

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 30-015-54445
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
 Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 11/17/2023

Additional Operator Remarks

Location of Well

0. SHL: SESW / 445 FSL / 1400 FWL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0220013 / LONG: -103.7356551 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 100 FSL / 1615 FWL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0211832 / LONG: -103.7349565 (TVD: 11454 feet, MD: 11538 feet)

BHL: NESW / 2590 FSL / 1536 FWL / TWSP: 26S / RANGE: 31E / SECTION: 12 / LAT: 32.0573151 / LONG: -103.7353324 (TVD: 11602 feet, MD: 24580 feet)

BLM Point of Contact

Name: JANET D ESTES

Title: ADJUDICATOR

Phone: (575) 234-6233

Email: JESTES@BLM.GOV

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

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015- 54445	2 Pool Code 98081	3 Pool Name Zia Hills; Wolfcamp
4 Property Code 335043	5 Property Name ZIA HILLS UNIT 2431 WC	6 Well Number 704H
7 OGRID No. 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 3175.92'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	24	26-S	31-E		445'	SOUTH	1400'	WEST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	12	26-S	31-E		2590'	NORTH	1536'	WEST	EDDY

12 Dedicated Acres 800	13 Joint or Infill Infill	14 Consolidation Code Unit	15 Order No. R-20080
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16 Unit Boundary SURFACE HOLE LOCATION (SHL) NEW MEXICO EAST - NAD 83 X=726567.57 LAT.= 32.02212659° N Y=372300.78 LONG.= 103.73565519° W 445' FSL, 1400' FWL - SECTION 24 FIRST TAKE POINT (FTP) NEW MEXICO EAST - NAD 83 X=726786.00 LAT.= 32.02118324° N Y=371958.81 LONG.= 103.73495653° W 100' FSL, 1615' FWL - SECTION 24 LAST TAKE POINT (LTP) NEW MEXICO EAST - NAD 83 X=726596.98 LAT.= 32.05717767° N Y=385052.18 LONG.= 103.73533248° W 2540' FSL, 1536' FWL - SECTION 12 BOTTOM HOLE LOCATION (BHL) NEW MEXICO EAST - NAD 83 X=726596.71 LAT.= 32.05731511° N Y=385102.18 LONG.= 103.73533244° W 2590' FSL, 1536' FWL - SECTION 12	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Stan Wagner</i> 11/14/22 Signature Date Stan Wagner Printed Name E-mail Address 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 10/20/2022 Date of Survey Signature and Seal of Professional Surveyor: <i>Charles L. Durica</i> 25490 Certificate Number
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State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: ConocoPhillips Company

OGRID: 217817

Date: 11/08/2022

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Zia Hills Unit 2431 WC 701H	30-015-	M-24-26S-31E	445 FSL & 1310 FWL	± 695	± 2728	± 1621
Zia Hills Unit 2431 WC 702H	30-015-	N-24-26S-31E	445 FSL & 1340 FWL	± 572	± 2246	± 1335
Zia Hills Unit 2431 WC 703H	30-015-	N-24-26S-31E	445 FSL & 1370 FWL	± 818	± 3209	± 1907
Zia Hills Unit 2431 WC 704H	30-015-	N-24-26S-31E	445 FSL & 1400 FWL	± 818	± 3209	± 1907
Zia Hills Unit 2431 WC 705H	30-015-	N-24-26S-31E	445 FSL & 1430 FWL	± 818	± 3209	± 1907
Zia Hills Unit 2431 WC 706H	30-015-	N-24-26S-31E	445 FSL & 1460 FWL	± 818	± 3209	± 1907

IV. Central Delivery Point Name: Zia Hills Unit 2431 WC East Facility SWSW 24-26S-31E [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Zia Hills Unit 2431 WC	Pending	± 2/1/2024	± 25 days from spud	TBD	TBD	TBD
701H, 702H, 703H, 704H, 705H, 706H						

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

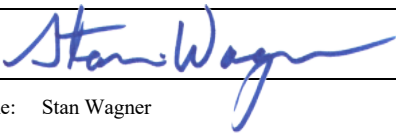
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 11/08/2022
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

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

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

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

C. Completion Operations

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

D. Venting and flaring during production operations

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

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

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

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

F. Measurement of vented and flared natural gas.

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

VIII. Best Management Practices

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

ConocoPhillips Company - Zia Hills Unit 2431 WC 704H

1. Geologic Formations

TVD of target	11,602' EOL	Pilot hole depth	NA
MD at TD:	24,580'	Deepest expected fresh water:	317'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1038	Water	
Top of Salt	1487	Salt	
Base of Salt	3967	Salt	
Lamar	4189	Salt Water	
Bell Canyon	4226	Salt Water	
Cherry Canyon	5105	Oil/Gas	
Brushy Canyon	6519	Oil/Gas	
Bone Spring Lime	8163	Oil/Gas	
1st Bone Spring Sand	9200	Oil/Gas	
2nd Bone Spring Sand	9859	Oil/Gas	
3rd Bone Spring Sand	11039	Oil/Gas	
Wolfcamp	11401	Target	
Wolfcamp A	11622	Not Penetrated	
Wolfcamp B	11919	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1350	10.75"	45.5	J55	BTC	3.38	1.11	11.64	12.96
9.875"	0	8500	7.625"	29.7	L80-ICY	BTC	1.45	1.15	2.88	2.90
8.750"	8500	10938	7.625"	29.7	P110-ICY	W513	1.41	1.73	3.29	1.97
6.75"	0	10438	5.5"	23	P110-CY	BTC	2.14	2.53	3.04	3.04
6.75"	10438	24,580	5.5"	23	P110-CY	W441	1.93	2.28	2.73	2.48
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

The 5 1/2" W441 casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

ConocoPhillips Company - Zia Hills Unit 2431 WC 704H

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

ConocoPhillips Company - Zia Hills Unit 2431 WC 704H

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	644	12.8	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	800	10.3	3.3	22	24	Halliburton tunded light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	655	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	1190	13.2	1.34	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	10,438'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Zia Hills Unit 2431 WC 704H

4. Pressure Control Equipment

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

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

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

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

ConocoPhillips Company - Zia Hills Unit 2431 WC 704H

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 - 9.2	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 12.5	35-45	<20

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

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

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

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

ConocoPhillips Company - Zia Hills Unit 2431 WC 704H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7545 psi at 11602' TVD
Abnormal Temperature	NO 170 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

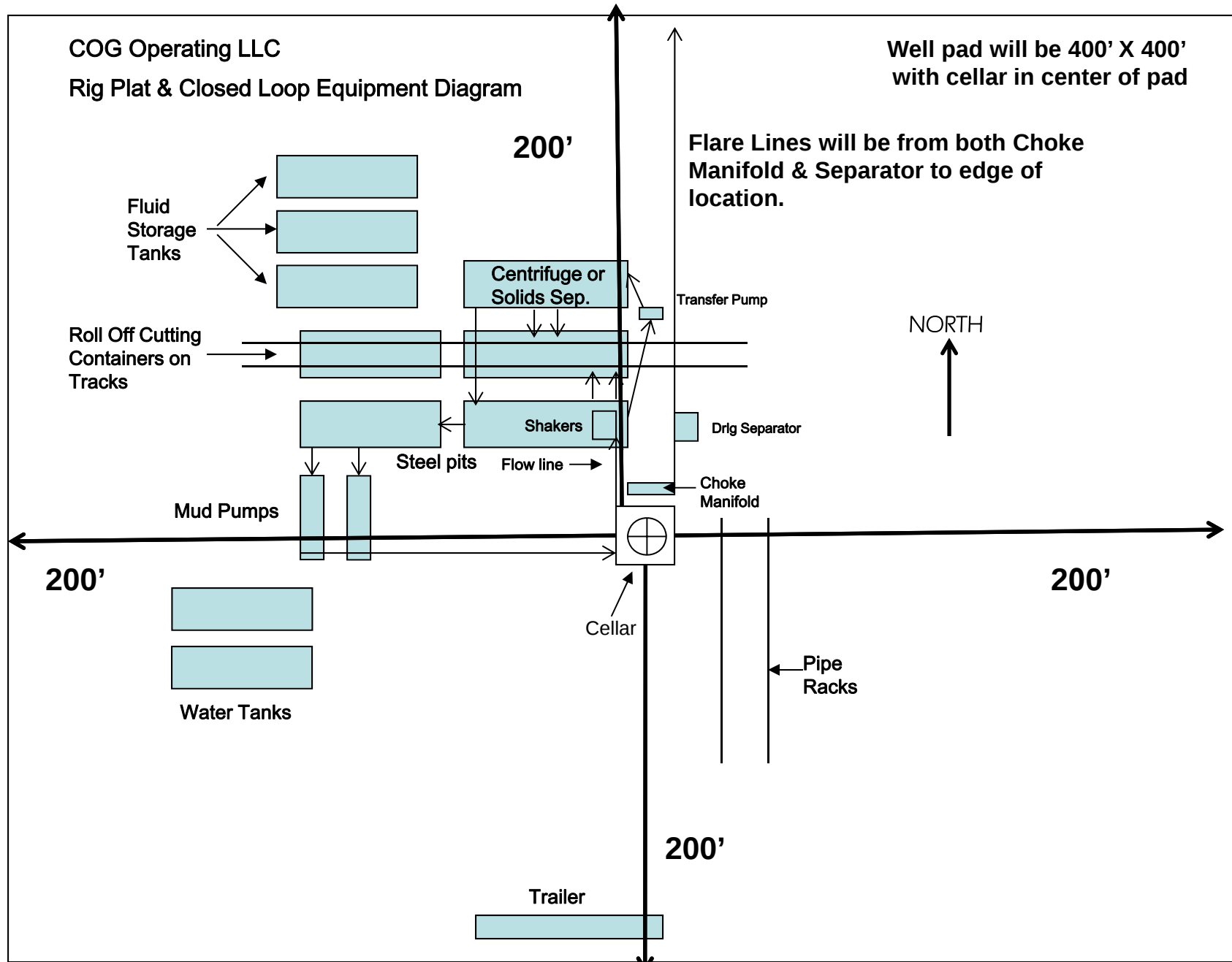


Exhibit 1

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

DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
ZIA HILLS UNIT 2431 PROJECT
ZIA HILLS UNIT 2431 WC #704H**

**OWB
PWP0**

Anticollision Report

07 November, 2022

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference	PWP0		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,658.1usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/7/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	1,000.0	PWP0 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp-Initiald Cont. rev.5	
1,000.0	11,080.0	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5	
11,080.0	24,580.8	PWP0 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction rev.5	

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						
ZIA HILLS UNIT 2331 PROJECT						
GOLDEN SPUR FEDERAL #11H (P&A) - ST01 - AWP	9,053.2	13,450.0	413.0	356.7	7.338	CC, ES, SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	22,300.0	16,466.2	2,547.1	2,375.7	14.864	SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	24,580.8	14,200.0	2,525.7	2,366.7	15.886	CC, ES
SHETLAND 11 FEDERAL #734H - OWB - PWP0	22,300.0	16,703.1	1,907.6	1,735.9	11.111	SF
SHETLAND 11 FEDERAL #734H - OWB - PWP0	24,580.8	14,438.1	1,886.4	1,726.9	11.826	CC, ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	23,400.0	20,525.1	2,229.3	1,981.2	8.984	SF
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,580.8	19,390.6	2,190.7	1,951.1	9.146	CC, ES
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	21,955.0	21,996.3	1,999.8	1,834.7	12.113	CC, ES
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	22,000.0	21,996.3	2,000.3	1,835.0	12.102	SF
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	21,952.5	21,875.5	1,594.8	1,428.5	9.591	CC, ES
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	22,000.0	21,875.5	1,595.5	1,429.1	9.587	SF
ZIA HILLS UNIT 2431 PROJECT						
SNAPPING 12 1 FEDERAL #332H - OWB - AWP	24,580.8	11,384.7	586.2	461.6	4.705	CC, ES, SF
SNAPPING 12 1 FEDERAL #532H - OWB - AWP	24,580.8	9,292.0	2,654.8	2,533.9	21.957	CC, ES, SF
SNAPPING 12 1 FEDERAL #533H - OWB - AWP	24,580.8	9,327.0	2,629.1	2,509.0	21.884	CC, ES, SF
SNAPPING 12 1 FEDERAL #621H - OWB - AWP	24,580.8	11,455.5	981.5	846.2	7.257	CC, ES, SF
SNAPPING 12 1 FEDERAL #711H - OWB - AWP	24,580.8	11,629.7	225.3	106.1	1.890	Advise and Monitor, CC, ES,
SNAPPING 12 1 FEDERAL #712H - OWB - AWP	24,580.8	11,684.6	679.7	539.3	4.840	CC, ES, SF
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	1,000.0	999.3	89.9	81.9	11.253	CC, ES
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	24,580.8	24,797.2	1,218.4	1,014.1	5.963	SF
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	1,000.0	999.7	59.9	51.9	7.501	CC, ES
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	24,580.8	24,609.6	804.0	601.3	3.967	SF
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	1,000.0	999.6	30.1	22.1	3.765	CC, ES
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	24,580.8	24,743.6	438.2	235.2	2.158	SF
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	916.5	917.0	29.8	21.9	3.793	CC
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	1,000.0	1,000.5	29.8	21.7	3.678	ES
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	24,580.8	24,774.6	439.0	234.8	2.150	SF
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	916.6	916.8	60.1	52.3	7.677	CC
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	1,000.0	1,000.0	60.1	52.1	7.524	ES
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	24,580.8	24,586.9	775.0	570.4	3.788	SF

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

TD 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						
ZIA HILLS UNIT 2331 PROJECT						
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP	24,580.8	13,450.0				Out of Range @TD
SHETLAND 11 FEDERAL #714H - OWB - PWP0	24,580.8	14,200.0	2,525.7	2,366.7	15.886	CC, ES
SHETLAND 11 FEDERAL #734H - OWB - PWP0	24,580.8	14,438.1	1,886.4	1,726.9	11.826	CC, ES
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	24,580.8	19,390.6	2,190.7	1,951.1	9.146	CC, ES
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	24,580.8	21,996.3				Out of Range @TD
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	24,580.8	21,875.5				Out of Range @TD
ZIA HILLS UNIT 2431 PROJECT						
SNAPPING 12 1 FEDERAL #332H - OWB - AWP	24,580.8	11,384.7	586.2	461.6	4.705	CC, ES, SF
SNAPPING 12 1 FEDERAL #532H - OWB - AWP	24,580.8	9,292.0	2,654.8	2,533.9	21.957	CC, ES, SF
SNAPPING 12 1 FEDERAL #533H - OWB - AWP	24,580.8	9,327.0	2,629.1	2,509.0	21.884	CC, ES, SF
SNAPPING 12 1 FEDERAL #621H - OWB - AWP	24,580.8	11,455.5	981.5	846.2	7.257	CC, ES, SF
SNAPPING 12 1 FEDERAL #711H - OWB - AWP	24,580.8	11,629.7	225.3	106.1	1.890	Advise and Monitor, CC, ES,
SNAPPING 12 1 FEDERAL #712H - OWB - AWP	24,580.8	11,684.6	679.7	539.3	4.840	CC, ES, SF
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	24,580.8	24,797.2	1,218.4	1,014.1	5.963	SF
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	24,580.8	24,609.6	804.0	601.3	3.967	SF
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	24,580.8	24,743.6	438.2	235.2	2.158	SF
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	24,580.8	24,774.6	439.0	234.8	2.150	SF
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	24,580.8	24,586.9	775.0	570.4	3.788	SF

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP													Offset Site Error: 0.0 usft
Survey Program: 100-SDI_KPR_WL_NS-CT, 8346-MWD - OWSG R1													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,500.0	6,470.5	13,450.0	9,023.7	18.2	79.8	152.54	-759.4	408.2	2,586.4	2,537.1	49.32	52.441	
6,600.0	6,570.5	13,450.0	9,023.7	18.2	79.8	152.54	-759.4	408.2	2,487.7	2,438.2	49.52	50.235	
6,700.0	6,670.5	13,450.0	9,023.7	18.3	79.8	152.54	-759.4	408.2	2,389.2	2,339.4	49.73	48.046	
6,800.0	6,770.5	13,450.0	9,023.7	18.3	79.8	152.54	-759.4	408.2	2,290.7	2,240.8	49.93	45.876	
6,900.0	6,870.5	13,450.0	9,023.7	18.3	79.8	152.54	-759.4	408.2	2,192.5	2,142.3	50.14	43.724	
7,000.0	6,970.5	13,450.0	9,023.7	18.4	79.8	152.54	-759.4	408.2	2,094.3	2,044.0	50.35	41.592	
7,100.0	7,070.5	13,450.0	9,023.7	18.4	79.8	152.54	-759.4	408.2	1,996.4	1,945.8	50.57	39.479	
7,200.0	7,170.5	13,450.0	9,023.7	18.4	79.8	152.54	-759.4	408.2	1,898.7	1,847.9	50.78	37.387	
7,300.0	7,270.5	13,450.0	9,023.7	18.5	79.8	152.54	-759.4	408.2	1,801.2	1,750.2	51.00	35.316	
7,400.0	7,370.5	13,450.0	9,023.7	18.5	79.8	152.54	-759.4	408.2	1,704.0	1,652.8	51.22	33.266	
7,500.0	7,470.5	13,450.0	9,023.7	18.6	79.8	152.54	-759.4	408.2	1,607.2	1,555.7	51.45	31.240	
7,600.0	7,570.5	13,450.0	9,023.7	18.6	79.8	152.54	-759.4	408.2	1,510.7	1,459.1	51.67	29.238	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP												Offset Site Error:	0.0 usft
Survey Program: 100-SDI_KPR_WL_NS-CT, 8346-MWD - OWSG R1												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
7,700.0	7,670.5	13,450.0	9,023.7	18.6	79.8	152.54	-759.4	408.2	1,414.8	1,362.9	51.90	27.262	
7,800.0	7,770.5	13,450.0	9,023.7	18.7	79.8	152.54	-759.4	408.2	1,319.5	1,267.4	52.13	25.314	
7,900.0	7,870.5	13,450.0	9,023.7	18.7	79.8	152.54	-759.4	408.2	1,224.9	1,172.6	52.36	23.396	
8,000.0	7,970.5	13,450.0	9,023.7	18.7	79.8	152.54	-759.4	408.2	1,131.3	1,078.7	52.59	21.511	
8,100.0	8,070.5	13,450.0	9,023.7	18.8	79.8	152.54	-759.4	408.2	1,038.8	986.0	52.83	19.665	
8,200.0	8,170.5	13,450.0	9,023.7	18.8	79.8	152.54	-759.4	408.2	947.9	894.8	53.07	17.862	
8,300.0	8,270.5	13,450.0	9,023.7	18.9	79.8	152.54	-759.4	408.2	859.0	805.7	53.32	16.111	
8,400.0	8,370.5	13,450.0	9,023.7	18.9	79.8	152.54	-759.4	408.2	772.8	719.2	53.57	14.425	
8,500.0	8,470.5	13,450.0	9,023.7	18.9	79.8	152.54	-759.4	408.2	690.4	636.5	53.85	12.821	
8,600.0	8,570.5	13,450.0	9,023.7	19.0	79.8	152.54	-759.4	408.2	613.2	559.0	54.14	11.325	
8,700.0	8,670.5	13,450.0	9,023.7	19.0	79.8	152.54	-759.4	408.2	543.4	488.9	54.48	9.975	
8,800.0	8,770.5	13,450.0	9,023.7	19.1	79.8	152.54	-759.4	408.2	484.4	429.5	54.88	8.827	
8,900.0	8,870.5	13,450.0	9,023.7	19.1	79.8	152.54	-759.4	408.2	440.5	385.1	55.37	7.955	
9,000.0	8,970.5	13,450.0	9,023.7	19.1	79.8	152.54	-759.4	408.2	416.4	360.4	55.96	7.442	
9,053.2	9,023.7	13,450.0	9,023.7	19.2	79.8	152.54	-759.4	408.2	413.0	356.7	56.28	7.338 CC, ES, SF	
9,100.0	9,070.5	13,450.0	9,023.7	19.2	79.8	152.54	-759.4	408.2	415.6	359.1	56.57	7.348	
9,200.0	9,170.5	13,450.0	9,023.7	19.2	79.8	152.54	-759.4	408.2	438.3	381.2	57.10	7.676	
9,300.0	9,270.5	13,450.0	9,023.7	19.3	79.8	152.54	-759.4	408.2	481.1	423.6	57.50	8.367	
9,400.0	9,370.5	13,450.0	9,023.7	19.3	79.8	152.54	-759.4	408.2	539.3	481.5	57.80	9.331	
9,500.0	9,470.5	13,450.0	9,023.7	19.4	79.8	152.54	-759.4	408.2	608.4	550.4	58.03	10.485	
9,600.0	9,570.5	13,450.0	9,023.7	19.4	79.8	152.54	-759.4	408.2	685.2	627.0	58.24	11.765	
9,700.0	9,670.5	13,450.0	9,023.7	19.4	79.8	152.54	-759.4	408.2	767.4	708.9	58.46	13.128	
9,800.0	9,770.5	13,450.0	9,023.7	19.5	79.8	152.54	-759.4	408.2	853.4	794.7	58.68	14.544	
9,900.0	9,870.5	13,450.0	9,023.7	19.5	79.8	152.54	-759.4	408.2	942.1	883.2	58.91	15.993	
10,000.0	9,970.5	13,450.0	9,023.7	19.6	79.8	152.54	-759.4	408.2	1,032.9	973.8	59.16	17.462	
10,100.0	10,070.5	13,450.0	9,023.7	19.6	79.8	152.54	-759.4	408.2	1,125.3	1,065.9	59.41	18.941	
10,200.0	10,170.5	13,450.0	9,023.7	19.7	79.8	152.54	-759.4	408.2	1,218.9	1,159.2	59.68	20.424	
10,300.0	10,270.5	13,450.0	9,023.7	19.7	79.8	152.54	-759.4	408.2	1,313.4	1,253.5	59.95	21.907	
10,400.0	10,370.5	13,450.0	9,023.7	19.7	79.8	152.54	-759.4	408.2	1,408.7	1,348.5	60.24	23.386	
10,500.0	10,470.5	13,450.0	9,023.7	19.8	79.8	152.54	-759.4	408.2	1,504.6	1,444.1	60.53	24.857	
10,600.0	10,570.5	13,450.0	9,023.7	19.8	79.8	152.54	-759.4	408.2	1,601.0	1,540.2	60.83	26.320	
10,700.0	10,670.5	13,450.0	9,023.7	19.9	79.8	152.54	-759.4	408.2	1,697.8	1,636.7	61.13	27.773	
10,800.0	10,770.5	13,450.0	9,023.7	19.9	79.8	152.54	-759.4	408.2	1,795.0	1,733.5	61.44	29.215	
10,900.0	10,870.5	13,450.0	9,023.7	20.0	79.8	152.54	-759.4	408.2	1,892.4	1,830.7	61.75	30.644	
11,000.0	10,970.5	13,450.0	9,023.7	20.0	79.8	152.54	-759.4	408.2	1,990.1	1,928.0	62.07	32.061	
11,100.0	11,070.5	13,450.0	9,023.7	20.1	79.8	140.09	-759.4	408.2	2,088.3	2,025.8	62.50	33.411	
11,200.0	11,169.1	13,450.0	9,023.7	20.2	79.8	51.03	-759.4	408.2	2,187.8	2,125.0	62.79	34.840	
11,300.0	11,263.4	13,450.0	9,023.7	20.3	79.8	19.13	-759.4	408.2	2,286.1	2,223.1	63.04	36.262	
11,400.0	11,350.7	13,450.0	9,023.7	20.4	79.8	11.39	-759.4	408.2	2,380.7	2,317.5	63.25	37.643	
11,500.0	11,428.1	13,450.0	9,023.7	20.5	79.8	8.15	-759.4	408.2	2,469.3	2,405.9	63.39	38.955	
11,600.0	11,493.4	13,450.0	9,023.7	20.6	79.8	6.42	-759.4	408.2	2,549.8	2,486.4	63.46	40.177	
11,700.0	11,544.6	13,450.0	9,023.7	20.7	79.8	5.38	-759.4	408.2	2,620.8	2,557.3	63.47	41.293	

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

ConocoPhillips

Anticollision Report

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Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11 FEDERAL #714H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-MWD													Offset Well Error: 10.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
21,600.0	11,602.0	16,466.2	11,659.6	78.2	88.0	-91.30	10,522.6	-2,484.2	2,651.7	2,490.0	161.63	16.405	
21,700.0	11,602.0	16,466.2	11,659.6	78.9	88.0	-91.30	10,522.6	-2,484.2	2,625.6	2,462.1	163.51	16.057	
21,800.0	11,602.0	16,466.2	11,659.6	79.7	88.0	-91.30	10,522.6	-2,484.2	2,603.1	2,437.8	165.26	15.751	
21,900.0	11,602.0	16,466.2	11,659.6	80.4	88.0	-91.30	10,522.6	-2,484.2	2,584.2	2,417.4	166.85	15.489	
22,000.0	11,602.0	16,466.2	11,659.6	81.2	88.0	-91.30	10,522.6	-2,484.2	2,569.2	2,400.9	168.26	15.269	
22,100.0	11,602.0	16,466.2	11,659.6	81.9	88.0	-91.30	10,522.6	-2,484.2	2,557.9	2,388.4	169.49	15.091	
22,200.0	11,602.0	16,466.2	11,659.6	82.7	88.0	-91.30	10,522.6	-2,484.2	2,550.5	2,380.0	170.53	14.956	
22,300.0	11,602.0	16,466.2	11,659.6	83.4	88.0	-91.30	10,522.6	-2,484.2	2,547.1	2,375.7	171.36	14.864 SF	
22,400.0	11,602.0	16,380.8	11,659.6	84.2	86.8	-91.30	10,608.0	-2,484.7	2,546.1	2,375.2	170.89	14.899	
22,500.0	11,602.0	16,280.8	11,659.6	84.9	85.3	-91.30	10,708.0	-2,485.2	2,545.2	2,374.9	170.21	14.953	
22,600.0	11,602.0	16,180.8	11,659.6	85.7	83.9	-91.30	10,808.0	-2,485.6	2,544.2	2,374.7	169.55	15.006	
22,700.0	11,602.0	16,080.8	11,659.6	86.4	82.5	-91.30	10,908.0	-2,486.1	2,543.3	2,374.4	168.90	15.058	
22,800.0	11,602.0	15,980.8	11,659.6	87.2	81.1	-91.30	11,008.0	-2,486.6	2,542.3	2,374.1	168.25	15.111	
22,900.0	11,602.0	15,880.8	11,659.6	87.9	79.7	-91.30	11,108.0	-2,487.1	2,541.4	2,373.8	167.61	15.162	
23,000.0	11,602.0	15,780.8	11,659.6	88.7	78.3	-91.30	11,208.0	-2,487.6	2,540.5	2,373.5	166.99	15.214	
23,100.0	11,602.0	15,680.8	11,659.6	89.4	77.0	-91.30	11,308.0	-2,488.1	2,539.5	2,373.2	166.37	15.264	
23,200.0	11,602.0	15,580.8	11,659.6	90.2	75.6	-91.30	11,408.0	-2,488.6	2,538.6	2,372.8	165.77	15.314	
23,300.0	11,602.0	15,480.8	11,659.6	90.9	74.3	-91.30	11,508.0	-2,489.1	2,537.7	2,372.5	165.18	15.363	
23,400.0	11,602.0	15,380.8	11,659.6	91.7	72.9	-91.30	11,608.0	-2,489.5	2,536.7	2,372.1	164.60	15.412	
23,500.0	11,602.0	15,280.8	11,659.6	92.4	71.6	-91.30	11,708.0	-2,490.0	2,535.8	2,371.8	164.03	15.459	
23,600.0	11,602.0	15,180.8	11,659.6	93.2	70.3	-91.30	11,808.0	-2,490.5	2,534.8	2,371.4	163.48	15.506	
23,700.0	11,602.0	15,080.8	11,659.6	93.9	69.0	-91.30	11,908.0	-2,491.0	2,533.9	2,371.0	162.94	15.551	
23,800.0	11,602.0	14,980.8	11,659.6	94.7	67.7	-91.30	12,008.0	-2,491.5	2,533.0	2,370.6	162.42	15.595	
23,900.0	11,602.0	14,880.8	11,659.6	95.5	66.5	-91.30	12,108.0	-2,492.0	2,532.0	2,370.1	161.91	15.638	
24,000.0	11,602.0	14,780.8	11,659.6	96.2	65.2	-91.30	12,207.9	-2,492.5	2,531.1	2,369.7	161.43	15.680	
24,100.0	11,602.0	14,680.8	11,659.6	97.0	64.0	-91.30	12,307.9	-2,493.0	2,530.2	2,369.2	160.96	15.720	
24,200.0	11,602.0	14,580.8	11,659.6	97.7	62.8	-91.30	12,407.9	-2,493.5	2,529.2	2,368.7	160.51	15.758	
24,300.0	11,602.0	14,480.8	11,659.6	98.5	61.6	-91.30	12,507.9	-2,493.9	2,528.3	2,368.2	160.08	15.794	
24,400.0	11,602.0	14,380.9	11,659.6	99.2	60.5	-91.30	12,607.9	-2,494.4	2,527.3	2,367.7	159.67	15.829	
24,500.0	11,602.0	14,280.9	11,659.6	100.0	59.3	-91.31	12,707.9	-2,494.9	2,526.4	2,367.1	159.28	15.861	
24,580.8	11,602.0	14,200.0	11,659.6	100.6	58.4	-91.31	12,788.8	-2,495.3	2,525.7	2,366.7	158.99	15.886 CC, ES	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11 FEDERAL #734H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-MWD - OWSG R1												Offset Well Error:	10.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,500.0	11,602.0	16,703.1	11,883.2	69.9	88.8	-98.48	10,527.0	-1,824.6	2,645.6	2,522.9	122.73	21.556	
20,600.0	11,602.0	16,703.1	11,883.2	70.7	88.8	-98.48	10,527.0	-1,824.6	2,577.3	2,451.8	125.50	20.537	
20,700.0	11,602.0	16,703.1	11,883.2	71.4	88.8	-98.48	10,527.0	-1,824.6	2,511.2	2,382.8	128.37	19.563	
20,800.0	11,602.0	16,703.1	11,883.2	72.2	88.8	-98.48	10,527.0	-1,824.6	2,447.3	2,316.0	131.33	18.635	
20,900.0	11,602.0	16,703.1	11,883.2	72.9	88.8	-98.48	10,527.0	-1,824.6	2,385.9	2,251.5	134.38	17.755	
21,000.0	11,602.0	16,703.1	11,883.2	73.7	88.8	-98.48	10,527.0	-1,824.6	2,327.2	2,189.7	137.50	16.926	
21,100.0	11,602.0	16,703.1	11,883.2	74.4	88.8	-98.48	10,527.0	-1,824.6	2,271.4	2,130.7	140.67	16.147	
21,200.0	11,602.0	16,703.1	11,883.2	75.2	88.8	-98.48	10,527.0	-1,824.6	2,218.7	2,074.8	143.88	15.421	
21,300.0	11,602.0	16,703.1	11,883.2	75.9	88.8	-98.48	10,527.0	-1,824.6	2,169.3	2,022.2	147.09	14.748	
21,400.0	11,602.0	16,703.1	11,883.2	76.7	88.8	-98.48	10,527.0	-1,824.6	2,123.5	1,973.2	150.29	14.129	
21,500.0	11,602.0	16,703.1	11,883.2	77.4	88.8	-98.48	10,527.0	-1,824.6	2,081.5	1,928.0	153.43	13.567	
21,600.0	11,602.0	16,703.1	11,883.2	78.2	88.8	-98.48	10,527.0	-1,824.6	2,043.5	1,887.0	156.47	13.060	
21,700.0	11,602.0	16,703.1	11,883.2	78.9	88.8	-98.48	10,527.0	-1,824.6	2,009.8	1,850.4	159.38	12.610	
21,800.0	11,602.0	16,703.1	11,883.2	79.7	88.8	-98.48	10,527.0	-1,824.6	1,980.5	1,818.4	162.11	12.217	
21,900.0	11,602.0	16,703.1	11,883.2	80.4	88.8	-98.48	10,527.0	-1,824.6	1,955.9	1,791.3	164.62	11.882	
22,000.0	11,602.0	16,703.1	11,883.2	81.2	88.8	-98.48	10,527.0	-1,824.6	1,936.2	1,769.4	166.87	11.604	
22,100.0	11,602.0	16,703.1	11,883.2	81.9	88.8	-98.48	10,527.0	-1,824.6	1,921.5	1,752.7	168.81	11.383	
22,200.0	11,602.0	16,703.1	11,883.2	82.7	88.8	-98.48	10,527.0	-1,824.6	1,912.0	1,741.6	170.42	11.219	
22,300.0	11,602.0	16,703.1	11,883.2	83.4	88.8	-98.48	10,527.0	-1,824.6	1,907.6	1,735.9	171.68	11.111 SF	
22,400.0	11,602.0	16,618.9	11,883.2	84.2	87.6	-98.48	10,611.3	-1,825.0	1,906.6	1,735.3	171.27	11.132	
22,500.0	11,602.0	16,518.9	11,883.2	84.9	86.1	-98.49	10,711.3	-1,825.5	1,905.7	1,735.1	170.61	11.170	
22,600.0	11,602.0	16,418.9	11,883.2	85.7	84.7	-98.49	10,811.2	-1,826.0	1,904.8	1,734.8	169.95	11.208	
22,700.0	11,602.0	16,318.9	11,883.2	86.4	83.3	-98.50	10,911.2	-1,826.5	1,903.8	1,734.5	169.30	11.245	
22,800.0	11,602.0	16,218.9	11,883.2	87.2	81.9	-98.50	11,011.2	-1,826.9	1,902.9	1,734.3	168.66	11.283	
22,900.0	11,602.0	16,118.9	11,883.2	87.9	80.5	-98.50	11,111.2	-1,827.4	1,902.0	1,734.0	168.03	11.320	
23,000.0	11,602.0	16,018.9	11,883.2	88.7	79.1	-98.51	11,211.2	-1,827.9	1,901.1	1,733.6	167.41	11.356	
23,100.0	11,602.0	15,918.9	11,883.2	89.4	77.8	-98.51	11,311.2	-1,828.4	1,900.1	1,733.3	166.80	11.392	
23,200.0	11,602.0	15,818.9	11,883.2	90.2	76.4	-98.52	11,411.2	-1,828.9	1,899.2	1,733.0	166.20	11.427	
23,300.0	11,602.0	15,718.9	11,883.2	90.9	75.1	-98.52	11,511.2	-1,829.4	1,898.3	1,732.7	165.61	11.462	
23,400.0	11,602.0	15,618.9	11,883.2	91.7	73.7	-98.52	11,611.2	-1,829.9	1,897.3	1,732.3	165.04	11.496	
23,500.0	11,602.0	15,518.9	11,883.2	92.4	72.4	-98.53	11,711.2	-1,830.4	1,896.4	1,731.9	164.48	11.530	
23,600.0	11,602.0	15,418.9	11,883.2	93.2	71.1	-98.53	11,811.2	-1,830.9	1,895.5	1,731.6	163.93	11.563	
23,700.0	11,602.0	15,318.9	11,883.2	93.9	69.8	-98.54	11,911.2	-1,831.3	1,894.6	1,731.2	163.40	11.595	
23,800.0	11,602.0	15,218.9	11,883.2	94.7	68.5	-98.54	12,011.2	-1,831.8	1,893.6	1,730.8	162.88	11.626	
23,900.0	11,602.0	15,118.9	11,883.2	95.5	67.3	-98.55	12,111.2	-1,832.3	1,892.7	1,730.3	162.39	11.656	
24,000.0	11,602.0	15,018.9	11,883.2	96.2	66.0	-98.55	12,211.2	-1,832.8	1,891.8	1,729.9	161.90	11.685	
24,100.0	11,602.0	14,918.9	11,883.2	97.0	64.8	-98.55	12,311.2	-1,833.3	1,890.9	1,729.4	161.44	11.712	
24,200.0	11,602.0	14,818.9	11,883.2	97.7	63.6	-98.56	12,411.2	-1,833.8	1,889.9	1,728.9	161.00	11.739	
24,300.0	11,602.0	14,718.9	11,883.2	98.5	62.4	-98.56	12,511.2	-1,834.3	1,889.0	1,728.4	160.57	11.764	
24,400.0	11,602.0	14,619.0	11,883.2	99.2	61.3	-98.57	12,611.1	-1,834.8	1,888.1	1,727.9	160.17	11.788	
24,500.0	11,602.0	14,519.0	11,883.2	100.0	60.1	-98.57	12,711.1	-1,835.3	1,887.2	1,727.4	159.79	11.810	
24,580.8	11,602.0	14,438.1	11,883.2	100.6	59.2	-98.57	12,792.0	-1,835.7	1,886.4	1,726.9	159.51	11.826 CC, ES	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 2-11 STATE FEDERAL COM #333H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 226-MWD												Offset Well Error:	10.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,800.0	11,602.0	21,907.0	11,381.2	72.2	178.7	-84.54	10,261.7	-2,244.8	2,647.7	2,425.1	222.63	11.893	
20,900.0	11,602.0	21,907.0	11,381.2	72.9	178.7	-84.54	10,261.7	-2,244.8	2,601.0	2,374.3	226.76	11.470	
21,000.0	11,602.0	21,907.0	11,381.2	73.7	178.7	-84.54	10,261.7	-2,244.8	2,557.5	2,326.6	230.82	11.080	
21,100.0	11,602.0	21,907.0	11,381.2	74.4	178.7	-84.54	10,261.7	-2,244.8	2,517.1	2,282.3	234.75	10.722	
21,200.0	11,602.0	21,907.0	11,381.2	75.2	178.7	-84.54	10,261.7	-2,244.8	2,480.1	2,241.6	238.54	10.397	
21,300.0	11,602.0	21,907.0	11,381.2	75.9	178.7	-84.54	10,261.7	-2,244.8	2,446.7	2,204.5	242.14	10.104	
21,400.0	11,602.0	21,907.0	11,381.2	76.7	178.7	-84.54	10,261.7	-2,244.8	2,416.9	2,171.4	245.51	9.844	
21,500.0	11,602.0	21,907.0	11,381.2	77.4	178.7	-84.54	10,261.7	-2,244.8	2,390.9	2,142.3	248.62	9.617	
21,600.0	11,602.0	21,907.0	11,381.2	78.2	178.7	-84.54	10,261.7	-2,244.8	2,368.9	2,117.5	251.43	9.422	
21,700.0	11,602.0	21,907.0	11,381.2	78.9	178.7	-84.54	10,261.7	-2,244.8	2,350.9	2,097.0	253.91	9.259	
21,800.0	11,602.0	21,907.0	11,381.2	79.7	178.7	-84.54	10,261.7	-2,244.8	2,337.1	2,081.1	256.02	9.129	
21,900.0	11,602.0	21,875.2	11,382.1	80.4	178.2	-84.56	10,293.4	-2,242.5	2,327.3	2,070.3	256.97	9.056	
22,000.0	11,602.0	21,799.0	11,384.0	81.2	177.0	-84.59	10,369.3	-2,237.2	2,318.7	2,062.0	256.74	9.031	
22,100.0	11,602.0	21,738.9	11,384.3	81.9	176.1	-84.59	10,429.3	-2,233.8	2,311.6	2,054.8	256.83	9.001	
22,200.0	11,602.0	21,666.4	11,382.4	82.7	174.9	-84.53	10,501.7	-2,230.8	2,306.3	2,049.7	256.59	8.988	
22,300.0	11,602.0	21,530.3	11,378.8	83.4	172.8	-84.42	10,637.6	-2,225.1	2,301.1	2,046.1	254.96	9.025	
22,400.0	11,602.0	21,385.9	11,381.1	84.2	170.5	-84.45	10,781.8	-2,216.2	2,293.3	2,040.2	253.11	9.061	
22,500.0	11,602.0	21,282.1	11,387.0	84.9	168.9	-84.58	10,885.2	-2,209.3	2,284.7	2,032.5	252.23	9.058	
22,600.0	11,602.0	21,193.6	11,391.9	85.7	167.5	-84.69	10,973.4	-2,203.5	2,276.3	2,024.6	251.72	9.043	
22,700.0	11,602.0	21,109.0	11,396.3	86.4	166.2	-84.78	11,057.7	-2,198.5	2,268.5	2,017.2	251.30	9.027	
22,800.0	11,602.0	21,016.3	11,400.3	87.2	164.8	-84.87	11,150.2	-2,193.4	2,261.2	2,010.5	250.67	9.020	
22,900.0	11,602.0	20,927.8	11,403.5	87.9	163.4	-84.94	11,238.5	-2,188.8	2,254.3	2,004.1	250.14	9.012	
23,000.0	11,602.0	20,840.6	11,406.4	88.7	162.0	-85.00	11,325.5	-2,184.7	2,247.9	1,998.3	249.64	9.005	
23,100.0	11,602.0	20,753.0	11,408.7	89.4	160.7	-85.05	11,413.0	-2,181.0	2,242.1	1,993.0	249.11	9.000	
23,200.0	11,602.0	20,658.0	11,410.4	90.2	159.2	-85.08	11,507.9	-2,177.3	2,236.6	1,988.1	248.42	9.003	
23,300.0	11,602.0	20,598.4	11,410.8	90.9	158.3	-85.08	11,567.5	-2,175.4	2,232.1	1,983.6	248.45	8.984	
23,400.0	11,602.0	20,525.1	11,409.7	91.7	157.1	-85.05	11,640.8	-2,174.5	2,229.3	1,981.2	248.15	8.984 SF	
23,500.0	11,602.0	20,428.9	11,407.7	92.4	155.6	-84.99	11,737.0	-2,173.4	2,227.1	1,979.7	247.40	9.002	
23,600.0	11,602.0	20,334.2	11,405.2	93.2	154.1	-84.92	11,831.7	-2,172.7	2,225.0	1,978.4	246.68	9.020	
23,700.0	11,602.0	20,220.2	11,401.7	93.9	152.3	-84.83	11,945.5	-2,171.6	2,223.0	1,977.4	245.60	9.051	
23,800.0	11,602.0	20,100.3	11,398.4	94.7	150.5	-84.73	12,065.4	-2,169.2	2,219.8	1,975.4	244.38	9.083	
23,900.0	11,602.0	19,950.0	11,397.7	95.5	148.1	-84.70	12,215.6	-2,163.7	2,214.6	1,972.0	242.53	9.131	
24,000.0	11,602.0	19,864.7	11,398.1	96.2	146.8	-84.70	12,300.8	-2,160.3	2,209.1	1,967.1	242.06	9.126	
24,100.0	11,602.0	19,782.6	11,398.4	97.0	145.5	-84.70	12,382.9	-2,157.7	2,204.5	1,962.9	241.64	9.123	
24,200.0	11,602.0	19,691.2	11,398.5	97.7	144.1	-84.69	12,474.2	-2,155.3	2,200.5	1,959.5	241.03	9.129	
24,300.0	11,602.0	19,594.0	11,400.0	98.5	142.6	-84.72	12,571.3	-2,153.0	2,196.6	1,956.3	240.30	9.141	
24,400.0	11,602.0	19,516.0	11,401.1	99.2	141.4	-84.74	12,649.4	-2,151.7	2,193.3	1,953.4	239.95	9.141	
24,500.0	11,602.0	19,448.0	11,402.6	100.0	140.4	-84.78	12,717.3	-2,151.3	2,191.2	1,951.5	239.76	9.139	
24,580.8	11,602.0	19,390.6	11,405.1	100.6	139.5	-84.84	12,774.7	-2,152.0	2,190.7	1,951.1	239.54	9.146 CC, ES	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program:		0-r.5 SDI_KPR_ADK_1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS						Rule Assigned:				Offset Well Error:	3.0 usft	
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance			Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	7.9	3.0	3.0	-99.53	-402.2	-2,396.1	2,429.6					
100.0	100.0	92.1	100.0	3.0	3.0	-99.53	-402.2	-2,396.1	2,429.6	2,423.6	6.04	402.380		
200.0	200.0	192.1	200.0	3.2	3.1	-99.53	-402.2	-2,396.1	2,429.6	2,423.4	6.23	390.198		
300.0	300.0	292.1	300.0	3.3	3.2	-99.53	-402.2	-2,396.1	2,429.6	2,423.2	6.43	377.930		
400.0	400.0	392.1	400.0	3.4	3.3	-99.53	-402.2	-2,396.1	2,429.6	2,423.0	6.64	366.047		
500.0	500.0	492.1	500.0	3.5	3.4	-99.53	-402.2	-2,396.1	2,429.6	2,422.8	6.85	354.539		
600.0	600.0	592.1	600.0	3.6	3.5	-99.53	-402.2	-2,396.1	2,429.6	2,422.5	7.07	343.430		
700.0	700.0	692.1	700.0	3.8	3.7	-99.53	-402.2	-2,396.1	2,429.6	2,422.3	7.30	332.740		
800.0	800.0	792.1	800.0	3.9	3.8	-99.53	-402.2	-2,396.1	2,429.6	2,422.1	7.53	322.479		
900.0	900.0	892.1	900.0	4.0	4.0	-99.53	-402.2	-2,396.1	2,429.6	2,421.8	7.77	312.654		
1,000.0	1,000.0	992.1	1,000.0	4.1	4.1	-99.53	-402.2	-2,396.1	2,429.6	2,421.6	8.01	303.261		
1,100.0	1,100.0	1,092.1	1,100.0	4.3	4.3	109.50	-402.2	-2,396.1	2,430.2	2,421.9	8.27	293.974		
1,200.0	1,199.8	1,191.9	1,199.8	4.6	4.5	109.58	-402.2	-2,396.1	2,431.9	2,423.3	8.61	282.354		
1,300.0	1,299.5	1,291.6	1,299.5	4.9	4.7	109.72	-402.2	-2,396.1	2,434.9	2,425.9	8.96	271.677		
1,400.0	1,398.7	1,390.8	1,398.7	5.3	4.9	109.91	-402.2	-2,396.1	2,439.0	2,429.7	9.32	261.782		
1,500.0	1,497.7	1,489.8	1,497.7	5.5	5.1	110.21	-402.2	-2,396.1	2,443.9	2,434.2	9.67	252.830		
1,600.0	1,596.8	1,588.9	1,596.8	5.8	5.3	110.52	-402.2	-2,396.1	2,448.7	2,438.7	10.06	243.418		
1,700.0	1,695.8	1,687.9	1,695.8	6.1	5.4	110.82	-402.2	-2,396.1	2,453.7	2,443.3	10.40	235.906		
1,800.0	1,794.8	1,786.9	1,794.8	6.4	5.5	111.12	-402.2	-2,396.1	2,458.7	2,448.0	10.74	229.024		
1,900.0	1,893.8	1,885.9	1,893.8	6.7	5.7	111.42	-402.2	-2,396.1	2,463.8	2,452.7	11.07	222.546		
2,000.0	1,992.9	1,985.0	1,992.9	7.0	5.8	111.72	-402.2	-2,396.1	2,469.0	2,457.6	11.41	216.434		
2,100.0	2,091.9	2,084.0	2,091.9	7.4	6.6	112.96	-401.7	-2,364.5	2,466.5	2,453.9	12.58	196.024		
2,200.0	2,190.9	2,183.0	2,190.9	7.7	6.8	113.23	-401.5	-2,350.7	2,458.0	2,445.0	13.00	189.015		
2,300.0	2,289.9	2,282.0	2,289.9	8.1	7.0	113.50	-401.3	-2,336.9	2,449.6	2,436.1	13.45	182.128		
2,400.0	2,389.0	2,381.1	2,389.0	8.5	7.3	113.77	-401.1	-2,323.1	2,441.2	2,427.3	13.92	175.413		
2,500.0	2,488.0	2,480.1	2,488.0	8.9	7.5	114.04	-400.9	-2,309.4	2,432.9	2,418.5	14.40	168.904		
2,600.0	2,587.0	2,579.1	2,587.0	9.2	7.8	114.31	-400.7	-2,295.6	2,424.6	2,409.7	14.91	162.626		
2,700.0	2,686.1	2,678.2	2,686.1	9.6	8.1	114.59	-400.5	-2,281.8	2,416.4	2,400.9	15.43	156.594		
2,800.0	2,785.1	2,777.2	2,785.1	10.0	8.4	114.86	-400.3	-2,268.0	2,408.2	2,392.2	15.97	150.815		
2,900.0	2,884.1	2,876.2	2,884.1	10.4	8.7	115.14	-400.1	-2,254.3	2,400.1	2,383.6	16.52	145.293		
3,000.0	2,983.1	2,975.2	2,983.1	10.8	9.1	115.42	-399.9	-2,240.5	2,392.1	2,375.0	17.08	140.024		
3,100.0	3,082.2	3,074.3	3,082.2	11.2	9.4	115.71	-399.7	-2,226.7	2,384.1	2,366.4	17.66	135.005		
3,200.0	3,181.2	3,173.3	3,181.2	11.6	9.7	115.99	-399.5	-2,213.0	2,376.2	2,357.9	18.25	130.228		
3,300.0	3,280.2	3,272.3	3,280.2	12.0	10.1	116.28	-399.3	-2,199.2	2,368.3	2,349.5	18.84	125.683		
3,400.0	3,379.2	3,371.3	3,379.2	12.4	10.4	116.57	-399.1	-2,185.4	2,360.5	2,341.0	19.45	121.361		
3,500.0	3,478.3	3,470.4	3,478.3	12.8	10.8	116.86	-398.9	-2,171.6	2,352.7	2,332.7	20.07	117.251		
3,600.0	3,577.3	3,569.4	3,577.3	13.2	11.1	117.15	-398.7	-2,157.9	2,345.1	2,324.4	20.69	113.343		
3,700.0	3,676.3	3,668.4	3,676.3	13.6	11.5	117.44	-398.5	-2,144.1	2,337.4	2,316.1	21.32	109.626		
3,800.0	3,775.3	3,767.4	3,775.3	14.0	11.9	117.74	-398.3	-2,130.3	2,329.9	2,307.9	21.96	106.091		
3,900.0	3,874.4	3,866.5	3,874.4	14.4	12.3	118.03	-398.1	-2,116.5	2,322.4	2,299.8	22.61	102.726		
4,000.0	3,973.4	3,965.5	3,973.4	14.9	12.6	118.33	-397.9	-2,102.8	2,314.9	2,291.7	23.26	99.522		
4,100.0	4,072.5	4,064.6	4,072.5	15.2	13.0	118.58	-397.7	-2,089.0	2,307.4	2,283.5	23.89	96.600		
4,200.0	4,171.8	4,163.6	4,171.8	15.6	13.4	118.76	-397.5	-2,075.2	2,299.0	2,274.5	24.54	93.698		
4,300.0	4,271.3	4,263.4	4,271.3	16.0	13.8	118.90	-397.3	-2,061.4	2,289.9	2,264.7	25.18	90.946		
4,400.0	4,370.9	4,363.0	4,370.9	16.4	14.2	119.00	-397.1	-2,047.6	2,279.9	2,254.1	25.81	88.334		
4,500.0	4,470.7	4,462.8	4,470.7	16.8	14.6	119.05	-396.9	-2,033.8	2,269.2	2,242.7	26.43	85.857		
4,600.0	4,570.6	4,562.7	4,570.6	17.1	15.0	119.06	-396.7	-2,020.0	2,257.6	2,230.5	27.03	83.507		
4,700.0	4,670.6	4,662.7	4,670.6	17.4	15.4	119.03	-396.5	-2,006.2	2,245.1	2,217.5	27.62	81.284		
4,800.0	4,770.5	4,762.6	4,770.5	17.7	15.8	118.94	-396.3	-1,992.4	2,231.9	2,203.7	28.18	79.200		
4,900.0	4,870.5	4,862.6	4,870.5	17.7	16.2	118.90	-396.1	-1,978.6	2,218.0	2,189.4	28.61	77.525		
5,000.0	4,970.5	4,962.6	4,970.5	17.7	16.6	118.90	-395.9	-1,964.8	2,204.1	2,175.0	29.06	75.857		
5,100.0	5,070.5	5,062.6	5,070.5	17.7	17.0	118.90	-395.7	-1,951.0	2,190.1	2,160.6	29.50	74.236		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,170.5	5,484.8	5,461.4	17.8	17.3	-90.07	-395.5	-1,939.1	2,176.4	2,146.5	29.88	72.827	
5,300.0	5,270.5	5,568.1	5,544.0	17.8	17.6	-90.06	-395.3	-1,928.3	2,163.4	2,133.2	30.26	71.490	
5,400.0	5,370.5	5,651.6	5,626.9	17.8	18.0	-90.06	-395.2	-1,918.0	2,151.1	2,120.5	30.64	70.214	
5,500.0	5,470.5	5,735.3	5,710.0	17.9	18.3	-90.06	-395.0	-1,908.4	2,139.6	2,108.6	31.01	69.001	
5,600.0	5,570.5	5,819.1	5,793.3	17.9	18.6	-90.05	-394.9	-1,899.3	2,128.8	2,097.4	31.37	67.850	
5,700.0	5,670.5	5,900.0	5,873.8	17.9	18.9	-90.05	-394.8	-1,891.1	2,118.7	2,086.9	31.72	66.786	
5,800.0	5,770.5	5,987.1	5,960.5	18.0	19.3	-90.05	-394.7	-1,882.9	2,109.3	2,077.2	32.09	65.727	
5,900.0	5,870.5	6,071.3	6,044.4	18.0	19.6	-90.05	-394.6	-1,875.7	2,100.7	2,068.2	32.44	64.752	
6,000.0	5,970.5	6,155.5	6,128.4	18.0	19.9	-90.04	-394.5	-1,869.0	2,092.7	2,060.0	32.78	63.833	
6,100.0	6,070.5	6,239.9	6,212.5	18.1	20.2	-90.04	-394.4	-1,862.9	2,085.6	2,052.4	33.12	62.968	
6,200.0	6,170.5	6,324.4	6,296.8	18.1	20.5	-90.04	-394.3	-1,857.5	2,079.1	2,045.7	33.45	62.156	
6,300.0	6,270.5	6,408.9	6,381.2	18.1	20.8	-90.04	-394.2	-1,852.7	2,073.4	2,039.7	33.77	61.396	
6,400.0	6,370.5	6,500.0	6,472.2	18.2	21.1	-90.03	-394.2	-1,848.2	2,068.5	2,034.4	34.11	60.639	
6,500.0	6,470.5	6,578.1	6,550.2	18.2	21.3	-90.03	-394.1	-1,844.9	2,064.2	2,029.8	34.38	60.036	
6,600.0	6,570.5	6,662.8	6,634.9	18.2	21.6	-90.03	-394.1	-1,841.9	2,060.7	2,026.1	34.67	59.436	
6,700.0	6,670.5	6,747.5	6,719.6	18.3	21.8	-90.03	-394.0	-1,839.6	2,058.0	2,023.0	34.95	58.890	
6,800.0	6,770.5	6,832.3	6,804.3	18.3	22.1	-90.03	-394.0	-1,837.9	2,056.0	2,020.8	35.20	58.401	
6,900.0	6,870.5	6,917.1	6,889.1	18.3	22.3	-90.03	-394.0	-1,836.8	2,054.7	2,019.3	35.44	57.979	
7,000.0	6,970.5	7,001.9	6,973.9	18.4	22.5	-90.03	-394.0	-1,836.4	2,054.2	2,018.5	35.64	57.643	
7,042.8	7,013.4	7,041.4	7,013.4	18.4	22.5	-90.03	-394.0	-1,836.4	2,054.1	2,018.5	35.67	57.587	
7,100.0	7,070.5	7,098.5	7,070.5	18.4	22.5	-90.03	-394.0	-1,836.4	2,054.1	2,018.4	35.71	57.520	
7,200.0	7,170.5	7,198.5	7,170.5	18.4	22.5	-90.03	-394.0	-1,836.4	2,054.1	2,018.3	35.79	57.388	
7,300.0	7,270.5	7,298.5	7,270.5	18.5	22.6	-90.03	-394.0	-1,836.4	2,054.1	2,018.3	35.88	57.255	
7,400.0	7,370.5	7,398.5	7,370.5	18.5	22.6	-90.03	-394.0	-1,836.4	2,054.1	2,018.2	35.96	57.123	
7,500.0	7,470.5	7,498.5	7,470.5	18.6	22.6	-90.03	-394.0	-1,836.4	2,054.1	2,018.1	36.04	56.990	
7,600.0	7,570.5	7,598.5	7,570.5	18.6	22.7	-90.03	-394.0	-1,836.4	2,054.1	2,018.0	36.13	56.856	
7,700.0	7,670.5	7,698.5	7,670.5	18.6	22.7	-90.03	-394.0	-1,836.4	2,054.1	2,017.9	36.21	56.723	
7,800.0	7,770.5	7,798.5	7,770.5	18.7	22.7	-90.03	-394.0	-1,836.4	2,054.1	2,017.8	36.30	56.589	
7,900.0	7,870.5	7,898.5	7,870.5	18.7	22.8	-90.03	-394.0	-1,836.4	2,054.1	2,017.8	36.39	56.455	
8,000.0	7,970.5	7,998.5	7,970.5	18.7	22.8	-90.03	-394.0	-1,836.4	2,054.1	2,017.7	36.47	56.321	
8,100.0	8,070.5	8,098.5	8,070.5	18.8	22.9	-90.03	-394.0	-1,836.4	2,054.1	2,017.6	36.56	56.186	
8,200.0	8,170.5	8,198.5	8,170.5	18.8	22.9	-90.03	-394.0	-1,836.4	2,054.1	2,017.5	36.65	56.052	
8,300.0	8,270.5	8,298.5	8,270.5	18.9	22.9	-90.03	-394.0	-1,836.4	2,054.1	2,017.4	36.74	55.917	
8,400.0	8,370.5	8,398.5	8,370.5	18.9	23.0	-90.03	-394.0	-1,836.4	2,054.1	2,017.3	36.82	55.782	
8,500.0	8,470.5	8,498.5	8,470.5	18.9	23.0	-90.03	-394.0	-1,836.4	2,054.1	2,017.2	36.91	55.647	
8,600.0	8,570.5	8,598.5	8,570.5	19.0	23.0	-90.03	-394.0	-1,836.4	2,054.1	2,017.1	37.00	55.512	
8,700.0	8,670.5	8,698.5	8,670.5	19.0	23.1	-90.03	-394.0	-1,836.4	2,054.1	2,017.0	37.09	55.377	
8,800.0	8,770.5	8,798.5	8,770.5	19.1	23.1	-90.03	-394.0	-1,836.4	2,054.1	2,017.0	37.18	55.242	
8,900.0	8,870.5	8,898.5	8,870.5	19.1	23.2	-90.03	-394.0	-1,836.4	2,054.1	2,016.9	37.28	55.106	
9,000.0	8,970.5	8,998.5	8,970.5	19.1	23.2	-90.03	-394.0	-1,836.4	2,054.1	2,016.8	37.37	54.971	
9,100.0	9,070.5	9,098.5	9,070.5	19.2	23.2	-90.03	-394.0	-1,836.4	2,054.1	2,016.7	37.46	54.835	
9,200.0	9,170.5	9,198.5	9,170.5	19.2	23.3	-90.03	-394.0	-1,836.4	2,054.1	2,016.6	37.55	54.700	
9,300.0	9,270.5	9,298.5	9,270.5	19.3	23.3	-90.03	-394.0	-1,836.4	2,054.1	2,016.5	37.65	54.564	
9,400.0	9,370.5	9,398.5	9,370.5	19.3	23.4	-90.03	-394.0	-1,836.4	2,054.1	2,016.4	37.74	54.428	
9,500.0	9,470.5	9,498.5	9,470.5	19.4	23.4	-90.03	-394.0	-1,836.4	2,054.1	2,016.3	37.83	54.293	
9,600.0	9,570.5	9,598.5	9,570.5	19.4	23.4	-90.03	-394.0	-1,836.4	2,054.1	2,016.2	37.93	54.157	
9,700.0	9,670.5	9,698.5	9,670.5	19.4	23.5	-90.03	-394.0	-1,836.4	2,054.1	2,016.1	38.02	54.022	
9,800.0	9,770.5	9,798.5	9,770.5	19.5	23.5	-90.03	-394.0	-1,836.4	2,054.1	2,016.0	38.12	53.886	
9,900.0	9,870.5	9,898.5	9,870.5	19.5	23.6	-90.03	-394.0	-1,836.4	2,054.1	2,015.9	38.22	53.751	
10,000.0	9,970.5	9,998.5	9,970.5	19.6	23.6	-90.03	-394.0	-1,836.4	2,054.1	2,015.8	38.31	53.615	
10,100.0	10,070.5	10,098.5	10,070.5	19.6	23.6	-90.03	-394.0	-1,836.4	2,054.1	2,015.7	38.41	53.480	
10,200.0	10,170.5	10,198.5	10,170.5	19.7	23.7	-90.03	-394.0	-1,836.4	2,054.1	2,015.6	38.51	53.344	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,300.0	10,270.5	10,298.5	10,270.5	19.7	23.7	-90.03	-394.0	-1,836.4	2,054.1	2,015.5	38.61	53.209	
10,400.0	10,370.5	10,398.5	10,370.5	19.7	23.8	-90.03	-394.0	-1,836.4	2,054.1	2,015.4	38.70	53.074	
10,500.0	10,470.5	10,498.5	10,470.5	19.8	23.8	-90.03	-394.0	-1,836.4	2,054.1	2,015.3	38.80	52.938	
10,600.0	10,570.5	10,598.5	10,570.5	19.8	23.8	-90.03	-394.0	-1,836.4	2,054.1	2,015.2	38.90	52.803	
10,700.0	10,670.5	10,698.5	10,670.5	19.9	23.9	-90.03	-394.0	-1,836.4	2,054.1	2,015.1	39.00	52.668	
10,800.0	10,770.5	10,798.5	10,770.5	19.9	23.9	-90.03	-394.0	-1,836.4	2,054.1	2,015.0	39.10	52.534	
10,900.0	10,870.5	10,898.5	10,870.5	20.0	24.0	-90.03	-394.0	-1,836.4	2,054.1	2,014.9	39.20	52.399	
11,000.0	10,970.5	10,998.5	10,970.5	20.0	24.0	-90.03	-394.0	-1,836.4	2,054.1	2,014.8	39.30	52.264	
11,100.0	11,070.5	11,098.5	11,070.5	20.1	24.1	-89.26	-394.0	-1,836.4	2,054.1	2,014.8	39.37	52.176	
11,200.0	11,169.1	11,197.1	11,169.1	20.2	24.1	-89.70	-393.8	-1,836.4	2,054.0	2,014.6	39.37	52.177	
11,300.0	11,263.4	11,297.2	11,268.1	20.3	24.1	-90.26	-380.3	-1,836.5	2,053.9	2,014.6	39.32	52.237	
11,400.0	11,350.7	11,402.0	11,366.3	20.4	24.1	-90.73	-344.4	-1,836.8	2,053.9	2,014.6	39.29	52.269	
11,500.0	11,428.1	11,510.7	11,457.5	20.5	24.1	-91.07	-285.5	-1,837.3	2,053.8	2,014.4	39.31	52.251	
11,600.0	11,493.4	11,622.1	11,534.5	20.6	24.1	-91.27	-205.4	-1,838.1	2,053.5	2,014.1	39.37	52.164	
11,700.0	11,544.6	11,734.3	11,591.3	20.7	24.2	-91.29	-109.0	-1,838.9	2,053.0	2,013.6	39.48	51.998	
11,800.0	11,580.2	11,845.3	11,623.9	20.8	24.3	-91.16	-3.2	-1,839.9	2,052.4	2,012.7	39.65	51.761	
11,900.0	11,599.0	11,951.9	11,631.9	20.9	24.4	-90.88	103.0	-1,840.9	2,051.7	2,011.8	39.86	51.472	
12,000.0	11,602.0	12,051.8	11,631.9	20.9	24.5	-90.84	202.9	-1,841.8	2,051.1	2,011.0	40.12	51.125	
12,100.0	11,602.0	12,151.8	11,631.9	21.0	24.7	-90.84	302.9	-1,842.7	2,050.6	2,010.1	40.46	50.682	
12,200.0	11,602.0	12,251.8	11,631.9	21.0	24.9	-90.84	402.8	-1,843.6	2,050.1	2,009.2	40.86	50.176	
12,300.0	11,602.0	12,351.8	11,631.9	21.1	25.1	-90.84	502.8	-1,844.5	2,049.6	2,008.3	41.31	49.613	
12,400.0	11,602.0	12,451.8	11,631.9	21.2	25.3	-90.84	602.8	-1,845.4	2,049.1	2,007.2	41.82	49.000	
12,500.0	11,602.0	12,551.8	11,631.9	21.3	25.6	-90.84	702.8	-1,846.3	2,048.5	2,006.2	42.37	48.344	
12,600.0	11,602.0	12,651.8	11,631.9	21.4	25.8	-90.84	802.8	-1,847.2	2,048.0	2,005.0	42.98	47.650	
12,700.0	11,602.0	12,751.8	11,631.9	21.5	26.1	-90.84	902.8	-1,848.2	2,047.5	2,003.9	43.63	46.926	
12,800.0	11,602.0	12,851.8	11,631.9	21.6	26.4	-90.84	1,002.8	-1,849.1	2,047.0	2,002.7	44.33	46.177	
12,900.0	11,602.0	12,951.8	11,631.9	21.8	26.8	-90.84	1,102.8	-1,850.0	2,046.5	2,001.4	45.07	45.409	
13,000.0	11,602.0	13,051.8	11,631.9	21.9	27.1	-90.84	1,202.8	-1,850.9	2,046.0	2,000.1	45.85	44.627	
13,100.0	11,602.0	13,151.8	11,631.9	22.1	27.5	-90.84	1,302.8	-1,851.8	2,045.4	1,998.8	46.66	43.836	
13,200.0	11,602.0	13,251.8	11,631.9	22.3	27.9	-90.84	1,402.8	-1,852.7	2,044.9	1,997.4	47.51	43.039	
13,300.0	11,602.0	13,351.8	11,631.9	22.6	28.3	-90.84	1,502.8	-1,853.6	2,044.4	1,996.0	48.40	42.242	
13,400.0	11,602.0	13,451.8	11,631.9	22.8	28.7	-90.84	1,602.8	-1,854.5	2,043.9	1,994.6	49.31	41.447	
13,500.0	11,602.0	13,551.8	11,631.9	23.1	29.1	-90.84	1,702.8	-1,855.4	2,043.4	1,993.1	50.26	40.657	
13,600.0	11,602.0	13,651.8	11,631.9	23.4	29.5	-90.84	1,802.8	-1,856.4	2,042.9	1,991.6	51.23	39.874	
13,700.0	11,602.0	13,751.8	11,631.9	23.8	30.0	-90.84	1,902.8	-1,857.3	2,042.4	1,990.1	52.23	39.100	
13,800.0	11,602.0	13,851.8	11,631.9	24.2	30.4	-90.84	2,002.8	-1,858.2	2,041.8	1,988.6	53.26	38.338	
13,900.0	11,602.0	13,951.8	11,631.9	24.6	30.9	-90.84	2,102.8	-1,859.1	2,041.3	1,987.0	54.31	37.589	
14,000.0	11,602.0	14,051.8	11,631.9	25.1	31.4	-90.84	2,202.8	-1,860.0	2,040.8	1,985.4	55.38	36.853	
14,100.0	11,602.0	14,151.8	11,631.9	25.6	31.9	-90.84	2,302.7	-1,860.9	2,040.3	1,983.8	56.47	36.132	
14,200.0	11,602.0	14,251.8	11,631.9	26.1	32.4	-90.84	2,402.7	-1,861.8	2,039.8	1,982.2	57.58	35.426	
14,300.0	11,602.0	14,351.8	11,631.9	26.6	32.9	-90.84	2,502.7	-1,862.7	2,039.3	1,980.6	58.71	34.736	
14,400.0	11,602.0	14,451.8	11,631.9	27.1	33.4	-90.84	2,602.7	-1,863.6	2,038.7	1,978.9	59.85	34.062	
14,500.0	11,602.0	14,551.8	11,631.9	27.7	34.0	-90.84	2,702.7	-1,864.5	2,038.2	1,977.2	61.02	33.404	
14,600.0	11,602.0	14,651.8	11,631.9	28.3	34.5	-90.84	2,802.7	-1,865.5	2,037.7	1,975.5	62.20	32.763	
14,700.0	11,602.0	14,751.8	11,631.9	28.9	35.1	-90.84	2,902.7	-1,866.4	2,037.2	1,973.8	63.39	32.138	
14,800.0	11,602.0	14,851.8	11,631.9	29.5	35.6	-90.84	3,002.7	-1,867.3	2,036.7	1,972.1	64.59	31.530	
14,900.0	11,602.0	14,951.8	11,631.9	30.1	36.2	-90.84	3,102.7	-1,868.2	2,036.2	1,970.4	65.81	30.938	
15,000.0	11,602.0	15,051.8	11,631.9	30.7	36.8	-90.84	3,202.7	-1,869.1	2,035.7	1,968.6	67.05	30.362	
15,100.0	11,602.0	15,151.8	11,631.9	31.3	37.3	-90.84	3,302.7	-1,870.0	2,035.1	1,966.8	68.29	29.801	
15,200.0	11,602.0	15,251.7	11,631.9	32.0	37.9	-90.84	3,402.7	-1,870.9	2,034.6	1,965.1	69.54	29.256	
15,300.0	11,602.0	15,351.7	11,631.9	32.6	38.5	-90.84	3,502.7	-1,871.8	2,034.1	1,963.3	70.81	28.726	
15,400.0	11,602.0	15,451.7	11,631.9	33.3	39.1	-90.84	3,602.7	-1,872.7	2,033.6	1,961.5	72.09	28.211	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK_1500-r.5 MWD+IFR1_11195-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										
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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.0	11,602.0	15,551.7	11,631.9	33.9	39.7	-90.84	3,702.7	-1,873.6	2,033.1	1,959.7	73.37	27.710	
15,600.0	11,602.0	15,651.7	11,631.9	34.6	40.3	-90.84	3,802.7	-1,874.6	2,032.6	1,957.9	74.66	27.223	
15,700.0	11,602.0	15,751.7	11,631.9	35.3	41.0	-90.84	3,902.7	-1,875.5	2,032.0	1,956.1	75.97	26.750	
15,800.0	11,602.0	15,851.7	11,631.9	35.9	41.6	-90.84	4,002.7	-1,876.4	2,031.5	1,954.3	77.28	26.289	
15,900.0	11,602.0	15,951.7	11,631.9	36.6	42.2	-90.84	4,102.6	-1,877.3	2,031.0	1,952.4	78.59	25.842	
16,000.0	11,602.0	16,051.7	11,631.9	37.3	42.8	-90.84	4,202.6	-1,878.2	2,030.5	1,950.6	79.92	25.407	
16,100.0	11,602.0	16,151.7	11,631.9	38.0	43.5	-90.84	4,302.6	-1,879.1	2,030.0	1,948.7	81.25	24.984	
16,200.0	11,602.0	16,251.7	11,631.9	38.7	44.1	-90.84	4,402.6	-1,880.0	2,029.5	1,946.9	82.59	24.573	
16,300.0	11,602.0	16,351.7	11,631.9	39.4	44.7	-90.84	4,502.6	-1,880.9	2,029.0	1,945.0	83.93	24.173	
16,400.0	11,602.0	16,451.7	11,631.9	40.1	45.4	-90.84	4,602.6	-1,881.8	2,028.4	1,943.2	85.29	23.784	
16,500.0	11,602.0	16,551.7	11,631.9	40.8	46.0	-90.85	4,702.6	-1,882.8	2,027.9	1,941.3	86.64	23.406	
16,600.0	11,602.0	16,651.7	11,631.9	41.5	46.7	-90.85	4,802.6	-1,883.7	2,027.4	1,939.4	88.00	23.038	
16,700.0	11,602.0	16,751.7	11,631.9	42.2	47.3	-90.85	4,902.6	-1,884.6	2,026.9	1,937.5	89.37	22.679	
16,800.0	11,602.0	16,851.7	11,631.9	42.9	48.0	-90.85	5,002.6	-1,885.5	2,026.4	1,935.6	90.74	22.331	
16,900.0	11,602.0	16,951.7	11,631.9	43.6	48.7	-90.85	5,102.6	-1,886.4	2,025.9	1,933.7	92.12	21.991	
17,000.0	11,602.0	17,051.7	11,631.9	44.3	49.3	-90.85	5,202.6	-1,887.3	2,025.3	1,931.8	93.50	21.661	
17,100.0	11,602.0	17,151.7	11,631.9	45.0	50.0	-90.85	5,302.6	-1,888.2	2,024.8	1,929.9	94.89	21.339	
17,200.0	11,602.0	17,251.7	11,631.9	45.7	50.7	-90.85	5,402.6	-1,889.1	2,024.3	1,928.0	96.28	21.025	
17,300.0	11,602.0	17,351.7	11,631.9	46.4	51.3	-90.85	5,502.6	-1,890.0	2,023.8	1,926.1	97.67	20.720	
17,400.0	11,602.0	17,451.7	11,631.9	47.2	52.0	-90.85	5,602.6	-1,890.9	2,023.3	1,924.2	99.07	20.422	
17,500.0	11,602.0	17,551.7	11,631.9	47.9	52.7	-90.85	5,702.6	-1,891.9	2,022.8	1,922.3	100.47	20.132	
17,600.0	11,602.0	17,651.7	11,631.9	48.6	53.4	-90.85	5,802.6	-1,892.8	2,022.3	1,920.4	101.88	19.849	
17,700.0	11,602.0	17,751.7	11,631.9	49.3	54.1	-90.85	5,902.5	-1,893.7	2,021.7	1,918.5	103.29	19.574	
17,800.0	11,602.0	17,851.7	11,631.9	50.0	54.7	-90.85	6,002.5	-1,894.6	2,021.2	1,916.5	104.70	19.305	
17,900.0	11,602.0	17,951.7	11,631.9	50.8	55.4	-90.85	6,102.5	-1,895.5	2,020.7	1,914.6	106.12	19.042	
18,000.0	11,602.0	18,051.7	11,631.9	51.5	56.1	-90.85	6,202.5	-1,896.4	2,020.2	1,912.7	107.54	18.786	
18,100.0	11,602.0	18,151.7	11,631.9	52.2	56.8	-90.85	6,302.5	-1,897.3	2,019.7	1,910.7	108.96	18.537	
18,200.0	11,602.0	18,251.7	11,631.9	53.0	57.5	-90.85	6,402.5	-1,898.2	2,019.2	1,908.8	110.38	18.293	
18,300.0	11,602.0	18,351.7	11,631.9	53.7	58.2	-90.85	6,502.5	-1,899.1	2,018.6	1,906.8	111.81	18.055	
18,400.0	11,602.0	18,451.7	11,631.9	54.4	58.9	-90.85	6,602.5	-1,900.0	2,018.1	1,904.9	113.24	17.822	
18,500.0	11,602.0	18,551.7	11,631.9	55.1	59.6	-90.85	6,702.5	-1,901.0	2,017.6	1,902.9	114.67	17.595	
18,600.0	11,602.0	18,651.7	11,631.9	55.9	60.3	-90.85	6,802.5	-1,901.9	2,017.1	1,901.0	116.10	17.373	
18,700.0	11,602.0	18,751.7	11,631.9	56.6	61.0	-90.85	6,902.5	-1,902.8	2,016.6	1,899.0	117.54	17.157	
18,800.0	11,602.0	18,851.7	11,631.9	57.3	61.7	-90.85	7,002.5	-1,903.7	2,016.1	1,897.1	118.98	16.945	
18,900.0	11,602.0	18,951.7	11,631.9	58.1	62.4	-90.85	7,102.5	-1,904.6	2,015.6	1,895.1	120.42	16.738	
19,000.0	11,602.0	19,051.7	11,631.9	58.8	63.1	-90.85	7,202.5	-1,905.5	2,015.0	1,893.2	121.86	16.535	
19,100.0	11,602.0	19,151.7	11,631.9	59.6	63.8	-90.85	7,302.5	-1,906.4	2,014.5	1,891.2	123.31	16.337	
19,200.0	11,602.0	19,251.7	11,631.9	60.3	64.5	-90.85	7,402.5	-1,907.3	2,014.0	1,889.3	124.76	16.144	
19,300.0	11,602.0	19,351.7	11,631.9	61.0	65.2	-90.85	7,502.5	-1,908.2	2,013.5	1,887.3	126.20	15.954	
19,400.0	11,602.0	19,451.7	11,631.9	61.8	65.9	-90.85	7,602.5	-1,909.2	2,013.0	1,885.3	127.66	15.769	
19,500.0	11,602.0	19,551.7	11,631.9	62.5	66.7	-90.85	7,702.4	-1,910.1	2,012.5	1,883.4	129.11	15.587	
19,600.0	11,602.0	19,651.7	11,631.9	63.3	67.4	-90.85	7,802.4	-1,911.0	2,011.9	1,881.4	130.56	15.410	
19,700.0	11,602.0	19,751.7	11,631.9	64.0	68.1	-90.85	7,902.4	-1,911.9	2,011.4	1,879.4	132.02	15.236	
19,800.0	11,602.0	19,851.7	11,631.9	64.7	68.8	-90.85	8,002.4	-1,912.8	2,010.9	1,877.4	133.48	15.066	
19,900.0	11,602.0	19,951.7	11,631.9	65.5	69.5	-90.85	8,102.4	-1,913.7	2,010.4	1,875.5	134.93	14.899	
20,000.0	11,602.0	20,051.7	11,631.9	66.2	70.2	-90.85	8,202.4	-1,914.6	2,009.9	1,873.5	136.39	14.736	
20,100.0	11,602.0	20,151.7	11,631.9	67.0	70.9	-90.85	8,302.4	-1,915.5	2,009.4	1,871.5	137.86	14.576	
20,200.0	11,602.0	20,251.7	11,631.9	67.7	71.7	-90.85	8,402.4	-1,916.4	2,008.9	1,869.5	139.32	14.419	
20,300.0	11,602.0	20,351.7	11,631.9	68.4	72.4	-90.85	8,502.4	-1,917.3	2,008.3	1,867.6	140.78	14.265	
20,400.0	11,602.0	20,451.7	11,631.9	69.2	73.1	-90.85	8,602.4	-1,918.3	2,007.8	1,865.6	142.25	14.115	
20,500.0	11,602.0	20,551.7	11,631.9	69.9	73.8	-90.85	8,702.4	-1,919.2	2,007.3	1,863.6	143.72	13.967	
20,600.0	11,602.0	20,651.7	11,631.9	70.7	74.5	-90.85	8,802.4	-1,920.1	2,006.8	1,861.6	145.19	13.822	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11195-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
20,700.0	11,602.0	20,751.7	11,631.9	71.4	75.3	-90.85	8,902.4	-1,921.0	2,006.3	1,859.6	146.66	13.680		
20,800.0	11,602.0	20,851.7	11,631.9	72.2	76.0	-90.85	9,002.4	-1,921.9	2,005.8	1,857.6	148.13	13.541		
20,900.0	11,602.0	20,951.7	11,631.9	72.9	76.7	-90.85	9,102.4	-1,922.8	2,005.2	1,855.6	149.60	13.404		
21,000.0	11,602.0	21,051.7	11,631.9	73.7	77.4	-90.85	9,202.4	-1,923.7	2,004.7	1,853.7	151.07	13.270		
21,100.0	11,602.0	21,151.7	11,631.9	74.4	78.2	-90.86	9,302.4	-1,924.6	2,004.2	1,851.7	152.55	13.138		
21,200.0	11,602.0	21,251.7	11,631.9	75.2	78.9	-90.86	9,402.4	-1,925.5	2,003.7	1,849.7	154.02	13.009		
21,300.0	11,602.0	21,351.7	11,631.9	75.9	79.6	-90.86	9,502.4	-1,926.5	2,003.2	1,847.7	155.50	12.882		
21,400.0	11,602.0	21,451.7	11,631.9	76.7	80.3	-90.86	9,602.3	-1,927.4	2,002.7	1,845.7	156.98	12.758		
21,500.0	11,602.0	21,551.7	11,631.9	77.4	81.1	-90.86	9,702.3	-1,928.3	2,002.2	1,843.7	158.45	12.636		
21,600.0	11,602.0	21,651.7	11,631.9	78.2	81.8	-90.86	9,802.3	-1,929.2	2,001.6	1,841.7	159.93	12.516		
21,700.0	11,602.0	21,751.7	11,631.9	78.9	82.5	-90.86	9,902.3	-1,930.1	2,001.1	1,839.7	161.41	12.398		
21,800.0	11,602.0	21,851.7	11,631.9	79.7	83.3	-90.86	10,002.3	-1,931.0	2,000.6	1,837.7	162.89	12.282		
21,900.0	11,602.0	21,951.7	11,631.9	80.4	84.0	-90.86	10,102.3	-1,931.9	2,000.1	1,835.7	164.37	12.168		
21,955.0	11,602.0	21,996.3	11,631.9	80.8	84.3	-90.86	10,147.0	-1,932.3	1,999.8	1,834.7	165.09	12.113 CC, ES		
22,000.0	11,602.0	21,996.3	11,631.9	81.2	84.3	-90.86	10,147.0	-1,932.3	2,000.3	1,835.0	165.29	12.102 SF		
22,100.0	11,602.0	21,996.3	11,631.9	81.9	84.3	-90.86	10,147.0	-1,932.3	2,005.1	1,839.6	165.48	12.117		
22,200.0	11,602.0	21,996.3	11,631.9	82.7	84.3	-90.86	10,147.0	-1,932.3	2,014.8	1,849.5	165.30	12.188		
22,300.0	11,602.0	21,996.3	11,631.9	83.4	84.3	-90.86	10,147.0	-1,932.3	2,029.4	1,864.6	164.79	12.315		
22,400.0	11,602.0	21,996.3	11,631.9	84.2	84.3	-90.86	10,147.0	-1,932.3	2,048.8	1,884.8	163.94	12.497		
22,500.0	11,602.0	21,996.3	11,631.9	84.9	84.3	-90.86	10,147.0	-1,932.3	2,072.8	1,910.0	162.80	12.732		
22,600.0	11,602.0	21,996.3	11,631.9	85.7	84.3	-90.86	10,147.0	-1,932.3	2,101.3	1,939.9	161.38	13.020		
22,700.0	11,602.0	21,996.3	11,631.9	86.4	84.3	-90.86	10,147.0	-1,932.3	2,134.1	1,974.4	159.73	13.360		
22,800.0	11,602.0	21,996.3	11,631.9	87.2	84.3	-90.86	10,147.0	-1,932.3	2,171.0	2,013.2	157.88	13.751		
22,900.0	11,602.0	21,996.3	11,631.9	87.9	84.3	-90.86	10,147.0	-1,932.3	2,211.9	2,056.0	155.87	14.191		
23,000.0	11,602.0	21,996.3	11,631.9	88.7	84.3	-90.86	10,147.0	-1,932.3	2,256.4	2,102.7	153.72	14.679		
23,100.0	11,602.0	21,996.3	11,631.9	89.4	84.3	-90.86	10,147.0	-1,932.3	2,304.4	2,153.0	151.46	15.214		
23,200.0	11,602.0	21,996.3	11,631.9	90.2	84.3	-90.86	10,147.0	-1,932.3	2,355.7	2,206.6	149.14	15.795		
23,300.0	11,602.0	21,996.3	11,631.9	90.9	84.3	-90.86	10,147.0	-1,932.3	2,410.1	2,263.3	146.78	16.420		
23,400.0	11,602.0	21,996.3	11,631.9	91.7	84.3	-90.86	10,147.0	-1,932.3	2,467.3	2,322.9	144.39	17.088		
23,500.0	11,602.0	21,996.3	11,631.9	92.4	84.3	-90.86	10,147.0	-1,932.3	2,527.1	2,385.1	142.00	17.797		
23,600.0	11,602.0	21,996.3	11,631.9	93.2	84.3	-90.86	10,147.0	-1,932.3	2,589.5	2,449.9	139.63	18.546		
23,700.0	11,602.0	21,996.3	11,631.9	93.9	84.3	-90.86	10,147.0	-1,932.3	2,654.1	2,516.9	137.28	19.333		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK_1500-r.5 MWD+IFR1_11092-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Reference	Offset	Highside	Rule Assigned:				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	7.9	3.0	3.0	-99.64	-402.1	-2,366.1	2,400.0				
100.0	100.0	92.1	100.0	3.0	3.0	-99.64	-402.1	-2,366.1	2,400.0	2,394.0	6.04	397.478	
200.0	200.0	192.1	200.0	3.2	3.1	-99.64	-402.1	-2,366.1	2,400.0	2,393.8	6.23	385.443	
300.0	300.0	292.1	300.0	3.3	3.2	-99.64	-402.1	-2,366.1	2,400.0	2,393.6	6.43	373.325	
400.0	400.0	392.1	400.0	3.4	3.3	-99.64	-402.1	-2,366.1	2,400.0	2,393.4	6.64	361.586	
500.0	500.0	492.1	500.0	3.5	3.4	-99.64	-402.1	-2,366.1	2,400.0	2,393.2	6.85	350.217	
600.0	600.0	592.1	600.0	3.6	3.5	-99.64	-402.1	-2,366.1	2,400.0	2,392.9	7.07	339.242	
700.0	700.0	692.1	700.0	3.8	3.7	-99.64	-402.1	-2,366.1	2,400.0	2,392.7	7.30	328.681	
800.0	800.0	792.1	800.0	3.9	3.8	-99.64	-402.1	-2,366.1	2,400.0	2,392.5	7.53	318.545	
900.0	900.0	892.1	900.0	4.0	4.0	-99.64	-402.1	-2,366.1	2,400.0	2,392.2	7.77	308.839	
1,000.0	1,000.0	992.1	1,000.0	4.1	4.1	-99.64	-402.1	-2,366.1	2,400.0	2,392.0	8.01	299.559	
1,100.0	1,100.0	1,092.1	1,100.0	4.3	4.3	109.38	-402.1	-2,366.1	2,400.6	2,392.3	8.27	290.391	
1,200.0	1,199.8	1,191.9	1,199.8	4.6	4.5	109.47	-402.1	-2,366.1	2,402.3	2,393.7	8.61	278.920	
1,300.0	1,299.5	1,291.6	1,299.5	4.9	4.7	109.61	-402.1	-2,366.1	2,405.3	2,396.3	8.96	268.379	
1,400.0	1,398.7	1,390.8	1,398.7	5.3	4.9	109.80	-402.1	-2,366.1	2,409.4	2,400.1	9.32	258.614	
1,500.0	1,497.7	1,489.8	1,497.7	5.5	5.1	110.11	-402.1	-2,366.1	2,414.2	2,404.5	9.67	249.775	
1,600.0	1,596.8	2,038.3	2,043.1	5.8	6.3	111.65	-401.4	-2,315.7	2,410.7	2,399.6	11.19	215.363	
1,700.0	1,695.8	2,146.5	2,149.3	6.1	6.5	111.93	-401.1	-2,295.0	2,396.8	2,385.2	11.64	205.956	
1,800.0	1,794.8	2,245.0	2,245.9	6.4	6.8	112.19	-400.9	-2,276.3	2,382.9	2,370.8	12.13	196.519	
1,900.0	1,893.8	2,343.5	2,342.6	6.7	7.1	112.44	-400.6	-2,257.5	2,369.1	2,356.5	12.64	187.487	
2,000.0	1,992.9	2,441.9	2,439.2	7.0	7.4	112.70	-400.4	-2,238.7	2,355.3	2,342.1	13.17	178.890	
2,100.0	2,091.9	2,540.4	2,535.9	7.4	7.8	112.97	-400.1	-2,219.9	2,341.6	2,327.8	13.71	170.741	
2,200.0	2,190.9	2,638.8	2,632.6	7.7	8.1	113.23	-399.9	-2,201.1	2,327.9	2,313.6	14.28	163.039	
2,300.0	2,289.9	2,737.3	2,729.2	8.1	8.5	113.50	-399.7	-2,182.3	2,314.2	2,299.4	14.86	155.775	
2,400.0	2,389.0	2,835.8	2,825.9	8.5	8.8	113.78	-399.4	-2,163.5	2,300.6	2,285.2	15.45	148.932	
2,500.0	2,488.0	2,934.2	2,922.5	8.9	9.2	114.05	-399.2	-2,144.8	2,287.1	2,271.1	16.05	142.492	
2,600.0	2,587.0	3,032.7	3,019.2	9.2	9.6	114.33	-398.9	-2,126.0	2,273.6	2,257.0	16.66	136.432	
2,700.0	2,686.1	3,131.2	3,115.8	9.6	10.0	114.62	-398.7	-2,107.2	2,260.2	2,242.9	17.29	130.730	
2,800.0	2,785.1	3,229.6	3,212.5	10.0	10.4	114.90	-398.4	-2,088.4	2,246.8	2,228.9	17.92	125.364	
2,900.0	2,884.1	3,328.1	3,309.1	10.4	10.8	115.19	-398.2	-2,069.6	2,233.5	2,214.9	18.56	120.311	
3,000.0	2,983.1	3,426.6	3,405.8	10.8	11.2	115.48	-397.9	-2,050.8	2,220.2	2,201.0	19.21	115.549	
3,100.0	3,082.2	3,525.0	3,502.5	11.2	11.6	115.78	-397.7	-2,032.0	2,207.0	2,187.2	19.87	111.060	
3,200.0	3,181.2	3,623.5	3,599.1	11.6	12.0	116.08	-397.4	-2,013.2	2,193.9	2,173.4	20.54	106.824	
3,300.0	3,280.2	3,722.0	3,695.8	12.0	12.4	116.38	-397.2	-1,994.5	2,180.8	2,159.6	21.21	102.823	
3,400.0	3,379.2	3,820.4	3,792.4	12.4	12.8	116.69	-396.9	-1,975.7	2,167.8	2,145.9	21.89	99.040	
3,500.0	3,478.3	3,918.9	3,889.1	12.8	13.2	117.00	-396.7	-1,956.9	2,154.8	2,132.3	22.57	95.462	
3,600.0	3,577.3	4,017.4	3,985.7	13.2	13.6	117.32	-396.5	-1,938.1	2,142.0	2,118.7	23.26	92.073	
3,700.0	3,676.3	4,115.8	4,082.4	13.6	14.1	117.63	-396.2	-1,919.3	2,129.1	2,105.2	23.96	88.860	
3,800.0	3,775.3	4,214.3	4,179.0	14.0	14.5	117.96	-396.0	-1,900.5	2,116.4	2,091.7	24.66	85.812	
3,900.0	3,874.4	4,312.7	4,275.7	14.4	14.9	118.28	-395.7	-1,881.7	2,103.7	2,078.3	25.37	82.918	
4,000.0	3,973.4	4,411.2	4,372.4	14.9	15.4	118.61	-395.5	-1,863.0	2,091.0	2,065.0	26.08	80.166	
4,100.0	4,072.5	4,509.7	4,469.0	15.2	15.8	118.85	-395.2	-1,844.2	2,078.3	2,051.5	26.77	77.640	
4,200.0	4,171.8	4,608.2	4,565.8	15.6	16.2	119.02	-395.0	-1,825.4	2,064.7	2,037.3	27.48	75.148	
4,300.0	4,271.3	4,706.8	4,662.5	16.0	16.7	119.14	-394.7	-1,806.6	2,050.4	2,022.2	28.17	72.780	
4,400.0	4,370.9	4,805.4	4,759.3	16.4	17.1	119.21	-394.5	-1,787.8	2,035.3	2,006.4	28.86	70.528	
4,500.0	4,470.7	4,903.9	4,856.0	16.8	17.5	119.24	-394.2	-1,769.0	2,019.3	1,989.8	29.53	68.385	
4,600.0	4,570.6	5,002.4	4,952.7	17.1	18.0	119.22	-394.0	-1,750.2	2,002.6	1,972.4	30.18	66.345	
4,700.0	4,670.6	5,100.8	5,049.3	17.4	18.4	119.15	-393.8	-1,731.4	1,985.0	1,954.1	30.82	64.407	
4,800.0	4,770.5	5,199.1	5,145.7	17.7	18.9	119.03	-393.5	-1,712.6	1,966.5	1,935.1	31.42	62.579	
4,900.0	4,870.5	5,297.2	5,242.1	17.7	19.3	-90.01	-393.3	-1,693.9	1,947.5	1,915.6	31.90	61.048	
5,000.0	4,970.5	5,395.4	5,338.5	17.7	19.7	-90.00	-393.0	-1,675.2	1,928.4	1,896.0	32.39	59.534	
5,100.0	5,070.5	5,493.6	5,434.8	17.7	20.2	-90.00	-392.8	-1,656.5	1,909.3	1,876.4	32.88	58.064	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS								Rule Assigned:					Offset Well Error: 3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,170.5	5,591.7	5,531.2	17.8	20.6	-89.99	-392.5	-1,637.7	1,890.2	1,856.9	33.38	56.635	
5,300.0	5,270.5	5,689.9	5,627.5	17.8	21.1	-89.98	-392.3	-1,619.0	1,871.2	1,837.3	33.87	55.245	
5,400.0	5,370.5	5,788.1	5,723.9	17.8	21.5	-89.97	-392.0	-1,600.3	1,852.1	1,817.7	34.37	53.894	
5,500.0	5,470.5	5,886.2	5,820.3	17.9	22.0	-89.96	-391.8	-1,581.5	1,833.0	1,798.1	34.86	52.580	
5,600.0	5,570.5	5,984.4	5,916.6	17.9	22.4	-89.96	-391.5	-1,562.8	1,813.9	1,778.6	35.36	51.301	
5,700.0	5,670.5	6,082.5	6,013.0	17.9	22.8	-89.95	-391.3	-1,544.1	1,794.8	1,759.0	35.86	50.056	
5,800.0	5,770.5	6,173.1	6,101.9	18.0	23.2	-89.94	-391.1	-1,526.8	1,775.8	1,739.5	36.31	48.910	
5,900.0	5,870.5	6,248.3	6,175.9	18.0	23.6	-89.93	-390.9	-1,513.3	1,757.8	1,721.1	36.69	47.907	
6,000.0	5,970.5	6,323.8	6,250.3	18.0	23.9	-89.93	-390.7	-1,500.7	1,741.1	1,704.0	37.07	46.965	
6,100.0	6,070.5	6,400.0	6,325.6	18.1	24.2	-89.92	-390.6	-1,488.9	1,725.7	1,688.2	37.44	46.086	
6,200.0	6,170.5	6,475.9	6,400.7	18.1	24.6	-89.92	-390.4	-1,478.2	1,711.6	1,673.8	37.80	45.277	
6,300.0	6,270.5	6,552.3	6,476.5	18.1	24.9	-89.91	-390.3	-1,468.5	1,698.8	1,660.6	38.15	44.530	
6,400.0	6,370.5	6,629.0	6,552.7	18.2	25.2	-89.91	-390.2	-1,459.7	1,687.3	1,648.8	38.49	43.843	
6,500.0	6,470.5	6,700.0	6,623.3	18.2	25.5	-89.90	-390.1	-1,452.5	1,677.2	1,638.4	38.78	43.251	
6,600.0	6,570.5	6,783.0	6,706.0	18.2	25.8	-89.90	-390.0	-1,445.1	1,668.4	1,629.3	39.12	42.651	
6,700.0	6,670.5	6,860.3	6,783.0	18.3	26.1	-89.90	-389.9	-1,439.4	1,661.0	1,621.6	39.41	42.146	
6,800.0	6,770.5	6,937.7	6,860.3	18.3	26.4	-89.89	-389.9	-1,434.6	1,654.9	1,615.2	39.68	41.700	
6,900.0	6,870.5	7,015.2	6,937.8	18.3	26.6	-89.89	-389.8	-1,431.0	1,650.1	1,610.2	39.94	41.313	
7,000.0	6,970.5	7,100.0	7,022.5	18.4	26.9	-89.89	-389.8	-1,428.1	1,646.7	1,606.5	40.22	40.948	
7,100.0	7,070.5	7,170.5	7,093.0	18.4	27.1	-89.89	-389.8	-1,426.7	1,644.7	1,604.3	40.37	40.740	
7,200.0	7,170.5	7,248.7	7,171.2	18.4	27.2	-89.89	-389.8	-1,426.2	1,644.0	1,603.5	40.49	40.606	
7,233.5	7,204.1	7,281.6	7,204.1	18.5	27.2	-89.89	-389.8	-1,426.2	1,644.0	1,603.5	40.50	40.588	
7,300.0	7,270.5	7,348.1	7,270.5	18.5	27.2	-89.89	-389.8	-1,426.2	1,644.0	1,603.4	40.55	40.541	
7,400.0	7,370.5	7,448.1	7,370.5	18.5	27.3	-89.89	-389.8	-1,426.2	1,644.0	1,603.4	40.63	40.465	
7,500.0	7,470.5	7,548.1	7,470.5	18.6	27.3	-89.89	-389.8	-1,426.2	1,644.0	1,603.3	40.70	40.390	
7,600.0	7,570.5	7,648.1	7,570.5	18.6	27.3	-89.89	-389.8	-1,426.2	1,644.0	1,603.2	40.78	40.314	
7,700.0	7,670.5	7,748.1	7,670.5	18.6	27.3	-89.89	-389.8	-1,426.2	1,644.0	1,603.1	40.86	40.238	
7,800.0	7,770.5	7,848.1	7,770.5	18.7	27.4	-89.89	-389.8	-1,426.2	1,644.0	1,603.1	40.93	40.161	
7,900.0	7,870.5	7,948.1	7,870.5	18.7	27.4	-89.89	-389.8	-1,426.2	1,644.0	1,603.0	41.01	40.085	
8,000.0	7,970.5	8,048.1	7,970.5	18.7	27.4	-89.89	-389.8	-1,426.2	1,644.0	1,602.9	41.09	40.008	
8,100.0	8,070.5	8,148.1	8,070.5	18.8	27.5	-89.89	-389.8	-1,426.2	1,644.0	1,602.8	41.17	39.931	
8,200.0	8,170.5	8,248.1	8,170.5	18.8	27.5	-89.89	-389.8	-1,426.2	1,644.0	1,602.7	41.25	39.854	
8,300.0	8,270.5	8,348.1	8,270.5	18.9	27.5	-89.89	-389.8	-1,426.2	1,644.0	1,602.7	41.33	39.776	
8,400.0	8,370.5	8,448.1	8,370.5	18.9	27.5	-89.89	-389.8	-1,426.2	1,644.0	1,602.6	41.41	39.699	
8,500.0	8,470.5	8,548.1	8,470.5	18.9	27.6	-89.89	-389.8	-1,426.2	1,644.0	1,602.5	41.49	39.621	
8,600.0	8,570.5	8,648.1	8,570.5	19.0	27.6	-89.89	-389.8	-1,426.2	1,644.0	1,602.4	41.58	39.543	
8,700.0	8,670.5	8,748.1	8,670.5	19.0	27.6	-89.89	-389.8	-1,426.2	1,644.0	1,602.3	41.66	39.465	
8,800.0	8,770.5	8,848.1	8,770.5	19.1	27.7	-89.89	-389.8	-1,426.2	1,644.0	1,602.3	41.74	39.386	
8,900.0	8,870.5	8,948.1	8,870.5	19.1	27.7	-89.89	-389.8	-1,426.2	1,644.0	1,602.2	41.82	39.308	
9,000.0	8,970.5	9,048.1	8,970.5	19.1	27.7	-89.89	-389.8	-1,426.2	1,644.0	1,602.1	41.91	39.230	
9,100.0	9,070.5	9,148.1	9,070.5	19.2	27.8	-89.89	-389.8	-1,426.2	1,644.0	1,602.0	41.99	39.151	
9,200.0	9,170.5	9,248.1	9,170.5	19.2	27.8	-89.89	-389.8	-1,426.2	1,644.0	1,601.9	42.08	39.072	
9,300.0	9,270.5	9,348.1	9,270.5	19.3	27.8	-89.89	-389.8	-1,426.2	1,644.0	1,601.8	42.16	38.993	
9,400.0	9,370.5	9,448.1	9,370.5	19.3	27.8	-89.89	-389.8	-1,426.2	1,644.0	1,601.7	42.25	38.914	
9,500.0	9,470.5	9,548.1	9,470.5	19.4	27.9	-89.89	-389.8	-1,426.2	1,644.0	1,601.7	42.33	38.835	
9,600.0	9,570.5	9,648.1	9,570.5	19.4	27.9	-89.89	-389.8	-1,426.2	1,644.0	1,601.6	42.42	38.756	
9,700.0	9,670.5	9,748.1	9,670.5	19.4	27.9	-89.89	-389.8	-1,426.2	1,644.0	1,601.5	42.51	38.676	
9,800.0	9,770.5	9,848.1	9,770.5	19.5	28.0	-89.89	-389.8	-1,426.2	1,644.0	1,601.4	42.59	38.597	
9,900.0	9,870.5	9,948.1	9,870.5	19.5	28.0	-89.89	-389.8	-1,426.2	1,644.0	1,601.3	42.68	38.518	
10,000.0	9,970.5	10,048.1	9,970.5	19.6	28.0	-89.89	-389.8	-1,426.2	1,644.0	1,601.2	42.77	38.438	
10,100.0	10,070.5	10,148.1	10,070.5	19.6	28.1	-89.89	-389.8	-1,426.2	1,644.0	1,601.1	42.86	38.358	
10,200.0	10,170.5	10,248.1	10,170.5	19.7	28.1	-89.89	-389.8	-1,426.2	1,644.0	1,601.0	42.95	38.279	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										
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
10,300.0	10,270.5	10,348.1	10,270.5	19.7	28.1	-89.89	-389.8	-1,426.2	1,644.0	1,601.0	43.04	38.199	
10,400.0	10,370.5	10,448.1	10,370.5	19.7	28.2	-89.89	-389.8	-1,426.2	1,644.0	1,600.9	43.13	38.119	
10,500.0	10,470.5	10,548.1	10,470.5	19.8	28.2	-89.89	-389.8	-1,426.2	1,644.0	1,600.8	43.22	38.039	
10,600.0	10,570.5	10,648.1	10,570.5	19.8	28.2	-89.89	-389.8	-1,426.2	1,644.0	1,600.7	43.31	37.960	
10,700.0	10,670.5	10,748.1	10,670.5	19.9	28.3	-89.89	-389.8	-1,426.2	1,644.0	1,600.6	43.40	37.880	
10,800.0	10,770.5	10,848.1	10,770.5	19.9	28.3	-89.89	-389.8	-1,426.2	1,644.0	1,600.5	43.49	37.800	
10,900.0	10,870.5	10,948.1	10,870.5	20.0	28.3	-89.89	-389.8	-1,426.2	1,644.0	1,600.4	43.58	37.720	
11,000.0	10,970.5	11,048.1	10,970.5	20.0	28.4	-89.89	-389.8	-1,426.2	1,644.0	1,600.3	43.67	37.645	
11,100.0	11,070.5	11,144.3	11,066.4	20.1	28.4	-88.87	-382.7	-1,426.3	1,644.1	1,600.4	43.71	37.609	
11,200.0	11,169.1	11,238.0	11,156.5	20.2	28.4	-88.50	-357.7	-1,426.5	1,644.2	1,600.4	43.73	37.596	
11,300.0	11,263.4	11,329.2	11,237.9	20.3	28.4	-88.07	-316.9	-1,426.9	1,644.3	1,600.6	43.73	37.603	
11,400.0	11,350.7	11,417.9	11,308.3	20.4	28.4	-87.60	-263.1	-1,427.3	1,644.6	1,600.9	43.71	37.627	
11,500.0	11,428.1	11,504.1	11,366.0	20.5	28.4	-87.11	-199.2	-1,427.9	1,644.9	1,601.2	43.68	37.661	
11,600.0	11,493.4	11,587.9	11,410.3	20.6	28.5	-86.62	-128.2	-1,428.6	1,645.3	1,601.6	43.65	37.693	
11,700.0	11,544.6	11,669.5	11,440.8	20.7	28.5	-86.13	-52.6	-1,429.2	1,645.8	1,602.2	43.64	37.711	
11,800.0	11,580.2	11,750.0	11,457.9	20.8	28.6	-85.66	25.9	-1,430.0	1,646.4	1,602.7	43.67	37.700	
11,900.0	11,599.0	11,831.1	11,461.9	20.9	28.6	-85.22	106.8	-1,430.7	1,646.9	1,603.2	43.75	37.644	
12,000.0	11,602.0	11,931.0	11,461.9	20.9	28.8	-85.12	206.7	-1,431.6	1,646.7	1,602.7	43.99	37.431	
12,100.0	11,602.0	12,031.0	11,461.9	21.0	28.9	-85.12	306.7	-1,432.5	1,646.1	1,601.8	44.31	37.150	
12,200.0	11,602.0	12,131.0	11,461.9	21.0	29.1	-85.12	406.7	-1,433.4	1,645.6	1,600.9	44.68	36.828	
12,300.0	11,602.0	12,231.0	11,461.9	21.1	29.2	-85.11	506.7	-1,434.3	1,645.1	1,600.0	45.11	36.469	
12,400.0	11,602.0	12,331.0	11,461.9	21.2	29.4	-85.11	606.7	-1,435.2	1,644.6	1,599.0	45.59	36.076	
12,500.0	11,602.0	12,431.0	11,461.9	21.3	29.7	-85.11	706.7	-1,436.1	1,644.0	1,597.9	46.11	35.654	
12,600.0	11,602.0	12,531.0	11,461.9	21.4	29.9	-85.11	806.7	-1,437.0	1,643.5	1,596.8	46.68	35.206	
12,700.0	11,602.0	12,631.0	11,461.9	21.5	30.1	-85.11	906.7	-1,437.9	1,643.0	1,595.7	47.30	34.735	
12,800.0	11,602.0	12,730.9	11,461.9	21.6	30.4	-85.11	1,006.7	-1,438.8	1,642.5	1,594.5	47.96	34.247	
12,900.0	11,602.0	12,830.9	11,461.9	21.8	30.7	-85.11	1,106.7	-1,439.7	1,642.0	1,593.3	48.66	33.744	
13,000.0	11,602.0	12,930.9	11,461.9	21.9	31.0	-85.10	1,206.7	-1,440.6	1,641.4	1,592.0	49.40	33.229	
13,100.0	11,602.0	13,030.9	11,461.9	22.1	31.3	-85.10	1,306.7	-1,441.5	1,640.9	1,590.7	50.17	32.706	
13,200.0	11,602.0	13,130.9	11,461.9	22.3	31.7	-85.10	1,406.7	-1,442.4	1,640.4	1,589.4	50.98	32.176	
13,300.0	11,602.0	13,230.9	11,461.9	22.6	32.0	-85.10	1,506.7	-1,443.3	1,639.9	1,588.1	51.82	31.644	
13,400.0	11,602.0	13,330.9	11,461.9	22.8	32.4	-85.10	1,606.6	-1,444.2	1,639.4	1,586.7	52.70	31.110	
13,500.0	11,602.0	13,430.9	11,461.9	23.1	32.7	-85.10	1,706.6	-1,445.1	1,638.8	1,585.2	53.60	30.576	
13,600.0	11,602.0	13,530.9	11,461.9	23.4	33.1	-85.09	1,806.6	-1,446.0	1,638.3	1,583.8	54.53	30.046	
13,700.0	11,602.0	13,630.9	11,461.9	23.8	33.5	-85.09	1,906.6	-1,446.9	1,637.8	1,582.3	55.48	29.519	
13,800.0	11,602.0	13,730.9	11,461.9	24.2	34.0	-85.09	2,006.6	-1,447.8	1,637.3	1,580.8	56.46	28.997	
13,900.0	11,602.0	13,830.9	11,461.9	24.6	34.4	-85.09	2,106.6	-1,448.7	1,636.7	1,579.3	57.47	28.481	
14,000.0	11,602.0	13,930.9	11,461.9	25.1	34.8	-85.09	2,206.6	-1,449.6	1,636.2	1,577.7	58.49	27.973	
14,100.0	11,602.0	14,030.9	11,461.9	25.6	35.3	-85.09	2,306.6	-1,450.5	1,635.7	1,576.2	59.54	27.472	
14,200.0	11,602.0	14,130.9	11,461.9	26.1	35.7	-85.09	2,406.6	-1,451.4	1,635.2	1,574.6	60.61	26.980	
14,300.0	11,602.0	14,230.9	11,461.9	26.6	36.2	-85.08	2,506.6	-1,452.3	1,634.7	1,573.0	61.69	26.497	
14,400.0	11,602.0	14,330.9	11,461.9	27.1	36.7	-85.08	2,606.6	-1,453.2	1,634.1	1,571.3	62.80	26.023	
14,500.0	11,602.0	14,430.9	11,461.9	27.7	37.2	-85.08	2,706.6	-1,454.2	1,633.6	1,569.7	63.92	25.559	
14,600.0	11,602.0	14,530.9	11,461.9	28.3	37.7	-85.08	2,806.6	-1,455.1	1,633.1	1,568.0	65.05	25.104	
14,700.0	11,602.0	14,630.9	11,461.9	28.9	38.2	-85.08	2,906.6	-1,456.0	1,632.6	1,566.4	66.20	24.660	
14,800.0	11,602.0	14,730.9	11,461.9	29.5	38.7	-85.08	3,006.6	-1,456.9	1,632.1	1,564.7	67.37	24.225	
14,900.0	11,602.0	14,830.9	11,461.9	30.1	39.2	-85.07	3,106.6	-1,457.8	1,631.5	1,563.0	68.55	23.801	
15,000.0	11,602.0	14,930.9	11,461.9	30.7	39.8	-85.07	3,206.6	-1,458.7	1,631.0	1,561.3	69.74	23.387	
15,100.0	11,602.0	15,030.9	11,461.9	31.3	40.3	-85.07	3,306.6	-1,459.6	1,630.5	1,559.5	70.95	22.982	
15,200.0	11,602.0	15,130.9	11,461.9	32.0	40.8	-85.07	3,406.5	-1,460.5	1,630.0	1,557.8	72.16	22.588	
15,300.0	11,602.0	15,230.9	11,461.9	32.6	41.4	-85.07	3,506.5	-1,461.4	1,629.4	1,556.1	73.39	22.203	
15,400.0	11,602.0	15,330.9	11,461.9	33.3	42.0	-85.07	3,606.5	-1,462.3	1,628.9	1,554.3	74.63	21.827	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS								Rule Assigned:					Offset Well Error: 3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.0	11,602.0	15,430.9	11,461.9	33.9	42.5	-85.06	3,706.5	-1,463.2	1,628.4	1,552.5	75.88	21.462	
15,600.0	11,602.0	15,530.9	11,461.9	34.6	43.1	-85.06	3,806.5	-1,464.1	1,627.9	1,550.8	77.13	21.105	
15,700.0	11,602.0	15,630.9	11,461.9	35.3	43.7	-85.06	3,906.5	-1,465.0	1,627.4	1,549.0	78.40	20.757	
15,800.0	11,602.0	15,730.9	11,461.9	35.9	44.3	-85.06	4,006.5	-1,465.9	1,626.8	1,547.2	79.68	20.418	
15,900.0	11,602.0	15,830.9	11,461.9	36.6	44.8	-85.06	4,106.5	-1,466.8	1,626.3	1,545.4	80.96	20.088	
16,000.0	11,602.0	15,930.9	11,461.9	37.3	45.4	-85.06	4,206.5	-1,467.7	1,625.8	1,543.5	82.25	19.766	
16,100.0	11,602.0	16,030.9	11,461.9	38.0	46.0	-85.06	4,306.5	-1,468.6	1,625.3	1,541.7	83.55	19.452	
16,200.0	11,602.0	16,130.9	11,461.9	38.7	46.6	-85.05	4,406.5	-1,469.5	1,624.8	1,539.9	84.86	19.147	
16,300.0	11,602.0	16,230.9	11,461.9	39.4	47.3	-85.05	4,506.5	-1,470.4	1,624.2	1,538.1	86.17	18.849	
16,400.0	11,602.0	16,330.9	11,461.9	40.1	47.9	-85.05	4,606.5	-1,471.3	1,623.7	1,536.2	87.49	18.558	
16,500.0	11,602.0	16,430.9	11,461.9	40.8	48.5	-85.05	4,706.5	-1,472.2	1,623.2	1,534.4	88.82	18.275	
16,600.0	11,602.0	16,530.9	11,461.9	41.5	49.1	-85.05	4,806.5	-1,473.1	1,622.7	1,532.5	90.15	17.999	
16,700.0	11,602.0	16,630.9	11,461.9	42.2	49.7	-85.05	4,906.5	-1,474.0	1,622.2	1,530.7	91.49	17.730	
16,800.0	11,602.0	16,730.9	11,461.9	42.9	50.4	-85.04	5,006.5	-1,474.9	1,621.6	1,528.8	92.84	17.468	
16,900.0	11,602.0	16,830.9	11,461.9	43.6	51.0	-85.04	5,106.5	-1,475.8	1,621.1	1,526.9	94.19	17.212	
17,000.0	11,602.0	16,930.9	11,461.9	44.3	51.6	-85.04	5,206.5	-1,476.7	1,620.6	1,525.0	95.54	16.962	
17,100.0	11,602.0	17,030.9	11,461.9	45.0	52.3	-85.04	5,306.4	-1,477.6	1,620.1	1,523.2	96.90	16.719	
17,200.0	11,602.0	17,130.9	11,461.9	45.7	52.9	-85.04	5,406.4	-1,478.5	1,619.5	1,521.3	98.27	16.481	
17,300.0	11,602.0	17,230.9	11,461.9	46.4	53.6	-85.04	5,506.4	-1,479.4	1,619.0	1,519.4	99.64	16.249	
17,400.0	11,602.0	17,330.9	11,461.9	47.2	54.2	-85.03	5,606.4	-1,480.3	1,618.5	1,517.5	101.01	16.023	
17,500.0	11,602.0	17,430.9	11,461.9	47.9	54.9	-85.03	5,706.4	-1,481.2	1,618.0	1,515.6	102.39	15.803	
17,600.0	11,602.0	17,530.9	11,461.9	48.6	55.5	-85.03	5,806.4	-1,482.1	1,617.5	1,513.7	103.77	15.587	
17,700.0	11,602.0	17,630.9	11,461.9	49.3	56.2	-85.03	5,906.4	-1,483.0	1,616.9	1,511.8	105.16	15.377	
17,800.0	11,602.0	17,730.9	11,461.9	50.0	56.8	-85.03	6,006.4	-1,483.9	1,616.4	1,509.9	106.54	15.171	
17,900.0	11,602.0	17,830.9	11,461.9	50.8	57.5	-85.03	6,106.4	-1,484.8	1,615.9	1,508.0	107.94	14.971	
18,000.0	11,602.0	17,930.9	11,461.9	51.5	58.2	-85.02	6,206.4	-1,485.7	1,615.4	1,506.0	109.33	14.775	
18,100.0	11,602.0	18,030.9	11,461.9	52.2	58.8	-85.02	6,306.4	-1,486.6	1,614.9	1,504.1	110.73	14.583	
18,200.0	11,602.0	18,130.9	11,461.9	53.0	59.5	-85.02	6,406.4	-1,487.5	1,614.3	1,502.2	112.14	14.396	
18,300.0	11,602.0	18,230.9	11,461.9	53.7	60.2	-85.02	6,506.4	-1,488.4	1,613.8	1,500.3	113.54	14.213	
18,400.0	11,602.0	18,330.9	11,461.9	54.4	60.8	-85.02	6,606.4	-1,489.4	1,613.3	1,498.3	114.95	14.034	
18,500.0	11,602.0	18,430.9	11,461.9	55.1	61.5	-85.02	6,706.4	-1,490.3	1,612.8	1,496.4	116.37	13.859	
18,600.0	11,602.0	18,530.9	11,461.9	55.9	62.2	-85.02	6,806.4	-1,491.2	1,612.2	1,494.5	117.78	13.688	
18,700.0	11,602.0	18,630.9	11,461.9	56.6	62.9	-85.01	6,906.4	-1,492.1	1,611.7	1,492.5	119.20	13.521	
18,800.0	11,602.0	18,730.9	11,461.9	57.3	63.5	-85.01	7,006.4	-1,493.0	1,611.2	1,490.6	120.62	13.358	
18,900.0	11,602.0	18,830.9	11,461.9	58.1	64.2	-85.01	7,106.3	-1,493.9	1,610.7	1,488.6	122.04	13.198	
19,000.0	11,602.0	18,930.9	11,461.9	58.8	64.9	-85.01	7,206.3	-1,494.8	1,610.2	1,486.7	123.47	13.041	
19,100.0	11,602.0	19,030.9	11,461.9	59.6	65.6	-85.01	7,306.3	-1,495.7	1,609.6	1,484.7	124.90	12.888	
19,200.0	11,602.0	19,130.9	11,461.9	60.3	66.3	-85.01	7,406.3	-1,496.6	1,609.1	1,482.8	126.33	12.738	
19,300.0	11,602.0	19,230.9	11,461.9	61.0	67.0	-85.00	7,506.3	-1,497.5	1,608.6	1,480.8	127.76	12.591	
19,400.0	11,602.0	19,330.9	11,461.9	61.8	67.7	-85.00	7,606.3	-1,498.4	1,608.1	1,478.9	129.19	12.447	
19,500.0	11,602.0	19,430.9	11,461.9	62.5	68.4	-85.00	7,706.3	-1,499.3	1,607.6	1,476.9	130.63	12.306	
19,600.0	11,602.0	19,530.9	11,461.9	63.3	69.1	-85.00	7,806.3	-1,500.2	1,607.0	1,475.0	132.07	12.168	
19,700.0	11,602.0	19,630.9	11,461.9	64.0	69.8	-85.00	7,906.3	-1,501.1	1,606.5	1,473.0	133.51	12.033	
19,800.0	11,602.0	19,730.9	11,461.9	64.7	70.5	-85.00	8,006.3	-1,502.0	1,606.0	1,471.0	134.95	11.901	
19,900.0	11,602.0	19,830.9	11,461.9	65.5	71.2	-84.99	8,106.3	-1,502.9	1,605.5	1,469.1	136.39	11.771	
20,000.0	11,602.0	19,930.9	11,461.9	66.2	71.9	-84.99	8,206.3	-1,503.8	1,604.9	1,467.1	137.84	11.644	
20,100.0	11,602.0	20,030.8	11,461.9	67.0	72.6	-84.99	8,306.3	-1,504.7	1,604.4	1,465.1	139.29	11.519	
20,200.0	11,602.0	20,130.8	11,461.9	67.7	73.3	-84.99	8,406.3	-1,505.6	1,603.9	1,463.2	140.74	11.397	
20,300.0	11,602.0	20,230.8	11,461.9	68.4	74.0	-84.99	8,506.3	-1,506.5	1,603.4	1,461.2	142.19	11.277	
20,400.0	11,602.0	20,330.8	11,461.9	69.2	74.7	-84.99	8,606.3	-1,507.4	1,602.9	1,459.2	143.64	11.159	
20,500.0	11,602.0	20,430.8	11,461.9	69.9	75.4	-84.98	8,706.3	-1,508.3	1,602.3	1,457.2	145.09	11.044	
20,600.0	11,602.0	20,530.8	11,461.9	70.7	76.1	-84.98	8,806.3	-1,509.2	1,601.8	1,455.3	146.55	10.930	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0													Offset Site Error: 0.0 usft	
Survey Program: Reference		0-r.5 SDI_KPR_ADK, 1500-r.5 MWD+IFR1, 11092-r.5 MWD+IFR1+MS						Rule Assigned:					Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
20,700.0	11,602.0	20,630.8	11,461.9	71.4	76.8	-84.98	8,906.2	-1,510.1	1,601.3	1,453.3	148.01	10.819		
20,800.0	11,602.0	20,730.8	11,461.9	72.2	77.5	-84.98	9,006.2	-1,511.0	1,600.8	1,451.3	149.46	10.710		
20,900.0	11,602.0	20,830.8	11,461.9	72.9	78.2	-84.98	9,106.2	-1,511.9	1,600.3	1,449.3	150.92	10.603		
21,000.0	11,602.0	20,930.8	11,461.9	73.7	78.9	-84.98	9,206.2	-1,512.8	1,599.7	1,447.4	152.38	10.498		
21,100.0	11,602.0	21,030.8	11,461.9	74.4	79.6	-84.97	9,306.2	-1,513.7	1,599.2	1,445.4	153.85	10.395		
21,200.0	11,602.0	21,130.8	11,461.9	75.2	80.4	-84.97	9,406.2	-1,514.6	1,598.7	1,443.4	155.31	10.294		
21,300.0	11,602.0	21,230.8	11,461.9	75.9	81.1	-84.97	9,506.2	-1,515.5	1,598.2	1,441.4	156.77	10.194		
21,400.0	11,602.0	21,330.8	11,461.9	76.7	81.8	-84.97	9,606.2	-1,516.4	1,597.6	1,439.4	158.24	10.096		
21,500.0	11,602.0	21,430.8	11,461.9	77.4	82.5	-84.97	9,706.2	-1,517.3	1,597.1	1,437.4	159.71	10.000		
21,600.0	11,602.0	21,530.8	11,461.9	78.2	83.2	-84.97	9,806.2	-1,518.2	1,596.6	1,435.4	161.18	9.906		
21,700.0	11,602.0	21,630.8	11,461.9	78.9	83.9	-84.96	9,906.2	-1,519.1	1,596.1	1,433.4	162.64	9.813		
21,800.0	11,602.0	21,730.8	11,461.9	79.7	84.7	-84.96	10,006.2	-1,520.0	1,595.6	1,431.5	164.11	9.722		
21,900.0	11,602.0	21,830.8	11,461.9	80.4	85.4	-84.96	10,106.2	-1,520.9	1,595.0	1,429.5	165.58	9.633		
21,952.5	11,602.0	21,875.5	11,461.9	80.8	85.7	-84.96	10,150.9	-1,521.3	1,594.8	1,428.5	166.28	9.591	CC, ES	
22,000.0	11,602.0	21,875.5	11,461.9	81.2	85.7	-84.96	10,150.9	-1,521.3	1,595.5	1,429.1	166.42	9.587	SF	
22,100.0	11,602.0	21,875.5	11,461.9	81.9	85.7	-84.96	10,150.9	-1,521.3	1,601.5	1,435.2	166.30	9.630		
22,200.0	11,602.0	21,875.5	11,461.9	82.7	85.7	-84.96	10,150.9	-1,521.3	1,613.8	1,448.2	165.63	9.743		
22,300.0	11,602.0	21,875.5	11,461.9	83.4	85.7	-84.96	10,150.9	-1,521.3	1,632.1	1,467.7	164.44	9.925		
22,400.0	11,602.0	21,875.5	11,461.9	84.2	85.7	-84.96	10,150.9	-1,521.3	1,656.2	1,493.5	162.77	10.175		
22,500.0	11,602.0	21,875.5	11,461.9	84.9	85.7	-84.96	10,150.9	-1,521.3	1,686.0	1,525.3	160.70	10.491		
22,600.0	11,602.0	21,875.5	11,461.9	85.7	85.7	-84.96	10,150.9	-1,521.3	1,721.0	1,562.7	158.29	10.872		
22,700.0	11,602.0	21,875.5	11,461.9	86.4	85.7	-84.96	10,150.9	-1,521.3	1,761.1	1,605.4	155.61	11.317		
22,800.0	11,602.0	21,875.5	11,461.9	87.2	85.7	-84.96	10,150.9	-1,521.3	1,805.7	1,653.0	152.73	11.823		
22,900.0	11,602.0	21,875.5	11,461.9	87.9	85.7	-84.96	10,150.9	-1,521.3	1,854.8	1,705.0	149.71	12.389		
23,000.0	11,602.0	21,875.5	11,461.9	88.7	85.7	-84.96	10,150.9	-1,521.3	1,907.7	1,761.1	146.60	13.013		
23,100.0	11,602.0	21,875.5	11,461.9	89.4	85.7	-84.96	10,150.9	-1,521.3	1,964.4	1,820.9	143.47	13.692		
23,200.0	11,602.0	21,875.5	11,461.9	90.2	85.7	-84.96	10,150.9	-1,521.3	2,024.4	1,884.1	140.34	14.425		
23,300.0	11,602.0	21,875.5	11,461.9	90.9	85.7	-84.96	10,150.9	-1,521.3	2,087.5	1,950.3	137.25	15.210		
23,400.0	11,602.0	21,875.5	11,461.9	91.7	85.7	-84.96	10,150.9	-1,521.3	2,153.4	2,019.2	134.22	16.043		
23,500.0	11,602.0	21,875.5	11,461.9	92.4	85.7	-84.96	10,150.9	-1,521.3	2,221.8	2,090.5	131.29	16.923		
23,600.0	11,602.0	21,875.5	11,461.9	93.2	85.7	-84.96	10,150.9	-1,521.3	2,292.6	2,164.1	128.45	17.848		
23,700.0	11,602.0	21,875.5	11,461.9	93.9	85.7	-84.96	10,150.9	-1,521.3	2,365.4	2,239.7	125.72	18.815		
23,800.0	11,602.0	21,875.5	11,461.9	94.7	85.7	-84.96	10,150.9	-1,521.3	2,440.2	2,317.1	123.11	19.821		
23,900.0	11,602.0	21,875.5	11,461.9	95.5	85.7	-84.96	10,150.9	-1,521.3	2,516.8	2,396.1	120.62	20.865		
24,000.0	11,602.0	21,875.5	11,461.9	96.2	85.7	-84.96	10,150.9	-1,521.3	2,594.9	2,476.6	118.25	21.943		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #332H - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program:		179-MWD - OWSG R1						Rule Assigned:					Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
22,200.0	11,602.0	11,096.0	11,024.8	82.7	38.7	34.15	12,943.4	419.2	2,612.4	2,539.5	72.89	35.840		
22,300.0	11,602.0	11,099.0	11,027.7	83.4	38.7	34.28	12,944.0	419.2	2,516.1	2,442.6	73.50	34.235		
22,400.0	11,602.0	11,102.2	11,030.7	84.2	38.8	34.43	12,944.8	419.2	2,420.2	2,346.0	74.15	32.638		
22,500.0	11,602.0	11,144.0	11,070.7	84.9	38.9	36.40	12,957.0	419.2	2,326.7	2,252.3	74.45	31.251		
22,600.0	11,602.0	11,144.0	11,070.7	85.7	38.9	36.40	12,957.0	419.2	2,231.0	2,155.8	75.22	29.659		
22,700.0	11,602.0	11,144.0	11,070.7	86.4	38.9	36.40	12,957.0	419.2	2,135.7	2,059.6	76.07	28.075		
22,800.0	11,602.0	11,144.0	11,070.7	87.2	38.9	36.40	12,957.0	419.2	2,040.8	1,963.8	77.01	26.500		
22,900.0	11,602.0	11,144.0	11,070.7	87.9	38.9	36.40	12,957.0	419.2	1,946.5	1,868.4	78.06	24.937		
23,000.0	11,602.0	11,144.0	11,070.7	88.7	38.9	36.40	12,957.0	419.2	1,852.7	1,773.5	79.22	23.386		
23,100.0	11,602.0	11,144.0	11,070.7	89.4	38.9	36.40	12,957.0	419.2	1,759.6	1,679.1	80.53	21.850		
23,200.0	11,602.0	11,144.0	11,070.7	90.2	38.9	36.40	12,957.0	419.2	1,667.4	1,585.4	82.00	20.333		
23,300.0	11,602.0	11,144.0	11,070.7	90.9	38.9	36.40	12,957.0	419.2	1,576.0	1,492.4	83.67	18.837		
23,400.0	11,602.0	11,144.0	11,070.7	91.7	38.9	36.40	12,957.0	419.2	1,485.8	1,400.3	85.55	17.368		
23,500.0	11,602.0	11,144.0	11,070.7	92.4	38.9	36.40	12,957.0	419.2	1,396.9	1,309.2	87.69	15.931		
23,600.0	11,602.0	11,144.0	11,070.7	93.2	38.9	36.40	12,957.0	419.2	1,309.7	1,219.5	90.12	14.532		
23,700.0	11,602.0	11,189.2	11,112.4	93.9	39.0	38.62	12,974.5	418.4	1,221.7	1,130.4	91.32	13.378		
23,800.0	11,602.0	11,203.7	11,125.3	94.7	39.1	39.34	12,980.9	417.8	1,136.7	1,042.9	93.80	12.119		
23,900.0	11,602.0	11,239.0	11,156.0	95.5	39.2	41.09	12,998.3	415.8	1,054.2	958.5	95.74	11.011		
24,000.0	11,602.0	11,239.0	11,156.0	96.2	39.2	41.09	12,998.3	415.8	973.1	873.5	99.59	9.771		
24,100.0	11,602.0	11,239.0	11,156.0	97.0	39.2	41.09	12,998.3	415.8	895.7	791.8	103.99	8.614		
24,200.0	11,602.0	11,273.9	11,184.8	97.7	39.3	42.82	13,017.9	413.3	821.1	713.9	107.17	7.662		
24,300.0	11,602.0	11,295.7	11,201.7	98.5	39.3	43.90	13,031.5	411.7	751.3	639.8	111.51	6.738		
24,400.0	11,602.0	11,335.0	11,230.1	99.2	39.4	45.82	13,058.5	408.7	687.2	571.8	115.35	5.957		
24,500.0	11,602.0	11,335.0	11,230.1	100.0	39.4	45.82	13,058.5	408.7	629.0	507.1	121.90	5.160		
24,580.8	11,602.0	11,384.7	11,262.4	100.6	39.5	48.22	13,096.1	405.5	586.2	461.6	124.59	4.705	CC, ES, SF	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design:	ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #532H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program:	197-MWD+HDGM, 1151-MWD+HDGM, 4281-MWD+HDGM, 9377-MWD+HDGM												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
24,580.8	11,602.0	9,292.0	9,091.1	100.6	21.5	-16.49	13,227.3	-719.8	2,654.8	2,533.9	120.91	21.957	CC, ES, SF	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #533H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 333-MWD+HDGM, 1153-MWD+HDGM, 4277-MWD+HDGM, 9550-MWD+HDGM													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
24,500.0	11,602.0	9,278.0	9,038.3	100.0	21.5	7.76	13,275.8	372.4	2,645.3	2,526.1	119.23	22.187		
24,580.8	11,602.0	9,327.0	9,048.5	100.6	21.7	7.86	13,323.6	374.6	2,629.1	2,509.0	120.14	21.884	CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #621H - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program: 180-MWD - OWSG R1		Reference Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 3.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
22,300.0	11,602.0	11,117.0	11,046.6	83.4	38.9	-58.34	12,912.9	-872.6	2,627.9	2,545.8	82.16	31.986		
22,400.0	11,602.0	11,117.0	11,046.6	84.2	38.9	-58.34	12,912.9	-872.6	2,536.7	2,453.4	83.28	30.460		
22,500.0	11,602.0	11,117.0	11,046.6	84.9	38.9	-58.34	12,912.9	-872.6	2,446.2	2,361.7	84.49	28.952		
22,600.0	11,602.0	11,117.0	11,046.6	85.7	38.9	-58.34	12,912.9	-872.6	2,356.4	2,270.6	85.80	27.465		
22,700.0	11,602.0	11,117.0	11,046.6	86.4	38.9	-58.34	12,912.9	-872.6	2,267.5	2,180.3	87.21	26.002		
22,800.0	11,602.0	11,117.0	11,046.6	87.2	38.9	-58.34	12,912.9	-872.6	2,179.6	2,090.8	88.73	24.564		
22,900.0	11,602.0	11,117.0	11,046.6	87.9	38.9	-58.34	12,912.9	-872.6	2,092.7	2,002.3	90.38	23.154		
23,000.0	11,602.0	11,117.0	11,046.6	88.7	38.9	-58.34	12,912.9	-872.6	2,007.1	1,914.9	92.17	21.775		
23,100.0	11,602.0	11,117.0	11,046.6	89.4	38.9	-58.34	12,912.9	-872.6	1,922.8	1,828.7	94.11	20.431		
23,200.0	11,602.0	11,117.0	11,046.6	90.2	38.9	-58.34	12,912.9	-872.6	1,840.1	1,743.9	96.21	19.126		
23,300.0	11,602.0	11,161.6	11,089.2	90.9	39.0	-60.32	12,926.1	-872.1	1,756.6	1,658.6	97.95	17.933		
23,400.0	11,602.0	11,169.4	11,096.4	91.7	39.1	-60.67	12,928.9	-872.0	1,676.7	1,576.5	100.28	16.721		
23,500.0	11,602.0	11,212.0	11,135.0	92.4	39.2	-62.54	12,946.9	-871.2	1,600.6	1,498.3	102.27	15.650		
23,600.0	11,602.0	11,212.0	11,135.0	93.2	39.2	-62.54	12,946.9	-871.2	1,524.5	1,419.4	105.08	14.508		
23,700.0	11,602.0	11,212.0	11,135.0	93.9	39.2	-62.54	12,946.9	-871.2	1,451.2	1,343.1	108.10	13.425		
23,800.0	11,602.0	11,212.0	11,135.0	94.7	39.2	-62.54	12,946.9	-871.2	1,381.4	1,270.0	111.32	12.409		
23,900.0	11,602.0	11,212.0	11,135.0	95.5	39.2	-62.54	12,946.9	-871.2	1,315.4	1,200.7	114.73	11.465		
24,000.0	11,602.0	11,248.0	11,166.2	96.2	39.3	-64.10	12,964.8	-870.4	1,252.7	1,135.0	117.66	10.646		
24,100.0	11,602.0	11,270.8	11,185.3	97.0	39.3	-65.08	12,977.2	-869.8	1,194.4	1,073.4	120.95	9.875		
24,200.0	11,602.0	11,307.0	11,214.5	97.7	39.4	-66.60	12,998.6	-868.7	1,140.8	1,016.7	124.05	9.196		
24,300.0	11,602.0	11,330.4	11,232.7	98.5	39.5	-67.56	13,013.4	-867.8	1,091.9	964.5	127.40	8.570		
24,400.0	11,602.0	11,371.9	11,263.3	99.2	39.6	-69.21	13,041.2	-865.8	1,048.0	917.7	130.36	8.040		
24,500.0	11,602.0	11,403.0	11,285.0	100.0	39.6	-70.39	13,063.5	-863.9	1,009.3	875.9	133.39	7.567		
24,580.8	11,602.0	11,455.5	11,319.5	100.6	39.8	-72.31	13,102.9	-860.5	981.5	846.2	135.25	7.257	CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #711H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program:		180-MWD - OWSG R1						Rule Assigned:					Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
22,100.0	11,602.0	11,403.0	11,297.4	81.9	40.9	-26.28	12,873.1	-121.8	2,577.5	2,505.8	71.71	35.942		
22,200.0	11,602.0	11,403.0	11,297.4	82.7	40.9	-26.28	12,873.1	-121.8	2,478.4	2,406.4	71.99	34.428		
22,300.0	11,602.0	11,403.0	11,297.4	83.4	40.9	-26.28	12,873.1	-121.8	2,379.4	2,307.1	72.28	32.918		
22,400.0	11,602.0	11,403.0	11,297.4	84.2	40.9	-26.28	12,873.1	-121.8	2,280.5	2,207.9	72.60	31.413		
22,500.0	11,602.0	11,403.0	11,297.4	84.9	40.9	-26.28	12,873.1	-121.8	2,181.7	2,108.7	72.94	29.912		
22,600.0	11,602.0	11,403.0	11,297.4	85.7	40.9	-26.28	12,873.1	-121.8	2,082.9	2,009.6	73.31	28.414		
22,700.0	11,602.0	11,403.0	11,297.4	86.4	40.9	-26.28	12,873.1	-121.8	1,984.3	1,910.6	73.71	26.921		
22,800.0	11,602.0	11,403.0	11,297.4	87.2	40.9	-26.28	12,873.1	-121.8	1,885.9	1,811.7	74.15	25.432		
22,900.0	11,602.0	11,403.0	11,297.4	87.9	40.9	-26.28	12,873.1	-121.8	1,787.6	1,713.0	74.65	23.946		
23,000.0	11,602.0	11,444.4	11,338.5	88.7	41.1	-29.54	12,877.9	-120.8	1,687.2	1,612.4	74.75	22.570		
23,100.0	11,602.0	11,448.0	11,342.0	89.4	41.1	-29.85	12,878.4	-120.7	1,588.9	1,513.6	75.26	21.113		
23,200.0	11,602.0	11,451.9	11,345.8	90.2	41.1	-30.21	12,879.1	-120.6	1,490.8	1,414.9	75.82	19.662		
23,300.0	11,602.0	11,456.2	11,350.0	90.9	41.1	-30.61	12,879.9	-120.6	1,392.9	1,316.4	76.46	18.218		
23,400.0	11,602.0	11,460.9	11,354.7	91.7	41.1	-31.07	12,880.8	-120.5	1,295.2	1,218.1	77.18	16.783		
23,500.0	11,602.0	11,499.0	11,391.7	92.4	41.2	-35.20	12,889.7	-120.0	1,199.5	1,122.2	77.33	15.512		
23,600.0	11,602.0	11,499.0	11,391.7	93.2	41.2	-35.20	12,889.7	-120.0	1,102.1	1,023.8	78.31	14.074		
23,700.0	11,602.0	11,499.0	11,391.7	93.9	41.2	-35.20	12,889.7	-120.0	1,005.1	925.6	79.52	12.640		
23,800.0	11,602.0	11,499.0	11,391.7	94.7	41.2	-35.20	12,889.7	-120.0	908.8	827.8	81.05	11.213		
23,900.0	11,602.0	11,499.0	11,391.7	95.5	41.2	-35.20	12,889.7	-120.0	813.4	730.4	83.02	9.798		
24,000.0	11,602.0	11,499.0	11,391.7	96.2	41.2	-35.20	12,889.7	-120.0	719.2	633.6	85.60	8.402		
24,100.0	11,602.0	11,499.0	11,391.7	97.0	41.2	-35.20	12,889.7	-120.0	626.9	537.8	89.08	7.037		
24,200.0	11,602.0	11,534.0	11,424.9	97.7	41.3	-39.88	12,900.6	-119.7	534.8	443.8	91.08	5.872		
24,300.0	11,602.0	11,552.1	11,441.8	98.5	41.4	-42.68	12,907.3	-119.6	446.0	350.5	95.46	4.672		
24,400.0	11,602.0	11,594.0	11,479.7	99.2	41.5	-50.31	12,925.1	-119.5	361.8	262.5	99.33	3.642		
24,500.0	11,602.0	11,594.0	11,479.7	100.0	41.5	-50.31	12,925.1	-119.5	282.0	171.1	110.87	2.543		
24,580.8	11,602.0	11,629.7	11,510.6	100.6	41.5	-58.16	12,943.0	-119.6	225.3	106.1	119.23	1.890 Advise and Monitor, CC, ES, SF		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWPO	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - SNAPPING 12 1 FEDERAL #712H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program:		179-MWD - OWSG R1				Rule Assigned:				Offset Well Error:	3.0 usft			
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance				Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor	
22,100.0	11,602.0	11,566.8	11,483.7	81.9	40.8	80.06	12,888.1	703.5	2,648.4	2,573.1	75.34	35.151		
22,200.0	11,602.0	11,567.8	11,484.7	82.7	40.8	80.14	12,888.1	703.5	2,551.9	2,476.0	75.97	33.590		
22,300.0	11,602.0	11,568.9	11,485.8	83.4	40.8	80.23	12,888.2	703.4	2,455.8	2,379.1	76.66	32.036		
22,400.0	11,602.0	11,570.1	11,487.0	84.2	40.8	80.33	12,888.2	703.4	2,359.9	2,282.5	77.40	30.488		
22,500.0	11,602.0	11,571.3	11,488.2	84.9	40.8	80.43	12,888.3	703.4	2,264.4	2,186.1	78.22	28.949		
22,600.0	11,602.0	11,572.6	11,489.5	85.7	40.8	80.54	12,888.4	703.4	2,169.3	2,090.1	79.12	27.418		
22,700.0	11,602.0	11,574.1	11,491.0	86.4	40.8	80.66	12,888.5	703.4	2,074.6	1,994.5	80.11	25.897		
22,800.0	11,602.0	11,575.6	11,492.5	87.2	40.8	80.79	12,888.6	703.4	1,980.5	1,899.3	81.21	24.387		
22,900.0	11,602.0	11,577.3	11,494.2	87.9	40.8	80.92	12,888.7	703.4	1,886.9	1,804.5	82.43	22.891		
23,000.0	11,602.0	11,579.1	11,496.0	88.7	40.8	81.07	12,888.8	703.3	1,794.1	1,710.3	83.80	21.410		
23,100.0	11,602.0	11,581.1	11,498.0	89.4	40.8	81.24	12,888.9	703.3	1,702.0	1,616.7	85.33	19.947		
23,200.0	11,602.0	11,583.3	11,500.2	90.2	40.8	81.42	12,889.1	703.3	1,610.9	1,523.9	87.05	18.506		
23,300.0	11,602.0	11,585.7	11,502.6	90.9	40.8	81.62	12,889.3	703.3	1,520.9	1,431.9	89.00	17.090		
23,400.0	11,602.0	11,588.3	11,505.2	91.7	40.9	81.84	12,889.5	703.3	1,432.2	1,341.0	91.20	15.705		
23,500.0	11,602.0	11,620.0	11,536.7	92.4	41.0	84.47	12,892.8	702.9	1,346.0	1,252.3	93.69	14.366		
23,600.0	11,602.0	11,620.0	11,536.7	93.2	41.0	84.47	12,892.8	702.9	1,260.6	1,164.1	96.52	13.061		
23,700.0	11,602.0	11,620.0	11,536.7	93.9	41.0	84.47	12,892.8	702.9	1,177.5	1,077.8	99.73	11.806		
23,800.0	11,602.0	11,620.0	11,536.7	94.7	41.0	84.47	12,892.8	702.9	1,097.2	993.8	103.39	10.612		
23,900.0	11,602.0	11,620.0	11,536.7	95.5	41.0	84.47	12,892.8	702.9	1,020.4	912.9	107.52	9.491		
24,000.0	11,602.0	11,620.0	11,536.7	96.2	41.0	84.47	12,892.8	702.9	948.0	835.9	112.14	8.454		
24,100.0	11,602.0	11,620.0	11,536.7	97.0	41.0	84.47	12,892.8	702.9	881.0	763.8	117.22	7.516		
24,200.0	11,602.0	11,620.0	11,536.7	97.7	41.0	84.47	12,892.8	702.9	820.7	698.1	122.63	6.692		
24,300.0	11,602.0	11,639.4	11,555.9	98.5	41.0	86.09	12,895.6	702.6	768.4	640.3	128.09	5.999		
24,400.0	11,602.0	11,652.6	11,569.0	99.2	41.1	87.19	12,897.7	702.4	726.0	592.7	133.31	5.446		
24,500.0	11,602.0	11,668.8	11,584.8	100.0	41.1	88.54	12,900.5	702.0	695.2	557.4	137.76	5.046		
24,580.8	11,602.0	11,684.6	11,600.4	100.6	41.2	89.86	12,903.6	701.6	679.7	539.3	140.43	4.840 CC, ES, SF		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program:		0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS							Rule Assigned:				Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance			Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.7	3.0	3.0	-90.72	-1.1	-89.9	89.9					
100.0	100.0	99.3	100.0	3.0	3.0	-90.72	-1.1	-89.9	89.9	83.9	6.05	14.858		
200.0	200.0	199.3	200.0	3.2	3.2	-90.72	-1.1	-89.9	89.9	83.6	6.30	14.281		
300.0	300.0	299.3	300.0	3.3	3.3	-90.72	-1.1	-89.9	89.9	83.4	6.53	13.765		
400.0	400.0	399.3	400.0	3.4	3.4	-90.72	-1.1	-89.9	89.9	83.1	6.76	13.302		
500.0	500.0	499.3	500.0	3.5	3.5	-90.72	-1.1	-89.9	89.9	82.9	6.98	12.882		
600.0	600.0	599.3	600.0	3.6	3.6	-90.72	-1.1	-89.9	89.9	82.7	7.19	12.500		
700.0	700.0	699.3	700.0	3.8	3.8	-90.72	-1.1	-89.9	89.9	82.5	7.40	12.150		
800.0	800.0	799.3	800.0	3.9	3.9	-90.72	-1.1	-89.9	89.9	82.3	7.60	11.827		
900.0	900.0	899.3	900.0	4.0	4.0	-90.72	-1.1	-89.9	89.9	82.1	7.80	11.529		
1,000.0	1,000.0	999.3	1,000.0	4.1	4.1	-90.72	-1.1	-89.9	89.9	81.9	7.99	11.253 CC, ES		
1,100.0	1,100.0	1,099.3	1,100.0	4.3	4.2	119.24	-1.1	-89.9	90.7	82.5	8.20	11.061		
1,200.0	1,199.8	1,199.1	1,199.8	4.6	4.4	121.99	-1.1	-89.9	93.4	84.9	8.52	10.969		
1,300.0	1,299.5	1,298.8	1,299.5	4.9	4.5	126.21	-1.1	-89.9	98.3	89.5	8.86	11.103		
1,400.0	1,398.7	1,398.0	1,398.7	5.3	4.6	131.39	-1.1	-89.9	106.0	96.8	9.24	11.473		
1,500.0	1,497.7	1,497.0	1,497.7	5.5	4.7	136.55	-1.1	-89.9	115.7	106.1	9.61	12.035		
1,600.0	1,596.8	1,593.8	1,594.5	5.8	4.8	140.42	-1.6	-91.0	127.1	117.0	10.02	12.687		
1,700.0	1,695.8	1,690.4	1,691.0	6.1	5.0	142.91	-3.0	-94.3	140.6	130.1	10.48	13.415		
1,800.0	1,794.8	1,786.7	1,787.1	6.4	5.1	144.28	-5.3	-99.8	156.0	145.0	10.95	14.250		
1,900.0	1,893.8	1,882.5	1,882.5	6.7	5.3	144.78	-8.6	-107.5	173.1	161.7	11.41	15.167		
2,000.0	1,992.9	1,977.7	1,977.2	7.0	5.6	144.64	-12.8	-117.4	191.8	179.9	11.88	16.147		
2,100.0	2,091.9	2,072.3	2,070.9	7.4	5.8	144.03	-17.9	-129.3	212.1	199.7	12.34	17.181		
2,200.0	2,190.9	2,166.2	2,163.5	7.7	6.1	143.10	-23.8	-143.2	234.0	221.2	12.82	18.261		
2,300.0	2,289.9	2,260.3	2,256.0	8.1	6.4	141.95	-30.6	-159.2	257.6	244.3	13.25	19.442		
2,400.0	2,389.0	2,357.2	2,351.2	8.5	6.7	140.88	-37.8	-176.3	281.7	267.9	13.74	20.494		
2,500.0	2,488.0	2,454.2	2,446.3	8.9	7.0	139.97	-45.0	-193.3	305.8	291.6	14.28	21.422		
2,600.0	2,587.0	2,551.1	2,541.5	9.2	7.3	139.19	-52.2	-210.3	330.1	315.2	14.83	22.263		
2,700.0	2,686.1	2,648.0	2,636.6	9.6	7.7	138.52	-59.5	-227.3	354.4	339.0	15.39	23.028		
2,800.0	2,785.1	2,745.0	2,731.8	10.0	8.0	137.94	-66.7	-244.4	378.7	362.7	15.96	23.722		
2,900.0	2,884.1	2,841.9	2,826.9	10.4	8.4	137.43	-73.9	-261.4	403.0	386.5	16.55	24.355		
3,000.0	2,983.1	2,938.8	2,922.1	10.8	8.8	136.97	-81.1	-278.4	427.4	410.3	17.14	24.932		
3,100.0	3,082.2	3,035.7	3,017.2	11.2	9.2	136.56	-88.4	-295.4	451.8	434.1	17.75	25.460		
3,200.0	3,181.2	3,132.7	3,112.4	11.6	9.6	136.20	-95.6	-312.5	476.2	457.9	18.36	25.944		
3,300.0	3,280.2	3,229.6	3,207.5	12.0	10.0	135.87	-102.8	-329.5	500.7	481.7	18.97	26.388		
3,400.0	3,379.2	3,326.5	3,302.7	12.4	10.4	135.57	-110.1	-346.5	525.1	505.5	19.60	26.796		
3,500.0	3,478.3	3,423.5	3,397.8	12.8	10.8	135.30	-117.3	-363.5	549.6	529.4	20.23	27.173		
3,600.0	3,577.3	3,520.4	3,493.0	13.2	11.2	135.05	-124.5	-380.6	574.1	553.2	20.86	27.521		
3,700.0	3,676.3	3,617.3	3,588.1	13.6	11.6	134.82	-131.7	-397.6	598.5	577.1	21.50	27.843		
3,800.0	3,775.3	3,714.3	3,683.3	14.0	12.0	134.61	-139.0	-414.6	623.0	600.9	22.14	28.142		
3,900.0	3,874.4	3,811.2	3,778.4	14.4	12.4	134.42	-146.2	-431.6	647.5	624.8	22.78	28.421		
4,000.0	3,973.4	3,908.1	3,873.6	14.9	12.8	134.24	-153.4	-448.7	672.0	648.6	23.43	28.680		
4,100.0	4,072.5	4,005.1	3,968.8	15.2	13.3	134.17	-160.6	-465.7	696.2	672.2	24.06	28.943		
4,200.0	4,171.8	4,102.4	4,064.2	15.6	13.7	134.06	-167.9	-482.8	719.3	694.6	24.70	29.127		
4,300.0	4,271.3	4,199.8	4,159.9	16.0	14.1	133.86	-175.2	-499.9	741.2	715.9	25.33	29.266		
4,400.0	4,370.9	4,297.5	4,255.8	16.4	14.5	133.57	-182.4	-517.0	762.0	736.0	25.95	29.368		
4,500.0	4,470.7	4,395.3	4,351.8	16.8	15.0	133.21	-189.7	-534.2	781.6	755.1	26.55	29.437		
4,600.0	4,570.6	4,493.2	4,447.9	17.1	15.4	132.77	-197.0	-551.4	800.2	773.0	27.14	29.480		
4,700.0	4,670.6	4,591.3	4,544.2	17.4	15.8	132.26	-204.3	-568.7	817.6	789.9	27.71	29.505		
4,800.0	4,770.5	4,689.4	4,640.5	17.7	16.3	131.67	-211.7	-585.9	834.0	805.8	28.25	29.527		
4,900.0	4,870.5	4,787.6	4,736.9	17.7	16.7	-78.04	-219.0	-603.1	849.7	821.1	28.63	29.681		
5,000.0	4,970.5	4,885.8	4,833.2	17.7	17.2	-78.76	-226.3	-620.4	865.5	836.5	29.03	29.817		
5,100.0	5,070.5	4,983.9	4,929.6	17.7	17.6	-79.45	-233.6	-637.6	881.5	852.0	29.43	29.948		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,170.5	5,082.1	5,025.9	17.8	18.0	-80.12	-240.9	-654.9	897.5	867.7	29.84	30.073	
5,300.0	5,270.5	5,180.2	5,122.3	17.8	18.5	-80.77	-248.3	-672.1	913.7	883.4	30.26	30.193	
5,400.0	5,370.5	5,278.4	5,218.7	17.8	18.9	-81.39	-255.6	-689.3	930.0	899.3	30.68	30.308	
5,500.0	5,470.5	5,376.6	5,315.0	17.9	19.4	-81.99	-262.9	-706.6	946.3	915.2	31.11	30.417	
5,600.0	5,570.5	5,474.7	5,411.4	17.9	19.8	-82.58	-270.2	-723.8	962.8	931.3	31.54	30.522	
5,700.0	5,670.5	5,572.9	5,507.7	17.9	20.3	-83.14	-277.5	-741.1	979.4	947.4	31.98	30.623	
5,800.0	5,770.5	5,671.1	5,604.1	18.0	20.7	-83.68	-284.9	-758.3	996.1	963.6	32.42	30.719	
5,900.0	5,870.5	5,769.2	5,700.5	18.0	21.2	-84.21	-292.2	-775.5	1,012.8	979.9	32.87	30.811	
6,000.0	5,970.5	5,867.4	5,796.8	18.0	21.6	-84.72	-299.5	-792.8	1,029.6	996.3	33.32	30.900	
6,100.0	6,070.5	5,965.5	5,893.2	18.1	22.0	-85.21	-306.8	-810.0	1,046.6	1,012.8	33.78	30.984	
6,200.0	6,170.5	6,067.5	5,993.2	18.1	22.5	-85.70	-314.4	-827.8	1,063.5	1,029.2	34.25	31.053	
6,300.0	6,270.5	6,174.7	6,098.7	18.1	23.0	-86.19	-322.0	-845.9	1,079.8	1,045.0	34.75	31.069	
6,400.0	6,370.5	6,282.4	6,204.8	18.2	23.5	-86.63	-329.3	-863.0	1,095.3	1,060.0	35.26	31.063	
6,500.0	6,470.5	6,390.4	6,311.3	18.2	23.9	-87.04	-336.2	-879.3	1,110.0	1,074.3	35.76	31.038	
6,600.0	6,570.5	6,498.7	6,418.3	18.2	24.4	-87.42	-342.7	-894.7	1,124.0	1,087.7	36.26	30.997	
6,700.0	6,670.5	6,607.4	6,525.8	18.3	24.9	-87.76	-348.9	-909.2	1,137.1	1,100.4	36.75	30.939	
6,800.0	6,770.5	6,716.3	6,633.7	18.3	25.4	-88.08	-354.7	-922.8	1,149.4	1,112.2	37.24	30.867	
6,900.0	6,870.5	6,825.5	6,742.1	18.3	25.8	-88.37	-360.1	-935.5	1,160.9	1,123.2	37.72	30.780	
7,000.0	6,970.5	6,935.0	6,850.8	18.4	26.3	-88.63	-365.1	-947.3	1,171.6	1,133.4	38.19	30.680	
7,100.0	7,070.5	7,044.7	6,959.9	18.4	26.7	-88.87	-369.7	-958.1	1,181.3	1,142.7	38.65	30.567	
7,200.0	7,170.5	7,154.6	7,069.3	18.4	27.1	-89.08	-373.9	-968.0	1,190.3	1,151.2	39.10	30.442	
7,300.0	7,270.5	7,264.7	7,178.9	18.5	27.6	-89.27	-377.7	-977.0	1,198.4	1,158.8	39.54	30.307	
7,400.0	7,370.5	7,375.0	7,288.9	18.5	28.0	-89.44	-381.1	-985.0	1,205.6	1,165.6	39.97	30.162	
7,500.0	7,470.5	7,485.5	7,399.1	18.6	28.4	-89.58	-384.0	-992.0	1,211.9	1,171.5	40.39	30.007	
7,600.0	7,570.5	7,596.1	7,509.5	18.6	28.8	-89.70	-386.6	-998.0	1,217.4	1,176.6	40.79	29.845	
7,700.0	7,670.5	7,706.8	7,620.0	18.6	29.2	-89.81	-388.8	-1,003.1	1,221.9	1,180.8	41.18	29.677	
7,800.0	7,770.5	7,817.6	7,730.7	18.7	29.5	-89.89	-390.5	-1,007.2	1,225.6	1,184.1	41.54	29.504	
7,900.0	7,870.5	7,928.4	7,841.6	18.7	29.9	-89.95	-391.8	-1,010.3	1,228.4	1,186.5	41.89	29.328	
8,000.0	7,970.5	8,039.4	7,952.5	18.7	30.2	-89.99	-392.7	-1,012.4	1,230.3	1,188.1	42.20	29.154	
8,100.0	8,070.5	8,150.3	8,063.4	18.8	30.4	-90.01	-393.2	-1,013.6	1,231.4	1,188.9	42.47	28.992	
8,200.0	8,170.5	8,257.4	8,170.5	18.8	30.6	-90.02	-393.3	-1,013.8	1,231.6	1,188.9	42.62	28.894	
8,300.0	8,270.5	8,357.4	8,270.5	18.9	30.6	-90.02	-393.3	-1,013.8	1,231.6	1,188.9	42.69	28.849	
8,400.0	8,370.5	8,457.4	8,370.5	18.9	30.6	-90.02	-393.3	-1,013.8	1,231.6	1,188.8	42.76	28.801	
8,500.0	8,470.5	8,557.4	8,470.5	18.9	30.6	-90.02	-393.3	-1,013.8	1,231.6	1,188.7	42.83	28.754	
8,600.0	8,570.5	8,657.4	8,570.5	19.0	30.6	-90.02	-393.3	-1,013.8	1,231.6	1,188.7	42.90	28.706	
8,700.0	8,670.5	8,757.4	8,670.5	19.0	30.6	-90.02	-393.3	-1,013.8	1,231.6	1,188.6	42.97	28.658	
8,800.0	8,770.5	8,857.4	8,770.5	19.1	30.7	-90.02	-393.3	-1,013.8	1,231.6	1,188.5	43.05	28.610	
8,900.0	8,870.5	8,957.4	8,870.5	19.1	30.7	-90.02	-393.3	-1,013.8	1,231.6	1,188.4	43.12	28.561	
9,000.0	8,970.5	9,057.4	8,970.5	19.1	30.7	-90.02	-393.3	-1,013.8	1,231.6	1,188.4	43.19	28.513	
9,100.0	9,070.5	9,157.4	9,070.5	19.2	30.7	-90.02	-393.3	-1,013.8	1,231.6	1,188.3	43.27	28.464	
9,200.0	9,170.5	9,257.4	9,170.5	19.2	30.7	-90.02	-393.3	-1,013.8	1,231.6	1,188.2	43.34	28.415	
9,300.0	9,270.5	9,357.4	9,270.5	19.3	30.8	-90.02	-393.3	-1,013.8	1,231.6	1,188.1	43.42	28.366	
9,400.0	9,370.5	9,457.4	9,370.5	19.3	30.8	-90.02	-393.3	-1,013.8	1,231.6	1,188.1	43.49	28.317	
9,500.0	9,470.5	9,557.4	9,470.5	19.4	30.8	-90.02	-393.3	-1,013.8	1,231.6	1,188.0	43.57	28.268	
9,600.0	9,570.5	9,657.4	9,570.5	19.4	30.8	-90.02	-393.3	-1,013.8	1,231.6	1,187.9	43.64	28.219	
9,700.0	9,670.5	9,757.4	9,670.5	19.4	30.8	-90.02	-393.3	-1,013.8	1,231.6	1,187.8	43.72	28.169	
9,800.0	9,770.5	9,857.4	9,770.5	19.5	30.9	-90.02	-393.3	-1,013.8	1,231.6	1,187.8	43.80	28.120	
9,900.0	9,870.5	9,957.4	9,870.5	19.5	30.9	-90.02	-393.3	-1,013.8	1,231.6	1,187.7	43.87	28.070	
10,000.0	9,970.5	10,057.4	9,970.5	19.6	30.9	-90.02	-393.3	-1,013.8	1,231.6	1,187.6	43.95	28.020	
10,100.0	10,070.5	10,157.4	10,070.5	19.6	30.9	-90.02	-393.3	-1,013.8	1,231.6	1,187.5	44.03	27.970	
10,200.0	10,170.5	10,257.4	10,170.5	19.7	31.0	-90.02	-393.3	-1,013.8	1,231.6	1,187.4	44.11	27.920	
10,300.0	10,270.5	10,357.4	10,270.5	19.7	31.0	-90.02	-393.3	-1,013.8	1,231.6	1,187.4	44.19	27.870	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	10,370.5	10,457.4	10,370.5	19.7	31.0	-90.02	-393.3	-1,013.8	1,231.6	1,187.3	44.27	27.820	
10,500.0	10,470.5	10,557.4	10,470.5	19.8	31.0	-90.02	-393.3	-1,013.8	1,231.6	1,187.2	44.35	27.769	
10,600.0	10,570.5	10,657.4	10,570.5	19.8	31.1	-90.02	-393.3	-1,013.8	1,231.6	1,187.1	44.43	27.719	
10,700.0	10,670.5	10,757.4	10,670.5	19.9	31.1	-90.02	-393.3	-1,013.8	1,231.6	1,187.0	44.51	27.668	
10,800.0	10,770.5	10,857.4	10,770.5	19.9	31.1	-90.02	-393.3	-1,013.8	1,231.6	1,187.0	44.59	27.618	
10,900.0	10,870.5	10,957.4	10,870.5	20.0	31.1	-90.02	-393.3	-1,013.8	1,231.6	1,186.9	44.68	27.567	
11,000.0	10,970.5	11,057.4	10,970.5	20.0	31.1	-90.02	-393.3	-1,013.8	1,231.6	1,186.8	44.76	27.516	
11,100.0	11,070.5	11,157.4	11,070.5	20.1	31.2	-89.27	-393.3	-1,013.8	1,231.5	1,186.7	44.81	27.482	
11,199.1	11,168.2	11,255.1	11,168.2	20.2	31.2	-90.00	-393.3	-1,013.8	1,231.4	1,186.6	44.87	27.445	
11,200.0	11,169.1	11,256.0	11,169.1	20.2	31.2	-90.01	-393.3	-1,013.8	1,231.4	1,186.6	44.87	27.444	
11,300.0	11,263.4	11,354.1	11,267.0	20.3	31.2	-91.31	-389.7	-1,013.8	1,231.8	1,186.9	44.92	27.424	
11,400.0	11,350.7	11,458.0	11,368.7	20.4	31.2	-92.67	-368.7	-1,014.1	1,232.8	1,187.9	44.91	27.450	
11,500.0	11,428.1	11,568.5	11,470.7	20.5	31.3	-93.98	-326.7	-1,014.6	1,234.5	1,189.6	44.87	27.511	
11,600.0	11,493.4	11,686.5	11,568.6	20.6	31.3	-95.22	-261.2	-1,015.4	1,236.6	1,191.8	44.82	27.588	
11,700.0	11,544.6	11,812.3	11,655.8	20.7	31.3	-96.33	-171.0	-1,016.5	1,238.8	1,194.0	44.80	27.655	
11,800.0	11,580.2	11,945.6	11,724.5	20.8	31.4	-97.23	-57.1	-1,017.9	1,240.8	1,196.0	44.82	27.685	
11,900.0	11,599.0	12,085.0	11,766.1	20.9	31.5	-97.83	75.6	-1,019.5	1,242.2	1,197.3	44.91	27.661	
12,000.0	11,602.0	12,216.3	11,775.7	20.9	31.6	-98.04	206.4	-1,021.2	1,242.5	1,197.4	45.07	27.569	
12,100.0	11,602.0	12,316.3	11,775.7	21.0	31.7	-98.04	306.4	-1,022.4	1,242.3	1,196.9	45.34	27.400	
12,200.0	11,602.0	12,416.3	11,775.7	21.0	31.8	-98.04	406.3	-1,023.6	1,242.1	1,196.4	45.66	27.200	
12,300.0	11,602.0	12,516.3	11,775.7	21.1	32.0	-98.04	506.3	-1,024.9	1,241.9	1,195.9	46.04	26.973	
12,400.0	11,602.0	12,616.3	11,775.7	21.2	32.1	-98.04	606.3	-1,026.1	1,241.7	1,195.2	46.47	26.721	
12,500.0	11,602.0	12,716.3	11,775.7	21.3	32.3	-98.04	706.3	-1,027.3	1,241.5	1,194.6	46.95	26.446	
12,600.0	11,602.0	12,816.3	11,775.7	21.4	32.5	-98.04	806.3	-1,028.6	1,241.3	1,193.9	47.47	26.150	
12,700.0	11,602.0	12,916.3	11,775.7	21.5	32.7	-98.05	906.3	-1,029.8	1,241.1	1,193.1	48.04	25.837	
12,800.0	11,602.0	13,016.3	11,775.7	21.6	32.9	-98.05	1,006.3	-1,031.0	1,241.0	1,192.3	48.65	25.509	
12,900.0	11,602.0	13,116.3	11,775.7	21.8	33.1	-98.05	1,106.3	-1,032.3	1,240.8	1,191.5	49.30	25.168	
13,000.0	11,602.0	13,216.3	11,775.7	21.9	33.3	-98.05	1,206.3	-1,033.5	1,240.6	1,190.6	49.99	24.816	
13,100.0	11,602.0	13,316.3	11,775.7	22.1	33.6	-98.05	1,306.3	-1,034.7	1,240.4	1,189.7	50.72	24.456	
13,200.0	11,602.0	13,416.3	11,775.7	22.3	33.8	-98.05	1,406.3	-1,035.9	1,240.2	1,188.7	51.48	24.090	
13,300.0	11,602.0	13,516.3	11,775.7	22.6	34.1	-98.05	1,506.3	-1,037.2	1,240.0	1,187.7	52.28	23.720	
13,400.0	11,602.0	13,616.3	11,775.7	22.8	34.4	-98.05	1,606.3	-1,038.4	1,239.8	1,186.7	53.11	23.346	
13,500.0	11,602.0	13,716.3	11,775.7	23.1	34.7	-98.06	1,706.2	-1,039.6	1,239.6	1,185.6	53.96	22.971	
13,600.0	11,602.0	13,816.3	11,775.7	23.4	35.0	-98.06	1,806.2	-1,040.9	1,239.4	1,184.6	54.85	22.596	
13,700.0	11,602.0	13,916.3	11,775.7	23.8	35.4	-98.06	1,906.2	-1,042.1	1,239.2	1,183.5	55.77	22.222	
13,800.0	11,602.0	14,016.3	11,775.7	24.2	35.7	-98.06	2,006.2	-1,043.3	1,239.0	1,182.3	56.71	21.850	
13,900.0	11,602.0	14,116.3	11,775.7	24.6	36.1	-98.06	2,106.2	-1,044.6	1,238.8	1,181.2	57.67	21.481	
14,000.0	11,602.0	14,216.3	11,775.7	25.1	36.4	-98.06	2,206.2	-1,045.8	1,238.7	1,180.0	58.66	21.116	
14,100.0	11,602.0	14,316.3	11,775.7	25.6	36.8	-98.06	2,306.2	-1,047.0	1,238.5	1,178.8	59.67	20.756	
14,200.0	11,602.0	14,416.3	11,775.7	26.1	37.2	-98.06	2,406.2	-1,048.3	1,238.3	1,177.6	60.70	20.400	
14,300.0	11,602.0	14,516.3	11,775.7	26.6	37.6	-98.07	2,506.2	-1,049.5	1,238.1	1,176.3	61.75	20.050	
14,400.0	11,602.0	14,616.3	11,775.7	27.1	38.0	-98.07	2,606.2	-1,050.7	1,237.9	1,175.1	62.82	19.706	
14,500.0	11,602.0	14,716.3	11,775.7	27.7	38.4	-98.07	2,706.2	-1,052.0	1,237.7	1,173.8	63.91	19.368	
14,600.0	11,602.0	14,816.3	11,775.7	28.3	38.9	-98.07	2,806.2	-1,053.2	1,237.5	1,172.5	65.01	19.036	
14,700.0	11,602.0	14,916.3	11,775.7	28.9	39.3	-98.07	2,906.2	-1,054.4	1,237.3	1,171.2	66.13	18.711	
14,800.0	11,602.0	15,016.3	11,775.7	29.5	39.8	-98.07	3,006.1	-1,055.7	1,237.1	1,169.9	67.26	18.392	
14,900.0	11,602.0	15,116.3	11,775.7	30.1	40.2	-98.07	3,106.1	-1,056.9	1,236.9	1,168.5	68.41	18.080	
15,000.0	11,602.0	15,216.3	11,775.7	30.7	40.7	-98.07	3,206.1	-1,058.1	1,236.7	1,167.2	69.58	17.775	
15,100.0	11,602.0	15,316.3	11,775.7	31.3	41.2	-98.08	3,306.1	-1,059.4	1,236.6	1,165.8	70.76	17.476	
15,200.0	11,602.0	15,416.3	11,775.7	32.0	41.7	-98.08	3,406.1	-1,060.6	1,236.4	1,164.4	71.95	17.185	
15,300.0	11,602.0	15,516.3	11,775.7	32.6	42.1	-98.08	3,506.1	-1,061.8	1,236.2	1,163.0	73.15	16.900	
15,400.0	11,602.0	15,616.3	11,775.7	33.3	42.7	-98.08	3,606.1	-1,063.1	1,236.0	1,161.6	74.36	16.621	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,500.0	11,602.0	15,716.3	11,775.7	33.9	43.2	-98.08	3,706.1	-1,064.3	1,235.8	1,160.2	75.59	16.350	
15,600.0	11,602.0	15,816.3	11,775.7	34.6	43.7	-98.08	3,806.1	-1,065.5	1,235.6	1,158.8	76.82	16.084	
15,700.0	11,602.0	15,916.3	11,775.7	35.3	44.2	-98.08	3,906.1	-1,066.8	1,235.4	1,157.3	78.06	15.826	
15,800.0	11,602.0	16,016.3	11,775.7	35.9	44.7	-98.08	4,006.1	-1,068.0	1,235.2	1,155.9	79.32	15.573	
15,900.0	11,602.0	16,116.3	11,775.7	36.6	45.3	-98.09	4,106.1	-1,069.2	1,235.0	1,154.4	80.58	15.326	
16,000.0	11,602.0	16,216.3	11,775.7	37.3	45.8	-98.09	4,206.1	-1,070.5	1,234.8	1,153.0	81.85	15.086	
16,100.0	11,602.0	16,316.3	11,775.7	38.0	46.4	-98.09	4,306.0	-1,071.7	1,234.6	1,151.5	83.13	14.851	
16,200.0	11,602.0	16,416.3	11,775.7	38.7	46.9	-98.09	4,406.0	-1,072.9	1,234.5	1,150.0	84.42	14.623	
16,300.0	11,602.0	16,516.3	11,775.7	39.4	47.5	-98.09	4,506.0	-1,074.2	1,234.3	1,148.5	85.72	14.399	
16,400.0	11,602.0	16,616.3	11,775.7	40.1	48.1	-98.09	4,606.0	-1,075.4	1,234.1	1,147.1	87.02	14.182	
16,500.0	11,602.0	16,716.3	11,775.7	40.8	48.7	-98.09	4,706.0	-1,076.6	1,233.9	1,145.5	88.33	13.969	
16,600.0	11,602.0	16,816.3	11,775.7	41.5	49.2	-98.09	4,806.0	-1,077.9	1,233.7	1,144.0	89.65	13.762	
16,700.0	11,602.0	16,916.3	11,775.7	42.2	49.8	-98.10	4,906.0	-1,079.1	1,233.5	1,142.5	90.97	13.560	
16,800.0	11,602.0	17,016.3	11,775.7	42.9	50.4	-98.10	5,006.0	-1,080.3	1,233.3	1,141.0	92.30	13.362	
16,900.0	11,602.0	17,116.3	11,775.7	43.6	51.0	-98.10	5,106.0	-1,081.6	1,233.1	1,139.5	93.63	13.170	
17,000.0	11,602.0	17,216.3	11,775.7	44.3	51.6	-98.10	5,206.0	-1,082.8	1,232.9	1,138.0	94.97	12.982	
17,100.0	11,602.0	17,316.3	11,775.7	45.0	52.2	-98.10	5,306.0	-1,084.0	1,232.7	1,136.4	96.32	12.799	
17,200.0	11,602.0	17,416.3	11,775.7	45.7	52.8	-98.10	5,406.0	-1,085.3	1,232.5	1,134.9	97.67	12.620	
17,300.0	11,602.0	17,516.3	11,775.7	46.4	53.4	-98.10	5,506.0	-1,086.5	1,232.3	1,133.3	99.03	12.445	
17,400.0	11,602.0	17,616.3	11,775.7	47.2	54.1	-98.10	5,605.9	-1,087.7	1,232.2	1,131.8	100.39	12.274	
17,500.0	11,602.0	17,716.3	11,775.7	47.9	54.7	-98.11	5,705.9	-1,089.0	1,232.0	1,130.2	101.75	12.108	
17,600.0	11,602.0	17,816.3	11,775.7	48.6	55.3	-98.11	5,805.9	-1,090.2	1,231.8	1,128.7	103.12	11.945	
17,700.0	11,602.0	17,916.3	11,775.7	49.3	55.9	-98.11	5,905.9	-1,091.4	1,231.6	1,127.1	104.50	11.786	
17,800.0	11,602.0	18,016.3	11,775.7	50.0	56.6	-98.11	6,005.9	-1,092.7	1,231.4	1,125.5	105.87	11.631	
17,900.0	11,602.0	18,116.3	11,775.7	50.8	57.2	-98.11	6,105.9	-1,093.9	1,231.2	1,123.9	107.26	11.479	
18,000.0	11,602.0	18,216.3	11,775.7	51.5	57.9	-98.11	6,205.9	-1,095.1	1,231.0	1,122.4	108.64	11.331	
18,100.0	11,602.0	18,316.3	11,775.7	52.2	58.5	-98.11	6,305.9	-1,096.4	1,230.8	1,120.8	110.03	11.186	
18,200.0	11,602.0	18,416.3	11,775.7	53.0	59.1	-98.11	6,405.9	-1,097.6	1,230.6	1,119.2	111.43	11.044	
18,300.0	11,602.0	18,516.3	11,775.7	53.7	59.8	-98.12	6,505.9	-1,098.8	1,230.4	1,117.6	112.82	10.906	
18,400.0	11,602.0	18,616.3	11,775.7	54.4	60.4	-98.12	6,605.9	-1,100.1	1,230.2	1,116.0	114.22	10.771	
18,500.0	11,602.0	18,716.3	11,775.7	55.1	61.1	-98.12	6,705.9	-1,101.3	1,230.1	1,114.4	115.63	10.638	
18,600.0	11,602.0	18,816.3	11,775.7	55.9	61.8	-98.12	6,805.9	-1,102.5	1,229.9	1,112.8	117.03	10.509	
18,700.0	11,602.0	18,916.3	11,775.7	56.6	62.4	-98.12	6,905.8	-1,103.8	1,229.7	1,111.2	118.44	10.382	
18,800.0	11,602.0	19,016.3	11,775.7	57.3	63.1	-98.12	7,005.8	-1,105.0	1,229.5	1,109.6	119.85	10.258	
18,900.0	11,602.0	19,116.3	11,775.7	58.1	63.7	-98.12	7,105.8	-1,106.2	1,229.3	1,108.0	121.27	10.137	
19,000.0	11,602.0	19,216.3	11,775.7	58.8	64.4	-98.12	7,205.8	-1,107.5	1,229.1	1,106.4	122.69	10.018	
19,100.0	11,602.0	19,316.3	11,775.7	59.6	65.1	-98.13	7,305.8	-1,108.7	1,228.9	1,104.8	124.11	9.902	
19,200.0	11,602.0	19,416.3	11,775.7	60.3	65.7	-98.13	7,405.8	-1,109.9	1,228.7	1,103.2	125.53	9.788	
19,300.0	11,602.0	19,516.3	11,775.7	61.0	66.4	-98.13	7,505.8	-1,111.1	1,228.5	1,101.6	126.95	9.677	
19,400.0	11,602.0	19,616.3	11,775.7	61.8	67.1	-98.13	7,605.8	-1,112.4	1,228.3	1,100.0	128.38	9.568	
19,500.0	11,602.0	19,716.3	11,775.7	62.5	67.8	-98.13	7,705.8	-1,113.6	1,228.1	1,098.3	129.81	9.461	
19,600.0	11,602.0	19,816.3	11,775.7	63.3	68.5	-98.13	7,805.8	-1,114.8	1,228.0	1,096.7	131.24	9.356	
19,700.0	11,602.0	19,916.3	11,775.7	64.0	69.1	-98.13	7,905.8	-1,116.1	1,227.8	1,095.1	132.68	9.254	
19,800.0	11,602.0	20,016.3	11,775.7	64.7	69.8	-98.13	8,005.8	-1,117.3	1,227.6	1,093.5	134.11	9.153	
19,900.0	11,602.0	20,116.3	11,775.7	65.5	70.5	-98.14	8,105.7	-1,118.5	1,227.4	1,091.8	135.55	9.055	
20,000.0	11,602.0	20,216.3	11,775.7	66.2	71.2	-98.14	8,205.7	-1,119.8	1,227.2	1,090.2	136.99	8.958	
20,100.0	11,602.0	20,316.3	11,775.7	67.0	71.9	-98.14	8,305.7	-1,121.0	1,227.0	1,088.6	138.43	8.863	
20,200.0	11,602.0	20,416.3	11,775.7	67.7	72.6	-98.14	8,405.7	-1,122.2	1,226.8	1,086.9	139.88	8.771	
20,300.0	11,602.0	20,516.3	11,775.7	68.4	73.3	-98.14	8,505.7	-1,123.5	1,226.6	1,085.3	141.32	8.680	
20,400.0	11,602.0	20,616.3	11,775.7	69.2	73.9	-98.14	8,605.7	-1,124.7	1,226.4	1,083.7	142.77	8.590	
20,500.0	11,602.0	20,716.3	11,775.7	69.9	74.6	-98.14	8,705.7	-1,125.9	1,226.2	1,082.0	144.22	8.503	
20,600.0	11,602.0	20,816.3	11,775.7	70.7	75.3	-98.14	8,805.7	-1,127.2	1,226.0	1,080.4	145.67	8.417	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,700.0	11,602.0	20,916.3	11,775.7	71.4	76.0	-98.15	8,905.7	-1,128.4	1,225.9	1,078.7	147.12	8.332	
20,800.0	11,602.0	21,016.3	11,775.7	72.2	76.7	-98.15	9,005.7	-1,129.6	1,225.7	1,077.1	148.57	8.249	
20,900.0	11,602.0	21,116.3	11,775.7	72.9	77.4	-98.15	9,105.7	-1,130.9	1,225.5	1,075.4	150.03	8.168	
21,000.0	11,602.0	21,216.3	11,775.7	73.7	78.1	-98.15	9,205.7	-1,132.1	1,225.3	1,073.8	151.49	8.088	
21,100.0	11,602.0	21,316.3	11,775.7	74.4	78.8	-98.15	9,305.7	-1,133.3	1,225.1	1,072.1	152.94	8.010	
21,200.0	11,602.0	21,416.3	11,775.7	75.2	79.5	-98.15	9,405.6	-1,134.6	1,224.9	1,070.5	154.40	7.933	
21,300.0	11,602.0	21,516.3	11,775.7	75.9	80.2	-98.15	9,505.6	-1,135.8	1,224.7	1,068.8	155.86	7.858	
21,400.0	11,602.0	21,616.3	11,775.7	76.7	80.9	-98.16	9,605.6	-1,137.0	1,224.5	1,067.2	157.33	7.783	
21,500.0	11,602.0	21,716.3	11,775.7	77.4	81.7	-98.16	9,705.6	-1,138.3	1,224.3	1,065.5	158.79	7.710	
21,600.0	11,602.0	21,816.3	11,775.7	78.2	82.4	-98.16	9,805.6	-1,139.5	1,224.1	1,063.9	160.25	7.639	
21,700.0	11,602.0	21,916.3	11,775.7	78.9	83.1	-98.16	9,905.6	-1,140.7	1,223.9	1,062.2	161.72	7.568	
21,800.0	11,602.0	22,016.3	11,775.7	79.7	83.8	-98.16	10,005.6	-1,142.0	1,223.7	1,060.6	163.19	7.499	
21,900.0	11,602.0	22,116.3	11,775.7	80.4	84.5	-98.16	10,105.6	-1,143.2	1,223.6	1,058.9	164.65	7.431	
22,000.0	11,602.0	22,216.3	11,775.7	81.2	85.2	-98.16	10,205.6	-1,144.4	1,223.4	1,057.2	166.12	7.364	
22,100.0	11,602.0	22,316.3	11,775.7	81.9	85.9	-98.16	10,305.6	-1,145.7	1,223.2	1,055.6	167.59	7.299	
22,200.0	11,602.0	22,416.3	11,775.7	82.7	86.6	-98.17	10,405.6	-1,146.9	1,223.0	1,053.9	169.06	7.234	
22,300.0	11,602.0	22,516.3	11,775.7	83.4	87.3	-98.17	10,505.6	-1,148.1	1,222.8	1,052.3	170.54	7.170	
22,400.0	11,602.0	22,616.3	11,775.7	84.2	88.1	-98.17	10,605.6	-1,149.4	1,222.6	1,050.6	172.01	7.108	
22,500.0	11,602.0	22,716.3	11,775.7	84.9	88.8	-98.17	10,705.5	-1,150.6	1,222.4	1,048.9	173.48	7.046	
22,600.0	11,602.0	22,816.3	11,775.7	85.7	89.5	-98.17	10,805.5	-1,151.8	1,222.2	1,047.3	174.96	6.986	
22,700.0	11,602.0	22,916.3	11,775.7	86.4	90.2	-98.17	10,905.5	-1,153.1	1,222.0	1,045.6	176.43	6.926	
22,800.0	11,602.0	23,016.3	11,775.7	87.2	90.9	-98.17	11,005.5	-1,154.3	1,221.8	1,043.9	177.91	6.868	
22,900.0	11,602.0	23,116.3	11,775.7	87.9	91.6	-98.17	11,105.5	-1,155.5	1,221.6	1,042.3	179.39	6.810	
23,000.0	11,602.0	23,216.3	11,775.7	88.7	92.4	-98.18	11,205.5	-1,156.8	1,221.5	1,040.6	180.87	6.753	
23,100.0	11,602.0	23,316.3	11,775.7	89.4	93.1	-98.18	11,305.5	-1,158.0	1,221.3	1,038.9	182.35	6.698	
23,200.0	11,602.0	23,416.3	11,775.7	90.2	93.8	-98.18	11,405.5	-1,159.2	1,221.1	1,037.2	183.83	6.643	
23,300.0	11,602.0	23,516.3	11,775.7	90.9	94.5	-98.18	11,505.5	-1,160.5	1,220.9	1,035.6	185.31	6.588	
23,400.0	11,602.0	23,616.3	11,775.7	91.7	95.3	-98.18	11,605.5	-1,161.7	1,220.7	1,033.9	186.79	6.535	
23,500.0	11,602.0	23,716.3	11,775.7	92.4	96.0	-98.18	11,705.5	-1,162.9	1,220.5	1,032.2	188.27	6.483	
23,600.0	11,602.0	23,816.3	11,775.7	93.2	96.7	-98.18	11,805.5	-1,164.2	1,220.3	1,030.6	189.75	6.431	
23,700.0	11,602.0	23,916.3	11,775.7	93.9	97.4	-98.18	11,905.5	-1,165.4	1,220.1	1,028.9	191.24	6.380	
23,800.0	11,602.0	24,016.3	11,775.7	94.7	98.2	-98.19	12,005.4	-1,166.6	1,219.9	1,027.2	192.72	6.330	
23,900.0	11,602.0	24,116.3	11,775.7	95.5	98.9	-98.19	12,105.4	-1,167.9	1,219.7	1,025.5	194.21	6.281	
24,000.0	11,602.0	24,216.3	11,775.7	96.2	99.6	-98.19	12,205.4	-1,169.1	1,219.5	1,023.9	195.69	6.232	
24,100.0	11,602.0	24,316.3	11,775.7	97.0	100.3	-98.19	12,305.4	-1,170.3	1,219.4	1,022.2	197.18	6.184	
24,200.0	11,602.0	24,416.3	11,775.7	97.7	101.1	-98.19	12,405.4	-1,171.6	1,219.2	1,020.5	198.67	6.137	
24,300.0	11,602.0	24,516.3	11,775.7	98.5	101.8	-98.19	12,505.4	-1,172.8	1,219.0	1,018.8	200.16	6.090	
24,400.0	11,602.0	24,616.3	11,775.7	99.2	102.5	-98.19	12,605.4	-1,174.0	1,218.8	1,017.1	201.64	6.044	
24,500.0	11,602.0	24,716.3	11,775.7	100.0	103.2	-98.19	12,705.4	-1,175.3	1,218.6	1,015.5	203.13	5.999	
24,580.8	11,602.0	24,797.2	11,775.7	100.6	103.8	-98.20	12,786.2	-1,176.2	1,218.4	1,014.1	204.34	5.963 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.3	3.0	3.0	-90.79	-0.8	-59.9	59.9				
100.0	100.0	99.7	100.0	3.0	3.0	-90.79	-0.8	-59.9	59.9	53.9	6.05	9.904	
200.0	200.0	199.7	200.0	3.2	3.2	-90.79	-0.8	-59.9	59.9	53.6	6.30	9.520	
300.0	300.0	299.7	300.0	3.3	3.3	-90.79	-0.8	-59.9	59.9	53.4	6.53	9.176	
400.0	400.0	399.7	400.0	3.4	3.4	-90.79	-0.8	-59.9	59.9	53.2	6.76	8.867	
500.0	500.0	499.7	500.0	3.5	3.5	-90.79	-0.8	-59.9	59.9	53.0	6.98	8.587	
600.0	600.0	599.7	600.0	3.6	3.6	-90.79	-0.8	-59.9	59.9	52.7	7.19	8.332	
700.0	700.0	699.7	700.0	3.8	3.8	-90.79	-0.8	-59.9	59.9	52.5	7.40	8.099	
800.0	800.0	799.7	800.0	3.9	3.9	-90.79	-0.8	-59.9	59.9	52.3	7.60	7.884	
900.0	900.0	899.7	900.0	4.0	4.0	-90.79	-0.8	-59.9	59.9	52.1	7.80	7.686	
1,000.0	1,000.0	999.7	1,000.0	4.1	4.1	-90.79	-0.8	-59.9	59.9	51.9	7.99	7.501	CC, ES
1,100.0	1,100.0	1,098.0	1,098.3	4.3	4.3	118.67	-1.8	-61.3	62.2	53.9	8.28	7.509	
1,200.0	1,199.8	1,195.9	1,196.1	4.6	4.6	119.86	-4.8	-65.3	68.8	60.1	8.74	7.881	
1,300.0	1,299.5	1,293.3	1,293.1	4.9	4.9	121.38	-9.6	-72.1	80.0	70.8	9.20	8.702	
1,400.0	1,398.7	1,389.7	1,388.8	5.3	5.2	122.86	-16.4	-81.3	95.7	86.0	9.67	9.900	
1,500.0	1,497.7	1,487.8	1,485.9	5.5	5.4	124.21	-24.4	-92.4	113.9	103.8	10.09	11.288	
1,600.0	1,596.8	1,586.1	1,583.3	5.8	5.7	125.18	-32.4	-103.4	132.2	121.6	10.53	12.553	
1,700.0	1,695.8	1,684.4	1,680.6	6.1	6.0	125.92	-40.5	-114.5	150.4	139.4	10.98	13.698	
1,800.0	1,794.8	1,782.7	1,778.0	6.4	6.3	126.49	-48.5	-125.6	168.7	157.3	11.45	14.735	
1,900.0	1,893.8	1,881.0	1,875.3	6.7	6.6	126.96	-56.6	-136.6	187.0	175.1	11.93	15.673	
2,000.0	1,992.9	1,979.3	1,972.6	7.0	6.9	127.34	-64.6	-147.7	205.4	192.9	12.43	16.523	
2,100.0	2,091.9	2,077.6	2,070.0	7.4	7.3	127.66	-72.6	-158.8	223.7	210.8	12.93	17.295	
2,200.0	2,190.9	2,175.9	2,167.3	7.7	7.6	127.93	-80.7	-169.8	242.0	228.6	13.45	17.996	
2,300.0	2,289.9	2,274.2	2,264.7	8.1	8.0	128.16	-88.7	-180.9	260.4	246.4	13.97	18.635	
2,400.0	2,389.0	2,372.5	2,362.0	8.5	8.3	128.36	-96.8	-192.0	278.7	264.2	14.50	19.218	
2,500.0	2,488.0	2,470.8	2,459.4	8.9	8.7	128.54	-104.8	-203.0	297.0	282.0	15.04	19.751	
2,600.0	2,587.0	2,569.1	2,556.7	9.2	9.1	128.69	-112.9	-214.1	315.4	299.8	15.58	20.240	
2,700.0	2,686.1	2,667.4	2,654.0	9.6	9.5	128.83	-120.9	-225.2	333.7	317.6	16.13	20.689	
2,800.0	2,785.1	2,765.7	2,751.4	10.0	9.8	128.96	-128.9	-236.3	352.1	335.4	16.68	21.103	
2,900.0	2,884.1	2,864.0	2,848.7	10.4	10.2	129.07	-137.0	-247.3	370.4	353.2	17.24	21.484	
3,000.0	2,983.1	2,962.3	2,946.1	10.8	10.6	129.17	-145.0	-258.4	388.8	371.0	17.80	21.837	
3,100.0	3,082.2	3,060.6	3,043.4	11.2	11.0	129.26	-153.1	-269.5	407.1	388.8	18.37	22.164	
3,200.0	3,181.2	3,158.9	3,140.7	11.6	11.4	129.35	-161.1	-280.5	425.5	406.6	18.94	22.467	
3,300.0	3,280.2	3,257.2	3,238.1	12.0	11.8	129.43	-169.1	-291.6	443.9	424.3	19.51	22.749	
3,400.0	3,379.2	3,355.5	3,335.4	12.4	12.2	129.50	-177.2	-302.7	462.2	442.1	20.09	23.012	
3,500.0	3,478.3	3,453.8	3,432.8	12.8	12.6	129.56	-185.2	-313.7	480.6	459.9	20.66	23.257	
3,600.0	3,577.3	3,552.1	3,530.1	13.2	13.0	129.62	-193.3	-324.8	498.9	477.7	21.24	23.487	
3,700.0	3,676.3	3,650.4	3,627.5	13.6	13.4	129.68	-201.3	-335.9	517.3	495.5	21.82	23.702	
3,800.0	3,775.3	3,748.7	3,724.8	14.0	13.8	129.73	-209.3	-346.9	535.6	513.2	22.41	23.904	
3,900.0	3,874.4	3,847.0	3,822.1	14.4	14.2	129.78	-217.4	-358.0	554.0	531.0	22.99	24.093	
4,000.0	3,973.4	3,945.3	3,919.5	14.9	14.6	129.83	-225.4	-369.1	572.4	548.8	23.58	24.272	
4,100.0	4,072.5	4,043.6	4,016.9	15.2	15.0	129.94	-233.5	-380.1	590.4	566.3	24.14	24.458	
4,200.0	4,171.8	4,142.1	4,114.5	15.6	15.4	129.96	-241.5	-391.2	607.4	582.7	24.72	24.572	
4,300.0	4,271.3	4,240.8	4,212.2	16.0	15.8	129.85	-249.6	-402.3	623.3	598.1	25.29	24.646	
4,400.0	4,370.9	4,339.7	4,310.1	16.4	16.3	129.62	-257.7	-413.5	638.2	612.3	25.85	24.684	
4,500.0	4,470.7	4,438.6	4,408.0	16.8	16.7	129.27	-265.8	-424.6	651.9	625.5	26.40	24.690	
4,600.0	4,570.6	4,537.6	4,506.0	17.1	17.1	128.83	-273.9	-435.8	664.6	637.7	26.94	24.670	
4,700.0	4,670.6	4,636.6	4,604.1	17.4	17.5	128.28	-282.0	-446.9	676.3	648.8	27.46	24.630	
4,800.0	4,770.5	4,735.6	4,702.2	17.7	17.9	127.62	-290.1	-458.1	687.0	659.0	27.95	24.583	
4,900.0	4,870.5	4,834.7	4,800.3	17.7	18.3	-82.15	-298.2	-469.2	697.0	668.8	28.29	24.637	
5,000.0	4,970.5	4,933.7	4,898.3	17.7	18.7	-82.93	-306.3	-480.4	707.2	678.5	28.66	24.678	
5,100.0	5,070.5	5,032.7	4,996.4	17.7	19.2	-83.68	-314.4	-491.5	717.5	688.4	29.03	24.716	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,170.5	5,131.8	5,094.4	17.8	19.6	-84.42	-322.5	-502.7	727.9	698.5	29.41	24.752	
5,300.0	5,270.5	5,230.8	5,192.5	17.8	20.0	-85.13	-330.6	-513.8	738.4	708.6	29.78	24.793	
5,400.0	5,370.5	5,334.6	5,295.4	17.8	20.4	-85.84	-338.9	-525.2	748.7	718.5	30.18	24.808	
5,500.0	5,470.5	5,439.1	5,399.0	17.9	20.9	-86.49	-346.6	-535.9	758.4	727.8	30.60	24.789	
5,600.0	5,570.5	5,543.8	5,503.0	17.9	21.3	-87.07	-353.8	-545.8	767.6	736.5	31.01	24.753	
5,700.0	5,670.5	5,648.8	5,607.4	17.9	21.7	-87.60	-360.5	-555.0	776.0	744.6	31.42	24.701	
5,800.0	5,770.5	5,753.9	5,712.0	18.0	22.1	-88.07	-366.6	-563.4	783.8	752.0	31.82	24.634	
5,900.0	5,870.5	5,859.3	5,816.9	18.0	22.5	-88.50	-372.2	-571.1	791.0	758.7	32.22	24.552	
6,000.0	5,970.5	5,964.8	5,922.1	18.0	22.9	-88.87	-377.2	-578.0	797.4	764.8	32.60	24.457	
6,100.0	6,070.5	6,070.4	6,027.4	18.1	23.3	-89.20	-381.7	-584.1	803.1	770.1	32.98	24.350	
6,200.0	6,170.5	6,176.2	6,133.0	18.1	23.7	-89.48	-385.5	-589.4	808.1	774.8	33.35	24.231	
6,300.0	6,270.5	6,282.1	6,238.7	18.1	24.1	-89.71	-388.8	-594.0	812.4	778.7	33.71	24.102	
6,400.0	6,370.5	6,388.0	6,344.6	18.2	24.4	-89.91	-391.6	-597.7	816.0	781.9	34.05	23.963	
6,500.0	6,470.5	6,494.1	6,450.6	18.2	24.7	-90.06	-393.7	-600.7	818.8	784.4	34.38	23.818	
6,600.0	6,570.5	6,600.2	6,556.7	18.2	25.1	-90.17	-395.3	-602.9	820.8	786.1	34.68	23.668	
6,700.0	6,670.5	6,706.4	6,662.8	18.3	25.3	-90.24	-396.3	-604.3	822.1	787.2	34.96	23.518	
6,800.0	6,770.5	6,812.6	6,769.0	18.3	25.6	-90.27	-396.8	-604.9	822.7	787.5	35.18	23.383	
6,900.0	6,870.5	6,914.1	6,870.5	18.3	25.6	-90.27	-396.8	-604.9	822.7	787.5	35.25	23.337	
7,000.0	6,970.5	7,014.1	6,970.5	18.4	25.6	-90.27	-396.8	-604.9	822.7	787.4	35.32	23.292	
7,100.0	7,070.5	7,114.1	7,070.5	18.4	25.6	-90.27	-396.8	-604.9	822.7	787.3	35.39	23.246	
7,200.0	7,170.5	7,214.1	7,170.5	18.4	25.6	-90.27	-396.8	-604.9	822.7	787.3	35.46	23.200	
7,300.0	7,270.5	7,314.1	7,270.5	18.5	25.7	-90.27	-396.8	-604.9	822.7	787.2	35.53	23.154	
7,400.0	7,370.5	7,414.1	7,370.5	18.5	25.7	-90.27	-396.8	-604.9	822.7	787.1	35.60	23.108	
7,500.0	7,470.5	7,514.1	7,470.5	18.6	25.7	-90.27	-396.8	-604.9	822.7	787.0	35.68	23.061	
7,600.0	7,570.5	7,614.1	7,570.5	18.6	25.7	-90.27	-396.8	-604.9	822.7	787.0	35.75	23.014	
7,700.0	7,670.5	7,714.1	7,670.5	18.6	25.8	-90.27	-396.8	-604.9	822.7	786.9	35.82	22.967	
7,800.0	7,770.5	7,814.1	7,770.5	18.7	25.8	-90.27	-396.8	-604.9	822.7	786.8	35.90	22.920	
7,900.0	7,870.5	7,914.1	7,870.5	18.7	25.8	-90.27	-396.8	-604.9	822.7	786.7	35.97	22.873	
8,000.0	7,970.5	8,014.1	7,970.5	18.7	25.8	-90.27	-396.8	-604.9	822.7	786.7	36.04	22.825	
8,100.0	8,070.5	8,114.1	8,070.5	18.8	25.8	-90.27	-396.8	-604.9	822.7	786.6	36.12	22.777	
8,200.0	8,170.5	8,214.1	8,170.5	18.8	25.9	-90.27	-396.8	-604.9	822.7	786.5	36.20	22.730	
8,300.0	8,270.5	8,314.1	8,270.5	18.9	25.9	-90.27	-396.8	-604.9	822.7	786.4	36.27	22.682	
8,400.0	8,370.5	8,414.1	8,370.5	18.9	25.9	-90.27	-396.8	-604.9	822.7	786.4	36.35	22.633	
8,500.0	8,470.5	8,514.1	8,470.5	18.9	25.9	-90.27	-396.8	-604.9	822.7	786.3	36.43	22.585	
8,600.0	8,570.5	8,614.1	8,570.5	19.0	26.0	-90.27	-396.8	-604.9	822.7	786.2	36.51	22.537	
8,700.0	8,670.5	8,714.1	8,670.5	19.0	26.0	-90.27	-396.8	-604.9	822.7	786.1	36.58	22.488	
8,800.0	8,770.5	8,814.1	8,770.5	19.1	26.0	-90.27	-396.8	-604.9	822.7	786.0	36.66	22.440	
8,900.0	8,870.5	8,914.1	8,870.5	19.1	26.0	-90.27	-396.8	-604.9	822.7	786.0	36.74	22.391	
9,000.0	8,970.5	9,014.1	8,970.5	19.1	26.1	-90.27	-396.8	-604.9	822.7	785.9	36.82	22.342	
9,100.0	9,070.5	9,114.1	9,070.5	19.2	26.1	-90.27	-396.8	-604.9	822.7	785.8	36.90	22.293	
9,200.0	9,170.5	9,214.1	9,170.5	19.2	26.1	-90.27	-396.8	-604.9	822.7	785.7	36.99	22.244	
9,300.0	9,270.5	9,314.1	9,270.5	19.3	26.1	-90.27	-396.8	-604.9	822.7	785.6	37.07	22.195	
9,400.0	9,370.5	9,414.1	9,370.5	19.3	26.2	-90.27	-396.8	-604.9	822.7	785.6	37.15	22.145	
9,500.0	9,470.5	9,514.1	9,470.5	19.4	26.2	-90.27	-396.8	-604.9	822.7	785.5	37.23	22.096	
9,600.0	9,570.5	9,614.1	9,570.5	19.4	26.2	-90.27	-396.8	-604.9	822.7	785.4	37.32	22.046	
9,700.0	9,670.5	9,714.1	9,670.5	19.4	26.2	-90.27	-396.8	-604.9	822.7	785.3	37.40	21.997	
9,800.0	9,770.5	9,814.1	9,770.5	19.5	26.3	-90.27	-396.8	-604.9	822.7	785.2	37.49	21.947	
9,900.0	9,870.5	9,914.1	9,870.5	19.5	26.3	-90.27	-396.8	-604.9	822.7	785.1	37.57	21.898	
10,000.0	9,970.5	10,014.1	9,970.5	19.6	26.3	-90.27	-396.8	-604.9	822.7	785.1	37.66	21.848	
10,100.0	10,070.5	10,114.1	10,070.5	19.6	26.3	-90.27	-396.8	-604.9	822.7	785.0	37.74	21.798	
10,200.0	10,170.5	10,214.1	10,170.5	19.7	26.4	-90.27	-396.8	-604.9	822.7	784.9	37.83	21.748	
10,300.0	10,270.5	10,314.1	10,270.5	19.7	26.4	-90.27	-396.8	-604.9	822.7	784.8	37.92	21.698	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	10,370.5	10,414.1	10,370.5	19.7	26.4	-90.27	-396.8	-604.9	822.7	784.7	38.00	21.648	
10,500.0	10,470.5	10,514.1	10,470.5	19.8	26.5	-90.27	-396.8	-604.9	822.7	784.6	38.09	21.598	
10,600.0	10,570.5	10,614.1	10,570.5	19.8	26.5	-90.27	-396.8	-604.9	822.7	784.5	38.18	21.548	
10,700.0	10,670.5	10,714.1	10,670.5	19.9	26.5	-90.27	-396.8	-604.9	822.7	784.4	38.27	21.498	
10,800.0	10,770.5	10,814.1	10,770.5	19.9	26.5	-90.27	-396.8	-604.9	822.7	784.4	38.36	21.448	
10,900.0	10,870.5	10,914.1	10,870.5	20.0	26.6	-90.27	-396.8	-604.9	822.7	784.3	38.45	21.398	
11,000.0	10,970.5	11,014.1	10,970.5	20.0	26.6	-90.27	-396.8	-604.9	822.7	784.2	38.54	21.348	
11,100.0	11,070.5	11,113.9	11,070.3	20.1	26.6	-89.53	-396.4	-604.9	822.7	784.1	38.60	21.316	
11,200.0	11,169.1	11,213.2	11,168.8	20.2	26.7	-89.80	-384.4	-605.1	822.7	784.0	38.63	21.297	
11,300.0	11,263.4	11,313.1	11,264.3	20.3	26.7	-90.08	-355.3	-605.4	822.6	784.0	38.64	21.291	
11,400.0	11,350.7	11,413.8	11,353.9	20.4	26.8	-90.35	-309.8	-606.0	822.6	783.9	38.63	21.293	
11,500.0	11,428.1	11,515.1	11,434.6	20.5	26.8	-90.62	-248.8	-606.8	822.5	783.9	38.62	21.298	
11,600.0	11,493.4	11,617.1	11,503.8	20.6	26.9	-90.86	-174.0	-607.8	822.5	783.8	38.62	21.296	
11,700.0	11,544.6	11,719.6	11,558.9	20.7	26.9	-91.08	-87.7	-608.9	822.4	783.7	38.65	21.278	
11,800.0	11,580.2	11,822.7	11,597.9	20.8	27.0	-91.27	7.6	-610.1	822.3	783.6	38.72	21.234	
11,900.0	11,599.0	11,926.2	11,619.3	20.9	27.1	-91.42	108.7	-611.4	822.2	783.4	38.86	21.160	
12,000.0	11,602.0	12,028.7	11,623.2	20.9	27.2	-91.48	211.0	-612.7	822.1	783.0	39.06	21.047	
12,100.0	11,602.0	12,128.7	11,623.0	21.0	27.3	-91.47	311.0	-614.0	821.9	782.6	39.36	20.885	
12,200.0	11,602.0	12,228.7	11,622.8	21.0	27.4	-91.46	411.0	-615.3	821.8	782.1	39.71	20.695	
12,300.0	11,602.0	12,328.7	11,622.7	21.1	27.5	-91.44	511.0	-616.6	821.7	781.5	40.12	20.478	
12,400.0	11,602.0	12,428.7	11,622.5	21.2	27.6	-91.43	611.0	-617.9	821.5	780.9	40.59	20.239	
12,500.0	11,602.0	12,528.7	11,622.3	21.3	27.8	-91.42	711.0	-619.1	821.4	780.3	41.11	19.980	
12,600.0	11,602.0	12,628.7	11,622.2	21.4	28.0	-91.41	811.0	-620.4	821.2	779.5	41.68	19.703	
12,700.0	11,602.0	12,728.7	11,622.0	21.5	28.1	-91.40	911.0	-621.7	821.1	778.8	42.30	19.411	
12,800.0	11,602.0	12,828.7	11,621.8	21.6	28.3	-91.39	1,010.9	-623.0	820.9	778.0	42.96	19.108	
12,900.0	11,602.0	12,928.7	11,621.6	21.8	28.6	-91.37	1,110.9	-624.3	820.8	777.1	43.67	18.794	
13,000.0	11,602.0	13,028.7	11,621.5	21.9	28.8	-91.36	1,210.9	-625.6	820.6	776.2	44.42	18.474	
13,100.0	11,602.0	13,128.7	11,621.3	22.1	29.0	-91.35	1,310.9	-626.8	820.5	775.3	45.21	18.148	
13,200.0	11,602.0	13,228.7	11,621.1	22.3	29.3	-91.34	1,410.9	-628.1	820.3	774.3	46.04	17.819	
13,300.0	11,602.0	13,328.7	11,620.9	22.6	29.6	-91.33	1,510.9	-629.4	820.2	773.3	46.90	17.489	
13,400.0	11,602.0	13,428.7	11,620.8	22.8	29.9	-91.31	1,610.9	-630.7	820.0	772.3	47.79	17.159	
13,500.0	11,602.0	13,528.7	11,620.6	23.1	30.2	-91.30	1,710.9	-632.0	819.9	771.2	48.72	16.830	
13,600.0	11,602.0	13,628.7	11,620.4	23.4	30.5	-91.29	1,810.9	-633.3	819.8	770.1	49.67	16.504	
13,700.0	11,602.0	13,728.7	11,620.2	23.8	30.8	-91.28	1,910.9	-634.6	819.6	769.0	50.65	16.181	
13,800.0	11,602.0	13,828.7	11,620.1	24.2	31.2	-91.27	2,010.9	-635.8	819.5	767.8	51.66	15.862	
13,900.0	11,602.0	13,928.7	11,619.9	24.6	31.5	-91.25	2,110.8	-637.1	819.3	766.6	52.70	15.548	
14,000.0	11,602.0	14,028.7	11,619.7	25.1	31.9	-91.24	2,210.8	-638.4	819.2	765.4	53.75	15.240	
14,100.0	11,602.0	14,128.7	11,619.5	25.6	32.3	-91.23	2,310.8	-639.7	819.0	764.2	54.83	14.938	
14,200.0	11,602.0	14,228.7	11,619.4	26.1	32.7	-91.22	2,410.8	-641.0	818.9	763.0	55.93	14.642	
14,300.0	11,602.0	14,328.7	11,619.2	26.6	33.1	-91.21	2,510.8	-642.3	818.7	761.7	57.05	14.352	
14,400.0	11,602.0	14,428.7	11,619.0	27.1	33.6	-91.19	2,610.8	-643.5	818.6	760.4	58.18	14.070	
14,500.0	11,602.0	14,528.7	11,618.8	27.7	34.0	-91.18	2,710.8	-644.8	818.5	759.1	59.34	13.794	
14,600.0	11,602.0	14,628.7	11,618.7	28.3	34.5	-91.17	2,810.8	-646.1	818.3	757.8	60.51	13.525	
14,700.0	11,602.0	14,728.7	11,618.5	28.9	35.0	-91.16	2,910.8	-647.4	818.2	756.5	61.69	13.262	
14,800.0	11,602.0	14,828.7	11,618.3	29.5	35.4	-91.15	3,010.8	-648.7	818.0	755.1	62.89	13.007	
14,900.0	11,602.0	14,928.7	11,618.2	30.1	35.9	-91.13	3,110.8	-650.0	817.9	753.8	64.10	12.759	
15,000.0	11,602.0	15,028.7	11,618.0	30.7	36.4	-91.12	3,210.8	-651.2	817.7	752.4	65.33	12.517	
15,100.0	11,602.0	15,128.7	11,617.8	31.3	37.0	-91.11	3,310.7	-652.5	817.6	751.0	66.57	12.282	
15,200.0	11,602.0	15,228.7	11,617.6	32.0	37.5	-91.10	3,410.7	-653.8	817.4	749.6	67.82	12.054	
15,300.0	11,602.0	15,328.7	11,617.5	32.6	38.0	-91.09	3,510.7	-655.1	817.3	748.2	69.08	11.832	
15,400.0	11,602.0	15,428.7	11,617.3	33.3	38.6	-91.07	3,610.7	-656.4	817.1	746.8	70.35	11.616	
15,500.0	11,602.0	15,528.7	11,617.1	33.9	39.1	-91.06	3,710.7	-657.7	817.0	745.4	71.63	11.406	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,600.0	11,602.0	15,628.7	11,616.9	34.6	39.7	-91.05	3,810.7	-659.0	816.9	743.9	72.92	11.202	
15,700.0	11,602.0	15,728.7	11,616.8	35.3	40.2	-91.04	3,910.7	-660.2	816.7	742.5	74.22	11.004	
15,800.0	11,602.0	15,828.7	11,616.6	35.9	40.8	-91.03	4,010.7	-661.5	816.6	741.0	75.53	10.812	
15,900.0	11,602.0	15,928.7	11,616.4	36.6	41.4	-91.01	4,110.7	-662.8	816.4	739.6	76.84	10.625	
16,000.0	11,602.0	16,028.7	11,616.2	37.3	42.0	-91.00	4,210.7	-664.1	816.3	738.1	78.16	10.443	
16,100.0	11,602.0	16,128.7	11,616.1	38.0	42.6	-90.99	4,310.7	-665.4	816.1	736.6	79.49	10.267	
16,200.0	11,602.0	16,228.7	11,615.9	38.7	43.2	-90.98	4,410.7	-666.7	816.0	735.2	80.83	10.095	
16,300.0	11,602.0	16,328.7	11,615.7	39.4	43.8	-90.97	4,510.6	-667.9	815.8	733.7	82.17	9.928	
16,400.0	11,602.0	16,428.7	11,615.5	40.1	44.4	-90.95	4,610.6	-669.2	815.7	732.2	83.52	9.766	
16,500.0	11,602.0	16,528.7	11,615.4	40.8	45.0	-90.94	4,710.6	-670.5	815.6	730.7	84.88	9.608	
16,600.0	11,602.0	16,628.7	11,615.2	41.5	45.6	-90.93	4,810.6	-671.8	815.4	729.2	86.24	9.455	
16,700.0	11,602.0	16,728.7	11,615.0	42.2	46.3	-90.92	4,910.6	-673.1	815.3	727.7	87.61	9.306	
16,800.0	11,602.0	16,828.7	11,614.8	42.9	46.9	-90.90	5,010.6	-674.4	815.1	726.1	88.98	9.161	
16,900.0	11,602.0	16,928.7	11,614.7	43.6	47.5	-90.89	5,110.6	-675.6	815.0	724.6	90.36	9.020	
17,000.0	11,602.0	17,028.7	11,614.5	44.3	48.2	-90.88	5,210.6	-676.9	814.8	723.1	91.74	8.882	
17,100.0	11,602.0	17,128.7	11,614.3	45.0	48.8	-90.87	5,310.6	-678.2	814.7	721.6	93.12	8.748	
17,200.0	11,602.0	17,228.7	11,614.2	45.7	49.5	-90.86	5,410.6	-679.5	814.5	720.0	94.52	8.618	
17,300.0	11,602.0	17,328.7	11,614.0	46.4	50.1	-90.84	5,510.6	-680.8	814.4	718.5	95.91	8.491	
17,400.0	11,602.0	17,428.7	11,613.8	47.2	50.8	-90.83	5,610.5	-682.1	814.3	716.9	97.31	8.368	
17,500.0	11,602.0	17,528.7	11,613.6	47.9	51.5	-90.82	5,710.5	-683.4	814.1	715.4	98.71	8.247	
17,600.0	11,602.0	17,628.7	11,613.5	48.6	52.1	-90.81	5,810.5	-684.6	814.0	713.9	100.12	8.130	
17,700.0	11,602.0	17,728.7	11,613.3	49.3	52.8	-90.80	5,910.5	-685.9	813.8	712.3	101.53	8.016	
17,800.0	11,602.0	17,828.7	11,613.1	50.0	53.5	-90.78	6,010.5	-687.2	813.7	710.7	102.94	7.905	
17,900.0	11,602.0	17,928.7	11,612.9	50.8	54.1	-90.77	6,110.5	-688.5	813.5	709.2	104.35	7.796	
18,000.0	11,602.0	18,028.7	11,612.8	51.5	54.8	-90.76	6,210.5	-689.8	813.4	707.6	105.77	7.690	
18,100.0	11,602.0	18,128.7	11,612.6	52.2	55.5	-90.75	6,310.5	-691.1	813.2	706.1	107.20	7.587	
18,200.0	11,602.0	18,228.7	11,612.4	53.0	56.2	-90.74	6,410.5	-692.3	813.1	704.5	108.62	7.486	
18,300.0	11,602.0	18,328.7	11,612.2	53.7	56.8	-90.72	6,510.5	-693.6	813.0	702.9	110.05	7.387	
18,400.0	11,602.0	18,428.7	11,612.1	54.4	57.5	-90.71	6,610.5	-694.9	812.8	701.3	111.48	7.291	
18,500.0	11,602.0	18,528.7	11,611.9	55.1	58.2	-90.70	6,710.5	-696.2	812.7	699.8	112.91	7.197	
18,600.0	11,602.0	18,628.7	11,611.7	55.9	58.9	-90.69	6,810.4	-697.5	812.5	698.2	114.35	7.106	
18,700.0	11,602.0	18,728.7	11,611.5	56.6	59.6	-90.67	6,910.4	-698.8	812.4	696.6	115.78	7.016	
18,800.0	11,602.0	18,828.7	11,611.4	57.3	60.3	-90.66	7,010.4	-700.0	812.2	695.0	117.22	6.929	
18,900.0	11,602.0	18,928.7	11,611.2	58.1	61.0	-90.65	7,110.4	-701.3	812.1	693.4	118.67	6.844	
19,000.0	11,602.0	19,028.7	11,611.0	58.8	61.7	-90.64	7,210.4	-702.6	812.0	691.8	120.11	6.760	
19,100.0	11,602.0	19,128.7	11,610.8	59.6	62.4	-90.63	7,310.4	-703.9	811.8	690.3	121.56	6.678	
19,200.0	11,602.0	19,228.7	11,610.7	60.3	63.1	-90.61	7,410.4	-705.2	811.7	688.7	123.00	6.599	
19,300.0	11,602.0	19,328.7	11,610.5	61.0	63.8	-90.60	7,510.4	-706.5	811.5	687.1	124.45	6.521	
19,400.0	11,602.0	19,428.7	11,610.3	61.8	64.5	-90.59	7,610.4	-707.8	811.4	685.5	125.91	6.444	
19,500.0	11,602.0	19,528.7	11,610.1	62.5	65.2	-90.58	7,710.4	-709.0	811.2	683.9	127.36	6.370	
19,600.0	11,602.0	19,628.7	11,610.0	63.3	65.9	-90.56	7,810.4	-710.3	811.1	682.3	128.82	6.297	
19,700.0	11,602.0	19,728.7	11,609.8	64.0	66.6	-90.55	7,910.3	-711.6	811.0	680.7	130.27	6.225	
19,800.0	11,602.0	19,828.7	11,609.6	64.7	67.3	-90.54	8,010.3	-712.9	810.8	679.1	131.73	6.155	
19,900.0	11,602.0	19,928.7	11,609.5	65.5	68.0	-90.53	8,110.3	-714.2	810.7	677.5	133.19	6.086	
20,000.0	11,602.0	20,028.7	11,609.3	66.2	68.7	-90.52	8,210.3	-715.5	810.5	675.9	134.65	6.019	
20,100.0	11,602.0	20,128.7	11,609.1	67.0	69.4	-90.50	8,310.3	-716.7	810.4	674.3	136.12	5.954	
20,200.0	11,602.0	20,228.7	11,608.9	67.7	70.2	-90.49	8,410.3	-718.0	810.2	672.7	137.58	5.889	
20,300.0	11,602.0	20,328.7	11,608.8	68.4	70.9	-90.48	8,510.3	-719.3	810.1	671.0	139.05	5.826	
20,400.0	11,602.0	20,428.7	11,608.6	69.2	71.6	-90.47	8,610.3	-720.6	810.0	669.4	140.51	5.764	
20,500.0	11,602.0	20,528.7	11,608.4	69.9	72.3	-90.45	8,710.3	-721.9	809.8	667.8	141.98	5.704	
20,600.0	11,602.0	20,628.7	11,608.2	70.7	73.0	-90.44	8,810.3	-723.2	809.7	666.2	143.45	5.644	
20,700.0	11,602.0	20,728.7	11,608.1	71.4	73.7	-90.43	8,910.3	-724.4	809.5	664.6	144.92	5.586	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Highside	Rule Assigned:				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
20,800.0	11,602.0	20,828.7	11,607.9	72.2	74.5	-90.42	9,010.3	-725.7	809.4	663.0	146.40	5.529	
20,900.0	11,602.0	20,928.7	11,607.7	72.9	75.2	-90.41	9,110.2	-727.0	809.2	661.4	147.87	5.473	
21,000.0	11,602.0	21,028.7	11,607.5	73.7	75.9	-90.39	9,210.2	-728.3	809.1	659.8	149.34	5.418	
21,100.0	11,602.0	21,128.7	11,607.4	74.4	76.6	-90.38	9,310.2	-729.6	809.0	658.1	150.82	5.364	
21,200.0	11,602.0	21,228.7	11,607.2	75.2	77.4	-90.37	9,410.2	-730.9	808.8	656.5	152.29	5.311	
21,300.0	11,602.0	21,328.7	11,607.0	75.9	78.1	-90.36	9,510.2	-732.2	808.7	654.9	153.77	5.259	
21,400.0	11,602.0	21,428.7	11,606.8	76.7	78.8	-90.34	9,610.2	-733.4	808.5	653.3	155.25	5.208	
21,500.0	11,602.0	21,528.7	11,606.7	77.4	79.5	-90.33	9,710.2	-734.7	808.4	651.7	156.73	5.158	
21,600.0	11,602.0	21,628.7	11,606.5	78.2	80.3	-90.32	9,810.2	-736.0	808.2	650.0	158.21	5.109	
21,700.0	11,602.0	21,728.7	11,606.3	78.9	81.0	-90.31	9,910.2	-737.3	808.1	648.4	159.69	5.060	
21,800.0	11,602.0	21,828.7	11,606.1	79.7	81.7	-90.29	10,010.2	-738.6	808.0	646.8	161.17	5.013	
21,900.0	11,602.0	21,928.7	11,606.0	80.4	82.4	-90.28	10,110.2	-739.9	807.8	645.2	162.66	4.966	
22,000.0	11,602.0	22,028.7	11,605.8	81.2	83.2	-90.27	10,210.1	-741.1	807.7	643.5	164.14	4.921	
22,100.0	11,602.0	22,128.7	11,605.6	81.9	83.9	-90.26	10,310.1	-742.4	807.5	641.9	165.62	4.876	
22,200.0	11,602.0	22,228.7	11,605.5	82.7	84.6	-90.25	10,410.1	-743.7	807.4	640.3	167.11	4.831	
22,300.0	11,602.0	22,328.7	11,605.3	83.4	85.4	-90.23	10,510.1	-745.0	807.2	638.6	168.60	4.788	
22,400.0	11,602.0	22,428.7	11,605.1	84.2	86.1	-90.22	10,610.1	-746.3	807.1	637.0	170.08	4.745	
22,500.0	11,602.0	22,528.7	11,604.9	84.9	86.8	-90.21	10,710.1	-747.6	807.0	635.4	171.57	4.703	
22,600.0	11,602.0	22,628.7	11,604.8	85.7	87.6	-90.20	10,810.1	-748.8	806.8	633.8	173.06	4.662	
22,700.0	11,602.0	22,728.7	11,604.6	86.4	88.3	-90.18	10,910.1	-750.1	806.7	632.1	174.55	4.622	
22,800.0	11,602.0	22,828.7	11,604.4	87.2	89.0	-90.17	11,010.1	-751.4	806.5	630.5	176.04	4.582	
22,900.0	11,602.0	22,928.7	11,604.2	87.9	89.8	-90.16	11,110.1	-752.7	806.4	628.9	177.53	4.542	
23,000.0	11,602.0	23,028.7	11,604.1	88.7	90.5	-90.15	11,210.1	-754.0	806.2	627.2	179.02	4.504	
23,100.0	11,602.0	23,128.7	11,603.9	89.4	91.2	-90.13	11,310.1	-755.3	806.1	625.6	180.51	4.466	
23,200.0	11,602.0	23,228.7	11,603.7	90.2	92.0	-90.12	11,410.0	-756.6	806.0	624.0	182.00	4.428	
23,300.0	11,602.0	23,328.7	11,603.5	90.9	92.7	-90.11	11,510.0	-757.8	805.8	622.3	183.49	4.392	
23,400.0	11,602.0	23,428.7	11,603.4	91.7	93.5	-90.10	11,610.0	-759.1	805.7	620.7	184.99	4.355	
23,500.0	11,602.0	23,528.7	11,603.2	92.4	94.2	-90.08	11,710.0	-760.4	805.5	619.1	186.48	4.320	
23,600.0	11,602.0	23,628.7	11,603.0	93.2	94.9	-90.07	11,810.0	-761.7	805.4	617.4	187.98	4.285	
23,700.0	11,602.0	23,728.7	11,602.8	93.9	95.7	-90.06	11,910.0	-763.0	805.3	615.8	189.47	4.250	
23,800.0	11,602.0	23,828.7	11,602.7	94.7	96.4	-90.05	12,010.0	-764.3	805.1	614.1	190.97	4.216	
23,900.0	11,602.0	23,928.7	11,602.5	95.5	97.1	-90.04	12,110.0	-765.5	805.0	612.5	192.46	4.182	
24,000.0	11,602.0	24,028.7	11,602.3	96.2	97.9	-90.02	12,210.0	-766.8	804.8	610.9	193.96	4.149	
24,100.0	11,602.0	24,128.7	11,602.1	97.0	98.6	-90.01	12,310.0	-768.1	804.7	609.2	195.46	4.117	
24,200.0	11,602.0	24,228.7	11,602.0	97.7	99.4	-90.00	12,410.0	-769.4	804.5	607.6	196.95	4.085	
24,300.0	11,602.0	24,328.7	11,601.8	98.5	100.1	-89.99	12,510.0	-770.7	804.4	606.0	198.45	4.053	
24,400.0	11,602.0	24,428.7	11,601.6	99.2	100.9	-89.97	12,609.9	-772.0	804.3	604.3	199.95	4.022	
24,500.0	11,602.0	24,528.7	11,601.4	100.0	101.6	-89.96	12,709.9	-773.3	804.1	602.7	201.45	3.992	
24,580.8	11,602.0	24,609.6	11,601.3	100.6	102.2	-89.95	12,790.8	-774.3	804.0	601.3	202.66	3.967 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.4	3.0	3.0	-90.90	-0.5	-30.1	30.1				
100.0	100.0	99.6	100.0	3.0	3.0	-90.90	-0.5	-30.1	30.1	24.0	6.05	4.971	
200.0	200.0	199.6	200.0	3.2	3.2	-90.90	-0.5	-30.1	30.1	23.8	6.30	4.778	
300.0	300.0	299.6	300.0	3.3	3.3	-90.90	-0.5	-30.1	30.1	23.6	6.53	4.606	
400.0	400.0	399.6	400.0	3.4	3.4	-90.90	-0.5	-30.1	30.1	23.3	6.76	4.451	
500.0	500.0	499.6	500.0	3.5	3.5	-90.90	-0.5	-30.1	30.1	23.1	6.98	4.310	
600.0	600.0	599.6	600.0	3.6	3.6	-90.90	-0.5	-30.1	30.1	22.9	7.19	4.182	
700.0	700.0	699.6	700.0	3.8	3.8	-90.90	-0.5	-30.1	30.1	22.7	7.40	4.065	
800.0	800.0	799.6	800.0	3.9	3.9	-90.90	-0.5	-30.1	30.1	22.5	7.60	3.957	
900.0	900.0	899.6	900.0	4.0	4.0	-90.90	-0.5	-30.1	30.1	22.3	7.80	3.858	
1,000.0	1,000.0	999.6	1,000.0	4.1	4.1	-90.90	-0.5	-30.1	30.1	22.1	7.99	3.765 CC, ES	
1,100.0	1,100.0	1,099.2	1,099.5	4.3	4.3	118.00	-2.1	-30.7	31.6	23.4	8.22	3.844	
1,200.0	1,199.8	1,198.6	1,198.8	4.6	4.6	117.70	-6.8	-32.7	36.1	27.5	8.62	4.191	
1,300.0	1,299.5	1,297.7	1,297.6	4.9	4.9	117.31	-14.7	-36.0	43.7	34.7	9.02	4.843	
1,400.0	1,398.7	1,396.5	1,395.6	5.3	5.3	116.91	-25.8	-40.6	54.2	44.8	9.42	5.756	
1,500.0	1,497.7	1,495.7	1,493.9	5.5	5.5	116.67	-38.5	-45.9	66.3	56.5	9.80	6.769	
1,600.0	1,596.8	1,595.0	1,592.2	5.8	5.8	116.50	-51.3	-51.2	78.4	68.2	10.18	7.702	
1,700.0	1,695.8	1,694.3	1,690.5	6.1	6.1	116.38	-64.0	-56.5	90.5	79.9	10.57	8.562	
1,800.0	1,794.8	1,793.5	1,788.8	6.4	6.4	116.28	-76.8	-61.8	102.6	91.6	10.97	9.354	
1,900.0	1,893.8	1,892.8	1,887.1	6.7	6.7	116.21	-89.5	-67.2	114.7	103.3	11.37	10.086	
2,000.0	1,992.9	1,992.1	1,985.4	7.0	7.0	116.15	-102.3	-72.5	126.8	115.0	11.78	10.762	
2,100.0	2,091.9	2,091.3	2,083.7	7.4	7.4	116.10	-115.0	-77.8	138.9	126.7	12.19	11.389	
2,200.0	2,190.9	2,190.6	2,182.0	7.7	7.7	116.06	-127.8	-83.1	151.0	138.3	12.61	11.971	
2,300.0	2,289.9	2,289.9	2,280.3	8.1	8.1	116.02	-140.5	-88.4	163.0	150.0	13.03	12.511	
2,400.0	2,389.0	2,389.1	2,378.6	8.5	8.4	115.99	-153.3	-93.7	175.1	161.7	13.46	13.014	
2,500.0	2,488.0	2,488.4	2,476.9	8.9	8.8	115.97	-166.1	-99.0	187.2	173.3	13.89	13.483	
2,600.0	2,587.0	2,587.7	2,575.2	9.2	9.2	115.94	-178.8	-104.3	199.3	185.0	14.32	13.921	
2,700.0	2,686.1	2,686.9	2,673.5	9.6	9.6	115.92	-191.6	-109.6	211.4	196.7	14.75	14.330	
2,800.0	2,785.1	2,786.2	2,771.8	10.0	10.0	115.90	-204.3	-114.9	223.5	208.3	15.19	14.714	
2,900.0	2,884.1	2,885.5	2,870.1	10.4	10.3	115.89	-217.1	-120.2	235.6	220.0	15.63	15.074	
3,000.0	2,983.1	2,984.7	2,968.4	10.8	10.7	115.87	-229.8	-125.6	247.7	231.6	16.07	15.413	
3,100.0	3,082.2	3,084.0	3,066.7	11.2	11.1	115.86	-242.6	-130.9	259.8	243.3	16.51	15.731	
3,200.0	3,181.2	3,183.3	3,165.0	11.6	11.5	115.85	-255.3	-136.2	271.9	254.9	16.96	16.032	
3,300.0	3,280.2	3,282.5	3,263.3	12.0	11.9	115.84	-268.1	-141.5	284.0	266.6	17.41	16.315	
3,400.0	3,379.2	3,381.8	3,361.6	12.4	12.3	115.82	-280.8	-146.8	296.1	278.2	17.85	16.583	
3,500.0	3,478.3	3,481.1	3,459.9	12.8	12.7	115.82	-293.6	-152.1	308.2	289.8	18.30	16.836	
3,600.0	3,577.3	3,580.3	3,558.2	13.2	13.1	115.81	-306.3	-157.4	320.2	301.5	18.75	17.076	
3,700.0	3,676.3	3,679.6	3,656.5	13.6	13.5	115.80	-319.1	-162.7	332.3	313.1	19.21	17.304	
3,800.0	3,775.3	3,778.9	3,754.8	14.0	13.9	115.79	-331.9	-168.0	344.4	324.8	19.66	17.520	
3,900.0	3,874.4	3,879.6	3,854.6	14.4	14.3	115.82	-344.6	-173.3	356.4	336.3	20.09	17.739	
4,000.0	3,973.4	3,981.7	3,955.9	14.9	14.7	116.08	-356.0	-178.1	367.7	347.2	20.55	17.897	
4,100.0	4,072.5	4,083.9	4,057.6	15.2	15.1	116.58	-365.7	-182.1	378.1	357.1	20.97	18.034	
4,200.0	4,171.8	4,186.3	4,159.6	15.6	15.5	117.08	-373.8	-185.5	387.0	365.6	21.40	18.084	
4,300.0	4,271.3	4,288.8	4,261.9	16.0	15.9	117.57	-380.2	-188.1	394.4	372.6	21.82	18.078	
4,400.0	4,370.9	4,391.5	4,364.4	16.4	16.2	118.03	-384.9	-190.1	400.3	378.1	22.21	18.021	
4,500.0	4,470.7	4,494.2	4,467.1	16.8	16.6	118.49	-387.9	-191.3	404.6	382.1	22.58	17.917	
4,600.0	4,570.6	4,596.9	4,569.8	17.1	16.8	118.95	-389.2	-191.9	407.5	384.6	22.93	17.774	
4,700.0	4,670.6	4,697.6	4,670.6	17.4	16.8	119.33	-389.3	-191.9	409.0	385.9	23.14	17.678	
4,800.0	4,770.5	4,797.6	4,770.5	17.7	16.9	119.50	-389.3	-191.9	409.7	386.4	23.34	17.555	
4,900.0	4,870.5	4,897.6	4,870.5	17.7	16.9	-89.49	-389.3	-191.9	409.7	386.3	23.41	17.505	
5,000.0	4,970.5	4,997.6	4,970.5	17.7	16.9	-89.49	-389.3	-191.9	409.7	386.2	23.49	17.442	
5,100.0	5,070.5	5,097.6	5,070.5	17.7	17.0	-89.49	-389.3	-191.9	409.7	386.1	23.57	17.380	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
5,200.0	5,170.5	5,197.6	5,170.5	17.8	17.0	-89.49	-389.3	-191.9	409.7	386.1	23.66	17.317	
5,300.0	5,270.5	5,297.6	5,270.5	17.8	17.0	-89.49	-389.3	-191.9	409.7	386.0	23.75	17.255	
5,400.0	5,370.5	5,397.6	5,370.5	17.8	17.1	-89.49	-389.3	-191.9	409.7	385.9	23.83	17.192	
5,500.0	5,470.5	5,497.6	5,470.5	17.9	17.1	-89.49	-389.3	-191.9	409.7	385.8	23.92	17.129	
5,600.0	5,570.5	5,597.6	5,570.5	17.9	17.1	-89.49	-389.3	-191.9	409.7	385.7	24.01	17.066	
5,700.0	5,670.5	5,697.6	5,670.5	17.9	17.2	-89.49	-389.3	-191.9	409.7	385.6	24.10	17.003	
5,800.0	5,770.5	5,797.6	5,770.5	18.0	17.2	-89.49	-389.3	-191.9	409.7	385.5	24.19	16.939	
5,900.0	5,870.5	5,897.6	5,870.5	18.0	17.2	-89.49	-389.3	-191.9	409.7	385.4	24.28	16.876	
6,000.0	5,970.5	5,997.6	5,970.5	18.0	17.3	-89.49	-389.3	-191.9	409.7	385.4	24.37	16.813	
6,100.0	6,070.5	6,097.6	6,070.5	18.1	17.3	-89.49	-389.3	-191.9	409.7	385.3	24.46	16.749	
6,200.0	6,170.5	6,197.6	6,170.5	18.1	17.3	-89.49	-389.3	-191.9	409.7	385.2	24.55	16.686	
6,300.0	6,270.5	6,297.6	6,270.5	18.1	17.4	-89.49	-389.3	-191.9	409.7	385.1	24.65	16.622	
6,400.0	6,370.5	6,397.6	6,370.5	18.2	17.4	-89.49	-389.3	-191.9	409.7	385.0	24.74	16.559	
6,500.0	6,470.5	6,497.6	6,470.5	18.2	17.5	-89.49	-389.3	-191.9	409.7	384.9	24.84	16.496	
6,600.0	6,570.5	6,597.6	6,570.5	18.2	17.5	-89.49	-389.3	-191.9	409.7	384.8	24.93	16.432	
6,700.0	6,670.5	6,697.6	6,670.5	18.3	17.5	-89.49	-389.3	-191.9	409.7	384.7	25.03	16.369	
6,800.0	6,770.5	6,797.6	6,770.5	18.3	17.6	-89.49	-389.3	-191.9	409.7	384.6	25.13	16.306	
6,900.0	6,870.5	6,897.6	6,870.5	18.3	17.6	-89.49	-389.3	-191.9	409.7	384.5	25.23	16.242	
7,000.0	6,970.5	6,997.6	6,970.5	18.4	17.6	-89.49	-389.3	-191.9	409.7	384.4	25.32	16.179	
7,100.0	7,070.5	7,097.6	7,070.5	18.4	17.7	-89.49	-389.3	-191.9	409.7	384.3	25.42	16.116	
7,200.0	7,170.5	7,197.6	7,170.5	18.4	17.7	-89.49	-389.3	-191.9	409.7	384.2	25.52	16.053	
7,300.0	7,270.5	7,297.6	7,270.5	18.5	17.8	-89.49	-389.3	-191.9	409.7	384.1	25.62	15.990	
7,400.0	7,370.5	7,397.6	7,370.5	18.5	17.8	-89.49	-389.3	-191.9	409.7	384.0	25.72	15.927	
7,500.0	7,470.5	7,497.6	7,470.5	18.6	17.8	-89.49	-389.3	-191.9	409.7	383.9	25.83	15.864	
7,600.0	7,570.5	7,597.6	7,570.5	18.6	17.9	-89.49	-389.3	-191.9	409.7	383.8	25.93	15.802	
7,700.0	7,670.5	7,697.6	7,670.5	18.6	17.9	-89.49	-389.3	-191.9	409.7	383.7	26.03	15.739	
7,800.0	7,770.5	7,797.6	7,770.5	18.7	18.0	-89.49	-389.3	-191.9	409.7	383.6	26.14	15.677	
7,900.0	7,870.5	7,897.6	7,870.5	18.7	18.0	-89.49	-389.3	-191.9	409.7	383.5	26.24	15.614	
8,000.0	7,970.5	7,997.6	7,970.5	18.7	18.0	-89.49	-389.3	-191.9	409.7	383.4	26.34	15.552	
8,100.0	8,070.5	8,097.6	8,070.5	18.8	18.1	-89.49	-389.3	-191.9	409.7	383.3	26.45	15.490	
8,200.0	8,170.5	8,197.6	8,170.5	18.8	18.1	-89.49	-389.3	-191.9	409.7	383.2	26.56	15.428	
8,300.0	8,270.5	8,297.6	8,270.5	18.9	18.2	-89.49	-389.3	-191.9	409.7	383.1	26.66	15.367	
8,400.0	8,370.5	8,397.6	8,370.5	18.9	18.2	-89.49	-389.3	-191.9	409.7	383.0	26.77	15.305	
8,500.0	8,470.5	8,497.6	8,470.5	18.9	18.2	-89.49	-389.3	-191.9	409.7	382.8	26.88	15.244	
8,600.0	8,570.5	8,597.6	8,570.5	19.0	18.3	-89.49	-389.3	-191.9	409.7	382.7	26.99	15.183	
8,700.0	8,670.5	8,697.6	8,670.5	19.0	18.3	-89.49	-389.3	-191.9	409.7	382.6	27.09	15.122	
8,800.0	8,770.5	8,797.6	8,770.5	19.1	18.4	-89.49	-389.3	-191.9	409.7	382.5	27.20	15.061	
8,900.0	8,870.5	8,897.6	8,870.5	19.1	18.4	-89.49	-389.3	-191.9	409.7	382.4	27.31	15.000	
9,000.0	8,970.5	8,997.6	8,970.5	19.1	18.5	-89.49	-389.3	-191.9	409.7	382.3	27.42	14.940	
9,100.0	9,070.5	9,097.6	9,070.5	19.2	18.5	-89.49	-389.3	-191.9	409.7	382.2	27.54	14.880	
9,200.0	9,170.5	9,197.6	9,170.5	19.2	18.5	-89.49	-389.3	-191.9	409.7	382.1	27.65	14.820	
9,300.0	9,270.5	9,297.6	9,270.5	19.3	18.6	-89.49	-389.3	-191.9	409.7	382.0	27.76	14.760	
9,400.0	9,370.5	9,397.6	9,370.5	19.3	18.6	-89.49	-389.3	-191.9	409.7	381.8	27.87	14.700	
9,500.0	9,470.5	9,497.6	9,470.5	19.4	18.7	-89.49	-389.3	-191.9	409.7	381.7	27.98	14.641	
9,600.0	9,570.5	9,597.6	9,570.5	19.4	18.7	-89.49	-389.3	-191.9	409.7	381.6	28.10	14.582	
9,700.0	9,670.5	9,697.6	9,670.5	19.4	18.8	-89.49	-389.3	-191.9	409.7	381.5	28.21	14.523	
9,800.0	9,770.5	9,797.6	9,770.5	19.5	18.8	-89.49	-389.3	-191.9	409.7	381.4	28.33	14.464	
9,900.0	9,870.5	9,897.6	9,870.5	19.5	18.9	-89.49	-389.3	-191.9	409.7	381.3	28.44	14.406	
10,000.0	9,970.5	9,997.6	9,970.5	19.6	18.9	-89.49	-389.3	-191.9	409.7	381.2	28.56	14.348	
10,100.0	10,070.5	10,097.6	10,070.5	19.6	19.0	-89.49	-389.3	-191.9	409.7	381.0	28.67	14.290	
10,200.0	10,170.5	10,197.6	10,170.5	19.7	19.0	-89.49	-389.3	-191.9	409.7	380.9	28.79	14.232	
10,300.0	10,270.5	10,297.6	10,270.5	19.7	19.0	-89.49	-389.3	-191.9	409.7	380.8	28.91	14.174	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,400.0	10,370.5	10,397.6	10,370.5	19.7	19.1	-89.49	-389.3	-191.9	409.7	380.7	29.02	14.117	
10,500.0	10,470.5	10,497.6	10,470.5	19.8	19.1	-89.49	-389.3	-191.9	409.7	380.6	29.14	14.060	
10,600.0	10,570.5	10,597.6	10,570.5	19.8	19.2	-89.49	-389.3	-191.9	409.7	380.5	29.26	14.003	
10,700.0	10,670.5	10,697.6	10,670.5	19.9	19.2	-89.49	-389.3	-191.9	409.7	380.3	29.38	13.947	
10,800.0	10,770.5	10,797.6	10,770.5	19.9	19.3	-89.49	-389.3	-191.9	409.7	380.2	29.50	13.891	
10,900.0	10,870.5	10,897.6	10,870.5	20.0	19.3	-89.49	-389.3	-191.9	409.7	380.1	29.62	13.835	
11,000.0	10,970.5	10,997.6	10,970.5	20.0	19.4	-89.49	-389.3	-191.9	409.7	380.0	29.74	13.779	
11,100.0	11,070.5	11,097.6	11,070.5	20.1	19.4	-88.89	-389.3	-191.9	409.7	379.9	29.82	13.739	
11,162.9	11,132.9	11,160.0	11,132.9	20.1	19.5	-90.00	-389.3	-191.9	409.6	379.8	29.84	13.727	
11,200.0	11,169.1	11,196.2	11,169.1	20.2	19.5	-91.07	-389.3	-191.9	409.7	379.8	29.85	13.726	
11,300.0	11,263.4	11,294.9	11,267.7	20.3	19.5	-94.96	-385.6	-192.0	411.3	381.5	29.84	13.782	
11,400.0	11,350.7	11,399.9	11,370.4	20.4	19.7	-98.94	-364.4	-192.3	415.1	385.2	29.92	13.872	
11,500.0	11,428.1	11,511.8	11,473.5	20.5	19.8	-102.71	-321.6	-192.8	420.7	390.5	30.18	13.939	
11,600.0	11,493.4	11,631.2	11,572.2	20.6	20.0	-106.15	-254.8	-193.8	427.4	396.7	30.72	13.912	
11,700.0	11,544.6	11,758.5	11,659.8	20.7	20.1	-109.08	-162.7	-195.0	434.2	402.6	31.59	13.746	
11,800.0	11,580.2	11,893.1	11,727.9	20.8	20.2	-111.32	-47.0	-196.6	440.0	407.3	32.68	13.464	
11,900.0	11,599.0	12,033.5	11,768.2	20.9	20.3	-112.70	87.1	-198.4	443.9	410.1	33.76	13.148	
12,000.0	11,602.0	12,162.8	11,776.4	20.9	20.4	-113.08	215.9	-200.2	444.9	410.5	34.40	12.932	
12,100.0	11,602.0	12,262.8	11,776.4	21.0	20.4	-113.08	315.9	-201.6	444.8	410.1	34.74	12.804	
12,200.0	11,602.0	12,362.8	11,776.4	21.0	20.5	-113.09	415.9	-202.9	444.8	409.6	35.15	12.654	
12,300.0	11,602.0	12,462.8	11,776.4	21.1	20.5	-113.09	515.9	-204.3	444.7	409.1	35.62	12.486	
12,400.0	11,602.0	12,562.8	11,776.4	21.2	20.6	-113.09	615.9	-205.7	444.7	408.5	36.15	12.302	
12,500.0	11,602.0	12,662.8	11,776.4	21.3	20.7	-113.09	715.9	-207.0	444.6	407.9	36.73	12.105	
12,600.0	11,602.0	12,762.8	11,776.4	21.4	20.8	-113.10	815.9	-208.4	444.6	407.2	37.37	11.896	
12,700.0	11,602.0	12,862.8	11,776.4	21.5	20.9	-113.10	915.9	-209.8	444.5	406.4	38.06	11.679	
12,800.0	11,602.0	12,962.8	11,776.4	21.6	21.0	-113.10	1,015.9	-211.1	444.4	405.7	38.80	11.456	
12,900.0	11,602.0	13,062.8	11,776.4	21.8	21.1	-113.11	1,115.8	-212.5	444.4	404.8	39.58	11.227	
13,000.0	11,602.0	13,162.8	11,776.4	21.9	21.2	-113.11	1,215.8	-213.9	444.3	403.9	40.41	10.996	
13,100.0	11,602.0	13,262.8	11,776.4	22.1	21.4	-113.11	1,315.8	-215.2	444.3	403.0	41.28	10.763	
13,200.0	11,602.0	13,362.8	11,776.4	22.3	21.6	-113.12	1,415.8	-216.6	444.2	402.1	42.18	10.531	
13,300.0	11,602.0	13,462.8	11,776.4	22.6	21.8	-113.12	1,515.8	-218.0	444.2	401.1	43.13	10.300	
13,400.0	11,602.0	13,562.8	11,776.4	22.8	22.1	-113.12	1,615.8	-219.3	444.1	400.0	44.10	10.071	
13,500.0	11,602.0	13,662.8	11,776.4	23.1	22.4	-113.12	1,715.8	-220.7	444.1	399.0	45.11	9.845	
13,600.0	11,602.0	13,762.8	11,776.4	23.4	22.7	-113.13	1,815.8	-222.1	444.0	397.9	46.14	9.622	
13,700.0	11,602.0	13,862.8	11,776.4	23.8	23.1	-113.13	1,915.8	-223.5	444.0	396.8	47.21	9.405	
13,800.0	11,602.0	13,962.8	11,776.4	24.2	23.5	-113.13	2,015.8	-224.8	443.9	395.6	48.30	9.192	
13,900.0	11,602.0	14,062.8	11,776.4	24.6	23.9	-113.14	2,115.8	-226.2	443.9	394.5	49.41	8.984	
14,000.0	11,602.0	14,162.8	11,776.4	25.1	24.4	-113.14	2,215.7	-227.6	443.8	393.3	50.54	8.781	
14,100.0	11,602.0	14,262.8	11,776.4	25.6	24.9	-113.14	2,315.7	-228.9	443.8	392.1	51.70	8.584	
14,200.0	11,602.0	14,362.8	11,776.4	26.1	25.4	-113.14	2,415.7	-230.3	443.7	390.8	52.87	8.392	
14,300.0	11,602.0	14,462.8	11,776.4	26.6	26.0	-113.15	2,515.7	-231.7	443.7	389.6	54.07	8.206	
14,400.0	11,602.0	14,562.8	11,776.4	27.1	26.5	-113.15	2,615.7	-233.0	443.6	388.3	55.28	8.025	
14,500.0	11,602.0	14,662.8	11,776.4	27.7	27.1	-113.15	2,715.7	-234.4	443.5	387.0	56.50	7.850	
14,600.0	11,602.0	14,762.8	11,776.4	28.3	27.7	-113.16	2,815.7	-235.8	443.5	385.8	57.74	7.681	
14,700.0	11,602.0	14,862.8	11,776.4	28.9	28.3	-113.16	2,915.7	-237.1	443.4	384.4	59.00	7.516	
14,800.0	11,602.0	14,962.8	11,776.4	29.5	29.0	-113.16	3,015.7	-238.5	443.4	383.1	60.26	7.357	
14,900.0	11,602.0	15,062.8	11,776.4	30.1	29.6	-113.17	3,115.7	-239.9	443.3	381.8	61.54	7.203	
15,000.0	11,602.0	15,162.8	11,776.4	30.7	30.2	-113.17	3,215.7	-241.2	443.3	380.4	62.84	7.055	
15,100.0	11,602.0	15,262.8	11,776.4	31.3	30.9	-113.17	3,315.6	-242.6	443.2	379.1	64.14	6.911	
15,200.0	11,602.0	15,362.8	11,776.4	32.0	31.5	-113.17	3,415.6	-244.0	443.2	377.7	65.45	6.771	
15,300.0	11,602.0	15,462.8	11,776.4	32.6	32.2	-113.18	3,515.6	-245.3	443.1	376.4	66.77	6.636	
15,400.0	11,602.0	15,562.8	11,776.4	33.3	32.8	-113.18	3,615.6	-246.7	443.1	375.0	68.10	6.506	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,500.0	11,602.0	15,662.8	11,776.4	33.9	33.5	-113.18	3,715.6	-248.1	443.0	373.6	69.44	6.380	
15,600.0	11,602.0	15,762.8	11,776.4	34.6	34.2	-113.19	3,815.6	-249.4	443.0	372.2	70.79	6.257	
15,700.0	11,602.0	15,862.8	11,776.4	35.3	34.9	-113.19	3,915.6	-250.8	442.9	370.8	72.14	6.139	
15,800.0	11,602.0	15,962.8	11,776.4	35.9	35.6	-113.19	4,015.6	-252.2	442.9	369.4	73.51	6.025	
15,900.0	11,602.0	16,062.8	11,776.4	36.6	36.3	-113.19	4,115.6	-253.6	442.8	367.9	74.88	5.914	
16,000.0	11,602.0	16,162.8	11,776.4	37.3	36.9	-113.20	4,215.6	-254.9	442.8	366.5	76.25	5.807	
16,100.0	11,602.0	16,262.8	11,776.4	38.0	37.6	-113.20	4,315.5	-256.3	442.7	365.1	77.63	5.703	
16,200.0	11,602.0	16,362.8	11,776.4	38.7	38.3	-113.20	4,415.5	-257.7	442.6	363.6	79.02	5.602	
16,300.0	11,602.0	16,462.8	11,776.4	39.4	39.0	-113.21	4,515.5	-259.0	442.6	362.2	80.41	5.504	
16,400.0	11,602.0	16,562.8	11,776.4	40.1	39.7	-113.21	4,615.5	-260.4	442.5	360.7	81.81	5.409	
16,500.0	11,602.0	16,662.8	11,776.4	40.8	40.4	-113.21	4,715.5	-261.8	442.5	359.3	83.21	5.318	
16,600.0	11,602.0	16,762.8	11,776.4	41.5	41.2	-113.22	4,815.5	-263.1	442.4	357.8	84.62	5.229	
16,700.0	11,602.0	16,862.8	11,776.4	42.2	41.9	-113.22	4,915.5	-264.5	442.4	356.4	86.03	5.142	
16,800.0	11,602.0	16,962.8	11,776.4	42.9	42.6	-113.22	5,015.5	-265.9	442.3	354.9	87.45	5.058	
16,900.0	11,602.0	17,062.8	11,776.4	43.6	43.3	-113.22	5,115.5	-267.2	442.3	353.4	88.86	4.977	
17,000.0	11,602.0	17,162.8	11,776.4	44.3	44.0	-113.23	5,215.5	-268.6	442.2	351.9	90.29	4.898	
17,100.0	11,602.0	17,262.8	11,776.4	45.0	44.7	-113.23	5,315.5	-270.0	442.2	350.5	91.72	4.821	
17,200.0	11,602.0	17,362.8	11,776.4	45.7	45.4	-113.23	5,415.4	-271.3	442.1	349.0	93.15	4.746	
17,300.0	11,602.0	17,462.8	11,776.4	46.4	46.2	-113.24	5,515.4	-272.7	442.1	347.5	94.58	4.674	
17,400.0	11,602.0	17,562.8	11,776.4	47.2	46.9	-113.24	5,615.4	-274.1	442.0	346.0	96.02	4.603	
17,500.0	11,602.0	17,662.8	11,776.4	47.9	47.6	-113.24	5,715.4	-275.4	442.0	344.5	97.46	4.535	
17,600.0	11,602.0	17,762.8	11,776.4	48.6	48.3	-113.24	5,815.4	-276.8	441.9	343.0	98.90	4.468	
17,700.0	11,602.0	17,862.8	11,776.4	49.3	49.1	-113.25	5,915.4	-278.2	441.9	341.5	100.35	4.403	
17,800.0	11,602.0	17,962.8	11,776.4	50.0	49.8	-113.25	6,015.4	-279.5	441.8	340.0	101.79	4.340	
17,900.0	11,602.0	18,062.8	11,776.4	50.8	50.5	-113.25	6,115.4	-280.9	441.7	338.5	103.25	4.279	
18,000.0	11,602.0	18,162.8	11,776.4	51.5	51.3	-113.26	6,215.4	-282.3	441.7	337.0	104.70	4.219	
18,100.0	11,602.0	18,262.8	11,776.4	52.2	52.0	-113.26	6,315.4	-283.7	441.6	335.5	106.16	4.160	
18,200.0	11,602.0	18,362.8	11,776.4	53.0	52.7	-113.26	6,415.4	-285.0	441.6	334.0	107.61	4.103	
18,300.0	11,602.0	18,462.8	11,776.4	53.7	53.5	-113.27	6,515.3	-286.4	441.5	332.5	109.07	4.048	
18,400.0	11,602.0	18,562.8	11,776.4	54.4	54.2	-113.27	6,615.3	-287.8	441.5	330.9	110.54	3.994	
18,500.0	11,602.0	18,662.8	11,776.4	55.1	54.9	-113.27	6,715.3	-289.1	441.4	329.4	112.00	3.941	
18,600.0	11,602.0	18,762.8	11,776.4	55.9	55.7	-113.27	6,815.3	-290.5	441.4	327.9	113.47	3.890	
18,700.0	11,602.0	18,862.8	11,776.4	56.6	56.4	-113.28	6,915.3	-291.9	441.3	326.4	114.93	3.840	
18,800.0	11,602.0	18,962.8	11,776.4	57.3	57.1	-113.28	7,015.3	-293.2	441.3	324.9	116.40	3.791	
18,900.0	11,602.0	19,062.8	11,776.4	58.1	57.9	-113.28	7,115.3	-294.6	441.2	323.3	117.88	3.743	
19,000.0	11,602.0	19,162.8	11,776.4	58.8	58.6	-113.29	7,215.3	-296.0	441.2	321.8	119.35	3.696	
19,100.0	11,602.0	19,262.8	11,776.4	59.6	59.3	-113.29	7,315.3	-297.3	441.1	320.3	120.82	3.651	
19,200.0	11,602.0	19,362.8	11,776.4	60.3	60.1	-113.29	7,415.3	-298.7	441.1	318.8	122.30	3.606	
19,300.0	11,602.0	19,462.8	11,776.4	61.0	60.8	-113.29	7,515.2	-300.1	441.0	317.2	123.78	3.563	
19,400.0	11,602.0	19,562.8	11,776.4	61.8	61.6	-113.30	7,615.2	-301.4	441.0	315.7	125.26	3.520	
19,500.0	11,602.0	19,662.8	11,776.4	62.5	62.3	-113.30	7,715.2	-302.8	440.9	314.2	126.74	3.479	
19,600.0	11,602.0	19,762.8	11,776.4	63.3	63.1	-113.30	7,815.2	-304.2	440.8	312.6	128.22	3.438	
19,700.0	11,602.0	19,862.8	11,776.4	64.0	63.8	-113.31	7,915.2	-305.5	440.8	311.1	129.70	3.398	
19,800.0	11,602.0	19,962.8	11,776.4	64.7	64.5	-113.31	8,015.2	-306.9	440.7	309.6	131.19	3.360	
19,900.0	11,602.0	20,062.8	11,776.4	65.5	65.3	-113.31	8,115.2	-308.3	440.7	308.0	132.67	3.322	
20,000.0	11,602.0	20,162.8	11,776.4	66.2	66.0	-113.32	8,215.2	-309.6	440.6	306.5	134.16	3.284	
20,100.0	11,602.0	20,262.8	11,776.4	67.0	66.8	-113.32	8,315.2	-311.0	440.6	304.9	135.65	3.248	
20,200.0	11,602.0	20,362.8	11,776.4	67.7	67.5	-113.32	8,415.2	-312.4	440.5	303.4	137.14	3.212	
20,300.0	11,602.0	20,462.8	11,776.4	68.4	68.3	-113.32	8,515.2	-313.8	440.5	301.8	138.63	3.177	
20,400.0	11,602.0	20,562.8	11,776.4	69.2	69.0	-113.33	8,615.1	-315.1	440.4	300.3	140.12	3.143	
20,500.0	11,602.0	20,662.8	11,776.4	69.9	69.8	-113.33	8,715.1	-316.5	440.4	298.8	141.61	3.110	
20,600.0	11,602.0	20,762.8	11,776.4	70.7	70.5	-113.33	8,815.1	-317.9	440.3	297.2	143.10	3.077	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11231-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
20,700.0	11,602.0	20,862.8	11,776.4	71.4	71.2	-113.34	8,915.1	-319.2	440.3	295.7	144.59	3.045		
20,800.0	11,602.0	20,962.8	11,776.4	72.2	72.0	-113.34	9,015.1	-320.6	440.2	294.1	146.09	3.013		
20,900.0	11,602.0	21,062.8	11,776.4	72.9	72.7	-113.34	9,115.1	-322.0	440.2	292.6	147.58	2.982		
21,000.0	11,602.0	21,162.8	11,776.4	73.7	73.5	-113.35	9,215.1	-323.3	440.1	291.0	149.08	2.952		
21,100.0	11,602.0	21,262.8	11,776.4	74.4	74.2	-113.35	9,315.1	-324.7	440.1	289.5	150.58	2.922		
21,200.0	11,602.0	21,362.8	11,776.4	75.2	75.0	-113.35	9,415.1	-326.1	440.0	287.9	152.08	2.893		
21,300.0	11,602.0	21,462.8	11,776.4	75.9	75.7	-113.35	9,515.1	-327.4	439.9	286.4	153.57	2.865		
21,400.0	11,602.0	21,562.8	11,776.4	76.7	76.5	-113.36	9,615.1	-328.8	439.9	284.8	155.07	2.837		
21,500.0	11,602.0	21,662.8	11,776.4	77.4	77.2	-113.36	9,715.0	-330.2	439.8	283.3	156.57	2.809		
21,600.0	11,602.0	21,762.8	11,776.4	78.2	78.0	-113.36	9,815.0	-331.5	439.8	281.7	158.08	2.782		
21,700.0	11,602.0	21,862.8	11,776.4	78.9	78.7	-113.37	9,915.0	-332.9	439.7	280.2	159.58	2.756		
21,800.0	11,602.0	21,962.8	11,776.4	79.7	79.5	-113.37	10,015.0	-334.3	439.7	278.6	161.08	2.730		
21,900.0	11,602.0	22,062.8	11,776.4	80.4	80.2	-113.37	10,115.0	-335.6	439.6	277.0	162.58	2.704		
22,000.0	11,602.0	22,162.8	11,776.4	81.2	81.0	-113.37	10,215.0	-337.0	439.6	275.5	164.09	2.679		
22,100.0	11,602.0	22,262.8	11,776.4	81.9	81.7	-113.38	10,315.0	-338.4	439.5	273.9	165.59	2.654		
22,200.0	11,602.0	22,362.8	11,776.4	82.7	82.5	-113.38	10,415.0	-339.7	439.5	272.4	167.09	2.630		
22,300.0	11,602.0	22,462.8	11,776.4	83.4	83.2	-113.38	10,515.0	-341.1	439.4	270.8	168.60	2.606		
22,400.0	11,602.0	22,562.8	11,776.4	84.2	84.0	-113.39	10,615.0	-342.5	439.4	269.3	170.11	2.583		
22,500.0	11,602.0	22,662.8	11,776.4	84.9	84.8	-113.39	10,714.9	-343.9	439.3	267.7	171.61	2.560		
22,600.0	11,602.0	22,762.8	11,776.4	85.7	85.5	-113.39	10,814.9	-345.2	439.3	266.1	173.12	2.537		
22,700.0	11,602.0	22,862.8	11,776.4	86.4	86.3	-113.40	10,914.9	-346.6	439.2	264.6	174.63	2.515		
22,800.0	11,602.0	22,962.8	11,776.4	87.2	87.0	-113.40	11,014.9	-348.0	439.2	263.0	176.13	2.493		
22,900.0	11,602.0	23,062.8	11,776.4	87.9	87.8	-113.40	11,114.9	-349.3	439.1	261.5	177.64	2.472		
23,000.0	11,602.0	23,162.8	11,776.4	88.7	88.5	-113.40	11,214.9	-350.7	439.0	259.9	179.15	2.451		
23,100.0	11,602.0	23,262.8	11,776.4	89.4	89.3	-113.41	11,314.9	-352.1	439.0	258.3	180.66	2.430		
23,200.0	11,602.0	23,362.8	11,776.4	90.2	90.0	-113.41	11,414.9	-353.4	438.9	256.8	182.17	2.409		
23,300.0	11,602.0	23,462.8	11,776.4	90.9	90.8	-113.41	11,514.9	-354.8	438.9	255.2	183.68	2.389		
23,400.0	11,602.0	23,562.8	11,776.4	91.7	91.5	-113.42	11,614.9	-356.2	438.8	253.6	185.19	2.370		
23,500.0	11,602.0	23,662.8	11,776.4	92.4	92.3	-113.42	11,714.9	-357.5	438.8	252.1	186.70	2.350		
23,600.0	11,602.0	23,762.8	11,776.4	93.2	93.0	-113.42	11,814.8	-358.9	438.7	250.5	188.21	2.331		
23,700.0	11,602.0	23,862.8	11,776.4	93.9	93.8	-113.43	11,914.8	-360.3	438.7	248.9	189.73	2.312		
23,800.0	11,602.0	23,962.8	11,776.4	94.7	94.6	-113.43	12,014.8	-361.6	438.6	247.4	191.24	2.294		
23,900.0	11,602.0	24,062.8	11,776.4	95.5	95.3	-113.43	12,114.8	-363.0	438.6	245.8	192.75	2.275		
24,000.0	11,602.0	24,162.8	11,776.4	96.2	96.1	-113.43	12,214.8	-364.4	438.5	244.3	194.26	2.257		
24,100.0	11,602.0	24,262.8	11,776.4	97.0	96.8	-113.44	12,314.8	-365.7	438.5	242.7	195.78	2.240		
24,200.0	11,602.0	24,362.8	11,776.4	97.7	97.6	-113.44	12,414.8	-367.1	438.4	241.1	197.29	2.222		
24,300.0	11,602.0	24,462.8	11,776.4	98.5	98.3	-113.44	12,514.8	-368.5	438.4	239.6	198.81	2.205		
24,400.0	11,602.0	24,562.8	11,776.4	99.2	99.1	-113.45	12,614.8	-369.8	438.3	238.0	200.32	2.188		
24,500.0	11,602.0	24,662.8	11,776.4	100.0	99.8	-113.45	12,714.8	-371.2	438.3	236.4	201.84	2.171		
24,580.8	11,602.0	24,743.6	11,776.4	100.6	100.4	-113.45	12,795.6	-372.3	438.2	235.2	203.06	2.158 SF		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.5	0.0	3.0	3.0	89.10	0.5	29.8	29.8				
100.0	100.0	100.5	100.0	3.0	3.0	89.10	0.5	29.8	29.8	23.7	6.05	4.918	
200.0	200.0	200.5	200.0	3.2	3.2	89.10	0.5	29.8	29.8	23.5	6.30	4.727	
300.0	300.0	300.5	300.0	3.3	3.3	89.10	0.5	29.8	29.8	23.2	6.53	4.556	
400.0	400.0	400.5	400.0	3.4	3.4	89.10	0.5	29.8	29.8	23.0	6.76	4.403	
500.0	500.0	500.5	500.0	3.5	3.5	89.10	0.5	29.8	29.8	22.8	6.98	4.264	
600.0	600.0	600.5	600.0	3.6	3.6	89.10	0.5	29.8	29.8	22.6	7.19	4.137	
700.0	700.0	700.5	700.0	3.8	3.8	89.10	0.5	29.8	29.8	22.4	7.40	4.021	
800.0	800.0	800.5	800.0	3.9	3.9	89.10	0.5	29.8	29.8	22.2	7.60	3.915	
900.0	900.0	900.5	900.0	4.0	4.0	89.10	0.5	29.8	29.8	22.0	7.80	3.816	
916.5	916.5	917.0	916.5	4.0	4.0	89.10	0.5	29.8	29.8	21.9	7.85	3.793 CC	
1,000.0	1,000.0	1,000.5	1,000.0	4.1	4.2	89.10	0.5	29.8	29.8	21.7	8.09	3.678 ES	
1,100.0	1,100.0	1,100.0	1,099.5	4.3	4.4	-62.96	-0.5	31.2	30.4	21.9	8.46	3.593	
1,200.0	1,199.8	1,198.7	1,198.1	4.6	4.7	-65.87	-3.3	35.5	32.3	23.4	8.89	3.638	
1,300.0	1,299.5	1,297.7	1,296.7	4.9	5.0	-70.01	-7.9	42.7	35.7	26.4	9.28	3.845	
1,400.0	1,398.7	1,396.6	1,394.9	5.3	5.3	-74.60	-14.5	52.8	40.7	31.0	9.65	4.211	
1,500.0	1,497.7	1,496.4	1,493.6	5.5	5.6	-78.65	-22.0	64.4	46.6	36.7	9.98	4.671	
1,600.0	1,596.8	1,596.1	1,592.4	5.8	5.9	-81.76	-29.6	76.0	52.8	42.5	10.33	5.114	
1,700.0	1,695.8	1,695.9	1,691.2	6.1	6.1	-84.22	-37.1	87.7	59.1	48.4	10.67	5.538	
1,800.0	1,794.8	1,795.7	1,790.0	6.4	6.4	-86.20	-44.7	99.3	65.5	54.5	11.02	5.941	
1,900.0	1,893.8	1,895.5	1,888.8	6.7	6.8	-87.82	-52.3	111.0	71.9	60.5	11.37	6.325	
2,000.0	1,992.9	1,995.2	1,987.7	7.0	7.1	-89.18	-59.8	122.6	78.4	66.7	11.72	6.688	
2,100.0	2,091.9	2,095.0	2,086.5	7.4	7.4	-90.33	-67.4	134.3	84.9	72.9	12.08	7.033	
2,200.0	2,190.9	2,194.8	2,185.3	7.7	7.8	-91.32	-75.0	145.9	91.5	79.1	12.43	7.360	
2,300.0	2,289.9	2,294.6	2,284.1	8.1	8.1	-92.17	-82.5	157.6	98.1	85.3	12.79	7.670	
2,400.0	2,389.0	2,394.3	2,382.9	8.5	8.5	-92.92	-90.1	169.2	104.7	91.5	13.14	7.964	
2,500.0	2,488.0	2,494.1	2,481.7	8.9	8.9	-93.58	-97.6	180.8	111.3	97.8	13.50	8.244	
2,600.0	2,587.0	2,593.9	2,580.5	9.2	9.2	-94.16	-105.2	192.5	117.9	104.1	13.86	8.509	
2,700.0	2,686.1	2,693.7	2,679.3	9.6	9.6	-94.68	-112.8	204.1	124.6	110.3	14.22	8.762	
2,800.0	2,785.1	2,793.4	2,778.1	10.0	10.0	-95.15	-120.3	215.8	131.2	116.6	14.57	9.002	
2,900.0	2,884.1	2,893.2	2,876.9	10.4	10.4	-95.58	-127.9	227.4	137.9	122.9	14.93	9.231	
3,000.0	2,983.1	2,993.0	2,975.7	10.8	10.8	-95.96	-135.5	239.1	144.5	129.2	15.29	9.450	
3,100.0	3,082.2	3,092.7	3,074.5	11.2	11.2	-96.31	-143.0	250.7	151.2	135.5	15.66	9.658	
3,200.0	3,181.2	3,192.5	3,173.3	11.6	11.6	-96.63	-150.6	262.4	157.9	141.9	16.02	9.857	
3,300.0	3,280.2	3,292.3	3,272.1	12.0	12.0	-96.93	-158.1	274.0	164.6	148.2	16.38	10.047	
3,400.0	3,379.2	3,392.1	3,370.9	12.4	12.4	-97.20	-165.7	285.7	171.2	154.5	16.74	10.229	
3,500.0	3,478.3	3,491.8	3,469.7	12.8	12.8	-97.45	-173.3	297.3	177.9	160.8	17.10	10.403	
3,600.0	3,577.3	3,591.6	3,568.5	13.2	13.2	-97.69	-180.8	308.9	184.6	167.1	17.47	10.570	
3,700.0	3,676.3	3,691.4	3,667.3	13.6	13.6	-97.90	-188.4	320.6	191.3	173.5	17.83	10.729	
3,800.0	3,775.3	3,791.2	3,766.1	14.0	14.0	-98.11	-196.0	332.2	198.0	179.8	18.19	10.883	
3,900.0	3,874.4	3,890.9	3,864.9	14.4	14.4	-98.30	-203.5	343.9	204.7	186.1	18.56	11.030	
4,000.0	3,973.4	3,990.7	3,963.7	14.9	14.8	-98.47	-211.1	355.5	211.4	192.5	18.92	11.171	
4,100.0	4,072.5	4,090.5	4,062.5	15.2	15.2	-98.56	-218.7	367.2	218.0	198.8	19.25	11.324	
4,200.0	4,171.8	4,190.3	4,161.3	15.6	15.7	-98.24	-226.2	378.8	224.4	204.8	19.63	11.429	
4,300.0	4,271.3	4,290.0	4,260.1	16.0	16.1	-97.51	-233.8	390.5	230.6	210.5	20.03	11.510	
4,400.0	4,370.9	4,389.7	4,358.8	16.4	16.5	-96.40	-241.3	402.1	236.6	216.1	20.46	11.565	
4,500.0	4,470.7	4,489.4	4,457.5	16.8	16.9	-94.94	-248.9	413.7	242.5	221.6	20.92	11.593	
4,600.0	4,570.6	4,588.9	4,556.0	17.1	17.3	-93.16	-256.4	425.3	248.5	227.1	21.44	11.594	
4,700.0	4,670.6	4,688.2	4,654.4	17.4	17.7	-91.07	-264.0	436.9	254.8	232.7	22.03	11.566	
4,800.0	4,770.5	4,787.4	4,752.6	17.7	18.2	-88.72	-271.5	448.5	261.3	238.6	22.70	11.511	
4,900.0	4,870.5	4,886.4	4,850.7	17.7	18.6	64.82	-279.0	460.1	268.5	245.1	23.39	11.477	
5,000.0	4,970.5	4,985.5	4,948.8	17.7	19.0	67.26	-286.5	471.6	276.1	252.0	24.15	11.431	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
5,100.0	5,070.5	5,084.5	5,046.8	17.7	19.4	69.56	-294.0	483.2	284.2	259.3	24.95	11.393	
5,200.0	5,170.5	5,183.5	5,144.9	17.8	19.8	71.74	-301.5	494.8	292.8	267.0	25.76	11.366	
5,300.0	5,270.5	5,282.5	5,243.0	17.8	20.2	73.79	-309.0	506.3	301.7	275.2	26.59	11.350	
5,400.0	5,370.5	5,381.6	5,341.0	17.8	20.7	75.72	-316.5	517.9	311.1	283.6	27.41	11.346	
5,500.0	5,470.5	5,480.6	5,439.1	17.9	21.1	77.54	-324.0	529.4	320.7	292.5	28.24	11.356	
5,600.0	5,570.5	5,580.4	5,538.0	17.9	21.5	79.25	-331.6	541.0	330.6	301.6	29.04	11.383	
5,700.0	5,670.5	5,681.7	5,638.4	17.9	21.9	80.81	-338.8	552.2	340.3	310.4	29.83	11.407	
5,800.0	5,770.5	5,783.3	5,739.2	18.0	22.3	82.19	-345.6	562.6	349.5	318.9	30.58	11.428	
5,900.0	5,870.5	5,885.0	5,840.3	18.0	22.7	83.40	-351.9	572.4	358.2	326.9	31.29	11.448	
6,000.0	5,970.5	5,987.0	5,941.7	18.0	23.2	84.47	-357.7	581.3	366.4	334.4	31.96	11.464	
6,100.0	6,070.5	6,089.1	6,043.3	18.1	23.6	85.41	-363.1	589.6	374.0	341.4	32.59	11.475	
6,200.0	6,170.5	6,191.4	6,145.2	18.1	23.9	86.23	-367.9	597.1	380.9	347.8	33.18	11.480	
6,300.0	6,270.5	6,293.9	6,247.4	18.1	24.3	86.95	-372.3	603.8	387.2	353.5	33.74	11.477	
6,400.0	6,370.5	6,396.5	6,349.7	18.2	24.7	87.56	-376.2	609.8	392.9	358.6	34.26	11.467	
6,500.0	6,470.5	6,499.2	6,452.3	18.2	25.1	88.08	-379.6	615.0	397.8	363.1	34.75	11.449	
6,600.0	6,570.5	6,602.0	6,554.9	18.2	25.4	88.51	-382.5	619.4	402.1	366.9	35.20	11.423	
6,700.0	6,670.5	6,704.9	6,657.7	18.3	25.8	88.86	-384.9	623.1	405.6	370.0	35.61	11.389	
6,800.0	6,770.5	6,807.9	6,760.7	18.3	26.1	89.13	-386.7	626.0	408.4	372.4	35.99	11.347	
6,900.0	6,870.5	6,910.9	6,863.7	18.3	26.4	89.33	-388.1	628.1	410.4	374.1	36.33	11.299	
7,000.0	6,970.5	7,014.0	6,966.7	18.4	26.7	89.46	-389.0	629.5	411.7	375.1	36.61	11.245	
7,100.0	7,070.5	7,117.1	7,069.8	18.4	26.9	89.51	-389.4	630.1	412.3	375.5	36.83	11.194	
7,200.0	7,170.5	7,217.8	7,170.5	18.4	26.9	89.51	-389.4	630.1	412.3	375.4	36.90	11.174	
7,300.0	7,270.5	7,317.8	7,270.5	18.5	26.9	89.51	-389.4	630.1	412.3	375.3	36.97	11.153	
7,400.0	7,370.5	7,417.8	7,370.5	18.5	26.9	89.51	-389.4	630.1	412.3	375.3	37.04	11.132	
7,500.0	7,470.5	7,517.8	7,470.5	18.6	26.9	89.51	-389.4	630.1	412.3	375.2	37.11	11.111	
7,600.0	7,570.5	7,617.8	7,570.5	18.6	27.0	89.51	-389.4	630.1	412.3	375.1	37.18	11.089	
7,700.0	7,670.5	7,717.8	7,670.5	18.6	27.0	89.51	-389.4	630.1	412.3	375.1	37.25	11.068	
7,800.0	7,770.5	7,817.8	7,770.5	18.7	27.0	89.51	-389.4	630.1	412.3	375.0	37.33	11.046	
7,900.0	7,870.5	7,917.8	7,870.5	18.7	27.0	89.51	-389.4	630.1	412.3	374.9	37.40	11.025	
8,000.0	7,970.5	8,017.8	7,970.5	18.7	27.1	89.51	-389.4	630.1	412.3	374.8	37.47	11.003	
8,100.0	8,070.5	8,117.8	8,070.5	18.8	27.1	89.51	-389.4	630.1	412.3	374.8	37.55	10.981	
8,200.0	8,170.5	8,217.8	8,170.5	18.8	27.1	89.51	-389.4	630.1	412.3	374.7	37.62	10.959	
8,300.0	8,270.5	8,317.8	8,270.5	18.9	27.1	89.51	-389.4	630.1	412.3	374.6	37.70	10.937	
8,400.0	8,370.5	8,417.8	8,370.5	18.9	27.1	89.51	-389.4	630.1	412.3	374.5	37.77	10.915	
8,500.0	8,470.5	8,517.8	8,470.5	18.9	27.2	89.51	-389.4	630.1	412.3	374.5	37.85	10.893	
8,600.0	8,570.5	8,617.8	8,570.5	19.0	27.2	89.51	-389.4	630.1	412.3	374.4	37.93	10.871	
8,700.0	8,670.5	8,717.8	8,670.5	19.0	27.2	89.51	-389.4	630.1	412.3	374.3	38.00	10.849	
8,800.0	8,770.5	8,817.8	8,770.5	19.1	27.2	89.51	-389.4	630.1	412.3	374.2	38.08	10.827	
8,900.0	8,870.5	8,917.8	8,870.5	19.1	27.3	89.51	-389.4	630.1	412.3	374.1	38.16	10.805	
9,000.0	8,970.5	9,017.8	8,970.5	19.1	27.3	89.51	-389.4	630.1	412.3	374.1	38.24	10.782	
9,100.0	9,070.5	9,117.8	9,070.5	19.2	27.3	89.51	-389.4	630.1	412.3	374.0	38.32	10.760	
9,200.0	9,170.5	9,217.8	9,170.5	19.2	27.3	89.51	-389.4	630.1	412.3	373.9	38.40	10.737	
9,300.0	9,270.5	9,317.8	9,270.5	19.3	27.4	89.51	-389.4	630.1	412.3	373.8	38.48	10.715	
9,400.0	9,370.5	9,417.8	9,370.5	19.3	27.4	89.51	-389.4	630.1	412.3	373.7	38.56	10.692	
9,500.0	9,470.5	9,517.8	9,470.5	19.4	27.4	89.51	-389.4	630.1	412.3	373.7	38.64	10.670	
9,600.0	9,570.5	9,617.8	9,570.5	19.4	27.4	89.51	-389.4	630.1	412.3	373.6	38.72	10.647	
9,700.0	9,670.5	9,717.8	9,670.5	19.4	27.5	89.51	-389.4	630.1	412.3	373.5	38.81	10.624	
9,800.0	9,770.5	9,817.8	9,770.5	19.5	27.5	89.51	-389.4	630.1	412.3	373.4	38.89	10.602	
9,900.0	9,870.5	9,917.8	9,870.5	19.5	27.5	89.51	-389.4	630.1	412.3	373.3	38.97	10.579	
10,000.0	9,970.5	10,017.8	9,970.5	19.6	27.5	89.51	-389.4	630.1	412.3	373.2	39.06	10.556	
10,100.0	10,070.5	10,117.8	10,070.5	19.6	27.6	89.51	-389.4	630.1	412.3	373.2	39.14	10.533	
10,200.0	10,170.5	10,217.8	10,170.5	19.7	27.6	89.51	-389.4	630.1	412.3	373.1	39.23	10.510	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.0	10,270.5	10,317.8	10,270.5	19.7	27.6	89.51	-389.4	630.1	412.3	373.0	39.31	10.488	
10,400.0	10,370.5	10,417.8	10,370.5	19.7	27.6	89.51	-389.4	630.1	412.3	372.9	39.40	10.465	
10,500.0	10,470.5	10,517.8	10,470.5	19.8	27.7	89.51	-389.4	630.1	412.3	372.8	39.49	10.442	
10,600.0	10,570.5	10,617.8	10,570.5	19.8	27.7	89.51	-389.4	630.1	412.3	372.7	39.57	10.419	
10,700.0	10,670.5	10,717.8	10,670.5	19.9	27.7	89.51	-389.4	630.1	412.3	372.6	39.66	10.396	
10,800.0	10,770.5	10,817.8	10,770.5	19.9	27.7	89.51	-389.4	630.1	412.3	372.6	39.75	10.373	
10,900.0	10,870.5	10,917.8	10,870.5	20.0	27.8	89.51	-389.4	630.1	412.3	372.5	39.84	10.350	
11,000.0	10,970.5	11,017.8	10,970.5	20.0	27.8	89.51	-389.4	630.1	412.3	372.4	39.93	10.327	
11,004.4	10,974.9	11,022.2	10,974.9	20.0	27.8	90.33	-389.4	630.1	412.3	372.4	39.93	10.326	
11,100.0	11,070.5	11,117.8	11,070.5	20.1	27.8	90.54	-389.4	630.1	412.3	372.3	40.04	10.297	
11,200.0	11,169.1	11,216.4	11,169.1	20.2	27.9	92.66	-389.4	630.1	412.8	372.1	40.68	10.146	
11,300.0	11,263.4	11,316.4	11,268.9	20.3	27.9	96.50	-385.9	630.0	415.2	373.5	41.72	9.953	
11,400.0	11,350.7	11,423.9	11,374.1	20.4	27.9	100.43	-364.0	629.7	419.8	377.3	42.51	9.877	
11,500.0	11,428.1	11,538.7	11,479.7	20.5	28.0	104.11	-319.5	629.0	426.0	383.1	42.94	9.921	
11,600.0	11,493.4	11,661.4	11,580.4	20.6	28.0	107.39	-249.8	628.0	433.0	390.0	43.03	10.062	
11,700.0	11,544.6	11,792.0	11,668.6	20.7	28.1	110.09	-153.9	626.5	439.7	396.8	42.83	10.266	
11,800.0	11,580.2	11,929.7	11,735.6	20.8	28.2	112.04	-34.0	624.7	444.9	402.5	42.36	10.503	
11,900.0	11,599.0	12,072.3	11,772.8	20.9	28.3	113.06	103.2	622.7	447.7	406.1	41.62	10.758	
12,000.0	11,602.0	12,197.0	11,778.5	20.9	28.4	113.20	227.7	620.8	448.0	406.8	41.20	10.875	
12,100.0	11,602.0	12,297.0	11,778.5	21.0	28.5	113.20	327.7	619.3	448.0	406.5	41.49	10.796	
12,200.0	11,602.0	12,397.0	11,778.5	21.0	28.6	113.21	427.7	617.8	447.9	406.1	41.84	10.704	
12,300.0	11,602.0	12,497.0	11,778.5	21.1	28.7	113.21	527.7	616.3	447.8	405.6	42.25	10.599	
12,400.0	11,602.0	12,597.0	11,778.5	21.2	28.8	113.22	627.7	614.8	447.8	405.0	42.71	10.484	
12,500.0	11,602.0	12,697.0	11,778.5	21.3	29.0	113.22	727.7	613.3	447.7	404.5	43.22	10.359	
12,600.0	11,602.0	12,797.0	11,778.5	21.4	29.2	113.22	827.7	611.8	447.6	403.8	43.77	10.226	
12,700.0	11,602.0	12,897.0	11,778.5	21.5	29.3	113.23	927.6	610.3	447.5	403.2	44.38	10.085	
12,800.0	11,602.0	12,997.0	11,778.5	21.6	29.5	113.23	1,027.6	608.8	447.5	402.4	45.02	9.938	
12,900.0	11,602.0	13,097.0	11,778.5	21.8	29.8	113.24	1,127.6	607.3	447.4	401.7	45.71	9.787	
13,000.0	11,602.0	13,197.0	11,778.5	21.9	30.0	113.24	1,227.6	605.8	447.3	400.9	46.45	9.631	
13,100.0	11,602.0	13,297.0	11,778.5	22.1	30.2	113.24	1,327.6	604.3	447.3	400.0	47.22	9.473	
13,200.0	11,602.0	13,397.0	11,778.5	22.3	30.5	113.25	1,427.6	602.7	447.2	399.2	48.02	9.312	
13,300.0	11,602.0	13,497.0	11,778.5	22.6	30.7	113.25	1,527.6	601.2	447.1	398.2	48.86	9.150	
13,400.0	11,602.0	13,597.0	11,778.5	22.8	31.0	113.25	1,627.6	599.7	447.0	397.3	49.74	8.988	
13,500.0	11,602.0	13,697.0	11,778.5	23.1	31.3	113.26	1,727.6	598.2	447.0	396.3	50.64	8.826	
13,600.0	11,602.0	13,797.0	11,778.5	23.4	31.6	113.26	1,827.5	596.7	446.9	395.3	51.58	8.665	
13,700.0	11,602.0	13,897.0	11,778.5	23.8	32.0	113.27	1,927.5	595.2	446.8	394.3	52.54	8.505	
13,800.0	11,602.0	13,997.0	11,778.5	24.2	32.3	113.27	2,027.5	593.7	446.7	393.2	53.53	8.346	
13,900.0	11,602.0	14,097.0	11,778.5	24.6	32.7	113.27	2,127.5	592.2	446.7	392.1	54.54	8.190	
14,000.0	11,602.0	14,197.0	11,778.5	25.1	33.0	113.28	2,227.5	590.7	446.6	391.0	55.58	8.036	
14,100.0	11,602.0	14,297.0	11,778.5	25.6	33.4	113.28	2,327.5	589.2	446.5	389.9	56.64	7.884	
14,200.0	11,602.0	14,397.0	11,778.5	26.1	33.8	113.29	2,427.5	587.7	446.5	388.7	57.72	7.735	
14,300.0	11,602.0	14,497.0	11,778.5	26.6	34.2	113.29	2,527.5	586.2	446.4	387.6	58.82	7.589	
14,400.0	11,602.0	14,597.0	11,778.5	27.1	34.7	113.29	2,627.5	584.7	446.3	386.4	59.94	7.446	
14,500.0	11,602.0	14,697.0	11,778.5	27.7	35.1	113.30	2,727.4	583.2	446.2	385.2	61.07	7.307	
14,600.0	11,602.0	14,797.0	11,778.5	28.3	35.5	113.30	2,827.4	581.7	446.2	383.9	62.23	7.170	
14,700.0	11,602.0	14,897.0	11,778.5	28.9	36.0	113.31	2,927.4	580.2	446.1	382.7	63.40	7.037	
14,800.0	11,602.0	14,997.0	11,778.5	29.5	36.5	113.31	3,027.4	578.7	446.0	381.4	64.58	6.906	
14,900.0	11,602.0	15,097.0	11,778.5	30.1	37.0	113.31	3,127.4	577.2	446.0	380.2	65.78	6.779	
15,000.0	11,602.0	15,197.0	11,778.5	30.7	37.4	113.32	3,227.4	575.7	445.9	378.9	66.99	6.656	
15,100.0	11,602.0	15,297.0	11,778.5	31.3	38.0	113.32	3,327.4	574.2	445.8	377.6	68.22	6.535	
15,200.0	11,602.0	15,397.0	11,778.5	32.0	38.5	113.33	3,427.4	572.7	445.7	376.3	69.45	6.418	
15,300.0	11,602.0	15,497.0	11,778.5	32.6	39.0	113.33	3,527.4	571.2	445.7	375.0	70.70	6.303	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,400.0	11,602.0	15,597.0	11,778.5	33.3	39.5	113.33	3,627.3	569.7	445.6	373.6	71.96	6.192	
15,500.0	11,602.0	15,697.0	11,778.5	33.9	40.1	113.34	3,727.3	568.2	445.5	372.3	73.23	6.084	
15,600.0	11,602.0	15,797.0	11,778.5	34.6	40.6	113.34	3,827.3	566.6	445.5	370.9	74.51	5.978	
15,700.0	11,602.0	15,897.0	11,778.5	35.3	41.2	113.35	3,927.3	565.1	445.4	369.6	75.80	5.876	
15,800.0	11,602.0	15,997.0	11,778.5	35.9	41.7	113.35	4,027.3	563.6	445.3	368.2	77.10	5.776	
15,900.0	11,602.0	16,097.0	11,778.5	36.6	42.3	113.35	4,127.3	562.1	445.2	366.8	78.40	5.679	
16,000.0	11,602.0	16,197.0	11,778.5	37.3	42.9	113.36	4,227.3	560.6	445.2	365.4	79.72	5.584	
16,100.0	11,602.0	16,297.0	11,778.5	38.0	43.4	113.36	4,327.3	559.1	445.1	364.1	81.04	5.492	
16,200.0	11,602.0	16,397.0	11,778.5	38.7	44.0	113.37	4,427.2	557.6	445.0	362.7	82.37	5.403	
16,300.0	11,602.0	16,497.0	11,778.5	39.4	44.6	113.37	4,527.2	556.1	444.9	361.2	83.70	5.316	
16,400.0	11,602.0	16,597.0	11,778.5	40.1	45.2	113.37	4,627.2	554.6	444.9	359.8	85.04	5.231	
16,500.0	11,602.0	16,697.0	11,778.5	40.8	45.8	113.38	4,727.2	553.1	444.8	358.4	86.39	5.149	
16,600.0	11,602.0	16,797.0	11,778.5	41.5	46.4	113.38	4,827.2	551.6	444.7	357.0	87.75	5.068	
16,700.0	11,602.0	16,897.0	11,778.5	42.2	47.1	113.39	4,927.2	550.1	444.7	355.6	89.11	4.990	
16,800.0	11,602.0	16,997.0	11,778.5	42.9	47.7	113.39	5,027.2	548.6	444.6	354.1	90.47	4.914	
16,900.0	11,602.0	17,097.0	11,778.5	43.6	48.3	113.39	5,127.2	547.1	444.5	352.7	91.84	4.840	
17,000.0	11,602.0	17,197.0	11,778.5	44.3	48.9	113.40	5,227.2	545.6	444.4	351.2	93.22	4.768	
17,100.0	11,602.0	17,297.0	11,778.5	45.0	49.6	113.40	5,327.1	544.1	444.4	349.8	94.60	4.697	
17,200.0	11,602.0	17,397.0	11,778.5	45.7	50.2	113.41	5,427.1	542.6	444.3	348.3	95.99	4.629	
17,300.0	11,602.0	17,497.0	11,778.5	46.4	50.9	113.41	5,527.1	541.1	444.2	346.9	97.38	4.562	
17,400.0	11,602.0	17,597.0	11,778.5	47.2	51.5	113.41	5,627.1	539.6	444.2	345.4	98.77	4.497	
17,500.0	11,602.0	17,697.0	11,778.5	47.9	52.2	113.42	5,727.1	538.1	444.1	343.9	100.17	4.433	
17,600.0	11,602.0	17,797.0	11,778.5	48.6	52.8	113.42	5,827.1	536.6	444.0	342.4	101.57	4.371	
17,700.0	11,602.0	17,897.0	11,778.5	49.3	53.5	113.43	5,927.1	535.1	443.9	341.0	102.98	4.311	
17,800.0	11,602.0	17,997.0	11,778.5	50.0	54.1	113.43	6,027.1	533.6	443.9	339.5	104.39	4.252	
17,900.0	11,602.0	18,097.0	11,778.5	50.8	54.8	113.43	6,127.1	532.1	443.8	338.0	105.80	4.195	
18,000.0	11,602.0	18,197.0	11,778.5	51.5	55.5	113.44	6,227.0	530.5	443.7	336.5	107.21	4.139	
18,100.0	11,602.0	18,297.0	11,778.5	52.2	56.1	113.44	6,327.0	529.0	443.7	335.0	108.63	4.084	
18,200.0	11,602.0	18,397.0	11,778.5	53.0	56.8	113.45	6,427.0	527.5	443.6	333.5	110.06	4.031	
18,300.0	11,602.0	18,497.0	11,778.5	53.7	57.5	113.45	6,527.0	526.0	443.5	332.0	111.48	3.978	
18,400.0	11,602.0	18,597.0	11,778.5	54.4	58.2	113.45	6,627.0	524.5	443.4	330.5	112.91	3.927	
18,500.0	11,602.0	18,697.0	11,778.5	55.1	58.8	113.46	6,727.0	523.0	443.4	329.0	114.34	3.878	
18,600.0	11,602.0	18,797.0	11,778.5	55.9	59.5	113.46	6,827.0	521.5	443.3	327.5	115.77	3.829	
18,700.0	11,602.0	18,897.0	11,778.5	56.6	60.2	113.47	6,927.0	520.0	443.2	326.0	117.21	3.781	
18,800.0	11,602.0	18,997.0	11,778.5	57.3	60.9	113.47	7,027.0	518.5	443.2	324.5	118.65	3.735	
18,900.0	11,602.0	19,097.0	11,778.5	58.1	61.6	113.47	7,126.9	517.0	443.1	323.0	120.09	3.690	
19,000.0	11,602.0	19,197.0	11,778.5	58.8	62.3	113.48	7,226.9	515.5	443.0	321.5	121.53	3.645	
19,100.0	11,602.0	19,297.0	11,778.5	59.6	63.0	113.48	7,326.9	514.0	442.9	320.0	122.98	3.602	
19,200.0	11,602.0	19,397.0	11,778.5	60.3	63.7	113.49	7,426.9	512.5	442.9	318.4	124.42	3.559	
19,300.0	11,602.0	19,497.0	11,778.5	61.0	64.3	113.49	7,526.9	511.0	442.8	316.9	125.87	3.518	
19,400.0	11,602.0	19,597.0	11,778.5	61.8	65.0	113.50	7,626.9	509.5	442.7	315.4	127.32	3.477	
19,500.0	11,602.0	19,697.0	11,778.5	62.5	65.7	113.50	7,726.9	508.0	442.6	313.9	128.78	3.437	
19,600.0	11,602.0	19,797.0	11,778.5	63.3	66.4	113.50	7,826.9	506.5	442.6	312.3	130.23	3.398	
19,700.0	11,602.0	19,897.0	11,778.5	64.0	67.1	113.51	7,926.9	505.0	442.5	310.8	131.69	3.360	
19,800.0	11,602.0	19,997.0	11,778.5	64.7	67.8	113.51	8,026.8	503.5	442.4	309.3	133.15	3.323	
19,900.0	11,602.0	20,097.0	11,778.5	65.5	68.6	113.52	8,126.8	502.0	442.4	307.8	134.61	3.286	
20,000.0	11,602.0	20,197.0	11,778.5	66.2	69.3	113.52	8,226.8	500.5	442.3	306.2	136.07	3.250	
20,100.0	11,602.0	20,297.0	11,778.5	67.0	70.0	113.52	8,326.8	499.0	442.2	304.7	137.53	3.215	
20,200.0	11,602.0	20,397.0	11,778.5	67.7	70.7	113.53	8,426.8	497.5	442.1	303.1	139.00	3.181	
20,300.0	11,602.0	20,497.0	11,778.5	68.4	71.4	113.53	8,526.8	496.0	442.1	301.6	140.47	3.147	
20,400.0	11,602.0	20,597.0	11,778.5	69.2	72.1	113.54	8,626.8	494.4	442.0	300.1	141.93	3.114	
20,500.0	11,602.0	20,697.0	11,778.5	69.9	72.8	113.54	8,726.8	492.9	441.9	298.5	143.40	3.082	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11252-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Rule Assigned:		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (°)	Offset (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
20,600.0	11,602.0	20,797.0	11,778.5	70.7	73.5	113.54		8,826.7	491.4	441.9	297.0	144.87	3.050	
20,700.0	11,602.0	20,897.0	11,778.5	71.4	74.2	113.55		8,926.7	489.9	441.8	295.4	146.34	3.019	
20,800.0	11,602.0	20,997.0	11,778.5	72.2	75.0	113.55		9,026.7	488.4	441.7	293.9	147.82	2.988	
20,900.0	11,602.0	21,097.0	11,778.5	72.9	75.7	113.56		9,126.7	486.9	441.6	292.4	149.29	2.958	
21,000.0	11,602.0	21,197.0	11,778.5	73.7	76.4	113.56		9,226.7	485.4	441.6	290.8	150.77	2.929	
21,100.0	11,602.0	21,297.0	11,778.5	74.4	77.1	113.56		9,326.7	483.9	441.5	289.3	152.24	2.900	
21,200.0	11,602.0	21,397.0	11,778.5	75.2	77.8	113.57		9,426.7	482.4	441.4	287.7	153.72	2.872	
21,300.0	11,602.0	21,497.0	11,778.5	75.9	78.5	113.57		9,526.7	480.9	441.4	286.2	155.20	2.844	
21,400.0	11,602.0	21,597.0	11,778.5	76.7	79.3	113.58		9,626.7	479.4	441.3	284.6	156.68	2.816	
21,500.0	11,602.0	21,697.0	11,778.5	77.4	80.0	113.58		9,726.6	477.9	441.2	283.0	158.16	2.790	
21,600.0	11,602.0	21,797.0	11,778.5	78.2	80.7	113.58		9,826.6	476.4	441.1	281.5	159.64	2.763	
21,700.0	11,602.0	21,897.0	11,778.5	78.9	81.4	113.59		9,926.6	474.9	441.1	279.9	161.13	2.737	
21,800.0	11,602.0	21,997.0	11,778.5	79.7	82.2	113.59		10,026.6	473.4	441.0	278.4	162.61	2.712	
21,900.0	11,602.0	22,097.0	11,778.5	80.4	82.9	113.60		10,126.6	471.9	440.9	276.8	164.10	2.687	
22,000.0	11,602.0	22,197.0	11,778.5	81.2	83.6	113.60		10,226.6	470.4	440.9	275.3	165.58	2.662	
22,100.0	11,602.0	22,297.0	11,778.5	81.9	84.3	113.60		10,326.6	468.9	440.8	273.7	167.07	2.638	
22,200.0	11,602.0	22,397.0	11,778.5	82.7	85.1	113.61		10,426.6	467.4	440.7	272.2	168.56	2.615	
22,300.0	11,602.0	22,497.0	11,778.5	83.4	85.8	113.61		10,526.6	465.9	440.6	270.6	170.04	2.591	
22,400.0	11,602.0	22,597.0	11,778.5	84.2	86.5	113.62		10,626.5	464.4	440.6	269.0	171.53	2.568	
22,500.0	11,602.0	22,697.0	11,778.5	84.9	87.3	113.62		10,726.5	462.9	440.5	267.5	173.02	2.546	
22,600.0	11,602.0	22,797.0	11,778.5	85.7	88.0	113.63		10,826.5	461.4	440.4	265.9	174.51	2.524	
22,700.0	11,602.0	22,897.0	11,778.5	86.4	88.7	113.63		10,926.5	459.9	440.3	264.3	176.01	2.502	
22,800.0	11,602.0	22,997.0	11,778.5	87.2	89.4	113.63		11,026.5	458.3	440.3	262.8	177.50	2.480	
22,900.0	11,602.0	23,097.0	11,778.5	87.9	90.2	113.64		11,126.5	456.8	440.2	261.2	178.99	2.459	
23,000.0	11,602.0	23,197.0	11,778.5	88.7	90.9	113.64		11,226.5	455.3	440.1	259.7	180.48	2.439	
23,100.0	11,602.0	23,297.0	11,778.5	89.4	91.6	113.65		11,326.5	453.8	440.1	258.1	181.98	2.418	
23,200.0	11,602.0	23,397.0	11,778.5	90.2	92.4	113.65		11,426.5	452.3	440.0	256.5	183.47	2.398	
23,300.0	11,602.0	23,497.0	11,778.5	90.9	93.1	113.65		11,526.4	450.8	439.9	254.9	184.97	2.378	
23,400.0	11,602.0	23,597.0	11,778.5	91.7	93.8	113.66		11,626.4	449.3	439.8	253.4	186.47	2.359	
23,500.0	11,602.0	23,697.0	11,778.5	92.4	94.6	113.66		11,726.4	447.8	439.8	251.8	187.96	2.340	
23,600.0	11,602.0	23,797.0	11,778.5	93.2	95.3	113.67		11,826.4	446.3	439.7	250.2	189.46	2.321	
23,700.0	11,602.0	23,897.0	11,778.5	93.9	96.1	113.67		11,926.4	444.8	439.6	248.7	190.96	2.302	
23,800.0	11,602.0	23,997.0	11,778.5	94.7	96.8	113.67		12,026.4	443.3	439.6	247.1	192.46	2.284	
23,900.0	11,602.0	24,097.0	11,778.5	95.5	97.5	113.68		12,126.4	441.8	439.5	245.5	193.96	2.266	
24,000.0	11,602.0	24,197.0	11,778.5	96.2	98.3	113.68		12,226.4	440.3	439.4	244.0	195.46	2.248	
24,100.0	11,602.0	24,297.0	11,778.5	97.0	99.0	113.69		12,326.4	438.8	439.3	242.4	196.96	2.231	
24,200.0	11,602.0	24,397.0	11,778.5	97.7	99.7	113.69		12,426.3	437.3	439.3	240.8	198.46	2.213	
24,300.0	11,602.0	24,497.0	11,778.5	98.5	100.5	113.69		12,526.3	435.8	439.2	239.2	199.96	2.196	
24,400.0	11,602.0	24,597.0	11,778.5	99.2	101.2	113.70		12,626.3	434.3	439.1	237.7	201.46	2.180	
24,500.0	11,602.0	24,697.0	11,778.5	100.0	102.0	113.70		12,726.3	432.8	439.1	236.1	202.96	2.163	
24,572.8	11,602.0	24,769.8	11,778.5	100.5	102.5	113.71		12,799.1	431.7	439.0	235.0	204.05	2.151	
24,580.8	11,602.0	24,774.6	11,778.5	100.6	102.5	113.71		12,803.9	431.6	439.0	234.8	204.17	2.150 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.2	0.0	3.0	3.0	89.09	0.9	60.1	60.1				
100.0	100.0	100.2	100.0	3.0	3.0	89.09	0.9	60.1	60.1	54.1	6.05	9.934	
200.0	200.0	200.2	200.0	3.2	3.2	89.09	0.9	60.1	60.1	53.8	6.30	9.547	
300.0	300.0	300.2	300.0	3.3	3.3	89.09	0.9	60.1	60.1	53.6	6.53	9.203	
400.0	400.0	400.2	400.0	3.4	3.4	89.09	0.9	60.1	60.1	53.4	6.76	8.893	
500.0	500.0	500.2	500.0	3.5	3.5	89.09	0.9	60.1	60.1	53.1	6.98	8.612	
600.0	600.0	600.2	600.0	3.6	3.6	89.09	0.9	60.1	60.1	52.9	7.19	8.357	
700.0	700.0	700.2	700.0	3.8	3.8	89.09	0.9	60.1	60.1	52.7	7.40	8.123	
800.0	800.0	800.2	800.0	3.9	3.9	89.09	0.9	60.1	60.1	52.5	7.60	7.907	
900.0	900.0	900.2	900.0	4.0	4.0	89.09	0.9	60.1	60.1	52.3	7.80	7.708	
916.6	916.6	916.8	916.6	4.0	4.0	89.09	0.9	60.1	60.1	52.3	7.83	7.677 CC	
1,000.0	1,000.0	1,000.0	999.8	4.1	4.1	89.09	0.9	60.1	60.1	52.1	7.99	7.524 ES	
1,100.0	1,100.0	1,098.3	1,098.1	4.3	4.3	-62.72	0.3	61.7	60.9	52.6	8.30	7.339	
1,200.0	1,199.8	1,196.3	1,195.9	4.6	4.5	-65.04	-1.5	66.4	63.3	54.5	8.76	7.226	
1,300.0	1,299.5	1,294.1	1,293.4	4.9	4.8	-68.53	-4.5	74.2	67.5	58.3	9.20	7.338	
1,400.0	1,398.7	1,391.7	1,390.3	5.3	5.2	-72.69	-8.6	85.1	73.8	64.1	9.61	7.673	
1,500.0	1,497.7	1,489.0	1,486.5	5.5	5.5	-76.06	-14.0	99.0	82.7	72.7	10.01	8.256	
1,600.0	1,596.8	1,587.8	1,583.7	5.8	5.8	-77.89	-20.2	115.3	93.7	83.3	10.37	9.033	
1,700.0	1,695.8	1,687.2	1,681.5	6.1	6.1	-79.31	-26.6	131.8	104.9	94.1	10.78	9.731	
1,800.0	1,794.8	1,786.5	1,779.2	6.4	6.4	-80.45	-32.9	148.3	116.1	104.9	11.19	10.372	
1,900.0	1,893.8	1,885.9	1,877.0	6.7	6.7	-81.39	-39.2	164.8	127.4	115.7	11.62	10.963	
2,000.0	1,992.9	1,985.2	1,974.7	7.0	7.1	-82.18	-45.6	181.3	138.7	126.6	12.05	11.509	
2,100.0	2,091.9	2,084.5	2,072.5	7.4	7.4	-82.85	-51.9	197.8	150.0	137.5	12.48	12.014	
2,200.0	2,190.9	2,183.9	2,170.2	7.7	7.8	-83.42	-58.2	214.3	161.3	148.4	12.92	12.483	
2,300.0	2,289.9	2,283.2	2,268.0	8.1	8.2	-83.92	-64.6	230.8	172.7	159.3	13.37	12.918	
2,400.0	2,389.0	2,382.6	2,365.8	8.5	8.5	-84.36	-70.9	247.3	184.0	170.2	13.81	13.323	
2,500.0	2,488.0	2,481.9	2,463.5	8.9	8.9	-84.75	-77.3	263.8	195.4	181.1	14.26	13.701	
2,600.0	2,587.0	2,581.3	2,561.3	9.2	9.3	-85.09	-83.6	280.3	206.8	192.1	14.71	14.053	
2,700.0	2,686.1	2,680.6	2,659.0	9.6	9.7	-85.40	-89.9	296.8	218.1	203.0	15.17	14.384	
2,800.0	2,785.1	2,779.9	2,756.8	10.0	10.1	-85.68	-96.3	313.3	229.5	213.9	15.62	14.693	
2,900.0	2,884.1	2,879.3	2,854.6	10.4	10.6	-85.93	-102.6	329.9	240.9	224.9	16.08	14.984	
3,000.0	2,983.1	2,978.6	2,952.3	10.8	11.0	-86.16	-108.9	346.4	252.3	235.8	16.54	15.258	
3,100.0	3,082.2	3,078.0	3,050.1	11.2	11.4	-86.37	-115.3	362.9	263.7	246.7	17.00	15.515	
3,200.0	3,181.2	3,177.3	3,147.8	11.6	11.8	-86.56	-121.6	379.4	275.1	257.7	17.46	15.759	
3,300.0	3,280.2	3,276.7	3,245.6	12.0	12.2	-86.74	-127.9	395.9	286.5	268.6	17.92	15.989	
3,400.0	3,379.2	3,376.0	3,343.3	12.4	12.7	-86.90	-134.3	412.4	298.0	279.6	18.38	16.206	
3,500.0	3,478.3	3,475.4	3,441.1	12.8	13.1	-87.05	-140.6	428.9	309.4	290.5	18.85	16.413	
3,600.0	3,577.3	3,574.7	3,538.9	13.2	13.5	-87.19	-146.9	445.4	320.8	301.5	19.31	16.608	
3,700.0	3,676.3	3,674.0	3,636.6	13.6	13.9	-87.32	-153.3	461.9	332.2	312.4	19.78	16.794	
3,800.0	3,775.3	3,773.4	3,734.4	14.0	14.4	-87.44	-159.6	478.4	343.6	323.4	20.25	16.971	
3,900.0	3,874.4	3,872.7	3,832.1	14.4	14.8	-87.56	-165.9	494.9	355.0	334.3	20.71	17.139	
4,000.0	3,973.4	3,972.1	3,929.9	14.9	15.2	-87.66	-172.3	511.4	366.4	345.3	21.18	17.300	
4,100.0	4,072.5	4,071.4	4,027.6	15.2	15.7	-87.78	-178.6	527.9	377.9	356.3	21.62	17.478	
4,200.0	4,171.8	4,170.7	4,125.4	15.6	16.1	-87.87	-184.9	544.4	389.4	367.3	22.12	17.601	
4,300.0	4,271.3	4,270.0	4,223.1	16.0	16.6	-87.93	-191.3	560.9	401.0	378.3	22.66	17.699	
4,400.0	4,370.9	4,369.2	4,320.7	16.4	17.0	-88.00	-197.6	577.4	412.7	389.5	23.22	17.773	
4,500.0	4,470.7	4,468.3	4,418.2	16.8	17.4	-88.02	-203.9	593.8	424.6	400.8	23.82	17.827	
4,600.0	4,570.6	4,567.2	4,515.6	17.1	17.9	-88.08	-210.2	610.3	436.7	412.3	24.45	17.860	
4,700.0	4,670.6	4,666.0	4,612.8	17.4	18.3	-88.09	-216.5	626.7	449.2	424.0	25.12	17.878	
4,800.0	4,770.5	4,764.6	4,709.8	17.7	18.8	-88.06	-222.8	643.0	462.0	436.2	25.84	17.883	
4,900.0	4,870.5	4,863.0	4,806.6	17.7	19.2	-88.06	-229.1	659.4	475.3	448.8	26.50	17.939	
5,000.0	4,970.5	4,961.4	4,903.4	17.7	19.6	-88.02	-235.4	675.7	488.9	461.7	27.19	17.983	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference												Rule Assigned:	
Offset												Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.5	5,059.8	5,000.3	17.7	20.1	72.31	-241.6	692.1	502.8	474.9	27.88	18.035	
5,200.0	5,170.5	5,158.2	5,097.1	17.8	20.5	73.54	-247.9	708.4	516.9	488.3	28.57	18.092	
5,300.0	5,270.5	5,256.6	5,193.9	17.8	21.0	74.70	-254.2	724.8	531.2	501.9	29.26	18.156	
5,400.0	5,370.5	5,355.0	5,290.8	17.8	21.4	75.80	-260.5	741.1	545.7	515.8	29.94	18.226	
5,500.0	5,470.5	5,453.4	5,387.6	17.9	21.8	76.84	-266.7	757.5	560.4	529.8	30.62	18.302	
5,600.0	5,570.5	5,551.8	5,484.4	17.9	22.3	77.83	-273.0	773.8	575.3	544.0	31.30	18.382	
5,700.0	5,670.5	5,650.2	5,581.3	17.9	22.7	78.77	-279.3	790.2	590.3	558.4	31.97	18.467	
5,800.0	5,770.5	5,748.6	5,678.1	18.0	23.2	79.67	-285.6	806.5	605.5	572.9	32.63	18.556	
5,900.0	5,870.5	5,847.0	5,774.9	18.0	23.6	80.52	-291.8	822.9	620.9	587.6	33.29	18.649	
6,000.0	5,970.5	5,945.5	5,871.8	18.0	24.1	81.33	-298.1	839.2	636.3	602.4	33.95	18.745	
6,100.0	6,070.5	6,043.9	5,968.6	18.1	24.5	82.10	-304.4	855.6	651.9	617.3	34.60	18.843	
6,200.0	6,170.5	6,143.1	6,066.3	18.1	24.9	82.84	-310.7	872.0	667.6	632.3	35.24	18.946	
6,300.0	6,270.5	6,247.1	6,168.7	18.1	25.4	83.56	-317.1	888.7	682.9	647.0	35.88	19.029	
6,400.0	6,370.5	6,351.3	6,271.6	18.2	25.9	84.21	-323.2	904.6	697.4	660.9	36.52	19.097	
6,500.0	6,470.5	6,455.9	6,374.9	18.2	26.3	84.80	-329.0	919.7	711.2	674.1	37.14	19.152	
6,600.0	6,570.5	6,560.8	6,478.6	18.2	26.8	85.33	-334.4	933.9	724.3	686.6	37.73	19.196	
6,700.0	6,670.5	6,665.9	6,582.8	18.3	27.2	85.82	-339.6	947.2	736.6	698.3	38.31	19.227	
6,800.0	6,770.5	6,771.3	6,687.3	18.3	27.7	86.26	-344.4	959.7	748.1	709.3	38.87	19.247	
6,900.0	6,870.5	6,876.9	6,792.2	18.3	28.1	86.65	-348.8	971.3	758.8	719.4	39.41	19.255	
7,000.0	6,970.5	6,982.8	6,897.5	18.4	28.5	87.01	-352.9	982.0	768.8	728.8	39.93	19.251	
7,100.0	7,070.5	7,088.8	7,003.0	18.4	29.0	87.32	-356.7	991.9	777.9	737.4	40.44	19.236	
7,200.0	7,170.5	7,195.1	7,108.8	18.4	29.4	87.60	-360.1	1,000.8	786.1	745.2	40.92	19.210	
7,300.0	7,270.5	7,301.5	7,214.9	18.5	29.8	87.85	-363.2	1,008.8	793.6	752.2	41.39	19.173	
7,400.0	7,370.5	7,408.1	7,321.2	18.5	30.2	88.07	-366.0	1,016.0	800.2	758.3	41.83	19.127	
7,500.0	7,470.5	7,514.8	7,427.6	18.6	30.6	88.25	-368.4	1,022.2	805.9	763.6	42.26	19.071	
7,600.0	7,570.5	7,621.6	7,534.3	18.6	30.9	88.41	-370.4	1,027.5	810.8	768.1	42.66	19.006	
7,700.0	7,670.5	7,728.5	7,641.1	18.6	31.3	88.53	-372.1	1,031.8	814.8	771.8	43.04	18.933	
7,800.0	7,770.5	7,835.5	7,748.0	18.7	31.6	88.63	-373.4	1,035.3	818.0	774.6	43.39	18.853	
7,900.0	7,870.5	7,942.5	7,855.1	18.7	31.9	88.70	-374.3	1,037.8	820.3	776.6	43.71	18.767	
8,000.0	7,970.5	8,049.6	7,962.1	18.7	32.2	88.75	-374.9	1,039.3	821.8	777.8	43.99	18.680	
8,100.0	8,070.5	8,156.7	8,069.2	18.8	32.4	88.77	-375.2	1,040.0	822.4	778.2	44.18	18.614	
8,200.0	8,170.5	8,258.0	8,170.5	18.8	32.4	88.77	-375.2	1,040.0	822.4	778.1	44.25	18.583	
8,300.0	8,270.5	8,358.0	8,270.5	18.9	32.4	88.77	-375.2	1,040.0	822.4	778.1	44.32	18.554	
8,400.0	8,370.5	8,458.0	8,370.5	18.9	32.5	88.77	-375.2	1,040.0	822.4	778.0	44.40	18.525	
8,500.0	8,470.5	8,558.0	8,470.5	18.9	32.5	88.77	-375.2	1,040.0	822.4	777.9	44.47	18.495	
8,600.0	8,570.5	8,658.0	8,570.5	19.0	32.5	88.77	-375.2	1,040.0	822.4	777.9	44.54	18.465	
8,700.0	8,670.5	8,758.0	8,670.5	19.0	32.5	88.77	-375.2	1,040.0	822.4	777.8	44.61	18.436	
8,800.0	8,770.5	8,858.0	8,770.5	19.1	32.5	88.77	-375.2	1,040.0	822.4	777.7	44.68	18.406	
8,900.0	8,870.5	8,958.0	8,870.5	19.1	32.6	88.77	-375.2	1,040.0	822.4	777.6	44.75	18.376	
9,000.0	8,970.5	9,058.0	8,970.5	19.1	32.6	88.77	-375.2	1,040.0	822.4	777.6	44.83	18.346	
9,100.0	9,070.5	9,158.0	9,070.5	19.2	32.6	88.77	-375.2	1,040.0	822.4	777.5	44.90	18.316	
9,200.0	9,170.5	9,258.0	9,170.5	19.2	32.6	88.77	-375.2	1,040.0	822.4	777.4	44.98	18.285	
9,300.0	9,270.5	9,358.0	9,270.5	19.3	32.6	88.77	-375.2	1,040.0	822.4	777.4	45.05	18.255	
9,400.0	9,370.5	9,458.0	9,370.5	19.3	32.7	88.77	-375.2	1,040.0	822.4	777.3	45.13	18.225	
9,500.0	9,470.5	9,558.0	9,470.5	19.4	32.7	88.77	-375.2	1,040.0	822.4	777.2	45.20	18.194	
9,600.0	9,570.5	9,658.0	9,570.5	19.4	32.7	88.77	-375.2	1,040.0	822.4	777.1	45.28	18.163	
9,700.0	9,670.5	9,758.0	9,670.5	19.4	32.7	88.77	-375.2	1,040.0	822.4	777.0	45.35	18.133	
9,800.0	9,770.5	9,858.0	9,770.5	19.5	32.7	88.77	-375.2	1,040.0	822.4	777.0	45.43	18.102	
9,900.0	9,870.5	9,958.0	9,870.5	19.5	32.8	88.77	-375.2	1,040.0	822.4	776.9	45.51	18.071	
10,000.0	9,970.5	10,058.0	9,970.5	19.6	32.8	88.77	-375.2	1,040.0	822.4	776.8	45.59	18.040	
10,100.0	10,070.5	10,158.0	10,070.5	19.6	32.8	88.77	-375.2	1,040.0	822.4	776.7	45.67	18.009	
10,200.0	10,170.5	10,258.0	10,170.5	19.7	32.8	88.77	-375.2	1,040.0	822.4	776.7	45.74	17.978	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Between	Between	Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor	
10,300.0	10,270.5	10,358.0	10,270.5	19.7	32.8	88.77	-375.2	1,040.0	822.4	776.6	45.82	17.947	
10,400.0	10,370.5	10,458.0	10,370.5	19.7	32.9	88.77	-375.2	1,040.0	822.4	776.5	45.90	17.916	
10,500.0	10,470.5	10,558.0	10,470.5	19.8	32.9	88.77	-375.2	1,040.0	822.4	776.4	45.98	17.885	
10,600.0	10,570.5	10,658.0	10,570.5	19.8	32.9	88.77	-375.2	1,040.0	822.4	776.3	46.06	17.854	
10,700.0	10,670.5	10,758.0	10,670.5	19.9	32.9	88.77	-375.2	1,040.0	822.4	776.3	46.14	17.822	
10,800.0	10,770.5	10,858.0	10,770.5	19.9	33.0	88.77	-375.2	1,040.0	822.4	776.2	46.23	17.791	
10,900.0	10,870.5	10,958.0	10,870.5	20.0	33.0	88.77	-375.2	1,040.0	822.4	776.1	46.31	17.760	
11,000.0	10,970.5	11,058.0	10,970.5	20.0	33.0	88.77	-375.2	1,040.0	822.4	776.0	46.39	17.728	
11,100.0	11,070.5	11,157.8	11,070.3	20.1	33.0	89.59	-373.8	1,040.0	822.4	776.0	46.43	17.711	
11,200.0	11,169.1	11,257.4	11,168.5	20.2	33.0	89.63	-358.4	1,039.7	822.3	775.9	46.45	17.702	
11,300.0	11,263.4	11,357.0	11,262.7	20.3	33.1	89.67	-326.2	1,039.1	822.2	775.8	46.46	17.698	
11,400.0	11,350.7	11,456.7	11,349.9	20.4	33.1	89.72	-278.1	1,038.3	822.0	775.6	46.45	17.697	
11,500.0	11,428.1	11,556.5	11,427.5	20.5	33.1	89.79	-215.7	1,037.1	821.8	775.4	46.45	17.694	
11,600.0	11,493.4	11,656.4	11,493.2	20.6	33.1	89.86	-140.6	1,035.8	821.5	775.1	46.45	17.685	
11,700.0	11,544.6	11,756.4	11,544.9	20.7	33.2	89.93	-55.1	1,034.2	821.2	774.7	46.49	17.664	
11,800.0	11,580.2	11,856.5	11,581.1	20.8	33.2	90.01	38.1	1,032.6	820.8	774.3	46.57	17.627	
11,900.0	11,599.0	11,956.7	11,600.5	20.9	33.3	90.08	136.2	1,030.8	820.5	773.8	46.70	17.571	
12,000.0	11,602.0	12,056.9	11,603.8	20.9	33.4	90.13	236.3	1,029.0	820.1	773.2	46.88	17.493	
12,100.0	11,602.0	12,156.9	11,603.8	21.0	33.5	90.13	336.3	1,027.2	819.7	772.6	47.15	17.386	
12,200.0	11,602.0	12,256.9	11,603.8	21.0	33.6	90.13	436.2	1,025.4	819.4	771.9	47.47	17.261	
12,300.0	11,602.0	12,356.9	11,603.8	21.1	33.7	90.13	536.2	1,023.6	819.0	771.2	47.84	17.119	
12,400.0	11,602.0	12,456.9	11,603.8	21.2	33.9	90.13	636.2	1,021.8	818.6	770.4	48.26	16.962	
12,500.0	11,602.0	12,556.9	11,603.8	21.3	34.0	90.13	736.2	1,020.0	818.3	769.5	48.73	16.790	
12,600.0	11,602.0	12,656.9	11,603.8	21.4	34.2	90.13	836.2	1,018.2	817.9	768.6	49.25	16.607	
12,700.0	11,602.0	12,756.9	11,603.8	21.5	34.4	90.13	936.2	1,016.4	817.5	767.7	49.81	16.413	
12,800.0	11,602.0	12,856.9	11,603.8	21.6	34.6	90.13	1,036.1	1,014.6	817.1	766.7	50.41	16.209	
12,900.0	11,602.0	12,956.9	11,603.8	21.8	34.8	90.13	1,136.1	1,012.8	816.8	765.7	51.05	15.998	
13,000.0	11,602.0	13,056.9	11,603.8	21.9	35.1	90.13	1,236.1	1,011.0	816.4	764.7	51.73	15.781	
13,100.0	11,602.0	13,156.9	11,603.8	22.1	35.3	90.13	1,336.1	1,009.2	816.0	763.6	52.45	15.558	
13,200.0	11,602.0	13,256.9	11,603.8	22.3	35.6	90.13	1,436.1	1,007.4	815.7	762.5	53.20	15.331	
13,300.0	11,602.0	13,356.9	11,603.8	22.6	35.8	90.13	1,536.1	1,005.6	815.3	761.3	53.99	15.102	
13,400.0	11,602.0	13,456.9	11,603.8	22.8	36.1	90.13	1,636.0	1,003.8	814.9	760.1	54.80	14.870	
13,500.0	11,602.0	13,556.9	11,603.8	23.1	36.4	90.13	1,736.0	1,002.0	814.5	758.9	55.65	14.638	
13,600.0	11,602.0	13,656.9	11,603.8	23.4	36.7	90.13	1,836.0	1,000.2	814.2	757.6	56.52	14.405	
13,700.0	11,602.0	13,756.9	11,603.8	23.8	37.0	90.13	1,936.0	998.5	813.8	756.4	57.42	14.173	
13,800.0	11,602.0	13,856.9	11,603.8	24.2	37.3	90.13	2,036.0	996.7	813.4	755.1	58.34	13.942	
13,900.0	11,602.0	13,956.9	11,603.8	24.6	37.7	90.13	2,136.0	994.9	813.1	753.8	59.29	13.712	
14,000.0	11,602.0	14,056.9	11,603.8	25.1	38.0	90.13	2,235.9	993.1	812.7	752.4	60.26	13.485	
14,100.0	11,602.0	14,156.9	11,603.8	25.6	38.4	90.13	2,335.9	991.3	812.3	751.0	61.26	13.260	
14,200.0	11,602.0	14,256.9	11,603.8	26.1	38.8	90.13	2,435.9	989.5	811.9	749.7	62.27	13.039	
14,300.0	11,602.0	14,356.9	11,603.8	26.6	39.2	90.13	2,535.9	987.7	811.6	748.3	63.31	12.820	
14,400.0	11,602.0	14,456.9	11,603.8	27.1	39.6	90.13	2,635.9	985.9	811.2	746.8	64.36	12.604	
14,500.0	11,602.0	14,556.9	11,603.8	27.7	40.0	90.13	2,735.9	984.1	810.8	745.4	65.43	12.393	
14,600.0	11,602.0	14,656.9	11,603.8	28.3	40.4	90.13	2,835.8	982.3	810.4	743.9	66.51	12.185	
14,700.0	11,602.0	14,756.9	11,603.8	28.9	40.8	90.13	2,935.8	980.5	810.1	742.5	67.62	11.980	
14,800.0	11,602.0	14,856.9	11,603.8	29.5	41.2	90.13	3,035.8	978.7	809.7	741.0	68.73	11.780	
14,900.0	11,602.0	14,956.9	11,603.8	30.1	41.7	90.13	3,135.8	976.9	809.3	739.5	69.87	11.584	
15,000.0	11,602.0	15,056.9	11,603.8	30.7	42.1	90.13	3,235.8	975.1	809.0	737.9	71.01	11.392	
15,100.0	11,602.0	15,156.9	11,603.8	31.3	42.6	90.13	3,335.8	973.3	808.6	736.4	72.17	11.203	
15,200.0	11,602.0	15,256.9	11,603.8	32.0	43.1	90.13	3,435.7	971.5	808.2	734.9	73.35	11.019	
15,300.0	11,602.0	15,356.9	11,603.8	32.6	43.6	90.13	3,535.7	969.7	807.8	733.3	74.53	10.839	
15,400.0	11,602.0	15,456.9	11,603.8	33.3	44.1	90.13	3,635.7	967.9	807.5	731.7	75.73	10.663	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
15,500.0	11,602.0	15,556.9	11,603.8	33.9	44.5	90.13	3,735.7	966.1	807.1	730.2	76.93	10.491	
15,600.0	11,602.0	15,656.9	11,603.8	34.6	45.0	90.13	3,835.7	964.3	806.7	728.6	78.15	10.323	
15,700.0	11,602.0	15,756.9	11,603.8	35.3	45.6	90.13	3,935.7	962.5	806.4	727.0	79.38	10.158	
15,800.0	11,602.0	15,856.9	11,603.8	35.9	46.1	90.13	4,035.6	960.7	806.0	725.4	80.61	9.998	
15,900.0	11,602.0	15,956.9	11,603.8	36.6	46.6	90.13	4,135.6	958.9	805.6	723.8	81.86	9.841	
16,000.0	11,602.0	16,056.9	11,603.8	37.3	47.1	90.13	4,235.6	957.1	805.2	722.1	83.12	9.688	
16,100.0	11,602.0	16,156.9	11,603.8	38.0	47.7	90.13	4,335.6	955.3	804.9	720.5	84.38	9.539	
16,200.0	11,602.0	16,256.9	11,603.8	38.7	48.2	90.13	4,435.6	953.5	804.5	718.8	85.65	9.393	
16,300.0	11,602.0	16,356.9	11,603.8	39.4	48.8	90.13	4,535.5	951.7	804.1	717.2	86.93	9.250	
16,400.0	11,602.0	16,456.9	11,603.8	40.1	49.3	90.13	4,635.5	949.9	803.8	715.5	88.22	9.111	
16,500.0	11,602.0	16,556.9	11,603.8	40.8	49.9	90.13	4,735.5	948.1	803.4	713.9	89.51	8.975	
16,600.0	11,602.0	16,656.9	11,603.8	41.5	50.5	90.13	4,835.5	946.3	803.0	712.2	90.81	8.842	
16,700.0	11,602.0	16,756.9	11,603.8	42.2	51.0	90.13	4,935.5	944.5	802.6	710.5	92.12	8.713	
16,800.0	11,602.0	16,856.9	11,603.8	42.9	51.6	90.13	5,035.5	942.7	802.3	708.8	93.44	8.586	
16,900.0	11,602.0	16,956.9	11,603.8	43.6	52.2	90.13	5,135.4	940.9	801.9	707.1	94.76	8.463	
17,000.0	11,602.0	17,056.9	11,603.8	44.3	52.8	90.13	5,235.4	939.1	801.5	705.4	96.08	8.342	
17,100.0	11,602.0	17,156.9	11,603.8	45.0	53.4	90.13	5,335.4	937.3	801.2	703.7	97.41	8.224	
17,200.0	11,602.0	17,256.9	11,603.8	45.7	54.0	90.13	5,435.4	935.5	800.8	702.0	98.75	8.109	
17,300.0	11,602.0	17,356.9	11,603.8	46.4	54.6	90.13	5,535.4	933.7	800.4	700.3	100.09	7.997	
17,400.0	11,602.0	17,456.9	11,603.8	47.2	55.2	90.13	5,635.4	931.9	800.0	698.6	101.44	7.887	
17,500.0	11,602.0	17,556.9	11,603.8	47.9	55.8	90.13	5,735.3	930.1	799.7	696.9	102.79	7.779	
17,600.0	11,602.0	17,656.9	11,603.8	48.6	56.4	90.13	5,835.3	928.3	799.3	695.1	104.15	7.674	
17,700.0	11,602.0	17,756.9	11,603.8	49.3	57.0	90.13	5,935.3	926.5	798.9	693.4	105.51	7.572	
17,800.0	11,602.0	17,856.9	11,603.8	50.0	57.6	90.13	6,035.3	924.7	798.5	691.7	106.88	7.472	
17,900.0	11,602.0	17,956.8	11,603.8	50.8	58.3	90.13	6,135.3	923.0	798.2	689.9	108.25	7.374	
18,000.0	11,602.0	18,056.8	11,603.8	51.5	58.9	90.13	6,235.3	921.2	797.8	688.2	109.62	7.278	
18,100.0	11,602.0	18,156.8	11,603.8	52.2	59.5	90.13	6,335.2	919.4	797.4	686.4	111.00	7.184	
18,200.0	11,602.0	18,256.8	11,603.8	53.0	60.2	90.13	6,435.2	917.6	797.1	684.7	112.38	7.093	
18,300.0	11,602.0	18,356.8	11,603.8	53.7	60.8	90.13	6,535.2	915.8	796.7	682.9	113.76	7.003	
18,400.0	11,602.0	18,456.8	11,603.8	54.4	61.4	90.13	6,635.2	914.0	796.3	681.2	115.15	6.915	
18,500.0	11,602.0	18,556.8	11,603.8	55.1	62.1	90.13	6,735.2	912.2	795.9	679.4	116.54	6.830	
18,600.0	11,602.0	18,656.8	11,603.8	55.9	62.7	90.13	6,835.2	910.4	795.6	677.6	117.94	6.746	
18,700.0	11,602.0	18,756.8	11,603.8	56.6	63.4	90.13	6,935.1	908.6	795.2	675.9	119.34	6.663	
18,800.0	11,602.0	18,856.8	11,603.8	57.3	64.0	90.13	7,035.1	906.8	794.8	674.1	120.74	6.583	
18,900.0	11,602.0	18,956.8	11,603.8	58.1	64.7	90.13	7,135.1	905.0	794.5	672.3	122.14	6.504	
19,000.0	11,602.0	19,056.8	11,603.8	58.8	65.3	90.13	7,235.1	903.2	794.1	670.5	123.55	6.427	
19,100.0	11,602.0	19,156.8	11,603.8	59.6	66.0	90.13	7,335.1	901.4	793.7	668.8	124.96	6.352	
19,200.0	11,602.0	19,256.8	11,603.8	60.3	66.7	90.13	7,435.1	899.6	793.3	667.0	126.37	6.278	
19,300.0	11,602.0	19,356.8	11,603.8	61.0	67.3	90.13	7,535.0	897.8	793.0	665.2	127.79	6.205	
19,400.0	11,602.0	19,456.8	11,603.8	61.8	68.0	90.13	7,635.0	896.0	792.6	663.4	129.21	6.134	
19,500.0	11,602.0	19,556.8	11,603.8	62.5	68.7	90.13	7,735.0	894.2	792.2	661.6	130.63	6.065	
19,600.0	11,602.0	19,656.8	11,603.8	63.3	69.3	90.13	7,835.0	892.4	791.9	659.8	132.05	5.997	
19,700.0	11,602.0	19,756.8	11,603.8	64.0	70.0	90.13	7,935.0	890.6	791.5	658.0	133.47	5.930	
19,800.0	11,602.0	19,856.8	11,603.8	64.7	70.7	90.13	8,035.0	888.8	791.1	656.2	134.90	5.864	
19,900.0	11,602.0	19,956.8	11,603.8	65.5	71.4	90.13	8,134.9	887.0	790.7	654.4	136.33	5.800	
20,000.0	11,602.0	20,056.8	11,603.8	66.2	72.0	90.13	8,234.9	885.2	790.4	652.6	137.76	5.737	
20,100.0	11,602.0	20,156.8	11,603.8	67.0	72.7	90.13	8,334.9	883.4	790.0	650.8	139.19	5.676	
20,200.0	11,602.0	20,256.8	11,603.8	67.7	73.4	90.13	8,434.9	881.6	789.6	649.0	140.63	5.615	
20,300.0	11,602.0	20,356.8	11,603.8	68.4	74.1	90.13	8,534.9	879.8	789.3	647.2	142.06	5.556	
20,400.0	11,602.0	20,456.8	11,603.8	69.2	74.8	90.13	8,634.9	878.0	788.9	645.4	143.50	5.497	
20,500.0	11,602.0	20,556.8	11,603.8	69.9	75.5	90.13	8,734.8	876.2	788.5	643.6	144.94	5.440	
20,600.0	11,602.0	20,656.8	11,603.8	70.7	76.2	90.13	8,834.8	874.4	788.1	641.8	146.39	5.384	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: ZIA HILLS UNIT 2431 PROJECT - ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1+MS, 11118-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
20,700.0	11,602.0	20,756.8	11,603.8	71.4	76.8	90.13	8,934.8	872.6	787.8	639.9	147.83	5.329	
20,800.0	11,602.0	20,856.8	11,603.8	72.2	77.5	90.13	9,034.8	870.8	787.4	638.1	149.28	5.275	
20,900.0	11,602.0	20,956.8	11,603.8	72.9	78.2	90.13	9,134.8	869.0	787.0	636.3	150.72	5.222	
21,000.0	11,602.0	21,056.8	11,603.8	73.7	78.9	90.13	9,234.8	867.2	786.7	634.5	152.17	5.169	
21,100.0	11,602.0	21,156.8	11,603.8	74.4	79.6	90.13	9,334.7	865.4	786.3	632.7	153.62	5.118	
21,200.0	11,602.0	21,256.8	11,603.8	75.2	80.3	90.13	9,434.7	863.6	785.9	630.8	155.07	5.068	
21,300.0	11,602.0	21,356.8	11,603.8	75.9	81.0	90.13	9,534.7	861.8	785.5	629.0	156.53	5.019	
21,400.0	11,602.0	21,456.8	11,603.8	76.7	81.7	90.13	9,634.7	860.0	785.2	627.2	157.98	4.970	
21,500.0	11,602.0	21,556.8	11,603.8	77.4	82.4	90.13	9,734.7	858.2	784.8	625.4	159.44	4.922	
21,600.0	11,602.0	21,656.8	11,603.8	78.2	83.1	90.13	9,834.7	856.4	784.4	623.5	160.90	4.875	
21,700.0	11,602.0	21,756.8	11,603.8	78.9	83.8	90.13	9,934.6	854.6	784.0	621.7	162.35	4.829	
21,800.0	11,602.0	21,856.8	11,603.8	79.7	84.5	90.13	10,034.6	852.8	783.7	619.9	163.81	4.784	
21,900.0	11,602.0	21,956.8	11,603.8	80.4	85.2	90.13	10,134.6	851.0	783.3	618.0	165.27	4.739	
22,000.0	11,602.0	22,056.8	11,603.8	81.2	85.9	90.13	10,234.6	849.3	782.9	616.2	166.74	4.696	
22,100.0	11,602.0	22,156.8	11,603.8	81.9	86.6	90.13	10,334.6	847.5	782.6	614.4	168.20	4.653	
22,200.0	11,602.0	22,256.8	11,603.8	82.7	87.4	90.13	10,434.6	845.7	782.2	612.5	169.66	4.610	
22,300.0	11,602.0	22,356.8	11,603.8	83.4	88.1	90.13	10,534.5	843.9	781.8	610.7	171.13	4.569	
22,400.0	11,602.0	22,456.8	11,603.8	84.2	88.8	90.13	10,634.5	842.1	781.4	608.8	172.60	4.528	
22,500.0	11,602.0	22,556.8	11,603.8	84.9	89.5	90.13	10,734.5	840.3	781.1	607.0	174.06	4.487	
22,600.0	11,602.0	22,656.8	11,603.8	85.7	90.2	90.13	10,834.5	838.5	780.7	605.2	175.53	4.448	
22,700.0	11,602.0	22,756.8	11,603.8	86.4	90.9	90.13	10,934.5	836.7	780.3	603.3	177.00	4.409	
22,800.0	11,602.0	22,856.8	11,603.8	87.2	91.6	90.13	11,034.5	834.9	780.0	601.5	178.47	4.370	
22,900.0	11,602.0	22,956.8	11,603.8	87.9	92.3	90.13	11,134.4	833.1	779.6	599.6	179.95	4.332	
23,000.0	11,602.0	23,056.8	11,603.8	88.7	93.1	90.13	11,234.4	831.3	779.2	597.8	181.42	4.295	
23,100.0	11,602.0	23,156.8	11,603.8	89.4	93.8	90.13	11,334.4	829.5	778.8	596.0	182.89	4.258	
23,200.0	11,602.0	23,256.8	11,603.8	90.2	94.5	90.13	11,434.4	827.7	778.5	594.1	184.37	4.222	
23,300.0	11,602.0	23,356.8	11,603.8	90.9	95.2	90.13	11,534.4	825.9	778.1	592.3	185.84	4.187	
23,400.0	11,602.0	23,456.8	11,603.8	91.7	95.9	90.13	11,634.4	824.1	777.7	590.4	187.32	4.152	
23,500.0	11,602.0	23,556.8	11,603.8	92.4	96.6	90.13	11,734.3	822.3	777.4	588.6	188.79	4.117	
23,600.0	11,602.0	23,656.8	11,603.8	93.2	97.4	90.13	11,834.3	820.5	777.0	586.7	190.27	4.084	
23,700.0	11,602.0	23,756.8	11,603.8	93.9	98.1	90.13	11,934.3	818.7	776.6	584.9	191.75	4.050	
23,800.0	11,602.0	23,856.8	11,603.8	94.7	98.8	90.13	12,034.3	816.9	776.2	583.0	193.23	4.017	
23,900.0	11,602.0	23,956.8	11,603.8	95.5	99.5	90.13	12,134.3	815.1	775.9	581.2	194.71	3.985	
24,000.0	11,602.0	24,056.8	11,603.8	96.2	100.3	90.13	12,234.3	813.3	775.5	579.3	196.19	3.953	
24,100.0	11,602.0	24,156.8	11,603.8	97.0	101.0	90.13	12,334.2	811.5	775.1	577.5	197.67	3.921	
24,200.0	11,602.0	24,256.8	11,603.8	97.7	101.7	90.13	12,434.2	809.7	774.8	575.6	199.15	3.890	
24,300.0	11,602.0	24,356.8	11,603.8	98.5	102.4	90.13	12,534.2	807.9	774.4	573.7	200.64	3.860	
24,400.0	11,602.0	24,456.8	11,603.8	99.2	103.1	90.13	12,634.2	806.1	774.0	571.9	202.12	3.829	
24,500.0	11,602.0	24,556.8	11,603.8	100.0	103.9	90.13	12,734.2	804.3	773.6	570.0	203.60	3.800	
24,533.0	11,602.0	24,586.9	11,603.8	100.2	104.1	90.13	12,764.3	803.8	773.5	569.4	204.10	3.790	
24,580.8	11,602.0	24,586.9	11,603.8	100.6	104.1	90.13	12,764.3	803.8	775.0	570.4	204.60	3.788 SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB 27 @ 3202.9usft

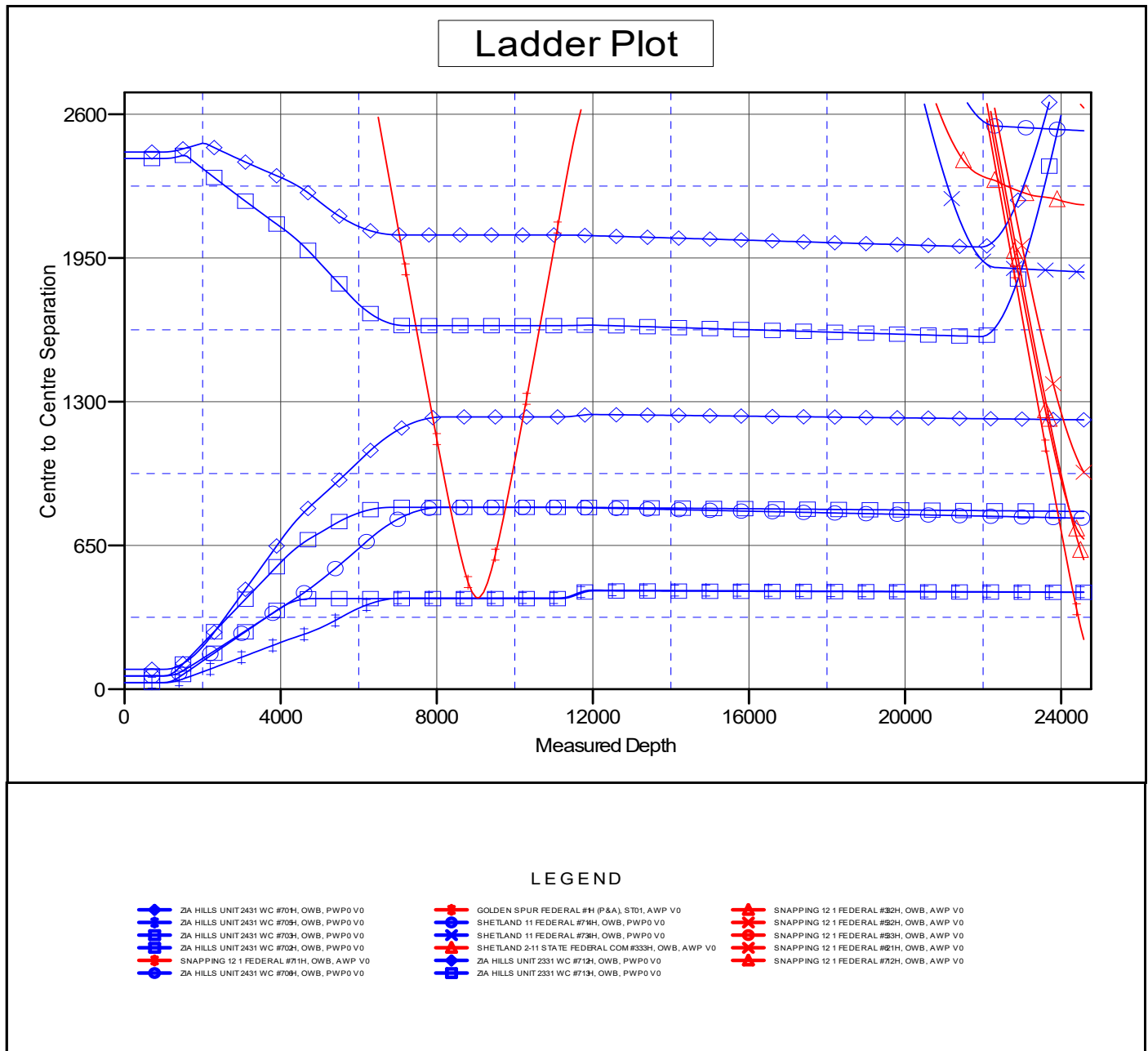
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2431 WC #704H

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

Grid Convergence at Surface is: 0.32°



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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB 27 @ 3202.9usft
Reference Site:	ZIA HILLS UNIT 2431 PROJECT	MD Reference:	KB 27 @ 3202.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Well Error:	3.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 15 Central Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB 27 @ 3202.9usft

Offset Depths are relative to Offset Datum

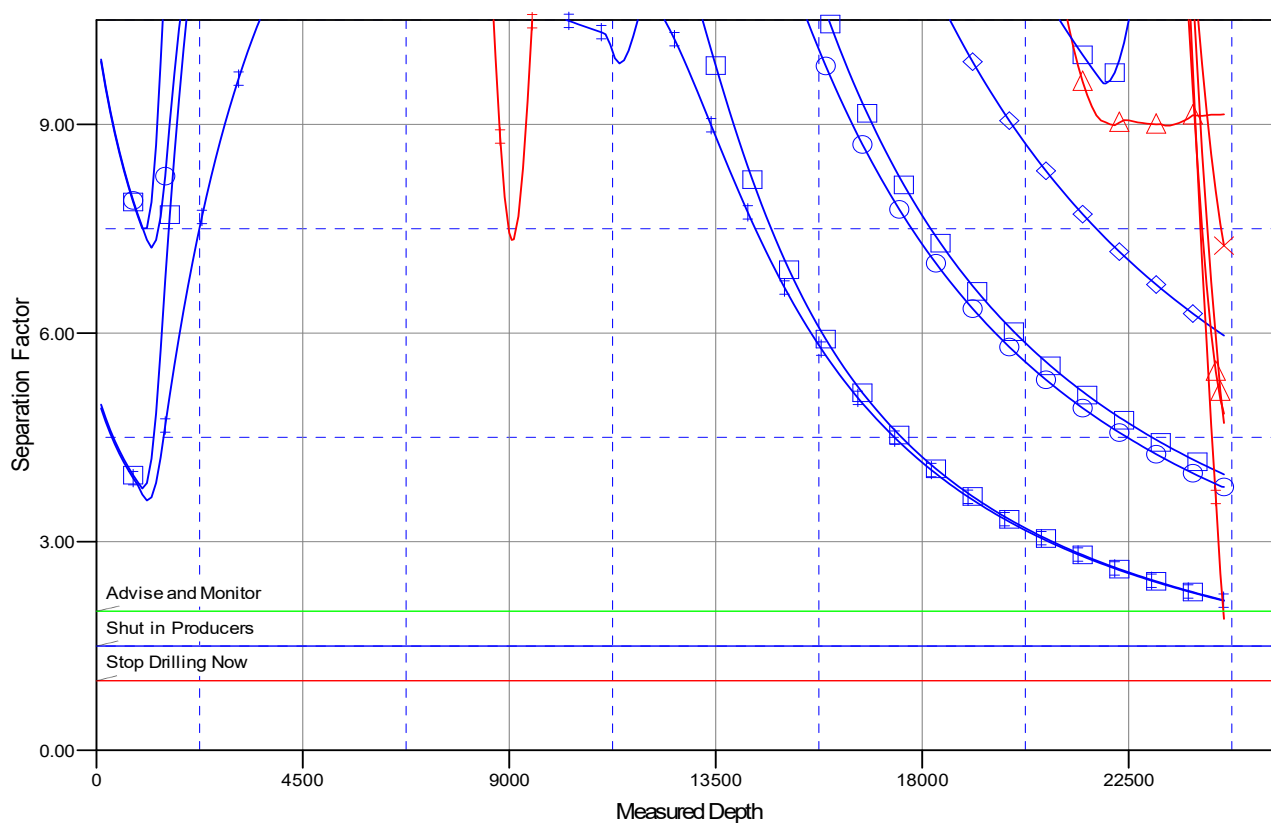
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2431 WC #704H

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

Grid Convergence at Surface is: 0.32°

Separation Factor Plot



LEGEND

ZIA HILLS UNIT 2431 WC #704H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #708H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #702H, OWB, PWP0 V0
 ZIA HILLS UNIT 2431 WC #703H, OWB, PWP0 V0
 SNAPPING 12 1 FEDERAL #71H, OWB, AWP V0
 ZIA HILLS UNIT 2431 WC #708H, OWB, PWP0 V0

GOLDEN SPUR FEDERAL #1H (P&A), STD1, AWP V0
 SHETLAND 11 FEDERAL #71H, OWB, PWP0 V0
 SHETLAND 11 FEDERAL #73H, OWB, PWP0 V0
 SHETLAND 2-11 STATE FEDERAL COM #333H, OWB, AWP V0
 ZIA HILLS UNIT 2331 WC #712H, OWB, PWP0 V0
 ZIA HILLS UNIT 2331 WC #713H, OWB, PWP0 V0

SNAPPING 12 1 FEDERAL #32H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #33H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #34H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #35H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #36H, OWB, AWP V0
 SNAPPING 12 1 FEDERAL #37H, OWB, AWP V0

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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

ZIA HILLS UNIT 2431 PROJECT

ZIA HILLS UNIT 2431 WC #704H

OWB

Plan: PWP0

Standard Planning Report

07 November, 2022

ConocoPhillips
Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	ZIA HILLS UNIT 2431 WC #704H			
Well Position	+N/-S	464.5 usft	Northing:	372,243.62 usft
	+E/-W	1,395.5 usft	Easting:	685,380.54 usft
Position Uncertainty		3.0 usft	Wellhead Elevation:	3,175.9 usft
			Latitude:	32° 1' 19.205 N
			Longitude:	103° 44' 6.660 W
			Ground Level:	

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2022	12/31/2022	6.42	59.56	47,363.61185093

Design	PWP0			
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	0.13

Plan Survey Tool Program	Date	11/7/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1 0.0	1,000.0	PWP0 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp
2 1,000.0	11,080.0	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5
3 11,080.0	24,580.8	PWP0 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-St

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	8.00	151.00	1,398.7	-24.4	13.5	2.00	2.00	0.00	151.00	
4,026.9	8.00	151.00	4,000.0	-344.1	190.8	0.00	0.00	0.00	0.00	
4,826.9	0.00	0.00	4,797.4	-392.9	217.8	1.00	-1.00	0.00	180.00	
11,058.5	0.00	0.00	11,029.0	-392.9	217.8	0.00	0.00	0.00	0.00	
11,958.5	90.00	359.18	11,602.0	180.0	209.6	10.00	10.00	-0.09	359.18	
24,580.8	90.00	359.18	11,602.0	12,801.1	29.6	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	2.00	151.00	1,100.0	-1.5	0.8	-1.5	2.00	2.00	0.00
1,200.0	4.00	151.00	1,199.8	-6.1	3.4	-6.1	2.00	2.00	0.00
1,300.0	6.00	151.00	1,299.5	-13.7	7.6	-13.7	2.00	2.00	0.00
1,400.0	8.00	151.00	1,398.7	-24.4	13.5	-24.4	2.00	2.00	0.00
1,500.0	8.00	151.00	1,497.7	-36.6	20.3	-36.5	0.00	0.00	0.00
1,600.0	8.00	151.00	1,596.8	-48.7	27.0	-48.7	0.00	0.00	0.00
1,700.0	8.00	151.00	1,695.8	-60.9	33.8	-60.8	0.00	0.00	0.00
1,800.0	8.00	151.00	1,794.8	-73.1	40.5	-73.0	0.00	0.00	0.00
1,900.0	8.00	151.00	1,893.8	-85.2	47.3	-85.1	0.00	0.00	0.00
2,000.0	8.00	151.00	1,992.9	-97.4	54.0	-97.3	0.00	0.00	0.00
2,100.0	8.00	151.00	2,091.9	-109.6	60.7	-109.4	0.00	0.00	0.00
2,200.0	8.00	151.00	2,190.9	-121.8	67.5	-121.6	0.00	0.00	0.00
2,300.0	8.00	151.00	2,289.9	-133.9	74.2	-133.8	0.00	0.00	0.00
2,400.0	8.00	151.00	2,389.0	-146.1	81.0	-145.9	0.00	0.00	0.00
2,500.0	8.00	151.00	2,488.0	-158.3	87.7	-158.1	0.00	0.00	0.00
2,600.0	8.00	151.00	2,587.0	-170.5	94.5	-170.2	0.00	0.00	0.00
2,700.0	8.00	151.00	2,686.1	-182.6	101.2	-182.4	0.00	0.00	0.00
2,800.0	8.00	151.00	2,785.1	-194.8	108.0	-194.5	0.00	0.00	0.00
2,900.0	8.00	151.00	2,884.1	-207.0	114.7	-206.7	0.00	0.00	0.00
3,000.0	8.00	151.00	2,983.1	-219.1	121.5	-218.9	0.00	0.00	0.00
3,100.0	8.00	151.00	3,082.2	-231.3	128.2	-231.0	0.00	0.00	0.00
3,200.0	8.00	151.00	3,181.2	-243.5	135.0	-243.2	0.00	0.00	0.00
3,300.0	8.00	151.00	3,280.2	-255.7	141.7	-255.3	0.00	0.00	0.00
3,400.0	8.00	151.00	3,379.2	-267.8	148.5	-267.5	0.00	0.00	0.00
3,500.0	8.00	151.00	3,478.3	-280.0	155.2	-279.6	0.00	0.00	0.00
3,600.0	8.00	151.00	3,577.3	-292.2	162.0	-291.8	0.00	0.00	0.00
3,700.0	8.00	151.00	3,676.3	-304.3	168.7	-304.0	0.00	0.00	0.00
3,800.0	8.00	151.00	3,775.3	-316.5	175.5	-316.1	0.00	0.00	0.00
3,900.0	8.00	151.00	3,874.4	-328.7	182.2	-328.3	0.00	0.00	0.00
4,000.0	8.00	151.00	3,973.4	-340.9	188.9	-340.4	0.00	0.00	0.00
4,026.9	8.00	151.00	4,000.0	-344.1	190.8	-343.7	0.00	0.00	0.00
4,100.0	7.27	151.00	4,072.5	-352.6	195.5	-352.2	1.00	-1.00	0.00
4,200.0	6.27	151.00	4,171.8	-362.9	201.2	-362.5	1.00	-1.00	0.00
4,300.0	5.27	151.00	4,271.3	-371.7	206.1	-371.3	1.00	-1.00	0.00
4,400.0	4.27	151.00	4,370.9	-379.0	210.1	-378.5	1.00	-1.00	0.00
4,500.0	3.27	151.00	4,470.7	-384.8	213.3	-384.3	1.00	-1.00	0.00
4,600.0	2.27	151.00	4,570.6	-389.0	215.6	-388.5	1.00	-1.00	0.00
4,700.0	1.27	151.00	4,670.6	-391.7	217.1	-391.2	1.00	-1.00	0.00
4,800.0	0.27	151.00	4,770.5	-392.8	217.8	-392.3	1.00	-1.00	0.00
4,826.9	0.00	0.00	4,797.4	-392.9	217.8	-392.4	1.00	-1.00	0.00
4,900.0	0.00	0.00	4,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,000.0	0.00	0.00	4,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,100.0	0.00	0.00	5,070.5	-392.9	217.8	-392.4	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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)
5,200.0	0.00	0.00	5,170.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,300.0	0.00	0.00	5,270.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,370.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,500.0	0.00	0.00	5,470.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,570.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,700.0	0.00	0.00	5,670.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,770.5	-392.9	217.8	-392.4	0.00	0.00	0.00
5,900.0	0.00	0.00	5,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,000.0	0.00	0.00	5,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,100.0	0.00	0.00	6,070.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,170.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,300.0	0.00	0.00	6,270.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,370.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,500.0	0.00	0.00	6,470.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,570.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,700.0	0.00	0.00	6,670.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,800.0	0.00	0.00	6,770.5	-392.9	217.8	-392.4	0.00	0.00	0.00
6,900.0	0.00	0.00	6,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,000.0	0.00	0.00	6,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,100.0	0.00	0.00	7,070.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,200.0	0.00	0.00	7,170.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,300.0	0.00	0.00	7,270.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,400.0	0.00	0.00	7,370.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,500.0	0.00	0.00	7,470.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,600.0	0.00	0.00	7,570.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,700.0	0.00	0.00	7,670.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,800.0	0.00	0.00	7,770.5	-392.9	217.8	-392.4	0.00	0.00	0.00
7,900.0	0.00	0.00	7,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,000.0	0.00	0.00	7,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,100.0	0.00	0.00	8,070.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,200.0	0.00	0.00	8,170.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,300.0	0.00	0.00	8,270.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,400.0	0.00	0.00	8,370.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,500.0	0.00	0.00	8,470.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,600.0	0.00	0.00	8,570.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,700.0	0.00	0.00	8,670.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,800.0	0.00	0.00	8,770.5	-392.9	217.8	-392.4	0.00	0.00	0.00
8,900.0	0.00	0.00	8,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,000.0	0.00	0.00	8,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,100.0	0.00	0.00	9,070.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,200.0	0.00	0.00	9,170.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,300.0	0.00	0.00	9,270.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,400.0	0.00	0.00	9,370.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,500.0	0.00	0.00	9,470.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,600.0	0.00	0.00	9,570.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,700.0	0.00	0.00	9,670.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,800.0	0.00	0.00	9,770.5	-392.9	217.8	-392.4	0.00	0.00	0.00
9,900.0	0.00	0.00	9,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,000.0	0.00	0.00	9,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,100.0	0.00	0.00	10,070.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,200.0	0.00	0.00	10,170.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,300.0	0.00	0.00	10,270.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,400.0	0.00	0.00	10,370.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,500.0	0.00	0.00	10,470.5	-392.9	217.8	-392.4	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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)
10,600.0	0.00	0.00	10,570.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,700.0	0.00	0.00	10,670.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,800.0	0.00	0.00	10,770.5	-392.9	217.8	-392.4	0.00	0.00	0.00
10,900.0	0.00	0.00	10,870.5	-392.9	217.8	-392.4	0.00	0.00	0.00
11,000.0	0.00	0.00	10,970.5	-392.9	217.8	-392.4	0.00	0.00	0.00
11,058.5	0.00	0.00	11,029.0	-392.9	217.8	-392.4	0.00	0.00	0.00
11,100.0	4.15	359.18	11,070.5	-391.4	217.8	-390.9	10.00	10.00	0.00
11,150.0	9.15	359.18	11,120.2	-385.6	217.7	-385.1	10.00	10.00	0.00
11,200.0	14.15	359.18	11,169.1	-375.5	217.5	-375.0	10.00	10.00	0.00
11,250.0	19.15	359.18	11,217.0	-361.2	217.3	-360.7	10.00	10.00	0.00
11,300.0	24.15	359.18	11,263.4	-342.7	217.1	-342.2	10.00	10.00	0.00
11,350.0	29.15	359.18	11,308.1	-320.3	216.8	-319.8	10.00	10.00	0.00
11,400.0	34.15	359.18	11,350.7	-294.1	216.4	-293.6	10.00	10.00	0.00
11,450.0	39.15	359.18	11,390.8	-264.3	216.0	-263.8	10.00	10.00	0.00
11,500.0	44.15	359.18	11,428.1	-231.0	215.5	-230.5	10.00	10.00	0.00
11,550.0	49.15	359.18	11,462.4	-194.7	215.0	-194.2	10.00	10.00	0.00
11,600.0	54.15	359.18	11,493.4	-155.5	214.4	-155.0	10.00	10.00	0.00
11,650.0	59.15	359.18	11,520.9	-113.7	213.8	-113.3	10.00	10.00	0.00
11,700.0	64.15	359.18	11,544.6	-69.8	213.2	-69.3	10.00	10.00	0.00
11,750.0	69.15	359.18	11,564.5	-23.9	212.5	-23.4	10.00	10.00	0.00
11,800.0	74.15	359.18	11,580.2	23.6	211.9	24.1	10.00	10.00	0.00
11,850.0	79.15	359.18	11,591.7	72.2	211.2	72.7	10.00	10.00	0.00
11,900.0	84.15	359.18	11,599.0	121.6	210.5	122.1	10.00	10.00	0.00
11,950.0	89.15	359.18	11,601.9	171.5	209.7	172.0	10.00	10.00	0.00
11,958.5	90.00	359.18	11,602.0	180.0	209.6	180.5	10.00	10.00	0.00
12,000.0	90.00	359.18	11,602.0	221.5	209.0	222.0	0.00	0.00	0.00
12,100.0	90.00	359.18	11,602.0	321.5	207.6	322.0	0.00	0.00	0.00
12,200.0	90.00	359.18	11,602.0	421.5	206.2	422.0	0.00	0.00	0.00
12,300.0	90.00	359.18	11,602.0	521.5	204.8	522.0	0.00	0.00	0.00
12,400.0	90.00	359.18	11,602.0	621.5	203.3	622.0	0.00	0.00	0.00
12,500.0	90.00	359.18	11,602.0	721.5	201.9	721.9	0.00	0.00	0.00
12,600.0	90.00	359.18	11,602.0	821.5	200.5	821.9	0.00	0.00	0.00
12,700.0	90.00	359.18	11,602.0	921.5	199.0	921.9	0.00	0.00	0.00
12,800.0	90.00	359.18	11,602.0	1,021.5	197.6	1,021.9	0.00	0.00	0.00
12,900.0	90.00	359.18	11,602.0	1,121.4	196.2	1,121.9	0.00	0.00	0.00
13,000.0	90.00	359.18	11,602.0	1,221.4	194.8	1,221.9	0.00	0.00	0.00
13,100.0	90.00	359.18	11,602.0	1,321.4	193.3	1,321.9	0.00	0.00	0.00
13,200.0	90.00	359.18	11,602.0	1,421.4	191.9	1,421.9	0.00	0.00	0.00
13,300.0	90.00	359.18	11,602.0	1,521.4	190.5	1,521.8	0.00	0.00	0.00
13,400.0	90.00	359.18	11,602.0	1,621.4	189.1	1,621.8	0.00	0.00	0.00
13,500.0	90.00	359.18	11,602.0	1,721.4	187.6	1,721.8	0.00	0.00	0.00
13,600.0	90.00	359.18	11,602.0	1,821.4	186.2	1,821.8	0.00	0.00	0.00
13,700.0	90.00	359.18	11,602.0	1,921.4	184.8	1,921.8	0.00	0.00	0.00
13,800.0	90.00	359.18	11,602.0	2,021.3	183.4	2,021.8	0.00	0.00	0.00
13,900.0	90.00	359.18	11,602.0	2,121.3	181.9	2,121.8	0.00	0.00	0.00
14,000.0	90.00	359.18	11,602.0	2,221.3	180.5	2,221.7	0.00	0.00	0.00
14,100.0	90.00	359.18	11,602.0	2,321.3	179.1	2,321.7	0.00	0.00	0.00
14,200.0	90.00	359.18	11,602.0	2,421.3	177.7	2,421.7	0.00	0.00	0.00
14,300.0	90.00	359.18	11,602.0	2,521.3	176.2	2,521.7	0.00	0.00	0.00
14,400.0	90.00	359.18	11,602.0	2,621.3	174.8	2,621.7	0.00	0.00	0.00
14,500.0	90.00	359.18	11,602.0	2,721.3	173.4	2,721.7	0.00	0.00	0.00
14,600.0	90.00	359.18	11,602.0	2,821.3	172.0	2,821.7	0.00	0.00	0.00
14,700.0	90.00	359.18	11,602.0	2,921.3	170.5	2,921.6	0.00	0.00	0.00
14,800.0	90.00	359.18	11,602.0	3,021.2	169.1	3,021.6	0.00	0.00	0.00

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Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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)
14,900.0	90.00	359.18	11,602.0	3,121.2	167.7	3,121.6	0.00	0.00	0.00
15,000.0	90.00	359.18	11,602.0	3,221.2	166.3	3,221.6	0.00	0.00	0.00
15,100.0	90.00	359.18	11,602.0	3,321.2	164.8	3,321.6	0.00	0.00	0.00
15,200.0	90.00	359.18	11,602.0	3,421.2	163.4	3,421.6	0.00	0.00	0.00
15,300.0	90.00	359.18	11,602.0	3,521.2	162.0	3,521.6	0.00	0.00	0.00
15,400.0	90.00	359.18	11,602.0	3,621.2	160.6	3,621.5	0.00	0.00	0.00
15,500.0	90.00	359.18	11,602.0	3,721.2	159.1	3,721.5	0.00	0.00	0.00
15,600.0	90.00	359.18	11,602.0	3,821.2	157.7	3,821.5	0.00	0.00	0.00
15,700.0	90.00	359.18	11,602.0	3,921.2	156.3	3,921.5	0.00	0.00	0.00
15,800.0	90.00	359.18	11,602.0	4,021.1	154.8	4,021.5	0.00	0.00	0.00
15,900.0	90.00	359.18	11,602.0	4,121.1	153.4	4,121.5	0.00	0.00	0.00
16,000.0	90.00	359.18	11,602.0	4,221.1	152.0	4,221.5	0.00	0.00	0.00
16,100.0	90.00	359.18	11,602.0	4,321.1	150.6	4,321.5	0.00	0.00	0.00
16,200.0	90.00	359.18	11,602.0	4,421.1	149.1	4,421.4	0.00	0.00	0.00
16,300.0	90.00	359.18	11,602.0	4,521.1	147.7	4,521.4	0.00	0.00	0.00
16,400.0	90.00	359.18	11,602.0	4,621.1	146.3	4,621.4	0.00	0.00	0.00
16,500.0	90.00	359.18	11,602.0	4,721.1	144.9	4,721.4	0.00	0.00	0.00
16,600.0	90.00	359.18	11,602.0	4,821.1	143.4	4,821.4	0.00	0.00	0.00
16,700.0	90.00	359.18	11,602.0	4,921.1	142.0	4,921.4	0.00	0.00	0.00
16,800.0	90.00	359.18	11,602.0	5,021.0	140.6	5,021.4	0.00	0.00	0.00
16,900.0	90.00	359.18	11,602.0	5,121.0	139.2	5,121.3	0.00	0.00	0.00
17,000.0	90.00	359.18	11,602.0	5,221.0	137.7	5,221.3	0.00	0.00	0.00
17,100.0	90.00	359.18	11,602.0	5,321.0	136.3	5,321.3	0.00	0.00	0.00
17,200.0	90.00	359.18	11,602.0	5,421.0	134.9	5,421.3	0.00	0.00	0.00
17,300.0	90.00	359.18	11,602.0	5,521.0	133.5	5,521.3	0.00	0.00	0.00
17,400.0	90.00	359.18	11,602.0	5,621.0	132.0	5,621.3	0.00	0.00	0.00
17,500.0	90.00	359.18	11,602.0	5,721.0	130.6	5,721.3	0.00	0.00	0.00
17,600.0	90.00	359.18	11,602.0	5,821.0	129.2	5,821.2	0.00	0.00	0.00
17,700.0	90.00	359.18	11,602.0	5,921.0	127.8	5,921.2	0.00	0.00	0.00
17,800.0	90.00	359.18	11,602.0	6,020.9	126.3	6,021.2	0.00	0.00	0.00
17,900.0	90.00	359.18	11,602.0	6,120.9	124.9	6,121.2	0.00	0.00	0.00
18,000.0	90.00	359.18	11,602.0	6,220.9	123.5	6,221.2	0.00	0.00	0.00
18,100.0	90.00	359.18	11,602.0	6,320.9	122.1	6,321.2	0.00	0.00	0.00
18,200.0	90.00	359.18	11,602.0	6,420.9	120.6	6,421.2	0.00	0.00	0.00
18,300.0	90.00	359.18	11,602.0	6,520.9	119.2	6,521.1	0.00	0.00	0.00
18,400.0	90.00	359.18	11,602.0	6,620.9	117.8	6,621.1	0.00	0.00	0.00
18,500.0	90.00	359.18	11,602.0	6,720.9	116.4	6,721.1	0.00	0.00	0.00
18,600.0	90.00	359.18	11,602.0	6,820.9	114.9	6,821.1	0.00	0.00	0.00
18,700.0	90.00	359.18	11,602.0	6,920.9	113.5	6,921.1	0.00	0.00	0.00
18,800.0	90.00	359.18	11,602.0	7,020.8	112.1	7,021.1	0.00	0.00	0.00
18,900.0	90.00	359.18	11,602.0	7,120.8	110.6	7,121.1	0.00	0.00	0.00
19,000.0	90.00	359.18	11,602.0	7,220.8	109.2	7,221.1	0.00	0.00	0.00
19,100.0	90.00	359.18	11,602.0	7,320.8	107.8	7,321.0	0.00	0.00	0.00
19,200.0	90.00	359.18	11,602.0	7,420.8	106.4	7,421.0	0.00	0.00	0.00
19,300.0	90.00	359.18	11,602.0	7,520.8	104.9	7,521.0	0.00	0.00	0.00
19,400.0	90.00	359.18	11,602.0	7,620.8	103.5	7,621.0	0.00	0.00	0.00
19,500.0	90.00	359.18	11,602.0	7,720.8	102.1	7,721.0	0.00	0.00	0.00
19,600.0	90.00	359.18	11,602.0	7,820.8	100.7	7,821.0	0.00	0.00	0.00
19,700.0	90.00	359.18	11,602.0	7,920.7	99.2	7,921.0	0.00	0.00	0.00
19,800.0	90.00	359.18	11,602.0	8,020.7	97.8	8,020.9	0.00	0.00	0.00
19,900.0	90.00	359.18	11,602.0	8,120.7	96.4	8,120.9	0.00	0.00	0.00
20,000.0	90.00	359.18	11,602.0	8,220.7	95.0	8,220.9	0.00	0.00	0.00
20,100.0	90.00	359.18	11,602.0	8,320.7	93.5	8,320.9	0.00	0.00	0.00
20,200.0	90.00	359.18	11,602.0	8,420.7	92.1	8,420.9	0.00	0.00	0.00

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Planning Report

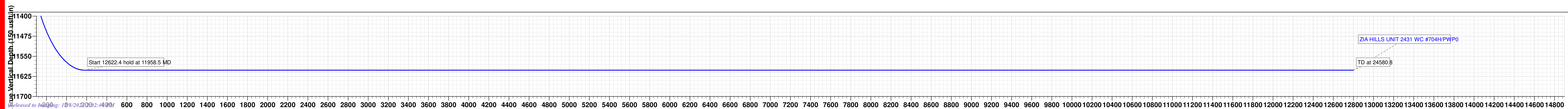
Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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)
20,300.0	90.00	359.18	11,602.0	8,520.7	90.7	8,520.9	0.00	0.00	0.00
20,400.0	90.00	359.18	11,602.0	8,620.7	89.3	8,620.9	0.00	0.00	0.00
20,500.0	90.00	359.18	11,602.0	8,720.7	87.8	8,720.8	0.00	0.00	0.00
20,600.0	90.00	359.18	11,602.0	8,820.7	86.4	8,820.8	0.00	0.00	0.00
20,700.0	90.00	359.18	11,602.0	8,920.6	85.0	8,920.8	0.00	0.00	0.00
20,800.0	90.00	359.18	11,602.0	9,020.6	83.6	9,020.8	0.00	0.00	0.00
20,900.0	90.00	359.18	11,602.0	9,120.6	82.1	9,120.8	0.00	0.00	0.00
21,000.0	90.00	359.18	11,602.0	9,220.6	80.7	9,220.8	0.00	0.00	0.00
21,100.0	90.00	359.18	11,602.0	9,320.6	79.3	9,320.8	0.00	0.00	0.00
21,200.0	90.00	359.18	11,602.0	9,420.6	77.9	9,420.8	0.00	0.00	0.00
21,300.0	90.00	359.18	11,602.0	9,520.6	76.4	9,520.7	0.00	0.00	0.00
21,400.0	90.00	359.18	11,602.0	9,620.6	75.0	9,620.7	0.00	0.00	0.00
21,500.0	90.00	359.18	11,602.0	9,720.6	73.6	9,720.7	0.00	0.00	0.00
21,600.0	90.00	359.18	11,602.0	9,820.6	72.2	9,820.7	0.00	0.00	0.00
21,700.0	90.00	359.18	11,602.0	9,920.5	70.7	9,920.7	0.00	0.00	0.00
21,800.0	90.00	359.18	11,602.0	10,020.5	69.3	10,020.7	0.00	0.00	0.00
21,900.0	90.00	359.18	11,602.0	10,120.5	67.9	10,120.7	0.00	0.00	0.00
22,000.0	90.00	359.18	11,602.0	10,220.5	66.4	10,220.6	0.00	0.00	0.00
22,100.0	90.00	359.18	11,602.0	10,320.5	65.0	10,320.6	0.00	0.00	0.00
22,200.0	90.00	359.18	11,602.0	10,420.5	63.6	10,420.6	0.00	0.00	0.00
22,300.0	90.00	359.18	11,602.0	10,520.5	62.2	10,520.6	0.00	0.00	0.00
22,400.0	90.00	359.18	11,602.0	10,620.5	60.7	10,620.6	0.00	0.00	0.00
22,500.0	90.00	359.18	11,602.0	10,720.5	59.3	10,720.6	0.00	0.00	0.00
22,600.0	90.00	359.18	11,602.0	10,820.5	57.9	10,820.6	0.00	0.00	0.00
22,700.0	90.00	359.18	11,602.0	10,920.4	56.5	10,920.5	0.00	0.00	0.00
22,800.0	90.00	359.18	11,602.0	11,020.4	55.0	11,020.5	0.00	0.00	0.00
22,900.0	90.00	359.18	11,602.0	11,120.4	53.6	11,120.5	0.00	0.00	0.00
23,000.0	90.00	359.18	11,602.0	11,220.4	52.2	11,220.5	0.00	0.00	0.00
23,100.0	90.00	359.18	11,602.0	11,320.4	50.8	11,320.5	0.00	0.00	0.00
23,200.0	90.00	359.18	11,602.0	11,420.4	49.3	11,420.5	0.00	0.00	0.00
23,300.0	90.00	359.18	11,602.0	11,520.4	47.9	11,520.5	0.00	0.00	0.00
23,400.0	90.00	359.18	11,602.0	11,620.4	46.5	11,620.4	0.00	0.00	0.00
23,500.0	90.00	359.18	11,602.0	11,720.4	45.1	11,720.4	0.00	0.00	0.00
23,600.0	90.00	359.18	11,602.0	11,820.4	43.6	11,820.4	0.00	0.00	0.00
23,700.0	90.00	359.18	11,602.0	11,920.3	42.2	11,920.4	0.00	0.00	0.00
23,800.0	90.00	359.18	11,602.0	12,020.3	40.8	12,020.4	0.00	0.00	0.00
23,900.0	90.00	359.18	11,602.0	12,120.3	39.4	12,120.4	0.00	0.00	0.00
24,000.0	90.00	359.18	11,602.0	12,220.3	37.9	12,220.4	0.00	0.00	0.00
24,100.0	90.00	359.18	11,602.0	12,320.3	36.5	12,320.4	0.00	0.00	0.00
24,200.0	90.00	359.18	11,602.0	12,420.3	35.1	12,420.3	0.00	0.00	0.00
24,300.0	90.00	359.18	11,602.0	12,520.3	33.7	12,520.3	0.00	0.00	0.00
24,400.0	90.00	359.18	11,602.0	12,620.3	32.2	12,620.3	0.00	0.00	0.00
24,500.0	90.00	359.18	11,602.0	12,720.3	30.8	12,720.3	0.00	0.00	0.00
24,580.8	90.00	359.18	11,602.0	12,801.1	29.6	12,801.1	0.00	0.00	0.00

ConocoPhillips
Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2431 WC #704H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB 27 @ 3202.9usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB 27 @ 3202.9usft
Site:	ZIA HILLS UNIT 2431 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2431 WC #704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
LTP (ZIA HILLS UNIT 24	0.00	0.00	11,602.0	12,751.1	29.9	384,994.72	685,410.45	32° 3' 25.390 N	103° 44' 5.492 W
- plan misses target center by 30.9usft at 24500.0usft MD (11602.0 TVD, 12720.3 N, 30.8 E)									
- Point									
FTP (ZIA HILLS UNIT 24	0.00	0.00	11,602.0	-342.0	218.4	371,901.65	685,598.95	32° 1' 15.809 N	103° 44' 4.145 W
- plan misses target center by 202.2usft at 11538.7usft MD (11454.9 TVD, -203.2 N, 215.1 E)									
- Circle (radius 50.0)									
PBHL (ZIA HILLS UNIT :	0.00	179.18	11,602.0	12,801.1	29.6	385,044.72	685,410.19	32° 3' 25.885 N	103° 44' 5.491 W
- plan hits target center									
- Rectangle (sides W100.0 H13,150.0 D20.0)									



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	ConocoPhillips
LEASE NO.:	NMLC064756
LOCATION:	Section 24, T.26 S, R.31 E., NMPM
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	Zia Hills Unit 2431 WC 704H
SURFACE HOLE FOOTAGE:	445'/S & 1400'/W
BOTTOM HOLE FOOTAGE:	2590'/S & 1536'/W

COA

H₂S	☒ Yes	☐ No		
Potash / WIPP	☒ None	☐ Secretary	☐ R-111-P	☐ WIPP
Cave / Karst	☐ Low	☒ Medium	☐ High	☐ Critical
Wellhead	☐ Conventional	☒ Multibowl	☐ Both	☐ Diverter
Cementing	☐ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Break Testing	☐ Water Disposal	☐ COM	☒ Unit
Variance	☒ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☐ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ Batch APD / Sundry				

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware Group** formation. As a result, the Hydrogen Sulfide area must meet all requirements from **43 CFR 3176**, 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 **1350** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) 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.**
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the casing shoe shall be **10,000 (10M) psi**. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)**Unit Wells**

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. (This is not necessary for secondary recovery unit wells)

GENERAL REQUIREMENTS

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

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

☒ Eddy County

Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

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 **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

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

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.

- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

ZS 11/1/2023

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	
Dallas Daley	432-818-2329	432-631-6977

EMERGENCY RESPONSE NUMBERS

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

District I

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

District II

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

District III

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

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 288319

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 288319
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	12/8/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/8/2023
ward.rikala	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	12/8/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	12/8/2023
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	12/8/2023
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	12/8/2023
ward.rikala	The SW/4-T26S-R31E is in the Purplesage Wolfcamp Pool. This well can not be produced until a C-102 is received for the correct acreage for the Wolfcamp Pool and a C-102 for the correct acreage for the Zia Hills Wolfcamp Pool.	12/8/2023