5,800.0	5,788.1	5,806.9	5,802.7	20.6	18.6	-3.64	-126.9	1,086.5	817.9	778.8	39.07	20.937	
5,900.0	5,887.7	5,905.2	5,900.9	21.0	18.9	-3.47	-129.6	1,084.8	807.8	768.0	39.76	20.314	
6,000.0	5,987.3	5,992.0	5,987.7	21.3	19.2	-3.32	-131.9	1,083.5	798.0	757.6	40.44	19.734	
6,100.0	6,087.0	6,069.4	6,065.0	21.7	19.5	-3.17	-134.6	1,084.1	790.5	749.5	41.07	19.247	
6,200.0	6,186.6	6,167.9	6,163.4	22.0	19.8	-2.91	-138.8	1,087.1	785.4	743.6	41.77	18.801	
6,300.0	6,286.2	6,271.4	6,266.8	22.4	20.2	-2.68	-142.9	1,089.8	779.6	737.1	42.49	18.348	
6,400.0	6,385.8	6,369.7	6,365.0	22.7	20.5	-2.46	-146.5	1,092.2	773.8	730.6	43.19	17.916	
6,500.0	6,485.4	6,470.1	6,465.3	23.1	20.9	-2.24	-150.2	1,094.7	768.0	724.1	43.90	17.495	
6,600.0	6,585.1	6,572.8	6,567.9	23.5	21.2	-1.98	-154.2	1,097.0	762.1	717.4	44.62	17.080	
6,700.0	6,684.7	6,674.8	6,669.8	23.8	21.6	-1.74	-158.0	1,098.9	755.7	710.3	45.33	16.669	
6,800.0	6,784.3	6,771.8	6,766.7	24.2	21.9	-1.50	-161.7	1,100.9	749.5	703.5	46.03	16.283	
6,900.0	6,883.9	6,890.9	6,885.7	24.5	22.4	-1.23	-165.7	1,102.5	742.7	695.9	46.79	15.873	
7,000.0	6,983.5	6,999.8	6,994.6	24.9	22.7	-1.12	-167.1	1,100.9	732.6	685.1	47.51	15.421	
7,100.0	7,083.2	7,093.5	7,088.3	25.2	23.1	-1.04	-168.2	1,100.0	723.2	675.0	48.20	15.003	
7,200.0	7,182.8	7,191.5	7,186.2	25.6	23.4	-0.98	-169.0	1,099.7	714.3	665.4	48.91	14.605	
7,300.0	7,282.4	7,288.3	7,283.0	26.0	23.8	-0.92	-169.8	1,099.5	705.5	655.9	49.61	14.222	
7,400.0	7,382.0	7,392.3	7,387.0	26.3	24.1	-0.85	-170.8	1,099.5	696.9	646.6	50.32	13.848	
7,500.0	7,481.6	7,480.3	7,475.0	26.7	24.4	-0.76	-172.0	1,099.4	688.4	637.4	51.01	13.495	
7,600.0	7,581.3	7,573.5	7,568.2	27.0	24.8	-0.64	-173.9	1,101.0	681.7	630.0	51.70	13.185	
7,700.0	7,680.9	7,679.4	7,674.1	27.4	25.1	-0.52	-175.6	1,102.9	674.9	622.5	52.42	12.874	
7,800.0	7,780.5	7,784.3	7,779.0	27.8	25.5	-0.38	-177.5	1,103.5	667.1	613.9	53.14	12.552	
7,900.0	7,880.1	7,887.5	7,882.2	28.1	25.9	-0.16	-180.0	1,103.4	658.7	604.8	53.86	12.229	
8,000.0	7,979.7	7,988.1	7,982.8	28.5	26.2	-0.01	-181.7	1,103.1	649.9	595.4	54.57	11.909	
8,100.0	8,079.4	8,151.1	8,144.9	28.8	26.8	-0.97	-170.2	1,097.1	636.7	581.5	55.13	11.548	
8,200.0	8,179.0	8,250.2	8,240.2	29.2	27.1	-3.30	-144.4	1,091.0	618.3	562.4	55.83	11.074	
8,300.0	8,278.6	8,346.6	8,329.3	29.6	27.4	-6.78	-108.1	1,085.9	601.0	544.4	56.57	10.624	
8,400.0	8,378.2	8,442.7	8,411.9	29.9	27.6	-11.65	-59.4	1,080.1	585.2	527.9	57.33	10.208	
8,500.0	8,477.8	8,503.3	8,460.0	30.3	27.8	-15.41	-22.8	1,076.6	575.4	517.4	58.02	9.918	
8,549.8	8,527.5	8,528.2	8,479.1	30.5	27.9	-17.04	-6.8	1,075.9	574.3	516.1	58.19	9.869 CC, ES	
8,600.0	8,577.5	8,551.7	8,496.6	30.6	27.9	-18.64	8.9	1,075.6	575.9	517.7	58.22	9.893	
8,700.0	8,677.1	8,597.8	8,529.1	31.0	28.1	-21.92	41.6	1,075.8	587.9	530.1	57.84	10.164	
8,800.0	8,776.7	8,637.5	8,554.7	31.4	28.2	-24.89	71.9	1,076.5	611.3	554.5	56.83	10.757	
8,900.0	8,876.3	8,670.4	8,573.6	31.7	28.2	-27.45	98.7	1,077.1	646.2	591.0	55.27	11.692	
9,000.0	8,975.9	8,707.0	8,592.2	32.1	28.3	-30.37	130.3	1,077.4	691.5	638.0	53.55	12.912	
9,100.0	9,075.6	8,723.2	8,599.6	32.4	28.4	-31.67	144.7	1,077.4	745.7	694.3	51.39	14.511	
9,200.0	9,175.2	8,754.0	8,612.2	32.8	28.4	-34.15	172.8	1,077.1	807.8	758.2	49.64	16.273	
9,300.0	9,274.8	8,754.0	8,612.2	33.2	28.4	-34.15	172.8	1,077.1	875.9	828.4	47.50	18.438	
9,400.0	9,374.4	8,771.3	8,618.4	33.5	28.4	-35.54	189.0	1,076.8	949.2	903.2	45.97	20.648	
9,500.0	9,474.0	8,782.9	8,622.2	33.9	28.5	-36.47	199.9	1,076.6	1,026.6	982.0	44.59	23.022	
9,600.0	9,573.7	8,803.0	8,628.3	34.3	28.5	-38.05	219.0	1,076.3	1,107.5	1,063.9	43.60	25.403	
9,684.3	9,657.6	8,803.0	8,628.3	34.6	28.5	-38.05	219.0	1,076.3	1,177.5	1,134.9	42.66	27.605	
9,700.0	9,673.3	8,803.0	8,628.3	34.6	28.5	-20.24	219.0	1,076.3	1,190.7	1,148.2	42.49	28.022	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 20-MWD+IFR1+FDIR, 697-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
9,725.0	9,698.1	8,803.0	8,628.3	34.7	28.5	-1.68	219.0	1,076.3	1,211.4	1,169.1	42.23	28.686	
9,750.0	9,722.8	8,803.0	8,628.3	34.8	28.5	7.64	219.0	1,076.3	1,231.6	1,189.7	41.96	29.353	
9,775.0	9,747.4	8,803.0	8,628.3	34.9	28.5	12.29	219.0	1,076.3	1,251.4	1,209.8	41.69	30.020	
9,800.0	9,771.7	8,803.0	8,628.3	35.0	28.5	14.66	219.0	1,076.3	1,270.8	1,229.4	41.41	30.686	
9,825.0	9,795.6	8,803.0	8,628.3	35.1	28.5	15.84	219.0	1,076.3	1,289.7	1,248.5	41.14	31.350	
9,850.0	9,819.2	8,803.0	8,628.3	35.1	28.5	16.36	219.0	1,076.3	1,308.0	1,267.1	40.86	32.009	
9,875.0	9,842.3	8,821.6	8,633.1	35.2	28.5	15.83	237.0	1,076.0	1,325.3	1,284.4	40.82	32.464	
9,900.0	9,864.9	8,825.1	8,633.9	35.3	28.5	15.70	240.4	1,076.0	1,342.2	1,301.7	40.59	33.071	
9,925.0	9,886.9	8,828.8	8,634.8	35.4	28.5	15.46	244.0	1,075.9	1,358.6	1,318.2	40.35	33.668	
9,950.0	9,908.2	8,850.0	8,638.9	35.5	28.6	14.66	264.8	1,075.7	1,374.7	1,334.4	40.32	34.093	
9,975.0	9,928.9	8,850.0	8,638.9	35.5	28.6	14.47	264.8	1,075.7	1,389.4	1,349.4	40.04	34.700	
10,000.0	9,948.8	8,850.0	8,638.9	35.6	28.6	14.25	264.8	1,075.7	1,403.5	1,363.8	39.77	35.293	
10,025.0	9,967.9	8,850.0	8,638.9	35.6	28.6	14.02	264.8	1,075.7	1,416.9	1,377.4	39.50	35.870	
10,050.0	9,986.2	8,850.0	8,638.9	35.7	28.6	13.79	264.8	1,075.7	1,429.5	1,390.3	39.24	36.429	
10,075.0	10,003.5	8,850.0	8,638.9	35.8	28.6	13.56	264.8	1,075.7	1,441.5	1,402.5	38.99	36.967	
10,100.0	10,019.9	8,850.0	8,638.9	35.8	28.6	13.35	264.8	1,075.7	1,452.6	1,413.9	38.76	37.482	
10,125.0	10,035.2	8,868.5	8,641.8	35.9	28.6	12.82	283.0	1,075.6	1,462.7	1,424.0	38.68	37.813	
10,150.0	10,049.5	8,875.3	8,642.8	35.9	28.6	12.54	289.8	1,075.6	1,472.0	1,433.5	38.51	38.221	
10,175.0	10,062.8	8,897.0	8,645.4	35.9	28.7	12.06	311.3	1,075.7	1,480.7	1,442.2	38.47	38.490	
10,200.0	10,074.9	8,897.0	8,645.4	36.0	28.7	11.94	311.3	1,075.7	1,488.0	1,449.8	38.26	38.895	
10,225.0	10,085.8	8,897.0	8,645.4	36.0	28.7	11.84	311.3	1,075.7	1,494.6	1,456.5	38.06	39.267	
10,250.0	10,095.6	8,912.6	8,647.1	36.0	28.7	11.55	326.8	1,075.9	1,500.2	1,462.2	37.99	39.494	
10,275.0	10,104.2	8,929.8	8,648.8	36.1	28.7	11.28	343.9	1,076.2	1,504.8	1,466.8	37.93	39.677	
10,300.0	10,111.5	8,947.2	8,650.5	36.1	28.7	11.04	361.2	1,076.5	1,508.2	1,470.3	37.87	39.826	
10,325.0	10,117.6	8,964.7	8,652.1	36.1	28.8	10.84	378.7	1,076.8	1,510.5	1,472.7	37.82	39.939	
10,350.0	10,122.3	8,992.0	8,654.6	36.2	28.8	10.57	405.9	1,077.3	1,511.7	1,473.9	37.84	39.956	
10,375.0	10,125.9	9,004.3	8,655.6	36.2	28.8	10.49	418.1	1,077.6	1,511.8	1,474.0	37.76	40.031	
10,400.0	10,128.1	9,031.0	8,657.9	36.2	28.9	10.30	444.7	1,078.0	1,510.5	1,472.8	37.79	39.971	
10,425.0	10,129.0	9,057.6	8,660.3	36.2	28.9	10.14	471.2	1,078.4	1,508.1	1,470.2	37.82	39.876	
10,428.3	10,129.0	9,061.1	8,660.6	36.2	28.9	10.13	474.7	1,078.5	1,507.6	1,469.8	37.82	39.859	
10,500.0	10,129.2	9,125.0	8,666.2	36.3	29.0	9.76	538.3	1,079.2	1,498.5	1,460.6	37.86	39.582	
10,600.0	10,129.6	9,182.0	8,670.7	36.4	29.2	9.54	595.2	1,079.7	1,487.6	1,449.8	37.80	39.350	
10,700.0	10,130.0	9,234.6	8,673.4	36.5	29.3	9.35	647.6	1,080.4	1,480.4	1,442.5	37.88	39.078	
10,800.0	10,130.3	9,276.0	8,673.7	36.7	29.3	9.20	689.1	1,081.4	1,477.8	1,439.7	38.09	38.796	
10,804.0	10,130.3	9,276.0	8,673.7	36.7	29.3	9.20	689.1	1,081.4	1,477.8	1,439.7	38.10	38.786	
10,900.0	10,130.7	9,335.6	8,672.3	36.9	29.5	8.98	748.6	1,083.5	1,479.2	1,440.7	38.51	38.412	
11,000.0	10,131.0	9,403.6	8,669.1	37.0	29.6	8.80	816.5	1,087.2	1,483.7	1,444.6	39.06	37.985	
11,100.0	10,131.4	9,558.2	8,661.0	37.2	30.1	8.64	970.7	1,093.9	1,489.8	1,450.1	39.76	37.475	
11,200.0	10,131.7	9,660.5	8,658.5	37.4	30.4	8.58	1,072.9	1,095.6	1,492.6	1,452.1	40.48	36.869	
11,234.8	10,131.9	9,725.8	8,657.6	37.5	30.6	8.61	1,138.2	1,096.2	1,493.3	1,452.4	40.83	36.575	
11,300.0	10,132.1	9,789.1	8,657.6	37.7	30.8	8.65	1,201.5	1,096.4	1,493.7	1,452.4	41.35	36.126	
11,400.0	10,132.4	9,896.4	8,656.4	37.9	31.1	8.71	1,308.8	1,096.8	1,495.5	1,453.3	42.21	35.428	
11,500.0	10,132.8	10,017.7	8,657.4	38.2	31.5	8.72	1,430.0	1,095.1	1,494.9	1,451.8	43.15	34.642	
11,600.0	10,133.2	10,117.7	8,658.4	38.4	31.9	8.69	1,530.1	1,092.9	1,494.2	1,450.1	44.06	33.914	
11,700.0	10,133.5	10,269.8	8,662.8	38.7	32.5	8.70	1,682.0	1,090.3	1,491.6	1,446.4	45.24	32.974	
11,800.0	10,133.9	10,373.3	8,668.0	39.0	33.0	8.74	1,785.4	1,089.0	1,487.0	1,440.7	46.25	32.148	
11,900.0	10,134.2	10,461.6	8,671.9	39.4	33.4	8.75	1,873.6	1,087.5	1,482.9	1,435.7	47.22	31.405	
12,000.0	10,134.6	10,545.8	8,674.9	39.7	33.8	8.74	1,957.7	1,085.7	1,479.7	1,431.5	48.19	30.704	
12,100.0	10,134.9	10,603.0	8,676.2	40.1	34.0	8.73	2,014.9	1,084.3	1,478.0	1,428.9	49.09	30.108	
12,120.3	10,135.0	10,627.6	8,676.5	40.1	34.2	8.72	2,039.4	1,083.9	1,477.8	1,428.5	49.33	29.959	
12,200.0	10,135.3	10,668.3	8,676.2	40.4	34.3	8.74	2,080.1	1,083.8	1,478.9	1,428.8	50.07	29.534	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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												Offset Site Error:	0.0 usft
Survey Program: 20-MWD+IFR1+FDIR, 697-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
12,300.0	10,135.6	10,735.6	8,673.9	40.8	34.7	8.82	2,147.4	1,085.2	1,482.9	1,431.8	51.11	29.012	
12,400.0	10,136.0	10,868.9	8,669.5	41.2	35.3	9.05	2,280.6	1,090.3	1,487.6	1,435.2	52.41	28.384	
12,500.0	10,136.4	11,030.6	8,669.7	41.6	36.2	9.35	2,442.1	1,095.7	1,488.9	1,435.0	53.88	27.633	
12,600.0	10,136.7	11,186.0	8,677.2	42.1	37.0	9.48	2,597.3	1,095.7	1,484.3	1,428.9	55.35	26.818	
12,700.0	10,137.1	11,266.0	8,681.1	42.5	37.5	9.50	2,677.3	1,094.5	1,479.8	1,423.3	56.47	26.206	
12,800.0	10,137.4	11,332.5	8,683.1	43.0	37.8	9.51	2,743.7	1,093.6	1,477.1	1,419.5	57.55	25.664	
12,890.9	10,137.7	11,399.0	8,683.9	43.4	38.2	9.53	2,810.2	1,093.1	1,476.4	1,417.8	58.59	25.200	
12,900.0	10,137.8	11,405.9	8,684.0	43.4	38.3	9.53	2,817.2	1,093.0	1,476.4	1,417.7	58.69	25.154	
13,000.0	10,138.1	11,486.6	8,683.7	43.9	38.7	9.57	2,897.8	1,092.8	1,477.3	1,417.4	59.88	24.671	
13,100.0	10,138.5	11,570.2	8,682.4	44.4	39.2	9.57	2,981.4	1,091.8	1,479.2	1,418.1	61.09	24.215	
13,200.0	10,138.8	11,645.0	8,679.9	44.9	39.7	9.54	3,056.1	1,090.6	1,482.8	1,420.5	62.26	23.814	
13,300.0	10,139.2	11,779.7	8,676.2	45.4	40.5	9.49	3,190.7	1,088.0	1,485.7	1,422.0	63.67	23.332	
13,400.0	10,139.6	11,874.0	8,674.7	45.9	41.1	9.47	3,285.1	1,086.4	1,487.6	1,422.7	64.95	22.903	
13,500.0	10,139.9	11,976.9	8,672.2	46.5	41.7	9.42	3,387.9	1,084.0	1,490.2	1,424.0	66.27	22.488	
13,600.0	10,140.3	12,095.4	8,671.3	47.0	42.5	9.46	3,506.3	1,083.6	1,491.5	1,423.8	67.68	22.037	
13,700.0	10,140.6	12,169.3	8,670.7	47.6	42.9	9.50	3,580.3	1,083.8	1,493.0	1,424.1	68.93	21.660	
13,800.0	10,141.0	12,323.4	8,668.4	48.1	43.9	9.60	3,734.3	1,084.6	1,495.9	1,425.4	70.51	21.215	
13,900.0	10,141.3	12,446.4	8,671.8	48.7	44.8	9.72	3,857.3	1,085.6	1,493.8	1,421.8	71.99	20.749	
14,000.0	10,141.7	12,529.3	8,674.2	49.3	45.3	9.78	3,940.1	1,085.7	1,491.6	1,418.3	73.31	20.347	
14,067.1	10,141.9	12,576.8	8,674.8	49.7	45.6	9.82	3,987.7	1,085.9	1,491.2	1,417.0	74.17	20.105	
14,100.0	10,142.0	12,603.1	8,675.0	49.9	45.8	9.84	4,013.9	1,086.1	1,491.2	1,416.6	74.60	19.990	
14,200.0	10,142.4	12,688.0	8,675.2	50.4	46.4	9.87	4,098.8	1,085.7	1,491.6	1,415.6	75.93	19.644	
14,300.0	10,142.8	12,760.2	8,674.3	51.0	46.9	9.88	4,171.0	1,085.1	1,493.4	1,416.2	77.20	19.344	
14,400.0	10,143.1	12,906.2	8,672.1	51.7	47.9	9.90	4,316.9	1,083.8	1,495.5	1,416.7	78.79	18.980	
14,500.0	10,143.5	12,973.0	8,672.1	52.3	48.3	9.91	4,383.8	1,083.3	1,496.2	1,416.1	80.06	18.688	
14,600.0	10,143.8	13,047.9	8,670.8	52.9	48.9	9.96	4,458.7	1,083.6	1,498.8	1,417.4	81.37	18.420	
14,700.0	10,144.2	13,269.1	8,673.7	53.5	50.4	10.24	4,679.7	1,087.6	1,498.0	1,414.6	83.33	17.977	
14,800.0	10,144.5	13,352.0	8,677.3	54.2	51.0	10.35	4,762.5	1,088.7	1,494.5	1,409.8	84.72	17.641	
14,900.0	10,144.9	13,430.1	8,679.6	54.8	51.6	10.44	4,840.6	1,089.5	1,492.4	1,406.3	86.09	17.334	
14,981.6	10,145.2	13,490.7	8,680.6	55.3	52.0	10.49	4,901.1	1,089.9	1,491.8	1,404.6	87.20	17.108	
15,000.0	10,145.3	13,504.1	8,680.6	55.4	52.1	10.50	4,914.5	1,090.0	1,491.8	1,404.4	87.44	17.060	
15,100.0	10,145.6	13,573.6	8,680.2	56.1	52.6	10.54	4,984.0	1,090.3	1,493.1	1,404.4	88.76	16.822	
15,182.5	10,145.9	13,636.0	8,678.5	56.6	53.1	10.58	5,046.4	1,090.6	1,495.9	1,406.0	89.86	16.647	
15,200.0	10,146.0	13,654.3	8,677.8	56.8	53.2	10.59	5,064.7	1,090.6	1,496.6	1,406.5	90.12	16.607	
15,221.1	10,146.0	13,724.7	8,676.8	56.9	53.7	10.60	5,135.1	1,090.7	1,497.0	1,406.3	90.64	16.515	
15,300.0	10,146.3	13,829.0	8,677.7	57.4	54.5	10.54	5,239.4	1,088.8	1,496.3	1,404.4	91.87	16.287	
15,400.0	10,146.7	13,905.9	8,678.1	58.1	55.0	10.44	5,316.2	1,086.0	1,495.5	1,402.3	93.20	16.046	
15,500.0	10,147.0	14,052.3	8,679.8	58.8	56.1	10.01	5,462.1	1,074.2	1,493.0	1,398.3	94.72	15.762	
15,600.0	10,147.4	14,109.0	8,680.3	59.5	56.5	9.79	5,518.5	1,068.5	1,491.0	1,395.0	95.98	15.535	
15,647.8	10,147.5	14,154.3	8,680.1	59.8	56.9	9.64	5,563.6	1,064.3	1,490.7	1,394.0	96.63	15.427	
15,700.0	10,147.7	14,204.0	8,679.3	60.1	57.2	9.49	5,613.1	1,060.5	1,491.1	1,393.7	97.35	15.317	
15,800.0	10,148.1	14,299.6	8,677.8	60.8	58.0	9.31	5,708.6	1,056.0	1,492.1	1,393.4	98.75	15.110	
15,900.0	10,148.4	14,380.7	8,676.7	61.5	58.6	9.20	5,789.6	1,053.2	1,493.3	1,393.2	100.11	14.917	
16,000.0	10,148.8	14,477.7	8,674.5	62.2	59.3	9.04	5,886.6	1,049.2	1,495.2	1,393.7	101.53	14.727	
16,100.0	10,149.2	14,586.8	8,672.6	62.9	60.1	8.91	5,995.6	1,046.1	1,496.9	1,393.9	103.01	14.531	
16,200.0	10,149.5	14,700.6	8,671.4	63.6	61.0	8.77	6,109.3	1,042.5	1,497.8	1,393.3	104.52	14.330	
16,300.0	10,149.9	14,798.7	8,671.5	64.3	61.8	8.73	6,207.4	1,041.3	1,497.9	1,392.0	105.98	14.134	
16,400.0	10,150.2	14,871.8	8,670.8	65.0	62.3	8.77	6,280.5	1,042.7	1,499.5	1,392.1	107.35	13.968	
16,500.0	10,150.6	15,008.7	8,670.4	65.8	63.4	8.80	6,417.4	1,043.3	1,500.0	1,391.0	109.01	13.761	
16,550.8	10,150.8	15,058.0	8,670.5	66.1	63.7	8.76	6,466.7	1,042.3	1,500.0	1,390.2	109.75	13.667	
16,600.0	10,150.9	15,099.7	8,670.4	66.5	64.1	8.72	6,508.4	1,041.3	1,500.1	1,389.6	110.44	13.583	

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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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 ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FEDERAL COM 503H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 20-MWD+IFR1+FDIR, 697-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
16,700.0	10,151.3	15,184.1	8,669.5	67.2	64.7	8.63	6,592.7	1,039.0	1,501.1	1,389.3	111.84	13.422		
16,800.0	10,151.6	15,265.9	8,667.7	67.9	65.4	8.54	6,674.4	1,036.7	1,503.2	1,390.0	113.22	13.277		
16,900.0	10,152.0	15,342.0	8,664.8	68.7	65.9	8.44	6,750.5	1,034.6	1,506.9	1,392.4	114.55	13.155		
17,000.0	10,152.3	15,479.1	8,660.4	69.4	67.0	8.35	6,887.5	1,032.7	1,510.3	1,394.1	116.23	12.994		
17,100.0	10,152.7	15,604.2	8,660.2	70.1	68.0	8.46	7,012.6	1,035.7	1,511.2	1,393.3	117.87	12.821		
17,200.0	10,153.1	15,687.7	8,660.6	70.9	68.6	8.60	7,096.0	1,039.2	1,511.7	1,392.4	119.32	12.669		
17,300.0	10,153.4	15,835.0	8,661.6	71.6	69.8	8.89	7,243.1	1,046.8	1,512.6	1,391.5	121.07	12.493		
17,400.0	10,153.8	15,946.1	8,664.6	72.3	70.7	9.19	7,353.9	1,054.3	1,511.4	1,388.7	122.68	12.320		
17,500.0	10,154.1	16,087.0	8,672.9	73.1	71.7	9.56	7,494.2	1,062.6	1,506.6	1,382.3	124.35	12.116		
17,600.0	10,154.5	16,195.3	8,680.2	73.8	72.6	9.81	7,602.1	1,067.9	1,501.2	1,375.2	125.92	11.922		
17,700.0	10,154.8	16,310.0	8,688.4	74.6	73.5	9.92	7,716.5	1,069.5	1,494.7	1,367.2	127.46	11.727		
17,800.0	10,155.2	16,385.0	8,693.2	75.3	74.1	9.90	7,791.4	1,068.2	1,488.5	1,359.6	128.95	11.543		
17,900.0	10,155.5	16,480.0	8,697.8	76.1	74.8	9.84	7,866.2	1,065.7	1,483.7	1,353.2	130.44	11.374		
18,000.0	10,155.9	16,532.1	8,699.2	76.9	75.3	9.80	7,938.3	1,064.4	1,480.8	1,348.9	131.85	11.231		
18,065.4	10,156.1	16,575.0	8,699.4	77.3	75.6	9.77	7,981.2	1,063.5	1,480.4	1,347.6	132.75	11.152		
18,100.0	10,156.2	16,596.7	8,699.3	77.6	75.8	9.75	8,002.9	1,063.1	1,480.6	1,347.4	133.21	11.114		
18,200.0	10,156.6	16,670.0	8,698.0	78.4	76.4	9.68	8,076.1	1,061.3	1,482.2	1,347.7	134.57	11.015		
18,300.0	10,156.9	16,746.3	8,695.3	79.1	77.0	9.57	8,152.4	1,058.9	1,485.6	1,349.7	135.91	10.931		
18,400.0	10,157.3	16,868.0	8,690.4	79.9	78.0	9.40	8,273.9	1,055.1	1,489.5	1,352.0	137.53	10.831		
18,500.0	10,157.7	16,973.9	8,687.4	80.7	78.8	9.28	8,379.7	1,052.5	1,492.3	1,353.3	139.05	10.732		
18,600.0	10,158.0	17,091.3	8,685.6	81.4	79.8	9.24	8,497.1	1,051.8	1,494.0	1,353.4	140.66	10.622		
18,700.0	10,158.4	17,230.3	8,685.7	82.2	80.9	9.25	8,636.1	1,051.7	1,494.5	1,352.1	142.33	10.500		
18,796.3	10,158.7	17,306.3	8,686.5	83.0	81.5	9.20	8,712.1	1,050.4	1,493.7	1,349.9	143.72	10.393		
18,800.0	10,158.7	17,309.0	8,686.5	83.0	81.5	9.20	8,714.8	1,050.4	1,493.7	1,349.9	143.77	10.389		
18,900.0	10,159.1	17,385.9	8,685.8	83.8	82.1	9.14	8,791.7	1,048.9	1,494.5	1,349.4	145.17	10.295		
19,000.0	10,159.4	17,463.9	8,684.0	84.5	82.8	9.07	8,869.6	1,047.1	1,496.9	1,350.3	146.55	10.214		
19,100.0	10,159.8	17,550.4	8,680.6	85.3	83.5	8.96	8,956.0	1,044.9	1,500.6	1,352.7	147.97	10.142		
19,200.0	10,160.1	17,710.5	8,677.0	86.1	84.8	8.90	9,116.1	1,043.8	1,503.4	1,353.6	149.81	10.036		
19,300.0	10,160.5	17,876.0	8,679.4	86.9	86.1	8.92	9,281.6	1,043.8	1,503.1	1,351.6	151.49	9.922		
19,400.0	10,160.8	17,980.7	8,685.4	87.7	87.0	8.96	9,386.1	1,044.0	1,497.8	1,344.8	153.03	9.788		
19,500.0	10,161.2	18,053.0	8,688.5	88.4	87.6	8.98	9,458.3	1,043.9	1,494.0	1,339.4	154.54	9.667		
19,600.0	10,161.6	18,132.9	8,690.3	89.2	88.2	8.97	9,538.2	1,043.2	1,492.0	1,336.0	156.02	9.563		
19,700.0	10,161.9	18,218.7	8,691.3	90.0	88.9	8.90	9,623.9	1,041.2	1,490.8	1,333.3	157.49	9.466		
19,800.0	10,162.3	18,351.6	8,691.6	90.8	90.0	8.71	9,756.7	1,036.0	1,490.7	1,331.7	159.07	9.372		
19,900.0	10,162.6	18,455.0	8,694.9	91.6	90.8	8.54	9,859.9	1,031.0	1,487.3	1,326.7	160.57	9.262		
20,000.0	10,163.0	18,529.6	8,696.3	92.4	91.4	8.43	9,934.5	1,028.0	1,485.1	1,323.1	162.02	9.166		
20,075.6	10,163.2	18,586.5	8,696.5	93.0	91.9	8.34	9,991.4	1,025.6	1,484.6	1,321.5	163.10	9.103		
20,100.0	10,163.3	18,606.4	8,696.4	93.2	92.1	8.31	10,011.2	1,024.7	1,484.7	1,321.2	163.44	9.084		
20,200.0	10,163.7	18,683.5	8,695.4	94.0	92.7	8.14	10,088.1	1,020.5	1,485.7	1,320.8	164.83	9.013		
20,289.0	10,164.0	18,756.0	8,692.8	94.7	93.3	7.96	10,160.5	1,016.0	1,488.2	1,322.2	166.05	8.962 SF		

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

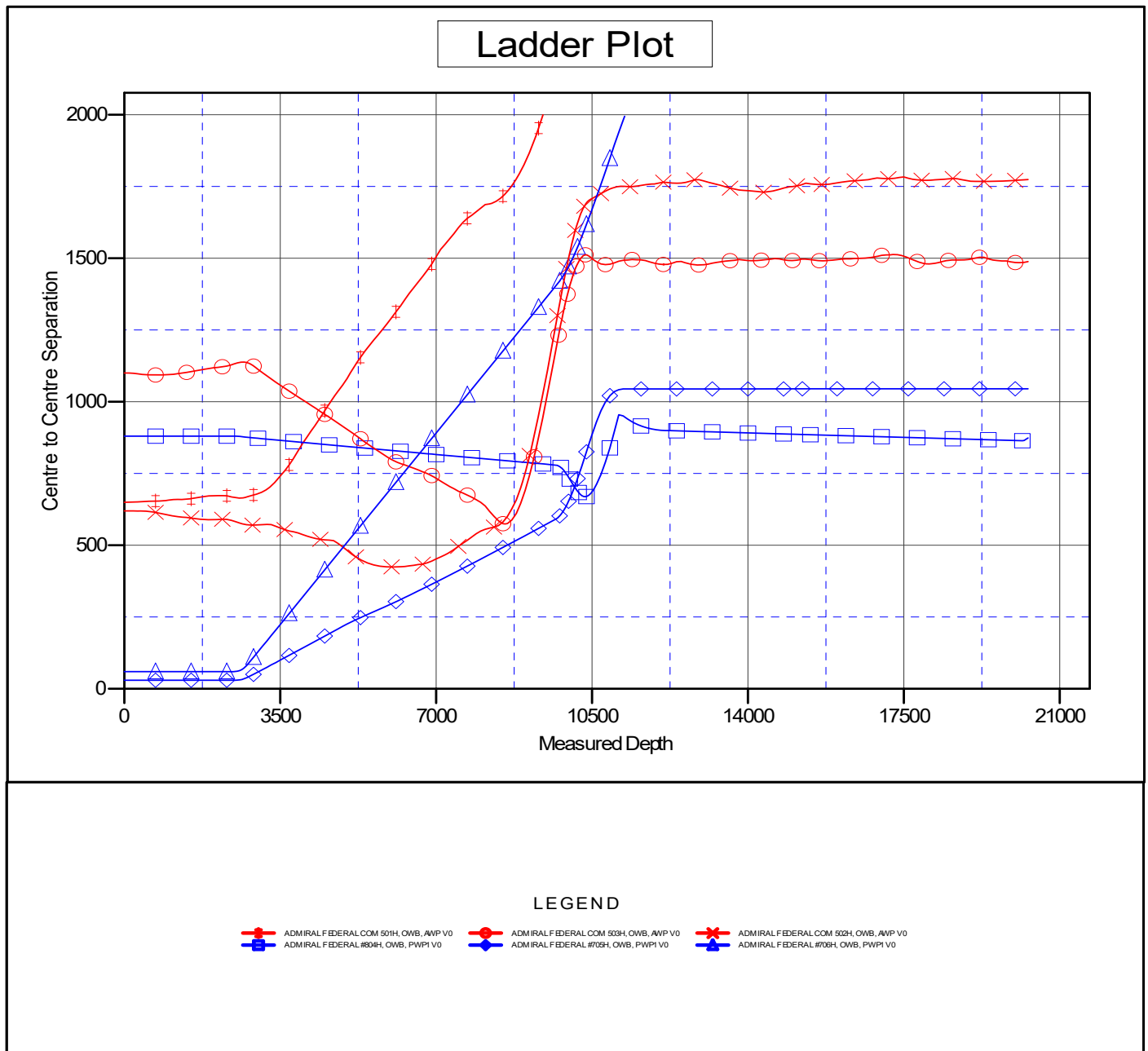
Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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=25' @ 3009.0usft (TBD)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL #704H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.18°



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 ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL #704H	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=25' @ 3009.0usft (TBD)

Offset Depths are relative to Offset Datum

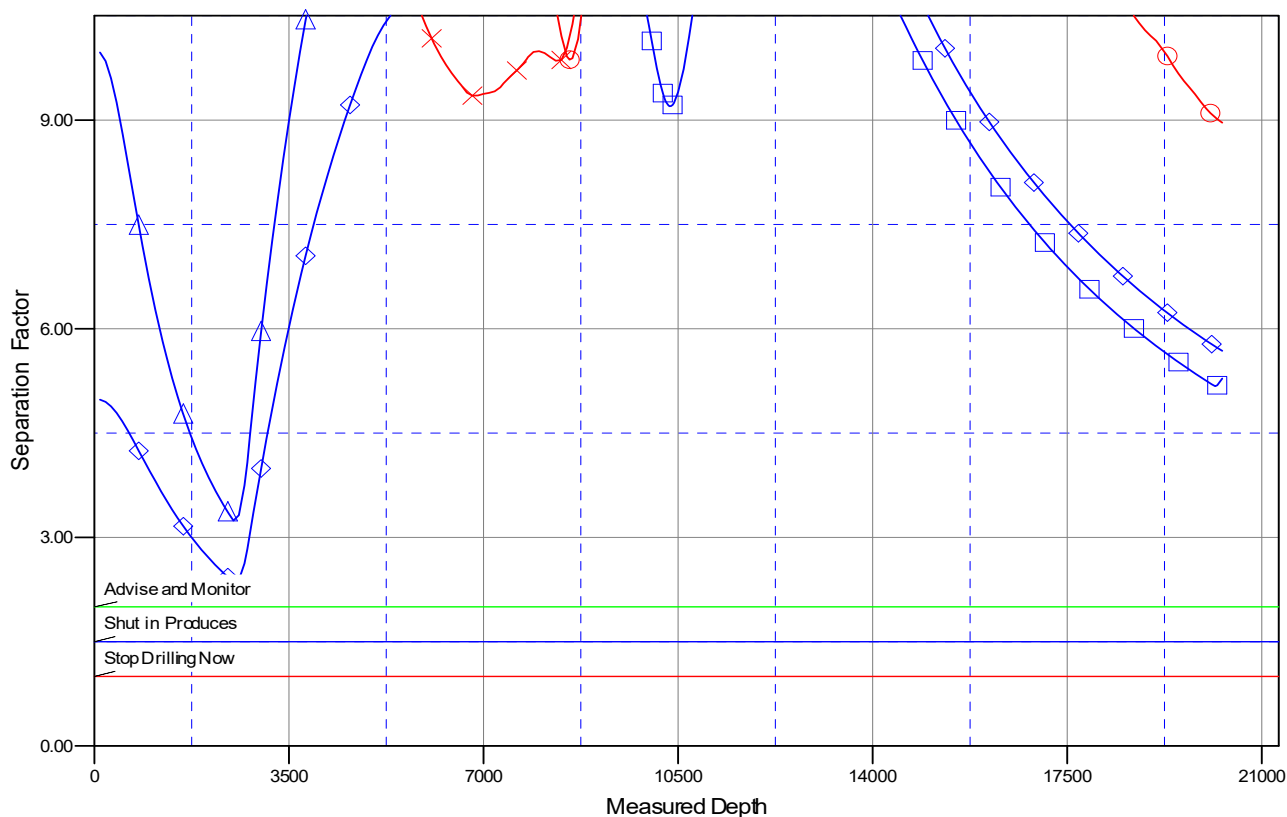
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL #704H

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

Grid Convergence at Surface is: 0.18°

Separation Factor Plot



LEGEND

	ADMIRAL FEDERAL COM 501H, OWB, AWP V0		ADMIRAL FEDERAL COM 503H, OWB, AWP V0		ADMIRAL FEDERAL COM 502H, OWB, AWP V0
	ADMIRAL FEDERAL #804H, OWB, PWP1 V0		ADMIRAL FEDERAL #705H, OWB, PWP1 V0		ADMIRAL FEDERAL #706H, OWB, PWP1 V0

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

12/10/2020 2:50:22PM

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COMPASS 5000.15 Build 91E

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

ADMIRAL FEDERAL PROJECT (ATLAS 2529)

ADMIRAL FEDERAL #704H

OWB

Plan: PWP1

Standard Survey Report

10 December, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	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	ADMIRAL FEDERAL #704H			
Well Position	+N/-S	0.0 usft	Northing:	398,096.40 usft
	+E/-W	0.0 usft	Easting:	605,567.30 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft
			Latitude:	32° 5' 38.487 N
			Longitude:	103° 59' 32.785 W
			Ground Level:	2,984.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/2/2020	6.79	59.74	47,431.82761030

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 (°)	
	-5.0	0.0	0.0	4.54	

Survey Tool Program	Date	12/10/2020			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	20,289.0	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	99.36	2,600.0	-0.3	1.7	-0.1	2.00	2.00	0.00
2,700.0	4.00	99.36	2,699.8	-1.1	6.9	-0.6	2.00	2.00	0.00
2,749.8	5.00	99.36	2,749.4	-1.8	10.7	-0.9	2.00	2.00	0.00
Start 6934.5 hold at 2749.8 MD									
2,800.0	5.00	99.36	2,799.5	-2.5	15.1	-1.3	0.00	0.00	0.00
2,900.0	5.00	99.36	2,899.1	-3.9	23.6	-2.0	0.00	0.00	0.00
3,000.0	5.00	99.36	2,998.7	-5.3	32.2	-2.7	0.00	0.00	0.00
3,100.0	5.00	99.36	3,098.4	-6.7	40.8	-3.5	0.00	0.00	0.00
3,200.0	5.00	99.36	3,198.0	-8.1	49.4	-4.2	0.00	0.00	0.00
3,300.0	5.00	99.36	3,297.6	-9.6	58.0	-4.9	0.00	0.00	0.00
3,400.0	5.00	99.36	3,397.2	-11.0	66.6	-5.7	0.00	0.00	0.00
3,500.0	5.00	99.36	3,496.8	-12.4	75.2	-6.4	0.00	0.00	0.00
3,600.0	5.00	99.36	3,596.5	-13.8	83.8	-7.1	0.00	0.00	0.00
3,700.0	5.00	99.36	3,696.1	-15.2	92.4	-7.9	0.00	0.00	0.00
3,800.0	5.00	99.36	3,795.7	-16.6	101.0	-8.6	0.00	0.00	0.00
3,900.0	5.00	99.36	3,895.3	-18.1	109.6	-9.3	0.00	0.00	0.00
4,000.0	5.00	99.36	3,994.9	-19.5	118.1	-10.1	0.00	0.00	0.00
4,100.0	5.00	99.36	4,094.6	-20.9	126.7	-10.8	0.00	0.00	0.00
4,200.0	5.00	99.36	4,194.2	-22.3	135.3	-11.5	0.00	0.00	0.00
4,300.0	5.00	99.36	4,293.8	-23.7	143.9	-12.3	0.00	0.00	0.00
4,400.0	5.00	99.36	4,393.4	-25.1	152.5	-13.0	0.00	0.00	0.00
4,500.0	5.00	99.36	4,493.0	-26.6	161.1	-13.7	0.00	0.00	0.00
4,600.0	5.00	99.36	4,592.7	-28.0	169.7	-14.5	0.00	0.00	0.00
4,700.0	5.00	99.36	4,692.3	-29.4	178.3	-15.2	0.00	0.00	0.00
4,800.0	5.00	99.36	4,791.9	-30.8	186.9	-15.9	0.00	0.00	0.00
4,900.0	5.00	99.36	4,891.5	-32.2	195.5	-16.7	0.00	0.00	0.00
5,000.0	5.00	99.36	4,991.1	-33.6	204.1	-17.4	0.00	0.00	0.00
5,100.0	5.00	99.36	5,090.8	-35.1	212.7	-18.1	0.00	0.00	0.00
5,200.0	5.00	99.36	5,190.4	-36.5	221.2	-18.8	0.00	0.00	0.00
5,300.0	5.00	99.36	5,290.0	-37.9	229.8	-19.6	0.00	0.00	0.00
5,400.0	5.00	99.36	5,389.6	-39.3	238.4	-20.3	0.00	0.00	0.00
5,500.0	5.00	99.36	5,489.2	-40.7	247.0	-21.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,600.0	5.00	99.36	5,588.9	-42.1	255.6	-21.8	0.00	0.00	0.00
5,700.0	5.00	99.36	5,688.5	-43.6	264.2	-22.5	0.00	0.00	0.00
5,800.0	5.00	99.36	5,788.1	-45.0	272.8	-23.2	0.00	0.00	0.00
5,900.0	5.00	99.36	5,887.7	-46.4	281.4	-24.0	0.00	0.00	0.00
6,000.0	5.00	99.36	5,987.3	-47.8	290.0	-24.7	0.00	0.00	0.00
6,100.0	5.00	99.36	6,087.0	-49.2	298.6	-25.4	0.00	0.00	0.00
6,200.0	5.00	99.36	6,186.6	-50.6	307.2	-26.2	0.00	0.00	0.00
6,300.0	5.00	99.36	6,286.2	-52.1	315.7	-26.9	0.00	0.00	0.00
6,400.0	5.00	99.36	6,385.8	-53.5	324.3	-27.6	0.00	0.00	0.00
6,500.0	5.00	99.36	6,485.4	-54.9	332.9	-28.4	0.00	0.00	0.00
6,600.0	5.00	99.36	6,585.1	-56.3	341.5	-29.1	0.00	0.00	0.00
6,700.0	5.00	99.36	6,684.7	-57.7	350.1	-29.8	0.00	0.00	0.00
6,800.0	5.00	99.36	6,784.3	-59.1	358.7	-30.6	0.00	0.00	0.00
6,900.0	5.00	99.36	6,883.9	-60.6	367.3	-31.3	0.00	0.00	0.00
7,000.0	5.00	99.36	6,983.5	-62.0	375.9	-32.0	0.00	0.00	0.00
7,100.0	5.00	99.36	7,083.2	-63.4	384.5	-32.8	0.00	0.00	0.00
7,200.0	5.00	99.36	7,182.8	-64.8	393.1	-33.5	0.00	0.00	0.00
7,300.0	5.00	99.36	7,282.4	-66.2	401.7	-34.2	0.00	0.00	0.00
7,400.0	5.00	99.36	7,382.0	-67.6	410.3	-35.0	0.00	0.00	0.00
7,500.0	5.00	99.36	7,481.6	-69.1	418.8	-35.7	0.00	0.00	0.00
7,600.0	5.00	99.36	7,581.3	-70.5	427.4	-36.4	0.00	0.00	0.00
7,700.0	5.00	99.36	7,680.9	-71.9	436.0	-37.1	0.00	0.00	0.00
7,800.0	5.00	99.36	7,780.5	-73.3	444.6	-37.9	0.00	0.00	0.00
7,900.0	5.00	99.36	7,880.1	-74.7	453.2	-38.6	0.00	0.00	0.00
8,000.0	5.00	99.36	7,979.7	-76.1	461.8	-39.3	0.00	0.00	0.00
8,100.0	5.00	99.36	8,079.4	-77.6	470.4	-40.1	0.00	0.00	0.00
8,200.0	5.00	99.36	8,179.0	-79.0	479.0	-40.8	0.00	0.00	0.00
8,300.0	5.00	99.36	8,278.6	-80.4	487.6	-41.5	0.00	0.00	0.00
8,400.0	5.00	99.36	8,378.2	-81.8	496.2	-42.3	0.00	0.00	0.00
8,500.0	5.00	99.36	8,477.8	-83.2	504.8	-43.0	0.00	0.00	0.00
8,600.0	5.00	99.36	8,577.5	-84.6	513.3	-43.7	0.00	0.00	0.00
8,700.0	5.00	99.36	8,677.1	-86.1	521.9	-44.5	0.00	0.00	0.00
8,800.0	5.00	99.36	8,776.7	-87.5	530.5	-45.2	0.00	0.00	0.00
8,900.0	5.00	99.36	8,876.3	-88.9	539.1	-45.9	0.00	0.00	0.00
9,000.0	5.00	99.36	8,975.9	-90.3	547.7	-46.7	0.00	0.00	0.00
9,100.0	5.00	99.36	9,075.6	-91.7	556.3	-47.4	0.00	0.00	0.00
9,200.0	5.00	99.36	9,175.2	-93.1	564.9	-48.1	0.00	0.00	0.00
9,300.0	5.00	99.36	9,274.8	-94.6	573.5	-48.9	0.00	0.00	0.00
9,400.0	5.00	99.36	9,374.4	-96.0	582.1	-49.6	0.00	0.00	0.00
9,500.0	5.00	99.36	9,474.0	-97.4	590.7	-50.3	0.00	0.00	0.00
9,600.0	5.00	99.36	9,573.7	-98.8	599.3	-51.1	0.00	0.00	0.00
9,684.3	5.00	99.36	9,657.6	-100.0	606.5	-51.7	0.00	0.00	0.00
Start DLS 12.00 TFO -84.10									
9,700.0	5.52	79.42	9,673.3	-100.0	607.9	-51.5	12.00	3.32	-126.64

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	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)
9,800.0	15.22	33.92	9,771.7	-88.2	620.0	-38.8	12.00	9.70	-45.50
9,900.0	26.83	25.18	9,864.9	-56.7	637.0	-6.1	12.00	11.61	-8.74
10,000.0	38.67	21.52	9,948.8	-7.0	658.1	45.1	12.00	11.84	-3.66
10,100.0	50.58	19.38	10,019.9	58.7	682.5	112.5	12.00	11.91	-2.14
10,200.0	62.52	17.87	10,074.9	137.6	709.0	193.3	12.00	11.93	-1.51
10,300.0	74.46	16.67	10,111.5	226.3	736.6	283.9	12.00	11.95	-1.21
10,400.0	86.42	15.59	10,128.1	320.9	763.9	380.4	12.00	11.95	-1.07
10,428.3	89.80	15.30	10,129.0	348.1	771.4	408.1	12.00	11.95	-1.04
Start DLS 2.00 TFO -90.04									
10,500.0	89.80	13.87	10,129.2	417.5	789.5	478.7	2.00	0.00	-2.00
10,600.0	89.80	11.87	10,129.6	515.0	811.8	577.7	2.00	0.00	-2.00
10,700.0	89.80	9.87	10,130.0	613.2	830.6	677.1	2.00	0.00	-2.00
10,800.0	89.80	7.87	10,130.3	712.0	846.0	776.8	2.00	0.00	-2.00
10,900.0	89.80	5.87	10,130.7	811.3	858.0	876.7	2.00	0.00	-2.00
11,000.0	89.80	3.87	10,131.0	910.9	866.5	976.7	2.00	0.00	-2.00
11,100.0	89.80	1.87	10,131.4	1,010.8	871.5	1,076.6	2.00	0.00	-2.00
11,200.0	89.80	359.87	10,131.7	1,110.8	873.0	1,176.4	2.00	0.00	-2.00
11,234.8	89.80	359.17	10,131.9	1,145.6	872.7	1,211.1	2.00	0.00	-2.00
Start 3947.7 hold at 11234.8 MD									
11,300.0	89.80	359.17	10,132.1	1,210.8	871.7	1,276.0	0.00	0.00	0.00
11,400.0	89.80	359.17	10,132.4	1,310.8	870.3	1,375.6	0.00	0.00	0.00
11,500.0	89.80	359.17	10,132.8	1,410.8	868.8	1,475.1	0.00	0.00	0.00
11,600.0	89.80	359.17	10,133.2	1,510.7	867.4	1,574.7	0.00	0.00	0.00
11,700.0	89.80	359.17	10,133.5	1,610.7	865.9	1,674.2	0.00	0.00	0.00
11,800.0	89.80	359.17	10,133.9	1,710.7	864.5	1,773.8	0.00	0.00	0.00
11,900.0	89.80	359.17	10,134.2	1,810.7	863.0	1,873.4	0.00	0.00	0.00
12,000.0	89.80	359.17	10,134.6	1,910.7	861.6	1,972.9	0.00	0.00	0.00
12,100.0	89.80	359.17	10,134.9	2,010.7	860.1	2,072.5	0.00	0.00	0.00
12,200.0	89.80	359.17	10,135.3	2,110.7	858.7	2,172.0	0.00	0.00	0.00
12,300.0	89.80	359.17	10,135.6	2,210.7	857.2	2,271.6	0.00	0.00	0.00
12,400.0	89.80	359.17	10,136.0	2,310.7	855.8	2,371.2	0.00	0.00	0.00
12,500.0	89.80	359.17	10,136.4	2,410.6	854.3	2,470.7	0.00	0.00	0.00
12,600.0	89.80	359.17	10,136.7	2,510.6	852.9	2,570.3	0.00	0.00	0.00
12,700.0	89.80	359.17	10,137.1	2,610.6	851.5	2,669.8	0.00	0.00	0.00
12,800.0	89.80	359.17	10,137.4	2,710.6	850.0	2,769.4	0.00	0.00	0.00
12,900.0	89.80	359.17	10,137.8	2,810.6	848.6	2,869.0	0.00	0.00	0.00
13,000.0	89.80	359.17	10,138.1	2,910.6	847.1	2,968.5	0.00	0.00	0.00
13,100.0	89.80	359.17	10,138.5	3,010.6	845.7	3,068.1	0.00	0.00	0.00
13,200.0	89.80	359.17	10,138.8	3,110.6	844.2	3,167.6	0.00	0.00	0.00
13,300.0	89.80	359.17	10,139.2	3,210.6	842.8	3,267.2	0.00	0.00	0.00
13,400.0	89.80	359.17	10,139.6	3,310.5	841.3	3,366.8	0.00	0.00	0.00
13,500.0	89.80	359.17	10,139.9	3,410.5	839.9	3,466.3	0.00	0.00	0.00
13,600.0	89.80	359.17	10,140.3	3,510.5	838.4	3,565.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,700.0	89.80	359.17	10,140.6	3,610.5	837.0	3,665.4	0.00	0.00	0.00
13,800.0	89.80	359.17	10,141.0	3,710.5	835.5	3,765.0	0.00	0.00	0.00
13,900.0	89.80	359.17	10,141.3	3,810.5	834.1	3,864.6	0.00	0.00	0.00
14,000.0	89.80	359.17	10,141.7	3,910.5	832.6	3,964.1	0.00	0.00	0.00
14,100.0	89.80	359.17	10,142.0	4,010.5	831.2	4,063.7	0.00	0.00	0.00
14,200.0	89.80	359.17	10,142.4	4,110.5	829.7	4,163.2	0.00	0.00	0.00
14,300.0	89.80	359.17	10,142.8	4,210.4	828.3	4,262.8	0.00	0.00	0.00
14,400.0	89.80	359.17	10,143.1	4,310.4	826.8	4,362.4	0.00	0.00	0.00
14,500.0	89.80	359.17	10,143.5	4,410.4	825.4	4,461.9	0.00	0.00	0.00
14,600.0	89.80	359.17	10,143.8	4,510.4	823.9	4,561.5	0.00	0.00	0.00
14,700.0	89.80	359.17	10,144.2	4,610.4	822.5	4,661.0	0.00	0.00	0.00
14,800.0	89.80	359.17	10,144.5	4,710.4	821.0	4,760.6	0.00	0.00	0.00
14,900.0	89.80	359.17	10,144.9	4,810.4	819.6	4,860.2	0.00	0.00	0.00
15,000.0	89.80	359.17	10,145.3	4,910.4	818.1	4,959.7	0.00	0.00	0.00
15,100.0	89.80	359.17	10,145.6	5,010.4	816.7	5,059.3	0.00	0.00	0.00
15,182.5	89.80	359.17	10,145.9	5,092.9	815.5	5,141.4	0.00	0.00	0.00
Start DLS 2.00 TFO 89.95									
15,200.0	89.80	359.52	10,146.0	5,110.3	815.3	5,158.9	2.00	0.00	2.00
15,221.1	89.80	359.94	10,146.0	5,131.4	815.2	5,179.8	2.00	0.00	2.00
Start 5067.9 hold at 15221.1 MD									
15,300.0	89.80	359.94	10,146.3	5,210.3	815.1	5,258.5	0.00	0.00	0.00
15,400.0	89.80	359.94	10,146.7	5,310.3	815.0	5,358.2	0.00	0.00	0.00
15,500.0	89.80	359.94	10,147.0	5,410.3	814.9	5,457.9	0.00	0.00	0.00
15,600.0	89.80	359.94	10,147.4	5,510.3	814.8	5,557.6	0.00	0.00	0.00
15,700.0	89.80	359.94	10,147.7	5,610.3	814.7	5,657.2	0.00	0.00	0.00
15,800.0	89.80	359.94	10,148.1	5,710.3	814.6	5,756.9	0.00	0.00	0.00
15,900.0	89.80	359.94	10,148.4	5,810.3	814.5	5,856.6	0.00	0.00	0.00
16,000.0	89.80	359.94	10,148.8	5,910.3	814.4	5,956.3	0.00	0.00	0.00
16,100.0	89.80	359.94	10,149.2	6,010.3	814.3	6,055.9	0.00	0.00	0.00
16,200.0	89.80	359.94	10,149.5	6,110.3	814.2	6,155.6	0.00	0.00	0.00
16,300.0	89.80	359.94	10,149.9	6,210.3	814.1	6,255.3	0.00	0.00	0.00
16,400.0	89.80	359.94	10,150.2	6,310.3	814.0	6,355.0	0.00	0.00	0.00
16,500.0	89.80	359.94	10,150.6	6,410.3	813.9	6,454.7	0.00	0.00	0.00
16,600.0	89.80	359.94	10,150.9	6,510.3	813.8	6,554.3	0.00	0.00	0.00
16,700.0	89.80	359.94	10,151.3	6,610.3	813.7	6,654.0	0.00	0.00	0.00
16,800.0	89.80	359.94	10,151.6	6,710.3	813.6	6,753.7	0.00	0.00	0.00
16,900.0	89.80	359.94	10,152.0	6,810.3	813.5	6,853.4	0.00	0.00	0.00
17,000.0	89.80	359.94	10,152.3	6,910.3	813.4	6,953.0	0.00	0.00	0.00
17,100.0	89.80	359.94	10,152.7	7,010.3	813.3	7,052.7	0.00	0.00	0.00
17,200.0	89.80	359.94	10,153.1	7,110.3	813.2	7,152.4	0.00	0.00	0.00
17,300.0	89.80	359.94	10,153.4	7,210.3	813.1	7,252.1	0.00	0.00	0.00
17,400.0	89.80	359.94	10,153.8	7,310.3	813.0	7,351.7	0.00	0.00	0.00
17,500.0	89.80	359.94	10,154.1	7,410.3	812.9	7,451.4	0.00	0.00	0.00
17,600.0	89.80	359.94	10,154.5	7,510.3	812.8	7,551.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	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	89.80	359.94	10,154.8	7,610.3	812.7	7,650.8	0.00	0.00	0.00
17,800.0	89.80	359.94	10,155.2	7,710.3	812.6	7,750.5	0.00	0.00	0.00
17,900.0	89.80	359.94	10,155.5	7,810.3	812.5	7,850.1	0.00	0.00	0.00
18,000.0	89.80	359.94	10,155.9	7,910.3	812.3	7,949.8	0.00	0.00	0.00
18,100.0	89.80	359.94	10,156.2	8,010.3	812.2	8,049.5	0.00	0.00	0.00
18,200.0	89.80	359.94	10,156.6	8,110.3	812.1	8,149.2	0.00	0.00	0.00
18,300.0	89.80	359.94	10,156.9	8,210.3	812.0	8,248.8	0.00	0.00	0.00
18,400.0	89.80	359.94	10,157.3	8,310.3	811.9	8,348.5	0.00	0.00	0.00
18,500.0	89.80	359.94	10,157.7	8,410.3	811.8	8,448.2	0.00	0.00	0.00
18,600.0	89.80	359.94	10,158.0	8,510.3	811.7	8,547.9	0.00	0.00	0.00
18,700.0	89.80	359.94	10,158.4	8,610.3	811.6	8,647.6	0.00	0.00	0.00
18,800.0	89.80	359.94	10,158.7	8,710.3	811.5	8,747.2	0.00	0.00	0.00
18,900.0	89.80	359.94	10,159.1	8,810.3	811.4	8,846.9	0.00	0.00	0.00
19,000.0	89.80	359.94	10,159.4	8,910.3	811.3	8,946.6	0.00	0.00	0.00
19,100.0	89.80	359.94	10,159.8	9,010.3	811.2	9,046.3	0.00	0.00	0.00
19,200.0	89.80	359.94	10,160.1	9,110.3	811.1	9,145.9	0.00	0.00	0.00
19,300.0	89.80	359.94	10,160.5	9,210.3	811.0	9,245.6	0.00	0.00	0.00
19,400.0	89.80	359.94	10,160.8	9,310.3	810.9	9,345.3	0.00	0.00	0.00
19,500.0	89.80	359.94	10,161.2	9,410.3	810.8	9,445.0	0.00	0.00	0.00
19,600.0	89.80	359.94	10,161.6	9,510.3	810.7	9,544.6	0.00	0.00	0.00
19,700.0	89.80	359.94	10,161.9	9,610.3	810.6	9,644.3	0.00	0.00	0.00
19,800.0	89.80	359.94	10,162.3	9,710.3	810.5	9,744.0	0.00	0.00	0.00
19,900.0	89.80	359.94	10,162.6	9,810.3	810.4	9,843.7	0.00	0.00	0.00
20,000.0	89.80	359.94	10,163.0	9,910.3	810.3	9,943.4	0.00	0.00	0.00
20,100.0	89.80	359.94	10,163.3	10,010.3	810.2	10,043.0	0.00	0.00	0.00
20,200.0	89.80	359.94	10,163.7	10,110.3	810.1	10,142.7	0.00	0.00	0.00
20,289.0	89.80	359.94	10,164.0	10,199.3	810.0	10,231.4	0.00	0.00	0.00
TD at 20289.0									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL #704H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.0usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.0usft (TBD)
Well:	ADMIRAL FEDERAL #704H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

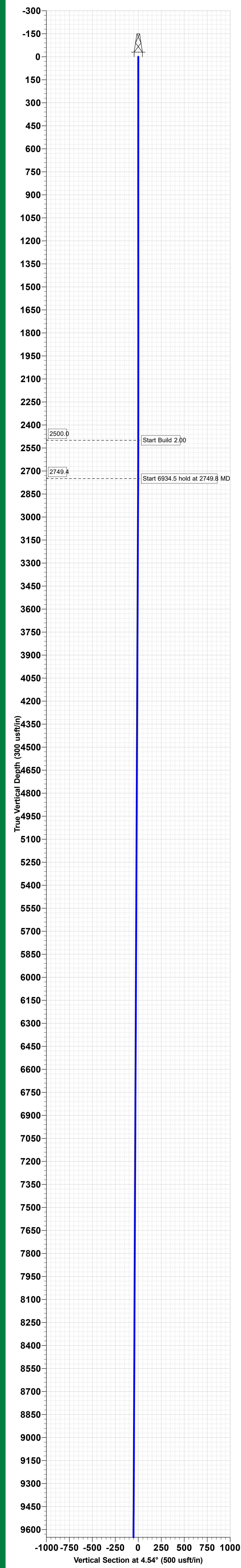
Design Targets

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 (ADMIRAL FED # - plan misses target center by 182.1usft at 10248.4usft MD (10095.0 TVD, 179.6 N, 722.3 E) - Circle (radius 50.0)	0.00	0.00	10,129.0	113.9	888.7	398,210.30	606,456.00	32° 5' 39.587 N	103° 59' 22.450 W
POI 1 (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H4,990.0 D20.0)	-0.20	179.17	10,145.9	5,092.9	815.5	403,189.25	606,382.80	32° 6' 28.863 N	103° 59' 23.117 W
PBHL (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H5,099.0 D20.0)	-0.20	179.94	10,164.0	10,199.3	810.0	408,295.70	606,377.30	32° 7' 19.398 N	103° 59' 22.991 W
LTP (ADMIRAL FED # - plan misses target center by 1.0usft at 20159.0usft MD (10163.5 TVD, 10069.3 N, 810.1 E) - Point	0.00	0.00	10,164.0	10,069.3	811.0	408,165.70	606,378.30	32° 7' 18.112 N	103° 59' 22.985 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2500	2500	0	0	Start Build 2.00
2750	2749	-2	11	Start 6934.5 hold at 2749.8 MD
9684	9658	-100	606	Start DLS 12.00 TFO -84.10
10,428	10,129	348	771	Start DLS 2.00 TFO -90.04
11,235	10,132	1146	873	Start 3947.7 hold at 11234.8 MD
15,183	10,146	5093	815	Start DLS 2.00 TFO 89.95
15,221	10,146	5131	815	Start 5067.9 hold at 15221.1 MD
20,289	10,164	10,199	810	TD at 20289.0

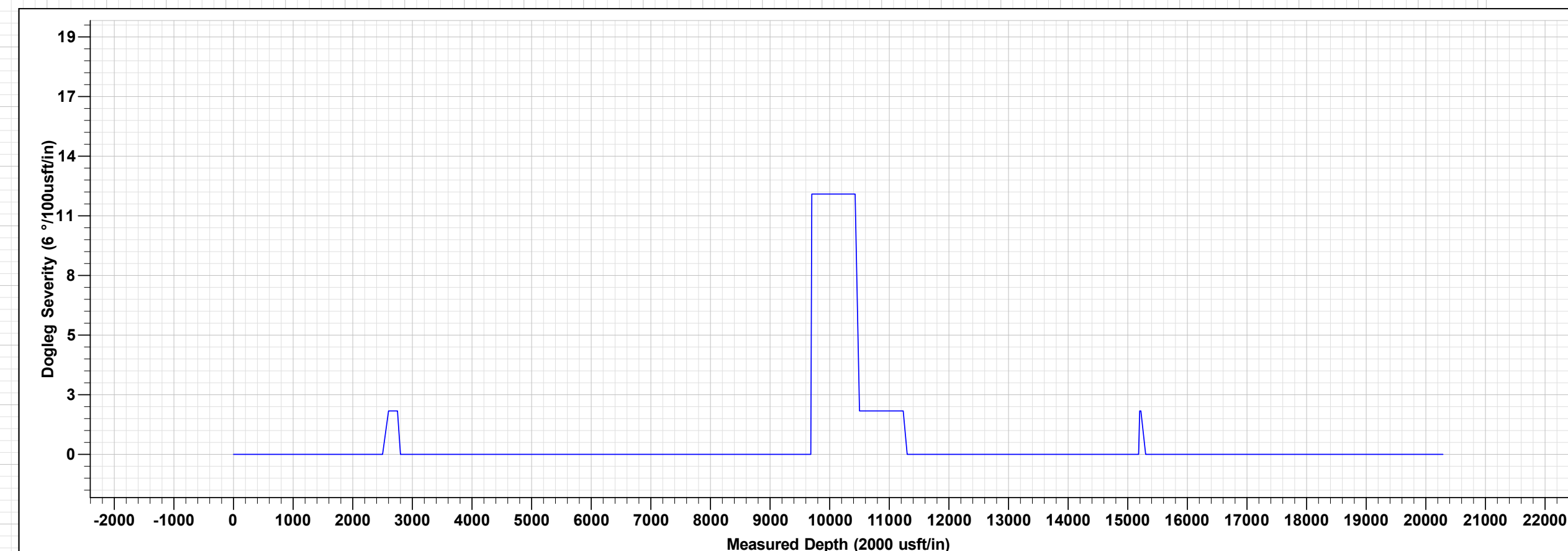
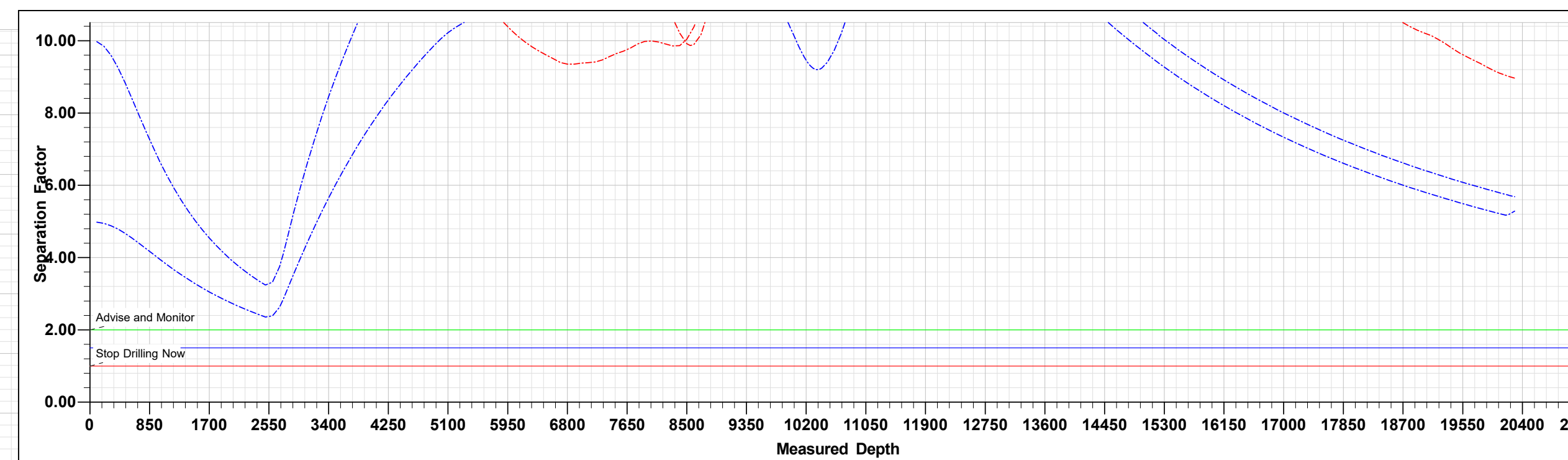
Checked By: _____ Approved By: _____ Date: _____



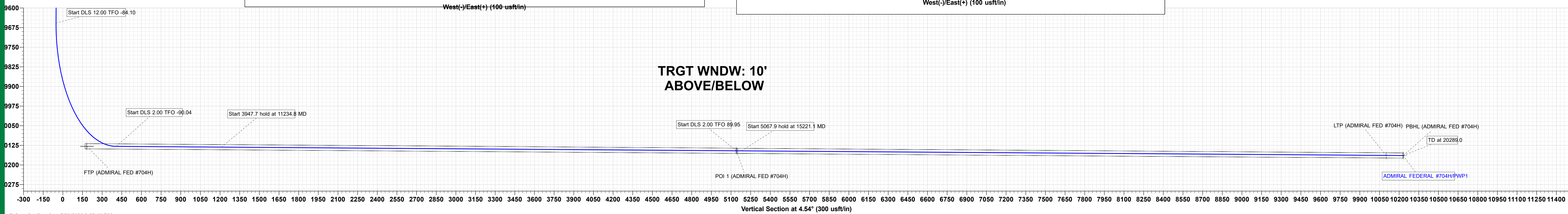
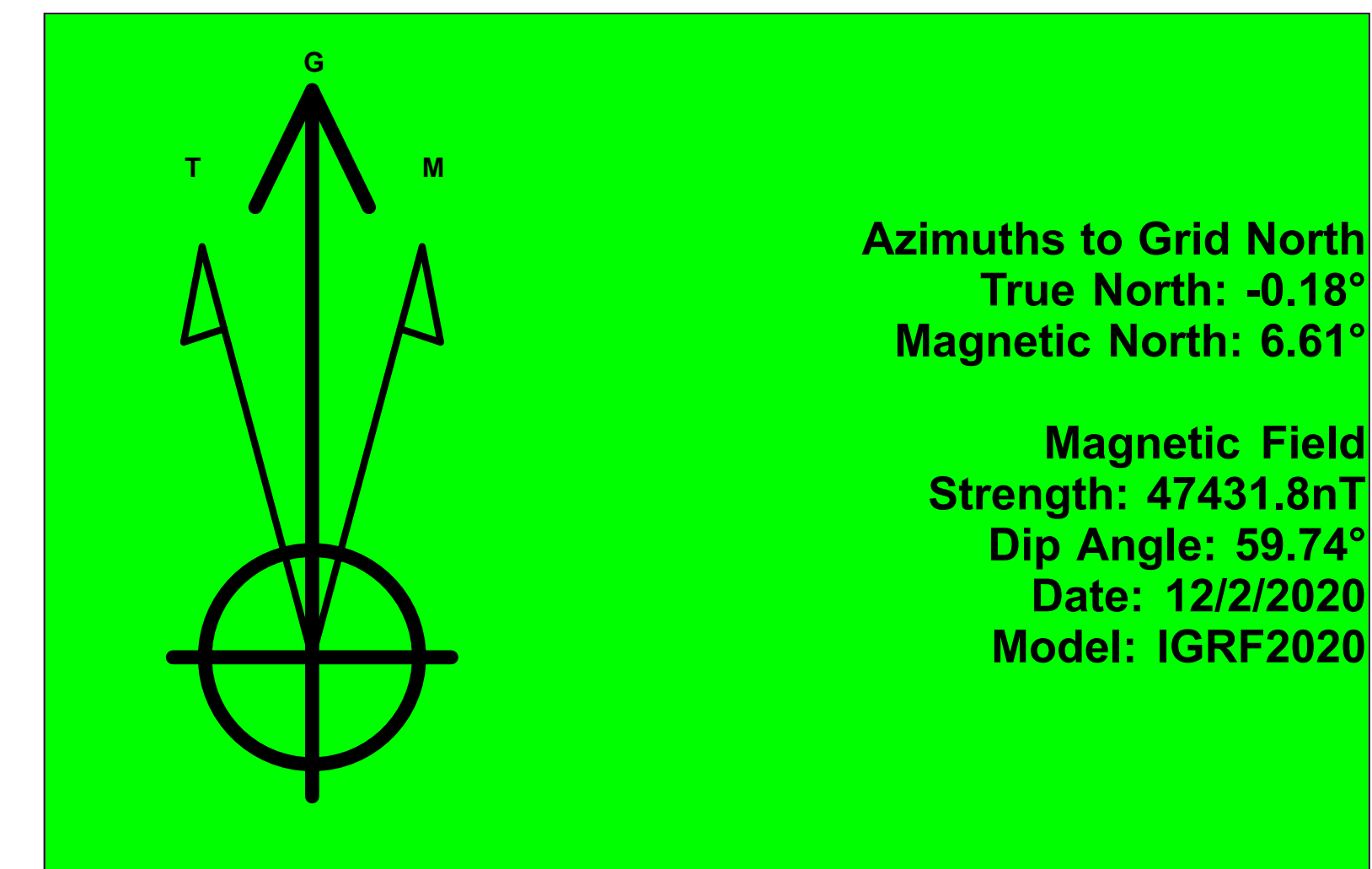
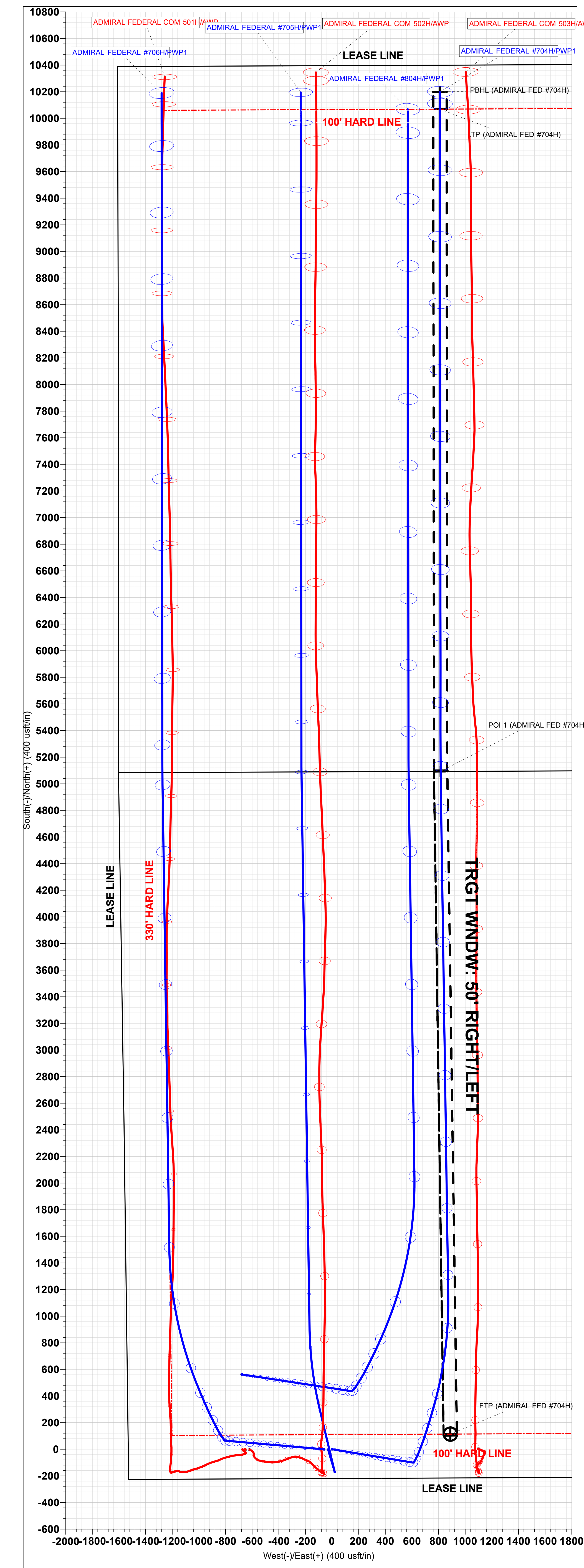
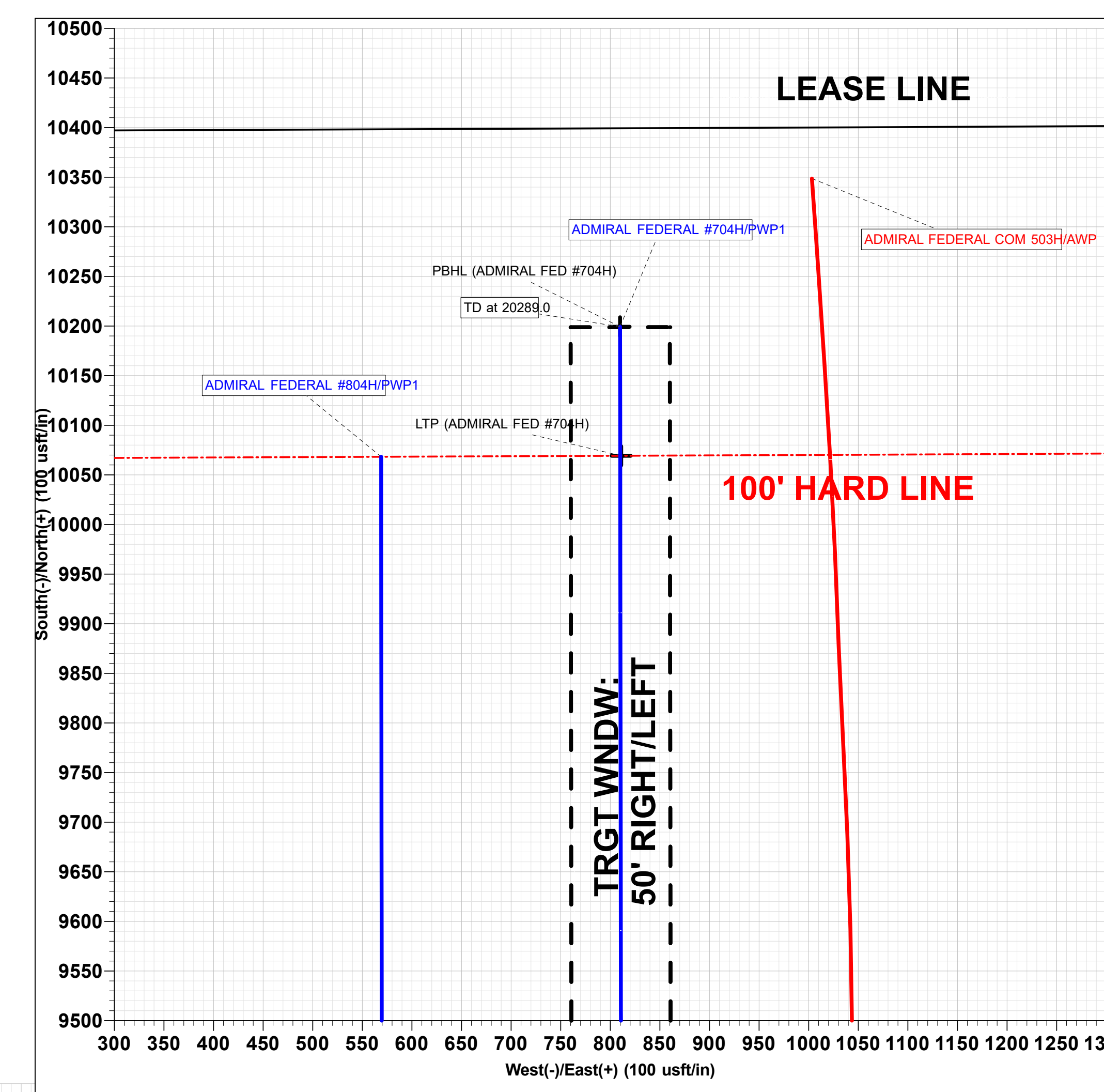
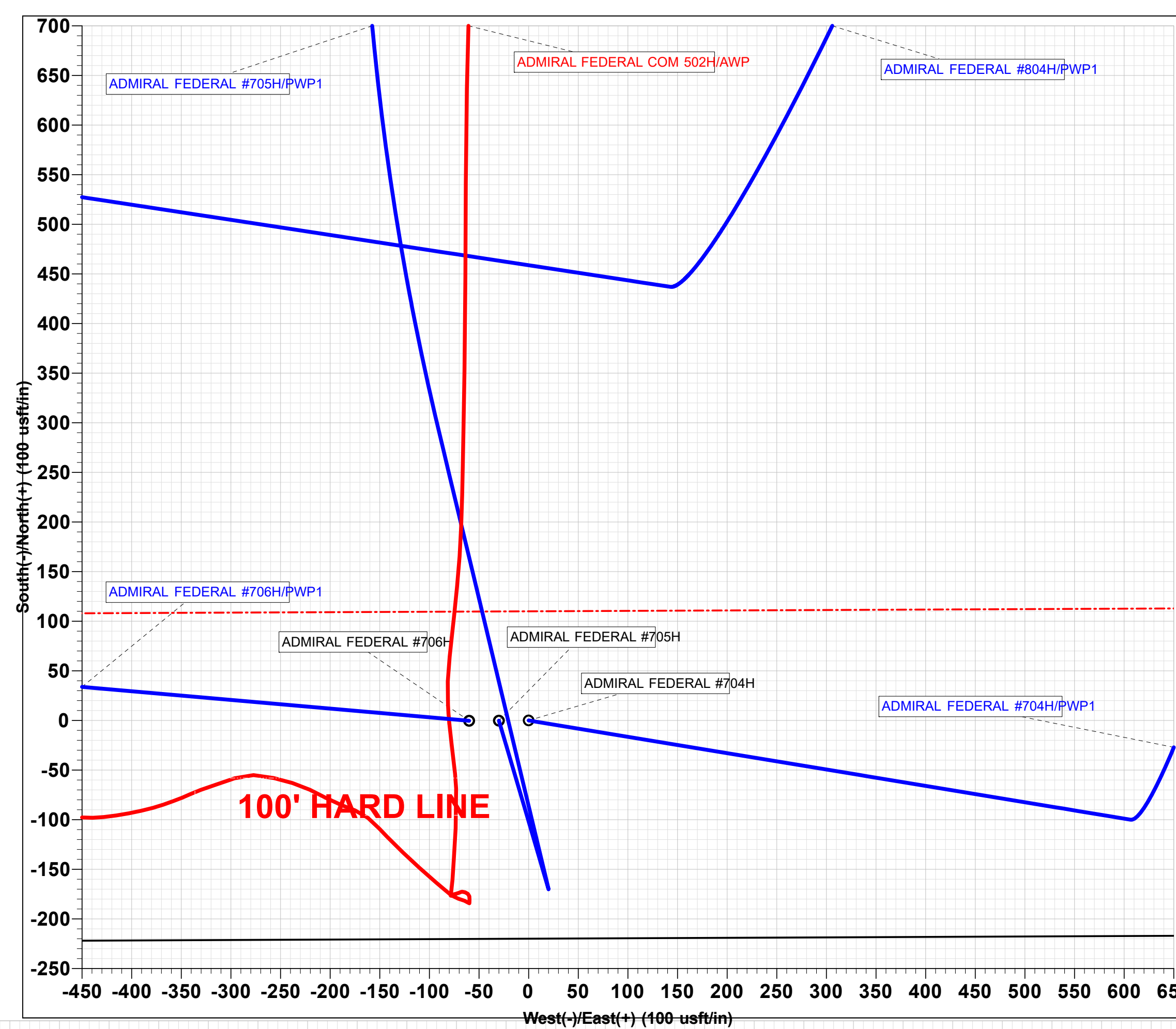
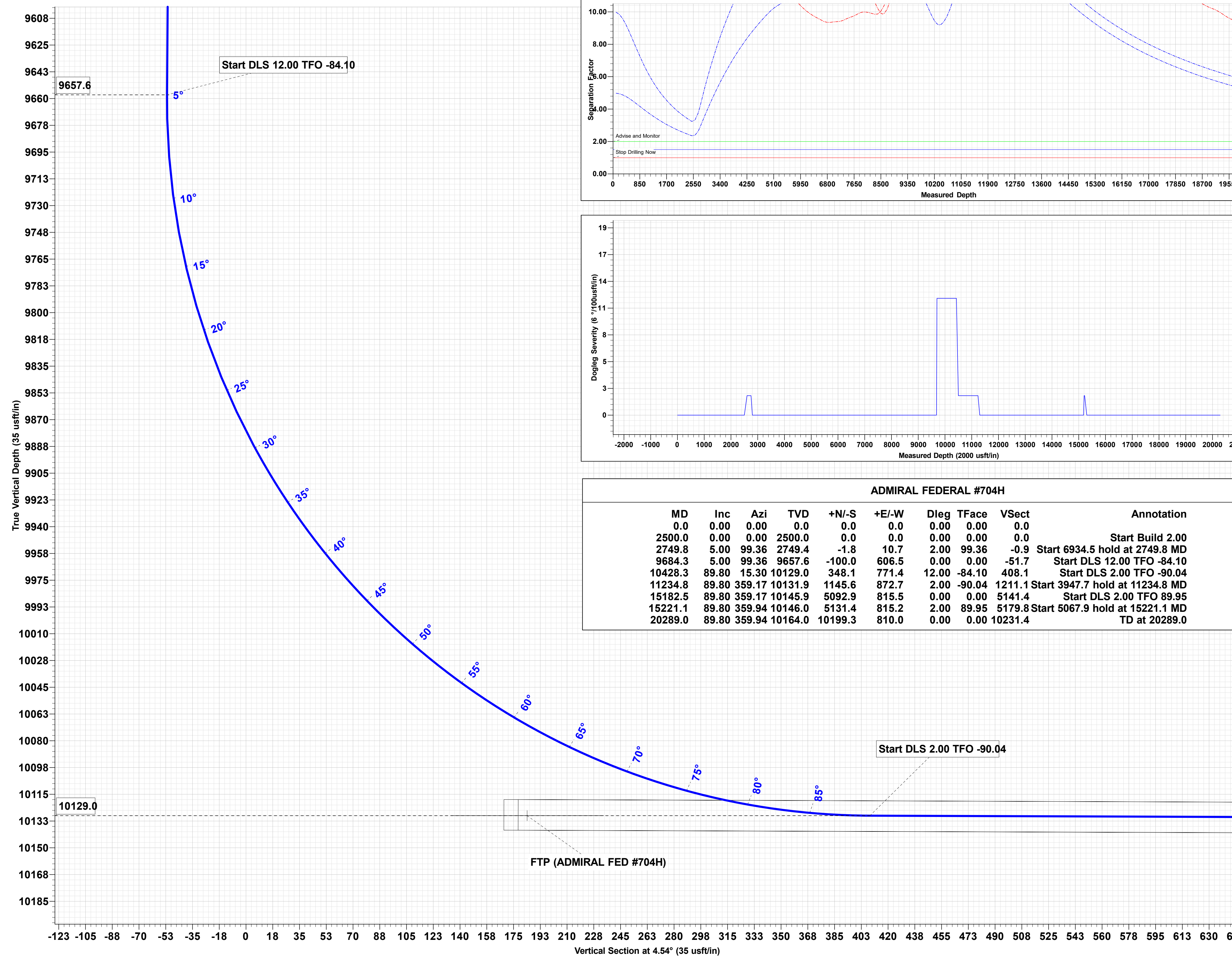
Project: ATLAS PROSPECT (NM-E)
Site: ADMIRAL FEDERAL PROJECT (ATLAS 2529)
Well: ADMIRAL FEDERAL #704H
Wellbore: OWB
Design: PWP1
GL: 2984.0
KB=25' @ 3009.0usft (TBD)

WELL DETAILS: ADMIRAL FEDERAL #704H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	398096.40	605567.30	32° 5' 38.487 N	103° 59' 32.785 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
FTP (ADMIRAL FED #704H)	10129.0	113.9	888.7	398210.30	606456.00	32° 5' 38.587 N
POI 1 (ADMIRAL FED #704H)	10145.3	5092.9	815.5	403189.26	606382.80	32° 6' 28.863 N
LTP (ADMIRAL FED #704H)	10164.0	10069.3	811.0	408165.70	606378.30	32° 7' 18.112 N
PBHL (ADMIRAL FED #704H)	10164.0	10199.3	810.0	408295.70	606377.30	32° 7' 19.398 N



ADMIRAL FEDERAL #704H									
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 Build 2.00
2749.8	5.00	99.36	2749.4	-1.8	10.7	2.00	99.36	-0.9	Start 6934.5 hold at 2749.8 MD
9684.3	5.00	99.36	9657.6	-100.0	606.5	0.00	0.00	-51.7	Start DLS 12.00 TFO -84.10
10428.3	89.80	15.30	10129.0	348.1	771.4	12.00	-84.10	408.1	Start DLS 2.00 TFO -90.04
11234.8	89.80	359.17	10131.9	1145.6	872.7	2.00	-90.04	1211.1	Start 3947.7 hold at 11234.8 MD
15182.5	89.80	359.17	10145.9	5092.9	815.5	0.00	0.00	5141.4	Start DLS 2.00 TFO 89.95
15221.1	89.80	359.94	10146.0	5131.4	815.2	2.00	89.95	5179.8	Start 5067.9 hold at 15221.1 MD
20289.0	89.80	359.94	10164.0	10199.3	810.0	0.00	0.00	10231.4	TD at 20289.0



TRGT WNDW: 10' ABOVE/BELOW

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG
LEASE NO.:	NMNM096848
LOCATION:	Section 28, T.25 S., R.29 E., NMPPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	Admiral Fed Com 704H
SURFACE HOLE FOOTAGE:	220'/S & 1530'/W
BOTTOM HOLE FOOTAGE:	200'/N & 2420'/W

COA

H2S	☐ Yes	☒ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☐ Low	☒ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **575** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

- hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above.
- Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)**Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.

- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

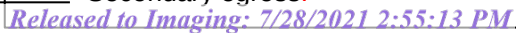
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

ZS 070121



COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S. If H₂S greater than 100 ppm is encountered in the gas stream we will shut in and install H₂S equipment.

- a. Well Control Equipment:
 - Flare line.
 - Choke manifold with remotely operated choke.
 - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED***
- 2. HARD HATS REQUIRED***
- 3. SMOKING IN DESIGNATED AREAS ONLY***
- 4. BE WIND CONSCIOUS AT ALL TIMES***
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

EMERGENCY RESPONSE NUMBERS

	<u>OFFICE</u>
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

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 38362

COMMENTS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38362
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 7/28/2021	7/28/2021

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CONDITIONS

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Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
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	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	7/28/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/28/2021
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	7/28/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	7/28/2021
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	7/28/2021