

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 48793
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		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)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
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)



Additional Operator Remarks

Location of Well

0. SHL: SWSE / 311 FSL / 1510 FEL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.094407 / LONG: -103.985555 (TVD: 0 feet, MD: 0 feet)

PPP: SENE / 2639 FNL / 1254 FEL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.100849 / LONG: -103.98477 (TVD: 11047 feet, MD: 13375 feet)

PPP: SESE / 330 FSL / 1254 FEL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.09446 / LONG: -103.984729 (TVD: 10961 feet, MD: 11064 feet)

BHL: NENE / 200 FNL / 1254 FEL / TWSP: 25S / RANGE: 29E / SECTION: 21 / LAT: 32.122186 / LONG: -103.984907 (TVD: 11035 feet, MD: 20990 feet)

BLM Point of Contact

Name: PAMELLA HERNANDEZ

Title: LIE

Phone: (575) 234-5954

Email: PHERANDEZ@BLM.GOV

CONFIDENTIAL

DISTRICT I
1825 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) 334-6176 Fax: (505) 334-6170

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, 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 801H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 2984.9'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	28	25-S	29-E		311	SOUTH	1510	EAST	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
A	21	25-S	29-E		200	NORTH	1254	EAST	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 <table border="1"> <tr><td>1</td><td>Y=408568.1 N X=650455.2 E</td></tr> <tr><td>2</td><td>Y=403259.7 N X=650482.5 E</td></tr> <tr><td>3</td><td>Y=400604.7 N X=650515.2 E</td></tr> <tr><td>4</td><td>Y=397951.5 N X=650548.1 E</td></tr> <tr><td>5</td><td>Y=397939.4 N X=647886.6 E</td></tr> <tr><td>6</td><td>Y=403248.3 N X=647816.8 E</td></tr> <tr><td>7</td><td>Y=408554.9 N X=647798.5 E</td></tr> </table> SECTION 21 SECTION 28 LEASE X-ING LAT.=32.115442° N LONG.=103.984864° W LEASE X-ING LAT.=32.100849° N LONG.=103.984770° W NAD 83 NME PROPOSED BOTTOM HOLE LOCATION Y=408361.9 N X=649202.2 E LAT.=32.122186° N LONG.=103.984907° W NAD 83 NME SURFACE LOCATION Y=398255.6 N X=649034.2 E LAT.=32.094407° N LONG.=103.985555° W	1	Y=408568.1 N X=650455.2 E	2	Y=403259.7 N X=650482.5 E	3	Y=400604.7 N X=650515.2 E	4	Y=397951.5 N X=650548.1 E	5	Y=397939.4 N X=647886.6 E	6	Y=403248.3 N X=647816.8 E	7	Y=408554.9 N X=647798.5 E	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 12/28/20 Signature Date Stan Wagner Printed Name E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. NOVEMBER 9, 2020 Date of Survey Signature & Seal of Professional Surveyor <i>Chad L. Harcrow</i> 11/18/20 Certificate No. CHAD HARCROW 17777 W.O. # 20-1602 DRAWN BY: DS
1	Y=408568.1 N X=650455.2 E														
2	Y=403259.7 N X=650482.5 E														
3	Y=400604.7 N X=650515.2 E														
4	Y=397951.5 N X=650548.1 E														
5	Y=397939.4 N X=647886.6 E														
6	Y=403248.3 N X=647816.8 E														
7	Y=408554.9 N X=647798.5 E														

Intent ☒ As Drilled ☐

API # 30-015		
Operator Name: COG Operating LLC	Property Name: Admiral Federal Com	Well Number 801H

Kick Off Point (KOP)

UL O	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 P	Section 28	Township 25S	Range 29E	Lot	Feet 330	From N/S South	Feet 1254	From E/W East	County Eddy
Latitude 32.094460					Longitude -103.984729				NAD 83

Last Take Point (LTP)

UL A	Section 21	Township 25S	Range 29E	Lot	Feet 330	From N/S North	Feet 1254	From E/W East	County Eddy
Latitude 32.121829					Longitude -103.984905				NAD 83

Is this well the defining well for the Horizontal Spacing Unit?

☐ No

Is this well an infill well?

☒ Yes

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

API # 30-015-		
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 801H	30-015-	O-28-25S-29E	311 FSL & 1480 FEL	± 780	± 8000	± 5558
Admiral Federal Com 802H	30-015-	O-28-25S-29E	311 FSL & 1510 FEL	± 1283	± 8000	± 2220
Admiral Federal Com 803H	30-015-	O-28-25S-29E	311 FSL & 1540 FEL	± 780	± 8000	± 5558

IV. Central Delivery Point Name: Admiral Fed Com CTB B 814 FSL & 1005 FEL 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 801H, 802H, 803H	Pending	± 10/1/2022	± 25 days from spud	TBD	TBD	TBD

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

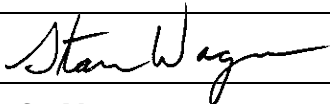
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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: 07/22/2021
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 #801H

1. Geologic Formations

TVD of target	11,035' EOL	Pilot hole depth	NA
MD at TD:	20,991'	Deepest expected fresh water:	200'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	598	Water	
Top of Salt	770	Salt	
Base of Salt	2770	Salt	
Lamar	2951	Salt Water	
Bell Canyon	2995	Salt Water	
Brushy Canyon	5121	Oil/Gas	
Bone Spring Lime	6715	Oil/Gas	
1st Bone Spring Sand	7629	Oil/Gas	
2nd Bone Spring Sand	8295	Oil/Gas	
3rd Bone Spring Sand	9556	Oil/Gas	
Wolfcamp	9915	Oil/Gas	
Wolfcamp B	10387	Oil/Gas	
Wolfcamp C	10515	Oil/Gas	
Wolfcamp D	10950	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	720	10.75"	45.5	N80	BTC	7.67	1.58	31.75	33.49
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.50	1.26	2.88	2.90
8.750"	8500	10480	7.625"	29.7	HCP 110	TL-FJ	1.38	1.31	3.02	2.11
6.75"	0	10280	5.5"	23	P110	BTC	2.11	2.51	2.87	2.85
6.75"	10280	20,991	5.5"	23	P110	Talon HTQ	2.11	2.51	2.87	2.79
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 #801H

	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 #801H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	240	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 #801H

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 #801H

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 #801H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	6890 psi at 11035' TVD
Abnormal Temperature	NO 165 Deg. F.

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

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

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

8. Other Facets of Operation

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

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan
x	5M Annular Variance

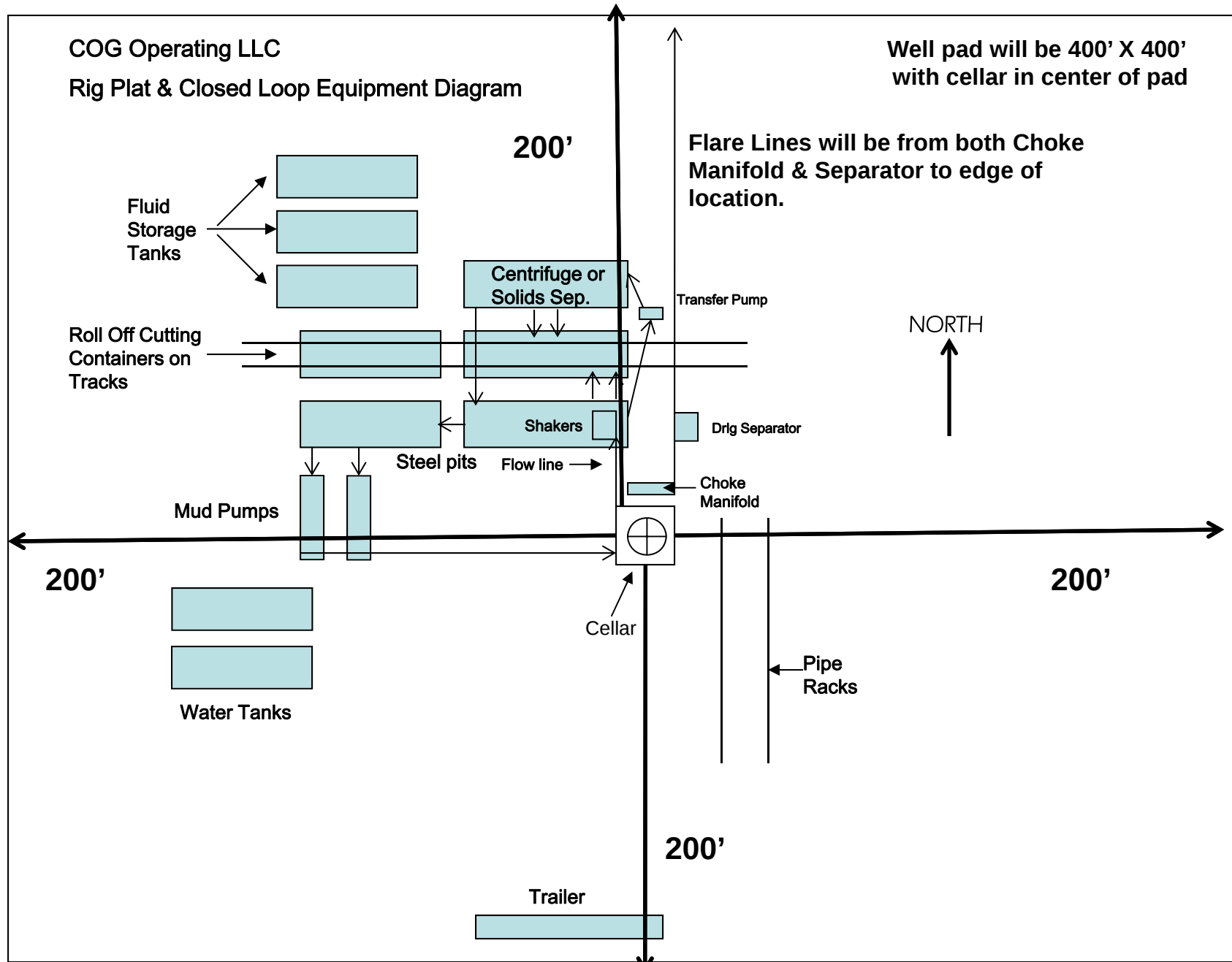


Exhibit 1

"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 COM #801H

OWB

PWP1

Anticollision Report

14 December, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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	12/14/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	0.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,581.0	20,990.2	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
ADMIRAL FEDERAL PROJECT (ATLAS 2529)						
ADMIRAL FED COM #2H - LATERAL 01 - AWP-LAT 01	303.9	306.5	483.7	477.7	80.348	CC, ES
ADMIRAL FED COM #2H - LATERAL 01 - AWP-LAT 01	20,900.0	20,131.0	1,816.7	1,574.6	7.504	SF
ADMIRAL FED COM #2H - OWB-PILOT HOLE - AWP-P	303.9	306.5	483.7	477.7	80.348	CC, ES
ADMIRAL FED COM #2H - OWB-PILOT HOLE - AWP-P	11,050.0	10,745.0	1,267.9	1,243.7	52.390	SF
ADMIRAL FEDERAL COM #701H - OWB - PWP1	2,748.0	2,745.1	29.6	22.5	4.179	CC
ADMIRAL FEDERAL COM #701H - OWB - PWP1	2,771.9	2,768.8	29.6	22.5	4.166	ES, SF
ADMIRAL FEDERAL COM #802H - OWB - PWP1	2,500.0	2,500.3	30.0	23.1	4.349	CC, ES, SF
ADMIRAL FEDERAL COM #803H - OWB - PWP1	2,416.4	2,417.1	60.0	53.2	8.770	CC
ADMIRAL FEDERAL COM #803H - OWB - PWP1	2,500.0	2,500.0	60.0	53.1	8.699	ES, SF
ADMIRAL FEDERAL COM 504H - OWB - AWP	6,545.3	6,526.0	120.4	96.7	5.072	CC
ADMIRAL FEDERAL COM 504H - OWB - AWP	6,600.0	6,580.4	120.6	96.6	5.015	ES
ADMIRAL FEDERAL COM 504H - OWB - AWP	6,800.0	6,779.1	124.1	98.8	4.913	SF
ADMIRAL FEDERAL COM 504H - ST01 - ST01	6,545.3	6,526.0	120.4	96.7	5.072	CC
ADMIRAL FEDERAL COM 504H - ST01 - ST01	6,600.0	6,580.4	120.6	96.6	5.015	ES
ADMIRAL FEDERAL COM 504H - ST01 - ST01	6,800.0	6,779.1	124.1	98.8	4.913	SF
ADMIRAL FEDERAL COM 504H - ST02 - ST02	6,545.3	6,526.0	120.4	96.7	5.072	CC
ADMIRAL FEDERAL COM 504H - ST02 - ST02	6,600.0	6,580.4	120.6	96.6	5.015	ES
ADMIRAL FEDERAL COM 504H - ST02 - ST02	6,800.0	6,779.1	124.1	98.8	4.913	SF
ADMIRAL FEDERAL COM 505H - OWB - AWP	8,642.3	8,648.8	368.9	329.2	9.289	CC, ES, SF
ADMIRAL FEDERAL COM 505H - ST01 - ST01	8,642.3	8,648.8	368.9	329.2	9.289	CC, ES, SF

Offset Design	ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FED COM #2H - LATERAL 01 - AWP-LAT 0										Offset Site Error:	0.0 usft
Survey Program:	100- VES GyroFlex, 9732-MWD										Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Reference		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)	Separation Factor	
0.0	0.0	2.6	2.6	3.0	3.0	-104.73	-123.2	-468.6	484.5			
100.0	100.0	104.3	104.3	3.0	3.0	-104.71	-123.0	-468.4	484.3	478.3	6.00	80.714
200.0	200.0	204.5	204.5	3.0	3.0	-104.71	-122.8	-468.1	483.9	477.9	6.01	80.546
300.0	300.0	302.8	302.8	3.0	3.0	-104.68	-122.6	-467.9	483.7	477.7	6.02	80.351
303.9	303.9	306.5	306.5	3.0	3.0	-104.67	-122.5	-467.9	483.7	477.7	6.02	80.348 CC, ES
400.0	400.0	400.0	400.0	3.0	3.0	-104.65	-122.5	-468.4	484.2	478.2	6.03	80.354

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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- VES GyroFlex, 9732-MWD												Offset Well Error:	3.0 usft
Reference				Offset				Semi Major Axis				Distance	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
500.0	500.0	502.7	502.7	3.1	3.0	-104.65	-122.6	-468.9	484.6	478.6	6.04	80.283	
502.2	502.2	504.8	504.8	3.1	3.0	-104.65	-122.6	-468.9	484.6	478.6	6.04	80.279	
600.0	600.0	600.0	600.0	3.1	3.0	-104.64	-122.6	-469.4	485.1	479.1	6.05	80.161	
700.0	700.0	697.9	697.9	3.1	3.1	-104.58	-122.3	-470.4	486.1	480.0	6.07	80.066	
800.0	800.0	797.7	797.6	3.2	3.1	-104.48	-121.8	-471.6	487.1	481.0	6.10	79.880	
900.0	900.0	897.2	897.2	3.2	3.1	-104.37	-121.1	-472.8	488.1	482.0	6.13	79.617	
1,000.0	1,000.0	997.7	997.6	3.2	3.2	-104.27	-120.6	-474.1	489.2	483.0	6.17	79.256	
1,100.0	1,100.0	1,095.1	1,095.1	3.3	3.2	-104.20	-120.3	-475.4	490.5	484.2	6.22	78.834	
1,200.0	1,200.0	1,193.3	1,193.3	3.4	3.2	-104.12	-120.0	-477.2	492.2	485.9	6.28	78.383	
1,300.0	1,300.0	1,298.7	1,298.6	3.4	3.3	-104.07	-120.0	-478.8	493.6	487.2	6.35	77.723	
1,400.0	1,400.0	1,396.8	1,396.7	3.5	3.4	-104.03	-119.9	-479.8	494.6	488.1	6.43	76.975	
1,500.0	1,500.0	1,502.4	1,502.3	3.5	3.4	-103.99	-119.7	-480.5	495.2	488.7	6.50	76.205	
1,600.0	1,600.0	1,601.3	1,601.3	3.6	3.5	-103.96	-119.5	-480.8	495.4	488.8	6.57	75.421	
1,700.0	1,700.0	1,700.6	1,700.5	3.7	3.6	-103.94	-119.4	-481.1	495.7	489.1	6.66	74.475	
1,800.0	1,800.0	1,800.0	1,799.9	3.8	3.7	-103.90	-119.2	-481.6	496.2	489.4	6.75	73.504	
1,900.0	1,900.0	1,897.7	1,897.6	3.9	3.7	-103.88	-119.2	-482.4	496.9	490.1	6.85	72.551	
2,000.0	2,000.0	1,997.1	1,997.0	3.9	3.8	-103.88	-119.5	-483.4	498.0	491.0	6.96	71.519	
2,100.0	2,100.0	2,095.1	2,095.0	4.0	3.9	-103.87	-119.7	-484.7	499.3	492.2	7.08	70.509	
2,200.0	2,200.0	2,195.9	2,195.8	4.1	4.0	-103.86	-119.9	-486.2	500.8	493.6	7.21	69.472	
2,300.0	2,300.0	2,296.4	2,296.3	4.2	4.1	-103.89	-120.5	-487.4	502.1	494.7	7.33	68.456	
2,400.0	2,400.0	2,398.3	2,398.2	4.3	4.1	-104.04	-122.1	-488.1	503.2	495.7	7.45	67.573	
2,500.0	2,500.0	2,503.5	2,503.3	4.4	4.1	-104.30	-124.4	-487.9	503.5	496.0	7.53	66.875	
2,505.3	2,505.3	2,509.0	2,508.9	4.4	4.1	171.37	-124.5	-487.9	503.5	496.0	7.53	66.846	
2,600.0	2,600.0	2,607.1	2,606.9	4.5	4.1	171.07	-127.1	-486.7	504.8	497.2	7.60	66.439	
2,700.0	2,699.8	2,714.3	2,714.0	4.5	4.1	170.77	-130.0	-484.1	508.3	500.7	7.66	66.362	
2,771.9	2,771.5	2,789.4	2,789.1	4.5	4.1	170.59	-131.9	-481.6	512.3	504.6	7.70	66.544	
2,800.0	2,799.5	2,819.1	2,818.7	4.5	4.1	170.53	-132.6	-480.5	514.1	506.4	7.71	66.650	
2,900.0	2,899.0	2,924.8	2,924.3	4.6	4.0	170.40	-134.3	-475.8	519.6	511.8	7.76	66.932	
3,000.0	2,998.6	3,027.7	3,027.1	4.6	4.0	170.32	-135.3	-470.5	524.2	516.4	7.81	67.087	
3,100.0	3,098.1	3,130.0	3,129.2	4.7	4.0	170.28	-135.8	-464.9	528.4	520.6	7.87	67.123	
3,200.0	3,197.7	3,231.5	3,230.5	4.7	4.0	170.28	-135.9	-459.0	532.2	524.3	7.94	67.046	
3,300.0	3,297.2	3,330.8	3,329.7	4.8	4.0	170.29	-135.8	-453.2	535.9	527.9	8.01	66.894	
3,400.0	3,396.8	3,429.4	3,428.1	4.9	4.0	170.33	-135.6	-447.8	539.8	531.7	8.09	66.714	
3,500.0	3,496.3	3,529.5	3,528.0	4.9	4.0	170.36	-135.5	-442.3	543.9	535.7	8.18	66.478	
3,600.0	3,595.9	3,629.4	3,627.9	5.0	4.0	170.39	-135.3	-436.7	547.8	539.5	8.28	66.177	
3,700.0	3,695.4	3,728.5	3,726.8	5.1	4.0	170.41	-135.2	-431.3	551.9	543.5	8.38	65.833	
3,800.0	3,795.0	3,827.4	3,825.5	5.1	4.0	170.43	-135.2	-426.1	556.1	547.6	8.50	65.459	
3,900.0	3,894.5	3,926.0	3,924.0	5.2	4.1	170.44	-135.3	-421.0	560.6	552.0	8.62	65.065	
4,000.0	3,994.1	4,024.5	4,022.4	5.3	4.1	170.47	-135.4	-416.2	565.2	556.5	8.74	64.657	
4,100.0	4,093.6	4,122.2	4,120.0	5.4	4.1	170.49	-135.5	-411.8	570.3	561.4	8.87	64.256	
4,200.0	4,193.2	4,221.4	4,219.1	5.4	4.2	170.52	-135.6	-407.5	575.5	566.5	9.01	63.841	
4,300.0	4,292.7	4,320.6	4,318.2	5.5	4.2	170.55	-135.9	-403.4	580.9	571.7	9.16	63.405	
4,400.0	4,392.3	4,419.0	4,416.6	5.6	4.3	170.56	-136.2	-399.4	586.4	577.1	9.31	62.967	
4,500.0	4,491.8	4,518.1	4,515.5	5.7	4.3	170.57	-136.7	-395.5	592.1	582.7	9.47	62.520	
4,600.0	4,591.4	4,616.6	4,614.0	5.8	4.4	170.57	-137.3	-391.8	598.1	588.4	9.63	62.077	
4,700.0	4,690.9	4,716.2	4,713.5	5.9	4.5	170.58	-137.8	-388.3	604.1	594.3	9.80	61.627	
4,800.0	4,790.5	4,816.1	4,813.4	6.0	4.6	170.60	-138.2	-384.7	610.1	600.1	9.98	61.160	
4,900.0	4,890.0	4,916.1	4,913.3	6.0	4.6	170.61	-138.8	-381.1	616.2	606.0	10.15	60.682	
5,000.0	4,989.6	5,017.0	5,014.1	6.1	4.7	170.61	-139.4	-377.3	622.0	611.7	10.34	60.175	
5,100.0	5,089.1	5,115.5	5,112.5	6.2	4.8	170.60	-140.1	-373.6	628.0	617.5	10.52	59.681	
5,200.0	5,188.7	5,213.9	5,210.8	6.3	4.9	170.57	-141.0	-370.2	634.2	623.4	10.71	59.209	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 FED COM #2H - LATERAL 01 - AWP-LAT 0												Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9732-MWD												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,300.0	5,288.2	5,313.3	5,310.2	6.4	5.0	170.56	-141.9	-366.8	640.4	629.5	10.90	58.742	
5,400.0	5,387.8	5,411.3	5,408.1	6.5	5.1	170.55	-142.7	-363.6	646.9	635.8	11.10	58.299	
5,500.0	5,487.3	5,509.9	5,506.7	6.6	5.2	170.54	-143.6	-360.7	653.6	642.3	11.29	57.875	
5,600.0	5,586.9	5,607.3	5,604.1	6.7	5.3	170.53	-144.5	-358.0	660.6	649.1	11.49	57.485	
5,700.0	5,686.4	5,706.6	5,703.3	6.8	5.4	170.54	-145.3	-355.5	667.8	656.1	11.69	57.106	
5,800.0	5,786.0	5,806.0	5,802.7	6.9	5.5	170.59	-145.8	-353.2	675.0	663.1	11.90	56.720	
5,900.0	5,885.5	5,902.4	5,899.1	7.0	5.6	170.69	-145.6	-351.4	682.5	670.4	12.11	56.355	
6,000.0	5,985.1	6,002.8	5,999.5	7.1	5.7	170.83	-145.1	-349.9	690.2	677.9	12.33	55.990	
6,100.0	6,084.6	6,102.5	6,099.2	7.3	5.8	170.95	-144.6	-348.2	697.9	685.3	12.55	55.622	
6,200.0	6,184.2	6,204.3	6,200.9	7.4	5.9	171.07	-144.2	-346.3	705.4	692.6	12.77	55.236	
6,300.0	6,283.7	6,300.9	6,297.5	7.5	6.0	171.16	-144.0	-344.6	712.9	700.0	12.99	54.871	
6,400.0	6,383.3	6,399.3	6,395.9	7.6	6.1	171.27	-143.7	-343.2	720.8	707.6	13.22	54.527	
6,500.0	6,482.8	6,498.0	6,494.6	7.7	6.2	171.38	-143.4	-341.9	728.9	715.4	13.45	54.195	
6,600.0	6,582.4	6,596.3	6,592.9	7.8	6.4	171.48	-143.2	-340.8	737.1	723.4	13.68	53.879	
6,700.0	6,681.9	6,697.1	6,693.7	7.9	6.5	171.57	-143.2	-339.6	745.3	731.4	13.91	53.569	
6,800.0	6,781.5	6,791.6	6,788.1	8.0	6.6	171.63	-143.5	-338.6	753.8	739.7	14.13	53.339	
6,900.0	6,881.0	6,892.2	6,888.8	8.1	6.7	171.68	-144.1	-337.9	762.6	748.3	14.34	53.180	
7,000.0	6,980.6	6,990.7	6,987.3	8.2	6.8	171.71	-144.9	-337.1	771.4	756.8	14.55	53.029	
7,100.0	7,080.1	7,090.0	7,086.6	8.4	6.9	171.70	-146.2	-336.2	780.3	765.5	14.74	52.931	
7,200.0	7,179.7	7,191.6	7,188.1	8.5	7.0	171.62	-148.4	-335.0	789.0	774.1	14.93	52.856	
7,300.0	7,279.2	7,287.0	7,283.5	8.6	7.1	171.49	-151.4	-333.8	797.9	782.8	15.11	52.796	
7,400.0	7,378.8	7,381.7	7,378.1	8.7	7.2	171.36	-154.4	-333.1	807.4	792.1	15.29	52.810	
7,500.0	7,478.3	7,482.5	7,478.9	8.8	7.2	171.28	-157.0	-332.9	817.1	801.7	15.45	52.892	
7,600.0	7,577.9	7,583.5	7,579.8	8.9	7.3	171.26	-158.7	-332.6	826.7	811.0	15.61	52.945	
7,700.0	7,677.4	7,682.6	7,678.9	9.0	7.4	171.25	-160.3	-332.3	836.1	820.3	15.78	52.976	
7,800.0	7,777.0	7,784.1	7,780.4	9.2	7.5	171.21	-162.3	-331.8	845.5	829.6	15.95	53.000	
7,900.0	7,876.5	7,882.3	7,878.6	9.3	7.6	171.18	-164.1	-331.3	854.8	838.7	16.13	52.998	
8,000.0	7,976.1	7,981.0	7,977.3	9.4	7.7	171.18	-165.5	-331.0	864.3	848.0	16.29	53.044	
8,100.0	8,075.6	8,078.9	8,075.2	9.5	7.7	171.25	-165.9	-331.2	873.9	857.5	16.44	53.167	
8,200.0	8,175.2	8,179.5	8,175.8	9.6	7.8	171.33	-166.2	-331.4	883.6	867.0	16.56	53.352	
8,300.0	8,274.7	8,278.9	8,275.2	9.8	7.8	171.41	-166.5	-331.6	893.2	876.5	16.70	53.493	
8,400.0	8,374.3	8,378.4	8,374.7	9.9	7.9	171.45	-167.2	-331.6	902.8	885.9	16.85	53.582	
8,500.0	8,473.8	8,481.1	8,477.4	10.0	8.0	171.46	-168.5	-331.4	912.3	895.3	17.02	53.611	
8,600.0	8,573.4	8,581.0	8,577.3	10.1	8.1	171.47	-169.7	-330.9	921.5	904.3	17.20	53.574	
8,700.0	8,672.9	8,678.9	8,675.2	10.2	8.2	171.46	-171.1	-330.5	930.8	913.4	17.38	53.542	
8,800.0	8,772.5	8,775.3	8,771.6	10.4	8.3	171.44	-172.8	-330.3	940.4	922.8	17.56	53.541	
8,900.0	8,872.0	8,876.3	8,872.5	10.5	8.4	171.43	-174.4	-330.2	950.1	932.4	17.73	53.588	
9,000.0	8,971.6	8,978.3	8,974.5	10.6	8.5	171.46	-175.4	-330.1	959.5	941.6	17.90	53.604	
9,100.0	9,071.1	9,082.5	9,078.7	10.7	8.7	171.48	-176.5	-329.5	968.7	950.6	18.09	53.553	
9,200.0	9,170.7	9,175.9	9,172.1	10.8	8.8	171.50	-177.4	-329.0	977.7	959.5	18.29	53.464	
9,300.0	9,270.2	9,273.2	9,269.4	11.0	8.9	171.51	-178.5	-329.1	987.4	969.0	18.46	53.483	
9,400.0	9,369.8	9,373.1	9,369.3	11.1	9.0	171.54	-179.5	-329.1	997.1	978.5	18.63	53.533	
9,500.0	9,469.3	9,472.2	9,468.4	11.2	9.1	171.55	-180.7	-329.2	1,006.8	988.0	18.80	53.569	
9,600.0	9,568.9	9,571.8	9,568.0	11.3	9.2	171.56	-182.0	-329.2	1,016.6	997.6	18.96	53.606	
9,700.0	9,668.4	9,681.3	9,677.5	11.5	13.1	171.74	-180.3	-329.6	1,025.9	1,001.7	24.19	42.414	
9,800.0	9,768.0	9,843.7	9,836.1	11.6	17.1	173.57	-149.1	-331.3	1,032.0	1,003.9	28.18	36.625	
9,900.0	9,867.5	9,949.2	9,930.0	11.7	17.2	176.23	-101.7	-334.4	1,035.3	1,007.1	28.18	36.742	
10,000.0	9,967.1	10,055.9	10,016.1	11.8	17.4	179.71	-38.9	-338.1	1,039.3	1,011.1	28.14	36.934	
10,100.0	10,066.6	10,148.5	10,082.1	11.9	17.6	-176.73	25.9	-340.4	1,045.4	1,017.2	28.12	37.171	
10,200.0	10,166.2	10,205.0	10,117.3	12.1	17.7	-174.32	70.1	-341.9	1,056.5	1,028.2	28.25	37.393	
10,300.0	10,265.7	10,242.4	10,138.5	12.2	17.8	-172.65	100.8	-343.3	1,074.3	1,045.8	28.58	37.590	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 FED COM #2H - LATERAL 01 - AWP-LAT 0													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex, 9732-MWD													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	10,365.3	10,279.0	10,157.5	12.3	18.0	-170.96	132.1	-345.0	1,099.2	1,070.1	29.06	37.827		
10,500.0	10,464.8	10,324.6	10,179.0	12.5	18.2	-168.83	172.2	-347.1	1,130.6	1,101.0	29.63	38.160		
10,600.0	10,564.4	10,363.0	10,195.5	12.5	18.3	-167.00	206.9	-348.4	1,168.0	1,137.6	30.46	38.348		
10,630.6	10,594.8	10,370.1	10,198.4	12.6	18.4	-166.66	213.4	-348.6	1,180.7	1,150.0	30.69	38.466		
10,650.0	10,614.1	10,375.2	10,200.4	12.6	18.4	-147.65	218.0	-348.7	1,189.1	1,158.3	30.85	38.546		
10,675.0	10,638.9	10,382.0	10,203.0	12.6	18.4	-132.45	224.4	-348.9	1,200.5	1,169.4	31.06	38.655		
10,700.0	10,663.4	10,395.0	10,207.9	12.6	18.5	-122.61	236.4	-349.3	1,212.4	1,181.2	31.25	38.800		
10,725.0	10,687.8	10,395.0	10,207.9	12.6	18.5	-116.13	236.4	-349.3	1,224.8	1,193.3	31.50	38.882		
10,750.0	10,711.8	10,405.4	10,211.5	12.6	18.6	-110.69	246.1	-349.5	1,237.7	1,205.9	31.72	39.015		
10,775.0	10,735.5	10,413.9	10,214.3	12.6	18.6	-106.18	254.1	-349.7	1,250.8	1,218.9	31.96	39.144		
10,800.0	10,758.7	10,426.0	10,217.9	12.6	18.7	-102.07	265.7	-349.8	1,264.3	1,232.2	32.18	39.288		
10,825.0	10,781.4	10,426.0	10,217.9	12.6	18.7	-98.78	265.7	-349.8	1,278.1	1,245.6	32.45	39.392		
10,850.0	10,803.5	10,440.0	10,221.7	12.7	18.8	-95.22	279.2	-349.8	1,292.0	1,259.3	32.67	39.542		
10,875.0	10,825.0	10,454.0	10,225.1	12.7	18.8	-91.89	292.7	-349.8	1,306.1	1,273.2	32.90	39.693		
10,900.0	10,845.8	10,456.7	10,225.7	12.7	18.9	-89.08	295.3	-349.8	1,320.2	1,287.0	33.16	39.815		
10,925.0	10,865.9	10,470.4	10,228.7	12.7	18.9	-86.09	308.8	-349.6	1,334.3	1,301.0	33.39	39.964		
10,950.0	10,885.2	10,485.0	10,231.6	12.8	19.0	-83.23	323.1	-349.4	1,348.4	1,314.8	33.62	40.113		
10,975.0	10,903.6	10,493.5	10,233.1	12.8	19.1	-80.68	331.4	-349.3	1,362.4	1,328.6	33.85	40.249		
11,000.0	10,921.1	10,505.0	10,235.2	12.8	19.2	-78.18	342.7	-349.1	1,376.3	1,342.2	34.08	40.388		
11,025.0	10,937.7	10,517.0	10,237.1	12.8	19.2	-75.82	354.6	-348.9	1,389.9	1,355.6	34.30	40.526		
11,050.0	10,953.2	10,526.9	10,238.7	12.9	19.3	-73.64	364.4	-348.8	1,403.3	1,368.8	34.52	40.658		
11,075.0	10,967.8	10,537.2	10,240.1	12.9	19.4	-71.57	374.5	-348.6	1,416.5	1,381.8	34.73	40.789		
11,100.0	10,981.2	10,548.0	10,241.5	12.9	19.5	-69.63	385.2	-348.5	1,429.4	1,394.5	34.93	40.918		
11,125.0	10,993.6	10,548.0	10,241.5	13.0	19.5	-67.90	385.2	-348.5	1,442.0	1,406.9	35.13	41.052		
11,150.0	11,004.8	10,566.2	10,243.6	13.0	19.6	-66.16	403.3	-348.4	1,454.2	1,418.9	35.33	41.166		
11,175.0	11,014.8	10,580.0	10,245.0	13.0	19.7	-64.59	417.1	-348.4	1,466.1	1,430.6	35.51	41.283		
11,200.0	11,023.6	10,587.3	10,245.7	13.1	19.7	-63.16	424.3	-348.4	1,477.5	1,441.8	35.69	41.401		
11,225.0	11,031.2	10,600.7	10,246.8	13.1	19.9	-61.85	437.7	-348.5	1,488.5	1,452.6	35.87	41.503		
11,250.0	11,037.5	10,612.0	10,247.6	13.1	19.9	-60.65	448.9	-348.5	1,499.0	1,462.9	36.03	41.602		
11,275.0	11,042.5	10,612.0	10,247.6	13.2	19.9	-59.51	448.9	-348.5	1,509.0	1,472.9	36.17	41.725		
11,300.0	11,046.3	10,641.4	10,249.3	13.2	20.2	-58.62	478.3	-348.7	1,518.3	1,481.9	36.39	41.723		
11,325.0	11,048.8	10,655.1	10,249.8	13.2	20.3	-57.77	492.0	-348.7	1,527.1	1,490.5	36.56	41.773		
11,350.0	11,049.9	10,668.8	10,250.2	13.2	20.4	-57.03	505.7	-348.8	1,535.3	1,498.6	36.72	41.814		
11,360.7	11,050.0	10,674.7	10,250.3	13.3	20.5	-56.75	511.6	-348.8	1,538.7	1,501.9	36.78	41.829		
11,400.0	11,050.0	10,706.0	10,250.3	13.3	20.7	-57.12	542.9	-348.9	1,550.7	1,513.7	37.08	41.824		
11,500.0	11,049.8	10,793.7	10,248.3	13.5	21.6	-57.98	630.6	-348.4	1,580.1	1,542.1	37.95	41.636		
11,600.0	11,049.7	10,895.1	10,244.9	13.7	22.6	-58.74	731.8	-346.7	1,606.2	1,567.2	39.00	41.184		
11,700.0	11,049.5	10,976.9	10,242.9	13.9	23.5	-59.33	813.7	-346.0	1,629.9	1,589.8	40.05	40.697		
11,800.0	11,049.3	11,060.6	10,241.7	14.2	24.5	-59.89	897.4	-346.5	1,651.5	1,610.3	41.19	40.098		
11,900.0	11,049.2	11,148.7	10,240.5	14.6	25.5	-60.39	985.4	-347.9	1,670.9	1,628.5	42.43	39.378		
12,000.0	11,049.0	11,235.4	10,241.4	15.0	26.6	-60.89	1,072.1	-351.0	1,687.9	1,644.2	43.74	38.594		
12,100.0	11,048.9	11,323.5	10,242.2	15.5	27.8	-61.32	1,160.1	-354.7	1,702.7	1,657.6	45.12	37.738		
12,200.0	11,048.7	11,416.6	10,242.1	16.0	29.0	-61.65	1,253.1	-358.7	1,715.0	1,668.4	46.61	36.792		
12,300.0	11,048.5	11,521.2	10,241.0	16.6	30.4	-61.88	1,357.6	-362.7	1,724.4	1,676.1	48.29	35.711		
12,400.0	11,048.4	11,620.8	10,241.7	17.2	31.8	-62.08	1,457.1	-367.1	1,730.2	1,680.3	49.96	34.630		
12,464.8	11,048.3	11,681.4	10,242.1	17.6	32.7	-62.16	1,517.6	-369.9	1,732.6	1,681.6	51.03	33.951		
12,500.0	11,048.2	11,715.0	10,242.3	17.8	33.2	-62.18	1,551.3	-371.5	1,733.6	1,681.9	51.63	33.578		
12,600.0	11,048.1	11,840.2	10,242.6	18.4	35.0	-62.26	1,676.3	-376.7	1,736.0	1,682.3	53.69	32.336		
12,700.0	11,047.9	11,979.6	10,243.7	19.0	37.0	-62.31	1,815.6	-379.2	1,736.0	1,680.0	55.95	31.026		
12,800.0	11,047.8	12,088.3	10,246.3	19.7	38.6	-62.39	1,924.3	-380.5	1,734.8	1,676.8	57.92	29.953		
12,900.0	11,047.6	12,177.7	10,248.3	20.3	40.0	-62.44	2,013.7	-381.4	1,733.5	1,673.8	59.70	29.035		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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- VES GyroFlex, 9732-MWD												Offset Well Error:	3.0 usft
Reference				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
13,000.0	11,047.4	12,268.1	10,250.1	21.0	41.3	-62.51	2,104.1	-383.3	1,733.2	1,671.7	61.53	28.168	
13,100.0	11,047.3	12,375.6	10,252.7	21.7	43.0	-62.61	2,211.5	-385.5	1,732.7	1,669.2	63.58	27.252	
13,200.0	11,047.1	12,468.2	10,253.9	22.4	44.4	-62.65	2,304.1	-386.7	1,732.1	1,666.7	65.49	26.451	
13,225.5	11,047.1	12,489.6	10,254.1	22.6	44.7	-62.66	2,325.5	-387.0	1,732.1	1,666.2	65.95	26.265	
13,300.0	11,047.0	12,546.8	10,254.6	23.1	45.6	-62.68	2,382.7	-388.4	1,732.4	1,665.2	67.24	25.765	
13,400.0	11,046.8	12,622.8	10,256.0	23.9	46.8	-62.76	2,458.5	-391.6	1,734.2	1,665.2	68.98	25.140	
13,500.0	11,046.7	12,710.3	10,258.4	24.6	48.1	-62.90	2,545.9	-396.7	1,737.0	1,666.1	70.89	24.502	
13,600.0	11,046.5	12,816.7	10,260.9	25.3	49.8	-63.05	2,652.1	-403.0	1,740.0	1,666.9	73.07	23.811	
13,700.0	11,046.3	12,923.4	10,261.8	26.1	51.5	-63.13	2,758.7	-407.7	1,742.4	1,667.1	75.27	23.149	
13,800.0	11,046.2	13,026.4	10,262.3	26.8	53.1	-63.20	2,861.6	-412.2	1,744.9	1,667.5	77.43	22.536	
13,900.0	11,046.0	13,148.6	10,263.3	27.6	55.0	-63.27	2,983.7	-416.4	1,746.4	1,666.5	79.86	21.869	
14,000.0	11,045.9	13,240.9	10,261.8	28.4	56.5	-63.24	3,076.0	-417.8	1,747.4	1,665.5	81.88	21.340	
14,100.0	11,045.7	13,330.7	10,259.2	29.2	57.9	-63.17	3,165.7	-419.4	1,749.1	1,665.2	83.87	20.853	
14,200.0	11,045.6	13,436.1	10,255.4	29.9	59.6	-63.08	3,271.0	-421.2	1,751.0	1,664.9	86.07	20.343	
14,300.0	11,045.4	13,569.0	10,251.6	30.7	61.7	-62.95	3,403.9	-421.9	1,751.5	1,662.9	88.64	19.761	
14,321.5	11,045.4	13,586.3	10,251.3	30.9	62.0	-62.95	3,421.2	-421.9	1,751.5	1,662.5	89.05	19.670	
14,400.0	11,045.2	13,651.7	10,250.6	31.5	63.0	-62.93	3,486.6	-422.8	1,751.8	1,661.3	90.58	19.341	
14,500.0	11,045.1	13,810.1	10,250.6	32.3	65.6	-62.90	3,645.0	-422.7	1,750.5	1,657.0	93.49	18.724	
14,600.0	11,044.9	13,907.7	10,249.2	33.1	67.1	-62.82	3,742.5	-420.3	1,747.8	1,652.2	95.62	18.279	
14,700.0	11,044.8	13,991.9	10,249.6	33.9	68.5	-62.80	3,826.7	-419.7	1,745.7	1,648.1	97.62	17.884	
14,800.0	11,044.6	14,096.1	10,250.0	34.7	70.1	-62.80	3,930.9	-419.7	1,744.4	1,644.5	99.87	17.467	
14,900.0	11,044.4	14,198.4	10,251.8	35.5	71.8	-62.84	4,033.2	-419.7	1,742.4	1,640.3	102.12	17.063	
15,000.0	11,044.3	14,279.1	10,252.3	36.3	73.1	-62.84	4,113.9	-419.7	1,740.9	1,636.8	104.09	16.725	
15,100.0	11,044.1	14,377.7	10,252.3	37.1	74.7	-62.84	4,212.5	-420.4	1,740.4	1,634.1	106.29	16.374	
15,173.4	11,044.0	14,438.5	10,252.9	37.7	75.6	-62.86	4,273.3	-421.0	1,740.0	1,632.2	107.77	16.145	
15,200.0	11,044.0	14,455.7	10,253.1	37.9	75.9	-62.87	4,290.5	-421.5	1,740.0	1,631.8	108.24	16.075	
15,300.0	11,043.8	14,529.7	10,254.8	38.7	77.1	-62.96	4,364.4	-424.6	1,741.5	1,631.4	110.15	15.810	
15,400.0	11,043.7	14,632.2	10,256.8	39.5	78.8	-63.07	4,466.7	-429.3	1,743.6	1,631.1	112.49	15.501	
15,500.0	11,043.5	14,745.1	10,259.9	40.4	80.6	-63.22	4,579.5	-434.3	1,745.1	1,630.1	114.99	15.176	
15,600.0	11,043.3	14,854.0	10,262.2	41.2	82.4	-63.33	4,688.3	-437.9	1,746.0	1,628.5	117.42	14.870	
15,700.0	11,043.2	14,946.7	10,263.4	42.0	83.9	-63.39	4,781.0	-440.5	1,746.7	1,627.1	119.60	14.604	
15,800.0	11,043.0	15,023.6	10,264.6	42.8	85.2	-63.46	4,857.8	-443.5	1,748.3	1,626.8	121.56	14.382	
15,882.4	11,042.9	15,092.3	10,265.4	43.5	86.3	-63.52	4,926.4	-447.1	1,750.8	1,627.6	123.25	14.205	
15,903.4	11,042.9	15,121.7	10,265.5	43.7	86.8	-63.54	4,955.8	-448.6	1,751.5	1,627.6	123.88	14.139	
16,000.0	11,042.7	15,221.2	10,265.7	44.5	88.4	-63.60	5,055.1	-452.5	1,754.3	1,628.2	126.16	13.906	
16,100.0	11,042.6	15,325.5	10,267.4	45.3	90.1	-63.72	5,159.3	-457.8	1,757.7	1,629.1	128.57	13.671	
16,200.0	11,042.4	15,418.7	10,267.4	46.1	91.6	-63.77	5,252.5	-461.4	1,760.6	1,629.8	130.78	13.463	
16,300.0	11,042.3	15,504.4	10,267.0	46.9	93.0	-63.81	5,338.0	-465.3	1,764.3	1,631.5	132.86	13.279	
16,400.0	11,042.1	15,624.3	10,266.1	47.8	95.0	-63.86	5,457.9	-470.8	1,768.3	1,632.8	135.50	13.051	
16,500.0	11,041.9	15,757.5	10,265.4	48.6	97.2	-63.88	5,591.0	-474.1	1,770.3	1,632.0	138.29	12.801	
16,600.0	11,041.8	15,858.0	10,263.2	49.4	98.8	-63.83	5,691.5	-474.6	1,771.1	1,630.6	140.56	12.601	
16,700.0	11,041.6	15,943.3	10,260.5	50.3	100.2	-63.76	5,776.7	-475.5	1,772.9	1,630.3	142.60	12.432	
16,800.0	11,041.5	16,070.2	10,258.9	51.1	102.2	-63.72	5,903.6	-476.7	1,773.7	1,628.4	145.26	12.211	
16,900.0	11,041.3	16,167.8	10,258.1	51.9	103.8	-63.71	6,001.2	-477.3	1,774.1	1,626.6	147.51	12.027	
17,000.0	11,041.2	16,258.5	10,258.8	52.8	105.3	-63.75	6,091.8	-479.0	1,774.9	1,625.2	149.71	11.855	
17,100.0	11,041.0	16,350.4	10,259.5	53.6	106.8	-63.80	6,183.8	-481.2	1,776.2	1,624.3	151.93	11.691	
17,200.0	11,040.9	16,461.0	10,263.3	54.4	108.6	-63.96	6,294.2	-485.5	1,777.6	1,623.2	154.50	11.506	
17,300.0	11,040.7	16,560.5	10,267.4	55.3	110.3	-64.13	6,393.5	-488.9	1,778.4	1,621.5	156.91	11.334	
17,400.0	11,040.6	16,664.1	10,271.4	56.1	112.0	-64.29	6,497.0	-492.6	1,779.4	1,620.0	159.38	11.165	
17,500.0	11,040.4	16,759.4	10,274.4	57.0	113.5	-64.42	6,592.2	-495.5	1,780.3	1,618.5	161.72	11.009	
17,600.0	11,040.2	16,901.3	10,277.3	57.8	115.8	-64.53	6,734.1	-497.6	1,780.3	1,615.6	164.66	10.812	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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- VES GyroFlex, 9732-MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,700.0	11,040.1	17,014.8	10,277.8	58.6	117.7	-64.52	6,847.5	-496.1	1,778.3	1,611.2	167.13	10.640		
17,800.0	11,039.9	17,114.9	10,277.0	59.5	119.3	-64.47	6,947.6	-494.1	1,776.3	1,606.9	169.41	10.485		
17,900.0	11,039.8	17,210.3	10,275.0	60.3	120.9	-64.37	7,043.0	-491.5	1,774.3	1,602.7	171.61	10.339		
18,000.0	11,039.6	17,300.7	10,273.8	61.2	122.3	-64.31	7,133.4	-490.0	1,772.8	1,599.0	173.78	10.201		
18,100.0	11,039.5	17,391.3	10,272.8	62.0	123.8	-64.27	7,223.9	-489.0	1,771.7	1,595.8	175.95	10.070		
18,200.0	11,039.3	17,488.7	10,271.9	62.9	125.4	-64.23	7,321.3	-488.5	1,771.2	1,593.0	178.21	9.939		
18,300.0	11,039.2	17,603.4	10,270.5	63.7	127.3	-64.17	7,436.0	-487.4	1,770.3	1,589.6	180.67	9.799		
18,400.0	11,039.0	17,686.4	10,269.2	64.5	128.6	-64.11	7,519.0	-486.1	1,769.1	1,586.4	182.74	9.681		
18,430.8	11,039.0	17,709.1	10,269.0	64.8	129.0	-64.11	7,541.7	-486.1	1,769.1	1,585.7	183.35	9.649		
18,500.0	11,038.9	17,769.0	10,268.9	65.4	130.0	-64.11	7,601.6	-486.6	1,769.3	1,584.5	184.83	9.573		
18,600.0	11,038.7	17,848.0	10,268.5	66.2	131.3	-64.11	7,680.5	-487.7	1,770.2	1,583.4	186.86	9.474		
18,700.0	11,038.5	17,914.8	10,269.1	67.1	132.4	-64.16	7,747.3	-490.4	1,772.9	1,584.2	188.70	9.395		
18,800.0	11,038.4	18,013.5	10,269.6	67.9	134.0	-64.24	7,845.9	-495.1	1,776.5	1,585.5	191.08	9.297		
18,900.0	11,038.2	18,109.4	10,271.3	68.8	135.6	-64.37	7,941.6	-500.6	1,780.3	1,586.9	193.45	9.203		
19,000.0	11,038.1	18,220.2	10,274.1	69.6	137.4	-64.53	8,052.2	-506.9	1,783.9	1,587.7	196.12	9.096		
19,100.0	11,037.9	18,320.1	10,274.3	70.5	139.1	-64.59	8,152.0	-511.2	1,787.1	1,588.6	198.52	9.002		
19,200.0	11,037.8	18,410.5	10,273.1	71.3	140.6	-64.60	8,242.3	-514.5	1,790.6	1,589.8	200.70	8.921		
19,300.0	11,037.6	18,489.3	10,271.7	72.2	141.9	-64.61	8,321.0	-518.3	1,795.1	1,592.4	202.68	8.857		
19,400.0	11,037.5	18,614.1	10,270.2	73.0	143.9	-64.64	8,445.7	-524.1	1,799.2	1,593.7	205.51	8.755		
19,500.0	11,037.3	18,727.2	10,269.8	73.9	145.8	-64.69	8,558.7	-528.6	1,802.5	1,594.4	208.12	8.661		
19,600.0	11,037.2	18,832.4	10,270.2	74.7	147.5	-64.76	8,663.8	-532.6	1,805.2	1,594.5	210.61	8.571		
19,700.0	11,037.0	18,943.6	10,271.5	75.6	149.4	-64.85	8,775.0	-536.7	1,807.5	1,594.3	213.22	8.477		
19,800.0	11,036.8	19,060.2	10,272.4	76.4	151.3	-64.91	8,891.5	-539.8	1,809.1	1,593.2	215.88	8.380		
19,900.0	11,036.7	19,211.5	10,270.5	77.2	153.8	-64.84	9,042.7	-538.8	1,808.4	1,589.6	218.82	8.264		
20,000.0	11,036.5	19,311.3	10,271.3	78.1	155.4	-64.84	9,142.5	-537.6	1,806.4	1,585.3	221.16	8.168		
20,100.0	11,036.4	19,390.3	10,273.1	78.9	156.7	-64.89	9,221.5	-537.8	1,805.2	1,581.8	223.31	8.084		
20,136.5	11,036.3	19,417.3	10,273.8	79.3	157.1	-64.92	9,248.5	-538.2	1,805.0	1,581.0	224.07	8.056		
20,200.0	11,036.2	19,470.7	10,275.3	79.8	158.0	-64.98	9,301.9	-539.3	1,805.2	1,579.7	225.48	8.006		
20,300.0	11,036.1	19,565.0	10,277.8	80.6	159.6	-65.08	9,396.1	-541.8	1,805.9	1,578.1	227.85	7.926		
20,400.0	11,035.9	19,658.0	10,280.3	81.5	161.1	-65.18	9,489.0	-544.4	1,806.8	1,576.6	230.21	7.848		
20,500.0	11,035.8	19,741.3	10,282.3	82.4	162.5	-65.28	9,572.2	-547.4	1,808.5	1,576.1	232.40	7.782		
20,600.0	11,035.6	19,838.5	10,284.9	83.2	164.1	-65.41	9,669.4	-551.6	1,810.8	1,576.0	234.84	7.711		
20,700.0	11,035.4	19,946.9	10,288.0	84.1	165.9	-65.55	9,777.6	-556.0	1,812.8	1,575.3	237.48	7.633		
20,800.0	11,035.3	20,044.2	10,290.1	84.9	167.5	-65.66	9,874.8	-559.5	1,814.6	1,574.7	239.91	7.564		
20,900.0	11,035.1	20,131.0	10,291.0	85.8	168.9	-65.72	9,961.6	-562.4	1,816.7	1,574.6	242.12	7.504 SF		
20,990.6	11,035.0	20,131.0	10,291.0	86.3	168.9	-65.72	9,961.6	-562.4	1,821.4	1,579.3	242.10	7.524		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 FED COM #2H - OWB-PILOT HOLE - AWP											Offset Site Error:	0.0 usft	
Survey Program: 100- VES GyroFlex														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	Offset	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	2.6	2.6	3.0	3.0	-104.73	-123.2	-468.6	484.5						
100.0	100.0	104.3	104.3	3.0	3.0	-104.71	-123.0	-468.4	484.3	478.3	6.00	80.714			
200.0	200.0	204.5	204.5	3.0	3.0	-104.71	-122.8	-468.1	483.9	477.9	6.01	80.546			
300.0	300.0	302.8	302.8	3.0	3.0	-104.68	-122.6	-467.9	483.7	477.7	6.02	80.351			
303.9	303.9	306.5	306.5	3.0	3.0	-104.67	-122.5	-467.9	483.7	477.7	6.02	80.348	CC, ES		
400.0	400.0	400.0	400.0	3.0	3.0	-104.65	-122.5	-468.4	484.2	478.2	6.03	80.354			
500.0	500.0	502.7	502.7	3.1	3.0	-104.65	-122.6	-468.9	484.6	478.6	6.04	80.283			
502.2	502.2	504.8	504.8	3.1	3.0	-104.65	-122.6	-468.9	484.6	478.6	6.04	80.279			
600.0	600.0	600.0	600.0	3.1	3.0	-104.64	-122.6	-469.4	485.1	479.1	6.05	80.161			
700.0	700.0	697.9	697.9	3.1	3.1	-104.58	-122.3	-470.4	486.1	480.0	6.07	80.066			
800.0	800.0	797.7	797.6	3.2	3.1	-104.48	-121.8	-471.6	487.1	481.0	6.10	79.880			
900.0	900.0	897.2	897.2	3.2	3.1	-104.37	-121.1	-472.8	488.1	482.0	6.13	79.617			
1,000.0	1,000.0	997.7	997.6	3.2	3.2	-104.27	-120.6	-474.1	489.2	483.0	6.17	79.256			
1,100.0	1,100.0	1,095.1	1,095.1	3.3	3.2	-104.20	-120.3	-475.4	490.5	484.2	6.22	78.834			
1,200.0	1,200.0	1,193.3	1,193.3	3.4	3.2	-104.12	-120.0	-477.2	492.2	485.9	6.28	78.383			
1,300.0	1,300.0	1,298.7	1,298.6	3.4	3.3	-104.07	-120.0	-478.8	493.6	487.2	6.35	77.723			
1,400.0	1,400.0	1,396.8	1,396.7	3.5	3.4	-104.03	-119.9	-479.8	494.6	488.1	6.43	76.975			
1,500.0	1,500.0	1,502.4	1,502.3	3.5	3.4	-103.99	-119.7	-480.5	495.2	488.7	6.50	76.205			
1,600.0	1,600.0	1,601.3	1,601.3	3.6	3.5	-103.96	-119.5	-480.8	495.4	488.8	6.57	75.421			
1,700.0	1,700.0	1,700.6	1,700.5	3.7	3.6	-103.94	-119.4	-481.1	495.7	489.1	6.66	74.475			
1,800.0	1,800.0	1,800.0	1,799.9	3.8	3.7	-103.90	-119.2	-481.6	496.2	489.4	6.75	73.504			
1,900.0	1,900.0	1,897.7	1,897.6	3.9	3.7	-103.88	-119.2	-482.4	496.9	490.1	6.85	72.551			
2,000.0	2,000.0	1,997.1	1,997.0	3.9	3.8	-103.88	-119.5	-483.4	498.0	491.0	6.96	71.519			
2,100.0	2,100.0	2,095.1	2,095.0	4.0	3.9	-103.87	-119.7	-484.7	499.3	492.2	7.08	70.509			
2,200.0	2,200.0	2,195.9	2,195.8	4.1	4.0	-103.86	-119.9	-486.2	500.8	493.6	7.21	69.472			
2,300.0	2,300.0	2,296.4	2,296.3	4.2	4.1	-103.89	-120.5	-487.4	502.1	494.7	7.33	68.456			
2,400.0	2,400.0	2,398.3	2,398.2	4.3	4.1	-104.04	-122.1	-488.1	503.2	495.7	7.45	67.573			
2,500.0	2,500.0	2,503.5	2,503.3	4.4	4.1	-104.30	-124.4	-487.9	503.5	496.0	7.53	66.875			
2,505.3	2,505.3	2,509.0	2,508.9	4.4	4.1	171.37	-124.5	-487.9	503.5	496.0	7.53	66.846			
2,600.0	2,600.0	2,607.1	2,606.9	4.5	4.1	171.07	-127.1	-486.7	504.8	497.2	7.60	66.439			
2,700.0	2,699.8	2,714.3	2,714.0	4.5	4.1	170.77	-130.0	-484.1	508.3	500.7	7.66	66.362			
2,771.9	2,771.5	2,789.4	2,789.1	4.5	4.1	170.59	-131.9	-481.6	512.3	504.6	7.70	66.544			
2,800.0	2,799.5	2,819.1	2,818.7	4.5	4.1	170.53	-132.6	-480.5	514.1	506.4	7.71	66.650			
2,900.0	2,899.0	2,924.8	2,924.3	4.6	4.0	170.40	-134.3	-475.8	519.6	511.8	7.76	66.932			
3,000.0	2,998.6	3,027.7	3,027.1	4.6	4.0	170.32	-135.3	-470.5	524.2	516.4	7.81	67.087			
3,100.0	3,098.1	3,130.0	3,129.2	4.7	4.0	170.28	-135.8	-464.9	528.4	520.6	7.87	67.123			
3,200.0	3,197.7	3,231.5	3,230.5	4.7	4.0	170.28	-135.9	-459.0	532.2	524.3	7.94	67.046			
3,300.0	3,297.2	3,330.8	3,329.7	4.8	4.0	170.29	-135.8	-453.2	535.9	527.9	8.01	66.894			
3,400.0	3,396.8	3,429.4	3,428.1	4.9	4.0	170.33	-135.6	-447.8	539.8	531.7	8.09	66.714			
3,500.0	3,496.3	3,529.5	3,528.0	4.9	4.0	170.36	-135.5	-442.3	543.9	535.7	8.18	66.478			
3,600.0	3,595.9	3,629.4	3,627.9	5.0	4.0	170.39	-135.3	-436.7	547.8	539.5	8.28	66.177			
3,700.0	3,695.4	3,728.5	3,726.8	5.1	4.0	170.41	-135.2	-431.3	551.9	543.5	8.38	65.833			
3,800.0	3,795.0	3,827.4	3,825.5	5.1	4.0	170.43	-135.2	-426.1	556.1	547.6	8.50	65.459			
3,900.0	3,894.5	3,926.0	3,924.0	5.2	4.1	170.44	-135.3	-421.0	560.6	552.0	8.62	65.065			
4,000.0	3,994.1	4,024.5	4,022.4	5.3	4.1	170.47	-135.4	-416.2	565.2	556.5	8.74	64.657			
4,100.0	4,093.6	4,122.2	4,120.0	5.4	4.1	170.49	-135.5	-411.8	570.3	561.4	8.87	64.256			
4,200.0	4,193.2	4,221.4	4,219.1	5.4	4.2	170.52	-135.6	-407.5	575.5	566.5	9.01	63.841			
4,300.0	4,292.7	4,320.6	4,318.2	5.5	4.2	170.55	-135.9	-403.4	580.9	571.7	9.16	63.405			
4,400.0	4,392.3	4,419.0	4,416.6	5.6	4.3	170.56	-136.2	-399.4	586.4	577.1	9.31	62.966			
4,500.0	4,491.8	4,518.1	4,515.5	5.7	4.3	170.57	-136.7	-395.5	592.1	582.7	9.47	62.520			
4,600.0	4,591.4	4,616.6	4,614.0	5.8	4.4	170.57	-137.3	-391.8	598.1	588.4	9.63	62.077			

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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- VES GyroFlex												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,700.0	4,690.9	4,716.2	4,713.5	5.9	4.5	170.58	-137.8	-388.3	604.1	594.3	9.80	61.627	
4,800.0	4,790.5	4,816.1	4,813.4	6.0	4.6	170.60	-138.2	-384.7	610.1	600.1	9.98	61.160	
4,900.0	4,890.0	4,916.1	4,913.3	6.0	4.6	170.61	-138.8	-381.1	616.2	606.0	10.15	60.682	
5,000.0	4,989.6	5,017.0	5,014.1	6.1	4.7	170.61	-139.4	-377.3	622.0	611.7	10.34	60.175	
5,100.0	5,089.1	5,115.5	5,112.5	6.2	4.8	170.60	-140.1	-373.6	628.0	617.5	10.52	59.681	
5,200.0	5,188.7	5,213.9	5,210.8	6.3	4.9	170.57	-141.0	-370.2	634.2	623.4	10.71	59.209	
5,300.0	5,288.2	5,313.3	5,310.2	6.4	5.0	170.56	-141.9	-366.8	640.4	629.5	10.90	58.742	
5,400.0	5,387.8	5,411.3	5,408.1	6.5	5.1	170.55	-142.7	-363.6	646.9	635.8	11.10	58.299	
5,500.0	5,487.3	5,509.9	5,506.7	6.6	5.2	170.54	-143.6	-360.7	653.6	642.3	11.29	57.875	
5,600.0	5,586.9	5,607.3	5,604.1	6.7	5.3	170.53	-144.5	-358.0	660.6	649.1	11.49	57.485	
5,700.0	5,686.4	5,706.6	5,703.3	6.8	5.4	170.54	-145.3	-355.5	667.8	656.1	11.69	57.106	
5,800.0	5,786.0	5,806.0	5,802.7	6.9	5.5	170.59	-145.8	-353.2	675.0	663.1	11.90	56.720	
5,900.0	5,885.5	5,902.4	5,899.1	7.0	5.6	170.69	-145.6	-351.4	682.5	670.4	12.11	56.355	
6,000.0	5,985.1	6,002.8	5,999.5	7.1	5.7	170.83	-145.1	-349.9	690.2	677.9	12.33	55.990	
6,100.0	6,084.6	6,102.5	6,099.2	7.3	5.8	170.95	-144.6	-348.2	697.9	685.3	12.55	55.622	
6,200.0	6,184.2	6,204.3	6,200.9	7.4	5.9	171.07	-144.2	-346.3	705.4	692.6	12.77	55.236	
6,300.0	6,283.7	6,300.9	6,297.5	7.5	6.0	171.16	-144.0	-344.6	712.9	700.0	12.99	54.871	
6,400.0	6,383.3	6,399.3	6,395.9	7.6	6.1	171.27	-143.7	-343.2	720.8	707.6	13.22	54.527	
6,500.0	6,482.8	6,498.0	6,494.6	7.7	6.2	171.38	-143.4	-341.9	728.9	715.4	13.45	54.195	
6,600.0	6,582.4	6,596.3	6,592.9	7.8	6.4	171.48	-143.2	-340.8	737.1	723.4	13.68	53.879	
6,700.0	6,681.9	6,697.1	6,693.7	7.9	6.5	171.57	-143.2	-339.6	745.3	731.4	13.91	53.569	
6,800.0	6,781.5	6,791.6	6,788.1	8.0	6.6	171.63	-143.5	-338.6	753.8	739.7	14.13	53.339	
6,900.0	6,881.0	6,892.2	6,888.8	8.1	6.7	171.68	-144.1	-337.9	762.6	748.3	14.34	53.180	
7,000.0	6,980.6	6,990.7	6,987.3	8.2	6.8	171.71	-144.9	-337.1	771.4	756.8	14.55	53.029	
7,100.0	7,080.1	7,090.0	7,086.6	8.4	6.9	171.70	-146.2	-336.2	780.3	765.5	14.74	52.931	
7,200.0	7,179.7	7,191.6	7,188.1	8.5	7.0	171.62	-148.4	-335.0	789.0	774.1	14.93	52.856	
7,300.0	7,279.2	7,287.0	7,283.5	8.6	7.1	171.49	-151.4	-333.8	797.9	782.8	15.11	52.795	
7,400.0	7,378.8	7,381.7	7,378.1	8.7	7.2	171.36	-154.4	-333.1	807.4	792.1	15.29	52.810	
7,500.0	7,478.3	7,482.5	7,478.9	8.8	7.2	171.28	-157.0	-332.9	817.1	801.7	15.45	52.892	
7,600.0	7,577.9	7,583.5	7,579.8	8.9	7.3	171.26	-158.7	-332.6	826.7	811.0	15.61	52.945	
7,700.0	7,677.4	7,682.6	7,678.9	9.0	7.4	171.25	-160.3	-332.3	836.1	820.3	15.78	52.976	
7,800.0	7,777.0	7,784.1	7,780.4	9.2	7.5	171.21	-162.3	-331.8	845.5	829.6	15.95	53.000	
7,900.0	7,876.5	7,882.3	7,878.6	9.3	7.6	171.18	-164.1	-331.3	854.8	838.7	16.13	52.998	
8,000.0	7,976.1	7,981.0	7,977.3	9.4	7.7	171.18	-165.5	-331.0	864.3	848.0	16.29	53.044	
8,100.0	8,075.6	8,078.9	8,075.2	9.5	7.7	171.25	-165.9	-331.2	873.9	857.5	16.44	53.167	
8,200.0	8,175.2	8,179.5	8,175.8	9.6	7.8	171.33	-166.2	-331.4	883.6	867.0	16.56	53.351	
8,300.0	8,274.7	8,278.9	8,275.2	9.8	7.8	171.41	-166.5	-331.6	893.2	876.5	16.70	53.493	
8,400.0	8,374.3	8,378.4	8,374.7	9.9	7.9	171.45	-167.2	-331.6	902.8	885.9	16.85	53.582	
8,500.0	8,473.8	8,481.1	8,477.4	10.0	8.0	171.46	-168.5	-331.4	912.3	895.3	17.02	53.611	
8,600.0	8,573.4	8,581.0	8,577.3	10.1	8.1	171.47	-169.7	-330.9	921.5	904.3	17.20	53.574	
8,700.0	8,672.9	8,678.9	8,675.2	10.2	8.2	171.46	-171.1	-330.5	930.8	913.4	17.38	53.542	
8,800.0	8,772.5	8,775.3	8,771.6	10.4	8.3	171.44	-172.8	-330.3	940.4	922.8	17.56	53.541	
8,900.0	8,872.0	8,876.3	8,872.5	10.5	8.4	171.43	-174.4	-330.2	950.1	932.4	17.73	53.588	
9,000.0	8,971.6	8,978.3	8,974.5	10.6	8.5	171.46	-175.4	-330.1	959.5	941.6	17.90	53.604	
9,100.0	9,071.1	9,082.5	9,078.7	10.7	8.7	171.48	-176.5	-329.5	968.7	950.6	18.09	53.553	
9,200.0	9,170.7	9,175.9	9,172.1	10.8	8.8	171.50	-177.4	-329.0	977.7	959.5	18.29	53.464	
9,300.0	9,270.2	9,273.2	9,269.4	11.0	8.9	171.51	-178.5	-329.1	987.4	969.0	18.46	53.483	
9,400.0	9,369.8	9,373.1	9,369.3	11.1	9.0	171.54	-179.5	-329.1	997.1	978.5	18.63	53.533	
9,500.0	9,469.3	9,472.2	9,468.4	11.2	9.1	171.55	-180.7	-329.2	1,006.8	988.0	18.80	53.569	
9,600.0	9,568.9	9,571.8	9,568.0	11.3	9.2	171.56	-182.0	-329.2	1,016.6	997.6	18.96	53.606	
9,700.0	9,668.4	9,674.6	9,670.7	11.5	9.3	171.57	-183.2	-329.1	1,026.2	1,007.0	19.13	53.637	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 FED COM #2H - OWB-PILOT HOLE - AWP													Offset Site Error:	0.0 usft
Survey Program: 100- VES GyroFlex													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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.0	9,768.0	9,772.5	9,768.7	11.6	9.4	171.59		-184.3	-328.9	1,035.6	1,016.3	19.31	53.625	
9,900.0	9,867.5	9,875.7	9,871.8	11.7	9.5	171.62		-185.0	-328.8	1,045.0	1,025.6	19.49	53.633	
10,000.0	9,967.1	9,974.9	9,971.1	11.8	9.7	171.65		-185.8	-328.4	1,054.2	1,034.5	19.68	53.570	
10,100.0	10,066.6	10,074.8	10,070.9	11.9	9.8	171.68		-186.7	-328.1	1,063.5	1,043.6	19.87	53.517	
10,200.0	10,166.2	10,185.5	10,181.7	12.1	9.9	171.72		-187.2	-327.3	1,072.3	1,052.2	20.07	53.426	
10,300.0	10,265.7	10,282.1	10,278.3	12.2	10.0	171.81		-186.6	-326.2	1,080.5	1,060.2	20.30	53.227	
10,400.0	10,365.3	10,376.5	10,372.6	12.3	10.0	171.92		-185.6	-325.8	1,089.2	1,068.7	20.52	53.079	
10,500.0	10,464.8	10,475.0	10,471.2	12.5	10.0	172.05		-184.4	-325.8	1,098.2	1,077.5	20.73	52.989	
10,600.0	10,564.4	10,574.6	10,570.8	12.5	10.0	172.19		-183.1	-325.7	1,107.3	1,086.4	20.91	52.967	
10,630.6	10,594.8	10,605.0	10,601.1	12.6	10.0	172.23		-182.6	-325.7	1,110.1	1,089.1	20.93	53.033	
10,650.0	10,614.1	10,623.8	10,620.0	12.6	10.0	-169.89		-182.3	-325.8	1,112.0	1,091.1	20.95	53.083	
10,675.0	10,638.9	10,648.1	10,644.2	12.6	10.0	-156.22		-182.0	-325.8	1,115.3	1,094.3	20.97	53.176	
10,700.0	10,663.4	10,672.2	10,668.3	12.6	10.0	-148.26		-181.6	-325.8	1,119.2	1,098.2	21.00	53.302	
10,725.0	10,687.8	10,696.0	10,692.1	12.6	10.0	-143.15		-181.2	-325.9	1,123.9	1,102.9	21.02	53.459	
10,750.0	10,711.8	10,718.3	10,714.4	12.6	10.0	-139.55		-180.8	-325.9	1,129.4	1,108.3	21.05	53.644	
10,775.0	10,735.5	10,740.0	10,736.1	12.6	10.0	-136.84		-180.4	-326.0	1,135.6	1,114.5	21.08	53.860	
10,800.0	10,758.7	10,745.0	10,741.1	12.6	10.0	-134.44		-180.3	-326.1	1,142.7	1,121.5	21.19	53.925	
10,825.0	10,781.4	10,745.0	10,741.1	12.6	10.0	-132.23		-180.3	-326.1	1,150.9	1,129.5	21.37	53.846	
10,850.0	10,803.5	10,745.0	10,741.1	12.7	10.0	-130.15		-180.3	-326.1	1,160.2	1,138.6	21.61	53.687	
10,875.0	10,825.0	10,745.0	10,741.1	12.7	10.0	-128.11		-180.3	-326.1	1,170.6	1,148.7	21.89	53.476	
10,900.0	10,845.8	10,745.0	10,741.1	12.7	10.0	-126.07		-180.3	-326.1	1,182.0	1,159.8	22.20	53.240	
10,925.0	10,865.9	10,745.0	10,741.1	12.7	10.0	-123.98		-180.3	-326.1	1,194.3	1,171.8	22.53	53.004	
10,950.0	10,885.2	10,745.0	10,741.1	12.8	10.0	-121.81		-180.3	-326.1	1,207.5	1,184.7	22.88	52.787	
10,975.0	10,903.6	10,745.0	10,741.1	12.8	10.0	-119.53		-180.3	-326.1	1,221.6	1,198.4	23.22	52.606	
11,000.0	10,921.1	10,745.0	10,741.1	12.8	10.0	-117.13		-180.3	-326.1	1,236.4	1,212.8	23.56	52.474	
11,025.0	10,937.7	10,745.0	10,741.1	12.8	10.0	-114.60		-180.3	-326.1	1,251.8	1,227.9	23.89	52.400	
11,050.0	10,953.2	10,745.0	10,741.1	12.9	10.0	-111.93		-180.3	-326.1	1,267.9	1,243.7	24.20	52.390 SF	
11,075.0	10,967.8	10,745.0	10,741.1	12.9	10.0	-109.12		-180.3	-326.1	1,284.6	1,260.1	24.49	52.449	
11,100.0	10,981.2	10,745.0	10,741.1	12.9	10.0	-106.17		-180.3	-326.1	1,301.7	1,276.9	24.76	52.578	
11,125.0	10,993.6	10,745.0	10,741.1	13.0	10.0	-103.08		-180.3	-326.1	1,319.2	1,294.3	25.00	52.780	
11,150.0	11,004.8	10,745.0	10,741.1	13.0	10.0	-99.88		-180.3	-326.1	1,337.2	1,311.9	25.20	53.053	
11,175.0	11,014.8	10,745.0	10,741.1	13.0	10.0	-96.58		-180.3	-326.1	1,355.4	1,330.0	25.38	53.398	
11,200.0	11,023.6	10,745.0	10,741.1	13.1	10.0	-93.20		-180.3	-326.1	1,373.8	1,348.3	25.53	53.812	
11,225.0	11,031.2	10,745.0	10,741.1	13.1	10.0	-89.78		-180.3	-326.1	1,392.4	1,366.8	25.64	54.296	
11,250.0	11,037.5	10,745.0	10,741.1	13.1	10.0	-86.34		-180.3	-326.1	1,411.1	1,385.4	25.73	54.847	
11,275.0	11,042.5	10,745.0	10,741.1	13.2	10.0	-82.92		-180.3	-326.1	1,429.9	1,404.1	25.78	55.463	
11,300.0	11,046.3	10,745.0	10,741.1	13.2	10.0	-79.56		-180.3	-326.1	1,448.7	1,422.9	25.80	56.143	
11,325.0	11,048.8	10,745.0	10,741.1	13.2	10.0	-76.28		-180.3	-326.1	1,467.5	1,441.7	25.80	56.884	
11,350.0	11,049.9	10,745.0	10,741.1	13.2	10.0	-73.10		-180.3	-326.1	1,486.2	1,460.4	25.76	57.685	
11,360.7	11,050.0	10,745.0	10,741.1	13.3	10.0	-71.77		-180.3	-326.1	1,494.1	1,468.4	25.74	58.050	
11,400.0	11,050.0	10,745.0	10,741.1	13.3	10.0	-72.05		-180.3	-326.1	1,523.3	1,497.7	25.65	59.383	
11,500.0	11,049.8	10,745.0	10,741.1	13.5	10.0	-72.73		-180.3	-326.1	1,598.1	1,572.7	25.46	62.765	
11,600.0	11,049.7	10,745.0	10,741.1	13.7	10.0	-73.40		-180.3	-326.1	1,673.5	1,648.2	25.30	66.136	
11,700.0	11,049.5	10,745.0	10,741.1	13.9	10.0	-74.05		-180.3	-326.1	1,749.2	1,724.0	25.17	69.484	
11,800.0	11,049.3	10,745.0	10,741.1	14.2	10.0	-74.69		-180.3	-326.1	1,825.2	1,800.1	25.07	72.803	
11,900.0	11,049.2	10,745.0	10,741.1	14.6	10.0	-75.30		-180.3	-326.1	1,901.2	1,876.3	24.99	76.088	
12,000.0	11,049.0	10,745.0	10,741.1	15.0	10.0	-75.88		-180.3	-326.1	1,977.3	1,952.4	24.92	79.334	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 9767-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	89.62	0.2	30.0	30.0				
100.0	100.0	99.6	99.6	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.00	5.000	
200.0	200.0	199.6	199.6	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.00	4.998	
300.0	300.0	299.6	299.6	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.01	4.993	
400.0	400.0	399.6	399.6	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.02	4.985	
500.0	500.0	499.6	499.6	3.1	3.1	89.62	0.2	30.0	30.0	24.0	6.03	4.974	
600.0	600.0	599.6	599.6	3.1	3.1	89.62	0.2	30.0	30.0	24.0	6.05	4.961	
700.0	700.0	699.6	699.6	3.1	3.1	89.62	0.2	30.0	30.0	23.9	6.07	4.946	
800.0	800.0	799.6	799.6	3.2	3.2	89.62	0.2	30.0	30.0	23.9	6.09	4.928	
900.0	900.0	899.6	899.6	3.2	3.2	89.62	0.2	30.0	30.0	23.9	6.11	4.908	
1,000.0	1,000.0	999.6	999.6	3.2	3.2	89.62	0.2	30.0	30.0	23.9	6.14	4.885	
1,100.0	1,100.0	1,099.6	1,099.6	3.3	3.3	89.62	0.2	30.0	30.0	23.8	6.17	4.860	
1,200.0	1,200.0	1,199.6	1,199.6	3.4	3.4	89.62	0.2	30.0	30.0	23.8	6.21	4.834	
1,300.0	1,300.0	1,299.6	1,299.6	3.4	3.4	89.62	0.2	30.0	30.0	23.8	6.24	4.805	
1,400.0	1,400.0	1,399.6	1,399.6	3.5	3.5	89.62	0.2	30.0	30.0	23.7	6.28	4.774	
1,500.0	1,500.0	1,499.6	1,499.6	3.5	3.5	89.62	0.2	30.0	30.0	23.7	6.33	4.742	
1,600.0	1,600.0	1,599.6	1,599.6	3.6	3.6	89.62	0.2	30.0	30.0	23.6	6.37	4.708	
1,700.0	1,700.0	1,699.6	1,699.6	3.7	3.7	89.62	0.2	30.0	30.0	23.6	6.42	4.672	
1,800.0	1,800.0	1,799.6	1,799.6	3.8	3.8	89.62	0.2	30.0	30.0	23.5	6.47	4.636	
1,900.0	1,900.0	1,899.6	1,899.6	3.9	3.9	89.62	0.2	30.0	30.0	23.5	6.53	4.597	
2,000.0	2,000.0	1,999.6	1,999.6	3.9	3.9	89.62	0.2	30.0	30.0	23.4	6.58	4.558	
2,100.0	2,100.0	2,099.6	2,099.6	4.0	4.0	89.62	0.2	30.0	30.0	23.4	6.64	4.518	
2,200.0	2,200.0	2,199.6	2,199.6	4.1	4.1	89.62	0.2	30.0	30.0	23.3	6.70	4.477	
2,300.0	2,300.0	2,299.6	2,299.6	4.2	4.2	89.62	0.2	30.0	30.0	23.2	6.76	4.435	
2,400.0	2,400.0	2,399.6	2,399.6	4.3	4.3	89.62	0.2	30.0	30.0	23.2	6.83	4.392	
2,500.0	2,500.0	2,499.6	2,499.6	4.4	4.4	89.62	0.2	30.0	30.0	23.1	6.90	4.349	
2,600.0	2,600.0	2,598.6	2,598.6	4.5	4.4	6.76	-0.4	31.6	29.9	22.9	6.97	4.289	
2,700.0	2,699.8	2,697.6	2,697.5	4.5	4.5	11.20	-2.2	36.4	29.6	22.6	7.04	4.212	
2,748.0	2,747.7	2,745.1	2,744.8	4.5	4.5	14.41	-3.4	39.8	29.6	22.5	7.08	4.179 CC	
2,771.9	2,771.5	2,768.8	2,768.4	4.5	4.5	16.26	-4.2	41.8	29.6	22.5	7.11	4.166 ES, SF	
2,800.0	2,799.5	2,796.6	2,796.1	4.5	4.5	18.57	-5.1	44.4	29.8	22.7	7.14	4.173	
2,900.0	2,899.0	2,896.5	2,895.5	4.6	4.5	26.54	-8.6	53.8	31.2	23.9	7.30	4.270	
3,000.0	2,998.6	2,996.4	2,994.9	4.6	4.5	33.73	-12.1	63.3	33.0	25.6	7.47	4.425	
3,100.0	3,098.1	3,096.3	3,094.2	4.7	4.5	40.05	-15.6	72.8	35.4	27.8	7.65	4.630	
3,200.0	3,197.7	3,196.2	3,193.6	4.7	4.6	45.52	-19.2	82.2	38.1	30.3	7.82	4.877	
3,300.0	3,297.2	3,296.1	3,293.0	4.8	4.6	50.23	-22.7	91.7	41.2	33.2	7.98	5.159	
3,400.0	3,396.8	3,396.0	3,392.4	4.9	4.6	54.27	-26.2	101.2	44.4	36.3	8.13	5.466	
3,500.0	3,496.3	3,495.9	3,491.8	4.9	4.7	57.74	-29.7	110.7	47.9	39.6	8.27	5.792	
3,600.0	3,595.9	3,595.8	3,591.2	5.0	4.7	60.74	-33.2	120.1	51.5	43.1	8.40	6.132	
3,700.0	3,695.4	3,695.7	3,690.6	5.1	4.7	63.34	-36.7	129.6	55.2	46.7	8.53	6.480	
3,800.0	3,795.0	3,795.6	3,790.0	5.1	4.8	65.60	-40.2	139.1	59.1	50.4	8.65	6.833	
3,900.0	3,894.5	3,895.5	3,889.4	5.2	4.9	67.58	-43.7	148.5	63.0	54.2	8.76	7.188	
4,000.0	3,994.1	3,995.4	3,988.8	5.3	4.9	69.34	-47.2	158.0	67.0	58.1	8.88	7.543	
4,100.0	4,093.6	4,095.3	4,088.1	5.4	5.0	70.89	-50.7	167.5	71.0	62.0	8.99	7.896	
4,200.0	4,193.2	4,195.2	4,187.5	5.4	5.0	72.28	-54.2	176.9	75.1	66.0	9.11	8.245	
4,300.0	4,292.7	4,295.1	4,286.9	5.5	5.1	73.52	-57.7	186.4	79.2	70.0	9.22	8.589	
4,400.0	4,392.3	4,395.0	4,386.3	5.6	5.2	74.64	-61.2	195.9	83.4	74.0	9.34	8.928	
4,500.0	4,491.8	4,494.9	4,485.7	5.7	5.2	75.65	-64.7	205.3	87.5	78.1	9.45	9.260	
4,600.0	4,591.4	4,594.8	4,585.1	5.8	5.3	76.57	-68.2	214.8	91.8	82.2	9.57	9.585	
4,700.0	4,690.9	4,694.7	4,684.5	5.9	5.4	77.41	-71.7	224.3	96.0	86.3	9.69	9.902	
4,800.0	4,790.5	4,794.6	4,783.9	6.0	5.5	78.18	-75.3	233.7	100.2	90.4	9.82	10.212	

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

Concho Resources LLC

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

Offset Design												Offset Site Error:	0.0 usft
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4,900.0	4,890.0	4,894.5	4,883.3	6.0	5.5	78.88	-78.8	243.2	104.5	94.6	9.94	10.513	
5,000.0	4,989.6	4,994.4	4,982.6	6.1	5.6	79.53	-82.3	252.7	108.8	98.7	10.07	10.805	
5,100.0	5,089.1	5,094.3	5,082.0	6.2	5.7	80.13	-85.8	262.1	113.1	102.9	10.20	11.089	
5,200.0	5,188.7	5,194.2	5,181.4	6.3	5.8	80.69	-89.3	271.6	117.4	107.1	10.33	11.364	
5,300.0	5,288.2	5,294.1	5,280.8	6.4	5.9	81.21	-92.8	281.1	121.7	111.2	10.46	11.631	
5,400.0	5,387.8	5,394.0	5,380.2	6.5	6.0	81.69	-96.3	290.5	126.0	115.4	10.60	11.888	
5,500.0	5,487.3	5,493.9	5,479.6	6.6	6.1	82.14	-99.8	300.0	130.4	119.6	10.74	12.138	
5,600.0	5,586.9	5,593.8	5,579.0	6.7	6.2	82.56	-103.3	309.5	134.7	123.8	10.88	12.378	
5,700.0	5,686.4	5,693.7	5,678.4	6.8	6.3	82.95	-106.8	318.9	139.0	128.0	11.03	12.610	
5,800.0	5,786.0	5,793.6	5,777.8	6.9	6.3	83.33	-110.3	328.4	143.4	132.2	11.17	12.833	
5,900.0	5,885.5	5,893.5	5,877.2	7.0	6.4	83.67	-113.8	337.9	147.8	136.4	11.32	13.048	
6,000.0	5,985.1	5,993.4	5,976.5	7.1	6.5	84.00	-117.3	347.3	152.1	140.6	11.48	13.255	
6,100.0	6,084.6	6,093.3	6,075.9	7.3	6.6	84.31	-120.8	356.8	156.5	144.9	11.63	13.454	
6,200.0	6,184.2	6,193.2	6,175.3	7.4	6.7	84.61	-124.3	366.3	160.9	149.1	11.79	13.646	
6,300.0	6,283.7	6,293.1	6,274.7	7.5	6.8	84.88	-127.9	375.7	165.2	153.3	11.95	13.829	
6,400.0	6,383.3	6,393.0	6,374.1	7.6	6.9	85.15	-131.4	385.2	169.6	157.5	12.11	14.005	
6,500.0	6,482.8	6,492.9	6,473.5	7.7	7.1	85.40	-134.9	394.7	174.0	161.7	12.28	14.174	
6,600.0	6,582.4	6,592.8	6,572.9	7.8	7.2	85.64	-138.4	404.1	178.4	165.9	12.44	14.336	
6,700.0	6,681.9	6,692.7	6,672.3	7.9	7.3	85.86	-141.9	413.6	182.8	170.2	12.61	14.491	
6,800.0	6,781.5	6,792.6	6,771.7	8.0	7.4	86.08	-145.4	423.1	187.2	174.4	12.79	14.639	
6,900.0	6,881.0	6,892.5	6,871.0	8.1	7.5	86.29	-148.9	432.5	191.6	178.6	12.96	14.781	
7,000.0	6,980.6	6,992.5	6,970.4	8.2	7.6	86.48	-152.4	442.0	196.0	182.8	13.14	14.917	
7,100.0	7,080.1	7,092.4	7,069.8	8.4	7.7	86.67	-155.9	451.5	200.4	187.0	13.32	15.046	
7,200.0	7,179.7	7,192.3	7,169.2	8.5	7.8	86.85	-159.4	461.0	204.8	191.3	13.50	15.170	
7,300.0	7,279.2	7,292.2	7,268.6	8.6	7.9	87.02	-162.9	470.4	209.2	195.5	13.68	15.288	
7,400.0	7,378.8	7,392.1	7,368.0	8.7	8.0	87.19	-166.4	479.9	213.6	199.7	13.87	15.400	
7,500.0	7,478.3	7,492.0	7,467.4	8.8	8.1	87.35	-169.9	489.4	218.0	203.9	14.06	15.507	
7,600.0	7,577.9	7,591.9	7,566.8	8.9	8.3	87.50	-173.4	498.8	222.4	208.1	14.25	15.609	
7,700.0	7,677.4	7,691.8	7,666.2	9.0	8.4	87.65	-176.9	508.3	226.8	212.4	14.44	15.706	
7,800.0	7,777.0	7,791.7	7,765.6	9.2	8.5	87.79	-180.5	517.8	231.2	216.6	14.64	15.798	
7,900.0	7,876.5	7,891.6	7,864.9	9.3	8.6	87.92	-184.0	527.2	235.6	220.8	14.83	15.885	
8,000.0	7,976.1	7,991.5	7,964.3	9.4	8.7	88.05	-187.5	536.7	240.0	225.0	15.03	15.968	
8,100.0	8,075.6	8,091.4	8,063.7	9.5	8.8	88.18	-191.0	546.2	244.5	229.2	15.23	16.047	
8,200.0	8,175.2	8,191.3	8,163.1	9.6	8.9	88.30	-194.5	555.6	248.9	233.4	15.44	16.122	
8,300.0	8,274.7	8,291.2	8,262.5	9.8	9.1	88.42	-198.0	565.1	253.3	237.6	15.64	16.192	
8,400.0	8,374.3	8,391.1	8,361.9	9.9	9.2	88.53	-201.5	574.6	257.7	241.9	15.85	16.259	
8,500.0	8,473.8	8,491.0	8,461.3	10.0	9.3	88.64	-205.0	584.0	262.1	246.1	16.06	16.322	
8,600.0	8,573.4	8,590.9	8,560.7	10.1	9.4	88.75	-208.5	593.5	266.5	250.3	16.27	16.382	
8,700.0	8,672.9	8,690.8	8,660.1	10.2	9.5	88.85	-212.0	603.0	271.0	254.5	16.48	16.438	
8,800.0	8,772.5	8,790.7	8,759.5	10.4	9.7	88.95	-215.5	612.4	275.4	258.7	16.70	16.491	
8,900.0	8,872.0	8,890.6	8,858.8	10.5	9.8	89.04	-219.0	621.9	279.8	262.9	16.92	16.540	
9,000.0	8,971.6	8,990.5	8,958.2	10.6	9.9	89.14	-222.5	631.4	284.2	267.1	17.14	16.587	
9,100.0	9,071.1	9,090.4	9,057.6	10.7	10.0	89.23	-226.0	640.8	288.7	271.3	17.36	16.631	
9,200.0	9,170.7	9,190.3	9,157.0	10.8	10.1	89.31	-229.5	650.3	293.1	275.5	17.58	16.672	
9,300.0	9,270.2	9,290.2	9,256.4	11.0	10.3	89.40	-233.0	659.8	297.5	279.7	17.81	16.710	
9,400.0	9,369.8	9,390.1	9,355.8	11.1	10.4	89.48	-236.6	669.2	301.9	283.9	18.03	16.745	
9,500.0	9,469.3	9,490.0	9,455.2	11.2	10.5	89.56	-240.1	678.7	306.4	288.1	18.26	16.778	
9,600.0	9,568.9	9,589.9	9,554.6	11.3	10.6	89.64	-243.6	688.2	310.8	292.3	18.49	16.809	
9,700.0	9,668.4	9,689.8	9,654.0	11.5	10.7	89.71	-247.1	697.6	315.2	296.5	18.72	16.837	
9,800.0	9,768.0	9,821.1	9,784.4	11.6	10.8	89.55	-248.9	711.2	318.6	299.5	19.03	16.737	
9,900.0	9,867.5	10,036.6	9,984.7	11.7	11.0	82.34	-190.7	758.1	293.6	270.2	23.35	12.574	

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

Concho Resources LLC

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Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9767-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference				Offset				Semi Major Axis				Distance	
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10,000.0	9,967.1	10,180.5	10,092.0	11.8	11.1	66.82	-108.1	805.0	243.5	217.3	26.27	9.269	
10,100.0	10,066.6	10,268.3	10,141.9	11.9	11.2	47.94	-43.9	837.8	191.4	166.7	24.69	7.751	
10,200.0	10,166.2	10,323.9	10,166.4	12.1	11.3	31.38	1.0	859.6	162.1	141.4	20.68	7.839	
10,216.8	10,182.9	10,331.2	10,169.1	12.1	11.3	29.03	7.1	862.5	161.4	140.7	20.64	7.817	
10,300.0	10,265.7	10,361.3	10,179.5	12.2	11.4	19.27	32.7	874.5	178.6	153.6	25.08	7.123	
10,400.0	10,365.3	10,387.9	10,187.2	12.3	11.4	10.90	55.8	885.2	235.0	203.4	31.68	7.421	
10,500.0	10,464.8	10,407.7	10,192.0	12.5	11.4	5.04	73.3	893.2	311.7	276.4	35.33	8.823	
10,600.0	10,564.4	10,425.0	10,195.5	12.5	11.5	0.26	88.7	900.1	397.7	360.4	37.31	10.659	
10,630.6	10,594.8	10,425.0	10,195.5	12.6	11.5	0.26	88.7	900.1	425.0	387.2	37.80	11.244	
10,650.0	10,614.1	10,425.0	10,195.5	12.6	11.5	13.68	88.7	900.1	442.5	404.4	38.08	11.620	
10,675.0	10,638.9	10,433.3	10,197.0	12.6	11.5	20.18	96.1	903.4	464.9	426.6	38.33	12.128	
10,700.0	10,663.4	10,437.5	10,197.7	12.6	11.5	22.59	99.9	905.1	487.2	448.6	38.61	12.617	
10,725.0	10,687.8	10,442.1	10,198.4	12.6	11.5	22.72	104.1	907.0	509.2	470.3	38.87	13.100	
10,750.0	10,711.8	10,450.0	10,199.5	12.6	11.5	21.54	111.2	910.1	531.0	491.9	39.09	13.584	
10,775.0	10,735.5	10,450.0	10,199.5	12.6	11.5	20.87	111.2	910.1	552.4	513.1	39.36	14.036	
10,800.0	10,758.7	10,458.1	10,200.6	12.6	11.5	19.29	118.6	913.4	573.5	534.0	39.55	14.499	
10,825.0	10,781.4	10,464.0	10,201.2	12.6	11.5	17.96	124.0	915.7	594.2	554.4	39.75	14.946	
10,850.0	10,803.5	10,475.0	10,202.3	12.7	11.6	16.45	134.0	920.1	614.5	574.5	39.92	15.393	
10,875.0	10,825.0	10,475.0	10,202.3	12.7	11.6	15.63	134.0	920.1	634.2	594.0	40.13	15.803	
10,900.0	10,845.8	10,483.3	10,202.9	12.7	11.6	14.52	141.6	923.4	653.4	613.1	40.29	16.218	
10,925.0	10,865.9	10,490.1	10,203.3	12.7	11.6	13.58	147.8	926.1	672.1	631.6	40.44	16.618	
10,950.0	10,885.2	10,500.0	10,203.7	12.8	11.6	12.67	156.9	930.0	690.2	649.6	40.58	17.009	
10,975.0	10,903.6	10,504.3	10,203.8	12.8	11.6	11.99	160.9	931.7	707.8	667.0	40.72	17.380	
11,000.0	10,921.1	10,513.0	10,204.0	12.8	11.6	11.29	168.8	935.1	724.7	683.8	40.84	17.742	
11,025.0	10,937.7	10,529.3	10,204.0	12.8	11.7	10.54	183.8	941.4	740.8	699.9	40.95	18.091	
11,050.0	10,953.2	10,549.6	10,204.1	12.9	11.7	9.84	202.6	949.2	756.0	715.0	41.05	18.418	
11,075.0	10,967.8	10,570.8	10,204.2	12.9	11.7	9.24	222.2	957.2	770.2	729.1	41.14	18.720	
11,100.0	10,981.2	10,592.7	10,204.3	12.9	11.8	8.71	242.6	965.3	783.3	742.1	41.24	18.996	
11,125.0	10,993.6	10,615.2	10,204.4	13.0	11.8	8.25	263.6	973.5	795.3	754.0	41.33	19.244	
11,150.0	11,004.8	10,638.4	10,204.5	13.0	11.9	7.85	285.3	981.7	806.2	764.7	41.42	19.462	
11,175.0	11,014.8	10,662.2	10,204.6	13.0	12.0	7.49	307.6	990.0	815.8	774.3	41.51	19.653	
11,200.0	11,023.6	10,686.4	10,204.7	13.1	12.0	7.17	330.4	998.2	824.3	782.7	41.60	19.815	
11,225.0	11,031.2	10,711.1	10,204.9	13.1	12.1	6.89	353.6	1,006.3	831.5	789.9	41.69	19.945	
11,250.0	11,037.5	10,736.1	10,205.0	13.1	12.2	6.64	377.3	1,014.4	837.5	795.7	41.79	20.044	
11,275.0	11,042.5	10,761.4	10,205.1	13.2	12.3	6.42	401.3	1,022.4	842.2	800.4	41.88	20.112	
11,300.0	11,046.3	10,786.8	10,205.2	13.2	12.4	6.22	425.6	1,030.2	845.7	803.7	41.97	20.150	
11,325.0	11,048.8	10,812.5	10,205.3	13.2	12.5	6.04	450.0	1,037.8	847.8	805.7	42.06	20.156	
11,350.0	11,049.9	10,838.1	10,205.4	13.2	12.6	5.88	474.6	1,045.2	848.6	806.5	42.16	20.129	
11,360.7	11,050.0	10,849.2	10,205.5	13.3	12.6	5.82	485.2	1,048.4	848.6	806.4	42.20	20.108	
11,400.0	11,050.0	10,889.5	10,205.7	13.3	12.8	5.59	523.9	1,059.4	848.0	805.7	42.35	20.022	
11,500.0	11,049.8	10,991.9	10,206.1	13.5	13.3	5.01	623.1	1,085.1	846.6	803.8	42.79	19.786	
11,600.0	11,049.7	11,094.0	10,206.6	13.7	13.8	4.42	722.8	1,107.1	845.2	801.9	43.27	19.533	
11,700.0	11,049.5	11,195.8	10,207.1	13.9	14.3	3.83	822.9	1,125.5	843.9	800.1	43.80	19.266	
11,800.0	11,049.3	11,297.2	10,207.6	14.2	14.9	3.23	923.2	1,140.3	842.8	798.4	44.38	18.988	
11,900.0	11,049.2	11,398.3	10,208.0	14.6	15.5	2.62	1,023.7	1,151.5	841.7	796.7	45.01	18.700	
12,000.0	11,049.0	11,499.1	10,208.5	15.0	16.1	2.01	1,124.2	1,159.2	840.7	795.0	45.68	18.404	
12,100.0	11,048.9	11,599.6	10,208.9	15.5	16.7	1.40	1,224.5	1,163.2	839.8	793.4	46.39	18.104	
12,200.0	11,048.7	11,699.7	10,209.4	16.0	17.4	0.79	1,324.7	1,163.8	839.0	791.9	47.14	17.799	
12,300.0	11,048.5	11,799.4	10,209.8	16.6	18.0	0.29	1,424.4	1,162.6	838.3	790.4	47.92	17.496	
12,400.0	11,048.4	11,899.3	10,210.3	17.2	18.6	0.03	1,524.3	1,161.3	837.7	789.0	48.72	17.195	
12,464.8	11,048.3	11,964.1	10,210.6	17.6	19.1	-0.02	1,589.1	1,160.5	837.3	788.0	49.25	17.000	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 #701H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 9767-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		
12,500.0	11,048.2	11,999.3	10,210.8	17.8	19.3	-0.02	1,624.3	1,160.1	837.1	787.5	49.55	16.896		
12,600.0	11,048.1	12,099.3	10,211.2	18.4	20.0	-0.02	1,724.2	1,158.8	836.5	786.1	50.40	16.595		
12,700.0	11,047.9	12,199.3	10,211.7	19.0	20.7	-0.02	1,824.2	1,157.6	835.9	784.6	51.30	16.295		
12,800.0	11,047.8	12,299.3	10,212.1	19.7	21.4	-0.02	1,924.2	1,156.4	835.3	783.0	52.22	15.995		
12,900.0	11,047.6	12,399.3	10,212.6	20.3	22.1	-0.02	2,024.2	1,155.1	834.7	781.5	53.18	15.696		
13,000.0	11,047.4	12,499.3	10,213.0	21.0	22.9	-0.02	2,124.2	1,153.9	834.0	779.9	54.16	15.400		
13,100.0	11,047.3	12,599.3	10,213.5	21.7	23.6	-0.02	2,224.2	1,152.6	833.4	778.3	55.17	15.107		
13,200.0	11,047.1	12,699.3	10,213.9	22.4	24.4	-0.02	2,324.2	1,151.4	832.8	776.6	56.20	14.818		
13,300.0	11,047.0	12,799.3	10,214.4	23.1	25.1	-0.02	2,424.2	1,150.1	832.2	775.0	57.26	14.533		
13,400.0	11,046.8	12,899.3	10,214.8	23.9	25.9	-0.02	2,524.2	1,148.9	831.6	773.3	58.35	14.253		
13,500.0	11,046.7	12,999.3	10,215.3	24.6	26.6	-0.02	2,624.1	1,147.6	831.0	771.5	59.45	13.978		
13,600.0	11,046.5	13,099.3	10,215.7	25.3	27.4	-0.02	2,724.1	1,146.4	830.4	769.8	60.57	13.709		
13,700.0	11,046.3	13,199.3	10,216.2	26.1	28.2	-0.02	2,824.1	1,145.2	829.8	768.1	61.72	13.445		
13,800.0	11,046.2	13,299.3	10,216.6	26.8	29.0	-0.02	2,924.1	1,143.9	829.2	766.3	62.88	13.187		
13,900.0	11,046.0	13,399.3	10,217.1	27.6	29.8	-0.02	3,024.1	1,142.7	828.6	764.5	64.06	12.934		
14,000.0	11,045.9	13,499.3	10,217.5	28.4	30.5	-0.02	3,124.1	1,141.4	828.0	762.7	65.26	12.688		
14,100.0	11,045.7	13,599.3	10,218.0	29.2	31.3	-0.02	3,224.1	1,140.2	827.3	760.9	66.47	12.447		
14,200.0	11,045.6	13,699.3	10,218.4	29.9	32.1	-0.02	3,324.1	1,138.9	826.7	759.0	67.69	12.213		
14,300.0	11,045.4	13,799.3	10,218.9	30.7	32.9	-0.02	3,424.1	1,137.7	826.1	757.2	68.93	11.984		
14,400.0	11,045.2	13,899.3	10,219.3	31.5	33.7	-0.02	3,524.1	1,136.5	825.5	755.3	70.19	11.762		
14,500.0	11,045.1	13,999.3	10,219.8	32.3	34.5	-0.02	3,624.0	1,135.2	824.9	753.5	71.45	11.545		
14,600.0	11,044.9	14,099.3	10,220.2	33.1	35.4	-0.02	3,724.0	1,134.0	824.3	751.6	72.73	11.334		
14,700.0	11,044.8	14,199.3	10,220.7	33.9	36.2	-0.02	3,824.0	1,132.7	823.7	749.7	74.02	11.128		
14,800.0	11,044.6	14,299.3	10,221.1	34.7	37.0	-0.02	3,924.0	1,131.5	823.1	747.8	75.32	10.928		
14,900.0	11,044.4	14,399.3	10,221.6	35.5	37.8	-0.02	4,024.0	1,130.2	822.5	745.8	76.63	10.733		
15,000.0	11,044.3	14,499.3	10,222.0	36.3	38.6	-0.02	4,124.0	1,129.0	821.9	743.9	77.95	10.544		
15,100.0	11,044.1	14,599.3	10,222.5	37.1	39.4	-0.02	4,224.0	1,127.7	821.3	742.0	79.27	10.360		
15,200.0	11,044.0	14,699.3	10,222.9	37.9	40.2	-0.02	4,324.0	1,126.5	820.6	740.0	80.61	10.180		
15,300.0	11,043.8	14,799.3	10,223.4	38.7	41.1	-0.02	4,424.0	1,125.3	820.0	738.1	81.96	10.006		
15,400.0	11,043.7	14,899.3	10,223.8	39.5	41.9	-0.02	4,523.9	1,124.0	819.4	736.1	83.31	9.836		
15,500.0	11,043.5	14,999.3	10,224.3	40.4	42.7	-0.02	4,623.9	1,122.8	818.8	734.2	84.67	9.671		
15,600.0	11,043.3	15,099.2	10,224.7	41.2	43.5	-0.02	4,723.9	1,121.5	818.2	732.2	86.04	9.510		
15,700.0	11,043.2	15,199.2	10,225.2	42.0	44.4	-0.02	4,823.9	1,120.3	817.6	730.2	87.41	9.354		
15,800.0	11,043.0	15,299.2	10,225.6	42.8	45.2	-0.02	4,923.9	1,119.0	817.0	728.2	88.79	9.201		
15,882.4	11,042.9	15,381.6	10,226.0	43.5	45.9	-0.02	5,006.3	1,118.0	816.5	726.6	89.93	9.079		
15,903.4	11,042.9	15,402.6	10,226.1	43.7	46.1	-0.02	5,027.3	1,117.9	816.4	726.1	90.23	9.048		
16,000.0	11,042.7	15,499.2	10,226.5	44.5	46.9	-0.02	5,123.9	1,117.4	815.8	724.2	91.57	8.909		
16,100.0	11,042.6	15,599.2	10,227.0	45.3	47.7	-0.02	5,223.9	1,116.9	815.2	722.2	92.97	8.768		
16,200.0	11,042.4	15,699.2	10,227.4	46.1	48.5	-0.02	5,323.9	1,116.4	814.6	720.2	94.37	8.631		
16,300.0	11,042.3	15,799.2	10,227.9	46.9	49.4	-0.02	5,423.9	1,115.9	814.0	718.2	95.78	8.498		
16,400.0	11,042.1	15,899.2	10,228.3	47.8	50.2	-0.02	5,523.9	1,115.4	813.4	716.2	97.20	8.368		
16,500.0	11,041.9	15,999.2	10,228.8	48.6	51.0	-0.02	5,623.9	1,114.9	812.8	714.1	98.62	8.242		
16,600.0	11,041.8	16,099.2	10,229.2	49.4	51.9	-0.02	5,723.9	1,114.4	812.2	712.1	100.04	8.118		
16,700.0	11,041.6	16,199.2	10,229.7	50.3	52.7	-0.02	5,823.9	1,113.8	811.5	710.1	101.47	7.998		
16,800.0	11,041.5	16,299.2	10,230.1	51.1	53.6	-0.02	5,923.9	1,113.3	810.9	708.0	102.90	7.881		
16,900.0	11,041.3	16,399.2	10,230.6	51.9	54.4	-0.02	6,023.8	1,112.8	810.3	706.0	104.33	7.767		
17,000.0	11,041.2	16,499.2	10,231.0	52.8	55.2	-0.02	6,123.8	1,112.3	809.7	704.0	105.77	7.655		
17,100.0	11,041.0	16,599.2	10,231.5	53.6	56.1	-0.02	6,223.8	1,111.8	809.1	701.9	107.22	7.547		
17,200.0	11,040.9	16,699.2	10,231.9	54.4	56.9	-0.02	6,323.8	1,111.3	808.5	699.9	108.66	7.441		
17,300.0	11,040.7	16,799.2	10,232.4	55.3	57.8	-0.02	6,423.8	1,110.8	807.9	697.8	110.11	7.337		
17,400.0	11,040.6	16,899.2	10,232.8	56.1	58.6	-0.02	6,523.8	1,110.3	807.3	695.7	111.57	7.236		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 #701H - OWB - PWP1											Offset Site Error: 0.0 usft	
Survey Program: 0-Standard Keeper 104, 9767-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	11,040.4	16,999.2	10,233.3	57.0	59.4	-0.02	6,623.8	1,109.8	806.7	693.7	113.02	7.138		
17,600.0	11,040.2	17,099.2	10,233.7	57.8	60.3	-0.02	6,723.8	1,109.3	806.1	691.6	114.48	7.041		
17,700.0	11,040.1	17,199.2	10,234.2	58.6	61.1	-0.02	6,823.8	1,108.8	805.5	689.6	115.94	6.947		
17,800.0	11,039.9	17,299.2	10,234.7	59.5	62.0	-0.02	6,923.8	1,108.3	804.9	687.5	117.41	6.855		
17,900.0	11,039.8	17,399.2	10,235.1	60.3	62.8	-0.02	7,023.8	1,107.8	804.3	685.4	118.88	6.766		
18,000.0	11,039.6	17,499.2	10,235.6	61.2	63.7	-0.01	7,123.8	1,107.3	803.7	683.3	120.35	6.678		
18,100.0	11,039.5	17,599.2	10,236.0	62.0	64.5	-0.01	7,223.8	1,106.8	803.1	681.3	121.82	6.592		
18,200.0	11,039.3	17,699.2	10,236.5	62.9	65.4	-0.01	7,323.8	1,106.3	802.5	679.2	123.29	6.509		
18,300.0	11,039.2	17,799.2	10,236.9	63.7	66.2	-0.01	7,423.8	1,105.8	801.9	677.1	124.77	6.427		
18,400.0	11,039.0	17,899.2	10,237.4	64.5	67.0	-0.01	7,523.8	1,105.3	801.3	675.0	126.25	6.347		
18,500.0	11,038.9	17,999.2	10,237.8	65.4	67.9	-0.01	7,623.8	1,104.8	800.7	672.9	127.73	6.268		
18,600.0	11,038.7	18,099.2	10,238.3	66.2	68.7	-0.01	7,723.8	1,104.3	800.1	670.8	129.22	6.192		
18,700.0	11,038.5	18,199.2	10,238.7	67.1	69.6	-0.01	7,823.8	1,103.8	799.4	668.7	130.70	6.117		
18,800.0	11,038.4	18,299.2	10,239.2	67.9	70.4	-0.01	7,923.8	1,103.3	798.8	666.7	132.19	6.043		
18,900.0	11,038.2	18,399.2	10,239.6	68.8	71.3	-0.01	8,023.8	1,102.8	798.2	664.6	133.68	5.971		
19,000.0	11,038.1	18,499.2	10,240.1	69.6	72.1	-0.01	8,123.8	1,102.3	797.6	662.5	135.17	5.901		
19,100.0	11,037.9	18,599.2	10,240.5	70.5	73.0	-0.01	8,223.8	1,101.8	797.0	660.4	136.67	5.832		
19,200.0	11,037.8	18,699.2	10,241.0	71.3	73.8	-0.01	8,323.8	1,101.3	796.4	658.3	138.16	5.764		
19,300.0	11,037.6	18,799.2	10,241.4	72.2	74.7	-0.01	8,423.7	1,100.8	795.8	656.2	139.66	5.698		
19,400.0	11,037.5	18,899.2	10,241.9	73.0	75.5	-0.01	8,523.7	1,100.3	795.2	654.1	141.15	5.634		
19,500.0	11,037.3	18,999.2	10,242.3	73.9	76.4	-0.01	8,623.7	1,099.8	794.6	652.0	142.65	5.570		
19,600.0	11,037.2	19,099.2	10,242.8	74.7	77.2	-0.01	8,723.7	1,099.3	794.0	649.8	144.16	5.508		
19,700.0	11,037.0	19,199.2	10,243.2	75.6	78.1	-0.01	8,823.7	1,098.8	793.4	647.7	145.66	5.447		
19,800.0	11,036.8	19,299.2	10,243.7	76.4	78.9	-0.01	8,923.7	1,098.3	792.8	645.6	147.16	5.387		
19,900.0	11,036.7	19,399.2	10,244.1	77.2	79.8	-0.01	9,023.7	1,097.8	792.2	643.5	148.67	5.329		
20,000.0	11,036.5	19,499.2	10,244.6	78.1	80.6	0.00	9,123.7	1,097.3	791.6	641.4	150.17	5.271		
20,100.0	11,036.4	19,599.2	10,245.0	78.9	81.5	0.00	9,223.7	1,096.8	791.0	639.3	151.68	5.215		
20,200.0	11,036.2	19,699.2	10,245.5	79.8	82.3	0.00	9,323.7	1,096.3	790.4	637.2	153.19	5.159		
20,300.0	11,036.1	19,799.2	10,245.9	80.6	83.2	0.00	9,423.7	1,095.8	789.8	635.1	154.70	5.105		
20,400.0	11,035.9	19,899.2	10,246.4	81.5	84.0	0.00	9,523.7	1,095.3	789.2	633.0	156.21	5.052		
20,500.0	11,035.8	19,999.2	10,246.8	82.4	84.9	0.00	9,623.7	1,094.7	788.6	630.8	157.73	5.000		
20,600.0	11,035.6	20,099.2	10,247.3	83.2	85.7	0.00	9,723.7	1,094.2	788.0	628.7	159.24	4.948		
20,700.0	11,035.4	20,199.2	10,247.7	84.1	86.6	0.00	9,823.7	1,093.7	787.3	626.6	160.76	4.898		
20,800.0	11,035.3	20,299.1	10,248.2	84.9	87.4	0.00	9,923.7	1,093.2	786.7	624.5	162.27	4.848		
20,900.0	11,035.1	20,399.1	10,248.6	85.8	88.3	0.00	10,023.7	1,092.7	786.1	622.4	163.79	4.800		
20,990.6	11,035.0	20,486.2	10,249.0	86.3	88.9	0.00	10,110.7	1,092.3	785.6	621.1	164.49	4.776		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10573-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	0.3	0.3	3.0	3.0	-90.19	-0.1	-30.0	30.0				
100.0	100.0	100.3	100.3	3.0	3.0	-90.19	-0.1	-30.0	30.0	24.0	6.00	5.000	
200.0	200.0	200.3	200.3	3.0	3.0	-90.19	-0.1	-30.0	30.0	24.0	6.00	4.997	
300.0	300.0	300.3	300.3	3.0	3.0	-90.19	-0.1	-30.0	30.0	24.0	6.01	4.992	
400.0	400.0	400.3	400.3	3.0	3.0	-90.19	-0.1	-30.0	30.0	24.0	6.02	4.985	
500.0	500.0	500.3	500.3	3.1	3.1	-90.19	-0.1	-30.0	30.0	24.0	6.03	4.974	
600.0	600.0	600.3	600.3	3.1	3.1	-90.19	-0.1	-30.0	30.0	24.0	6.05	4.961	
700.0	700.0	700.3	700.3	3.1	3.1	-90.19	-0.1	-30.0	30.0	23.9	6.07	4.946	
800.0	800.0	800.3	800.3	3.2	3.2	-90.19	-0.1	-30.0	30.0	23.9	6.09	4.928	
900.0	900.0	900.3	900.3	3.2	3.2	-90.19	-0.1	-30.0	30.0	23.9	6.11	4.908	
1,000.0	1,000.0	1,000.3	1,000.3	3.2	3.2	-90.19	-0.1	-30.0	30.0	23.9	6.14	4.885	
1,100.0	1,100.0	1,100.3	1,100.3	3.3	3.3	-90.19	-0.1	-30.0	30.0	23.8	6.17	4.860	
1,200.0	1,200.0	1,200.3	1,200.3	3.4	3.4	-90.19	-0.1	-30.0	30.0	23.8	6.21	4.834	
1,300.0	1,300.0	1,300.3	1,300.3	3.4	3.4	-90.19	-0.1	-30.0	30.0	23.8	6.24	4.805	
1,400.0	1,400.0	1,400.3	1,400.3	3.5	3.5	-90.19	-0.1	-30.0	30.0	23.7	6.28	4.774	
1,500.0	1,500.0	1,500.3	1,500.3	3.5	3.5	-90.19	-0.1	-30.0	30.0	23.7	6.33	4.742	
1,600.0	1,600.0	1,600.3	1,600.3	3.6	3.6	-90.19	-0.1	-30.0	30.0	23.6	6.37	4.708	
1,700.0	1,700.0	1,700.3	1,700.3	3.7	3.7	-90.19	-0.1	-30.0	30.0	23.6	6.42	4.672	
1,800.0	1,800.0	1,800.3	1,800.3	3.8	3.8	-90.19	-0.1	-30.0	30.0	23.5	6.47	4.635	
1,900.0	1,900.0	1,900.3	1,900.3	3.9	3.9	-90.19	-0.1	-30.0	30.0	23.5	6.53	4.597	
2,000.0	2,000.0	2,000.3	2,000.3	3.9	3.9	-90.19	-0.1	-30.0	30.0	23.4	6.58	4.558	
2,100.0	2,100.0	2,100.3	2,100.3	4.0	4.0	-90.19	-0.1	-30.0	30.0	23.4	6.64	4.518	
2,200.0	2,200.0	2,200.3	2,200.3	4.1	4.1	-90.19	-0.1	-30.0	30.0	23.3	6.70	4.477	
2,300.0	2,300.0	2,300.3	2,300.3	4.2	4.2	-90.19	-0.1	-30.0	30.0	23.2	6.76	4.435	
2,400.0	2,400.0	2,400.3	2,400.3	4.3	4.3	-90.19	-0.1	-30.0	30.0	23.2	6.83	4.392	
2,500.0	2,500.0	2,500.3	2,500.3	4.4	4.4	-90.19	-0.1	-30.0	30.0	23.1	6.90	4.349 CC, ES, SF	
2,600.0	2,600.0	2,600.3	2,600.3	4.5	4.5	-174.81	-0.1	-30.0	31.7	24.8	6.97	4.554	
2,700.0	2,699.8	2,700.1	2,700.1	4.5	4.6	-175.53	-0.1	-30.0	37.0	29.9	7.05	5.243	
2,771.9	2,771.5	2,771.8	2,771.8	4.5	4.7	-176.14	-0.1	-30.0	42.9	35.7	7.11	6.028	
2,800.0	2,799.5	2,799.8	2,799.8	4.5	4.7	-176.37	-0.1	-30.0	45.5	38.4	7.13	6.379	
2,900.0	2,899.0	2,899.3	2,899.3	4.6	4.8	-176.99	-0.1	-30.0	55.0	47.7	7.23	7.606	
3,000.0	2,998.6	2,998.9	2,998.9	4.6	4.9	-177.44	-0.1	-30.0	64.4	57.1	7.33	8.796	
3,100.0	3,098.1	3,098.4	3,098.4	4.7	5.0	-177.76	-0.1	-30.0	73.9	66.5	7.43	9.948	
3,200.0	3,197.7	3,198.0	3,198.0	4.7	5.1	-178.02	-0.1	-30.0	83.4	75.8	7.54	11.064	
3,300.0	3,297.2	3,297.5	3,297.5	4.8	5.2	-178.22	-0.1	-30.0	92.9	85.2	7.65	12.141	
3,400.0	3,396.8	3,397.1	3,397.1	4.9	5.3	-178.39	-0.1	-30.0	102.3	94.6	7.76	13.182	
3,500.0	3,496.3	3,496.6	3,496.6	4.9	5.4	-178.52	-0.1	-30.0	111.8	103.9	7.88	14.186	
3,600.0	3,595.9	3,596.2	3,596.2	5.0	5.5	-178.64	-0.1	-30.0	121.3	113.3	8.00	15.153	
3,700.0	3,695.4	3,695.7	3,695.7	5.1	5.7	-178.74	-0.1	-30.0	130.8	122.6	8.13	16.085	
3,800.0	3,795.0	3,795.3	3,795.3	5.1	5.8	-178.82	-0.1	-30.0	140.2	132.0	8.26	16.982	
3,900.0	3,894.5	3,894.8	3,894.8	5.2	5.9	-178.90	-0.1	-30.0	149.7	141.3	8.39	17.846	
4,000.0	3,994.1	3,994.4	3,994.4	5.3	6.0	-178.96	-0.1	-30.0	159.2	150.7	8.52	18.676	
4,100.0	4,093.6	4,093.9	4,093.9	5.4	6.1	-179.02	-0.1	-30.0	168.7	160.0	8.66	19.475	
4,200.0	4,193.2	4,193.5	4,193.5	5.4	6.2	-179.07	-0.1	-30.0	178.1	169.3	8.80	20.244	
4,300.0	4,292.7	4,293.0	4,293.0	5.5	6.3	-179.12	-0.1	-30.0	187.6	178.7	8.94	20.983	
4,400.0	4,392.3	4,392.6	4,392.6	5.6	6.4	-179.16	-0.1	-30.0	197.1	188.0	9.09	21.693	
4,500.0	4,491.8	4,492.1	4,492.1	5.7	6.6	-179.20	-0.1	-30.0	206.6	197.3	9.23	22.376	
4,600.0	4,591.4	4,591.7	4,591.7	5.8	6.7	-179.24	-0.1	-30.0	216.0	206.7	9.38	23.033	
4,700.0	4,690.9	4,691.2	4,691.2	5.9	6.8	-179.27	-0.1	-30.0	225.5	216.0	9.53	23.664	
4,800.0	4,790.5	4,790.8	4,790.8	6.0	6.9	-179.30	-0.1	-30.0	235.0	225.3	9.68	24.271	
4,900.0	4,890.0	4,890.3	4,890.3	6.0	7.0	-179.32	-0.1	-30.0	244.5	234.6	9.84	24.855	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 #802H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10573-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		
5,000.0	4,989.6	4,989.9	4,989.9	6.1	7.2	-179.35	-0.1	-30.0	253.9	244.0	9.99	25.417		
5,100.0	5,089.1	5,089.4	5,089.4	6.2	7.3	-179.37	-0.1	-30.0	263.4	253.3	10.15	25.957		
5,200.0	5,188.7	5,189.0	5,189.0	6.3	7.4	-179.39	-0.1	-30.0	272.9	262.6	10.31	26.477		
5,300.0	5,288.2	5,288.5	5,288.5	6.4	7.5	-179.42	-0.1	-30.0	282.4	271.9	10.47	26.978		
5,400.0	5,387.8	5,388.1	5,388.1	6.5	7.6	-179.43	-0.1	-30.0	291.9	281.2	10.63	27.460		
5,500.0	5,487.3	5,487.6	5,487.6	6.6	7.8	-179.45	-0.1	-30.0	301.3	290.5	10.79	27.924		
5,600.0	5,586.9	5,595.1	5,595.1	6.7	7.8	-179.66	-1.0	-28.7	309.7	298.7	10.97	28.238		
5,700.0	5,686.4	5,702.3	5,702.1	6.8	7.8	179.69	-4.1	-24.2	315.2	304.1	11.18	28.203		
5,800.0	5,786.0	5,802.1	5,801.7	6.9	7.8	178.96	-7.7	-18.9	319.9	308.5	11.39	28.086		
5,900.0	5,885.5	5,901.9	5,901.4	7.0	7.8	178.24	-11.4	-13.6	324.5	312.9	11.60	27.968		
6,000.0	5,985.1	6,001.7	6,001.0	7.1	7.8	177.54	-15.0	-8.3	329.3	317.4	11.82	27.850		
6,100.0	6,084.6	6,101.5	6,100.6	7.3	7.8	176.87	-18.6	-3.0	334.0	322.0	12.04	27.733		
6,200.0	6,184.2	6,201.4	6,200.2	7.4	7.8	176.21	-22.2	2.3	338.8	326.6	12.27	27.618		
6,300.0	6,283.7	6,301.2	6,299.8	7.5	7.8	175.57	-25.9	7.6	343.7	331.2	12.49	27.507		
6,400.0	6,383.3	6,401.0	6,399.4	7.6	7.8	174.95	-29.5	12.9	348.6	335.9	12.72	27.399		
6,500.0	6,482.8	6,500.8	6,499.0	7.7	7.8	174.35	-33.1	18.2	353.5	340.6	12.95	27.295		
6,600.0	6,582.4	6,600.6	6,598.6	7.8	7.8	173.76	-36.7	23.4	358.5	345.3	13.18	27.195		
6,700.0	6,681.9	6,700.4	6,698.2	7.9	7.8	173.19	-40.4	28.7	363.5	350.1	13.41	27.100		
6,800.0	6,781.5	6,800.2	6,797.8	8.0	7.8	172.64	-44.0	34.0	368.5	354.9	13.65	27.009		
6,900.0	6,881.0	6,900.0	6,897.4	8.1	7.9	172.10	-47.6	39.3	373.6	359.8	13.88	26.923		
7,000.0	6,980.6	6,999.8	6,997.0	8.2	7.9	171.58	-51.3	44.6	378.7	364.6	14.11	26.842		
7,100.0	7,080.1	7,099.6	7,096.6	8.4	7.9	171.06	-54.9	49.9	383.9	369.5	14.34	26.765		
7,200.0	7,179.7	7,199.5	7,196.2	8.5	7.9	170.57	-58.5	55.2	389.1	374.5	14.58	26.692		
7,300.0	7,279.2	7,299.3	7,295.8	8.6	7.9	170.08	-62.1	60.5	394.3	379.4	14.81	26.624		
7,400.0	7,378.8	7,399.1	7,395.4	8.7	8.0	169.61	-65.8	65.8	399.5	384.4	15.04	26.560		
7,500.0	7,478.3	7,498.9	7,495.0	8.8	8.0	169.15	-69.4	71.0	404.7	389.5	15.27	26.501		
7,600.0	7,577.9	7,598.7	7,594.6	8.9	8.0	168.70	-73.0	76.3	410.0	394.5	15.50	26.445		
7,700.0	7,677.4	7,698.5	7,694.2	9.0	8.1	168.27	-76.6	81.6	415.3	399.6	15.74	26.393		
7,800.0	7,777.0	7,798.3	7,793.8	9.2	8.1	167.84	-80.3	86.9	420.6	404.7	15.97	26.344		
7,900.0	7,876.5	7,898.1	7,893.4	9.3	8.1	167.43	-83.9	92.2	426.0	409.8	16.20	26.299		
8,000.0	7,976.1	7,997.9	7,993.0	9.4	8.2	167.02	-87.5	97.5	431.4	414.9	16.43	26.257		
8,100.0	8,075.6	8,097.7	8,092.6	9.5	8.2	166.63	-91.1	102.8	436.8	420.1	16.66	26.219		
8,200.0	8,175.2	8,197.6	8,192.2	9.6	8.3	166.24	-94.8	108.1	442.2	425.3	16.89	26.183		
8,300.0	8,274.7	8,297.4	8,291.8	9.8	8.3	165.87	-98.4	113.4	447.6	430.5	17.12	26.150		
8,400.0	8,374.3	8,397.2	8,391.4	9.9	8.4	165.50	-102.0	118.6	453.1	435.7	17.35	26.119		
8,500.0	8,473.8	8,497.0	8,491.0	10.0	8.4	165.14	-105.7	123.9	458.5	441.0	17.57	26.091		
8,600.0	8,573.4	8,596.8	8,590.6	10.1	8.5	164.79	-109.3	129.2	464.0	446.2	17.80	26.066		
8,700.0	8,672.9	8,696.6	8,690.3	10.2	8.5	164.45	-112.9	134.5	469.5	451.5	18.03	26.042		
8,800.0	8,772.5	8,796.4	8,789.9	10.4	8.6	164.12	-116.5	139.8	475.0	456.8	18.26	26.021		
8,900.0	8,872.0	8,896.2	8,889.5	10.5	8.6	163.79	-120.2	145.1	480.6	462.1	18.48	26.002		
9,000.0	8,971.6	8,996.0	8,989.1	10.6	8.7	163.47	-123.8	150.4	486.1	467.4	18.71	25.984		
9,100.0	9,071.1	9,095.8	9,088.7	10.7	8.7	163.16	-127.4	155.7	491.7	472.8	18.93	25.968		
9,200.0	9,170.7	9,195.7	9,188.3	10.8	8.8	162.86	-131.0	161.0	497.3	478.1	19.16	25.954		
9,300.0	9,270.2	9,295.5	9,287.9	11.0	8.9	162.56	-134.7	166.2	502.9	483.5	19.38	25.941		
9,400.0	9,369.8	9,395.3	9,387.5	11.1	8.9	162.27	-138.3	171.5	508.5	488.9	19.61	25.930		
9,500.0	9,469.3	9,495.1	9,487.1	11.2	9.0	161.99	-141.9	176.8	514.1	494.3	19.83	25.920		
9,600.0	9,568.9	9,594.9	9,586.7	11.3	9.1	161.71	-145.5	182.1	519.7	499.7	20.06	25.911		
9,700.0	9,668.4	9,694.7	9,686.3	11.5	9.2	161.44	-149.2	187.4	525.4	505.1	20.28	25.903		
9,800.0	9,768.0	9,794.5	9,785.9	11.6	9.2	161.17	-152.8	192.7	531.0	510.5	20.51	25.896		
9,900.0	9,867.5	9,894.3	9,885.5	11.7	9.3	160.91	-156.4	198.0	536.7	516.0	20.73	25.890		
10,000.0	9,967.1	9,994.1	9,985.1	11.8	9.4	160.65	-160.1	203.3	542.4	521.4	20.95	25.885		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10573-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
10,100.0	10,066.6	10,093.9	10,084.7	11.9	9.5	160.40	-163.7	208.6	548.0	526.9	21.18	25.881	
10,200.0	10,166.2	10,193.7	10,184.3	12.1	9.5	160.16	-167.3	213.8	553.7	532.3	21.40	25.877	
10,300.0	10,265.7	10,293.6	10,283.9	12.2	9.6	159.92	-170.9	219.1	559.5	537.8	21.62	25.874	
10,400.0	10,365.3	10,393.4	10,383.5	12.3	9.7	159.68	-174.6	224.4	565.2	543.3	21.84	25.872	
10,500.0	10,464.8	10,493.2	10,483.1	12.5	9.8	159.45	-178.2	229.7	570.9	548.8	22.07	25.871	
10,600.0	10,564.4	10,643.6	10,632.9	12.5	9.9	160.01	-173.6	237.5	574.5	552.3	22.26	25.814	
10,630.6	10,594.8	10,704.1	10,691.7	12.6	9.9	161.33	-159.7	240.5	572.8	550.4	22.45	25.520	
10,650.0	10,614.1	10,740.7	10,726.2	12.6	9.9	179.96	-147.8	242.1	571.3	548.7	22.60	25.277	
10,675.0	10,638.9	10,785.7	10,767.2	12.6	10.0	-165.28	-129.5	244.1	569.4	546.6	22.81	24.969	
10,700.0	10,663.4	10,828.3	10,804.4	12.6	10.0	-156.13	-108.7	245.8	567.8	544.8	22.99	24.700	
10,725.0	10,687.8	10,868.6	10,837.7	12.6	10.0	-149.75	-86.0	247.2	566.4	543.2	23.12	24.498	
10,750.0	10,711.8	10,906.7	10,867.3	12.6	10.1	-144.85	-62.0	248.5	565.4	542.2	23.19	24.379	
10,775.0	10,735.5	10,942.7	10,893.4	12.6	10.1	-140.83	-37.3	249.6	564.9	541.7	23.20	24.348	
10,786.0	10,745.7	10,957.9	10,903.8	12.6	10.1	-139.24	-26.3	250.0	564.8	541.6	23.18	24.363	
10,800.0	10,758.7	10,976.7	10,916.3	12.6	10.1	-137.35	-12.2	250.5	564.9	541.8	23.15	24.405	
10,825.0	10,781.4	11,008.9	10,936.3	12.6	10.2	-134.24	13.0	251.2	565.5	542.5	23.04	24.544	
10,850.0	10,803.5	11,039.5	10,953.7	12.7	10.2	-131.37	38.1	251.8	566.8	543.9	22.90	24.755	
10,875.0	10,825.0	11,068.6	10,968.7	12.7	10.3	-128.68	63.0	252.3	568.8	546.1	22.73	25.027	
10,900.0	10,845.8	11,096.3	10,981.6	12.7	10.3	-126.12	87.6	252.7	571.5	549.0	22.55	25.346	
10,925.0	10,865.9	11,122.9	10,992.6	12.7	10.3	-123.65	111.8	253.0	574.9	552.5	22.37	25.699	
10,950.0	10,885.2	11,148.4	11,001.8	12.8	10.4	-121.25	135.6	253.2	579.0	556.8	22.21	26.070	
10,975.0	10,903.6	11,173.0	11,009.6	12.8	10.4	-118.90	158.9	253.3	583.8	561.7	22.07	26.447	
11,000.0	10,921.1	11,196.6	11,015.8	12.8	10.5	-116.58	181.7	253.3	589.2	567.3	21.97	26.816	
11,025.0	10,937.7	11,219.6	11,020.9	12.8	10.5	-114.28	204.1	253.3	595.4	573.4	21.91	27.168	
11,050.0	10,953.2	11,241.8	11,024.7	12.9	10.5	-112.00	226.0	253.3	602.1	580.2	21.90	27.495	
11,075.0	10,967.8	11,263.4	11,027.4	12.9	10.6	-109.74	247.4	253.1	609.4	587.4	21.92	27.794	
11,100.0	10,981.2	11,284.5	11,029.2	12.9	10.6	-107.48	268.4	253.0	617.2	595.2	21.99	28.062	
11,125.0	10,993.6	11,305.2	11,030.0	13.0	10.7	-105.24	289.0	252.8	625.5	603.4	22.10	28.302	
11,150.0	11,004.8	11,325.5	11,030.0	13.0	10.7	-103.02	309.4	252.5	634.2	611.9	22.24	28.511	
11,175.0	11,014.8	11,346.4	11,030.0	13.0	10.8	-100.85	330.3	252.2	643.3	620.8	22.41	28.705	
11,200.0	11,023.6	11,367.8	11,030.0	13.1	10.8	-98.75	351.7	252.0	652.6	630.0	22.59	28.894	
11,225.0	11,031.2	11,389.6	11,029.9	13.1	10.9	-96.75	373.5	251.7	662.1	639.4	22.77	29.085	
11,250.0	11,037.5	11,411.8	11,029.9	13.1	10.9	-94.87	395.7	251.4	671.8	648.8	22.95	29.271	
11,275.0	11,042.5	11,434.3	11,029.9	13.2	11.0	-93.11	418.2	251.2	681.4	658.3	23.13	29.455	
11,300.0	11,046.3	11,457.1	11,029.8	13.2	11.1	-91.50	440.9	250.9	691.1	667.8	23.31	29.647	
11,325.0	11,048.8	11,480.0	11,029.8	13.2	11.1	-90.02	463.9	250.6	700.7	677.2	23.48	29.847	
11,350.0	11,049.9	11,503.1	11,029.8	13.2	11.2	-88.70	487.0	250.3	710.2	686.6	23.63	30.050	
11,360.7	11,050.0	11,513.1	11,029.7	13.3	11.2	-88.18	497.0	250.2	714.3	690.6	23.70	30.135	
11,400.0	11,050.0	11,549.6	11,029.7	13.3	11.4	-88.23	533.4	249.7	728.8	704.8	23.95	30.423	
11,500.0	11,049.8	11,643.3	11,029.5	13.5	11.8	-88.33	627.2	248.6	763.4	738.8	24.66	30.958	
11,600.0	11,049.7	11,738.3	11,029.4	13.7	12.2	-88.42	722.1	247.4	794.8	769.4	25.46	31.222	
11,700.0	11,049.5	11,834.3	11,029.2	13.9	12.7	-88.49	818.1	246.2	822.9	796.5	26.34	31.244	
11,800.0	11,049.3	11,931.2	11,029.1	14.2	13.2	-88.55	915.0	245.0	847.5	820.2	27.29	31.052	
11,900.0	11,049.2	12,028.9	11,029.0	14.6	13.8	-88.60	1,012.7	243.8	868.8	840.5	28.32	30.678	
12,000.0	11,049.0	12,127.3	11,028.8	15.0	14.4	-88.64	1,111.1	242.6	886.7	857.3	29.41	30.149	
12,100.0	11,048.9	12,226.2	11,028.7	15.5	15.0	-88.67	1,210.0	241.3	901.1	870.6	30.56	29.490	
12,200.0	11,048.7	12,325.6	11,028.5	16.0	15.7	-88.70	1,309.4	240.1	912.1	880.3	31.75	28.725	
12,300.0	11,048.5	12,425.3	11,028.4	16.6	16.4	-88.72	1,409.1	238.9	919.6	886.6	32.99	27.874	
12,400.0	11,048.4	12,525.2	11,028.2	17.2	17.1	-88.73	1,509.0	237.6	923.6	889.3	34.27	26.952	
12,464.8	11,048.3	12,590.0	11,028.1	17.6	17.5	-88.73	1,573.8	236.8	924.3	889.2	35.11	26.325	
12,500.0	11,048.2	12,625.2	11,028.0	17.8	17.8	-88.73	1,609.0	236.4	924.3	888.7	35.57	25.983	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10573-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	
12,600.0	11,048.1	12,725.2	11,027.9	18.4	18.5	-88.73	1,709.0	235.2	924.3	887.4	36.92	25.037	
12,700.0	11,047.9	12,825.2	11,027.7	19.0	19.2	-88.73	1,809.0	233.9	924.3	886.0	38.29	24.139	
12,800.0	11,047.8	12,925.2	11,027.6	19.7	20.0	-88.73	1,909.0	232.7	924.3	884.6	39.69	23.288	
12,900.0	11,047.6	13,025.2	11,027.4	20.3	20.8	-88.73	2,009.0	231.5	924.3	883.2	41.11	22.481	
13,000.0	11,047.4	13,125.2	11,027.3	21.0	21.5	-88.73	2,109.0	230.2	924.3	881.7	42.56	21.717	
13,100.0	11,047.3	13,225.2	11,027.1	21.7	22.3	-88.73	2,209.0	229.0	924.3	880.2	44.03	20.993	
13,200.0	11,047.1	13,325.2	11,027.0	22.4	23.1	-88.73	2,308.9	227.7	924.3	878.8	45.51	20.309	
13,300.0	11,047.0	13,425.2	11,026.8	23.1	23.9	-88.73	2,408.9	226.5	924.3	877.3	47.01	19.660	
13,400.0	11,046.8	13,525.2	11,026.7	23.9	24.7	-88.73	2,508.9	225.3	924.3	875.7	48.53	19.046	
13,500.0	11,046.7	13,625.2	11,026.5	24.6	25.5	-88.73	2,608.9	224.0	924.3	874.2	50.06	18.464	
13,600.0	11,046.5	13,725.2	11,026.4	25.3	26.3	-88.73	2,708.9	222.8	924.3	872.7	51.60	17.913	
13,700.0	11,046.3	13,825.2	11,026.2	26.1	27.1	-88.73	2,808.9	221.5	924.3	871.1	53.15	17.390	
13,800.0	11,046.2	13,925.2	11,026.1	26.8	27.9	-88.73	2,908.9	220.3	924.3	869.5	54.71	16.893	
13,900.0	11,046.0	14,025.2	11,025.9	27.6	28.7	-88.74	3,008.9	219.1	924.3	868.0	56.28	16.421	
14,000.0	11,045.9	14,125.2	11,025.8	28.4	29.5	-88.74	3,108.9	217.8	924.2	866.4	57.86	15.973	
14,100.0	11,045.7	14,225.2	11,025.6	29.2	30.3	-88.74	3,208.9	216.6	924.2	864.8	59.45	15.546	
14,200.0	11,045.6	14,325.2	11,025.5	29.9	31.1	-88.74	3,308.9	215.3	924.2	863.2	61.05	15.139	
14,300.0	11,045.4	14,425.2	11,025.3	30.7	32.0	-88.74	3,408.9	214.1	924.2	861.6	62.65	14.752	
14,400.0	11,045.2	14,525.2	11,025.2	31.5	32.8	-88.74	3,508.9	212.9	924.2	860.0	64.26	14.383	
14,500.0	11,045.1	14,625.2	11,025.0	32.3	33.6	-88.74	3,608.8	211.6	924.2	858.4	65.88	14.030	
14,600.0	11,044.9	14,725.2	11,024.9	33.1	34.4	-88.74	3,708.8	210.4	924.2	856.7	67.50	13.693	
14,700.0	11,044.8	14,825.2	11,024.7	33.9	35.3	-88.74	3,808.8	209.2	924.2	855.1	69.12	13.371	
14,800.0	11,044.6	14,925.2	11,024.6	34.7	36.1	-88.74	3,908.8	207.9	924.2	853.5	70.75	13.063	
14,900.0	11,044.4	15,025.2	11,024.4	35.5	36.9	-88.74	4,008.8	206.7	924.2	851.8	72.38	12.768	
15,000.0	11,044.3	15,125.2	11,024.3	36.3	37.8	-88.74	4,108.8	205.4	924.2	850.2	74.02	12.486	
15,100.0	11,044.1	15,225.2	11,024.1	37.1	38.6	-88.74	4,208.8	204.2	924.2	848.6	75.66	12.215	
15,200.0	11,044.0	15,325.2	11,023.9	37.9	39.4	-88.74	4,308.8	203.0	924.2	846.9	77.31	11.955	
15,300.0	11,043.8	15,425.2	11,023.8	38.7	40.3	-88.74	4,408.8	201.7	924.2	845.3	78.96	11.705	
15,400.0	11,043.7	15,525.2	11,023.6	39.5	41.1	-88.74	4,508.8	200.5	924.2	843.6	80.61	11.465	
15,500.0	11,043.5	15,625.2	11,023.5	40.4	41.9	-88.74	4,608.8	199.2	924.2	841.9	82.27	11.234	
15,600.0	11,043.3	15,725.2	11,023.3	41.2	42.8	-88.74	4,708.8	198.0	924.2	840.3	83.92	11.012	
15,700.0	11,043.2	15,825.2	11,023.2	42.0	43.6	-88.74	4,808.8	196.8	924.2	838.6	85.58	10.799	
15,800.0	11,043.0	15,925.2	11,023.0	42.8	44.5	-88.74	4,908.7	195.5	924.2	836.9	87.25	10.593	
15,882.4	11,042.9	16,007.6	11,022.9	43.5	45.2	-88.74	4,991.1	194.5	924.2	835.6	88.62	10.429	
15,882.5	11,042.9	16,007.7	11,022.9	43.5	45.2	-88.74	4,991.2	194.5	924.2	835.6	88.62	10.429	
15,903.4	11,042.9	16,035.0	11,022.9	43.7	45.4	-88.74	5,018.5	194.2	924.2	835.2	89.03	10.381	
16,000.0	11,042.7	16,132.0	11,022.7	44.5	46.2	-88.74	5,115.5	193.7	924.2	833.6	90.64	10.197	
16,100.0	11,042.6	16,232.0	11,022.6	45.3	47.0	-88.74	5,215.5	193.2	924.2	831.9	92.31	10.012	
16,200.0	11,042.4	16,332.0	11,022.4	46.1	47.9	-88.74	5,315.5	192.7	924.2	830.2	93.98	9.834	
16,300.0	11,042.3	16,432.0	11,022.3	46.9	48.7	-88.74	5,415.5	192.2	924.2	828.6	95.65	9.662	
16,400.0	11,042.1	16,532.0	11,022.1	47.8	49.6	-88.74	5,515.5	191.7	924.2	826.9	97.33	9.496	
16,500.0	11,041.9	16,632.0	11,021.9	48.6	50.4	-88.74	5,615.5	191.2	924.2	825.2	99.00	9.335	
16,600.0	11,041.8	16,732.0	11,021.8	49.4	51.3	-88.74	5,715.5	190.7	924.2	823.5	100.68	9.180	
16,700.0	11,041.6	16,832.0	11,021.6	50.3	52.1	-88.74	5,815.5	190.2	924.2	821.9	102.36	9.029	
16,800.0	11,041.5	16,932.0	11,021.5	51.1	53.0	-88.74	5,915.5	189.7	924.2	820.2	104.04	8.883	
16,900.0	11,041.3	17,032.0	11,021.3	51.9	53.8	-88.74	6,015.5	189.2	924.2	818.5	105.72	8.742	
17,000.0	11,041.2	17,132.0	11,021.2	52.8	54.7	-88.74	6,115.5	188.6	924.2	816.8	107.40	8.605	
17,100.0	11,041.0	17,232.0	11,021.0	53.6	55.5	-88.74	6,215.5	188.1	924.2	815.1	109.09	8.472	
17,200.0	11,040.9	17,332.0	11,020.9	54.4	56.4	-88.74	6,315.5	187.6	924.2	813.5	110.77	8.343	
17,300.0	11,040.7	17,432.0	11,020.7	55.3	57.2	-88.74	6,415.5	187.1	924.2	811.8	112.46	8.218	
17,400.0	11,040.6	17,532.0	11,020.6	56.1	58.1	-88.74	6,515.5	186.6	924.2	810.1	114.15	8.097	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10573-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	11,040.4	17,632.0	11,020.4	57.0	58.9	-88.74	6,615.5	186.1	924.2	808.4	115.84	7.979		
17,600.0	11,040.2	17,732.0	11,020.2	57.8	59.8	-88.74	6,715.4	185.6	924.2	806.7	117.53	7.864		
17,700.0	11,040.1	17,832.0	11,020.1	58.6	60.6	-88.74	6,815.4	185.1	924.2	805.0	119.22	7.752		
17,800.0	11,039.9	17,932.0	11,019.9	59.5	61.5	-88.74	6,915.4	184.6	924.2	803.3	120.91	7.644		
17,900.0	11,039.8	18,032.0	11,019.8	60.3	62.3	-88.74	7,015.4	184.1	924.2	801.6	122.60	7.538		
18,000.0	11,039.6	18,132.0	11,019.6	61.2	63.2	-88.74	7,115.4	183.5	924.2	799.9	124.30	7.436		
18,100.0	11,039.5	18,232.0	11,019.5	62.0	64.0	-88.74	7,215.4	183.0	924.2	798.2	125.99	7.336		
18,200.0	11,039.3	18,332.0	11,019.3	62.9	64.9	-88.74	7,315.4	182.5	924.2	796.5	127.68	7.238		
18,300.0	11,039.2	18,432.0	11,019.2	63.7	65.7	-88.74	7,415.4	182.0	924.2	794.8	129.38	7.144		
18,400.0	11,039.0	18,532.0	11,019.0	64.5	66.6	-88.74	7,515.4	181.5	924.2	793.2	131.08	7.051		
18,500.0	11,038.9	18,632.0	11,018.9	65.4	67.4	-88.74	7,615.4	181.0	924.2	791.5	132.77	6.961		
18,600.0	11,038.7	18,732.0	11,018.7	66.2	68.3	-88.74	7,715.4	180.5	924.2	789.8	134.47	6.873		
18,700.0	11,038.5	18,832.0	11,018.5	67.1	69.1	-88.74	7,815.4	180.0	924.2	788.1	136.17	6.787		
18,800.0	11,038.4	18,932.0	11,018.4	67.9	70.0	-88.74	7,915.4	179.5	924.2	786.4	137.87	6.704		
18,900.0	11,038.2	19,032.0	11,018.2	68.8	70.8	-88.74	8,015.4	179.0	924.2	784.7	139.57	6.622		
19,000.0	11,038.1	19,132.0	11,018.1	69.6	71.7	-88.74	8,115.4	178.4	924.2	783.0	141.27	6.543		
19,100.0	11,037.9	19,232.0	11,017.9	70.5	72.5	-88.74	8,215.4	177.9	924.2	781.3	142.97	6.465		
19,200.0	11,037.8	19,332.0	11,017.8	71.3	73.4	-88.74	8,315.4	177.4	924.2	779.6	144.67	6.389		
19,300.0	11,037.6	19,432.0	11,017.6	72.2	74.2	-88.74	8,415.4	176.9	924.2	777.9	146.37	6.314		
19,400.0	11,037.5	19,532.0	11,017.5	73.0	75.1	-88.74	8,515.4	176.4	924.2	776.2	148.07	6.242		
19,500.0	11,037.3	19,632.0	11,017.3	73.9	76.0	-88.74	8,615.4	175.9	924.2	774.5	149.77	6.171		
19,600.0	11,037.2	19,732.0	11,017.2	74.7	76.8	-88.74	8,715.4	175.4	924.2	772.8	151.47	6.102		
19,700.0	11,037.0	19,832.0	11,017.0	75.6	77.7	-88.74	8,815.4	174.9	924.2	771.1	153.18	6.034		
19,800.0	11,036.8	19,932.0	11,016.8	76.4	78.5	-88.74	8,915.4	174.4	924.2	769.3	154.88	5.967		
19,900.0	11,036.7	20,032.0	11,016.7	77.2	79.4	-88.74	9,015.4	173.9	924.2	767.6	156.59	5.902		
20,000.0	11,036.5	20,132.0	11,016.5	78.1	80.2	-88.74	9,115.4	173.3	924.2	765.9	158.29	5.839		
20,100.0	11,036.4	20,232.0	11,016.4	78.9	81.1	-88.74	9,215.4	172.8	924.2	764.2	159.99	5.777		
20,200.0	11,036.2	20,332.0	11,016.2	79.8	81.9	-88.74	9,315.4	172.3	924.2	762.5	161.70	5.716		
20,300.0	11,036.1	20,432.0	11,016.1	80.6	82.8	-88.74	9,415.4	171.8	924.2	760.8	163.41	5.656		
20,400.0	11,035.9	20,532.0	11,015.9	81.5	83.6	-88.74	9,515.4	171.3	924.2	759.1	165.11	5.598		
20,500.0	11,035.8	20,632.0	11,015.8	82.4	84.5	-88.74	9,615.4	170.8	924.2	757.4	166.82	5.540		
20,600.0	11,035.6	20,732.0	11,015.6	83.2	85.4	-88.74	9,715.4	170.3	924.2	755.7	168.52	5.484		
20,700.0	11,035.4	20,832.0	11,015.4	84.1	86.2	-88.74	9,815.4	169.8	924.2	754.0	170.23	5.429		
20,800.0	11,035.3	20,932.0	11,015.3	84.9	87.1	-88.74	9,915.4	169.3	924.2	752.3	171.94	5.375		
20,900.0	11,035.1	21,032.0	11,015.1	85.8	87.9	-88.74	10,015.4	168.8	924.2	750.6	173.65	5.323		
20,990.6	11,035.0	21,122.5	11,015.0	86.3	88.7	-88.74	10,106.0	168.3	924.2	749.3	174.98	5.282		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10606-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	0.7	0.7	3.0	3.0	-90.10	-0.1	-60.0	60.0				
100.0	100.0	100.7	100.7	3.0	3.0	-90.10	-0.1	-60.0	60.0	54.0	6.00	10.000	
200.0	200.0	200.7	200.7	3.0	3.0	-90.10	-0.1	-60.0	60.0	54.0	6.00	9.995	
300.0	300.0	300.7	300.7	3.0	3.0	-90.10	-0.1	-60.0	60.0	54.0	6.01	9.985	
400.0	400.0	400.7	400.7	3.0	3.0	-90.10	-0.1	-60.0	60.0	54.0	6.02	9.969	
500.0	500.0	500.7	500.7	3.1	3.1	-90.10	-0.1	-60.0	60.0	54.0	6.03	9.949	
600.0	600.0	600.7	600.7	3.1	3.1	-90.10	-0.1	-60.0	60.0	54.0	6.05	9.923	
700.0	700.0	700.7	700.7	3.1	3.1	-90.10	-0.1	-60.0	60.0	53.9	6.07	9.892	
800.0	800.0	800.7	800.7	3.2	3.2	-90.10	-0.1	-60.0	60.0	53.9	6.09	9.856	
900.0	900.0	900.7	900.7	3.2	3.2	-90.10	-0.1	-60.0	60.0	53.9	6.11	9.815	
1,000.0	1,000.0	1,000.7	1,000.7	3.2	3.2	-90.10	-0.1	-60.0	60.0	53.9	6.14	9.770	
1,100.0	1,100.0	1,100.7	1,100.7	3.3	3.3	-90.10	-0.1	-60.0	60.0	53.8	6.17	9.721	
1,200.0	1,200.0	1,200.7	1,200.7	3.4	3.4	-90.10	-0.1	-60.0	60.0	53.8	6.21	9.667	
1,300.0	1,300.0	1,300.7	1,300.7	3.4	3.4	-90.10	-0.1	-60.0	60.0	53.8	6.24	9.609	
1,400.0	1,400.0	1,400.7	1,400.7	3.5	3.5	-90.10	-0.1	-60.0	60.0	53.7	6.28	9.548	
1,500.0	1,500.0	1,500.7	1,500.7	3.5	3.5	-90.10	-0.1	-60.0	60.0	53.7	6.33	9.483	
1,600.0	1,600.0	1,600.7	1,600.7	3.6	3.6	-90.10	-0.1	-60.0	60.0	53.6	6.37	9.415	
1,700.0	1,700.0	1,700.7	1,700.7	3.7	3.7	-90.10	-0.1	-60.0	60.0	53.6	6.42	9.344	
1,800.0	1,800.0	1,800.7	1,800.7	3.8	3.8	-90.10	-0.1	-60.0	60.0	53.5	6.47	9.271	
1,900.0	1,900.0	1,900.7	1,900.7	3.9	3.9	-90.10	-0.1	-60.0	60.0	53.5	6.53	9.194	
2,000.0	2,000.0	2,000.7	2,000.7	3.9	3.9	-90.10	-0.1	-60.0	60.0	53.4	6.58	9.116	
2,100.0	2,100.0	2,100.7	2,100.7	4.0	4.0	-90.10	-0.1	-60.0	60.0	53.4	6.64	9.035	
2,200.0	2,200.0	2,200.7	2,200.7	4.1	4.1	-90.10	-0.1	-60.0	60.0	53.3	6.70	8.953	
2,300.0	2,300.0	2,300.7	2,300.7	4.2	4.2	-90.10	-0.1	-60.0	60.0	53.2	6.76	8.869	
2,400.0	2,400.0	2,400.7	2,400.7	4.3	4.3	-90.10	-0.1	-60.0	60.0	53.2	6.83	8.784	
2,416.4	2,416.4	2,417.1	2,417.1	4.3	4.3	-90.10	-0.1	-60.0	60.0	53.2	6.84	8.770 CC	
2,500.0	2,500.0	2,500.0	2,500.0	4.4	4.4	-90.10	-0.1	-60.0	60.0	53.1	6.90	8.699 ES, SF	
2,600.0	2,600.0	2,598.6	2,598.6	4.5	4.4	-175.01	-0.6	-61.6	63.4	56.4	6.97	9.099	
2,700.0	2,699.8	2,695.8	2,695.7	4.5	4.5	-176.44	-2.1	-66.4	73.6	66.5	7.05	10.439	
2,771.9	2,771.5	2,766.4	2,766.1	4.5	4.5	-177.60	-3.6	-71.4	84.6	77.5	7.11	11.892	
2,800.0	2,799.5	2,794.1	2,793.7	4.5	4.5	-177.99	-4.2	-73.4	89.3	82.1	7.14	12.503	
2,900.0	2,899.0	2,892.7	2,892.0	4.6	4.5	-179.10	-6.4	-80.4	105.9	98.7	7.24	14.636	
3,000.0	2,998.6	2,991.3	2,990.3	4.6	4.5	-179.91	-8.5	-87.4	122.7	115.3	7.35	16.698	
3,100.0	3,098.1	3,089.8	3,088.6	4.7	4.5	179.47	-10.7	-94.4	139.4	131.9	7.46	18.688	
3,200.0	3,197.7	3,188.4	3,186.9	4.7	4.6	178.99	-12.8	-101.5	156.2	148.6	7.58	20.603	
3,300.0	3,297.2	3,287.0	3,285.2	4.8	4.6	178.60	-15.0	-108.5	172.9	165.2	7.70	22.443	
3,400.0	3,396.8	3,385.6	3,383.5	4.9	4.6	178.28	-17.1	-115.5	189.7	181.8	7.84	24.206	
3,500.0	3,496.3	3,484.2	3,481.8	4.9	4.7	178.01	-19.3	-122.6	206.5	198.5	7.97	25.893	
3,600.0	3,595.9	3,582.7	3,580.1	5.0	4.7	177.78	-21.4	-129.6	223.2	215.1	8.12	27.505	
3,700.0	3,695.4	3,681.3	3,678.4	5.1	4.8	177.59	-23.6	-136.6	240.0	231.7	8.26	29.044	
3,800.0	3,795.0	3,779.9	3,776.7	5.1	4.8	177.42	-25.8	-143.7	256.8	248.4	8.42	30.510	
3,900.0	3,894.5	3,878.5	3,875.0	5.2	4.9	177.27	-27.9	-150.7	273.6	265.0	8.57	31.908	
4,000.0	3,994.1	3,977.1	3,973.3	5.3	4.9	177.13	-30.1	-157.7	290.4	281.6	8.74	33.237	
4,100.0	4,093.6	4,075.6	4,071.6	5.4	5.0	177.02	-32.2	-164.8	307.1	298.2	8.90	34.502	
4,200.0	4,193.2	4,174.2	4,170.0	5.4	5.0	176.91	-34.4	-171.8	323.9	314.9	9.07	35.705	
4,300.0	4,292.7	4,272.8	4,268.3	5.5	5.1	176.81	-36.5	-178.8	340.7	331.5	9.25	36.848	
4,400.0	4,392.3	4,371.4	4,366.6	5.6	5.2	176.73	-38.7	-185.8	357.5	348.1	9.42	37.933	
4,500.0	4,491.8	4,470.0	4,464.9	5.7	5.2	176.65	-40.9	-192.9	374.3	364.7	9.61	38.965	
4,600.0	4,591.4	4,568.5	4,563.2	5.8	5.3	176.58	-43.0	-199.9	391.1	381.3	9.79	39.944	
4,700.0	4,690.9	4,667.1	4,661.5	5.9	5.4	176.51	-45.2	-206.9	407.9	397.9	9.98	40.874	
4,800.0	4,790.5	4,765.7	4,759.8	6.0	5.5	176.45	-47.3	-214.0	424.7	414.5	10.17	41.758	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10606-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	4,890.0	4,864.3	4,858.1	6.0	5.5	176.39	-49.5	-221.0	441.5	431.1	10.36	42.597	
5,000.0	4,989.6	4,962.9	4,956.4	6.1	5.6	176.34	-51.6	-228.0	458.3	447.7	10.56	43.395	
5,100.0	5,089.1	5,061.4	5,054.7	6.2	5.7	176.29	-53.8	-235.1	475.0	464.3	10.76	44.153	
5,200.0	5,188.7	5,160.0	5,153.0	6.3	5.8	176.25	-56.0	-242.1	491.8	480.9	10.96	44.873	
5,300.0	5,288.2	5,258.6	5,251.3	6.4	5.9	176.21	-58.1	-249.1	508.6	497.5	11.16	45.558	
5,400.0	5,387.8	5,357.2	5,349.6	6.5	6.0	176.17	-60.3	-256.2	525.4	514.0	11.37	46.209	
5,500.0	5,487.3	5,455.7	5,447.9	6.6	6.0	176.13	-62.4	-263.2	542.2	530.6	11.58	46.829	
5,600.0	5,586.9	5,554.3	5,546.2	6.7	6.1	176.10	-64.6	-270.2	559.0	547.2	11.79	47.419	
5,700.0	5,686.4	5,652.9	5,644.5	6.8	6.2	176.06	-66.7	-277.2	575.8	563.8	12.00	47.980	
5,800.0	5,786.0	5,751.5	5,742.8	6.9	6.3	176.03	-68.9	-284.3	592.6	580.4	12.21	48.515	
5,900.0	5,885.5	5,850.1	5,841.1	7.0	6.4	176.00	-71.1	-291.3	609.4	597.0	12.43	49.025	
6,000.0	5,985.1	5,948.6	5,939.4	7.1	6.5	175.98	-73.2	-298.3	626.2	613.5	12.65	49.511	
6,100.0	6,084.6	6,047.2	6,037.7	7.3	6.6	175.95	-75.4	-305.4	643.0	630.1	12.87	49.975	
6,200.0	6,184.2	6,145.8	6,136.0	7.4	6.7	175.92	-77.5	-312.4	659.8	646.7	13.09	50.417	
6,300.0	6,283.7	6,244.4	6,234.3	7.5	6.8	175.90	-79.7	-319.4	676.6	663.3	13.31	50.839	
6,400.0	6,383.3	6,343.0	6,332.7	7.6	6.9	175.88	-81.8	-326.5	693.4	679.8	13.53	51.242	
6,500.0	6,482.8	6,441.5	6,431.0	7.7	7.0	175.86	-84.0	-333.5	710.2	696.4	13.76	51.627	
6,600.0	6,582.4	6,540.1	6,529.3	7.8	7.1	175.84	-86.1	-340.5	726.9	713.0	13.98	51.995	
6,700.0	6,681.9	6,638.7	6,627.6	7.9	7.2	175.82	-88.3	-347.6	743.7	729.5	14.21	52.347	
6,800.0	6,781.5	6,737.3	6,725.9	8.0	7.3	175.80	-90.5	-354.6	760.5	746.1	14.44	52.684	
6,900.0	6,881.0	6,835.9	6,824.2	8.1	7.4	175.78	-92.6	-361.6	777.3	762.7	14.66	53.006	
7,000.0	6,980.6	6,934.4	6,922.5	8.2	7.5	175.76	-94.8	-368.6	794.1	779.2	14.90	53.315	
7,100.0	7,080.1	7,033.0	7,020.8	8.4	7.6	175.75	-96.9	-375.7	810.9	795.8	15.13	53.610	
7,200.0	7,179.7	7,131.6	7,119.1	8.5	7.7	175.73	-99.1	-382.7	827.7	812.4	15.36	53.893	
7,300.0	7,279.2	7,230.2	7,217.4	8.6	7.8	175.72	-101.2	-389.7	844.5	828.9	15.59	54.165	
7,400.0	7,378.8	7,328.8	7,315.7	8.7	7.9	175.70	-103.4	-396.8	861.3	845.5	15.83	54.425	
7,500.0	7,478.3	7,427.3	7,414.0	8.8	8.0	175.69	-105.6	-403.8	878.1	862.0	16.06	54.675	
7,600.0	7,577.9	7,525.9	7,512.3	8.9	8.1	175.68	-107.7	-410.8	894.9	878.6	16.30	54.914	
7,700.0	7,677.4	7,624.5	7,610.6	9.0	8.2	175.66	-109.9	-417.9	911.7	895.2	16.53	55.145	
7,800.0	7,777.0	7,723.1	7,708.9	9.2	8.4	175.65	-112.0	-424.9	928.5	911.7	16.77	55.366	
7,900.0	7,876.5	7,821.7	7,807.2	9.3	8.5	175.64	-114.2	-431.9	945.3	928.3	17.01	55.578	
8,000.0	7,976.1	7,920.2	7,905.5	9.4	8.6	175.63	-116.3	-438.9	962.1	944.8	17.25	55.782	
8,100.0	8,075.6	8,018.8	8,003.8	9.5	8.7	175.62	-118.5	-446.0	978.9	961.4	17.49	55.978	
8,200.0	8,175.2	8,117.4	8,102.1	9.6	8.8	175.60	-120.7	-453.0	995.7	977.9	17.73	56.167	
8,300.0	8,274.7	8,216.0	8,200.4	9.8	8.9	175.59	-122.8	-460.0	1,012.5	994.5	17.97	56.348	
8,400.0	8,374.3	8,314.5	8,298.7	9.9	9.0	175.58	-125.0	-467.1	1,029.3	1,011.1	18.21	56.523	
8,500.0	8,473.8	8,413.1	8,397.0	10.0	9.1	175.57	-127.1	-474.1	1,046.1	1,027.6	18.45	56.691	
8,600.0	8,573.4	8,511.7	8,495.4	10.1	9.2	175.56	-129.3	-481.1	1,062.9	1,044.2	18.69	56.853	
8,700.0	8,672.9	8,610.3	8,593.7	10.2	9.4	175.56	-131.4	-488.2	1,079.7	1,060.7	18.94	57.009	
8,800.0	8,772.5	8,708.9	8,692.0	10.4	9.5	175.55	-133.6	-495.2	1,096.4	1,077.3	19.18	57.159	
8,900.0	8,872.0	8,807.4	8,790.3	10.5	9.6	175.54	-135.8	-502.2	1,113.2	1,093.8	19.43	57.304	
9,000.0	8,971.6	8,906.0	8,888.6	10.6	9.7	175.53	-137.9	-509.3	1,130.0	1,110.4	19.67	57.443	
9,100.0	9,071.1	9,004.6	8,986.9	10.7	9.8	175.52	-140.1	-516.3	1,146.8	1,126.9	19.92	57.578	
9,200.0	9,170.7	9,103.2	9,085.2	10.8	9.9	175.51	-142.2	-523.3	1,163.6	1,143.5	20.16	57.707	
9,300.0	9,270.2	9,201.8	9,183.5	11.0	10.0	175.51	-144.4	-530.3	1,180.4	1,160.0	20.41	57.832	
9,400.0	9,369.8	9,300.3	9,281.8	11.1	10.2	175.50	-146.5	-537.4	1,197.2	1,176.6	20.66	57.953	
9,500.0	9,469.3	9,398.9	9,380.1	11.2	10.3	175.49	-148.7	-544.4	1,214.0	1,193.1	20.91	58.070	
9,600.0	9,568.9	9,497.5	9,478.4	11.3	10.4	175.48	-150.8	-551.4	1,230.8	1,209.7	21.15	58.182	
9,700.0	9,668.4	9,596.1	9,576.7	11.5	10.5	175.48	-153.0	-558.5	1,247.6	1,226.2	21.40	58.290	
9,800.0	9,768.0	9,694.7	9,675.0	11.6	10.6	175.47	-155.2	-565.5	1,264.4	1,242.8	21.65	58.395	
9,900.0	9,867.5	9,793.2	9,773.3	11.7	10.7	175.46	-157.3	-572.5	1,281.2	1,259.3	21.90	58.496	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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, 10606-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,000.0	9,967.1	9,981.8	9,871.6	11.8	10.9	175.46	-159.5	-579.6	1,298.0	1,275.8	22.15	58.594		
10,100.0	10,066.6	9,990.4	9,969.9	11.9	11.0	175.45	-161.6	-586.6	1,314.8	1,292.4	22.40	58.688		
10,200.0	10,166.2	10,089.0	10,068.2	12.1	11.1	175.45	-163.8	-593.6	1,331.6	1,308.9	22.65	58.779		
10,300.0	10,265.7	10,187.6	10,166.5	12.2	11.2	175.44	-165.9	-600.7	1,348.4	1,325.5	22.91	58.867		
10,400.0	10,365.3	10,286.1	10,264.8	12.3	11.3	175.43	-168.1	-607.7	1,365.2	1,342.0	23.16	58.952		
10,500.0	10,464.8	10,384.7	10,363.1	12.5	11.5	175.43	-170.3	-614.7	1,382.0	1,358.6	23.41	59.034		
10,600.0	10,564.4	10,483.3	10,461.4	12.5	11.6	175.42	-172.4	-621.7	1,398.8	1,375.1	23.68	59.073		
10,630.6	10,594.8	10,513.4	10,491.5	12.6	11.6	175.42	-173.1	-623.9	1,403.9	1,380.2	23.72	59.181		
10,650.0	10,614.1	10,532.5	10,510.6	12.6	11.6	-166.56	-173.5	-625.3	1,407.4	1,383.6	23.75	59.254		
10,675.0	10,638.9	10,557.0	10,534.9	12.6	11.7	-152.71	-174.0	-627.0	1,412.4	1,388.6	23.79	59.367		
10,700.0	10,663.4	10,581.2	10,559.1	12.6	11.7	-144.56	-174.6	-628.7	1,418.1	1,394.3	23.83	59.503		
10,725.0	10,687.8	10,605.1	10,582.9	12.6	11.7	-139.25	-175.1	-630.4	1,424.5	1,400.6	23.88	59.662		
10,750.0	10,711.8	10,652.9	10,630.6	12.6	11.8	-135.59	-173.8	-633.9	1,431.3	1,407.4	23.84	60.048		
10,775.0	10,735.5	10,702.8	10,679.9	12.6	11.8	-132.73	-167.4	-637.5	1,438.3	1,414.5	23.80	60.442		
10,800.0	10,758.7	10,753.4	10,728.9	12.6	11.8	-130.31	-155.7	-641.2	1,445.4	1,421.7	23.78	60.795		
10,825.0	10,781.4	10,804.2	10,776.7	12.6	11.8	-128.14	-138.8	-644.8	1,452.7	1,429.0	23.78	61.103		
10,850.0	10,803.5	10,855.0	10,822.3	12.7	11.8	-126.11	-116.9	-648.4	1,460.2	1,436.4	23.79	61.367		
10,875.0	10,825.0	10,905.1	10,864.8	12.7	11.8	-124.15	-90.6	-651.7	1,467.7	1,443.9	23.83	61.592		
10,900.0	10,845.8	10,954.2	10,903.6	12.7	11.9	-122.23	-60.6	-654.9	1,475.4	1,451.5	23.88	61.789		
10,925.0	10,865.9	11,002.1	10,938.3	12.7	11.9	-120.31	-27.7	-657.8	1,483.2	1,459.2	23.93	61.968		
10,950.0	10,885.2	11,048.5	10,968.6	12.8	12.0	-118.40	7.3	-660.4	1,491.1	1,467.1	24.00	62.137		
10,975.0	10,903.6	11,093.2	10,994.4	12.8	12.0	-116.49	43.7	-662.7	1,499.1	1,475.1	24.06	62.301		
11,000.0	10,921.1	11,136.3	11,015.9	12.8	12.1	-114.57	80.9	-664.7	1,507.3	1,483.2	24.13	62.464		
11,025.0	10,937.7	11,177.5	11,033.4	12.8	12.1	-112.65	118.2	-666.4	1,515.6	1,491.4	24.20	62.627		
11,050.0	10,953.2	11,217.0	11,047.0	12.9	12.2	-110.74	155.3	-667.9	1,524.0	1,499.7	24.27	62.785		
11,075.0	10,967.8	11,254.9	11,057.2	12.9	12.2	-108.83	191.7	-669.1	1,532.6	1,508.2	24.35	62.939		
11,100.0	10,981.2	11,291.3	11,064.2	12.9	12.3	-106.93	227.3	-670.0	1,541.3	1,516.8	24.43	63.082		
11,125.0	10,993.6	11,326.1	11,068.4	13.0	12.4	-105.05	261.9	-670.8	1,550.0	1,525.5	24.52	63.213		
11,150.0	11,004.8	11,359.6	11,070.0	13.0	12.5	-103.18	295.4	-671.3	1,558.9	1,534.3	24.62	63.328		
11,175.0	11,014.8	11,383.1	11,070.0	13.0	12.5	-101.50	318.9	-671.6	1,567.9	1,543.2	24.71	63.461		
11,200.0	11,023.6	11,404.5	11,070.0	13.1	12.6	-99.88	340.3	-671.9	1,577.1	1,552.3	24.80	63.588		
11,225.0	11,031.2	11,426.3	11,069.9	13.1	12.6	-98.30	362.1	-672.1	1,586.5	1,561.6	24.91	63.685		
11,250.0	11,037.5	11,448.5	11,069.9	13.1	12.7	-96.77	384.3	-672.4	1,595.9	1,570.9	25.02	63.773		
11,275.0	11,042.5	11,471.0	11,069.9	13.2	12.8	-95.28	406.8	-672.7	1,605.4	1,580.3	25.14	63.853		
11,300.0	11,046.3	11,493.8	11,069.8	13.2	12.8	-93.86	429.5	-673.0	1,615.0	1,589.7	25.26	63.923		
11,325.0	11,048.8	11,516.7	11,069.8	13.2	12.9	-92.50	452.5	-673.2	1,624.5	1,599.1	25.40	63.965		
11,350.0	11,049.9	11,539.8	11,069.8	13.2	13.0	-91.21	475.6	-673.5	1,633.9	1,608.4	25.53	63.992		
11,360.7	11,050.0	11,549.8	11,069.8	13.3	13.0	-90.68	485.5	-673.7	1,638.0	1,612.4	25.59	64.001		
11,400.0	11,050.0	11,586.3	11,069.7	13.3	13.2	-90.67	522.0	-674.1	1,652.5	1,626.7	25.82	64.011		
11,500.0	11,049.8	11,680.0	11,069.6	13.5	13.5	-90.65	615.8	-675.3	1,687.2	1,660.7	26.46	63.758		
11,600.0	11,049.7	11,775.0	11,069.4	13.7	13.9	-90.64	710.7	-676.4	1,718.6	1,691.4	27.19	63.194		
11,700.0	11,049.5	11,871.0	11,069.3	13.9	14.4	-90.62	806.7	-677.6	1,746.6	1,718.6	28.01	62.357		
11,800.0	11,049.3	11,967.9	11,069.1	14.2	14.9	-90.61	903.6	-678.8	1,771.3	1,742.4	28.90	61.287		
11,900.0	11,049.2	12,065.6	11,069.0	14.6	15.4	-90.60	1,001.3	-680.1	1,792.6	1,762.7	29.86	60.026		
12,000.0	11,049.0	12,164.0	11,068.8	15.0	15.9	-90.60	1,099.7	-681.3	1,810.5	1,779.6	30.89	58.611		
12,100.0	11,048.9	12,262.9	11,068.7	15.5	16.5	-90.59	1,198.6	-682.5	1,824.9	1,792.9	31.97	57.075		
12,200.0	11,048.7	12,362.3	11,068.5	16.0	17.1	-90.59	1,298.0	-683.7	1,835.9	1,802.8	33.11	55.448		
12,300.0	11,048.5	12,462.0	11,068.4	16.6	17.7	-90.59	1,397.7	-685.0	1,843.4	1,809.1	34.29	53.754		
12,400.0	11,048.4	12,561.9	11,068.2	17.2	18.4	-90.59	1,497.6	-686.2	1,847.4	1,811.8	35.52	52.016		
12,464.8	11,048.3	12,626.7	11,068.1	17.6	18.8	-90.59	1,562.4	-687.0	1,848.1	1,811.8	36.33	50.876		
12,500.0	11,048.2	12,661.9	11,068.1	17.8	19.0	-90.59	1,597.6	-687.4	1,848.1	1,811.3	36.77	50.260		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 #803H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10606-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		
12,600.0	11,048.1	12,761.9	11,067.9	18.4	19.7	-90.59	1,697.6	-688.7	1,848.1	1,810.0	38.07	48.549		
12,700.0	11,047.9	12,861.9	11,067.8	19.0	20.4	-90.59	1,797.6	-689.9	1,848.1	1,808.7	39.39	46.913		
12,800.0	11,047.8	12,961.9	11,067.6	19.7	21.1	-90.59	1,897.6	-691.2	1,848.1	1,807.3	40.75	45.349		
12,900.0	11,047.6	13,061.9	11,067.5	20.3	21.8	-90.59	1,997.6	-692.4	1,848.1	1,805.9	42.14	43.859		
13,000.0	11,047.4	13,161.9	11,067.3	21.0	22.6	-90.59	2,097.6	-693.6	1,848.1	1,804.5	43.55	42.440		
13,100.0	11,047.3	13,261.9	11,067.2	21.7	23.3	-90.59	2,197.5	-694.9	1,848.1	1,803.1	44.98	41.090		
13,200.0	11,047.1	13,361.9	11,067.0	22.4	24.1	-90.59	2,297.5	-696.1	1,848.1	1,801.7	46.43	39.805		
13,300.0	11,047.0	13,461.9	11,066.8	23.1	24.8	-90.59	2,397.5	-697.4	1,848.1	1,800.2	47.90	38.584		
13,400.0	11,046.8	13,561.9	11,066.7	23.9	25.6	-90.59	2,497.5	-698.6	1,848.1	1,798.7	49.38	37.424		
13,500.0	11,046.7	13,661.9	11,066.5	24.6	26.3	-90.59	2,597.5	-699.8	1,848.1	1,797.2	50.88	36.320		
13,600.0	11,046.5	13,761.9	11,066.4	25.3	27.1	-90.60	2,697.5	-701.1	1,848.1	1,795.7	52.40	35.270		
13,700.0	11,046.3	13,861.9	11,066.2	26.1	27.9	-90.60	2,797.5	-702.3	1,848.1	1,794.1	53.93	34.271		
13,800.0	11,046.2	13,961.9	11,066.1	26.8	28.7	-90.60	2,897.5	-703.6	1,848.1	1,792.6	55.46	33.320		
13,900.0	11,046.0	14,061.9	11,065.9	27.6	29.5	-90.60	2,997.5	-704.8	1,848.1	1,791.1	57.01	32.415		
14,000.0	11,045.9	14,161.9	11,065.8	28.4	30.2	-90.60	3,097.5	-706.1	1,848.1	1,789.5	58.57	31.552		
14,100.0	11,045.7	14,261.9	11,065.6	29.2	31.0	-90.60	3,197.5	-707.3	1,848.1	1,787.9	60.14	30.729		
14,200.0	11,045.6	14,361.9	11,065.5	29.9	31.8	-90.60	3,297.5	-708.5	1,848.1	1,786.3	61.72	29.944		
14,300.0	11,045.4	14,461.9	11,065.3	30.7	32.6	-90.60	3,397.5	-709.8	1,848.1	1,784.8	63.30	29.195		
14,400.0	11,045.2	14,561.9	11,065.2	31.5	33.4	-90.60	3,497.4	-711.0	1,848.1	1,783.2	64.89	28.479		
14,500.0	11,045.1	14,661.9	11,065.0	32.3	34.2	-90.60	3,597.4	-712.3	1,848.1	1,781.6	66.49	27.794		
14,600.0	11,044.9	14,761.9	11,064.9	33.1	35.1	-90.60	3,697.4	-713.5	1,848.1	1,780.0	68.09	27.140		
14,700.0	11,044.8	14,861.9	11,064.7	33.9	35.9	-90.60	3,797.4	-714.7	1,848.1	1,778.4	69.70	26.513		
14,800.0	11,044.6	14,961.9	11,064.6	34.7	36.7	-90.60	3,897.4	-716.0	1,848.1	1,776.7	71.32	25.912		
14,900.0	11,044.4	15,061.9	11,064.4	35.5	37.5	-90.60	3,997.4	-717.2	1,848.1	1,775.1	72.94	25.337		
15,000.0	11,044.3	15,161.9	11,064.3	36.3	38.3	-90.60	4,097.4	-718.5	1,848.1	1,773.5	74.56	24.785		
15,100.0	11,044.1	15,261.9	11,064.1	37.1	39.1	-90.60	4,197.4	-719.7	1,848.1	1,771.9	76.19	24.255		
15,200.0	11,044.0	15,361.9	11,064.0	37.9	40.0	-90.60	4,297.4	-720.9	1,848.1	1,770.2	77.83	23.746		
15,300.0	11,043.8	15,461.9	11,063.8	38.7	40.8	-90.60	4,397.4	-722.2	1,848.0	1,768.6	79.46	23.256		
15,400.0	11,043.7	15,561.9	11,063.7	39.5	41.6	-90.60	4,497.4	-723.4	1,848.0	1,766.9	81.10	22.786		
15,500.0	11,043.5	15,661.9	11,063.5	40.4	42.4	-90.60	4,597.4	-724.7	1,848.0	1,765.3	82.75	22.333		
15,600.0	11,043.3	15,761.9	11,063.4	41.2	43.3	-90.60	4,697.3	-725.9	1,848.0	1,763.6	84.40	21.897		
15,700.0	11,043.2	15,861.9	11,063.2	42.0	44.1	-90.60	4,797.3	-727.1	1,848.0	1,762.0	86.05	21.477		
15,800.0	11,043.0	15,961.9	11,063.0	42.8	44.9	-90.60	4,897.3	-728.4	1,848.0	1,760.3	87.70	21.072		
15,882.4	11,042.9	16,044.3	11,062.9	43.5	45.6	-90.60	4,979.7	-729.4	1,848.0	1,759.0	89.06	20.750		
15,882.4	11,042.9	16,044.3	11,062.9	43.5	45.6	-90.60	4,979.8	-729.4	1,848.0	1,759.0	89.06	20.750		
15,903.4	11,042.9	16,076.3	11,062.9	43.7	45.9	-90.60	5,011.7	-729.7	1,848.1	1,758.6	89.51	20.646		
16,000.0	11,042.7	16,175.4	11,062.7	44.5	46.7	-90.60	5,110.8	-730.2	1,848.1	1,757.0	91.14	20.278		
16,100.0	11,042.6	16,275.4	11,062.6	45.3	47.5	-90.60	5,210.8	-730.8	1,848.1	1,755.3	92.80	19.916		
16,200.0	11,042.4	16,375.4	11,062.4	46.1	48.4	-90.60	5,310.8	-731.3	1,848.1	1,753.6	94.46	19.565		
16,300.0	11,042.3	16,475.4	11,062.3	46.9	49.2	-90.60	5,410.8	-731.8	1,848.1	1,752.0	96.12	19.226		
16,400.0	11,042.1	16,575.4	11,062.1	47.8	50.0	-90.60	5,510.8	-732.3	1,848.1	1,750.3	97.79	18.899		
16,500.0	11,041.9	16,675.4	11,061.9	48.6	50.9	-90.60	5,610.8	-732.8	1,848.1	1,748.6	99.46	18.582		
16,600.0	11,041.8	16,775.4	11,061.8	49.4	51.7	-90.60	5,710.8	-733.3	1,848.1	1,747.0	101.13	18.275		
16,700.0	11,041.6	16,875.4	11,061.6	50.3	52.6	-90.60	5,810.8	-733.8	1,848.1	1,745.3	102.80	17.978		
16,800.0	11,041.5	16,975.4	11,061.5	51.1	53.4	-90.60	5,910.8	-734.3	1,848.1	1,743.6	104.47	17.690		
16,900.0	11,041.3	17,075.4	11,061.3	51.9	54.2	-90.60	6,010.8	-734.8	1,848.1	1,742.0	106.15	17.411		
17,000.0	11,041.2	17,175.4	11,061.2	52.8	55.1	-90.60	6,110.8	-735.3	1,848.1	1,740.3	107.83	17.140		
17,100.0	11,041.0	17,275.4	11,061.0	53.6	55.9	-90.60	6,210.8	-735.9	1,848.1	1,738.6	109.50	16.877		
17,200.0	11,040.9	17,375.4	11,060.9	54.4	56.8	-90.60	6,310.8	-736.4	1,848.1	1,736.9	111.18	16.622		
17,300.0	11,040.7	17,475.4	11,060.7	55.3	57.6	-90.60	6,410.8	-736.9	1,848.1	1,735.2	112.86	16.375		
17,400.0	11,040.6	17,575.4	11,060.6	56.1	58.4	-90.60	6,510.8	-737.4	1,848.1	1,733.6	114.54	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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 #803H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10606-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	
17,500.0	11,040.4	17,675.4	11,060.4	57.0	59.3	-90.60	6,610.8	-737.9	1,848.1	1,731.9	116.23	15.901		
17,600.0	11,040.2	17,775.4	11,060.2	57.8	60.1	-90.60	6,710.8	-738.4	1,848.1	1,730.2	117.91	15.674		
17,700.0	11,040.1	17,875.4	11,060.1	58.6	61.0	-90.60	6,810.8	-738.9	1,848.1	1,728.5	119.60	15.453		
17,800.0	11,039.9	17,975.4	11,059.9	59.5	61.8	-90.60	6,910.8	-739.4	1,848.1	1,726.8	121.28	15.238		
17,900.0	11,039.8	18,075.4	11,059.8	60.3	62.7	-90.60	7,010.8	-739.9	1,848.1	1,725.1	122.97	15.029		
18,000.0	11,039.6	18,175.4	11,059.6	61.2	63.5	-90.60	7,110.8	-740.4	1,848.1	1,723.5	124.66	14.825		
18,100.0	11,039.5	18,275.4	11,059.5	62.0	64.4	-90.60	7,210.8	-741.0	1,848.1	1,721.8	126.35	14.627		
18,200.0	11,039.3	18,375.4	11,059.3	62.9	65.2	-90.60	7,310.8	-741.5	1,848.1	1,720.1	128.04	14.434		
18,300.0	11,039.2	18,475.4	11,059.2	63.7	66.1	-90.60	7,410.8	-742.0	1,848.1	1,718.4	129.73	14.246		
18,400.0	11,039.0	18,575.4	11,059.0	64.5	66.9	-90.60	7,510.8	-742.5	1,848.1	1,716.7	131.42	14.063		
18,500.0	11,038.9	18,675.4	11,058.9	65.4	67.7	-90.60	7,610.8	-743.0	1,848.1	1,715.0	133.11	13.884		
18,600.0	11,038.7	18,775.4	11,058.7	66.2	68.6	-90.60	7,710.8	-743.5	1,848.1	1,713.3	134.81	13.709		
18,700.0	11,038.5	18,875.4	11,058.5	67.1	69.4	-90.60	7,810.8	-744.0	1,848.1	1,711.6	136.50	13.539		
18,800.0	11,038.4	18,975.4	11,058.4	67.9	70.3	-90.60	7,910.8	-744.5	1,848.1	1,709.9	138.20	13.373		
18,900.0	11,038.2	19,075.4	11,058.2	68.8	71.1	-90.60	8,010.8	-745.0	1,848.1	1,708.2	139.89	13.211		
19,000.0	11,038.1	19,175.4	11,058.1	69.6	72.0	-90.60	8,110.8	-745.5	1,848.1	1,706.5	141.59	13.053		
19,100.0	11,037.9	19,275.4	11,057.9	70.5	72.8	-90.60	8,210.8	-746.1	1,848.1	1,704.8	143.28	12.898		
19,200.0	11,037.8	19,375.4	11,057.8	71.3	73.7	-90.60	8,310.8	-746.6	1,848.1	1,703.1	144.98	12.747		
19,300.0	11,037.6	19,475.4	11,057.6	72.2	74.5	-90.60	8,410.8	-747.1	1,848.1	1,701.4	146.68	12.600		
19,400.0	11,037.5	19,575.4	11,057.5	73.0	75.4	-90.60	8,510.8	-747.6	1,848.1	1,699.7	148.38	12.456		
19,500.0	11,037.3	19,675.4	11,057.3	73.9	76.2	-90.60	8,610.8	-748.1	1,848.1	1,698.0	150.08	12.315		
19,600.0	11,037.2	19,775.4	11,057.2	74.7	77.1	-90.60	8,710.8	-748.6	1,848.1	1,696.3	151.78	12.177		
19,700.0	11,037.0	19,875.4	11,057.0	75.6	77.9	-90.60	8,810.8	-749.1	1,848.1	1,694.6	153.48	12.042		
19,800.0	11,036.8	19,975.4	11,056.8	76.4	78.8	-90.60	8,910.8	-749.6	1,848.1	1,692.9	155.18	11.910		
19,900.0	11,036.7	20,075.4	11,056.7	77.2	79.6	-90.60	9,010.8	-750.1	1,848.1	1,691.2	156.88	11.781		
20,000.0	11,036.5	20,175.4	11,056.5	78.1	80.5	-90.60	9,110.8	-750.6	1,848.1	1,689.5	158.58	11.654		
20,100.0	11,036.4	20,275.4	11,056.4	78.9	81.3	-90.60	9,210.8	-751.2	1,848.1	1,687.8	160.28	11.531		
20,200.0	11,036.2	20,375.4	11,056.2	79.8	82.2	-90.60	9,310.8	-751.7	1,848.1	1,686.1	161.98	11.409		
20,300.0	11,036.1	20,475.4	11,056.1	80.6	83.1	-90.60	9,410.8	-752.2	1,848.1	1,684.4	163.68	11.291		
20,400.0	11,035.9	20,575.4	11,055.9	81.5	83.9	-90.60	9,510.8	-752.7	1,848.1	1,682.7	165.39	11.174		
20,500.0	11,035.8	20,675.4	11,055.8	82.4	84.8	-90.60	9,610.8	-753.2	1,848.1	1,681.0	167.09	11.061		
20,600.0	11,035.6	20,775.4	11,055.6	83.2	85.6	-90.60	9,710.8	-753.7	1,848.1	1,679.3	168.80	10.949		
20,700.0	11,035.4	20,875.4	11,055.4	84.1	86.5	-90.60	9,810.8	-754.2	1,848.1	1,677.6	170.50	10.839		
20,800.0	11,035.3	20,975.4	11,055.3	84.9	87.3	-90.60	9,910.8	-754.7	1,848.1	1,675.9	172.20	10.732		
20,900.0	11,035.1	21,075.4	11,055.1	85.8	88.2	-90.60	10,010.7	-755.2	1,848.1	1,674.2	173.91	10.627		
20,990.6	11,035.0	21,166.0	11,055.0	86.3	88.9	-90.60	10,101.3	-755.7	1,848.1	1,672.9	175.24	10.546		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 504H - OWB - AWP											Offset Site Error:	0.0 usft
Survey Program:		139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR											Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	91.07	-8.8	470.2	470.3					
100.0	100.0	96.4	96.4	3.0	3.0	91.11	-9.1	470.3	470.4	464.4	6.00	78.350		
200.0	200.0	194.7	194.7	3.0	3.0	91.21	-9.9	470.5	470.7	464.6	6.03	78.079		
300.0	300.0	292.5	292.5	3.0	3.1	91.26	-10.4	471.3	471.4	465.3	6.10	77.333		
400.0	400.0	386.0	385.9	3.0	3.2	91.26	-10.4	472.7	472.9	466.7	6.20	76.339		
500.0	500.0	477.9	477.8	3.1	3.3	91.19	-9.9	475.7	476.1	469.8	6.32	75.303		
600.0	600.0	573.5	573.3	3.1	3.5	91.03	-8.7	480.1	480.7	474.3	6.49	74.117		
700.0	700.0	671.6	671.2	3.1	3.7	90.74	-6.3	485.3	486.0	479.3	6.68	72.728		
800.0	800.0	775.8	775.3	3.2	3.9	90.36	-3.1	490.4	490.9	484.0	6.92	70.936		
900.0	900.0	890.4	889.8	3.2	4.2	89.99	0.1	494.5	494.5	487.3	7.21	68.630		
1,000.0	1,000.0	1,023.0	1,022.2	3.2	4.5	90.13	-1.1	490.6	491.2	483.7	7.53	65.235		
1,100.0	1,100.0	1,123.3	1,122.4	3.3	4.7	90.26	-2.2	485.2	485.9	478.1	7.80	62.297		
1,200.0	1,200.0	1,207.8	1,206.8	3.4	5.0	90.26	-2.1	481.8	481.9	473.9	8.05	59.853		
1,258.0	1,258.0	1,256.1	1,255.1	3.4	5.1	90.15	-1.3	481.4	481.4	473.2	8.20	58.720		
1,300.0	1,300.0	1,293.9	1,292.9	3.4	5.2	90.05	-0.4	481.6	481.6	473.3	8.31	57.927		
1,400.0	1,400.0	1,390.8	1,389.8	3.5	5.5	89.71	2.4	483.0	483.1	474.5	8.61	56.079		
1,500.0	1,500.0	1,493.1	1,492.0	3.5	5.8	89.37	5.3	484.3	484.4	475.4	8.94	54.172		
1,600.0	1,600.0	1,594.0	1,592.8	3.6	6.1	89.05	8.0	485.2	485.3	476.0	9.27	52.342		
1,700.0	1,700.0	1,694.8	1,693.6	3.7	6.4	88.80	10.2	486.0	486.1	476.5	9.61	50.591		
1,800.0	1,800.0	1,796.4	1,795.3	3.8	6.7	88.60	11.9	486.5	486.7	476.7	9.95	48.891		
1,900.0	1,900.0	1,899.2	1,898.1	3.9	7.1	88.44	13.2	486.6	486.8	476.5	10.31	47.225		
2,000.0	2,000.0	1,999.0	1,997.8	3.9	7.4	88.31	14.4	486.4	486.6	475.9	10.65	45.706		
2,031.2	2,031.2	2,029.5	2,028.3	4.0	7.4	88.27	14.7	486.3	486.6	475.9	10.70	45.453		
2,100.0	2,100.0	2,096.8	2,095.6	4.0	7.5	88.19	15.4	486.4	486.7	475.9	10.82	44.975		
2,200.0	2,200.0	2,195.2	2,194.0	4.1	7.5	88.07	16.4	486.8	487.1	476.2	10.87	44.812		
2,300.0	2,300.0	2,289.9	2,288.7	4.2	7.6	88.00	17.0	487.8	488.2	477.3	10.93	44.651		
2,400.0	2,400.0	2,381.5	2,380.3	4.3	7.6	88.00	17.2	490.4	491.0	480.0	11.01	44.596		
2,500.0	2,500.0	2,491.8	2,490.5	4.4	7.7	88.14	16.0	493.1	493.4	482.3	11.12	44.384		
2,600.0	2,600.0	2,598.2	2,596.9	4.5	7.8	4.18	13.1	493.5	492.0	480.7	11.24	43.774		
2,700.0	2,699.8	2,697.6	2,696.2	4.5	7.9	4.61	9.9	493.9	487.0	475.6	11.37	42.823		
2,771.9	2,771.5	2,769.3	2,767.9	4.5	7.9	4.98	7.3	493.9	481.1	469.6	11.48	41.907		
2,800.0	2,799.5	2,795.2	2,793.8	4.5	8.0	5.12	6.4	494.0	478.5	467.0	11.52	41.531		
2,900.0	2,899.0	2,891.9	2,890.4	4.6	8.1	5.66	2.8	495.1	470.2	458.5	11.69	40.232		
3,000.0	2,998.6	2,993.2	2,991.7	4.6	8.2	6.21	-0.6	496.2	461.9	450.0	11.88	38.879		
3,100.0	3,098.1	3,094.8	3,093.2	4.7	8.4	6.74	-3.8	496.8	453.1	441.0	12.08	37.503		
3,200.0	3,197.7	3,202.0	3,200.4	4.7	8.6	7.28	-6.8	496.5	443.5	431.2	12.31	36.035		
3,300.0	3,297.2	3,307.4	3,305.6	4.8	8.7	7.83	-9.5	494.3	432.1	419.5	12.54	34.451		
3,400.0	3,396.8	3,405.2	3,403.4	4.9	8.9	8.37	-12.1	491.7	420.2	407.4	12.78	32.883		
3,500.0	3,496.3	3,504.1	3,502.2	4.9	9.1	8.93	-14.7	489.4	408.7	395.6	13.03	31.360		
3,600.0	3,595.9	3,603.1	3,601.2	5.0	9.3	9.47	-16.8	487.2	397.2	383.9	13.29	29.877		
3,700.0	3,695.4	3,702.1	3,700.1	5.1	9.5	10.01	-18.7	485.1	385.9	372.3	13.57	28.439		
3,800.0	3,795.0	3,801.7	3,799.7	5.1	9.7	10.59	-20.7	482.9	374.5	360.7	13.85	27.035		
3,900.0	3,894.5	3,900.0	3,897.9	5.2	10.0	11.13	-22.2	480.9	363.3	349.2	14.14	25.688		
4,000.0	3,994.1	3,998.7	3,996.7	5.3	10.2	11.64	-23.4	479.2	352.4	338.0	14.45	24.395		
4,100.0	4,093.6	4,097.8	4,095.7	5.4	10.4	12.18	-24.5	477.5	341.6	326.9	14.76	23.152		
4,200.0	4,193.2	4,197.1	4,195.0	5.4	10.7	12.75	-25.6	476.0	331.0	315.9	15.07	21.956		
4,300.0	4,292.7	4,296.8	4,294.7	5.5	10.9	13.35	-26.7	474.4	320.3	304.9	15.40	20.797		
4,400.0	4,392.3	4,396.4	4,394.3	5.6	11.2	14.01	-27.9	472.6	309.5	293.8	15.73	19.675		
4,500.0	4,491.8	4,495.9	4,493.8	5.7	11.5	14.74	-29.1	470.8	298.7	282.6	16.07	18.591		
4,600.0	4,591.4	4,595.4	4,593.2	5.8	11.7	15.50	-30.2	469.0	287.9	271.5	16.41	17.548		
4,700.0	4,690.9	4,695.1	4,692.9	5.9	12.0	16.32	-31.3	467.1	277.1	260.4	16.75	16.540		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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: 139-MWD+IFR1+FDIR, 2087-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	4,790.5	4,794.7	4,792.5	6.0	12.3	17.25	-32.6	465.0	266.2	249.1	17.10	15.567	
4,900.0	4,890.0	4,894.7	4,892.4	6.0	12.6	18.30	-34.0	462.7	255.2	237.8	17.45	14.625	
5,000.0	4,989.6	4,994.1	4,991.8	6.1	12.9	19.50	-35.6	460.1	244.2	226.4	17.80	13.715	
5,100.0	5,089.1	5,094.8	5,092.4	6.2	13.1	20.88	-37.4	457.3	232.9	214.8	18.16	12.828	
5,200.0	5,188.7	5,193.3	5,190.9	6.3	13.4	22.40	-39.2	454.2	221.6	203.1	18.51	11.975	
5,300.0	5,288.2	5,293.4	5,290.8	6.4	13.7	24.18	-41.2	450.9	210.5	191.6	18.86	11.159	
5,400.0	5,387.8	5,392.7	5,390.1	6.5	14.0	26.26	-43.5	447.3	199.2	180.0	19.21	10.373	
5,500.0	5,487.3	5,491.4	5,488.7	6.6	14.3	28.61	-46.0	443.8	188.3	168.8	19.55	9.635	
5,600.0	5,586.9	5,589.8	5,587.0	6.7	14.6	31.20	-48.5	440.5	178.1	158.3	19.89	8.958	
5,700.0	5,686.4	5,688.6	5,685.8	6.8	14.9	34.12	-51.1	437.5	168.7	148.4	20.23	8.338	
5,800.0	5,786.0	5,788.2	5,785.3	6.9	15.3	37.42	-53.9	434.4	159.6	139.1	20.58	7.759	
5,900.0	5,885.5	5,887.9	5,884.8	7.0	15.6	41.28	-56.8	430.7	150.8	129.9	20.92	7.207	
6,000.0	5,985.1	5,987.0	5,983.8	7.1	15.9	45.67	-59.7	426.8	142.6	121.3	21.28	6.700	
6,100.0	6,084.6	6,085.9	6,082.6	7.3	16.2	50.56	-62.7	422.8	135.3	113.6	21.65	6.246	
6,200.0	6,184.2	6,184.5	6,181.1	7.4	16.5	55.93	-65.8	419.0	129.3	107.2	22.06	5.861	
6,300.0	6,283.7	6,283.3	6,279.7	7.5	16.8	61.63	-69.0	415.6	124.9	102.4	22.49	5.551	
6,400.0	6,383.3	6,382.2	6,378.5	7.6	17.1	67.45	-72.1	412.7	121.9	99.0	22.97	5.308	
6,500.0	6,482.8	6,481.1	6,477.4	7.7	17.5	73.41	-75.3	410.0	120.6	97.1	23.50	5.131	
6,545.3	6,527.9	6,526.0	6,522.3	7.7	17.6	76.10	-76.8	408.9	120.4	96.7	23.74	5.072 CC	
6,600.0	6,582.4	6,580.4	6,576.6	7.8	17.8	79.29	-78.5	407.7	120.6	96.6	24.05	5.015 ES	
6,700.0	6,681.9	6,679.9	6,676.0	7.9	18.1	85.18	-81.6	405.2	121.7	97.1	24.63	4.942	
6,800.0	6,781.5	6,779.1	6,775.1	8.0	18.4	91.75	-84.7	400.9	124.1	98.8	25.26	4.913 SF	
6,900.0	6,881.0	6,879.0	6,874.7	8.1	18.8	98.69	-87.5	395.1	127.7	101.8	25.91	4.930	
7,000.0	6,980.6	6,978.6	6,974.2	8.2	19.1	105.03	-89.5	389.6	132.3	105.8	26.54	4.986	
7,100.0	7,080.1	7,076.4	7,071.8	8.4	19.4	110.33	-91.8	385.4	138.5	111.3	27.14	5.103	
7,200.0	7,179.7	7,173.8	7,169.1	8.5	19.7	114.86	-95.3	381.4	146.8	119.1	27.70	5.298	
7,300.0	7,279.2	7,273.3	7,268.5	8.6	20.1	118.84	-99.2	377.7	156.1	127.8	28.25	5.525	
7,400.0	7,378.8	7,370.8	7,365.8	8.7	20.4	122.61	-103.2	372.9	166.7	137.9	28.78	5.793	
7,500.0	7,478.3	7,473.9	7,468.7	8.8	20.7	126.15	-106.2	368.4	176.8	147.5	29.31	6.033	
7,600.0	7,577.9	7,571.6	7,566.4	8.9	21.1	129.22	-108.0	364.5	186.4	156.6	29.81	6.252	
7,700.0	7,677.4	7,665.0	7,659.5	9.0	21.4	132.06	-111.3	358.8	198.9	168.6	30.30	6.564	
7,800.0	7,777.0	7,761.9	7,756.1	9.2	21.7	134.65	-115.8	352.0	213.4	182.6	30.79	6.931	
7,900.0	7,876.5	7,860.8	7,854.6	9.3	22.1	136.99	-120.8	344.5	228.9	197.7	31.27	7.320	
8,000.0	7,976.1	7,968.7	7,962.2	9.4	22.4	139.26	-124.5	337.9	242.7	211.0	31.76	7.644	
8,100.0	8,075.6	8,061.1	8,054.1	9.5	22.8	143.04	-119.2	329.5	252.2	220.0	32.23	7.824	
8,200.0	8,175.2	8,169.2	8,163.8	9.6	23.2	149.54	-98.4	319.1	255.5	222.9	32.65	7.826	
8,300.0	8,274.7	8,311.3	8,297.1	9.8	23.5	157.49	-67.6	310.1	255.8	222.8	33.02	7.748	
8,358.0	8,332.4	8,371.0	8,352.6	9.8	23.7	162.68	-45.9	305.8	255.2	222.0	33.21	7.686	
8,400.0	8,374.3	8,408.0	8,386.0	9.9	23.8	166.38	-30.5	302.5	256.0	222.6	33.35	7.674	
8,500.0	8,473.8	8,487.8	8,457.7	10.0	24.0	174.38	3.3	293.3	265.2	231.5	33.67	7.877	
8,600.0	8,573.4	8,575.4	8,536.3	10.1	24.3	-177.45	40.4	281.4	283.6	249.7	33.91	8.364	
8,700.0	8,672.9	8,651.1	8,601.9	10.2	24.5	-170.39	76.3	270.3	309.8	275.7	34.15	9.072	
8,800.0	8,772.5	8,713.2	8,651.9	10.4	24.7	-164.19	111.7	260.4	346.0	311.6	34.39	10.063	
8,900.0	8,872.0	8,758.0	8,683.8	10.5	24.8	-159.45	141.9	251.8	395.1	360.5	34.58	11.427	
9,000.0	8,971.6	8,790.0	8,704.0	10.6	24.9	-156.02	165.8	245.0	455.5	420.9	34.67	13.138	
9,100.0	9,071.1	8,822.0	8,722.8	10.7	25.0	-152.79	190.5	237.6	524.0	489.3	34.74	15.087	
9,200.0	9,170.7	8,853.0	8,740.6	10.8	25.0	-149.98	214.6	229.5	598.1	563.3	34.81	17.181	
9,300.0	9,270.2	8,853.0	8,740.6	11.0	25.0	-149.98	214.6	229.5	678.1	643.3	34.77	19.502	
9,400.0	9,369.8	8,853.0	8,740.6	11.1	25.0	-149.98	214.6	229.5	762.8	728.1	34.76	21.947	
9,500.0	9,469.3	8,853.0	8,740.6	11.2	25.0	-149.98	214.6	229.5	850.9	816.1	34.79	24.459	
9,600.0	9,568.9	8,853.0	8,740.6	11.3	25.0	-149.98	214.6	229.5	941.4	906.5	34.86	27.003	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 504H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 139-MWD+IFR1+FDIR, 2087-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	9,668.4	8,853.0	8,740.6	11.5	25.0	-149.98	214.6	229.5	1,033.6	998.6	34.97	29.553	
9,800.0	9,768.0	8,853.0	8,740.6	11.6	25.0	-149.98	214.6	229.5	1,127.1	1,092.0	35.12	32.096	
9,900.0	9,867.5	8,853.0	8,740.6	11.7	25.0	-149.98	214.6	229.5	1,221.7	1,186.4	35.29	34.619	
10,000.0	9,967.1	8,853.0	8,740.6	11.8	25.0	-149.98	214.6	229.5	1,317.1	1,281.6	35.48	37.117	
10,100.0	10,066.6	8,853.0	8,740.6	11.9	25.0	-149.98	214.6	229.5	1,413.1	1,377.4	35.70	39.583	
10,200.0	10,166.2	8,853.0	8,740.6	12.1	25.0	-149.98	214.6	229.5	1,509.6	1,473.7	35.93	42.015	
10,300.0	10,265.7	8,853.0	8,740.6	12.2	25.0	-149.98	214.6	229.5	1,606.5	1,570.4	36.17	44.411	
10,400.0	10,365.3	8,853.0	8,740.6	12.3	25.0	-149.98	214.6	229.5	1,703.9	1,667.4	36.43	46.768	
10,500.0	10,464.8	8,853.0	8,740.6	12.5	25.0	-149.98	214.6	229.5	1,801.5	1,764.8	36.70	49.087	
10,600.0	10,564.4	8,853.0	8,740.6	12.5	25.0	-149.98	214.6	229.5	1,899.3	1,862.2	37.15	51.123	
10,630.6	10,594.8	8,853.0	8,740.6	12.6	25.0	-149.98	214.6	229.5	1,929.3	1,892.0	37.24	51.812	
10,650.0	10,614.1	8,853.0	8,740.6	12.6	25.0	-120.99	214.6	229.5	1,948.3	1,911.0	37.29	52.247	
10,675.0	10,638.9	8,853.0	8,740.6	12.6	25.0	-94.52	214.6	229.5	1,972.7	1,935.4	37.36	52.803	
10,700.0	10,663.4	8,853.0	8,740.6	12.6	25.0	-76.20	214.6	229.5	1,997.1	1,959.6	37.43	53.353	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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: 139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR, 7725-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	91.07	-8.8	470.2	470.3				
100.0	100.0	96.4	96.4	3.0	3.0	91.11	-9.1	470.3	470.4	464.4	6.00	78.350	
200.0	200.0	194.7	194.7	3.0	3.0	91.21	-9.9	470.5	470.7	464.6	6.03	78.079	
300.0	300.0	292.5	292.5	3.0	3.1	91.26	-10.4	471.3	471.4	465.3	6.10	77.333	
400.0	400.0	386.0	385.9	3.0	3.2	91.26	-10.4	472.7	472.9	466.7	6.20	76.339	
500.0	500.0	477.9	477.8	3.1	3.3	91.19	-9.9	475.7	476.1	469.8	6.32	75.303	
600.0	600.0	573.5	573.3	3.1	3.5	91.03	-8.7	480.1	480.7	474.3	6.49	74.117	
700.0	700.0	671.6	671.2	3.1	3.7	90.74	-6.3	485.3	486.0	479.3	6.68	72.728	
800.0	800.0	775.8	775.3	3.2	3.9	90.36	-3.1	490.4	490.9	484.0	6.92	70.936	
900.0	900.0	890.4	889.8	3.2	4.2	89.99	0.1	494.5	494.5	487.3	7.21	68.630	
1,000.0	1,000.0	1,023.0	1,022.2	3.2	4.5	90.13	-1.1	490.6	491.2	483.7	7.53	65.235	
1,100.0	1,100.0	1,123.3	1,122.4	3.3	4.7	90.26	-2.2	485.2	485.9	478.1	7.80	62.297	
1,200.0	1,200.0	1,207.8	1,206.8	3.4	5.0	90.26	-2.1	481.8	481.9	473.9	8.05	59.853	
1,258.0	1,258.0	1,256.1	1,255.1	3.4	5.1	90.15	-1.3	481.4	481.4	473.2	8.20	58.720	
1,300.0	1,300.0	1,293.9	1,292.9	3.4	5.2	90.05	-0.4	481.6	481.6	473.3	8.31	57.927	
1,400.0	1,400.0	1,390.8	1,389.8	3.5	5.5	89.71	2.4	483.0	483.1	474.5	8.61	56.079	
1,500.0	1,500.0	1,493.1	1,492.0	3.5	5.8	89.37	5.3	484.3	484.4	475.4	8.94	54.172	
1,600.0	1,600.0	1,594.0	1,592.8	3.6	6.1	89.05	8.0	485.2	485.3	476.0	9.27	52.342	
1,700.0	1,700.0	1,694.8	1,693.6	3.7	6.4	88.80	10.2	486.0	486.1	476.5	9.61	50.591	
1,800.0	1,800.0	1,796.4	1,795.3	3.8	6.7	88.60	11.9	486.5	486.7	476.7	9.95	48.891	
1,900.0	1,900.0	1,899.2	1,898.1	3.9	7.1	88.44	13.2	486.6	486.8	476.5	10.31	47.225	
2,000.0	2,000.0	1,999.0	1,997.8	3.9	7.4	88.31	14.4	486.4	486.6	475.9	10.65	45.706	
2,031.2	2,031.2	2,029.5	2,028.3	4.0	7.4	88.27	14.7	486.3	486.6	475.9	10.70	45.453	
2,100.0	2,100.0	2,096.8	2,095.6	4.0	7.5	88.19	15.4	486.4	486.7	475.9	10.82	44.975	
2,200.0	2,200.0	2,195.2	2,194.0	4.1	7.5	88.07	16.4	486.8	487.1	476.2	10.87	44.812	
2,300.0	2,300.0	2,289.9	2,288.7	4.2	7.6	88.00	17.0	487.8	488.2	477.3	10.93	44.651	
2,400.0	2,400.0	2,381.5	2,380.3	4.3	7.6	88.00	17.2	490.4	491.0	480.0	11.01	44.596	
2,500.0	2,500.0	2,491.8	2,490.5	4.4	7.7	88.14	16.0	493.1	493.4	482.3	11.12	44.384	
2,600.0	2,600.0	2,598.2	2,596.9	4.5	7.8	4.18	13.1	493.5	492.0	480.7	11.24	43.774	
2,700.0	2,699.8	2,697.6	2,696.2	4.5	7.9	4.61	9.9	493.9	487.0	475.6	11.37	42.823	
2,771.9	2,771.5	2,769.3	2,767.9	4.5	7.9	4.98	7.3	493.9	481.1	469.6	11.48	41.907	
2,800.0	2,799.5	2,795.2	2,793.8	4.5	8.0	5.12	6.4	494.0	478.5	467.0	11.52	41.531	
2,900.0	2,899.0	2,891.9	2,890.4	4.6	8.1	5.66	2.8	495.1	470.2	458.5	11.69	40.232	
3,000.0	2,998.6	2,993.2	2,991.7	4.6	8.2	6.21	-0.6	496.2	461.9	450.0	11.88	38.879	
3,100.0	3,098.1	3,094.8	3,093.2	4.7	8.4	6.74	-3.8	496.8	453.1	441.0	12.08	37.503	
3,200.0	3,197.7	3,202.0	3,200.4	4.7	8.6	7.28	-6.8	496.5	443.5	431.2	12.31	36.035	
3,300.0	3,297.2	3,307.4	3,305.6	4.8	8.7	7.83	-9.5	494.3	432.1	419.5	12.54	34.451	
3,400.0	3,396.8	3,405.2	3,403.4	4.9	8.9	8.37	-12.1	491.7	420.2	407.4	12.78	32.883	
3,500.0	3,496.3	3,504.1	3,502.2	4.9	9.1	8.93	-14.7	489.4	408.7	395.6	13.03	31.360	
3,600.0	3,595.9	3,603.1	3,601.2	5.0	9.3	9.47	-16.8	487.2	397.2	383.9	13.29	29.877	
3,700.0	3,695.4	3,702.1	3,700.1	5.1	9.5	10.01	-18.7	485.1	385.9	372.3	13.57	28.439	
3,800.0	3,795.0	3,801.7	3,799.7	5.1	9.7	10.59	-20.7	482.9	374.5	360.7	13.85	27.035	
3,900.0	3,894.5	3,900.0	3,897.9	5.2	10.0	11.13	-22.2	480.9	363.3	349.2	14.14	25.688	
4,000.0	3,994.1	3,998.7	3,996.7	5.3	10.2	11.64	-23.4	479.2	352.4	338.0	14.45	24.395	
4,100.0	4,093.6	4,097.8	4,095.7	5.4	10.4	12.18	-24.5	477.5	341.6	326.9	14.76	23.152	
4,200.0	4,193.2	4,197.1	4,195.0	5.4	10.7	12.75	-25.6	476.0	331.0	315.9	15.07	21.956	
4,300.0	4,292.7	4,296.8	4,294.7	5.5	10.9	13.35	-26.7	474.4	320.3	304.9	15.40	20.797	
4,400.0	4,392.3	4,396.4	4,394.3	5.6	11.2	14.01	-27.9	472.6	309.5	293.8	15.73	19.675	
4,500.0	4,491.8	4,495.9	4,493.8	5.7	11.5	14.74	-29.1	470.8	298.7	282.6	16.07	18.591	
4,600.0	4,591.4	4,595.4	4,593.2	5.8	11.7	15.50	-30.2	469.0	287.9	271.5	16.41	17.548	
4,700.0	4,690.9	4,695.1	4,692.9	5.9	12.0	16.32	-31.3	467.1	277.1	260.4	16.75	16.540	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 504H - ST01 - ST01											Offset Site Error:	0.0 usft
Survey Program:		139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR, 7725-MWD+IFR1+FDIR											Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,790.5	4,794.7	4,792.5	6.0	12.3	17.25	-32.6	465.0	266.2	249.1	17.10	15.567		
4,900.0	4,890.0	4,894.7	4,892.4	6.0	12.6	18.30	-34.0	462.7	255.2	237.8	17.45	14.625		
5,000.0	4,989.6	4,994.1	4,991.8	6.1	12.9	19.50	-35.6	460.1	244.2	226.4	17.80	13.715		
5,100.0	5,089.1	5,094.8	5,092.4	6.2	13.1	20.88	-37.4	457.3	232.9	214.8	18.16	12.828		
5,200.0	5,188.7	5,193.3	5,190.9	6.3	13.4	22.40	-39.2	454.2	221.6	203.1	18.51	11.975		
5,300.0	5,288.2	5,293.4	5,290.8	6.4	13.7	24.18	-41.2	450.9	210.5	191.6	18.86	11.159		
5,400.0	5,387.8	5,392.7	5,390.1	6.5	14.0	26.26	-43.5	447.3	199.2	180.0	19.21	10.373		
5,500.0	5,487.3	5,491.4	5,488.7	6.6	14.3	28.61	-46.0	443.8	188.3	168.8	19.55	9.635		
5,600.0	5,586.9	5,589.8	5,587.0	6.7	14.6	31.20	-48.5	440.5	178.1	158.3	19.89	8.958		
5,700.0	5,686.4	5,688.6	5,685.8	6.8	14.9	34.12	-51.1	437.5	168.7	148.4	20.23	8.338		
5,800.0	5,786.0	5,788.2	5,785.3	6.9	15.3	37.42	-53.9	434.4	159.6	139.1	20.58	7.759		
5,900.0	5,885.5	5,887.9	5,884.8	7.0	15.6	41.28	-56.8	430.7	150.8	129.9	20.92	7.207		
6,000.0	5,985.1	5,987.0	5,983.8	7.1	15.9	45.67	-59.7	426.8	142.6	121.3	21.28	6.700		
6,100.0	6,084.6	6,085.9	6,082.6	7.3	16.2	50.56	-62.7	422.8	135.3	113.6	21.65	6.246		
6,200.0	6,184.2	6,184.5	6,181.1	7.4	16.5	55.93	-65.8	419.0	129.3	107.2	22.06	5.861		
6,300.0	6,283.7	6,283.3	6,279.7	7.5	16.8	61.63	-69.0	415.6	124.9	102.4	22.49	5.551		
6,400.0	6,383.3	6,382.2	6,378.5	7.6	17.1	67.45	-72.1	412.7	121.9	99.0	22.97	5.308		
6,500.0	6,482.8	6,481.1	6,477.4	7.7	17.5	73.41	-75.3	410.0	120.6	97.1	23.50	5.131		
6,545.3	6,527.9	6,526.0	6,522.3	7.7	17.6	76.10	-76.8	408.9	120.4	96.7	23.74	5.072 CC		
6,600.0	6,582.4	6,580.4	6,576.6	7.8	17.8	79.29	-78.5	407.7	120.6	96.6	24.05	5.015 ES		
6,700.0	6,681.9	6,679.9	6,676.0	7.9	18.1	85.18	-81.6	405.2	121.7	97.1	24.63	4.942		
6,800.0	6,781.5	6,779.1	6,775.1	8.0	18.4	91.75	-84.7	400.9	124.1	98.8	25.26	4.913 SF		
6,900.0	6,881.0	6,879.0	6,874.7	8.1	18.8	98.69	-87.5	395.1	127.7	101.8	25.91	4.930		
7,000.0	6,980.6	6,978.6	6,974.2	8.2	19.1	105.03	-89.5	389.6	132.3	105.8	26.54	4.986		
7,100.0	7,080.1	7,076.4	7,071.8	8.4	19.4	110.33	-91.8	385.4	138.5	111.3	27.14	5.103		
7,200.0	7,179.7	7,173.8	7,169.1	8.5	19.7	114.86	-95.3	381.4	146.8	119.1	27.70	5.298		
7,300.0	7,279.2	7,273.3	7,268.5	8.6	20.1	118.84	-99.2	377.7	156.1	127.8	28.25	5.525		
7,400.0	7,378.8	7,370.8	7,365.8	8.7	20.4	122.61	-103.2	372.9	166.7	137.9	28.78	5.793		
7,500.0	7,478.3	7,473.9	7,468.7	8.8	20.7	126.15	-106.2	368.4	176.8	147.5	29.31	6.033		
7,600.0	7,577.9	7,571.6	7,566.4	8.9	21.1	129.22	-108.0	364.5	186.4	156.6	29.81	6.252		
7,700.0	7,677.4	7,665.2	7,659.7	9.0	21.3	132.08	-111.3	358.7	198.9	168.7	30.26	6.574		
7,800.0	7,777.0	7,799.5	7,792.8	9.2	21.5	138.18	-104.8	347.6	208.1	177.6	30.45	6.833		
7,900.0	7,876.5	7,904.1	7,891.7	9.3	21.5	148.62	-74.2	333.6	205.3	174.6	30.63	6.701		
7,952.5	7,928.7	7,959.3	7,943.4	9.3	21.5	154.53	-56.0	326.9	204.9	174.2	30.68	6.677		
8,000.0	7,976.1	8,003.9	7,985.1	9.4	21.5	159.30	-41.0	322.0	205.6	174.9	30.73	6.691		
8,100.0	8,075.6	8,098.0	8,070.9	9.5	21.5	170.50	-4.2	310.4	212.3	181.6	30.73	6.909		
8,200.0	8,175.2	8,173.1	8,135.0	9.6	21.6	-179.14	33.1	298.9	229.8	199.1	30.69	7.486		
8,300.0	8,274.7	8,241.1	8,189.6	9.8	21.6	-169.83	71.1	285.1	262.9	232.3	30.64	8.581		
8,400.0	8,374.3	8,304.7	8,238.2	9.9	21.6	-161.99	109.4	270.6	308.8	278.2	30.62	10.084		
8,500.0	8,473.8	8,363.0	8,280.0	10.0	21.7	-155.43	147.8	257.1	364.2	333.6	30.65	11.882		
8,600.0	8,573.4	8,413.0	8,312.7	10.1	21.7	-150.14	183.9	246.0	427.7	397.0	30.73	13.921		
8,700.0	8,672.9	8,453.0	8,336.9	10.2	21.7	-146.25	214.6	237.2	497.9	467.1	30.83	16.148		
8,800.0	8,772.5	8,498.2	8,363.2	10.4	21.8	-142.39	249.8	227.1	572.2	541.3	30.98	18.471		
8,900.0	8,872.0	8,538.0	8,385.4	10.5	21.8	-139.37	281.7	218.0	650.1	619.0	31.16	20.864		
9,000.0	8,971.6	8,571.0	8,402.9	10.6	21.8	-137.11	308.6	210.3	730.8	699.4	31.36	23.304		
9,100.0	9,071.1	8,641.0	8,439.9	10.7	21.9	-132.94	366.0	195.2	812.3	780.7	31.65	25.668		
9,200.0	9,170.7	8,686.4	8,464.5	10.8	22.0	-130.75	402.8	185.1	894.1	862.2	31.92	28.008		
9,300.0	9,270.2	8,716.9	8,480.5	11.0	22.0	-129.46	427.7	178.0	977.4	945.2	32.19	30.363		
9,400.0	9,369.8	8,754.0	8,499.5	11.1	22.1	-128.01	458.3	169.0	1,062.1	1,029.6	32.49	32.693		
9,500.0	9,469.3	8,790.0	8,517.6	11.2	22.2	-126.73	488.3	160.4	1,147.7	1,114.9	32.80	34.993		
9,600.0	9,568.9	8,830.5	8,537.7	11.3	22.2	-125.43	522.0	150.6	1,233.8	1,200.6	33.13	37.242		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 504H - ST01 - ST01												Offset Site Error:	0.0 usft
Survey Program: 139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR, 7725-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	
9,700.0	9,668.4	8,853.0	8,548.5	11.5	22.3	-124.75	541.0	145.2	1,320.8	1,287.4	33.43	39.504	
9,800.0	9,768.0	8,867.1	8,555.0	11.6	22.3	-124.34	553.0	141.8	1,409.0	1,375.3	33.73	41.768	
9,900.0	9,867.5	8,884.0	8,562.4	11.7	22.4	-123.84	567.6	137.7	1,498.3	1,464.2	34.04	44.009	
10,000.0	9,967.1	8,900.7	8,569.5	11.8	22.4	-123.36	582.3	133.7	1,588.4	1,554.0	34.36	46.223	
10,100.0	10,066.6	8,924.6	8,579.3	11.9	22.4	-122.68	603.4	128.3	1,679.1	1,644.4	34.70	48.383	
10,200.0	10,166.2	8,952.0	8,590.3	12.1	22.5	-121.94	627.7	122.1	1,770.2	1,735.2	35.06	50.492	
10,300.0	10,265.7	9,001.8	8,610.4	12.2	22.6	-120.72	671.8	110.7	1,861.5	1,826.0	35.47	52.475	
10,400.0	10,365.3	9,028.5	8,621.2	12.3	22.7	-120.13	695.4	104.5	1,952.8	1,917.0	35.84	54.480	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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: 139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR, 7725-MWD+IFR1+FDIR, 13810-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	91.07	-8.8	470.2	470.3				
100.0	100.0	96.4	96.4	3.0	3.0	91.11	-9.1	470.3	470.4	464.4	6.00	78.350	
200.0	200.0	194.7	194.7	3.0	3.0	91.21	-9.9	470.5	470.7	464.6	6.03	78.079	
300.0	300.0	292.5	292.5	3.0	3.1	91.26	-10.4	471.3	471.4	465.3	6.10	77.333	
400.0	400.0	386.0	385.9	3.0	3.2	91.26	-10.4	472.7	472.9	466.7	6.20	76.339	
500.0	500.0	477.9	477.8	3.1	3.3	91.19	-9.9	475.7	476.1	469.8	6.32	75.303	
600.0	600.0	573.5	573.3	3.1	3.5	91.03	-8.7	480.1	480.7	474.3	6.49	74.117	
700.0	700.0	671.6	671.2	3.1	3.7	90.74	-6.3	485.3	486.0	479.3	6.68	72.728	
800.0	800.0	775.8	775.3	3.2	3.9	90.36	-3.1	490.4	490.9	484.0	6.92	70.936	
900.0	900.0	890.4	889.8	3.2	4.2	89.99	0.1	494.5	494.5	487.3	7.21	68.630	
1,000.0	1,000.0	1,023.0	1,022.2	3.2	4.5	90.13	-1.1	490.6	491.2	483.7	7.53	65.235	
1,100.0	1,100.0	1,123.3	1,122.4	3.3	4.7	90.26	-2.2	485.2	485.9	478.1	7.80	62.297	
1,200.0	1,200.0	1,207.8	1,206.8	3.4	5.0	90.26	-2.1	481.8	481.9	473.9	8.05	59.853	
1,258.0	1,258.0	1,256.1	1,255.1	3.4	5.1	90.15	-1.3	481.4	481.4	473.2	8.20	58.720	
1,300.0	1,300.0	1,293.9	1,292.9	3.4	5.2	90.05	-0.4	481.6	481.6	473.3	8.31	57.927	
1,400.0	1,400.0	1,390.8	1,389.8	3.5	5.5	89.71	2.4	483.0	483.1	474.5	8.61	56.079	
1,500.0	1,500.0	1,493.1	1,492.0	3.5	5.8	89.37	5.3	484.3	484.4	475.4	8.94	54.172	
1,600.0	1,600.0	1,594.0	1,592.8	3.6	6.1	89.05	8.0	485.2	485.3	476.0	9.27	52.342	
1,700.0	1,700.0	1,694.8	1,693.6	3.7	6.4	88.80	10.2	486.0	486.1	476.5	9.61	50.591	
1,800.0	1,800.0	1,796.4	1,795.3	3.8	6.7	88.60	11.9	486.5	486.7	476.7	9.95	48.891	
1,900.0	1,900.0	1,899.2	1,898.1	3.9	7.1	88.44	13.2	486.6	486.8	476.5	10.31	47.225	
2,000.0	2,000.0	1,999.0	1,997.8	3.9	7.4	88.31	14.4	486.4	486.6	475.9	10.65	45.706	
2,031.2	2,031.2	2,029.5	2,028.3	4.0	7.4	88.27	14.7	486.3	486.6	475.9	10.70	45.453	
2,100.0	2,100.0	2,096.8	2,095.6	4.0	7.5	88.19	15.4	486.4	486.7	475.9	10.82	44.975	
2,200.0	2,200.0	2,195.2	2,194.0	4.1	7.5	88.07	16.4	486.8	487.1	476.2	10.87	44.812	
2,300.0	2,300.0	2,289.9	2,288.7	4.2	7.6	88.00	17.0	487.8	488.2	477.3	10.93	44.651	
2,400.0	2,400.0	2,381.5	2,380.3	4.3	7.6	88.00	17.2	490.4	491.0	480.0	11.01	44.596	
2,500.0	2,500.0	2,491.8	2,490.5	4.4	7.7	88.14	16.0	493.1	493.4	482.3	11.12	44.384	
2,600.0	2,600.0	2,598.2	2,596.9	4.5	7.8	4.18	13.1	493.5	492.0	480.7	11.24	43.774	
2,700.0	2,699.8	2,697.6	2,696.2	4.5	7.9	4.61	9.9	493.9	487.0	475.6	11.37	42.823	
2,771.9	2,771.5	2,769.3	2,767.9	4.5	7.9	4.98	7.3	493.9	481.1	469.6	11.48	41.907	
2,800.0	2,799.5	2,795.2	2,793.8	4.5	8.0	5.12	6.4	494.0	478.5	467.0	11.52	41.531	
2,900.0	2,899.0	2,891.9	2,890.4	4.6	8.1	5.66	2.8	495.1	470.2	458.5	11.69	40.232	
3,000.0	2,998.6	2,993.2	2,991.7	4.6	8.2	6.21	-0.6	496.2	461.9	450.0	11.88	38.879	
3,100.0	3,098.1	3,094.8	3,093.2	4.7	8.4	6.74	-3.8	496.8	453.1	441.0	12.08	37.503	
3,200.0	3,197.7	3,202.0	3,200.4	4.7	8.6	7.28	-6.8	496.5	443.5	431.2	12.31	36.035	
3,300.0	3,297.2	3,307.4	3,305.6	4.8	8.7	7.83	-9.5	494.3	432.1	419.5	12.54	34.451	
3,400.0	3,396.8	3,405.2	3,403.4	4.9	8.9	8.37	-12.1	491.7	420.2	407.4	12.78	32.883	
3,500.0	3,496.3	3,504.1	3,502.2	4.9	9.1	8.93	-14.7	489.4	408.7	395.6	13.03	31.360	
3,600.0	3,595.9	3,603.1	3,601.2	5.0	9.3	9.47	-16.8	487.2	397.2	383.9	13.29	29.877	
3,700.0	3,695.4	3,702.1	3,700.1	5.1	9.5	10.01	-18.7	485.1	385.9	372.3	13.57	28.439	
3,800.0	3,795.0	3,801.7	3,799.7	5.1	9.7	10.59	-20.7	482.9	374.5	360.7	13.85	27.035	
3,900.0	3,894.5	3,900.0	3,897.9	5.2	10.0	11.13	-22.2	480.9	363.3	349.2	14.14	25.688	
4,000.0	3,994.1	3,998.7	3,996.7	5.3	10.2	11.64	-23.4	479.2	352.4	338.0	14.45	24.395	
4,100.0	4,093.6	4,097.8	4,095.7	5.4	10.4	12.18	-24.5	477.5	341.6	326.9	14.76	23.152	
4,200.0	4,193.2	4,197.1	4,195.0	5.4	10.7	12.75	-25.6	476.0	331.0	315.9	15.07	21.956	
4,300.0	4,292.7	4,296.8	4,294.7	5.5	10.9	13.35	-26.7	474.4	320.3	304.9	15.40	20.797	
4,400.0	4,392.3	4,396.4	4,394.3	5.6	11.2	14.01	-27.9	472.6	309.5	293.8	15.73	19.675	
4,500.0	4,491.8	4,495.9	4,493.8	5.7	11.5	14.74	-29.1	470.8	298.7	282.6	16.07	18.591	
4,600.0	4,591.4	4,595.4	4,593.2	5.8	11.7	15.50	-30.2	469.0	287.9	271.5	16.41	17.548	
4,700.0	4,690.9	4,695.1	4,692.9	5.9	12.0	16.32	-31.3	467.1	277.1	260.4	16.75	16.540	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 504H - ST02 - ST02											Offset Site Error:		0.0 usft
Survey Program:		139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR, 7725-MWD+IFR1+FDIR, 13810-MWD+IFR1+FDIR											Offset Well Error:		3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
4,800.0	4,790.5	4,794.7	4,792.5	6.0	12.3	17.25	-32.6	465.0	266.2	249.1	17.10	15.567			
4,900.0	4,890.0	4,894.7	4,892.4	6.0	12.6	18.30	-34.0	462.7	255.2	237.8	17.45	14.625			
5,000.0	4,989.6	4,994.1	4,991.8	6.1	12.9	19.50	-35.6	460.1	244.2	226.4	17.80	13.715			
5,100.0	5,089.1	5,094.8	5,092.4	6.2	13.1	20.88	-37.4	457.3	232.9	214.8	18.16	12.828			
5,200.0	5,188.7	5,193.3	5,190.9	6.3	13.4	22.40	-39.2	454.2	221.6	203.1	18.51	11.975			
5,300.0	5,288.2	5,293.4	5,290.8	6.4	13.7	24.18	-41.2	450.9	210.5	191.6	18.86	11.159			
5,400.0	5,387.8	5,392.7	5,390.1	6.5	14.0	26.26	-43.5	447.3	199.2	180.0	19.21	10.373			
5,500.0	5,487.3	5,491.4	5,488.7	6.6	14.3	28.61	-46.0	443.8	188.3	168.8	19.55	9.635			
5,600.0	5,586.9	5,589.8	5,587.0	6.7	14.6	31.20	-48.5	440.5	178.1	158.3	19.89	8.958			
5,700.0	5,686.4	5,688.6	5,685.8	6.8	14.9	34.12	-51.1	437.5	168.7	148.4	20.23	8.338			
5,800.0	5,786.0	5,788.2	5,785.3	6.9	15.3	37.42	-53.9	434.4	159.6	139.1	20.58	7.759			
5,900.0	5,885.5	5,887.9	5,884.8	7.0	15.6	41.28	-56.8	430.7	150.8	129.9	20.92	7.207			
6,000.0	5,985.1	5,987.0	5,983.8	7.1	15.9	45.67	-59.7	426.8	142.6	121.3	21.28	6.700			
6,100.0	6,084.6	6,085.9	6,082.6	7.3	16.2	50.56	-62.7	422.8	135.3	113.6	21.65	6.246			
6,200.0	6,184.2	6,184.5	6,181.1	7.4	16.5	55.93	-65.8	419.0	129.3	107.2	22.06	5.861			
6,300.0	6,283.7	6,283.3	6,279.7	7.5	16.8	61.63	-69.0	415.6	124.9	102.4	22.49	5.551			
6,400.0	6,383.3	6,382.2	6,378.5	7.6	17.1	67.45	-72.1	412.7	121.9	99.0	22.97	5.308			
6,500.0	6,482.8	6,481.1	6,477.4	7.7	17.5	73.41	-75.3	410.0	120.6	97.1	23.50	5.131			
6,545.3	6,527.9	6,526.0	6,522.3	7.7	17.6	76.10	-76.8	408.9	120.4	96.7	23.74	5.072	CC		
6,600.0	6,582.4	6,580.4	6,576.6	7.8	17.8	79.29	-78.5	407.7	120.6	96.6	24.05	5.015	ES		
6,700.0	6,681.9	6,679.9	6,676.0	7.9	18.1	85.18	-81.6	405.2	121.7	97.1	24.63	4.942			
6,800.0	6,781.5	6,779.1	6,775.1	8.0	18.4	91.75	-84.7	400.9	124.1	98.8	25.26	4.913	SF		
6,900.0	6,881.0	6,879.0	6,874.7	8.1	18.8	98.69	-87.5	395.1	127.7	101.8	25.91	4.930			
7,000.0	6,980.6	6,978.6	6,974.2	8.2	19.1	105.03	-89.5	389.6	132.3	105.8	26.54	4.986			
7,100.0	7,080.1	7,076.4	7,071.8	8.4	19.4	110.33	-91.8	385.4	138.5	111.3	27.14	5.103			
7,200.0	7,179.7	7,173.8	7,169.1	8.5	19.7	114.86	-95.3	381.4	146.8	119.1	27.70	5.298			
7,300.0	7,279.2	7,273.3	7,268.5	8.6	20.1	118.84	-99.2	377.7	156.1	127.8	28.25	5.525			
7,400.0	7,378.8	7,370.8	7,365.8	8.7	20.4	122.61	-103.2	372.9	166.7	137.9	28.78	5.793			
7,500.0	7,478.3	7,473.9	7,468.7	8.8	20.7	126.15	-106.2	368.4	176.8	147.5	29.31	6.033			
7,600.0	7,577.9	7,571.6	7,566.4	8.9	21.1	129.22	-108.0	364.5	186.4	156.6	29.81	6.252			
7,700.0	7,677.4	7,665.2	7,659.7	9.0	21.3	132.08	-111.3	358.7	198.9	168.7	30.26	6.574			
7,800.0	7,777.0	7,799.5	7,792.8	9.2	21.5	138.18	-104.8	347.6	208.1	177.6	30.45	6.833			
7,900.0	7,876.5	7,904.1	7,891.7	9.3	21.5	148.62	-74.2	333.6	205.3	174.6	30.63	6.701			
7,952.5	7,928.7	7,959.3	7,943.4	9.3	21.5	154.53	-56.0	326.9	204.9	174.2	30.68	6.677			
8,000.0	7,976.1	8,003.9	7,985.1	9.4	21.5	159.30	-41.0	322.0	205.6	174.9	30.73	6.691			
8,100.0	8,075.6	8,098.0	8,070.9	9.5	21.5	170.50	-4.2	310.4	212.3	181.6	30.73	6.909			
8,200.0	8,175.2	8,173.1	8,135.0	9.6	21.6	-179.14	33.1	298.9	229.8	199.1	30.69	7.486			
8,300.0	8,274.7	8,241.1	8,189.6	9.8	21.6	-169.83	71.1	285.1	262.9	232.3	30.64	8.581			
8,400.0	8,374.3	8,304.7	8,238.2	9.9	21.6	-161.99	109.4	270.6	308.8	278.2	30.62	10.084			
8,500.0	8,473.8	8,363.0	8,280.0	10.0	21.7	-155.43	147.8	257.1	364.2	333.6	30.65	11.882			
8,600.0	8,573.4	8,413.0	8,312.7	10.1	21.7	-150.14	183.9	246.0	427.7	397.0	30.73	13.921			
8,700.0	8,672.9	8,453.0	8,336.9	10.2	21.7	-146.25	214.6	237.2	497.9	467.1	30.83	16.148			
8,800.0	8,772.5	8,498.2	8,363.2	10.4	21.8	-142.39	249.8	227.1	572.2	541.3	30.98	18.471			
8,900.0	8,872.0	8,538.0	8,385.4	10.5	21.8	-139.37	281.7	218.0	650.1	619.0	31.16	20.864			
9,000.0	8,971.6	8,571.0	8,402.9	10.6	21.8	-137.11	308.6	210.3	730.8	699.4	31.36	23.304			
9,100.0	9,071.1	8,641.0	8,439.9	10.7	21.9	-132.94	366.0	195.2	812.3	780.7	31.65	25.668			
9,200.0	9,170.7	8,686.4	8,464.5	10.8	22.0	-130.75	402.8	185.1	894.1	862.2	31.92	28.008			
9,300.0	9,270.2	8,716.9	8,480.5	11.0	22.0	-129.46	427.7	178.0	977.4	945.2	32.19	30.363			
9,400.0	9,369.8	8,754.0	8,499.5	11.1	22.1	-128.01	458.3	169.0	1,062.1	1,029.6	32.49	32.693			
9,500.0	9,469.3	8,790.0	8,517.6	11.2	22.2	-126.73	488.3	160.4	1,147.7	1,114.9	32.80	34.993			
9,600.0	9,568.9	8,830.5	8,537.7	11.3	22.2	-125.43	522.0	150.6	1,233.8	1,200.6	33.13	37.242			

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 504H - ST02 - ST02													Offset Site Error:	0.0 usft
Survey Program: 139-MWD+IFR1+FDIR, 2087-MWD+IFR1+FDIR, 7725-MWD+IFR1+FDIR, 13810-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		
9,700.0	9,668.4	8,853.0	8,548.5	11.5	22.3	-124.75	541.0	145.2	1,320.8	1,287.4	33.43	39.504		
9,800.0	9,768.0	8,867.1	8,555.0	11.6	22.3	-124.34	553.0	141.8	1,409.0	1,375.3	33.73	41.768		
9,900.0	9,867.5	8,884.0	8,562.4	11.7	22.4	-123.84	567.6	137.7	1,498.3	1,464.2	34.04	44.009		
10,000.0	9,967.1	8,900.7	8,569.5	11.8	22.4	-123.36	582.3	133.7	1,588.4	1,554.0	34.36	46.223		
10,100.0	10,066.6	8,924.6	8,579.3	11.9	22.4	-122.68	603.4	128.3	1,679.1	1,644.4	34.70	48.383		
10,200.0	10,166.2	8,952.0	8,590.3	12.1	22.5	-121.94	627.7	122.1	1,770.2	1,735.2	35.06	50.492		
10,300.0	10,265.7	9,001.8	8,610.4	12.2	22.6	-120.72	671.8	110.7	1,861.5	1,826.0	35.47	52.475		
10,400.0	10,365.3	9,028.5	8,621.2	12.3	22.7	-120.13	695.4	104.5	1,952.8	1,917.0	35.84	54.480		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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: 142-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference				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	91.00	-8.7	500.2	500.3				
100.0	100.0	95.1	95.1	3.0	3.0	91.03	-9.0	500.4	500.5	494.5	6.00	83.375	
200.0	200.0	195.8	195.8	3.0	3.0	91.14	-10.0	501.0	501.1	495.1	6.03	83.130	
300.0	300.0	294.9	294.9	3.0	3.1	91.22	-10.7	501.2	501.4	495.3	6.10	82.228	
400.0	400.0	393.7	393.7	3.0	3.2	91.23	-10.8	502.0	502.1	495.9	6.20	80.925	
500.0	500.0	486.9	486.9	3.1	3.3	91.21	-10.6	503.2	503.4	497.1	6.34	79.431	
600.0	600.0	580.7	580.6	3.1	3.5	91.17	-10.3	505.8	506.2	499.7	6.50	77.879	
700.0	700.0	679.8	679.6	3.1	3.7	91.11	-9.8	509.4	509.8	503.1	6.70	76.079	
800.0	800.0	781.9	781.7	3.2	3.9	90.99	-8.8	512.8	513.1	506.2	6.93	74.003	
900.0	900.0	884.7	884.5	3.2	4.1	90.87	-7.9	515.7	515.9	508.7	7.19	71.750	
1,000.0	1,000.0	981.6	981.3	3.2	4.4	90.97	-8.8	518.4	518.8	511.3	7.45	69.641	
1,100.0	1,100.0	1,082.0	1,081.6	3.3	4.7	91.23	-11.2	521.5	521.9	514.1	7.73	67.484	
1,200.0	1,200.0	1,181.8	1,181.4	3.4	4.9	91.42	-13.0	524.5	525.0	516.9	8.03	65.380	
1,300.0	1,300.0	1,281.2	1,280.7	3.4	5.2	91.60	-14.7	527.5	528.0	519.7	8.34	63.348	
1,400.0	1,400.0	1,377.4	1,376.9	3.5	5.5	91.77	-16.4	530.9	531.5	522.9	8.64	61.514	
1,500.0	1,500.0	1,473.2	1,472.5	3.5	5.8	91.90	-17.8	535.0	535.9	526.9	8.95	59.856	
1,600.0	1,600.0	1,572.0	1,571.2	3.6	6.1	92.05	-19.3	539.7	540.7	531.4	9.28	58.256	
1,700.0	1,700.0	1,675.1	1,674.1	3.7	6.4	92.41	-22.9	544.4	545.4	535.8	9.63	56.618	
1,800.0	1,800.0	1,777.3	1,776.2	3.8	6.8	92.83	-27.1	548.3	549.4	539.4	9.99	55.013	
1,900.0	1,900.0	1,877.3	1,876.0	3.9	7.1	93.23	-31.1	552.0	553.3	543.0	10.34	53.523	
2,000.0	2,000.0	1,980.7	1,979.3	3.9	7.4	93.56	-34.6	555.6	557.0	546.3	10.71	52.029	
2,100.0	2,100.0	2,085.7	2,084.3	4.0	7.8	93.92	-38.3	558.4	559.8	548.7	11.08	50.519	
2,200.0	2,200.0	2,181.3	2,179.8	4.1	8.1	94.20	-41.1	560.7	562.5	551.1	11.43	49.217	
2,300.0	2,300.0	2,272.6	2,270.9	4.2	8.4	94.40	-43.4	564.1	566.4	554.7	11.77	48.143	
2,400.0	2,400.0	2,363.1	2,361.2	4.3	8.7	94.65	-46.3	568.9	572.0	559.9	12.10	47.265	
2,500.0	2,500.0	2,462.7	2,460.6	4.4	9.0	94.99	-50.2	575.1	578.5	566.0	12.48	46.368	
2,600.0	2,600.0	2,560.9	2,558.6	4.5	9.4	11.03	-54.3	581.2	583.3	570.4	12.84	45.413	
2,700.0	2,699.8	2,653.5	2,650.9	4.5	9.7	11.47	-58.6	587.5	585.4	572.3	13.19	44.387	
2,771.9	2,771.5	2,722.2	2,719.2	4.5	9.9	11.84	-61.8	592.9	585.6	572.1	13.45	43.542	
2,800.0	2,799.5	2,749.1	2,746.0	4.5	10.0	11.98	-62.9	595.1	585.4	571.9	13.55	43.200	
2,900.0	2,899.0	2,851.1	2,847.6	4.6	10.4	12.54	-67.5	603.4	584.7	570.8	13.94	41.933	
3,000.0	2,998.6	2,959.5	2,955.6	4.6	10.8	13.08	-71.8	611.1	583.1	568.7	14.37	40.581	
3,100.0	3,098.1	3,059.1	3,055.0	4.7	11.1	13.55	-75.3	617.7	580.8	566.1	14.76	39.357	
3,200.0	3,197.7	3,160.2	3,155.7	4.7	11.5	14.04	-79.0	624.3	578.6	563.4	15.16	38.175	
3,300.0	3,297.2	3,262.9	3,258.2	4.8	11.8	14.52	-82.4	630.6	576.0	560.4	15.57	37.003	
3,400.0	3,396.8	3,363.4	3,358.5	4.9	12.2	14.95	-85.2	636.5	573.0	557.1	15.97	35.887	
3,500.0	3,496.3	3,465.2	3,460.1	4.9	12.5	15.38	-87.9	642.4	570.1	553.7	16.38	34.805	
3,600.0	3,595.9	3,570.1	3,564.8	5.0	12.9	15.80	-90.4	647.9	566.5	549.7	16.80	33.711	
3,700.0	3,695.4	3,672.0	3,666.6	5.1	13.2	16.17	-92.3	652.5	562.1	544.9	17.22	32.646	
3,800.0	3,795.0	3,756.4	3,750.9	5.1	13.5	16.51	-94.3	657.1	558.9	541.3	17.57	31.807	
3,900.0	3,894.5	3,850.9	3,845.0	5.2	13.9	16.98	-97.7	664.5	558.1	540.2	17.96	31.073	
4,000.0	3,994.1	3,955.6	3,949.4	5.3	14.3	17.45	-101.0	672.4	557.2	538.8	18.40	30.283	
4,100.0	4,093.6	4,056.4	4,049.9	5.4	14.6	17.86	-103.6	679.6	555.6	536.8	18.82	29.518	
4,200.0	4,193.2	4,157.1	4,150.3	5.4	15.0	18.22	-105.7	686.7	554.0	534.7	19.25	28.782	
4,300.0	4,292.7	4,260.2	4,253.1	5.5	15.3	18.57	-107.6	693.7	552.0	532.3	19.68	28.043	
4,400.0	4,392.3	4,359.7	4,352.4	5.6	15.7	18.92	-109.4	700.0	549.6	529.5	20.11	27.335	
4,500.0	4,491.8	4,449.0	4,441.4	5.7	16.0	19.38	-112.6	706.5	548.5	528.0	20.49	26.771	
4,514.4	4,506.2	4,462.4	4,454.7	5.7	16.1	19.46	-113.3	707.5	548.5	527.9	20.54	26.696	
4,600.0	4,591.4	4,543.4	4,535.4	5.8	16.3	19.98	-117.4	714.4	548.9	528.0	20.89	26.277	
4,700.0	4,690.9	4,650.2	4,641.7	5.9	16.7	20.67	-122.9	723.0	549.1	527.7	21.35	25.723	
4,800.0	4,790.5	4,752.6	4,743.7	6.0	17.1	21.28	-127.4	730.5	548.5	526.7	21.79	25.177	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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: 142-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference				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	4,890.0	4,853.2	4,843.9	6.0	17.5	21.87	-131.7	737.7	547.7	525.5	22.22	24.653	
5,000.0	4,989.6	4,955.2	4,945.6	6.1	17.8	22.47	-135.9	744.7	546.8	524.1	22.66	24.133	
5,100.0	5,089.1	5,057.5	5,047.6	6.2	18.2	23.07	-140.0	751.4	545.4	522.3	23.10	23.613	
5,200.0	5,188.7	5,159.0	5,148.8	6.3	18.6	23.66	-143.9	757.6	543.7	520.2	23.54	23.102	
5,300.0	5,288.2	5,262.5	5,252.1	6.4	18.9	24.30	-148.0	763.5	541.7	517.7	23.98	22.588	
5,400.0	5,387.8	5,365.9	5,355.3	6.5	19.3	25.01	-152.4	768.4	538.9	514.5	24.42	22.066	
5,500.0	5,487.3	5,463.7	5,452.9	6.6	19.6	25.61	-155.9	773.0	536.0	511.2	24.85	21.573	
5,600.0	5,586.9	5,568.0	5,557.1	6.7	20.0	26.14	-158.5	778.3	533.1	507.8	25.30	21.074	
5,700.0	5,686.4	5,672.1	5,661.0	6.8	20.4	26.76	-161.4	782.3	529.2	503.5	25.75	20.555	
5,800.0	5,786.0	5,760.2	5,749.0	6.9	20.7	27.25	-163.9	786.6	526.3	500.1	26.14	20.133	
5,900.0	5,885.5	5,860.0	5,848.5	7.0	21.1	27.74	-166.4	792.7	524.5	497.9	26.58	19.734	
6,000.0	5,985.1	5,962.9	5,951.3	7.1	21.4	28.28	-169.2	798.5	522.4	495.4	27.03	19.329	
6,100.0	6,084.6	6,059.7	6,047.9	7.3	21.8	28.82	-171.9	803.5	519.9	492.5	27.45	18.938	
6,141.8	6,126.2	6,092.6	6,080.7	7.3	21.9	29.01	-173.1	805.7	519.6	492.0	27.60	18.824	
6,200.0	6,184.2	6,139.2	6,127.1	7.4	22.1	29.29	-175.2	809.6	520.3	492.5	27.81	18.710	
6,300.0	6,283.7	6,234.0	6,221.3	7.5	22.4	29.82	-179.8	819.0	523.1	494.8	28.23	18.531	
6,400.0	6,383.3	6,337.7	6,324.4	7.6	22.8	30.41	-185.0	829.3	526.0	497.3	28.69	18.335	
6,500.0	6,482.8	6,440.5	6,426.6	7.7	23.2	30.99	-189.8	838.9	528.3	499.1	29.14	18.127	
6,600.0	6,582.4	6,543.6	6,529.2	7.8	23.5	31.57	-194.5	848.0	530.2	500.6	29.60	17.910	
6,700.0	6,681.9	6,649.4	6,634.6	7.9	23.9	32.20	-199.3	856.3	531.1	501.1	30.07	17.664	
6,800.0	6,781.5	6,757.1	6,741.9	8.0	24.3	32.86	-203.6	863.5	531.0	500.4	30.54	17.385	
6,900.0	6,881.0	6,859.8	6,844.4	8.1	24.7	33.49	-207.2	869.2	529.6	498.6	30.99	17.086	
7,000.0	6,980.6	6,965.0	6,949.4	8.2	25.0	34.10	-210.3	874.9	527.8	496.3	31.45	16.779	
7,100.0	7,080.1	7,081.9	7,066.2	8.4	25.5	34.80	-212.6	878.9	523.9	492.0	31.95	16.398	
7,200.0	7,179.7	7,171.1	7,155.4	8.5	25.8	35.29	-213.7	881.7	519.5	487.2	32.36	16.056	
7,300.0	7,279.2	7,274.1	7,258.2	8.6	26.2	35.79	-214.6	885.6	515.6	482.8	32.81	15.713	
7,400.0	7,378.8	7,365.6	7,349.6	8.7	26.5	36.27	-216.1	889.6	512.4	479.1	33.23	15.420	
7,500.0	7,478.3	7,468.1	7,452.0	8.8	26.8	36.89	-218.5	894.2	509.8	476.2	33.68	15.138	
7,600.0	7,577.9	7,581.5	7,565.4	8.9	27.2	37.63	-220.6	897.5	505.7	471.6	34.16	14.804	
7,700.0	7,677.4	7,686.8	7,670.6	9.0	27.6	38.39	-221.5	898.0	499.1	464.5	34.61	14.421	
7,800.0	7,777.0	7,783.1	7,767.0	9.2	28.0	39.12	-222.7	898.8	493.0	458.0	35.03	14.073	
7,900.0	7,876.5	7,900.4	7,884.1	9.3	28.4	39.55	-219.9	900.6	485.8	450.2	35.52	13.675	
8,000.0	7,976.1	7,998.1	7,981.7	9.4	28.7	39.64	-214.7	902.2	476.9	440.9	35.95	13.265	
8,100.0	8,075.6	8,128.4	8,111.3	9.5	29.1	39.16	-202.2	904.6	466.1	429.6	36.47	12.782	
8,200.0	8,175.2	8,240.1	8,219.2	9.6	29.5	36.63	-174.2	909.4	448.7	411.8	36.99	12.132	
8,300.0	8,274.7	8,352.8	8,325.2	9.8	29.8	32.57	-136.6	916.2	429.8	392.2	37.57	11.439	
8,400.0	8,374.3	8,488.0	8,448.6	9.9	30.2	26.23	-81.8	917.2	404.9	366.6	38.25	10.585	
8,500.0	8,473.8	8,551.0	8,502.5	10.0	30.4	21.83	-49.3	919.3	382.1	343.3	38.86	9.832	
8,600.0	8,573.4	8,622.6	8,559.7	10.1	30.6	15.50	-7.0	927.1	370.2	330.7	39.49	9.373	
8,642.3	8,615.5	8,648.8	8,579.0	10.2	30.7	12.81	10.4	930.9	368.9	329.2	39.71	9.289 CC, ES, SF	
8,700.0	8,672.9	8,682.1	8,601.7	10.2	30.8	9.15	34.0	936.3	371.5	331.6	39.92	9.306	
8,800.0	8,772.5	8,733.9	8,633.6	10.4	30.9	3.06	73.9	945.2	388.9	348.9	40.01	9.721	
8,900.0	8,872.0	8,770.0	8,653.6	10.5	31.0	-1.25	103.1	952.2	423.4	383.8	39.60	10.692	
9,000.0	8,971.6	8,801.0	8,668.8	10.6	31.0	-4.93	129.3	958.9	472.9	434.0	38.92	12.150	
9,100.0	9,071.1	8,833.0	8,682.8	10.7	31.1	-8.64	157.1	966.3	534.3	496.0	38.25	13.968	
9,200.0	9,170.7	8,844.8	8,687.4	10.8	31.1	-9.98	167.6	969.2	604.2	566.8	37.42	16.147	
9,300.0	9,270.2	8,864.0	8,694.1	11.0	31.1	-12.09	184.8	974.0	680.8	643.9	36.85	18.474	
9,400.0	9,369.8	8,864.0	8,694.1	11.1	31.1	-12.09	184.8	974.0	762.2	725.9	36.23	21.035	
9,500.0	9,469.3	8,881.6	8,699.5	11.2	31.2	-13.97	200.9	978.7	847.0	811.0	35.97	23.544	
9,600.0	9,568.9	8,895.0	8,703.0	11.3	31.2	-15.35	213.3	982.4	934.6	898.8	35.79	26.110	
9,700.0	9,668.4	8,895.0	8,703.0	11.5	31.2	-15.35	213.3	982.4	1,024.2	988.6	35.60	28.768	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 505H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 142-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	
9,800.0	9,768.0	8,895.0	8,703.0	11.6	31.2	-15.35	213.3	982.4	1,115.5	1,080.0	35.51	31.417	
9,900.0	9,867.5	8,911.6	8,706.7	11.7	31.2	-17.01	228.8	987.1	1,207.8	1,172.2	35.60	33.923	
10,000.0	9,967.1	8,926.0	8,709.4	11.8	31.2	-18.41	242.4	991.1	1,301.4	1,265.7	35.73	36.420	
10,100.0	10,066.6	8,926.0	8,709.4	11.9	31.2	-18.41	242.4	991.1	1,395.6	1,359.8	35.81	38.968	
10,200.0	10,166.2	8,926.0	8,709.4	12.1	31.2	-18.41	242.4	991.1	1,490.5	1,454.6	35.94	41.476	
10,300.0	10,265.7	8,926.0	8,709.4	12.2	31.2	-18.41	242.4	991.1	1,586.1	1,550.0	36.09	43.942	
10,400.0	10,365.3	8,926.0	8,709.4	12.3	31.2	-18.41	242.4	991.1	1,682.2	1,645.9	36.28	46.364	
10,500.0	10,464.8	8,926.0	8,709.4	12.5	31.2	-18.41	242.4	991.1	1,778.7	1,742.2	36.49	48.742	
10,600.0	10,564.4	8,926.0	8,709.4	12.5	31.2	-18.41	242.4	991.1	1,875.5	1,838.7	36.80	50.970	
10,630.6	10,594.8	8,926.0	8,709.4	12.6	31.2	-18.41	242.4	991.1	1,905.2	1,868.4	36.87	51.674	
10,650.0	10,614.1	8,926.0	8,709.4	12.6	31.2	-6.70	242.4	991.1	1,924.0	1,887.1	36.92	52.120	
10,675.0	10,638.9	8,926.0	8,709.4	12.6	31.2	0.75	242.4	991.1	1,948.0	1,911.0	36.97	52.691	
10,700.0	10,663.4	8,926.0	8,709.4	12.6	31.2	3.92	242.4	991.1	1,971.7	1,934.6	37.02	53.257	
10,725.0	10,687.8	8,926.0	8,709.4	12.6	31.2	5.23	242.4	991.1	1,995.0	1,957.9	37.07	53.816	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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: 142-MWD+IFR1+FDIR, 9097-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	91.00	-8.7	500.2	500.3				
100.0	100.0	95.1	95.1	3.0	3.0	91.03	-9.0	500.4	500.5	494.5	6.00	83.375	
200.0	200.0	195.8	195.8	3.0	3.0	91.14	-10.0	501.0	501.1	495.1	6.03	83.130	
300.0	300.0	294.9	294.9	3.0	3.1	91.22	-10.7	501.2	501.4	495.3	6.10	82.228	
400.0	400.0	393.7	393.7	3.0	3.2	91.23	-10.8	502.0	502.1	495.9	6.20	80.925	
500.0	500.0	486.9	486.9	3.1	3.3	91.21	-10.6	503.2	503.4	497.1	6.34	79.431	
600.0	600.0	580.7	580.6	3.1	3.5	91.17	-10.3	505.8	506.2	499.7	6.50	77.879	
700.0	700.0	679.8	679.6	3.1	3.7	91.11	-9.8	509.4	509.8	503.1	6.70	76.079	
800.0	800.0	781.9	781.7	3.2	3.9	90.99	-8.8	512.8	513.1	506.2	6.93	74.003	
900.0	900.0	884.7	884.5	3.2	4.1	90.87	-7.9	515.7	515.9	508.7	7.19	71.750	
1,000.0	1,000.0	981.6	981.3	3.2	4.4	90.97	-8.8	518.4	518.8	511.3	7.45	69.641	
1,100.0	1,100.0	1,082.0	1,081.6	3.3	4.7	91.23	-11.2	521.5	521.9	514.1	7.73	67.484	
1,200.0	1,200.0	1,181.8	1,181.4	3.4	4.9	91.42	-13.0	524.5	525.0	516.9	8.03	65.380	
1,300.0	1,300.0	1,281.2	1,280.7	3.4	5.2	91.60	-14.7	527.5	528.0	519.7	8.34	63.348	
1,400.0	1,400.0	1,377.4	1,376.9	3.5	5.5	91.77	-16.4	530.9	531.5	522.9	8.64	61.514	
1,500.0	1,500.0	1,473.2	1,472.5	3.5	5.8	91.90	-17.8	535.0	535.9	526.9	8.95	59.856	
1,600.0	1,600.0	1,572.0	1,571.2	3.6	6.1	92.05	-19.3	539.7	540.7	531.4	9.28	58.256	
1,700.0	1,700.0	1,675.1	1,674.1	3.7	6.4	92.41	-22.9	544.4	545.4	535.8	9.63	56.618	
1,800.0	1,800.0	1,777.3	1,776.2	3.8	6.8	92.83	-27.1	548.3	549.4	539.4	9.99	55.014	
1,900.0	1,900.0	1,877.3	1,876.0	3.9	7.1	93.23	-31.1	552.0	553.3	543.0	10.34	53.523	
2,000.0	2,000.0	1,980.7	1,979.3	3.9	7.4	93.56	-34.6	555.6	557.0	546.3	10.71	52.029	
2,100.0	2,100.0	2,085.7	2,084.3	4.0	7.8	93.92	-38.3	558.4	559.8	548.7	11.08	50.519	
2,200.0	2,200.0	2,181.3	2,179.8	4.1	8.1	94.20	-41.1	560.7	562.5	551.1	11.43	49.217	
2,300.0	2,300.0	2,272.6	2,270.9	4.2	8.4	94.40	-43.4	564.1	566.4	554.7	11.77	48.143	
2,400.0	2,400.0	2,363.1	2,361.2	4.3	8.7	94.65	-46.3	568.9	572.0	559.9	12.10	47.265	
2,500.0	2,500.0	2,462.7	2,460.6	4.4	9.0	94.99	-50.2	575.1	578.5	566.0	12.48	46.368	
2,600.0	2,600.0	2,560.9	2,558.6	4.5	9.4	11.03	-54.3	581.2	583.3	570.4	12.84	45.413	
2,700.0	2,699.8	2,653.5	2,650.9	4.5	9.7	11.47	-58.6	587.5	585.4	572.3	13.19	44.387	
2,771.9	2,771.5	2,722.2	2,719.2	4.5	9.9	11.84	-61.8	592.9	585.6	572.1	13.45	43.542	
2,800.0	2,799.5	2,749.1	2,746.0	4.5	10.0	11.98	-62.9	595.1	585.4	571.9	13.55	43.200	
2,900.0	2,899.0	2,851.1	2,847.6	4.6	10.4	12.54	-67.5	603.4	584.7	570.8	13.94	41.933	
3,000.0	2,998.6	2,959.5	2,955.6	4.6	10.8	13.08	-71.8	611.1	583.1	568.7	14.37	40.581	
3,100.0	3,098.1	3,059.1	3,055.0	4.7	11.1	13.55	-75.3	617.7	580.8	566.1	14.76	39.357	
3,200.0	3,197.7	3,160.2	3,155.7	4.7	11.5	14.04	-79.0	624.3	578.6	563.4	15.16	38.175	
3,300.0	3,297.2	3,262.9	3,258.2	4.8	11.8	14.52	-82.4	630.6	576.0	560.4	15.57	37.003	
3,400.0	3,396.8	3,363.4	3,358.5	4.9	12.2	14.95	-85.2	636.5	573.0	557.1	15.97	35.887	
3,500.0	3,496.3	3,465.2	3,460.1	4.9	12.5	15.38	-87.9	642.4	570.1	553.7	16.38	34.805	
3,600.0	3,595.9	3,570.1	3,564.8	5.0	12.9	15.80	-90.4	647.9	566.5	549.7	16.80	33.711	
3,700.0	3,695.4	3,672.0	3,666.6	5.1	13.2	16.17	-92.3	652.5	562.1	544.9	17.22	32.646	
3,800.0	3,795.0	3,756.4	3,750.9	5.1	13.5	16.51	-94.3	657.1	558.9	541.3	17.57	31.807	
3,900.0	3,894.5	3,850.9	3,845.0	5.2	13.9	16.98	-97.7	664.5	558.1	540.2	17.96	31.073	
4,000.0	3,994.1	3,955.6	3,949.4	5.3	14.3	17.45	-101.0	672.4	557.2	538.8	18.40	30.283	
4,100.0	4,093.6	4,056.4	4,049.9	5.4	14.6	17.86	-103.6	679.6	555.6	536.8	18.82	29.518	
4,200.0	4,193.2	4,157.1	4,150.3	5.4	15.0	18.22	-105.7	686.7	554.0	534.7	19.25	28.782	
4,300.0	4,292.7	4,260.2	4,253.1	5.5	15.3	18.57	-107.6	693.7	552.0	532.3	19.68	28.043	
4,400.0	4,392.3	4,359.7	4,352.4	5.6	15.7	18.92	-109.4	700.0	549.6	529.5	20.11	27.335	
4,500.0	4,491.8	4,449.0	4,441.4	5.7	16.0	19.38	-112.6	706.5	548.5	528.0	20.49	26.771	
4,514.4	4,506.2	4,462.4	4,454.7	5.7	16.1	19.46	-113.3	707.5	548.5	527.9	20.54	26.696	
4,600.0	4,591.4	4,543.4	4,535.4	5.8	16.3	19.98	-117.4	714.4	548.9	528.0	20.89	26.277	
4,700.0	4,690.9	4,650.2	4,641.7	5.9	16.7	20.67	-122.9	723.0	549.1	527.7	21.35	25.723	
4,800.0	4,790.5	4,752.6	4,743.7	6.0	17.1	21.28	-127.4	730.5	548.5	526.7	21.79	25.177	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 505H - ST01 - ST01											Offset Site Error:	0.0 usft
Survey Program:		142-MWD+IFR1+FDIR, 9097-MWD+IFR1+FDIR											Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,890.0	4,853.2	4,843.9	6.0	17.5	21.87	-131.7	737.7	547.7	525.5	22.22	24.653	9,289 CC, ES, SF	
5,000.0	4,989.6	4,955.2	4,945.6	6.1	17.8	22.47	-135.9	744.7	546.8	524.1	22.66	24.133		
5,100.0	5,089.1	5,057.5	5,047.6	6.2	18.2	23.07	-140.0	751.4	545.4	522.3	23.10	23.613		
5,200.0	5,188.7	5,159.0	5,148.8	6.3	18.6	23.66	-143.9	757.6	543.7	520.2	23.54	23.102		
5,300.0	5,288.2	5,262.5	5,252.1	6.4	18.9	24.30	-148.0	763.5	541.7	517.7	23.98	22.588		
5,400.0	5,387.8	5,365.9	5,355.3	6.5	19.3	25.01	-152.4	768.4	538.9	514.5	24.42	22.066		
5,500.0	5,487.3	5,463.7	5,452.9	6.6	19.6	25.61	-155.9	773.0	536.0	511.2	24.85	21.573		
5,600.0	5,586.9	5,568.0	5,557.1	6.7	20.0	26.14	-158.5	778.3	533.1	507.8	25.30	21.074		
5,700.0	5,686.4	5,672.1	5,661.0	6.8	20.4	26.76	-161.4	782.3	529.2	503.5	25.75	20.555		
5,800.0	5,786.0	5,760.2	5,749.0	6.9	20.7	27.25	-163.9	786.6	526.3	500.1	26.14	20.133		
5,900.0	5,885.5	5,860.0	5,848.5	7.0	21.1	27.74	-166.4	792.7	524.5	497.9	26.58	19.734		
6,000.0	5,985.1	5,962.9	5,951.3	7.1	21.4	28.28	-169.2	798.5	522.4	495.4	27.03	19.329		
6,100.0	6,084.6	6,059.7	6,047.9	7.3	21.8	28.82	-171.9	803.5	519.9	492.5	27.45	18.938		
6,141.8	6,126.2	6,092.6	6,080.7	7.3	21.9	29.01	-173.1	805.7	519.6	492.0	27.60	18.824		
6,200.0	6,184.2	6,139.2	6,127.1	7.4	22.1	29.29	-175.2	809.6	520.3	492.5	27.81	18.710		
6,300.0	6,283.7	6,234.0	6,221.3	7.5	22.4	29.82	-179.8	819.0	523.1	494.8	28.23	18.531		
6,400.0	6,383.3	6,337.7	6,324.4	7.6	22.8	30.41	-185.0	829.3	526.0	497.3	28.69	18.335		
6,500.0	6,482.8	6,440.5	6,426.6	7.7	23.2	30.99	-189.8	838.9	528.3	499.1	29.14	18.127		
6,600.0	6,582.4	6,543.6	6,529.2	7.8	23.5	31.57	-194.5	848.0	530.2	500.6	29.60	17.910		
6,700.0	6,681.9	6,649.4	6,634.6	7.9	23.9	32.20	-199.3	856.3	531.1	501.1	30.07	17.664		
6,800.0	6,781.5	6,757.1	6,741.9	8.0	24.3	32.86	-203.6	863.5	531.0	500.4	30.54	17.385		
6,900.0	6,881.0	6,859.8	6,844.4	8.1	24.7	33.49	-207.2	869.2	529.6	498.6	30.99	17.086		
7,000.0	6,980.6	6,965.0	6,949.4	8.2	25.0	34.10	-210.3	874.9	527.8	496.3	31.45	16.779		
7,100.0	7,080.1	7,081.9	7,066.2	8.4	25.5	34.80	-212.6	878.9	523.9	492.0	31.95	16.398		
7,200.0	7,179.7	7,171.1	7,155.4	8.5	25.8	35.29	-213.7	881.7	519.5	487.2	32.36	16.056		
7,300.0	7,279.2	7,274.1	7,258.2	8.6	26.2	35.79	-214.6	885.6	515.6	482.8	32.81	15.713		
7,400.0	7,378.8	7,365.6	7,349.6	8.7	26.5	36.27	-216.1	889.6	512.4	479.1	33.23	15.420		
7,500.0	7,478.3	7,468.1	7,452.0	8.8	26.8	36.89	-218.5	894.2	509.8	476.2	33.68	15.138		
7,600.0	7,577.9	7,581.5	7,565.4	8.9	27.2	37.63	-220.6	897.5	505.7	471.6	34.16	14.804		
7,700.0	7,677.4	7,686.8	7,670.6	9.0	27.6	38.39	-221.5	898.0	499.1	464.5	34.61	14.421		
7,800.0	7,777.0	7,783.1	7,767.0	9.2	28.0	39.12	-222.7	898.8	493.0	458.0	35.03	14.073		
7,900.0	7,876.5	7,900.4	7,884.1	9.3	28.4	39.55	-219.9	900.6	485.8	450.2	35.52	13.675		
8,000.0	7,976.1	7,998.1	7,981.7	9.4	28.7	39.64	-214.7	902.2	476.9	440.9	35.95	13.265		
8,100.0	8,075.6	8,128.4	8,111.3	9.5	29.1	39.16	-202.2	904.6	466.1	429.6	36.47	12.782		
8,200.0	8,175.2	8,240.1	8,219.2	9.6	29.5	36.63	-174.2	909.4	448.7	411.8	36.99	12.132		
8,300.0	8,274.7	8,352.8	8,325.2	9.8	29.8	32.57	-136.6	916.2	429.8	392.2	37.57	11.439		
8,400.0	8,374.3	8,488.0	8,448.6	9.9	30.2	26.23	-81.8	917.2	404.9	366.6	38.25	10.585		
8,500.0	8,473.8	8,551.0	8,502.5	10.0	30.4	21.83	-49.3	919.3	382.1	343.3	38.86	9.832		
8,600.0	8,573.4	8,622.6	8,559.7	10.1	30.6	15.50	-7.0	927.1	370.2	330.7	39.49	9.373		
8,642.3	8,615.5	8,648.8	8,579.0	10.2	30.7	12.81	10.4	930.9	368.9	329.2	39.71	9.289 CC, ES, SF		
8,700.0	8,672.9	8,682.1	8,601.7	10.2	30.8	9.15	34.0	936.3	371.5	331.6	39.92	9.306		
8,800.0	8,772.5	8,733.9	8,633.6	10.4	30.9	3.06	73.9	945.2	388.9	348.9	40.01	9.721		
8,900.0	8,872.0	8,770.0	8,653.6	10.5	31.0	-1.25	103.1	952.2	423.4	383.8	39.60	10.692		
9,000.0	8,971.6	8,801.0	8,668.8	10.6	31.0	-4.93	129.3	958.9	472.9	434.0	38.92	12.150		
9,100.0	9,071.1	8,833.0	8,682.8	10.7	31.1	-8.64	157.1	966.3	534.3	496.0	38.25	13.968		
9,200.0	9,170.7	8,844.8	8,687.4	10.8	31.1	-9.98	167.6	969.2	604.2	566.8	37.42	16.147		
9,300.0	9,270.2	8,864.0	8,694.1	11.0	31.1	-12.09	184.8	974.0	680.8	643.9	36.85	18.474		
9,400.0	9,369.8	8,864.0	8,694.1	11.1	31.1	-12.09	184.8	974.0	762.2	725.9	36.23	21.035		
9,500.0	9,469.3	8,881.6	8,699.5	11.2	31.2	-13.97	200.9	978.7	847.0	811.0	35.97	23.544		
9,600.0	9,568.9	8,895.0	8,703.0	11.3	31.2	-15.35	213.3	982.4	934.6	898.8	35.79	26.110		
9,700.0	9,668.4	8,895.0	8,703.0	11.5	31.2	-15.35	213.3	982.4	1,024.2	988.6	35.60	28.768		

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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 505H - ST01 - ST01												Offset Site Error:	0.0 usft
Survey Program: 142-MWD+IFR1+FDIR, 9097-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
9,800.0	9,768.0	8,895.0	8,703.0	11.6	31.2	-15.35	213.3	982.4	1,115.5	1,080.0	35.51	31.417	
9,900.0	9,867.5	8,911.6	8,706.7	11.7	31.2	-17.01	228.8	987.1	1,207.8	1,172.2	35.60	33.923	
10,000.0	9,967.1	8,926.0	8,709.4	11.8	31.2	-18.41	242.4	991.1	1,301.4	1,265.7	35.73	36.420	
10,100.0	10,066.6	8,926.0	8,709.4	11.9	31.2	-18.41	242.4	991.1	1,395.6	1,359.8	35.81	38.968	
10,200.0	10,166.2	8,926.0	8,709.4	12.1	31.2	-18.41	242.4	991.1	1,490.5	1,454.6	35.94	41.476	
10,300.0	10,265.7	8,926.0	8,709.4	12.2	31.2	-18.41	242.4	991.1	1,586.1	1,550.0	36.09	43.942	
10,400.0	10,365.3	8,926.0	8,709.4	12.3	31.2	-18.41	242.4	991.1	1,682.2	1,645.9	36.28	46.364	
10,500.0	10,464.8	8,926.0	8,709.4	12.5	31.2	-18.41	242.4	991.1	1,778.7	1,742.2	36.49	48.742	
10,600.0	10,564.4	8,926.0	8,709.4	12.5	31.2	-18.41	242.4	991.1	1,875.5	1,838.7	36.80	50.970	
10,630.6	10,594.8	8,926.0	8,709.4	12.6	31.2	-18.41	242.4	991.1	1,905.2	1,868.4	36.87	51.674	
10,650.0	10,614.1	8,926.0	8,709.4	12.6	31.2	-6.70	242.4	991.1	1,924.0	1,887.1	36.92	52.120	
10,675.0	10,638.9	8,926.0	8,709.4	12.6	31.2	0.75	242.4	991.1	1,948.0	1,911.0	36.97	52.691	
10,700.0	10,663.4	8,926.0	8,709.4	12.6	31.2	3.92	242.4	991.1	1,971.7	1,934.6	37.02	53.257	
10,725.0	10,687.8	8,926.0	8,709.4	12.6	31.2	5.23	242.4	991.1	1,995.0	1,957.9	37.07	53.816	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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' @ 3009.9usft (TBD)

Offset Depths are relative to Offset Datum

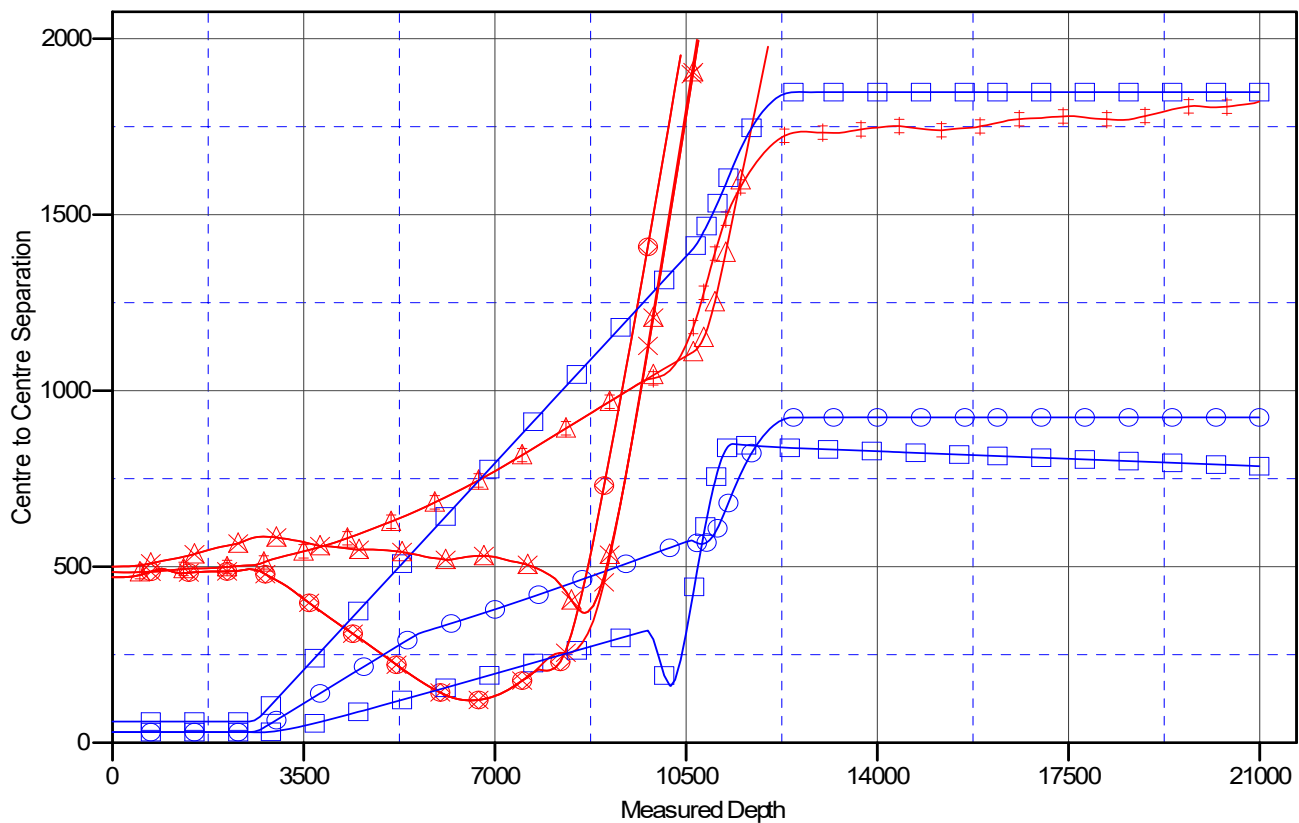
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL COM #801H

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

Grid Convergence at Surface is: 0.19°

Ladder Plot



LEGEND

✕ ADMIRAL FEDERAL COM 504H, OWB, AWP V0	● ADMIRAL FEDERAL COM #82H, LATERAL 01 AWP-LAT 01 V0	✕ ADMIRAL FEDERAL COM 505H, OWB, AWP V0
○ ADMIRAL FEDERAL COM 504H, ST 01, ST 01 V0	■ ADMIRAL FEDERAL COM #802H, OWB, PWP 1 V0	■ ADMIRAL FEDERAL COM #701H, OWB, PWP 1 V0
△ ADMIRAL FEDERAL COM 504H, ST 02, ST 02 V0	■ ADMIRAL FEDERAL COM #803H, OWB, PWP 1 V0	
△ ADMIRAL FEDERAL COM #2H, OWB-PILOT HOLE, AWP-PH V0	✕ ADMIRAL FEDERAL COM 505H, ST 01, ST 01 V0	

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 COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #801H	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' @ 3009.9usft (TBD)

Offset Depths are relative to Offset Datum

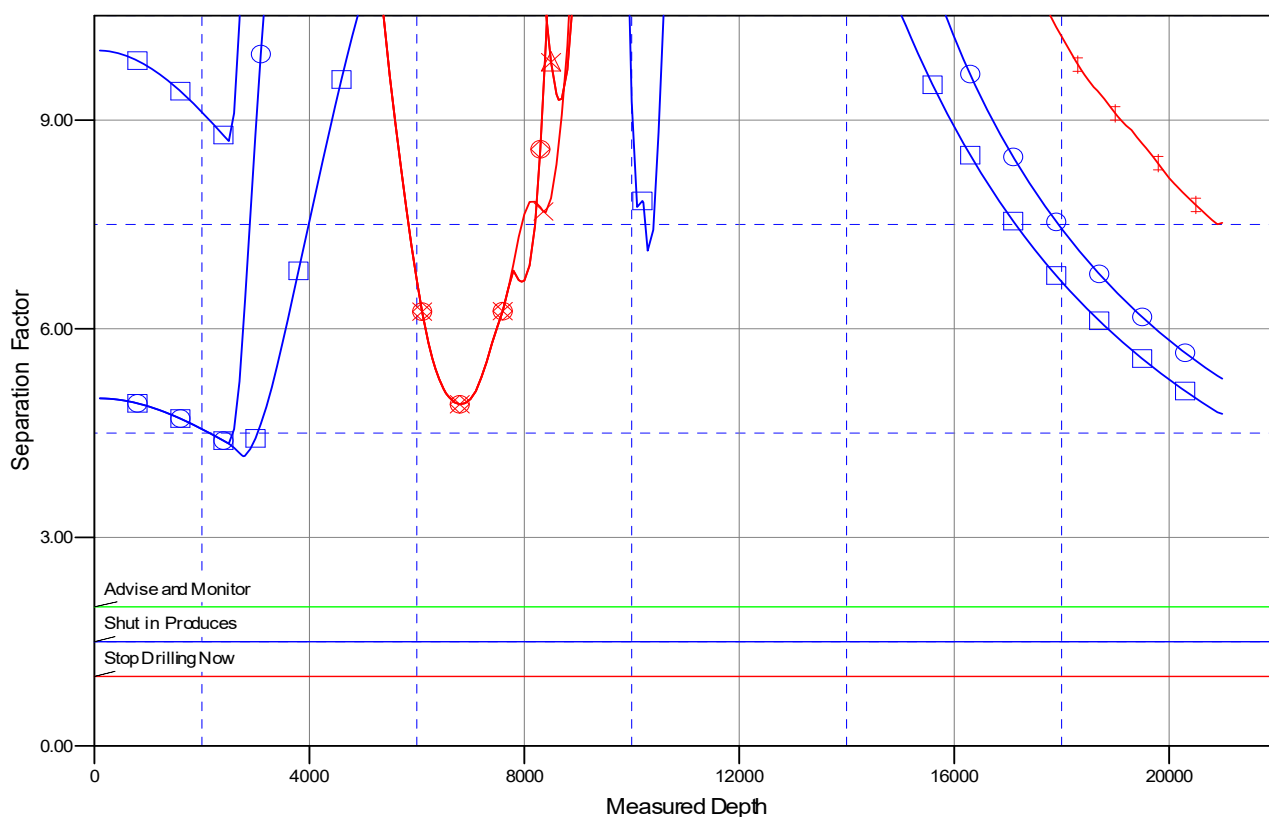
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL COM #801H

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

Grid Convergence at Surface is: 0.19°

Separation Factor Plot



LEGEND

	ADMIRAL FEDERAL COM 504H, OWB, AWP V0		ADMIRAL FEDERAL COM #801H, LATERAL 01AWP-LAT 01V0		ADMIRAL FEDERAL COM 505H, OWB, AWP V0
	ADMIRAL FEDERAL COM 504H, ST 01, ST 01 V0		ADMIRAL FEDERAL COM #802H, OWB, PWP 1 V0		ADMIRAL FEDERAL COM #701H, OWB, PWP 1 V0
	ADMIRAL FEDERAL COM 504H, ST 02, ST 02 V0		ADMIRAL FEDERAL COM #803H, OWB, PWP 1 V0		
	ADMIRAL FEDERAL COM #2H, OWB-PILOT HOLE, AWP-PH V0		ADMIRAL FEDERAL COM 505H, ST 01, ST 01 V0		

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

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

ADMIRAL FEDERAL PROJECT (ATLAS 2529)

ADMIRAL FEDERAL COM #801H

OWB

Plan: PWP1

Standard Survey Report

14 December, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	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		

Site	ADMIRAL FEDERAL PROJECT (ATLAS 2529)		
Site Position:		Northing:	398,093.60 usft
From:	Map	Easting:	604,917.40 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 5' 38.480 N
		Longitude:	103° 59' 40.340 W
		Grid Convergence:	0.18 °

Well	ADMIRAL FEDERAL COM #801H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty		3.0 usft	Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OWB		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2020	10/20/2020	6.80
			Dip Angle (°)
			59.74
			Field Strength (nT)
			47,444.96528982

Design	PWP1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			6.17

Survey Tool Program	Date	12/14/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	0.0	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
10,581.0	20,990.2	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	84.32	2,600.0	0.2	1.7	0.4	2.00	2.00	0.00
2,700.0	4.00	84.32	2,699.8	0.7	6.9	1.4	2.00	2.00	0.00
2,771.9	5.44	84.32	2,771.5	1.3	12.8	2.6	2.00	2.00	0.00
Start 7858.7 hold at 2771.9 MD									
2,800.0	5.44	84.32	2,799.5	1.5	15.5	3.2	0.00	0.00	0.00
2,900.0	5.44	84.32	2,899.0	2.5	24.9	5.1	0.00	0.00	0.00
3,000.0	5.44	84.32	2,998.6	3.4	34.3	7.1	0.00	0.00	0.00
3,100.0	5.44	84.32	3,098.1	4.4	43.8	9.0	0.00	0.00	0.00
3,200.0	5.44	84.32	3,197.7	5.3	53.2	11.0	0.00	0.00	0.00
3,300.0	5.44	84.32	3,297.2	6.2	62.6	12.9	0.00	0.00	0.00
3,400.0	5.44	84.32	3,396.8	7.2	72.1	14.9	0.00	0.00	0.00
3,500.0	5.44	84.32	3,496.3	8.1	81.5	16.8	0.00	0.00	0.00
3,600.0	5.44	84.32	3,595.9	9.0	90.9	18.8	0.00	0.00	0.00
3,700.0	5.44	84.32	3,695.4	10.0	100.4	20.7	0.00	0.00	0.00
3,800.0	5.44	84.32	3,795.0	10.9	109.8	22.7	0.00	0.00	0.00
3,900.0	5.44	84.32	3,894.5	11.9	119.2	24.6	0.00	0.00	0.00
4,000.0	5.44	84.32	3,994.1	12.8	128.7	26.5	0.00	0.00	0.00
4,100.0	5.44	84.32	4,093.6	13.7	138.1	28.5	0.00	0.00	0.00
4,200.0	5.44	84.32	4,193.2	14.7	147.5	30.4	0.00	0.00	0.00
4,300.0	5.44	84.32	4,292.7	15.6	156.9	32.4	0.00	0.00	0.00
4,400.0	5.44	84.32	4,392.3	16.5	166.4	34.3	0.00	0.00	0.00
4,500.0	5.44	84.32	4,491.8	17.5	175.8	36.3	0.00	0.00	0.00
4,600.0	5.44	84.32	4,591.4	18.4	185.2	38.2	0.00	0.00	0.00
4,700.0	5.44	84.32	4,690.9	19.4	194.7	40.2	0.00	0.00	0.00
4,800.0	5.44	84.32	4,790.5	20.3	204.1	42.1	0.00	0.00	0.00
4,900.0	5.44	84.32	4,890.0	21.2	213.5	44.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	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)
5,000.0	5.44	84.32	4,989.6	22.2	223.0	46.0	0.00	0.00	0.00
5,100.0	5.44	84.32	5,089.1	23.1	232.4	47.9	0.00	0.00	0.00
5,200.0	5.44	84.32	5,188.7	24.1	241.8	49.9	0.00	0.00	0.00
5,300.0	5.44	84.32	5,288.2	25.0	251.3	51.8	0.00	0.00	0.00
5,400.0	5.44	84.32	5,387.8	25.9	260.7	53.8	0.00	0.00	0.00
5,500.0	5.44	84.32	5,487.3	26.9	270.1	55.7	0.00	0.00	0.00
5,600.0	5.44	84.32	5,586.9	27.8	279.6	57.7	0.00	0.00	0.00
5,700.0	5.44	84.32	5,686.4	28.7	289.0	59.6	0.00	0.00	0.00
5,800.0	5.44	84.32	5,786.0	29.7	298.4	61.6	0.00	0.00	0.00
5,900.0	5.44	84.32	5,885.5	30.6	307.8	63.5	0.00	0.00	0.00
6,000.0	5.44	84.32	5,985.1	31.6	317.3	65.5	0.00	0.00	0.00
6,100.0	5.44	84.32	6,084.6	32.5	326.7	67.4	0.00	0.00	0.00
6,200.0	5.44	84.32	6,184.2	33.4	336.1	69.3	0.00	0.00	0.00
6,300.0	5.44	84.32	6,283.7	34.4	345.6	71.3	0.00	0.00	0.00
6,400.0	5.44	84.32	6,383.3	35.3	355.0	73.2	0.00	0.00	0.00
6,500.0	5.44	84.32	6,482.8	36.3	364.4	75.2	0.00	0.00	0.00
6,600.0	5.44	84.32	6,582.4	37.2	373.9	77.1	0.00	0.00	0.00
6,700.0	5.44	84.32	6,681.9	38.1	383.3	79.1	0.00	0.00	0.00
6,800.0	5.44	84.32	6,781.5	39.1	392.7	81.0	0.00	0.00	0.00
6,900.0	5.44	84.32	6,881.0	40.0	402.2	83.0	0.00	0.00	0.00
7,000.0	5.44	84.32	6,980.6	40.9	411.6	84.9	0.00	0.00	0.00
7,100.0	5.44	84.32	7,080.1	41.9	421.0	86.9	0.00	0.00	0.00
7,200.0	5.44	84.32	7,179.7	42.8	430.5	88.8	0.00	0.00	0.00
7,300.0	5.44	84.32	7,279.2	43.8	439.9	90.7	0.00	0.00	0.00
7,400.0	5.44	84.32	7,378.8	44.7	449.3	92.7	0.00	0.00	0.00
7,500.0	5.44	84.32	7,478.3	45.6	458.7	94.6	0.00	0.00	0.00
7,600.0	5.44	84.32	7,577.9	46.6	468.2	96.6	0.00	0.00	0.00
7,700.0	5.44	84.32	7,677.4	47.5	477.6	98.5	0.00	0.00	0.00
7,800.0	5.44	84.32	7,777.0	48.4	487.0	100.5	0.00	0.00	0.00
7,900.0	5.44	84.32	7,876.5	49.4	496.5	102.4	0.00	0.00	0.00
8,000.0	5.44	84.32	7,976.1	50.3	505.9	104.4	0.00	0.00	0.00
8,100.0	5.44	84.32	8,075.6	51.3	515.3	106.3	0.00	0.00	0.00
8,200.0	5.44	84.32	8,175.2	52.2	524.8	108.3	0.00	0.00	0.00
8,300.0	5.44	84.32	8,274.7	53.1	534.2	110.2	0.00	0.00	0.00
8,400.0	5.44	84.32	8,374.3	54.1	543.6	112.2	0.00	0.00	0.00
8,500.0	5.44	84.32	8,473.8	55.0	553.1	114.1	0.00	0.00	0.00
8,600.0	5.44	84.32	8,573.4	56.0	562.5	116.0	0.00	0.00	0.00
8,700.0	5.44	84.32	8,672.9	56.9	571.9	118.0	0.00	0.00	0.00
8,800.0	5.44	84.32	8,772.5	57.8	581.4	119.9	0.00	0.00	0.00
8,900.0	5.44	84.32	8,872.0	58.8	590.8	121.9	0.00	0.00	0.00
9,000.0	5.44	84.32	8,971.6	59.7	600.2	123.8	0.00	0.00	0.00
9,100.0	5.44	84.32	9,071.1	60.6	609.6	125.8	0.00	0.00	0.00
9,200.0	5.44	84.32	9,170.7	61.6	619.1	127.7	0.00	0.00	0.00
9,300.0	5.44	84.32	9,270.2	62.5	628.5	129.7	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,400.0	5.44	84.32	9,369.8	63.5	637.9	131.6	0.00	0.00	0.00
9,500.0	5.44	84.32	9,469.3	64.4	647.4	133.6	0.00	0.00	0.00
9,600.0	5.44	84.32	9,568.9	65.3	656.8	135.5	0.00	0.00	0.00
9,700.0	5.44	84.32	9,668.4	66.3	666.2	137.4	0.00	0.00	0.00
9,800.0	5.44	84.32	9,768.0	67.2	675.7	139.4	0.00	0.00	0.00
9,900.0	5.44	84.32	9,867.5	68.1	685.1	141.3	0.00	0.00	0.00
10,000.0	5.44	84.32	9,967.1	69.1	694.5	143.3	0.00	0.00	0.00
10,100.0	5.44	84.32	10,066.6	70.0	704.0	145.2	0.00	0.00	0.00
10,200.0	5.44	84.32	10,166.2	71.0	713.4	147.2	0.00	0.00	0.00
10,300.0	5.44	84.32	10,265.7	71.9	722.8	149.1	0.00	0.00	0.00
10,400.0	5.44	84.32	10,365.3	72.8	732.3	151.1	0.00	0.00	0.00
10,500.0	5.44	84.32	10,464.8	73.8	741.7	153.0	0.00	0.00	0.00
10,600.0	5.44	84.32	10,564.4	74.7	751.1	155.0	0.00	0.00	0.00
10,630.6	5.44	84.32	10,594.8	75.0	754.0	155.6	0.00	0.00	0.00
Start DLS 12.00 TFO -63.05									
10,700.0	11.83	45.26	10,663.4	80.3	762.3	161.8	12.00	9.20	-56.26
10,800.0	23.28	32.74	10,758.7	104.3	780.4	187.5	12.00	11.46	-12.52
10,900.0	35.09	28.31	10,845.8	146.4	804.8	231.9	12.00	11.81	-4.43
11,000.0	46.99	25.91	10,921.1	204.8	834.5	293.2	12.00	11.90	-2.39
11,100.0	58.92	24.31	10,981.2	276.9	868.2	368.6	12.00	11.93	-1.61
11,200.0	70.87	23.06	11,023.6	359.7	904.5	454.8	12.00	11.95	-1.24
11,300.0	82.83	21.99	11,046.3	449.5	941.7	548.1	12.00	11.95	-1.07
11,360.7	90.09	21.37	11,050.0	505.8	964.1	606.5	12.00	11.96	-1.02
Start DLS 2.00 TFO -89.98									
11,400.0	90.09	20.58	11,050.0	542.5	978.2	644.4	2.00	0.00	-2.00
11,500.0	90.09	18.58	11,049.8	636.7	1,011.7	741.7	2.00	0.00	-2.00
11,600.0	90.09	16.58	11,049.7	732.0	1,041.9	839.7	2.00	0.00	-2.00
11,700.0	90.09	14.58	11,049.5	828.3	1,068.7	938.3	2.00	0.00	-2.00
11,800.0	90.09	12.58	11,049.3	925.5	1,092.2	1,037.5	2.00	0.00	-2.00
11,900.0	90.09	10.58	11,049.2	1,023.5	1,112.3	1,137.0	2.00	0.00	-2.00
12,000.0	90.09	8.58	11,049.0	1,122.1	1,129.0	1,236.9	2.00	0.00	-2.00
12,100.0	90.09	6.58	11,048.9	1,221.2	1,142.2	1,336.8	2.00	0.00	-2.00
12,200.0	90.09	4.58	11,048.7	1,320.7	1,151.9	1,436.8	2.00	0.00	-2.00
12,300.0	90.09	2.58	11,048.5	1,420.5	1,158.1	1,536.7	2.00	0.00	-2.00
12,400.0	90.09	0.58	11,048.4	1,520.5	1,160.9	1,636.4	2.00	0.00	-2.00
12,464.8	90.09	359.29	11,048.3	1,585.3	1,160.8	1,700.8	2.00	0.00	-2.00
Start 3417.6 hold at 12464.8 MD									
12,500.0	90.09	359.29	11,048.2	1,620.5	1,160.4	1,735.7	0.00	0.00	0.00
12,600.0	90.09	359.29	11,048.1	1,720.5	1,159.2	1,835.0	0.00	0.00	0.00
12,700.0	90.09	359.29	11,047.9	1,820.5	1,157.9	1,934.3	0.00	0.00	0.00
12,800.0	90.09	359.29	11,047.8	1,920.5	1,156.7	2,033.6	0.00	0.00	0.00
12,900.0	90.09	359.29	11,047.6	2,020.4	1,155.4	2,132.9	0.00	0.00	0.00
13,000.0	90.09	359.29	11,047.4	2,120.4	1,154.2	2,232.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	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)
13,100.0	90.09	359.29	11,047.3	2,220.4	1,153.0	2,331.4	0.00	0.00	0.00
13,200.0	90.09	359.29	11,047.1	2,320.4	1,151.7	2,430.7	0.00	0.00	0.00
13,300.0	90.09	359.29	11,047.0	2,420.4	1,150.5	2,530.0	0.00	0.00	0.00
13,400.0	90.09	359.29	11,046.8	2,520.4	1,149.2	2,629.3	0.00	0.00	0.00
13,500.0	90.09	359.29	11,046.7	2,620.4	1,148.0	2,728.5	0.00	0.00	0.00
13,600.0	90.09	359.29	11,046.5	2,720.4	1,146.7	2,827.8	0.00	0.00	0.00
13,700.0	90.09	359.29	11,046.3	2,820.4	1,145.5	2,927.1	0.00	0.00	0.00
13,800.0	90.09	359.29	11,046.2	2,920.4	1,144.3	3,026.4	0.00	0.00	0.00
13,900.0	90.09	359.29	11,046.0	3,020.4	1,143.0	3,125.7	0.00	0.00	0.00
14,000.0	90.09	359.29	11,045.9	3,120.4	1,141.8	3,224.9	0.00	0.00	0.00
14,100.0	90.09	359.29	11,045.7	3,220.4	1,140.5	3,324.2	0.00	0.00	0.00
14,200.0	90.09	359.29	11,045.6	3,320.3	1,139.3	3,423.5	0.00	0.00	0.00
14,300.0	90.09	359.29	11,045.4	3,420.3	1,138.1	3,522.8	0.00	0.00	0.00
14,400.0	90.09	359.29	11,045.2	3,520.3	1,136.8	3,622.1	0.00	0.00	0.00
14,500.0	90.09	359.29	11,045.1	3,620.3	1,135.6	3,721.4	0.00	0.00	0.00
14,600.0	90.09	359.29	11,044.9	3,720.3	1,134.3	3,820.6	0.00	0.00	0.00
14,700.0	90.09	359.29	11,044.8	3,820.3	1,133.1	3,919.9	0.00	0.00	0.00
14,800.0	90.09	359.29	11,044.6	3,920.3	1,131.8	4,019.2	0.00	0.00	0.00
14,900.0	90.09	359.29	11,044.4	4,020.3	1,130.6	4,118.5	0.00	0.00	0.00
15,000.0	90.09	359.29	11,044.3	4,120.3	1,129.4	4,217.8	0.00	0.00	0.00
15,100.0	90.09	359.29	11,044.1	4,220.3	1,128.1	4,317.0	0.00	0.00	0.00
15,200.0	90.09	359.29	11,044.0	4,320.3	1,126.9	4,416.3	0.00	0.00	0.00
15,300.0	90.09	359.29	11,043.8	4,420.3	1,125.6	4,515.6	0.00	0.00	0.00
15,400.0	90.09	359.29	11,043.7	4,520.3	1,124.4	4,614.9	0.00	0.00	0.00
15,500.0	90.09	359.29	11,043.5	4,620.2	1,123.2	4,714.2	0.00	0.00	0.00
15,600.0	90.09	359.29	11,043.3	4,720.2	1,121.9	4,813.4	0.00	0.00	0.00
15,700.0	90.09	359.29	11,043.2	4,820.2	1,120.7	4,912.7	0.00	0.00	0.00
15,800.0	90.09	359.29	11,043.0	4,920.2	1,119.4	5,012.0	0.00	0.00	0.00
15,882.4	90.09	359.29	11,042.9	5,002.6	1,118.4	5,093.8	0.00	0.00	0.00
Start DLS 2.00 TFO 90.23									
15,900.0	90.09	359.64	11,042.9	5,020.2	1,118.2	5,111.3	2.00	-0.01	2.00
15,903.4	90.09	359.71	11,042.9	5,023.6	1,118.2	5,114.6	2.00	-0.01	2.00
Start 5087.2 hold at 15903.4 MD									
16,000.0	90.09	359.71	11,042.7	5,120.2	1,117.7	5,210.6	0.00	0.00	0.00
16,100.0	90.09	359.71	11,042.6	5,220.2	1,117.2	5,310.0	0.00	0.00	0.00
16,200.0	90.09	359.71	11,042.4	5,320.2	1,116.7	5,409.4	0.00	0.00	0.00
16,300.0	90.09	359.71	11,042.3	5,420.2	1,116.2	5,508.7	0.00	0.00	0.00
16,400.0	90.09	359.71	11,042.1	5,520.2	1,115.7	5,608.1	0.00	0.00	0.00
16,500.0	90.09	359.71	11,041.9	5,620.2	1,115.2	5,707.5	0.00	0.00	0.00
16,600.0	90.09	359.71	11,041.8	5,720.2	1,114.7	5,806.8	0.00	0.00	0.00
16,700.0	90.09	359.71	11,041.6	5,820.2	1,114.2	5,906.2	0.00	0.00	0.00
16,800.0	90.09	359.71	11,041.5	5,920.2	1,113.7	6,005.6	0.00	0.00	0.00
16,900.0	90.09	359.71	11,041.3	6,020.2	1,113.1	6,104.9	0.00	0.00	0.00
17,000.0	90.09	359.71	11,041.2	6,120.2	1,112.6	6,204.3	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	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)
17,100.0	90.09	359.71	11,041.0	6,220.2	1,112.1	6,303.7	0.00	0.00	0.00
17,200.0	90.09	359.71	11,040.9	6,320.2	1,111.6	6,403.0	0.00	0.00	0.00
17,300.0	90.09	359.71	11,040.7	6,420.2	1,111.1	6,502.4	0.00	0.00	0.00
17,400.0	90.09	359.71	11,040.6	6,520.2	1,110.6	6,601.8	0.00	0.00	0.00
17,500.0	90.09	359.71	11,040.4	6,620.2	1,110.1	6,701.1	0.00	0.00	0.00
17,600.0	90.09	359.71	11,040.2	6,720.2	1,109.6	6,800.5	0.00	0.00	0.00
17,700.0	90.09	359.71	11,040.1	6,820.2	1,109.1	6,899.9	0.00	0.00	0.00
17,800.0	90.09	359.71	11,039.9	6,920.2	1,108.6	6,999.2	0.00	0.00	0.00
17,900.0	90.09	359.71	11,039.8	7,020.2	1,108.0	7,098.6	0.00	0.00	0.00
18,000.0	90.09	359.71	11,039.6	7,120.2	1,107.5	7,198.0	0.00	0.00	0.00
18,100.0	90.09	359.71	11,039.5	7,220.2	1,107.0	7,297.3	0.00	0.00	0.00
18,200.0	90.09	359.71	11,039.3	7,320.2	1,106.5	7,396.7	0.00	0.00	0.00
18,300.0	90.09	359.71	11,039.2	7,420.2	1,106.0	7,496.0	0.00	0.00	0.00
18,400.0	90.09	359.71	11,039.0	7,520.2	1,105.5	7,595.4	0.00	0.00	0.00
18,500.0	90.09	359.71	11,038.9	7,620.2	1,105.0	7,694.8	0.00	0.00	0.00
18,600.0	90.09	359.71	11,038.7	7,720.2	1,104.5	7,794.1	0.00	0.00	0.00
18,700.0	90.09	359.71	11,038.5	7,820.2	1,104.0	7,893.5	0.00	0.00	0.00
18,800.0	90.09	359.71	11,038.4	7,920.2	1,103.5	7,992.9	0.00	0.00	0.00
18,900.0	90.09	359.71	11,038.2	8,020.2	1,103.0	8,092.2	0.00	0.00	0.00
19,000.0	90.09	359.71	11,038.1	8,120.2	1,102.4	8,191.6	0.00	0.00	0.00
19,100.0	90.09	359.71	11,037.9	8,220.2	1,101.9	8,291.0	0.00	0.00	0.00
19,200.0	90.09	359.71	11,037.8	8,320.2	1,101.4	8,390.3	0.00	0.00	0.00
19,300.0	90.09	359.71	11,037.6	8,420.2	1,100.9	8,489.7	0.00	0.00	0.00
19,400.0	90.09	359.71	11,037.5	8,520.2	1,100.4	8,589.1	0.00	0.00	0.00
19,500.0	90.09	359.71	11,037.3	8,620.2	1,099.9	8,688.4	0.00	0.00	0.00
19,600.0	90.09	359.71	11,037.2	8,720.2	1,099.4	8,787.8	0.00	0.00	0.00
19,700.0	90.09	359.71	11,037.0	8,820.2	1,098.9	8,887.2	0.00	0.00	0.00
19,800.0	90.09	359.71	11,036.8	8,920.2	1,098.4	8,986.5	0.00	0.00	0.00
19,900.0	90.09	359.71	11,036.7	9,020.2	1,097.9	9,085.9	0.00	0.00	0.00
20,000.0	90.09	359.71	11,036.5	9,120.2	1,097.3	9,185.3	0.00	0.00	0.00
20,100.0	90.09	359.71	11,036.4	9,220.2	1,096.8	9,284.6	0.00	0.00	0.00
20,200.0	90.09	359.71	11,036.2	9,320.2	1,096.3	9,384.0	0.00	0.00	0.00
20,300.0	90.09	359.71	11,036.1	9,420.2	1,095.8	9,483.4	0.00	0.00	0.00
20,400.0	90.09	359.71	11,035.9	9,520.2	1,095.3	9,582.7	0.00	0.00	0.00
20,500.0	90.09	359.71	11,035.8	9,620.1	1,094.8	9,682.1	0.00	0.00	0.00
20,600.0	90.09	359.71	11,035.6	9,720.1	1,094.3	9,781.5	0.00	0.00	0.00
20,700.0	90.09	359.71	11,035.4	9,820.1	1,093.8	9,880.8	0.00	0.00	0.00
20,800.0	90.09	359.71	11,035.3	9,920.1	1,093.3	9,980.2	0.00	0.00	0.00
20,900.0	90.09	359.71	11,035.1	10,020.1	1,092.8	10,079.5	0.00	0.00	0.00
20,990.6	90.09	359.71	11,035.0	10,110.7	1,092.3	10,169.5	0.00	0.00	0.00
TD at 20990.6									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #801H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3009.9usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3009.9usft (TBD)
Well:	ADMIRAL FEDERAL COM #801H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Design Targets

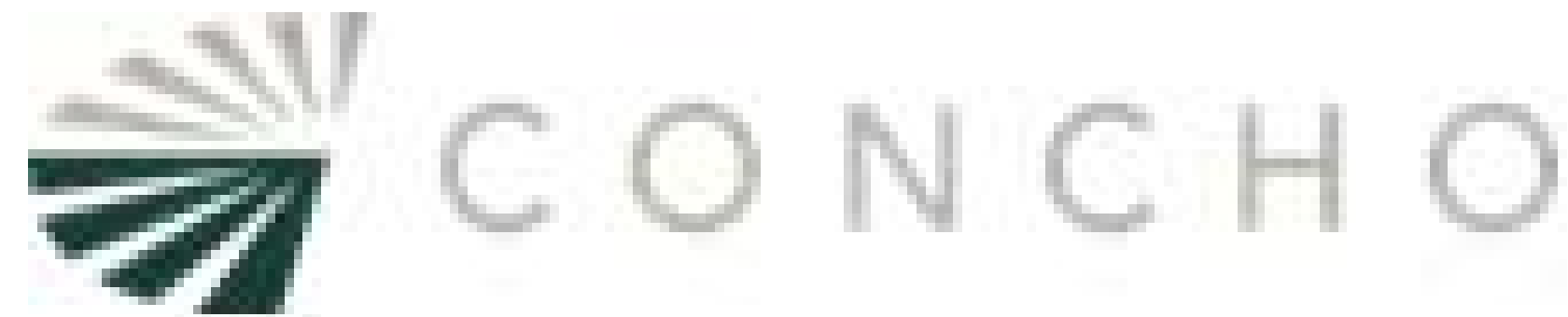
Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H5,117.0 D20.0)	0.09	179.72	11,035.0	10,110.7	1,092.3	408,308.30	608,941.40	32° 7' 19.441 N	103° 58' 53.175 W
LTP (ADMIRAL FED C - plan misses target center by 0.5usft at 20860.6usft MD (11035.2 TVD, 9980.7 N, 1093.0 E) - Point	0.00	0.00	11,035.0	9,980.7	1,093.4	408,178.30	608,942.50	32° 7' 18.154 N	103° 58' 53.167 W
POI 1 (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H5,015.0 D20.0)	0.09	179.29	11,042.9	5,002.6	1,118.4	403,200.20	608,967.51	32° 6' 28.889 N	103° 58' 53.065 W
FTP (ADMIRAL FED C - plan misses target center by 404.4usft at 11064.0usft MD (10961.5 TVD, 249.6 N, 855.7 E) - Circle (radius 50.0)	0.00	0.00	11,050.0	24.4	1,179.8	398,222.00	609,028.90	32° 5' 39.620 N	103° 58' 52.540 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
2772	2772	1	13	Start 7858.7 hold at 2771.9 MD
10,631	10,595	75	754	Start DLS 12.00 TFO -63.05
11,361	11,050	506	964	Start DLS 2.00 TFO -89.98
12,465	11,048	1585	1161	Start 3417.6 hold at 12464.8 MD
15,882	11,043	5003	1118	Start DLS 2.00 TFO 90.23
15,903	11,043	5024	1118	Start 5087.2 hold at 15903.4 MD
20,991	11,035	10,111	1092	TD at 20990.6

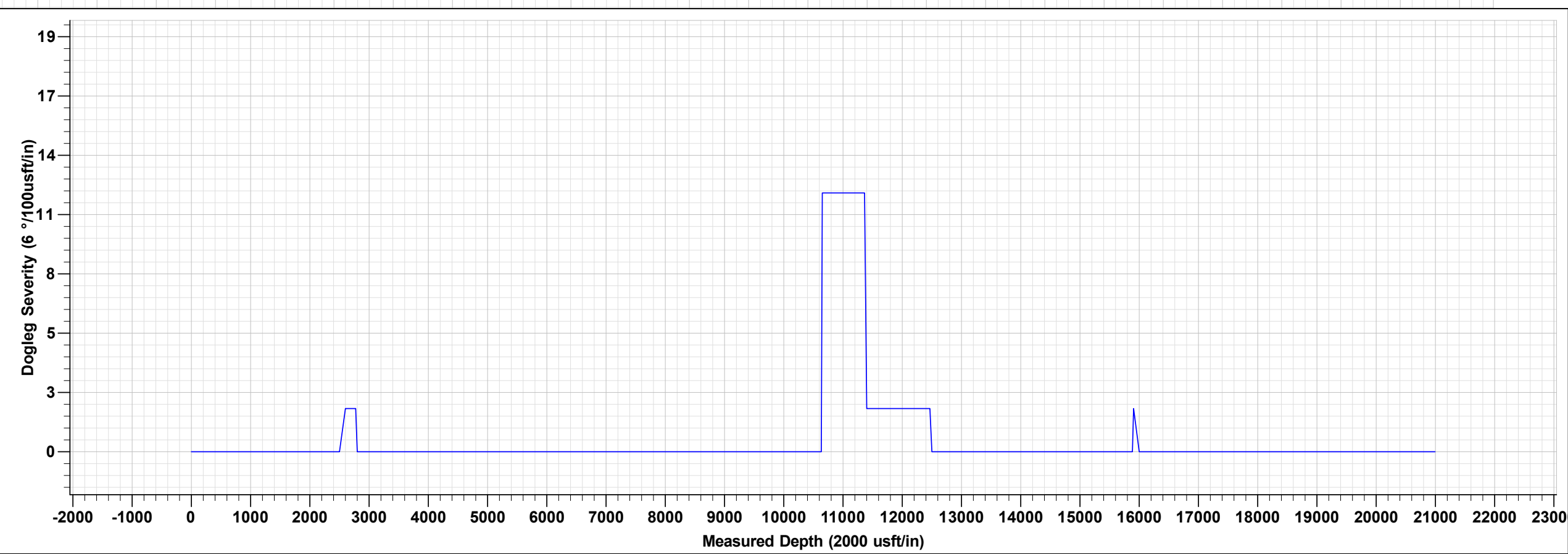
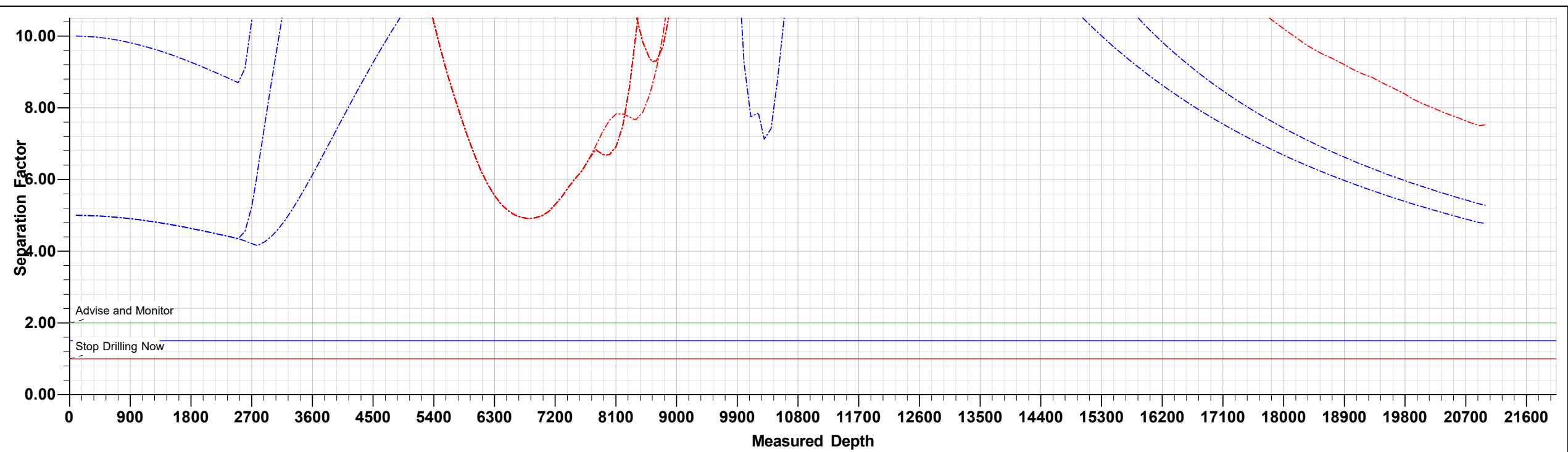
Checked By: _____ Approved By: _____ Date: _____



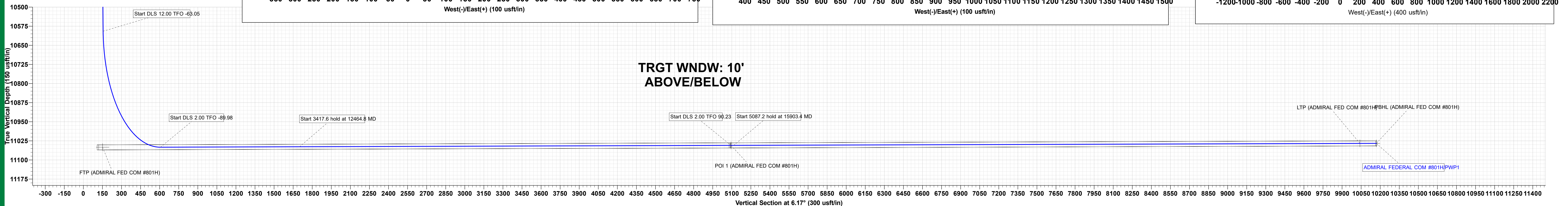
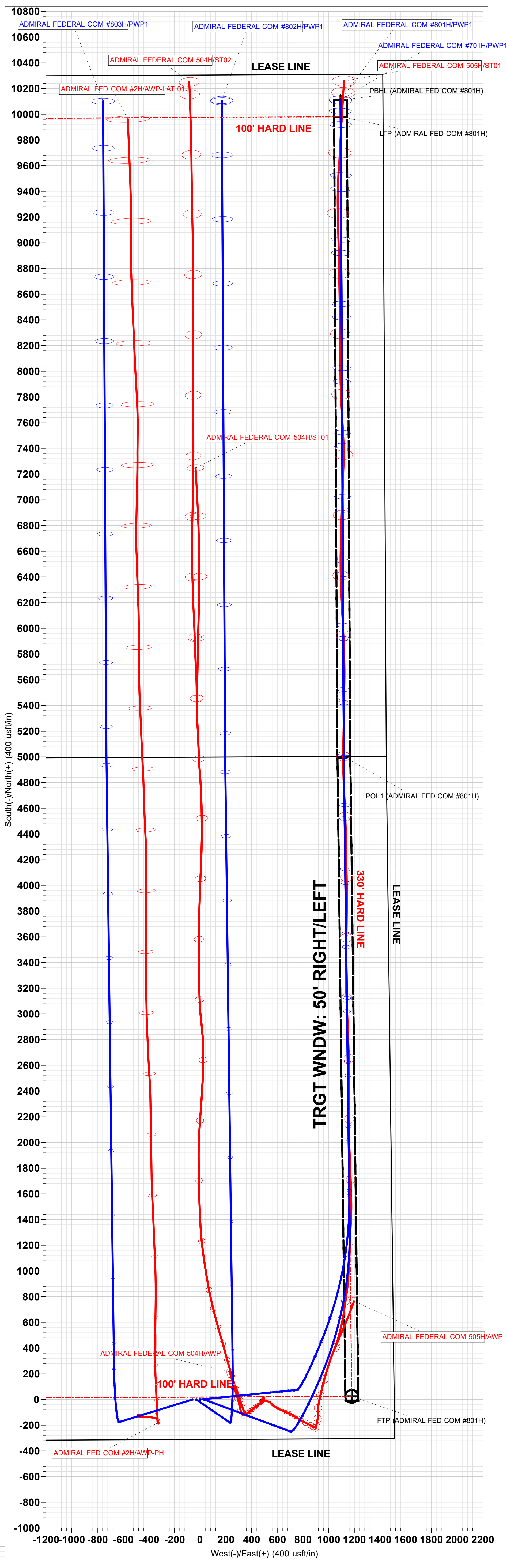
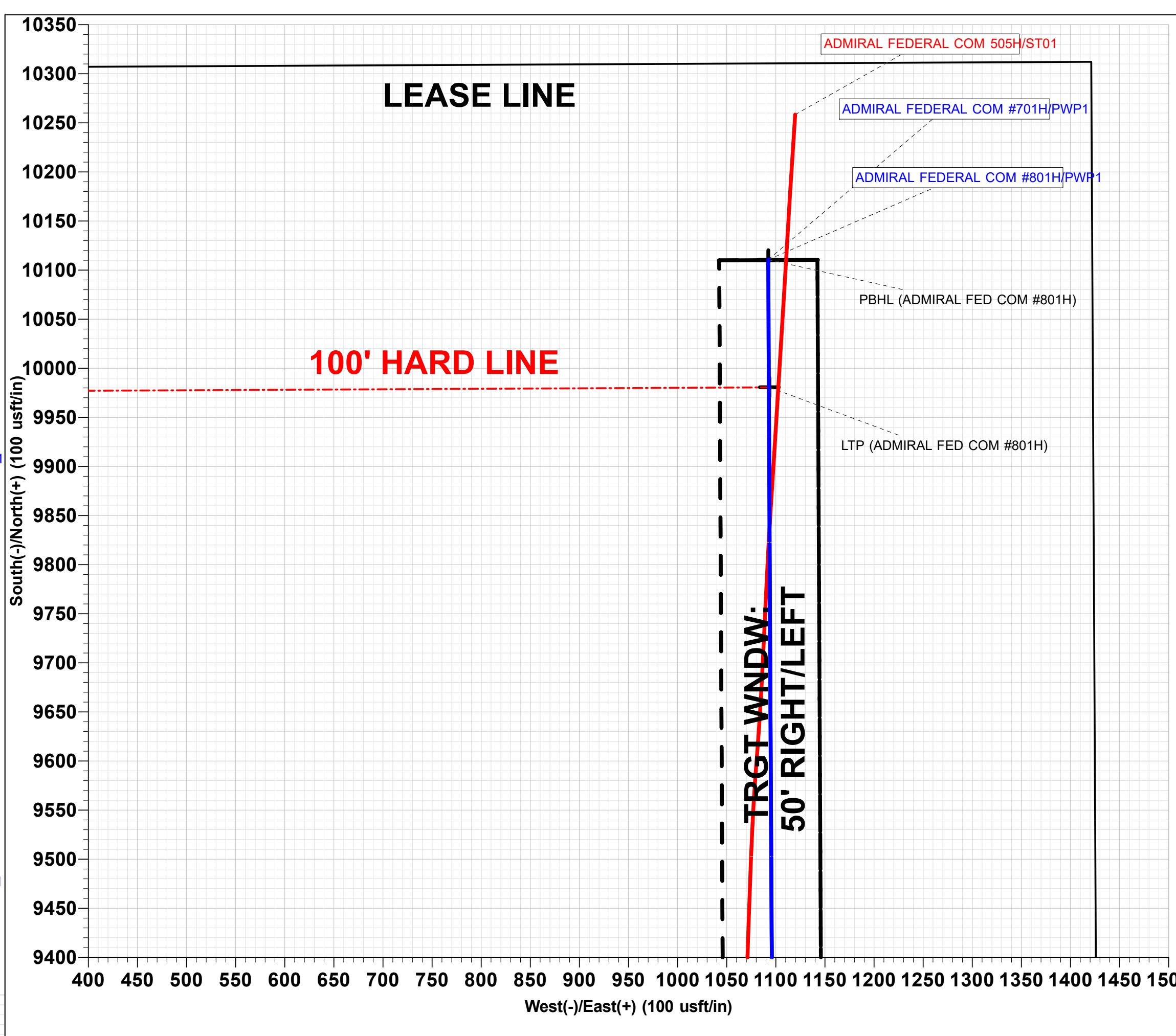
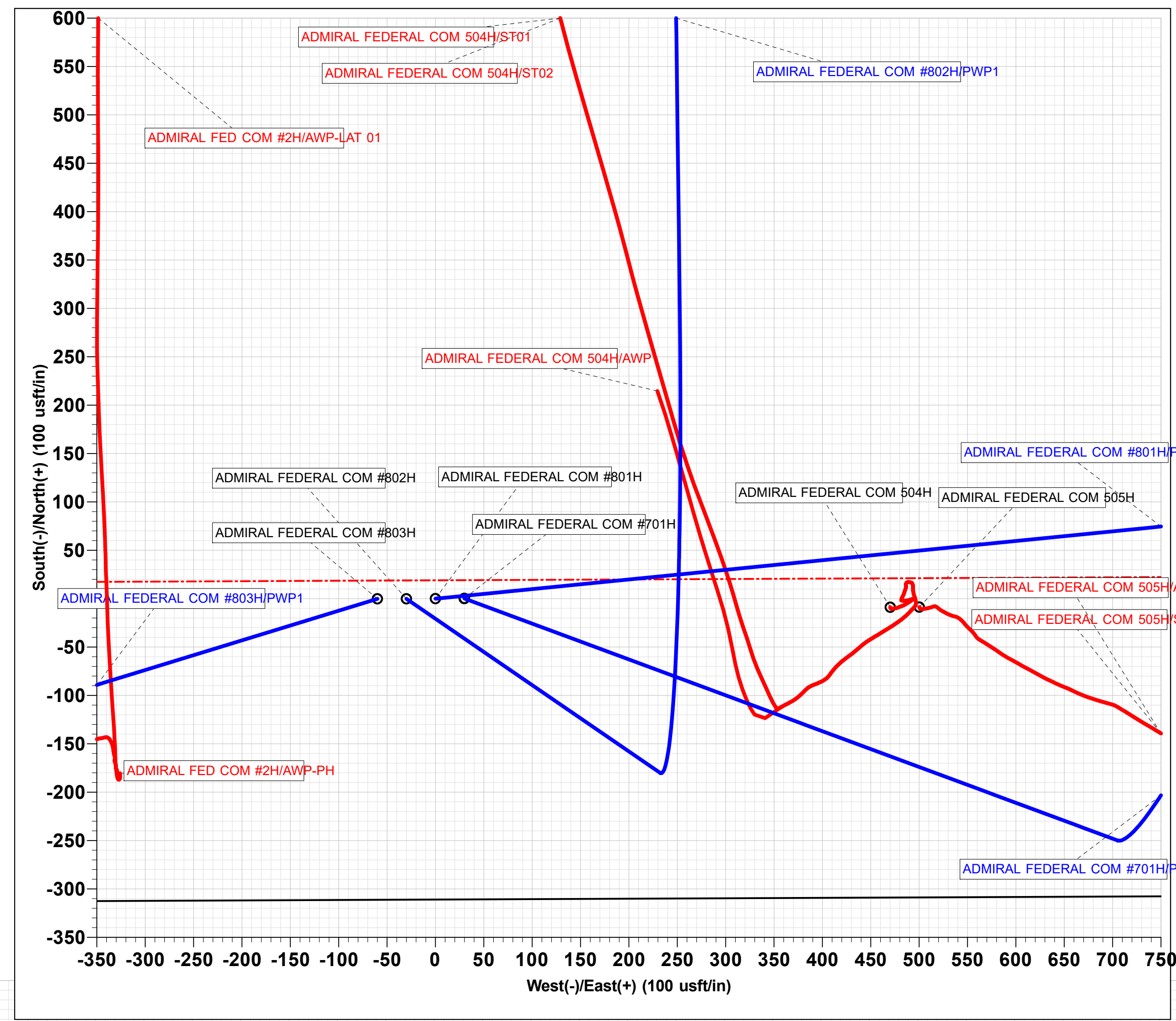
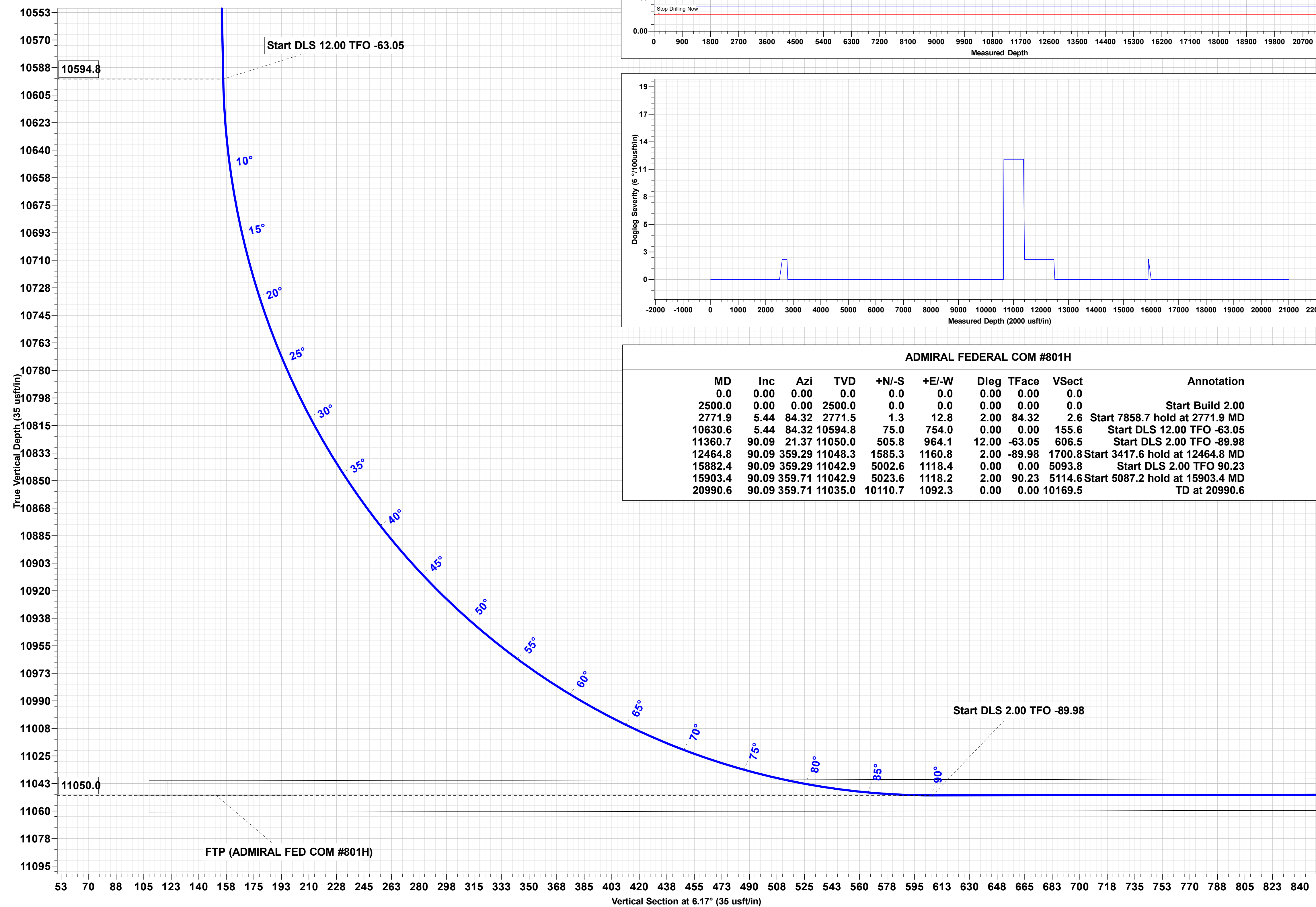
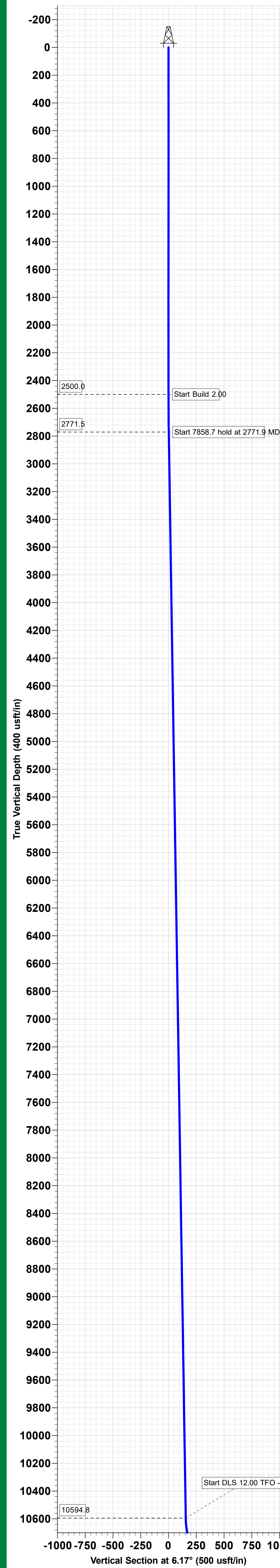
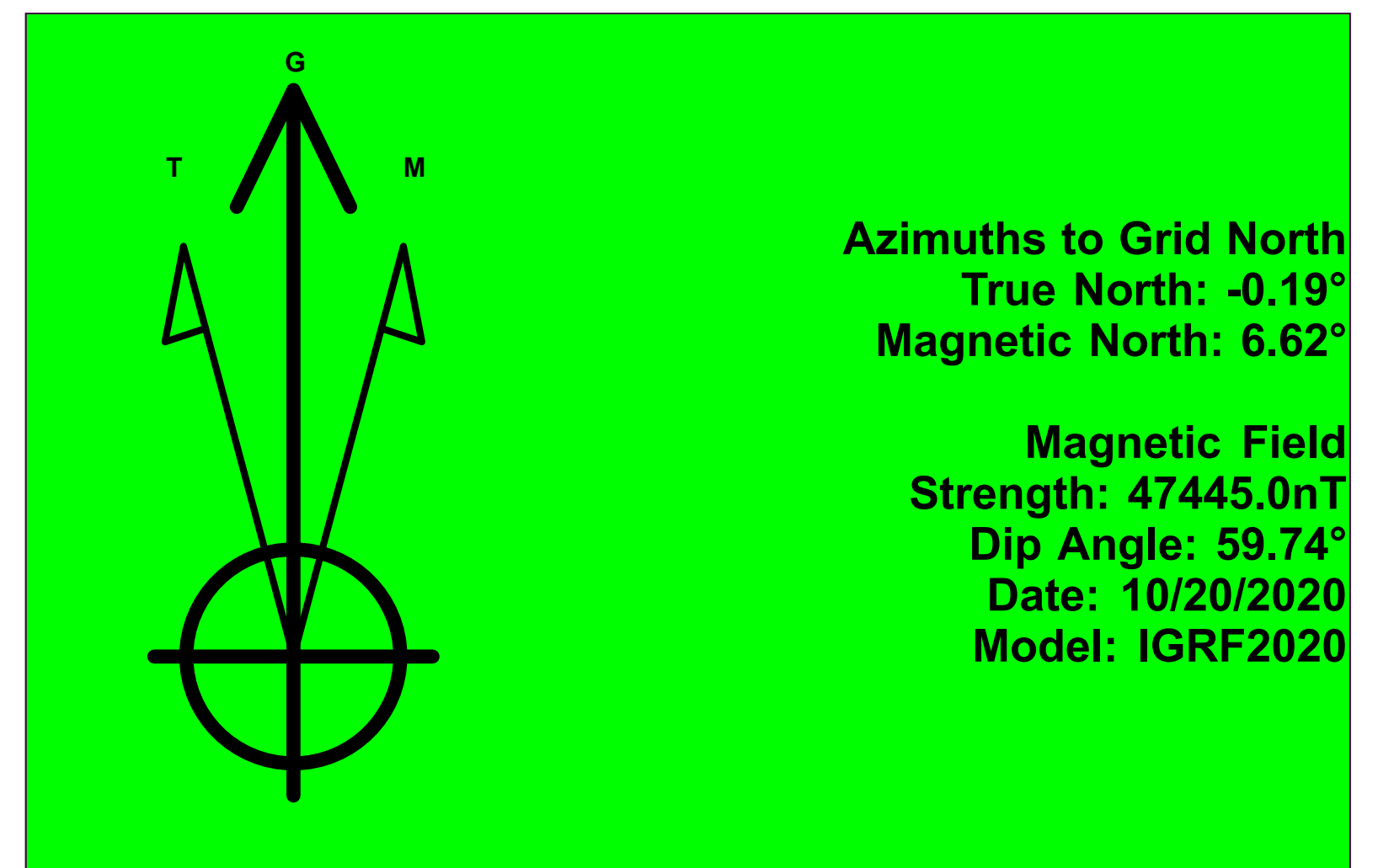
Project: ATLAS PROSPECT (NM-E)
Site: ADMIRAL FEDERAL PROJECT (ATLAS 2529)
Well: ADMIRAL FEDERAL COM #801H
Wellbore: OWB
Design: PWP1
GL: 2984.9
KB=25' @ 3009.9usft (TBD)

WELL DETAILS: ADMIRAL FEDERAL COM #801H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	398197.60	607849.10	32° 5' 39.417 N	103° 58' 6.256 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP (ADMIRAL FED COM #801H)	11035.0	9980.7	1093.4	408178.30	608942.50	32° 7' 18.154 N	103° 58' 53.167 W
PBHL (ADMIRAL FED COM #801H)	11035.0	10110.7	1092.3	408308.30	608941.40	32° 7' 19.441 N	103° 58' 53.175 W
POI 1 (ADMIRAL FED COM #801H)	11042.9	5002.6	1118.4	403200.21	608967.50	32° 6' 28.889 N	103° 58' 53.065 W
FTP (ADMIRAL FED COM #801H)	11050.0	24.4	1179.8	398222.00	609028.90	32° 5' 39.620 N	103° 58' 52.540 W



ADMIRAL FEDERAL COM #801H									
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
2771.9	5.44	84.32	2771.5	1.3	12.8	2.00	84.32	2.6	Start 7858.7 hold at 2771.9 MD
10630.6	5.44	84.32	10594.8	75.0	754.0	0.00	0.00	155.6	Start DLS 12.00 TFO -63.05
11360.7	90.09	21.37	11050.0	505.8	964.1	12.00	-63.05	606.5	Start DLS 2.00 TFO -89.98
12464.8	90.09	359.29	11048.3	1585.3	1160.8	2.00	-89.98	1700.8	Start 3417.6 hold at 12464.8 MD
15882.4	90.09	359.29	11042.9	5002.6	1118.4	0.00	0.00	5093.8	Start DLS 2.00 TFO 90.23
15903.4	90.09	359.71	11042.9	5023.6	1118.2	2.00	90.23	5114.6	Start 5087.2 hold at 15903.4 MD
20990.6	90.09	359.71	11035.0	10110.7	1092.3	0.00	0.00	10169.5	TD at 20990.6



TRGT WNDW: 10' ABOVE/BELOW

LTP (ADMIRAL FED COM #801H) PBHL (ADMIRAL FED COM #801H)

ADMIRAL FEDERAL COM #801H PWP1

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG
LEASE NO.:	NMNM115414
LOCATION:	Section 28, T.25 S., R.29 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	Admiral Fed Com 801H
SURFACE HOLE FOOTAGE:	311'/S & 1510'/E
BOTTOM HOLE FOOTAGE:	200'/N & 1254'/E

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 **610** 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

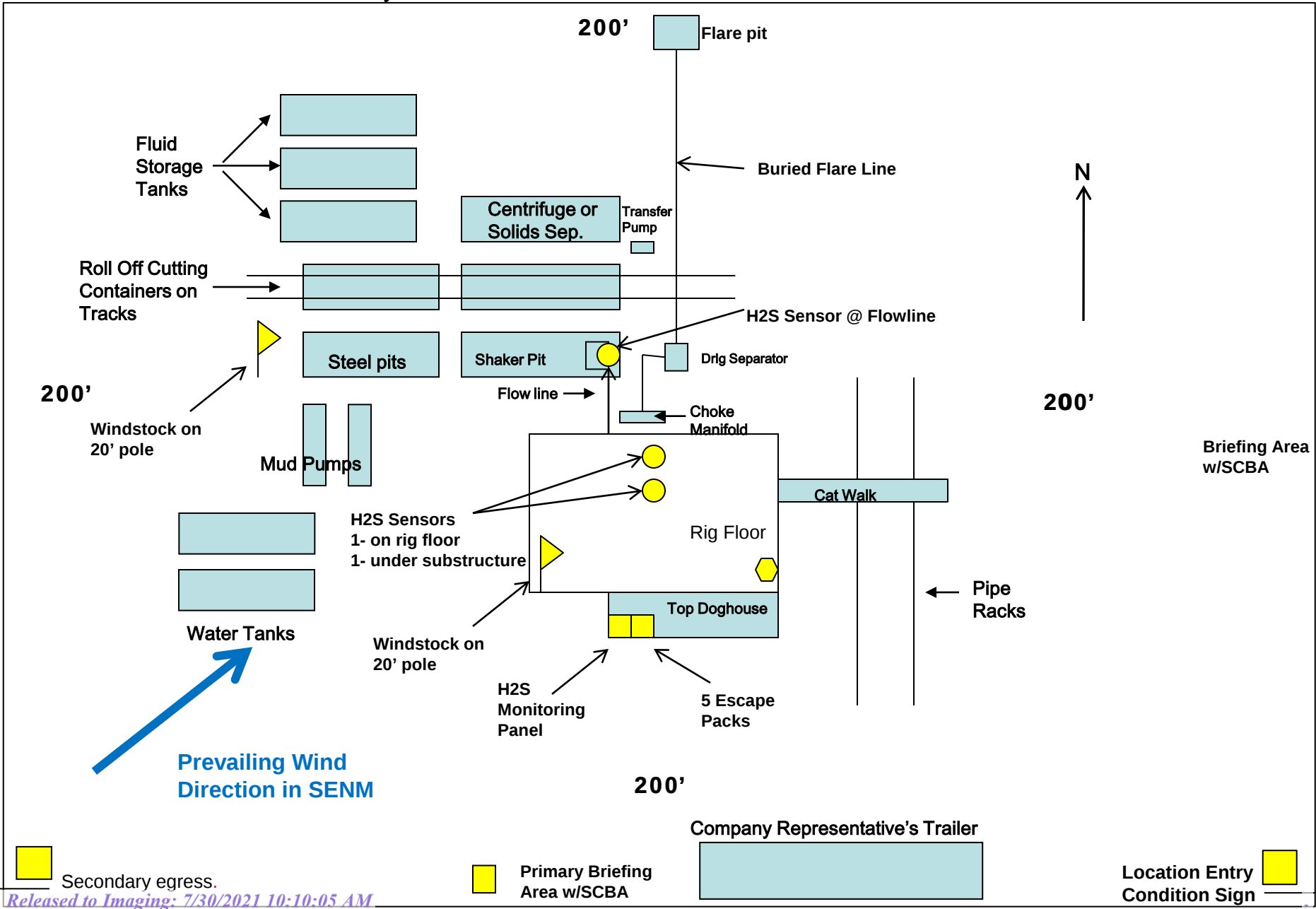
All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location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

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

ZS 062321

COG Operating LLC
H₂S Equipment Schematic
 Terrain: Shinnery sand hills.

Well pad will be 400' x 400'
 with cellar in center of pad



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 38512

COMMENTS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38512
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 7/29/2021	7/29/2021

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

CONDITIONS

Action 38512

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38512
	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	7/29/2021
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/29/2021
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	7/29/2021
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	7/29/2021
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	7/29/2021