

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 48792
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)



Approval Date: 07/20/2021

Additional Operator Remarks

Location of Well

0. SHL: SWSE / 311 FSL / 1540 FEL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.094407 / LONG: -103.985652 (TVD: 0 feet, MD: 0 feet)

PPP: SWNE / 2639 FNL / 2178 FEL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.100847 / LONG: -103.987754 (TVD: 11027 feet, MD: 13375 feet)

PPP: SWSE / 330 FSL / 2178 FEL / TWSP: 25S / RANGE: 29E / SECTION: 28 / LAT: 32.094457 / LONG: -103.987713 (TVD: 10966 feet, MD: 11064 feet)

BHL: NWNE / 200 FNL / 2178 FEL / TWSP: 25S / RANGE: 29E / SECTION: 21 / LAT: 32.122182 / LONG: -103.987892 (TVD: 11015 feet, MD: 21122 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) 393-6181 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) 476-3460 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 802H
OGRID No. 299137	Operator Name COG OPERATING, LLC	Elevation 2985.2'

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	1540	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
B	21	25-S	29-E		200	NORTH	2178	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

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

SECTION 21
SECTION 28

GRID AZ. - 359°30'05"
HORIZ. DIST. - 10086.1'

SECTION 21
SECTION 28

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.

Stan Wagner 12/29/20
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

CHAD L. HARCROW
NEW MEXICO
17777
LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 11/2/20
Certificate No. CHAD HARCROW 17777
W.O. # 20-1602 DRAWN BY: WN

Intent ☒ As Drilled ☐API #
30-015

Operator Name:	Property Name:	Well Number
COG Operating LLC	Admiral Federal Com	802H

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 O	Section 28	Township 25S	Range 29E	Lot	Feet 330	From N/S South	Feet 2178	From E/W East	County Eddy
Latitude 32.094457					Longitude -103.987713			NAD NAD 83	

Last Take Point (LTP)

UL B	Section 21	Township 25S	Range 29E	Lot	Feet 330	From N/S North	Feet 2178	From E/W East	County Eddy
Latitude 32.121825					Longitude -103.987890			NAD NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ NoIs 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:	Property Name:	Well Number
COG Operating LLC	Admiral Federal Com	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

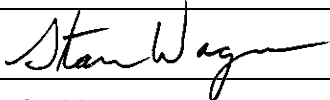
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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 #802H

1. Geologic Formations

TVD of target	11,015' EOL	Pilot hole depth	NA
MD at TD:	21,123'	Deepest expected fresh water:	200'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	583	Water	
Top of Salt	755	Salt	
Base of Salt	2755	Salt	
Lamar	2936	Salt Water	
Bell Canyon	2980	Salt Water	
Brushy Canyon	5106	Oil/Gas	
Bone Spring Lime	6700	Oil/Gas	
1st Bone Spring Sand	7614	Oil/Gas	
2nd Bone Spring Sand	8280	Oil/Gas	
3rd Bone Spring Sand	9541	Oil/Gas	
Wolfcamp	9900	Oil/Gas	
Wolfcamp B	10372	Oil/Gas	
Wolfcamp C	10500	Oil/Gas	
Wolfcamp D	10930	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	705	10.75"	45.5	N80	BTC	7.83	1.58	32.42	34.20
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.50	1.27	2.88	2.90
8.750"	8500	10395	7.625"	29.7	HCP 110	TL-FJ	1.39	1.31	3.04	2.13
6.75"	0	10195	5.5"	23	P110	BTC	2.12	2.52	2.88	2.86
6.75"	10195	21,123	5.5"	23	P110	Talon HTQ	2.12	2.52	2.88	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 #802H

	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 #802H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft ³ / sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	230	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 #802H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	---

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 #802H

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 #802H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	6875 psi at 11015' 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

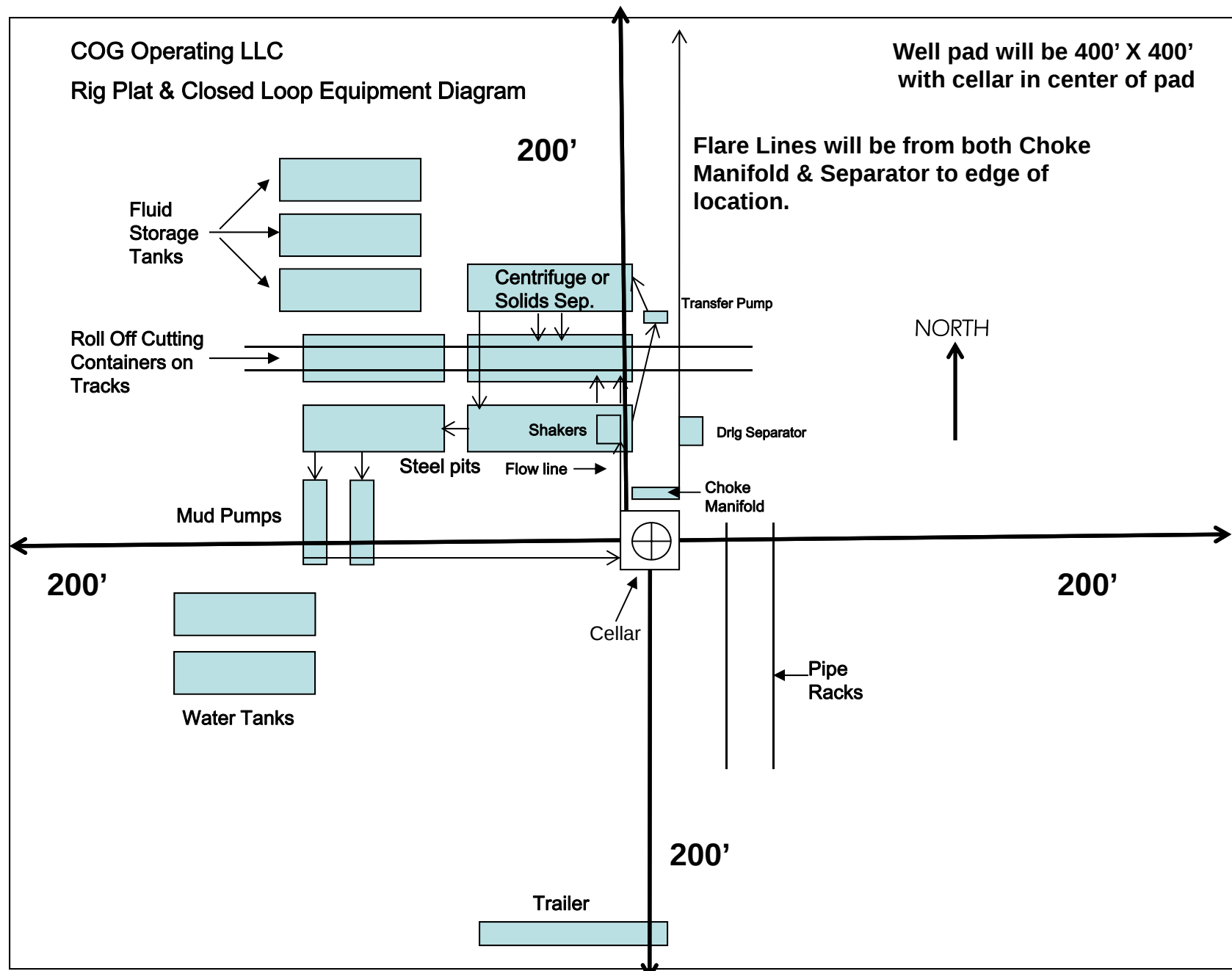


Exhibit 1

"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 #802H

OWB

PWP1

Anticollision Report

14 December, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	10,573.2	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
10,573.2	21,122.6	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	5,605.1	5,617.6	359.3	348.6	33.732	CC, ES
ADMIRAL FED COM #2H - LATERAL 01 - AWP-LAT 01	21,000.0	20,131.0	1,031.1	813.6	4.740	SF
ADMIRAL FED COM #2H - OWB-PILOT HOLE - AWP-P	5,605.1	5,617.6	359.3	348.6	33.732	CC, ES
ADMIRAL FED COM #2H - OWB-PILOT HOLE - AWP-P	11,075.0	10,745.0	671.5	643.5	23.999	SF
ADMIRAL FEDERAL COM #701H - OWB - PWP1	2,500.0	2,499.3	60.0	53.1	8.698	CC, ES
ADMIRAL FEDERAL COM #701H - OWB - PWP1	21,123.0	20,486.2	1,199.8	1,026.5	6.924	SF
ADMIRAL FEDERAL COM #801H - OWB - PWP1	2,500.0	2,499.7	30.0	23.1	4.349	CC, ES, SF
ADMIRAL FEDERAL COM #803H - OWB - PWP1	2,416.5	2,416.9	30.0	23.2	4.385	CC
ADMIRAL FEDERAL COM #803H - OWB - PWP1	2,500.0	2,500.0	30.0	23.1	4.350	ES, SF
ADMIRAL FEDERAL COM 504H - OWB - AWP	8,371.6	8,373.4	196.7	165.5	6.311	CC, ES
ADMIRAL FEDERAL COM 504H - OWB - AWP	8,400.0	8,399.3	197.0	165.7	6.284	SF
ADMIRAL FEDERAL COM 504H - ST01 - ST01	8,071.6	8,080.2	225.4	196.6	7.812	CC, ES
ADMIRAL FEDERAL COM 504H - ST01 - ST01	8,100.0	8,104.7	225.9	196.9	7.793	SF
ADMIRAL FEDERAL COM 504H - ST02 - ST02	8,071.6	8,080.2	225.4	196.6	7.812	CC, ES
ADMIRAL FEDERAL COM 504H - ST02 - ST02	8,100.0	8,104.7	225.9	196.9	7.793	SF
ADMIRAL FEDERAL COM 505H - OWB - AWP	0.0	0.0	530.3			
ADMIRAL FEDERAL COM 505H - OWB - AWP	8,600.0	8,542.8	797.1	759.3	21.092	SF
ADMIRAL FEDERAL COM 505H - ST01 - ST01	0.0	0.0	530.3			
ADMIRAL FEDERAL COM 505H - ST01 - ST01	8,600.0	8,542.8	797.1	759.3	21.092	SF

Offset Design												Offset Site Error:	0.0 usft
ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FED COM #2H - LATERAL 01 - AWP-LAT 0												Offset Well Error:	3.0 usft
Survey Program: 100- VES GyroFlex, 9732-MWD													
Reference		Offset		Semi Major Axis		Reference		Offset		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	2.3	2.3	3.0	3.0	-105.68	-123.1	-438.6	455.5				
100.0	100.0	104.0	104.0	3.0	3.0	-105.66	-122.9	-438.4	455.4	449.4	6.00	75.885	
200.0	200.0	204.1	204.1	3.0	3.0	-105.65	-122.7	-438.1	455.0	449.0	6.01	75.722	
300.0	300.0	302.5	302.5	3.0	3.0	-105.62	-122.5	-437.9	454.7	448.7	6.02	75.533	
304.9	304.9	307.2	307.2	3.0	3.0	-105.62	-122.4	-437.9	454.7	448.7	6.02	75.530	
400.0	400.0	400.0	400.0	3.0	3.0	-105.60	-122.4	-438.4	455.2	449.2	6.03	75.538	
500.0	500.0	502.4	502.4	3.1	3.0	-105.59	-122.5	-438.9	455.7	449.6	6.04	75.474	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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		
502.8	502.8	505.1	505.1	3.1	3.0	-105.59	-122.5	-438.9	455.7	449.6	6.04	75.470		
600.0	600.0	600.0	600.0	3.1	3.0	-105.58	-122.5	-439.4	456.1	450.1	6.05	75.362		
700.0	700.0	698.0	698.0	3.1	3.1	-105.51	-122.2	-440.4	457.1	451.0	6.07	75.281		
800.0	800.0	797.7	797.7	3.2	3.1	-105.41	-121.7	-441.6	458.0	451.9	6.10	75.114		
900.0	900.0	897.3	897.3	3.2	3.1	-105.29	-121.0	-442.8	459.1	453.0	6.13	74.876		
1,000.0	1,000.0	997.7	997.7	3.2	3.2	-105.18	-120.5	-444.1	460.1	454.0	6.17	74.547		
1,100.0	1,100.0	1,095.3	1,095.3	3.3	3.2	-105.10	-120.2	-445.4	461.4	455.2	6.22	74.163		
1,200.0	1,200.0	1,193.6	1,193.6	3.4	3.2	-105.01	-119.9	-447.2	463.1	456.8	6.28	73.756		
1,300.0	1,300.0	1,298.6	1,298.5	3.4	3.3	-104.96	-119.9	-448.8	464.5	458.2	6.35	73.151		
1,400.0	1,400.0	1,396.9	1,396.8	3.5	3.4	-104.92	-119.8	-449.8	465.5	459.1	6.42	72.458		
1,500.0	1,500.0	1,502.1	1,502.0	3.5	3.4	-104.87	-119.6	-450.5	466.1	459.6	6.50	71.744		
1,600.0	1,600.0	1,601.1	1,601.1	3.6	3.5	-104.84	-119.4	-450.8	466.3	459.7	6.57	71.011		
1,700.0	1,700.0	1,700.4	1,700.3	3.7	3.6	-104.81	-119.3	-451.1	466.7	460.0	6.65	70.126		
1,800.0	1,800.0	1,800.0	1,799.9	3.8	3.7	-104.78	-119.1	-451.6	467.1	460.3	6.75	69.217		
1,900.0	1,900.0	1,897.7	1,897.6	3.9	3.7	-104.75	-119.1	-452.4	467.8	461.0	6.85	68.328		
2,000.0	2,000.0	1,997.1	1,997.0	3.9	3.8	-104.75	-119.4	-453.4	468.9	461.9	6.96	67.366		
2,100.0	2,100.0	2,095.2	2,095.1	4.0	3.9	-104.74	-119.6	-454.7	470.2	463.1	7.08	66.424		
2,200.0	2,200.0	2,196.0	2,195.9	4.1	4.0	-104.72	-119.8	-456.2	471.7	464.5	7.21	65.459		
2,300.0	2,300.0	2,296.4	2,296.3	4.2	4.1	-104.75	-120.4	-457.4	473.0	465.7	7.33	64.510		
2,400.0	2,400.0	2,398.2	2,398.0	4.3	4.1	-104.91	-122.0	-458.1	474.1	466.6	7.44	63.680		
2,500.0	2,500.0	2,503.0	2,502.8	4.4	4.1	-105.18	-124.2	-457.9	474.5	466.9	7.53	63.016		
2,600.0	2,600.0	2,606.3	2,606.1	4.5	4.1	-105.54	-127.0	-456.7	474.0	466.5	7.59	62.445		
2,700.0	2,700.0	2,713.0	2,712.7	4.6	4.1	-105.96	-129.9	-454.2	472.5	464.9	7.64	61.859		
2,800.0	2,800.0	2,817.5	2,817.1	4.7	4.1	-106.38	-132.5	-450.6	469.9	462.2	7.68	61.218		
2,900.0	2,900.0	2,922.8	2,922.3	4.8	4.0	-106.75	-134.2	-445.9	466.1	458.4	7.71	60.475		
3,000.0	3,000.0	3,025.4	3,024.8	4.9	4.0	-107.06	-135.2	-440.7	461.5	453.8	7.74	59.626		
3,100.0	3,100.0	3,127.4	3,126.6	5.0	4.0	-107.33	-135.7	-435.1	456.4	448.6	7.78	58.684		
3,200.0	3,200.0	3,228.6	3,227.6	5.1	4.0	-107.56	-135.8	-429.2	450.9	443.1	7.82	57.655		
3,300.0	3,300.0	3,328.0	3,326.9	5.2	4.0	-107.77	-135.7	-423.4	445.3	437.4	7.87	56.579		
3,400.0	3,400.0	3,426.7	3,425.4	5.3	4.0	-107.96	-135.5	-417.9	439.9	432.0	7.93	55.503		
3,500.0	3,500.0	3,526.7	3,525.2	5.4	4.0	-108.17	-135.4	-412.4	434.7	426.7	7.99	54.401		
3,600.0	3,600.0	3,626.6	3,625.0	5.5	4.0	-108.38	-135.2	-406.9	429.3	421.3	8.06	53.264		
3,700.0	3,700.0	3,725.8	3,724.1	5.7	4.0	-108.60	-135.1	-401.5	424.1	416.0	8.14	52.114		
3,800.0	3,800.0	3,824.8	3,823.0	5.8	4.0	-108.83	-135.1	-396.2	419.1	410.9	8.22	50.964		
3,900.0	3,900.0	3,923.8	3,921.8	5.9	4.1	-109.07	-135.2	-391.1	414.3	406.0	8.31	49.825		
4,000.0	4,000.0	4,022.7	4,020.5	6.0	4.1	-109.30	-135.3	-386.3	409.7	401.3	8.41	48.700		
4,100.0	4,100.0	4,121.0	4,118.7	6.1	4.1	-109.52	-135.4	-381.8	405.5	397.0	8.52	47.615		
4,200.0	4,200.0	4,220.4	4,218.1	6.2	4.2	-109.75	-135.5	-377.6	401.5	392.9	8.63	46.545		
4,300.0	4,300.0	4,319.9	4,317.5	6.3	4.2	-109.98	-135.7	-373.4	397.6	388.8	8.74	45.484		
4,400.0	4,400.0	4,418.8	4,416.3	6.5	4.3	-110.23	-136.1	-369.4	393.9	385.1	8.86	44.448		
4,500.0	4,500.0	4,518.2	4,515.6	6.6	4.3	-110.49	-136.6	-365.5	390.4	381.4	8.99	43.432		
4,600.0	4,600.0	4,617.2	4,614.6	6.7	4.4	-110.76	-137.2	-361.8	387.1	378.0	9.12	42.447		
4,700.0	4,700.0	4,717.2	4,714.5	6.8	4.5	-111.02	-137.7	-358.2	384.0	374.7	9.26	41.479		
4,800.0	4,800.0	4,817.1	4,814.3	6.9	4.6	-111.27	-138.1	-354.7	380.8	371.4	9.40	40.521		
4,900.0	4,900.0	4,917.1	4,914.2	7.0	4.6	-111.55	-138.7	-351.1	377.7	368.1	9.54	39.573		
5,000.0	5,000.0	5,017.6	5,014.7	7.2	4.7	-111.85	-139.3	-347.3	374.4	364.7	9.69	38.619		
5,100.0	5,100.0	5,116.6	5,113.7	7.3	4.8	-112.17	-140.0	-343.6	371.2	361.4	9.85	37.697		
5,200.0	5,200.0	5,215.7	5,212.7	7.4	4.9	-112.51	-140.9	-340.1	368.3	358.3	10.00	36.816		
5,300.0	5,300.0	5,315.5	5,312.4	7.5	5.0	-112.84	-141.8	-336.7	365.5	355.3	10.16	35.962		
5,400.0	5,400.0	5,414.4	5,411.3	7.6	5.1	-113.16	-142.6	-333.5	362.9	352.5	10.32	35.149		
5,500.0	5,500.0	5,513.8	5,510.6	7.8	5.2	-113.47	-143.5	-330.5	360.5	350.0	10.49	34.374		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,600.0	5,600.0	5,612.5	5,609.3	7.8	5.3	122.03	-144.5	-327.9	359.3	348.6	10.64	33.755		
5,605.1	5,605.0	5,617.6	5,614.3	7.8	5.3	122.04	-144.5	-327.7	359.3	348.6	10.65	33.732	CC, ES	
5,684.2	5,684.1	5,696.7	5,693.4	7.8	5.4	122.35	-145.2	-325.8	359.9	349.1	10.77	33.424		
5,700.0	5,699.8	5,712.5	5,709.2	7.8	5.4	122.45	-145.3	-325.4	360.1	349.3	10.79	33.377		
5,800.0	5,799.6	5,812.3	5,809.0	7.8	5.5	123.11	-145.7	-323.1	361.6	350.7	10.93	33.074		
5,900.0	5,899.4	5,911.0	5,907.7	7.8	5.6	123.88	-145.4	-321.3	363.4	352.3	11.08	32.795		
6,000.0	5,999.2	6,011.1	6,007.7	7.8	5.7	124.69	-144.9	-319.7	365.3	354.1	11.24	32.517		
6,100.0	6,099.0	6,111.1	6,107.7	7.8	5.8	125.49	-144.5	-318.1	367.3	355.9	11.39	32.237		
6,200.0	6,198.8	6,211.7	6,208.3	7.8	5.9	126.26	-144.1	-316.2	369.2	357.7	11.56	31.940		
6,300.0	6,298.6	6,310.0	6,306.6	7.8	6.0	126.99	-143.9	-314.5	371.3	359.6	11.73	31.666		
6,400.0	6,398.4	6,409.3	6,405.9	7.8	6.1	127.75	-143.6	-313.1	373.8	361.9	11.90	31.415		
6,500.0	6,498.2	6,508.5	6,505.1	7.8	6.2	128.51	-143.3	-311.8	376.4	364.4	12.07	31.179		
6,600.0	6,598.0	6,607.8	6,604.3	7.8	6.4	129.23	-143.1	-310.6	379.3	367.1	12.25	30.961		
6,700.0	6,697.8	6,708.0	6,704.5	7.8	6.5	129.93	-143.1	-309.4	382.3	369.8	12.43	30.750		
6,800.0	6,797.6	6,805.1	6,801.7	7.8	6.6	130.55	-143.5	-308.5	385.6	373.0	12.60	30.606		
6,900.0	6,897.4	6,905.7	6,902.3	7.9	6.7	131.15	-144.1	-307.8	389.3	376.5	12.76	30.508		
7,000.0	6,997.2	7,004.9	7,001.5	7.9	6.8	131.71	-144.9	-307.0	392.9	380.0	12.92	30.414		
7,100.0	7,096.9	7,104.8	7,101.3	7.9	6.9	132.18	-146.3	-306.1	396.7	383.6	13.07	30.354		
7,200.0	7,196.7	7,205.7	7,202.2	7.9	7.0	132.49	-148.7	-304.8	400.4	387.1	13.22	30.291		
7,300.0	7,296.5	7,303.1	7,299.6	7.9	7.1	132.68	-151.8	-303.6	404.2	390.9	13.36	30.248		
7,400.0	7,396.3	7,400.4	7,396.8	8.0	7.2	132.89	-154.9	-303.1	408.7	395.2	13.50	30.275		
7,500.0	7,496.1	7,501.6	7,497.9	8.0	7.3	133.22	-157.3	-302.8	413.4	399.8	13.62	30.343		
7,600.0	7,595.9	7,601.9	7,598.3	8.0	7.3	133.64	-158.9	-302.5	417.9	404.1	13.75	30.381		
7,700.0	7,695.7	7,701.5	7,697.8	8.1	7.4	134.02	-160.6	-302.2	422.3	408.4	13.89	30.406		
7,800.0	7,795.5	7,802.6	7,798.9	8.1	7.5	134.38	-162.6	-301.7	426.7	412.7	14.03	30.416		
7,900.0	7,895.3	7,901.4	7,897.7	8.1	7.6	134.74	-164.4	-301.2	431.1	416.9	14.17	30.412		
8,000.0	7,995.1	8,000.0	7,996.3	8.2	7.7	135.18	-165.5	-301.0	435.7	421.4	14.31	30.452		
8,100.0	8,094.9	8,099.2	8,095.5	8.2	7.8	135.72	-165.9	-301.2	440.5	426.1	14.41	30.571		
8,200.0	8,194.7	8,200.0	8,196.3	8.3	7.8	136.28	-166.1	-301.5	445.4	430.9	14.50	30.724		
8,300.0	8,294.5	8,299.5	8,295.8	8.3	7.8	136.80	-166.5	-301.6	450.3	435.7	14.60	30.833		
8,400.0	8,394.3	8,399.8	8,396.1	8.4	7.9	137.25	-167.3	-301.6	455.1	440.4	14.73	30.903		
8,500.0	8,494.1	8,501.5	8,497.8	8.4	8.0	137.64	-168.6	-301.3	459.8	444.9	14.87	30.908		
8,600.0	8,593.8	8,601.3	8,597.6	8.5	8.1	138.02	-169.8	-300.8	464.2	449.2	15.04	30.871		
8,700.0	8,693.6	8,700.0	8,696.3	8.5	8.3	138.35	-171.3	-300.4	468.8	453.6	15.20	30.847		
8,800.0	8,793.4	8,798.5	8,794.7	8.6	8.4	138.64	-173.1	-300.3	473.6	458.3	15.35	30.858		
8,900.0	8,893.2	8,899.1	8,895.4	8.6	8.5	138.98	-174.5	-300.2	478.6	463.1	15.49	30.894		
9,000.0	8,993.0	9,000.4	8,996.6	8.7	8.6	139.36	-175.6	-300.0	483.4	467.7	15.65	30.895		
9,100.0	9,092.8	9,102.4	9,098.6	8.7	8.7	139.74	-176.6	-299.4	487.8	471.9	15.82	30.829		
9,200.0	9,192.6	9,200.0	9,196.2	8.8	8.8	140.10	-177.5	-299.0	492.4	476.4	16.00	30.782		
9,300.0	9,292.4	9,297.5	9,293.7	8.9	8.9	140.44	-178.6	-299.1	497.5	481.4	16.15	30.813		
9,400.0	9,392.2	9,397.8	9,394.0	8.9	9.0	140.79	-179.7	-299.2	502.6	486.4	16.29	30.855		
9,500.0	9,492.0	9,497.4	9,493.6	9.0	9.1	141.10	-180.9	-299.2	507.8	491.3	16.44	30.884		
9,600.0	9,591.8	9,597.2	9,593.4	9.1	9.2	141.41	-182.2	-299.2	512.9	496.3	16.59	30.915		
9,700.0	9,691.6	9,694.7	9,690.8	9.2	13.9	142.17	-179.3	-299.7	518.3	496.0	22.27	23.277		
9,800.0	9,791.4	9,798.9	9,793.6	9.2	17.1	144.39	-163.1	-300.9	524.0	499.2	24.79	21.135		
9,900.0	9,891.2	9,878.3	9,867.8	9.3	17.2	147.70	-135.3	-302.1	531.4	506.8	24.61	21.598		
10,000.0	9,991.0	9,953.0	9,933.3	9.4	17.2	151.74	-99.6	-304.6	544.9	520.4	24.48	22.262		
10,100.0	10,090.7	10,022.8	9,990.3	9.5	17.3	156.06	-59.5	-306.9	565.1	540.6	24.55	23.022		
10,200.0	10,190.5	10,085.2	10,038.1	9.5	17.4	160.17	-19.4	-308.9	593.0	568.1	24.96	23.763		
10,300.0	10,290.3	10,132.3	10,071.3	9.6	17.5	163.43	13.9	-310.0	629.5	603.6	25.90	24.301		
10,400.0	10,390.1	10,174.0	10,098.5	9.7	17.6	166.39	45.6	-311.0	674.5	647.4	27.11	24.877		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
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	
10,500.0	10,489.9	10,205.0	10,117.3	9.8	17.7	168.59	70.2	-311.9	727.6	699.0	28.58	25.462		
10,545.8	10,535.6	10,219.6	10,125.8	9.8	17.8	169.61	82.0	-312.3	754.3	725.1	29.22	25.816		
10,550.0	10,539.8	10,220.8	10,126.5	9.8	17.8	177.01	83.0	-312.4	756.8	727.6	29.28	25.849		
10,575.0	10,564.8	10,228.3	10,130.7	9.9	17.8	-127.67	89.2	-312.7	771.7	741.9	29.82	25.883		
10,600.0	10,589.7	10,237.0	10,135.6	9.9	17.8	-94.44	96.4	-313.0	786.6	756.4	30.15	26.089		
10,625.0	10,614.5	10,237.0	10,135.6	9.9	17.8	-80.31	96.4	-313.0	801.3	770.6	30.65	26.144		
10,650.0	10,639.2	10,251.4	10,143.4	9.9	17.9	-71.79	108.6	-313.7	815.6	784.7	30.89	26.402		
10,675.0	10,663.6	10,259.4	10,147.6	9.9	17.9	-66.26	115.3	-314.0	829.8	798.6	31.26	26.548		
10,700.0	10,687.8	10,268.0	10,152.0	9.9	17.9	-62.07	122.7	-314.5	843.7	812.1	31.61	26.689		
10,725.0	10,711.5	10,278.5	10,157.2	9.9	18.0	-58.62	131.8	-315.0	857.2	825.3	31.94	26.838		
10,750.0	10,734.8	10,289.9	10,162.8	9.9	18.0	-55.71	141.7	-315.5	870.3	838.1	32.26	26.981		
10,775.0	10,757.7	10,300.0	10,167.6	9.9	18.0	-53.25	150.5	-316.0	882.9	850.3	32.59	27.092		
10,800.0	10,779.9	10,314.9	10,174.6	10.0	18.1	-50.98	163.7	-316.7	895.0	862.1	32.85	27.243		
10,825.0	10,801.6	10,331.0	10,181.9	10.0	18.2	-48.97	178.1	-317.3	906.4	873.3	33.10	27.387		
10,850.0	10,822.5	10,341.3	10,186.3	10.0	18.2	-47.32	187.3	-317.7	917.3	883.9	33.43	27.442		
10,875.0	10,842.8	10,354.1	10,191.8	10.0	18.3	-45.81	198.9	-318.1	927.5	893.8	33.72	27.510		
10,900.0	10,862.2	10,363.0	10,195.5	10.0	18.3	-44.53	207.0	-318.4	937.1	903.1	34.05	27.520		
10,925.0	10,880.8	10,377.1	10,201.2	10.1	18.4	-43.32	219.9	-318.8	946.1	911.8	34.32	27.563		
10,950.0	10,898.5	10,395.0	10,207.9	10.1	18.5	-42.20	236.5	-319.3	954.5	919.9	34.55	27.627		
10,975.0	10,915.2	10,395.0	10,207.9	10.1	18.5	-41.41	236.5	-319.3	962.1	927.2	34.97	27.514		
11,000.0	10,930.9	10,407.3	10,212.2	10.2	18.6	-40.58	248.0	-319.6	969.2	933.9	35.25	27.494		
11,025.0	10,945.7	10,426.0	10,217.9	10.2	18.7	-39.78	265.8	-319.8	975.7	940.2	35.47	27.510		
11,050.0	10,959.3	10,426.0	10,217.9	10.2	18.7	-39.25	265.8	-319.8	981.3	945.5	35.85	27.376		
11,075.0	10,971.8	10,435.7	10,220.6	10.3	18.7	-38.70	275.1	-319.8	986.4	950.3	36.13	27.303		
11,100.0	10,983.2	10,454.0	10,225.1	10.3	18.8	-38.17	292.8	-319.8	990.9	954.6	36.34	27.270		
11,125.0	10,993.4	10,456.7	10,225.7	10.3	18.9	-37.83	295.4	-319.8	994.6	957.9	36.65	27.136		
11,150.0	11,002.4	10,470.4	10,228.7	10.4	18.9	-37.49	308.8	-319.6	997.5	960.6	36.87	27.055		
11,175.0	11,010.1	10,485.0	10,231.6	10.4	19.0	-37.22	323.2	-319.4	999.7	962.6	37.08	26.963		
11,200.0	11,016.6	10,499.2	10,234.2	10.5	19.1	-37.04	337.2	-319.2	1,001.0	963.8	37.28	26.854		
11,225.0	11,021.9	10,512.3	10,236.4	10.5	19.2	-36.94	350.1	-319.0	1,001.6	964.1	37.48	26.725		
11,250.0	11,025.8	10,525.4	10,238.4	10.5	19.3	-36.92	363.0	-318.8	1,001.3	963.6	37.67	26.581		
11,275.0	11,028.5	10,537.8	10,240.2	10.6	19.4	-36.98	375.2	-318.6	1,000.3	962.4	37.86	26.422		
11,300.0	11,029.9	10,548.0	10,241.5	10.6	19.5	-37.11	385.3	-318.5	998.5	960.4	38.04	26.245		
11,314.2	11,030.0	10,557.1	10,242.6	10.7	19.5	-37.22	394.4	-318.4	997.1	959.0	38.13	26.149		
11,400.0	11,029.9	10,603.9	10,247.1	10.9	19.9	-37.36	440.9	-318.5	989.8	951.1	38.69	25.583		
11,500.0	11,029.8	10,663.3	10,250.1	11.2	20.4	-37.45	500.3	-318.8	985.2	945.8	39.44	24.978		
11,567.6	11,029.7	10,706.0	10,250.3	11.4	20.7	-37.44	543.0	-318.9	984.5	944.5	39.98	24.625		
11,600.0	11,029.6	10,733.0	10,249.8	11.6	21.0	-37.41	569.9	-318.9	984.6	944.4	40.24	24.468		
11,700.0	11,029.5	10,831.0	10,247.0	12.0	21.9	-37.21	667.9	-317.8	985.4	944.2	41.10	23.974		
11,800.0	11,029.3	10,933.1	10,243.8	12.5	23.0	-36.97	770.0	-316.1	986.0	944.0	41.97	23.495		
11,900.0	11,029.1	11,030.2	10,242.2	13.0	24.1	-36.86	867.1	-316.3	986.6	943.7	42.88	23.008		
12,000.0	11,029.0	11,129.8	10,240.6	13.6	25.3	-36.81	966.6	-317.5	987.7	943.8	43.86	22.520		
12,100.0	11,028.8	11,232.5	10,241.3	14.2	26.6	-36.94	1,069.3	-320.8	988.2	943.3	44.90	22.010		
12,200.0	11,028.7	11,325.2	10,242.2	14.8	27.8	-37.11	1,161.9	-324.8	989.2	943.2	45.98	21.514		
12,300.0	11,028.5	11,416.6	10,242.1	15.5	29.0	-37.24	1,253.2	-328.7	991.0	943.8	47.11	21.034		
12,400.0	11,028.4	11,522.1	10,241.0	16.2	30.5	-37.33	1,358.6	-332.8	993.3	945.0	48.36	20.541		
12,500.0	11,028.2	11,626.0	10,241.8	16.9	31.9	-37.51	1,462.4	-337.3	994.5	944.8	49.65	20.028		
12,600.0	11,028.1	11,721.5	10,242.3	17.6	33.3	-37.69	1,557.8	-341.8	996.0	945.0	50.97	19.542		
12,700.0	11,027.9	11,830.4	10,242.6	18.3	34.8	-37.85	1,666.6	-346.4	997.5	945.1	52.38	19.044		
12,800.0	11,027.8	11,949.4	10,243.3	19.1	36.6	-37.92	1,785.6	-348.8	997.4	943.6	53.87	18.517		
12,900.0	11,027.6	12,060.7	10,245.7	19.8	38.2	-38.01	1,896.9	-350.2	995.6	940.3	55.36	17.983		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	11,027.5	12,156.8	10,247.8	20.6	39.7	-38.08	1,992.9	-351.1	993.5	936.7	56.85	17.476	
13,100.0	11,027.3	12,250.7	10,249.7	21.3	41.1	-38.18	2,086.7	-352.9	992.2	933.9	58.36	17.000	
13,200.0	11,027.2	12,353.9	10,252.3	22.1	42.6	-38.32	2,189.9	-355.1	990.7	930.8	59.95	16.526	
13,300.0	11,027.0	12,447.6	10,253.7	22.9	44.1	-38.38	2,283.6	-356.4	989.5	928.0	61.52	16.085	
13,400.0	11,026.9	12,539.1	10,254.5	23.7	45.5	-38.45	2,375.1	-358.1	989.1	926.0	63.10	15.676	
13,400.6	11,026.9	12,539.7	10,254.5	23.7	45.5	-38.45	2,375.6	-358.1	989.1	926.0	63.11	15.674	
13,500.0	11,026.7	12,633.4	10,256.2	24.5	46.9	-38.64	2,469.3	-362.1	989.4	924.7	64.74	15.282	
13,600.0	11,026.6	12,730.8	10,259.0	25.3	48.5	-38.96	2,566.5	-368.0	990.1	923.7	66.46	14.897	
13,700.0	11,026.4	12,827.7	10,261.0	26.1	50.0	-39.23	2,663.2	-373.5	991.2	923.0	68.20	14.533	
13,800.0	11,026.3	12,925.4	10,261.8	26.9	51.5	-39.40	2,760.7	-377.8	992.4	922.5	69.94	14.190	
13,900.0	11,026.1	13,029.0	10,262.3	27.7	53.1	-39.57	2,864.3	-382.3	993.9	922.2	71.74	13.855	
14,000.0	11,026.0	13,132.2	10,263.3	28.5	54.8	-39.72	2,967.4	-386.0	994.5	921.0	73.54	13.523	
14,100.0	11,025.8	13,222.4	10,262.2	29.3	56.2	-39.70	3,057.6	-387.5	995.7	920.5	75.24	13.234	
14,200.0	11,025.7	13,313.1	10,259.7	30.1	57.6	-39.64	3,148.2	-389.1	998.0	921.0	76.91	12.975	
14,300.0	11,025.5	13,411.0	10,256.4	30.9	59.2	-39.54	3,246.0	-390.8	1,000.8	922.2	78.64	12.727	
14,400.0	11,025.4	13,529.3	10,252.4	31.7	61.1	-39.38	3,364.3	-391.9	1,003.1	922.6	80.48	12.464	
14,500.0	11,025.2	13,631.8	10,250.8	32.6	62.7	-39.30	3,466.8	-392.4	1,003.8	921.5	82.26	12.203	
14,600.0	11,025.0	13,755.9	10,250.8	33.4	64.7	-39.29	3,590.9	-393.5	1,003.4	919.2	84.18	11.920	
14,700.0	11,024.9	13,852.3	10,249.8	34.2	66.2	-39.11	3,687.3	-391.5	1,002.1	916.2	85.90	11.666	
14,800.0	11,024.7	13,956.7	10,249.4	35.0	67.9	-38.98	3,791.6	-389.9	1,000.4	912.7	87.67	11.411	
14,900.0	11,024.6	14,052.0	10,249.6	35.9	69.4	-38.93	3,886.9	-389.6	999.2	909.8	89.45	11.171	
15,000.0	11,024.4	14,162.2	10,251.3	36.7	71.2	-38.94	3,997.1	-389.7	997.1	905.8	91.33	10.918	
15,100.0	11,024.3	14,251.5	10,252.2	37.5	72.6	-38.92	4,086.4	-389.6	995.3	902.2	93.12	10.689	
15,200.0	11,024.1	14,344.2	10,252.2	38.4	74.1	-38.90	4,179.1	-390.1	994.8	899.9	94.92	10.481	
15,300.0	11,024.0	14,446.1	10,253.0	39.2	75.8	-38.92	4,280.9	-391.2	994.0	897.2	96.80	10.269	
15,351.6	11,023.9	14,491.5	10,253.9	39.6	76.5	-39.00	4,326.4	-392.8	993.8	896.0	97.77	10.165	
15,400.0	11,023.8	14,536.3	10,255.0	40.1	77.2	-39.12	4,371.1	-394.9	993.9	895.2	98.72	10.068	
15,500.0	11,023.7	14,637.7	10,256.9	40.9	78.9	-39.34	4,472.3	-399.6	994.4	893.7	100.75	9.870	
15,600.0	11,023.5	14,744.4	10,259.9	41.7	80.6	-39.61	4,578.9	-404.3	994.2	891.3	102.85	9.666	
15,700.0	11,023.4	14,842.8	10,262.0	42.6	82.2	-39.79	4,677.2	-407.6	993.8	888.9	104.85	9.478	
15,798.2	11,023.2	14,938.4	10,263.2	43.4	83.8	-39.90	4,772.8	-410.2	993.7	886.9	106.78	9.305	
15,800.0	11,023.2	14,940.2	10,263.3	43.4	83.8	-39.90	4,774.5	-410.3	993.7	886.8	106.82	9.302	
15,900.0	11,023.1	15,028.9	10,264.7	44.3	85.2	-40.07	4,863.2	-413.8	994.1	885.3	108.77	9.139	
16,000.0	11,022.9	15,123.1	10,265.5	45.1	86.8	-40.27	4,957.3	-418.6	995.8	885.0	110.79	8.988	
16,015.1	11,022.9	15,139.1	10,265.6	45.2	87.0	-40.29	4,973.2	-419.3	996.0	884.9	111.10	8.965	
16,036.0	11,022.9	15,161.1	10,265.5	45.4	87.4	-40.31	4,995.3	-420.1	996.4	884.9	111.53	8.934	
16,100.0	11,022.8	15,228.1	10,265.8	45.9	88.5	-40.43	5,062.1	-422.8	997.6	884.7	112.88	8.838	
16,200.0	11,022.6	15,327.7	10,267.4	46.8	90.1	-40.69	5,161.6	-427.9	999.3	884.2	115.01	8.689	
16,300.0	11,022.5	15,420.5	10,267.4	47.6	91.7	-40.83	5,254.4	-431.5	1,001.3	884.3	117.00	8.558	
16,400.0	11,022.3	15,511.8	10,267.0	48.5	93.1	-40.98	5,345.5	-435.7	1,004.2	885.2	118.99	8.439	
16,500.0	11,022.2	15,622.1	10,266.1	49.3	95.0	-41.15	5,455.8	-440.7	1,007.4	886.2	121.17	8.314	
16,600.0	11,022.0	15,732.7	10,265.6	50.2	96.8	-41.24	5,566.3	-443.8	1,009.1	885.8	123.29	8.185	
16,700.0	11,021.8	15,831.0	10,263.9	51.0	98.4	-41.20	5,664.6	-444.6	1,010.5	885.3	125.20	8.071	
16,800.0	11,021.7	15,915.9	10,261.4	51.8	99.7	-41.11	5,749.4	-445.1	1,012.7	885.7	126.96	7.976	
16,900.0	11,021.5	16,040.6	10,259.1	52.7	101.8	-41.07	5,874.1	-446.5	1,014.3	885.2	129.08	7.858	
17,000.0	11,021.4	16,139.7	10,258.1	53.5	103.4	-41.04	5,973.2	-447.0	1,015.0	883.9	131.01	7.747	
17,100.0	11,021.2	16,242.8	10,258.7	54.4	105.1	-41.11	6,076.3	-448.6	1,015.1	882.1	133.07	7.629	
17,200.0	11,021.1	16,342.1	10,259.4	55.2	106.7	-41.22	6,175.6	-451.0	1,015.7	880.6	135.14	7.516	
17,300.0	11,020.9	16,456.2	10,263.1	56.1	108.6	-41.52	6,289.5	-455.3	1,015.3	877.8	137.49	7.385	
17,400.0	11,020.8	16,557.2	10,267.3	56.9	110.2	-41.81	6,390.4	-458.8	1,014.1	874.3	139.76	7.256	
17,500.0	11,020.6	16,654.5	10,271.0	57.8	111.8	-42.09	6,487.5	-462.3	1,013.1	871.1	142.01	7.134	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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			
17,600.0	11,020.4	16,753.2	10,274.2	58.6	113.4	-42.31	6,586.2	-465.2	1,012.3	868.1	144.24	7.019			
17,700.0	11,020.3	16,856.6	10,276.9	59.5	115.1	-42.50	6,689.4	-467.6	1,011.5	865.1	146.45	6.907			
17,800.0	11,020.1	16,965.3	10,277.7	60.3	116.9	-42.49	6,798.2	-466.9	1,010.1	861.6	148.48	6.803			
17,900.0	11,020.0	17,061.0	10,277.6	61.2	118.4	-42.40	6,893.8	-465.3	1,008.5	858.1	150.38	6.707			
18,000.0	11,019.8	17,155.0	10,276.1	62.0	120.0	-42.23	6,987.8	-463.0	1,007.5	855.4	152.18	6.621			
18,100.0	11,019.7	17,253.4	10,274.3	62.9	121.6	-42.05	7,086.1	-460.7	1,006.9	852.9	153.98	6.539			
18,200.0	11,019.5	17,349.9	10,273.3	63.7	123.1	-41.94	7,182.6	-459.4	1,006.3	850.5	155.84	6.457			
18,300.0	11,019.4	17,446.8	10,272.3	64.6	124.7	-41.86	7,279.5	-458.7	1,006.1	848.4	157.74	6.378			
18,400.0	11,019.2	17,548.1	10,271.3	65.4	126.4	-41.78	7,380.9	-458.1	1,006.0	846.4	159.67	6.301			
18,500.0	11,019.1	17,649.1	10,269.6	66.3	128.0	-41.63	7,481.8	-456.5	1,005.7	844.2	161.50	6.228			
18,552.7	11,019.0	17,699.0	10,269.1	66.7	128.8	-41.59	7,531.7	-456.1	1,005.7	843.2	162.49	6.189			
18,600.0	11,018.9	17,743.3	10,269.0	67.1	129.6	-41.59	7,576.0	-456.4	1,005.7	842.3	163.42	6.154			
18,700.0	11,018.7	17,835.5	10,268.5	68.0	131.1	-41.60	7,668.2	-457.4	1,006.4	841.0	165.39	6.085			
18,800.0	11,018.6	17,926.2	10,269.3	68.9	132.6	-41.76	7,758.8	-461.0	1,007.9	840.4	167.52	6.017			
18,900.0	11,018.4	18,019.8	10,269.6	69.7	134.1	-41.95	7,852.3	-465.4	1,010.4	840.7	169.71	5.954			
19,000.0	11,018.3	18,132.0	10,272.0	70.6	136.0	-42.30	7,964.2	-472.0	1,012.2	840.0	172.28	5.875			
19,100.0	11,018.1	18,227.9	10,274.2	71.4	137.6	-42.59	8,060.0	-477.2	1,013.8	839.2	174.64	5.805			
19,200.0	11,018.0	18,319.3	10,274.3	72.3	139.1	-42.74	8,151.3	-481.2	1,016.1	839.4	176.79	5.748			
19,300.0	11,017.8	18,410.9	10,273.1	73.1	140.6	-42.82	8,242.9	-484.5	1,019.2	840.4	178.83	5.699			
19,400.0	11,017.7	18,504.1	10,271.5	74.0	142.1	-42.93	8,335.9	-489.0	1,023.3	842.4	180.93	5.656			
19,500.0	11,017.5	18,616.8	10,270.1	74.8	144.0	-43.08	8,448.5	-494.2	1,026.8	843.5	183.32	5.601			
19,600.0	11,017.4	18,725.5	10,269.8	75.7	145.8	-43.22	8,557.1	-498.6	1,029.3	843.7	185.65	5.544			
19,700.0	11,017.2	18,830.6	10,270.2	76.5	147.5	-43.38	8,662.1	-502.5	1,031.1	843.2	187.96	5.486			
19,800.0	11,017.0	18,938.8	10,271.4	77.4	149.3	-43.57	8,770.2	-506.5	1,032.4	842.1	190.35	5.424			
19,900.0	11,016.9	19,037.6	10,272.4	78.2	150.9	-43.72	8,869.0	-509.4	1,033.2	840.6	192.59	5.365			
20,000.0	11,016.7	19,148.2	10,271.3	79.1	152.7	-43.67	8,979.5	-509.8	1,033.8	839.1	194.66	5.311			
20,100.0	11,016.6	19,267.2	10,270.7	80.0	154.7	-43.56	9,098.6	-508.0	1,032.6	836.0	196.63	5.252			
20,200.0	11,016.4	19,366.5	10,272.5	80.8	156.3	-43.60	9,197.8	-507.6	1,030.5	831.8	198.74	5.185			
20,300.0	11,016.3	19,456.5	10,274.9	81.7	157.8	-43.73	9,287.8	-509.0	1,029.2	828.3	200.95	5.122			
20,400.0	11,016.1	19,552.5	10,277.4	82.5	159.4	-43.92	9,383.7	-511.5	1,028.6	825.4	203.27	5.060			
20,500.0	11,016.0	19,650.4	10,280.1	83.4	161.0	-44.11	9,481.5	-514.2	1,028.1	822.5	205.61	5.000			
20,523.8	11,015.9	19,671.4	10,280.6	83.6	161.3	-44.16	9,502.5	-514.8	1,028.1	821.9	206.16	4.987			
20,600.0	11,015.8	19,741.3	10,282.3	84.2	162.5	-44.31	9,572.4	-517.4	1,028.4	820.5	207.93	4.946			
20,700.0	11,015.7	19,842.0	10,285.0	85.1	164.1	-44.58	9,672.9	-521.8	1,029.0	818.6	210.40	4.891			
20,800.0	11,015.5	19,944.7	10,287.9	85.9	165.8	-44.85	9,775.5	-525.9	1,029.4	816.5	212.91	4.835			
20,900.0	11,015.3	20,039.1	10,290.1	86.8	167.4	-45.05	9,869.8	-529.3	1,029.9	814.6	215.26	4.784			
21,000.0	11,015.2	20,131.0	10,291.0	87.7	168.9	-45.19	9,961.7	-532.4	1,031.1	813.6	217.50	4.740 SF			
21,100.0	11,015.0	20,131.0	10,291.0	88.5	168.9	-45.19	9,961.7	-532.4	1,037.5	819.9	217.68	4.766			
21,122.7	11,015.0	20,131.0	10,291.0	88.7	168.9	-45.19	9,961.7	-532.4	1,040.3	822.9	217.45	4.784			
21,123.0	11,015.0	20,131.0	10,291.0	88.7	168.9	-45.19	9,961.7	-532.4	1,040.4	823.2	217.17	4.791			

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.3	2.3	3.0	3.0	-105.68	-123.1	-438.6	455.5				
100.0	100.0	104.0	104.0	3.0	3.0	-105.66	-122.9	-438.4	455.4	449.4	6.00	75.885	
200.0	200.0	204.1	204.1	3.0	3.0	-105.65	-122.7	-438.1	455.0	449.0	6.01	75.722	
300.0	300.0	302.5	302.5	3.0	3.0	-105.62	-122.5	-437.9	454.7	448.7	6.02	75.533	
304.9	304.9	307.2	307.2	3.0	3.0	-105.62	-122.4	-437.9	454.7	448.7	6.02	75.530	
400.0	400.0	400.0	400.0	3.0	3.0	-105.60	-122.4	-438.4	455.2	449.2	6.03	75.538	
500.0	500.0	502.4	502.4	3.1	3.0	-105.59	-122.5	-438.9	455.7	449.6	6.04	75.474	
502.8	502.8	505.1	505.1	3.1	3.0	-105.59	-122.5	-438.9	455.7	449.6	6.04	75.470	
600.0	600.0	600.0	600.0	3.1	3.0	-105.58	-122.5	-439.4	456.1	450.1	6.05	75.362	
700.0	700.0	698.0	698.0	3.1	3.1	-105.51	-122.2	-440.4	457.1	451.0	6.07	75.281	
800.0	800.0	797.7	797.7	3.2	3.1	-105.41	-121.7	-441.6	458.0	451.9	6.10	75.114	
900.0	900.0	897.3	897.3	3.2	3.1	-105.29	-121.0	-442.8	459.1	453.0	6.13	74.876	
1,000.0	1,000.0	997.7	997.7	3.2	3.2	-105.18	-120.5	-444.1	460.1	454.0	6.17	74.547	
1,100.0	1,100.0	1,095.3	1,095.3	3.3	3.2	-105.10	-120.2	-445.4	461.4	455.2	6.22	74.163	
1,200.0	1,200.0	1,193.6	1,193.6	3.4	3.2	-105.01	-119.9	-447.2	463.1	456.8	6.28	73.756	
1,300.0	1,300.0	1,298.6	1,298.5	3.4	3.3	-104.96	-119.9	-448.8	464.5	458.2	6.35	73.151	
1,400.0	1,400.0	1,396.9	1,396.8	3.5	3.4	-104.92	-119.8	-449.8	465.5	459.1	6.42	72.458	
1,500.0	1,500.0	1,502.1	1,502.0	3.5	3.4	-104.87	-119.6	-450.5	466.1	459.6	6.50	71.744	
1,600.0	1,600.0	1,601.1	1,601.1	3.6	3.5	-104.84	-119.4	-450.8	466.3	459.7	6.57	71.011	
1,700.0	1,700.0	1,700.4	1,700.3	3.7	3.6	-104.81	-119.3	-451.1	466.7	460.0	6.65	70.126	
1,800.0	1,800.0	1,800.0	1,799.9	3.8	3.7	-104.78	-119.1	-451.6	467.1	460.3	6.75	69.217	
1,900.0	1,900.0	1,897.7	1,897.6	3.9	3.7	-104.75	-119.1	-452.4	467.8	461.0	6.85	68.328	
2,000.0	2,000.0	1,997.1	1,997.0	3.9	3.8	-104.75	-119.4	-453.4	468.9	461.9	6.96	67.366	
2,100.0	2,100.0	2,095.2	2,095.1	4.0	3.9	-104.74	-119.6	-454.7	470.2	463.1	7.08	66.424	
2,200.0	2,200.0	2,196.0	2,195.9	4.1	4.0	-104.72	-119.8	-456.2	471.7	464.5	7.21	65.459	
2,300.0	2,300.0	2,296.4	2,296.3	4.2	4.1	-104.75	-120.4	-457.4	473.0	465.7	7.33	64.510	
2,400.0	2,400.0	2,398.2	2,398.0	4.3	4.1	-104.91	-122.0	-458.1	474.1	466.6	7.44	63.680	
2,500.0	2,500.0	2,503.0	2,502.8	4.4	4.1	-105.18	-124.2	-457.9	474.5	466.9	7.53	63.016	
2,600.0	2,600.0	2,606.3	2,606.1	4.5	4.1	-105.54	-127.0	-456.7	474.0	466.5	7.59	62.445	
2,700.0	2,700.0	2,713.0	2,712.7	4.6	4.1	-105.96	-129.9	-454.2	472.5	464.9	7.64	61.859	
2,800.0	2,800.0	2,817.5	2,817.1	4.7	4.1	-106.38	-132.5	-450.6	469.9	462.2	7.68	61.218	
2,900.0	2,900.0	2,922.8	2,922.3	4.8	4.0	-106.75	-134.2	-445.9	466.1	458.4	7.71	60.475	
3,000.0	3,000.0	3,025.4	3,024.8	4.9	4.0	-107.06	-135.2	-440.7	461.5	453.8	7.74	59.626	
3,100.0	3,100.0	3,127.4	3,126.6	5.0	4.0	-107.33	-135.7	-435.1	456.4	448.6	7.78	58.684	
3,200.0	3,200.0	3,228.6	3,227.6	5.1	4.0	-107.56	-135.8	-429.2	450.9	443.1	7.82	57.655	
3,300.0	3,300.0	3,328.0	3,326.9	5.2	4.0	-107.77	-135.7	-423.4	445.3	437.4	7.87	56.579	
3,400.0	3,400.0	3,426.7	3,425.4	5.3	4.0	-107.96	-135.5	-417.9	439.9	432.0	7.93	55.503	
3,500.0	3,500.0	3,526.7	3,525.2	5.4	4.0	-108.17	-135.4	-412.4	434.7	426.7	7.99	54.401	
3,600.0	3,600.0	3,626.6	3,625.0	5.5	4.0	-108.38	-135.2	-406.9	429.3	421.3	8.06	53.264	
3,700.0	3,700.0	3,725.8	3,724.1	5.7	4.0	-108.60	-135.1	-401.5	424.1	416.0	8.14	52.114	
3,800.0	3,800.0	3,824.8	3,823.0	5.8	4.0	-108.83	-135.1	-396.2	419.1	410.9	8.22	50.964	
3,900.0	3,900.0	3,923.8	3,921.8	5.9	4.1	-109.07	-135.2	-391.1	414.3	406.0	8.31	49.825	
4,000.0	4,000.0	4,022.7	4,020.5	6.0	4.1	-109.30	-135.3	-386.3	409.7	401.3	8.41	48.700	
4,100.0	4,100.0	4,121.0	4,118.7	6.1	4.1	-109.52	-135.4	-381.8	405.5	397.0	8.52	47.615	
4,200.0	4,200.0	4,220.4	4,218.1	6.2	4.2	-109.75	-135.5	-377.6	401.5	392.9	8.63	46.545	
4,300.0	4,300.0	4,319.9	4,317.5	6.3	4.2	-109.98	-135.7	-373.4	397.6	388.8	8.74	45.484	
4,400.0	4,400.0	4,418.8	4,416.3	6.5	4.3	-110.23	-136.1	-369.4	393.9	385.1	8.86	44.448	
4,500.0	4,500.0	4,518.2	4,515.6	6.6	4.3	-110.49	-136.6	-365.5	390.4	381.4	8.99	43.432	
4,600.0	4,600.0	4,617.2	4,614.6	6.7	4.4	-110.76	-137.2	-361.8	387.1	378.0	9.12	42.447	
4,700.0	4,700.0	4,717.2	4,714.5	6.8	4.5	-111.02	-137.7	-358.2	384.0	374.7	9.26	41.479	
4,800.0	4,800.0	4,817.1	4,814.3	6.9	4.6	-111.27	-138.1	-354.7	380.8	371.4	9.40	40.521	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
ADMIRAL FEDERAL PROJECT (ATLAS 2529) - ADMIRAL FED COM #2H - OWB-PILOT HOLE - AWP												Offset Well Error:	3.0 usft
Survey Program: 100- VES GyroFlex													
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	4,900.0	4,917.1	4,914.2	7.0	4.6	-111.55	-138.7	-351.1	377.7	368.1	9.54	39.573	
5,000.0	5,000.0	5,017.6	5,014.7	7.2	4.7	-111.85	-139.3	-347.3	374.4	364.7	9.69	38.619	
5,100.0	5,100.0	5,116.6	5,113.7	7.3	4.8	-112.17	-140.0	-343.6	371.2	361.4	9.85	37.697	
5,200.0	5,200.0	5,215.7	5,212.7	7.4	4.9	-112.51	-140.9	-340.1	368.3	358.3	10.00	36.816	
5,300.0	5,300.0	5,315.5	5,312.4	7.5	5.0	-112.84	-141.8	-336.7	365.5	355.3	10.16	35.962	
5,400.0	5,400.0	5,414.4	5,411.3	7.6	5.1	-113.16	-142.6	-333.5	362.9	352.5	10.32	35.149	
5,500.0	5,500.0	5,513.8	5,510.6	7.8	5.2	-113.47	-143.5	-330.5	360.5	350.0	10.49	34.374	
5,600.0	5,600.0	5,612.5	5,609.3	7.8	5.3	122.03	-144.5	-327.9	359.3	348.6	10.64	33.755	
5,605.1	5,605.0	5,617.6	5,614.3	7.8	5.3	122.04	-144.5	-327.7	359.3	348.6	10.65	33.732 CC, ES	
5,684.2	5,684.1	5,696.7	5,693.4	7.8	5.4	122.35	-145.2	-325.8	359.9	349.1	10.77	33.424	
5,700.0	5,699.8	5,712.5	5,709.2	7.8	5.4	122.45	-145.3	-325.4	360.1	349.3	10.79	33.377	
5,800.0	5,799.6	5,812.3	5,809.0	7.8	5.5	123.11	-145.7	-323.1	361.6	350.7	10.93	33.074	
5,900.0	5,899.4	5,911.0	5,907.7	7.8	5.6	123.88	-145.4	-321.3	363.4	352.3	11.08	32.795	
6,000.0	5,999.2	6,011.1	6,007.7	7.8	5.7	124.69	-144.9	-319.7	365.3	354.1	11.24	32.517	
6,100.0	6,099.0	6,111.1	6,107.7	7.8	5.8	125.49	-144.5	-318.1	367.3	355.9	11.39	32.237	
6,200.0	6,198.8	6,211.7	6,208.3	7.8	5.9	126.26	-144.1	-316.2	369.2	357.7	11.56	31.940	
6,300.0	6,298.6	6,310.0	6,306.6	7.8	6.0	126.99	-143.9	-314.5	371.3	359.6	11.73	31.666	
6,400.0	6,398.4	6,409.3	6,405.9	7.8	6.1	127.75	-143.6	-313.1	373.8	361.9	11.90	31.415	
6,500.0	6,498.2	6,508.5	6,505.1	7.8	6.2	128.51	-143.3	-311.8	376.4	364.4	12.07	31.179	
6,600.0	6,598.0	6,607.8	6,604.3	7.8	6.4	129.23	-143.1	-310.6	379.3	367.1	12.25	30.961	
6,700.0	6,697.8	6,708.0	6,704.5	7.8	6.5	129.93	-143.1	-309.4	382.3	369.8	12.43	30.750	
6,800.0	6,797.6	6,805.1	6,801.7	7.8	6.6	130.55	-143.5	-308.5	385.6	373.0	12.60	30.606	
6,900.0	6,897.4	6,905.7	6,902.3	7.9	6.7	131.15	-144.1	-307.8	389.3	376.5	12.76	30.508	
7,000.0	6,997.2	7,004.9	7,001.5	7.9	6.8	131.71	-144.9	-307.0	392.9	380.0	12.92	30.414	
7,100.0	7,096.9	7,104.8	7,101.3	7.9	6.9	132.18	-146.3	-306.1	396.7	383.6	13.07	30.354	
7,200.0	7,196.7	7,205.7	7,202.2	7.9	7.0	132.49	-148.7	-304.8	400.4	387.1	13.22	30.291	
7,300.0	7,296.5	7,303.1	7,299.6	7.9	7.1	132.68	-151.8	-303.6	404.2	390.9	13.36	30.248	
7,400.0	7,396.3	7,400.4	7,396.8	8.0	7.2	132.89	-154.9	-303.1	408.7	395.2	13.50	30.275	
7,500.0	7,496.1	7,501.6	7,497.9	8.0	7.3	133.22	-157.3	-302.8	413.4	399.8	13.62	30.343	
7,600.0	7,595.9	7,601.9	7,598.3	8.0	7.3	133.64	-158.9	-302.5	417.9	404.1	13.75	30.381	
7,700.0	7,695.7	7,701.5	7,697.8	8.1	7.4	134.02	-160.6	-302.2	422.3	408.4	13.89	30.406	
7,800.0	7,795.5	7,802.6	7,798.9	8.1	7.5	134.38	-162.6	-301.7	426.7	412.7	14.03	30.416	
7,900.0	7,895.3	7,901.4	7,897.7	8.1	7.6	134.74	-164.4	-301.2	431.1	416.9	14.17	30.412	
8,000.0	7,995.1	8,000.0	7,996.3	8.2	7.7	135.18	-165.5	-301.0	435.7	421.4	14.31	30.452	
8,100.0	8,094.9	8,099.2	8,095.5	8.2	7.8	135.72	-165.9	-301.2	440.5	426.1	14.41	30.571	
8,200.0	8,194.7	8,200.0	8,196.3	8.3	7.8	136.28	-166.1	-301.5	445.4	430.9	14.50	30.724	
8,300.0	8,294.5	8,299.5	8,295.8	8.3	7.8	136.80	-166.5	-301.6	450.3	435.7	14.60	30.833	
8,400.0	8,394.3	8,399.8	8,396.1	8.4	7.9	137.25	-167.3	-301.6	455.1	440.4	14.73	30.903	
8,500.0	8,494.1	8,501.5	8,497.8	8.4	8.0	137.64	-168.6	-301.3	459.8	444.9	14.87	30.908	
8,600.0	8,593.8	8,601.3	8,597.6	8.5	8.1	138.02	-169.8	-300.8	464.2	449.2	15.04	30.871	
8,700.0	8,693.6	8,700.0	8,696.3	8.5	8.3	138.35	-171.3	-300.4	468.8	453.6	15.20	30.847	
8,800.0	8,793.4	8,798.5	8,794.7	8.6	8.4	138.64	-173.1	-300.3	473.6	458.3	15.35	30.858	
8,900.0	8,893.2	8,899.1	8,895.4	8.6	8.5	138.98	-174.5	-300.2	478.6	463.1	15.49	30.894	
9,000.0	8,993.0	9,000.4	8,996.6	8.7	8.6	139.36	-175.6	-300.0	483.4	467.7	15.65	30.895	
9,100.0	9,092.8	9,102.4	9,098.6	8.7	8.7	139.74	-176.6	-299.4	487.8	471.9	15.82	30.829	
9,200.0	9,192.6	9,200.0	9,196.2	8.8	8.8	140.10	-177.5	-299.0	492.4	476.4	16.00	30.782	
9,300.0	9,292.4	9,297.5	9,293.7	8.9	8.9	140.44	-178.6	-299.1	497.5	481.4	16.15	30.813	
9,400.0	9,392.2	9,397.8	9,394.0	8.9	9.0	140.79	-179.7	-299.2	502.6	486.4	16.29	30.855	
9,500.0	9,492.0	9,497.4	9,493.6	9.0	9.1	141.10	-180.9	-299.2	507.8	491.3	16.44	30.884	
9,600.0	9,591.8	9,597.2	9,593.4	9.1	9.2	141.41	-182.2	-299.2	512.9	496.3	16.59	30.915	
9,700.0	9,691.6	9,699.3	9,695.4	9.2	9.3	141.73	-183.4	-299.0	517.9	501.1	16.75	30.925	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.0	9,791.4	9,796.8	9,793.0	9.2	9.4	142.05		-184.4	-298.9	522.8	505.9	16.91	30.912	
9,900.0	9,891.2	9,899.7	9,895.9	9.3	9.6	142.41		-185.1	-298.7	527.8	510.7	17.07	30.912	
10,000.0	9,991.0	9,998.4	9,994.6	9.4	9.7	142.74		-185.9	-298.3	532.5	515.3	17.26	30.847	
10,100.0	10,090.7	10,099.0	10,095.2	9.5	9.8	143.06		-186.8	-298.0	537.3	519.9	17.44	30.803	
10,200.0	10,190.5	10,203.7	10,199.9	9.5	9.9	143.46		-187.1	-297.0	541.6	524.0	17.65	30.694	
10,300.0	10,290.3	10,300.0	10,296.2	9.6	10.0	143.92		-186.3	-296.1	545.8	528.0	17.86	30.558	
10,400.0	10,390.1	10,396.7	10,392.8	9.7	10.0	144.41		-185.2	-295.8	550.7	532.6	18.05	30.502	
10,500.0	10,489.9	10,496.5	10,492.6	9.8	10.0	144.92		-184.0	-295.8	555.9	537.7	18.22	30.504	
10,545.8	10,535.6	10,542.0	10,538.1	9.8	10.0	145.16		-183.4	-295.8	558.3	540.0	18.30	30.506	
10,550.0	10,539.8	10,546.2	10,542.3	9.8	10.0	152.17		-183.4	-295.8	558.5	540.2	18.31	30.507	
10,575.0	10,564.8	10,571.1	10,567.2	9.9	10.0	-154.81		-183.0	-295.7	559.8	541.4	18.38	30.453	
10,600.0	10,589.7	10,595.9	10,592.0	9.9	10.0	-123.98		-182.7	-295.7	561.1	542.7	18.40	30.497	
10,625.0	10,614.5	10,620.5	10,616.6	9.9	10.0	-111.78		-182.3	-295.8	562.4	544.0	18.41	30.542	
10,650.0	10,639.2	10,644.9	10,641.0	9.9	10.0	-105.98		-181.9	-295.8	563.7	545.3	18.43	30.586	
10,675.0	10,663.6	10,669.1	10,665.2	9.9	10.0	-102.82		-181.5	-295.8	565.1	546.6	18.45	30.633	
10,700.0	10,687.8	10,693.0	10,689.1	9.9	10.0	-100.99		-181.1	-295.9	566.5	548.0	18.46	30.682	
10,725.0	10,711.5	10,715.9	10,712.0	9.9	10.0	-99.92		-180.8	-295.9	568.0	549.5	18.48	30.731	
10,750.0	10,734.8	10,738.2	10,734.3	9.9	10.0	-99.33		-180.4	-296.0	569.7	551.2	18.51	30.788	
10,775.0	10,757.7	10,745.0	10,741.1	9.9	10.0	-98.46		-180.2	-296.1	571.9	553.2	18.71	30.566	
10,800.0	10,779.9	10,745.0	10,741.1	10.0	10.0	-97.39		-180.2	-296.1	575.1	555.9	19.20	29.951	
10,825.0	10,801.6	10,745.0	10,741.1	10.0	10.0	-96.32		-180.2	-296.1	579.4	559.5	19.89	29.134	
10,850.0	10,822.5	10,745.0	10,741.1	10.0	10.0	-95.21		-180.2	-296.1	584.7	564.0	20.71	28.233	
10,875.0	10,842.8	10,745.0	10,741.1	10.0	10.0	-94.05		-180.2	-296.1	591.1	569.5	21.62	27.341	
10,900.0	10,862.2	10,745.0	10,741.1	10.0	10.0	-92.82		-180.2	-296.1	598.4	575.9	22.57	26.519	
10,925.0	10,880.8	10,745.0	10,741.1	10.1	10.0	-91.52		-180.2	-296.1	606.6	583.1	23.51	25.802	
10,950.0	10,898.5	10,745.0	10,741.1	10.1	10.0	-90.13		-180.2	-296.1	615.7	591.3	24.43	25.205	
10,975.0	10,915.2	10,745.0	10,741.1	10.1	10.0	-88.66		-180.2	-296.1	625.5	600.3	25.29	24.733	
11,000.0	10,930.9	10,745.0	10,741.1	10.2	10.0	-87.10		-180.2	-296.1	636.1	610.0	26.09	24.383	
11,025.0	10,945.7	10,745.0	10,741.1	10.2	10.0	-85.46		-180.2	-296.1	647.3	620.5	26.81	24.148	
11,050.0	10,959.3	10,745.0	10,741.1	10.2	10.0	-83.75		-180.2	-296.1	659.2	631.7	27.44	24.023	
11,075.0	10,971.8	10,745.0	10,741.1	10.3	10.0	-81.97		-180.2	-296.1	671.5	643.5	27.98	23.999 SF	
11,100.0	10,983.2	10,745.0	10,741.1	10.3	10.0	-80.13		-180.2	-296.1	684.3	655.9	28.43	24.069	
11,125.0	10,993.4	10,745.0	10,741.1	10.3	10.0	-78.23		-180.2	-296.1	697.6	668.8	28.79	24.228	
11,150.0	11,002.4	10,745.0	10,741.1	10.4	10.0	-76.30		-180.2	-296.1	711.2	682.1	29.06	24.469	
11,175.0	11,010.1	10,745.0	10,741.1	10.4	10.0	-74.34		-180.2	-296.1	725.0	695.8	29.25	24.790	
11,200.0	11,016.6	10,745.0	10,741.1	10.5	10.0	-72.36		-180.2	-296.1	739.2	709.8	29.35	25.187	
11,225.0	11,021.9	10,745.0	10,741.1	10.5	10.0	-70.38		-180.2	-296.1	753.5	724.1	29.37	25.656	
11,250.0	11,025.8	10,745.0	10,741.1	10.5	10.0	-68.41		-180.2	-296.1	767.9	738.6	29.32	26.195	
11,275.0	11,028.5	10,745.0	10,741.1	10.6	10.0	-66.46		-180.2	-296.1	782.5	753.3	29.19	26.805	
11,300.0	11,029.9	10,745.0	10,741.1	10.6	10.0	-64.54		-180.2	-296.1	797.1	768.1	29.00	27.483	
11,314.2	11,030.0	10,745.0	10,741.1	10.7	10.0	-63.46		-180.2	-296.1	805.4	776.5	28.87	27.899	
11,400.0	11,029.9	10,745.0	10,741.1	10.9	10.0	-63.46		-180.2	-296.1	858.4	830.3	28.03	30.620	
11,500.0	11,029.8	10,745.0	10,741.1	11.2	10.0	-63.46		-180.2	-296.1	926.3	899.2	27.14	34.137	
11,600.0	11,029.6	10,745.0	10,741.1	11.6	10.0	-63.46		-180.2	-296.1	999.7	973.4	26.34	37.954	
11,700.0	11,029.5	10,745.0	10,741.1	12.0	10.0	-63.46		-180.2	-296.1	1,077.4	1,051.7	25.65	42.003	
11,800.0	11,029.3	10,745.0	10,741.1	12.5	10.0	-63.46		-180.2	-296.1	1,158.5	1,133.4	25.06	46.227	
11,900.0	11,029.1	10,745.0	10,741.1	13.0	10.0	-63.46		-180.2	-296.1	1,242.3	1,217.8	24.56	50.579	
12,000.0	11,029.0	10,745.0	10,741.1	13.6	10.0	-63.46		-180.2	-296.1	1,328.4	1,304.3	24.14	55.020	
12,100.0	11,028.8	10,745.0	10,741.1	14.2	10.0	-63.46		-180.2	-296.1	1,416.3	1,392.5	23.80	59.521	
12,200.0	11,028.7	10,745.0	10,741.1	14.8	10.0	-63.46		-180.2	-296.1	1,505.8	1,482.3	23.51	64.059	
12,300.0	11,028.5	10,745.0	10,741.1	15.5	10.0	-63.46		-180.2	-296.1	1,596.4	1,573.2	23.27	68.615	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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 (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.0	11,028.4	10,745.0	10,741.1	16.2	10.0	-63.46	-180.2	-296.1	1,688.2	1,665.1	23.07	73.174	
12,500.0	11,028.2	10,745.0	10,741.1	16.9	10.0	-63.46	-180.2	-296.1	1,780.8	1,757.9	22.91	77.725	
12,600.0	11,028.1	10,745.0	10,741.1	17.6	10.0	-63.46	-180.2	-296.1	1,874.2	1,851.4	22.78	82.259	
12,700.0	11,027.9	10,745.0	10,741.1	18.3	10.0	-63.46	-180.2	-296.1	1,968.2	1,945.5	22.68	86.769	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	89.71	0.3	60.0	60.0					
100.0	100.0	99.3	99.3	3.0	3.0	89.71	0.3	60.0	60.0	54.0	6.00	10.000		
200.0	200.0	199.3	199.3	3.0	3.0	89.71	0.3	60.0	60.0	54.0	6.00	9.995		
300.0	300.0	299.3	299.3	3.0	3.0	89.71	0.3	60.0	60.0	54.0	6.01	9.985		
400.0	400.0	399.3	399.3	3.0	3.0	89.71	0.3	60.0	60.0	54.0	6.02	9.969		
500.0	500.0	499.3	499.3	3.1	3.1	89.71	0.3	60.0	60.0	54.0	6.03	9.949		
600.0	600.0	599.3	599.3	3.1	3.1	89.71	0.3	60.0	60.0	54.0	6.05	9.923		
700.0	700.0	699.3	699.3	3.1	3.1	89.71	0.3	60.0	60.0	53.9	6.07	9.892		
800.0	800.0	799.3	799.3	3.2	3.2	89.71	0.3	60.0	60.0	53.9	6.09	9.856		
900.0	900.0	899.3	899.3	3.2	3.2	89.71	0.3	60.0	60.0	53.9	6.11	9.816		
1,000.0	1,000.0	999.3	999.3	3.2	3.2	89.71	0.3	60.0	60.0	53.9	6.14	9.770		
1,100.0	1,100.0	1,099.3	1,099.3	3.3	3.3	89.71	0.3	60.0	60.0	53.8	6.17	9.721		
1,200.0	1,200.0	1,199.3	1,199.3	3.4	3.4	89.71	0.3	60.0	60.0	53.8	6.21	9.667		
1,300.0	1,300.0	1,299.3	1,299.3	3.4	3.4	89.71	0.3	60.0	60.0	53.8	6.24	9.610		
1,400.0	1,400.0	1,399.3	1,399.3	3.5	3.5	89.71	0.3	60.0	60.0	53.7	6.28	9.549		
1,500.0	1,500.0	1,499.3	1,499.3	3.5	3.5	89.71	0.3	60.0	60.0	53.7	6.33	9.484		
1,600.0	1,600.0	1,599.3	1,599.3	3.6	3.6	89.71	0.3	60.0	60.0	53.6	6.37	9.416		
1,700.0	1,700.0	1,699.3	1,699.3	3.7	3.7	89.71	0.3	60.0	60.0	53.6	6.42	9.345		
1,800.0	1,800.0	1,799.3	1,799.3	3.8	3.8	89.71	0.3	60.0	60.0	53.5	6.47	9.271		
1,900.0	1,900.0	1,899.3	1,899.3	3.9	3.9	89.71	0.3	60.0	60.0	53.5	6.53	9.195		
2,000.0	2,000.0	1,999.3	1,999.3	3.9	3.9	89.71	0.3	60.0	60.0	53.4	6.58	9.117		
2,100.0	2,100.0	2,099.3	2,099.3	4.0	4.0	89.71	0.3	60.0	60.0	53.4	6.64	9.036		
2,200.0	2,200.0	2,199.3	2,199.3	4.1	4.1	89.71	0.3	60.0	60.0	53.3	6.70	8.954		
2,300.0	2,300.0	2,299.3	2,299.3	4.2	4.2	89.71	0.3	60.0	60.0	53.2	6.76	8.870		
2,400.0	2,400.0	2,399.3	2,399.3	4.3	4.3	89.71	0.3	60.0	60.0	53.2	6.83	8.785		
2,500.0	2,500.0	2,499.3	2,499.3	4.4	4.4	89.71	0.3	60.0	60.0	53.1	6.90	8.698 CC, ES		
2,600.0	2,600.0	2,597.4	2,597.3	4.5	4.4	90.26	-0.3	61.6	61.6	54.6	6.97	8.840		
2,700.0	2,700.0	2,695.2	2,695.0	4.6	4.5	91.74	-2.0	66.2	66.4	59.4	7.04	9.436		
2,800.0	2,800.0	2,792.6	2,792.1	4.7	4.5	93.78	-4.9	74.0	74.5	67.4	7.11	10.476		
2,900.0	2,900.0	2,892.1	2,891.1	4.8	4.5	95.73	-8.4	83.4	84.2	77.1	7.20	11.705		
3,000.0	3,000.0	2,991.6	2,990.0	4.9	4.5	97.28	-11.9	92.9	94.1	86.8	7.29	12.910		
3,100.0	3,100.0	3,091.1	3,089.0	5.0	4.5	98.54	-15.4	102.3	103.9	96.6	7.38	14.085		
3,200.0	3,200.0	3,190.5	3,188.0	5.1	4.6	99.58	-18.9	111.7	113.9	106.4	7.48	15.230		
3,300.0	3,300.0	3,290.0	3,287.0	5.2	4.6	100.45	-22.3	121.1	123.8	116.2	7.58	16.342		
3,400.0	3,400.0	3,389.5	3,386.0	5.3	4.6	101.19	-25.8	130.6	133.8	126.1	7.68	17.421		
3,500.0	3,500.0	3,489.0	3,484.9	5.4	4.7	101.83	-29.3	140.0	143.8	136.0	7.79	18.465		
3,600.0	3,600.0	3,588.5	3,583.9	5.5	4.7	102.39	-32.8	149.4	153.8	145.9	7.90	19.474		
3,700.0	3,700.0	3,688.0	3,682.9	5.7	4.7	102.88	-36.3	158.9	163.8	155.8	8.01	20.449		
3,800.0	3,800.0	3,787.5	3,781.9	5.8	4.8	103.31	-39.8	168.3	173.8	165.7	8.13	21.388		
3,900.0	3,900.0	3,887.0	3,880.8	5.9	4.8	103.69	-43.3	177.7	183.8	175.6	8.25	22.293		
4,000.0	4,000.0	3,986.4	3,979.8	6.0	4.9	104.04	-46.8	187.1	193.9	185.5	8.37	23.164		
4,100.0	4,100.0	4,085.9	4,078.8	6.1	5.0	104.35	-50.3	196.6	203.9	195.4	8.50	24.001		
4,200.0	4,200.0	4,185.4	4,177.8	6.2	5.0	104.63	-53.8	206.0	214.0	205.4	8.63	24.805		
4,300.0	4,300.0	4,284.9	4,276.8	6.3	5.1	104.89	-57.3	215.4	224.0	215.3	8.76	25.577		
4,400.0	4,400.0	4,384.4	4,375.7	6.5	5.2	105.12	-60.8	224.9	234.1	225.2	8.90	26.318		
4,500.0	4,500.0	4,483.9	4,474.7	6.6	5.2	105.34	-64.2	234.3	244.2	235.1	9.03	27.029		
4,600.0	4,600.0	4,583.4	4,573.7	6.7	5.3	105.53	-67.7	243.7	254.2	245.1	9.18	27.710		
4,700.0	4,700.0	4,682.9	4,672.7	6.8	5.4	105.72	-71.2	253.1	264.3	255.0	9.32	28.363		
4,800.0	4,800.0	4,782.3	4,771.7	6.9	5.5	105.89	-74.7	262.6	274.4	264.9	9.47	28.989		
4,900.0	4,900.0	4,881.8	4,870.6	7.0	5.5	106.04	-78.2	272.0	284.5	274.9	9.61	29.589		
5,000.0	5,000.0	4,981.3	4,969.6	7.2	5.6	106.19	-81.7	281.4	294.5	284.8	9.76	30.164		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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		
5,100.0	5,100.0	5,080.8	5,068.6	7.3	5.7	106.33	-85.2	290.9	304.6	294.7	9.92	30.715		
5,200.0	5,200.0	5,180.3	5,167.6	7.4	5.8	106.46	-88.7	300.3	314.7	304.6	10.07	31.242		
5,300.0	5,300.0	5,279.8	5,266.5	7.5	5.9	106.58	-92.2	309.7	324.8	314.6	10.23	31.748		
5,400.0	5,400.0	5,379.3	5,365.5	7.6	6.0	106.69	-95.7	319.1	334.9	324.5	10.39	32.232		
5,500.0	5,500.0	5,478.8	5,464.5	7.8	6.1	106.80	-99.2	328.6	345.0	334.4	10.55	32.696		
5,600.0	5,600.0	5,578.4	5,563.6	7.8	6.1	-17.58	-102.7	338.0	353.4	342.7	10.69	33.062		
5,684.2	5,684.1	5,662.5	5,647.3	7.8	6.2	-17.67	-105.6	346.0	357.9	347.1	10.79	33.180		
5,700.0	5,699.8	5,678.3	5,663.0	7.8	6.2	-17.70	-106.2	347.5	358.5	347.7	10.81	33.181		
5,800.0	5,799.6	5,778.2	5,762.4	7.8	6.3	-17.91	-109.7	356.9	362.5	351.6	10.93	33.177		
5,900.0	5,899.4	5,878.1	5,861.8	7.8	6.4	-18.12	-113.2	366.4	366.5	355.5	11.05	33.158		
6,000.0	5,999.2	5,978.0	5,961.2	7.8	6.5	-18.31	-116.7	375.9	370.5	359.3	11.19	33.124		
6,100.0	6,099.0	6,077.9	6,060.6	7.8	6.6	-18.51	-120.2	385.3	374.5	363.2	11.32	33.078		
6,200.0	6,198.8	6,177.8	6,160.0	7.8	6.7	-18.70	-123.7	394.8	378.5	367.0	11.46	33.019		
6,300.0	6,298.6	6,277.7	6,259.4	7.8	6.8	-18.89	-127.2	404.3	382.5	370.9	11.61	32.949		
6,400.0	6,398.4	6,377.6	6,358.8	7.8	6.9	-19.07	-130.7	413.8	386.5	374.7	11.76	32.870		
6,500.0	6,498.2	6,477.6	6,458.2	7.8	7.0	-19.25	-134.2	423.2	390.5	378.6	11.91	32.781		
6,600.0	6,598.0	6,577.5	6,557.6	7.8	7.1	-19.43	-137.7	432.7	394.5	382.5	12.07	32.683		
6,700.0	6,697.8	6,677.4	6,657.0	7.8	7.2	-19.60	-141.2	442.2	398.5	386.3	12.23	32.578		
6,800.0	6,797.6	6,777.3	6,756.4	7.8	7.4	-19.77	-144.7	451.6	402.6	390.2	12.40	32.467		
6,900.0	6,897.4	6,877.2	6,855.8	7.9	7.5	-19.93	-148.3	461.1	406.6	394.0	12.57	32.349		
7,000.0	6,997.2	6,977.1	6,955.2	7.9	7.6	-20.09	-151.8	470.6	410.6	397.9	12.74	32.227		
7,100.0	7,096.9	7,077.0	7,054.6	7.9	7.7	-20.25	-155.3	480.0	414.6	401.7	12.92	32.099		
7,200.0	7,196.7	7,176.9	7,154.0	7.9	7.8	-20.41	-158.8	489.5	418.7	405.6	13.10	31.968		
7,300.0	7,296.5	7,276.9	7,253.4	7.9	7.9	-20.56	-162.3	499.0	422.7	409.4	13.28	31.833		
7,400.0	7,396.3	7,376.8	7,352.8	8.0	8.0	-20.71	-165.8	508.4	426.8	413.3	13.46	31.696		
7,500.0	7,496.1	7,476.7	7,452.2	8.0	8.1	-20.86	-169.3	517.9	430.8	417.1	13.65	31.556		
7,600.0	7,595.9	7,576.6	7,551.6	8.0	8.2	-21.00	-172.8	527.4	434.8	421.0	13.84	31.414		
7,700.0	7,695.7	7,676.5	7,651.0	8.1	8.3	-21.15	-176.3	536.8	438.9	424.9	14.04	31.271		
7,800.0	7,795.5	7,776.4	7,750.4	8.1	8.5	-21.28	-179.8	546.3	442.9	428.7	14.23	31.126		
7,900.0	7,895.3	7,876.3	7,849.8	8.1	8.6	-21.42	-183.3	555.8	447.0	432.6	14.43	30.981		
8,000.0	7,995.1	7,976.2	7,949.2	8.2	8.7	-21.56	-186.8	565.3	451.1	436.4	14.63	30.835		
8,100.0	8,094.9	8,076.2	8,048.6	8.2	8.8	-21.69	-190.3	574.7	455.1	440.3	14.83	30.689		
8,200.0	8,194.7	8,176.1	8,148.0	8.3	8.9	-21.82	-193.8	584.2	459.2	444.1	15.03	30.543		
8,300.0	8,294.5	8,276.0	8,247.4	8.3	9.0	-21.94	-197.4	593.7	463.2	448.0	15.24	30.398		
8,400.0	8,394.3	8,375.9	8,346.8	8.4	9.2	-22.07	-200.9	603.1	467.3	451.9	15.45	30.253		
8,500.0	8,494.1	8,475.8	8,446.2	8.4	9.3	-22.19	-204.4	612.6	471.4	455.7	15.66	30.109		
8,600.0	8,593.8	8,575.7	8,545.6	8.5	9.4	-22.31	-207.9	622.1	475.4	459.6	15.87	29.965		
8,700.0	8,693.6	8,675.6	8,645.0	8.5	9.5	-22.43	-211.4	631.5	479.5	463.4	16.08	29.823		
8,800.0	8,793.4	8,775.5	8,744.4	8.6	9.6	-22.55	-214.9	641.0	483.6	467.3	16.29	29.681		
8,900.0	8,893.2	8,875.5	8,843.8	8.6	9.8	-22.66	-218.4	650.5	487.7	471.2	16.51	29.541		
9,000.0	8,993.0	8,975.4	8,943.2	8.7	9.9	-22.78	-221.9	659.9	491.7	475.0	16.72	29.403		
9,100.0	9,092.8	9,075.3	9,042.6	8.7	10.0	-22.89	-225.4	669.4	495.8	478.9	16.94	29.265		
9,200.0	9,192.6	9,175.2	9,142.0	8.8	10.1	-23.00	-228.9	678.9	499.9	482.7	17.16	29.129		
9,300.0	9,292.4	9,275.1	9,241.4	8.9	10.2	-23.10	-232.4	688.3	504.0	486.6	17.38	28.995		
9,400.0	9,392.2	9,375.0	9,340.8	8.9	10.4	-23.21	-235.9	697.8	508.1	490.5	17.60	28.862		
9,500.0	9,492.0	9,474.9	9,440.2	9.0	10.5	-23.31	-239.4	707.3	512.2	494.3	17.83	28.731		
9,600.0	9,591.8	9,574.8	9,539.6	9.1	10.6	-23.42	-242.9	716.7	516.2	498.2	18.05	28.602		
9,700.0	9,691.6	9,674.7	9,639.0	9.2	10.7	-23.52	-246.4	726.2	520.3	502.1	18.27	28.474		
9,800.0	9,791.4	9,773.3	9,737.0	9.2	10.8	-23.62	-249.9	735.6	524.4	506.0	18.46	28.414		
9,900.0	9,891.2	9,853.1	9,816.0	9.3	10.9	-24.50	-245.6	746.1	530.7	511.9	18.74	28.316		
10,000.0	9,991.0	9,928.0	9,887.8	9.4	10.9	-26.55	-230.6	760.4	541.3	522.0	19.26	28.107		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
10,100.0	10,090.7	9,995.2	9,949.0	9.5	10.9	-29.28	-208.3	776.6	557.7	537.6	20.10	27.740	
10,200.0	10,190.5	10,050.0	9,995.8	9.5	11.0	-32.04	-184.3	792.0	581.4	560.0	21.41	27.161	
10,300.0	10,290.3	10,100.0	10,035.4	9.6	11.0	-34.87	-158.1	807.5	613.3	590.3	23.01	26.649	
10,400.0	10,390.1	10,150.0	10,071.7	9.7	11.1	-37.92	-128.0	824.3	653.8	629.1	24.71	26.458	
10,500.0	10,489.9	10,175.0	10,088.4	9.8	11.1	-39.50	-111.7	833.1	702.4	675.6	26.83	26.176	
10,545.8	10,535.6	10,200.0	10,104.2	9.8	11.1	-41.11	-94.5	842.1	727.2	699.6	27.51	26.431	
10,550.0	10,539.8	10,200.0	10,104.2	9.8	11.1	-34.47	-94.5	842.1	729.5	701.9	27.61	26.418	
10,575.0	10,564.8	10,200.0	10,104.2	9.9	11.1	16.31	-94.5	842.1	743.6	715.7	27.97	26.590	
10,600.0	10,589.7	10,212.0	10,111.4	9.9	11.2	44.31	-86.0	846.5	758.0	729.6	28.33	26.759	
10,625.0	10,614.5	10,225.0	10,118.9	9.9	11.2	53.82	-76.6	851.4	772.5	743.9	28.66	26.955	
10,650.0	10,639.2	10,225.0	10,118.9	9.9	11.2	57.72	-76.6	851.4	787.2	758.0	29.20	26.955	
10,675.0	10,663.6	10,236.1	10,125.1	9.9	11.2	58.64	-68.4	855.5	801.8	772.3	29.54	27.140	
10,700.0	10,687.8	10,250.0	10,132.6	9.9	11.2	58.33	-57.9	860.8	816.6	786.7	29.83	27.374	
10,725.0	10,711.5	10,250.0	10,132.6	9.9	11.2	57.90	-57.9	860.8	831.1	800.8	30.32	27.414	
10,750.0	10,734.8	10,261.0	10,138.2	9.9	11.2	56.78	-49.5	865.0	845.6	815.0	30.62	27.617	
10,775.0	10,757.7	10,275.0	10,145.1	9.9	11.2	55.46	-38.5	870.4	860.0	829.1	30.87	27.863	
10,800.0	10,779.9	10,275.0	10,145.1	10.0	11.2	54.34	-38.5	870.4	874.1	842.8	31.29	27.933	
10,825.0	10,801.6	10,286.4	10,150.5	10.0	11.3	52.97	-29.5	874.9	888.0	856.5	31.55	28.151	
10,850.0	10,822.5	10,300.0	10,156.5	10.0	11.3	51.62	-18.5	880.2	901.7	869.9	31.75	28.395	
10,875.0	10,842.8	10,300.0	10,156.5	10.0	11.3	50.42	-18.5	880.2	915.0	882.9	32.12	28.489	
10,900.0	10,862.2	10,312.2	10,161.7	10.0	11.3	49.18	-8.5	885.0	928.0	895.6	32.31	28.719	
10,925.0	10,880.8	10,325.0	10,166.8	10.1	11.3	48.01	2.0	890.0	940.6	908.1	32.49	28.953	
10,950.0	10,898.5	10,325.0	10,166.8	10.1	11.3	46.92	2.0	890.0	952.8	920.1	32.78	29.067	
10,975.0	10,915.2	10,338.3	10,171.8	10.1	11.3	45.90	13.2	895.3	964.6	931.7	32.92	29.304	
11,000.0	10,930.9	10,350.0	10,175.8	10.2	11.4	44.96	23.1	900.0	976.0	942.9	33.06	29.526	
11,025.0	10,945.7	10,350.0	10,175.8	10.2	11.4	44.01	23.1	900.0	986.9	953.7	33.28	29.656	
11,050.0	10,959.3	10,364.6	10,180.5	10.2	11.4	43.24	35.6	905.8	997.3	964.0	33.36	29.898	
11,075.0	10,971.8	10,375.0	10,183.6	10.3	11.4	42.51	44.6	910.0	1,007.3	973.8	33.46	30.108	
11,100.0	10,983.2	10,375.0	10,183.6	10.3	11.4	41.73	44.6	910.0	1,016.8	983.1	33.61	30.252	
11,125.0	10,993.4	10,390.9	10,188.0	10.3	11.4	41.20	58.5	916.4	1,025.6	992.0	33.63	30.493	
11,150.0	11,002.4	10,400.0	10,190.2	10.4	11.4	40.65	66.5	920.1	1,034.0	1,000.3	33.69	30.694	
11,175.0	11,010.1	10,408.4	10,192.1	10.4	11.4	40.15	74.0	923.5	1,041.8	1,008.1	33.73	30.890	
11,200.0	11,016.6	10,417.2	10,194.0	10.5	11.5	39.72	81.8	927.0	1,049.1	1,015.3	33.75	31.088	
11,225.0	11,021.9	10,425.0	10,195.5	10.5	11.5	39.33	88.8	930.1	1,055.8	1,022.0	33.75	31.282	
11,250.0	11,025.8	10,434.7	10,197.2	10.5	11.5	39.02	97.5	934.0	1,061.9	1,028.2	33.73	31.483	
11,275.0	11,028.5	10,450.0	10,199.5	10.6	11.5	38.88	111.3	940.1	1,067.5	1,033.8	33.68	31.700	
11,300.0	11,029.9	10,450.0	10,199.5	10.6	11.5	38.49	111.3	940.1	1,072.4	1,038.8	33.65	31.872	
11,314.2	11,030.0	10,450.0	10,199.5	10.7	11.5	38.28	111.3	940.1	1,075.1	1,041.4	33.62	31.976	
11,400.0	11,029.9	10,487.3	10,203.1	10.9	11.6	39.05	145.3	955.0	1,092.2	1,058.8	33.38	32.720	
11,500.0	11,029.8	10,547.4	10,204.1	11.2	11.7	40.08	200.7	978.4	1,117.2	1,084.0	33.19	33.663	
11,600.0	11,029.6	10,674.6	10,204.7	11.6	12.0	41.97	319.3	1,024.2	1,142.2	1,108.9	33.24	34.363	
11,700.0	11,029.5	10,806.1	10,205.3	12.0	12.5	43.62	444.0	1,065.9	1,164.8	1,131.3	33.48	34.789	
11,800.0	11,029.3	10,941.6	10,205.9	12.5	13.0	45.02	574.4	1,102.9	1,184.7	1,150.8	33.93	34.918	
11,900.0	11,029.1	11,080.7	10,206.6	13.0	13.7	46.18	709.8	1,134.4	1,201.6	1,167.0	34.55	34.779	
12,000.0	11,029.0	11,222.8	10,207.2	13.6	14.5	47.10	849.7	1,159.8	1,215.2	1,179.8	35.33	34.394	
12,100.0	11,028.8	11,367.4	10,207.9	14.2	15.3	47.79	993.0	1,178.5	1,225.2	1,189.0	36.25	33.797	
12,200.0	11,028.7	11,513.7	10,208.6	14.8	16.2	48.23	1,138.8	1,190.0	1,231.6	1,194.3	37.28	33.032	
12,300.0	11,028.5	11,660.9	10,209.2	15.5	17.1	48.45	1,286.0	1,194.0	1,234.2	1,195.7	38.42	32.122	
12,400.0	11,028.4	11,774.0	10,209.7	16.2	17.8	48.48	1,399.1	1,192.9	1,233.9	1,194.4	39.52	31.221	
12,500.0	11,028.2	11,874.0	10,210.2	16.9	18.5	48.50	1,499.1	1,191.6	1,233.5	1,192.9	40.63	30.361	
12,600.0	11,028.1	11,974.0	10,210.6	17.6	19.2	48.52	1,599.1	1,190.4	1,233.1	1,191.3	41.77	29.521	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,700.0	11,027.9	12,074.0	10,211.1	18.3	19.8	48.54	1,699.1	1,189.2	1,232.7	1,189.7	42.95	28.703	
12,800.0	11,027.8	12,174.0	10,211.5	19.1	20.5	48.56	1,799.0	1,187.9	1,232.3	1,188.1	44.15	27.909	
12,900.0	11,027.6	12,274.0	10,212.0	19.8	21.2	48.58	1,899.0	1,186.7	1,231.9	1,186.5	45.39	27.141	
13,000.0	11,027.5	12,374.0	10,212.4	20.6	22.0	48.60	1,999.0	1,185.4	1,231.5	1,184.8	46.65	26.398	
13,100.0	11,027.3	12,474.0	10,212.9	21.3	22.7	48.62	2,099.0	1,184.2	1,231.1	1,183.1	47.94	25.681	
13,200.0	11,027.2	12,574.0	10,213.3	22.1	23.4	48.65	2,199.0	1,182.9	1,230.7	1,181.4	49.25	24.990	
13,300.0	11,027.0	12,674.0	10,213.8	22.9	24.2	48.67	2,299.0	1,181.7	1,230.3	1,179.7	50.58	24.325	
13,400.0	11,026.9	12,774.0	10,214.2	23.7	24.9	48.69	2,399.0	1,180.5	1,229.9	1,177.9	51.92	23.685	
13,500.0	11,026.7	12,874.0	10,214.7	24.5	25.7	48.71	2,499.0	1,179.2	1,229.5	1,176.2	53.29	23.071	
13,600.0	11,026.6	12,974.0	10,215.2	25.3	26.4	48.73	2,599.0	1,178.0	1,229.1	1,174.4	54.67	22.480	
13,700.0	11,026.4	13,074.0	10,215.6	26.1	27.2	48.75	2,698.9	1,176.7	1,228.7	1,172.6	56.07	21.912	
13,800.0	11,026.3	13,174.0	10,216.1	26.9	28.0	48.77	2,798.9	1,175.5	1,228.3	1,170.8	57.48	21.367	
13,900.0	11,026.1	13,274.0	10,216.5	27.7	28.8	48.79	2,898.9	1,174.2	1,227.9	1,168.9	58.91	20.843	
14,000.0	11,026.0	13,374.0	10,217.0	28.5	29.6	48.81	2,998.9	1,173.0	1,227.5	1,167.1	60.35	20.340	
14,100.0	11,025.8	13,474.0	10,217.4	29.3	30.3	48.83	3,098.9	1,171.7	1,227.1	1,165.3	61.80	19.857	
14,200.0	11,025.7	13,574.0	10,217.9	30.1	31.1	48.85	3,198.9	1,170.5	1,226.7	1,163.4	63.25	19.392	
14,300.0	11,025.5	13,674.0	10,218.3	30.9	31.9	48.88	3,298.9	1,169.3	1,226.3	1,161.5	64.72	18.946	
14,400.0	11,025.4	13,774.0	10,218.8	31.7	32.7	48.90	3,398.9	1,168.0	1,225.9	1,159.6	66.20	18.517	
14,500.0	11,025.2	13,874.0	10,219.2	32.6	33.5	48.92	3,498.9	1,166.8	1,225.5	1,157.8	67.69	18.104	
14,600.0	11,025.0	13,974.0	10,219.7	33.4	34.3	48.94	3,598.9	1,165.5	1,225.1	1,155.9	69.18	17.707	
14,700.0	11,024.9	14,074.0	10,220.1	34.2	35.1	48.96	3,698.8	1,164.3	1,224.7	1,154.0	70.69	17.325	
14,800.0	11,024.7	14,174.0	10,220.6	35.0	36.0	48.98	3,798.8	1,163.0	1,224.3	1,152.1	72.20	16.957	
14,900.0	11,024.6	14,274.0	10,221.0	35.9	36.8	49.00	3,898.8	1,161.8	1,223.9	1,150.1	73.71	16.603	
15,000.0	11,024.4	14,374.0	10,221.5	36.7	37.6	49.02	3,998.8	1,160.5	1,223.5	1,148.2	75.23	16.262	
15,100.0	11,024.3	14,474.0	10,221.9	37.5	38.4	49.04	4,098.8	1,159.3	1,223.1	1,146.3	76.76	15.933	
15,200.0	11,024.1	14,574.0	10,222.4	38.4	39.2	49.07	4,198.8	1,158.1	1,222.7	1,144.4	78.30	15.616	
15,300.0	11,024.0	14,674.0	10,222.8	39.2	40.0	49.09	4,298.8	1,156.8	1,222.3	1,142.4	79.84	15.310	
15,400.0	11,023.8	14,774.0	10,223.3	40.1	40.9	49.11	4,398.8	1,155.6	1,221.9	1,140.5	81.38	15.014	
15,500.0	11,023.7	14,874.0	10,223.7	40.9	41.7	49.13	4,498.8	1,154.3	1,221.5	1,138.5	82.93	14.729	
15,600.0	11,023.5	14,974.0	10,224.2	41.7	42.5	49.15	4,598.7	1,153.1	1,221.1	1,136.6	84.48	14.453	
15,700.0	11,023.4	15,074.0	10,224.6	42.6	43.3	49.17	4,698.7	1,151.8	1,220.7	1,134.6	86.04	14.187	
15,800.0	11,023.2	15,174.0	10,225.1	43.4	44.2	49.19	4,798.7	1,150.6	1,220.3	1,132.7	87.60	13.929	
15,900.0	11,023.1	15,274.0	10,225.5	44.3	45.0	49.21	4,898.7	1,149.4	1,219.9	1,130.7	89.16	13.681	
16,000.0	11,022.9	15,374.0	10,226.0	45.1	45.8	49.24	4,998.7	1,148.1	1,219.5	1,128.7	90.74	13.440	
16,015.1	11,022.9	15,386.4	10,226.0	45.2	45.9	49.24	5,011.1	1,148.0	1,219.4	1,128.5	90.96	13.406	
16,036.0	11,022.9	15,403.1	10,226.1	45.4	46.1	49.24	5,027.8	1,147.9	1,219.4	1,128.1	91.28	13.359	
16,100.0	11,022.8	15,467.1	10,226.4	45.9	46.6	49.26	5,091.8	1,147.5	1,219.1	1,126.8	92.28	13.211	
16,200.0	11,022.6	15,567.1	10,226.9	46.8	47.4	49.28	5,191.8	1,147.0	1,218.7	1,124.9	93.86	12.985	
16,300.0	11,022.5	15,667.1	10,227.3	47.6	48.3	49.30	5,291.8	1,146.5	1,218.3	1,122.9	95.44	12.766	
16,400.0	11,022.3	15,767.1	10,227.8	48.5	49.1	49.32	5,391.8	1,146.0	1,217.9	1,120.9	97.02	12.554	
16,500.0	11,022.2	15,867.1	10,228.2	49.3	49.9	49.34	5,491.8	1,145.5	1,217.6	1,119.0	98.60	12.349	
16,600.0	11,022.0	15,967.1	10,228.7	50.2	50.8	49.37	5,591.8	1,145.0	1,217.2	1,117.0	100.19	12.149	
16,700.0	11,021.8	16,067.1	10,229.1	51.0	51.6	49.39	5,691.8	1,144.5	1,216.8	1,115.0	101.77	11.956	
16,800.0	11,021.7	16,167.1	10,229.6	51.8	52.4	49.41	5,791.8	1,144.0	1,216.4	1,113.0	103.37	11.768	
16,900.0	11,021.5	16,267.1	10,230.0	52.7	53.3	49.43	5,891.8	1,143.5	1,216.0	1,111.0	104.96	11.586	
17,000.0	11,021.4	16,367.1	10,230.5	53.5	54.1	49.45	5,991.8	1,143.0	1,215.6	1,109.1	106.55	11.408	
17,100.0	11,021.2	16,467.1	10,230.9	54.4	55.0	49.48	6,091.8	1,142.5	1,215.2	1,107.1	108.15	11.236	
17,200.0	11,021.1	16,567.1	10,231.4	55.2	55.8	49.50	6,191.8	1,142.0	1,214.8	1,105.1	109.75	11.069	
17,300.0	11,020.9	16,667.1	10,231.8	56.1	56.6	49.52	6,291.8	1,141.5	1,214.5	1,103.1	111.35	10.906	
17,400.0	11,020.8	16,767.1	10,232.3	56.9	57.5	49.54	6,391.8	1,141.0	1,214.1	1,101.1	112.96	10.748	
17,500.0	11,020.6	16,867.1	10,232.7	57.8	58.3	49.56	6,491.8	1,140.5	1,213.7	1,099.1	114.56	10.594	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.0	11,020.4	16,967.1	10,233.2	58.6	59.2	49.59	49.59	6,591.8	1,140.0	1,213.3	1,097.1	116.17	10.444	
17,700.0	11,020.3	17,067.1	10,233.6	59.5	60.0	49.61	49.61	6,691.8	1,139.5	1,212.9	1,095.1	117.78	10.298	
17,800.0	11,020.1	17,167.1	10,234.1	60.3	60.9	49.63	49.63	6,791.8	1,139.0	1,212.5	1,093.1	119.39	10.156	
17,900.0	11,020.0	17,267.1	10,234.5	61.2	61.7	49.65	49.65	6,891.8	1,138.5	1,212.1	1,091.1	121.00	10.017	
18,000.0	11,019.8	17,367.1	10,235.0	62.0	62.5	49.67	49.67	6,991.8	1,138.0	1,211.7	1,089.1	122.62	9.882	
18,100.0	11,019.7	17,467.1	10,235.4	62.9	63.4	49.70	49.70	7,091.8	1,137.5	1,211.4	1,087.1	124.23	9.751	
18,200.0	11,019.5	17,567.1	10,235.9	63.7	64.2	49.72	49.72	7,191.8	1,137.0	1,211.0	1,085.1	125.85	9.622	
18,300.0	11,019.4	17,667.1	10,236.3	64.6	65.1	49.74	49.74	7,291.8	1,136.5	1,210.6	1,083.1	127.47	9.497	
18,400.0	11,019.2	17,767.1	10,236.8	65.4	65.9	49.76	49.76	7,391.7	1,136.0	1,210.2	1,081.1	129.09	9.375	
18,500.0	11,019.1	17,867.1	10,237.2	66.3	66.8	49.78	49.78	7,491.7	1,135.5	1,209.8	1,079.1	130.71	9.256	
18,600.0	11,018.9	17,967.0	10,237.7	67.1	67.6	49.81	49.81	7,591.7	1,135.0	1,209.4	1,077.1	132.33	9.140	
18,700.0	11,018.7	18,067.0	10,238.1	68.0	68.5	49.83	49.83	7,691.7	1,134.5	1,209.0	1,075.1	133.95	9.026	
18,800.0	11,018.6	18,167.0	10,238.6	68.9	69.3	49.85	49.85	7,791.7	1,134.0	1,208.7	1,073.1	135.58	8.915	
18,900.0	11,018.4	18,267.0	10,239.0	69.7	70.2	49.87	49.87	7,891.7	1,133.5	1,208.3	1,071.1	137.20	8.807	
19,000.0	11,018.3	18,367.0	10,239.5	70.6	71.0	49.89	49.89	7,991.7	1,133.0	1,207.9	1,069.1	138.83	8.701	
19,100.0	11,018.1	18,467.0	10,239.9	71.4	71.9	49.92	49.92	8,091.7	1,132.4	1,207.5	1,067.1	140.46	8.597	
19,200.0	11,018.0	18,567.0	10,240.4	72.3	72.7	49.94	49.94	8,191.7	1,131.9	1,207.1	1,065.0	142.08	8.496	
19,300.0	11,017.8	18,667.0	10,240.8	73.1	73.6	49.96	49.96	8,291.7	1,131.4	1,206.7	1,063.0	143.71	8.397	
19,400.0	11,017.7	18,767.0	10,241.3	74.0	74.4	49.98	49.98	8,391.7	1,130.9	1,206.4	1,061.0	145.34	8.300	
19,500.0	11,017.5	18,867.0	10,241.7	74.8	75.3	50.01	50.01	8,491.7	1,130.4	1,206.0	1,059.0	146.98	8.205	
19,600.0	11,017.4	18,967.0	10,242.2	75.7	76.1	50.03	50.03	8,591.7	1,129.9	1,205.6	1,057.0	148.61	8.113	
19,700.0	11,017.2	19,067.0	10,242.6	76.5	77.0	50.05	50.05	8,691.7	1,129.4	1,205.2	1,055.0	150.24	8.022	
19,800.0	11,017.0	19,167.0	10,243.1	77.4	77.8	50.07	50.07	8,791.7	1,128.9	1,204.8	1,053.0	151.87	7.933	
19,900.0	11,016.9	19,267.0	10,243.5	78.2	78.7	50.09	50.09	8,891.7	1,128.4	1,204.4	1,050.9	153.51	7.846	
20,000.0	11,016.7	19,367.0	10,244.0	79.1	79.5	50.12	50.12	8,991.7	1,127.9	1,204.1	1,048.9	155.15	7.761	
20,100.0	11,016.6	19,467.0	10,244.4	80.0	80.4	50.14	50.14	9,091.7	1,127.4	1,203.7	1,046.9	156.78	7.677	
20,200.0	11,016.4	19,567.0	10,244.9	80.8	81.2	50.16	50.16	9,191.7	1,126.9	1,203.3	1,044.9	158.42	7.596	
20,300.0	11,016.3	19,667.0	10,245.3	81.7	82.1	50.18	50.18	9,291.7	1,126.4	1,202.9	1,042.9	160.06	7.516	
20,400.0	11,016.1	19,767.0	10,245.8	82.5	82.9	50.21	50.21	9,391.7	1,125.9	1,202.5	1,040.8	161.70	7.437	
20,500.0	11,016.0	19,867.0	10,246.2	83.4	83.8	50.23	50.23	9,491.7	1,125.4	1,202.2	1,038.8	163.33	7.360	
20,600.0	11,015.8	19,967.0	10,246.7	84.2	84.6	50.25	50.25	9,591.7	1,124.9	1,201.8	1,036.8	164.97	7.285	
20,700.0	11,015.7	20,067.0	10,247.1	85.1	85.5	50.27	50.27	9,691.7	1,124.4	1,201.4	1,034.8	166.61	7.211	
20,800.0	11,015.5	20,167.0	10,247.6	85.9	86.3	50.30	50.30	9,791.7	1,123.9	1,201.0	1,032.8	168.26	7.138	
20,900.0	11,015.3	20,267.0	10,248.0	86.8	87.2	50.32	50.32	9,891.6	1,123.4	1,200.6	1,030.7	169.90	7.067	
21,000.0	11,015.2	20,367.0	10,248.5	87.7	88.0	50.34	50.34	9,991.6	1,122.9	1,200.2	1,028.7	171.54	6.997	
21,100.0	11,015.0	20,467.0	10,248.9	88.5	88.7	50.36	50.36	10,091.6	1,122.4	1,199.9	1,026.9	172.99	6.936	
21,122.7	11,015.0	20,486.2	10,249.0	88.7	88.9	50.37	50.37	10,110.8	1,122.3	1,199.8	1,026.5	173.28	6.924	
21,123.0	11,015.0	20,486.2	10,249.0	88.7	88.9	50.37	50.37	10,110.8	1,122.3	1,199.8	1,026.5	173.29	6.924 SF	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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, 10581-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	89.81	0.1	30.0	30.0				
100.0	100.0	99.7	99.7	3.0	3.0	89.81	0.1	30.0	30.0	24.0	6.00	5.000	
200.0	200.0	199.7	199.7	3.0	3.0	89.81	0.1	30.0	30.0	24.0	6.00	4.997	
300.0	300.0	299.7	299.7	3.0	3.0	89.81	0.1	30.0	30.0	24.0	6.01	4.992	
400.0	400.0	399.7	399.7	3.0	3.0	89.81	0.1	30.0	30.0	24.0	6.02	4.985	
500.0	500.0	499.7	499.7	3.1	3.1	89.81	0.1	30.0	30.0	24.0	6.03	4.974	
600.0	600.0	599.7	599.7	3.1	3.1	89.81	0.1	30.0	30.0	24.0	6.05	4.961	
700.0	700.0	699.7	699.7	3.1	3.1	89.81	0.1	30.0	30.0	23.9	6.07	4.946	
800.0	800.0	799.7	799.7	3.2	3.2	89.81	0.1	30.0	30.0	23.9	6.09	4.928	
900.0	900.0	899.7	899.7	3.2	3.2	89.81	0.1	30.0	30.0	23.9	6.11	4.908	
1,000.0	1,000.0	999.7	999.7	3.2	3.2	89.81	0.1	30.0	30.0	23.9	6.14	4.885	
1,100.0	1,100.0	1,099.7	1,099.7	3.3	3.3	89.81	0.1	30.0	30.0	23.8	6.17	4.860	
1,200.0	1,200.0	1,199.7	1,199.7	3.4	3.4	89.81	0.1	30.0	30.0	23.8	6.21	4.834	
1,300.0	1,300.0	1,299.7	1,299.7	3.4	3.4	89.81	0.1	30.0	30.0	23.8	6.24	4.805	
1,400.0	1,400.0	1,399.7	1,399.7	3.5	3.5	89.81	0.1	30.0	30.0	23.7	6.28	4.774	
1,500.0	1,500.0	1,499.7	1,499.7	3.5	3.5	89.81	0.1	30.0	30.0	23.7	6.33	4.742	
1,600.0	1,600.0	1,599.7	1,599.7	3.6	3.6	89.81	0.1	30.0	30.0	23.6	6.37	4.708	
1,700.0	1,700.0	1,699.7	1,699.7	3.7	3.7	89.81	0.1	30.0	30.0	23.6	6.42	4.672	
1,800.0	1,800.0	1,799.7	1,799.7	3.8	3.8	89.81	0.1	30.0	30.0	23.5	6.47	4.635	
1,900.0	1,900.0	1,899.7	1,899.7	3.9	3.9	89.81	0.1	30.0	30.0	23.5	6.53	4.597	
2,000.0	2,000.0	1,999.7	1,999.7	3.9	3.9	89.81	0.1	30.0	30.0	23.4	6.58	4.558	
2,100.0	2,100.0	2,099.7	2,099.7	4.0	4.0	89.81	0.1	30.0	30.0	23.4	6.64	4.518	
2,200.0	2,200.0	2,199.7	2,199.7	4.1	4.1	89.81	0.1	30.0	30.0	23.3	6.70	4.477	
2,300.0	2,300.0	2,299.7	2,299.7	4.2	4.2	89.81	0.1	30.0	30.0	23.2	6.76	4.435	
2,400.0	2,400.0	2,399.7	2,399.7	4.3	4.3	89.81	0.1	30.0	30.0	23.2	6.83	4.392	
2,500.0	2,500.0	2,499.7	2,499.7	4.4	4.4	89.81	0.1	30.0	30.0	23.1	6.90	4.349 CC, ES, SF	
2,600.0	2,600.0	2,598.6	2,598.6	4.5	4.5	89.52	0.3	31.7	31.7	24.7	6.97	4.551	
2,700.0	2,700.0	2,697.3	2,697.2	4.6	4.5	88.80	0.8	36.8	36.9	29.8	7.04	5.233	
2,800.0	2,800.0	2,795.9	2,795.4	4.7	4.5	87.97	1.6	45.1	45.3	38.2	7.13	6.359	
2,900.0	2,900.0	2,895.5	2,894.5	4.8	4.6	87.34	2.5	54.5	54.8	47.6	7.22	7.587	
3,000.0	3,000.0	2,995.0	2,993.6	4.9	4.6	86.89	3.5	63.9	64.3	56.9	7.32	8.778	
3,100.0	3,100.0	3,094.6	3,092.7	5.0	4.7	86.56	4.4	73.3	73.7	66.3	7.42	9.931	
3,200.0	3,200.0	3,194.1	3,191.8	5.1	4.7	86.31	5.3	82.7	83.2	75.7	7.53	11.046	
3,300.0	3,300.0	3,293.7	3,290.9	5.2	4.8	86.10	6.3	92.0	92.7	85.0	7.64	12.124	
3,400.0	3,400.0	3,393.2	3,390.0	5.3	4.8	85.94	7.2	101.4	102.1	94.4	7.76	13.164	
3,500.0	3,500.0	3,492.8	3,489.1	5.4	4.9	85.80	8.1	110.8	111.6	103.7	7.88	14.167	
3,600.0	3,600.0	3,592.3	3,588.2	5.5	5.0	85.68	9.1	120.2	121.1	113.1	8.00	15.134	
3,700.0	3,700.0	3,691.9	3,687.3	5.7	5.0	85.58	10.0	129.6	130.6	122.4	8.13	16.065	
3,800.0	3,800.0	3,791.4	3,786.4	5.8	5.1	85.50	10.9	139.0	140.0	131.8	8.26	16.961	
3,900.0	3,900.0	3,891.0	3,885.5	5.9	5.2	85.42	11.9	148.4	149.5	141.1	8.39	17.823	
4,000.0	4,000.0	3,990.5	3,984.6	6.0	5.3	85.36	12.8	157.8	159.0	150.5	8.52	18.653	
4,100.0	4,100.0	4,090.1	4,083.7	6.1	5.3	85.30	13.7	167.2	168.5	159.8	8.66	19.451	
4,200.0	4,200.0	4,189.6	4,182.8	6.2	5.4	85.25	14.7	176.5	177.9	169.1	8.80	20.218	
4,300.0	4,300.0	4,289.2	4,281.9	6.3	5.5	85.20	15.6	185.9	187.4	178.5	8.94	20.955	
4,400.0	4,400.0	4,388.7	4,381.0	6.5	5.6	85.16	16.5	195.3	196.9	187.8	9.09	21.664	
4,500.0	4,500.0	4,488.3	4,480.1	6.6	5.7	85.12	17.5	204.7	206.4	197.1	9.24	22.345	
4,600.0	4,600.0	4,587.8	4,579.2	6.7	5.8	85.08	18.4	214.1	215.9	206.5	9.39	23.000	
4,700.0	4,700.0	4,687.4	4,678.3	6.8	5.8	85.05	19.3	223.5	225.3	215.8	9.54	23.629	
4,800.0	4,800.0	4,786.9	4,777.4	6.9	5.9	85.02	20.3	232.9	234.8	225.1	9.69	24.235	
4,900.0	4,900.0	4,886.5	4,876.5	7.0	6.0	85.00	21.2	242.3	244.3	234.4	9.84	24.817	
5,000.0	5,000.0	4,986.0	4,975.7	7.2	6.1	84.97	22.1	251.6	253.8	243.8	10.00	25.376	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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, 10581-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,100.0	5,085.6	5,074.8	7.3	6.2	84.95	23.1	261.0	263.2	253.1	10.16	25.915	
5,200.0	5,200.0	5,185.1	5,173.9	7.4	6.3	84.93	24.0	270.4	272.7	262.4	10.32	26.433	
5,300.0	5,300.0	5,284.7	5,273.0	7.5	6.4	84.90	24.9	279.8	282.2	271.7	10.48	26.931	
5,400.0	5,400.0	5,384.2	5,372.1	7.6	6.5	84.89	25.9	289.2	291.7	281.0	10.64	27.411	
5,500.0	5,500.0	5,483.8	5,471.2	7.8	6.6	84.87	26.8	298.6	301.2	290.3	10.80	27.873	
5,600.0	5,600.0	5,583.4	5,570.4	7.8	6.7	-39.69	27.8	308.0	309.3	298.3	10.98	28.164	
5,684.2	5,684.1	5,667.4	5,654.0	7.8	6.8	-40.12	28.5	315.9	314.1	302.9	11.15	28.168	
5,700.0	5,699.8	5,683.2	5,669.7	7.8	6.8	-40.24	28.7	317.4	314.8	303.6	11.18	28.150	
5,800.0	5,799.6	5,783.0	5,769.1	7.8	6.9	-40.98	29.6	326.8	319.4	308.0	11.39	28.032	
5,900.0	5,899.4	5,882.8	5,868.4	7.8	7.0	-41.70	30.6	336.2	324.1	312.5	11.61	27.914	
6,000.0	5,999.2	5,982.6	5,967.8	7.8	7.1	-42.40	31.5	345.6	328.8	317.0	11.83	27.795	
6,100.0	6,099.0	6,082.5	6,067.1	7.8	7.2	-43.07	32.4	355.1	333.6	321.5	12.05	27.678	
6,200.0	6,198.8	6,182.3	6,166.5	7.8	7.3	-43.73	33.4	364.5	338.4	326.1	12.28	27.563	
6,300.0	6,298.6	6,282.1	6,265.9	7.8	7.4	-44.37	34.3	373.9	343.2	330.7	12.50	27.451	
6,400.0	6,398.4	6,381.9	6,365.2	7.8	7.6	-44.99	35.2	383.3	348.1	335.4	12.73	27.342	
6,500.0	6,498.2	6,481.7	6,464.6	7.8	7.7	-45.60	36.2	392.7	353.0	340.1	12.96	27.238	
6,600.0	6,598.0	6,581.5	6,563.9	7.8	7.8	-46.19	37.1	402.1	358.0	344.8	13.19	27.138	
6,700.0	6,697.8	6,681.3	6,663.3	7.8	7.9	-46.76	38.1	411.5	363.0	349.6	13.42	27.042	
6,800.0	6,797.6	6,781.1	6,762.7	7.8	8.0	-47.31	39.0	420.9	368.1	354.4	13.66	26.951	
6,900.0	6,897.4	6,880.9	6,862.0	7.9	8.1	-47.86	39.9	430.4	373.1	359.3	13.89	26.865	
7,000.0	6,997.2	6,980.7	6,961.4	7.9	8.2	-48.38	40.9	439.8	378.3	364.1	14.12	26.783	
7,100.0	7,096.9	7,080.6	7,060.8	7.9	8.3	-48.89	41.8	449.2	383.4	369.0	14.36	26.706	
7,200.0	7,196.7	7,180.4	7,160.1	7.9	8.4	-49.39	42.7	458.6	388.6	374.0	14.59	26.633	
7,300.0	7,296.5	7,280.2	7,259.5	7.9	8.6	-49.88	43.7	468.0	393.8	378.9	14.82	26.565	
7,400.0	7,396.3	7,380.0	7,358.8	8.0	8.7	-50.35	44.6	477.4	399.0	383.9	15.06	26.501	
7,500.0	7,496.1	7,479.8	7,458.2	8.0	8.8	-50.81	45.5	486.8	404.2	388.9	15.29	26.441	
7,600.0	7,595.9	7,579.6	7,557.6	8.0	8.9	-51.26	46.5	496.3	409.5	394.0	15.52	26.385	
7,700.0	7,695.7	7,679.4	7,656.9	8.1	9.0	-51.70	47.4	505.7	414.8	399.1	15.75	26.332	
7,800.0	7,795.5	7,779.2	7,756.3	8.1	9.1	-52.13	48.4	515.1	420.1	404.2	15.98	26.284	
7,900.0	7,895.3	7,879.0	7,855.6	8.1	9.3	-52.54	49.3	524.5	425.5	409.3	16.22	26.238	
8,000.0	7,995.1	7,978.8	7,955.0	8.2	9.4	-52.95	50.2	533.9	430.9	414.4	16.45	26.196	
8,100.0	8,094.9	8,078.7	8,054.4	8.2	9.5	-53.34	51.2	543.3	436.2	419.6	16.68	26.158	
8,200.0	8,194.7	8,178.5	8,153.7	8.3	9.6	-53.73	52.1	552.7	441.7	424.8	16.91	26.122	
8,300.0	8,294.5	8,278.3	8,253.1	8.3	9.7	-54.11	53.0	562.1	447.1	430.0	17.14	26.089	
8,400.0	8,394.3	8,378.1	8,352.4	8.4	9.8	-54.47	54.0	571.6	452.5	435.2	17.37	26.058	
8,500.0	8,494.1	8,477.9	8,451.8	8.4	10.0	-54.83	54.9	581.0	458.0	440.4	17.60	26.030	
8,600.0	8,593.8	8,577.7	8,551.2	8.5	10.1	-55.18	55.8	590.4	463.5	445.7	17.82	26.004	
8,700.0	8,693.6	8,677.5	8,650.5	8.5	10.2	-55.52	56.8	599.8	469.0	450.9	18.05	25.981	
8,800.0	8,793.4	8,777.3	8,749.9	8.6	10.3	-55.86	57.7	609.2	474.5	456.2	18.28	25.960	
8,900.0	8,893.2	8,877.1	8,849.2	8.6	10.4	-56.18	58.7	618.6	480.0	461.5	18.51	25.940	
9,000.0	8,993.0	8,976.9	8,948.6	8.7	10.6	-56.50	59.6	628.0	485.6	466.9	18.73	25.922	
9,100.0	9,092.8	9,076.6	9,048.0	8.7	10.7	-56.81	60.5	637.5	491.2	472.2	18.96	25.907	
9,200.0	9,192.6	9,176.6	9,147.3	8.8	10.8	-57.12	61.5	646.9	496.7	477.6	19.18	25.892	
9,300.0	9,292.4	9,276.4	9,246.7	8.9	10.9	-57.42	62.4	656.3	502.3	482.9	19.41	25.879	
9,400.0	9,392.2	9,376.2	9,346.0	8.9	11.1	-57.71	63.3	665.7	507.9	488.3	19.64	25.868	
9,500.0	9,492.0	9,476.0	9,445.4	9.0	11.2	-57.99	64.3	675.1	513.6	493.7	19.86	25.857	
9,600.0	9,591.8	9,575.8	9,544.8	9.1	11.3	-58.27	65.2	684.5	519.2	499.1	20.09	25.848	
9,700.0	9,691.6	9,675.6	9,644.1	9.2	11.4	-58.55	66.1	693.9	524.8	504.5	20.31	25.841	
9,800.0	9,791.4	9,775.4	9,743.5	9.2	11.5	-58.81	67.1	703.3	530.5	509.9	20.53	25.834	
9,900.0	9,891.2	9,875.2	9,842.8	9.3	11.7	-59.07	68.0	712.8	536.1	515.4	20.76	25.828	
10,000.0	9,991.0	9,975.0	9,942.2	9.4	11.8	-59.33	69.0	722.2	541.8	520.8	20.98	25.823	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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, 10581-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.0	10,090.7	10,074.9	10,041.6	9.5	11.9	-59.58	69.9	731.6	547.5	526.3	21.21	25.818		
10,200.0	10,190.5	10,174.7	10,140.9	9.5	12.0	-59.83	70.8	741.0	553.2	531.8	21.43	25.815		
10,300.0	10,290.3	10,274.5	10,240.3	9.6	12.2	-60.07	71.8	750.4	558.9	537.3	21.65	25.812		
10,400.0	10,390.1	10,374.3	10,339.6	9.7	12.3	-60.30	72.7	759.8	564.6	542.7	21.88	25.810		
10,500.0	10,489.9	10,474.1	10,439.0	9.8	12.4	-60.53	73.6	769.2	570.4	548.3	22.10	25.808		
10,545.8	10,535.6	10,519.8	10,484.5	9.8	12.5	-60.64	74.1	773.5	573.0	550.8	22.19	25.821		
10,550.0	10,539.8	10,524.0	10,488.7	9.8	12.5	-53.70	74.1	773.9	573.2	551.0	22.20	25.823		
10,575.0	10,564.8	10,549.0	10,513.6	9.9	12.5	-0.97	74.3	776.3	574.3	552.1	22.18	25.894		
10,600.0	10,589.7	10,573.9	10,538.4	9.9	12.5	29.88	74.6	778.7	574.8	552.6	22.19	25.901		
10,625.0	10,614.5	10,598.8	10,563.1	9.9	12.5	42.41	74.8	781.0	574.7	552.5	22.20	25.885		
10,650.0	10,639.2	10,623.5	10,587.7	9.9	12.6	48.83	75.0	783.3	574.1	551.9	22.20	25.863		
10,675.0	10,663.6	10,639.9	10,604.1	9.9	12.6	52.72	75.3	784.9	573.1	550.9	22.21	25.801		
10,700.0	10,687.8	10,650.0	10,614.1	9.9	12.6	55.30	75.6	786.0	572.1	549.8	22.27	25.691		
10,725.0	10,711.5	10,666.0	10,630.0	9.9	12.6	57.36	76.7	787.8	571.0	548.7	22.31	25.597		
10,750.0	10,734.8	10,675.0	10,638.9	9.9	12.6	58.86	77.4	788.9	570.0	547.6	22.42	25.427		
10,775.0	10,757.7	10,692.0	10,655.6	9.9	12.6	60.36	79.4	791.2	569.0	546.6	22.47	25.327		
10,800.0	10,779.9	10,700.0	10,663.4	10.0	12.6	61.40	80.4	792.3	568.1	545.5	22.63	25.110		
10,825.0	10,801.6	10,717.9	10,680.9	10.0	12.6	62.69	83.3	795.1	567.2	544.6	22.67	25.026		
10,850.0	10,822.5	10,730.8	10,693.4	10.0	12.6	63.73	85.8	797.2	566.5	543.7	22.77	24.875		
10,875.0	10,842.8	10,743.7	10,705.8	10.0	12.6	64.71	88.6	799.4	565.8	543.0	22.88	24.732		
10,900.0	10,862.2	10,756.5	10,718.0	10.0	12.6	65.65	91.6	801.7	565.3	542.4	22.98	24.599		
10,925.0	10,880.8	10,769.3	10,730.1	10.1	12.6	66.55	95.0	804.1	565.0	541.9	23.08	24.483		
10,950.0	10,898.5	10,782.0	10,742.0	10.1	12.6	67.43	98.7	806.6	564.8	541.7	23.16	24.388		
10,957.9	10,903.8	10,786.0	10,745.7	10.1	12.6	67.69	99.9	807.4	564.8	541.6	23.18	24.363		
10,975.0	10,915.2	10,794.7	10,753.8	10.1	12.6	68.27	102.6	809.2	564.9	541.6	23.23	24.317		
11,000.0	10,930.9	10,807.3	10,765.3	10.2	12.6	69.10	106.8	812.0	565.1	541.9	23.28	24.276		
11,025.0	10,945.7	10,819.9	10,776.7	10.2	12.6	69.89	111.3	814.7	565.7	542.4	23.31	24.266		
11,050.0	10,959.3	10,832.4	10,788.0	10.2	12.6	70.66	116.1	817.6	566.5	543.2	23.32	24.292		
11,075.0	10,971.8	10,844.8	10,799.0	10.3	12.7	71.40	121.1	820.6	567.6	544.3	23.30	24.357		
11,100.0	10,983.2	10,857.2	10,809.8	10.3	12.7	72.11	126.3	823.6	569.0	545.8	23.26	24.662		
11,125.0	10,993.4	10,869.5	10,820.4	10.3	12.7	72.79	131.8	826.7	570.8	547.6	23.19	24.611		
11,150.0	11,002.4	10,881.8	10,830.7	10.4	12.7	73.42	137.5	829.9	573.0	549.9	23.10	24.804		
11,175.0	11,010.1	10,894.0	10,840.9	10.4	12.7	74.02	143.4	833.2	575.5	552.5	22.98	25.043		
11,200.0	11,016.6	10,906.1	10,850.8	10.5	12.7	74.57	149.6	836.5	578.5	555.6	22.84	25.328		
11,225.0	11,021.9	10,918.1	10,860.4	10.5	12.7	75.08	155.9	839.8	581.8	559.2	22.68	25.658		
11,250.0	11,025.8	10,930.1	10,869.9	10.5	12.7	75.53	162.4	843.2	585.7	563.2	22.50	26.033		
11,275.0	11,028.5	10,941.9	10,879.0	10.6	12.8	75.93	169.1	846.7	589.9	567.6	22.30	26.450		
11,300.0	11,029.9	10,953.7	10,888.0	10.6	12.8	76.27	175.9	850.2	594.7	572.6	22.10	26.904		
11,314.2	11,030.0	10,960.4	10,892.9	10.7	12.8	76.44	179.9	852.2	597.5	575.6	21.99	27.177		
11,400.0	11,029.9	11,004.8	10,924.4	10.9	12.8	79.73	208.0	866.0	619.4	597.9	21.43	28.906		
11,500.0	11,029.8	11,069.3	10,964.6	11.2	12.9	83.84	253.6	887.5	652.7	631.5	21.20	30.779		
11,600.0	11,029.6	11,150.1	11,004.8	11.6	13.0	87.75	317.4	916.2	691.0	669.5	21.52	32.109		
11,700.0	11,029.5	11,247.8	11,037.0	12.0	13.1	90.63	402.1	952.3	731.0	708.7	22.29	32.797		
11,800.0	11,029.3	11,357.7	11,050.0	12.5	13.3	91.66	503.1	993.0	769.7	746.5	23.25	33.110		
11,900.0	11,029.1	11,486.2	11,049.8	13.0	13.4	91.55	623.7	1,037.2	805.3	780.9	24.43	32.966		
12,000.0	11,029.0	11,619.3	11,049.6	13.6	13.7	91.47	750.6	1,077.3	836.6	810.9	25.76	32.484		
12,100.0	11,028.8	11,756.3	11,049.4	14.2	14.1	91.41	883.1	1,112.4	863.4	836.2	27.20	31.745		
12,200.0	11,028.7	11,896.7	11,049.2	14.8	14.6	91.36	1,020.3	1,141.7	885.5	856.8	28.73	30.823		
12,300.0	11,028.5	12,039.9	11,049.0	15.5	15.2	91.32	1,161.7	1,164.6	902.8	872.4	30.33	29.762		
12,400.0	11,028.4	12,185.2	11,048.7	16.2	16.0	91.29	1,306.1	1,180.7	915.0	883.1	31.97	28.619		
12,500.0	11,028.2	12,332.0	11,048.5	16.9	16.8	91.27	1,452.7	1,189.4	922.2	888.6	33.63	27.424		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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 #801H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10581-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,600.0	11,028.1	12,474.8	11,048.3	17.6	17.6	91.27	1,595.4	1,190.7	924.3	889.1	35.24	26.228	
12,700.0	11,027.9	12,574.8	11,048.1	18.3	18.2	91.27	1,695.4	1,189.5	924.3	887.7	36.58	25.270	
12,800.0	11,027.8	12,674.8	11,048.0	19.1	18.9	91.27	1,795.4	1,188.2	924.3	886.3	37.94	24.361	
12,900.0	11,027.6	12,774.8	11,047.8	19.8	19.5	91.27	1,895.4	1,187.0	924.3	885.0	39.34	23.498	
13,000.0	11,027.5	12,874.8	11,047.6	20.6	20.2	91.27	1,995.4	1,185.7	924.3	883.5	40.75	22.680	
13,100.0	11,027.3	12,974.8	11,047.5	21.3	20.8	91.27	2,095.4	1,184.5	924.3	882.1	42.20	21.905	
13,200.0	11,027.2	13,074.8	11,047.3	22.1	21.5	91.27	2,195.3	1,183.3	924.3	880.6	43.66	21.172	
13,300.0	11,027.0	13,174.8	11,047.2	22.9	22.2	91.27	2,295.3	1,182.0	924.3	879.1	45.14	20.477	
13,400.0	11,026.9	13,274.8	11,047.0	23.7	23.0	91.27	2,395.3	1,180.8	924.3	877.6	46.63	19.820	
13,500.0	11,026.7	13,374.8	11,046.9	24.5	23.7	91.27	2,495.3	1,179.5	924.3	876.1	48.14	19.198	
13,600.0	11,026.6	13,474.8	11,046.7	25.3	24.4	91.27	2,595.3	1,178.3	924.3	874.6	49.67	18.608	
13,700.0	11,026.4	13,574.8	11,046.5	26.1	25.2	91.27	2,695.3	1,177.1	924.3	873.1	51.21	18.049	
13,800.0	11,026.3	13,674.8	11,046.4	26.9	25.9	91.27	2,795.3	1,175.8	924.3	871.5	52.76	17.519	
13,900.0	11,026.1	13,774.8	11,046.2	27.7	26.7	91.27	2,895.3	1,174.6	924.3	869.9	54.32	17.016	
14,000.0	11,026.0	13,874.8	11,046.1	28.5	27.4	91.26	2,995.3	1,173.3	924.3	868.4	55.89	16.538	
14,100.0	11,025.8	13,974.8	11,045.9	29.3	28.2	91.26	3,095.3	1,172.1	924.3	866.8	57.47	16.084	
14,200.0	11,025.7	14,074.8	11,045.7	30.1	29.0	91.26	3,195.3	1,170.8	924.2	865.2	59.05	15.651	
14,300.0	11,025.5	14,174.8	11,045.6	30.9	29.7	91.26	3,295.3	1,169.6	924.2	863.6	60.65	15.240	
14,400.0	11,025.4	14,274.8	11,045.4	31.7	30.5	91.26	3,395.3	1,168.4	924.2	862.0	62.25	14.848	
14,500.0	11,025.2	14,374.8	11,045.3	32.6	31.3	91.26	3,495.2	1,167.1	924.2	860.4	63.85	14.474	
14,600.0	11,025.0	14,474.8	11,045.1	33.4	32.1	91.26	3,595.2	1,165.9	924.2	858.8	65.47	14.117	
14,700.0	11,024.9	14,574.8	11,045.0	34.2	32.9	91.26	3,695.2	1,164.6	924.2	857.1	67.09	13.777	
14,800.0	11,024.7	14,674.8	11,044.8	35.0	33.7	91.26	3,795.2	1,163.4	924.2	855.5	68.71	13.451	
14,900.0	11,024.6	14,774.8	11,044.6	35.9	34.5	91.26	3,895.2	1,162.2	924.2	853.9	70.34	13.140	
15,000.0	11,024.4	14,874.8	11,044.5	36.7	35.3	91.26	3,995.2	1,160.9	924.2	852.3	71.97	12.841	
15,100.0	11,024.3	14,974.8	11,044.3	37.5	36.1	91.26	4,095.2	1,159.7	924.2	850.6	73.61	12.556	
15,200.0	11,024.1	15,074.8	11,044.2	38.4	36.9	91.26	4,195.2	1,158.4	924.2	849.0	75.25	12.282	
15,300.0	11,024.0	15,174.8	11,044.0	39.2	37.7	91.26	4,295.2	1,157.2	924.2	847.3	76.90	12.019	
15,400.0	11,023.8	15,274.8	11,043.9	40.1	38.5	91.26	4,395.2	1,155.9	924.2	845.7	78.54	11.767	
15,500.0	11,023.7	15,374.8	11,043.7	40.9	39.3	91.26	4,495.2	1,154.7	924.2	844.0	80.19	11.525	
15,600.0	11,023.5	15,474.8	11,043.5	41.7	40.1	91.26	4,595.2	1,153.5	924.2	842.4	81.85	11.292	
15,700.0	11,023.4	15,574.8	11,043.4	42.6	41.0	91.26	4,695.2	1,152.2	924.2	840.7	83.51	11.067	
15,800.0	11,023.2	15,674.8	11,043.2	43.4	41.8	91.26	4,795.1	1,151.0	924.2	839.0	85.17	10.852	
15,900.0	11,023.1	15,774.8	11,043.1	44.3	42.6	91.26	4,895.1	1,149.7	924.2	837.4	86.83	10.644	
16,000.0	11,022.9	15,874.8	11,042.9	45.1	43.4	91.26	4,995.1	1,148.5	924.2	835.7	88.49	10.444	
16,007.6	11,022.9	15,882.4	11,042.9	45.2	43.5	91.26	5,002.7	1,148.4	924.2	835.6	88.62	10.429	
16,015.1	11,022.9	15,888.1	11,042.9	45.2	43.5	91.26	5,008.4	1,148.3	924.2	835.5	88.73	10.416	
16,036.0	11,022.9	15,904.0	11,042.9	45.4	43.7	91.26	5,024.4	1,148.2	924.2	835.2	89.04	10.380	
16,100.0	11,022.8	15,968.0	11,042.8	45.9	44.2	91.26	5,088.4	1,147.9	924.2	834.1	90.11	10.257	
16,200.0	11,022.6	16,068.0	11,042.6	46.8	45.0	91.26	5,188.4	1,147.4	924.2	832.4	91.77	10.071	
16,300.0	11,022.5	16,168.0	11,042.5	47.6	45.9	91.26	5,288.4	1,146.9	924.2	830.8	93.45	9.891	
16,400.0	11,022.3	16,268.0	11,042.3	48.5	46.7	91.26	5,388.4	1,146.4	924.2	829.1	95.12	9.717	
16,500.0	11,022.2	16,368.0	11,042.1	49.3	47.5	91.26	5,488.4	1,145.9	924.2	827.4	96.79	9.549	
16,600.0	11,022.0	16,468.0	11,042.0	50.2	48.3	91.26	5,588.4	1,145.3	924.2	825.8	98.47	9.386	
16,700.0	11,021.8	16,568.0	11,041.8	51.0	49.2	91.26	5,688.3	1,144.8	924.2	824.1	100.14	9.229	
16,800.0	11,021.7	16,668.0	11,041.7	51.8	50.0	91.26	5,788.3	1,144.3	924.2	822.4	101.82	9.077	
16,900.0	11,021.5	16,768.0	11,041.5	52.7	50.8	91.26	5,888.3	1,143.8	924.2	820.7	103.50	8.929	
17,000.0	11,021.4	16,868.0	11,041.4	53.5	51.7	91.26	5,988.3	1,143.3	924.2	819.0	105.18	8.787	
17,100.0	11,021.2	16,968.0	11,041.2	54.4	52.5	91.26	6,088.3	1,142.8	924.2	817.4	106.87	8.648	
17,200.0	11,021.1	17,068.0	11,041.1	55.2	53.3	91.26	6,188.3	1,142.3	924.2	815.7	108.55	8.514	
17,300.0	11,020.9	17,168.0	11,040.9	56.1	54.2	91.26	6,288.3	1,141.8	924.2	814.0	110.24	8.384	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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 #801H - OWB - PWP1												Offset Site Error:	0.0 usft
Survey Program: 0-Standard Keeper 104, 10581-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	
17,400.0	11,020.8	17,268.0	11,040.8	56.9	55.0	91.26	6,388.3	1,141.3	924.2	812.3	111.92	8.258	
17,500.0	11,020.6	17,368.0	11,040.6	57.8	55.9	91.26	6,488.3	1,140.8	924.2	810.6	113.61	8.135	
17,600.0	11,020.4	17,468.0	11,040.4	58.6	56.7	91.26	6,588.3	1,140.2	924.2	808.9	115.30	8.016	
17,700.0	11,020.3	17,568.0	11,040.3	59.5	57.5	91.26	6,688.3	1,139.7	924.2	807.2	116.99	7.900	
17,800.0	11,020.1	17,668.0	11,040.1	60.3	58.4	91.26	6,788.3	1,139.2	924.2	805.5	118.68	7.788	
17,900.0	11,020.0	17,768.0	11,040.0	61.2	59.2	91.26	6,888.3	1,138.7	924.2	803.9	120.37	7.678	
18,000.0	11,019.8	17,868.0	11,039.8	62.0	60.1	91.26	6,988.3	1,138.2	924.2	802.2	122.06	7.572	
18,100.0	11,019.7	17,968.0	11,039.7	62.9	60.9	91.26	7,088.3	1,137.7	924.2	800.5	123.75	7.468	
18,200.0	11,019.5	18,068.0	11,039.5	63.7	61.7	91.26	7,188.3	1,137.2	924.2	798.8	125.45	7.367	
18,300.0	11,019.4	18,168.0	11,039.4	64.6	62.6	91.26	7,288.3	1,136.7	924.2	797.1	127.14	7.269	
18,400.0	11,019.2	18,268.0	11,039.2	65.4	63.4	91.26	7,388.3	1,136.2	924.2	795.4	128.84	7.174	
18,500.0	11,019.1	18,368.0	11,039.1	66.3	64.3	91.26	7,488.3	1,135.7	924.2	793.7	130.53	7.080	
18,600.0	11,018.9	18,468.0	11,038.9	67.1	65.1	91.26	7,588.3	1,135.2	924.2	792.0	132.23	6.990	
18,700.0	11,018.7	18,568.0	11,038.7	68.0	66.0	91.26	7,688.3	1,134.6	924.2	790.3	133.93	6.901	
18,800.0	11,018.6	18,668.0	11,038.6	68.9	66.8	91.26	7,788.3	1,134.1	924.2	788.6	135.63	6.815	
18,900.0	11,018.4	18,768.0	11,038.4	69.7	67.7	91.26	7,888.3	1,133.6	924.2	786.9	137.32	6.730	
19,000.0	11,018.3	18,868.0	11,038.3	70.6	68.5	91.26	7,988.3	1,133.1	924.2	785.2	139.02	6.648	
19,100.0	11,018.1	18,968.0	11,038.1	71.4	69.3	91.26	8,088.3	1,132.6	924.2	783.5	140.72	6.568	
19,200.0	11,018.0	19,068.0	11,038.0	72.3	70.2	91.26	8,188.3	1,132.1	924.2	781.8	142.42	6.489	
19,300.0	11,017.8	19,168.0	11,037.8	73.1	71.0	91.26	8,288.3	1,131.6	924.2	780.1	144.12	6.413	
19,400.0	11,017.7	19,268.0	11,037.7	74.0	71.9	91.26	8,388.3	1,131.1	924.2	778.4	145.82	6.338	
19,500.0	11,017.5	19,368.0	11,037.5	74.8	72.7	91.26	8,488.3	1,130.6	924.2	776.7	147.53	6.265	
19,600.0	11,017.4	19,468.0	11,037.4	75.7	73.6	91.26	8,588.3	1,130.1	924.2	775.0	149.23	6.193	
19,700.0	11,017.2	19,568.0	11,037.2	76.5	74.4	91.26	8,688.3	1,129.5	924.2	773.3	150.93	6.124	
19,800.0	11,017.0	19,668.0	11,037.0	77.4	75.3	91.26	8,788.3	1,129.0	924.2	771.6	152.63	6.055	
19,900.0	11,016.9	19,768.0	11,036.9	78.2	76.1	91.26	8,888.3	1,128.5	924.2	769.9	154.34	5.988	
20,000.0	11,016.7	19,868.0	11,036.7	79.1	77.0	91.26	8,988.3	1,128.0	924.2	768.2	156.04	5.923	
20,100.0	11,016.6	19,968.0	11,036.6	80.0	77.8	91.26	9,088.3	1,127.5	924.2	766.5	157.75	5.859	
20,200.0	11,016.4	20,068.0	11,036.4	80.8	78.7	91.26	9,188.3	1,127.0	924.2	764.8	159.45	5.796	
20,300.0	11,016.3	20,168.0	11,036.3	81.7	79.5	91.26	9,288.3	1,126.5	924.2	763.1	161.16	5.735	
20,400.0	11,016.1	20,268.0	11,036.1	82.5	80.4	91.26	9,388.3	1,126.0	924.2	761.4	162.86	5.675	
20,500.0	11,016.0	20,368.0	11,036.0	83.4	81.2	91.26	9,488.3	1,125.5	924.2	759.7	164.57	5.616	
20,600.0	11,015.8	20,468.0	11,035.8	84.2	82.1	91.26	9,588.3	1,125.0	924.2	758.0	166.27	5.559	
20,700.0	11,015.7	20,568.0	11,035.7	85.1	82.9	91.26	9,688.3	1,124.5	924.2	756.3	167.98	5.502	
20,800.0	11,015.5	20,668.0	11,035.5	85.9	83.8	91.26	9,788.3	1,123.9	924.2	754.5	169.69	5.447	
20,900.0	11,015.3	20,768.0	11,035.3	86.8	84.6	91.26	9,888.3	1,123.4	924.2	752.8	171.39	5.393	
21,000.0	11,015.2	20,868.0	11,035.2	87.7	85.5	91.26	9,988.3	1,122.9	924.2	751.1	173.10	5.339	
21,100.0	11,015.0	20,968.0	11,035.0	88.5	86.2	91.26	10,088.3	1,122.4	924.2	749.6	174.65	5.292	
21,102.3	11,015.0	20,970.3	11,035.0	88.5	86.2	91.26	10,090.6	1,122.4	924.2	749.6	174.68	5.291	
21,122.7	11,015.0	20,990.6	11,035.0	88.7	86.3	91.26	10,110.8	1,122.3	924.2	749.3	174.98	5.282	
21,123.0	11,015.0	20,990.6	11,035.0	88.7	86.3	91.26	10,110.8	1,122.3	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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.4	3.0	3.0	-90.00	0.0	-30.0	30.0				
100.0	100.0	100.4	100.4	3.0	3.0	-90.00	0.0	-30.0	30.0	24.0	6.00	5.000	
200.0	200.0	200.4	200.4	3.0	3.0	-90.00	0.0	-30.0	30.0	24.0	6.00	4.997	
300.0	300.0	300.4	300.4	3.0	3.0	-90.00	0.0	-30.0	30.0	24.0	6.01	4.992	
400.0	400.0	400.4	400.4	3.0	3.0	-90.00	0.0	-30.0	30.0	24.0	6.02	4.985	
500.0	500.0	500.4	500.4	3.1	3.1	-90.00	0.0	-30.0	30.0	24.0	6.03	4.974	
600.0	600.0	600.4	600.4	3.1	3.1	-90.00	0.0	-30.0	30.0	24.0	6.05	4.961	
700.0	700.0	700.4	700.4	3.1	3.1	-90.00	0.0	-30.0	30.0	23.9	6.07	4.946	
800.0	800.0	800.4	800.4	3.2	3.2	-90.00	0.0	-30.0	30.0	23.9	6.09	4.928	
900.0	900.0	900.4	900.4	3.2	3.2	-90.00	0.0	-30.0	30.0	23.9	6.11	4.908	
1,000.0	1,000.0	1,000.4	1,000.4	3.2	3.2	-90.00	0.0	-30.0	30.0	23.9	6.14	4.885	
1,100.0	1,100.0	1,100.4	1,100.4	3.3	3.3	-90.00	0.0	-30.0	30.0	23.8	6.17	4.860	
1,200.0	1,200.0	1,200.4	1,200.4	3.4	3.4	-90.00	0.0	-30.0	30.0	23.8	6.21	4.833	
1,300.0	1,300.0	1,300.4	1,300.4	3.4	3.4	-90.00	0.0	-30.0	30.0	23.8	6.24	4.805	
1,400.0	1,400.0	1,400.4	1,400.4	3.5	3.5	-90.00	0.0	-30.0	30.0	23.7	6.28	4.774	
1,500.0	1,500.0	1,500.4	1,500.4	3.5	3.5	-90.00	0.0	-30.0	30.0	23.7	6.33	4.742	
1,600.0	1,600.0	1,600.4	1,600.4	3.6	3.6	-90.00	0.0	-30.0	30.0	23.6	6.37	4.708	
1,700.0	1,700.0	1,700.4	1,700.4	3.7	3.7	-90.00	0.0	-30.0	30.0	23.6	6.42	4.672	
1,800.0	1,800.0	1,800.4	1,800.4	3.8	3.8	-90.00	0.0	-30.0	30.0	23.5	6.47	4.635	
1,900.0	1,900.0	1,900.4	1,900.4	3.9	3.9	-90.00	0.0	-30.0	30.0	23.5	6.53	4.597	
2,000.0	2,000.0	2,000.4	2,000.4	3.9	3.9	-90.00	0.0	-30.0	30.0	23.4	6.58	4.558	
2,100.0	2,100.0	2,100.4	2,100.4	4.0	4.0	-90.00	0.0	-30.0	30.0	23.4	6.64	4.518	
2,200.0	2,200.0	2,200.4	2,200.4	4.1	4.1	-90.00	0.0	-30.0	30.0	23.3	6.70	4.477	
2,300.0	2,300.0	2,300.4	2,300.4	4.2	4.2	-90.00	0.0	-30.0	30.0	23.2	6.76	4.435	
2,400.0	2,400.0	2,400.4	2,400.4	4.3	4.3	-90.00	0.0	-30.0	30.0	23.2	6.83	4.392	
2,416.5	2,416.5	2,416.9	2,416.9	4.3	4.3	-90.00	0.0	-30.0	30.0	23.2	6.84	4.385 CC	
2,500.0	2,500.0	2,500.0	2,500.0	4.4	4.4	-90.00	0.0	-30.0	30.0	23.1	6.90	4.350 ES, SF	
2,600.0	2,600.0	2,599.4	2,599.3	4.5	4.4	-90.91	-0.5	-31.6	31.7	24.7	6.97	4.545	
2,700.0	2,700.0	2,698.1	2,697.9	4.6	4.5	-93.14	-2.0	-36.5	36.7	29.6	7.04	5.211	
2,800.0	2,800.0	2,797.6	2,797.2	4.7	4.5	-95.47	-4.2	-43.6	43.9	36.8	7.12	6.167	
2,900.0	2,900.0	2,897.3	2,896.6	4.8	4.5	-97.14	-6.4	-50.7	51.2	44.0	7.21	7.110	
3,000.0	3,000.0	2,997.1	2,996.1	4.9	4.5	-98.40	-8.5	-57.8	58.6	51.3	7.30	8.033	
3,100.0	3,100.0	3,096.8	3,095.5	5.0	4.5	-99.37	-10.7	-64.9	66.0	58.6	7.39	8.932	
3,200.0	3,200.0	3,196.5	3,195.0	5.1	4.6	-100.15	-12.9	-72.1	73.4	65.9	7.48	9.808	
3,300.0	3,300.0	3,296.2	3,294.4	5.2	4.6	-100.79	-15.1	-79.2	80.8	73.2	7.58	10.658	
3,400.0	3,400.0	3,396.0	3,393.9	5.3	4.6	-101.31	-17.3	-86.3	88.2	80.5	7.68	11.483	
3,500.0	3,500.0	3,495.7	3,493.3	5.4	4.7	-101.76	-19.4	-93.4	95.7	87.9	7.79	12.282	
3,600.0	3,600.0	3,595.4	3,592.7	5.5	4.7	-102.14	-21.6	-100.5	103.1	95.2	7.90	13.053	
3,700.0	3,700.0	3,695.1	3,692.2	5.7	4.8	-102.47	-23.8	-107.6	110.5	102.5	8.01	13.799	
3,800.0	3,800.0	3,794.8	3,791.6	5.8	4.8	-102.76	-26.0	-114.7	118.0	109.8	8.13	14.517	
3,900.0	3,900.0	3,894.6	3,891.1	5.9	4.9	-103.02	-28.2	-121.8	125.4	117.2	8.24	15.210	
4,000.0	4,000.0	3,994.3	3,990.5	6.0	4.9	-103.25	-30.4	-128.9	132.8	124.5	8.37	15.877	
4,100.0	4,100.0	4,094.0	4,090.0	6.1	5.0	-103.45	-32.5	-136.1	140.3	131.8	8.49	16.519	
4,200.0	4,200.0	4,193.7	4,189.4	6.2	5.1	-103.63	-34.7	-143.2	147.7	139.1	8.62	17.135	
4,300.0	4,300.0	4,293.4	4,288.8	6.3	5.1	-103.79	-36.9	-150.3	155.2	146.4	8.75	17.728	
4,400.0	4,400.0	4,393.2	4,388.3	6.5	5.2	-103.94	-39.1	-157.4	162.6	153.7	8.89	18.297	
4,500.0	4,500.0	4,492.9	4,487.7	6.6	5.3	-104.08	-41.3	-164.5	170.1	161.1	9.03	18.844	
4,600.0	4,600.0	4,592.6	4,587.2	6.7	5.3	-104.20	-43.4	-171.6	177.5	168.4	9.17	19.368	
4,700.0	4,700.0	4,692.3	4,686.6	6.8	5.4	-104.32	-45.6	-178.7	185.0	175.7	9.31	19.872	
4,800.0	4,800.0	4,792.0	4,786.1	6.9	5.5	-104.43	-47.8	-185.8	192.4	183.0	9.45	20.355	
4,900.0	4,900.0	4,891.8	4,885.5	7.0	5.6	-104.52	-50.0	-193.0	199.9	190.3	9.60	20.818	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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		
5,000.0	5,000.0	4,991.5	4,984.9	7.2	5.6	-104.61	-52.2	-200.1	207.3	197.6	9.75	21.263		
5,100.0	5,100.0	5,091.2	5,084.4	7.3	5.7	-104.70	-54.4	-207.2	214.8	204.9	9.90	21.689		
5,200.0	5,200.0	5,190.9	5,183.8	7.4	5.8	-104.78	-56.5	-214.3	222.2	212.2	10.06	22.098		
5,300.0	5,300.0	5,290.7	5,283.3	7.5	5.9	-104.85	-58.7	-221.4	229.7	219.5	10.21	22.491		
5,400.0	5,400.0	5,390.4	5,382.7	7.6	6.0	-104.92	-60.9	-228.5	237.2	226.8	10.37	22.867		
5,500.0	5,500.0	5,490.1	5,482.2	7.8	6.1	-104.99	-63.1	-235.6	244.6	234.1	10.53	23.229		
5,600.0	5,600.0	5,589.7	5,581.5	7.8	6.2	130.68	-65.3	-242.7	253.2	242.5	10.69	23.674		
5,684.2	5,684.1	5,673.4	5,664.9	7.8	6.2	131.19	-67.1	-248.7	262.2	251.4	10.84	24.198		
5,700.0	5,699.8	5,689.1	5,680.6	7.8	6.3	131.34	-67.4	-249.8	264.0	253.2	10.86	24.309		
5,800.0	5,799.6	5,788.3	5,779.5	7.8	6.3	132.26	-69.6	-256.9	275.8	264.7	11.03	24.999		
5,900.0	5,899.4	5,887.5	5,878.5	7.8	6.4	133.11	-71.8	-264.0	287.6	276.4	11.20	25.667		
6,000.0	5,999.2	5,986.7	5,977.4	7.8	6.5	133.88	-73.9	-271.0	299.4	288.0	11.38	26.311		
6,100.0	6,099.0	6,085.9	6,076.3	7.8	6.6	134.60	-76.1	-278.1	311.3	299.7	11.56	26.935		
6,200.0	6,198.8	6,185.1	6,175.3	7.8	6.7	135.27	-78.3	-285.2	323.2	311.5	11.74	27.537		
6,300.0	6,298.6	6,284.4	6,274.2	7.8	6.8	135.89	-80.5	-292.3	335.2	323.3	11.92	28.120		
6,400.0	6,398.4	6,383.6	6,373.2	7.8	6.9	136.47	-82.6	-299.4	347.2	335.1	12.11	28.683		
6,500.0	6,498.2	6,482.8	6,472.1	7.8	7.0	137.00	-84.8	-306.4	359.3	347.0	12.29	29.227		
6,600.0	6,598.0	6,582.0	6,571.0	7.8	7.1	137.51	-87.0	-313.5	371.4	358.9	12.48	29.754		
6,700.0	6,697.8	6,681.2	6,670.0	7.8	7.2	137.98	-89.1	-320.6	383.5	370.8	12.67	30.263		
6,800.0	6,797.6	6,780.4	6,768.9	7.8	7.3	138.42	-91.3	-327.7	395.6	382.7	12.86	30.755		
6,900.0	6,897.4	6,879.7	6,867.9	7.9	7.4	138.84	-93.5	-334.7	407.7	394.7	13.06	31.231		
7,000.0	6,997.2	6,978.9	6,966.8	7.9	7.5	139.23	-95.6	-341.8	419.9	406.7	13.25	31.691		
7,100.0	7,096.9	7,078.1	7,065.7	7.9	7.7	139.60	-97.8	-348.9	432.1	418.7	13.45	32.136		
7,200.0	7,196.7	7,177.3	7,164.7	7.9	7.8	139.95	-100.0	-356.0	444.3	430.7	13.64	32.567		
7,300.0	7,296.5	7,276.5	7,263.6	7.9	7.9	140.28	-102.2	-363.0	456.5	442.7	13.84	32.983		
7,400.0	7,396.3	7,375.7	7,362.6	8.0	8.0	140.59	-104.3	-370.1	468.8	454.7	14.04	33.385		
7,500.0	7,496.1	7,475.0	7,461.5	8.0	8.1	140.89	-106.5	-377.2	481.0	466.8	14.24	33.774		
7,600.0	7,595.9	7,574.2	7,560.4	8.0	8.2	141.17	-108.7	-384.3	493.3	478.8	14.44	34.150		
7,700.0	7,695.7	7,673.4	7,659.4	8.1	8.3	141.44	-110.8	-391.3	505.5	490.9	14.65	34.514		
7,800.0	7,795.5	7,772.6	7,758.3	8.1	8.4	141.70	-113.0	-398.4	517.8	503.0	14.85	34.866		
7,900.0	7,895.3	7,871.8	7,857.3	8.1	8.5	141.94	-115.2	-405.5	530.1	515.1	15.06	35.206		
8,000.0	7,995.1	7,971.0	7,956.2	8.2	8.6	142.18	-117.4	-412.6	542.4	527.2	15.26	35.535		
8,100.0	8,094.9	8,070.3	8,055.1	8.2	8.7	142.40	-119.5	-419.7	554.7	539.3	15.47	35.853		
8,200.0	8,194.7	8,169.5	8,154.1	8.3	8.9	142.61	-121.7	-426.7	567.0	551.4	15.68	36.161		
8,300.0	8,294.5	8,268.7	8,253.0	8.3	9.0	142.82	-123.9	-433.8	579.4	563.5	15.89	36.459		
8,400.0	8,394.3	8,367.9	8,352.0	8.4	9.1	143.01	-126.0	-440.9	591.7	575.6	16.10	36.747		
8,500.0	8,494.1	8,467.1	8,450.9	8.4	9.2	143.20	-128.2	-448.0	604.0	587.7	16.31	37.026		
8,600.0	8,593.8	8,566.3	8,549.8	8.5	9.3	143.38	-130.4	-455.0	616.4	599.9	16.53	37.295		
8,700.0	8,693.6	8,665.6	8,648.8	8.5	9.4	143.55	-132.5	-462.1	628.7	612.0	16.74	37.556		
8,800.0	8,793.4	8,764.8	8,747.7	8.6	9.5	143.72	-134.7	-469.2	641.1	624.1	16.96	37.809		
8,900.0	8,893.2	8,864.0	8,846.7	8.6	9.7	143.88	-136.9	-476.3	653.5	636.3	17.17	38.054		
9,000.0	8,993.0	8,963.2	8,945.6	8.7	9.8	144.03	-139.1	-483.3	665.8	648.4	17.39	38.290		
9,100.0	9,092.8	9,062.4	9,044.5	8.7	9.9	144.18	-141.2	-490.4	678.2	660.6	17.61	38.519		
9,200.0	9,192.6	9,161.6	9,143.5	8.8	10.0	144.33	-143.4	-497.5	690.6	672.7	17.82	38.741		
9,300.0	9,292.4	9,260.9	9,242.4	8.9	10.1	144.47	-145.6	-504.6	702.9	684.9	18.04	38.956		
9,400.0	9,392.2	9,360.1	9,341.4	8.9	10.2	144.60	-147.7	-511.6	715.3	697.1	18.26	39.164		
9,500.0	9,492.0	9,459.3	9,440.3	9.0	10.3	144.73	-149.9	-518.7	727.7	709.2	18.49	39.366		
9,600.0	9,591.8	9,558.5	9,539.2	9.1	10.5	144.85	-152.1	-525.8	740.1	721.4	18.71	39.561		
9,700.0	9,691.6	9,657.7	9,638.2	9.2	10.6	144.97	-154.3	-532.9	752.5	733.6	18.93	39.751		
9,800.0	9,791.4	9,757.0	9,737.1	9.2	10.7	145.09	-156.4	-539.9	764.9	745.7	19.15	39.934		
9,900.0	9,891.2	9,856.2	9,836.1	9.3	10.8	145.20	-158.6	-547.0	777.3	757.9	19.38	40.111		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	9,991.0	9,955.4	9,935.0	9.4	10.9	145.31	-160.8	-554.1	789.7	770.1	19.60	40.284		
10,100.0	10,090.7	10,054.6	10,033.9	9.5	11.1	145.42	-162.9	-561.2	802.1	782.3	19.83	40.451		
10,200.0	10,190.5	10,153.8	10,132.9	9.5	11.2	145.52	-165.1	-568.3	814.5	794.4	20.06	40.612		
10,300.0	10,290.3	10,253.0	10,231.8	9.6	11.3	145.62	-167.3	-575.3	826.9	806.6	20.28	40.769		
10,400.0	10,390.1	10,352.3	10,330.8	9.7	11.4	145.72	-169.4	-582.4	839.3	818.8	20.51	40.921		
10,500.0	10,489.9	10,451.5	10,429.7	9.8	11.5	145.81	-171.6	-589.5	851.7	831.0	20.74	41.068		
10,545.8	10,535.6	10,496.9	10,475.0	9.8	11.6	145.85	-172.6	-592.7	857.4	836.6	20.84	41.134		
10,550.0	10,539.8	10,501.1	10,479.2	9.8	11.6	152.89	-172.7	-593.0	857.9	837.1	20.85	41.140		
10,575.0	10,564.8	10,525.9	10,503.9	9.9	11.6	-153.95	-173.2	-594.8	861.0	840.0	21.01	40.985		
10,600.0	10,589.7	10,550.6	10,528.6	9.9	11.7	-122.94	-173.8	-596.6	864.1	843.1	21.04	41.061		
10,625.0	10,614.5	10,575.2	10,553.1	9.9	11.7	-110.52	-174.3	-598.3	867.1	846.0	21.08	41.130		
10,650.0	10,639.2	10,599.7	10,577.5	9.9	11.7	-104.45	-174.9	-600.0	870.1	849.0	21.12	41.195		
10,675.0	10,663.6	10,623.7	10,601.5	9.9	11.8	-100.96	-175.1	-601.8	873.1	852.0	21.15	41.275		
10,700.0	10,687.8	10,647.9	10,625.6	9.9	11.8	-98.71	-174.1	-603.5	876.1	855.0	21.17	41.392		
10,725.0	10,711.5	10,672.4	10,649.9	9.9	11.8	-97.15	-171.8	-605.3	879.1	857.9	21.18	41.512		
10,750.0	10,734.8	10,697.1	10,674.3	9.9	11.8	-96.00	-168.3	-607.1	882.1	860.9	21.19	41.635		
10,775.0	10,757.7	10,722.2	10,698.8	9.9	11.8	-95.14	-163.4	-608.9	885.0	863.8	21.19	41.757		
10,800.0	10,779.9	10,747.6	10,723.4	10.0	11.8	-94.47	-157.2	-610.7	887.9	866.7	21.20	41.879		
10,825.0	10,801.6	10,773.3	10,747.8	10.0	11.8	-93.94	-149.6	-612.6	890.8	869.5	21.21	42.000		
10,850.0	10,822.5	10,799.3	10,772.2	10.0	11.8	-93.52	-140.5	-614.5	893.6	872.3	21.22	42.116		
10,875.0	10,842.8	10,825.7	10,796.3	10.0	11.8	-93.18	-130.0	-616.3	896.3	875.1	21.23	42.226		
10,900.0	10,862.2	10,852.4	10,820.1	10.0	11.8	-92.91	-118.0	-618.2	899.0	877.7	21.24	42.328		
10,925.0	10,880.8	10,879.5	10,843.5	10.1	11.8	-92.69	-104.5	-620.0	901.6	880.3	21.25	42.418		
10,950.0	10,898.5	10,907.0	10,866.4	10.1	11.8	-92.51	-89.4	-621.9	904.1	882.8	21.27	42.496		
10,975.0	10,915.2	10,934.8	10,888.7	10.1	11.9	-92.37	-72.9	-623.7	906.5	885.2	21.30	42.557		
11,000.0	10,930.9	10,963.0	10,910.2	10.2	11.9	-92.27	-54.8	-625.4	908.7	887.4	21.33	42.600		
11,025.0	10,945.7	10,991.6	10,931.0	10.2	11.9	-92.19	-35.1	-627.2	910.9	889.5	21.37	42.622		
11,050.0	10,959.3	11,020.6	10,950.7	10.2	11.9	-92.14	-14.0	-628.9	913.0	891.5	21.42	42.620		
11,075.0	10,971.8	11,049.9	10,969.4	10.3	12.0	-92.10	8.5	-630.5	914.9	893.4	21.48	42.594		
11,100.0	10,983.2	11,079.6	10,986.9	10.3	12.0	-92.09	32.5	-632.0	916.6	895.1	21.55	42.541		
11,125.0	10,993.4	11,109.7	11,003.0	10.3	12.0	-92.09	57.8	-633.5	918.3	896.6	21.63	42.461		
11,150.0	11,002.4	11,140.1	11,017.7	10.4	12.1	-92.11	84.4	-634.9	919.7	898.0	21.72	42.353		
11,175.0	11,010.1	11,170.8	11,030.8	10.4	12.1	-92.13	112.1	-636.2	921.0	899.2	21.81	42.219		
11,200.0	11,016.6	11,201.8	11,042.1	10.5	12.2	-92.17	140.9	-637.4	922.1	900.2	21.92	42.059		
11,225.0	11,021.9	11,233.1	11,051.7	10.5	12.2	-92.21	170.7	-638.4	923.0	901.0	22.04	41.871		
11,250.0	11,025.8	11,264.6	11,059.3	10.5	12.3	-92.27	201.3	-639.3	923.7	901.6	22.17	41.661		
11,275.0	11,028.5	11,296.3	11,065.0	10.6	12.3	-92.33	232.5	-640.1	924.3	902.0	22.31	41.429		
11,300.0	11,029.9	11,328.2	11,068.5	10.6	12.4	-92.39	264.2	-640.8	924.6	902.2	22.45	41.178		
11,314.2	11,030.0	11,346.4	11,069.6	10.7	12.4	-92.43	282.3	-641.1	924.7	902.2	22.54	41.026		
11,400.0	11,029.9	11,436.7	11,069.9	10.9	12.7	-92.46	372.6	-642.3	924.8	901.7	23.08	40.072		
11,500.0	11,029.8	11,536.7	11,069.8	11.2	13.0	-92.46	472.6	-643.5	924.8	901.0	23.79	38.864		
11,600.0	11,029.6	11,636.7	11,069.6	11.6	13.4	-92.46	572.6	-644.7	924.8	900.1	24.61	37.573		
11,700.0	11,029.5	11,736.7	11,069.5	12.0	13.8	-92.46	672.6	-646.0	924.8	899.2	25.52	36.236		
11,800.0	11,029.3	11,836.7	11,069.3	12.5	14.2	-92.46	772.6	-647.2	924.8	898.3	26.51	34.885		
11,900.0	11,029.1	11,936.7	11,069.2	13.0	14.7	-92.46	872.5	-648.5	924.8	897.2	27.57	33.542		
12,000.0	11,029.0	12,036.7	11,069.0	13.6	15.2	-92.46	972.5	-649.7	924.8	896.1	28.69	32.228		
12,100.0	11,028.8	12,136.7	11,068.9	14.2	15.8	-92.46	1,072.5	-650.9	924.8	894.9	29.88	30.953		
12,200.0	11,028.7	12,236.7	11,068.7	14.8	16.3	-92.46	1,172.5	-652.2	924.8	893.7	31.11	29.728		
12,300.0	11,028.5	12,336.7	11,068.6	15.5	16.9	-92.46	1,272.5	-653.4	924.8	892.4	32.38	28.556		
12,400.0	11,028.4	12,436.7	11,068.4	16.2	17.6	-92.46	1,372.5	-654.7	924.8	891.1	33.70	27.441		
12,500.0	11,028.2	12,536.7	11,068.3	16.9	18.2	-92.46	1,472.5	-655.9	924.8	889.7	35.05	26.383		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	11,028.1	12,636.7	11,068.1	17.6	18.9	-92.46	1,572.5	-657.1	924.8	888.3	36.43	25.383	
12,700.0	11,027.9	12,736.7	11,067.9	18.3	19.5	-92.46	1,672.5	-658.4	924.8	886.9	37.84	24.437	
12,800.0	11,027.8	12,836.7	11,067.8	19.1	20.2	-92.46	1,772.5	-659.6	924.8	885.5	39.28	23.544	
12,900.0	11,027.6	12,936.7	11,067.6	19.8	20.9	-92.46	1,872.5	-660.9	924.8	884.0	40.74	22.702	
13,000.0	11,027.5	13,036.7	11,067.5	20.6	21.7	-92.46	1,972.5	-662.1	924.8	882.6	42.21	21.908	
13,100.0	11,027.3	13,136.7	11,067.3	21.3	22.4	-92.46	2,072.4	-663.3	924.8	881.1	43.71	21.159	
13,200.0	11,027.2	13,236.7	11,067.2	22.1	23.1	-92.46	2,172.4	-664.6	924.8	879.6	45.22	20.452	
13,300.0	11,027.0	13,336.7	11,067.0	22.9	23.9	-92.46	2,272.4	-665.8	924.8	878.0	46.74	19.784	
13,400.0	11,026.9	13,436.7	11,066.9	23.7	24.6	-92.46	2,372.4	-667.1	924.8	876.5	48.28	19.154	
13,500.0	11,026.7	13,536.7	11,066.7	24.5	25.4	-92.46	2,472.4	-668.3	924.8	875.0	49.83	18.558	
13,600.0	11,026.6	13,636.7	11,066.6	25.3	26.1	-92.46	2,572.4	-669.5	924.8	873.4	51.40	17.994	
13,700.0	11,026.4	13,736.7	11,066.4	26.1	26.9	-92.46	2,672.4	-670.8	924.8	871.8	52.97	17.460	
13,800.0	11,026.3	13,836.7	11,066.3	26.9	27.7	-92.46	2,772.4	-672.0	924.8	870.2	54.55	16.954	
13,900.0	11,026.1	13,936.7	11,066.1	27.7	28.5	-92.46	2,872.4	-673.3	924.8	868.7	56.14	16.474	
14,000.0	11,026.0	14,036.7	11,066.0	28.5	29.3	-92.46	2,972.4	-674.5	924.8	867.1	57.73	16.018	
14,100.0	11,025.8	14,136.7	11,065.8	29.3	30.0	-92.46	3,072.4	-675.7	924.8	865.5	59.34	15.585	
14,200.0	11,025.7	14,236.7	11,065.7	30.1	30.8	-92.46	3,172.4	-677.0	924.8	863.8	60.95	15.173	
14,300.0	11,025.5	14,336.7	11,065.5	30.9	31.6	-92.46	3,272.4	-678.2	924.8	862.2	62.57	14.781	
14,400.0	11,025.4	14,436.7	11,065.4	31.7	32.4	-92.45	3,372.3	-679.5	924.8	860.6	64.19	14.408	
14,500.0	11,025.2	14,536.7	11,065.2	32.6	33.2	-92.45	3,472.3	-680.7	924.8	859.0	65.81	14.052	
14,600.0	11,025.0	14,636.7	11,065.1	33.4	34.0	-92.45	3,572.3	-681.9	924.8	857.4	67.45	13.712	
14,700.0	11,024.9	14,736.7	11,064.9	34.2	34.9	-92.45	3,672.3	-683.2	924.8	855.7	69.08	13.387	
14,800.0	11,024.7	14,836.7	11,064.8	35.0	35.7	-92.45	3,772.3	-684.4	924.8	854.1	70.72	13.076	
14,900.0	11,024.6	14,936.7	11,064.6	35.9	36.5	-92.45	3,872.3	-685.7	924.8	852.4	72.37	12.779	
15,000.0	11,024.4	15,036.7	11,064.5	36.7	37.3	-92.45	3,972.3	-686.9	924.8	850.8	74.02	12.495	
15,100.0	11,024.3	15,136.7	11,064.3	37.5	38.1	-92.45	4,072.3	-688.1	924.8	849.1	75.67	12.222	
15,200.0	11,024.1	15,236.7	11,064.1	38.4	38.9	-92.45	4,172.3	-689.4	924.8	847.5	77.32	11.961	
15,300.0	11,024.0	15,336.7	11,064.0	39.2	39.8	-92.45	4,272.3	-690.6	924.8	845.8	78.98	11.710	
15,400.0	11,023.8	15,436.7	11,063.8	40.1	40.6	-92.45	4,372.3	-691.9	924.8	844.2	80.64	11.469	
15,500.0	11,023.7	15,536.7	11,063.7	40.9	41.4	-92.45	4,472.3	-693.1	924.8	842.5	82.30	11.237	
15,600.0	11,023.5	15,636.7	11,063.5	41.7	42.2	-92.45	4,572.3	-694.3	924.8	840.8	83.97	11.014	
15,700.0	11,023.4	15,736.7	11,063.4	42.6	43.1	-92.45	4,672.2	-695.6	924.8	839.2	85.63	10.800	
15,800.0	11,023.2	15,836.7	11,063.2	43.4	43.9	-92.45	4,772.2	-696.8	924.8	837.5	87.30	10.593	
15,900.0	11,023.1	15,936.7	11,063.1	44.3	44.7	-92.45	4,872.2	-698.1	924.8	835.8	88.98	10.394	
16,000.0	11,022.9	16,036.7	11,062.9	45.1	45.6	-92.45	4,972.2	-699.3	924.8	834.2	90.65	10.202	
16,015.1	11,022.9	16,051.8	11,062.9	45.2	45.7	-92.45	4,987.3	-699.5	924.8	833.9	90.90	10.174	
16,036.0	11,022.9	16,079.1	11,062.9	45.4	45.9	-92.45	5,014.6	-699.8	924.8	833.5	91.30	10.130	
16,100.0	11,022.8	16,143.5	11,062.8	45.9	46.4	-92.45	5,079.0	-700.1	924.8	832.5	92.37	10.012	
16,200.0	11,022.6	16,243.5	11,062.6	46.8	47.3	-92.45	5,179.0	-700.6	924.8	830.8	94.05	9.834	
16,300.0	11,022.5	16,343.5	11,062.5	47.6	48.1	-92.45	5,279.0	-701.1	924.8	829.1	95.73	9.661	
16,400.0	11,022.3	16,443.5	11,062.3	48.5	48.9	-92.45	5,379.0	-701.6	924.8	827.4	97.41	9.495	
16,500.0	11,022.2	16,543.5	11,062.2	49.3	49.8	-92.45	5,479.0	-702.1	924.8	825.8	99.09	9.334	
16,600.0	11,022.0	16,643.5	11,062.0	50.2	50.6	-92.45	5,579.0	-702.6	924.8	824.1	100.77	9.178	
16,700.0	11,021.8	16,743.5	11,061.8	51.0	51.5	-92.45	5,679.0	-703.1	924.9	822.4	102.45	9.027	
16,800.0	11,021.7	16,843.5	11,061.7	51.8	52.3	-92.45	5,779.0	-703.7	924.9	820.7	104.14	8.881	
16,900.0	11,021.5	16,943.5	11,061.5	52.7	53.1	-92.45	5,879.0	-704.2	924.9	819.0	105.82	8.740	
17,000.0	11,021.4	17,043.5	11,061.4	53.5	54.0	-92.45	5,979.0	-704.7	924.9	817.3	107.51	8.602	
17,100.0	11,021.2	17,143.5	11,061.2	54.4	54.8	-92.45	6,079.0	-705.2	924.9	815.7	109.20	8.470	
17,200.0	11,021.1	17,243.5	11,061.1	55.2	55.6	-92.45	6,179.0	-705.7	924.9	814.0	110.89	8.341	
17,300.0	11,020.9	17,343.5	11,060.9	56.1	56.5	-92.45	6,279.0	-706.2	924.9	812.3	112.58	8.215	
17,400.0	11,020.8	17,443.5	11,060.8	56.9	57.3	-92.45	6,378.9	-706.7	924.9	810.6	114.27	8.094	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	
17,500.0	11,020.6	17,543.5	11,060.6	57.8	58.2	-92.45	6,478.9	-707.2	924.9	808.9	115.96	7.976	
17,600.0	11,020.4	17,643.5	11,060.4	58.6	59.0	-92.45	6,578.9	-707.7	924.9	807.2	117.65	7.861	
17,700.0	11,020.3	17,743.5	11,060.3	59.5	59.9	-92.45	6,678.9	-708.2	924.9	805.5	119.35	7.749	
17,800.0	11,020.1	17,843.5	11,060.1	60.3	60.7	-92.45	6,778.9	-708.8	924.9	803.8	121.04	7.641	
17,900.0	11,020.0	17,943.5	11,060.0	61.2	61.6	-92.45	6,878.9	-709.3	924.9	802.1	122.74	7.535	
18,000.0	11,019.8	18,043.5	11,059.8	62.0	62.4	-92.45	6,978.9	-709.8	924.9	800.4	124.43	7.433	
18,100.0	11,019.7	18,143.5	11,059.7	62.9	63.2	-92.45	7,078.9	-710.3	924.9	798.7	126.13	7.333	
18,200.0	11,019.5	18,243.5	11,059.5	63.7	64.1	-92.45	7,178.9	-710.8	924.9	797.0	127.83	7.235	
18,300.0	11,019.4	18,343.5	11,059.4	64.6	64.9	-92.45	7,278.9	-711.3	924.9	795.3	129.52	7.140	
18,400.0	11,019.2	18,443.5	11,059.2	65.4	65.8	-92.45	7,378.9	-711.8	924.9	793.6	131.22	7.048	
18,500.0	11,019.1	18,543.5	11,059.1	66.3	66.6	-92.45	7,478.9	-712.3	924.9	791.9	132.92	6.958	
18,600.0	11,018.9	18,643.5	11,058.9	67.1	67.5	-92.45	7,578.9	-712.8	924.9	790.2	134.62	6.870	
18,700.0	11,018.7	18,743.5	11,058.7	68.0	68.3	-92.45	7,678.9	-713.3	924.9	788.5	136.32	6.784	
18,800.0	11,018.6	18,843.5	11,058.6	68.9	69.2	-92.45	7,778.9	-713.9	924.9	786.8	138.02	6.701	
18,900.0	11,018.4	18,943.5	11,058.4	69.7	70.0	-92.45	7,878.9	-714.4	924.9	785.1	139.72	6.619	
19,000.0	11,018.3	19,043.5	11,058.3	70.6	70.9	-92.45	7,978.9	-714.9	924.9	783.4	141.42	6.540	
19,100.0	11,018.1	19,143.5	11,058.1	71.4	71.7	-92.45	8,078.9	-715.4	924.9	781.7	143.13	6.462	
19,200.0	11,018.0	19,243.5	11,058.0	72.3	72.6	-92.45	8,178.9	-715.9	924.9	780.0	144.83	6.386	
19,300.0	11,017.8	19,343.5	11,057.8	73.1	73.4	-92.45	8,278.9	-716.4	924.9	778.3	146.53	6.312	
19,400.0	11,017.7	19,443.5	11,057.7	74.0	74.3	-92.45	8,378.9	-716.9	924.9	776.6	148.24	6.239	
19,500.0	11,017.5	19,543.5	11,057.5	74.8	75.1	-92.45	8,478.9	-717.4	924.9	774.9	149.94	6.168	
19,600.0	11,017.4	19,643.5	11,057.4	75.7	76.0	-92.45	8,578.9	-717.9	924.9	773.2	151.65	6.099	
19,700.0	11,017.2	19,743.5	11,057.2	76.5	76.8	-92.45	8,678.9	-718.4	924.9	771.5	153.35	6.031	
19,800.0	11,017.0	19,843.5	11,057.0	77.4	77.7	-92.45	8,778.9	-719.0	924.9	769.8	155.06	5.965	
19,900.0	11,016.9	19,943.5	11,056.9	78.2	78.5	-92.45	8,878.9	-719.5	924.9	768.1	156.76	5.900	
20,000.0	11,016.7	20,043.5	11,056.7	79.1	79.4	-92.45	8,978.9	-720.0	924.9	766.4	158.47	5.836	
20,100.0	11,016.6	20,143.5	11,056.6	80.0	80.2	-92.45	9,078.9	-720.5	924.9	764.7	160.17	5.774	
20,200.0	11,016.4	20,243.5	11,056.4	80.8	81.1	-92.45	9,178.9	-721.0	924.9	763.0	161.88	5.713	
20,300.0	11,016.3	20,343.5	11,056.3	81.7	81.9	-92.45	9,278.9	-721.5	924.9	761.3	163.59	5.654	
20,400.0	11,016.1	20,443.5	11,056.1	82.5	82.8	-92.45	9,378.9	-722.0	924.9	759.6	165.29	5.595	
20,500.0	11,016.0	20,543.5	11,056.0	83.4	83.6	-92.45	9,478.9	-722.5	924.9	757.9	167.00	5.538	
20,600.0	11,015.8	20,643.5	11,055.8	84.2	84.5	-92.45	9,578.9	-723.0	924.9	756.1	168.71	5.482	
20,700.0	11,015.7	20,743.5	11,055.7	85.1	85.3	-92.45	9,678.9	-723.5	924.9	754.4	170.42	5.427	
20,800.0	11,015.5	20,843.5	11,055.5	85.9	86.2	-92.45	9,778.9	-724.1	924.9	752.7	172.13	5.373	
20,900.0	11,015.3	20,943.5	11,055.3	86.8	87.0	-92.45	9,878.9	-724.6	924.9	751.0	173.84	5.320	
21,000.0	11,015.2	21,043.5	11,055.2	87.7	87.9	-92.45	9,978.9	-725.1	924.9	749.3	175.54	5.269	
21,100.0	11,015.0	21,143.5	11,055.0	88.5	88.8	-92.45	10,078.9	-725.6	924.9	747.6	177.25	5.218	
21,122.7	11,015.0	21,166.1	11,055.0	88.7	88.9	-92.45	10,101.5	-725.7	924.9	747.2	177.64	5.206	
21,123.0	11,015.0	21,166.2	11,055.0	88.7	88.9	-92.45	10,101.6	-725.7	924.9	747.2	177.64	5.206	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
0.0	0.0	0.0	0.0	3.0	3.0	91.00	-8.7	500.2	500.3				
100.0	100.0	96.0	96.0	3.0	3.0	91.03	-9.0	500.3	500.4	494.3	6.00	83.346	
200.0	200.0	194.3	194.3	3.0	3.0	91.12	-9.8	500.5	500.6	494.6	6.03	83.057	
300.0	300.0	291.9	291.9	3.0	3.1	91.17	-10.3	501.2	501.4	495.3	6.10	82.259	
400.0	400.0	385.0	385.0	3.0	3.2	91.17	-10.3	502.7	502.9	496.7	6.19	81.191	
500.0	500.0	476.5	476.4	3.1	3.3	91.11	-9.8	505.6	506.1	499.8	6.32	80.066	
600.0	600.0	571.7	571.6	3.1	3.5	90.97	-8.6	510.0	510.7	504.2	6.48	78.770	
700.0	700.0	669.6	669.2	3.1	3.7	90.69	-6.2	515.2	515.9	509.3	6.68	77.255	
800.0	800.0	774.1	773.6	3.2	3.9	90.34	-3.1	520.3	520.8	513.9	6.92	75.307	
900.0	900.0	889.1	888.5	3.2	4.1	89.99	0.1	524.5	524.5	517.3	7.20	72.824	
1,000.0	1,000.0	1,024.3	1,023.6	3.2	4.5	90.11	-1.0	520.5	521.2	513.6	7.53	69.186	
1,100.0	1,100.0	1,124.5	1,123.6	3.3	4.7	90.24	-2.1	515.1	515.8	508.0	7.80	66.113	
1,200.0	1,200.0	1,208.0	1,207.1	3.4	5.0	90.23	-2.0	511.8	511.9	503.9	8.05	63.573	
1,258.3	1,258.3	1,256.1	1,255.1	3.4	5.1	90.13	-1.2	511.4	511.4	503.2	8.20	62.380	
1,300.0	1,300.0	1,293.4	1,292.4	3.4	5.2	90.03	-0.3	511.6	511.6	503.3	8.31	61.546	
1,400.0	1,400.0	1,390.0	1,389.0	3.5	5.5	89.72	2.5	513.0	513.1	504.5	8.61	59.576	
1,500.0	1,500.0	1,492.5	1,491.4	3.5	5.8	89.40	5.4	514.3	514.4	505.4	8.94	57.538	
1,600.0	1,600.0	1,593.4	1,592.3	3.6	6.1	89.10	8.1	515.2	515.3	506.0	9.27	55.588	
1,700.0	1,700.0	1,694.3	1,693.1	3.7	6.4	88.86	10.3	516.0	516.1	506.5	9.61	53.722	
1,800.0	1,800.0	1,796.0	1,794.9	3.8	6.7	88.67	12.0	516.5	516.7	506.7	9.95	51.911	
1,900.0	1,900.0	1,899.0	1,897.8	3.9	7.1	88.52	13.3	516.6	516.8	506.5	10.31	50.139	
2,000.0	2,000.0	1,998.8	1,997.6	3.9	7.4	88.40	14.5	516.4	516.6	505.9	10.65	48.526	
2,031.9	2,031.9	2,029.9	2,028.7	4.0	7.4	88.36	14.8	516.3	516.6	505.9	10.71	48.251	
2,100.0	2,100.0	2,096.4	2,095.2	4.0	7.5	88.28	15.5	516.4	516.7	505.8	10.82	47.747	
2,200.0	2,200.0	2,194.8	2,193.6	4.1	7.5	88.17	16.5	516.8	517.1	506.2	10.87	47.572	
2,300.0	2,300.0	2,289.1	2,287.9	4.2	7.6	88.11	17.1	517.8	518.2	507.3	10.93	47.395	
2,400.0	2,400.0	2,380.1	2,378.8	4.3	7.6	88.10	17.3	520.3	520.9	509.9	11.01	47.322	
2,500.0	2,500.0	2,491.0	2,489.7	4.4	7.7	88.23	16.1	523.1	523.4	512.3	11.12	47.084	
2,600.0	2,600.0	2,597.9	2,596.6	4.5	7.8	88.56	13.2	523.5	523.7	512.4	11.24	46.606	
2,700.0	2,700.0	2,697.4	2,696.0	4.6	7.9	88.91	10.0	523.9	524.0	512.6	11.37	46.097	
2,762.2	2,762.2	2,760.5	2,759.0	4.7	7.9	89.15	7.8	523.9	523.9	512.5	11.46	45.734	
2,800.0	2,800.0	2,795.2	2,793.8	4.7	8.0	89.29	6.5	524.0	524.0	512.5	11.51	45.526	
2,900.0	2,900.0	2,892.0	2,890.5	4.8	8.1	89.68	2.9	525.1	525.1	513.5	11.67	45.003	
3,000.0	3,000.0	2,994.0	2,992.4	4.9	8.2	90.06	-0.6	526.2	526.2	514.3	11.85	44.395	
3,100.0	3,100.0	3,096.3	3,094.6	5.0	8.4	90.40	-3.7	526.8	526.8	514.8	12.05	43.735	
3,200.0	3,200.0	3,205.7	3,204.0	5.1	8.6	90.74	-6.8	526.4	526.5	514.3	12.26	42.940	
3,300.0	3,300.0	3,312.9	3,311.1	5.2	8.7	91.05	-9.6	524.1	524.4	511.9	12.49	41.997	
3,400.0	3,400.0	3,410.8	3,409.0	5.3	8.9	91.34	-12.2	521.6	521.9	509.2	12.71	41.057	
3,500.0	3,500.0	3,510.2	3,508.3	5.4	9.1	91.62	-14.7	519.3	519.6	506.7	12.95	40.127	
3,600.0	3,600.0	3,609.7	3,607.8	5.5	9.3	91.86	-16.8	517.1	517.5	504.3	13.20	39.207	
3,700.0	3,700.0	3,709.4	3,707.4	5.7	9.5	92.09	-18.8	514.9	515.4	501.9	13.46	38.300	
3,800.0	3,800.0	3,809.5	3,807.5	5.8	9.8	92.31	-20.7	512.7	513.3	499.5	13.73	37.395	
3,900.0	3,900.0	3,908.0	3,906.0	5.9	10.0	92.49	-22.2	510.8	511.3	497.3	14.00	36.527	
4,000.0	4,000.0	4,007.2	4,005.1	6.0	10.2	92.63	-23.3	509.0	509.6	495.3	14.28	35.686	
4,100.0	4,100.0	4,106.6	4,104.6	6.1	10.5	92.76	-24.5	507.4	508.0	493.5	14.57	34.865	
4,200.0	4,200.0	4,206.6	4,204.5	6.2	10.7	92.90	-25.6	505.8	506.5	491.7	14.87	34.063	
4,300.0	4,300.0	4,307.1	4,305.0	6.3	11.0	93.04	-26.7	504.2	505.0	489.8	15.18	33.271	
4,400.0	4,400.0	4,407.7	4,405.5	6.5	11.2	93.18	-27.9	502.4	503.3	487.8	15.49	32.489	
4,500.0	4,500.0	4,507.8	4,505.7	6.6	11.5	93.33	-29.2	500.6	501.5	485.7	15.81	31.723	
4,600.0	4,600.0	4,608.0	4,605.8	6.7	11.8	93.47	-30.3	498.7	499.7	483.6	16.13	30.977	
4,700.0	4,700.0	4,708.9	4,706.7	6.8	12.0	93.61	-31.4	496.8	497.9	481.4	16.46	30.240	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	4,800.0	4,809.4	4,807.1	6.9	12.3	93.78	-32.7	494.6	495.8	479.0	16.80	29.515	
4,900.0	4,900.0	4,911.0	4,908.7	7.0	12.6	93.97	-34.2	492.3	493.6	476.4	17.14	28.794	
5,000.0	5,000.0	5,011.4	5,009.0	7.2	12.9	94.19	-35.8	489.7	491.2	473.7	17.49	28.087	
5,100.0	5,100.0	5,114.1	5,111.8	7.3	13.2	94.42	-37.6	486.6	488.3	470.5	17.84	27.369	
5,200.0	5,200.0	5,213.3	5,210.9	7.4	13.5	94.67	-39.5	483.6	485.4	467.2	18.19	26.682	
5,300.0	5,300.0	5,315.5	5,312.9	7.5	13.8	94.95	-41.6	480.2	482.2	463.7	18.55	25.990	
5,400.0	5,400.0	5,415.9	5,413.3	7.6	14.1	95.28	-44.0	476.5	478.8	459.9	18.92	25.311	
5,500.0	5,500.0	5,514.5	5,511.8	7.8	14.4	95.61	-46.5	473.0	475.5	456.2	19.28	24.665	
5,600.0	5,600.0	5,612.7	5,609.9	7.8	14.7	-28.63	-49.0	469.8	471.0	451.4	19.63	23.992	
5,684.2	5,684.1	5,696.4	5,693.5	7.8	15.0	-28.62	-51.3	467.3	465.1	445.1	19.93	23.334	
5,700.0	5,699.8	5,712.3	5,709.4	7.8	15.0	-28.62	-51.7	466.8	463.7	443.7	19.99	23.202	
5,800.0	5,799.6	5,814.2	5,811.2	7.8	15.3	-28.62	-54.5	463.5	455.2	434.8	20.35	22.364	
5,900.0	5,899.4	5,915.5	5,912.4	7.8	15.7	-28.59	-57.5	459.6	446.0	425.3	20.72	21.525	
6,000.0	5,999.2	6,015.4	6,012.2	7.8	16.0	-28.55	-60.5	455.6	436.7	415.6	21.09	20.707	
6,100.0	6,099.0	6,114.5	6,111.1	7.8	16.3	-28.50	-63.5	451.7	427.4	406.0	21.46	19.916	
6,200.0	6,198.8	6,212.5	6,209.0	7.8	16.6	-28.44	-66.6	448.0	418.4	396.5	21.83	19.164	
6,300.0	6,298.6	6,309.7	6,306.2	7.8	16.9	-28.37	-69.7	444.8	409.8	387.6	22.20	18.458	
6,400.0	6,398.4	6,408.5	6,404.9	7.8	17.2	-28.31	-72.8	442.0	401.6	379.1	22.58	17.787	
6,500.0	6,498.2	6,506.9	6,503.2	7.8	17.5	-28.24	-76.1	439.4	393.7	370.8	22.96	17.148	
6,600.0	6,598.0	6,605.0	6,601.2	7.8	17.9	-28.19	-79.2	437.2	386.2	362.9	23.34	16.546	
6,700.0	6,697.8	6,712.3	6,708.4	7.8	18.2	-28.13	-82.5	434.0	377.9	354.2	23.77	15.902	
6,800.0	6,797.6	6,818.4	6,814.3	7.8	18.6	-28.02	-85.8	428.7	367.6	343.4	24.19	15.196	
6,900.0	6,897.4	6,917.5	6,913.2	7.9	18.9	-28.01	-88.2	422.8	356.3	331.7	24.58	14.494	
7,000.0	6,997.2	7,012.9	7,008.4	7.9	19.2	-28.09	-90.1	418.1	346.0	321.0	24.97	13.858	
7,100.0	7,096.9	7,110.6	7,106.0	7.9	19.5	-28.06	-92.8	414.0	336.4	311.1	25.36	13.266	
7,200.0	7,196.7	7,209.1	7,204.4	7.9	19.9	-27.84	-96.6	410.1	327.3	301.5	25.76	12.705	
7,300.0	7,296.5	7,311.5	7,306.6	7.9	20.2	-27.60	-100.6	406.1	318.2	292.0	26.18	12.153	
7,400.0	7,396.3	7,411.0	7,405.9	8.0	20.5	-27.31	-104.5	400.9	307.8	281.3	26.59	11.578	
7,500.0	7,496.1	7,508.9	7,503.7	8.0	20.9	-27.33	-106.8	397.0	298.5	271.5	26.99	11.059	
7,600.0	7,595.9	7,614.2	7,608.9	8.0	21.2	-27.36	-109.2	392.1	288.5	261.0	27.44	10.513	
7,700.0	7,695.7	7,715.6	7,709.9	8.1	21.6	-26.91	-113.5	385.3	276.6	248.7	27.86	9.926	
7,800.0	7,795.5	7,816.7	7,810.6	8.1	21.9	-26.26	-118.5	377.9	264.3	236.0	28.29	9.344	
7,900.0	7,895.3	7,911.4	7,905.0	8.1	22.2	-25.63	-123.0	371.3	252.4	223.7	28.66	8.805	
8,000.0	7,995.1	8,017.4	8,010.7	8.2	22.6	-25.99	-123.4	364.5	240.4	211.2	29.14	8.249	
8,100.0	8,094.9	8,122.1	8,114.6	8.2	22.9	-28.90	-113.7	356.1	225.5	195.9	29.65	7.605	
8,200.0	8,194.7	8,220.1	8,209.9	8.3	23.2	-35.11	-93.2	347.3	209.9	179.7	30.19	6.953	
8,300.0	8,294.5	8,310.0	8,295.9	8.3	23.5	-43.38	-67.9	340.1	199.1	168.3	30.72	6.480	
8,371.6	8,365.9	8,373.4	8,354.8	8.3	23.7	-50.98	-44.9	335.6	196.7	165.5	31.16	6.311 CC, ES	
8,400.0	8,394.3	8,399.3	8,378.2	8.4	23.8	-54.50	-34.1	333.3	197.0	165.7	31.35	6.284 SF	
8,500.0	8,494.1	8,494.1	8,463.4	8.4	24.0	-67.59	6.1	322.4	203.9	171.9	32.03	6.366	
8,600.0	8,593.8	8,578.0	8,538.5	8.5	24.3	-78.44	41.6	311.1	220.2	187.7	32.53	6.769	
8,700.0	8,693.6	8,649.5	8,600.5	8.5	24.5	-87.23	75.6	300.6	249.2	216.3	32.90	7.575	
8,800.0	8,793.4	8,702.7	8,643.8	8.6	24.7	-93.45	105.3	292.2	292.6	259.4	33.11	8.835	
8,900.0	8,893.2	8,742.4	8,673.2	8.6	24.8	-97.93	130.9	285.0	349.4	316.2	33.21	10.523	
9,000.0	8,993.0	8,773.8	8,694.0	8.7	24.8	-101.34	153.6	278.5	417.2	383.9	33.24	12.550	
9,100.0	9,092.8	8,810.4	8,716.0	8.7	24.9	-104.97	181.6	270.3	492.2	458.8	33.35	14.760	
9,200.0	9,192.6	8,853.0	8,740.6	8.8	25.0	-108.78	214.7	259.5	570.7	537.2	33.56	17.008	
9,300.0	9,292.4	8,853.0	8,740.6	8.9	25.0	-108.78	214.7	259.5	653.5	620.0	33.54	19.488	
9,400.0	9,392.2	8,853.0	8,740.6	8.9	25.0	-108.78	214.7	259.5	740.6	707.0	33.57	22.059	
9,500.0	9,492.0	8,853.0	8,740.6	9.0	25.0	-108.78	214.7	259.5	830.6	796.9	33.67	24.669	
9,600.0	9,591.8	8,853.0	8,740.6	9.1	25.0	-108.78	214.7	259.5	922.6	888.8	33.81	27.289	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	9,691.6	8,853.0	8,740.6	9.2	25.0	-108.78	214.7	259.5	1,016.2	982.2	33.99	29.899	
9,800.0	9,791.4	8,853.0	8,740.6	9.2	25.0	-108.78	214.7	259.5	1,110.9	1,076.7	34.19	32.488	
9,900.0	9,891.2	8,853.0	8,740.6	9.3	25.0	-108.78	214.7	259.5	1,206.4	1,172.0	34.42	35.047	
10,000.0	9,991.0	8,853.0	8,740.6	9.4	25.0	-108.78	214.7	259.5	1,302.6	1,267.9	34.67	37.573	
10,100.0	10,090.7	8,853.0	8,740.6	9.5	25.0	-108.78	214.7	259.5	1,399.3	1,364.4	34.93	40.061	
10,200.0	10,190.5	8,853.0	8,740.6	9.5	25.0	-108.78	214.7	259.5	1,496.5	1,461.3	35.20	42.510	
10,300.0	10,290.3	8,853.0	8,740.6	9.6	25.0	-108.78	214.7	259.5	1,594.0	1,558.5	35.49	44.919	
10,400.0	10,390.1	8,853.0	8,740.6	9.7	25.0	-108.78	214.7	259.5	1,691.8	1,656.0	35.78	47.286	
10,500.0	10,489.9	8,853.0	8,740.6	9.8	25.0	-108.78	214.7	259.5	1,789.9	1,753.8	36.08	49.611	
10,545.8	10,535.6	8,853.0	8,740.6	9.8	25.0	-108.78	214.7	259.5	1,834.8	1,798.6	36.22	50.662	
10,550.0	10,539.8	8,853.0	8,740.6	9.8	25.0	-102.53	214.7	259.5	1,839.0	1,802.7	36.23	50.758	
10,575.0	10,564.8	8,853.0	8,740.6	9.9	25.0	-52.95	214.7	259.5	1,863.4	1,827.0	36.33	51.295	
10,600.0	10,589.7	8,853.0	8,740.6	9.9	25.0	-24.33	214.7	259.5	1,887.5	1,851.1	36.40	51.857	
10,625.0	10,614.5	8,853.0	8,740.6	9.9	25.0	-13.57	214.7	259.5	1,911.2	1,874.8	36.47	52.410	
10,650.0	10,639.2	8,853.0	8,740.6	9.9	25.0	-8.70	214.7	259.5	1,934.6	1,898.1	36.53	52.953	
10,675.0	10,663.6	8,853.0	8,740.6	9.9	25.0	-6.09	214.7	259.5	1,957.5	1,920.9	36.60	53.486	
10,700.0	10,687.8	8,853.0	8,740.6	9.9	25.0	-4.53	214.7	259.5	1,980.0	1,943.3	36.66	54.006	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	91.00	-8.7	500.2	500.3				
100.0	100.0	96.0	96.0	3.0	3.0	91.03	-9.0	500.3	500.4	494.3	6.00	83.346	
200.0	200.0	194.3	194.3	3.0	3.0	91.12	-9.8	500.5	500.6	494.6	6.03	83.057	
300.0	300.0	291.9	291.9	3.0	3.1	91.17	-10.3	501.2	501.4	495.3	6.10	82.259	
400.0	400.0	385.0	385.0	3.0	3.2	91.17	-10.3	502.7	502.9	496.7	6.19	81.191	
500.0	500.0	476.5	476.4	3.1	3.3	91.11	-9.8	505.6	506.1	499.8	6.32	80.066	
600.0	600.0	571.7	571.6	3.1	3.5	90.97	-8.6	510.0	510.7	504.2	6.48	78.770	
700.0	700.0	669.6	669.2	3.1	3.7	90.69	-6.2	515.2	515.9	509.3	6.68	77.255	
800.0	800.0	774.1	773.6	3.2	3.9	90.34	-3.1	520.3	520.8	513.9	6.92	75.307	
900.0	900.0	889.1	888.5	3.2	4.1	89.99	0.1	524.5	524.5	517.3	7.20	72.824	
1,000.0	1,000.0	1,024.3	1,023.6	3.2	4.5	90.11	-1.0	520.5	521.2	513.6	7.53	69.186	
1,100.0	1,100.0	1,124.5	1,123.6	3.3	4.7	90.24	-2.1	515.1	515.8	508.0	7.80	66.113	
1,200.0	1,200.0	1,208.0	1,207.1	3.4	5.0	90.23	-2.0	511.8	511.9	503.9	8.05	63.573	
1,258.3	1,258.3	1,256.1	1,255.1	3.4	5.1	90.13	-1.2	511.4	511.4	503.2	8.20	62.380	
1,300.0	1,300.0	1,293.4	1,292.4	3.4	5.2	90.03	-0.3	511.6	511.6	503.3	8.31	61.546	
1,400.0	1,400.0	1,390.0	1,389.0	3.5	5.5	89.72	2.5	513.0	513.1	504.5	8.61	59.576	
1,500.0	1,500.0	1,492.5	1,491.4	3.5	5.8	89.40	5.4	514.3	514.4	505.4	8.94	57.538	
1,600.0	1,600.0	1,593.4	1,592.3	3.6	6.1	89.10	8.1	515.2	515.3	506.0	9.27	55.588	
1,700.0	1,700.0	1,694.3	1,693.1	3.7	6.4	88.86	10.3	516.0	516.1	506.5	9.61	53.722	
1,800.0	1,800.0	1,796.0	1,794.9	3.8	6.7	88.67	12.0	516.5	516.7	506.7	9.95	51.911	
1,900.0	1,900.0	1,899.0	1,897.8	3.9	7.1	88.52	13.3	516.6	516.8	506.5	10.31	50.139	
2,000.0	2,000.0	1,998.8	1,997.6	3.9	7.4	88.40	14.5	516.4	516.6	505.9	10.65	48.526	
2,031.9	2,031.9	2,029.9	2,028.7	4.0	7.4	88.36	14.8	516.3	516.6	505.9	10.71	48.251	
2,100.0	2,100.0	2,096.4	2,095.2	4.0	7.5	88.28	15.5	516.4	516.7	505.8	10.82	47.747	
2,200.0	2,200.0	2,194.8	2,193.6	4.1	7.5	88.17	16.5	516.8	517.1	506.2	10.87	47.572	
2,300.0	2,300.0	2,289.1	2,287.9	4.2	7.6	88.11	17.1	517.8	518.2	507.3	10.93	47.395	
2,400.0	2,400.0	2,380.1	2,378.8	4.3	7.6	88.10	17.3	520.3	520.9	509.9	11.01	47.322	
2,500.0	2,500.0	2,491.0	2,489.7	4.4	7.7	88.23	16.1	523.1	523.4	512.3	11.12	47.084	
2,600.0	2,600.0	2,597.9	2,596.6	4.5	7.8	88.56	13.2	523.5	523.7	512.4	11.24	46.606	
2,700.0	2,700.0	2,697.4	2,696.0	4.6	7.9	88.91	10.0	523.9	524.0	512.6	11.37	46.097	
2,762.2	2,762.2	2,760.5	2,759.0	4.7	7.9	89.15	7.8	523.9	523.9	512.5	11.46	45.734	
2,800.0	2,800.0	2,795.2	2,793.8	4.7	8.0	89.29	6.5	524.0	524.0	512.5	11.51	45.526	
2,900.0	2,900.0	2,892.0	2,890.5	4.8	8.1	89.68	2.9	525.1	525.1	513.5	11.67	45.003	
3,000.0	3,000.0	2,994.0	2,992.4	4.9	8.2	90.06	-0.6	526.2	526.2	514.3	11.85	44.395	
3,100.0	3,100.0	3,096.3	3,094.6	5.0	8.4	90.40	-3.7	526.8	526.8	514.8	12.05	43.735	
3,200.0	3,200.0	3,205.7	3,204.0	5.1	8.6	90.74	-6.8	526.4	526.5	514.3	12.26	42.940	
3,300.0	3,300.0	3,312.9	3,311.1	5.2	8.7	91.05	-9.6	524.1	524.4	511.9	12.49	41.997	
3,400.0	3,400.0	3,410.8	3,409.0	5.3	8.9	91.34	-12.2	521.6	521.9	509.2	12.71	41.057	
3,500.0	3,500.0	3,510.2	3,508.3	5.4	9.1	91.62	-14.7	519.3	519.6	506.7	12.95	40.127	
3,600.0	3,600.0	3,609.7	3,607.8	5.5	9.3	91.86	-16.8	517.1	517.5	504.3	13.20	39.207	
3,700.0	3,700.0	3,709.4	3,707.4	5.7	9.5	92.09	-18.8	514.9	515.4	501.9	13.46	38.300	
3,800.0	3,800.0	3,809.5	3,807.5	5.8	9.8	92.31	-20.7	512.7	513.3	499.5	13.73	37.395	
3,900.0	3,900.0	3,908.0	3,906.0	5.9	10.0	92.49	-22.2	510.8	511.3	497.3	14.00	36.527	
4,000.0	4,000.0	4,007.2	4,005.1	6.0	10.2	92.63	-23.3	509.0	509.6	495.3	14.28	35.686	
4,100.0	4,100.0	4,106.6	4,104.6	6.1	10.5	92.76	-24.5	507.4	508.0	493.5	14.57	34.865	
4,200.0	4,200.0	4,206.6	4,204.5	6.2	10.7	92.90	-25.6	505.8	506.5	491.7	14.87	34.063	
4,300.0	4,300.0	4,307.1	4,305.0	6.3	11.0	93.04	-26.7	504.2	505.0	489.8	15.18	33.271	
4,400.0	4,400.0	4,407.7	4,405.5	6.5	11.2	93.18	-27.9	502.4	503.3	487.8	15.49	32.489	
4,500.0	4,500.0	4,507.8	4,505.7	6.6	11.5	93.33	-29.2	500.6	501.5	485.7	15.81	31.723	
4,600.0	4,600.0	4,608.0	4,605.8	6.7	11.8	93.47	-30.3	498.7	499.7	483.6	16.13	30.977	
4,700.0	4,700.0	4,708.9	4,706.7	6.8	12.0	93.61	-31.4	496.8	497.9	481.4	16.46	30.240	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
4,800.0	4,800.0	4,809.4	4,807.1	6.9	12.3	93.78	-32.7	494.6	495.8	479.0	16.80	29.515	
4,900.0	4,900.0	4,911.0	4,908.7	7.0	12.6	93.97	-34.2	492.3	493.6	476.4	17.14	28.794	
5,000.0	5,000.0	5,011.4	5,009.0	7.2	12.9	94.19	-35.8	489.7	491.2	473.7	17.49	28.087	
5,100.0	5,100.0	5,114.1	5,111.8	7.3	13.2	94.42	-37.6	486.6	488.3	470.5	17.84	27.369	
5,200.0	5,200.0	5,213.3	5,210.9	7.4	13.5	94.67	-39.5	483.6	485.4	467.2	18.19	26.682	
5,300.0	5,300.0	5,315.5	5,312.9	7.5	13.8	94.95	-41.6	480.2	482.2	463.7	18.55	25.990	
5,400.0	5,400.0	5,415.9	5,413.3	7.6	14.1	95.28	-44.0	476.5	478.8	459.9	18.92	25.311	
5,500.0	5,500.0	5,514.5	5,511.8	7.8	14.4	95.61	-46.5	473.0	475.5	456.2	19.28	24.665	
5,600.0	5,600.0	5,612.7	5,609.9	7.8	14.7	-28.63	-49.0	469.8	471.0	451.4	19.63	23.992	
5,684.2	5,684.1	5,696.4	5,693.5	7.8	15.0	-28.62	-51.3	467.3	465.1	445.1	19.93	23.334	
5,700.0	5,699.8	5,712.3	5,709.4	7.8	15.0	-28.62	-51.7	466.8	463.7	443.7	19.99	23.202	
5,800.0	5,799.6	5,814.2	5,811.2	7.8	15.3	-28.62	-54.5	463.5	455.2	434.8	20.35	22.364	
5,900.0	5,899.4	5,915.5	5,912.4	7.8	15.7	-28.59	-57.5	459.6	446.0	425.3	20.72	21.525	
6,000.0	5,999.2	6,015.4	6,012.2	7.8	16.0	-28.55	-60.5	455.6	436.7	415.6	21.09	20.707	
6,100.0	6,099.0	6,114.5	6,111.1	7.8	16.3	-28.50	-63.5	451.7	427.4	406.0	21.46	19.916	
6,200.0	6,198.8	6,212.5	6,209.0	7.8	16.6	-28.44	-66.6	448.0	418.4	396.5	21.83	19.164	
6,300.0	6,298.6	6,309.7	6,306.2	7.8	16.9	-28.37	-69.7	444.8	409.8	387.6	22.20	18.458	
6,400.0	6,398.4	6,408.5	6,404.9	7.8	17.2	-28.31	-72.8	442.0	401.6	379.1	22.58	17.787	
6,500.0	6,498.2	6,506.9	6,503.2	7.8	17.5	-28.24	-76.1	439.4	393.7	370.8	22.96	17.148	
6,600.0	6,598.0	6,605.0	6,601.2	7.8	17.9	-28.19	-79.2	437.2	386.2	362.9	23.34	16.546	
6,700.0	6,697.8	6,712.3	6,708.4	7.8	18.2	-28.13	-82.5	434.0	377.9	354.2	23.77	15.902	
6,800.0	6,797.6	6,818.4	6,814.3	7.8	18.6	-28.02	-85.8	428.7	367.6	343.4	24.19	15.196	
6,900.0	6,897.4	6,917.5	6,913.2	7.9	18.9	-28.01	-88.2	422.8	356.3	331.7	24.58	14.494	
7,000.0	6,997.2	7,012.9	7,008.4	7.9	19.2	-28.09	-90.1	418.1	346.0	321.0	24.97	13.858	
7,100.0	7,096.9	7,110.6	7,106.0	7.9	19.5	-28.06	-92.8	414.0	336.4	311.1	25.36	13.266	
7,200.0	7,196.7	7,209.1	7,204.4	7.9	19.9	-27.84	-96.6	410.1	327.3	301.5	25.76	12.705	
7,300.0	7,296.5	7,311.5	7,306.6	7.9	20.2	-27.60	-100.6	406.1	318.2	292.0	26.18	12.153	
7,400.0	7,396.3	7,411.0	7,405.9	8.0	20.5	-27.31	-104.5	400.9	307.8	281.3	26.59	11.578	
7,500.0	7,496.1	7,508.9	7,503.7	8.0	20.9	-27.33	-106.8	397.0	298.5	271.5	26.99	11.059	
7,600.0	7,595.9	7,614.2	7,608.9	8.0	21.2	-27.36	-109.2	392.1	288.5	261.0	27.44	10.513	
7,700.0	7,695.7	7,718.1	7,712.4	8.1	21.4	-26.97	-113.2	384.8	276.2	248.5	27.75	9.955	
7,800.0	7,795.5	7,838.6	7,830.3	8.1	21.5	-31.53	-94.8	373.0	259.2	231.2	28.00	9.257	
7,900.0	7,895.3	7,930.2	7,916.2	8.1	21.5	-39.13	-65.6	360.1	239.7	211.5	28.25	8.485	
8,000.0	7,995.1	8,021.2	8,001.2	8.2	21.5	-47.96	-34.7	350.0	228.8	200.2	28.59	8.002	
8,071.6	8,066.5	8,080.2	8,054.9	8.2	21.5	-54.74	-11.7	342.6	225.4	196.6	28.86	7.812 CC, ES	
8,100.0	8,094.9	8,104.7	8,076.8	8.2	21.5	-57.82	-1.1	339.6	225.9	196.9	28.99	7.793 SF	
8,200.0	8,194.7	8,185.9	8,145.4	8.3	21.6	-69.42	40.2	326.5	236.2	206.7	29.44	8.021	
8,300.0	8,294.5	8,258.7	8,203.4	8.3	21.6	-80.17	81.5	311.2	261.1	231.3	29.80	8.763	
8,400.0	8,394.3	8,319.0	8,248.8	8.4	21.6	-88.54	118.6	297.2	301.5	271.5	30.02	10.044	
8,500.0	8,494.1	8,361.9	8,279.2	8.4	21.7	-93.91	147.1	287.3	355.6	325.4	30.13	11.800	
8,600.0	8,593.8	8,400.0	8,304.5	8.5	21.7	-98.18	174.3	278.9	420.3	390.0	30.22	13.906	
8,700.0	8,693.6	8,435.9	8,326.7	8.5	21.7	-101.77	201.4	271.0	492.4	462.1	30.33	16.234	
8,800.0	8,793.4	8,476.0	8,350.4	8.6	21.8	-105.29	232.5	262.1	569.1	538.6	30.50	18.658	
8,900.0	8,893.2	8,515.3	8,372.9	8.6	21.8	-108.30	263.5	253.2	648.6	617.9	30.70	21.125	
9,000.0	8,993.0	8,547.3	8,390.4	8.7	21.8	-110.46	289.3	245.9	731.0	700.0	30.92	23.642	
9,100.0	9,092.8	8,585.4	8,410.4	8.7	21.9	-112.76	320.5	237.0	815.2	784.0	31.18	26.148	
9,200.0	9,192.6	8,649.7	8,444.6	8.8	21.9	-115.85	373.2	223.3	900.1	868.6	31.52	28.556	
9,300.0	9,292.4	8,695.0	8,469.1	8.9	22.0	-117.72	409.9	213.1	984.6	952.8	31.83	30.934	
9,400.0	9,392.2	8,727.0	8,485.8	8.9	22.1	-118.93	436.1	205.5	1,070.5	1,038.3	32.13	33.321	
9,500.0	9,492.0	8,758.0	8,501.5	9.0	22.1	-120.01	461.8	198.1	1,157.3	1,124.8	32.43	35.683	
9,600.0	9,591.8	8,790.0	8,517.6	9.1	22.2	-121.03	488.4	190.4	1,244.8	1,212.0	32.75	38.005	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	9,691.6	8,821.0	8,533.0	9.2	22.2	-121.94	514.2	182.9	1,332.8	1,299.7	33.08	40.286		
9,800.0	9,791.4	8,853.0	8,548.5	9.2	22.3	-122.79	541.1	175.2	1,421.5	1,388.1	33.42	42.529		
9,900.0	9,891.2	8,853.0	8,548.5	9.3	22.3	-122.79	541.1	175.2	1,511.2	1,477.5	33.71	44.833		
10,000.0	9,991.0	8,872.3	8,557.4	9.4	22.3	-123.28	557.6	170.5	1,601.6	1,567.6	34.04	47.056		
10,100.0	10,090.7	8,884.0	8,562.4	9.5	22.4	-123.55	567.7	167.7	1,693.0	1,658.6	34.36	49.276		
10,200.0	10,190.5	8,899.2	8,568.8	9.5	22.4	-123.90	581.0	164.1	1,785.0	1,750.3	34.69	51.453		
10,300.0	10,290.3	8,915.0	8,575.4	9.6	22.4	-124.23	595.0	160.5	1,877.5	1,842.4	35.03	53.592		
10,400.0	10,390.1	8,938.1	8,584.7	9.7	22.5	-124.69	615.5	155.3	1,970.3	1,934.9	35.40	55.665		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	91.00	-8.7	500.2	500.3				
100.0	100.0	96.0	96.0	3.0	3.0	91.03	-9.0	500.3	500.4	494.3	6.00	83.346	
200.0	200.0	194.3	194.3	3.0	3.0	91.12	-9.8	500.5	500.6	494.6	6.03	83.057	
300.0	300.0	291.9	291.9	3.0	3.1	91.17	-10.3	501.2	501.4	495.3	6.10	82.259	
400.0	400.0	385.0	385.0	3.0	3.2	91.17	-10.3	502.7	502.9	496.7	6.19	81.191	
500.0	500.0	476.5	476.4	3.1	3.3	91.11	-9.8	505.6	506.1	499.8	6.32	80.066	
600.0	600.0	571.7	571.6	3.1	3.5	90.97	-8.6	510.0	510.7	504.2	6.48	78.770	
700.0	700.0	669.6	669.2	3.1	3.7	90.69	-6.2	515.2	515.9	509.3	6.68	77.255	
800.0	800.0	774.1	773.6	3.2	3.9	90.34	-3.1	520.3	520.8	513.9	6.92	75.307	
900.0	900.0	889.1	888.5	3.2	4.1	89.99	0.1	524.5	524.5	517.3	7.20	72.824	
1,000.0	1,000.0	1,024.3	1,023.6	3.2	4.5	90.11	-1.0	520.5	521.2	513.6	7.53	69.186	
1,100.0	1,100.0	1,124.5	1,123.6	3.3	4.7	90.24	-2.1	515.1	515.8	508.0	7.80	66.113	
1,200.0	1,200.0	1,208.0	1,207.1	3.4	5.0	90.23	-2.0	511.8	511.9	503.9	8.05	63.573	
1,258.3	1,258.3	1,256.1	1,255.1	3.4	5.1	90.13	-1.2	511.4	511.4	503.2	8.20	62.380	
1,300.0	1,300.0	1,293.4	1,292.4	3.4	5.2	90.03	-0.3	511.6	511.6	503.3	8.31	61.546	
1,400.0	1,400.0	1,390.0	1,389.0	3.5	5.5	89.72	2.5	513.0	513.1	504.5	8.61	59.576	
1,500.0	1,500.0	1,492.5	1,491.4	3.5	5.8	89.40	5.4	514.3	514.4	505.4	8.94	57.538	
1,600.0	1,600.0	1,593.4	1,592.3	3.6	6.1	89.10	8.1	515.2	515.3	506.0	9.27	55.588	
1,700.0	1,700.0	1,694.3	1,693.1	3.7	6.4	88.86	10.3	516.0	516.1	506.5	9.61	53.722	
1,800.0	1,800.0	1,796.0	1,794.9	3.8	6.7	88.67	12.0	516.5	516.7	506.7	9.95	51.911	
1,900.0	1,900.0	1,899.0	1,897.8	3.9	7.1	88.52	13.3	516.6	516.8	506.5	10.31	50.139	
2,000.0	2,000.0	1,998.8	1,997.6	3.9	7.4	88.40	14.5	516.4	516.6	505.9	10.65	48.526	
2,031.9	2,031.9	2,029.9	2,028.7	4.0	7.4	88.36	14.8	516.3	516.6	505.9	10.71	48.251	
2,100.0	2,100.0	2,096.4	2,095.2	4.0	7.5	88.28	15.5	516.4	516.7	505.8	10.82	47.747	
2,200.0	2,200.0	2,194.8	2,193.6	4.1	7.5	88.17	16.5	516.8	517.1	506.2	10.87	47.572	
2,300.0	2,300.0	2,289.1	2,287.9	4.2	7.6	88.11	17.1	517.8	518.2	507.3	10.93	47.395	
2,400.0	2,400.0	2,380.1	2,378.8	4.3	7.6	88.10	17.3	520.3	520.9	509.9	11.01	47.322	
2,500.0	2,500.0	2,491.0	2,489.7	4.4	7.7	88.23	16.1	523.1	523.4	512.3	11.12	47.084	
2,600.0	2,600.0	2,597.9	2,596.6	4.5	7.8	88.56	13.2	523.5	523.7	512.4	11.24	46.606	
2,700.0	2,700.0	2,697.4	2,696.0	4.6	7.9	88.91	10.0	523.9	524.0	512.6	11.37	46.097	
2,762.2	2,762.2	2,760.5	2,759.0	4.7	7.9	89.15	7.8	523.9	523.9	512.5	11.46	45.734	
2,800.0	2,800.0	2,795.2	2,793.8	4.7	8.0	89.29	6.5	524.0	524.0	512.5	11.51	45.526	
2,900.0	2,900.0	2,892.0	2,890.5	4.8	8.1	89.68	2.9	525.1	525.1	513.5	11.67	45.003	
3,000.0	3,000.0	2,994.0	2,992.4	4.9	8.2	90.06	-0.6	526.2	526.2	514.3	11.85	44.395	
3,100.0	3,100.0	3,096.3	3,094.6	5.0	8.4	90.40	-3.7	526.8	526.8	514.8	12.05	43.735	
3,200.0	3,200.0	3,205.7	3,204.0	5.1	8.6	90.74	-6.8	526.4	526.5	514.3	12.26	42.940	
3,300.0	3,300.0	3,312.9	3,311.1	5.2	8.7	91.05	-9.6	524.1	524.4	511.9	12.49	41.997	
3,400.0	3,400.0	3,410.8	3,409.0	5.3	8.9	91.34	-12.2	521.6	521.9	509.2	12.71	41.057	
3,500.0	3,500.0	3,510.2	3,508.3	5.4	9.1	91.62	-14.7	519.3	519.6	506.7	12.95	40.127	
3,600.0	3,600.0	3,609.7	3,607.8	5.5	9.3	91.86	-16.8	517.1	517.5	504.3	13.20	39.207	
3,700.0	3,700.0	3,709.4	3,707.4	5.7	9.5	92.09	-18.8	514.9	515.4	501.9	13.46	38.300	
3,800.0	3,800.0	3,809.5	3,807.5	5.8	9.8	92.31	-20.7	512.7	513.3	499.5	13.73	37.395	
3,900.0	3,900.0	3,908.0	3,906.0	5.9	10.0	92.49	-22.2	510.8	511.3	497.3	14.00	36.527	
4,000.0	4,000.0	4,007.2	4,005.1	6.0	10.2	92.63	-23.3	509.0	509.6	495.3	14.28	35.686	
4,100.0	4,100.0	4,106.6	4,104.6	6.1	10.5	92.76	-24.5	507.4	508.0	493.5	14.57	34.865	
4,200.0	4,200.0	4,206.6	4,204.5	6.2	10.7	92.90	-25.6	505.8	506.5	491.7	14.87	34.063	
4,300.0	4,300.0	4,307.1	4,305.0	6.3	11.0	93.04	-26.7	504.2	505.0	489.8	15.18	33.271	
4,400.0	4,400.0	4,407.7	4,405.5	6.5	11.2	93.18	-27.9	502.4	503.3	487.8	15.49	32.489	
4,500.0	4,500.0	4,507.8	4,505.7	6.6	11.5	93.33	-29.2	500.6	501.5	485.7	15.81	31.723	
4,600.0	4,600.0	4,608.0	4,605.8	6.7	11.8	93.47	-30.3	498.7	499.7	483.6	16.13	30.977	
4,700.0	4,700.0	4,708.9	4,706.7	6.8	12.0	93.61	-31.4	496.8	497.9	481.4	16.46	30.240	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	4,800.0	4,809.4	4,807.1	6.9	12.3	93.78	-32.7	494.6	495.8	479.0	16.80	29.515		
4,900.0	4,900.0	4,911.0	4,908.7	7.0	12.6	93.97	-34.2	492.3	493.6	476.4	17.14	28.794		
5,000.0	5,000.0	5,011.4	5,009.0	7.2	12.9	94.19	-35.8	489.7	491.2	473.7	17.49	28.087		
5,100.0	5,100.0	5,114.1	5,111.8	7.3	13.2	94.42	-37.6	486.6	488.3	470.5	17.84	27.369		
5,200.0	5,200.0	5,213.3	5,210.9	7.4	13.5	94.67	-39.5	483.6	485.4	467.2	18.19	26.682		
5,300.0	5,300.0	5,315.5	5,312.9	7.5	13.8	94.95	-41.6	480.2	482.2	463.7	18.55	25.990		
5,400.0	5,400.0	5,415.9	5,413.3	7.6	14.1	95.28	-44.0	476.5	478.8	459.9	18.92	25.311		
5,500.0	5,500.0	5,514.5	5,511.8	7.8	14.4	95.61	-46.5	473.0	475.5	456.2	19.28	24.665		
5,600.0	5,600.0	5,612.7	5,609.9	7.8	14.7	-28.63	-49.0	469.8	471.0	451.4	19.63	23.992		
5,684.2	5,684.1	5,696.4	5,693.5	7.8	15.0	-28.62	-51.3	467.3	465.1	445.1	19.93	23.334		
5,700.0	5,699.8	5,712.3	5,709.4	7.8	15.0	-28.62	-51.7	466.8	463.7	443.7	19.99	23.202		
5,800.0	5,799.6	5,814.2	5,811.2	7.8	15.3	-28.62	-54.5	463.5	455.2	434.8	20.35	22.364		
5,900.0	5,899.4	5,915.5	5,912.4	7.8	15.7	-28.59	-57.5	459.6	446.0	425.3	20.72	21.525		
6,000.0	5,999.2	6,015.4	6,012.2	7.8	16.0	-28.55	-60.5	455.6	436.7	415.6	21.09	20.707		
6,100.0	6,099.0	6,114.5	6,111.1	7.8	16.3	-28.50	-63.5	451.7	427.4	406.0	21.46	19.916		
6,200.0	6,198.8	6,212.5	6,209.0	7.8	16.6	-28.44	-66.6	448.0	418.4	396.5	21.83	19.164		
6,300.0	6,298.6	6,309.7	6,306.2	7.8	16.9	-28.37	-69.7	444.8	409.8	387.6	22.20	18.458		
6,400.0	6,398.4	6,408.5	6,404.9	7.8	17.2	-28.31	-72.8	442.0	401.6	379.1	22.58	17.787		
6,500.0	6,498.2	6,506.9	6,503.2	7.8	17.5	-28.24	-76.1	439.4	393.7	370.8	22.96	17.148		
6,600.0	6,598.0	6,605.0	6,601.2	7.8	17.9	-28.19	-79.2	437.2	386.2	362.9	23.34	16.546		
6,700.0	6,697.8	6,712.3	6,708.4	7.8	18.2	-28.13	-82.5	434.0	377.9	354.2	23.77	15.902		
6,800.0	6,797.6	6,818.4	6,814.3	7.8	18.6	-28.02	-85.8	428.7	367.6	343.4	24.19	15.196		
6,900.0	6,897.4	6,917.5	6,913.2	7.9	18.9	-28.01	-88.2	422.8	356.3	331.7	24.58	14.494		
7,000.0	6,997.2	7,012.9	7,008.4	7.9	19.2	-28.09	-90.1	418.1	346.0	321.0	24.97	13.858		
7,100.0	7,096.9	7,110.6	7,106.0	7.9	19.5	-28.06	-92.8	414.0	336.4	311.1	25.36	13.266		
7,200.0	7,196.7	7,209.1	7,204.4	7.9	19.9	-27.84	-96.6	410.1	327.3	301.5	25.76	12.705		
7,300.0	7,296.5	7,311.5	7,306.6	7.9	20.2	-27.60	-100.6	406.1	318.2	292.0	26.18	12.153		
7,400.0	7,396.3	7,411.0	7,405.9	8.0	20.5	-27.31	-104.5	400.9	307.8	281.3	26.59	11.578		
7,500.0	7,496.1	7,508.9	7,503.7	8.0	20.9	-27.33	-106.8	397.0	298.5	271.5	26.99	11.059		
7,600.0	7,595.9	7,614.2	7,608.9	8.0	21.2	-27.36	-109.2	392.1	288.5	261.0	27.44	10.513		
7,700.0	7,695.7	7,718.1	7,712.4	8.1	21.4	-26.97	-113.2	384.8	276.2	248.5	27.75	9.955		
7,800.0	7,795.5	7,838.6	7,830.3	8.1	21.5	-31.53	-94.8	373.0	259.2	231.2	28.00	9.257		
7,900.0	7,895.3	7,930.2	7,916.2	8.1	21.5	-39.13	-65.6	360.1	239.7	211.5	28.25	8.485		
8,000.0	7,995.1	8,021.2	8,001.2	8.2	21.5	-47.96	-34.7	350.0	228.8	200.2	28.59	8.002		
8,071.6	8,066.5	8,080.2	8,054.9	8.2	21.5	-54.74	-11.7	342.6	225.4	196.6	28.86	7.812 CC, ES		
8,100.0	8,094.9	8,104.7	8,076.8	8.2	21.5	-57.82	-1.1	339.6	225.9	196.9	28.99	7.793 SF		
8,200.0	8,194.7	8,185.9	8,145.4	8.3	21.6	-69.42	40.2	326.5	236.2	206.7	29.44	8.021		
8,300.0	8,294.5	8,258.7	8,203.4	8.3	21.6	-80.17	81.5	311.2	261.1	231.3	29.80	8.763		
8,400.0	8,394.3	8,319.0	8,248.8	8.4	21.6	-88.54	118.6	297.2	301.5	271.5	30.02	10.044		
8,500.0	8,494.1	8,361.9	8,279.2	8.4	21.7	-93.91	147.1	287.3	355.6	325.4	30.13	11.800		
8,600.0	8,593.8	8,400.0	8,304.5	8.5	21.7	-98.18	174.3	278.9	420.3	390.0	30.22	13.906		
8,700.0	8,693.6	8,435.9	8,326.7	8.5	21.7	-101.77	201.4	271.0	492.4	462.1	30.33	16.234		
8,800.0	8,793.4	8,476.0	8,350.4	8.6	21.8	-105.29	232.5	262.1	569.1	538.6	30.50	18.658		
8,900.0	8,893.2	8,515.3	8,372.9	8.6	21.8	-108.30	263.5	253.2	648.6	617.9	30.70	21.125		
9,000.0	8,993.0	8,547.3	8,390.4	8.7	21.8	-110.46	289.3	245.9	731.0	700.0	30.92	23.642		
9,100.0	9,092.8	8,585.4	8,410.4	8.7	21.9	-112.76	320.5	237.0	815.2	784.0	31.18	26.148		
9,200.0	9,192.6	8,649.7	8,444.6	8.8	21.9	-115.85	373.2	223.3	900.1	868.6	31.52	28.556		
9,300.0	9,292.4	8,695.0	8,469.1	8.9	22.0	-117.72	409.9	213.1	984.6	952.8	31.83	30.934		
9,400.0	9,392.2	8,727.0	8,485.8	8.9	22.1	-118.93	436.1	205.5	1,070.5	1,038.3	32.13	33.321		
9,500.0	9,492.0	8,758.0	8,501.5	9.0	22.1	-120.01	461.8	198.1	1,157.3	1,124.8	32.43	35.683		
9,600.0	9,591.8	8,790.0	8,517.6	9.1	22.2	-121.03	488.4	190.4	1,244.8	1,212.0	32.75	38.005		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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								
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	9,691.6	8,821.0	8,533.0	9.2	22.2	-121.94	514.2	182.9	1,332.8	1,299.7	33.08	40.286		
9,800.0	9,791.4	8,853.0	8,548.5	9.2	22.3	-122.79	541.1	175.2	1,421.5	1,388.1	33.42	42.529		
9,900.0	9,891.2	8,853.0	8,548.5	9.3	22.3	-122.79	541.1	175.2	1,511.2	1,477.5	33.71	44.833		
10,000.0	9,991.0	8,872.3	8,557.4	9.4	22.3	-123.28	557.6	170.5	1,601.6	1,567.6	34.04	47.056		
10,100.0	10,090.7	8,884.0	8,562.4	9.5	22.4	-123.55	567.7	167.7	1,693.0	1,658.6	34.36	49.276		
10,200.0	10,190.5	8,899.2	8,568.8	9.5	22.4	-123.90	581.0	164.1	1,785.0	1,750.3	34.69	51.453		
10,300.0	10,290.3	8,915.0	8,575.4	9.6	22.4	-124.23	595.0	160.5	1,877.5	1,842.4	35.03	53.592		
10,400.0	10,390.1	8,938.1	8,584.7	9.7	22.5	-124.69	615.5	155.3	1,970.3	1,934.9	35.40	55.665		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	90.93	-8.6	530.2	530.3				
100.0	100.0	94.7	94.7	3.0	3.0	90.97	-8.9	530.4	530.5	524.5	6.00	88.371	
200.0	200.0	195.4	195.4	3.0	3.0	91.07	-9.9	531.0	531.1	525.1	6.03	88.108	
300.0	300.0	294.5	294.5	3.0	3.1	91.14	-10.6	531.2	531.4	525.3	6.10	87.152	
400.0	400.0	393.2	393.2	3.0	3.2	91.15	-10.7	532.0	532.1	525.9	6.20	85.767	
500.0	500.0	486.1	486.0	3.1	3.3	91.13	-10.5	533.2	533.4	527.0	6.34	84.178	
600.0	600.0	579.4	579.4	3.1	3.5	91.09	-10.2	535.8	536.2	529.7	6.50	82.517	
700.0	700.0	678.4	678.2	3.1	3.7	91.03	-9.7	539.3	539.7	533.0	6.70	80.586	
800.0	800.0	780.6	780.4	3.2	3.9	90.92	-8.8	542.7	543.1	536.1	6.93	78.358	
900.0	900.0	883.7	883.4	3.2	4.1	90.82	-7.8	545.6	545.9	538.7	7.19	75.946	
1,000.0	1,000.0	980.4	980.1	3.2	4.4	90.90	-8.7	548.4	548.7	541.3	7.45	73.696	
1,100.0	1,100.0	1,080.8	1,080.4	3.3	4.6	91.15	-11.0	551.5	551.8	544.1	7.73	71.389	
1,200.0	1,200.0	1,180.6	1,180.2	3.4	4.9	91.33	-12.9	554.5	554.9	546.9	8.03	69.142	
1,300.0	1,300.0	1,280.0	1,279.5	3.4	5.2	91.50	-14.6	557.5	558.0	549.6	8.33	66.971	
1,400.0	1,400.0	1,376.1	1,375.5	3.5	5.5	91.66	-16.2	560.8	561.5	552.8	8.64	65.011	
1,500.0	1,500.0	1,471.6	1,470.9	3.5	5.8	91.79	-17.7	564.9	565.8	556.8	8.95	63.236	
1,600.0	1,600.0	1,570.2	1,569.5	3.6	6.1	91.93	-19.2	569.7	570.7	561.4	9.28	61.517	
1,700.0	1,700.0	1,673.4	1,672.5	3.7	6.4	92.27	-22.8	574.3	575.3	565.7	9.63	59.757	
1,800.0	1,800.0	1,775.9	1,774.7	3.8	6.8	92.67	-27.0	578.2	579.3	569.3	9.98	58.037	
1,900.0	1,900.0	1,875.9	1,874.6	3.9	7.1	93.05	-31.0	581.9	583.2	572.9	10.33	56.443	
2,000.0	2,000.0	1,979.4	1,978.0	3.9	7.4	93.37	-34.5	585.6	586.9	576.2	10.70	54.847	
2,100.0	2,100.0	2,084.7	2,083.3	4.0	7.8	93.71	-38.1	588.3	589.7	578.7	11.08	53.235	
2,200.0	2,200.0	2,180.2	2,178.6	4.1	8.1	93.97	-41.0	590.7	592.4	581.0	11.43	51.851	
2,300.0	2,300.0	2,271.1	2,269.4	4.2	8.4	94.16	-43.2	594.1	596.3	584.5	11.76	50.704	
2,400.0	2,400.0	2,361.2	2,359.3	4.3	8.7	94.40	-46.1	598.8	601.8	589.7	12.09	49.757	
2,500.0	2,500.0	2,460.5	2,458.4	4.4	9.0	94.73	-50.0	605.0	608.3	595.8	12.47	48.789	
2,600.0	2,600.0	2,558.7	2,556.4	4.5	9.4	95.06	-54.1	611.0	614.8	601.9	12.84	47.881	
2,700.0	2,700.0	2,650.9	2,648.2	4.6	9.7	95.40	-58.4	617.3	622.0	608.8	13.19	47.157	
2,800.0	2,800.0	2,745.8	2,742.7	4.7	10.0	95.73	-62.7	624.8	630.3	616.8	13.55	46.503	
2,900.0	2,900.0	2,847.4	2,843.9	4.8	10.4	96.06	-67.3	633.1	638.9	624.9	13.95	45.799	
3,000.0	3,000.0	2,956.5	2,952.6	4.9	10.7	96.38	-71.6	640.9	646.4	632.1	14.38	44.965	
3,100.0	3,100.0	3,056.0	3,051.9	5.0	11.1	96.61	-75.1	647.4	653.4	638.6	14.77	44.249	
3,200.0	3,200.0	3,156.9	3,152.5	5.1	11.4	96.87	-78.8	654.1	660.3	645.1	15.16	43.549	
3,300.0	3,300.0	3,260.0	3,255.3	5.2	11.8	97.09	-82.2	660.4	666.8	651.2	15.57	42.828	
3,400.0	3,400.0	3,360.5	3,355.6	5.3	12.2	97.27	-85.0	666.3	673.0	657.0	15.97	42.150	
3,500.0	3,500.0	3,462.5	3,457.4	5.4	12.5	97.44	-87.8	672.2	679.1	662.8	16.37	41.483	
3,600.0	3,600.0	3,568.2	3,562.9	5.5	12.9	97.59	-90.3	677.8	684.6	667.8	16.79	40.775	
3,700.0	3,700.0	3,670.7	3,665.2	5.7	13.2	97.69	-92.2	682.4	689.4	672.2	17.20	40.087	
3,800.0	3,800.0	3,752.8	3,747.2	5.8	13.5	97.80	-94.1	686.8	695.1	677.5	17.53	39.644	
3,900.0	3,900.0	3,844.6	3,838.7	5.9	13.9	97.99	-97.4	694.0	703.2	685.3	17.90	39.275	
4,000.0	4,000.0	3,949.8	3,943.6	6.0	14.2	98.17	-100.8	702.0	711.3	692.9	18.33	38.801	
4,100.0	4,100.0	4,050.9	4,044.3	6.1	14.6	98.29	-103.4	709.2	718.6	699.9	18.74	38.346	
4,200.0	4,200.0	4,151.3	4,144.5	6.2	14.9	98.38	-105.5	716.3	726.0	706.8	19.15	37.912	
4,300.0	4,300.0	4,255.3	4,248.2	6.3	15.3	98.45	-107.4	723.4	733.0	713.4	19.57	37.454	
4,400.0	4,400.0	4,355.4	4,348.1	6.5	15.7	98.51	-109.3	729.8	739.5	719.6	19.98	37.018	
4,500.0	4,500.0	4,441.0	4,433.4	6.6	16.0	98.67	-112.1	735.8	747.1	726.7	20.33	36.739	
4,600.0	4,600.0	4,535.0	4,527.0	6.7	16.3	98.93	-116.9	743.6	756.0	735.3	20.73	36.476	
4,700.0	4,700.0	4,642.7	4,634.2	6.8	16.7	99.24	-122.4	752.4	764.9	743.7	21.17	36.124	
4,800.0	4,800.0	4,745.7	4,736.8	6.9	17.1	99.49	-127.0	760.0	772.9	751.3	21.60	35.778	
4,900.0	4,900.0	4,846.3	4,837.1	7.0	17.4	99.71	-131.3	767.2	780.7	758.7	22.02	35.451	
5,000.0	5,000.0	4,949.0	4,939.4	7.2	17.8	99.93	-135.6	774.3	788.2	765.8	22.45	35.113	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
5,100.0	5,100.0	5,052.3	5,042.4	7.3	18.2	100.14	-139.7	781.0	795.3	772.5	22.88	34.763	
5,200.0	5,200.0	5,154.5	5,144.4	7.4	18.5	100.34	-143.6	787.3	802.1	778.8	23.30	34.417	
5,300.0	5,300.0	5,260.4	5,250.0	7.5	18.9	100.55	-147.8	793.4	808.4	784.7	23.74	34.047	
5,400.0	5,400.0	5,366.2	5,355.6	7.6	19.3	100.80	-152.3	798.4	813.8	789.7	24.18	33.654	
5,500.0	5,500.0	5,460.7	5,449.9	7.8	19.6	100.98	-155.7	802.9	819.2	794.6	24.58	33.322	
5,600.0	5,600.0	5,567.7	5,556.8	7.8	20.0	-23.38	-158.4	808.3	823.1	798.1	25.01	32.912	
5,684.2	5,684.1	5,661.3	5,650.2	7.8	20.3	-23.37	-161.0	812.0	822.9	797.6	25.36	32.444	
5,700.0	5,699.8	5,674.6	5,663.5	7.8	20.4	-23.38	-161.4	812.4	822.6	797.2	25.42	32.362	
5,778.8	5,778.5	5,738.5	5,727.3	7.8	20.6	-23.40	-163.2	815.3	821.9	796.2	25.68	32.003	
5,800.0	5,799.6	5,757.0	5,745.8	7.8	20.7	-23.42	-163.7	816.4	822.0	796.2	25.76	31.913	
5,900.0	5,899.4	5,854.8	5,843.3	7.8	21.0	-23.50	-166.2	822.3	822.5	796.4	26.14	31.462	
6,000.0	5,999.2	5,960.5	5,948.8	7.8	21.4	-23.58	-169.0	828.4	822.8	796.2	26.56	30.978	
6,095.1	6,094.1	6,053.9	6,042.1	7.8	21.8	-23.63	-171.6	833.2	822.5	795.5	26.94	30.534	
6,100.0	6,099.0	6,057.3	6,045.5	7.8	21.8	-23.63	-171.8	833.4	822.5	795.5	26.95	30.517	
6,200.0	6,198.8	6,135.0	6,122.9	7.8	22.0	-23.63	-174.9	839.2	824.6	797.3	27.28	30.222	
6,300.0	6,298.6	6,217.3	6,204.7	7.8	22.3	-23.61	-178.9	847.3	829.1	801.5	27.63	30.004	
6,400.0	6,398.4	6,322.3	6,309.1	7.8	22.7	-23.58	-184.1	857.8	834.1	806.0	28.07	29.717	
6,500.0	6,498.2	6,426.7	6,412.8	7.8	23.1	-23.55	-189.1	867.6	838.3	809.8	28.50	29.416	
6,600.0	6,598.0	6,531.4	6,517.1	7.8	23.5	-23.54	-193.9	877.0	842.1	813.1	28.93	29.104	
6,700.0	6,697.8	6,641.8	6,627.0	7.8	23.9	-23.51	-198.8	885.7	844.8	815.5	29.39	28.750	
6,800.0	6,797.6	6,754.2	6,739.0	7.8	24.3	-23.50	-203.4	893.3	846.4	816.5	29.84	28.360	
6,900.0	6,897.4	6,858.3	6,842.9	7.9	24.7	-23.51	-207.0	899.2	846.6	816.3	30.28	27.961	
7,000.0	6,997.2	6,966.2	6,950.6	7.9	25.1	-23.56	-210.2	904.9	846.5	815.8	30.72	27.553	
7,100.0	7,096.9	7,088.7	7,073.0	7.9	25.5	-23.67	-212.5	909.0	844.3	813.0	31.21	27.051	
7,200.0	7,196.7	7,173.9	7,158.2	7.9	25.8	-23.78	-213.7	911.8	841.8	810.2	31.59	26.645	
7,300.0	7,296.5	7,277.3	7,261.4	7.9	26.2	-23.96	-214.5	915.8	839.9	807.8	32.03	26.220	
7,400.0	7,396.3	7,367.4	7,351.4	8.0	26.5	-24.07	-216.0	919.6	838.5	806.1	32.43	25.854	
7,500.0	7,496.1	7,473.3	7,457.2	8.0	26.9	-24.15	-218.5	924.4	837.5	804.6	32.88	25.469	
7,600.0	7,595.9	7,598.9	7,582.8	8.0	27.3	-24.27	-220.7	927.7	834.6	801.2	33.38	25.000	
7,700.0	7,695.7	7,703.2	7,687.1	8.1	27.7	-24.40	-221.6	928.1	829.2	795.4	33.82	24.517	
7,800.0	7,795.5	7,799.0	7,782.8	8.1	28.0	-24.51	-222.8	928.9	824.4	790.2	34.24	24.077	
7,900.0	7,895.3	7,900.9	7,884.6	8.1	28.4	-24.92	-219.8	930.6	819.7	785.1	34.68	23.639	
8,000.0	7,995.1	8,003.9	7,987.5	8.2	28.7	-25.52	-214.3	932.3	814.7	779.6	35.11	23.203	
8,100.0	8,094.9	8,110.8	8,093.9	8.2	29.1	-26.41	-204.9	934.3	809.5	773.9	35.56	22.763	
8,200.0	8,194.7	8,196.0	8,177.2	8.3	29.3	-27.86	-187.1	936.7	804.0	768.0	35.97	22.350	
8,300.0	8,294.5	8,281.8	8,258.6	8.3	29.6	-29.94	-160.9	942.2	801.9	765.5	36.40	22.027	
8,400.0	8,394.3	8,429.3	8,396.0	8.4	30.1	-34.12	-107.4	948.1	799.3	762.3	37.05	21.576	
8,500.0	8,494.1	8,503.5	8,462.1	8.4	30.3	-36.70	-74.0	947.2	794.3	756.8	37.48	21.195	
8,517.0	8,511.0	8,509.8	8,467.5	8.4	30.3	-36.95	-70.8	947.3	794.2	756.6	37.53	21.162	
8,600.0	8,593.8	8,542.8	8,495.7	8.5	30.4	-38.26	-53.6	948.8	797.1	759.3	37.79	21.092 SF	
8,700.0	8,693.6	8,583.0	8,528.8	8.5	30.5	-39.94	-31.2	952.3	808.2	770.1	38.10	21.212	
8,800.0	8,793.4	8,614.0	8,553.2	8.6	30.6	-41.32	-12.4	956.0	827.7	789.3	38.36	21.578	
8,900.0	8,893.2	8,654.7	8,583.1	8.6	30.7	-43.24	14.5	961.8	855.1	816.5	38.62	22.144	
9,000.0	8,993.0	8,684.5	8,603.3	8.7	30.8	-44.73	35.9	966.7	890.7	851.9	38.78	22.970	
9,100.0	9,092.8	8,716.0	8,623.0	8.7	30.8	-46.36	59.9	972.0	933.5	894.6	38.89	24.003	
9,200.0	9,192.6	8,739.0	8,636.5	8.8	30.9	-47.56	78.0	976.2	982.9	944.0	38.91	25.261	
9,300.0	9,292.4	8,770.0	8,653.6	8.9	31.0	-49.18	103.2	982.2	1,038.6	999.6	38.95	26.667	
9,400.0	9,392.2	8,770.0	8,653.6	8.9	31.0	-49.18	103.2	982.2	1,099.6	1,060.8	38.78	28.356	
9,500.0	9,492.0	8,801.0	8,668.8	9.0	31.0	-50.81	129.4	988.9	1,165.3	1,126.5	38.80	30.037	
9,600.0	9,591.8	8,801.0	8,668.8	9.1	31.0	-50.81	129.4	988.9	1,235.1	1,196.4	38.63	31.971	
9,700.0	9,691.6	8,818.9	8,676.9	9.2	31.1	-51.74	144.8	993.0	1,308.4	1,269.8	38.60	33.899	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	9,791.4	8,833.0	8,682.8	9.2	31.1	-52.46	157.2	996.3	1,384.6	1,346.1	38.56	35.907		
9,900.0	9,891.2	8,833.0	8,682.8	9.3	31.1	-52.46	157.2	996.3	1,463.6	1,425.1	38.47	38.045		
10,000.0	9,991.0	8,846.4	8,688.0	9.4	31.1	-53.15	169.1	999.6	1,544.6	1,506.1	38.49	40.133		
10,100.0	10,090.7	8,864.0	8,694.1	9.5	31.1	-54.05	184.9	1,004.0	1,627.9	1,589.3	38.56	42.219		
10,200.0	10,190.5	8,864.0	8,694.1	9.5	31.1	-54.05	184.9	1,004.0	1,712.5	1,674.0	38.56	44.414		
10,300.0	10,290.3	8,864.0	8,694.1	9.6	31.1	-54.05	184.9	1,004.0	1,798.7	1,760.1	38.59	46.615		
10,400.0	10,390.1	8,864.0	8,694.1	9.7	31.1	-54.05	184.9	1,004.0	1,886.3	1,847.6	38.64	48.811		
10,500.0	10,489.9	8,864.0	8,694.1	9.8	31.1	-54.05	184.9	1,004.0	1,975.0	1,936.3	38.73	50.997		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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	90.93	-8.6	530.2	530.3				
100.0	100.0	94.7	94.7	3.0	3.0	90.97	-8.9	530.4	530.5	524.5	6.00	88.371	
200.0	200.0	195.4	195.4	3.0	3.0	91.07	-9.9	531.0	531.1	525.1	6.03	88.108	
300.0	300.0	294.5	294.5	3.0	3.1	91.14	-10.6	531.2	531.4	525.3	6.10	87.152	
400.0	400.0	393.2	393.2	3.0	3.2	91.15	-10.7	532.0	532.1	525.9	6.20	85.767	
500.0	500.0	486.1	486.0	3.1	3.3	91.13	-10.5	533.2	533.4	527.0	6.34	84.178	
600.0	600.0	579.4	579.4	3.1	3.5	91.09	-10.2	535.8	536.2	529.7	6.50	82.517	
700.0	700.0	678.4	678.2	3.1	3.7	91.03	-9.7	539.3	539.7	533.0	6.70	80.586	
800.0	800.0	780.6	780.4	3.2	3.9	90.92	-8.8	542.7	543.1	536.1	6.93	78.358	
900.0	900.0	883.7	883.4	3.2	4.1	90.82	-7.8	545.6	545.9	538.7	7.19	75.946	
1,000.0	1,000.0	980.4	980.1	3.2	4.4	90.90	-8.7	548.4	548.7	541.3	7.45	73.696	
1,100.0	1,100.0	1,080.8	1,080.4	3.3	4.6	91.15	-11.0	551.5	551.8	544.1	7.73	71.389	
1,200.0	1,200.0	1,180.6	1,180.2	3.4	4.9	91.33	-12.9	554.5	554.9	546.9	8.03	69.142	
1,300.0	1,300.0	1,280.0	1,279.5	3.4	5.2	91.50	-14.6	557.5	558.0	549.6	8.33	66.971	
1,400.0	1,400.0	1,376.1	1,375.5	3.5	5.5	91.66	-16.2	560.8	561.5	552.8	8.64	65.011	
1,500.0	1,500.0	1,471.6	1,470.9	3.5	5.8	91.79	-17.7	564.9	565.8	556.8	8.95	63.236	
1,600.0	1,600.0	1,570.2	1,569.5	3.6	6.1	91.93	-19.2	569.7	570.7	561.4	9.28	61.517	
1,700.0	1,700.0	1,673.4	1,672.5	3.7	6.4	92.27	-22.8	574.3	575.3	565.7	9.63	59.757	
1,800.0	1,800.0	1,775.9	1,774.7	3.8	6.8	92.67	-27.0	578.2	579.3	569.3	9.98	58.037	
1,900.0	1,900.0	1,875.9	1,874.6	3.9	7.1	93.05	-31.0	581.9	583.2	572.9	10.33	56.443	
2,000.0	2,000.0	1,979.4	1,978.0	3.9	7.4	93.37	-34.5	585.6	586.9	576.2	10.70	54.847	
2,100.0	2,100.0	2,084.7	2,083.3	4.0	7.8	93.71	-38.1	588.3	589.7	578.7	11.08	53.235	
2,200.0	2,200.0	2,180.2	2,178.6	4.1	8.1	93.97	-41.0	590.7	592.4	581.0	11.43	51.851	
2,300.0	2,300.0	2,271.1	2,269.4	4.2	8.4	94.16	-43.2	594.1	596.3	584.5	11.76	50.704	
2,400.0	2,400.0	2,361.2	2,359.3	4.3	8.7	94.40	-46.1	598.8	601.8	589.7	12.09	49.757	
2,500.0	2,500.0	2,460.5	2,458.4	4.4	9.0	94.73	-50.0	605.0	608.3	595.8	12.47	48.789	
2,600.0	2,600.0	2,558.7	2,556.4	4.5	9.4	95.06	-54.1	611.0	614.8	601.9	12.84	47.881	
2,700.0	2,700.0	2,650.9	2,648.2	4.6	9.7	95.40	-58.4	617.3	622.0	608.8	13.19	47.157	
2,800.0	2,800.0	2,745.8	2,742.7	4.7	10.0	95.73	-62.7	624.8	630.3	616.8	13.55	46.503	
2,900.0	2,900.0	2,847.4	2,843.9	4.8	10.4	96.06	-67.3	633.1	638.9	624.9	13.95	45.799	
3,000.0	3,000.0	2,956.5	2,952.6	4.9	10.7	96.38	-71.6	640.9	646.4	632.1	14.38	44.965	
3,100.0	3,100.0	3,056.0	3,051.9	5.0	11.1	96.61	-75.1	647.4	653.4	638.6	14.77	44.249	
3,200.0	3,200.0	3,156.9	3,152.5	5.1	11.4	96.87	-78.8	654.1	660.3	645.1	15.16	43.549	
3,300.0	3,300.0	3,260.0	3,255.3	5.2	11.8	97.09	-82.2	660.4	666.8	651.2	15.57	42.828	
3,400.0	3,400.0	3,360.5	3,355.6	5.3	12.2	97.27	-85.0	666.3	673.0	657.0	15.97	42.150	
3,500.0	3,500.0	3,462.5	3,457.4	5.4	12.5	97.44	-87.8	672.2	679.1	662.8	16.37	41.483	
3,600.0	3,600.0	3,568.2	3,562.9	5.5	12.9	97.59	-90.3	677.8	684.6	667.8	16.79	40.775	
3,700.0	3,700.0	3,670.7	3,665.2	5.7	13.2	97.69	-92.2	682.4	689.4	672.2	17.20	40.087	
3,800.0	3,800.0	3,752.8	3,747.2	5.8	13.5	97.80	-94.1	686.8	695.1	677.5	17.53	39.644	
3,900.0	3,900.0	3,844.6	3,838.7	5.9	13.9	97.99	-97.4	694.0	703.2	685.3	17.90	39.275	
4,000.0	4,000.0	3,949.8	3,943.6	6.0	14.2	98.17	-100.8	702.0	711.3	692.9	18.33	38.801	
4,100.0	4,100.0	4,050.9	4,044.3	6.1	14.6	98.29	-103.4	709.2	718.6	699.9	18.74	38.346	
4,200.0	4,200.0	4,151.3	4,144.5	6.2	14.9	98.38	-105.5	716.3	726.0	706.8	19.15	37.912	
4,300.0	4,300.0	4,255.3	4,248.2	6.3	15.3	98.45	-107.4	723.4	733.0	713.4	19.57	37.454	
4,400.0	4,400.0	4,355.4	4,348.1	6.5	15.7	98.51	-109.3	729.8	739.5	719.6	19.98	37.018	
4,500.0	4,500.0	4,441.0	4,433.4	6.6	16.0	98.67	-112.1	735.8	747.1	726.7	20.33	36.739	
4,600.0	4,600.0	4,535.0	4,527.0	6.7	16.3	98.93	-116.9	743.6	756.0	735.3	20.73	36.476	
4,700.0	4,700.0	4,642.7	4,634.2	6.8	16.7	99.24	-122.4	752.4	764.9	743.7	21.17	36.124	
4,800.0	4,800.0	4,745.7	4,736.8	6.9	17.1	99.49	-127.0	760.0	772.9	751.3	21.60	35.778	
4,900.0	4,900.0	4,846.3	4,837.1	7.0	17.4	99.71	-131.3	767.2	780.7	758.7	22.02	35.451	
5,000.0	5,000.0	4,949.0	4,939.4	7.2	17.8	99.93	-135.6	774.3	788.2	765.8	22.45	35.113	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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
5,100.0	5,100.0	5,052.3	5,042.4	7.3	18.2	100.14	-139.7	781.0	795.3	772.5	22.88	34.763	
5,200.0	5,200.0	5,154.5	5,144.4	7.4	18.5	100.34	-143.6	787.3	802.1	778.8	23.30	34.417	
5,300.0	5,300.0	5,260.4	5,250.0	7.5	18.9	100.55	-147.8	793.4	808.4	784.7	23.74	34.047	
5,400.0	5,400.0	5,366.2	5,355.6	7.6	19.3	100.80	-152.3	798.4	813.8	789.7	24.18	33.654	
5,500.0	5,500.0	5,460.7	5,449.9	7.8	19.6	100.98	-155.7	802.9	819.2	794.6	24.58	33.322	
5,600.0	5,600.0	5,567.7	5,556.8	7.8	20.0	-23.38	-158.4	808.3	823.1	798.1	25.01	32.912	
5,684.2	5,684.1	5,661.3	5,650.2	7.8	20.3	-23.37	-161.0	812.0	822.9	797.6	25.36	32.444	
5,700.0	5,699.8	5,674.6	5,663.5	7.8	20.4	-23.38	-161.4	812.4	822.6	797.2	25.42	32.362	
5,778.8	5,778.5	5,738.5	5,727.3	7.8	20.6	-23.40	-163.2	815.3	821.9	796.2	25.68	32.003	
5,800.0	5,799.6	5,757.0	5,745.8	7.8	20.7	-23.42	-163.7	816.4	822.0	796.2	25.76	31.913	
5,900.0	5,899.4	5,854.8	5,843.3	7.8	21.0	-23.50	-166.2	822.3	822.5	796.4	26.14	31.462	
6,000.0	5,999.2	5,960.5	5,948.8	7.8	21.4	-23.58	-169.0	828.4	822.8	796.2	26.56	30.978	
6,095.1	6,094.1	6,053.9	6,042.1	7.8	21.8	-23.63	-171.6	833.2	822.5	795.5	26.94	30.534	
6,100.0	6,099.0	6,057.3	6,045.5	7.8	21.8	-23.63	-171.8	833.4	822.5	795.5	26.95	30.517	
6,200.0	6,198.8	6,135.0	6,122.9	7.8	22.0	-23.63	-174.9	839.2	824.6	797.3	27.28	30.222	
6,300.0	6,298.6	6,217.3	6,204.7	7.8	22.3	-23.61	-178.9	847.3	829.1	801.5	27.63	30.004	
6,400.0	6,398.4	6,322.3	6,309.1	7.8	22.7	-23.58	-184.1	857.8	834.1	806.0	28.07	29.717	
6,500.0	6,498.2	6,426.7	6,412.8	7.8	23.1	-23.55	-189.1	867.6	838.3	809.8	28.50	29.416	
6,600.0	6,598.0	6,531.4	6,517.1	7.8	23.5	-23.54	-193.9	877.0	842.1	813.1	28.93	29.104	
6,700.0	6,697.8	6,641.8	6,627.0	7.8	23.9	-23.51	-198.8	885.7	844.8	815.5	29.39	28.750	
6,800.0	6,797.6	6,754.2	6,739.0	7.8	24.3	-23.50	-203.4	893.3	846.4	816.5	29.84	28.360	
6,900.0	6,897.4	6,858.3	6,842.9	7.9	24.7	-23.51	-207.0	899.2	846.6	816.3	30.28	27.961	
7,000.0	6,997.2	6,966.2	6,950.6	7.9	25.1	-23.56	-210.2	904.9	846.5	815.8	30.72	27.553	
7,100.0	7,096.9	7,088.7	7,073.0	7.9	25.5	-23.67	-212.5	909.0	844.3	813.0	31.21	27.051	
7,200.0	7,196.7	7,173.9	7,158.2	7.9	25.8	-23.78	-213.7	911.8	841.8	810.2	31.59	26.645	
7,300.0	7,296.5	7,277.3	7,261.4	7.9	26.2	-23.96	-214.5	915.8	839.9	807.8	32.03	26.220	
7,400.0	7,396.3	7,367.4	7,351.4	8.0	26.5	-24.07	-216.0	919.6	838.5	806.1	32.43	25.854	
7,500.0	7,496.1	7,473.3	7,457.2	8.0	26.9	-24.15	-218.5	924.4	837.5	804.6	32.88	25.469	
7,600.0	7,595.9	7,598.9	7,582.8	8.0	27.3	-24.27	-220.7	927.7	834.6	801.2	33.38	25.000	
7,700.0	7,695.7	7,703.2	7,687.1	8.1	27.7	-24.40	-221.6	928.1	829.2	795.4	33.82	24.517	
7,800.0	7,795.5	7,799.0	7,782.8	8.1	28.0	-24.51	-222.8	928.9	824.4	790.2	34.24	24.077	
7,900.0	7,895.3	7,900.9	7,884.6	8.1	28.4	-24.92	-219.8	930.6	819.7	785.1	34.68	23.639	
8,000.0	7,995.1	8,003.9	7,987.5	8.2	28.7	-25.52	-214.3	932.3	814.7	779.6	35.11	23.203	
8,100.0	8,094.9	8,110.8	8,093.9	8.2	29.1	-26.41	-204.9	934.3	809.5	773.9	35.56	22.763	
8,200.0	8,194.7	8,196.0	8,177.2	8.3	29.3	-27.86	-187.1	936.7	804.0	768.0	35.97	22.350	
8,300.0	8,294.5	8,281.8	8,258.6	8.3	29.6	-29.94	-160.9	942.2	801.9	765.5	36.40	22.027	
8,400.0	8,394.3	8,429.3	8,396.0	8.4	30.1	-34.12	-107.4	948.1	799.3	762.3	37.05	21.576	
8,500.0	8,494.1	8,503.5	8,462.1	8.4	30.3	-36.70	-74.0	947.2	794.3	756.8	37.48	21.195	
8,517.0	8,511.0	8,509.8	8,467.5	8.4	30.3	-36.95	-70.8	947.3	794.2	756.6	37.53	21.162	
8,600.0	8,593.8	8,542.8	8,495.7	8.5	30.4	-38.26	-53.6	948.8	797.1	759.3	37.79	21.092 SF	
8,700.0	8,693.6	8,583.0	8,528.8	8.5	30.5	-39.94	-31.2	952.3	808.2	770.1	38.10	21.212	
8,800.0	8,793.4	8,614.0	8,553.2	8.6	30.6	-41.32	-12.4	956.0	827.7	789.3	38.36	21.578	
8,900.0	8,893.2	8,654.7	8,583.1	8.6	30.7	-43.24	14.5	961.8	855.1	816.5	38.62	22.144	
9,000.0	8,993.0	8,684.5	8,603.3	8.7	30.8	-44.73	35.9	966.7	890.7	851.9	38.78	22.970	
9,100.0	9,092.8	8,716.0	8,623.0	8.7	30.8	-46.36	59.9	972.0	933.5	894.6	38.89	24.003	
9,200.0	9,192.6	8,739.0	8,636.5	8.8	30.9	-47.56	78.0	976.2	982.9	944.0	38.91	25.261	
9,300.0	9,292.4	8,770.0	8,653.6	8.9	31.0	-49.18	103.2	982.2	1,038.6	999.6	38.95	26.667	
9,400.0	9,392.2	8,770.0	8,653.6	8.9	31.0	-49.18	103.2	982.2	1,099.6	1,060.8	38.78	28.356	
9,500.0	9,492.0	8,801.0	8,668.8	9.0	31.0	-50.81	129.4	988.9	1,165.3	1,126.5	38.80	30.037	
9,600.0	9,591.8	8,801.0	8,668.8	9.1	31.0	-50.81	129.4	988.9	1,235.1	1,196.4	38.63	31.972	
9,700.0	9,691.6	8,818.9	8,676.9	9.2	31.1	-51.74	144.8	993.0	1,308.4	1,269.8	38.60	33.899	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,800.0	9,791.4	8,833.0	8,682.8	9.2	31.1	-52.46	157.2	996.3	1,384.6	1,346.1	38.56	35.907		
9,900.0	9,891.2	8,833.0	8,682.8	9.3	31.1	-52.46	157.2	996.3	1,463.6	1,425.1	38.47	38.045		
10,000.0	9,991.0	8,846.4	8,688.0	9.4	31.1	-53.15	169.1	999.6	1,544.6	1,506.1	38.49	40.133		
10,100.0	10,090.7	8,864.0	8,694.1	9.5	31.1	-54.05	184.9	1,004.0	1,627.9	1,589.3	38.56	42.219		
10,200.0	10,190.5	8,864.0	8,694.1	9.5	31.1	-54.05	184.9	1,004.0	1,712.5	1,674.0	38.56	44.414		
10,300.0	10,290.3	8,864.0	8,694.1	9.6	31.1	-54.05	184.9	1,004.0	1,798.7	1,760.1	38.59	46.615		
10,400.0	10,390.1	8,864.0	8,694.1	9.7	31.1	-54.05	184.9	1,004.0	1,886.3	1,847.6	38.64	48.811		
10,500.0	10,489.9	8,864.0	8,694.1	9.8	31.1	-54.05	184.9	1,004.0	1,975.0	1,936.3	38.73	50.997		

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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' @ 3010.2usft (TBD)

Offset Depths are relative to Offset Datum

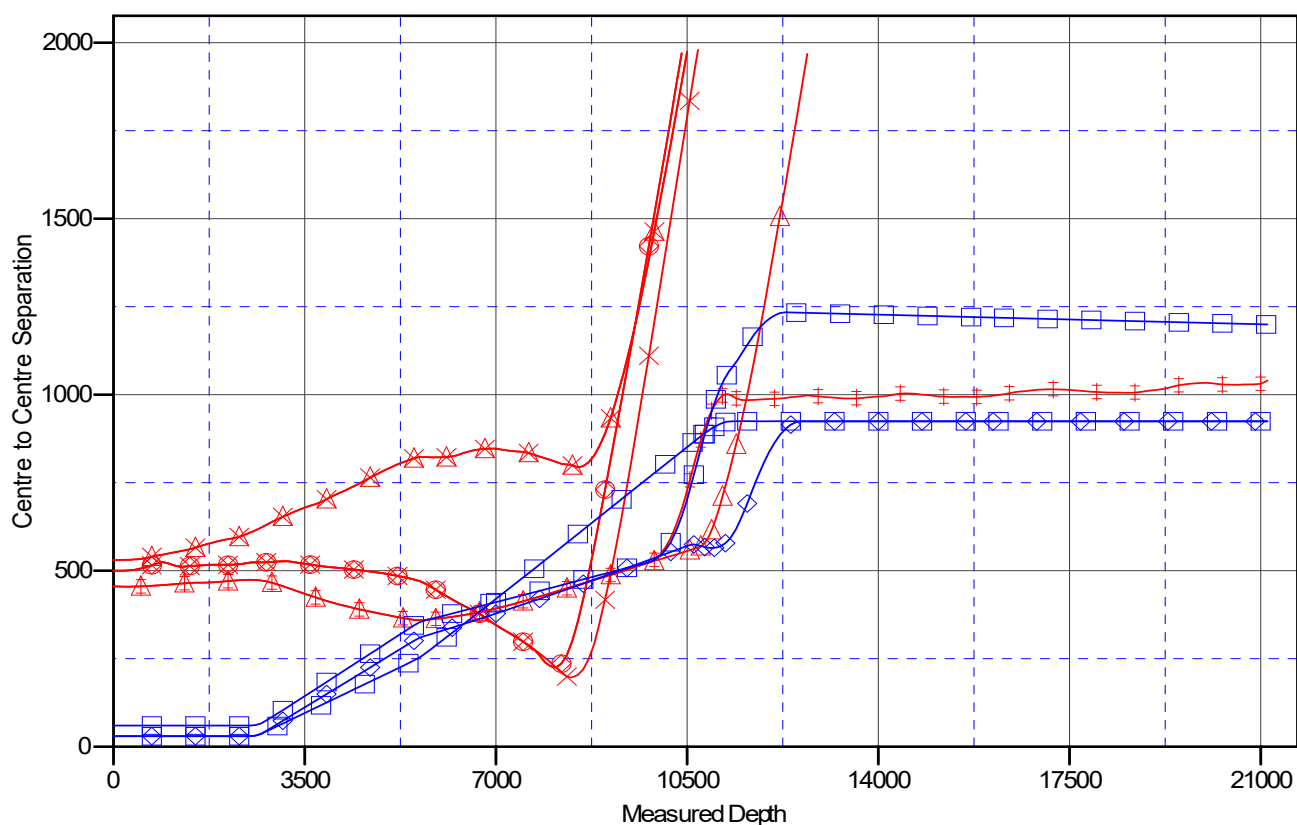
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL COM #802H

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 FED COM #2H, LATERAL 01 AWP-LAT 01 V0	ADMIRAL FEDERAL COM 505H, ST01, ST 01 V0
ADMIRAL FEDERAL COM 504H, ST01, ST 01 V0	ADMIRAL FEDERAL COM #801H, OWB, PWP1 V0	ADMIRAL FEDERAL COM 505H, OWB, AWP V0
ADMIRAL FEDERAL COM 504H, ST02, ST 02 V0	ADMIRAL FEDERAL COM #701H, OWB, PWP1 V0	
ADMIRAL FED COM #2H, OWB-PILOT HOLE, AWP-PH V0	ADMIRAL FEDERAL COM #803H, OWB, PWP1 V0	

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Reference Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ADMIRAL FEDERAL COM #802H	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' @ 3010.2usft (TBD)

Offset Depths are relative to Offset Datum

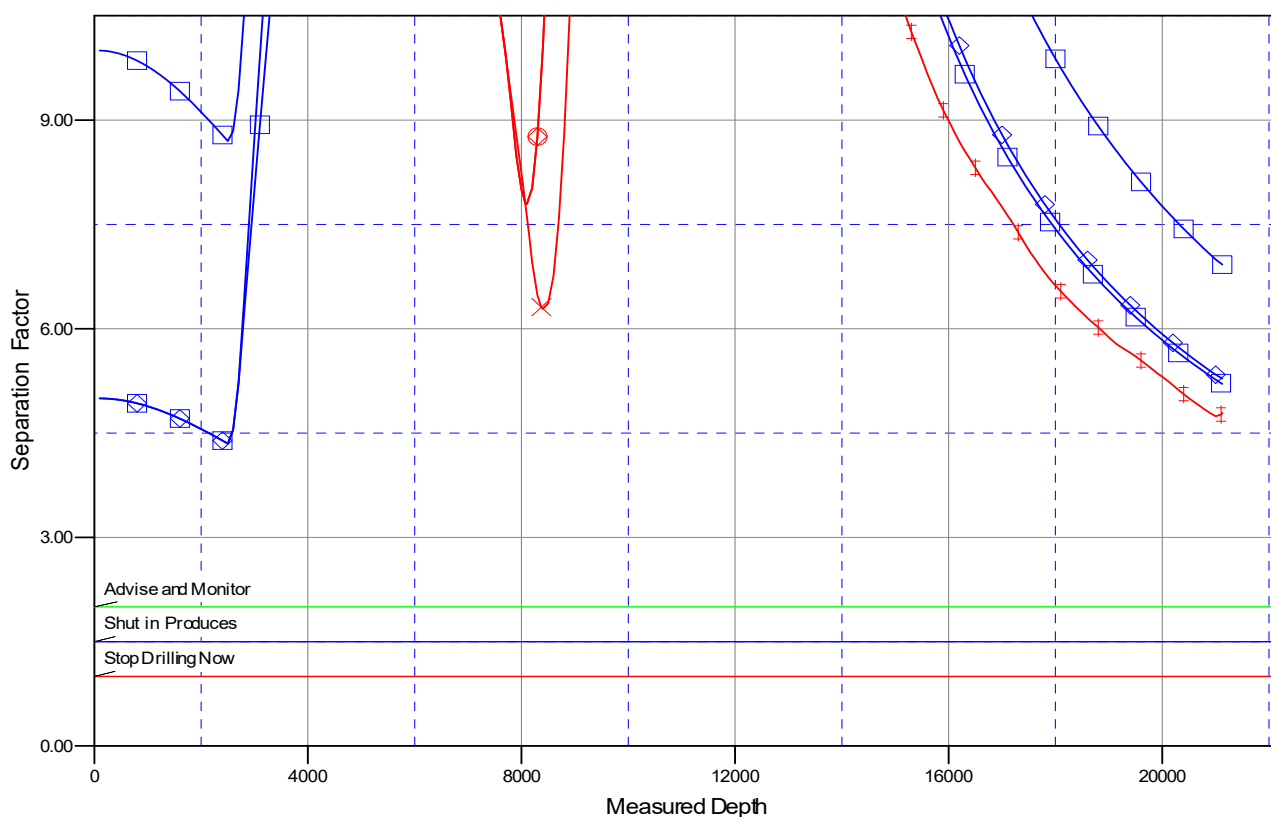
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ADMIRAL FEDERAL COM #802H

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 #804H, OWB, AWP V0
 ADMIRAL FEDERAL COM #804H, ST 01, ST 01 V0
 ADMIRAL FEDERAL COM #804H, ST 02, ST 02 V0
 ADMIRAL FEDERAL COM #804H, OWB-PILOT HOLE, AWP-PH V0

ADMIRAL FEDERAL COM #802H, LATERAL 01 AWP-LAT 01 V0
 ADMIRAL FEDERAL COM #803H, OWB, PWP1 V0
 ADMIRAL FEDERAL COM #803H, OWB, PWP1 V0

ADMIRAL FEDERAL COM #805H, ST 01, ST 01 V0
 ADMIRAL FEDERAL COM #805H, OWB, AWP V0

DELAWARE BASIN WEST

ATLAS PROSPECT (NM-E)

ADMIRAL FEDERAL PROJECT (ATLAS 2529)

ADMIRAL FEDERAL COM #802H

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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	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 #802H		
Well Position	+N/-S	0.0 usft	Northing: 398,197.50 usft
	+E/-W	0.0 usft	Easting: 607,819.10 usft
Position Uncertainty	3.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 5' 39.417 N
		Longitude:	103° 59' 6.605 W
		Ground Level:	2,985.2 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/20/2020	6.80	59.74	47,444.98618585

Design	PWP1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	1.12

Survey Tool Program	Date	12/14/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	10,573.2	PWP1 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
10,573.2	21,122.6	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 #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	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
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	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)
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start DLS 2.00 TFO 124.44									
5,600.0	2.00	124.44	5,600.0	-1.0	1.4	-1.0	2.00	2.00	0.00
5,684.2	3.68	124.44	5,684.1	-3.3	4.9	-3.3	2.00	2.00	0.00
Start 4861.6 hold at 5684.2 MD									
5,700.0	3.68	124.44	5,699.8	-3.9	5.7	-3.8	0.00	0.00	0.00
5,800.0	3.68	124.44	5,799.6	-7.6	11.0	-7.3	0.00	0.00	0.00
5,900.0	3.68	124.44	5,899.4	-11.2	16.3	-10.9	0.00	0.00	0.00
6,000.0	3.68	124.44	5,999.2	-14.8	21.6	-14.4	0.00	0.00	0.00
6,100.0	3.68	124.44	6,099.0	-18.5	26.9	-17.9	0.00	0.00	0.00
6,200.0	3.68	124.44	6,198.8	-22.1	32.2	-21.5	0.00	0.00	0.00
6,300.0	3.68	124.44	6,298.6	-25.7	37.5	-25.0	0.00	0.00	0.00
6,400.0	3.68	124.44	6,398.4	-29.4	42.8	-28.5	0.00	0.00	0.00
6,500.0	3.68	124.44	6,498.2	-33.0	48.1	-32.0	0.00	0.00	0.00
6,600.0	3.68	124.44	6,598.0	-36.6	53.4	-35.6	0.00	0.00	0.00
6,700.0	3.68	124.44	6,697.8	-40.3	58.7	-39.1	0.00	0.00	0.00
6,800.0	3.68	124.44	6,797.6	-43.9	64.0	-42.6	0.00	0.00	0.00
6,900.0	3.68	124.44	6,897.4	-47.5	69.3	-46.2	0.00	0.00	0.00
7,000.0	3.68	124.44	6,997.2	-51.2	74.6	-49.7	0.00	0.00	0.00
7,100.0	3.68	124.44	7,096.9	-54.8	79.9	-53.2	0.00	0.00	0.00
7,200.0	3.68	124.44	7,196.7	-58.4	85.2	-56.7	0.00	0.00	0.00
7,300.0	3.68	124.44	7,296.5	-62.1	90.5	-60.3	0.00	0.00	0.00
7,400.0	3.68	124.44	7,396.3	-65.7	95.8	-63.8	0.00	0.00	0.00
7,500.0	3.68	124.44	7,496.1	-69.3	101.1	-67.3	0.00	0.00	0.00
7,600.0	3.68	124.44	7,595.9	-73.0	106.4	-70.9	0.00	0.00	0.00
7,700.0	3.68	124.44	7,695.7	-76.6	111.7	-74.4	0.00	0.00	0.00
7,800.0	3.68	124.44	7,795.5	-80.2	117.0	-77.9	0.00	0.00	0.00
7,900.0	3.68	124.44	7,895.3	-83.9	122.3	-81.4	0.00	0.00	0.00
8,000.0	3.68	124.44	7,995.1	-87.5	127.6	-85.0	0.00	0.00	0.00
8,100.0	3.68	124.44	8,094.9	-91.1	132.9	-88.5	0.00	0.00	0.00
8,200.0	3.68	124.44	8,194.7	-94.8	138.2	-92.0	0.00	0.00	0.00
8,300.0	3.68	124.44	8,294.5	-98.4	143.5	-95.6	0.00	0.00	0.00
8,400.0	3.68	124.44	8,394.3	-102.0	148.8	-99.1	0.00	0.00	0.00
8,500.0	3.68	124.44	8,494.1	-105.7	154.1	-102.6	0.00	0.00	0.00
8,600.0	3.68	124.44	8,593.8	-109.3	159.4	-106.1	0.00	0.00	0.00
8,700.0	3.68	124.44	8,693.6	-112.9	164.7	-109.7	0.00	0.00	0.00
8,800.0	3.68	124.44	8,793.4	-116.6	170.0	-113.2	0.00	0.00	0.00
8,900.0	3.68	124.44	8,893.2	-120.2	175.3	-116.7	0.00	0.00	0.00
9,000.0	3.68	124.44	8,993.0	-123.8	180.6	-120.3	0.00	0.00	0.00
9,100.0	3.68	124.44	9,092.8	-127.5	185.9	-123.8	0.00	0.00	0.00
9,200.0	3.68	124.44	9,192.6	-131.1	191.2	-127.3	0.00	0.00	0.00
9,300.0	3.68	124.44	9,292.4	-134.7	196.5	-130.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	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	3.68	124.44	9,392.2	-138.4	201.8	-134.4	0.00	0.00	0.00
9,500.0	3.68	124.44	9,492.0	-142.0	207.1	-137.9	0.00	0.00	0.00
9,600.0	3.68	124.44	9,591.8	-145.6	212.4	-141.4	0.00	0.00	0.00
9,700.0	3.68	124.44	9,691.6	-149.3	217.7	-145.0	0.00	0.00	0.00
9,800.0	3.68	124.44	9,791.4	-152.9	223.0	-148.5	0.00	0.00	0.00
9,900.0	3.68	124.44	9,891.2	-156.5	228.3	-152.0	0.00	0.00	0.00
10,000.0	3.68	124.44	9,991.0	-160.2	233.6	-155.6	0.00	0.00	0.00
10,100.0	3.68	124.44	10,090.7	-163.8	238.9	-159.1	0.00	0.00	0.00
10,200.0	3.68	124.44	10,190.5	-167.4	244.2	-162.6	0.00	0.00	0.00
10,300.0	3.68	124.44	10,290.3	-171.1	249.5	-166.1	0.00	0.00	0.00
10,400.0	3.68	124.44	10,390.1	-174.7	254.8	-169.7	0.00	0.00	0.00
10,500.0	3.68	124.44	10,489.9	-178.3	260.1	-173.2	0.00	0.00	0.00
10,545.8	3.68	124.44	10,535.6	-180.0	262.5	-174.8	0.00	0.00	0.00
Start DLS 12.00 TFO -125.09									
10,600.0	5.32	33.71	10,589.7	-178.9	265.3	-173.7	12.00	3.02	-167.30
10,700.0	16.66	9.43	10,687.8	-160.8	270.3	-155.5	12.00	11.33	-24.28
10,800.0	28.53	4.85	10,779.9	-122.8	274.7	-117.3	12.00	11.88	-4.58
10,900.0	40.48	2.83	10,862.2	-66.3	278.3	-60.9	12.00	11.95	-2.02
11,000.0	52.45	1.61	10,930.9	6.0	281.0	11.5	12.00	11.97	-1.22
11,100.0	64.43	0.74	10,983.2	91.0	282.7	96.5	12.00	11.98	-0.88
11,200.0	76.41	0.02	11,016.6	185.1	283.3	190.6	12.00	11.98	-0.71
11,300.0	88.39	359.38	11,029.9	284.0	282.8	289.5	12.00	11.98	-0.64
11,314.2	90.09	359.29	11,030.0	298.1	282.6	303.6	12.00	11.98	-0.63
Start 4700.9 hold at 11314.2 MD									
11,400.0	90.09	359.29	11,029.9	384.0	281.6	389.4	0.00	0.00	0.00
11,500.0	90.09	359.29	11,029.8	484.0	280.3	489.4	0.00	0.00	0.00
11,600.0	90.09	359.29	11,029.6	584.0	279.1	589.3	0.00	0.00	0.00
11,700.0	90.09	359.29	11,029.5	684.0	277.9	689.3	0.00	0.00	0.00
11,800.0	90.09	359.29	11,029.3	783.9	276.6	789.2	0.00	0.00	0.00
11,900.0	90.09	359.29	11,029.1	883.9	275.4	889.2	0.00	0.00	0.00
12,000.0	90.09	359.29	11,029.0	983.9	274.2	989.1	0.00	0.00	0.00
12,100.0	90.09	359.29	11,028.8	1,083.9	272.9	1,089.1	0.00	0.00	0.00
12,200.0	90.09	359.29	11,028.7	1,183.9	271.7	1,189.0	0.00	0.00	0.00
12,300.0	90.09	359.29	11,028.5	1,283.9	270.4	1,289.0	0.00	0.00	0.00
12,400.0	90.09	359.29	11,028.4	1,383.9	269.2	1,388.9	0.00	0.00	0.00
12,500.0	90.09	359.29	11,028.2	1,483.9	268.0	1,488.9	0.00	0.00	0.00
12,600.0	90.09	359.29	11,028.1	1,583.9	266.7	1,588.8	0.00	0.00	0.00
12,700.0	90.09	359.29	11,027.9	1,683.9	265.5	1,688.8	0.00	0.00	0.00
12,800.0	90.09	359.29	11,027.8	1,783.9	264.2	1,788.7	0.00	0.00	0.00
12,900.0	90.09	359.29	11,027.6	1,883.9	263.0	1,888.7	0.00	0.00	0.00
13,000.0	90.09	359.29	11,027.5	1,983.9	261.8	1,988.6	0.00	0.00	0.00
13,100.0	90.09	359.29	11,027.3	2,083.8	260.5	2,088.6	0.00	0.00	0.00
13,200.0	90.09	359.29	11,027.2	2,183.8	259.3	2,188.5	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	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)
13,300.0	90.09	359.29	11,027.0	2,283.8	258.0	2,288.5	0.00	0.00	0.00
13,400.0	90.09	359.29	11,026.9	2,383.8	256.8	2,388.4	0.00	0.00	0.00
13,500.0	90.09	359.29	11,026.7	2,483.8	255.6	2,488.4	0.00	0.00	0.00
13,600.0	90.09	359.29	11,026.6	2,583.8	254.3	2,588.3	0.00	0.00	0.00
13,700.0	90.09	359.29	11,026.4	2,683.8	253.1	2,688.2	0.00	0.00	0.00
13,800.0	90.09	359.29	11,026.3	2,783.8	251.9	2,788.2	0.00	0.00	0.00
13,900.0	90.09	359.29	11,026.1	2,883.8	250.6	2,888.1	0.00	0.00	0.00
14,000.0	90.09	359.29	11,026.0	2,983.8	249.4	2,988.1	0.00	0.00	0.00
14,100.0	90.09	359.29	11,025.8	3,083.8	248.1	3,088.0	0.00	0.00	0.00
14,200.0	90.09	359.29	11,025.7	3,183.8	246.9	3,188.0	0.00	0.00	0.00
14,300.0	90.09	359.29	11,025.5	3,283.8	245.7	3,287.9	0.00	0.00	0.00
14,400.0	90.09	359.29	11,025.4	3,383.7	244.4	3,387.9	0.00	0.00	0.00
14,500.0	90.09	359.29	11,025.2	3,483.7	243.2	3,487.8	0.00	0.00	0.00
14,600.0	90.09	359.29	11,025.0	3,583.7	241.9	3,587.8	0.00	0.00	0.00
14,700.0	90.09	359.29	11,024.9	3,683.7	240.7	3,687.7	0.00	0.00	0.00
14,800.0	90.09	359.29	11,024.7	3,783.7	239.5	3,787.7	0.00	0.00	0.00
14,900.0	90.09	359.29	11,024.6	3,883.7	238.2	3,887.6	0.00	0.00	0.00
15,000.0	90.09	359.29	11,024.4	3,983.7	237.0	3,987.6	0.00	0.00	0.00
15,100.0	90.09	359.29	11,024.3	4,083.7	235.7	4,087.5	0.00	0.00	0.00
15,200.0	90.09	359.29	11,024.1	4,183.7	234.5	4,187.5	0.00	0.00	0.00
15,300.0	90.09	359.29	11,024.0	4,283.7	233.3	4,287.4	0.00	0.00	0.00
15,400.0	90.09	359.29	11,023.8	4,383.7	232.0	4,387.4	0.00	0.00	0.00
15,500.0	90.09	359.29	11,023.7	4,483.7	230.8	4,487.3	0.00	0.00	0.00
15,600.0	90.09	359.29	11,023.5	4,583.7	229.6	4,587.3	0.00	0.00	0.00
15,700.0	90.09	359.29	11,023.4	4,683.6	228.3	4,687.2	0.00	0.00	0.00
15,800.0	90.09	359.29	11,023.2	4,783.6	227.1	4,787.2	0.00	0.00	0.00
15,900.0	90.09	359.29	11,023.1	4,883.6	225.8	4,887.1	0.00	0.00	0.00
16,000.0	90.09	359.29	11,022.9	4,983.6	224.6	4,987.1	0.00	0.00	0.00
16,015.1	90.09	359.29	11,022.9	4,998.7	224.4	5,002.2	0.00	0.00	0.00
Start DLS 2.00 TFO 89.78									
16,036.0	90.09	359.71	11,022.9	5,019.6	224.2	5,023.0	2.00	0.01	2.00
Start 5086.7 hold at 16036.0 MD									
16,100.0	90.09	359.71	11,022.8	5,083.6	223.9	5,087.0	0.00	0.00	0.00
16,200.0	90.09	359.71	11,022.6	5,183.6	223.4	5,187.0	0.00	0.00	0.00
16,300.0	90.09	359.71	11,022.5	5,283.6	222.9	5,287.0	0.00	0.00	0.00
16,400.0	90.09	359.71	11,022.3	5,383.6	222.4	5,386.9	0.00	0.00	0.00
16,500.0	90.09	359.71	11,022.2	5,483.6	221.9	5,486.9	0.00	0.00	0.00
16,600.0	90.09	359.71	11,022.0	5,583.6	221.4	5,586.9	0.00	0.00	0.00
16,700.0	90.09	359.71	11,021.8	5,683.6	220.8	5,686.8	0.00	0.00	0.00
16,800.0	90.09	359.71	11,021.7	5,783.6	220.3	5,786.8	0.00	0.00	0.00
16,900.0	90.09	359.71	11,021.5	5,883.6	219.8	5,886.8	0.00	0.00	0.00
17,000.0	90.09	359.71	11,021.4	5,983.6	219.3	5,986.8	0.00	0.00	0.00
17,100.0	90.09	359.71	11,021.2	6,083.6	218.8	6,086.7	0.00	0.00	0.00
17,200.0	90.09	359.71	11,021.1	6,183.6	218.3	6,186.7	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	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)
17,300.0	90.09	359.71	11,020.9	6,283.6	217.8	6,286.7	0.00	0.00	0.00
17,400.0	90.09	359.71	11,020.8	6,383.6	217.3	6,386.6	0.00	0.00	0.00
17,500.0	90.09	359.71	11,020.6	6,483.6	216.8	6,486.6	0.00	0.00	0.00
17,600.0	90.09	359.71	11,020.4	6,583.6	216.3	6,586.6	0.00	0.00	0.00
17,700.0	90.09	359.71	11,020.3	6,683.6	215.7	6,686.5	0.00	0.00	0.00
17,800.0	90.09	359.71	11,020.1	6,783.6	215.2	6,786.5	0.00	0.00	0.00
17,900.0	90.09	359.71	11,020.0	6,883.6	214.7	6,886.5	0.00	0.00	0.00
18,000.0	90.09	359.71	11,019.8	6,983.6	214.2	6,986.4	0.00	0.00	0.00
18,100.0	90.09	359.71	11,019.7	7,083.6	213.7	7,086.4	0.00	0.00	0.00
18,200.0	90.09	359.71	11,019.5	7,183.6	213.2	7,186.4	0.00	0.00	0.00
18,300.0	90.09	359.71	11,019.4	7,283.6	212.7	7,286.4	0.00	0.00	0.00
18,400.0	90.09	359.71	11,019.2	7,383.6	212.2	7,386.3	0.00	0.00	0.00
18,500.0	90.09	359.71	11,019.1	7,483.6	211.7	7,486.3	0.00	0.00	0.00
18,600.0	90.09	359.71	11,018.9	7,583.6	211.2	7,586.3	0.00	0.00	0.00
18,700.0	90.09	359.71	11,018.7	7,683.6	210.6	7,686.2	0.00	0.00	0.00
18,800.0	90.09	359.71	11,018.6	7,783.6	210.1	7,786.2	0.00	0.00	0.00
18,900.0	90.09	359.71	11,018.4	7,883.6	209.6	7,886.2	0.00	0.00	0.00
19,000.0	90.09	359.71	11,018.3	7,983.6	209.1	7,986.1	0.00	0.00	0.00
19,100.0	90.09	359.71	11,018.1	8,083.6	208.6	8,086.1	0.00	0.00	0.00
19,200.0	90.09	359.71	11,018.0	8,183.6	208.1	8,186.1	0.00	0.00	0.00
19,300.0	90.09	359.71	11,017.8	8,283.6	207.6	8,286.1	0.00	0.00	0.00
19,400.0	90.09	359.71	11,017.7	8,383.6	207.1	8,386.0	0.00	0.00	0.00
19,500.0	90.09	359.71	11,017.5	8,483.6	206.6	8,486.0	0.00	0.00	0.00
19,600.0	90.09	359.71	11,017.4	8,583.6	206.1	8,586.0	0.00	0.00	0.00
19,700.0	90.09	359.71	11,017.2	8,683.6	205.6	8,685.9	0.00	0.00	0.00
19,800.0	90.09	359.71	11,017.0	8,783.6	205.0	8,785.9	0.00	0.00	0.00
19,900.0	90.09	359.71	11,016.9	8,883.6	204.5	8,885.9	0.00	0.00	0.00
20,000.0	90.09	359.71	11,016.7	8,983.6	204.0	8,985.8	0.00	0.00	0.00
20,100.0	90.09	359.71	11,016.6	9,083.6	203.5	9,085.8	0.00	0.00	0.00
20,200.0	90.09	359.71	11,016.4	9,183.6	203.0	9,185.8	0.00	0.00	0.00
20,300.0	90.09	359.71	11,016.3	9,283.6	202.5	9,285.7	0.00	0.00	0.00
20,400.0	90.09	359.71	11,016.1	9,383.6	202.0	9,385.7	0.00	0.00	0.00
20,500.0	90.09	359.71	11,016.0	9,483.6	201.5	9,485.7	0.00	0.00	0.00
20,600.0	90.09	359.71	11,015.8	9,583.6	201.0	9,585.7	0.00	0.00	0.00
20,700.0	90.09	359.71	11,015.7	9,683.6	200.5	9,685.6	0.00	0.00	0.00
20,800.0	90.09	359.71	11,015.5	9,783.6	199.9	9,785.6	0.00	0.00	0.00
20,900.0	90.09	359.71	11,015.3	9,883.6	199.4	9,885.6	0.00	0.00	0.00
21,000.0	90.09	359.71	11,015.2	9,983.5	198.9	9,985.5	0.00	0.00	0.00
21,100.0	90.09	359.71	11,015.0	10,083.5	198.4	10,085.5	0.00	0.00	0.00
21,122.7	90.09	359.71	11,015.0	10,106.2	198.3	10,108.1	0.00	0.00	0.00
TD at 21122.7									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN WEST	Local Co-ordinate Reference:	Well ADMIRAL FEDERAL COM #802H
Project:	ATLAS PROSPECT (NM-E)	TVD Reference:	KB=25' @ 3010.2usft (TBD)
Site:	ADMIRAL FEDERAL PROJECT (ATLAS 2529)	MD Reference:	KB=25' @ 3010.2usft (TBD)
Well:	ADMIRAL FEDERAL COM #802H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Design Targets

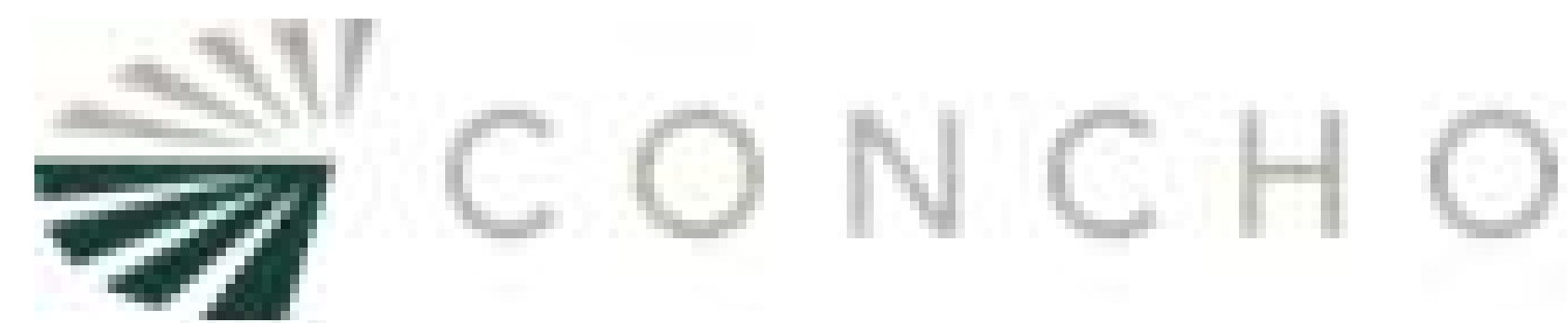
Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (ADMIRAL FED C - plan misses target center by 0.5usft at 20992.6usft MD (11015.2 TVD, 9976.2 N, 199.0 E) - Point	0.00	0.00	11,015.0	9,976.2	199.4	408,173.70	608,018.50	32° 7' 18.139 N	103° 59' 3.912 W
PBHL (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H5,108.0 D20.0)	0.09	179.71	11,015.0	10,106.2	198.3	408,303.70	608,017.40	32° 7' 19.425 N	103° 59' 3.919 W
POI 1 (ADMIRAL FED - plan hits target center - Rectangle (sides W100.0 H5,186.0 D20.0)	0.09	179.29	11,022.9	4,998.7	224.4	403,196.23	608,043.51	32° 6' 28.879 N	103° 59' 3.808 W
FTP (ADMIRAL FED C - plan misses target center by 74.6usft at 11064.3usft MD (10966.6 TVD, 59.4 N, 282.2 E) - Circle (radius 50.0)	0.00	0.00	11,030.0	20.3	285.8	398,217.80	608,104.90	32° 5' 39.608 N	103° 59' 3.282 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5500	5500	0	0	Start DLS 2.00 TFO 124.44
5684	5684	-3	5	Start 4861.6 hold at 5684.2 MD
10,546	10,536	-180	263	Start DLS 12.00 TFO -125.09
11,314	11,030	298	283	Start 4700.9 hold at 11314.2 MD
16,015	11,023	4999	224	Start DLS 2.00 TFO 89.78
16,036	11,023	5020	224	Start 5086.7 hold at 16036.0 MD
21,123	11,015	10,106	198	TD at 21122.7

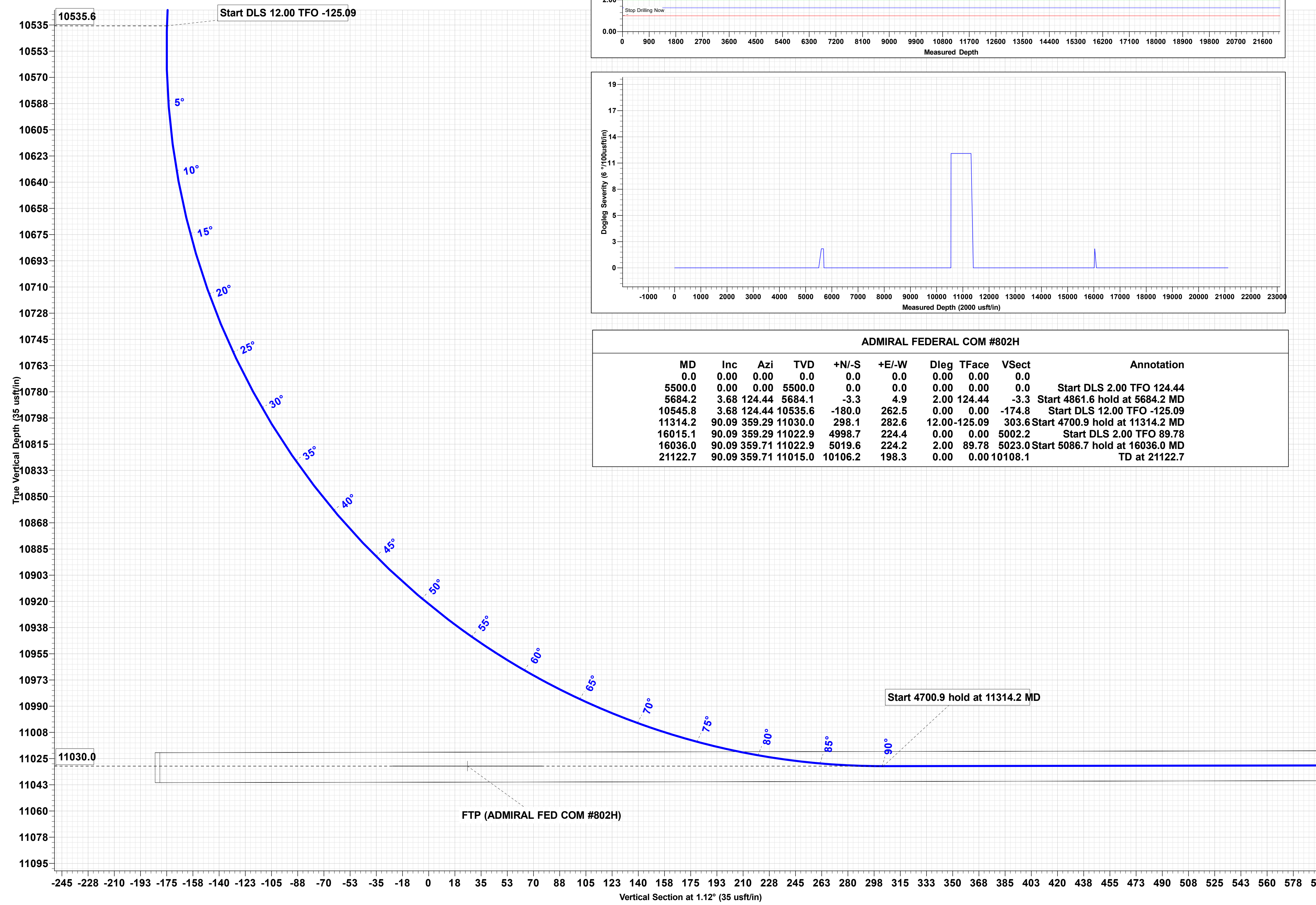
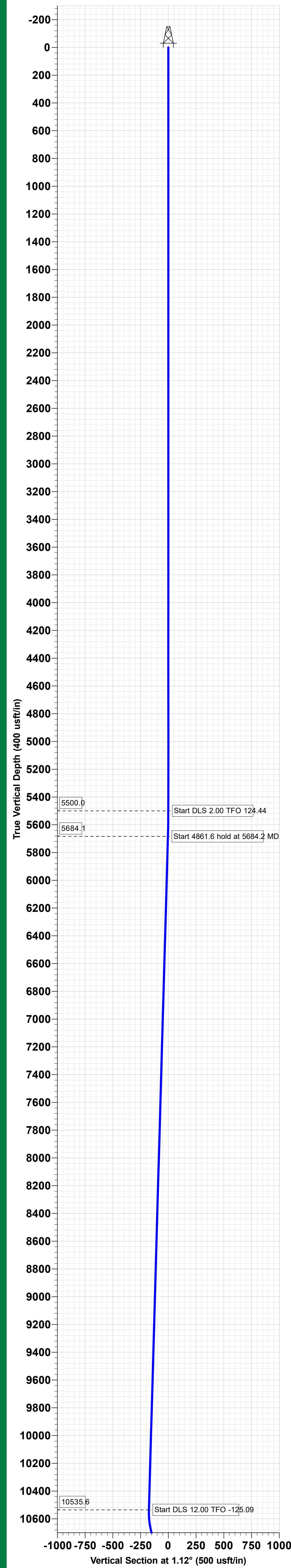
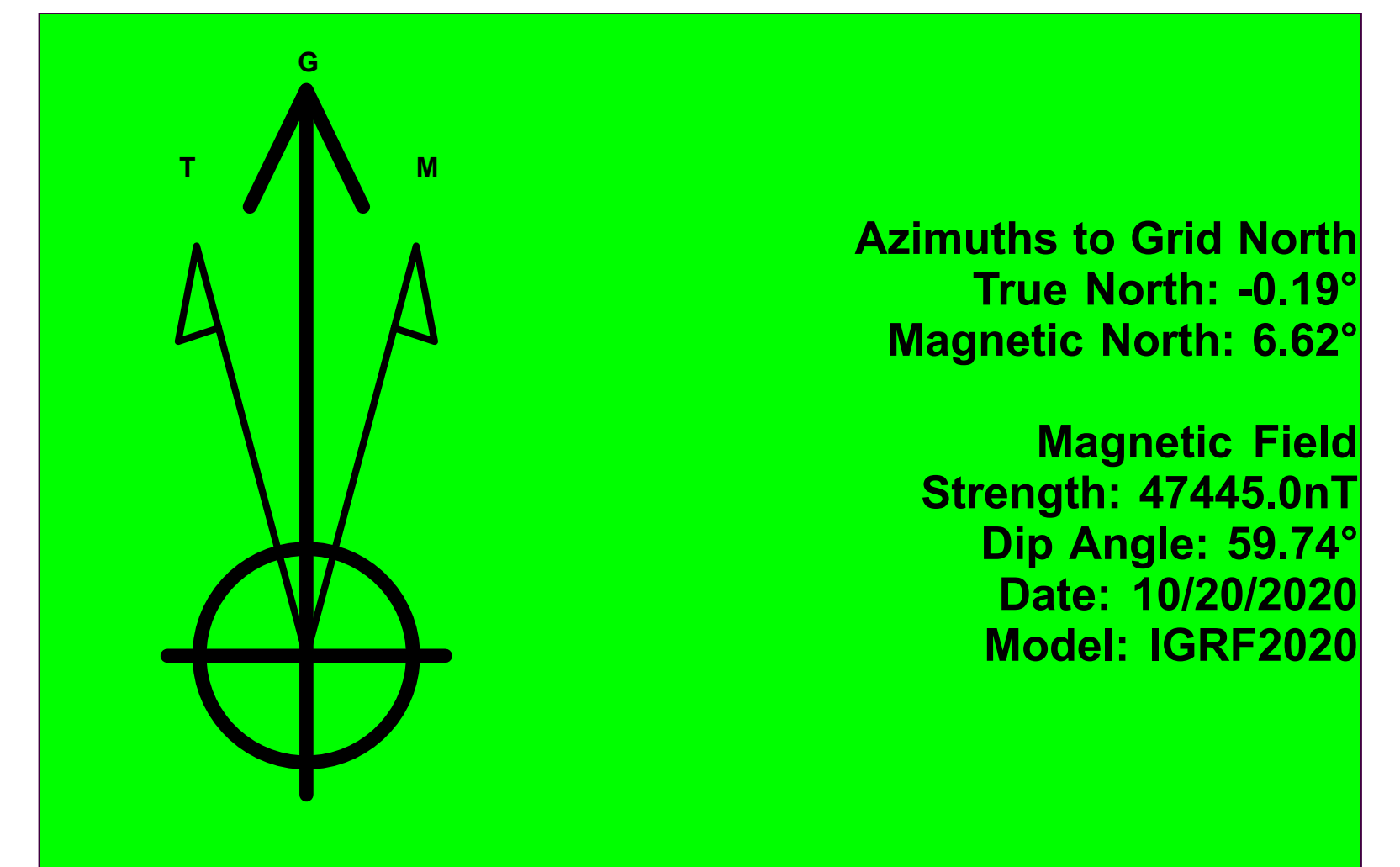
Checked By: _____ Approved By: _____ Date: _____



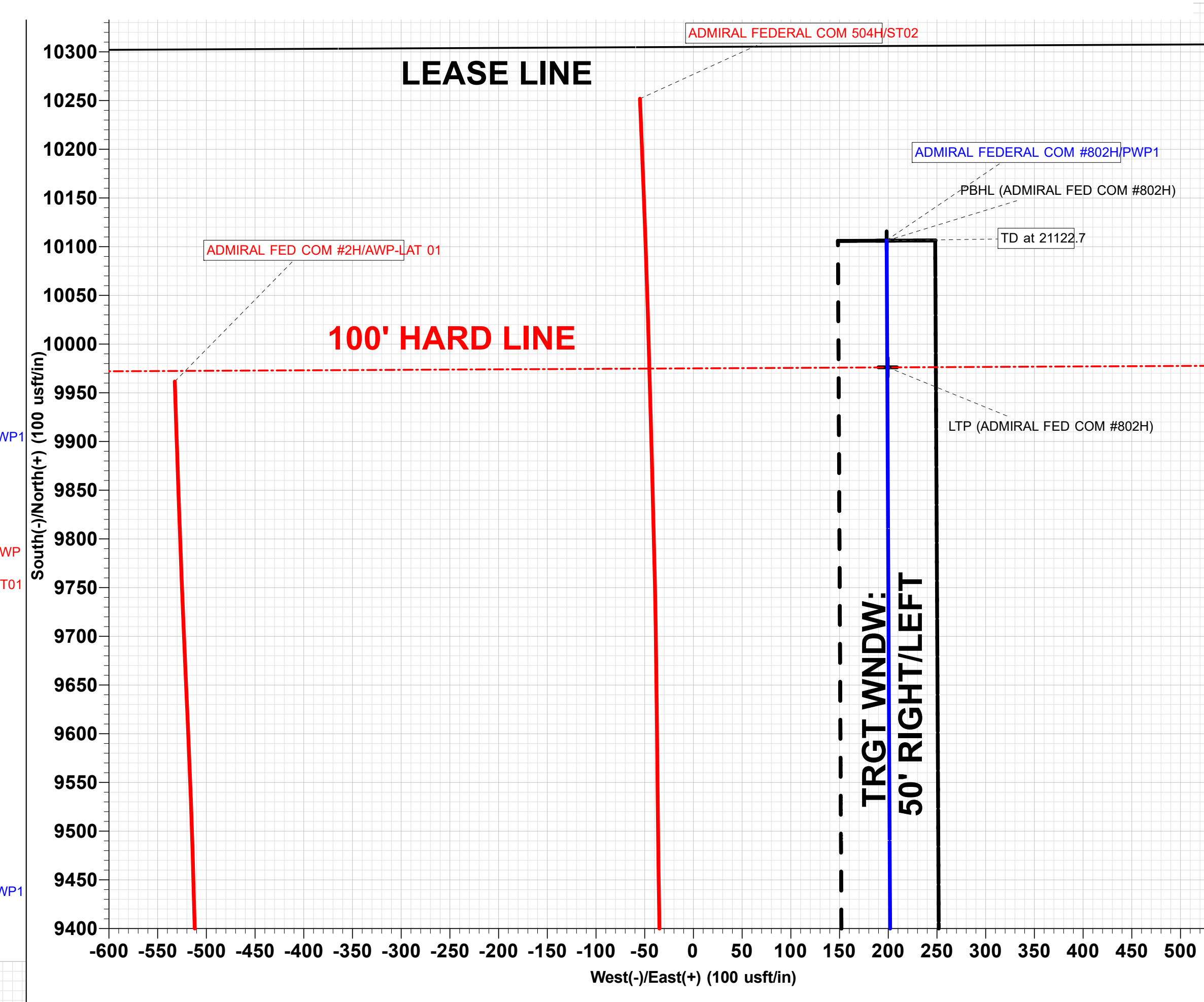
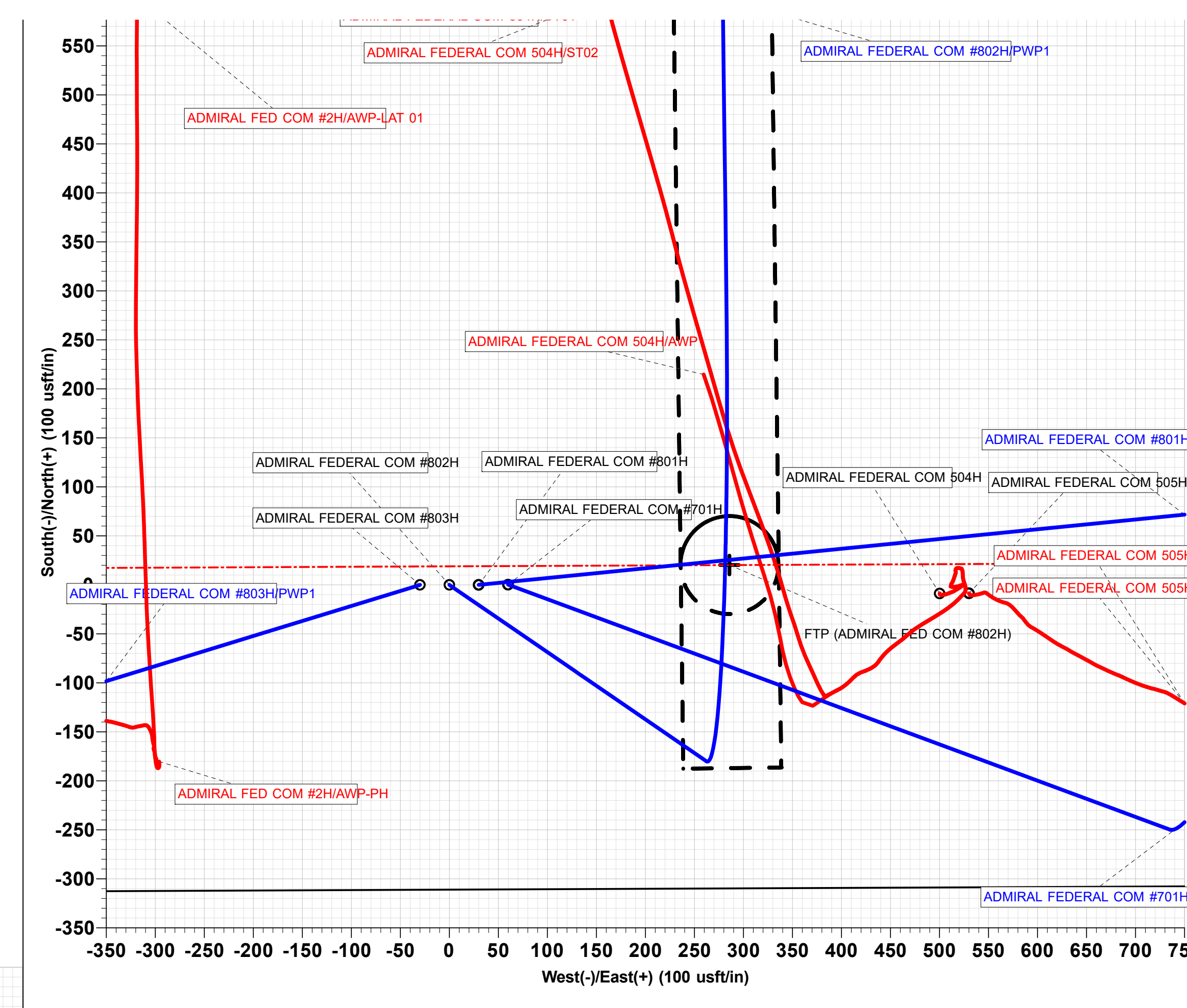
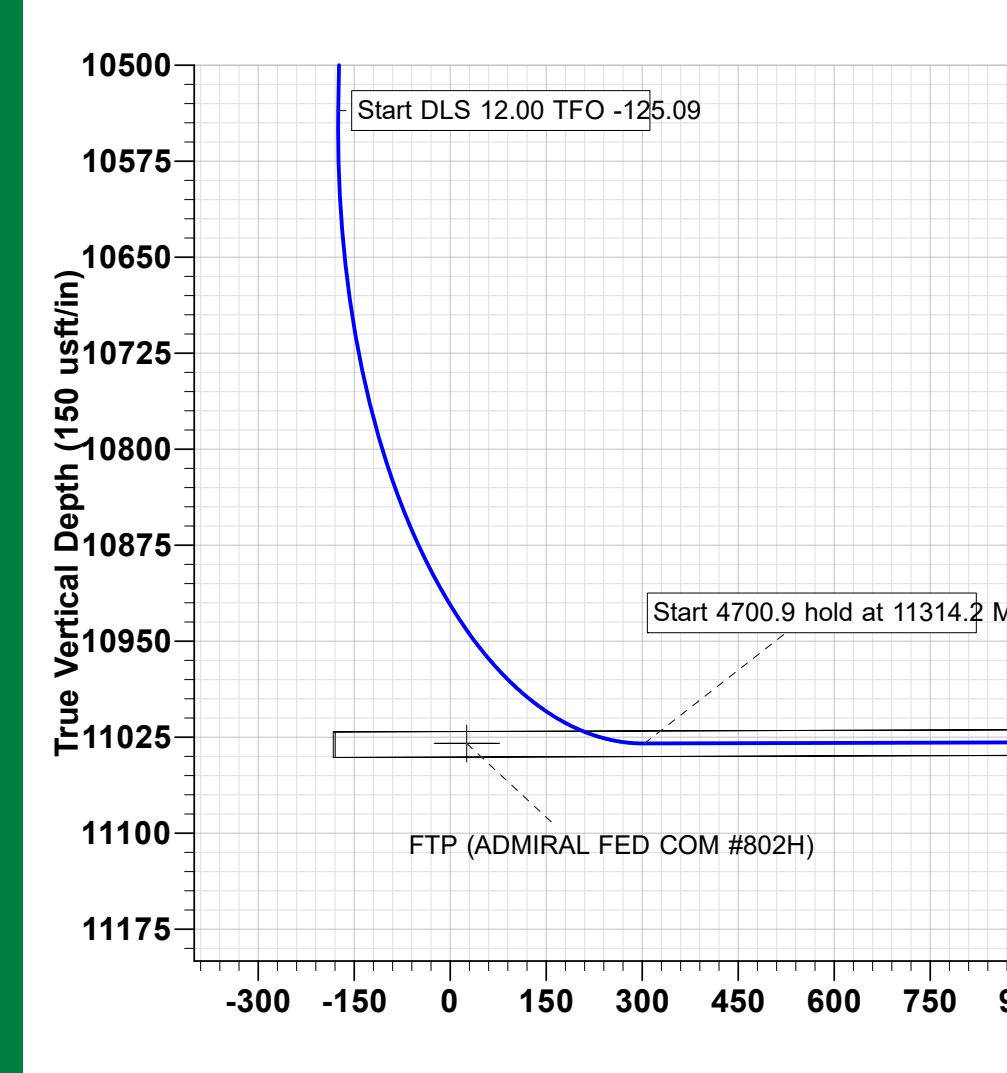
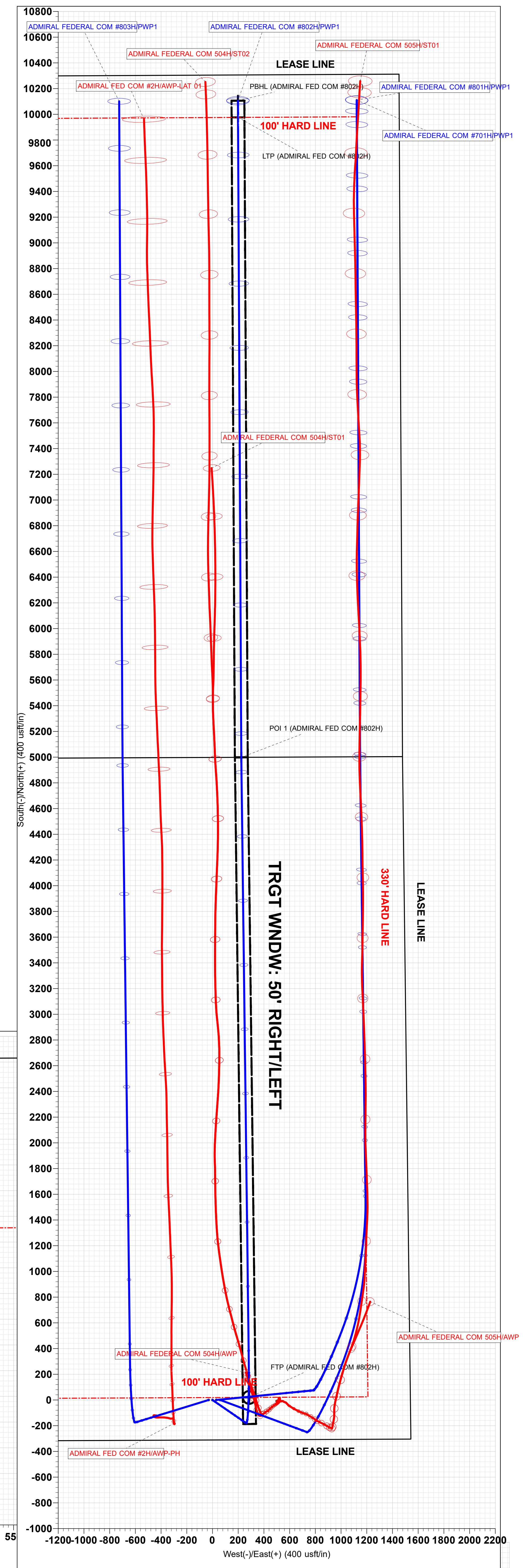
Project: ATLAS PROSPECT (NM-E)
Site: ADMIRAL FEDERAL PROJECT (ATLAS 2529)
Well: ADMIRAL FEDERAL COM #802H
Wellbore: OWB
Design: PWP1
GL: 2985.2
KB=25' @ 3010.2usft (TBD)

WELL DETAILS: ADMIRAL FEDERAL COM #802H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	398197.50	607819.10	32° 5' 39.417 N	103° 59' 6.605 W

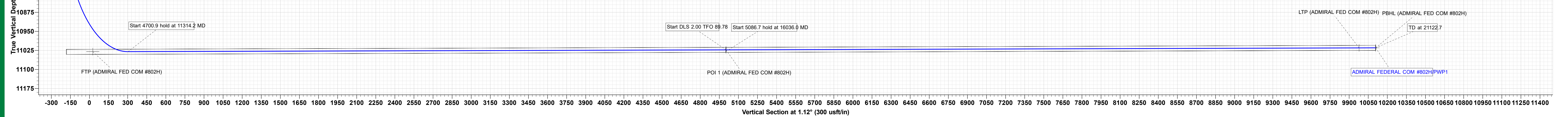
DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
LTP (ADMIRAL FED COM #802H)	11015.0	9976.2	199.4	408173.70	608018.50	32° 7' 18.139 N
PBHL (ADMIRAL FED COM #802H)	11015.0	10106.2	198.3	408303.70	608017.40	32° 7' 18.425 N
POI 1 (ADMIRAL FED COM #802H)	11022.9	4998.7	224.4	403196.23	608043.51	32° 6' 28.879 N
FTP (ADMIRAL FED COM #802H)	11030.0	20.3	285.8	398217.80	608104.90	32° 5' 39.608 N



ADMIRAL FEDERAL COM #802H									
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	
5500.0	0.00	0.00	5500.0	0.0	0.0	0.00	0.00	0.0	Start DLS 2.00 TFO 124.44
5684.2	3.68	124.44	5684.1	-3.3	4.9	2.00	124.44	-3.3	Start 4861.6 hold at 5684.2 MD
10545.8	3.68	124.44	10535.6	-180.0	262.5	0.00	0.00	-174.8	Start DLS 12.00 TFO -125.09
11314.2	90.09	359.29	11030.0	298.1	282.6	12.00	-125.09	303.6	Start 4700.9 hold at 11314.2 MD
16015.1	90.09	359.29	11022.9	4998.7	224.4	0.00	0.00	5002.2	Start DLS 2.00 TFO 89.78
16036.0	90.09	359.71	11022.9	5019.6	224.2	2.00	89.78	5023.0	Start 5086.7 hold at 16036.0 MD
21122.7	90.09	359.71	11015.0	10106.2	198.3	0.00	0.00	10108.1	TD at 21122.7



TRGT WNDW: 10' ABOVE/BELOW



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 802H
SURFACE HOLE FOOTAGE:	311'/S & 1540'/E
BOTTOM HOLE FOOTAGE:	200'/N & 2178'/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

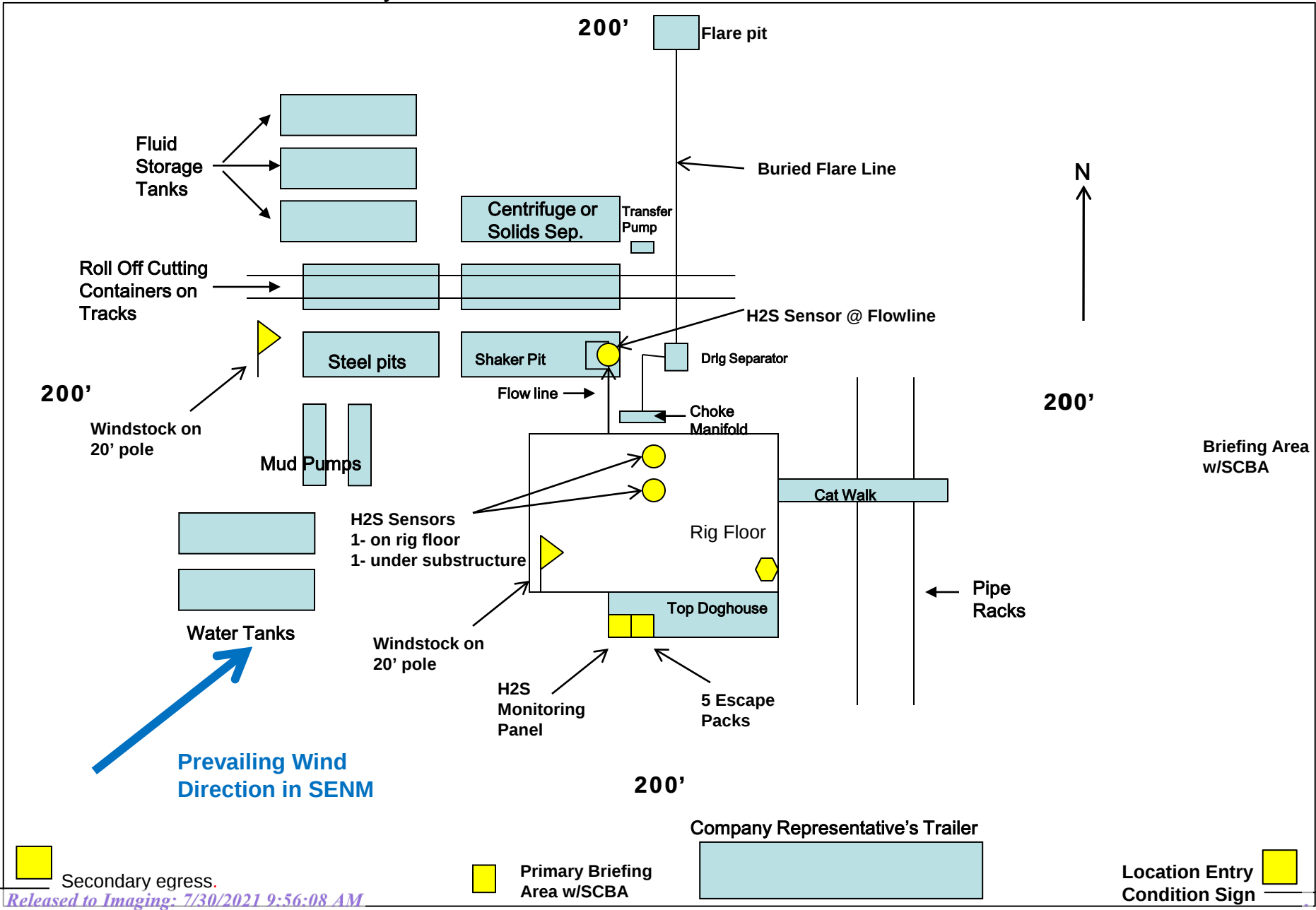
All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location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

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

ZS 070921

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 38513

COMMENTS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38513
	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 38513

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38513
	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