

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. [330323]
2. Name of Operator [229137]		9. API Well No. 30-025-48894
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 NMB000215
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.

GCP Rec 04/23/2021

SL

(Continued on page 2)



Approval Date: 04/22/2021

KZ

05/19/2021

*(Instructions on page 2)

DISTRICT I
1825 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-8161 Fax: (575) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-8178 Fax: (505) 334-8170

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 30-025-48894	Pool Code 98065	Pool Name WC-025 G-08 S263205N; Upper Wolfcamp
Property Code 330323	Property Name FIGURE FOUR FEDERAL COM	Well Number 703H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3264.8'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	3	26-S	32-E		1765	SOUTH	1285	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	34	25-S	32-E		50	NORTH	1650	EAST	LEA
Dedicated Acres 480	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

NAD 83 NME <u>PROPOSED BOTTOM HOLE LOCATION</u> Y=398617.3 N X=749986.5 E LAT.=32.094087° N LONG.=103.659564° W <table border="1"> <thead> <tr> <th colspan="2">POINT LEGEND</th> </tr> </thead> <tbody> <tr><td>1</td><td>Y=398688.8 N X=751638.5 E</td></tr> <tr><td>2</td><td>Y=398042.9 N X=751638.1 E</td></tr> <tr><td>3</td><td>Y=393397.2 N X=751651.4 E</td></tr> <tr><td>4</td><td>Y=390723.7 N X=751673.0 E</td></tr> <tr><td>5</td><td>Y=388048.2 N X=751701.8 E</td></tr> <tr><td>6</td><td>Y=388026.2 N X=749038.7 E</td></tr> <tr><td>7</td><td>Y=393372.1 N X=748989.6 E</td></tr> <tr><td>8</td><td>Y=398655.3 N X=748967.5 E</td></tr> </tbody> </table> NAD 83 NME <u>SURFACE LOCATION</u> Y=389802.5 N X=750397.8 E LAT.=32.069850° N LONG.=103.658414° W	POINT LEGEND		1	Y=398688.8 N X=751638.5 E	2	Y=398042.9 N X=751638.1 E	3	Y=393397.2 N X=751651.4 E	4	Y=390723.7 N X=751673.0 E	5	Y=388048.2 N X=751701.8 E	6	Y=388026.2 N X=749038.7 E	7	Y=393372.1 N X=748989.6 E	8	Y=398655.3 N X=748967.5 E	100' FNL & 1650' FEL Y=398567.3 N X=749986.8 E LAT.=32.093949° N LONG.=103.659564° W GRID AZ. - 359°44'20" HORZ. DIST. - 7775.7' SECTION 34 SECTION 3 2540' FNL & 1650' FEL Y=390841.7 N X=750022.0 E LAT.=32.072713° N LONG.=103.659606° W GRID AZ. TO FTP 340°07'04"	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 9/24/2020 Signature Date Stan Wagner Printed Name E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. AUGUST 19, 2020 Date of Survey Signature & Seal of Professional Surveyor <i>Chad Harcrow</i> 8/31/20 Certificate No. CHAD HARCROW 17777 W.O. # 20-1221 DRAWN BY: AH
POINT LEGEND																				
1	Y=398688.8 N X=751638.5 E																			
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Intent ☒ As Drilled ☐API # 30-025-48894
30-025-

Operator Name:	Property Name:	Well Number
COG Operating LLC	Figure Four Federal Com	703H

Kick Off Point (KOP)

UL I	Section 3	Township 26S	Range 32E	Lot	Feet	From N/S	Feet	From E/W	County Lea
Latitude					Longitude				NAD 83

First Take Point (FTP)

UL G	Section 3	Township 26S	Range 32E	Lot	Feet 2540	From N/S South	Feet 1650	From E/W East	County Lea
Latitude 32.072713					Longitude -103.659606				NAD 83

Last Take Point (LTP)

UL B	Section 34	Township 25S	Range 32E	Lot	Feet 100	From N/S North	Feet 1650	From E/W East	County Lea
Latitude 32.093949					Longitude -103.659564				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 # 30-025-	Operator Name:	Property Name:	Well Number
	COG Operating LLC	Figure Four Federal Com	702H

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 9/14/20

☒ Original

Operator & OGRID No.: COG Operating LLC, (217955)

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Figure Four Federal Com 701H	30-025-	I-3-26S-32E	1765' FSL & 1225' FEL	±3000	None Planned	APD Submission Plan Subject to change
Figure Four Federal Com 702H	30-025-	I-3-26S-32E	1765' FSL & 1255' FEL	±3000	None Planned	APD Submission Plan Subject to change
Figure Four Federal Com 703H	30-025-48894	I-3-26S-32E	1765' FSL & 1285' FEL	±3000	None Planned	APD Submission Plan Subject to change
Figure Four Federal Com 704H	30-025-	I-3-26S-32E	1765' FSL & 1315' FEL	±3000	None Planned	APD Submission Plan Subject to change

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to **ETC Field Services LLC** and will be connected to **Jal** low pressure gathering system located in **Lea** County, New Mexico. **COG Operating LLC** provides (periodically) to **ETC Field Services LLC** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, **COG Operating LLC** and **ETC Field Services LLC** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **ETC Field Services LLC** Processing Plant located in Sec. **3-T26S-R32E**, **Lea** County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease

- Gas flared would be minimal, but might be uneconomical to operate when gas volume declines

- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG Operating, LLC
LEASE NO.:	NMM-120910
WELL NAME & NO.:	Figure Four Federal Com 703H
SURFACE HOLE FOOTAGE:	1765' FSL & 1285' FEL
BOTTOM HOLE FOOTAGE:	0050' FNL & 1650' FEL Sec. 34, T.25 S., R.32 E.
LOCATION:	Section 03, T.26 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

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

Medium Cave/Karst

Possibility of water flows in the Salado and Rustler.

Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **10-3/4** inch surface casing shall be set at approximately **1189** feet (a minimum of 25 feet (Lea 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. Excess calculates to 25% - Additional cement may be required.**
 - ❖ 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. 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.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 psi.**

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)

☒ 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 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.
3. 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.
4. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
5. 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.
6. 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.

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.
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. 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).

- c. 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.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. 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.
- f. 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.
- g. 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.

JAM 12102020

COG Operating, LLC - Figure Four Federal 703H

1. Geologic Formations

TVD of target	12,240' EOL	Pilot hole depth	NA
MD at TD:	20,382'	Deepest expected fresh water:	250'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	930	Water	
Top of Salt	1275	Salt	
Base of Salt	4330	Salt	
Lamar	4560	Salt Water	
Bell Canyon	4610	Salt Water	
Cherry Canyon	5610	Oil/Gas	
Brushy Canyon	7135	Oil/Gas	
Bone Spring Lime	8714	Oil/Gas	
1st Bone Spring Sand	9664	Oil/Gas	
2nd Bone Spring Sand	10304	Oil/Gas	
2nd BSS Base	10836	Oil/Gas	
3rd Bone Spring Sand	11446	Oil/Gas	
Wolfcamp	11903	Oil/Gas	
Wolfcamp A Shale	12097	Target Oil/Gas	
Wolfcamp B	12347	Not Penetrated	Abnormal Press.

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	1225	10.75"	45.5	N80	BTC	4.41	1.67	18.66	19.68
9.875"	0	8500	7.625"	29.7	HCL80	BTC	1.56	1.09	2.88	2.90
8.750"	8500	11396	7.625"	29.7	HCP110	TL-FJ	1.32	1.12	2.78	1.94
6.75"	0	11196	5.5"	23	P110	BTC	1.83	2.16	2.59	2.57
6.75"	11196	20,382	5.5"	23	P110	Talon HTQ	1.83	2.16	2.59	2.51
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

The 5.5" 23# Talon HTQ casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

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

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	584	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter. Stage 1	830	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	520	12.7	2	10.7	72	Lead: 50:50:10 H Blend
	866	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

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

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

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

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	8,000'	35% OH in Lateral (KOP to EOL)

COG Operating, LLC - Figure Four Federal 703H

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:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	3500 psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

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

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

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

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	12 - 12.5	35-45	<20

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

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

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

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7960 psi at 12240' TVD
Abnormal Temperature	NO 180 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 (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S 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 H₂S is present

Y H₂S 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

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

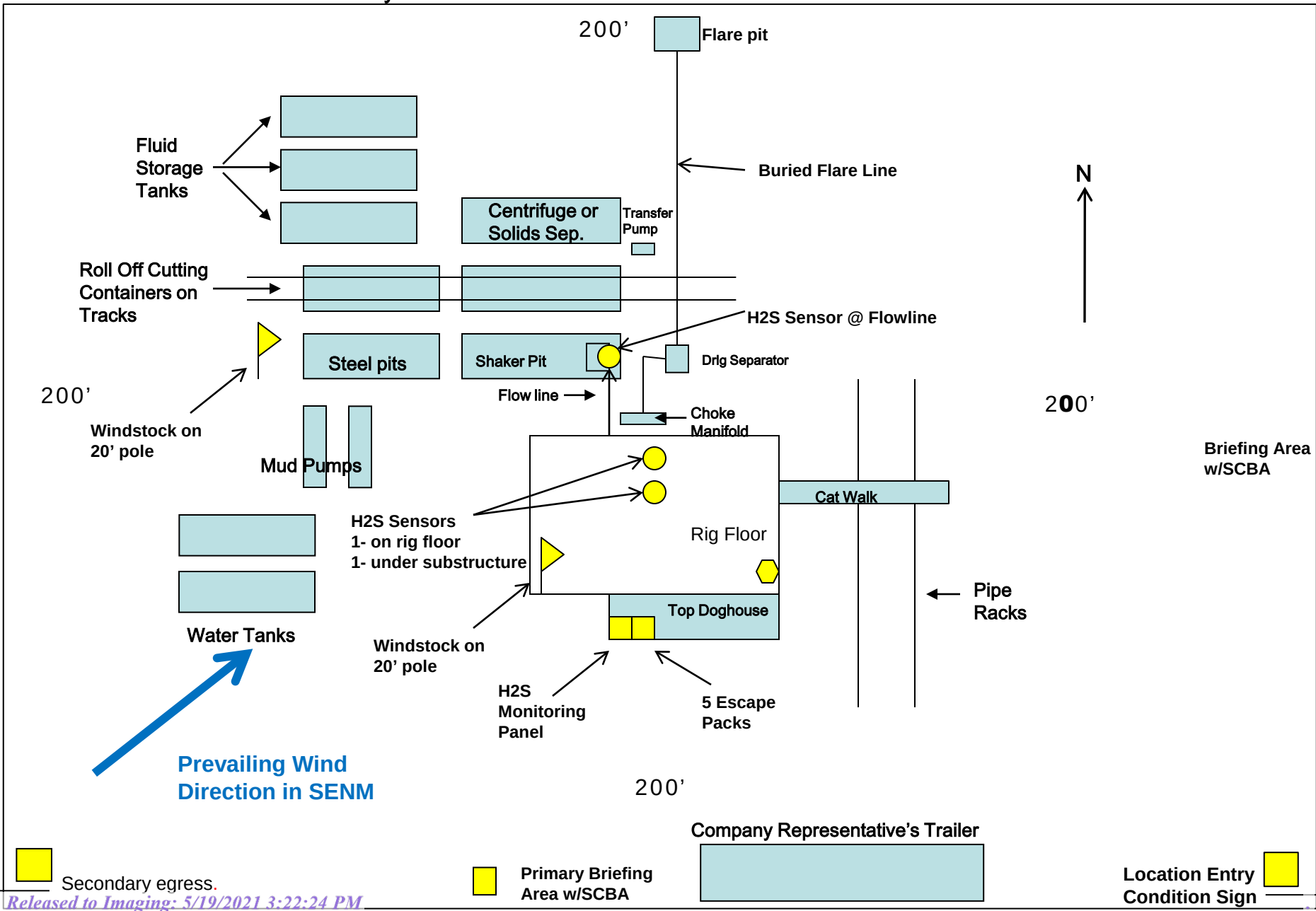
	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

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

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

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



DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

PILEDRIIVER FED & FIGURE FOUR FED PROJECT

FIGURE FOUR FED #703H

OWB
PWP1

Anticollision Report

10 September, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference	PWP1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	Stations
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 1,000.0 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	9/10/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	20,382.1	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						
PILEDRIIVER FED & FIGURE FOUR FED PROJECT						
FIGURE FOUR FED #701H - OWB - PWP1	2,500.0	2,499.6	60.0	41.5	3.251	CC, ES
FIGURE FOUR FED #701H - OWB - PWP1	2,600.0	2,598.0	61.3	42.2	3.207	SF
FIGURE FOUR FED #702H - OWB - PWP1	2,500.0	2,499.4	30.0	17.3	2.366	CC
FIGURE FOUR FED #702H - OWB - PWP1	2,600.0	2,599.2	30.2	17.2	2.315	ES, SF
FIGURE FOUR FED #704H - OWB - PWP1	2,416.3	2,417.5	30.0	17.6	2.426	CC
FIGURE FOUR FED #704H - OWB - PWP1	2,500.0	2,501.2	30.0	17.3	2.366	ES, SF
PILEDRIIVER FEDERAL #701H - OWB - PWP1						Out of range
PILEDRIIVER FEDERAL #702H - OWB - PWP1	12,074.6	12,634.4	424.8	341.2	5.081	CC
PILEDRIIVER FEDERAL #702H - OWB - PWP1	12,100.0	12,616.2	425.5	341.1	5.044	ES
PILEDRIIVER FEDERAL #702H - OWB - PWP1	12,125.0	12,597.6	427.4	342.4	5.029	SF
PILEDRIIVER FEDERAL #703H - OWB - PWP1	12,569.7	12,204.0	120.4	65.7	2.202	CC, ES, SF
PILEDRIIVER FEDERAL #704H - OWB - PWP1	12,800.0	12,058.9	729.5	672.9	12.903	SF
PILEDRIIVER FEDERAL #704H - OWB - PWP1	12,811.9	12,053.3	729.4	672.9	12.904	CC, ES
PINTAIL 3 FED #1H - OWB - AWP	9,545.7	10,986.5	878.9	801.9	11.415	CC, ES, SF
PINTAIL 3 FED #2H - OWB - AWP	9,556.2	11,022.4	873.9	796.9	11.356	CC, ES
PINTAIL 3 FED #2H - OWB - AWP	9,600.0	11,026.6	874.9	797.8	11.342	SF
PINTAIL 3 FED SWD - OWB - OWB	6,600.0	6,563.0	684.3	615.6	9.955	SF
PINTAIL 3 FED SWD - OWB - OWB	6,611.8	6,563.0	684.2	615.5	9.957	CC, ES

Offset Design	PILEDRIIVER FED & FIGURE FOUR FED PROJECT - FIGURE FOUR FED #701H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program:	0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	3.0	3.0	89.52	0.5	60.0	60.0					
100.0	100.0	99.6	99.6	3.0	3.0	89.52	0.5	60.0	60.0	54.0	6.01	9.992		
200.0	200.0	199.6	199.6	3.0	3.0	89.52	0.5	60.0	60.0	53.9	6.08	9.873		
300.0	300.0	299.6	299.6	3.1	3.1	89.52	0.5	60.0	60.0	53.8	6.23	9.629		
400.0	400.0	399.6	399.6	3.2	3.2	89.52	0.5	60.0	60.0	53.5	6.46	9.285		
500.0	500.0	499.6	499.6	3.4	3.4	89.52	0.5	60.0	60.0	53.2	6.76	8.874		
600.0	600.0	599.6	599.6	3.6	3.6	89.52	0.5	60.0	60.0	52.9	7.12	8.427		
700.0	700.0	699.6	699.6	3.8	3.8	89.52	0.5	60.0	60.0	52.5	7.53	7.968		
800.0	800.0	799.6	799.6	4.0	4.0	89.52	0.5	60.0	60.0	52.0	7.98	7.515		

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

Concho Resources LLC

Anticollision Report

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

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-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
900.0	900.0	899.6	899.6	4.2	4.2	89.52	0.5	60.0	60.0	51.5	8.47	7.080	
1,000.0	1,000.0	999.6	999.6	4.5	4.5	89.52	0.5	60.0	60.0	51.0	9.00	6.670	
1,100.0	1,100.0	1,099.6	1,099.6	4.8	4.8	89.52	0.5	60.0	60.0	50.5	9.54	6.289	
1,200.0	1,200.0	1,199.6	1,199.6	5.1	5.1	89.52	0.5	60.0	60.0	49.9	10.11	5.935	
1,300.0	1,300.0	1,299.6	1,299.6	5.3	5.3	89.52	0.5	60.0	60.0	49.3	10.69	5.611	
1,400.0	1,400.0	1,399.6	1,399.6	5.6	5.6	89.52	0.5	60.0	60.0	48.7	11.30	5.312	
1,500.0	1,500.0	1,499.6	1,499.6	6.0	6.0	89.52	0.5	60.0	60.0	48.1	11.91	5.039	
1,600.0	1,600.0	1,599.6	1,599.6	6.3	6.3	89.52	0.5	60.0	60.0	47.5	12.53	4.787	
1,700.0	1,700.0	1,699.6	1,699.6	6.6	6.6	89.52	0.5	60.0	60.0	46.8	13.17	4.557	
1,800.0	1,800.0	1,799.6	1,799.6	6.9	6.9	89.52	0.5	60.0	60.0	46.2	13.81	4.345	
1,900.0	1,900.0	1,899.6	1,899.6	7.2	7.2	89.52	0.5	60.0	60.0	45.5	14.46	4.150	
2,000.0	2,000.0	1,999.6	1,999.6	7.6	7.6	89.52	0.5	60.0	60.0	44.9	15.11	3.970	
2,100.0	2,100.0	2,099.6	2,099.6	7.9	7.9	89.52	0.5	60.0	60.0	44.2	15.77	3.804	
2,200.0	2,200.0	2,199.6	2,199.6	8.2	8.2	89.52	0.5	60.0	60.0	43.6	16.44	3.650	
2,300.0	2,300.0	2,299.6	2,299.6	8.6	8.6	89.52	0.5	60.0	60.0	42.9	17.11	3.507	
2,400.0	2,400.0	2,399.6	2,399.6	8.9	8.9	89.52	0.5	60.0	60.0	42.2	17.78	3.374	
2,500.0	2,500.0	2,499.6	2,499.6	9.2	9.2	89.52	0.5	60.0	60.0	41.5	18.46	3.251 CC, ES	
2,600.0	2,600.0	2,598.0	2,598.0	9.6	9.6	88.53	1.6	61.3	61.3	42.2	19.12	3.207 SF	
2,700.0	2,700.0	2,696.1	2,696.0	9.9	9.9	85.77	4.8	65.1	65.4	45.6	19.77	3.309	
2,800.0	2,800.0	2,794.7	2,794.3	10.3	10.2	82.01	10.0	71.3	72.2	51.8	20.42	3.537	
2,900.0	2,900.0	2,894.4	2,893.5	10.6	10.6	78.69	15.6	78.0	79.8	58.7	21.10	3.781	
3,000.0	3,000.0	2,994.0	2,992.7	10.9	10.9	75.95	21.2	84.6	87.5	65.7	21.78	4.019	
3,100.0	3,100.0	3,093.6	3,092.0	11.3	11.2	73.66	26.8	91.3	95.4	73.0	22.46	4.250	
3,200.0	3,200.0	3,193.2	3,191.2	11.6	11.6	71.73	32.3	97.9	103.5	80.3	23.14	4.472	
3,300.0	3,300.0	3,292.8	3,290.5	12.0	11.9	70.07	37.9	104.6	111.6	87.8	23.83	4.685	
3,400.0	3,400.0	3,392.5	3,389.7	12.3	12.3	68.64	43.5	111.2	119.9	95.3	24.52	4.889	
3,500.0	3,500.0	3,492.1	3,488.9	12.7	12.6	67.40	49.1	117.9	128.1	102.9	25.21	5.084	
3,600.0	3,600.0	3,591.7	3,588.2	13.0	13.0	66.30	54.7	124.5	136.5	110.6	25.90	5.271	
3,700.0	3,700.0	3,691.3	3,687.4	13.4	13.3	65.34	60.2	131.2	144.9	118.3	26.59	5.449	
3,800.0	3,800.0	3,790.9	3,786.7	13.7	13.6	64.48	65.8	137.8	153.3	126.0	27.29	5.619	
3,900.0	3,900.0	3,890.6	3,885.9	14.1	14.0	63.70	71.4	144.5	161.8	133.8	27.98	5.781	
4,000.0	4,000.0	3,990.2	3,985.1	14.4	14.3	63.01	77.0	151.2	170.2	141.6	28.68	5.936	
4,100.0	4,100.0	4,089.8	4,084.4	14.8	14.7	62.38	82.6	157.8	178.7	149.4	29.38	6.084	
4,200.0	4,200.0	4,189.4	4,183.6	15.1	15.0	61.81	88.1	164.5	187.3	157.2	30.08	6.226	
4,300.0	4,300.0	4,289.0	4,282.9	15.5	15.4	61.29	93.7	171.1	195.8	165.0	30.78	6.362	
4,400.0	4,400.0	4,388.7	4,382.1	15.8	15.7	60.81	99.3	177.8	204.4	172.9	31.48	6.492	
4,500.0	4,500.0	4,488.3	4,481.3	16.2	16.1	60.37	104.9	184.4	212.9	180.8	32.18	6.617	
4,600.0	4,600.0	4,587.9	4,580.6	16.5	16.4	59.96	110.5	191.1	221.5	188.6	32.89	6.736	
4,700.0	4,700.0	4,687.5	4,679.8	16.9	16.8	59.59	116.1	197.7	230.1	196.5	33.59	6.851	
4,800.0	4,800.0	4,787.1	4,779.1	17.2	17.2	59.24	121.6	204.4	238.7	204.4	34.29	6.961	
4,900.0	4,900.0	4,886.8	4,878.3	17.6	17.5	58.92	127.2	211.0	247.3	212.3	35.00	7.066	
5,000.0	5,000.0	4,986.4	4,977.5	17.9	17.9	58.61	132.8	217.7	255.9	220.2	35.70	7.168	
5,100.0	5,100.0	5,086.0	5,076.8	18.3	18.2	58.33	138.4	224.3	264.5	228.1	36.41	7.266	
5,200.0	5,200.0	5,185.6	5,176.0	18.7	18.6	58.07	144.0	231.0	273.2	236.1	37.12	7.360	
5,300.0	5,300.0	5,285.2	5,275.3	19.0	18.9	57.82	149.5	237.6	281.8	244.0	37.82	7.450	
5,400.0	5,400.0	5,384.8	5,374.5	19.4	19.3	57.58	155.1	244.3	290.4	251.9	38.53	7.538	
5,500.0	5,500.0	5,484.5	5,473.7	19.7	19.6	57.36	160.7	250.9	299.1	259.8	39.24	7.622	
5,600.0	5,600.0	5,584.1	5,573.0	20.1	20.0	67.31	166.3	257.6	307.1	267.1	39.95	7.686	
5,700.0	5,699.8	5,683.9	5,672.4	20.4	20.3	67.86	171.9	264.2	313.7	273.1	40.66	7.716	
5,800.0	5,799.6	5,783.5	5,771.7	20.8	20.7	68.80	177.5	270.9	319.8	278.4	41.36	7.731	
5,900.0	5,899.4	5,883.2	5,871.0	21.1	21.1	69.71	183.0	277.5	325.9	283.9	42.07	7.747	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,000.0	5,999.1	5,982.9	5,970.3	21.5	21.4	70.58	188.6	284.2	332.1	289.4	42.78	7.764	
6,100.0	6,098.9	6,082.6	6,069.6	21.8	21.8	71.42	194.2	290.9	338.4	295.0	43.49	7.783	
6,200.0	6,198.6	6,182.3	6,168.9	22.2	22.1	72.23	199.8	297.5	344.8	300.6	44.19	7.802	
6,300.0	6,298.4	6,281.9	6,268.2	22.5	22.5	73.01	205.4	304.2	351.2	306.3	44.90	7.822	
6,400.0	6,398.1	6,381.6	6,367.5	22.9	22.8	73.76	211.0	310.8	357.7	312.1	45.61	7.843	
6,500.0	6,497.9	6,481.3	6,466.8	23.3	23.2	74.48	216.5	317.5	364.3	318.0	46.32	7.865	
6,600.0	6,597.6	6,581.0	6,566.1	23.6	23.6	75.18	222.1	324.1	370.9	323.9	47.03	7.886	
6,700.0	6,697.4	6,680.7	6,665.4	24.0	23.9	75.85	227.7	330.8	377.6	329.8	47.74	7.909	
6,800.0	6,797.2	6,780.3	6,764.7	24.3	24.3	76.51	233.3	337.4	384.3	335.8	48.45	7.931	
6,900.0	6,896.9	6,880.0	6,864.0	24.7	24.6	77.13	238.9	344.1	391.0	341.9	49.16	7.954	
7,000.0	6,996.7	6,979.7	6,963.3	25.0	25.0	77.74	244.5	350.7	397.9	348.0	49.87	7.978	
7,100.0	7,096.4	7,079.4	7,062.6	25.4	25.3	78.33	250.1	357.4	404.7	354.1	50.58	8.001	
7,200.0	7,196.2	7,179.1	7,161.9	25.7	25.7	78.89	255.6	364.1	411.6	360.3	51.29	8.024	
7,300.0	7,295.9	7,278.7	7,261.2	26.1	26.1	79.44	261.2	370.7	418.5	366.5	52.00	8.048	
7,400.0	7,395.7	7,378.4	7,360.5	26.5	26.4	79.97	266.8	377.4	425.5	372.8	52.72	8.071	
7,500.0	7,495.5	7,478.1	7,459.8	26.8	26.8	80.49	272.4	384.0	432.5	379.1	53.43	8.095	
7,600.0	7,595.2	7,577.8	7,559.1	27.2	27.1	80.98	278.0	390.7	439.5	385.4	54.14	8.119	
7,700.0	7,695.0	7,677.5	7,658.4	27.5	27.5	81.46	283.6	397.3	446.6	391.7	54.85	8.142	
7,800.0	7,794.7	7,777.1	7,757.7	27.9	27.8	81.93	289.1	404.0	453.7	398.1	55.56	8.165	
7,900.0	7,894.5	7,876.8	7,857.0	28.2	28.2	82.38	294.7	410.6	460.8	404.5	56.27	8.189	
8,000.0	7,994.2	7,976.5	7,956.3	28.6	28.6	82.82	300.3	417.3	468.0	411.0	56.99	8.212	
8,100.0	8,094.0	8,076.2	8,055.6	29.0	28.9	83.24	305.9	424.0	475.2	417.5	57.70	8.235	
8,200.0	8,193.7	8,175.9	8,154.9	29.3	29.3	83.66	311.5	430.6	482.4	423.9	58.41	8.258	
8,300.0	8,293.5	8,275.6	8,254.2	29.7	29.6	84.06	317.1	437.3	489.6	430.5	59.13	8.281	
8,400.0	8,393.3	8,375.2	8,353.5	30.0	30.0	84.44	322.6	443.9	496.8	437.0	59.84	8.303	
8,500.0	8,493.0	8,474.9	8,452.8	30.4	30.4	84.82	328.2	450.6	504.1	443.6	60.55	8.325	
8,600.0	8,592.8	8,574.6	8,552.1	30.7	30.7	85.19	333.8	457.2	511.4	450.2	61.27	8.348	
8,700.0	8,692.5	8,674.3	8,651.4	31.1	31.1	85.54	339.4	463.9	518.7	456.8	61.98	8.370	
8,800.0	8,792.3	8,774.0	8,750.7	31.5	31.4	85.89	345.0	470.5	526.1	463.4	62.69	8.391	
8,900.0	8,892.0	8,873.6	8,850.0	31.8	31.8	86.23	350.6	477.2	533.4	470.0	63.41	8.413	
9,000.0	8,991.8	8,973.3	8,949.3	32.2	32.2	86.55	356.2	483.9	540.8	476.7	64.12	8.434	
9,100.0	9,091.6	9,073.0	9,048.6	32.5	32.5	86.87	361.7	490.5	548.2	483.4	64.83	8.455	
9,200.0	9,191.3	9,172.7	9,147.9	32.9	32.9	87.18	367.3	497.2	555.6	490.0	65.55	8.476	
9,300.0	9,291.1	9,272.4	9,247.2	33.2	33.2	87.49	372.9	503.8	563.0	496.8	66.26	8.497	
9,400.0	9,390.8	9,372.0	9,346.5	33.6	33.6	87.78	378.5	510.5	570.5	503.5	66.98	8.517	
9,500.0	9,490.6	9,471.7	9,445.8	34.0	34.0	88.07	384.1	517.1	577.9	510.2	67.69	8.537	
9,600.0	9,590.3	9,571.4	9,545.1	34.3	34.3	88.35	389.7	523.8	585.4	517.0	68.41	8.557	
9,700.0	9,690.1	9,671.1	9,644.4	34.7	34.7	88.62	395.2	530.4	592.8	523.7	69.12	8.577	
9,800.0	9,789.9	9,770.8	9,743.7	35.0	35.0	88.88	400.8	537.1	600.3	530.5	69.84	8.597	
9,900.0	9,889.6	9,870.4	9,843.0	35.4	35.4	89.14	406.4	543.7	607.8	537.3	70.55	8.616	
10,000.0	9,989.4	9,970.1	9,942.3	35.8	35.8	89.40	412.0	550.4	615.4	544.1	71.27	8.635	
10,100.0	10,089.1	10,069.8	10,041.6	36.1	36.1	89.64	417.6	557.1	622.9	550.9	71.98	8.654	
10,200.0	10,188.9	10,169.5	10,140.9	36.5	36.5	89.88	423.2	563.7	630.4	557.7	72.70	8.672	
10,300.0	10,288.6	10,269.2	10,240.2	36.8	36.8	90.12	428.8	570.4	638.0	564.6	73.41	8.691	
10,400.0	10,388.4	10,368.8	10,339.5	37.2	37.2	90.35	434.3	577.0	645.5	571.4	74.13	8.709	
10,500.0	10,488.1	10,468.5	10,438.8	37.5	37.6	90.57	439.9	583.7	653.1	578.3	74.84	8.727	
10,600.0	10,587.9	10,568.2	10,538.1	37.9	37.9	90.79	445.5	590.3	660.7	585.1	75.56	8.744	
10,700.0	10,687.7	10,667.9	10,637.4	38.3	38.3	91.00	451.1	597.0	668.3	592.0	76.27	8.762	
10,800.0	10,787.4	10,767.6	10,736.7	38.6	38.6	91.21	456.7	603.6	675.9	598.9	76.99	8.779	
10,900.0	10,887.2	10,867.3	10,836.0	39.0	39.0	91.42	462.3	610.3	683.5	605.8	77.70	8.796	
11,000.0	10,986.9	10,966.9	10,935.3	39.3	39.4	91.62	467.8	617.0	691.1	612.7	78.42	8.813	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,100.0	11,086.7	11,066.6	11,034.6	39.7	39.7	91.81	473.4	623.6	698.7	619.6	79.14	8.829		
11,200.0	11,186.4	11,166.3	11,133.9	40.1	40.1	92.01	479.0	630.3	706.4	626.5	79.85	8.846		
11,300.0	11,286.2	11,266.0	11,233.3	40.4	40.4	92.19	484.6	636.9	714.0	633.4	80.57	8.862		
11,400.0	11,386.0	11,365.7	11,332.6	40.8	40.8	92.38	490.2	643.6	721.7	640.4	81.28	8.878		
11,500.0	11,485.7	11,465.3	11,431.9	41.1	41.2	92.56	495.8	650.2	729.3	647.3	82.00	8.894		
11,600.0	11,585.5	11,565.0	11,531.2	41.5	41.5	92.73	501.3	656.9	737.0	654.3	82.72	8.910		
11,703.3	11,688.5	11,668.0	11,633.7	41.9	41.9	92.91	507.1	663.8	744.9	661.4	83.46	8.925		
11,725.0	11,710.1	11,689.6	11,655.3	42.0	42.0	96.41	508.3	665.2	746.7	663.0	83.61	8.930		
11,750.0	11,734.9	11,714.4	11,679.9	42.0	42.1	98.05	509.7	666.9	749.0	665.2	83.79	8.938		
11,775.0	11,759.4	11,739.0	11,704.5	42.1	42.2	98.93	511.1	668.5	751.5	667.6	83.97	8.950		
11,800.0	11,783.6	11,759.2	11,724.6	42.2	42.2	99.43	512.3	669.9	754.4	670.3	84.11	8.969		
11,825.0	11,807.5	11,775.0	11,740.3	42.3	42.3	99.66	513.7	671.0	757.9	673.6	84.22	8.998		
11,850.0	11,831.0	11,792.3	11,757.4	42.4	42.4	99.75	515.9	672.4	761.8	677.5	84.34	9.033		
11,875.0	11,854.0	11,808.9	11,773.7	42.5	42.4	99.72	518.5	673.8	766.3	681.9	84.44	9.075		
11,900.0	11,876.5	11,825.0	11,789.4	42.6	42.5	99.60	521.6	675.3	771.3	686.8	84.55	9.123		
11,925.0	11,898.3	11,841.9	11,805.8	42.6	42.5	99.41	525.4	677.0	776.9	692.2	84.65	9.177		
11,950.0	11,919.5	11,858.3	11,821.6	42.7	42.6	99.15	529.7	678.7	782.9	698.2	84.75	9.238		
11,975.0	11,940.0	11,875.0	11,837.4	42.8	42.7	98.82	534.5	680.6	789.4	704.6	84.86	9.303		
12,000.0	11,959.7	11,891.0	11,852.5	42.9	42.7	98.43	539.7	682.4	796.5	711.5	84.96	9.375		
12,025.0	11,978.5	11,907.3	11,867.6	42.9	42.8	97.99	545.5	684.4	803.9	718.9	85.06	9.451		
12,050.0	11,996.5	11,925.0	11,883.8	43.0	42.8	97.53	552.3	686.6	811.8	726.7	85.18	9.531		
12,075.0	12,013.5	11,939.8	11,897.0	43.1	42.9	96.94	558.5	688.6	820.2	734.9	85.27	9.619		
12,100.0	12,029.5	11,955.9	11,911.3	43.1	42.9	96.35	565.6	690.8	829.0	743.6	85.38	9.709		
12,125.0	12,044.6	11,972.0	11,925.3	43.2	43.0	95.70	573.3	693.1	838.1	752.6	85.49	9.804		
12,150.0	12,058.5	11,988.0	11,938.9	43.2	43.0	95.01	581.4	695.5	847.7	762.1	85.60	9.903		
12,175.0	12,071.4	12,004.0	11,952.3	43.3	43.1	94.28	589.9	697.9	857.6	771.8	85.72	10.005		
12,200.0	12,083.1	12,020.0	11,965.3	43.3	43.1	93.51	598.8	700.4	867.8	782.0	85.83	10.110		
12,225.0	12,093.6	12,036.0	11,978.0	43.4	43.2	92.70	608.1	702.9	878.3	792.4	85.95	10.219		
12,250.0	12,103.0	12,050.0	11,988.9	43.4	43.2	91.78	616.7	705.2	889.2	803.1	86.05	10.333		
12,275.0	12,111.1	12,067.8	12,002.3	43.5	43.3	90.98	628.0	708.2	900.3	814.1	86.19	10.446		
12,300.0	12,118.0	12,083.7	12,013.9	43.5	43.3	90.07	638.5	710.9	911.7	825.4	86.30	10.564		
12,325.0	12,123.6	12,100.0	12,025.4	43.6	43.4	89.15	649.6	713.7	923.3	836.9	86.42	10.684		
12,350.0	12,127.9	12,115.6	12,036.1	43.6	43.4	88.17	660.7	716.5	935.1	848.6	86.53	10.807		
12,375.0	12,130.9	12,131.7	12,046.7	43.6	43.4	87.20	672.4	719.4	947.1	860.5	86.64	10.932		
12,400.0	12,132.6	12,147.8	12,056.9	43.7	43.5	86.21	684.5	722.4	959.3	872.5	86.74	11.059		
12,414.0	12,133.0	12,156.8	12,062.4	43.7	43.5	85.65	691.5	724.0	966.1	879.3	86.79	11.132		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11704-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	89.43	0.3	30.0	30.0				
100.0	100.0	99.4	99.4	3.0	3.0	89.43	0.3	30.0	30.0	24.0	6.00	4.998	
200.0	200.0	199.4	199.4	3.0	3.0	89.43	0.3	30.0	30.0	24.0	6.04	4.967	
300.0	300.0	299.4	299.4	3.1	3.0	89.43	0.3	30.0	30.0	23.9	6.12	4.902	
400.0	400.0	399.4	399.4	3.2	3.0	89.43	0.3	30.0	30.0	23.8	6.24	4.808	
500.0	500.0	499.4	499.4	3.4	3.1	89.43	0.3	30.0	30.0	23.6	6.40	4.690	
600.0	600.0	599.4	599.4	3.6	3.1	89.43	0.3	30.0	30.0	23.4	6.58	4.557	
700.0	700.0	699.4	699.4	3.8	3.1	89.43	0.3	30.0	30.0	23.2	6.80	4.413	
800.0	800.0	799.4	799.4	4.0	3.2	89.43	0.3	30.0	30.0	23.0	7.04	4.264	
900.0	900.0	899.4	899.4	4.2	3.2	89.43	0.3	30.0	30.0	22.7	7.29	4.113	
1,000.0	1,000.0	999.4	999.4	4.5	3.2	89.43	0.3	30.0	30.0	22.4	7.57	3.964	
1,100.0	1,100.0	1,099.4	1,099.4	4.8	3.3	89.43	0.3	30.0	30.0	22.1	7.86	3.818	
1,200.0	1,200.0	1,199.4	1,199.4	5.1	3.4	89.43	0.3	30.0	30.0	21.8	8.16	3.678	
1,300.0	1,300.0	1,299.4	1,299.4	5.3	3.4	89.43	0.3	30.0	30.0	21.5	8.47	3.542	
1,400.0	1,400.0	1,399.4	1,399.4	5.6	3.5	89.43	0.3	30.0	30.0	21.2	8.79	3.413	
1,500.0	1,500.0	1,499.4	1,499.4	6.0	3.5	89.43	0.3	30.0	30.0	20.9	9.12	3.290	
1,600.0	1,600.0	1,599.4	1,599.4	6.3	3.6	89.43	0.3	30.0	30.0	20.5	9.45	3.174	
1,700.0	1,700.0	1,699.4	1,699.4	6.6	3.7	89.43	0.3	30.0	30.0	20.2	9.79	3.063	
1,800.0	1,800.0	1,799.4	1,799.4	6.9	3.8	89.43	0.3	30.0	30.0	19.9	10.14	2.959	
1,900.0	1,900.0	1,899.4	1,899.4	7.2	3.9	89.43	0.3	30.0	30.0	19.5	10.49	2.860	
2,000.0	2,000.0	1,999.4	1,999.4	7.6	3.9	89.43	0.3	30.0	30.0	19.2	10.85	2.766	
2,100.0	2,100.0	2,099.4	2,099.4	7.9	4.0	89.43	0.3	30.0	30.0	18.8	11.21	2.677	
2,200.0	2,200.0	2,199.4	2,199.4	8.2	4.1	89.43	0.3	30.0	30.0	18.4	11.57	2.593	
2,300.0	2,300.0	2,299.4	2,299.4	8.6	4.2	89.43	0.3	30.0	30.0	18.1	11.94	2.513	
2,400.0	2,400.0	2,399.4	2,399.4	8.9	4.3	89.43	0.3	30.0	30.0	17.7	12.31	2.438	
2,500.0	2,500.0	2,499.4	2,499.4	9.2	4.4	89.43	0.3	30.0	30.0	17.3	12.68	2.366 CC	
2,600.0	2,600.0	2,599.2	2,599.2	9.6	4.5	86.19	2.0	30.2	30.2	17.2	13.06	2.315 ES, SF	
2,700.0	2,700.0	2,699.0	2,698.9	9.9	4.6	77.55	6.8	30.6	31.4	17.9	13.49	2.326	
2,800.0	2,800.0	2,798.9	2,798.6	10.3	4.7	68.98	12.0	31.1	33.4	19.4	13.98	2.387	
2,900.0	2,900.0	2,898.8	2,898.3	10.6	4.8	61.52	17.2	31.7	36.0	21.5	14.50	2.484	
3,000.0	3,000.0	2,998.6	2,998.1	10.9	4.9	55.18	22.4	32.2	39.2	24.2	15.04	2.607	
3,100.0	3,100.0	3,098.5	3,097.8	11.3	5.0	49.84	27.6	32.7	42.8	27.2	15.57	2.748	
3,200.0	3,200.0	3,198.3	3,197.5	11.6	5.1	45.35	32.8	33.2	46.7	30.6	16.10	2.900	
3,300.0	3,300.0	3,298.2	3,297.2	12.0	5.2	41.57	38.0	33.7	50.8	34.2	16.61	3.059	
3,400.0	3,400.0	3,398.1	3,397.0	12.3	5.3	38.38	43.2	34.2	55.1	38.0	17.12	3.220	
3,500.0	3,500.0	3,497.9	3,496.7	12.7	5.4	35.65	48.4	34.7	59.6	42.0	17.63	3.382	
3,600.0	3,600.0	3,597.8	3,596.4	13.0	5.5	33.31	53.6	35.2	64.2	46.1	18.12	3.542	
3,700.0	3,700.0	3,697.7	3,696.1	13.4	5.6	31.29	58.8	35.7	68.9	50.3	18.62	3.700	
3,800.0	3,800.0	3,797.5	3,795.9	13.7	5.7	29.52	64.0	36.2	73.6	54.5	19.11	3.854	
3,900.0	3,900.0	3,897.4	3,895.6	14.1	5.8	27.97	69.2	36.8	78.4	58.9	19.59	4.004	
4,000.0	4,000.0	3,997.2	3,995.3	14.4	6.0	26.60	74.4	37.3	83.3	63.2	20.08	4.150	
4,100.0	4,100.0	4,097.1	4,095.1	14.8	6.1	25.38	79.6	37.8	88.2	67.7	20.56	4.292	
4,200.0	4,200.0	4,197.0	4,194.8	15.1	6.2	24.29	84.8	38.3	93.2	72.1	21.04	4.429	
4,300.0	4,300.0	4,296.8	4,294.5	15.5	6.3	23.31	90.0	38.8	98.1	76.6	21.52	4.561	
4,400.0	4,400.0	4,396.7	4,394.2	15.8	6.4	22.43	95.2	39.3	103.1	81.1	22.00	4.689	
4,500.0	4,500.0	4,496.6	4,494.0	16.2	6.5	21.62	100.4	39.8	108.2	85.7	22.47	4.813	
4,600.0	4,600.0	4,596.4	4,593.7	16.5	6.6	20.89	105.6	40.3	113.2	90.3	22.95	4.932	
4,700.0	4,700.0	4,696.3	4,693.4	16.9	6.7	20.22	110.8	40.8	118.3	94.8	23.43	5.048	
4,800.0	4,800.0	4,796.1	4,793.1	17.2	6.9	19.61	116.0	41.3	123.3	99.4	23.91	5.159	
4,900.0	4,900.0	4,896.0	4,892.9	17.6	7.0	19.04	121.2	41.8	128.4	104.0	24.38	5.267	
5,000.0	5,000.0	4,995.9	4,992.6	17.9	7.1	18.52	126.4	42.4	133.5	108.7	24.86	5.371	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11704-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	5,095.7	5,092.3	18.3	7.2	18.04	131.6	42.9	138.6	113.3	25.34	5.471		
5,200.0	5,200.0	5,195.6	5,192.0	18.7	7.3	17.59	136.8	43.4	143.7	117.9	25.81	5.568		
5,300.0	5,300.0	5,295.5	5,291.8	19.0	7.4	17.17	142.1	43.9	148.9	122.6	26.29	5.662		
5,400.0	5,400.0	5,395.3	5,391.5	19.4	7.6	16.78	147.3	44.4	154.0	127.2	26.77	5.753		
5,500.0	5,500.0	5,495.2	5,491.2	19.7	7.7	16.41	152.5	44.9	159.1	131.9	27.25	5.841		
5,600.0	5,600.0	5,595.1	5,591.0	20.1	7.8	26.31	157.7	45.4	162.7	135.0	27.72	5.871		
5,700.0	5,699.8	5,695.1	5,690.9	20.4	7.9	26.78	162.9	45.9	163.2	135.0	28.18	5.791		
5,800.0	5,799.6	5,795.1	5,790.7	20.8	8.0	27.53	168.1	46.4	162.1	133.5	28.64	5.661		
5,900.0	5,899.4	5,895.0	5,890.5	21.1	8.2	28.29	173.3	46.9	161.1	132.0	29.09	5.536		
6,000.0	5,999.1	5,995.0	5,990.4	21.5	8.3	29.06	178.5	47.5	160.0	130.5	29.55	5.416		
6,100.0	6,098.9	6,095.0	6,090.2	21.8	8.4	29.84	183.7	48.0	159.0	129.0	30.00	5.301		
6,200.0	6,198.6	6,195.0	6,190.0	22.2	8.5	30.64	188.9	48.5	158.1	127.6	30.45	5.191		
6,300.0	6,298.4	6,294.9	6,289.9	22.5	8.6	31.44	194.1	49.0	157.1	126.2	30.90	5.085		
6,400.0	6,398.1	6,394.9	6,389.7	22.9	8.8	32.25	199.3	49.5	156.2	124.9	31.35	4.983		
6,500.0	6,497.9	6,494.9	6,489.5	23.3	8.9	33.07	204.5	50.0	155.4	123.6	31.80	4.885		
6,600.0	6,597.6	6,594.8	6,589.4	23.6	9.0	33.90	209.8	50.5	154.5	122.3	32.25	4.792		
6,700.0	6,697.4	6,694.8	6,689.2	24.0	9.1	34.73	215.0	51.0	153.7	121.0	32.69	4.702		
6,800.0	6,797.2	6,794.8	6,789.0	24.3	9.3	35.58	220.2	51.5	153.0	119.8	33.14	4.616		
6,900.0	6,896.9	6,894.8	6,888.9	24.7	9.4	36.43	225.4	52.1	152.2	118.6	33.58	4.533		
7,000.0	6,996.7	6,994.7	6,988.7	25.0	9.5	37.30	230.6	52.6	151.5	117.5	34.02	4.454		
7,100.0	7,096.4	7,094.7	7,088.5	25.4	9.6	38.17	235.8	53.1	150.8	116.4	34.45	4.378		
7,200.0	7,196.2	7,194.7	7,188.4	25.7	9.7	39.05	241.0	53.6	150.2	115.3	34.89	4.305		
7,300.0	7,295.9	7,294.6	7,288.2	26.1	9.9	39.93	246.2	54.1	149.6	114.3	35.32	4.236		
7,400.0	7,395.7	7,394.6	7,388.0	26.5	10.0	40.82	251.4	54.6	149.0	113.3	35.75	4.169		
7,500.0	7,495.5	7,494.6	7,487.9	26.8	10.1	41.72	256.6	55.1	148.5	112.3	36.18	4.105		
7,600.0	7,595.2	7,594.6	7,587.7	27.2	10.2	42.63	261.8	55.6	148.0	111.4	36.61	4.044		
7,700.0	7,695.0	7,694.5	7,687.5	27.5	10.4	43.54	267.1	56.1	147.6	110.5	37.03	3.985		
7,800.0	7,794.7	7,794.5	7,787.4	27.9	10.5	44.45	272.3	56.6	147.2	109.7	37.45	3.929		
7,900.0	7,894.5	7,894.5	7,887.2	28.2	10.6	45.38	277.5	57.2	146.8	108.9	37.87	3.876		
8,000.0	7,994.2	7,994.4	7,987.0	28.6	10.7	46.30	282.7	57.7	146.4	108.2	38.29	3.825		
8,100.0	8,094.0	8,094.4	8,086.9	29.0	10.9	47.23	287.9	58.2	146.1	107.4	38.70	3.776		
8,200.0	8,193.7	8,194.4	8,186.7	29.3	11.0	48.16	293.1	58.7	145.9	106.8	39.12	3.729		
8,300.0	8,293.5	8,294.4	8,286.5	29.7	11.1	49.10	298.3	59.2	145.7	106.1	39.53	3.685		
8,400.0	8,393.3	8,394.3	8,386.4	30.0	11.2	50.04	303.5	59.7	145.5	105.5	39.93	3.643		
8,500.0	8,493.0	8,494.3	8,486.2	30.4	11.4	50.98	308.7	60.2	145.3	105.0	40.34	3.603		
8,600.0	8,592.8	8,594.3	8,586.0	30.7	11.5	51.92	313.9	60.7	145.2	104.5	40.74	3.565		
8,700.0	8,692.5	8,694.2	8,685.9	31.1	11.6	52.87	319.1	61.2	145.2	104.0	41.14	3.528		
8,800.0	8,792.3	8,794.2	8,785.7	31.5	11.7	53.81	324.4	61.7	145.1	103.6	41.54	3.494		
8,817.3	8,809.6	8,811.6	8,803.0	31.5	11.8	53.98	325.3	61.8	145.1	103.5	41.61	3.488		
8,900.0	8,892.0	8,894.2	8,885.6	31.8	11.9	54.76	329.6	62.3	145.1	103.2	41.94	3.461		
9,000.0	8,991.8	8,994.2	8,985.4	32.2	12.0	55.70	334.8	62.8	145.2	102.9	42.33	3.430		
9,100.0	9,091.6	9,094.1	9,085.2	32.5	12.1	56.64	340.0	63.3	145.3	102.6	42.73	3.401		
9,200.0	9,191.3	9,194.1	9,185.1	32.9	12.2	57.59	345.2	63.8	145.4	102.3	43.12	3.373		
9,300.0	9,291.1	9,294.1	9,284.9	33.2	12.4	58.52	350.4	64.3	145.6	102.1	43.51	3.347		
9,400.0	9,390.8	9,394.0	9,384.7	33.6	12.5	59.46	355.6	64.8	145.8	101.9	43.89	3.322		
9,500.0	9,490.6	9,494.0	9,484.6	34.0	12.6	60.40	360.8	65.3	146.0	101.8	44.28	3.298		
9,600.0	9,590.3	9,594.0	9,584.4	34.3	12.7	61.33	366.0	65.8	146.3	101.7	44.66	3.276		
9,700.0	9,690.1	9,694.0	9,684.2	34.7	12.9	62.25	371.2	66.3	146.7	101.6	45.05	3.256		
9,800.0	9,789.9	9,793.9	9,784.1	35.0	13.0	63.18	376.4	66.9	147.0	101.6	45.43	3.236		
9,900.0	9,889.6	9,893.9	9,883.9	35.4	13.1	64.10	381.7	67.4	147.4	101.6	45.81	3.218		
10,000.0	9,989.4	9,993.9	9,983.7	35.8	13.2	65.01	386.9	67.9	147.9	101.7	46.19	3.201		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												PILED RIVER FED & FIGURE FOUR FED PROJECT - FIGURE FOUR FED #702H - OWB - PWP1		Offset Site Error: 3.0 usft	
Survey Program: 0-Standard Keeper 104, 11704-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	10,089.1	10,093.8	10,083.6	36.1	13.4	65.92	392.1	68.4	148.3	101.8	46.57	3.185			
10,200.0	10,188.9	10,193.8	10,183.4	36.5	13.5	66.82	397.3	68.9	148.9	101.9	46.95	3.171			
10,300.0	10,288.6	10,293.8	10,283.2	36.8	13.6	67.71	402.5	69.4	149.4	102.1	47.33	3.157			
10,400.0	10,388.4	10,393.8	10,383.1	37.2	13.8	68.60	407.7	69.9	150.0	102.3	47.71	3.144			
10,500.0	10,488.1	10,493.7	10,482.9	37.5	13.9	69.48	412.9	70.4	150.6	102.5	48.08	3.132			
10,600.0	10,587.9	10,593.7	10,582.7	37.9	14.0	70.35	418.1	70.9	151.3	102.8	48.46	3.121			
10,700.0	10,687.7	10,693.7	10,682.6	38.3	14.1	71.22	423.3	71.4	152.0	103.1	48.84	3.111			
10,800.0	10,787.4	10,793.6	10,782.4	38.6	14.3	72.08	428.5	72.0	152.7	103.5	49.22	3.102			
10,900.0	10,887.2	10,893.6	10,882.2	39.0	14.4	72.92	433.7	72.5	153.5	103.9	49.60	3.094			
11,000.0	10,986.9	10,993.6	10,982.1	39.3	14.5	73.77	439.0	73.0	154.2	104.3	49.98	3.086			
11,100.0	11,086.7	11,093.6	11,081.9	39.7	14.6	74.60	444.2	73.5	155.1	104.7	50.36	3.079			
11,200.0	11,186.4	11,193.5	11,181.7	40.1	14.8	75.42	449.4	74.0	155.9	105.2	50.74	3.073			
11,300.0	11,286.2	11,293.5	11,281.6	40.4	14.9	76.23	454.6	74.5	156.8	105.7	51.12	3.068			
11,400.0	11,386.0	11,393.5	11,381.4	40.8	15.0	77.04	459.8	75.0	157.7	106.2	51.50	3.063			
11,500.0	11,485.7	11,493.4	11,481.2	41.1	15.2	77.83	465.0	75.5	158.7	106.8	51.89	3.059			
11,600.0	11,585.5	11,593.4	11,581.1	41.5	15.3	78.62	470.2	76.0	159.7	107.4	52.27	3.055			
11,703.3	11,688.5	11,696.7	11,684.2	41.9	15.4	79.42	475.6	76.6	160.7	108.1	52.62	3.054			
11,725.0	11,710.1	11,716.3	11,703.8	42.0	15.4	83.27	476.8	76.7	161.0	108.4	52.68	3.057			
11,750.0	11,734.9	11,737.7	11,725.1	42.0	15.4	85.30	478.9	77.0	161.9	109.1	52.72	3.070			
11,775.0	11,759.4	11,759.2	11,746.3	42.1	15.4	86.53	482.0	77.4	163.2	110.5	52.76	3.093			
11,800.0	11,783.6	11,780.5	11,767.3	42.2	15.4	87.43	486.0	78.0	165.1	112.3	52.80	3.127			
11,825.0	11,807.5	11,801.9	11,788.1	42.3	15.4	88.17	490.9	78.7	167.5	114.7	52.83	3.171			
11,850.0	11,831.0	11,823.2	11,808.6	42.4	15.4	88.80	496.7	79.6	170.5	117.6	52.87	3.225			
11,875.0	11,854.0	11,844.5	11,828.7	42.5	15.4	89.37	503.4	80.6	174.0	121.1	52.90	3.289			
11,900.0	11,876.5	11,865.7	11,848.5	42.6	15.4	89.89	511.0	81.7	178.1	125.1	52.94	3.364			
11,925.0	11,898.3	11,886.9	11,867.9	42.6	15.4	90.35	519.4	83.0	182.6	129.7	52.97	3.448			
11,950.0	11,919.5	11,907.9	11,886.8	42.7	15.5	90.77	528.6	84.4	187.7	134.7	53.00	3.542			
11,975.0	11,940.0	11,928.9	11,905.2	42.8	15.5	91.13	538.5	86.0	193.3	140.3	53.04	3.645			
12,000.0	11,959.7	11,950.0	11,923.2	42.9	15.5	91.45	549.3	87.7	199.4	146.4	53.07	3.758			
12,025.0	11,978.5	11,970.7	11,940.4	42.9	15.5	91.70	560.7	89.4	206.0	152.9	53.10	3.880			
12,050.0	11,996.5	11,991.5	11,957.2	43.0	15.5	91.91	572.8	91.3	213.1	159.9	53.13	4.010			
12,075.0	12,013.5	12,012.1	11,973.3	43.1	15.5	92.05	585.6	93.4	220.6	167.4	53.17	4.149			
12,100.0	12,029.5	12,032.7	11,988.8	43.1	15.6	92.14	599.0	95.5	228.6	175.4	53.20	4.296			
12,125.0	12,044.6	12,053.3	12,003.6	43.2	15.6	92.17	613.0	97.7	236.9	183.7	53.23	4.451			
12,150.0	12,058.5	12,075.0	12,018.7	43.2	15.6	92.21	628.5	100.1	245.7	192.5	53.25	4.614			
12,175.0	12,071.4	12,094.2	12,031.3	43.3	15.6	92.05	642.7	102.4	254.9	201.6	53.30	4.783			
12,200.0	12,083.1	12,114.5	12,044.1	43.3	15.6	91.91	658.3	104.9	264.4	211.1	53.33	4.958			
12,225.0	12,093.6	12,134.8	12,056.2	43.4	15.7	91.72	674.5	107.4	274.3	220.9	53.36	5.140			
12,250.0	12,103.0	12,155.2	12,067.6	43.4	15.7	91.47	691.1	110.1	284.4	231.0	53.40	5.327			
12,275.0	12,111.1	12,175.0	12,078.0	43.5	15.7	91.15	707.8	112.7	294.9	241.5	53.43	5.519			
12,300.0	12,118.0	12,195.8	12,088.2	43.5	15.7	90.84	725.7	115.6	305.6	252.2	53.47	5.716			
12,325.0	12,123.6	12,216.1	12,097.3	43.6	15.7	90.46	743.6	118.4	316.6	263.1	53.51	5.916			
12,350.0	12,127.9	12,236.5	12,105.7	43.6	15.8	90.04	761.9	121.4	327.8	274.2	53.56	6.120			
12,375.0	12,130.9	12,257.0	12,113.4	43.6	15.8	89.59	780.7	124.4	339.2	285.5	53.61	6.326			
12,400.0	12,132.6	12,277.6	12,120.2	43.7	15.8	89.10	799.9	127.4	350.7	297.0	53.66	6.535			
12,414.0	12,133.0	12,289.1	12,123.7	43.7	15.8	88.82	810.8	129.2	357.2	303.5	53.70	6.652			
12,500.0	12,134.2	12,363.6	12,139.6	43.8	15.9	91.36	882.5	140.7	396.8	342.8	53.96	7.354			
12,600.0	12,135.5	12,454.5	12,144.5	43.9	15.9	91.72	972.0	155.1	440.1	385.8	54.33	8.101			
12,700.0	12,136.9	12,546.1	12,145.7	44.0	16.0	91.55	1,062.4	169.7	480.2	425.4	54.76	8.769			
12,800.0	12,138.2	12,639.0	12,147.1	44.2	16.0	91.41	1,154.2	184.5	517.1	461.8	55.26	9.356			
12,900.0	12,139.6	12,733.2	12,148.4	44.4	16.0	91.29	1,247.2	199.5	550.7	494.8	55.83	9.864			

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11704-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	
13,000.0	12,141.0	12,828.5	12,149.7	44.6	16.1	91.20	1,341.2	214.7	581.0	524.5	56.45	10.291	
13,100.0	12,142.3	12,925.5	12,151.1	44.8	16.1	91.11	1,437.0	230.1	607.9	550.8	57.13	10.641	
13,200.0	12,143.7	13,050.1	12,152.8	45.0	16.2	91.04	1,560.4	247.1	629.3	571.2	58.04	10.842	
13,300.0	12,145.0	13,177.4	12,154.6	45.2	16.3	90.99	1,687.1	258.9	642.8	583.8	59.04	10.889	
13,352.9	12,145.7	13,245.5	12,155.6	45.3	16.4	90.97	1,755.1	262.9	646.8	587.2	59.60	10.853	
13,400.0	12,146.4	13,306.3	12,156.5	45.4	16.4	90.97	1,815.8	265.2	648.9	588.8	60.11	10.796	
13,500.0	12,147.7	13,427.8	12,158.2	45.7	16.5	90.98	1,937.3	265.8	650.1	588.9	61.17	10.628	
13,600.0	12,149.0	13,527.8	12,159.6	45.9	16.6	90.98	2,037.3	265.1	650.1	588.0	62.11	10.468	
13,700.0	12,150.4	13,627.8	12,161.0	46.2	17.1	90.99	2,137.3	264.4	650.1	587.0	63.07	10.308	
13,800.0	12,151.7	13,727.8	12,162.4	46.5	17.7	90.99	2,237.3	263.6	650.1	586.0	64.07	10.148	
13,900.0	12,153.1	13,827.8	12,163.8	46.8	18.4	91.00	2,337.3	262.9	650.1	585.0	65.09	9.988	
14,000.0	12,154.4	13,927.8	12,165.2	47.1	19.1	91.00	2,437.3	262.2	650.1	584.0	66.14	9.830	
14,100.0	12,155.7	14,027.8	12,166.6	47.5	19.9	91.01	2,537.3	261.4	650.1	582.9	67.21	9.673	
14,200.0	12,157.1	14,127.8	12,168.0	47.8	20.6	91.02	2,637.3	260.7	650.1	581.8	68.30	9.518	
14,243.7	12,157.7	14,171.5	12,168.6	48.0	20.9	91.02	2,680.9	260.4	650.1	581.3	68.79	9.451	
14,300.0	12,158.4	14,227.8	12,169.4	48.2	21.4	91.02	2,737.2	260.0	650.1	580.7	69.42	9.365	
14,400.0	12,159.8	14,327.8	12,170.8	48.5	22.1	91.03	2,837.2	259.3	650.1	579.6	70.56	9.214	
14,500.0	12,161.1	14,427.8	12,172.2	48.9	22.9	91.03	2,937.2	258.5	650.1	578.4	71.71	9.066	
14,600.0	12,162.4	14,527.8	12,173.6	49.3	23.7	91.04	3,037.2	257.8	650.1	577.2	72.89	8.920	
14,700.0	12,163.8	14,627.8	12,175.0	49.7	24.4	91.05	3,137.2	257.1	650.1	576.0	74.08	8.776	
14,800.0	12,165.1	14,727.8	12,176.4	50.2	25.2	91.05	3,237.2	256.3	650.1	574.8	75.28	8.635	
14,900.0	12,166.5	14,827.8	12,177.9	50.6	26.0	91.06	3,337.2	255.6	650.1	573.6	76.51	8.497	
15,000.0	12,167.8	14,927.8	12,179.3	51.0	26.8	91.06	3,437.2	254.9	650.1	572.4	77.75	8.362	
15,100.0	12,169.1	15,027.8	12,180.7	51.5	27.6	91.07	3,537.1	254.1	650.1	571.1	79.00	8.229	
15,141.5	12,169.7	15,069.3	12,181.2	51.7	27.9	91.07	3,578.6	253.8	650.1	570.6	79.52	8.175	
15,154.4	12,169.9	15,080.4	12,181.4	51.7	28.0	91.07	3,589.8	253.8	650.1	570.4	79.67	8.160	
15,160.9	12,170.0	15,085.8	12,181.5	51.8	28.1	91.07	3,595.1	253.7	650.1	570.4	79.74	8.153	
15,200.0	12,170.5	15,124.9	12,182.0	51.9	28.4	91.07	3,634.2	253.6	650.1	569.9	80.23	8.102	
15,300.0	12,171.8	15,224.9	12,183.4	52.4	29.2	91.08	3,734.2	253.3	650.1	568.6	81.51	7.975	
15,400.0	12,173.2	15,324.9	12,184.8	52.9	30.0	91.08	3,834.2	253.1	650.1	567.3	82.80	7.851	
15,500.0	12,174.5	15,424.9	12,186.3	53.4	30.8	91.09	3,934.2	252.8	650.1	566.0	84.11	7.729	
15,600.0	12,175.9	15,524.9	12,187.7	53.9	31.6	91.09	4,034.1	252.5	650.1	564.7	85.42	7.610	
15,700.0	12,177.2	15,624.9	12,189.1	54.4	32.4	91.10	4,134.1	252.2	650.1	563.3	86.75	7.494	
15,800.0	12,178.5	15,724.9	12,190.5	54.9	33.3	91.11	4,234.1	251.9	650.1	562.0	88.09	7.380	
15,900.0	12,179.9	15,824.9	12,191.9	55.4	34.1	91.11	4,334.1	251.7	650.1	560.7	89.44	7.269	
16,000.0	12,181.2	15,924.9	12,193.3	56.0	34.9	91.12	4,434.1	251.4	650.1	559.3	90.80	7.160	
16,100.0	12,182.6	16,024.9	12,194.7	56.5	35.7	91.12	4,534.1	251.1	650.1	557.9	92.16	7.054	
16,200.0	12,183.9	16,124.9	12,196.1	57.1	36.5	91.13	4,634.1	250.8	650.1	556.6	93.54	6.950	
16,300.0	12,185.2	16,224.9	12,197.5	57.6	37.4	91.13	4,734.1	250.5	650.1	555.2	94.93	6.849	
16,400.0	12,186.6	16,324.9	12,198.9	58.2	38.2	91.14	4,834.1	250.3	650.1	553.8	96.32	6.749	
16,500.0	12,187.9	16,424.9	12,200.3	58.8	39.0	91.15	4,934.1	250.0	650.1	552.4	97.73	6.652	
16,600.0	12,189.3	16,524.9	12,201.7	59.4	39.9	91.15	5,034.0	249.7	650.1	551.0	99.14	6.558	
16,700.0	12,190.6	16,624.9	12,203.1	59.9	40.7	91.16	5,134.0	249.4	650.1	549.6	100.56	6.465	
16,800.0	12,191.9	16,724.9	12,204.5	60.5	41.5	91.16	5,234.0	249.1	650.1	548.1	101.98	6.375	
16,900.0	12,193.3	16,824.9	12,205.9	61.1	42.4	91.17	5,334.0	248.9	650.1	546.7	103.42	6.286	
17,000.0	12,194.6	16,924.9	12,207.3	61.7	43.2	91.17	5,434.0	248.6	650.1	545.3	104.86	6.200	
17,100.0	12,196.0	17,024.9	12,208.8	62.4	44.0	91.18	5,534.0	248.3	650.1	543.8	106.31	6.116	
17,200.0	12,197.3	17,124.9	12,210.2	63.0	44.9	91.19	5,634.0	248.0	650.1	542.4	107.76	6.033	
17,300.0	12,198.7	17,224.9	12,211.6	63.6	45.7	91.19	5,734.0	247.7	650.1	540.9	109.22	5.952	
17,400.0	12,200.0	17,324.9	12,213.0	64.2	46.5	91.20	5,834.0	247.5	650.1	539.4	110.69	5.873	
17,500.0	12,201.3	17,424.9	12,214.4	64.9	47.4	91.20	5,934.0	247.2	650.1	538.0	112.16	5.796	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11704-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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.0	12,202.7	17,524.9	12,215.8	65.5	48.2	91.21	91.21	6,033.9	246.9	650.1	536.5	113.64	5.721	
17,700.0	12,204.0	17,624.9	12,217.2	66.1	49.1	91.21	91.21	6,133.9	246.6	650.1	535.0	115.13	5.647	
17,800.0	12,205.4	17,724.9	12,218.6	66.8	49.9	91.22	91.22	6,233.9	246.3	650.1	533.5	116.62	5.575	
17,900.0	12,206.7	17,824.9	12,220.0	67.4	50.7	91.23	91.23	6,333.9	246.1	650.1	532.0	118.11	5.504	
18,000.0	12,208.0	17,924.9	12,221.4	68.1	51.6	91.23	91.23	6,433.9	245.8	650.1	530.5	119.62	5.435	
18,100.0	12,209.4	18,024.9	12,222.8	68.8	52.4	91.24	91.24	6,533.9	245.5	650.2	529.0	121.12	5.368	
18,200.0	12,210.7	18,124.9	12,224.2	69.4	53.3	91.24	91.24	6,633.9	245.2	650.2	527.5	122.63	5.302	
18,300.0	12,212.1	18,224.9	12,225.6	70.1	54.1	91.25	91.25	6,733.9	244.9	650.2	526.0	124.15	5.237	
18,400.0	12,213.4	18,324.9	12,227.0	70.8	55.0	91.25	91.25	6,833.9	244.7	650.2	524.5	125.67	5.174	
18,500.0	12,214.7	18,424.9	12,228.4	71.4	55.8	91.26	91.26	6,933.8	244.4	650.2	523.0	127.19	5.112	
18,600.0	12,216.1	18,524.9	12,229.8	72.1	56.6	91.27	91.27	7,033.8	244.1	650.2	521.4	128.72	5.051	
18,700.0	12,217.4	18,624.9	12,231.3	72.8	57.5	91.27	91.27	7,133.8	243.8	650.2	519.9	130.25	4.992	
18,800.0	12,218.8	18,724.9	12,232.7	73.5	58.3	91.28	91.28	7,233.8	243.5	650.2	518.4	131.79	4.933	
18,900.0	12,220.1	18,824.9	12,234.1	74.2	59.2	91.28	91.28	7,333.8	243.3	650.2	516.8	133.33	4.876	
19,000.0	12,221.5	18,924.9	12,235.5	74.9	60.0	91.29	91.29	7,433.8	243.0	650.2	515.3	134.87	4.821	
19,100.0	12,222.8	19,024.9	12,236.9	75.6	60.9	91.29	91.29	7,533.8	242.7	650.2	513.8	136.42	4.766	
19,200.0	12,224.1	19,124.9	12,238.3	76.3	61.7	91.30	91.30	7,633.8	242.4	650.2	512.2	137.97	4.712	
19,300.0	12,225.5	19,224.9	12,239.7	77.0	62.6	91.31	91.31	7,733.8	242.1	650.2	510.7	139.53	4.660	
19,400.0	12,226.8	19,324.9	12,241.1	77.7	63.4	91.31	91.31	7,833.8	241.9	650.2	509.1	141.08	4.608	
19,500.0	12,228.2	19,424.9	12,242.5	78.4	64.3	91.32	91.32	7,933.7	241.6	650.2	507.5	142.64	4.558	
19,600.0	12,229.5	19,524.9	12,243.9	79.1	65.1	91.32	91.32	8,033.7	241.3	650.2	506.0	144.21	4.509	
19,700.0	12,230.8	19,624.9	12,245.3	79.9	66.0	91.33	91.33	8,133.7	241.0	650.2	504.4	145.78	4.460	
19,800.0	12,232.2	19,724.9	12,246.7	80.6	66.8	91.33	91.33	8,233.7	240.7	650.2	502.8	147.35	4.413	
19,900.0	12,233.5	19,824.9	12,248.1	81.3	67.7	91.34	91.34	8,333.7	240.5	650.2	501.3	148.92	4.366	
20,000.0	12,234.9	19,924.9	12,249.5	82.0	68.5	91.35	91.35	8,433.7	240.2	650.2	499.7	150.50	4.320	
20,100.0	12,236.2	20,024.9	12,250.9	82.8	69.4	91.35	91.35	8,533.7	239.9	650.2	498.1	152.08	4.275	
20,200.0	12,237.6	20,124.9	12,252.3	83.5	70.2	91.36	91.36	8,633.7	239.6	650.2	496.5	153.66	4.232	
20,300.0	12,238.9	20,224.9	12,253.8	84.2	71.1	91.36	91.36	8,733.7	239.3	650.2	495.0	155.24	4.188	
20,382.5	12,240.0	20,307.4	12,254.9	84.7	71.8	91.37	91.37	8,816.2	239.1	650.2	493.8	156.39	4.158	

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

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COMPASS 5000.15 Build 91E

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11710-MWD+IFR1+FDIR												Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.2	1.2	3.0	3.0	-90.38	-0.2	-30.0	30.0				
100.0	100.0	101.2	101.2	3.0	3.0	-90.38	-0.2	-30.0	30.0	24.0	6.00	4.998	
200.0	200.0	201.2	201.2	3.0	3.0	-90.38	-0.2	-30.0	30.0	24.0	6.04	4.967	
300.0	300.0	301.2	301.2	3.1	3.0	-90.38	-0.2	-30.0	30.0	23.9	6.12	4.902	
400.0	400.0	401.2	401.2	3.2	3.0	-90.38	-0.2	-30.0	30.0	23.8	6.24	4.807	
500.0	500.0	501.2	501.2	3.4	3.1	-90.38	-0.2	-30.0	30.0	23.6	6.40	4.690	
600.0	600.0	601.2	601.2	3.6	3.1	-90.38	-0.2	-30.0	30.0	23.4	6.58	4.557	
700.0	700.0	701.2	701.2	3.8	3.1	-90.38	-0.2	-30.0	30.0	23.2	6.80	4.413	
800.0	800.0	801.2	801.2	4.0	3.2	-90.38	-0.2	-30.0	30.0	23.0	7.04	4.264	
900.0	900.0	901.2	901.2	4.2	3.2	-90.38	-0.2	-30.0	30.0	22.7	7.29	4.113	
1,000.0	1,000.0	1,001.2	1,001.2	4.5	3.2	-90.38	-0.2	-30.0	30.0	22.4	7.57	3.964	
1,100.0	1,100.0	1,101.2	1,101.2	4.8	3.3	-90.38	-0.2	-30.0	30.0	22.1	7.86	3.818	
1,200.0	1,200.0	1,201.2	1,201.2	5.1	3.4	-90.38	-0.2	-30.0	30.0	21.8	8.16	3.677	
1,300.0	1,300.0	1,301.2	1,301.2	5.3	3.4	-90.38	-0.2	-30.0	30.0	21.5	8.47	3.542	
1,400.0	1,400.0	1,401.2	1,401.2	5.6	3.5	-90.38	-0.2	-30.0	30.0	21.2	8.79	3.413	
1,500.0	1,500.0	1,501.2	1,501.2	6.0	3.5	-90.38	-0.2	-30.0	30.0	20.9	9.12	3.290	
1,600.0	1,600.0	1,601.2	1,601.2	6.3	3.6	-90.38	-0.2	-30.0	30.0	20.5	9.45	3.174	
1,700.0	1,700.0	1,701.2	1,701.2	6.6	3.7	-90.38	-0.2	-30.0	30.0	20.2	9.79	3.063	
1,800.0	1,800.0	1,801.2	1,801.2	6.9	3.8	-90.38	-0.2	-30.0	30.0	19.9	10.14	2.958	
1,900.0	1,900.0	1,901.2	1,901.2	7.2	3.9	-90.38	-0.2	-30.0	30.0	19.5	10.49	2.859	
2,000.0	2,000.0	2,001.2	2,001.2	7.6	3.9	-90.38	-0.2	-30.0	30.0	19.2	10.85	2.766	
2,100.0	2,100.0	2,101.2	2,101.2	7.9	4.0	-90.38	-0.2	-30.0	30.0	18.8	11.21	2.677	
2,200.0	2,200.0	2,201.2	2,201.2	8.2	4.1	-90.38	-0.2	-30.0	30.0	18.4	11.57	2.593	
2,300.0	2,300.0	2,301.2	2,301.2	8.6	4.2	-90.38	-0.2	-30.0	30.0	18.1	11.94	2.513	
2,400.0	2,400.0	2,401.2	2,401.2	8.9	4.3	-90.38	-0.2	-30.0	30.0	17.7	12.31	2.438	
2,416.3	2,416.3	2,417.5	2,417.5	8.9	4.3	-90.38	-0.2	-30.0	30.0	17.6	12.37	2.426 CC	
2,500.0	2,500.0	2,501.2	2,501.2	9.2	4.4	-90.38	-0.2	-30.0	30.0	17.3	12.68	2.366 ES, SF	
2,600.0	2,600.0	2,600.0	2,600.0	9.6	4.5	-88.78	0.7	-31.5	31.5	18.5	13.05	2.417	
2,700.0	2,700.0	2,699.1	2,698.9	9.9	4.5	-84.83	3.3	-36.0	36.2	22.8	13.43	2.695	
2,800.0	2,800.0	2,798.1	2,797.6	10.3	4.6	-80.32	7.3	-43.1	43.8	30.0	13.85	3.166	
2,900.0	2,900.0	2,897.7	2,896.9	10.6	4.7	-76.99	11.7	-50.6	52.1	37.8	14.29	3.647	
3,000.0	3,000.0	2,997.4	2,996.1	10.9	4.7	-74.58	16.0	-58.1	60.5	45.8	14.73	4.107	
3,100.0	3,100.0	3,097.0	3,095.3	11.3	4.8	-72.76	20.4	-65.6	69.0	53.8	15.18	4.545	
3,200.0	3,200.0	3,196.6	3,194.6	11.6	4.9	-71.33	24.7	-73.1	77.5	61.9	15.62	4.961	
3,300.0	3,300.0	3,296.2	3,293.8	12.0	5.0	-70.19	29.1	-80.7	86.1	70.0	16.07	5.356	
3,400.0	3,400.0	3,395.8	3,393.1	12.3	5.0	-69.26	33.4	-88.2	94.6	78.1	16.52	5.730	
3,500.0	3,500.0	3,495.5	3,492.3	12.7	5.1	-68.48	37.7	-95.7	103.3	86.3	16.97	6.086	
3,600.0	3,600.0	3,595.1	3,591.5	13.0	5.2	-67.82	42.1	-103.2	111.9	94.5	17.42	6.424	
3,700.0	3,700.0	3,694.7	3,690.8	13.4	5.3	-67.26	46.4	-110.7	120.5	102.7	17.87	6.745	
3,800.0	3,800.0	3,794.3	3,790.0	13.7	5.4	-66.77	50.8	-118.3	129.2	110.9	18.32	7.050	
3,900.0	3,900.0	3,893.9	3,889.3	14.1	5.5	-66.34	55.1	-125.8	137.8	119.1	18.78	7.341	
4,000.0	4,000.0	3,993.5	3,988.5	14.4	5.6	-65.97	59.4	-133.3	146.5	127.3	19.23	7.617	
4,100.0	4,100.0	4,093.2	4,087.7	14.8	5.7	-65.63	63.8	-140.8	155.2	135.5	19.69	7.881	
4,200.0	4,200.0	4,192.8	4,187.0	15.1	5.8	-65.33	68.1	-148.3	163.9	143.7	20.15	8.133	
4,300.0	4,300.0	4,292.4	4,286.2	15.5	5.9	-65.06	72.5	-155.9	172.5	151.9	20.61	8.373	
4,400.0	4,400.0	4,392.0	4,385.5	15.8	5.9	-64.82	76.8	-163.4	181.2	160.2	21.07	8.602	
4,500.0	4,500.0	4,491.6	4,484.7	16.2	6.0	-64.60	81.1	-170.9	189.9	168.4	21.53	8.821	
4,600.0	4,600.0	4,591.3	4,583.9	16.5	6.1	-64.40	85.5	-178.4	198.6	176.6	21.99	9.031	
4,700.0	4,700.0	4,690.9	4,683.2	16.9	6.2	-64.21	89.8	-185.9	207.3	184.8	22.45	9.232	
4,800.0	4,800.0	4,790.5	4,782.4	17.2	6.3	-64.04	94.2	-193.5	216.0	193.1	22.92	9.425	
4,900.0	4,900.0	4,890.1	4,881.7	17.6	6.5	-63.89	98.5	-201.0	224.7	201.3	23.38	9.610	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11710-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	4,989.7	4,980.9	17.9	6.6	-63.74	102.9	-208.5	233.4	209.5	23.84	9.787	
5,100.0	5,100.0	5,089.4	5,080.1	18.3	6.7	-63.61	107.2	-216.0	242.1	217.8	24.31	9.957	
5,200.0	5,200.0	5,189.0	5,179.4	18.7	6.8	-63.48	111.5	-223.5	250.8	226.0	24.78	10.121	
5,300.0	5,300.0	5,288.6	5,278.6	19.0	6.9	-63.37	115.9	-231.1	259.5	234.2	25.24	10.278	
5,400.0	5,400.0	5,388.2	5,377.9	19.4	7.0	-63.26	120.2	-238.6	268.2	242.5	25.71	10.429	
5,500.0	5,500.0	5,487.8	5,477.1	19.7	7.1	-63.15	124.6	-246.1	276.9	250.7	26.18	10.575	
5,600.0	5,600.0	5,587.5	5,576.4	20.1	7.2	-53.22	128.9	-253.6	284.5	257.9	26.64	10.680	
5,700.0	5,699.8	5,687.3	5,675.8	20.4	7.3	-53.86	133.3	-261.1	290.1	263.0	27.08	10.713	
5,800.0	5,799.6	5,787.1	5,775.2	20.8	7.4	-54.83	137.6	-268.7	294.8	267.2	27.52	10.712	
5,900.0	5,899.4	5,886.8	5,874.6	21.1	7.5	-55.78	141.9	-276.2	299.5	271.5	27.95	10.715	
6,000.0	5,999.1	5,986.6	5,974.0	21.5	7.6	-56.70	146.3	-283.7	304.3	275.9	28.39	10.719	
6,100.0	6,098.9	6,086.4	6,073.4	21.8	7.7	-57.59	150.6	-291.3	309.2	280.3	28.82	10.726	
6,200.0	6,198.6	6,186.1	6,172.8	22.2	7.9	-58.45	155.0	-298.8	314.1	284.9	29.26	10.736	
6,300.0	6,298.4	6,285.9	6,272.1	22.5	8.0	-59.28	159.3	-306.3	319.1	289.4	29.70	10.746	
6,400.0	6,398.1	6,385.7	6,371.5	22.9	8.1	-60.09	163.7	-313.9	324.2	294.1	30.13	10.759	
6,500.0	6,497.9	6,485.4	6,470.9	23.3	8.2	-60.88	168.0	-321.4	329.4	298.8	30.57	10.773	
6,600.0	6,597.6	6,585.2	6,570.3	23.6	8.3	-61.63	172.4	-328.9	334.6	303.5	31.01	10.788	
6,700.0	6,697.4	6,685.0	6,669.7	24.0	8.4	-62.37	176.7	-336.4	339.8	308.4	31.45	10.805	
6,800.0	6,797.2	6,784.8	6,769.1	24.3	8.5	-63.08	181.1	-344.0	345.1	313.2	31.89	10.822	
6,900.0	6,896.9	6,884.5	6,868.5	24.7	8.7	-63.78	185.4	-351.5	350.5	318.2	32.33	10.841	
7,000.0	6,996.7	6,984.3	6,967.9	25.0	8.8	-64.45	189.8	-359.0	355.9	323.1	32.77	10.860	
7,100.0	7,096.4	7,084.1	7,067.2	25.4	8.9	-65.10	194.1	-366.6	361.4	328.2	33.22	10.880	
7,200.0	7,196.2	7,183.8	7,166.6	25.7	9.0	-65.73	198.5	-374.1	366.9	333.2	33.66	10.900	
7,300.0	7,295.9	7,283.6	7,266.0	26.1	9.1	-66.34	202.8	-381.6	372.4	338.3	34.10	10.921	
7,400.0	7,395.7	7,383.4	7,365.4	26.5	9.2	-66.94	207.2	-389.2	378.0	343.5	34.55	10.943	
7,500.0	7,495.5	7,483.1	7,464.8	26.8	9.4	-67.51	211.5	-396.7	383.7	348.7	34.99	10.965	
7,600.0	7,595.2	7,582.9	7,564.2	27.2	9.5	-68.07	215.9	-404.2	389.3	353.9	35.44	10.987	
7,700.0	7,695.0	7,682.7	7,663.6	27.5	9.6	-68.62	220.2	-411.8	395.1	359.2	35.88	11.009	
7,800.0	7,794.7	7,782.4	7,763.0	27.9	9.7	-69.15	224.6	-419.3	400.8	364.5	36.33	11.032	
7,900.0	7,894.5	7,882.2	7,862.3	28.2	9.8	-69.66	228.9	-426.8	406.6	369.8	36.78	11.055	
8,000.0	7,994.2	7,982.0	7,961.7	28.6	10.0	-70.16	233.2	-434.3	412.4	375.2	37.23	11.078	
8,100.0	8,094.0	8,081.7	8,061.1	29.0	10.1	-70.65	237.6	-441.9	418.2	380.5	37.67	11.101	
8,200.0	8,193.7	8,181.5	8,160.5	29.3	10.2	-71.12	241.9	-449.4	424.1	386.0	38.12	11.124	
8,300.0	8,293.5	8,281.3	8,259.9	29.7	10.3	-71.58	246.3	-456.9	430.0	391.4	38.57	11.147	
8,400.0	8,393.3	8,381.0	8,359.3	30.0	10.4	-72.02	250.6	-464.5	435.9	396.9	39.02	11.170	
8,500.0	8,493.0	8,480.8	8,458.7	30.4	10.6	-72.46	255.0	-472.0	441.8	402.4	39.48	11.193	
8,600.0	8,592.8	8,580.6	8,558.1	30.7	10.7	-72.88	259.3	-479.5	447.8	407.9	39.93	11.216	
8,700.0	8,692.5	8,680.3	8,657.5	31.1	10.8	-73.29	263.7	-487.1	453.8	413.4	40.38	11.238	
8,800.0	8,792.3	8,780.1	8,756.8	31.5	10.9	-73.69	268.0	-494.6	459.8	419.0	40.83	11.261	
8,900.0	8,892.0	8,879.9	8,856.2	31.8	11.1	-74.09	272.4	-502.1	465.9	424.6	41.29	11.284	
9,000.0	8,991.8	8,979.6	8,955.6	32.2	11.2	-74.47	276.7	-509.6	471.9	430.2	41.74	11.306	
9,100.0	9,091.6	9,079.4	9,055.0	32.5	11.3	-74.84	281.1	-517.2	478.0	435.8	42.20	11.328	
9,200.0	9,191.3	9,179.2	9,154.4	32.9	11.4	-75.20	285.4	-524.7	484.1	441.5	42.65	11.351	
9,300.0	9,291.1	9,278.9	9,253.8	33.2	11.5	-75.55	289.8	-532.2	490.2	447.1	43.11	11.372	
9,400.0	9,390.8	9,378.7	9,353.2	33.6	11.7	-75.90	294.1	-539.8	496.4	452.8	43.56	11.394	
9,500.0	9,490.6	9,478.5	9,452.6	34.0	11.8	-76.23	298.5	-547.3	502.5	458.5	44.02	11.416	
9,600.0	9,590.3	9,578.2	9,551.9	34.3	11.9	-76.56	302.8	-554.8	508.7	464.2	44.48	11.437	
9,700.0	9,690.1	9,678.0	9,651.3	34.7	12.0	-76.88	307.2	-562.4	514.9	469.9	44.94	11.458	
9,800.0	9,789.9	9,777.8	9,750.7	35.0	12.2	-77.19	311.5	-569.9	521.1	475.7	45.40	11.479	
9,900.0	9,889.6	9,877.5	9,850.1	35.4	12.3	-77.50	315.9	-577.4	527.3	481.5	45.86	11.499	
10,000.0	9,989.4	9,977.3	9,949.5	35.8	12.4	-77.79	320.2	-585.0	533.5	487.2	46.32	11.520	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11710-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	10,089.1	10,077.1	10,048.9	36.1	12.5	-78.09	324.5	-592.5	539.8	493.0	46.78	11.540	
10,200.0	10,188.9	10,176.9	10,148.3	36.5	12.7	-78.37	328.9	-600.0	546.0	498.8	47.24	11.560	
10,300.0	10,288.6	10,276.6	10,247.7	36.8	12.8	-78.65	333.2	-607.5	552.3	504.6	47.70	11.579	
10,400.0	10,388.4	10,376.4	10,347.0	37.2	12.9	-78.92	337.6	-615.1	558.6	510.4	48.16	11.599	
10,500.0	10,488.1	10,476.2	10,446.4	37.5	13.0	-79.18	341.9	-622.6	564.9	516.3	48.62	11.618	
10,600.0	10,587.9	10,575.9	10,545.8	37.9	13.2	-79.44	346.3	-630.1	571.2	522.1	49.09	11.637	
10,700.0	10,687.7	10,675.7	10,645.2	38.3	13.3	-79.70	350.6	-637.7	577.5	528.0	49.55	11.656	
10,800.0	10,787.4	10,775.5	10,744.6	38.6	13.4	-79.95	355.0	-645.2	583.9	533.9	50.01	11.674	
10,900.0	10,887.2	10,875.2	10,844.0	39.0	13.5	-80.19	359.3	-652.7	590.2	539.7	50.48	11.692	
11,000.0	10,986.9	10,975.0	10,943.4	39.3	13.7	-80.43	363.7	-660.3	596.6	545.6	50.94	11.710	
11,100.0	11,086.7	11,074.8	11,042.8	39.7	13.8	-80.66	368.0	-667.8	602.9	551.5	51.41	11.728	
11,200.0	11,186.4	11,174.5	11,142.2	40.1	13.9	-80.89	372.4	-675.3	609.3	557.4	51.88	11.745	
11,300.0	11,286.2	11,274.3	11,241.5	40.4	14.0	-81.11	376.7	-682.8	615.7	563.3	52.34	11.762	
11,400.0	11,386.0	11,374.1	11,340.9	40.8	14.2	-81.33	381.1	-690.4	622.1	569.3	52.81	11.779	
11,500.0	11,485.7	11,473.8	11,440.3	41.1	14.3	-81.54	385.4	-697.9	628.5	575.2	53.28	11.796	
11,600.0	11,585.5	11,573.6	11,539.7	41.5	14.4	-81.75	389.8	-705.4	634.9	581.1	53.75	11.813	
11,703.3	11,688.5	11,676.6	11,642.4	41.9	14.6	-81.97	394.3	-713.2	641.5	587.3	54.23	11.829	
11,725.0	11,710.1	11,698.3	11,663.9	42.0	14.6	-78.28	395.2	-714.9	642.8	588.4	54.33	11.831	
11,750.0	11,734.9	11,719.6	11,685.1	42.0	14.6	-76.57	396.2	-716.5	643.9	589.5	54.41	11.835	
11,775.0	11,759.4	11,737.7	11,703.1	42.1	14.6	-75.71	397.7	-718.1	644.9	590.4	54.46	11.841	
11,800.0	11,783.6	11,755.8	11,721.0	42.2	14.6	-75.25	399.8	-719.9	645.7	591.2	54.51	11.845	
11,825.0	11,807.5	11,775.0	11,739.9	42.3	14.6	-75.01	402.7	-722.0	646.4	591.9	54.57	11.847	
11,850.0	11,831.0	11,792.2	11,756.6	42.4	14.6	-74.89	406.0	-724.1	647.1	592.5	54.61	11.848	
11,875.0	11,854.0	11,810.5	11,774.3	42.5	14.6	-74.88	410.0	-726.6	647.6	592.9	54.66	11.847	
11,900.0	11,876.5	11,828.9	11,791.9	42.6	14.7	-74.95	414.8	-729.3	648.0	593.3	54.71	11.844	
11,925.0	11,898.3	11,850.0	11,811.7	42.6	14.7	-75.13	421.0	-732.6	648.3	593.5	54.76	11.838	
11,950.0	11,919.5	11,865.9	11,826.5	42.7	14.7	-75.28	426.2	-735.3	648.5	593.7	54.80	11.834	
11,975.0	11,940.0	11,884.5	11,843.5	42.8	14.7	-75.53	433.0	-738.6	648.6	593.7	54.84	11.827	
12,000.0	11,959.7	11,903.3	11,860.4	42.9	14.7	-75.82	440.4	-742.1	648.6	593.7	54.88	11.818	
12,025.0	11,978.5	11,922.1	11,877.0	42.9	14.7	-76.15	448.5	-745.9	648.5	593.6	54.92	11.808	
12,050.0	11,996.5	11,941.1	11,893.3	43.0	14.7	-76.53	457.3	-749.9	648.3	593.4	54.96	11.796	
12,075.0	12,013.5	11,960.2	11,909.4	43.1	14.7	-76.94	466.8	-754.0	648.1	593.1	55.00	11.784	
12,100.0	12,029.5	11,979.5	11,925.2	43.1	14.8	-77.38	476.9	-758.4	647.8	592.8	55.04	11.771	
12,125.0	12,044.6	12,000.0	11,941.5	43.2	14.8	-77.89	488.4	-763.3	647.5	592.4	55.08	11.756	
12,150.0	12,058.5	12,018.5	11,955.7	43.2	14.8	-78.38	499.3	-767.9	647.1	592.0	55.11	11.741	
12,175.0	12,071.4	12,038.2	11,970.3	43.3	14.8	-78.93	511.5	-772.9	646.6	591.5	55.15	11.725	
12,200.0	12,083.1	12,058.2	11,984.6	43.3	14.8	-79.50	524.5	-778.2	646.1	591.0	55.18	11.709	
12,225.0	12,093.6	12,078.4	11,998.4	43.4	14.9	-80.11	538.1	-783.6	645.6	590.4	55.22	11.692	
12,250.0	12,103.0	12,100.0	12,012.5	43.4	14.9	-80.78	553.4	-789.7	645.1	589.8	55.27	11.673	
12,275.0	12,111.1	12,119.4	12,024.5	43.5	14.9	-81.40	567.6	-795.2	644.6	589.3	55.30	11.656	
12,300.0	12,118.0	12,140.3	12,036.7	43.5	14.9	-82.09	583.4	-801.3	644.1	588.7	55.35	11.637	
12,325.0	12,123.6	12,161.4	12,048.3	43.6	15.0	-82.80	599.9	-807.6	643.5	588.1	55.39	11.618	
12,350.0	12,127.9	12,182.9	12,059.3	43.6	15.0	-83.53	617.2	-814.1	643.0	587.6	55.44	11.598	
12,375.0	12,130.9	12,204.7	12,069.5	43.6	15.0	-84.28	635.2	-820.8	642.6	587.1	55.50	11.578	
12,400.0	12,132.6	12,226.8	12,079.1	43.7	15.0	-85.06	653.9	-827.8	642.1	586.5	55.56	11.557	
12,414.0	12,133.0	12,239.3	12,084.0	43.7	15.1	-85.50	664.7	-831.7	641.9	586.3	55.60	11.545	
12,442.7	12,133.4	12,265.8	12,093.6	43.7	15.1	-86.33	687.9	-840.1	641.6	586.0	55.69	11.523	
12,500.0	12,134.2	12,321.4	12,109.1	43.8	15.1	-87.67	738.2	-858.1	642.4	586.5	55.89	11.494	
12,600.0	12,135.5	12,425.0	12,121.1	43.9	15.2	-88.65	835.2	-891.7	646.6	590.3	56.34	11.478	
12,700.0	12,136.9	12,554.1	12,122.8	44.0	15.4	-88.69	958.4	-930.3	651.7	594.7	57.03	11.429	
12,800.0	12,138.2	12,683.6	12,124.6	44.2	15.5	-88.73	1,083.5	-963.4	655.8	598.0	57.80	11.346	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11710-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
12,900.0	12,139.6	12,813.3	12,126.4	44.4	15.7	-88.77	1,210.3	-990.9	658.9	600.2	58.65	11.234	
13,000.0	12,141.0	12,943.2	12,128.2	44.6	16.0	-88.80	1,338.3	-1,012.6	660.9	601.3	59.55	11.097	
13,100.0	12,142.3	13,073.2	12,130.0	44.8	16.5	-88.84	1,467.3	-1,028.5	661.8	601.3	60.49	10.940	
13,200.0	12,143.7	13,203.2	12,131.8	45.0	17.0	-88.87	1,597.0	-1,038.5	661.7	600.3	61.46	10.768	
13,300.0	12,145.0	13,333.2	12,133.6	45.2	17.6	-88.89	1,726.9	-1,042.7	660.6	598.2	62.43	10.581	
13,352.9	12,145.7	13,387.4	12,134.4	45.3	17.9	-88.91	1,781.0	-1,043.1	660.1	597.3	62.86	10.502	
13,400.0	12,146.4	13,434.5	12,135.0	45.4	18.1	-88.91	1,828.1	-1,043.4	660.1	596.9	63.24	10.438	
13,500.0	12,147.7	13,534.5	12,136.4	45.7	18.7	-88.91	1,928.1	-1,044.1	660.1	596.0	64.09	10.300	
13,600.0	12,149.0	13,634.5	12,137.8	45.9	19.3	-88.92	2,028.1	-1,044.9	660.1	595.1	64.97	10.161	
13,700.0	12,150.4	13,734.5	12,139.1	46.2	19.9	-88.92	2,128.1	-1,045.6	660.1	594.2	65.88	10.020	
13,800.0	12,151.7	13,834.5	12,140.5	46.5	20.5	-88.92	2,228.0	-1,046.3	660.1	593.3	66.82	9.879	
13,900.0	12,153.1	13,934.5	12,141.9	46.8	21.1	-88.93	2,328.0	-1,047.1	660.1	592.3	67.79	9.737	
14,000.0	12,154.4	14,034.5	12,143.3	47.1	21.8	-88.93	2,428.0	-1,047.8	660.1	591.3	68.79	9.596	
14,100.0	12,155.7	14,134.5	12,144.6	47.5	22.5	-88.93	2,528.0	-1,048.5	660.1	590.3	69.82	9.455	
14,200.0	12,157.1	14,234.5	12,146.0	47.8	23.2	-88.93	2,628.0	-1,049.3	660.1	589.2	70.87	9.315	
14,300.0	12,158.4	14,334.5	12,147.4	48.2	23.9	-88.94	2,728.0	-1,050.0	660.1	588.2	71.94	9.176	
14,400.0	12,159.8	14,434.5	12,148.8	48.5	24.6	-88.94	2,828.0	-1,050.7	660.1	587.1	73.03	9.038	
14,500.0	12,161.1	14,534.5	12,150.1	48.9	25.3	-88.94	2,928.0	-1,051.5	660.1	586.0	74.15	8.902	
14,600.0	12,162.4	14,634.5	12,151.5	49.3	26.1	-88.95	3,027.9	-1,052.2	660.1	584.8	75.29	8.768	
14,700.0	12,163.8	14,734.5	12,152.9	49.7	26.8	-88.95	3,127.9	-1,052.9	660.1	583.7	76.44	8.636	
14,800.0	12,165.1	14,834.5	12,154.3	50.2	27.6	-88.95	3,227.9	-1,053.6	660.1	582.5	77.61	8.505	
14,900.0	12,166.5	14,934.5	12,155.6	50.6	28.3	-88.96	3,327.9	-1,054.4	660.1	581.3	78.80	8.377	
15,000.0	12,167.8	15,034.5	12,157.0	51.0	29.1	-88.96	3,427.9	-1,055.1	660.1	580.1	80.01	8.250	
15,100.0	12,169.1	15,134.5	12,158.4	51.5	29.9	-88.96	3,527.9	-1,055.8	660.1	578.9	81.23	8.126	
15,141.5	12,169.7	15,177.0	12,159.0	51.7	30.2	-88.96	3,570.4	-1,056.1	660.1	578.4	81.74	8.075	
15,154.4	12,169.9	15,191.8	12,159.2	51.7	30.3	-88.97	3,585.2	-1,056.2	660.1	578.2	81.91	8.058	
15,154.4	12,169.9	15,191.8	12,159.2	51.7	30.3	-88.97	3,585.2	-1,056.2	660.1	578.2	81.91	8.058	
15,200.0	12,170.5	15,237.4	12,159.8	51.9	30.6	-88.97	3,630.8	-1,056.3	660.1	577.6	82.48	8.003	
15,300.0	12,171.8	15,337.4	12,161.2	52.4	31.4	-88.97	3,730.8	-1,056.6	660.1	576.4	83.73	7.884	
15,400.0	12,173.2	15,437.4	12,162.5	52.9	32.2	-88.97	3,830.8	-1,056.9	660.1	575.1	84.99	7.766	
15,500.0	12,174.5	15,537.4	12,163.9	53.4	33.0	-88.98	3,930.8	-1,057.2	660.1	573.8	86.27	7.651	
15,600.0	12,175.9	15,637.4	12,165.3	53.9	33.8	-88.98	4,030.8	-1,057.5	660.1	572.5	87.56	7.539	
15,700.0	12,177.2	15,737.4	12,166.7	54.4	34.6	-88.98	4,130.8	-1,057.7	660.1	571.2	88.86	7.428	
15,800.0	12,178.5	15,837.4	12,168.0	54.9	35.4	-88.99	4,230.8	-1,058.0	660.1	569.9	90.18	7.320	
15,900.0	12,179.9	15,937.4	12,169.4	55.4	36.2	-88.99	4,330.8	-1,058.3	660.1	568.6	91.50	7.214	
16,000.0	12,181.2	16,037.4	12,170.8	56.0	37.0	-88.99	4,430.8	-1,058.6	660.1	567.2	92.84	7.110	
16,100.0	12,182.6	16,137.4	12,172.2	56.5	37.8	-88.99	4,530.8	-1,058.9	660.1	565.9	94.19	7.008	
16,200.0	12,183.9	16,237.4	12,173.6	57.1	38.6	-89.00	4,630.7	-1,059.1	660.1	564.5	95.54	6.909	
16,300.0	12,185.2	16,337.4	12,174.9	57.6	39.4	-89.00	4,730.7	-1,059.4	660.1	563.2	96.91	6.811	
16,400.0	12,186.6	16,437.4	12,176.3	58.2	40.2	-89.00	4,830.7	-1,059.7	660.1	561.8	98.29	6.716	
16,500.0	12,187.9	16,537.4	12,177.7	58.8	41.0	-89.01	4,930.7	-1,060.0	660.1	560.4	99.67	6.622	
16,600.0	12,189.3	16,637.4	12,179.1	59.4	41.8	-89.01	5,030.7	-1,060.3	660.1	559.0	101.07	6.531	
16,700.0	12,190.6	16,737.4	12,180.4	59.9	42.6	-89.01	5,130.7	-1,060.5	660.1	557.6	102.47	6.442	
16,800.0	12,191.9	16,837.4	12,181.8	60.5	43.4	-89.02	5,230.7	-1,060.8	660.1	556.2	103.88	6.354	
16,900.0	12,193.3	16,937.4	12,183.2	61.1	44.3	-89.02	5,330.7	-1,061.1	660.1	554.8	105.30	6.269	
17,000.0	12,194.6	17,037.4	12,184.6	61.7	45.1	-89.02	5,430.7	-1,061.4	660.1	553.4	106.73	6.185	
17,100.0	12,196.0	17,137.4	12,185.9	62.4	45.9	-89.02	5,530.7	-1,061.7	660.1	551.9	108.16	6.103	
17,200.0	12,197.3	17,237.4	12,187.3	63.0	46.7	-89.03	5,630.6	-1,062.0	660.1	550.5	109.60	6.023	
17,300.0	12,198.7	17,337.4	12,188.7	63.6	47.5	-89.03	5,730.6	-1,062.2	660.1	549.0	111.05	5.944	
17,400.0	12,200.0	17,437.4	12,190.1	64.2	48.4	-89.03	5,830.6	-1,062.5	660.1	547.6	112.50	5.867	
17,500.0	12,201.3	17,537.4	12,191.4	64.9	49.2	-89.04	5,930.6	-1,062.8	660.1	546.1	113.97	5.792	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11710-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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.0	12,202.7	17,637.4	12,192.8	65.5	50.0	-89.04	-89.04	6,030.6	-1,063.1	660.1	544.7	115.43	5.718	
17,700.0	12,204.0	17,737.4	12,194.2	66.1	50.8	-89.04	-89.04	6,130.6	-1,063.4	660.1	543.2	116.91	5.646	
17,800.0	12,205.4	17,837.4	12,195.6	66.8	51.7	-89.05	-89.05	6,230.6	-1,063.6	660.1	541.7	118.38	5.576	
17,900.0	12,206.7	17,937.4	12,196.9	67.4	52.5	-89.05	-89.05	6,330.6	-1,063.9	660.1	540.2	119.87	5.507	
18,000.0	12,208.0	18,037.4	12,198.3	68.1	53.3	-89.05	-89.05	6,430.6	-1,064.2	660.1	538.7	121.36	5.439	
18,100.0	12,209.4	18,137.4	12,199.7	68.8	54.2	-89.05	-89.05	6,530.6	-1,064.5	660.1	537.2	122.85	5.373	
18,200.0	12,210.7	18,237.4	12,201.1	69.4	55.0	-89.06	-89.06	6,630.5	-1,064.8	660.1	535.7	124.35	5.308	
18,300.0	12,212.1	18,337.4	12,202.4	70.1	55.8	-89.06	-89.06	6,730.5	-1,065.1	660.1	534.2	125.86	5.245	
18,400.0	12,213.4	18,437.4	12,203.8	70.8	56.7	-89.06	-89.06	6,830.5	-1,065.3	660.1	532.7	127.37	5.182	
18,500.0	12,214.7	18,537.4	12,205.2	71.4	57.5	-89.07	-89.07	6,930.5	-1,065.6	660.1	531.2	128.88	5.122	
18,600.0	12,216.1	18,637.4	12,206.6	72.1	58.3	-89.07	-89.07	7,030.5	-1,065.9	660.1	529.7	130.40	5.062	
18,700.0	12,217.4	18,737.4	12,207.9	72.8	59.2	-89.07	-89.07	7,130.5	-1,066.2	660.1	528.2	131.93	5.003	
18,800.0	12,218.8	18,837.4	12,209.3	73.5	60.0	-89.07	-89.07	7,230.5	-1,066.5	660.1	526.6	133.46	4.946	
18,900.0	12,220.1	18,937.4	12,210.7	74.2	60.9	-89.08	-89.08	7,330.5	-1,066.7	660.1	525.1	134.99	4.890	
19,000.0	12,221.5	19,037.4	12,212.1	74.9	61.7	-89.08	-89.08	7,430.5	-1,067.0	660.1	523.6	136.52	4.835	
19,100.0	12,222.8	19,137.4	12,213.4	75.6	62.5	-89.08	-89.08	7,530.5	-1,067.3	660.1	522.0	138.06	4.781	
19,200.0	12,224.1	19,237.4	12,214.8	76.3	63.4	-89.09	-89.09	7,630.4	-1,067.6	660.1	520.5	139.61	4.728	
19,300.0	12,225.5	19,337.4	12,216.2	77.0	64.2	-89.09	-89.09	7,730.4	-1,067.9	660.1	518.9	141.15	4.676	
19,400.0	12,226.8	19,437.4	12,217.6	77.7	65.0	-89.09	-89.09	7,830.4	-1,068.2	660.1	517.4	142.70	4.626	
19,500.0	12,228.2	19,537.4	12,218.9	78.4	65.9	-89.10	-89.10	7,930.4	-1,068.4	660.1	515.8	144.26	4.576	
19,600.0	12,229.5	19,637.4	12,220.3	79.1	66.7	-89.10	-89.10	8,030.4	-1,068.7	660.1	514.3	145.82	4.527	
19,700.0	12,230.8	19,737.4	12,221.7	79.9	67.6	-89.10	-89.10	8,130.4	-1,069.0	660.1	512.7	147.38	4.479	
19,800.0	12,232.2	19,837.4	12,223.1	80.6	68.4	-89.10	-89.10	8,230.4	-1,069.3	660.1	511.2	148.94	4.432	
19,900.0	12,233.5	19,937.4	12,224.4	81.3	69.3	-89.11	-89.11	8,330.4	-1,069.6	660.1	509.6	150.51	4.386	
20,000.0	12,234.9	20,037.4	12,225.8	82.0	70.1	-89.11	-89.11	8,430.4	-1,069.8	660.1	508.0	152.08	4.341	
20,100.0	12,236.2	20,137.4	12,227.2	82.8	70.9	-89.11	-89.11	8,530.4	-1,070.1	660.1	506.4	153.65	4.296	
20,200.0	12,237.6	20,237.4	12,228.6	83.5	71.8	-89.12	-89.12	8,630.4	-1,070.4	660.1	504.9	155.23	4.252	
20,300.0	12,238.9	20,337.4	12,229.9	84.2	72.6	-89.12	-89.12	8,730.3	-1,070.7	660.1	503.3	156.80	4.210	
20,307.0	12,239.0	20,344.5	12,230.0	84.3	72.7	-89.12	-89.12	8,737.4	-1,070.7	660.1	503.2	156.90	4.207	
20,382.5	12,240.0	20,413.9	12,231.0	84.7	73.3	-89.12	-89.12	8,806.8	-1,070.9	660.1	502.2	157.92	4.180	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,400.0	10,388.4	10,436.4	10,426.8	37.2	36.9	25.64	1,284.8	207.7	991.6	917.6	74.00	13.399		
10,500.0	10,488.1	10,535.7	10,526.0	37.5	37.2	26.08	1,281.6	211.4	983.2	908.5	74.72	13.159		
10,600.0	10,587.9	10,635.1	10,625.2	37.9	37.6	26.52	1,278.3	215.0	974.8	899.4	75.43	12.923		
10,700.0	10,687.7	10,734.5	10,724.5	38.3	37.9	26.97	1,275.1	218.7	966.5	890.4	76.15	12.693		
10,800.0	10,787.4	10,833.8	10,823.7	38.6	38.3	27.43	1,271.8	222.4	958.3	881.4	76.86	12.467		
10,900.0	10,887.2	10,933.2	10,923.0	39.0	38.7	27.89	1,268.6	226.1	950.1	872.6	77.58	12.247		
11,000.0	10,986.9	11,032.6	11,022.2	39.3	39.0	28.36	1,265.3	229.8	942.0	863.7	78.30	12.032		
11,100.0	11,086.7	11,131.9	11,121.5	39.7	39.4	28.84	1,262.1	233.5	934.0	855.0	79.01	11.821		
11,200.0	11,186.4	11,231.3	11,220.7	40.1	39.7	29.33	1,258.8	237.2	926.0	846.3	79.73	11.615		
11,300.0	11,286.2	11,330.7	11,319.9	40.4	40.1	29.83	1,255.6	240.9	918.1	837.6	80.44	11.413		
11,400.0	11,386.0	12,793.6	12,171.2	40.8	44.2	104.98	419.7	280.5	844.8	787.3	57.46	14.701		
11,500.0	11,485.7	12,789.0	12,171.1	41.1	44.2	104.26	424.3	280.4	755.6	696.1	59.52	12.695		
11,600.0	11,585.5	12,784.4	12,171.0	41.5	44.2	103.53	428.9	280.4	669.4	607.3	62.16	10.770		
11,703.3	11,688.5	12,779.7	12,170.9	41.9	44.2	102.78	433.7	280.3	585.0	519.3	65.71	8.903		
11,725.0	11,710.1	12,778.2	12,170.8	42.0	44.1	109.11	435.1	280.3	568.2	501.6	66.59	8.532		
11,750.0	11,734.9	12,775.4	12,170.8	42.0	44.1	113.44	438.0	280.3	549.6	481.9	67.68	8.120		
11,775.0	11,759.4	12,771.3	12,170.7	42.1	44.1	116.40	442.1	280.3	531.9	463.1	68.84	7.726		
11,800.0	11,783.6	12,766.0	12,170.5	42.2	44.1	118.53	447.3	280.2	515.3	445.2	70.07	7.353		
11,825.0	11,807.5	12,759.5	12,170.4	42.3	44.1	120.04	453.8	280.1	499.8	428.4	71.37	7.003		
11,850.0	11,831.0	12,751.8	12,170.2	42.4	44.1	121.06	461.5	280.0	485.6	412.8	72.71	6.678		
11,875.0	11,854.0	12,743.0	12,170.0	42.5	44.1	121.65	470.3	280.0	472.7	398.6	74.08	6.381		
11,900.0	11,876.5	12,733.0	12,169.8	42.6	44.1	121.86	480.3	279.8	461.3	385.8	75.47	6.112		
11,925.0	11,898.3	12,722.0	12,169.5	42.6	44.0	121.74	491.4	279.7	451.4	374.6	76.84	5.874		
11,950.0	11,919.5	12,709.8	12,169.3	42.7	44.0	121.32	503.5	279.6	443.1	364.9	78.18	5.667		
11,975.0	11,940.0	12,696.6	12,169.0	42.8	44.0	120.62	516.7	279.5	436.3	356.9	79.46	5.491		
12,000.0	11,959.7	12,682.4	12,168.6	42.9	44.0	119.67	530.9	279.3	431.2	350.5	80.66	5.345		
12,025.0	11,978.5	12,667.2	12,168.3	42.9	43.9	118.49	546.1	279.1	427.6	345.8	81.77	5.229		
12,050.0	11,996.5	12,651.1	12,167.9	43.0	43.9	117.10	562.2	279.0	425.5	342.7	82.75	5.141		
12,074.6	12,013.2	12,634.4	12,167.5	43.1	43.9	115.57	578.9	278.8	424.8	341.2	83.60	5.081 CC		
12,075.0	12,013.5	12,634.1	12,167.5	43.1	43.9	115.54	579.2	278.8	424.8	341.2	83.62	5.080		
12,100.0	12,029.5	12,616.2	12,167.1	43.1	43.8	113.82	597.1	278.6	425.5	341.1	84.36	5.044 ES		
12,125.0	12,044.6	12,597.6	12,166.7	43.2	43.8	111.97	615.7	278.4	427.4	342.4	84.98	5.029 SF		
12,150.0	12,058.5	12,578.2	12,166.2	43.2	43.8	110.03	635.1	278.2	430.4	344.9	85.48	5.035		
12,175.0	12,071.4	12,558.1	12,165.8	43.3	43.7	108.03	655.2	278.0	434.4	348.5	85.89	5.057		
12,200.0	12,083.1	12,537.4	12,165.3	43.3	43.7	106.01	675.8	277.8	439.2	353.0	86.20	5.095		
12,225.0	12,093.6	12,516.1	12,164.8	43.4	43.7	103.98	697.1	277.5	444.8	358.3	86.44	5.146		
12,250.0	12,103.0	12,494.4	12,164.3	43.4	43.6	102.00	718.9	277.3	450.9	364.3	86.61	5.206		
12,275.0	12,111.1	12,472.1	12,163.8	43.5	43.6	100.08	741.1	277.1	457.6	370.9	86.74	5.276		
12,300.0	12,118.0	12,449.5	12,163.3	43.5	43.6	98.26	763.8	276.8	464.7	377.8	86.82	5.352		
12,325.0	12,123.6	12,425.6	12,162.6	43.6	43.5	96.50	787.6	276.6	472.0	385.1	86.88	5.433		
12,350.0	12,127.9	12,400.7	12,160.9	43.6	43.5	94.74	812.4	276.3	479.5	392.6	86.91	5.517		
12,375.0	12,130.9	12,376.1	12,157.9	43.6	43.4	93.00	836.9	275.9	487.2	400.2	86.93	5.604		
12,400.0	12,132.6	12,351.8	12,153.6	43.7	43.4	91.29	860.8	275.5	494.9	408.0	86.93	5.693		
12,414.0	12,133.0	12,338.3	12,150.8	43.7	43.4	90.34	874.0	275.3	499.2	412.3	86.93	5.743		
12,500.0	12,134.2	12,259.1	12,126.6	43.8	43.2	87.43	949.3	273.7	525.2	438.4	86.81	6.050		
12,600.0	12,135.5	12,178.5	12,089.6	43.9	43.0	83.41	1,020.7	271.6	554.9	468.4	86.45	6.419		
12,700.0	12,136.9	12,111.6	12,050.1	44.0	42.8	79.45	1,074.6	269.6	586.7	500.9	85.87	6.833		
12,800.0	12,138.2	12,057.2	12,012.7	44.2	42.6	75.97	1,114.0	267.9	622.8	537.6	85.21	7.309		
12,900.0	12,139.6	12,013.3	11,979.4	44.4	42.5	73.10	1,142.5	266.4	664.1	579.5	84.61	7.849		
13,000.0	12,141.0	11,975.0	11,948.2	44.6	42.4	70.64	1,164.9	265.0	710.9	626.9	84.09	8.455		
13,100.0	12,142.3	11,950.0	11,927.0	44.8	42.3	69.22	1,178.0	264.1	763.1	679.2	83.86	9.100		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

PILEDRIER FED & FIGURE FOUR FED PROJECT - PILEDRIER FEDERAL #702H - OWB - PWP1													Offset Site Error:	3.0 usft
Survey Program: 0-MWD+IFR1+FDIR													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,200.0	12,143.7	11,925.0	11,905.1	45.0	42.2	67.89	1,190.1	263.1	819.9	736.3	83.65	9.802		
13,300.0	12,145.0	11,900.0	11,882.6	45.2	42.1	66.67	1,201.0	262.2	881.0	797.5	83.47	10.554		
13,352.9	12,145.7	11,900.0	11,882.6	45.3	42.1	66.99	1,201.0	262.2	914.7	831.1	83.65	10.936		
13,400.0	12,146.4	11,888.2	11,871.8	45.4	42.1	66.16	1,205.7	261.8	945.7	862.2	83.57	11.317		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11687-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
10,500.0	10,488.1	10,552.5	10,542.5	37.5	9.1	-4.89	1,295.4	-313.8	992.7	946.6	46.07	21.546	
10,600.0	10,587.9	10,651.8	10,641.6	37.9	9.2	-5.22	1,290.5	-317.8	982.0	935.5	46.49	21.124	
10,700.0	10,687.7	10,751.1	10,740.6	38.3	9.3	-5.56	1,285.5	-321.7	971.3	924.4	46.90	20.708	
10,800.0	10,787.4	10,850.3	10,839.7	38.6	9.3	-5.91	1,280.6	-325.7	960.7	913.4	47.32	20.301	
10,900.0	10,887.2	10,949.6	10,938.7	39.0	9.4	-6.27	1,275.7	-329.7	950.1	902.4	47.74	19.900	
11,000.0	10,986.9	11,048.8	11,037.8	39.3	9.5	-6.63	1,270.8	-333.7	939.6	891.4	48.17	19.507	
11,100.0	11,086.7	11,148.1	11,136.8	39.7	9.6	-7.01	1,265.8	-337.7	929.0	880.5	48.59	19.121	
11,200.0	11,186.4	11,247.4	11,235.9	40.1	9.7	-7.39	1,260.9	-341.7	918.6	869.6	49.01	18.742	
11,300.0	11,286.2	11,289.3	12,159.4	40.4	12.5	-88.33	408.1	-369.4	907.6	856.1	51.48	17.629	
11,400.0	11,386.0	12,784.7	12,159.3	40.8	12.5	-87.44	412.7	-369.5	813.6	761.5	52.10	15.617	
11,500.0	11,485.7	12,780.2	12,159.2	41.1	12.5	-86.55	417.3	-369.5	721.2	668.4	52.79	13.660	
11,600.0	11,585.5	12,775.6	12,159.1	41.5	12.4	-85.65	421.9	-369.6	631.0	577.4	53.59	11.774	
11,703.3	11,688.5	12,770.8	12,159.0	41.9	12.4	-84.73	426.6	-369.6	541.5	486.9	54.54	9.928	
11,725.0	11,710.1	12,769.4	12,158.9	42.0	12.4	-84.74	428.0	-369.6	523.2	468.5	54.75	9.556	
11,750.0	11,734.9	12,766.6	12,158.9	42.0	12.4	-86.89	430.9	-369.7	502.4	447.4	55.00	9.136	
11,775.0	11,759.4	12,762.5	12,158.8	42.1	12.4	-89.48	434.9	-369.7	481.9	426.7	55.23	8.725	
11,800.0	11,783.6	12,757.2	12,158.6	42.2	12.4	-92.00	440.2	-369.8	461.8	406.3	55.46	8.325	
11,825.0	11,807.5	12,750.7	12,158.5	42.3	12.3	-94.28	446.7	-369.8	442.0	386.3	55.68	7.938	
11,850.0	11,831.0	12,743.1	12,158.3	42.4	12.3	-96.25	454.4	-369.9	422.7	366.8	55.89	7.563	
11,875.0	11,854.0	12,734.2	12,158.1	42.5	12.2	-97.88	463.2	-370.0	403.9	347.8	56.08	7.203	
11,900.0	11,876.5	12,724.3	12,157.9	42.6	12.2	-99.17	473.2	-370.1	385.7	329.5	56.24	6.858	
11,925.0	11,898.3	12,713.2	12,157.6	42.6	12.1	-100.12	484.2	-370.2	368.2	311.8	56.38	6.530	
11,950.0	11,919.5	12,701.0	12,157.3	42.7	12.1	-100.76	496.4	-370.4	351.3	294.8	56.49	6.218	
11,975.0	11,940.0	12,687.8	12,157.0	42.8	12.0	-101.11	509.6	-370.5	335.1	278.5	56.57	5.923	
12,000.0	11,959.7	12,673.6	12,156.7	42.9	12.0	-101.18	523.8	-370.7	319.6	263.0	56.61	5.646	
12,025.0	11,978.5	12,658.4	12,156.4	42.9	11.9	-100.99	539.0	-370.8	304.9	248.3	56.61	5.386	
12,050.0	11,996.5	12,642.3	12,156.0	43.0	11.8	-100.58	555.1	-371.0	291.0	234.4	56.57	5.144	
12,075.0	12,013.5	12,625.3	12,155.6	43.1	11.7	-99.96	572.1	-371.2	277.8	221.3	56.48	4.918	
12,100.0	12,029.5	12,607.5	12,155.2	43.1	11.7	-99.16	589.9	-371.4	265.3	209.0	56.34	4.709	
12,125.0	12,044.6	12,588.8	12,154.8	43.2	11.6	-98.21	608.6	-371.6	253.6	197.4	56.17	4.514	
12,150.0	12,058.5	12,569.4	12,154.3	43.2	11.5	-97.15	627.9	-371.8	242.5	186.5	55.97	4.332	
12,175.0	12,071.4	12,549.4	12,153.9	43.3	11.4	-95.99	648.0	-372.0	232.1	176.3	55.75	4.162	
12,200.0	12,083.1	12,528.7	12,153.4	43.3	11.3	-94.79	668.7	-372.2	222.2	166.7	55.52	4.002	
12,225.0	12,093.6	12,507.4	12,152.9	43.4	11.3	-93.59	689.9	-372.4	212.8	157.5	55.28	3.850	
12,250.0	12,103.0	12,485.6	12,152.4	43.4	11.2	-92.42	711.7	-372.7	203.9	148.8	55.05	3.703	
12,275.0	12,111.1	12,463.4	12,151.9	43.5	11.1	-91.34	734.0	-372.9	195.3	140.4	54.85	3.560	
12,300.0	12,118.0	12,440.7	12,151.4	43.5	11.0	-90.39	756.6	-373.1	187.0	132.3	54.67	3.420	
12,325.0	12,123.6	12,417.5	12,150.8	43.6	11.0	-89.58	779.9	-373.4	178.8	124.3	54.52	3.280	
12,350.0	12,127.9	12,393.7	12,149.2	43.6	10.9	-88.69	803.5	-373.6	170.7	116.3	54.38	3.139	
12,375.0	12,130.9	12,370.3	12,146.6	43.6	10.8	-87.69	826.8	-373.8	162.7	108.4	54.26	2.999	
12,400.0	12,132.6	12,347.2	12,142.8	43.7	10.7	-86.57	849.6	-373.9	154.8	100.6	54.16	2.858	
12,414.0	12,133.0	12,334.4	12,140.3	43.7	10.7	-85.88	862.2	-373.9	150.4	96.3	54.12	2.779	
12,500.0	12,134.2	12,259.1	12,118.6	43.8	10.5	-74.81	934.2	-373.9	127.7	73.5	54.23	2.356	
12,569.7	12,135.1	12,204.0	12,095.7	43.8	10.4	-62.11	984.3	-373.5	120.4	65.7	54.68	2.202 CC, ES, SF	
12,600.0	12,135.5	12,181.9	12,084.9	43.9	10.4	-56.29	1,003.6	-373.3	122.0	67.3	54.69	2.231	
12,700.0	12,136.9	12,117.0	12,048.3	44.0	10.3	-39.21	1,057.1	-372.4	150.0	95.9	54.04	2.775	
12,800.0	12,138.2	12,063.5	12,012.9	44.2	10.2	-27.26	1,097.1	-371.4	204.4	150.6	53.81	3.799	
12,900.0	12,139.6	12,019.8	11,980.7	44.4	10.2	-19.22	1,126.7	-370.5	273.8	220.0	53.84	5.085	
13,000.0	12,141.0	11,983.9	11,952.4	44.6	10.1	-13.33	1,148.7	-369.6	351.6	297.8	53.84	6.530	
13,100.0	12,142.3	11,950.0	11,924.2	44.8	10.1	-8.28	1,167.5	-368.6	434.7	380.9	53.81	8.078	
13,200.0	12,143.7	11,925.0	11,902.6	45.0	10.1	-3.98	1,180.1	-367.9	521.2	467.5	53.73	9.701	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design PILEDRIER FED & FIGURE FOUR FED PROJECT - PILEDRIER FEDERAL #703H - OWB - PWP1												Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11687-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
13,300.0	12,145.0	11,908.7	11,888.2	45.2	10.1	0.16	1,187.7	-367.4	610.2	556.6	53.60	11.384	
13,352.9	12,145.7	11,900.0	11,880.4	45.3	10.1	2.43	1,191.5	-367.1	658.0	604.5	53.54	12.289	
13,400.0	12,146.4	11,891.0	11,872.2	45.4	10.1	2.42	1,195.3	-366.8	700.9	647.4	53.51	13.100	
13,500.0	12,147.7	11,875.0	11,857.6	45.7	10.1	2.41	1,201.7	-366.3	793.1	739.6	53.43	14.843	
13,600.0	12,149.0	11,862.7	11,846.2	45.9	10.1	2.40	1,206.3	-365.9	886.3	833.0	53.36	16.612	
13,700.0	12,150.4	11,850.0	11,834.3	46.2	10.1	2.40	1,210.7	-365.5	980.5	927.2	53.31	18.393	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 0-Standard Keeper 104, 11723-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		
11,850.0	11,831.0	12,766.1	12,145.4	42.4	15.1	-80.33	447.0	-1,029.9	992.5	934.2	58.23	17.044		
11,875.0	11,854.0	12,757.3	12,145.2	42.5	15.0	-80.83	455.9	-1,030.0	983.0	924.8	58.23	16.880		
11,900.0	11,876.5	12,747.3	12,145.0	42.6	15.0	-81.28	465.8	-1,030.1	973.7	915.5	58.23	16.724		
11,925.0	11,898.3	12,736.3	12,144.7	42.6	15.0	-81.68	476.9	-1,030.2	964.7	906.5	58.21	16.574		
11,950.0	11,919.5	12,724.1	12,144.4	42.7	14.9	-82.02	489.0	-1,030.3	955.9	897.8	58.18	16.431		
11,975.0	11,940.0	12,710.9	12,144.1	42.8	14.9	-82.32	502.2	-1,030.5	947.4	889.2	58.15	16.293		
12,000.0	11,959.7	12,696.7	12,143.8	42.9	14.8	-82.58	516.5	-1,030.6	939.0	880.9	58.10	16.160		
12,025.0	11,978.5	12,681.5	12,143.5	42.9	14.8	-82.80	531.6	-1,030.8	930.8	872.7	58.06	16.031		
12,050.0	11,996.5	12,665.4	12,143.1	43.0	14.7	-82.99	547.7	-1,031.0	922.7	864.7	58.01	15.906		
12,075.0	12,013.5	12,648.4	12,142.7	43.1	14.6	-83.15	564.7	-1,031.1	914.8	856.9	57.96	15.785		
12,100.0	12,029.5	12,630.5	12,142.3	43.1	14.6	-83.31	582.6	-1,031.3	907.1	849.2	57.90	15.667		
12,125.0	12,044.6	12,611.9	12,141.8	43.2	14.5	-83.47	601.2	-1,031.5	899.4	841.5	57.84	15.550		
12,150.0	12,058.5	12,592.5	12,141.4	43.2	14.5	-83.64	620.6	-1,031.7	891.8	834.0	57.78	15.435		
12,175.0	12,071.4	12,572.5	12,140.9	43.3	14.4	-83.83	640.6	-1,032.0	884.2	826.5	57.72	15.319		
12,200.0	12,083.1	12,551.8	12,140.4	43.3	14.3	-84.05	661.3	-1,032.2	876.6	819.0	57.66	15.204		
12,225.0	12,093.6	12,530.5	12,139.9	43.4	14.3	-84.32	682.6	-1,032.4	869.1	811.5	57.60	15.089		
12,250.0	12,103.0	12,508.7	12,139.4	43.4	14.2	-84.64	704.4	-1,032.6	861.5	804.0	57.54	14.973		
12,275.0	12,111.1	12,486.5	12,138.9	43.5	14.1	-85.03	726.6	-1,032.9	853.9	796.4	57.48	14.855		
12,300.0	12,118.0	12,463.8	12,138.4	43.5	14.1	-85.48	749.2	-1,033.1	846.2	788.8	57.43	14.735		
12,325.0	12,123.6	12,439.8	12,137.8	43.6	14.0	-86.00	773.3	-1,033.4	838.5	781.2	57.38	14.614		
12,350.0	12,127.9	12,412.6	12,136.0	43.6	14.0	-86.50	800.4	-1,033.5	830.7	773.4	57.32	14.491		
12,375.0	12,130.9	12,386.0	12,132.8	43.6	13.9	-87.01	826.8	-1,033.6	822.7	765.4	57.27	14.366		
12,400.0	12,132.6	12,359.9	12,128.2	43.7	13.9	-87.55	852.5	-1,033.5	814.5	757.3	57.21	14.237		
12,414.0	12,133.0	12,345.5	12,125.1	43.7	13.8	-87.86	866.5	-1,033.4	809.9	752.7	57.18	14.165		
12,500.0	12,134.2	12,262.1	12,098.8	43.8	13.7	-85.74	945.6	-1,031.9	782.7	725.8	56.99	13.735		
12,600.0	12,135.5	12,179.5	12,059.7	43.9	13.6	-82.56	1,018.2	-1,029.1	756.0	699.2	56.80	13.309		
12,700.0	12,136.9	12,112.5	12,019.2	44.0	13.5	-79.26	1,071.4	-1,026.0	737.3	680.6	56.65	13.014		
12,800.0	12,138.2	12,058.9	11,981.8	44.2	13.4	-76.23	1,109.5	-1,022.9	729.5	672.9	56.54	12.903 SF		
12,811.9	12,138.4	12,053.3	11,977.6	44.2	13.4	-75.89	1,113.3	-1,022.6	729.4	672.9	56.52	12.904 CC, ES		
12,900.0	12,139.6	12,016.2	11,948.9	44.4	13.4	-73.55	1,136.8	-1,020.2	734.5	678.1	56.44	13.015		
13,000.0	12,141.0	11,981.7	11,920.8	44.6	13.4	-71.21	1,156.6	-1,017.8	753.2	696.9	56.35	13.367		
13,100.0	12,142.3	11,950.0	11,893.8	44.8	13.4	-68.88	1,172.9	-1,015.4	785.4	729.1	56.28	13.954		
13,200.0	12,143.7	11,925.0	11,871.7	45.0	13.4	-66.81	1,184.5	-1,013.5	829.8	773.5	56.23	14.756		
13,300.0	12,145.0	11,910.7	11,858.9	45.2	13.4	-65.31	1,190.6	-1,012.4	884.8	828.6	56.20	15.743		
13,352.9	12,145.7	11,900.0	11,849.1	45.3	13.4	-64.21	1,194.9	-1,011.5	917.7	861.5	56.19	16.331		
13,400.0	12,146.4	11,900.0	11,849.1	45.4	13.4	-64.21	1,194.9	-1,011.5	948.7	892.5	56.19	16.885		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design PILEDRIIVER FED & FIGURE FOUR FED PROJECT - PINTAIL 3 FED #1H - OWB - AWP													Offset Site Error:	3.0 usft
Survey Program: 100-GYRO-NS, 8926-MWD													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,100.0	9,091.6	10,961.1	9,517.4	32.5	42.7	-84.76	197.9	-924.0	985.1	915.5	69.70	14.135		
9,200.0	9,191.3	10,966.9	9,517.3	32.9	42.7	-84.38	203.6	-924.3	944.3	872.2	72.10	13.096		
9,300.0	9,291.1	10,972.6	9,517.3	33.2	42.8	-84.01	209.3	-924.6	912.5	838.3	74.19	12.299		
9,400.0	9,390.8	10,978.3	9,517.2	33.6	42.9	-83.64	215.0	-924.9	890.9	815.1	75.80	11.753		
9,500.0	9,490.6	10,983.9	9,517.1	34.0	42.9	-83.27	220.6	-925.2	880.1	803.3	76.78	11.462		
9,545.7	9,536.2	10,986.5	9,517.0	34.1	43.0	-83.11	223.2	-925.3	878.9	801.9	77.00	11.415	CC, ES, SF	
9,600.0	9,590.3	10,989.5	9,517.0	34.3	43.0	-82.91	226.2	-925.5	880.6	803.5	77.06	11.427		
9,700.0	9,690.1	10,995.0	9,516.9	34.7	43.1	-82.55	231.7	-925.8	892.3	815.7	76.63	11.644		
9,800.0	9,789.9	11,000.5	9,516.8	35.0	43.1	-82.19	237.2	-926.1	914.8	839.2	75.58	12.104		
9,900.0	9,889.6	11,006.0	9,516.7	35.4	43.2	-81.84	242.7	-926.4	947.4	873.4	74.06	12.793		
10,000.0	9,989.4	11,011.4	9,516.6	35.8	43.2	-81.48	248.1	-926.7	989.0	916.8	72.22	13.694		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design PILEDRIIVER FED & FIGURE FOUR FED PROJECT - PINTAIL 3 FED #2H - OWB - AWP												Offset Site Error:	3.0 usft
Survey Program: 100-GYRO-NS, 8986-MWD												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.0	9,091.6	10,977.7	9,526.1	32.5	42.4	103.22	222.8	825.5	984.9	916.7	68.22	14.438	
9,200.0	9,191.3	10,987.7	9,526.2	32.9	42.5	102.57	232.8	825.6	943.1	872.3	70.86	13.310	
9,300.0	9,291.1	10,997.5	9,526.4	33.2	42.6	101.93	242.6	825.7	910.3	837.1	73.23	12.431	
9,400.0	9,390.8	11,007.3	9,526.5	33.6	42.7	101.29	252.4	825.8	887.6	812.4	75.17	11.808	
9,500.0	9,490.6	11,017.0	9,526.7	34.0	42.8	100.66	262.1	825.8	875.6	799.1	76.50	11.446	
9,556.2	9,546.6	11,022.4	9,526.7	34.2	42.9	100.30	267.6	825.9	873.9	796.9	76.95	11.356	CC, ES
9,600.0	9,590.3	11,026.6	9,526.8	34.3	42.9	100.03	271.8	825.9	874.9	797.8	77.14	11.342	SF
9,700.0	9,690.1	11,036.1	9,526.9	34.7	43.0	99.41	281.2	825.9	885.5	808.5	77.05	11.493	
9,800.0	9,789.9	11,045.3	9,527.0	35.0	43.1	98.81	290.4	825.9	907.0	830.7	76.30	11.886	
9,900.0	9,889.6	11,054.4	9,527.1	35.4	43.2	98.22	299.5	825.9	938.6	863.5	75.03	12.509	
10,000.0	9,989.4	11,063.3	9,527.2	35.8	43.3	97.64	308.4	825.9	979.3	905.9	73.40	13.342	

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design												PILED RIVER FED & FIGURE FOUR FED PROJECT - PINTAL 3 FED SWD - OWB - OWB		Offset Site Error: 3.0 usft	
Survey Program: 218-INC-ONLY, 1175-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			
0.0	0.0	0.0	0.0	3.0	3.0	-9.48	734.0	-122.6	744.2						
100.0	100.0	98.2	98.2	3.0	3.1	-9.48	734.0	-122.6	744.2	738.1	6.10	121.946			
200.0	200.0	198.2	198.2	3.0	3.4	-9.48	734.0	-122.6	744.2	737.7	6.43	115.788			
300.0	300.0	298.2	298.2	3.1	4.9	-9.48	734.0	-122.6	744.2	736.1	8.05	92.406			
400.0	400.0	398.2	398.2	3.2	7.3	-9.48	734.0	-122.6	744.2	733.6	10.53	70.688			
500.0	500.0	498.4	498.4	3.4	9.9	-9.48	734.1	-122.6	744.3	731.0	13.23	56.237			
600.0	600.0	598.7	598.7	3.6	12.5	-9.48	734.0	-122.6	744.2	728.2	16.05	46.370			
700.0	700.0	698.5	698.2	3.8	16.0	-9.48	734.0	-122.6	744.2	724.4	19.76	37.662			
800.0	800.0	798.8	798.2	4.0	20.5	-9.48	734.0	-122.6	744.2	719.6	24.52	30.347			
900.0	900.0	928.6	928.0	4.2	26.5	-9.49	733.5	-122.6	744.2	713.6	30.67	24.267			
908.7	908.7	942.2	941.5	4.3	27.1	-9.50	732.9	-122.6	743.9	712.6	31.30	23.763			
1,000.0	1,000.0	999.1	998.2	4.5	29.6	-9.48	734.0	-122.6	744.2	710.1	34.05	21.854			
1,100.0	1,100.0	1,106.6	1,105.5	4.8	33.5	-9.48	734.1	-122.6	744.3	706.0	38.27	19.448			
1,200.0	1,200.0	1,204.9	1,203.8	5.1	34.8	-9.43	733.8	-121.9	743.9	704.0	39.88	18.654			
1,300.0	1,300.0	1,305.0	1,303.9	5.3	34.8	-9.35	733.1	-120.7	743.0	702.8	40.18	18.493			
1,400.0	1,400.0	1,404.8	1,403.7	5.6	34.9	-9.23	732.7	-119.1	742.3	701.8	40.50	18.328			
1,500.0	1,500.0	1,506.3	1,505.2	6.0	34.9	-9.11	732.1	-117.4	741.5	700.6	40.84	18.155			
1,600.0	1,600.0	1,606.5	1,605.3	6.3	34.9	-9.00	731.3	-115.8	740.5	699.3	41.19	17.979			
1,700.0	1,700.0	1,706.2	1,705.0	6.6	34.9	-8.86	730.7	-113.9	739.5	698.0	41.53	17.808			
1,800.0	1,800.0	1,805.5	1,804.3	6.9	35.0	-8.73	730.1	-112.1	738.7	696.8	41.88	17.637			
1,900.0	1,900.0	1,906.6	1,905.4	7.2	35.0	-8.67	729.3	-111.2	737.7	695.5	42.24	17.466			
2,000.0	2,000.0	2,006.1	2,004.9	7.6	35.0	-8.65	728.5	-110.9	737.0	694.4	42.60	17.300			
2,100.0	2,100.0	2,106.9	2,105.7	7.9	35.1	-8.66	727.4	-110.8	735.9	692.9	42.96	17.127			
2,200.0	2,200.0	2,207.4	2,206.2	8.2	35.1	-8.66	726.5	-110.7	734.9	691.6	43.34	16.958			
2,300.0	2,300.0	2,306.7	2,305.4	8.6	35.2	-8.69	725.3	-110.8	733.8	690.1	43.71	16.787			
2,400.0	2,400.0	2,405.5	2,404.3	8.9	35.2	-8.73	724.4	-111.3	732.9	688.8	44.09	16.623			
2,500.0	2,500.0	2,506.0	2,504.7	9.2	35.2	-8.81	723.4	-112.1	732.1	687.6	44.48	16.460			
2,600.0	2,600.0	2,606.1	2,604.8	9.6	35.3	-8.92	722.3	-113.4	731.2	686.3	44.87	16.297			
2,700.0	2,700.0	2,704.4	2,703.1	9.9	35.4	-9.08	721.2	-115.3	730.3	685.1	45.26	16.137			
2,800.0	2,800.0	2,799.9	2,798.6	10.3	35.4	-9.19	720.6	-116.6	730.0	684.3	45.66	15.988			
2,809.1	2,809.1	2,808.6	2,807.3	10.3	35.4	-9.20	720.6	-116.7	730.0	684.3	45.69	15.975			
2,900.0	2,900.0	2,897.9	2,896.5	10.6	35.5	-9.27	720.6	-117.6	730.2	684.1	46.06	15.852			
3,000.0	3,000.0	2,999.9	2,998.6	10.9	35.6	-9.33	720.6	-118.3	730.2	683.7	46.48	15.712			
3,018.2	3,018.2	3,017.7	3,016.4	11.0	35.6	-9.33	720.5	-118.4	730.2	683.7	46.55	15.686			
3,100.0	3,100.0	3,097.9	3,096.6	11.3	35.6	-9.36	720.6	-118.8	730.3	683.4	46.89	15.575			
3,200.0	3,200.0	3,197.4	3,196.1	11.6	35.7	-9.34	720.9	-118.6	730.6	683.3	47.30	15.445			
3,300.0	3,300.0	3,298.8	3,297.5	12.0	35.8	-9.24	721.3	-117.4	730.8	683.0	47.72	15.312			
3,400.0	3,400.0	3,400.0	3,398.6	12.3	35.9	-9.03	721.8	-114.7	730.9	682.7	48.15	15.179			
3,500.0	3,500.0	3,501.5	3,500.1	12.7	36.0	-8.84	722.0	-112.2	730.6	682.1	48.58	15.039			
3,600.0	3,600.0	3,602.3	3,600.9	13.0	36.1	-8.69	721.9	-110.4	730.3	681.3	49.02	14.898			
3,700.0	3,700.0	3,704.7	3,703.3	13.4	36.1	-8.56	721.7	-108.6	729.8	680.4	49.46	14.756			
3,800.0	3,800.0	3,804.7	3,803.2	13.7	36.2	-8.42	721.2	-106.7	729.0	679.1	49.90	14.609			
3,900.0	3,900.0	3,907.7	3,906.2	14.1	36.3	-8.22	720.8	-104.1	728.3	678.0	50.35	14.466			
4,000.0	4,000.0	4,014.9	4,013.3	14.4	36.4	-7.91	719.6	-100.0	726.7	675.9	50.80	14.305			
4,041.6	4,041.6	4,041.7	4,040.1	14.6	36.5	-7.85	719.4	-99.2	726.2	675.2	50.98	14.245			
4,100.0	4,100.0	4,082.0	4,080.4	14.8	36.5	-7.81	720.1	-98.8	727.1	675.9	51.21	14.199			
4,200.0	4,200.0	4,230.9	4,229.2	15.1	36.7	-7.50	717.8	-94.5	724.6	672.9	51.75	14.001			
4,300.0	4,300.0	4,345.8	4,343.8	15.5	36.8	-7.13	712.3	-89.1	719.3	667.1	52.20	13.781			
4,400.0	4,400.0	4,412.9	4,410.8	15.8	37.4	-6.91	709.5	-86.0	714.8	662.1	52.72	13.557			
4,430.7	4,430.7	4,431.0	4,428.9	15.9	37.6	-6.86	709.4	-85.4	714.5	661.6	52.86	13.516			
4,500.0	4,500.0	4,471.9	4,469.7	16.2	38.0	-6.78	710.3	-84.4	715.9	662.8	53.12	13.477			

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	3.0 usft
Survey Program: 218-INC-ONLY, 1175-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		
4,600.0	4,600.0	4,540.5	4,538.2	16.5	39.0	-6.70	715.2	-84.0	722.6	669.2	53.43	13.525		
4,700.0	4,700.0	4,654.6	4,651.9	16.9	41.2	-6.62	723.6	-84.0	729.9	675.9	54.03	13.508		
4,800.0	4,800.0	4,768.9	4,766.1	17.2	43.5	-6.57	729.8	-84.0	735.3	680.8	54.52	13.486		
4,900.0	4,900.0	4,874.8	4,871.9	17.6	44.0	-6.53	734.0	-84.0	739.2	683.9	55.28	13.372		
5,000.0	5,000.0	4,980.6	4,977.7	17.9	44.5	-6.50	737.3	-84.0	742.4	686.4	56.04	13.248		
5,100.0	5,100.0	5,086.5	5,083.5	18.3	45.0	-6.48	739.9	-84.0	744.8	688.0	56.79	13.115		
5,200.0	5,200.0	5,192.4	5,189.4	18.7	45.6	-6.46	741.5	-84.0	746.3	688.8	57.53	12.974		
5,300.0	5,300.0	5,296.1	5,293.1	19.0	46.2	-6.46	742.4	-84.0	747.2	688.9	58.33	12.810		
5,400.0	5,400.0	5,396.4	5,393.4	19.4	47.1	-6.45	743.1	-84.0	747.8	688.6	59.24	12.624		
5,500.0	5,500.0	5,496.6	5,493.6	19.7	47.9	-6.45	743.7	-84.0	748.5	688.3	60.15	12.444		
5,600.0	5,600.0	5,596.9	5,593.9	20.1	48.8	3.57	744.3	-84.0	747.3	686.3	61.05	12.242		
5,700.0	5,699.8	5,697.0	5,694.0	20.4	49.8	3.61	744.9	-84.0	742.7	680.7	61.94	11.989		
5,800.0	5,799.6	5,797.3	5,794.3	20.8	50.7	3.64	745.4	-84.0	736.2	673.4	62.81	11.721		
5,900.0	5,899.4	5,898.0	5,895.0	21.1	51.4	3.68	745.8	-84.0	729.7	666.0	63.65	11.465		
6,000.0	5,999.1	5,998.6	5,995.6	21.5	52.2	3.72	746.1	-84.0	723.0	658.5	64.48	11.213		
6,100.0	6,098.9	6,099.2	6,096.2	21.8	53.0	3.76	746.3	-84.0	716.2	650.9	65.31	10.966		
6,200.0	6,198.6	6,199.8	6,196.8	22.2	53.8	3.80	746.4	-84.0	709.3	643.2	66.14	10.724		
6,300.0	6,298.4	6,297.7	6,294.7	22.5	54.3	3.84	746.5	-84.0	702.5	635.7	66.84	10.510		
6,400.0	6,398.1	6,395.5	6,392.5	22.9	54.8	3.88	746.9	-84.0	695.9	628.4	67.52	10.307		
6,500.0	6,497.9	6,493.3	6,490.3	23.3	55.2	3.92	747.6	-84.0	689.7	621.5	68.21	10.111		
6,600.0	6,597.6	6,563.0	6,560.0	23.6	55.6	3.96	748.3	-84.0	684.3	615.6	68.73	9.955 SF		
6,611.8	6,609.4	6,563.0	6,560.0	23.6	55.6	3.96	748.3	-84.0	684.2	615.5	68.72	9.957 CC, ES		
6,700.0	6,697.4	6,563.0	6,560.0	24.0	55.6	3.96	748.3	-84.0	689.9	621.8	68.01	10.143		
6,800.0	6,797.2	6,563.0	6,560.0	24.3	55.6	3.96	748.3	-84.0	709.6	643.5	66.10	10.736		
6,900.0	6,896.9	6,563.0	6,560.0	24.7	55.6	3.96	748.3	-84.0	742.4	679.1	63.31	11.727		
7,000.0	6,996.7	6,563.0	6,560.0	25.0	55.6	3.96	748.3	-84.0	786.7	726.6	60.02	13.106		
7,100.0	7,096.4	6,563.0	6,560.0	25.4	55.6	3.96	748.3	-84.0	840.5	783.9	56.58	14.857		
7,200.0	7,196.2	6,563.0	6,560.0	25.7	55.6	3.96	748.3	-84.0	902.3	849.1	53.21	16.956		
7,300.0	7,295.9	6,563.0	6,560.0	26.1	55.6	3.96	748.3	-84.0	970.4	920.4	50.08	19.377		

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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to *KB=30' @ 3294.8usft (TBD)

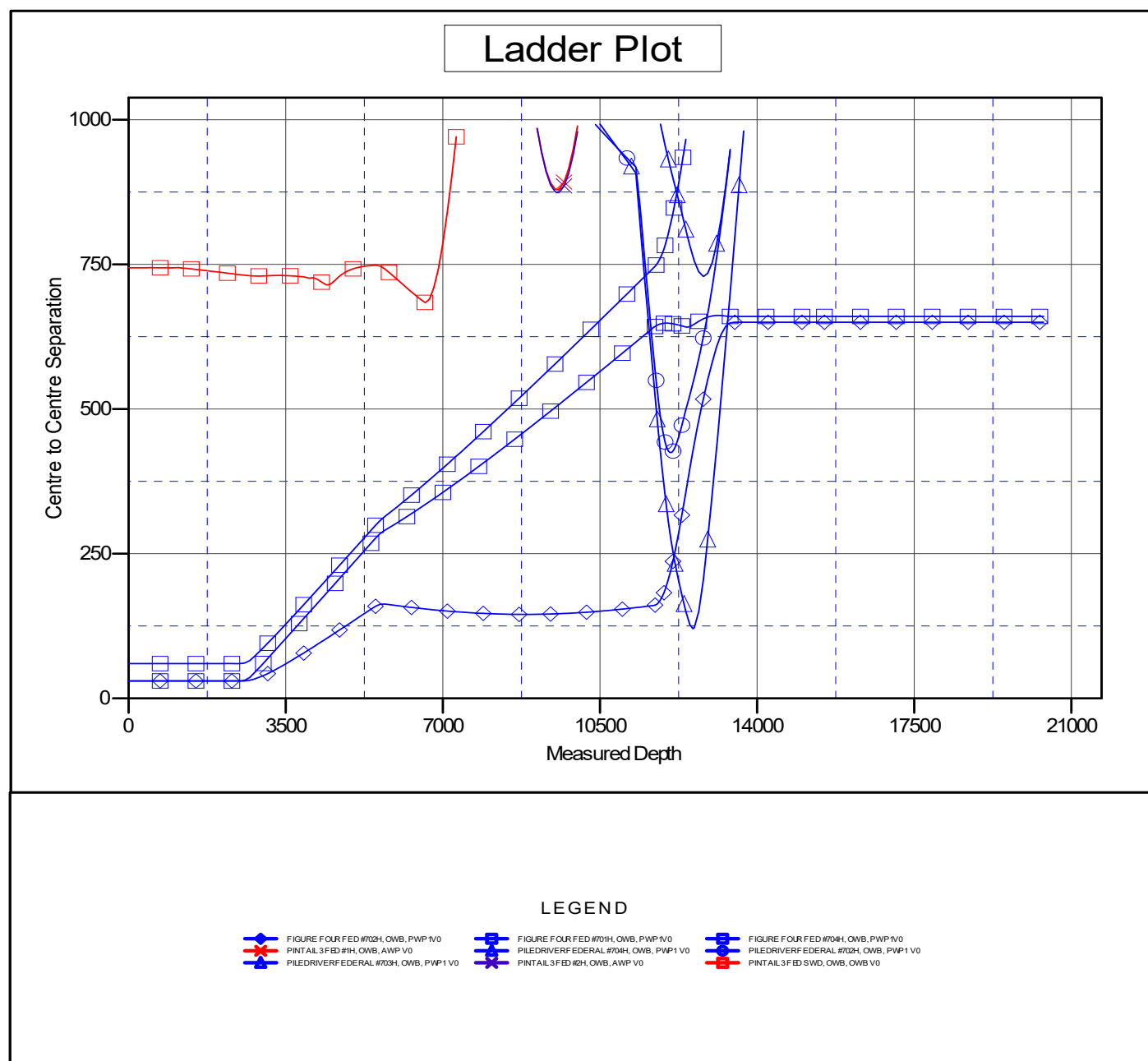
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: FIGURE FOUR FED #703H

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

Grid Convergence at Surface is: 0.36°



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

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Reference Site:	PILEDRIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Site Error:	3.0 usft	North Reference:	Grid
Reference Well:	FIGURE FOUR FED #703H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	edm
Reference Design:	PWP1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to *KB=30' @ 3294.8usft (TBD)

Offset Depths are relative to Offset Datum

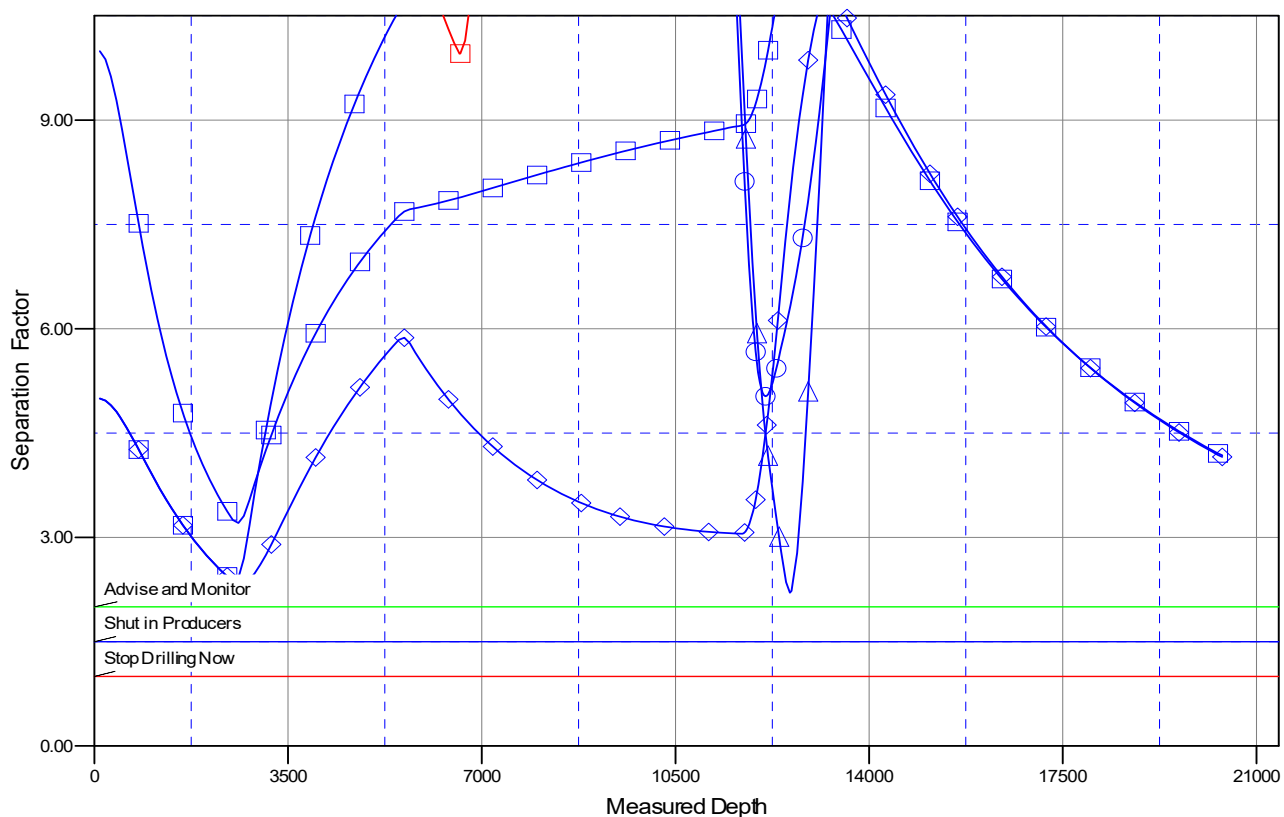
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: FIGURE FOUR FED #703H

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

Grid Convergence at Surface is: 0.36°

Separation Factor Plot



LEGEND

FIGURE FOUR FED #703H, OWB, PWP1 V0	FIGURE FOUR FED #701H, OWB, PWP1 V0	FIGURE FOUR FED #704H, OWB, PWP1 V0
PINTAIL 3 FED #2H, OWB, AWP V0	PILEDRIVER FEDERAL #704H, OWB, PWP1 V0	PILEDRIVER FEDERAL #702H, OWB, PWP1 V0
PILEDRIVER FEDERAL #703H, OWB, PWP1 V0	PINTAIL 3 FED #2H, OWB, AWP V0	PINTAIL 3 FED #2H, OWB, AWP V0

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

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COMPASS 5000.15 Build 91E

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

PILEDRIIVER FED & FIGURE FOUR FED PROJECT

FIGURE FOUR FED #703H

OWB

Plan: PWP1

Standard Survey Report

10 September, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

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

Well	FIGURE FOUR FED #703H			
Well Position	+N/-S	0.0 usft	Northing:	389,745.00 usft
	+E/-W	0.0 usft	Easting:	709,211.20 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft
			Latitude:	32° 4' 11.009 N
			Longitude:	103° 39' 28.592 W
			Ground Level:	3,264.8 usft

Wellbore	OWB
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/30/2020	6.68	59.78	47,485.87721789

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	357.33

Survey Tool Program	Date	9/10/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,382.1	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

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

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,500.0	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
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 Build 2.00									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,600.0	2.00	350.00	5,600.0	1.7	-0.3	1.7	2.00	2.00	0.00
5,700.0	4.00	350.00	5,699.8	6.9	-1.2	6.9	2.00	2.00	0.00
Start 6003.3 hold at 5700.0 MD									
5,800.0	4.00	350.00	5,799.6	13.7	-2.4	13.8	0.00	0.00	0.00
5,900.0	4.00	350.00	5,899.4	20.6	-3.6	20.8	0.00	0.00	0.00
6,000.0	4.00	350.00	5,999.1	27.5	-4.8	27.7	0.00	0.00	0.00
6,100.0	4.00	350.00	6,098.9	34.4	-6.1	34.6	0.00	0.00	0.00
6,200.0	4.00	350.00	6,198.6	41.2	-7.3	41.5	0.00	0.00	0.00
6,300.0	4.00	350.00	6,298.4	48.1	-8.5	48.4	0.00	0.00	0.00
6,400.0	4.00	350.00	6,398.1	55.0	-9.7	55.4	0.00	0.00	0.00
6,500.0	4.00	350.00	6,497.9	61.8	-10.9	62.3	0.00	0.00	0.00
6,600.0	4.00	350.00	6,597.6	68.7	-12.1	69.2	0.00	0.00	0.00
6,700.0	4.00	350.00	6,697.4	75.6	-13.3	76.1	0.00	0.00	0.00
6,800.0	4.00	350.00	6,797.2	82.4	-14.5	83.0	0.00	0.00	0.00
6,900.0	4.00	350.00	6,896.9	89.3	-15.7	89.9	0.00	0.00	0.00
7,000.0	4.00	350.00	6,996.7	96.2	-17.0	96.9	0.00	0.00	0.00
7,100.0	4.00	350.00	7,096.4	103.0	-18.2	103.8	0.00	0.00	0.00
7,200.0	4.00	350.00	7,196.2	109.9	-19.4	110.7	0.00	0.00	0.00
7,300.0	4.00	350.00	7,295.9	116.8	-20.6	117.6	0.00	0.00	0.00
7,400.0	4.00	350.00	7,395.7	123.7	-21.8	124.5	0.00	0.00	0.00
7,500.0	4.00	350.00	7,495.5	130.5	-23.0	131.5	0.00	0.00	0.00
7,600.0	4.00	350.00	7,595.2	137.4	-24.2	138.4	0.00	0.00	0.00
7,700.0	4.00	350.00	7,695.0	144.3	-25.4	145.3	0.00	0.00	0.00
7,800.0	4.00	350.00	7,794.7	151.1	-26.6	152.2	0.00	0.00	0.00
7,900.0	4.00	350.00	7,894.5	158.0	-27.9	159.1	0.00	0.00	0.00
8,000.0	4.00	350.00	7,994.2	164.9	-29.1	166.0	0.00	0.00	0.00
8,100.0	4.00	350.00	8,094.0	171.7	-30.3	173.0	0.00	0.00	0.00
8,200.0	4.00	350.00	8,193.7	178.6	-31.5	179.9	0.00	0.00	0.00
8,300.0	4.00	350.00	8,293.5	185.5	-32.7	186.8	0.00	0.00	0.00
8,400.0	4.00	350.00	8,393.3	192.4	-33.9	193.7	0.00	0.00	0.00
8,500.0	4.00	350.00	8,493.0	199.2	-35.1	200.6	0.00	0.00	0.00
8,600.0	4.00	350.00	8,592.8	206.1	-36.3	207.6	0.00	0.00	0.00
8,700.0	4.00	350.00	8,692.5	213.0	-37.6	214.5	0.00	0.00	0.00
8,800.0	4.00	350.00	8,792.3	219.8	-38.8	221.4	0.00	0.00	0.00
8,900.0	4.00	350.00	8,892.0	226.7	-40.0	228.3	0.00	0.00	0.00
9,000.0	4.00	350.00	8,991.8	233.6	-41.2	235.2	0.00	0.00	0.00
9,100.0	4.00	350.00	9,091.6	240.4	-42.4	242.2	0.00	0.00	0.00
9,200.0	4.00	350.00	9,191.3	247.3	-43.6	249.1	0.00	0.00	0.00
9,300.0	4.00	350.00	9,291.1	254.2	-44.8	256.0	0.00	0.00	0.00
9,400.0	4.00	350.00	9,390.8	261.1	-46.0	262.9	0.00	0.00	0.00
9,500.0	4.00	350.00	9,490.6	267.9	-47.2	269.8	0.00	0.00	0.00
9,600.0	4.00	350.00	9,590.3	274.8	-48.5	276.7	0.00	0.00	0.00
9,700.0	4.00	350.00	9,690.1	281.7	-49.7	283.7	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,800.0	4.00	350.00	9,789.9	288.5	-50.9	290.6	0.00	0.00	0.00
9,900.0	4.00	350.00	9,889.6	295.4	-52.1	297.5	0.00	0.00	0.00
10,000.0	4.00	350.00	9,989.4	302.3	-53.3	304.4	0.00	0.00	0.00
10,100.0	4.00	350.00	10,089.1	309.1	-54.5	311.3	0.00	0.00	0.00
10,200.0	4.00	350.00	10,188.9	316.0	-55.7	318.3	0.00	0.00	0.00
10,300.0	4.00	350.00	10,288.6	322.9	-56.9	325.2	0.00	0.00	0.00
10,400.0	4.00	350.00	10,388.4	329.7	-58.1	332.1	0.00	0.00	0.00
10,500.0	4.00	350.00	10,488.1	336.6	-59.4	339.0	0.00	0.00	0.00
10,600.0	4.00	350.00	10,587.9	343.5	-60.6	345.9	0.00	0.00	0.00
10,700.0	4.00	350.00	10,687.7	350.4	-61.8	352.9	0.00	0.00	0.00
10,800.0	4.00	350.00	10,787.4	357.2	-63.0	359.8	0.00	0.00	0.00
10,900.0	4.00	350.00	10,887.2	364.1	-64.2	366.7	0.00	0.00	0.00
11,000.0	4.00	350.00	10,986.9	371.0	-65.4	373.6	0.00	0.00	0.00
11,100.0	4.00	350.00	11,086.7	377.8	-66.6	380.5	0.00	0.00	0.00
11,200.0	4.00	350.00	11,186.4	384.7	-67.8	387.4	0.00	0.00	0.00
11,300.0	4.00	350.00	11,286.2	391.6	-69.0	394.4	0.00	0.00	0.00
11,400.0	4.00	350.00	11,386.0	398.4	-70.3	401.3	0.00	0.00	0.00
11,500.0	4.00	350.00	11,485.7	405.3	-71.5	408.2	0.00	0.00	0.00
11,600.0	4.00	350.00	11,585.5	412.2	-72.7	415.1	0.00	0.00	0.00
11,700.0	4.00	350.00	11,685.2	419.1	-73.9	422.0	0.00	0.00	0.00
11,703.3	4.00	350.00	11,688.5	419.3	-73.9	422.3	0.00	0.00	0.00
Start DLS 12.00 TFO -9.23									
11,800.0	15.57	343.09	11,783.6	435.1	-78.3	438.2	12.00	11.96	-7.14
11,900.0	27.56	342.02	11,876.5	470.0	-89.4	473.7	12.00	11.99	-1.07
12,000.0	39.56	341.57	11,959.7	522.4	-106.7	526.8	12.00	12.00	-0.45
12,100.0	51.56	341.30	12,029.5	590.0	-129.4	595.4	12.00	12.00	-0.27
12,200.0	63.56	341.11	12,083.1	669.7	-156.5	676.3	12.00	12.00	-0.19
12,300.0	75.55	340.96	12,118.0	758.2	-186.9	766.1	12.00	12.00	-0.15
12,400.0	87.55	340.82	12,132.6	851.5	-219.2	860.8	12.00	12.00	-0.14
12,414.0	89.23	340.80	12,133.0	864.7	-223.8	874.2	12.00	12.00	-0.13
Start DLS 2.00 TFO 90.12									
12,500.0	89.23	342.52	12,134.2	946.3	-250.9	957.0	2.00	0.00	2.00
12,600.0	89.22	344.52	12,135.5	1,042.2	-279.3	1,054.1	2.00	0.00	2.00
12,700.0	89.22	346.52	12,136.9	1,139.0	-304.3	1,151.9	2.00	0.00	2.00
12,800.0	89.22	348.52	12,138.2	1,236.6	-325.9	1,250.5	2.00	0.00	2.00
12,900.0	89.22	350.52	12,139.6	1,335.0	-344.1	1,349.5	2.00	0.00	2.00
13,000.0	89.22	352.52	12,141.0	1,433.8	-358.8	1,449.0	2.00	0.00	2.00
13,100.0	89.22	354.52	12,142.3	1,533.2	-370.1	1,548.8	2.00	0.00	2.00
13,200.0	89.23	356.52	12,143.7	1,632.9	-377.9	1,648.7	2.00	0.00	2.00
13,300.0	89.23	358.52	12,145.0	1,732.8	-382.2	1,748.7	2.00	0.00	2.00
13,352.9	89.23	359.58	12,145.7	1,785.7	-383.1	1,801.6	2.00	0.00	2.00
Start 1788.5 hold at 13352.9 MD									
13,400.0	89.23	359.58	12,146.4	1,832.7	-383.4	1,848.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,500.0	89.23	359.58	12,147.7	1,932.7	-384.2	1,948.5	0.00	0.00	0.00
13,600.0	89.23	359.58	12,149.0	2,032.7	-384.9	2,048.4	0.00	0.00	0.00
13,700.0	89.23	359.58	12,150.4	2,132.7	-385.6	2,148.4	0.00	0.00	0.00
13,800.0	89.23	359.58	12,151.7	2,232.7	-386.4	2,248.3	0.00	0.00	0.00
13,900.0	89.23	359.58	12,153.1	2,332.7	-387.1	2,348.2	0.00	0.00	0.00
14,000.0	89.23	359.58	12,154.4	2,432.7	-387.8	2,448.1	0.00	0.00	0.00
14,100.0	89.23	359.58	12,155.7	2,532.7	-388.5	2,548.0	0.00	0.00	0.00
14,200.0	89.23	359.58	12,157.1	2,632.7	-389.3	2,647.9	0.00	0.00	0.00
14,300.0	89.23	359.58	12,158.4	2,732.6	-390.0	2,747.8	0.00	0.00	0.00
14,400.0	89.23	359.58	12,159.8	2,832.6	-390.7	2,847.8	0.00	0.00	0.00
14,500.0	89.23	359.58	12,161.1	2,932.6	-391.5	2,947.7	0.00	0.00	0.00
14,600.0	89.23	359.58	12,162.4	3,032.6	-392.2	3,047.6	0.00	0.00	0.00
14,700.0	89.23	359.58	12,163.8	3,132.6	-392.9	3,147.5	0.00	0.00	0.00
14,800.0	89.23	359.58	12,165.1	3,232.6	-393.7	3,247.4	0.00	0.00	0.00
14,900.0	89.23	359.58	12,166.5	3,332.6	-394.4	3,347.3	0.00	0.00	0.00
15,000.0	89.23	359.58	12,167.8	3,432.6	-395.1	3,447.2	0.00	0.00	0.00
15,100.0	89.23	359.58	12,169.1	3,532.5	-395.9	3,547.2	0.00	0.00	0.00
15,141.5	89.23	359.58	12,169.7	3,574.0	-396.2	3,588.6	0.00	0.00	0.00
Start DLS 2.00 TFO 90.16									
15,154.4	89.23	359.84	12,169.9	3,586.9	-396.2	3,601.5	2.00	-0.01	2.00
Start 5228.2 hold at 15154.4 MD									
15,200.0	89.23	359.84	12,170.5	3,632.5	-396.4	3,647.1	0.00	0.00	0.00
15,300.0	89.23	359.84	12,171.8	3,732.5	-396.6	3,747.0	0.00	0.00	0.00
15,400.0	89.23	359.84	12,173.2	3,832.5	-396.9	3,846.8	0.00	0.00	0.00
15,500.0	89.23	359.84	12,174.5	3,932.5	-397.2	3,946.7	0.00	0.00	0.00
15,600.0	89.23	359.84	12,175.9	4,032.5	-397.5	4,046.6	0.00	0.00	0.00
15,700.0	89.23	359.84	12,177.2	4,132.5	-397.8	4,146.5	0.00	0.00	0.00
15,800.0	89.23	359.84	12,178.5	4,232.5	-398.0	4,246.4	0.00	0.00	0.00
15,900.0	89.23	359.84	12,179.9	4,332.5	-398.3	4,346.3	0.00	0.00	0.00
16,000.0	89.23	359.84	12,181.2	4,432.5	-398.6	4,446.2	0.00	0.00	0.00
16,100.0	89.23	359.84	12,182.6	4,532.5	-398.9	4,546.1	0.00	0.00	0.00
16,200.0	89.23	359.84	12,183.9	4,632.4	-399.2	4,646.0	0.00	0.00	0.00
16,300.0	89.23	359.84	12,185.2	4,732.4	-399.4	4,745.9	0.00	0.00	0.00
16,400.0	89.23	359.84	12,186.6	4,832.4	-399.7	4,845.8	0.00	0.00	0.00
16,500.0	89.23	359.84	12,187.9	4,932.4	-400.0	4,945.7	0.00	0.00	0.00
16,600.0	89.23	359.84	12,189.3	5,032.4	-400.3	5,045.6	0.00	0.00	0.00
16,700.0	89.23	359.84	12,190.6	5,132.4	-400.6	5,145.5	0.00	0.00	0.00
16,800.0	89.23	359.84	12,191.9	5,232.4	-400.8	5,245.4	0.00	0.00	0.00
16,900.0	89.23	359.84	12,193.3	5,332.4	-401.1	5,345.3	0.00	0.00	0.00
17,000.0	89.23	359.84	12,194.6	5,432.4	-401.4	5,445.2	0.00	0.00	0.00
17,100.0	89.23	359.84	12,196.0	5,532.4	-401.7	5,545.1	0.00	0.00	0.00
17,200.0	89.23	359.84	12,197.3	5,632.4	-402.0	5,645.0	0.00	0.00	0.00
17,300.0	89.23	359.84	12,198.7	5,732.3	-402.2	5,744.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIIVER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,400.0	89.23	359.84	12,200.0	5,832.3	-402.5	5,844.7	0.00	0.00	0.00
17,500.0	89.23	359.84	12,201.3	5,932.3	-402.8	5,944.6	0.00	0.00	0.00
17,600.0	89.23	359.84	12,202.7	6,032.3	-403.1	6,044.5	0.00	0.00	0.00
17,700.0	89.23	359.84	12,204.0	6,132.3	-403.4	6,144.4	0.00	0.00	0.00
17,800.0	89.23	359.84	12,205.4	6,232.3	-403.7	6,244.3	0.00	0.00	0.00
17,900.0	89.23	359.84	12,206.7	6,332.3	-403.9	6,344.2	0.00	0.00	0.00
18,000.0	89.23	359.84	12,208.0	6,432.3	-404.2	6,444.1	0.00	0.00	0.00
18,100.0	89.23	359.84	12,209.4	6,532.3	-404.5	6,544.0	0.00	0.00	0.00
18,200.0	89.23	359.84	12,210.7	6,632.3	-404.8	6,643.9	0.00	0.00	0.00
18,300.0	89.23	359.84	12,212.1	6,732.2	-405.1	6,743.8	0.00	0.00	0.00
18,400.0	89.23	359.84	12,213.4	6,832.2	-405.3	6,843.7	0.00	0.00	0.00
18,500.0	89.23	359.84	12,214.7	6,932.2	-405.6	6,943.6	0.00	0.00	0.00
18,600.0	89.23	359.84	12,216.1	7,032.2	-405.9	7,043.5	0.00	0.00	0.00
18,700.0	89.23	359.84	12,217.4	7,132.2	-406.2	7,143.4	0.00	0.00	0.00
18,800.0	89.23	359.84	12,218.8	7,232.2	-406.5	7,243.3	0.00	0.00	0.00
18,900.0	89.23	359.84	12,220.1	7,332.2	-406.7	7,343.2	0.00	0.00	0.00
19,000.0	89.23	359.84	12,221.5	7,432.2	-407.0	7,443.1	0.00	0.00	0.00
19,100.0	89.23	359.84	12,222.8	7,532.2	-407.3	7,543.0	0.00	0.00	0.00
19,200.0	89.23	359.84	12,224.1	7,632.2	-407.6	7,642.9	0.00	0.00	0.00
19,300.0	89.23	359.84	12,225.5	7,732.2	-407.9	7,742.8	0.00	0.00	0.00
19,400.0	89.23	359.84	12,226.8	7,832.1	-408.1	7,842.7	0.00	0.00	0.00
19,500.0	89.23	359.84	12,228.2	7,932.1	-408.4	7,942.5	0.00	0.00	0.00
19,600.0	89.23	359.84	12,229.5	8,032.1	-408.7	8,042.4	0.00	0.00	0.00
19,700.0	89.23	359.84	12,230.8	8,132.1	-409.0	8,142.3	0.00	0.00	0.00
19,800.0	89.23	359.84	12,232.2	8,232.1	-409.3	8,242.2	0.00	0.00	0.00
19,900.0	89.23	359.84	12,233.5	8,332.1	-409.5	8,342.1	0.00	0.00	0.00
20,000.0	89.23	359.84	12,234.9	8,432.1	-409.8	8,442.0	0.00	0.00	0.00
20,100.0	89.23	359.84	12,236.2	8,532.1	-410.1	8,541.9	0.00	0.00	0.00
20,200.0	89.23	359.84	12,237.6	8,632.1	-410.4	8,641.8	0.00	0.00	0.00
20,300.0	89.23	359.84	12,238.9	8,732.1	-410.7	8,741.7	0.00	0.00	0.00
20,382.5	89.23	359.84	12,240.0	8,814.6	-410.9	8,824.2	0.00	0.00	0.00

TD at 20382.5

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well FIGURE FOUR FED #703H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	*KB=30' @ 3294.8usft (TBD)
Site:	PILEDRIER FED & FIGURE FOUR FED PROJECT	MD Reference:	*KB=30' @ 3294.8usft (TBD)
Well:	FIGURE FOUR FED #703H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	PWP1	Database:	edm

Design Targets

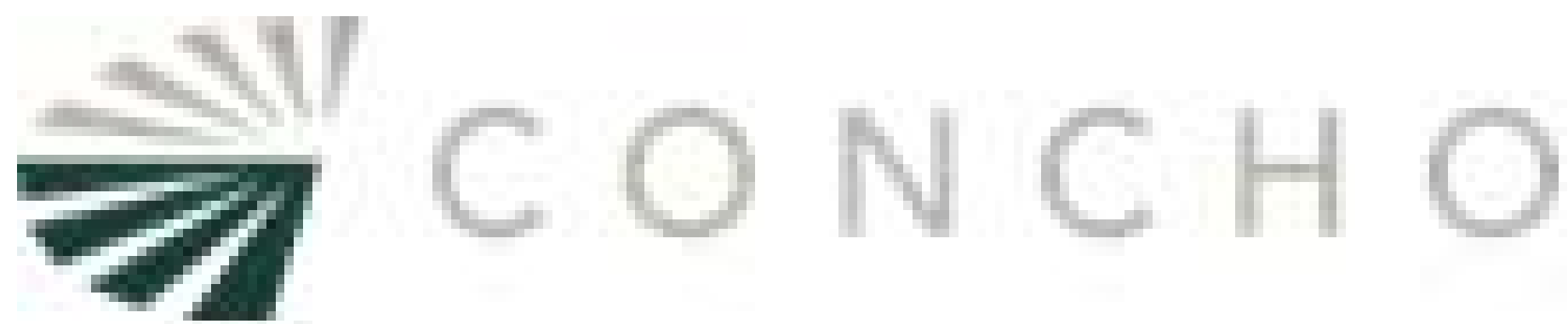
Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (FIGURE FOUR - plan misses target center by 94.0usft at 12621.2usft MD (12135.8 TVD, 1062.6 N, -284.8 E) - Circle (radius 50.0)	0.00	0.00	12,133.0	1,039.2	-375.8	390,784.20	708,835.40	32° 4' 21.316 N	103° 39' 32.884 W
T1 (FIGURE FOUR FI - plan hits target center - Rectangle (sides W100.0 H2,535.0 D20.0)	-0.77	179.58	12,169.7	3,574.0	-396.2	393,319.02	708,815.04	32° 4' 46.401 N	103° 39' 32.936 W
LTP (FIGURE FOUR I - plan misses target center by 32.6usft at 20300.0usft MD (12238.9 TVD, 8732.1 N, -410.7 E) - Point	0.00	0.00	12,240.0	8,764.6	-410.7	398,509.60	708,800.50	32° 5' 37.768 N	103° 39' 32.728 W
PBHL (FIGURE FOUF - plan hits target center - Rectangle (sides W100.0 H5,242.0 D20.0)	-0.77	179.84	12,240.0	8,814.6	-410.9	398,559.60	708,800.30	32° 5' 38.263 N	103° 39' 32.727 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5500	5500	0	0	Start Build 2.00
5700	5700	7	-1	Start 6003.3 hold at 5700.0 MD
11,703	11,689	419	-74	Start DLS 12.00 TFO -9.23
12,414	12,133	865	-224	Start DLS 2.00 TFO 90.12
13,353	12,146	1786	-383	Start 1788.5 hold at 13352.9 MD
15,141	12,170	3574	-396	Start DLS 2.00 TFO 90.16
15,154	12,170	3587	-396	Start 5228.2 hold at 15154.4 MD
20,383	12,240	8815	-411	TD at 20382.5

Checked By: _____ Approved By: _____ Date: _____



Project: BULLDOG PROSPECT (NM-E)
Site: PILEDRIVER FED & FIGURE FOUR FED PROJECT
Well: FIGURE FOUR FED #703H
Wellbore: OWB
Design: PWP1
GL: 3264.8
*KB=30' @ 3294.8usft (TBD)

WELL DETAILS: FIGURE FOUR FED #703H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	389745.00	709211.20	32° 4' 11.009 N	103° 39' 28.592 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
FTP (FIGURE FOUR FED #703H)	12133.0	1039.2	-375.8	390784.20	708835.40	32° 4' 21.316 N
T1 (FIGURE FOUR FED #703H)	12169.7	3574.0	-396.2	393319.02	708815.04	32° 4' 46.401 N
LTP (FIGURE FOUR FED #703H)	12240.0	8764.6	-410.7	398509.60	708800.50	32° 5' 37.768 N
PBHL (FIGURE FOUR FED #703H)	12240.0	8814.6	-410.9	398559.60	708800.30	32° 5' 38.263 N

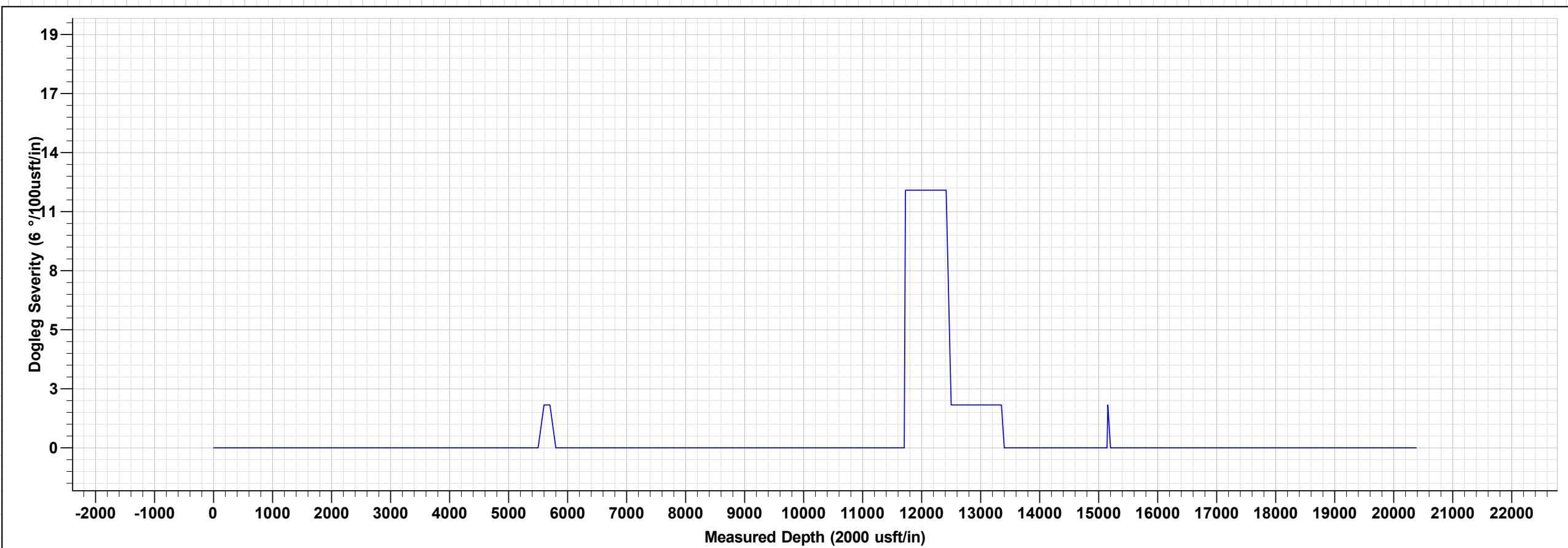
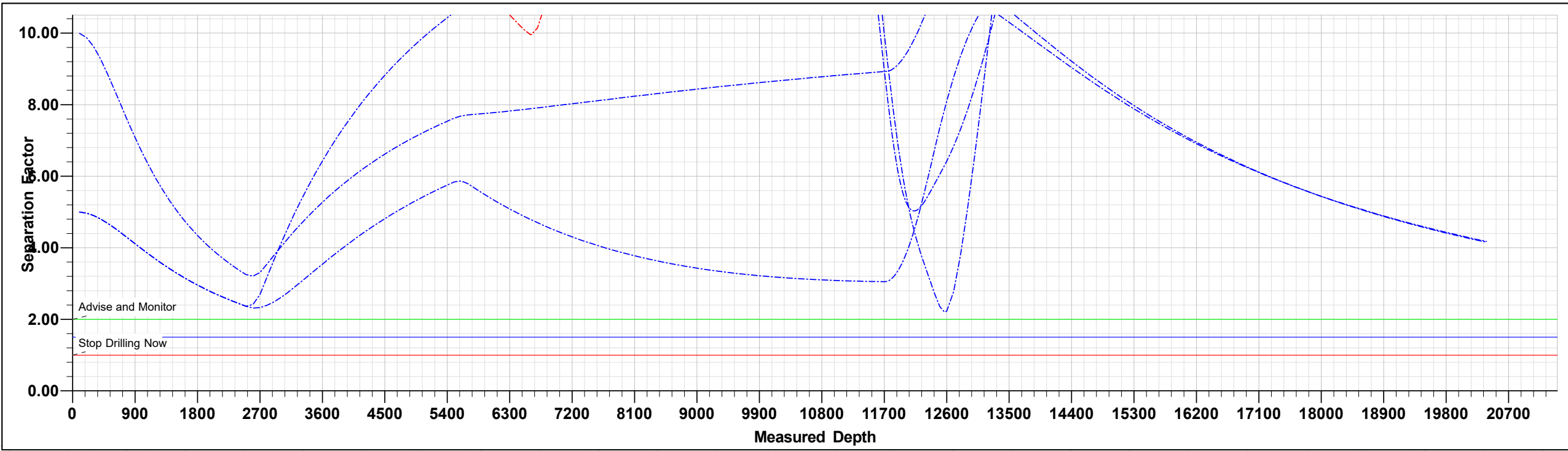
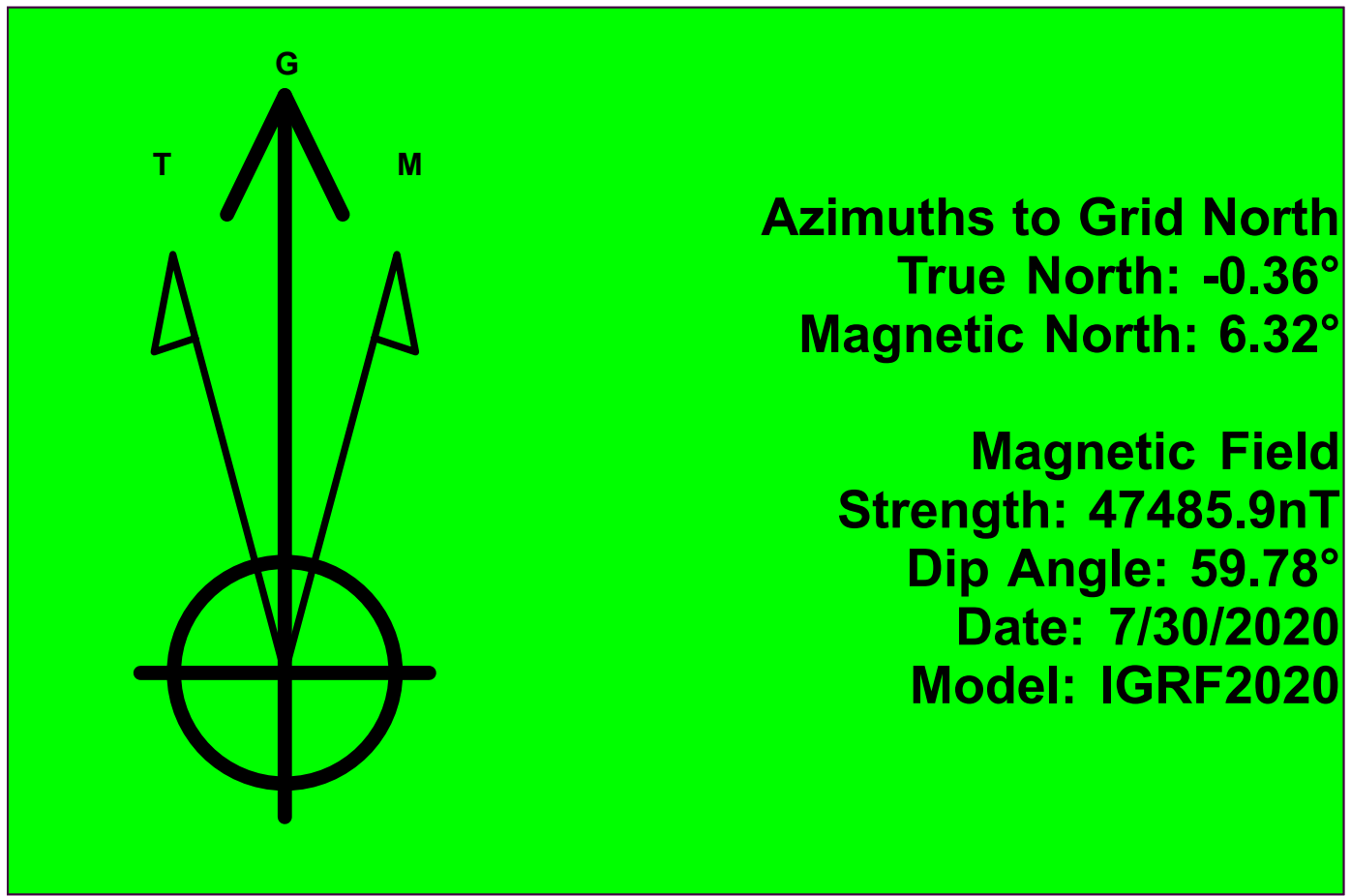
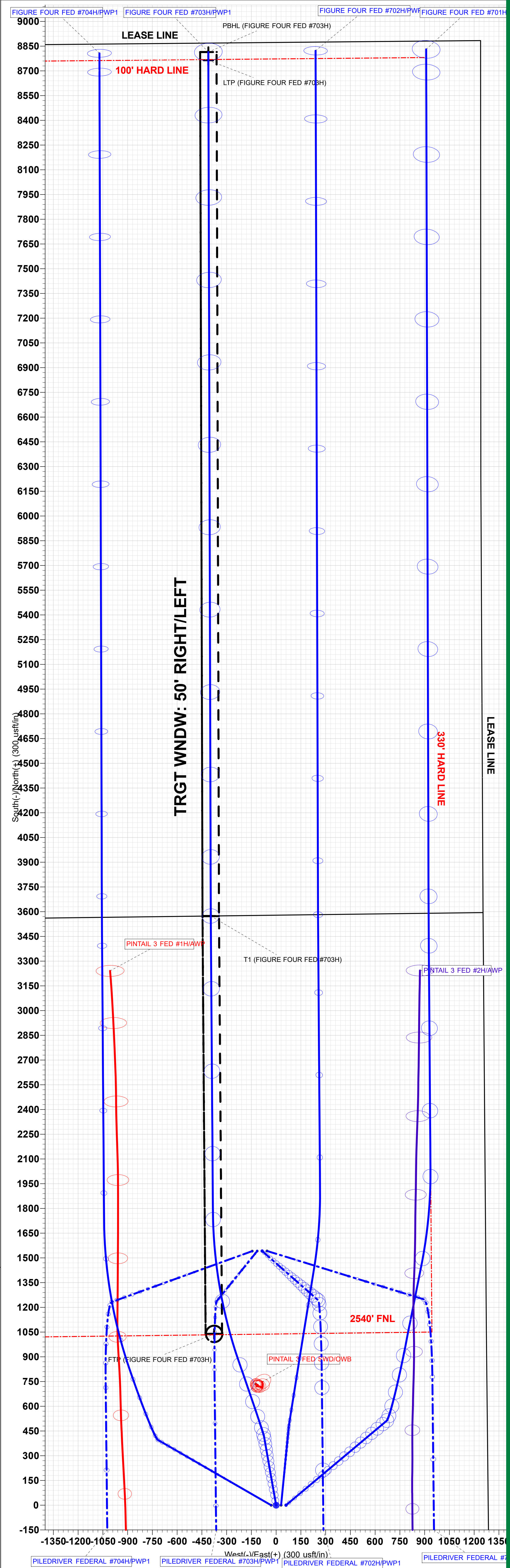
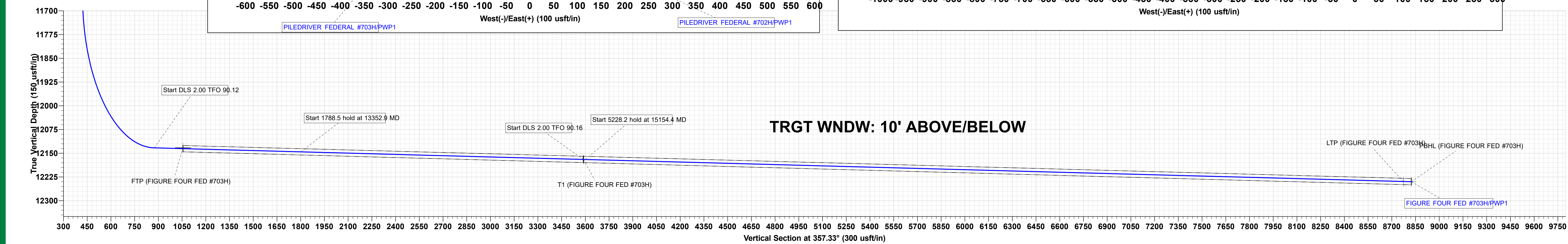
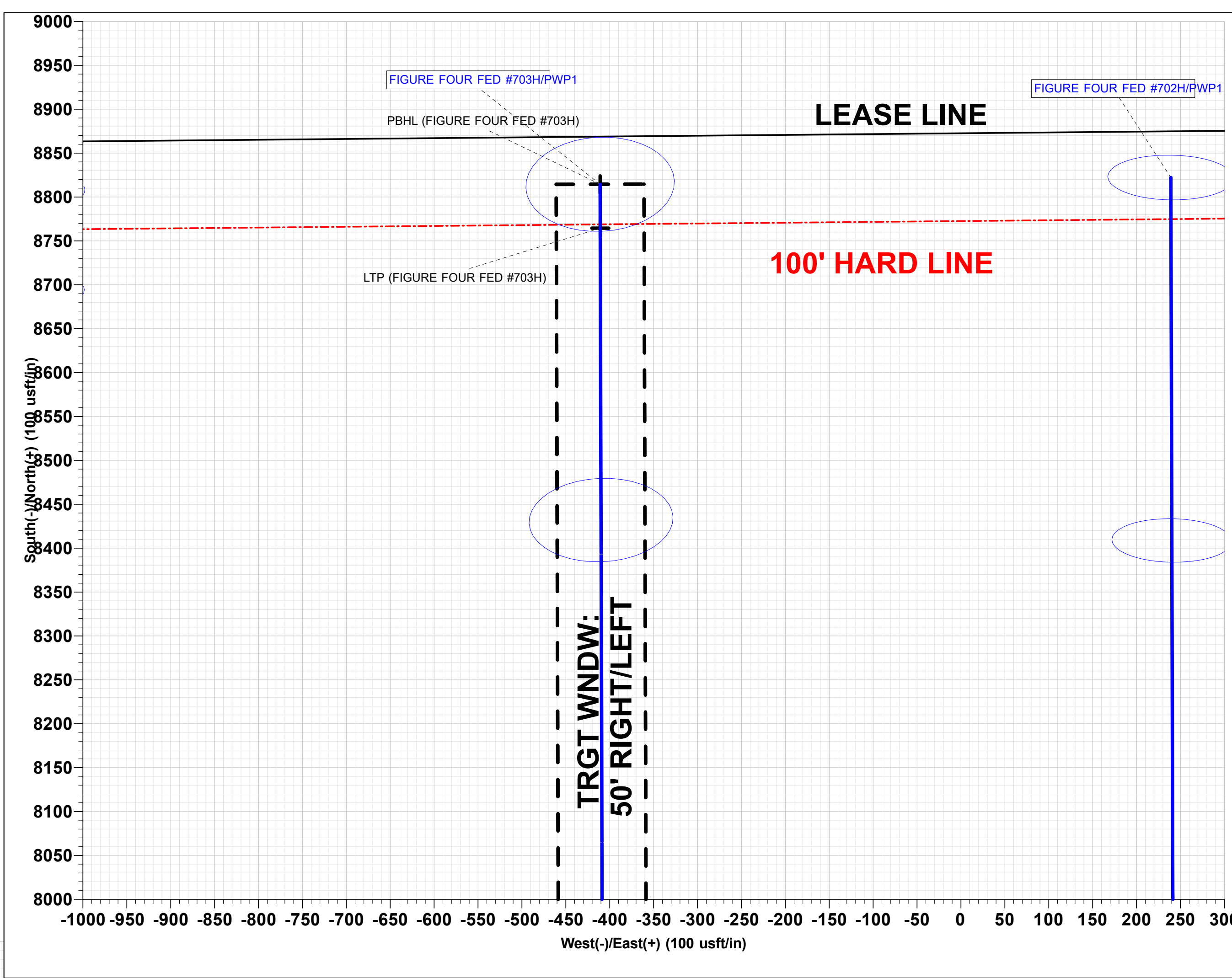
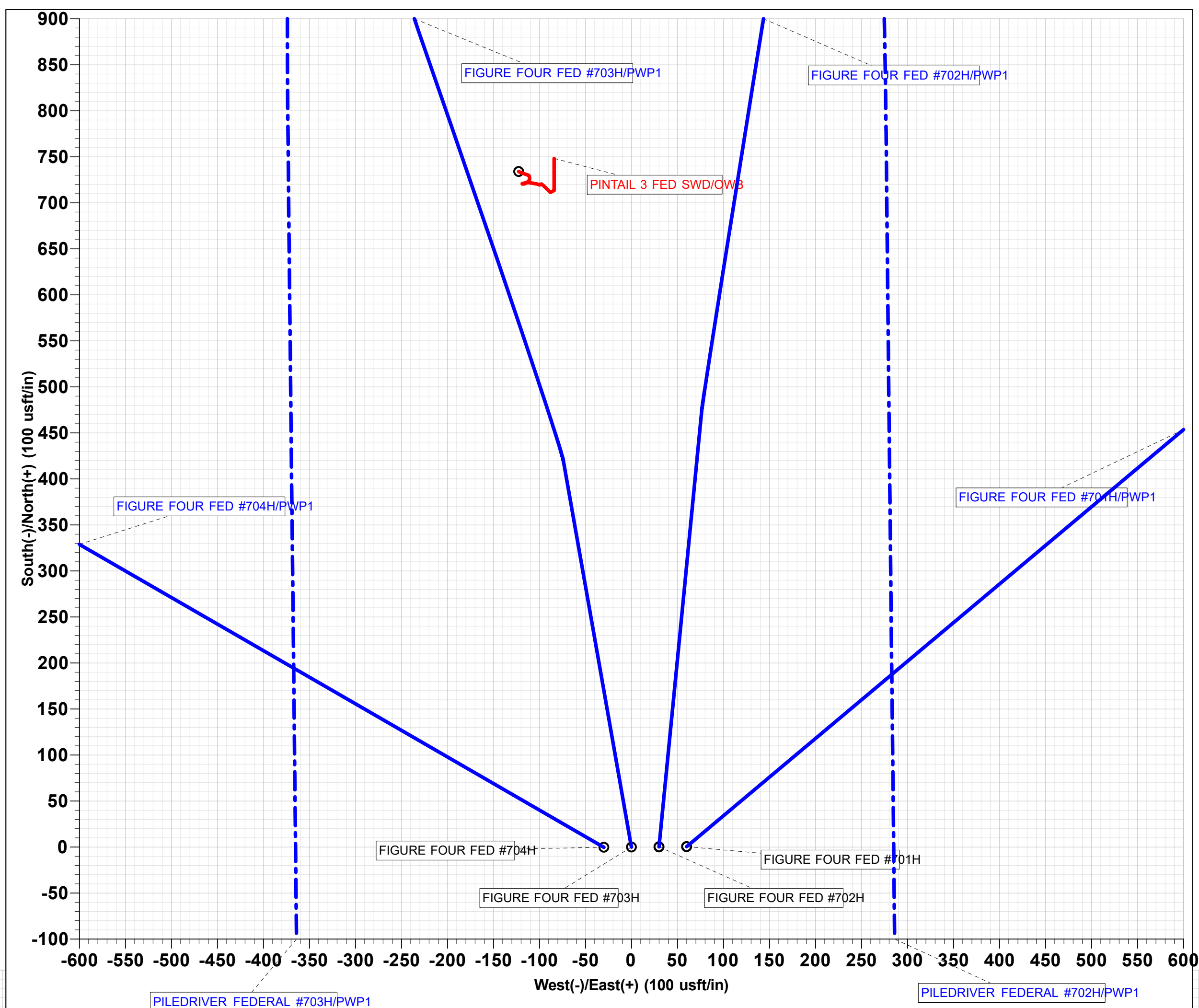
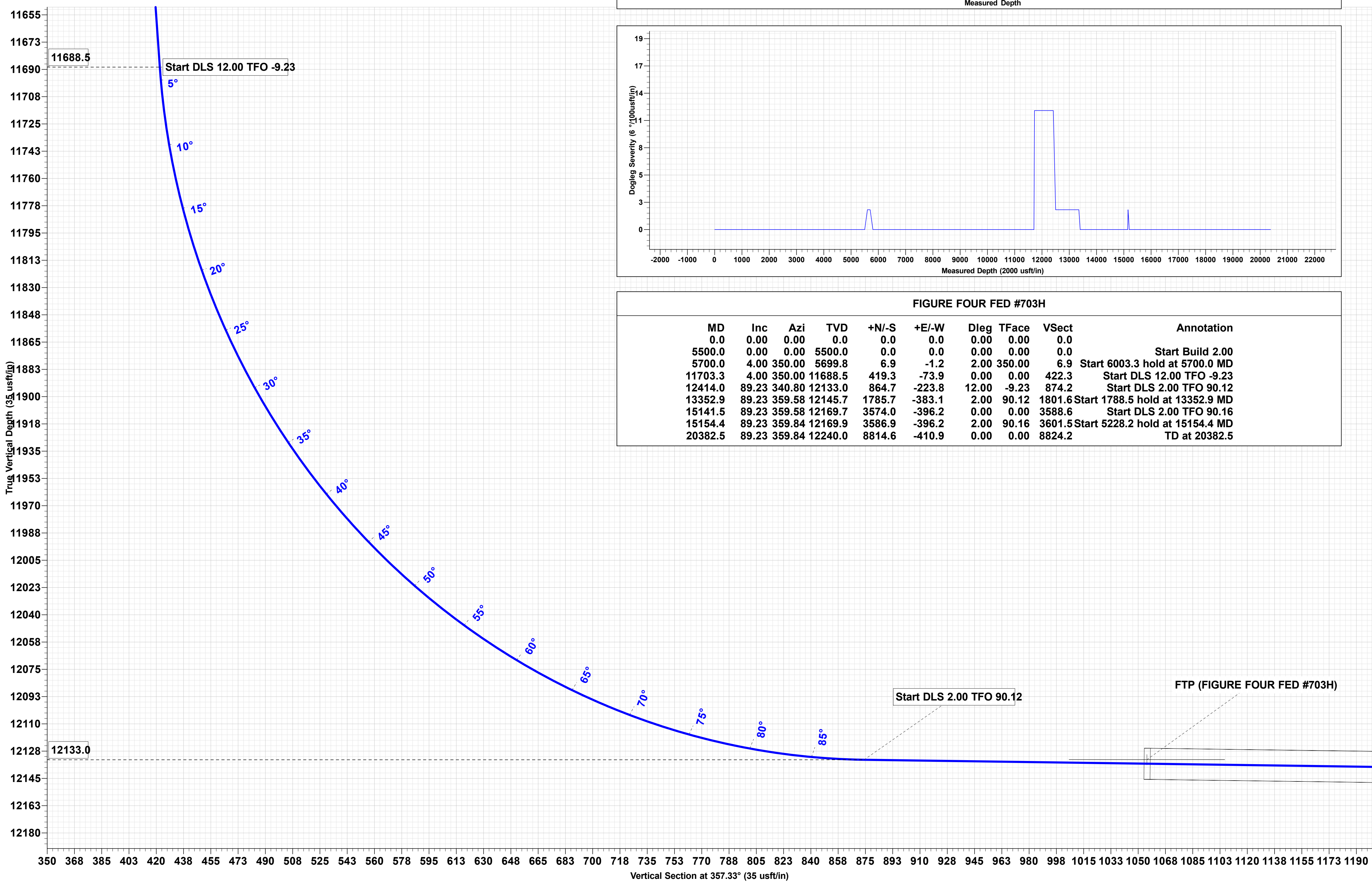
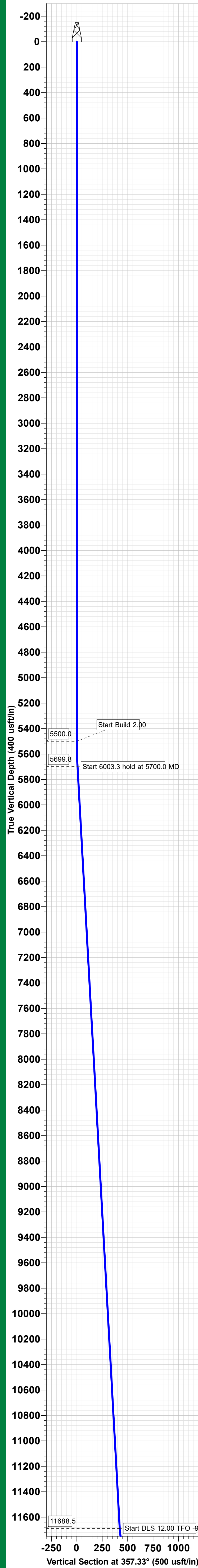


FIGURE FOUR FED #703H										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Deg	TFace	Vsect	Annotation	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
5500.0	0.00	0.00	5500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00	
5700.0	4.00	350.00	5699.8	6.9	-1.2	2.00	350.00	6.9	Start 6003.3 hold at 5700.0 MD	
11703.3	4.00	350.00	11688.5	419.3	-73.9	0.00	0.00	422.3	Start DLS 12.00 TFO -9.23	
12414.0	89.23	340.80	12133.0	864.7	-223.8	12.00	-9.23	874.2	Start DLS 2.00 TFO 90.12	
13352.9	89.23	359.58	12145.7	1785.7	-383.1	2.00	90.12	1801.6	Start 1788.5 hold at 13352.9 MD	
15141.5	89.23	359.58	12169.7	3574.0	-396.2	0.00	0.00	3588.6	Start DLS 2.00 TFO 90.16	
15154.4	89.23	359.84	12169.9	3586.9	-396.2	2.00	90.16	3601.5	Start 5228.2 hold at 15154.4 MD	
20382.5	89.23	359.84	12240.0	8814.6	-410.9	0.00	0.00	8824.2	TD at 20382.5	



Azimuths to Grid North
True North: -0.36°
Magnetic North: 6.32°
Magnetic Field
Strength: 47485.9nT
Dip Angle: 59.78°
Date: 7/30/2020
Model: IGRF2020

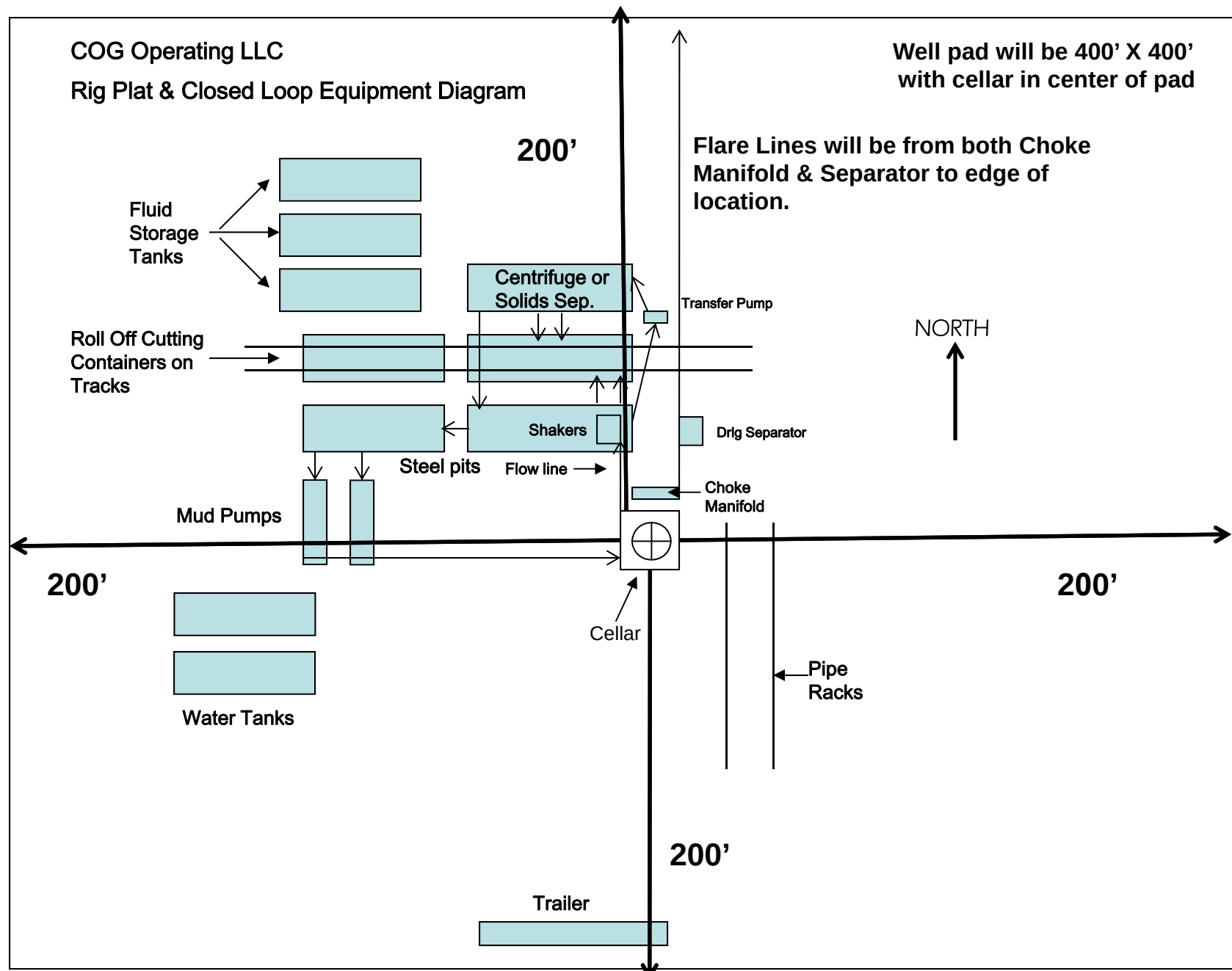


Exhibit 1

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

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 25322

CONDITIONS OF APPROVAL

Operator:	COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	OGRID:	229137	Action Number:	25322	Action Type:	FORM 3160-3
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OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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