

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. 30-015-54512
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

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

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

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

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

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

(Continued on page 2)

*(Instructions on page 2)



Additional Operator Remarks

Location of Well

0. SHL: SESE / 70 FSL / 1150 FEL / TWSP: 26S / RANGE: 31E / SECTION: 23 / LAT: 32.0210562 / LONG: -103.7438782 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 100 FSL / 2495 FEL / TWSP: 26S / RANGE: 31E / SECTION: 23 / LAT: 32.02113 / LONG: -103.748217 (TVD: 11325 feet, MD: 11497 feet)

BHL: NWNE / 50 FNL / 2495 FEL / TWSP: 26S / RANGE: 31E / SECTION: 14 / LAT: 32.0500335 / LONG: -103.7483445 (TVD: 11531 feet, MD: 21919 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- 54512	2 Pool Code 98081	3 Pool Name Zia Hills; Wolfcamp
4 Property Code 331845	5 Property Name ZIA HILLS UNIT 2331 WC	6 Well Number 707H
7 OGRID No. 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 3163.90'

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
P	23	26-S	31-E		70'	SOUTH	1150'	EAST	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
B	14	26-S	31-E		50'	NORTH	2495'	EAST	EDDY

12 Dedicated Acres 640	13 Joint or Infill	14 Consolidation Code	15 Order No.
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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 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. <u>Mayte Reyes</u> <u>12/18/2022</u> Signature Date <u>Mayte Reyes</u> Printed Name <u>mayte.x.reyes@cop.com</u> 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. <u>10/21/2022</u> Date of Survey <u>Charles L. Jurica</u> Signature and Seal of Professional Surveyor: <u>25490</u> Certificate Number

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: CONOCOPHILLIPS **OGRID:** 217817 **Date:** 12 / 18 / 22

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 2331 WC 707H	30-015-	P-23-26S-31E	70' FSL & 1150' FEL 50' FNL & 2495' FEL	± 2245	± 6736	± 5165

IV. Central Delivery Point Name: _____ [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 2331 WC 707H	Pending	4/4/2024	± 25 days from spud	8/2/2024	8/12/2024	8/17/2024

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.

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

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: Mayte Reyes
Title: Sr. Regulatory Coordinator
E-mail Address: mayte.x.reyes@conocophillips.com
Date: 12/18/2022
Phone: 575-748-6945
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

ConocoPhillips Company - Zia Hills Unit 2331 WC 707H

1. Geologic Formations

TVD of target	11,531' EOL	Pilot hole depth	NA
MD at TD:	21,919'	Deepest expected fresh water:	405'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1059	Water	
Top of Salt	1448	Salt	
Base of Salt	3916	Salt	
Lamar	4135	Salt Water	
Bell Canyon	4160	Salt Water	
Cherry Canyon	5071	Oil/Gas	
Brushy Canyon	6464	Oil/Gas	
BSPG	8115	Oil/Gas	
BS1S	9151	Oil/Gas	
BS2S	9801	Oil/Gas	
BS3C	10274	Oil/Gas	
BS3S	10970	Oil/Gas	
WFMP	11355	Oil/Gas	
Wolfcamp A Sand	11551	Target Oil/Gas	
WFMP B	11882	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	1398	10.75"	45.5	J55	BTC	3.27	1.08	11.24	12.51
9.875"	0	8500	7.625"	29.7	L80-ICY	TXP BTC	1.42	1.15	2.88	2.88
8.750"	8500	10,950	7.625"	29.7	P110-ICY	W513	1.38	1.75	3.28	1.97
6.75"	0	10450	5.5"	23	P110-CY	TXP BTC	2.14	2.53	3.03	3.03
6.75"	10450	21,919	5.5"	23	P110-CY	W441	1.94	2.29	2.75	2.50
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 at least 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 2331 WC 707H

	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 2331 WC 707H

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	667	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter.	800	10.5	3.5	22.3	24	NeoCem
Stage 1	250	16.4	1.08	4.52	7	Tail: Class H
Prod	581	12.5	1.67	10.7	72	Lead: 50:50:10 H Blend
	904	13.2	1.43	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	10,450'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Zia Hills Unit 2331 WC 707H

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	2500psi
			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 2331 WC 707H

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 - 9.4	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	12 - 12.5	35-45	<20

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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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 2331 WC 707H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7500 psi at 11531' 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

CONOCOPHILLIPS**Rig Plat & Closed Loop Equipment Diagram**

**Well pad will be 650' X 400'
with cellar in center of pad**

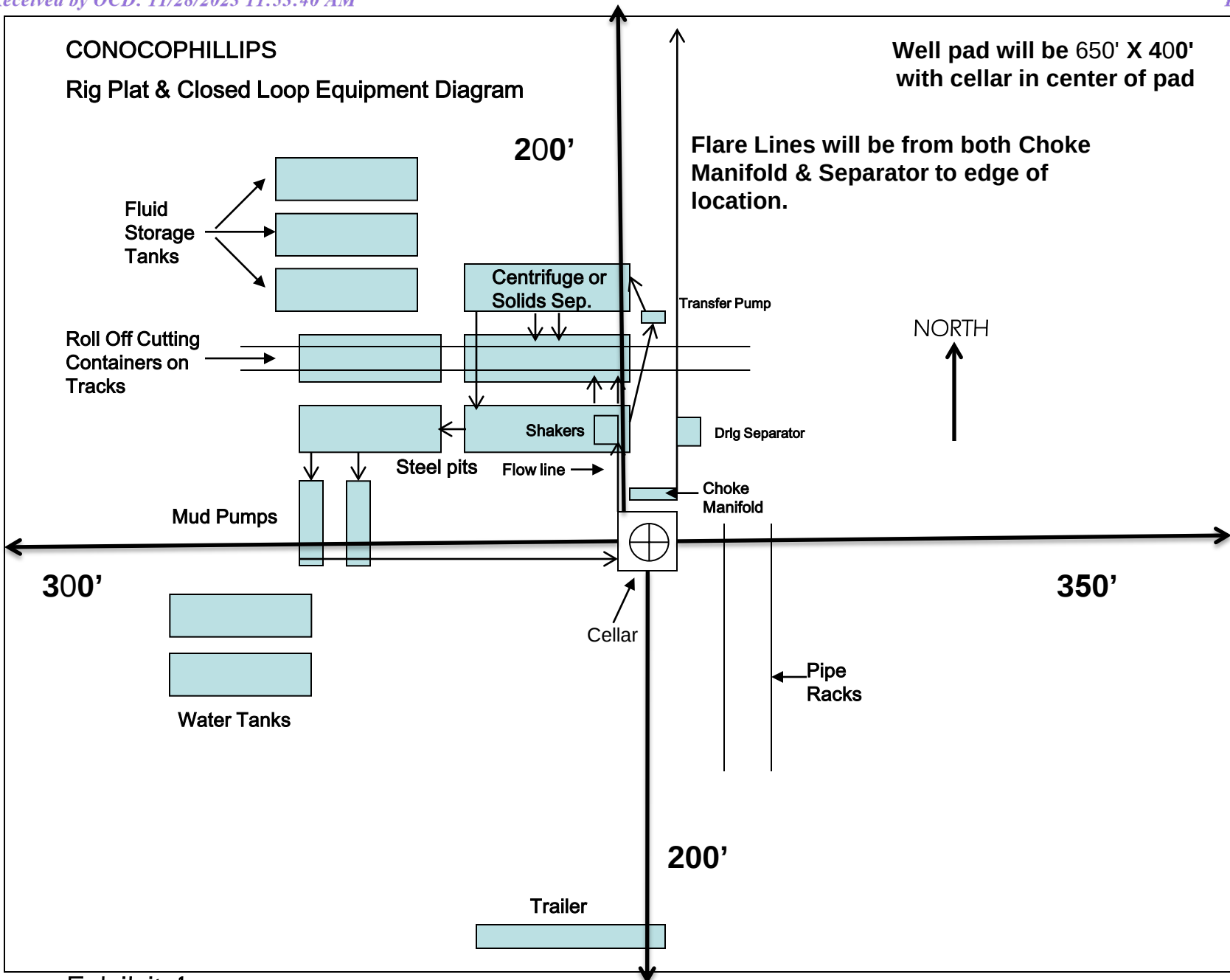


Exhibit 1

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

ZIA HILLS UNIT 2331 PROJECT

ZIA HILLS UNIT 2331 WC #707H

OWB

Plan: PWP0

Standard Planning Report

16 November, 2022

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	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		

Site	ZIA HILLS UNIT 2331 PROJECT					
Site Position:		Northing:	371,734.97 usft	Latitude:	32° 1' 14.533 N	
From:	Map	Easting:	678,649.42 usft	Longitude:	103° 45' 24.875 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.31

Well	ZIA HILLS UNIT 2331 WC #707H					
Well Position	+N/-S	105.3 usft	Northing:	371,840.26 usft	Latitude:	32° 1' 15.352 N
	+E/-W	4,184.8 usft	Easting:	682,834.19 usft	Longitude:	103° 44' 36.262 W
Position Uncertainty		3.0 usft	Wellhead Elevation:		Ground Level:	3,164.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2022	12/31/2023	6.34	59.52	47,263.55931778

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	352.21	

Plan Survey Tool Program	Date	11/16/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	1,000.0 PWP0 (OWB)	r.5 SDI_KPR_ADK SDI Keeper ADK rev.5		
2	1,000.0	11,106.9 PWP0 (OWB)	r.5 MWD+IFR1 OWSG MWD + IFR1 rev.5		
3	11,106.9	21,918.7 PWP0 (OWB)	r.5 MWD+IFR1+MS OWSG MWD + IFR1 + Multi-St		

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

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	
1,600.0	12.00	269.77	1,595.6	-0.3	-62.6	2.00	2.00	0.00	269.77	
6,562.8	12.00	269.77	6,450.0	-4.4	-1,094.4	0.00	0.00	0.00	0.00	
8,962.8	0.00	0.00	8,832.5	-5.4	-1,344.8	0.50	-0.50	0.00	180.00	
11,106.9	0.00	0.00	10,976.5	-5.4	-1,344.8	0.00	0.00	0.00	0.00	
11,856.9	90.00	359.48	11,454.0	472.0	-1,349.2	12.00	12.00	-0.07	359.48	
21,918.8	90.00	359.48	11,454.0	10,533.5	-1,440.9	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	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	269.77	1,100.0	0.0	-1.7	0.2	2.00	2.00	0.00
1,200.0	4.00	269.77	1,199.8	0.0	-7.0	0.9	2.00	2.00	0.00
1,300.0	6.00	269.77	1,299.5	-0.1	-15.7	2.1	2.00	2.00	0.00
1,400.0	8.00	269.77	1,398.7	-0.1	-27.9	3.7	2.00	2.00	0.00
1,500.0	10.00	269.77	1,497.5	-0.2	-43.5	5.7	2.00	2.00	0.00
1,600.0	12.00	269.77	1,595.6	-0.3	-62.6	8.2	2.00	2.00	0.00
1,700.0	12.00	269.77	1,693.4	-0.3	-83.4	11.0	0.00	0.00	0.00
1,800.0	12.00	269.77	1,791.3	-0.4	-104.2	13.7	0.00	0.00	0.00
1,900.0	12.00	269.77	1,889.1	-0.5	-125.0	16.4	0.00	0.00	0.00
2,000.0	12.00	269.77	1,986.9	-0.6	-145.8	19.2	0.00	0.00	0.00
2,100.0	12.00	269.77	2,084.7	-0.7	-166.6	21.9	0.00	0.00	0.00
2,200.0	12.00	269.77	2,182.5	-0.8	-187.3	24.6	0.00	0.00	0.00
2,300.0	12.00	269.77	2,280.3	-0.8	-208.1	27.4	0.00	0.00	0.00
2,400.0	12.00	269.77	2,378.1	-0.9	-228.9	30.1	0.00	0.00	0.00
2,500.0	12.00	269.77	2,476.0	-1.0	-249.7	32.9	0.00	0.00	0.00
2,600.0	12.00	269.77	2,573.8	-1.1	-270.5	35.6	0.00	0.00	0.00
2,700.0	12.00	269.77	2,671.6	-1.2	-291.3	38.3	0.00	0.00	0.00
2,800.0	12.00	269.77	2,769.4	-1.3	-312.1	41.1	0.00	0.00	0.00
2,900.0	12.00	269.77	2,867.2	-1.3	-332.9	43.8	0.00	0.00	0.00
3,000.0	12.00	269.77	2,965.0	-1.4	-353.7	46.5	0.00	0.00	0.00
3,100.0	12.00	269.77	3,062.8	-1.5	-374.5	49.3	0.00	0.00	0.00
3,200.0	12.00	269.77	3,160.7	-1.6	-395.3	52.0	0.00	0.00	0.00
3,300.0	12.00	269.77	3,258.5	-1.7	-416.0	54.7	0.00	0.00	0.00
3,400.0	12.00	269.77	3,356.3	-1.8	-436.8	57.5	0.00	0.00	0.00
3,500.0	12.00	269.77	3,454.1	-1.8	-457.6	60.2	0.00	0.00	0.00
3,600.0	12.00	269.77	3,551.9	-1.9	-478.4	62.9	0.00	0.00	0.00
3,700.0	12.00	269.77	3,649.7	-2.0	-499.2	65.7	0.00	0.00	0.00
3,800.0	12.00	269.77	3,747.5	-2.1	-520.0	68.4	0.00	0.00	0.00
3,900.0	12.00	269.77	3,845.4	-2.2	-540.8	71.1	0.00	0.00	0.00
4,000.0	12.00	269.77	3,943.2	-2.3	-561.6	73.9	0.00	0.00	0.00
4,100.0	12.00	269.77	4,041.0	-2.3	-582.4	76.6	0.00	0.00	0.00
4,200.0	12.00	269.77	4,138.8	-2.4	-603.2	79.3	0.00	0.00	0.00
4,300.0	12.00	269.77	4,236.6	-2.5	-624.0	82.1	0.00	0.00	0.00
4,400.0	12.00	269.77	4,334.4	-2.6	-644.8	84.8	0.00	0.00	0.00
4,500.0	12.00	269.77	4,432.3	-2.7	-665.5	87.6	0.00	0.00	0.00
4,600.0	12.00	269.77	4,530.1	-2.8	-686.3	90.3	0.00	0.00	0.00
4,700.0	12.00	269.77	4,627.9	-2.8	-707.1	93.0	0.00	0.00	0.00
4,800.0	12.00	269.77	4,725.7	-2.9	-727.9	95.8	0.00	0.00	0.00
4,900.0	12.00	269.77	4,823.5	-3.0	-748.7	98.5	0.00	0.00	0.00
5,000.0	12.00	269.77	4,921.3	-3.1	-769.5	101.2	0.00	0.00	0.00
5,100.0	12.00	269.77	5,019.1	-3.2	-790.3	104.0	0.00	0.00	0.00
5,200.0	12.00	269.77	5,117.0	-3.3	-811.1	106.7	0.00	0.00	0.00
5,300.0	12.00	269.77	5,214.8	-3.3	-831.9	109.4	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 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	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)	
5,400.0	12.00	269.77	5,312.6	-3.4	-852.7	112.2	0.00	0.00	0.00	
5,500.0	12.00	269.77	5,410.4	-3.5	-873.5	114.9	0.00	0.00	0.00	
5,600.0	12.00	269.77	5,508.2	-3.6	-894.2	117.6	0.00	0.00	0.00	
5,700.0	12.00	269.77	5,606.0	-3.7	-915.0	120.4	0.00	0.00	0.00	
5,800.0	12.00	269.77	5,703.8	-3.8	-935.8	123.1	0.00	0.00	0.00	
5,900.0	12.00	269.77	5,801.7	-3.8	-956.6	125.8	0.00	0.00	0.00	
6,000.0	12.00	269.77	5,899.5	-3.9	-977.4	128.6	0.00	0.00	0.00	
6,100.0	12.00	269.77	5,997.3	-4.0	-998.2	131.3	0.00	0.00	0.00	
6,200.0	12.00	269.77	6,095.1	-4.1	-1,019.0	134.0	0.00	0.00	0.00	
6,300.0	12.00	269.77	6,192.9	-4.2	-1,039.8	136.8	0.00	0.00	0.00	
6,400.0	12.00	269.77	6,290.7	-4.3	-1,060.6	139.5	0.00	0.00	0.00	
6,500.0	12.00	269.77	6,388.5	-4.3	-1,081.4	142.3	0.00	0.00	0.00	
6,562.8	12.00	269.77	6,450.0	-4.4	-1,094.4	144.0	0.00	0.00	0.00	
6,600.0	11.81	269.77	6,486.4	-4.4	-1,102.1	145.0	0.50	-0.50	0.00	
6,700.0	11.31	269.77	6,584.3	-4.5	-1,122.1	147.6	0.50	-0.50	0.00	
6,800.0	10.81	269.77	6,682.5	-4.6	-1,141.3	150.1	0.50	-0.50	0.00	
6,900.0	10.31	269.77	6,780.8	-4.7	-1,159.7	152.6	0.50	-0.50	0.00	
7,000.0	9.81	269.77	6,879.2	-4.7	-1,177.1	154.9	0.50	-0.50	0.00	
7,100.0	9.31	269.77	6,977.9	-4.8	-1,193.8	157.0	0.50	-0.50	0.00	
7,200.0	8.81	269.77	7,076.6	-4.9	-1,209.5	159.1	0.50	-0.50	0.00	
7,300.0	8.31	269.77	7,175.5	-4.9	-1,224.4	161.1	0.50	-0.50	0.00	
7,400.0	7.81	269.77	7,274.5	-5.0	-1,238.4	162.9	0.50	-0.50	0.00	
7,500.0	7.31	269.77	7,373.6	-5.0	-1,251.6	164.6	0.50	-0.50	0.00	
7,600.0	6.81	269.77	7,472.9	-5.1	-1,263.9	166.3	0.50	-0.50	0.00	
7,700.0	6.31	269.77	7,572.2	-5.1	-1,275.3	167.8	0.50	-0.50	0.00	
7,800.0	5.81	269.77	7,671.7	-5.2	-1,285.9	169.2	0.50	-0.50	0.00	
7,900.0	5.31	269.77	7,771.2	-5.2	-1,295.6	170.4	0.50	-0.50	0.00	
8,000.0	4.81	269.77	7,870.8	-5.2	-1,304.4	171.6	0.50	-0.50	0.00	
8,100.0	4.31	269.77	7,970.5	-5.3	-1,312.4	172.6	0.50	-0.50	0.00	
8,200.0	3.81	269.77	8,070.2	-5.3	-1,319.5	173.6	0.50	-0.50	0.00	
8,300.0	3.31	269.77	8,170.0	-5.3	-1,325.7	174.4	0.50	-0.50	0.00	
8,400.0	2.81	269.77	8,269.9	-5.3	-1,331.0	175.1	0.50	-0.50	0.00	
8,500.0	2.31	269.77	8,369.8	-5.4	-1,335.5	175.7	0.50	-0.50	0.00	
8,600.0	1.81	269.77	8,469.7	-5.4	-1,339.1	176.2	0.50	-0.50	0.00	
8,700.0	1.31	269.77	8,569.7	-5.4	-1,341.8	176.5	0.50	-0.50	0.00	
8,800.0	0.81	269.77	8,669.7	-5.4	-1,343.7	176.8	0.50	-0.50	0.00	
8,900.0	0.31	269.77	8,769.7	-5.4	-1,344.7	176.9	0.50	-0.50	0.00	
8,962.8	0.00	0.00	8,832.5	-5.4	-1,344.8	176.9	0.50	-0.50	0.00	
9,000.0	0.00	0.00	8,869.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,969.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,069.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,169.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,269.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,369.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,469.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,569.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,669.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,769.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,869.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
10,100.0	0.00	0.00	9,969.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,069.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,169.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,269.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,369.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	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	10,469.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,569.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00
10,800.0	0.00	0.00	10,669.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00
10,900.0	0.00	0.00	10,769.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00
11,000.0	0.00	0.00	10,869.7	-5.4	-1,344.8	176.9	0.00	0.00	0.00
11,106.9	0.00	0.00	10,976.5	-5.4	-1,344.8	176.9	0.00	0.00	0.00
11,125.0	2.18	359.48	10,994.7	-5.1	-1,344.8	177.3	12.00	12.00	0.00
11,150.0	5.18	359.48	11,019.6	-3.5	-1,344.8	178.8	12.00	12.00	0.00
11,175.0	8.18	359.48	11,044.4	-0.5	-1,344.9	181.7	12.00	12.00	0.00
11,200.0	11.18	359.48	11,069.1	3.7	-1,344.9	185.9	12.00	12.00	0.00
11,225.0	14.18	359.48	11,093.5	9.1	-1,345.0	191.3	12.00	12.00	0.00
11,250.0	17.18	359.48	11,117.5	15.9	-1,345.0	198.0	12.00	12.00	0.00
11,275.0	20.18	359.48	11,141.2	23.9	-1,345.1	206.0	12.00	12.00	0.00
11,300.0	23.18	359.48	11,164.4	33.1	-1,345.2	215.1	12.00	12.00	0.00
11,325.0	26.18	359.48	11,187.2	43.6	-1,345.3	225.5	12.00	12.00	0.00
11,350.0	29.18	359.48	11,209.3	55.2	-1,345.4	237.0	12.00	12.00	0.00
11,375.0	32.18	359.48	11,230.8	67.9	-1,345.5	249.7	12.00	12.00	0.00
11,400.0	35.18	359.48	11,251.6	81.8	-1,345.6	263.4	12.00	12.00	0.00
11,425.0	38.18	359.48	11,271.6	96.7	-1,345.8	278.2	12.00	12.00	0.00
11,450.0	41.18	359.48	11,290.9	112.7	-1,345.9	294.0	12.00	12.00	0.00
11,475.0	44.18	359.48	11,309.3	129.6	-1,346.1	310.9	12.00	12.00	0.00
11,500.0	47.18	359.48	11,326.7	147.5	-1,346.2	328.6	12.00	12.00	0.00
11,525.0	50.18	359.48	11,343.2	166.3	-1,346.4	347.2	12.00	12.00	0.00
11,550.0	53.18	359.48	11,358.7	185.9	-1,346.6	366.7	12.00	12.00	0.00
11,575.0	56.18	359.48	11,373.2	206.3	-1,346.8	386.9	12.00	12.00	0.00
11,600.0	59.18	359.48	11,386.6	227.4	-1,347.0	407.9	12.00	12.00	0.00
11,625.0	62.18	359.48	11,398.8	249.2	-1,347.2	429.5	12.00	12.00	0.00
11,650.0	65.18	359.48	11,409.9	271.6	-1,347.4	451.7	12.00	12.00	0.00
11,675.0	68.18	359.48	11,419.8	294.6	-1,347.6	474.5	12.00	12.00	0.00
11,700.0	71.18	359.48	11,428.5	318.0	-1,347.8	497.7	12.00	12.00	0.00
11,725.0	74.18	359.48	11,435.9	341.9	-1,348.0	521.4	12.00	12.00	0.00
11,750.0	77.18	359.48	11,442.1	366.1	-1,348.2	545.4	12.00	12.00	0.00
11,775.0	80.18	359.48	11,447.0	390.6	-1,348.4	569.7	12.00	12.00	0.00
11,800.0	83.18	359.48	11,450.6	415.3	-1,348.7	594.3	12.00	12.00	0.00
11,825.0	86.18	359.48	11,452.9	440.2	-1,348.9	619.0	12.00	12.00	0.00
11,850.0	89.18	359.48	11,454.0	465.2	-1,349.1	643.7	12.00	12.00	0.00
11,856.9	90.00	359.48	11,454.0	472.0	-1,349.2	650.5	12.00	12.00	0.00
11,900.0	90.00	359.48	11,454.0	515.2	-1,349.6	693.3	0.00	0.00	0.00
12,000.0	90.00	359.48	11,454.0	615.2	-1,350.5	792.5	0.00	0.00	0.00
12,100.0	90.00	359.48	11,454.0	715.2	-1,351.4	891.7	0.00	0.00	0.00
12,200.0	90.00	359.48	11,454.0	815.2	-1,352.3	990.9	0.00	0.00	0.00
12,300.0	90.00	359.48	11,454.0	915.2	-1,353.2	1,090.1	0.00	0.00	0.00
12,400.0	90.00	359.48	11,454.0	1,015.2	-1,354.1	1,189.3	0.00	0.00	0.00
12,500.0	90.00	359.48	11,454.0	1,115.2	-1,355.0	1,288.5	0.00	0.00	0.00
12,600.0	90.00	359.48	11,454.0	1,215.1	-1,356.0	1,387.7	0.00	0.00	0.00
12,700.0	90.00	359.48	11,454.0	1,315.1	-1,356.9	1,486.9	0.00	0.00	0.00
12,800.0	90.00	359.48	11,454.0	1,415.1	-1,357.8	1,586.1	0.00	0.00	0.00
12,900.0	90.00	359.48	11,454.0	1,515.1	-1,358.7	1,685.3	0.00	0.00	0.00
13,000.0	90.00	359.48	11,454.0	1,615.1	-1,359.6	1,784.5	0.00	0.00	0.00
13,100.0	90.00	359.48	11,454.0	1,715.1	-1,360.5	1,883.7	0.00	0.00	0.00
13,200.0	90.00	359.48	11,454.0	1,815.1	-1,361.4	1,982.9	0.00	0.00	0.00
13,300.0	90.00	359.48	11,454.0	1,915.1	-1,362.3	2,082.1	0.00	0.00	0.00
13,400.0	90.00	359.48	11,454.0	2,015.1	-1,363.2	2,181.3	0.00	0.00	0.00
13,500.0	90.00	359.48	11,454.0	2,115.1	-1,364.2	2,280.5	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	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)	
13,600.0	90.00	359.48	11,454.0	2,215.1	-1,365.1	2,379.7	0.00	0.00	0.00	
13,700.0	90.00	359.48	11,454.0	2,315.1	-1,366.0	2,478.9	0.00	0.00	0.00	
13,800.0	90.00	359.48	11,454.0	2,415.1	-1,366.9	2,578.1	0.00	0.00	0.00	
13,900.0	90.00	359.48	11,454.0	2,515.1	-1,367.8	2,677.3	0.00	0.00	0.00	
14,000.0	90.00	359.48	11,454.0	2,615.1	-1,368.7	2,776.5	0.00	0.00	0.00	
14,100.0	90.00	359.48	11,454.0	2,715.1	-1,369.6	2,875.7	0.00	0.00	0.00	
14,200.0	90.00	359.48	11,454.0	2,815.1	-1,370.5	2,974.9	0.00	0.00	0.00	
14,300.0	90.00	359.48	11,454.0	2,915.1	-1,371.4	3,074.0	0.00	0.00	0.00	
14,400.0	90.00	359.48	11,454.0	3,015.1	-1,372.4	3,173.2	0.00	0.00	0.00	
14,500.0	90.00	359.48	11,454.0	3,115.1	-1,373.3	3,272.4	0.00	0.00	0.00	
14,600.0	90.00	359.48	11,454.0	3,215.1	-1,374.2	3,371.6	0.00	0.00	0.00	
14,700.0	90.00	359.48	11,454.0	3,315.1	-1,375.1	3,470.8	0.00	0.00	0.00	
14,800.0	90.00	359.48	11,454.0	3,415.1	-1,376.0	3,570.0	0.00	0.00	0.00	
14,900.0	90.00	359.48	11,454.0	3,515.1	-1,376.9	3,669.2	0.00	0.00	0.00	
15,000.0	90.00	359.48	11,454.0	3,615.0	-1,377.8	3,768.4	0.00	0.00	0.00	
15,100.0	90.00	359.48	11,454.0	3,715.0	-1,378.7	3,867.6	0.00	0.00	0.00	
15,200.0	90.00	359.48	11,454.0	3,815.0	-1,379.6	3,966.8	0.00	0.00	0.00	
15,300.0	90.00	359.48	11,454.0	3,915.0	-1,380.6	4,066.0	0.00	0.00	0.00	
15,400.0	90.00	359.48	11,454.0	4,015.0	-1,381.5	4,165.2	0.00	0.00	0.00	
15,500.0	90.00	359.48	11,454.0	4,115.0	-1,382.4	4,264.4	0.00	0.00	0.00	
15,600.0	90.00	359.48	11,454.0	4,215.0	-1,383.3	4,363.6	0.00	0.00	0.00	
15,700.0	90.00	359.48	11,454.0	4,315.0	-1,384.2	4,462.8	0.00	0.00	0.00	
15,800.0	90.00	359.48	11,454.0	4,415.0	-1,385.1	4,562.0	0.00	0.00	0.00	
15,900.0	90.00	359.48	11,454.0	4,515.0	-1,386.0	4,661.2	0.00	0.00	0.00	
16,000.0	90.00	359.48	11,454.0	4,615.0	-1,386.9	4,760.4	0.00	0.00	0.00	
16,100.0	90.00	359.48	11,454.0	4,715.0	-1,387.8	4,859.6	0.00	0.00	0.00	
16,200.0	90.00	359.48	11,454.0	4,815.0	-1,388.8	4,958.8	0.00	0.00	0.00	
16,300.0	90.00	359.48	11,454.0	4,915.0	-1,389.7	5,058.0	0.00	0.00	0.00	
16,400.0	90.00	359.48	11,454.0	5,015.0	-1,390.6	5,157.2	0.00	0.00	0.00	
16,500.0	90.00	359.48	11,454.0	5,115.0	-1,391.5	5,256.4	0.00	0.00	0.00	
16,600.0	90.00	359.48	11,454.0	5,215.0	-1,392.4	5,355.6	0.00	0.00	0.00	
16,700.0	90.00	359.48	11,454.0	5,315.0	-1,393.3	5,454.8	0.00	0.00	0.00	
16,800.0	90.00	359.48	11,454.0	5,415.0	-1,394.2	5,554.0	0.00	0.00	0.00	
16,900.0	90.00	359.48	11,454.0	5,515.0	-1,395.1	5,653.2	0.00	0.00	0.00	
17,000.0	90.00	359.48	11,454.0	5,615.0	-1,396.0	5,752.4	0.00	0.00	0.00	
17,100.0	90.00	359.48	11,454.0	5,715.0	-1,397.0	5,851.6	0.00	0.00	0.00	
17,200.0	90.00	359.48	11,454.0	5,815.0	-1,397.9	5,950.8	0.00	0.00	0.00	
17,300.0	90.00	359.48	11,454.0	5,915.0	-1,398.8	6,050.0	0.00	0.00	0.00	
17,400.0	90.00	359.48	11,454.0	6,014.9	-1,399.7	6,149.1	0.00	0.00	0.00	
17,500.0	90.00	359.48	11,454.0	6,114.9	-1,400.6	6,248.3	0.00	0.00	0.00	
17,600.0	90.00	359.48	11,454.0	6,214.9	-1,401.5	6,347.5	0.00	0.00	0.00	
17,700.0	90.00	359.48	11,454.0	6,314.9	-1,402.4	6,446.7	0.00	0.00	0.00	
17,800.0	90.00	359.48	11,454.0	6,414.9	-1,403.3	6,545.9	0.00	0.00	0.00	
17,900.0	90.00	359.48	11,454.0	6,514.9	-1,404.2	6,645.1	0.00	0.00	0.00	
18,000.0	90.00	359.48	11,454.0	6,614.9	-1,405.2	6,744.3	0.00	0.00	0.00	
18,100.0	90.00	359.48	11,454.0	6,714.9	-1,406.1	6,843.5	0.00	0.00	0.00	
18,200.0	90.00	359.48	11,454.0	6,814.9	-1,407.0	6,942.7	0.00	0.00	0.00	
18,300.0	90.00	359.48	11,454.0	6,914.9	-1,407.9	7,041.9	0.00	0.00	0.00	
18,400.0	90.00	359.48	11,454.0	7,014.9	-1,408.8	7,141.1	0.00	0.00	0.00	
18,500.0	90.00	359.48	11,454.0	7,114.9	-1,409.7	7,240.3	0.00	0.00	0.00	
18,600.0	90.00	359.48	11,454.0	7,214.9	-1,410.6	7,339.5	0.00	0.00	0.00	
18,700.0	90.00	359.48	11,454.0	7,314.9	-1,411.5	7,438.7	0.00	0.00	0.00	
18,800.0	90.00	359.48	11,454.0	7,414.9	-1,412.5	7,537.9	0.00	0.00	0.00	
18,900.0	90.00	359.48	11,454.0	7,514.9	-1,413.4	7,637.1	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Company:	DELAWARE BASIN EAST	TVD Reference:	KB=31ft @ 3195.0usft
Project:	BULLDOG PROSPECT (NM-E)	MD Reference:	KB=31ft @ 3195.0usft
Site:	ZIA HILLS UNIT 2331 PROJECT	North Reference:	Grid
Well:	ZIA HILLS UNIT 2331 WC #707H	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)	
19,000.0	90.00	359.48	11,454.0	7,614.9	-1,414.3	7,736.3	0.00	0.00	0.00	
19,100.0	90.00	359.48	11,454.0	7,714.9	-1,415.2	7,835.5	0.00	0.00	0.00	
19,200.0	90.00	359.48	11,454.0	7,814.9	-1,416.1	7,934.7	0.00	0.00	0.00	
19,300.0	90.00	359.48	11,454.0	7,914.9	-1,417.0	8,033.9	0.00	0.00	0.00	
19,400.0	90.00	359.48	11,454.0	8,014.9	-1,417.9	8,133.1	0.00	0.00	0.00	
19,500.0	90.00	359.48	11,454.0	8,114.9	-1,418.8	8,232.3	0.00	0.00	0.00	
19,600.0	90.00	359.48	11,454.0	8,214.9	-1,419.7	8,331.5	0.00	0.00	0.00	
19,700.0	90.00	359.48	11,454.0	8,314.9	-1,420.7	8,430.7	0.00	0.00	0.00	
19,800.0	90.00	359.48	11,454.0	8,414.8	-1,421.6	8,529.9	0.00	0.00	0.00	
19,900.0	90.00	359.48	11,454.0	8,514.8	-1,422.5	8,629.1	0.00	0.00	0.00	
20,000.0	90.00	359.48	11,454.0	8,614.8	-1,423.4	8,728.3	0.00	0.00	0.00	
20,100.0	90.00	359.48	11,454.0	8,714.8	-1,424.3	8,827.5	0.00	0.00	0.00	
20,200.0	90.00	359.48	11,454.0	8,814.8	-1,425.2	8,926.7	0.00	0.00	0.00	
20,300.0	90.00	359.48	11,454.0	8,914.8	-1,426.1	9,025.9	0.00	0.00	0.00	
20,400.0	90.00	359.48	11,454.0	9,014.8	-1,427.0	9,125.0	0.00	0.00	0.00	
20,500.0	90.00	359.48	11,454.0	9,114.8	-1,427.9	9,224.2	0.00	0.00	0.00	
20,600.0	90.00	359.48	11,454.0	9,214.8	-1,428.9	9,323.4	0.00	0.00	0.00	
20,700.0	90.00	359.48	11,454.0	9,314.8	-1,429.8	9,422.6	0.00	0.00	0.00	
20,800.0	90.00	359.48	11,454.0	9,414.8	-1,430.7	9,521.8	0.00	0.00	0.00	
20,900.0	90.00	359.48	11,454.0	9,514.8	-1,431.6	9,621.0	0.00	0.00	0.00	
21,000.0	90.00	359.48	11,454.0	9,614.8	-1,432.5	9,720.2	0.00	0.00	0.00	
21,100.0	90.00	359.48	11,454.0	9,714.8	-1,433.4	9,819.4	0.00	0.00	0.00	
21,200.0	90.00	359.48	11,454.0	9,814.8	-1,434.3	9,918.6	0.00	0.00	0.00	
21,300.0	90.00	359.48	11,454.0	9,914.8	-1,435.2	10,017.8	0.00	0.00	0.00	
21,400.0	90.00	359.48	11,454.0	10,014.8	-1,436.1	10,117.0	0.00	0.00	0.00	
21,500.0	90.00	359.48	11,454.0	10,114.8	-1,437.1	10,216.2	0.00	0.00	0.00	
21,600.0	90.00	359.48	11,454.0	10,214.8	-1,438.0	10,315.4	0.00	0.00	0.00	
21,700.0	90.00	359.48	11,454.0	10,314.8	-1,438.9	10,414.6	0.00	0.00	0.00	
21,800.0	90.00	359.48	11,454.0	10,414.8	-1,439.8	10,513.8	0.00	0.00	0.00	
21,900.0	90.00	359.48	11,454.0	10,514.8	-1,440.7	10,613.0	0.00	0.00	0.00	
21,918.8	90.00	359.48	11,454.0	10,533.5	-1,440.9	10,631.6	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		
- hit/miss target										
- Shape								Longitude		
PBHL (ZIA HILLS UNIT : - plan hits target center - Rectangle (sides W100.0 H10,514.7 D20.0)	0.00	179.48	11,454.0	10,533.5	-1,440.9	382,373.77	681,393.32	32° 2' 59.671 N 103° 44' 52.334 W		
LTP (ZIA HILLS UNIT 23 - plan misses target center by 0.5usft at 21868.8usft MD (11454.0 TVD, 10483.5 N, -1440.4 E) - Point	0.00	0.00	11,454.0	10,483.5	-1,440.9	382,323.77	681,393.31	32° 2' 59.176 N 103° 44' 52.338 W		
FTP (ZIA HILLS UNIT 23 - plan misses target center by 180.4usft at 11497.4usft MD (11324.9 TVD, 145.6 N, -1346.2 E) - Circle (radius 50.0)	0.00	0.00	11,454.0	19.5	-1,345.0	371,859.76	681,489.22	32° 1' 15.617 N 103° 44' 51.883 W		

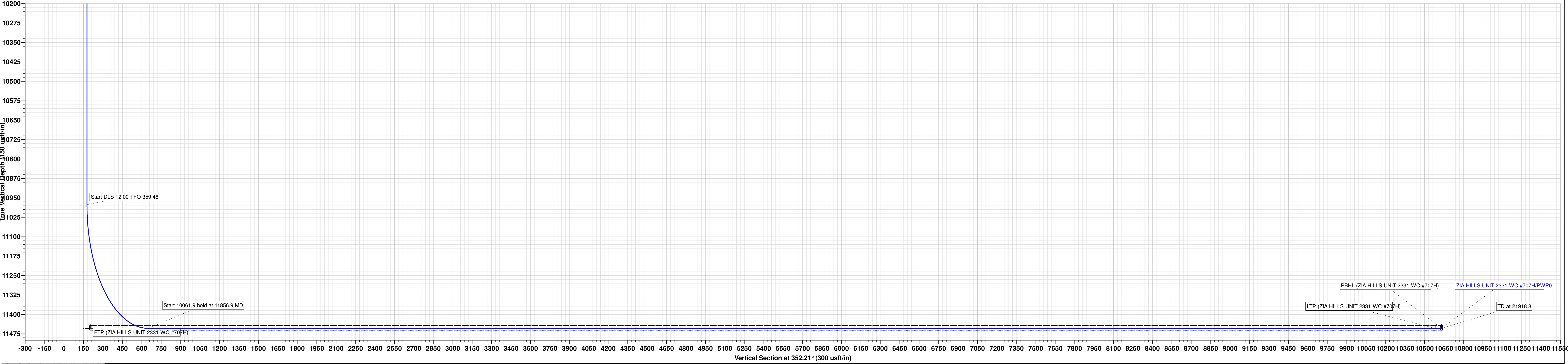
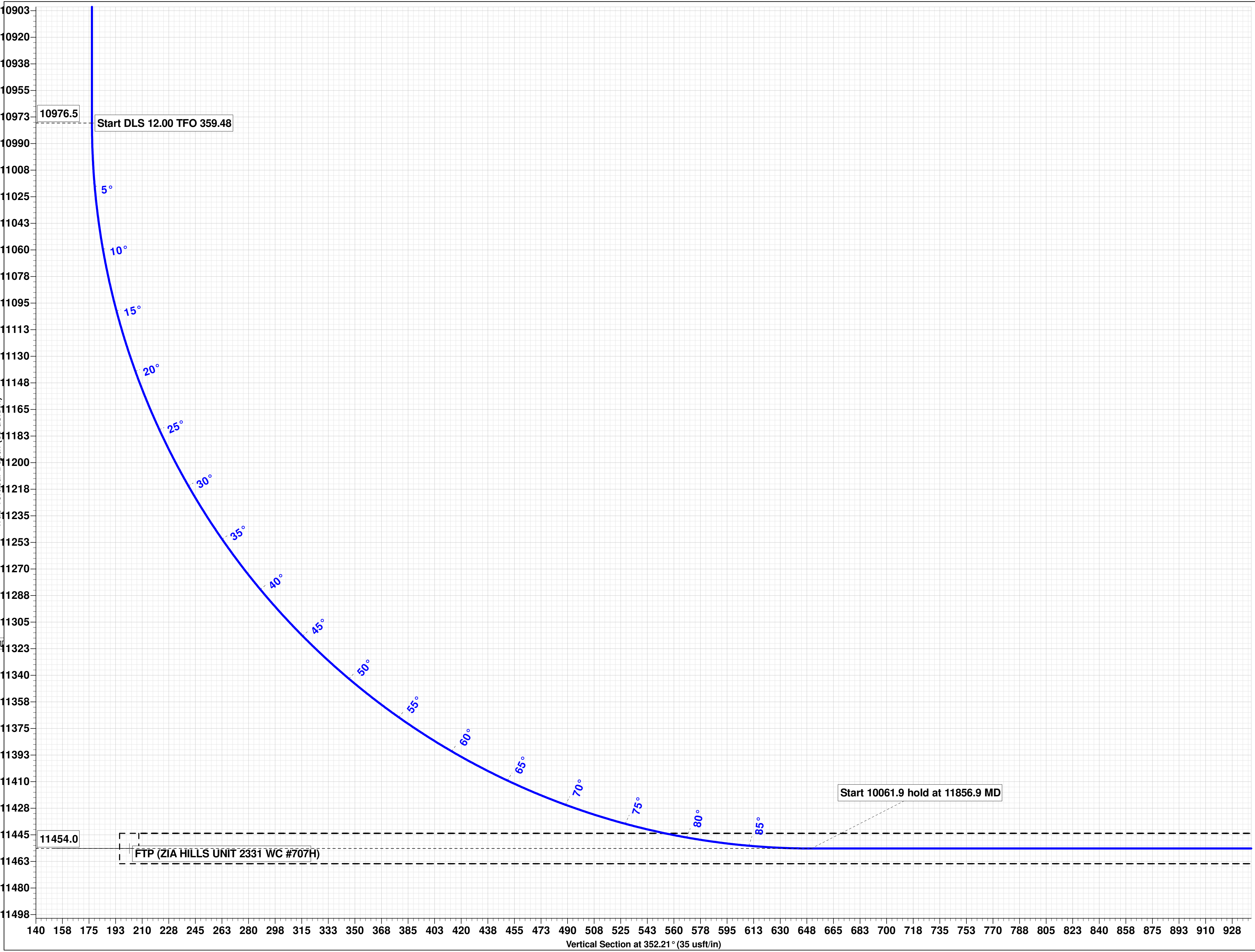
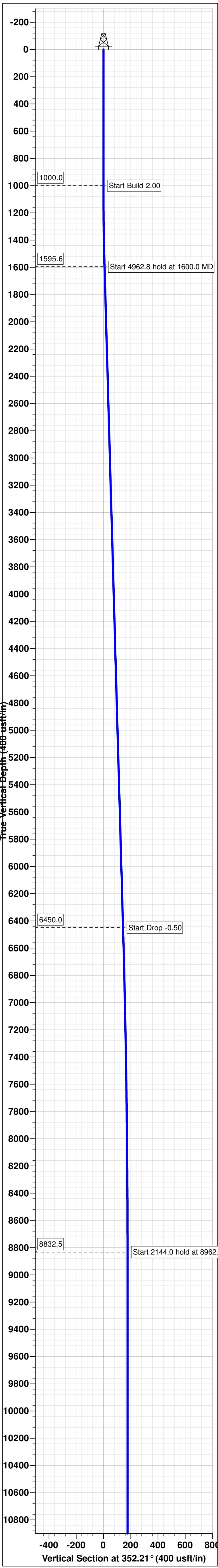
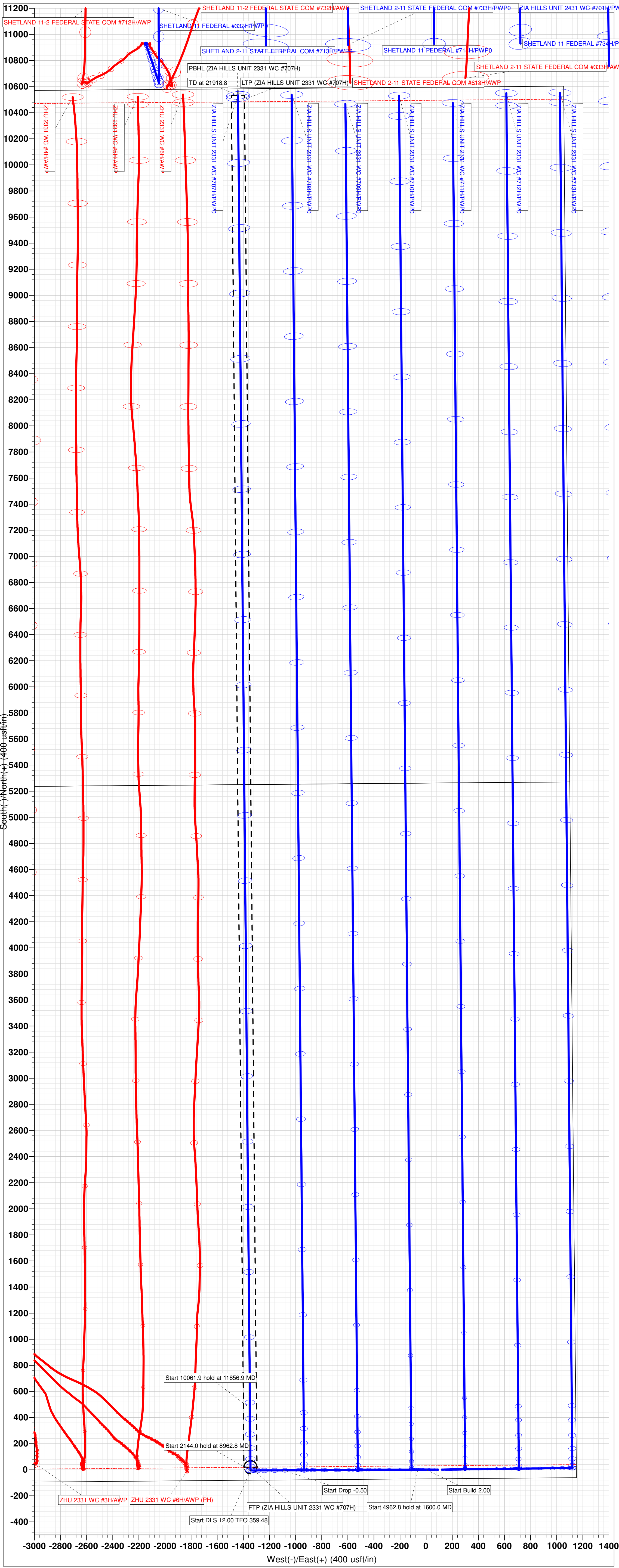


Project: BULLDOG PROSPECT (NM-E)
Site: ZIA HILLS UNIT 2331 PROJECT
Well: ZIA HILLS UNIT 2331 WC #707H
Wellbore: OWB
Design: PWP0
GL: 3164.0
KB=31ft @ 3195.0usft

WELL DETAILS: ZIA HILLS UNIT 2331 WC #707H					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	371840.26	682834.19	32° 1' 15.352 N	103° 44' 36.262 W

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (ZIA HILLS UNIT 2331 WC #707H)	11454.0	19.5	-1345.0	371859.76	681489.22
LTP (ZIA HILLS UNIT 2331 WC #707H)	11454.0	10463.5	-1440.9	382323.77	681393.31
PBHL (ZIA HILLS UNIT 2331 WC #707H)	11454.0	10533.5	-1440.9	382373.77	681393.32

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
1600.0	12.00	269.77	1595.6	-0.3	-62.6	2.00	269.77	8.2	
6562.8	12.00	269.77	6450.0	-4.4	-1094.4	0.00	0.00	144.0	
8962.8	0.00	0.00	8932.5	-5.4	-1344.8	0.50	180.00	176.9	
11106.9	0.00	0.00	10976.5	-5.4	-1344.8	0.00	0.00	176.9	
11856.9	90.00	359.48	11454.0	472.0	-1349.2	12.00	359.48	650.5	
21918.8	90.00	359.48	11454.0	10533.5	-1440.9	0.00	0.00	10631.6	



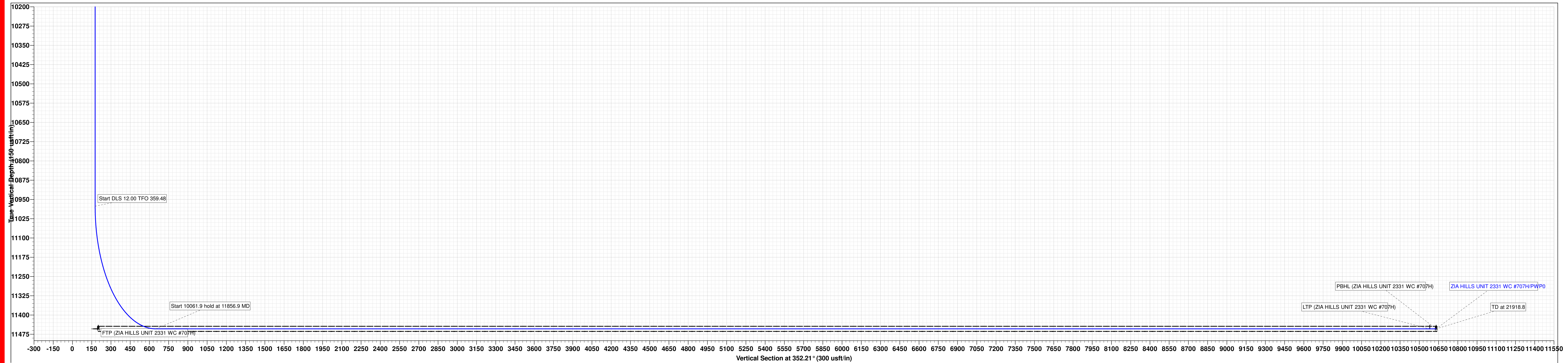
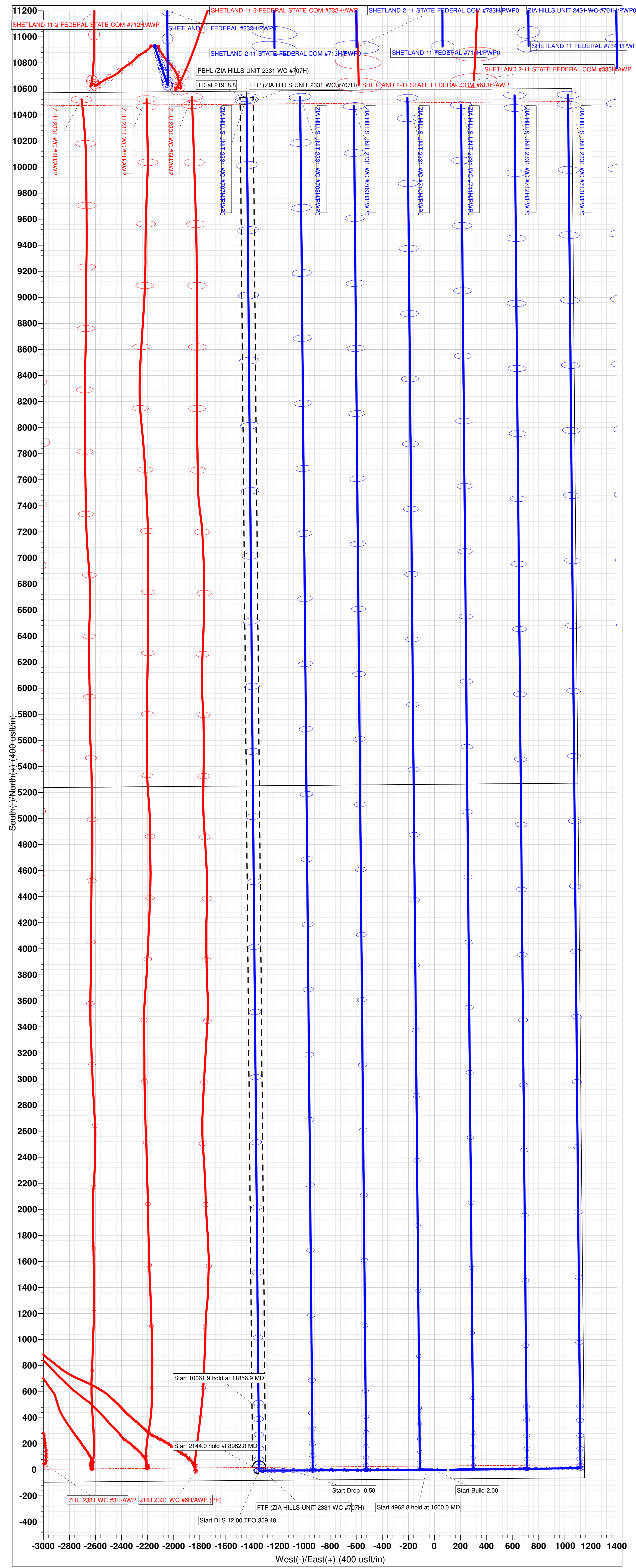
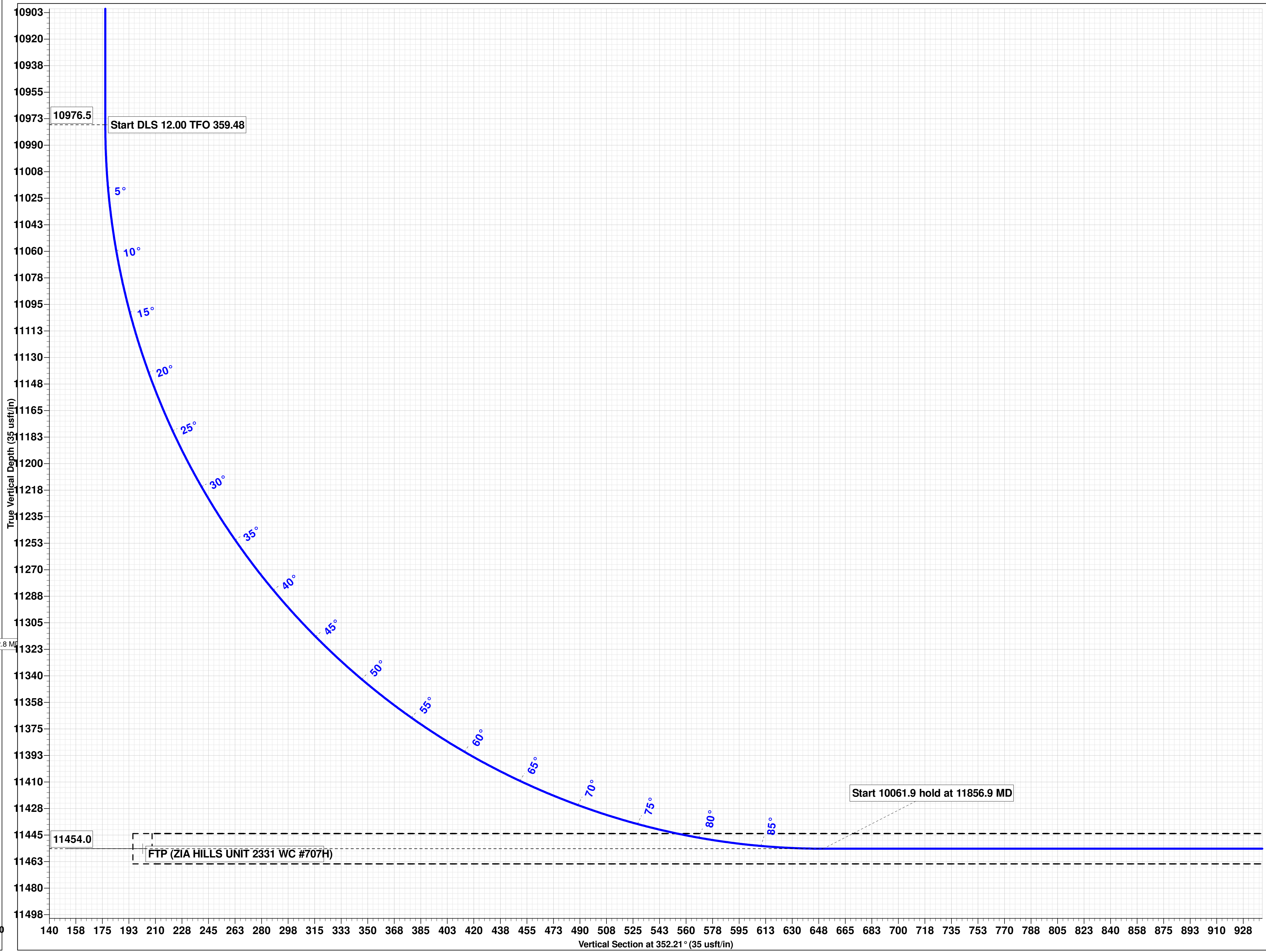
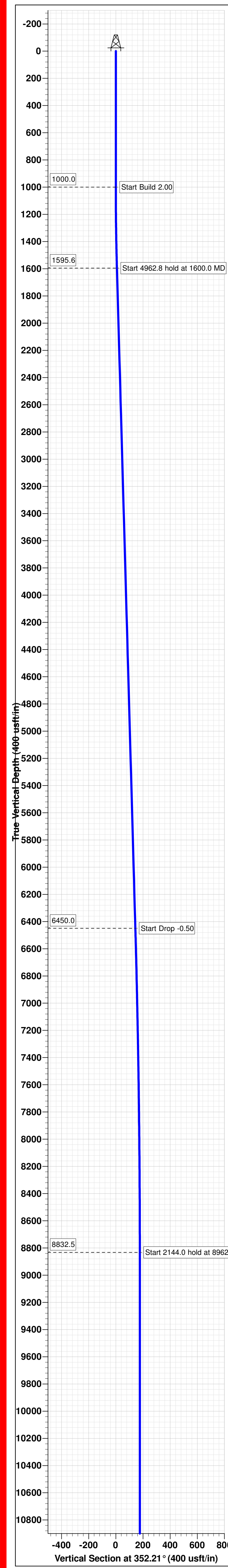


Project: BULLDOG PROSPECT (NM-E)
Site: ZIA HILLS UNIT 2331 PROJECT
Well: ZIA HILLS UNIT 2331 WC #707H
Wellbore: OWB
Design: PWP0
GL: 3164.0
KB=31ft @ 3195.0usft

WELL DETAILS: ZIA HILLS UNIT 2331 WC #707H						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.0	0.0	371840.26	682834.19	32° 1' 15.352 N	103° 44' 36.262 W	

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	
FTP (ZIA HILLS UNIT 2331 WC #707H)	11454.0	19.5	-1345.0	371859.76	681489.22	
LTP (ZIA HILLS UNIT 2331 WC #707H)	11454.0	10463.5	-1440.9	382323.77	681393.31	
PBHL (ZIA HILLS UNIT 2331 WC #707H)	11454.0	10533.5	-1440.9	382373.77	681393.32	

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
1600.0	12.00	269.77	1595.6	-0.3	-62.6	2.00	269.77	8.2	
6562.8	12.00	269.77	6450.0	-4.4	-1094.4	0.00	0.00	144.0	
8962.8	0.00	0.00	8932.5	-5.4	-1344.8	0.50	180.00	176.9	
11106.9	0.00	0.00	10976.5	-5.4	-1344.8	0.00	0.00	176.9	
11856.9	90.00	359.48	11454.0	472.0	-1349.2	12.00	359.48	650.5	
21918.8	90.00	359.48	11454.0	10533.5	-1440.9	0.00	0.00	10631.6	



DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
ZIA HILLS UNIT 2331 PROJECT
ZIA HILLS UNIT 2331 WC #707H**

**OWB
PWP0**

Anticollision Report

16 November, 2022

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Reference	PWP0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 95.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,320.0usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/16/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	1,000.0	PWP0 (OWB)	r.5 SDI_KPR_ADK	SDI Keeper ADK rev.5	
1,000.0	11,106.9	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5	
11,106.9	21,918.7	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
ZIA HILLS UNIT 2331 PROJECT						
RAMBLIN ROSE 14 FED #1 - OWB - AWP						Out of range
SHETLAND 11 FEDERAL #332H - OWB - PWP0	21,918.8	11,250.0	736.0	617.6	6.214	CC, ES, SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0						Out of range
SHETLAND 11 FEDERAL #734H - OWB - PWP0						Out of range
SHETLAND 11-2 FEDERAL STATE COM #611H - OWB						Out of range
SHETLAND 11-2 FEDERAL STATE COM #711H - OWB						Out of range
SHETLAND 11-2 FEDERAL STATE COM #712H - OWB	21,918.8	11,580.8	1,194.8	1,064.7	9.179	CC, ES, SF
SHETLAND 11-2 FEDERAL STATE COM #731H - OWB						Out of range
SHETLAND 11-2 FEDERAL STATE COM #732H - OWB	21,918.8	11,559.7	512.6	391.5	4.232	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB						Out of range
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	21,918.8	22,089.0	870.5	603.9	3.266	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #713H - OWB	21,918.8	21,917.2	490.8	340.9	3.276	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	21,918.8	22,097.6	1,034.8	803.3	4.469	CC, ES, SF
ZHU 2331 WC #1H - OWB - AWP						Out of range
ZHU 2331 WC #2H - OWB - AWP						Out of range
ZHU 2331 WC #3H - OWB - AWP						Out of range
ZHU 2331 WC #4H - OWB - AWP	13,983.0	14,180.3	1,250.4	1,185.1	19.149	CC
ZHU 2331 WC #4H - OWB - AWP	21,485.3	21,702.0	1,254.3	1,090.1	7.639	ES
ZHU 2331 WC #4H - OWB - AWP	21,850.0	21,950.4	1,271.9	1,103.5	7.553	SF
ZHU 2331 WC #5H - OWB - AWP	21,438.6	21,500.1	762.6	598.9	4.659	CC
ZHU 2331 WC #5H - OWB - AWP	21,918.8	21,970.9	768.3	597.7	4.505	ES, SF
ZHU 2331 WC #6H - OWB - AWP (PH)	11,172.6	11,205.7	490.0	438.2	9.458	CC
ZHU 2331 WC #6H - OWB - AWP (PH)	11,225.0	11,256.9	490.0	438.1	9.443	ES
ZHU 2331 WC #6H - OWB - AWP (PH)	11,275.0	11,304.7	490.2	438.3	9.433	SF
ZHU 2331 WC #6H - ST01 - AWP	15,908.6	16,061.7	416.6	328.5	4.728	CC
ZHU 2331 WC #6H - ST01 - AWP	21,800.0	21,952.4	463.8	294.3	2.736	ES
ZHU 2331 WC #6H - ST01 - AWP	21,918.8	22,062.7	466.9	295.8	2.728	SF
ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0	1,000.0	1,000.0	30.0	21.9	3.725	CC, ES
ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0	21,918.8	22,050.3	444.8	269.4	2.536	SF
ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0	1,000.0	1,000.0	59.8	51.7	7.434	CC, ES
ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0	21,850.0	21,760.3	822.2	650.4	4.785	SF
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	1,000.0	1,001.0	89.9	81.8	11.172	CC, ES
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	21,918.8	21,956.2	1,245.3	1,073.7	7.256	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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
ZIA HILLS UNIT 2331 PROJECT						
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	1,000.0	1,000.0	119.8	111.8	14.899	CC, ES
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	1,200.0	1,199.8	126.8	117.9	14.246	SF
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	1,000.0	1,000.0	150.3	142.2	18.687	CC, ES
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	1,235.0	1,234.7	159.9	150.8	17.642	SF
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	1,000.0	1,000.0	180.3	172.2	22.417	CC, ES
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	1,300.0	1,299.5	196.0	186.6	20.905	SF
ZIA HILLS UNIT 2431 PROJECT						
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0						Out of range
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0						Out of range
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0						Out of range
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0						Out of range
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0						Out of range
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0						Out of range

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

TD Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
ZIA HILLS UNIT 2331 PROJECT						
RAMBLIN ROSE 14 FED #1 - OWB - AWP	21,918.8	10,650.0				Out of Range @TD
SHETLAND 11 FEDERAL #332H - OWB - PWP0	21,918.8	11,250.0	736.0	617.6	6.214	CC, ES, SF
SHETLAND 11 FEDERAL #714H - OWB - PWP0	21,918.8	16,466.2				Out of Range @TD
SHETLAND 11 FEDERAL #734H - OWB - PWP0	21,918.8	16,703.1				Out of Range @TD
SHETLAND 11-2 FEDERAL STATE COM #611H - OWB	21,918.8	11,663.5				Out of Range @TD
SHETLAND 11-2 FEDERAL STATE COM #711H - OWB	21,918.8	11,312.1				Out of Range @TD
SHETLAND 11-2 FEDERAL STATE COM #712H - OWB	21,918.8	11,580.8	1,194.8	1,064.7	9.179	CC, ES, SF
SHETLAND 11-2 FEDERAL STATE COM #731H - OWB	21,918.8	11,588.9				Out of Range @TD
SHETLAND 11-2 FEDERAL STATE COM #732H - OWB	21,918.8	11,559.7	512.6	391.5	4.232	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	21,918.8	21,907.0				Out of Range @TD
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	21,918.8	22,089.0	870.5	603.9	3.266	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #713H - OWB	21,918.8	21,917.2	490.8	340.9	3.276	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	21,918.8	22,097.6	1,034.8	803.3	4.469	CC, ES, SF
ZHU 2331 WC #1H - OWB - AWP	21,918.8	21,790.0				Out of Range @TD
ZHU 2331 WC #2H - OWB - AWP	21,918.8	21,872.0				Out of Range @TD
ZHU 2331 WC #3H - OWB - AWP	21,918.8	21,823.5				Out of Range @TD
ZHU 2331 WC #4H - OWB - AWP	21,918.8	21,999.8	1,278.0	1,108.9	7.558	
ZHU 2331 WC #5H - OWB - AWP	21,918.8	21,970.9	768.3	597.7	4.505	ES, SF
ZHU 2331 WC #6H - OWB - AWP (PH)	21,918.8	11,173.0				Out of Range @TD
ZHU 2331 WC #6H - ST01 - AWP	21,918.8	22,062.7	466.9	295.8	2.728	SF
ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0	21,918.8	22,050.3	444.8	269.4	2.536	SF
ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0	21,918.8	21,760.3	825.4	654.2	4.823	
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	21,918.8	21,956.2	1,245.3	1,073.7	7.256	SF
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	21,918.8	21,724.9				Out of Range @TD
ZIA HILLS UNIT 2331 WC #712H - OWB - PWP0	21,918.8	21,996.4				Out of Range @TD
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	21,918.8	21,875.5				Out of Range @TD
ZIA HILLS UNIT 2431 PROJECT						
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	21,918.8	22,175.9				Out of Range @TD
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	21,918.8	21,990.7				Out of Range @TD
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	21,918.8	22,127.9				Out of Range @TD
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	21,918.8	21,967.4				Out of Range @TD
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	21,918.8	22,167.6				Out of Range @TD
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	21,918.8	22,039.3				Out of Range @TD

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11 FEDERAL #332H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program:		0-MWD - OWSG R1					Rule Assigned:				Offset Well Error:	10.0 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	
21,090.0	11,454.0	11,032.0	11,015.7	83.4	39.9	-51.45	10,685.4	-2,046.1	1,252.4	1,163.2	89.24	14.034		
21,100.0	11,454.0	11,033.5	11,017.0	83.4	39.9	-51.53	10,686.0	-2,046.1	1,244.6	1,155.1	89.50	13.906		
21,185.0	11,454.0	11,050.0	11,031.7	84.0	39.9	-52.39	10,693.6	-2,046.1	1,178.8	1,087.1	91.74	12.849		
21,200.0	11,454.0	11,050.0	11,031.7	84.1	39.9	-52.39	10,693.6	-2,046.1	1,167.4	1,075.2	92.22	12.659		
21,280.0	11,454.0	11,050.0	11,031.7	84.7	39.9	-52.39	10,693.6	-2,046.1	1,108.1	1,013.2	94.90	11.676		
21,300.0	11,454.0	11,067.6	11,047.2	84.8	40.0	-53.32	10,702.0	-2,046.2	1,093.3	998.0	95.23	11.481		
21,375.0	11,454.0	11,082.6	11,060.1	85.3	40.0	-54.12	10,709.6	-2,046.2	1,039.9	942.2	97.66	10.648		
21,400.0	11,454.0	11,100.0	11,074.9	85.5	40.1	-55.04	10,718.8	-2,046.3	1,022.8	924.5	98.23	10.412		
21,470.0	11,454.0	11,100.0	11,074.9	86.0	40.1	-55.04	10,718.8	-2,046.3	975.5	874.5	101.05	9.654		
21,500.0	11,454.0	11,100.0	11,074.9	86.2	40.1	-55.04	10,718.8	-2,046.3	956.1	853.8	102.31	9.345		
21,565.0	11,454.0	11,127.3	11,097.5	86.6	40.1	-56.51	10,734.2	-2,046.4	915.1	810.6	104.49	8.758		
21,600.0	11,454.0	11,150.0	11,115.6	86.9	40.2	-57.72	10,747.7	-2,046.5	894.2	788.7	105.51	8.475		
21,660.0	11,454.0	11,150.0	11,115.6	87.3	40.2	-57.72	10,747.7	-2,046.5	859.5	751.1	108.30	7.936		
21,700.0	11,454.0	11,166.5	11,128.5	87.6	40.2	-58.60	10,758.0	-2,046.5	837.5	727.7	109.80	7.628		
21,755.0	11,454.0	11,184.5	11,142.2	87.9	40.2	-59.56	10,769.7	-2,046.6	809.0	697.0	112.02	7.222		
21,800.0	11,454.0	11,200.0	11,153.7	88.3	40.3	-60.38	10,780.1	-2,046.7	787.1	673.3	113.84	6.914		
21,850.0	11,454.0	11,219.1	11,167.5	88.6	40.3	-61.37	10,793.3	-2,046.7	764.4	648.5	115.83	6.599		
21,900.0	11,454.0	11,239.1	11,181.5	88.9	40.4	-62.40	10,807.7	-2,046.8	743.4	625.6	117.80	6.311		
21,918.8	11,454.0	11,250.0	11,188.9	89.1	40.4	-62.96	10,815.7	-2,046.9	736.0	617.6	118.44	6.214	CC, ES, SF	

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11-2 FEDERAL STATE COM #712H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 113-MWD - OWSG R1													Offset Well Error:	10.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				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)	Minimum Separation (usft)	Separation Factor		
21,470.0	11,454.0	11,494.8	11,471.3	86.0	42.6	-88.85	10,624.8	-2,635.8	1,315.2	1,195.8	119.47	11.009		
21,500.0	11,454.0	11,499.6	11,476.0	86.2	42.6	-89.08	10,625.8	-2,635.4	1,302.9	1,182.6	120.35	10.826		
21,565.0	11,454.0	11,512.0	11,488.0	86.6	42.7	-89.66	10,628.7	-2,634.4	1,278.2	1,156.0	122.21	10.459		
21,600.0	11,454.0	11,512.0	11,488.0	86.9	42.7	-89.66	10,628.7	-2,634.4	1,266.0	1,142.8	123.21	10.276		
21,660.0	11,454.0	11,512.0	11,488.0	87.3	42.7	-89.66	10,628.7	-2,634.4	1,247.2	1,122.3	124.84	9.990		
21,700.0	11,454.0	11,512.0	11,488.0	87.6	42.7	-89.66	10,628.7	-2,634.4	1,236.1	1,110.2	125.88	9.820		
21,755.0	11,454.0	11,538.4	11,513.2	87.9	42.7	-90.87	10,636.3	-2,632.1	1,222.3	1,095.2	127.08	9.618		
21,800.0	11,454.0	11,547.4	11,521.6	88.3	42.8	-91.27	10,639.5	-2,631.3	1,212.8	1,084.7	128.05	9.471		
21,850.0	11,454.0	11,559.5	11,532.7	88.6	42.8	-91.81	10,644.1	-2,630.2	1,204.0	1,075.0	129.03	9.331		
21,900.0	11,454.0	11,574.3	11,546.1	88.9	42.8	-92.46	10,650.3	-2,628.9	1,197.0	1,067.1	129.88	9.216		
21,918.8	11,454.0	11,580.8	11,551.8	89.1	42.8	-92.73	10,653.3	-2,628.3	1,194.8	1,064.7	130.17	9.179 CC, ES, SF		

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 11-2 FEDERAL STATE COM #732H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 113-MWD - OWSG R1													Offset Well Error:	10.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				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)	Minimum Separation (usft)	Separation Factor		
20,805.0	11,454.0	11,324.0	11,310.0	81.4	41.4	-70.87	10,603.8	-1,979.5	1,318.3	1,238.1	80.11	16.456		
20,900.0	11,454.0	11,324.0	11,310.0	82.1	41.4	-70.87	10,603.8	-1,979.5	1,233.3	1,151.2	82.09	15.024		
20,995.0	11,454.0	11,324.0	11,310.0	82.7	41.4	-70.87	10,603.8	-1,979.5	1,149.8	1,065.4	84.39	13.625		
21,000.0	11,454.0	11,324.0	11,310.0	82.8	41.4	-70.87	10,603.8	-1,979.5	1,145.5	1,061.0	84.53	13.552		
21,090.0	11,454.0	11,324.0	11,310.0	83.4	41.4	-70.87	10,603.8	-1,979.5	1,068.3	981.2	87.09	12.267		
21,100.0	11,454.0	11,324.0	11,310.0	83.4	41.4	-70.87	10,603.8	-1,979.5	1,059.9	972.5	87.40	12.127		
21,185.0	11,454.0	11,324.0	11,310.0	84.0	41.4	-70.87	10,603.8	-1,979.5	989.2	899.0	90.24	10.963		
21,200.0	11,454.0	11,324.0	11,310.0	84.1	41.4	-70.87	10,603.8	-1,979.5	977.0	886.2	90.78	10.762		
21,280.0	11,454.0	11,324.0	11,310.0	84.7	41.4	-70.87	10,603.8	-1,979.5	913.2	819.3	93.91	9.725		
21,300.0	11,454.0	11,324.0	11,310.0	84.8	41.4	-70.87	10,603.8	-1,979.5	897.6	802.9	94.75	9.474		
21,375.0	11,454.0	11,358.6	11,341.4	85.3	41.4	-73.69	10,616.4	-1,972.2	839.3	742.1	97.16	8.638		
21,400.0	11,454.0	11,363.1	11,345.3	85.5	41.4	-74.05	10,618.4	-1,971.1	820.6	722.4	98.22	8.355		
21,470.0	11,454.0	11,377.5	11,357.5	86.0	41.5	-75.17	10,625.0	-1,967.3	769.9	668.6	101.30	7.600		
21,500.0	11,454.0	11,384.7	11,363.3	86.2	41.5	-75.72	10,628.6	-1,965.3	748.9	646.2	102.66	7.294		
21,565.0	11,454.0	11,418.0	11,388.8	86.6	41.6	-78.13	10,647.2	-1,954.7	705.3	600.4	104.93	6.721		
21,600.0	11,454.0	11,418.0	11,388.8	86.9	41.6	-78.13	10,647.2	-1,954.7	682.4	575.3	107.07	6.373		
21,660.0	11,454.0	11,418.0	11,388.8	87.3	41.6	-78.13	10,647.2	-1,954.7	645.6	534.7	110.91	5.821		
21,700.0	11,454.0	11,449.8	11,410.9	87.6	41.6	-80.30	10,667.3	-1,943.7	621.7	509.7	111.94	5.554		
21,755.0	11,454.0	11,472.2	11,425.6	87.9	41.6	-81.82	10,682.4	-1,936.0	591.1	476.6	114.50	5.162		
21,800.0	11,454.0	11,492.4	11,438.1	88.3	41.6	-83.15	10,696.6	-1,929.1	567.7	451.2	116.55	4.871		
21,850.0	11,454.0	11,512.0	11,449.6	88.6	41.7	-84.41	10,711.0	-1,922.4	543.4	424.4	119.00	4.567		
21,900.0	11,454.0	11,547.8	11,469.3	88.9	41.7	-86.66	10,738.3	-1,910.2	520.7	400.2	120.50	4.321		
21,918.8	11,454.0	11,559.7	11,475.6	89.1	41.7	-87.40	10,747.6	-1,906.2	512.6	391.5	121.14	4.232 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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 2-11 STATE FEDERAL COM #613H - 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		Rule Assigned:				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)	Minimum Separation (usft)	Separation Factor		
21,090.0	11,454.0	22,089.0	11,669.7	83.4	179.6	96.18	10,629.9	-580.8	1,261.5	1,073.7	187.77	6.718		
21,100.0	11,454.0	22,089.0	11,669.7	83.4	179.6	96.18	10,629.9	-580.8	1,254.2	1,065.5	188.72	6.646		
21,185.0	11,454.0	22,089.0	11,669.7	84.0	179.6	96.18	10,629.9	-580.8	1,194.2	997.1	197.04	6.061		
21,200.0	11,454.0	22,089.0	11,669.7	84.1	179.6	96.18	10,629.9	-580.8	1,183.9	985.3	198.56	5.962		
21,280.0	11,454.0	22,089.0	11,669.7	84.7	179.6	96.18	10,629.9	-580.8	1,130.9	924.0	206.91	5.466		
21,300.0	11,454.0	22,089.0	11,669.7	84.8	179.6	96.18	10,629.9	-580.8	1,118.1	909.1	209.05	5.348		
21,375.0	11,454.0	22,089.0	11,669.7	85.3	179.6	96.18	10,629.9	-580.8	1,072.2	855.0	217.23	4.936		
21,400.0	11,454.0	22,089.0	11,669.7	85.5	179.6	96.18	10,629.9	-580.8	1,057.7	837.7	220.00	4.808		
21,470.0	11,454.0	22,089.0	11,669.7	86.0	179.6	96.18	10,629.9	-580.8	1,019.1	791.3	227.78	4.474		
21,500.0	11,454.0	22,089.0	11,669.7	86.2	179.6	96.18	10,629.9	-580.8	1,003.6	772.5	231.09	4.343		
21,565.0	11,454.0	22,089.0	11,669.7	86.6	179.6	96.18	10,629.9	-580.8	972.4	734.2	238.17	4.083		
21,600.0	11,454.0	22,089.0	11,669.7	86.9	179.6	96.18	10,629.9	-580.8	957.0	715.1	241.88	3.956		
21,660.0	11,454.0	22,089.0	11,669.7	87.3	179.6	96.18	10,629.9	-580.8	933.0	685.1	247.95	3.763		
21,700.0	11,454.0	22,089.0	11,669.7	87.6	179.6	96.18	10,629.9	-580.8	918.9	667.1	251.73	3.650		
21,755.0	11,454.0	22,089.0	11,669.7	87.9	179.6	96.18	10,629.9	-580.8	902.0	645.5	256.50	3.516		
21,800.0	11,454.0	22,089.0	11,669.7	88.3	179.6	96.18	10,629.9	-580.8	890.4	630.5	259.94	3.426		
21,850.0	11,454.0	22,089.0	11,669.7	88.6	179.6	96.18	10,629.9	-580.8	880.1	616.9	263.19	3.344		
21,900.0	11,454.0	22,089.0	11,669.7	88.9	179.6	96.18	10,629.9	-580.8	872.6	606.8	265.78	3.283		
21,918.8	11,454.0	22,089.0	11,669.7	89.1	179.6	96.18	10,629.9	-580.8	870.5	603.9	266.56	3.266	CC, ES, SF	

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 2-11 STATE FEDERAL COM #713H - 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		Rule Assigned:				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)	Minimum Separation (usft)	Separation Factor		
21,090.0	11,454.0	21,917.2	11,800.0	83.4	175.0	135.71	10,914.6	-1,226.7	1,247.4	1,158.1	89.31	13.967		
21,100.0	11,454.0	21,917.2	11,800.0	83.4	175.0	135.71	10,914.6	-1,226.7	1,237.7	1,148.2	89.52	13.826		
21,185.0	11,454.0	21,917.2	11,800.0	84.0	175.0	135.71	10,914.6	-1,226.7	1,155.7	1,064.2	91.47	12.634		
21,200.0	11,454.0	21,917.2	11,800.0	84.1	175.0	135.71	10,914.6	-1,226.7	1,141.2	1,049.4	91.86	12.424		
21,280.0	11,454.0	21,917.2	11,800.0	84.7	175.0	135.71	10,914.6	-1,226.7	1,064.5	970.3	94.16	11.306		
21,300.0	11,454.0	21,917.2	11,800.0	84.8	175.0	135.71	10,914.6	-1,226.7	1,045.4	950.6	94.80	11.027		
21,375.0	11,454.0	21,917.2	11,800.0	85.3	175.0	135.71	10,914.6	-1,226.7	974.1	876.5	97.55	9.986		
21,400.0	11,454.0	21,917.2	11,800.0	85.5	175.0	135.71	10,914.6	-1,226.7	950.4	851.8	98.58	9.641		
21,470.0	11,454.0	21,917.2	11,800.0	86.0	175.0	135.71	10,914.6	-1,226.7	884.6	782.7	101.89	8.682		
21,500.0	11,454.0	21,917.2	11,800.0	86.2	175.0	135.71	10,914.6	-1,226.7	856.6	753.1	103.50	8.276		
21,565.0	11,454.0	21,917.2	11,800.0	86.6	175.0	135.71	10,914.6	-1,226.7	796.4	688.9	107.51	7.407		
21,600.0	11,454.0	21,917.2	11,800.0	86.9	175.0	135.71	10,914.6	-1,226.7	764.3	654.3	110.00	6.948		
21,660.0	11,454.0	21,917.2	11,800.0	87.3	175.0	135.71	10,914.6	-1,226.7	709.9	595.0	114.91	6.178		
21,700.0	11,454.0	21,917.2	11,800.0	87.6	175.0	135.71	10,914.6	-1,226.7	674.2	555.5	118.70	5.680		
21,755.0	11,454.0	21,917.2	11,800.0	87.9	175.0	135.71	10,914.6	-1,226.7	626.0	501.2	124.72	5.019		
21,800.0	11,454.0	21,917.2	11,800.0	88.3	175.0	135.71	10,914.6	-1,226.7	587.4	456.9	130.45	4.502		
21,850.0	11,454.0	21,917.2	11,800.0	88.6	175.0	135.71	10,914.6	-1,226.7	545.6	407.8	137.80	3.960		
21,900.0	11,454.0	21,917.2	11,800.0	88.9	175.0	135.71	10,914.6	-1,226.7	505.4	359.1	146.30	3.454		
21,918.8	11,454.0	21,917.2	11,800.0	89.1	175.0	135.71	10,914.6	-1,226.7	490.8	340.9	149.82	3.276	CC, ES, SF	

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - SHETLAND 2-11 STATE FEDERAL COM #733H - OWB - PWP0													Offset Site Error:	0.0 usft	
Survey Program:		0-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	10.0 usft
Reference		Offset		Reference		Offset		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)	+N/-S (usft)	+E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)					
21,400.0	11,454.0	22,097.6	12,034.9	85.5	173.7	118.41	10,919.9	-597.3	1,316.4	1,131.8	184.58	7.132			
21,470.0	11,454.0	22,097.6	12,034.9	86.0	173.7	118.41	10,919.9	-597.3	1,269.7	1,079.0	190.70	6.658			
21,500.0	11,454.0	22,097.6	12,034.9	86.2	173.7	118.41	10,919.9	-597.3	1,250.4	1,057.0	193.40	6.465			
21,565.0	11,454.0	22,097.6	12,034.9	86.6	173.7	118.41	10,919.9	-597.3	1,209.9	1,010.6	199.34	6.070			
21,600.0	11,454.0	22,097.6	12,034.9	86.9	173.7	118.41	10,919.9	-597.3	1,189.1	986.5	202.59	5.870			
21,660.0	11,454.0	22,097.6	12,034.9	87.3	173.7	118.41	10,919.9	-597.3	1,154.9	946.7	208.20	5.547			
21,700.0	11,454.0	22,097.6	12,034.9	87.6	173.7	118.41	10,919.9	-597.3	1,133.3	921.4	211.96	5.347			
21,755.0	11,454.0	22,097.6	12,034.9	87.9	173.7	118.41	10,919.9	-597.3	1,105.3	888.2	217.09	5.092			
21,800.0	11,454.0	22,097.6	12,034.9	88.3	173.7	118.41	10,919.9	-597.3	1,084.0	862.7	221.22	4.900			
21,850.0	11,454.0	22,097.6	12,034.9	88.6	173.7	118.41	10,919.9	-597.3	1,061.9	836.2	225.70	4.705			
21,900.0	11,454.0	22,097.6	12,034.9	88.9	173.7	118.41	10,919.9	-597.3	1,041.9	811.9	230.00	4.530			
21,918.8	11,454.0	22,097.6	12,034.9	89.1	173.7	118.41	10,919.9	-597.3	1,034.8	803.3	231.55	4.469	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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11215-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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)						
8,170.0	8,040.3	8,190.4	8,114.8	34.5	10.5	4.25	86.5	-2,632.8	1,319.9	1,275.6	44.26	29.822		
8,200.0	8,070.2	8,214.7	8,138.9	34.6	10.5	4.16	84.5	-2,631.9	1,316.6	1,272.2	44.43	29.632		
8,265.0	8,135.1	8,267.9	8,192.0	34.8	10.6	4.00	80.5	-2,630.2	1,310.1	1,265.3	44.79	29.249		
8,300.0	8,170.0	8,296.1	8,220.1	34.9	10.6	3.93	78.6	-2,629.5	1,307.0	1,262.0	44.98	29.055		
8,360.0	8,229.9	8,342.1	8,266.1	35.1	10.7	3.83	76.2	-2,628.7	1,302.5	1,257.2	45.31	28.748		
8,400.0	8,269.9	8,375.0	8,298.9	35.3	10.7	3.77	74.7	-2,628.4	1,299.9	1,254.4	45.50	28.568		
8,455.0	8,324.8	8,425.0	8,348.9	35.5	10.7	3.69	72.9	-2,628.0	1,296.8	1,251.1	45.74	28.355		
8,500.0	8,369.8	8,461.4	8,385.3	35.6	10.8	3.65	71.8	-2,628.0	1,294.8	1,248.8	45.94	28.181		
8,550.0	8,419.8	8,503.6	8,427.4	35.8	10.8	3.61	70.8	-2,628.2	1,293.0	1,246.9	46.15	28.015		
8,600.0	8,469.7	8,555.0	8,478.9	35.9	10.9	3.58	70.0	-2,628.5	1,291.6	1,245.3	46.32	27.885		
8,645.0	8,514.7	8,608.5	8,532.4	36.1	10.9	3.56	69.5	-2,628.6	1,290.4	1,244.0	46.43	27.792		
8,700.0	8,569.7	8,664.2	8,588.0	36.2	11.0	3.54	69.1	-2,628.5	1,288.8	1,242.2	46.62	27.645		
8,740.0	8,609.7	8,703.0	8,626.8	36.3	11.0	3.53	68.6	-2,628.4	1,287.9	1,241.1	46.75	27.545		
8,800.0	8,669.7	8,754.3	8,678.1	36.5	11.1	3.49	67.8	-2,628.6	1,287.0	1,240.0	46.98	27.395		
8,835.0	8,704.7	8,791.4	8,715.2	36.6	11.1	3.46	67.2	-2,628.8	1,286.7	1,239.7	47.06	27.340		
8,900.0	8,769.7	8,863.9	8,787.7	36.7	11.2	3.45	66.8	-2,628.9	1,286.2	1,239.0	47.21	27.245		
8,930.0	8,799.7	8,894.6	8,818.4	36.8	11.1	3.46	67.0	-2,628.8	1,286.0	1,238.8	47.26	27.214		
8,962.8	8,832.5	8,928.4	8,852.2	36.8	11.1	-86.76	67.2	-2,628.7	1,285.9	1,238.6	47.30	27.183		
9,000.0	8,869.7	8,962.5	8,886.3	36.8	11.1	-86.75	67.5	-2,628.6	1,285.8	1,238.4	47.34	27.161		
9,007.2	8,876.9	8,968.4	8,892.2	36.8	11.1	-86.75	67.5	-2,628.5	1,285.8	1,238.4	47.35	27.155		
9,025.0	8,894.7	8,983.8	8,907.6	36.8	11.1	-86.75	67.6	-2,628.6	1,285.8	1,238.4	47.37	27.144		
9,100.0	8,969.7	9,060.4	8,984.2	36.8	11.1	-86.74	67.7	-2,628.6	1,285.9	1,238.5	47.40	27.126		
9,120.0	8,989.7	9,075.0	8,998.8	36.8	11.1	-86.74	67.6	-2,628.7	1,285.9	1,238.5	47.44	27.105		
9,200.0	9,069.7	9,143.5	9,067.3	36.8	11.2	-86.81	66.1	-2,629.4	1,286.6	1,239.1	47.53	27.068		
9,215.0	9,084.7	9,158.2	9,081.9	36.8	11.2	-86.83	65.7	-2,629.6	1,286.9	1,239.3	47.54	27.067		
9,300.0	9,169.7	9,242.4	9,166.1	36.9	11.3	-86.96	62.8	-2,630.9	1,288.0	1,240.4	47.59	27.064		
9,310.0	9,179.7	9,251.9	9,175.6	36.9	11.3	-86.98	62.5	-2,631.0	1,288.1	1,240.5	47.60	27.063		
9,400.0	9,269.7	9,334.2	9,257.8	36.9	11.4	-87.10	59.7	-2,632.6	1,289.7	1,242.1	47.68	27.051		
9,405.0	9,274.7	9,338.6	9,262.3	36.9	11.4	-87.11	59.6	-2,632.7	1,289.8	1,242.2	47.68	27.051		
9,500.0	9,369.7	9,433.2	9,356.8	36.9	11.5	-87.25	56.5	-2,634.9	1,291.9	1,244.1	47.73	27.067		
9,595.0	9,464.7	9,540.4	9,463.9	36.9	11.6	-87.44	52.3	-2,636.9	1,293.4	1,245.7	47.73	27.099		
9,600.0	9,469.7	9,546.1	9,469.6	36.9	11.6	-87.45	52.0	-2,636.9	1,293.5	1,245.7	47.73	27.101		
9,690.0	9,559.7	9,641.9	9,565.3	36.9	11.7	-87.61	48.5	-2,638.0	1,294.4	1,246.6	47.76	27.103		
9,700.0	9,569.7	9,652.3	9,575.7	36.9	11.7	-87.63	48.1	-2,638.1	1,294.4	1,246.7	47.76	27.102		
9,785.0	9,654.7	9,744.3	9,667.6	37.0	11.9	-87.77	45.1	-2,638.7	1,294.8	1,247.0	47.78	27.097		
9,800.0	9,669.7	9,761.9	9,685.3	37.0	11.9	-87.79	44.4	-2,638.7	1,294.8	1,247.0	47.78	27.098		
9,880.0	9,749.7	9,859.0	9,782.2	37.0	12.0	-87.96	40.7	-2,638.1	1,294.2	1,246.5	47.77	27.093		
9,900.0	9,769.7	9,880.7	9,803.9	37.0	12.0	-88.00	39.9	-2,637.9	1,294.0	1,246.2	47.78	27.082		
9,975.0	9,844.7	9,954.3	9,877.4	37.0	12.1	-88.13	36.8	-2,636.9	1,292.9	1,245.1	47.85	27.022		
10,000.0	9,869.7	9,979.6	9,902.8	37.0	12.1	-88.18	35.7	-2,636.6	1,292.6	1,244.7	47.87	27.004		
10,070.0	9,939.7	10,055.6	9,978.7	37.0	12.2	-88.32	32.4	-2,635.6	1,291.5	1,243.6	47.90	26.964		
10,100.0	9,969.7	10,087.1	10,010.1	37.0	12.2	-88.38	31.1	-2,635.0	1,290.9	1,243.0	47.92	26.941		
10,165.0	10,034.7	10,150.3	10,073.3	37.0	12.3	-88.49	28.5	-2,633.9	1,289.7	1,241.7	47.98	26.880		
10,200.0	10,069.7	10,185.7	10,108.6	37.1	12.3	-88.56	27.1	-2,633.3	1,289.0	1,241.0	48.01	26.850		
10,260.0	10,129.7	10,238.0	10,160.8	37.1	12.4	-88.66	24.8	-2,632.5	1,288.1	1,240.0	48.09	26.785		
10,300.0	10,169.7	10,268.9	10,191.8	37.1	12.4	-88.72	23.5	-2,632.2	1,287.7	1,239.6	48.16	26.738		
10,323.9	10,193.5	10,286.0	10,208.8	37.1	12.5	-88.75	22.8	-2,632.2	1,287.7	1,239.5	48.21	26.711		
10,355.0	10,224.7	10,311.0	10,233.8	37.1	12.5	-88.78	21.9	-2,632.3	1,287.8	1,239.5	48.26	26.687		
10,400.0	10,269.7	10,354.4	10,277.2	37.1	12.5	-88.85	20.5	-2,632.6	1,288.0	1,239.7	48.29	26.672		
10,450.0	10,319.7	10,408.6	10,331.4	37.1	12.6	-88.94	18.5	-2,632.8	1,288.2	1,239.9	48.31	26.668		
10,500.0	10,369.7	10,459.2	10,381.9	37.1	12.7	-89.03	16.4	-2,633.0	1,288.3	1,240.0	48.34	26.653		
10,545.0	10,414.7	10,504.4	10,427.1	37.1	12.7	-89.12	14.4	-2,633.1	1,288.4	1,240.1	48.37	26.639		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program:		100-Standard Keeper 104, 11215-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	
10,600.0	10,469.7	10,559.8	10,482.4	37.1	12.8	-89.23	11.9	-2,633.3	1,288.6	1,240.2	48.40	26.622		
10,640.0	10,509.7	10,599.4	10,522.0	37.2	12.8	-89.30	10.4	-2,633.4	1,288.7	1,240.3	48.43	26.608		
10,700.0	10,569.7	10,667.0	10,589.6	37.2	12.9	-89.36	9.1	-2,633.3	1,288.6	1,240.1	48.44	26.600		
10,735.0	10,604.7	10,705.9	10,628.5	37.2	13.0	-89.38	8.6	-2,633.1	1,288.4	1,240.0	48.45	26.590		
10,800.0	10,669.7	10,779.6	10,702.2	37.2	13.0	-89.40	8.0	-2,632.4	1,287.8	1,239.3	48.48	26.563		
10,830.0	10,699.7	10,809.2	10,731.8	37.2	13.0	-89.41	7.8	-2,632.0	1,287.4	1,238.8	48.51	26.537		
10,900.0	10,769.7	10,878.8	10,801.3	37.2	13.1	-89.43	7.4	-2,631.1	1,286.5	1,237.9	48.58	26.480		
10,925.0	10,794.7	10,907.8	10,830.4	37.2	13.1	-89.44	7.2	-2,630.7	1,286.1	1,237.5	48.59	26.468		
11,000.0	10,869.7	10,986.3	10,908.8	37.2	13.2	-89.47	6.5	-2,629.4	1,284.8	1,236.2	48.65	26.408		
11,020.0	10,889.7	11,005.4	10,927.9	37.2	13.2	-89.48	6.3	-2,629.1	1,284.5	1,235.8	48.67	26.389		
11,106.9	10,976.5	11,097.2	11,019.7	37.3	13.3	-89.52	5.3	-2,627.1	1,282.6	1,233.9	48.74	26.316		
11,115.0	10,984.7	11,105.3	11,027.8	37.3	13.3	-89.03	5.2	-2,626.9	1,282.4	1,233.7	48.75	26.308		
11,125.0	10,994.7	11,115.3	11,037.7	37.3	13.3	-89.07	5.1	-2,626.7	1,282.2	1,233.4	48.76	26.298		
11,150.0	11,019.6	11,140.0	11,062.5	37.3	13.3	-89.22	4.9	-2,626.1	1,281.6	1,232.8	48.78	26.273		
11,175.0	11,044.4	11,164.7	11,087.2	37.3	13.3	-89.43	4.7	-2,625.6	1,281.0	1,232.2	48.81	26.248		
11,200.0	11,069.1	11,189.2	11,111.6	37.3	13.4	-89.69	4.5	-2,625.1	1,280.5	1,231.6	48.83	26.224		
11,210.0	11,078.9	11,198.9	11,121.3	37.3	13.4	-89.81	4.4	-2,624.9	1,280.2	1,231.4	48.84	26.215		
11,225.0	11,093.5	11,213.4	11,135.8	37.3	13.4	-90.00	4.3	-2,624.6	1,279.9	1,231.1	48.85	26.201		
11,250.0	11,117.5	11,233.9	11,156.4	37.3	13.4	-90.32	4.1	-2,624.2	1,279.4	1,230.6	48.87	26.181		
11,275.0	11,141.2	11,257.0	11,179.4	37.3	13.4	-90.70	4.0	-2,623.8	1,279.0	1,230.2	48.87	26.172		
11,300.0	11,164.4	11,297.7	11,220.1	37.3	13.4	-91.43	4.1	-2,622.5	1,278.3	1,229.5	48.81	26.188		
11,305.0	11,169.0	11,320.2	11,242.6	37.3	13.4	-91.84	4.4	-2,621.6	1,278.1	1,229.4	48.75	26.219		
11,325.0	11,187.2	11,334.4	11,256.8	37.3	13.4	-92.17	4.8	-2,621.0	1,277.5	1,228.7	48.77	26.196		
11,350.0	11,209.3	11,356.0	11,278.3	37.3	13.4	-92.66	5.8	-2,620.2	1,276.9	1,228.1	48.77	26.182		
11,375.0	11,230.8	11,356.0	11,278.3	37.3	13.4	-92.69	5.8	-2,620.2	1,276.6	1,227.8	48.85	26.134		
11,387.2	11,241.0	11,371.4	11,293.7	37.3	13.4	-93.03	6.8	-2,619.7	1,276.5	1,227.7	48.84	26.134		
11,400.0	11,251.6	11,377.6	11,299.9	37.3	13.4	-93.16	7.3	-2,619.6	1,276.5	1,227.7	48.87	26.123		
11,425.0	11,271.6	11,389.7	11,311.9	37.3	13.5	-93.40	8.6	-2,619.4	1,276.9	1,228.0	48.90	26.111		
11,450.0	11,290.9	11,403.0	11,325.1	37.3	13.5	-93.63	10.2	-2,619.3	1,277.6	1,228.7	48.93	26.112		
11,475.0	11,309.3	11,418.8	11,340.8	37.3	13.5	-93.90	12.5	-2,619.3	1,278.7	1,229.8	48.92	26.138		
11,495.0	11,323.3	11,432.9	11,354.7	37.3	13.5	-94.15	14.8	-2,619.3	1,279.8	1,230.9	48.90	26.169		
11,500.0	11,326.7	11,436.4	11,358.1	37.3	13.5	-94.21	15.4	-2,619.3	1,280.1	1,231.2	48.90	26.178		
11,525.0	11,343.2	11,455.3	11,376.7	37.3	13.5	-94.53	19.0	-2,619.5	1,281.7	1,232.9	48.87	26.230		
11,550.0	11,358.7	11,479.2	11,400.0	37.3	13.6	-94.97	24.2	-2,619.7	1,283.6	1,234.8	48.81	26.300		
11,575.0	11,373.2	11,657.6	11,561.7	37.3	14.0	-98.89	96.7	-2,614.6	1,284.3	1,235.8	48.50	26.483		
11,590.0	11,381.3	11,683.6	11,581.5	37.3	14.1	-99.25	113.5	-2,613.3	1,284.1	1,235.6	48.50	26.475		
11,600.0	11,386.6	11,694.8	11,589.3	37.3	14.2	-99.38	121.5	-2,612.8	1,284.0	1,235.5	48.52	26.463		
11,625.0	11,398.8	11,721.1	11,605.5	37.3	14.3	-99.59	142.2	-2,612.1	1,283.8	1,235.2	48.57	26.432		
11,650.0	11,409.9	11,753.9	11,621.2	37.3	14.4	-99.66	170.9	-2,612.1	1,283.8	1,235.1	48.63	26.401		
11,675.0	11,419.8	11,792.7	11,636.2	37.3	14.5	-99.65	206.7	-2,612.4	1,283.7	1,235.0	48.69	26.368		
11,680.5	11,421.8	11,801.3	11,639.1	37.3	14.5	-99.63	214.8	-2,612.5	1,283.7	1,235.0	48.70	26.360		
11,685.0	11,423.4	11,800.6	11,638.9	37.3	14.5	-99.64	214.1	-2,612.5	1,283.7	1,235.0	48.71	26.356		
11,700.0	11,428.5	11,814.2	11,643.3	37.4	14.5	-99.62	227.0	-2,612.7	1,283.8	1,235.1	48.74	26.340		
11,725.0	11,435.9	11,836.9	11,650.0	37.4	14.5	-99.57	248.6	-2,613.2	1,284.1	1,235.4	48.79	26.318		
11,750.0	11,442.1	11,859.5	11,655.9	37.4	14.6	-99.51	270.5	-2,613.9	1,284.8	1,235.9	48.85	26.302		
11,775.0	11,447.0	11,883.0	11,661.3	37.4	14.6	-99.44	293.3	-2,614.8	1,285.6	1,236.7	48.90	26.290		
11,780.0	11,447.8	11,883.0	11,661.3	37.4	14.6	-99.42	293.3	-2,614.8	1,285.8	1,236.9	48.90	26.295		
11,800.0	11,450.6	11,903.5	11,665.5	37.4	14.6	-99.35	313.4	-2,615.8	1,286.8	1,237.8	48.95	26.286		
11,825.0	11,452.9	11,924.8	11,669.4	37.4	14.6	-99.27	334.2	-2,616.9	1,288.2	1,239.2	49.01	26.287		
11,850.0	11,454.0	11,946.0	11,672.9	37.4	14.6	-99.17	355.1	-2,618.1	1,289.9	1,240.8	49.06	26.294		
11,856.9	11,454.0	11,951.8	11,673.8	37.4	14.6	-99.15	360.9	-2,618.4	1,290.4	1,241.3	49.07	26.298		
11,875.0	11,454.0	11,967.2	11,676.0	37.5	14.6	-99.24	376.1	-2,619.4	1,291.8	1,242.7	49.11	26.307		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP														Offset Site Error: 0.0 usft	
Survey Program: 100-Standard Keeper 104, 11215-r.5 MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Rule Assigned:		Offset Well Error: 3.0 usft					
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance				Warning		
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
11,900.0	11,454.0	11,997.3	11,679.8	37.5	14.6	-99.39	405.8	-2,621.5	1,293.8	1,244.6	49.19	26.301			
11,970.0	11,454.0	12,122.2	11,688.7	37.5	14.7	-99.74	530.2	-2,628.2	1,297.8	1,248.2	49.62	26.156			
12,000.0	11,454.0	12,183.3	11,690.3	37.6	14.7	-99.80	591.3	-2,629.7	1,298.4	1,248.6	49.83	26.055			
12,065.0	11,454.0	12,359.0	11,691.0	37.6	14.7	-99.86	766.9	-2,627.0	1,297.9	1,247.4	50.54	25.680			
12,100.0	11,454.0	12,378.5	11,691.3	37.7	14.7	-99.89	786.4	-2,625.8	1,295.5	1,244.8	50.67	25.569			
12,160.0	11,454.0	12,418.3	11,691.7	37.8	14.7	-99.92	826.1	-2,623.8	1,292.1	1,241.2	50.91	25.381			
12,200.0	11,454.0	12,449.0	11,692.0	37.8	14.8	-99.94	856.8	-2,622.7	1,290.4	1,239.3	51.08	25.261			
12,255.0	11,454.0	12,497.2	11,692.1	37.9	14.8	-99.96	905.0	-2,621.3	1,288.4	1,237.1	51.34	25.094			
12,300.0	11,454.0	12,541.6	11,691.8	38.0	14.8	-99.96	949.4	-2,620.2	1,286.8	1,235.2	51.57	24.951			
12,350.0	11,454.0	12,610.2	11,690.0	38.0	14.9	-99.90	1,017.9	-2,618.2	1,284.7	1,232.8	51.91	24.747			
12,400.0	11,454.0	12,670.6	11,686.8	38.1	15.0	-99.79	1,078.1	-2,615.9	1,281.9	1,229.7	52.23	24.542			
12,445.0	11,454.0	12,719.9	11,684.6	38.2	15.2	-99.71	1,127.3	-2,613.7	1,279.2	1,226.7	52.52	24.358			
12,500.0	11,454.0	12,758.3	11,683.4	38.3	15.3	-99.67	1,165.7	-2,612.0	1,276.1	1,223.3	52.81	24.162			
12,540.0	11,454.0	12,782.3	11,683.1	38.4	15.4	-99.67	1,189.7	-2,611.3	1,274.4	1,221.4	53.02	24.036			
12,600.0	11,454.0	12,826.0	11,683.5	38.5	15.7	-99.69	1,233.4	-2,610.5	1,272.8	1,219.5	53.36	23.855			
12,635.0	11,454.0	12,844.1	11,683.8	38.5	15.7	-99.71	1,251.4	-2,610.4	1,272.3	1,218.8	53.52	23.773			
12,700.0	11,454.0	12,896.8	11,684.5	38.7	16.0	-99.74	1,304.1	-2,610.5	1,272.0	1,218.1	53.90	23.598			
12,702.1	11,454.0	12,898.4	11,684.5	38.7	16.0	-99.74	1,305.8	-2,610.5	1,272.0	1,218.1	53.92	23.593			
12,730.0	11,454.0	12,922.3	11,684.6	38.7	16.1	-99.74	1,329.7	-2,610.8	1,272.1	1,218.0	54.09	23.517			
12,800.0	11,454.0	13,011.8	11,682.0	38.9	16.6	-99.63	1,419.1	-2,610.9	1,271.0	1,216.3	54.69	23.239			
12,825.0	11,454.0	13,037.9	11,680.9	38.9	16.7	-99.59	1,445.1	-2,610.8	1,270.5	1,215.6	54.90	23.143			
12,861.7	11,454.0	13,058.1	11,680.6	39.0	16.8	-99.57	1,465.4	-2,610.9	1,270.3	1,215.2	55.10	23.053			
12,900.0	11,454.0	13,079.3	11,680.8	39.1	16.9	-99.58	1,486.5	-2,611.2	1,270.5	1,215.2	55.31	22.971			
12,920.0	11,454.0	13,107.0	11,681.9	39.2	17.1	-99.63	1,514.2	-2,611.9	1,271.1	1,215.6	55.51	22.897			
13,000.0	11,454.0	13,188.1	11,684.1	39.4	17.5	-99.72	1,595.2	-2,613.8	1,272.6	1,216.5	56.14	22.671			
13,015.0	11,454.0	13,212.5	11,683.9	39.4	17.7	-99.71	1,619.7	-2,614.1	1,272.7	1,216.4	56.30	22.604			
13,020.6	11,454.0	13,221.6	11,683.7	39.4	17.7	-99.70	1,628.8	-2,614.2	1,272.7	1,216.3	56.37	22.578			
13,100.0	11,454.0	13,291.1	11,682.6	39.6	18.1	-99.65	1,698.2	-2,615.4	1,273.0	1,216.0	56.96	22.350			
13,110.0	11,454.0	13,296.0	11,682.5	39.6	18.1	-99.64	1,703.1	-2,615.5	1,273.0	1,216.0	57.01	22.329			
13,200.0	11,454.0	13,379.4	11,681.4	39.9	18.6	-99.59	1,786.5	-2,617.1	1,273.8	1,216.1	57.73	22.067			
13,205.0	11,454.0	13,383.8	11,681.4	39.9	18.6	-99.59	1,790.9	-2,617.2	1,273.9	1,216.1	57.77	22.053			
13,300.0	11,454.0	13,492.5	11,681.3	40.2	19.2	-99.57	1,899.6	-2,619.3	1,274.8	1,216.1	58.66	21.733			
13,395.0	11,454.0	13,610.7	11,681.0	40.4	19.9	-99.56	2,017.8	-2,620.0	1,274.6	1,214.9	59.62	21.377			
13,400.0	11,454.0	13,619.4	11,681.0	40.5	20.0	-99.56	2,026.5	-2,620.0	1,274.5	1,214.8	59.69	21.353			
13,490.0	11,454.0	13,784.9	11,680.1	40.7	21.0	-99.58	2,191.8	-2,613.6	1,270.2	1,209.3	60.84	20.878			
13,500.0	11,454.0	13,799.4	11,679.9	40.8	21.1	-99.58	2,206.3	-2,612.6	1,269.4	1,208.4	60.94	20.829			
13,585.0	11,454.0	13,863.0	11,678.6	41.0	21.5	-99.56	2,269.7	-2,607.7	1,262.2	1,200.5	61.66	20.471			
13,600.0	11,454.0	13,891.4	11,678.0	41.1	21.7	-99.56	2,298.0	-2,605.6	1,260.7	1,198.8	61.87	20.377			
13,680.0	11,454.0	13,932.0	11,677.9	41.3	22.0	-99.57	2,338.6	-2,603.5	1,256.0	1,193.4	62.51	20.092			
13,700.0	11,454.0	13,955.0	11,678.2	41.4	22.2	-99.59	2,361.6	-2,602.9	1,255.3	1,192.6	62.73	20.011			
13,775.0	11,454.0	13,991.5	11,678.8	41.7	22.4	-99.63	2,398.1	-2,602.4	1,253.4	1,190.1	63.28	19.807			
13,800.0	11,454.0	14,009.9	11,679.2	41.8	22.5	-99.64	2,416.4	-2,602.2	1,253.0	1,189.6	63.49	19.737			
13,870.0	11,454.0	14,084.6	11,680.5	42.0	23.0	-99.71	2,491.2	-2,602.3	1,252.7	1,188.5	64.21	19.510			
13,900.0	11,454.0	14,145.3	11,680.0	42.1	23.4	-99.70	2,551.8	-2,601.3	1,251.9	1,187.2	64.66	19.361			
13,965.0	11,454.0	14,172.2	11,679.9	42.3	23.6	-99.69	2,578.7	-2,601.0	1,250.5	1,185.3	65.16	19.190			
13,983.0	11,454.0	14,180.3	11,679.9	42.4	23.7	-99.70	2,586.9	-2,601.0	1,250.4	1,185.1	65.30	19.149 CC			
14,000.0	11,454.0	14,188.0	11,680.1	42.5	23.7	-99.70	2,594.6	-2,601.1	1,250.5	1,185.0	65.43	19.113			
14,060.0	11,454.0	14,236.0	11,682.2	42.7	24.1	-99.79	2,642.4	-2,602.7	1,252.1	1,186.1	66.02	18.966			
14,100.0	11,454.0	14,236.0	11,682.2	42.9	24.1	-99.79	2,642.4	-2,602.7	1,253.4	1,187.3	66.15	18.948			
14,155.0	11,454.0	14,281.9	11,685.0	43.1	24.4	-99.90	2,688.2	-2,605.2	1,256.4	1,189.8	66.64	18.853			
14,200.0	11,454.0	14,324.1	11,686.9	43.2	24.7	-99.97	2,730.3	-2,607.7	1,259.0	1,191.9	67.09	18.767			
14,250.0	11,454.0	14,393.4	11,688.0	43.4	25.1	-99.99	2,799.4	-2,611.7	1,261.6	1,193.8	67.76	18.618			

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11215-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference	Offset	Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
								+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,300.0	11,454.0	14,450.6	11,686.6	43.6	25.5	-99.91		2,856.5	-2,614.7	1,263.5	1,195.1	68.35	18.485	
14,345.0	11,454.0	14,491.4	11,685.7	43.8	25.8	-99.86		2,897.3	-2,616.8	1,265.2	1,196.4	68.81	18.388	
14,400.0	11,454.0	14,553.1	11,684.7	44.0	26.2	-99.79		2,958.9	-2,620.1	1,267.5	1,198.0	69.45	18.249	
14,440.0	11,454.0	14,609.3	11,682.9	44.2	26.5	-99.70		3,015.0	-2,622.6	1,268.6	1,198.6	70.00	18.122	
14,500.0	11,454.0	14,660.1	11,681.2	44.4	26.9	-99.61		3,065.7	-2,624.6	1,270.1	1,199.5	70.60	17.990	
14,535.0	11,454.0	14,688.8	11,680.6	44.6	27.1	-99.58		3,094.4	-2,625.9	1,271.3	1,200.3	70.95	17.919	
14,600.0	11,454.0	14,766.6	11,680.1	44.9	27.6	-99.53		3,172.1	-2,629.3	1,273.4	1,201.7	71.76	17.746	
14,630.0	11,454.0	14,808.4	11,680.0	45.0	27.9	-99.52		3,213.9	-2,630.5	1,274.0	1,201.9	72.17	17.653	
14,700.0	11,454.0	14,868.0	11,679.5	45.3	28.3	-99.49		3,273.4	-2,632.4	1,275.5	1,202.6	72.89	17.499	
14,725.0	11,454.0	14,895.0	11,679.0	45.4	28.5	-99.46		3,300.4	-2,633.4	1,276.1	1,202.9	73.18	17.437	
14,800.0	11,454.0	14,968.1	11,677.2	45.7	29.0	-99.37		3,373.4	-2,636.3	1,278.0	1,203.9	74.03	17.264	
14,820.0	11,454.0	14,991.2	11,676.6	45.8	29.1	-99.33		3,396.5	-2,637.1	1,278.4	1,204.2	74.28	17.212	
14,900.0	11,454.0	15,112.6	11,673.1	46.2	30.0	-99.18		3,517.9	-2,638.6	1,278.1	1,202.6	75.46	16.936	
14,915.0	11,454.0	15,125.3	11,672.9	46.3	30.1	-99.17		3,530.5	-2,638.6	1,277.9	1,202.3	75.62	16.898	
15,000.0	11,454.0	15,213.5	11,673.7	46.7	30.7	-99.21		3,618.7	-2,638.8	1,277.4	1,200.8	76.62	16.673	
15,010.0	11,454.0	15,228.6	11,673.8	46.7	30.8	-99.21		3,633.9	-2,638.7	1,277.3	1,200.5	76.76	16.640	
15,100.0	11,454.0	15,354.7	11,671.6	47.1	31.7	-99.14		3,759.9	-2,636.2	1,274.4	1,196.5	77.96	16.348	
15,105.0	11,454.0	15,361.4	11,671.5	47.1	31.7	-99.14		3,766.6	-2,636.0	1,274.2	1,196.2	78.02	16.331	
15,200.0	11,454.0	15,426.9	11,670.7	47.6	32.2	-99.12		3,832.1	-2,634.4	1,270.9	1,191.9	79.02	16.083	
15,295.0	11,454.0	15,513.8	11,671.8	48.0	32.8	-99.18		3,919.0	-2,633.8	1,269.5	1,189.4	80.11	15.848	
15,300.0	11,454.0	15,519.6	11,671.8	48.1	32.8	-99.18		3,924.7	-2,633.7	1,269.5	1,189.3	80.17	15.835	
15,390.0	11,454.0	15,598.4	11,672.5	48.5	33.4	-99.22		4,003.5	-2,633.1	1,268.1	1,186.9	81.19	15.619	
15,400.0	11,454.0	15,605.8	11,672.6	48.6	33.4	-99.23		4,011.0	-2,633.1	1,268.0	1,186.7	81.29	15.598	
15,428.2	11,454.0	15,626.8	11,673.0	48.7	33.6	-99.25		4,031.9	-2,633.1	1,267.9	1,186.3	81.59	15.540	
15,485.0	11,454.0	15,678.4	11,674.2	49.0	34.0	-99.30		4,083.6	-2,633.6	1,268.1	1,185.9	82.24	15.420	
15,500.0	11,454.0	15,694.3	11,674.5	49.1	34.1	-99.31		4,099.4	-2,633.8	1,268.2	1,185.8	82.43	15.386	
15,580.0	11,454.0	15,798.5	11,675.6	49.5	34.8	-99.36		4,203.6	-2,634.2	1,268.0	1,184.5	83.52	15.181	
15,600.0	11,454.0	15,830.5	11,675.4	49.6	35.0	-99.36		4,235.6	-2,633.9	1,267.6	1,183.8	83.82	15.122	
15,675.0	11,454.0	15,909.7	11,674.6	49.9	35.6	-99.34		4,314.8	-2,632.5	1,265.6	1,180.8	84.76	14.931	
15,700.0	11,454.0	15,930.0	11,674.5	50.1	35.7	-99.34		4,335.1	-2,632.1	1,264.8	1,179.8	85.04	14.873	
15,770.0	11,454.0	15,995.1	11,675.0	50.4	36.2	-99.37		4,400.2	-2,631.0	1,263.1	1,177.2	85.88	14.708	
15,800.0	11,454.0	16,023.0	11,675.7	50.6	36.4	-99.41		4,428.1	-2,630.6	1,262.5	1,176.3	86.24	14.640	
15,865.0	11,454.0	16,080.0	11,677.4	50.9	36.8	-99.49		4,485.1	-2,629.9	1,261.5	1,174.5	87.00	14.501	
15,900.0	11,454.0	16,111.9	11,678.1	51.1	37.0	-99.53		4,516.9	-2,629.7	1,261.1	1,173.7	87.41	14.427	
15,960.0	11,454.0	16,198.3	11,679.0	51.4	37.6	-99.59		4,603.3	-2,628.6	1,259.9	1,171.6	88.28	14.273	
16,000.0	11,454.0	16,253.2	11,678.7	51.6	38.0	-99.59		4,658.2	-2,627.1	1,258.4	1,169.6	88.83	14.167	
16,055.0	11,454.0	16,305.0	11,678.1	51.9	38.4	-99.58		4,710.0	-2,625.1	1,255.8	1,166.3	89.50	14.030	
16,100.0	11,454.0	16,339.0	11,677.8	52.2	38.7	-99.58		4,743.9	-2,624.0	1,253.9	1,163.9	90.04	13.926	
16,150.0	11,454.0	16,366.8	11,677.8	52.4	38.9	-99.58		4,771.7	-2,623.6	1,252.7	1,162.2	90.59	13.829	
16,200.0	11,454.0	16,400.0	11,678.0	52.7	39.1	-99.59		4,804.9	-2,623.7	1,252.5	1,161.4	91.14	13.742	
16,201.2	11,454.0	16,400.0	11,678.0	52.7	39.1	-99.59		4,804.9	-2,623.7	1,252.5	1,161.3	91.15	13.741	
16,245.0	11,454.0	16,446.4	11,678.3	52.9	39.5	-99.60		4,851.3	-2,624.2	1,252.6	1,160.9	91.72	13.657	
16,300.0	11,454.0	16,512.8	11,678.3	53.2	39.9	-99.61		4,917.7	-2,624.3	1,252.2	1,159.7	92.48	13.540	
16,340.0	11,454.0	16,552.7	11,678.1	53.5	40.2	-99.60		4,957.7	-2,624.2	1,251.7	1,158.7	92.99	13.461	
16,400.0	11,454.0	16,605.6	11,677.8	53.8	40.6	-99.60		5,010.5	-2,624.2	1,251.1	1,157.4	93.72	13.350	
16,423.4	11,454.0	16,622.2	11,678.0	53.9	40.7	-99.60		5,027.1	-2,624.3	1,251.1	1,157.1	93.98	13.312	
16,435.0	11,454.0	16,630.5	11,678.1	54.0	40.8	-99.61		5,035.4	-2,624.3	1,251.1	1,157.0	94.11	13.294	
16,500.0	11,454.0	16,683.0	11,680.1	54.3	41.2	-99.69		5,087.9	-2,625.1	1,251.8	1,156.9	94.86	13.195	
16,530.0	11,454.0	16,706.1	11,681.1	54.5	41.3	-99.74		5,111.0	-2,625.5	1,252.3	1,157.1	95.20	13.154	
16,600.0	11,454.0	16,783.9	11,682.1	54.9	41.9	-99.77		5,188.7	-2,627.3	1,253.4	1,157.2	96.16	13.035	
16,625.0	11,454.0	16,814.2	11,681.6	55.0	42.1	-99.75		5,219.0	-2,628.0	1,253.6	1,157.1	96.52	12.989	
16,700.0	11,454.0	16,896.2	11,679.1	55.5	42.7	-99.63		5,301.0	-2,629.4	1,253.8	1,156.3	97.54	12.855	

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11215-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Rule Assigned:								
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N-S	+E-W	Between	Between	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	Centres	Ellipses	(usft)			
									(usft)	(usft)				
16,720.0	11,454.0	16,914.2	11,678.5	55.6	42.8	-99.61	5,318.9	-2,629.7	1,253.9	1,156.1	97.79	12.822		
16,800.0	11,454.0	16,986.0	11,676.1	56.0	43.4	-99.49	5,390.7	-2,631.3	1,254.5	1,155.7	98.79	12.698		
16,815.0	11,454.0	16,999.4	11,675.7	56.1	43.5	-99.47	5,404.1	-2,631.6	1,254.6	1,155.6	98.98	12.676		
16,900.0	11,454.0	17,074.2	11,673.3	56.6	44.0	-99.35	5,478.8	-2,633.8	1,255.9	1,155.9	100.03	12.556		
16,910.0	11,454.0	17,082.3	11,673.0	56.7	44.1	-99.33	5,486.9	-2,634.1	1,256.1	1,156.0	100.15	12.543		
17,000.0	11,454.0	17,156.6	11,670.1	57.2	44.6	-99.18	5,561.1	-2,637.4	1,258.6	1,157.4	101.22	12.434		
17,005.0	11,454.0	17,163.9	11,669.8	57.2	44.7	-99.17	5,568.4	-2,637.8	1,258.8	1,157.5	101.31	12.425		
17,100.0	11,454.0	17,296.3	11,663.4	57.8	45.6	-98.86	5,700.6	-2,642.1	1,260.3	1,157.5	102.84	12.255		
17,195.0	11,454.0	17,395.1	11,663.2	58.3	46.4	-98.85	5,799.3	-2,642.8	1,260.0	1,155.9	104.12	12.102		
17,200.0	11,454.0	17,399.6	11,663.2	58.3	46.4	-98.85	5,803.8	-2,642.9	1,260.0	1,155.9	104.18	12.095		
17,201.4	11,454.0	17,400.8	11,663.2	58.4	46.4	-98.85	5,805.0	-2,642.9	1,260.0	1,155.8	104.20	12.093		
17,290.0	11,454.0	17,485.4	11,664.2	58.9	47.0	-98.90	5,889.6	-2,643.7	1,260.3	1,154.9	105.35	11.963		
17,300.0	11,454.0	17,495.4	11,664.5	58.9	47.1	-98.91	5,899.6	-2,643.8	1,260.3	1,154.8	105.48	11.948		
17,385.0	11,454.0	17,569.5	11,667.2	59.4	47.6	-99.03	5,973.6	-2,644.4	1,260.8	1,154.2	106.54	11.833		
17,400.0	11,454.0	17,581.2	11,667.8	59.5	47.7	-99.06	5,985.3	-2,644.6	1,261.0	1,154.3	106.72	11.816		
17,480.0	11,454.0	17,656.6	11,671.7	60.0	48.3	-99.23	6,060.6	-2,646.2	1,262.6	1,154.8	107.75	11.717		
17,500.0	11,454.0	17,681.3	11,672.9	60.1	48.5	-99.28	6,085.2	-2,646.6	1,262.9	1,154.8	108.05	11.688		
17,575.0	11,454.0	17,768.4	11,676.9	60.6	49.1	-99.46	6,172.2	-2,647.6	1,263.6	1,154.4	109.12	11.579		
17,600.0	11,454.0	17,796.4	11,678.0	60.7	49.3	-99.51	6,200.3	-2,647.7	1,263.7	1,154.2	109.48	11.543		
17,670.0	11,454.0	17,874.9	11,680.1	61.2	49.9	-99.60	6,278.7	-2,648.0	1,263.6	1,153.2	110.46	11.440		
17,700.0	11,454.0	17,908.3	11,680.3	61.3	50.1	-99.62	6,312.1	-2,648.1	1,263.4	1,152.6	110.88	11.395		
17,765.0	11,454.0	17,978.4	11,680.5	61.7	50.7	-99.63	6,382.2	-2,648.1	1,262.9	1,151.1	111.78	11.298		
17,800.0	11,454.0	18,024.7	11,680.5	61.9	51.0	-99.63	6,428.5	-2,647.9	1,262.4	1,150.1	112.31	11.241		
17,860.0	11,454.0	18,118.3	11,680.1	62.3	51.7	-99.64	6,522.1	-2,645.7	1,260.5	1,147.2	113.22	11.133		
17,900.0	11,454.0	18,184.9	11,678.7	62.6	52.2	-99.60	6,588.6	-2,642.7	1,258.2	1,144.4	113.79	11.057		
17,955.0	11,454.0	18,211.5	11,678.1	62.9	52.4	-99.58	6,615.2	-2,641.6	1,255.1	1,140.6	114.52	10.960		
18,000.0	11,454.0	18,234.9	11,677.6	63.2	52.6	-99.57	6,638.6	-2,641.0	1,253.5	1,138.4	115.08	10.892		
18,050.0	11,454.0	18,276.0	11,677.2	63.5	52.9	-99.55	6,679.6	-2,640.9	1,252.7	1,137.0	115.74	10.823		
18,076.0	11,454.0	18,276.0	11,677.2	63.6	52.9	-99.55	6,679.6	-2,640.9	1,252.5	1,136.5	115.98	10.800		
18,100.0	11,454.0	18,296.0	11,677.0	63.8	53.0	-99.54	6,699.6	-2,641.2	1,252.5	1,136.3	116.28	10.772		
18,145.0	11,454.0	18,338.5	11,675.8	64.1	53.3	-99.49	6,742.1	-2,641.9	1,252.7	1,135.8	116.88	10.718		
18,200.0	11,454.0	18,371.0	11,674.3	64.4	53.6	-99.42	6,774.6	-2,642.7	1,253.2	1,135.8	117.49	10.667		
18,240.0	11,454.0	18,409.2	11,672.9	64.7	53.9	-99.35	6,812.7	-2,643.9	1,253.9	1,135.9	118.03	10.623		
18,300.0	11,454.0	18,464.0	11,673.0	65.0	54.3	-99.34	6,867.5	-2,646.4	1,256.1	1,137.3	118.82	10.571		
18,335.0	11,454.0	18,464.0	11,673.0	65.3	54.3	-99.34	6,867.5	-2,646.4	1,257.6	1,138.6	118.99	10.569		
18,400.0	11,454.0	18,515.1	11,674.8	65.7	54.7	-99.40	6,918.5	-2,649.7	1,261.4	1,141.7	119.74	10.535		
18,430.0	11,454.0	18,536.0	11,675.7	65.8	54.8	-99.43	6,939.3	-2,651.2	1,263.6	1,143.5	120.05	10.526		
18,500.0	11,454.0	18,603.1	11,679.5	66.3	55.3	-99.56	7,006.1	-2,656.6	1,269.1	1,148.1	120.98	10.490		
18,525.0	11,454.0	18,633.0	11,681.2	66.4	55.5	-99.62	7,035.8	-2,658.8	1,271.0	1,149.6	121.38	10.471		
18,600.0	11,454.0	18,726.5	11,686.6	66.9	56.2	-99.82	7,129.0	-2,665.0	1,275.9	1,153.3	122.61	10.406		
18,620.0	11,454.0	18,752.1	11,688.3	67.0	56.4	-99.89	7,154.4	-2,666.4	1,277.1	1,154.1	122.94	10.388		
18,700.0	11,454.0	18,857.9	11,694.4	67.6	57.2	-100.13	7,259.9	-2,670.9	1,280.5	1,156.2	124.27	10.304		
18,715.0	11,454.0	18,875.9	11,695.3	67.7	57.3	-100.17	7,278.0	-2,671.5	1,281.0	1,156.5	124.51	10.289		
18,800.0	11,454.0	19,024.0	11,697.6	68.2	58.4	-100.26	7,425.9	-2,674.4	1,282.5	1,156.4	126.07	10.173		
18,810.0	11,454.0	19,048.6	11,696.0	68.3	58.6	-100.19	7,450.5	-2,674.3	1,282.2	1,156.0	126.26	10.155		
18,900.0	11,454.0	19,104.5	11,692.6	68.8	59.0	-100.04	7,506.2	-2,675.1	1,281.3	1,154.0	127.38	10.059		
18,905.0	11,454.0	19,108.3	11,692.4	68.9	59.1	-100.03	7,510.0	-2,675.1	1,281.3	1,153.9	127.44	10.054		
18,909.9	11,454.0	19,112.0	11,692.1	68.9	59.1	-100.02	7,513.8	-2,675.2	1,281.3	1,153.8	127.51	10.049		
19,000.0	11,454.0	19,199.9	11,686.7	69.5	59.8	-99.77	7,601.4	-2,677.1	1,281.5	1,152.7	128.76	9.953		
19,095.0	11,454.0	19,314.2	11,681.7	70.1	60.6	-99.55	7,715.6	-2,678.4	1,281.1	1,150.9	130.19	9.840		
19,100.0	11,454.0	19,320.4	11,681.6	70.1	60.7	-99.54	7,721.8	-2,678.4	1,281.0	1,150.7	130.26	9.834		
19,179.7	11,454.0	19,381.7	11,681.4	70.6	61.1	-99.53	7,783.1	-2,678.7	1,280.5	1,149.2	131.29	9.753		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11215-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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
19,190.0	11,454.0	19,389.9	11,681.6	70.7	61.2	-99.54	7,791.3	-2,678.7	1,280.5	1,149.1	131.42	9.743		
19,200.0	11,454.0	19,397.9	11,681.7	70.8	61.2	-99.55	7,799.2	-2,678.8	1,280.5	1,149.0	131.55	9.734		
19,285.0	11,454.0	19,474.4	11,684.4	71.3	61.8	-99.67	7,875.7	-2,679.6	1,281.2	1,148.5	132.69	9.655		
19,300.0	11,454.0	19,488.4	11,685.0	71.4	61.9	-99.69	7,889.7	-2,679.8	1,281.3	1,148.4	132.89	9.642		
19,380.0	11,454.0	19,561.2	11,688.1	71.9	62.5	-99.82	7,962.5	-2,680.9	1,282.4	1,148.4	133.96	9.572		
19,400.0	11,454.0	19,579.2	11,689.0	72.1	62.6	-99.86	7,980.4	-2,681.2	1,282.7	1,148.5	134.23	9.556		
19,475.0	11,454.0	19,679.8	11,694.1	72.6	63.3	-100.09	8,080.9	-2,682.4	1,283.7	1,148.2	135.44	9.478		
19,500.0	11,454.0	19,719.8	11,696.0	72.7	63.6	-100.17	8,120.8	-2,682.1	1,283.5	1,147.6	135.86	9.447		
19,570.0	11,454.0	19,793.8	11,698.4	73.2	64.2	-100.29	8,194.8	-2,681.3	1,282.5	1,145.6	136.86	9.371		
19,600.0	11,454.0	19,826.7	11,698.9	73.4	64.4	-100.32	8,227.7	-2,680.9	1,281.9	1,144.7	137.29	9.337		
19,665.0	11,454.0	19,876.7	11,699.3	73.8	64.8	-100.34	8,277.7	-2,680.6	1,281.1	1,143.0	138.15	9.274		
19,700.0	11,454.0	19,919.6	11,699.3	74.0	65.1	-100.34	8,320.6	-2,680.7	1,280.8	1,142.2	138.67	9.236		
19,760.0	11,454.0	20,003.9	11,696.6	74.4	65.8	-100.24	8,404.8	-2,679.8	1,279.3	1,139.7	139.60	9.164		
19,800.0	11,454.0	20,045.0	11,694.9	74.7	66.1	-100.17	8,445.9	-2,679.1	1,278.0	1,137.8	140.17	9.117		
19,855.0	11,454.0	20,105.6	11,692.5	75.1	66.5	-100.08	8,506.5	-2,677.9	1,276.1	1,135.1	140.96	9.053		
19,900.0	11,454.0	20,159.8	11,690.7	75.4	66.9	-100.02	8,560.6	-2,676.5	1,274.2	1,132.6	141.61	8.998		
19,950.0	11,454.0	20,200.2	11,689.7	75.7	67.2	-99.99	8,601.0	-2,675.2	1,272.1	1,129.8	142.30	8.939		
20,000.0	11,454.0	20,235.6	11,689.6	76.0	67.5	-99.99	8,636.4	-2,674.5	1,270.5	1,127.5	142.98	8.886		
20,045.0	11,454.0	20,267.0	11,690.1	76.3	67.7	-100.02	8,667.7	-2,674.0	1,269.6	1,126.0	143.57	8.843		
20,100.0	11,454.0	20,317.9	11,691.1	76.7	68.1	-100.07	8,718.6	-2,673.6	1,268.8	1,124.5	144.33	8.791		
20,140.0	11,454.0	20,354.4	11,691.6	77.0	68.4	-100.09	8,755.1	-2,673.4	1,268.4	1,123.5	144.89	8.754		
20,200.0	11,454.0	20,405.7	11,692.3	77.4	68.8	-100.13	8,806.4	-2,673.5	1,268.0	1,122.3	145.70	8.703		
20,219.3	11,454.0	20,422.1	11,692.5	77.5	68.9	-100.14	8,822.8	-2,673.5	1,268.0	1,122.1	145.96	8.688		
20,235.0	11,454.0	20,435.4	11,692.8	77.6	69.0	-100.15	8,836.1	-2,673.6	1,268.0	1,121.9	146.17	8.675		
20,300.0	11,454.0	20,508.7	11,694.2	78.0	69.5	-100.22	8,909.4	-2,674.1	1,268.1	1,121.0	147.13	8.619		
20,330.0	11,454.0	20,547.3	11,694.6	78.2	69.8	-100.24	8,948.0	-2,674.1	1,267.9	1,120.3	147.60	8.590		
20,400.0	11,454.0	20,626.5	11,694.7	78.7	70.4	-100.25	9,027.2	-2,673.6	1,266.8	1,118.2	148.63	8.523		
20,425.0	11,454.0	20,655.5	11,694.5	78.9	70.6	-100.25	9,056.2	-2,673.3	1,266.3	1,117.3	149.00	8.498		
20,500.0	11,454.0	20,746.3	11,693.5	79.4	71.3	-100.22	9,147.0	-2,671.7	1,264.2	1,114.1	150.11	8.421		
20,520.0	11,454.0	20,764.7	11,693.3	79.5	71.4	-100.22	9,165.4	-2,671.2	1,263.5	1,113.1	150.40	8.401		
20,600.0	11,454.0	20,843.6	11,692.8	80.0	72.0	-100.21	9,244.2	-2,669.4	1,260.9	1,109.3	151.54	8.321		
20,615.0	11,454.0	20,857.3	11,692.6	80.2	72.1	-100.21	9,257.9	-2,669.1	1,260.4	1,108.6	151.75	8.306		
20,700.0	11,454.0	20,928.0	11,691.0	80.7	72.7	-100.15	9,328.6	-2,668.0	1,258.0	1,105.1	152.92	8.226		
20,710.0	11,454.0	20,943.1	11,690.5	80.8	72.8	-100.13	9,343.7	-2,667.9	1,257.7	1,104.7	153.08	8.216		
20,800.0	11,454.0	21,022.0	11,688.2	81.4	73.4	-100.04	9,422.6	-2,667.5	1,256.0	1,101.7	154.34	8.138		
20,805.0	11,454.0	21,025.2	11,688.1	81.4	73.4	-100.03	9,425.7	-2,667.5	1,256.0	1,101.6	154.40	8.134		
20,900.0	11,454.0	21,119.2	11,685.7	82.1	74.1	-99.93	9,519.8	-2,667.5	1,254.7	1,098.9	155.76	8.055		
20,995.0	11,454.0	21,210.0	11,683.0	82.7	74.8	-99.82	9,610.5	-2,667.7	1,253.6	1,096.5	157.11	7.979		
21,000.0	11,454.0	21,210.0	11,683.0	82.8	74.8	-99.82	9,610.5	-2,667.7	1,253.6	1,096.4	157.16	7.976		
21,087.2	11,454.0	21,290.3	11,680.4	83.4	75.4	-99.70	9,690.7	-2,668.5	1,253.2	1,094.8	158.38	7.912		
21,090.0	11,454.0	21,292.7	11,680.3	83.4	75.4	-99.69	9,693.2	-2,668.6	1,253.2	1,094.8	158.42	7.910		
21,100.0	11,454.0	21,305.0	11,679.9	83.4	75.5	-99.67	9,705.4	-2,668.8	1,253.2	1,094.6	158.58	7.903		
21,185.0	11,454.0	21,398.0	11,678.4	84.0	76.2	-99.61	9,798.4	-2,669.6	1,253.0	1,093.1	159.84	7.839		
21,200.0	11,454.0	21,411.1	11,678.4	84.1	76.3	-99.61	9,811.5	-2,669.6	1,252.9	1,092.8	160.05	7.828		
21,249.7	11,454.0	21,452.8	11,678.5	84.5	76.6	-99.61	9,853.2	-2,669.8	1,252.7	1,092.0	160.73	7.794		
21,280.0	11,454.0	21,478.2	11,678.4	84.7	76.8	-99.61	9,878.6	-2,670.1	1,252.8	1,091.6	161.14	7.774		
21,300.0	11,454.0	21,495.0	11,678.4	84.8	76.9	-99.61	9,895.4	-2,670.4	1,252.9	1,091.5	161.41	7.762		
21,375.0	11,454.0	21,561.6	11,678.7	85.3	77.4	-99.62	9,962.0	-2,671.6	1,253.6	1,091.2	162.43	7.718		
21,400.0	11,454.0	21,583.7	11,679.1	85.5	77.6	-99.63	9,984.1	-2,672.0	1,254.0	1,091.2	162.78	7.704		
21,470.0	11,454.0	21,680.1	11,679.3	86.0	78.3	-99.64	10,080.5	-2,673.5	1,254.4	1,090.5	163.94	7.651		
21,485.3	11,454.0	21,702.0	11,678.9	86.1	78.5	-99.62	10,102.4	-2,673.6	1,254.3	1,090.1	164.20	7.639 ES		
21,500.0	11,454.0	21,684.0	11,679.2	86.2	78.3	-99.63	10,084.4	-2,673.5	1,254.5	1,090.3	164.22	7.639		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #4H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11215-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	
21,565.0	11,454.0	21,733.5	11,678.9	86.6	78.7	-99.61	10,133.8	-2,674.5	1,255.4	1,090.3	165.05	7.606		
21,600.0	11,454.0	21,752.2	11,679.0	86.9	78.9	-99.61	10,152.6	-2,675.3	1,256.5	1,091.1	165.41	7.597		
21,660.0	11,454.0	21,789.1	11,679.6	87.3	79.2	-99.63	10,189.3	-2,677.5	1,259.6	1,093.6	166.03	7.587		
21,700.0	11,454.0	21,829.3	11,680.4	87.6	79.5	-99.65	10,229.5	-2,680.1	1,262.0	1,095.4	166.61	7.574		
21,755.0	11,454.0	21,874.0	11,681.6	87.9	79.8	-99.68	10,274.1	-2,683.0	1,265.2	1,098.0	167.28	7.564		
21,800.0	11,454.0	21,914.3	11,682.8	88.3	80.1	-99.71	10,314.2	-2,685.8	1,268.1	1,100.3	167.87	7.554		
21,850.0	11,454.0	21,950.4	11,684.0	88.6	80.4	-99.75	10,350.2	-2,688.7	1,271.9	1,103.5	168.40	7.553 SF		
21,900.0	11,454.0	21,986.3	11,685.5	88.9	80.6	-99.79	10,386.0	-2,691.9	1,276.3	1,107.4	168.91	7.556		
21,918.8	11,454.0	21,999.8	11,686.1	89.1	80.7	-99.81	10,399.3	-2,693.2	1,278.0	1,108.9	169.09	7.558		

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 10837-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference	Offset	Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
								+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
7,300.0	7,175.5	7,462.4	7,383.9	30.9	8.9	16.26		343.4	-2,478.3	1,315.5	1,278.1	37.37	35.203	
7,315.0	7,190.3	7,477.5	7,398.8	31.0	8.9	16.23		341.6	-2,476.5	1,311.3	1,273.8	37.45	35.016	
7,400.0	7,274.5	7,564.2	7,484.2	31.4	9.0	16.02		331.4	-2,465.9	1,287.4	1,249.5	37.89	33.975	
7,410.0	7,284.4	7,573.6	7,493.5	31.4	9.0	16.00		330.3	-2,464.7	1,284.6	1,246.6	37.95	33.852	
7,500.0	7,373.6	7,662.8	7,581.3	31.8	9.2	15.75		319.2	-2,453.8	1,259.8	1,221.4	38.43	32.781	
7,505.0	7,378.6	7,667.0	7,585.5	31.8	9.2	15.74		318.7	-2,453.3	1,258.5	1,220.0	38.46	32.719	
7,600.0	7,472.9	7,757.8	7,674.8	32.2	9.3	15.46		307.3	-2,442.2	1,233.2	1,194.2	38.99	31.625	
7,695.0	7,567.3	7,840.6	7,756.4	32.6	9.5	15.17		296.6	-2,432.5	1,208.8	1,169.3	39.57	30.548	
7,700.0	7,572.2	7,844.8	7,760.5	32.6	9.5	15.15		296.0	-2,432.0	1,207.6	1,168.0	39.60	30.493	
7,790.0	7,661.7	7,932.6	7,846.9	33.0	9.6	14.81		284.6	-2,422.0	1,185.6	1,145.5	40.10	29.566	
7,800.0	7,671.7	7,941.1	7,855.4	33.0	9.6	14.78		283.4	-2,421.1	1,183.2	1,143.1	40.16	29.461	
7,885.0	7,756.3	8,013.4	7,926.6	33.4	9.7	14.47		273.9	-2,413.3	1,163.7	1,123.0	40.69	28.595	
7,900.0	7,771.2	8,025.0	7,938.0	33.4	9.8	14.42		272.4	-2,412.1	1,160.4	1,119.6	40.80	28.443	
7,980.0	7,850.9	8,091.0	8,003.2	33.8	9.9	14.15		264.1	-2,405.7	1,143.5	1,102.2	41.31	27.685	
8,000.0	7,870.8	8,109.5	8,021.5	33.8	9.9	14.07		261.9	-2,404.0	1,139.5	1,098.1	41.42	27.511	
8,075.0	7,945.6	8,175.0	8,086.3	34.1	10.0	13.80		254.2	-2,398.1	1,125.0	1,083.2	41.87	26.868	
8,100.0	7,970.5	8,193.9	8,104.9	34.2	10.0	13.73		252.0	-2,396.5	1,120.5	1,078.5	42.04	26.653	
8,170.0	8,040.3	8,257.5	8,168.0	34.5	10.1	13.49		245.4	-2,391.6	1,108.7	1,066.3	42.44	26.125	
8,200.0	8,070.2	8,300.0	8,210.2	34.6	10.2	13.35		241.2	-2,387.8	1,103.4	1,060.9	42.51	25.954	
8,265.0	8,135.1	8,350.0	8,259.8	34.8	10.2	13.21		236.9	-2,383.3	1,092.5	1,049.6	42.93	25.450	
8,300.0	8,170.0	8,375.0	8,284.6	34.9	10.3	13.15		235.2	-2,381.4	1,087.2	1,044.1	43.16	25.191	
8,360.0	8,229.9	8,410.9	8,320.4	35.1	10.3	13.10		233.3	-2,379.0	1,079.4	1,035.8	43.59	24.764	
8,400.0	8,269.9	8,488.2	8,397.5	35.3	10.4	12.99		229.2	-2,373.5	1,074.4	1,030.9	43.53	24.682	
8,455.0	8,324.8	8,544.5	8,453.3	35.5	10.5	12.88		225.5	-2,368.2	1,066.0	1,022.2	43.77	24.354	
8,500.0	8,369.8	8,626.4	8,534.5	35.6	10.6	12.70		219.4	-2,359.1	1,058.5	1,014.8	43.72	24.211	
8,550.0	8,419.8	8,694.1	8,601.4	35.8	10.7	12.52		213.8	-2,350.1	1,049.3	1,005.5	43.81	23.950	
8,600.0	8,469.7	8,745.3	8,651.8	35.9	10.8	12.37		209.3	-2,342.7	1,039.7	995.7	44.03	23.615	
8,645.0	8,514.7	8,783.3	8,689.3	36.1	10.9	12.22		205.4	-2,337.5	1,031.4	987.1	44.28	23.291	
8,700.0	8,569.7	8,825.0	8,730.4	36.2	10.9	12.04		201.0	-2,332.1	1,021.8	977.2	44.63	22.895	
8,740.0	8,609.7	8,857.4	8,762.3	36.3	11.0	11.88		197.2	-2,328.2	1,015.4	970.5	44.86	22.633	
8,800.0	8,669.7	8,900.0	8,804.4	36.5	11.1	11.63		192.0	-2,323.9	1,006.9	961.7	45.26	22.247	
8,835.0	8,704.7	8,945.7	8,849.5	36.6	11.2	11.40		186.9	-2,319.2	1,002.2	956.9	45.33	22.110	
8,900.0	8,769.7	9,015.0	8,918.0	36.7	11.3	11.11		180.2	-2,311.1	993.0	947.4	45.56	21.797	
8,930.0	8,799.7	9,049.1	8,951.8	36.8	11.3	10.98		177.2	-2,307.0	988.8	943.2	45.61	21.682	
8,962.8	8,832.5	9,077.4	8,979.7	36.8	11.4	-79.37		174.6	-2,303.6	984.3	938.6	45.73	21.525	
9,000.0	8,869.7	9,134.0	9,035.6	36.8	11.5	-79.62		169.0	-2,296.6	979.2	933.5	45.65	21.451	
9,025.0	8,894.7	9,163.8	9,064.9	36.8	11.5	-79.77		165.6	-2,292.5	975.3	929.6	45.66	21.358	
9,100.0	8,969.7	9,256.1	9,155.5	36.8	11.7	-80.32		153.9	-2,278.8	962.6	916.9	45.69	21.065	
9,120.0	8,989.7	9,275.0	9,173.9	36.8	11.8	-80.45		151.3	-2,275.9	959.1	913.3	45.75	20.963	
9,200.0	9,069.7	9,375.0	9,271.2	36.8	12.0	-81.26		135.3	-2,259.4	943.7	897.9	45.80	20.606	
9,215.0	9,084.7	9,386.3	9,282.2	36.8	12.0	-81.36		133.3	-2,257.5	940.8	894.9	45.87	20.510	
9,300.0	9,169.7	9,439.3	9,333.9	36.9	12.2	-81.83		124.4	-2,249.4	925.8	879.4	46.35	19.975	
9,310.0	9,179.7	9,450.0	9,344.3	36.9	12.2	-81.92		122.8	-2,247.9	924.2	877.8	46.37	19.932	
9,400.0	9,269.7	9,505.0	9,398.4	36.9	12.3	-82.36		114.9	-2,241.6	911.8	864.9	46.86	19.458	
9,405.0	9,274.7	9,509.5	9,402.8	36.9	12.3	-82.39		114.3	-2,241.1	911.2	864.3	46.87	19.438	
9,500.0	9,369.7	9,607.5	9,499.4	36.9	12.5	-83.11		101.6	-2,230.8	899.6	852.5	47.08	19.109	
9,595.0	9,464.7	9,684.9	9,575.7	36.9	12.7	-83.69		91.7	-2,222.5	888.2	840.7	47.44	18.723	
9,600.0	9,469.7	9,688.4	9,579.2	36.9	12.7	-83.71		91.3	-2,222.2	887.6	840.2	47.46	18.703	
9,690.0	9,559.7	9,756.5	9,646.6	36.9	12.8	-84.16		83.7	-2,216.8	879.4	831.5	47.82	18.387	
9,700.0	9,569.7	9,764.8	9,654.9	36.9	12.8	-84.22		82.8	-2,216.2	878.6	830.7	47.86	18.358	
9,785.0	9,654.7	9,830.8	9,720.4	37.0	12.9	-84.65		75.8	-2,212.3	872.7	824.5	48.18	18.114	
9,800.0	9,669.7	9,841.8	9,731.3	37.0	12.9	-84.72		74.7	-2,211.8	871.9	823.6	48.24	18.075	

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 10837-r.5 MWD+IFR1+MS								Rule Assigned:					Offset Well Error:	3.0 usft
Reference	Offset	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	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		
9,880.0	9,749.7	9,912.2	9,801.4	37.0	13.0	-85.11	68.6	-2,209.2	868.2	819.8	48.45	17.919		
9,900.0	9,769.7	9,930.5	9,819.6	37.0	13.0	-85.19	67.2	-2,208.5	867.4	818.9	48.50	17.885		
9,975.0	9,844.7	9,975.0	9,864.0	37.0	13.1	-85.39	64.2	-2,207.4	865.4	816.6	48.85	17.717		
9,989.8	9,859.4	9,986.4	9,875.4	37.0	13.1	-85.44	63.5	-2,207.4	865.3	816.4	48.89	17.700		
10,000.0	9,869.7	9,991.5	9,880.5	37.0	13.1	-85.46	63.1	-2,207.5	865.4	816.4	48.94	17.682		
10,070.0	9,939.7	10,058.9	9,947.8	37.0	13.1	-85.72	59.3	-2,208.8	866.4	817.4	49.04	17.669		
10,100.0	9,969.7	10,101.6	9,990.4	37.0	13.1	-85.86	57.2	-2,209.0	866.4	817.5	48.97	17.695		
10,165.0	10,034.7	10,195.6	10,084.2	37.0	13.2	-86.19	52.1	-2,207.5	865.3	816.5	48.80	17.729		
10,200.0	10,069.7	10,255.4	10,143.9	37.1	13.2	-86.45	48.0	-2,204.6	863.4	814.7	48.65	17.746		
10,260.0	10,129.7	10,311.2	10,199.3	37.1	13.3	-86.73	43.5	-2,201.0	859.2	810.5	48.77	17.618		
10,300.0	10,169.7	10,337.8	10,225.8	37.1	13.3	-86.87	41.4	-2,199.7	857.1	808.1	48.93	17.516		
10,355.0	10,224.7	10,382.4	10,270.3	37.1	13.3	-87.09	37.9	-2,198.1	854.9	805.8	49.08	17.418		
10,400.0	10,269.7	10,428.1	10,315.8	37.1	13.4	-87.34	34.2	-2,196.7	853.3	804.1	49.13	17.367		
10,450.0	10,319.7	10,470.3	10,357.8	37.1	13.4	-87.57	30.6	-2,195.5	851.8	802.5	49.26	17.292		
10,500.0	10,369.7	10,508.0	10,395.4	37.1	13.4	-87.79	27.4	-2,195.0	850.8	801.4	49.41	17.219		
10,538.1	10,407.8	10,536.5	10,423.8	37.1	13.4	-87.95	25.1	-2,194.9	850.6	801.0	49.53	17.173		
10,545.0	10,414.7	10,541.4	10,428.6	37.1	13.4	-87.97	24.7	-2,194.9	850.6	801.0	49.55	17.166		
10,600.0	10,469.7	10,588.9	10,476.0	37.1	13.5	-88.20	21.3	-2,195.4	851.0	801.4	49.66	17.136		
10,640.0	10,509.7	10,627.1	10,514.2	37.2	13.5	-88.35	19.0	-2,195.9	851.5	801.8	49.71	17.131		
10,700.0	10,569.7	10,685.9	10,572.9	37.2	13.5	-88.52	16.6	-2,196.7	852.3	802.5	49.75	17.130		
10,735.0	10,604.7	10,721.5	10,608.5	37.2	13.6	-88.60	15.4	-2,197.3	852.8	803.1	49.77	17.136		
10,800.0	10,669.7	10,781.5	10,668.5	37.2	13.6	-88.73	13.6	-2,198.5	854.0	804.2	49.83	17.139		
10,830.0	10,699.7	10,811.6	10,698.6	37.2	13.6	-88.78	12.8	-2,199.1	854.6	804.8	49.86	17.139		
10,900.0	10,769.7	10,877.9	10,764.8	37.2	13.6	-88.89	11.2	-2,200.5	856.1	806.2	49.92	17.151		
10,925.0	10,794.7	10,900.7	10,787.6	37.2	13.6	-88.93	10.7	-2,201.1	856.8	806.8	49.94	17.155		
11,000.0	10,869.7	10,979.2	10,866.0	37.2	13.7	-89.06	8.7	-2,203.3	858.8	808.8	49.99	17.178		
11,020.0	10,889.7	11,001.4	10,888.3	37.2	13.7	-89.09	8.2	-2,203.7	859.2	809.2	50.00	17.183		
11,106.9	10,976.5	11,084.7	10,971.5	37.3	13.8	-89.22	6.2	-2,205.6	861.1	811.0	50.10	17.186		
11,115.0	10,984.7	11,092.4	10,979.1	37.3	13.8	-88.70	6.1	-2,205.8	861.3	811.2	50.11	17.188		
11,125.0	10,994.7	11,101.8	10,988.5	37.3	13.8	-88.70	5.8	-2,206.0	861.5	811.4	50.12	17.189		
11,150.0	11,019.6	11,124.5	11,011.2	37.3	13.8	-88.74	5.5	-2,206.6	862.1	812.0	50.15	17.192		
11,175.0	11,044.4	11,147.0	11,033.8	37.3	13.8	-88.82	5.7	-2,207.3	862.8	812.6	50.18	17.194		
11,200.0	11,069.1	11,179.3	11,066.0	37.3	13.8	-89.03	6.9	-2,208.2	863.5	813.3	50.18	17.209		
11,210.0	11,078.9	11,194.0	11,080.7	37.3	13.8	-89.15	7.8	-2,208.4	863.6	813.5	50.17	17.215		
11,225.0	11,093.5	11,210.0	11,096.7	37.3	13.8	-89.30	9.0	-2,208.7	863.8	813.6	50.17	17.217		
11,250.0	11,117.5	11,232.1	11,118.6	37.3	13.9	-89.50	11.2	-2,209.0	864.2	814.0	50.19	17.216		
11,275.0	11,141.2	11,254.9	11,141.2	37.3	13.9	-89.73	14.4	-2,209.5	864.6	814.4	50.21	17.219		
11,300.0	11,164.4	11,279.5	11,165.4	37.3	13.9	-89.98	19.1	-2,210.0	865.0	814.8	50.22	17.226		
11,305.0	11,169.0	11,284.5	11,170.2	37.3	13.9	-90.03	20.2	-2,210.1	865.1	814.9	50.22	17.227		
11,325.0	11,187.2	11,302.5	11,187.7	37.3	14.0	-90.21	24.6	-2,210.5	865.5	815.3	50.23	17.231		
11,350.0	11,209.3	11,322.6	11,206.9	37.3	14.0	-90.37	30.5	-2,211.0	866.1	815.9	50.25	17.236		
11,375.0	11,230.8	11,343.4	11,226.3	37.3	14.0	-90.52	37.8	-2,211.7	866.9	816.7	50.27	17.245		
11,400.0	11,251.6	11,375.1	11,255.4	37.3	14.1	-90.81	50.4	-2,212.7	867.7	817.4	50.25	17.269		
11,425.0	11,271.6	11,405.8	11,283.0	37.3	14.1	-91.11	63.7	-2,213.4	868.3	818.1	50.23	17.287		
11,450.0	11,290.9	11,435.7	11,309.1	37.3	14.1	-91.41	78.4	-2,214.0	868.8	818.6	50.21	17.303		
11,475.0	11,309.3	11,477.1	11,344.0	37.3	14.2	-91.86	100.6	-2,214.4	869.0	818.9	50.16	17.324		
11,495.0	11,323.3	11,563.4	11,411.3	37.3	14.4	-92.63	154.3	-2,211.0	867.9	817.8	50.05	17.341		
11,500.0	11,326.7	11,569.2	11,415.4	37.3	14.4	-92.69	158.4	-2,210.6	867.5	817.5	50.05	17.333		
11,525.0	11,343.2	11,612.7	11,444.2	37.3	14.5	-92.96	190.8	-2,207.5	865.6	815.6	50.02	17.306		
11,550.0	11,358.7	11,712.7	11,492.7	37.3	14.6	-92.38	276.9	-2,195.9	862.3	812.4	49.83	17.304		
11,575.0	11,373.2	11,758.8	11,508.4	37.3	14.7	-92.16	319.6	-2,188.3	857.5	807.7	49.80	17.219		
11,590.0	11,381.3	11,769.7	11,511.3	37.3	14.7	-92.30	330.0	-2,186.6	854.6	804.8	49.84	17.147		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program:		100-Standard Keeper 104, 10837-r.5 MWD+IFR1+MS						Rule Assigned:				Offset Well Error:	3.0 usft	
Reference	Offset	Semi Major Axis						Distance				Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,600.0	11,386.6	11,781.0	11,514.0	37.3	14.7	-92.31	340.8	-2,184.8	852.8	802.9	49.85	17.106		
11,625.0	11,398.8	11,797.7	11,517.4	37.3	14.7	-92.53	357.0	-2,182.3	848.3	798.3	49.93	16.989		
11,650.0	11,409.9	11,805.0	11,518.5	37.3	14.7	-92.89	364.1	-2,181.2	844.1	794.0	50.04	16.867		
11,675.0	11,419.8	11,832.7	11,521.9	37.3	14.7	-92.84	391.4	-2,177.5	840.0	789.9	50.12	16.760		
11,685.0	11,423.4	11,839.4	11,522.5	37.3	14.7	-92.90	398.0	-2,176.7	838.5	788.3	50.16	16.716		
11,700.0	11,428.5	11,849.5	11,523.4	37.4	14.7	-92.99	408.0	-2,175.5	836.3	786.1	50.22	16.653		
11,725.0	11,435.9	11,866.4	11,524.5	37.4	14.7	-93.13	424.7	-2,173.6	832.9	782.6	50.32	16.552		
11,750.0	11,442.1	11,884.0	11,525.1	37.4	14.7	-93.26	442.2	-2,171.9	829.9	779.5	50.42	16.459		
11,775.0	11,447.0	11,884.0	11,525.1	37.4	14.7	-93.56	442.2	-2,171.9	827.4	776.9	50.53	16.373		
11,780.0	11,447.8	11,884.0	11,525.1	37.4	14.7	-93.60	442.2	-2,171.9	827.0	776.4	50.56	16.358		
11,800.0	11,450.6	11,913.2	11,525.9	37.4	14.7	-93.58	471.3	-2,169.5	824.9	774.2	50.67	16.280		
11,825.0	11,452.9	11,928.3	11,526.3	37.4	14.7	-93.75	486.4	-2,168.5	822.9	772.2	50.78	16.206		
11,850.0	11,454.0	11,943.4	11,526.7	37.4	14.7	-93.92	501.5	-2,167.7	821.4	770.5	50.89	16.140		
11,856.9	11,454.0	11,947.6	11,526.8	37.4	14.8	-93.97	505.6	-2,167.6	821.0	770.1	50.92	16.124		
11,875.0	11,454.0	11,958.6	11,527.1	37.5	14.8	-94.00	516.6	-2,167.1	820.2	769.2	50.99	16.084		
11,900.0	11,454.0	11,980.0	11,527.7	37.5	14.8	-94.04	538.0	-2,166.6	819.4	768.3	51.11	16.032		
11,970.0	11,454.0	12,037.0	11,528.3	37.5	14.8	-94.09	594.9	-2,165.8	817.7	766.4	51.33	15.929		
12,000.0	11,454.0	12,065.6	11,527.9	37.6	14.8	-94.06	623.6	-2,165.5	817.1	765.7	51.44	15.886		
12,065.0	11,454.0	12,130.1	11,526.1	37.6	14.9	-93.94	688.1	-2,165.0	815.9	764.2	51.69	15.783		
12,100.0	11,454.0	12,165.0	11,525.0	37.7	14.9	-93.87	723.0	-2,164.7	815.2	763.4	51.83	15.728		
12,160.0	11,454.0	12,223.2	11,523.1	37.8	15.0	-93.74	781.1	-2,164.3	814.2	762.1	52.10	15.628		
12,200.0	11,454.0	12,261.8	11,521.6	37.8	15.0	-93.64	819.7	-2,164.2	813.5	761.3	52.27	15.562		
12,255.0	11,454.0	12,306.8	11,520.0	37.9	15.1	-93.53	864.7	-2,164.3	813.0	760.5	52.53	15.477		
12,265.1	11,454.0	12,315.0	11,519.8	37.9	15.1	-93.51	872.8	-2,164.4	813.0	760.5	52.58	15.464		
12,300.0	11,454.0	12,343.3	11,519.2	38.0	15.2	-93.47	901.2	-2,164.8	813.2	760.4	52.74	15.420		
12,350.0	11,454.0	12,390.7	11,518.5	38.0	15.3	-93.42	948.6	-2,165.8	813.7	760.7	52.99	15.355		
12,400.0	11,454.0	12,441.2	11,517.4	38.1	15.5	-93.34	999.0	-2,166.9	814.3	761.0	53.26	15.288		
12,445.0	11,454.0	12,481.0	11,516.4	38.2	15.6	-93.27	1,038.8	-2,167.8	814.9	761.4	53.51	15.230		
12,500.0	11,454.0	12,527.8	11,515.7	38.3	15.8	-93.21	1,085.5	-2,169.3	816.1	762.3	53.80	15.170		
12,540.0	11,454.0	12,565.5	11,515.4	38.4	16.0	-93.18	1,123.2	-2,170.8	817.3	763.3	54.03	15.127		
12,600.0	11,454.0	12,628.6	11,514.5	38.5	16.2	-93.12	1,186.2	-2,173.2	819.0	764.6	54.41	15.052		
12,635.0	11,454.0	12,667.1	11,513.8	38.5	16.4	-93.06	1,224.8	-2,174.5	819.8	765.2	54.65	15.001		
12,700.0	11,454.0	12,733.0	11,512.5	38.7	16.7	-92.97	1,290.6	-2,176.4	821.0	765.9	55.08	14.905		
12,730.0	11,454.0	12,762.9	11,512.0	38.7	16.8	-92.93	1,320.4	-2,177.2	821.5	766.2	55.29	14.858		
12,800.0	11,454.0	12,827.0	11,512.0	38.9	17.1	-92.93	1,384.5	-2,179.6	823.5	767.7	55.75	14.772		
12,825.0	11,454.0	12,844.1	11,512.2	38.9	17.2	-92.94	1,401.6	-2,180.4	824.4	768.5	55.89	14.750		
12,900.0	11,454.0	12,919.1	11,513.5	39.1	17.5	-93.02	1,476.6	-2,183.9	827.2	770.8	56.42	14.661		
12,920.0	11,454.0	12,943.9	11,514.0	39.2	17.7	-93.05	1,501.3	-2,184.9	827.9	771.3	56.59	14.630		
13,000.0	11,454.0	13,038.6	11,514.7	39.4	18.2	-93.09	1,596.0	-2,187.7	829.5	772.3	57.26	14.488		
13,015.0	11,454.0	13,053.6	11,514.7	39.4	18.2	-93.09	1,611.0	-2,188.1	829.7	772.4	57.37	14.462		
13,100.0	11,454.0	13,136.6	11,514.6	39.6	18.7	-93.08	1,693.9	-2,190.0	831.0	772.9	58.03	14.320		
13,110.0	11,454.0	13,145.9	11,514.6	39.6	18.7	-93.08	1,703.2	-2,190.3	831.1	773.0	58.11	14.304		
13,200.0	11,454.0	13,234.9	11,514.7	39.9	19.2	-93.07	1,792.2	-2,192.8	832.9	774.1	58.83	14.158		
13,205.0	11,454.0	13,240.5	11,514.7	39.9	19.2	-93.08	1,797.7	-2,193.0	833.0	774.1	58.87	14.149		
13,300.0	11,454.0	13,346.0	11,515.2	40.2	19.8	-93.11	1,903.3	-2,195.1	834.1	774.4	59.71	13.969		
13,395.0	11,454.0	13,437.0	11,515.6	40.4	20.3	-93.13	1,994.2	-2,196.3	834.5	774.0	60.51	13.790		
13,400.0	11,454.0	13,441.2	11,515.6	40.5	20.4	-93.14	1,998.4	-2,196.3	834.5	774.0	60.55	13.782		
13,490.0	11,454.0	13,524.4	11,516.3	40.7	20.9	-93.18	2,081.6	-2,198.5	836.1	774.8	61.32	13.635		
13,500.0	11,454.0	13,534.8	11,516.3	40.8	20.9	-93.18	2,092.0	-2,198.8	836.3	774.9	61.41	13.618		
13,585.0	11,454.0	13,620.4	11,515.8	41.0	21.4	-93.14	2,177.6	-2,201.1	837.8	775.6	62.19	13.471		
13,600.0	11,454.0	13,635.1	11,515.7	41.1	21.5	-93.13	2,192.3	-2,201.5	838.0	775.7	62.33	13.446		
13,680.0	11,454.0	13,714.2	11,515.4	41.3	22.0	-93.10	2,271.3	-2,203.8	839.5	776.5	63.07	13.311		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 10837-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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)						
13,700.0	11,454.0	13,734.1	11,515.3	41.4	22.1	-93.09	2,291.2	-2,204.3	839.9	776.7	63.26	13.278		
13,775.0	11,454.0	13,811.7	11,515.2	41.7	22.6	-93.08	2,368.8	-2,206.5	841.3	777.3	63.99	13.148		
13,800.0	11,454.0	13,838.5	11,514.9	41.8	22.8	-93.06	2,395.6	-2,207.2	841.7	777.5	64.24	13.103		
13,870.0	11,454.0	13,905.3	11,513.6	42.0	23.2	-92.96	2,462.3	-2,208.8	842.7	777.8	64.91	12.982		
13,900.0	11,454.0	13,932.1	11,513.0	42.1	23.3	-92.92	2,489.1	-2,209.6	843.3	778.1	65.19	12.936		
13,965.0	11,454.0	13,991.1	11,511.6	42.3	23.7	-92.82	2,548.1	-2,211.7	845.0	779.1	65.81	12.839		
14,000.0	11,454.0	14,023.3	11,510.9	42.5	23.9	-92.77	2,580.2	-2,213.0	846.0	779.9	66.15	12.789		
14,060.0	11,454.0	14,085.9	11,509.7	42.7	24.3	-92.69	2,642.8	-2,215.7	848.0	781.2	66.78	12.698		
14,100.0	11,454.0	14,132.1	11,508.7	42.9	24.6	-92.61	2,689.0	-2,217.3	849.0	781.8	67.23	12.629		
14,155.0	11,454.0	14,195.9	11,506.9	43.1	25.0	-92.49	2,752.7	-2,219.1	849.9	782.1	67.84	12.528		
14,200.0	11,454.0	14,245.7	11,505.0	43.2	25.3	-92.36	2,802.4	-2,220.0	850.2	781.9	68.34	12.442		
14,250.0	11,454.0	14,290.9	11,503.6	43.4	25.6	-92.27	2,847.6	-2,220.8	850.7	781.8	68.85	12.356		
14,300.0	11,454.0	14,337.3	11,503.1	43.6	25.9	-92.23	2,894.0	-2,221.9	851.4	782.0	69.36	12.275		
14,345.0	11,454.0	14,387.1	11,502.9	43.8	26.3	-92.21	2,943.8	-2,223.0	852.0	782.1	69.86	12.196		
14,400.0	11,454.0	14,447.5	11,502.3	44.0	26.7	-92.17	3,004.2	-2,224.0	852.3	781.9	70.47	12.095		
14,440.0	11,454.0	14,490.7	11,502.1	44.2	27.0	-92.16	3,047.3	-2,224.5	852.4	781.5	70.91	12.021		
14,500.0	11,454.0	14,553.6	11,502.3	44.4	27.4	-92.17	3,110.3	-2,224.9	852.3	780.7	71.57	11.909		
14,535.0	11,454.0	14,589.4	11,502.9	44.6	27.6	-92.21	3,146.0	-2,225.1	852.1	780.2	71.95	11.844		
14,600.0	11,454.0	14,654.5	11,505.3	44.9	28.0	-92.37	3,211.1	-2,225.3	851.8	779.2	72.64	11.726		
14,630.0	11,454.0	14,684.2	11,506.6	45.0	28.2	-92.46	3,240.8	-2,225.3	851.7	778.7	72.97	11.673		
14,675.0	11,454.0	14,725.8	11,508.8	45.2	28.5	-92.61	3,282.3	-2,225.5	851.6	778.1	73.44	11.596		
14,700.0	11,454.0	14,747.0	11,510.1	45.3	28.7	-92.70	3,303.4	-2,225.7	851.6	777.9	73.69	11.556		
14,725.0	11,454.0	14,768.1	11,511.5	45.4	28.8	-92.79	3,324.6	-2,225.9	851.8	777.8	73.95	11.519		
14,800.0	11,454.0	14,848.7	11,517.3	45.7	29.4	-93.18	3,405.0	-2,227.3	852.6	777.9	74.78	11.402		
14,820.0	11,454.0	14,875.9	11,519.0	45.8	29.5	-93.30	3,432.0	-2,227.4	852.6	777.6	75.03	11.364		
14,900.0	11,454.0	14,993.3	11,523.6	46.2	30.4	-93.62	3,549.3	-2,225.0	850.5	774.5	76.00	11.191		
14,915.0	11,454.0	15,015.9	11,523.8	46.3	30.5	-93.64	3,571.9	-2,224.0	849.7	773.5	76.17	11.155		
15,000.0	11,454.0	15,127.0	11,521.3	46.7	31.3	-93.51	3,682.8	-2,216.5	843.0	765.8	77.12	10.931		
15,010.0	11,454.0	15,137.9	11,521.0	46.7	31.4	-93.49	3,693.6	-2,215.6	842.1	764.8	77.23	10.903		
15,100.0	11,454.0	15,217.8	11,518.8	47.1	31.9	-93.37	3,773.2	-2,209.3	834.1	755.8	78.29	10.654		
15,105.0	11,454.0	15,221.5	11,518.8	47.1	31.9	-93.36	3,776.9	-2,209.1	833.7	755.3	78.35	10.640		
15,200.0	11,454.0	15,296.2	11,519.1	47.6	32.5	-93.41	3,851.5	-2,205.0	827.6	748.1	79.47	10.414		
15,295.0	11,454.0	15,386.7	11,521.6	48.0	33.1	-93.60	3,941.9	-2,201.5	823.3	742.7	80.57	10.218		
15,300.0	11,454.0	15,394.5	11,521.8	48.1	33.1	-93.61	3,949.7	-2,201.2	823.0	742.4	80.62	10.208		
15,390.0	11,454.0	15,493.4	11,521.0	48.5	33.8	-93.58	4,048.4	-2,195.5	816.9	735.2	81.70	9.998		
15,400.0	11,454.0	15,500.4	11,521.0	48.6	33.9	-93.58	4,055.3	-2,195.1	816.3	734.4	81.82	9.976		
15,485.0	11,454.0	15,566.4	11,522.2	49.0	34.4	-93.68	4,121.3	-2,192.9	812.6	729.7	82.84	9.810		
15,500.0	11,454.0	15,588.2	11,522.6	49.1	34.5	-93.72	4,143.1	-2,192.2	812.0	729.0	83.02	9.781		
15,580.0	11,454.0	15,680.7	11,521.8	49.5	35.2	-93.68	4,235.5	-2,187.7	807.3	723.3	83.98	9.612		
15,600.0	11,454.0	15,697.4	11,521.5	49.6	35.3	-93.67	4,252.2	-2,186.9	806.1	721.9	84.23	9.571		
15,675.0	11,454.0	15,762.5	11,521.2	49.9	35.7	-93.66	4,317.2	-2,184.4	802.5	717.4	85.13	9.427		
15,700.0	11,454.0	15,786.4	11,521.2	50.1	35.9	-93.67	4,341.1	-2,183.6	801.5	716.0	85.43	9.381		
15,770.0	11,454.0	15,855.8	11,521.2	50.4	36.4	-93.68	4,410.4	-2,181.4	798.7	712.4	86.28	9.256		
15,800.0	11,454.0	15,888.7	11,521.2	50.6	36.6	-93.68	4,443.3	-2,180.3	797.4	710.7	86.65	9.202		
15,865.0	11,454.0	15,949.5	11,521.0	50.9	37.1	-93.69	4,504.1	-2,178.1	794.4	706.9	87.45	9.084		
15,900.0	11,454.0	15,973.6	11,521.1	51.1	37.2	-93.69	4,528.2	-2,177.5	793.3	705.4	87.87	9.027		
15,960.0	11,454.0	16,025.0	11,521.5	51.4	37.6	-93.73	4,579.6	-2,177.4	792.5	703.9	88.61	8.944		
15,971.8	11,454.0	16,025.0	11,521.5	51.5	37.6	-93.73	4,579.6	-2,177.4	792.4	703.7	88.72	8.932		
16,000.0	11,454.0	16,048.0	11,521.8	51.6	37.8	-93.75	4,602.5	-2,177.7	792.6	703.5	89.04	8.901		
16,055.0	11,454.0	16,097.7	11,522.4	51.9	38.1	-93.79	4,652.2	-2,178.6	793.1	703.4	89.70	8.842		
16,100.0	11,454.0	16,144.9	11,522.8	52.2	38.5	-93.82	4,699.4	-2,179.7	793.7	703.5	90.27	8.793		
16,150.0	11,454.0	16,205.3	11,523.0	52.4	38.9	-93.83	4,759.8	-2,180.4	793.9	703.0	90.94	8.730		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 10837-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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)						
16,192.2	11,454.0	16,245.4	11,523.0	52.7	39.2	-93.83	4,800.0	-2,180.7	793.8	702.4	91.46	8.679		
16,200.0	11,454.0	16,252.5	11,523.0	52.7	39.3	-93.83	4,807.0	-2,180.8	793.8	702.3	91.56	8.670		
16,245.0	11,454.0	16,292.9	11,523.2	52.9	39.5	-93.84	4,847.5	-2,181.3	794.0	701.9	92.10	8.621		
16,300.0	11,454.0	16,353.2	11,523.5	53.2	40.0	-93.86	4,907.7	-2,182.1	794.3	701.5	92.82	8.558		
16,340.0	11,454.0	16,400.2	11,523.7	53.5	40.3	-93.88	4,954.7	-2,182.3	794.1	700.8	93.35	8.507		
16,367.3	11,454.0	16,418.6	11,523.8	53.6	40.5	-93.89	4,973.2	-2,182.4	794.0	700.4	93.67	8.477		
16,400.0	11,454.0	16,439.8	11,523.9	53.8	40.6	-93.89	4,994.3	-2,182.8	794.3	700.3	94.04	8.447		
16,435.0	11,454.0	16,462.4	11,524.0	54.0	40.8	-93.89	5,016.9	-2,183.6	795.2	700.8	94.42	8.422		
16,500.0	11,454.0	16,508.0	11,524.1	54.3	41.1	-93.89	5,062.5	-2,186.2	798.2	703.1	95.11	8.393		
16,530.0	11,454.0	16,535.9	11,523.9	54.5	41.3	-93.87	5,090.3	-2,188.0	800.0	704.5	95.47	8.379		
16,600.0	11,454.0	16,602.5	11,522.5	54.9	41.8	-93.75	5,156.7	-2,192.9	804.3	708.0	96.35	8.348		
16,625.0	11,454.0	16,629.0	11,521.6	55.0	42.0	-93.68	5,183.1	-2,194.8	805.9	709.2	96.69	8.334		
16,700.0	11,454.0	16,723.2	11,516.4	55.5	42.7	-93.28	5,277.0	-2,201.2	810.1	712.2	97.87	8.277		
16,720.0	11,454.0	16,758.0	11,514.1	55.6	43.0	-93.12	5,311.7	-2,202.6	810.7	712.4	98.25	8.251		
16,800.0	11,454.0	16,846.7	11,508.7	56.0	43.6	-92.73	5,400.2	-2,204.6	811.5	712.1	99.36	8.167		
16,815.0	11,454.0	16,861.8	11,507.8	56.1	43.7	-92.67	5,415.2	-2,204.9	811.6	712.0	99.56	8.152		
16,900.0	11,454.0	16,962.2	11,502.9	56.6	44.5	-92.32	5,515.5	-2,206.1	811.7	710.9	100.74	8.057		
16,910.0	11,454.0	16,975.4	11,502.3	56.7	44.6	-92.28	5,528.7	-2,206.1	811.6	710.7	100.88	8.045		
17,000.0	11,454.0	17,084.5	11,499.0	57.2	45.4	-92.06	5,637.7	-2,203.8	808.6	706.5	102.09	7.920		
17,005.0	11,454.0	17,088.5	11,499.0	57.2	45.4	-92.05	5,641.7	-2,203.7	808.4	706.3	102.16	7.913		
17,100.0	11,454.0	17,166.5	11,498.5	57.8	46.0	-92.03	5,719.7	-2,202.6	806.1	702.7	103.39	7.797		
17,195.0	11,454.0	17,250.0	11,499.2	58.3	46.6	-92.08	5,803.2	-2,202.1	804.8	700.2	104.60	7.694		
17,200.0	11,454.0	17,250.0	11,499.2	58.3	46.6	-92.08	5,803.2	-2,202.1	804.8	700.1	104.65	7.690		
17,200.5	11,454.0	17,262.5	11,499.4	58.4	46.7	-92.09	5,815.7	-2,202.0	804.7	700.0	104.70	7.686		
17,290.0	11,454.0	17,328.6	11,501.2	58.9	47.1	-92.22	5,881.7	-2,202.9	805.1	699.4	105.78	7.611		
17,300.0	11,454.0	17,343.0	11,501.9	58.9	47.3	-92.27	5,896.1	-2,203.3	805.4	699.5	105.94	7.602		
17,385.0	11,454.0	17,467.0	11,503.5	59.4	48.2	-92.39	6,020.1	-2,202.8	804.2	697.0	107.18	7.503		
17,400.0	11,454.0	17,481.0	11,503.4	59.5	48.3	-92.38	6,034.0	-2,202.5	803.7	696.3	107.38	7.485		
17,480.0	11,454.0	17,556.9	11,501.9	60.0	48.8	-92.28	6,109.9	-2,201.0	801.3	692.9	108.45	7.389		
17,500.0	11,454.0	17,576.5	11,501.4	60.1	49.0	-92.25	6,129.5	-2,200.6	800.8	692.1	108.71	7.366		
17,575.0	11,454.0	17,650.8	11,499.2	60.6	49.5	-92.10	6,203.8	-2,199.4	798.8	689.1	109.72	7.280		
17,600.0	11,454.0	17,676.0	11,498.5	60.7	49.7	-92.05	6,229.0	-2,199.0	798.1	688.1	110.06	7.252		
17,670.0	11,454.0	17,745.9	11,496.5	61.2	50.2	-91.91	6,298.8	-2,197.8	796.2	685.2	111.00	7.173		
17,700.0	11,454.0	17,775.6	11,495.5	61.3	50.4	-91.84	6,328.5	-2,197.4	795.5	684.0	111.40	7.140		
17,765.0	11,454.0	17,836.7	11,493.5	61.7	50.9	-91.70	6,389.5	-2,196.5	793.8	681.6	112.28	7.070		
17,800.0	11,454.0	17,867.8	11,493.1	61.9	51.1	-91.67	6,420.7	-2,196.2	793.2	680.4	112.75	7.035		
17,860.0	11,454.0	17,922.8	11,493.5	62.3	51.5	-91.70	6,475.7	-2,196.0	792.4	678.9	113.54	6.979		
17,900.0	11,454.0	17,961.6	11,494.3	62.6	51.8	-91.76	6,514.5	-2,195.9	792.1	678.0	114.07	6.943		
17,955.0	11,454.0	18,015.6	11,495.8	62.9	52.2	-91.87	6,568.4	-2,196.0	791.7	676.8	114.81	6.895		
18,000.0	11,454.0	18,060.9	11,497.3	63.2	52.5	-91.98	6,613.7	-2,196.0	791.3	675.9	115.41	6.857		
18,050.0	11,454.0	18,111.4	11,499.0	63.5	52.9	-92.10	6,664.2	-2,196.0	790.9	674.9	116.08	6.814		
18,100.0	11,454.0	18,162.4	11,500.9	63.8	53.3	-92.24	6,715.1	-2,196.0	790.5	673.7	116.75	6.771		
18,145.0	11,454.0	18,206.7	11,502.6	64.1	53.6	-92.36	6,759.5	-2,195.9	790.1	672.7	117.35	6.733		
18,200.0	11,454.0	18,259.4	11,505.0	64.4	54.0	-92.54	6,812.0	-2,195.9	789.7	671.6	118.08	6.688		
18,240.0	11,454.0	18,300.2	11,507.0	64.7	54.3	-92.68	6,852.8	-2,196.0	789.5	670.9	118.62	6.656		
18,300.0	11,454.0	18,364.9	11,510.2	65.0	54.8	-92.92	6,917.5	-2,195.8	788.9	669.5	119.43	6.606		
18,335.0	11,454.0	18,394.4	11,511.6	65.3	55.0	-93.02	6,946.9	-2,195.7	788.6	668.7	119.89	6.577		
18,354.7	11,454.0	18,410.0	11,512.2	65.4	55.1	-93.07	6,962.5	-2,195.8	788.5	668.4	120.15	6.563		
18,400.0	11,454.0	18,445.7	11,513.4	65.7	55.4	-93.15	6,998.2	-2,196.2	788.8	668.1	120.72	6.534		
18,430.0	11,454.0	18,471.1	11,513.9	65.8	55.6	-93.19	7,023.6	-2,196.8	789.3	668.2	121.11	6.517		
18,500.0	11,454.0	18,554.6	11,515.8	66.3	56.2	-93.32	7,107.1	-2,198.3	789.9	667.8	122.13	6.468		
18,525.0	11,454.0	18,582.5	11,516.5	66.4	56.4	-93.38	7,134.9	-2,198.5	789.9	667.4	122.48	6.450		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 10837-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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)						
18,600.0	11,454.0	18,655.0	11,518.7	66.9	56.9	-93.54	7,207.4	-2,198.5	789.4	665.9	123.49	6.393		
18,620.0	11,454.0	18,675.4	11,519.3	67.0	57.1	-93.58	7,227.8	-2,198.5	789.3	665.5	123.77	6.377		
18,620.3	11,454.0	18,675.6	11,519.3	67.0	57.1	-93.58	7,228.0	-2,198.5	789.3	665.5	123.77	6.377		
18,620.3	11,454.0	18,675.6	11,519.3	67.0	57.1	-93.58	7,228.0	-2,198.5	789.3	665.5	123.77	6.377		
18,700.0	11,454.0	18,732.4	11,520.1	67.6	57.5	-93.63	7,284.7	-2,199.8	790.5	665.7	124.75	6.337		
18,715.0	11,454.0	18,749.0	11,520.1	67.7	57.6	-93.63	7,301.3	-2,200.5	791.0	666.0	124.97	6.329		
18,800.0	11,454.0	18,823.1	11,519.8	68.2	58.2	-93.60	7,375.4	-2,204.1	794.2	668.2	126.06	6.301		
18,810.0	11,454.0	18,832.8	11,519.7	68.3	58.2	-93.59	7,385.0	-2,204.6	794.7	668.5	126.20	6.297		
18,900.0	11,454.0	18,933.8	11,518.4	68.8	59.0	-93.48	7,485.9	-2,209.2	797.8	670.3	127.54	6.255		
18,905.0	11,454.0	18,939.5	11,518.2	68.9	59.0	-93.47	7,491.6	-2,209.4	797.9	670.3	127.62	6.253		
19,000.0	11,454.0	19,024.8	11,516.4	69.5	59.7	-93.33	7,576.8	-2,213.1	801.0	672.2	128.87	6.216		
19,095.0	11,454.0	19,107.0	11,515.8	70.1	60.3	-93.27	7,658.8	-2,217.6	805.4	675.4	130.07	6.193		
19,100.0	11,454.0	19,111.3	11,515.8	70.1	60.3	-93.27	7,663.1	-2,217.9	805.7	675.6	130.13	6.192		
19,190.0	11,454.0	19,196.7	11,516.5	70.7	61.0	-93.29	7,748.3	-2,223.7	811.0	679.7	131.33	6.175		
19,200.0	11,454.0	19,206.4	11,516.6	70.8	61.0	-93.30	7,758.0	-2,224.4	811.6	680.1	131.47	6.174		
19,285.0	11,454.0	19,286.8	11,517.4	71.3	61.6	-93.33	7,838.2	-2,230.2	817.0	684.4	132.60	6.162		
19,300.0	11,454.0	19,300.9	11,517.6	71.4	61.7	-93.34	7,852.3	-2,231.2	818.0	685.2	132.80	6.160		
19,380.0	11,454.0	19,370.8	11,518.7	71.9	62.3	-93.40	7,922.0	-2,236.9	823.8	690.1	133.77	6.158		
19,400.0	11,454.0	19,387.9	11,519.0	72.1	62.4	-93.41	7,939.0	-2,238.4	825.5	691.4	134.01	6.160		
19,475.0	11,454.0	19,457.7	11,519.8	72.6	62.9	-93.45	8,008.5	-2,245.1	832.0	697.0	134.99	6.163		
19,500.0	11,454.0	19,481.9	11,519.7	72.7	63.1	-93.43	8,032.6	-2,247.5	834.2	698.9	135.33	6.164		
19,570.0	11,454.0	19,585.4	11,515.7	73.2	63.9	-93.12	8,135.5	-2,256.3	839.6	702.8	136.79	6.138		
19,600.0	11,454.0	19,628.6	11,511.9	73.4	64.2	-92.86	8,178.5	-2,258.7	840.8	703.4	137.35	6.121		
19,665.0	11,454.0	19,722.1	11,502.1	73.8	64.9	-92.18	8,271.4	-2,261.8	842.1	703.6	138.47	6.082		
19,700.0	11,454.0	19,782.8	11,495.6	74.0	65.4	-91.74	8,331.8	-2,261.7	841.6	702.6	139.02	6.054		
19,760.0	11,454.0	19,864.6	11,488.2	74.4	66.0	-91.25	8,413.2	-2,259.2	839.0	699.2	139.82	6.001		
19,800.0	11,454.0	19,908.4	11,485.5	74.7	66.3	-91.07	8,456.9	-2,257.0	836.7	696.3	140.37	5.961		
19,855.0	11,454.0	19,961.1	11,484.2	75.1	66.7	-90.98	8,509.5	-2,254.5	833.5	692.3	141.15	5.905		
19,900.0	11,454.0	20,011.7	11,484.4	75.4	67.1	-91.00	8,560.0	-2,252.0	830.9	689.1	141.75	5.862		
19,950.0	11,454.0	20,073.0	11,484.2	75.7	67.5	-90.98	8,621.2	-2,248.2	827.3	685.0	142.36	5.812		
20,000.0	11,454.0	20,119.2	11,484.5	76.0	67.9	-91.01	8,667.3	-2,245.2	823.6	680.5	143.09	5.756		
20,045.0	11,454.0	20,160.7	11,486.1	76.3	68.2	-91.13	8,708.6	-2,242.6	820.4	676.7	143.74	5.708		
20,100.0	11,454.0	20,222.8	11,489.4	76.7	68.6	-91.36	8,770.6	-2,238.6	816.5	672.0	144.44	5.652		
20,140.0	11,454.0	20,269.2	11,491.4	77.0	69.0	-91.51	8,816.8	-2,235.2	813.2	668.3	144.93	5.611		
20,200.0	11,454.0	20,313.5	11,493.6	77.4	69.3	-91.67	8,861.0	-2,232.3	808.8	662.8	145.91	5.543		
20,235.0	11,454.0	20,340.8	11,495.1	77.6	69.5	-91.79	8,888.2	-2,230.8	806.6	660.2	146.45	5.508		
20,300.0	11,454.0	20,410.6	11,499.1	78.0	70.0	-92.08	8,957.7	-2,227.4	803.0	655.6	147.32	5.450		
20,330.0	11,454.0	20,446.6	11,500.4	78.2	70.3	-92.18	8,993.7	-2,225.3	801.0	653.3	147.70	5.423		
20,400.0	11,454.0	20,502.4	11,501.9	78.7	70.7	-92.30	9,049.4	-2,222.3	796.6	647.9	148.78	5.354		
20,425.0	11,454.0	20,521.9	11,502.4	78.9	70.8	-92.34	9,068.9	-2,221.5	795.4	646.2	149.16	5.333		
20,500.0	11,454.0	20,593.4	11,504.3	79.4	71.4	-92.49	9,140.3	-2,219.2	792.4	642.1	150.23	5.274		
20,520.0	11,454.0	20,614.5	11,504.8	79.5	71.5	-92.52	9,161.4	-2,218.4	791.5	641.0	150.51	5.259		
20,600.0	11,454.0	20,679.9	11,506.1	80.0	72.0	-92.62	9,226.8	-2,216.5	788.6	636.9	151.68	5.199		
20,615.0	11,454.0	20,690.8	11,506.2	80.2	72.1	-92.63	9,237.7	-2,216.4	788.3	636.4	151.89	5.190		
20,700.0	11,454.0	20,764.8	11,506.8	80.7	72.7	-92.68	9,311.7	-2,216.6	787.7	634.6	153.09	5.145		
20,710.0	11,454.0	20,776.4	11,506.8	80.8	72.7	-92.68	9,323.2	-2,216.6	787.6	634.4	153.24	5.140		
20,800.0	11,454.0	20,877.7	11,505.5	81.4	73.5	-92.59	9,424.5	-2,216.1	786.2	631.7	154.54	5.088		
20,805.0	11,454.0	20,883.2	11,505.4	81.4	73.5	-92.58	9,430.0	-2,216.0	786.1	631.5	154.61	5.085		
20,900.0	11,454.0	20,986.8	11,502.9	82.1	74.3	-92.41	9,533.6	-2,214.2	783.5	627.6	155.96	5.024		
20,995.0	11,454.0	21,081.5	11,502.8	82.7	75.0	-92.41	9,628.3	-2,211.8	780.2	622.9	157.31	4.960		
21,000.0	11,454.0	21,086.3	11,502.8	82.8	75.1	-92.41	9,633.0	-2,211.7	780.1	622.7	157.39	4.956		
21,090.0	11,454.0	21,185.4	11,502.8	83.4	75.8	-92.42	9,732.1	-2,209.0	776.8	618.2	158.64	4.897		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #5H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 10837-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference	Offset	Rule Assigned:												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis 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	
21,100.0	11,454.0	21,197.0	11,502.7	83.4	75.9	-92.42	9,743.7	-2,208.6	776.4	617.6	158.77	4.890		
21,185.0	11,454.0	21,282.8	11,502.0	84.0	76.5	-92.38	9,829.4	-2,205.3	772.3	612.3	159.98	4.828		
21,200.0	11,454.0	21,297.7	11,501.9	84.1	76.6	-92.37	9,844.3	-2,204.7	771.6	611.4	160.20	4.817		
21,280.0	11,454.0	21,386.6	11,500.7	84.7	77.3	-92.30	9,933.1	-2,200.9	767.4	606.1	161.28	4.758		
21,300.0	11,454.0	21,395.0	11,500.5	84.8	77.4	-92.29	9,941.5	-2,200.4	766.3	604.6	161.64	4.741		
21,375.0	11,454.0	21,454.4	11,501.2	85.3	77.8	-92.34	10,000.9	-2,198.5	763.3	600.5	162.77	4.689		
21,400.0	11,454.0	21,471.4	11,502.0	85.5	77.9	-92.40	10,017.8	-2,198.3	762.8	599.7	163.13	4.676		
21,438.6	11,454.0	21,500.1	11,503.9	85.8	78.2	-92.55	10,046.5	-2,198.3	762.6	598.9	163.67	4.659 CC		
21,470.0	11,454.0	21,528.4	11,505.8	86.0	78.4	-92.69	10,074.7	-2,198.5	762.7	598.6	164.10	4.648		
21,500.0	11,454.0	21,555.5	11,507.4	86.2	78.6	-92.81	10,101.7	-2,198.9	762.8	598.3	164.51	4.637		
21,565.0	11,454.0	21,615.9	11,510.3	86.6	79.0	-93.02	10,162.1	-2,200.0	763.6	598.2	165.41	4.616		
21,600.0	11,454.0	21,649.4	11,511.7	86.9	79.3	-93.13	10,195.5	-2,200.7	764.1	598.2	165.90	4.606		
21,660.0	11,454.0	21,709.7	11,513.9	87.3	79.7	-93.29	10,255.8	-2,202.1	765.1	598.4	166.76	4.588		
21,700.0	11,454.0	21,752.0	11,513.7	87.6	80.0	-93.27	10,298.0	-2,203.2	765.7	598.4	167.36	4.575		
21,755.0	11,454.0	21,808.2	11,511.4	87.9	80.5	-93.10	10,354.2	-2,204.4	766.3	598.2	168.16	4.557		
21,800.0	11,454.0	21,853.2	11,509.4	88.3	80.8	-92.95	10,399.1	-2,205.5	766.8	598.0	168.82	4.542		
21,850.0	11,454.0	21,902.5	11,507.1	88.6	81.2	-92.77	10,448.4	-2,206.6	767.4	597.9	169.55	4.526		
21,900.0	11,454.0	21,952.2	11,504.7	88.9	81.5	-92.59	10,498.0	-2,207.8	768.1	597.8	170.28	4.511		
21,918.8	11,454.0	21,970.9	11,503.7	89.1	81.7	-92.52	10,516.7	-2,208.2	768.3	597.7	170.55	4.505 ES, SF		

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - OWB - AWP (PH)														Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11212+5 MWD+IFR1														Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Rule Assigned:									
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning		
Depth	Depth	Depth	Depth	Depth	Depth	Toolface	+N/-S	+E/-W	Between	Between	Separation	Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	Centres	Ellipses	(usft)	(usft)			
									(usft)	(usft)					
6,840.0	6,721.8	7,054.1	6,967.8	28.9	8.8	21.32	440.3	-2,366.5	1,316.7	1,281.5	35.22	37.386			
6,900.0	6,780.8	7,120.8	7,033.2	29.2	8.9	21.23	431.0	-2,357.1	1,296.0	1,260.5	35.49	36.516			
6,935.0	6,815.2	7,155.4	7,067.1	29.3	8.9	21.19	426.5	-2,352.0	1,284.0	1,248.3	35.67	35.995			
7,000.0	6,879.2	7,213.5	7,124.1	29.6	9.0	21.12	418.9	-2,343.7	1,262.0	1,226.0	36.04	35.019			
7,030.0	6,908.8	7,239.1	7,149.2	29.8	9.0	21.09	415.5	-2,339.9	1,251.9	1,215.7	36.21	34.571			
7,100.0	6,977.9	7,300.0	7,209.0	30.1	9.1	21.01	407.7	-2,331.3	1,229.0	1,192.4	36.62	33.562			
7,125.0	7,002.5	7,326.6	7,235.1	30.2	9.2	20.97	404.2	-2,327.6	1,221.0	1,184.3	36.74	33.236			
7,200.0	7,076.6	7,429.5	7,335.9	30.5	9.3	20.83	390.5	-2,312.1	1,196.3	1,159.4	36.94	32.385			
7,220.0	7,096.4	7,448.3	7,354.2	30.6	9.3	20.80	387.9	-2,308.9	1,189.5	1,152.4	37.05	32.108			
7,300.0	7,175.5	7,526.0	7,430.1	30.9	9.4	20.67	377.2	-2,295.8	1,162.3	1,124.8	37.46	31.031			
7,315.0	7,190.3	7,541.6	7,445.3	31.0	9.4	20.65	375.1	-2,293.2	1,157.2	1,119.7	37.53	30.839			
7,400.0	7,274.5	7,614.6	7,516.5	31.4	9.5	20.49	364.9	-2,281.1	1,129.1	1,091.1	38.03	29.690			
7,410.0	7,284.4	7,621.9	7,523.7	31.4	9.5	20.47	363.8	-2,279.9	1,125.9	1,087.8	38.10	29.552			
7,500.0	7,373.6	7,698.8	7,598.9	31.8	9.6	20.29	353.3	-2,267.9	1,097.8	1,059.2	38.64	28.409			
7,505.0	7,378.6	7,703.0	7,603.0	31.8	9.6	20.28	352.7	-2,267.3	1,096.3	1,057.6	38.67	28.347			
7,600.0	7,472.9	7,780.1	7,678.6	32.2	9.7	20.10	342.7	-2,255.9	1,068.2	1,028.9	39.28	27.195			
7,695.0	7,567.3	7,858.0	7,755.1	32.6	9.9	19.90	332.8	-2,245.2	1,041.9	1,002.0	39.89	26.123			
7,700.0	7,572.2	7,862.5	7,759.6	32.6	9.9	19.89	332.2	-2,244.6	1,040.6	1,000.7	39.91	26.070			
7,790.0	7,661.7	7,942.7	7,838.5	33.0	10.0	19.68	322.4	-2,234.3	1,017.2	976.7	40.44	25.151			
7,800.0	7,671.7	7,950.7	7,846.4	33.0	10.0	19.66	321.5	-2,233.3	1,014.6	974.1	40.51	25.048			
7,885.0	7,756.3	8,025.0	7,919.6	33.4	10.1	19.44	312.6	-2,224.2	993.8	952.8	41.02	24.228			
7,900.0	7,771.2	8,038.2	7,932.6	33.4	10.2	19.40	311.0	-2,222.7	990.3	949.2	41.11	24.089			
7,980.0	7,850.9	8,106.0	7,999.5	33.8	10.3	19.20	303.4	-2,215.2	972.3	930.7	41.61	23.369			
8,000.0	7,870.8	8,120.6	8,014.0	33.8	10.3	19.16	301.8	-2,213.6	968.1	926.3	41.75	23.187			
8,075.0	7,945.6	8,232.5	8,124.4	34.1	10.5	18.85	289.3	-2,200.3	951.4	909.6	41.82	22.750			
8,100.0	7,970.5	8,256.7	8,148.1	34.2	10.5	18.78	286.6	-2,196.9	945.3	903.4	41.95	22.535			
8,170.0	8,040.3	8,332.6	8,222.8	34.5	10.7	18.62	278.6	-2,185.3	928.2	886.0	42.23	21.983			
8,200.0	8,070.2	8,356.5	8,246.2	34.6	10.7	18.57	276.3	-2,181.7	921.1	878.7	42.42	21.713			
8,265.0	8,135.1	8,423.7	8,312.3	34.8	10.9	18.47	270.2	-2,171.1	905.7	863.0	42.69	21.213			
8,300.0	8,170.0	8,450.5	8,338.7	34.9	10.9	18.43	267.9	-2,166.9	897.6	854.7	42.93	20.910			
8,360.0	8,229.9	8,538.0	8,424.6	35.1	11.1	18.32	259.9	-2,151.9	882.9	840.0	42.91	20.574			
8,400.0	8,269.9	8,582.1	8,467.7	35.3	11.2	18.25	255.7	-2,143.8	872.8	829.8	43.04	20.278			
8,455.0	8,324.8	8,625.0	8,509.7	35.5	11.3	18.16	251.6	-2,136.0	859.3	815.9	43.41	19.797			
8,500.0	8,369.8	8,660.0	8,544.0	35.6	11.3	18.10	248.6	-2,130.1	849.1	805.4	43.70	19.427			
8,550.0	8,419.8	8,706.0	8,589.2	35.8	11.4	18.04	244.9	-2,122.3	838.0	794.0	43.95	19.066			
8,600.0	8,469.7	8,742.2	8,624.9	35.9	11.5	18.00	242.2	-2,116.6	827.7	783.4	44.31	18.682			
8,645.0	8,514.7	8,802.5	8,684.2	36.1	11.6	17.92	237.6	-2,106.8	818.5	774.2	44.32	18.470			
8,700.0	8,569.7	8,878.1	8,758.4	36.2	11.8	17.77	230.9	-2,093.8	806.9	762.6	44.30	18.215			
8,740.0	8,609.7	8,914.9	8,794.2	36.3	11.9	17.64	226.9	-2,086.7	797.5	753.0	44.50	17.923			
8,800.0	8,669.7	8,957.4	8,835.8	36.5	12.0	17.50	222.5	-2,079.1	784.4	739.5	44.94	17.454			
8,835.0	8,704.7	8,979.7	8,857.7	36.6	12.0	17.43	220.5	-2,075.4	777.6	732.4	45.22	17.196			
8,900.0	8,769.7	9,026.6	8,904.0	36.7	12.1	17.31	216.8	-2,068.6	766.5	720.8	45.66	16.785			
8,930.0	8,799.7	9,080.2	8,956.7	36.8	12.2	17.14	212.1	-2,060.6	761.3	715.8	45.47	16.744			
8,962.8	8,832.5	9,116.9	8,992.8	36.8	12.3	-73.22	208.5	-2,054.4	755.1	709.5	45.51	16.592			
9,000.0	8,869.7	9,163.0	9,037.9	36.8	12.4	-73.40	203.7	-2,046.3	747.7	702.2	45.46	16.446			
9,025.0	8,894.7	9,186.4	9,060.7	36.8	12.4	-73.51	201.0	-2,042.2	742.6	697.0	45.53	16.309			
9,100.0	8,969.7	9,279.9	9,151.8	36.8	12.7	-74.09	188.6	-2,025.4	726.9	681.4	45.47	15.986			
9,120.0	8,989.7	9,299.8	9,171.2	36.8	12.7	-74.24	185.5	-2,021.5	722.4	676.8	45.52	15.869			
9,200.0	9,069.7	9,388.6	9,266.5	36.8	13.0	-75.01	170.2	-2,000.9	702.8	657.4	45.47	15.458			
9,215.0	9,084.7	9,416.5	9,283.7	36.8	13.0	-75.16	167.4	-1,996.8	698.9	653.5	45.46	15.373			
9,300.0	9,169.7	9,482.4	9,347.2	36.9	13.2	-75.72	156.9	-1,982.3	677.3	631.4	45.93	14.746			
9,310.0	9,179.7	9,489.7	9,354.2	36.9	13.3	-75.78	155.8	-1,980.8	675.0	629.0	46.00	14.675			

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 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - OWB - AWP (PH)													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11212+1.5 MWD+IFR1													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		
9,400.0	9,269.7	9,560.8	9,423.2	36.9	13.5	-76.40	145.1	-1,967.2	654.9	608.4	46.48	14.089		
9,405.0	9,274.7	9,564.4	9,426.7	36.9	13.5	-76.43	144.7	-1,966.5	653.9	607.4	46.52	14.057		
9,500.0	9,369.7	9,652.1	9,512.4	36.9	13.7	-76.97	134.8	-1,950.5	634.5	587.7	46.82	13.550		
9,595.0	9,464.7	9,737.5	9,596.0	36.9	13.9	-77.38	126.9	-1,935.4	616.1	569.0	47.15	13.067		
9,600.0	9,469.7	9,741.7	9,600.1	36.9	13.9	-77.40	126.5	-1,934.7	615.2	568.0	47.17	13.041		
9,690.0	9,559.7	9,830.2	9,687.0	36.9	14.1	-77.92	117.7	-1,920.1	598.8	551.4	47.38	12.636		
9,700.0	9,569.7	9,838.5	9,695.1	36.9	14.1	-77.98	116.8	-1,918.8	596.9	549.5	47.43	12.584		
9,785.0	9,654.7	9,905.9	9,761.4	37.0	14.3	-78.51	109.2	-1,908.6	582.4	534.5	47.90	12.160		
9,800.0	9,669.7	9,917.5	9,772.7	37.0	14.3	-78.60	108.0	-1,907.0	580.1	532.1	47.98	12.090		
9,880.0	9,749.7	9,981.8	9,836.3	37.0	14.4	-79.07	101.7	-1,899.4	569.2	520.8	48.40	11.761		
9,900.0	9,769.7	10,000.0	9,854.3	37.0	14.4	-79.20	100.0	-1,897.4	566.8	518.3	48.47	11.693		
9,975.0	9,844.7	10,066.6	9,920.3	37.0	14.6	-79.70	93.9	-1,890.9	558.2	509.5	48.77	11.447		
10,000.0	9,869.7	10,088.7	9,942.2	37.0	14.6	-79.87	91.8	-1,888.9	555.6	506.8	48.87	11.370		
10,070.0	9,939.7	10,152.5	10,005.5	37.0	14.7	-80.39	85.9	-1,883.8	548.9	499.8	49.12	11.174		
10,100.0	9,969.7	10,176.9	10,029.7	37.0	14.7	-80.58	83.7	-1,882.0	546.3	497.0	49.27	11.087		
10,165.0	10,034.7	10,232.8	10,085.4	37.0	14.8	-80.97	79.5	-1,878.7	541.7	492.1	49.54	10.933		
10,200.0	10,069.7	10,278.3	10,130.7	37.1	14.9	-81.28	76.1	-1,876.0	539.2	489.8	49.47	10.900		
10,260.0	10,129.7	10,340.5	10,192.6	37.1	14.9	-81.64	71.9	-1,870.9	533.8	484.2	49.56	10.771		
10,300.0	10,169.7	10,381.2	10,233.1	37.1	15.0	-81.86	69.3	-1,867.7	530.3	480.7	49.63	10.685		
10,355.0	10,224.7	10,431.4	10,283.0	37.1	15.1	-82.18	65.9	-1,863.8	525.6	475.8	49.82	10.551		
10,400.0	10,269.7	10,479.9	10,349.0	37.1	15.2	-82.69	60.4	-1,857.8	521.1	471.5	49.60	10.505		
10,450.0	10,319.7	10,546.3	10,396.8	37.1	15.3	-83.15	55.6	-1,852.5	515.0	465.2	49.75	10.352		
10,500.0	10,369.7	10,586.4	10,436.5	37.1	15.3	-83.57	51.3	-1,848.5	509.4	459.4	50.02	10.183		
10,545.0	10,414.7	10,619.4	10,469.2	37.1	15.4	-83.91	48.1	-1,846.0	505.5	455.2	50.31	10.046		
10,600.0	10,469.7	10,664.4	10,514.0	37.1	15.5	-84.34	44.0	-1,843.4	501.8	451.3	50.59	9.920		
10,640.0	10,509.7	10,700.0	10,549.5	37.2	15.5	-84.62	41.4	-1,841.8	499.8	449.0	50.74	9.850		
10,700.0	10,569.7	10,757.3	10,606.6	37.2	15.6	-85.02	37.7	-1,839.6	497.1	446.2	50.89	9.769		
10,735.0	10,604.7	10,788.9	10,638.1	37.2	15.6	-85.21	36.0	-1,838.6	495.8	444.8	51.00	9.721		
10,800.0	10,669.7	10,850.0	10,699.1	37.2	15.6	-85.53	33.1	-1,836.8	493.7	442.5	51.17	9.649		
10,830.0	10,699.7	10,875.0	10,724.1	37.2	15.7	-85.64	32.1	-1,836.4	493.1	441.8	51.28	9.615		
10,900.0	10,769.7	10,946.5	10,795.5	37.2	15.7	-85.99	29.0	-1,835.3	491.8	440.5	51.34	9.579		
10,925.0	10,794.7	10,971.2	10,820.2	37.2	15.7	-86.11	28.0	-1,834.9	491.3	439.9	51.37	9.563		
11,000.0	10,869.7	11,039.6	10,888.6	37.2	15.7	-86.40	25.4	-1,834.2	490.3	438.8	51.56	9.511		
11,020.0	10,889.7	11,058.6	10,907.5	37.2	15.7	-86.47	24.8	-1,834.2	490.3	438.7	51.59	9.503		
11,106.9	10,976.5	11,143.9	10,992.8	37.3	15.8	-86.81	21.8	-1,834.1	490.0	438.3	51.69	9.479		
11,115.0	10,984.7	11,151.6	11,000.5	37.3	15.8	-86.34	21.5	-1,834.1	490.0	438.3	51.71	9.477		
11,125.0	10,994.7	11,161.1	11,009.9	37.3	15.8	-86.41	21.1	-1,834.1	490.0	438.3	51.72	9.474		
11,150.0	11,019.6	11,184.6	11,033.5	37.3	15.8	-86.71	20.1	-1,834.3	490.0	438.2	51.77	9.465		
11,172.6	11,042.1	11,205.7	11,054.5	37.3	15.8	-87.10	19.2	-1,834.4	490.0	438.2	51.80	9.458 CC		
11,175.0	11,044.4	11,207.9	11,056.8	37.3	15.8	-87.15	19.1	-1,834.4	490.0	438.2	51.81	9.457		
11,200.0	11,069.1	11,232.4	11,081.3	37.3	15.8	-87.76	18.0	-1,834.7	490.0	438.1	51.85	9.450		
11,210.0	11,078.9	11,242.3	11,091.1	37.3	15.8	-88.04	17.6	-1,834.7	490.0	438.1	51.86	9.447		
11,225.0	11,093.5	11,256.9	11,105.7	37.3	15.8	-88.50	16.9	-1,834.9	490.0	438.1	51.89	9.443 ES		
11,250.0	11,117.5	11,281.0	11,129.8	37.3	15.9	-89.38	15.9	-1,835.1	490.0	438.1	51.93	9.437		
11,275.0	11,141.2	11,304.7	11,153.5	37.3	15.9	-90.35	14.9	-1,835.2	490.2	438.3	51.97	9.433 SF		
11,300.0	11,164.4	11,328.5	11,177.2	37.3	15.9	-91.44	13.9	-1,835.4	490.6	438.6	52.00	9.435		
11,305.0	11,169.0	11,333.2	11,181.9	37.3	15.9	-91.67	13.7	-1,835.4	490.7	438.7	52.00	9.436		
11,325.0	11,187.2	11,351.8	11,200.5	37.3	15.9	-92.61	13.0	-1,835.4	491.1	439.1	52.01	9.443		
11,350.0	11,209.3	11,374.5	11,223.1	37.3	15.9	-93.82	12.0	-1,835.5	492.0	440.0	52.01	9.459		
11,375.0	11,230.8	11,396.4	11,245.1	37.3	15.9	-95.06	11.2	-1,835.5	493.3	441.3	52.00	9.486		
11,400.0	11,251.6	11,416.9	11,265.6	37.3	15.9	-96.24	10.4	-1,835.4	495.0	443.0	51.96	9.526		
11,425.0	11,271.6	11,436.4	11,285.1	37.3	15.9	-97.37	9.6	-1,835.4	497.3	445.4	51.91	9.582		

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

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Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - OWB - AWP (PH)													Offset Site Error:	0.0 usft
Survey Program:		100-Standard Keeper 104, 11212-r.5 MWD+IFR1						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	
11,450.0	11,290.9	11,455.0	11,303.6	37.3	15.9	-98.44	8.8	-1,835.4	500.4	448.5	51.82	9.656		
11,475.0	11,309.3	11,472.6	11,321.2	37.3	16.0	-99.42	8.0	-1,835.3	504.1	452.5	51.70	9.752		
11,495.0	11,323.3	11,486.0	11,334.6	37.3	16.0	-100.11	7.4	-1,835.3	507.8	456.2	51.57	9.846		
11,500.0	11,326.7	11,489.3	11,337.8	37.3	16.0	-100.27	7.2	-1,835.2	508.8	457.2	51.54	9.871		
11,525.0	11,343.2	11,504.9	11,353.5	37.3	16.0	-100.98	6.5	-1,835.2	514.3	462.9	51.35	10.016		
11,550.0	11,358.7	11,519.5	11,368.0	37.3	16.0	-101.53	5.8	-1,835.1	520.7	469.6	51.12	10.187		
11,575.0	11,373.2	11,533.0	11,381.6	37.3	16.0	-101.89	5.2	-1,835.1	528.2	477.3	50.85	10.386		
11,590.0	11,381.3	11,540.6	11,389.2	37.3	16.0	-102.01	4.8	-1,835.1	533.1	482.4	50.68	10.519		
11,600.0	11,386.6	11,545.5	11,394.0	37.3	16.0	-102.05	4.6	-1,835.0	536.6	486.0	50.56	10.614		
11,625.0	11,398.8	11,556.8	11,405.3	37.3	16.0	-101.98	4.1	-1,835.0	546.0	495.8	50.23	10.870		
11,650.0	11,409.9	11,566.9	11,415.4	37.3	16.0	-101.67	3.6	-1,835.0	556.5	506.6	49.88	11.156		
11,675.0	11,419.8	11,575.8	11,424.3	37.3	16.0	-101.09	3.2	-1,834.9	567.9	518.4	49.51	11.471		
11,685.0	11,423.4	11,579.0	11,427.5	37.3	16.0	-100.79	3.1	-1,834.9	572.8	523.4	49.35	11.605		
11,700.0	11,428.5	11,583.5	11,432.0	37.4	16.0	-100.24	2.9	-1,834.9	580.3	531.2	49.12	11.814		
11,725.0	11,435.9	11,590.1	11,438.6	37.4	16.0	-99.11	2.6	-1,834.9	593.6	544.9	48.72	12.184		
11,750.0	11,442.1	11,595.8	11,444.3	37.4	16.0	-97.72	2.3	-1,834.9	607.7	559.4	48.31	12.580		
11,775.0	11,447.0	11,600.1	11,448.5	37.4	16.0	-95.99	2.2	-1,834.8	622.6	574.7	47.90	12.999		
11,780.0	11,447.8	11,600.8	11,449.2	37.4	16.0	-95.60	2.1	-1,834.8	625.7	577.9	47.81	13.086		
11,800.0	11,450.6	11,602.9	11,451.4	37.4	16.0	-93.92	2.0	-1,834.8	638.3	590.8	47.49	13.441		
11,825.0	11,452.9	11,604.3	11,452.8	37.4	16.0	-91.51	2.0	-1,834.8	654.5	607.5	47.09	13.901		
11,850.0	11,454.0	11,604.2	11,452.7	37.4	16.0	-88.77	2.0	-1,834.8	671.4	624.7	46.69	14.379		
11,856.9	11,454.0	11,604.0	11,452.4	37.4	16.0	-87.96	2.0	-1,834.8	676.1	629.5	46.59	14.513		
11,875.0	11,454.0	11,603.1	11,451.6	37.5	16.0	-87.86	2.0	-1,834.8	688.7	642.4	46.31	14.872		
11,900.0	11,454.0	11,601.9	11,450.3	37.5	16.0	-87.71	2.1	-1,834.8	706.5	660.5	45.94	15.378		
11,970.0	11,454.0	11,598.4	11,446.9	37.5	16.0	-87.31	2.2	-1,834.8	758.4	713.5	44.98	16.861		
12,000.0	11,454.0	11,597.0	11,445.4	37.6	16.0	-87.14	2.3	-1,834.9	781.6	737.0	44.60	17.523		
12,065.0	11,454.0	11,593.7	11,442.2	37.6	16.0	-86.76	2.4	-1,834.9	833.2	789.3	43.85	19.000		
12,100.0	11,454.0	11,591.9	11,440.4	37.7	16.0	-86.55	2.5	-1,834.9	861.7	818.2	43.48	19.817		
12,160.0	11,454.0	11,588.9	11,437.3	37.8	16.0	-86.20	2.6	-1,834.9	911.6	868.7	42.91	21.246		
12,200.0	11,454.0	11,586.9	11,435.4	37.8	16.0	-85.98	2.7	-1,834.9	945.6	903.0	42.56	22.217		
12,255.0	11,454.0	11,584.4	11,432.9	37.9	16.0	-85.68	2.8	-1,834.9	993.0	950.9	42.13	23.571		
12,300.0	11,454.0	11,582.4	11,430.9	38.0	16.0	-85.45	2.9	-1,834.9	1,032.3	990.5	41.81	24.692		
12,350.0	11,454.0	11,580.1	11,428.6	38.0	16.0	-85.18	3.0	-1,834.9	1,076.6	1,035.1	41.49	25.950		
12,400.0	11,454.0	11,577.8	11,426.3	38.1	16.0	-84.91	3.1	-1,834.9	1,121.3	1,080.1	41.20	27.218		
12,445.0	11,454.0	11,575.7	11,424.2	38.2	16.0	-84.67	3.2	-1,834.9	1,161.9	1,120.9	40.96	28.367		
12,500.0	11,454.0	11,573.2	11,421.7	38.3	16.0	-84.38	3.3	-1,834.9	1,211.9	1,171.2	40.70	29.780		
12,540.0	11,454.0	11,571.3	11,419.8	38.4	16.0	-84.16	3.4	-1,834.9	1,248.6	1,208.0	40.52	30.812		
12,600.0	11,454.0	11,568.5	11,417.0	38.5	16.0	-83.84	3.6	-1,835.0	1,303.9	1,263.6	40.29	32.365		

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11306-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Rule Assigned:								
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth	Depth	Depth	Depth	(usft)	(usft)	Toolface	+N/-S	+E/-W	Between	Between	Separation	Factor		
(usft)	(usft)	(usft)	(usft)			(°)	(usft)	(usft)	Centres	Ellipses	(usft)			
									(usft)	(usft)				
6,840.0	6,721.8	7,054.1	6,967.8	28.9	8.8	21.32	440.3	-2,366.5	1,316.7	1,281.5	35.22	37.386		
6,900.0	6,780.8	7,120.8	7,033.2	29.2	8.9	21.23	431.0	-2,357.1	1,296.0	1,260.5	35.49	36.516		
6,935.0	6,815.2	7,155.4	7,067.1	29.3	8.9	21.19	426.5	-2,352.0	1,284.0	1,248.3	35.67	35.995		
7,000.0	6,879.2	7,213.5	7,124.1	29.6	9.0	21.12	418.9	-2,343.7	1,262.0	1,226.0	36.04	35.019		
7,030.0	6,908.8	7,239.1	7,149.2	29.8	9.0	21.09	415.5	-2,339.9	1,251.9	1,215.7	36.21	34.571		
7,100.0	6,977.9	7,300.0	7,209.0	30.1	9.1	21.01	407.7	-2,331.3	1,229.0	1,192.4	36.62	33.562		
7,125.0	7,002.5	7,326.6	7,235.1	30.2	9.2	20.97	404.2	-2,327.6	1,221.0	1,184.3	36.74	33.236		
7,200.0	7,076.6	7,429.5	7,335.9	30.5	9.3	20.83	390.5	-2,312.1	1,196.3	1,159.4	36.94	32.385		
7,220.0	7,096.4	7,448.3	7,354.2	30.6	9.3	20.80	387.9	-2,308.9	1,189.5	1,152.4	37.05	32.108		
7,300.0	7,175.5	7,526.0	7,430.1	30.9	9.4	20.67	377.2	-2,295.8	1,162.3	1,124.8	37.46	31.031		
7,315.0	7,190.3	7,541.6	7,445.3	31.0	9.4	20.65	375.1	-2,293.2	1,157.2	1,119.7	37.53	30.839		
7,400.0	7,274.5	7,614.6	7,516.5	31.4	9.5	20.49	364.9	-2,281.1	1,129.1	1,091.1	38.03	29.690		
7,410.0	7,284.4	7,621.9	7,523.7	31.4	9.5	20.47	363.8	-2,279.9	1,125.9	1,087.8	38.10	29.552		
7,500.0	7,373.6	7,698.8	7,598.9	31.8	9.6	20.29	353.3	-2,267.9	1,097.8	1,059.2	38.64	28.409		
7,505.0	7,378.6	7,703.0	7,603.0	31.8	9.6	20.28	352.7	-2,267.3	1,096.3	1,057.6	38.67	28.347		
7,600.0	7,472.9	7,780.1	7,678.6	32.2	9.7	20.10	342.7	-2,255.9	1,068.2	1,028.9	39.28	27.195		
7,695.0	7,567.3	7,858.0	7,755.1	32.6	9.9	19.90	332.8	-2,245.2	1,041.9	1,002.0	39.89	26.123		
7,700.0	7,572.2	7,862.5	7,759.6	32.6	9.9	19.89	332.2	-2,244.6	1,040.6	1,000.7	39.91	26.070		
7,790.0	7,661.7	7,942.7	7,838.5	33.0	10.0	19.68	322.4	-2,234.3	1,017.2	976.7	40.44	25.151		
7,800.0	7,671.7	7,950.7	7,846.4	33.0	10.0	19.66	321.5	-2,233.3	1,014.6	974.1	40.51	25.048		
7,885.0	7,756.3	8,025.0	7,919.6	33.4	10.1	19.44	312.6	-2,224.2	993.8	952.8	41.02	24.228		
7,900.0	7,771.2	8,038.2	7,932.6	33.4	10.2	19.40	311.0	-2,222.7	990.3	949.2	41.11	24.089		
7,980.0	7,850.9	8,106.0	7,999.5	33.8	10.3	19.20	303.4	-2,215.2	972.3	930.7	41.61	23.369		
8,000.0	7,870.8	8,120.6	8,014.0	33.8	10.3	19.16	301.8	-2,213.6	968.1	926.3	41.75	23.187		
8,075.0	7,945.6	8,232.5	8,124.4	34.1	10.5	18.85	289.3	-2,200.3	951.4	909.6	41.82	22.750		
8,100.0	7,970.5	8,256.7	8,148.1	34.2	10.5	18.78	286.6	-2,196.9	945.3	903.4	41.95	22.535		
8,170.0	8,040.3	8,332.6	8,222.8	34.5	10.7	18.62	278.6	-2,185.3	928.2	886.0	42.23	21.983		
8,200.0	8,070.2	8,356.5	8,246.2	34.6	10.7	18.57	276.3	-2,181.7	921.1	878.7	42.42	21.713		
8,265.0	8,135.1	8,423.7	8,312.3	34.8	10.9	18.47	270.2	-2,171.1	905.7	863.0	42.69	21.213		
8,300.0	8,170.0	8,450.5	8,338.7	34.9	10.9	18.43	267.9	-2,166.9	897.6	854.7	42.93	20.910		
8,360.0	8,229.9	8,538.0	8,424.6	35.1	11.1	18.32	259.9	-2,151.9	882.9	840.0	42.91	20.574		
8,400.0	8,269.9	8,582.1	8,467.7	35.3	11.2	18.25	255.7	-2,143.8	872.8	829.8	43.04	20.778		
8,455.0	8,324.8	8,625.0	8,509.7	35.5	11.3	18.16	251.6	-2,136.0	859.3	815.9	43.41	19.797		
8,500.0	8,369.8	8,660.0	8,544.0	35.6	11.3	18.10	248.6	-2,130.1	849.1	805.4	43.70	19.427		
8,550.0	8,419.8	8,706.0	8,589.2	35.8	11.4	18.04	244.9	-2,122.3	838.0	794.0	43.95	19.066		
8,600.0	8,469.7	8,742.2	8,624.9	35.9	11.5	18.00	242.2	-2,116.6	827.7	783.4	44.31	18.682		
8,645.0	8,514.7	8,802.5	8,684.2	36.1	11.6	17.92	237.6	-2,106.8	818.5	774.2	44.32	18.470		
8,700.0	8,569.7	8,878.1	8,758.4	36.2	11.8	17.77	230.9	-2,093.8	806.9	762.6	44.30	18.215		
8,740.0	8,609.7	8,914.9	8,794.2	36.3	11.9	17.64	226.9	-2,086.7	797.5	753.0	44.50	17.923		
8,800.0	8,669.7	8,957.4	8,835.8	36.5	12.0	17.50	222.5	-2,079.1	784.4	739.5	44.94	17.454		
8,835.0	8,704.7	8,979.7	8,857.7	36.6	12.0	17.43	220.5	-2,075.4	777.6	732.4	45.22	17.196		
8,900.0	8,769.7	9,026.6	8,904.0	36.7	12.1	17.31	216.8	-2,068.6	766.5	720.8	45.66	16.785		
8,930.0	8,799.7	9,080.2	8,956.7	36.8	12.2	17.14	212.1	-2,060.6	761.3	715.8	45.47	16.744		
8,962.8	8,832.5	9,116.9	8,992.8	36.8	12.3	-73.22	208.5	-2,054.4	755.1	709.5	45.51	16.592		
9,000.0	8,869.7	9,163.0	9,037.9	36.8	12.4	-73.40	203.7	-2,046.3	747.7	702.2	45.46	16.446		
9,025.0	8,894.7	9,186.4	9,060.7	36.8	12.4	-73.51	201.0	-2,042.2	742.6	697.0	45.53	16.309		
9,100.0	8,969.7	9,279.9	9,151.8	36.8	12.7	-74.09	188.6	-2,025.4	726.9	681.4	45.47	15.986		
9,120.0	8,989.7	9,299.8	9,171.2	36.8	12.7	-74.24	185.5	-2,021.5	722.4	676.8	45.52	15.869		
9,200.0	9,069.7	9,388.6	9,266.5	36.8	13.0	-75.01	170.2	-2,000.9	702.8	657.4	45.47	15.458		
9,215.0	9,084.7	9,416.5	9,283.7	36.8	13.0	-75.16	167.4	-1,996.8	698.9	653.5	45.46	15.373		
9,300.0	9,169.7	9,482.4	9,347.2	36.9	13.2	-75.72	156.9	-1,982.3	677.3	631.4	45.93	14.746		
9,310.0	9,179.7	9,489.7	9,354.2	36.9	13.3	-75.78	155.8	-1,980.8	675.0	629.0	46.00	14.675		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program:		100-Standard Keeper 104, 11306-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		
9,400.0	9,269.7	9,560.8	9,423.2	36.9	13.5	-76.40	145.1	-1,967.2	654.9	608.4	46.48	14.089		
9,405.0	9,274.7	9,564.4	9,426.7	36.9	13.5	-76.43	144.7	-1,966.5	653.9	607.4	46.52	14.057		
9,500.0	9,369.7	9,652.1	9,512.4	36.9	13.7	-76.97	134.8	-1,950.5	634.5	587.7	46.82	13.550		
9,595.0	9,464.7	9,737.5	9,596.0	36.9	13.9	-77.38	126.9	-1,935.4	616.1	569.0	47.15	13.067		
9,600.0	9,469.7	9,741.7	9,600.1	36.9	13.9	-77.40	126.5	-1,934.7	615.2	568.0	47.17	13.041		
9,690.0	9,559.7	9,830.2	9,687.0	36.9	14.1	-77.92	117.7	-1,920.1	598.8	551.4	47.38	12.636		
9,700.0	9,569.7	9,838.5	9,695.1	36.9	14.1	-77.98	116.8	-1,918.8	596.9	549.5	47.43	12.584		
9,785.0	9,654.7	9,905.9	9,761.4	37.0	14.3	-78.51	109.2	-1,908.6	582.4	534.5	47.90	12.160		
9,800.0	9,669.7	9,917.5	9,772.7	37.0	14.3	-78.60	108.0	-1,907.0	580.1	532.1	47.98	12.090		
9,880.0	9,749.7	9,981.8	9,836.3	37.0	14.4	-79.07	101.7	-1,899.4	569.2	520.8	48.40	11.761		
9,900.0	9,769.7	10,000.0	9,854.3	37.0	14.4	-79.20	100.0	-1,897.4	566.8	518.3	48.47	11.693		
9,975.0	9,844.7	10,066.6	9,920.3	37.0	14.6	-79.70	93.9	-1,890.9	558.2	509.5	48.77	11.447		
10,000.0	9,869.7	10,088.7	9,942.2	37.0	14.6	-79.87	91.8	-1,888.9	555.6	506.8	48.87	11.370		
10,070.0	9,939.7	10,152.5	10,005.5	37.0	14.7	-80.39	85.9	-1,883.8	548.9	499.8	49.12	11.174		
10,100.0	9,969.7	10,176.9	10,029.7	37.0	14.7	-80.58	83.7	-1,882.0	546.3	497.0	49.27	11.087		
10,165.0	10,034.7	10,232.8	10,085.4	37.0	14.8	-80.97	79.5	-1,878.7	541.7	492.1	49.54	10.933		
10,200.0	10,069.7	10,278.3	10,130.7	37.1	14.9	-81.28	76.1	-1,876.0	539.2	489.8	49.47	10.900		
10,260.0	10,129.7	10,340.5	10,192.6	37.1	14.9	-81.64	71.9	-1,870.9	533.8	484.2	49.56	10.771		
10,300.0	10,169.7	10,381.2	10,233.1	37.1	15.0	-81.86	69.3	-1,867.7	530.3	480.7	49.63	10.685		
10,355.0	10,224.7	10,431.4	10,283.0	37.1	15.1	-82.18	65.9	-1,863.8	525.6	475.8	49.82	10.551		
10,400.0	10,269.7	10,497.9	10,349.0	37.1	15.2	-82.69	60.4	-1,857.8	521.1	471.5	49.60	10.505		
10,450.0	10,319.7	10,546.3	10,396.8	37.1	15.3	-83.15	55.6	-1,852.5	515.0	465.2	49.75	10.352		
10,500.0	10,369.7	10,586.4	10,436.5	37.1	15.3	-83.57	51.3	-1,848.5	509.4	459.4	50.02	10.183		
10,545.0	10,414.7	10,619.4	10,469.2	37.1	15.4	-83.91	48.1	-1,846.0	505.5	455.2	50.31	10.046		
10,600.0	10,469.7	10,664.4	10,514.0	37.1	15.5	-84.34	44.0	-1,843.4	501.8	451.3	50.59	9.920		
10,640.0	10,509.7	10,700.0	10,549.5	37.2	15.5	-84.62	41.4	-1,841.8	499.8	449.0	50.74	9.850		
10,700.0	10,569.7	10,757.3	10,606.6	37.2	15.6	-85.02	37.7	-1,839.6	497.1	446.2	50.89	9.769		
10,735.0	10,604.7	10,788.9	10,638.1	37.2	15.6	-85.21	36.0	-1,838.6	495.8	444.8	51.00	9.721		
10,800.0	10,669.7	10,850.0	10,699.1	37.2	15.6	-85.53	33.1	-1,836.8	493.7	442.5	51.17	9.649		
10,830.0	10,699.7	10,875.0	10,724.1	37.2	15.7	-85.64	32.1	-1,836.4	493.1	441.8	51.28	9.615		
10,900.0	10,769.7	10,946.5	10,795.5	37.2	15.7	-85.99	29.0	-1,835.3	491.8	440.5	51.34	9.579		
10,925.0	10,794.7	10,971.2	10,820.2	37.2	15.7	-86.11	28.0	-1,834.9	491.3	439.9	51.37	9.563		
11,000.0	10,869.7	11,039.6	10,888.6	37.2	15.7	-86.40	25.4	-1,834.2	490.3	438.8	51.56	9.511		
11,020.0	10,889.7	11,058.6	10,907.5	37.2	15.7	-86.47	24.8	-1,834.2	490.3	438.7	51.59	9.503		
11,106.9	10,976.5	11,144.0	10,992.9	37.3	16.0	-86.80	22.0	-1,834.1	490.0	438.0	52.05	9.414		
11,115.0	10,984.7	11,151.8	11,000.7	37.3	16.1	-86.31	21.7	-1,834.1	490.0	437.8	52.21	9.385		
11,125.0	10,994.7	11,161.3	11,010.2	37.3	16.2	-86.37	21.5	-1,834.1	490.0	437.6	52.41	9.350		
11,150.0	11,019.6	11,185.1	11,034.0	37.3	16.5	-86.59	21.2	-1,834.2	490.0	437.1	52.90	9.262		
11,175.0	11,044.4	11,208.8	11,057.7	37.3	16.9	-86.91	21.2	-1,834.3	489.9	436.5	53.39	9.175		
11,200.0	11,069.1	11,232.4	11,081.3	37.3	17.3	-87.35	21.6	-1,834.4	489.8	436.0	53.89	9.089		
11,210.0	11,078.9	11,241.8	11,090.7	37.3	17.5	-87.55	21.8	-1,834.5	489.8	435.7	54.09	9.055		
11,221.7	11,090.2	11,252.8	11,101.7	37.3	17.7	-87.81	22.1	-1,834.6	489.8	435.5	54.33	9.016		
11,225.0	11,093.5	11,255.9	11,104.8	37.3	17.7	-87.88	22.2	-1,834.6	489.8	435.4	54.39	9.005		
11,250.0	11,117.5	11,279.3	11,128.1	37.3	18.2	-88.52	23.1	-1,834.8	489.9	435.0	54.89	8.924		
11,275.0	11,141.2	11,302.5	11,151.3	37.3	18.6	-89.24	24.3	-1,835.1	490.0	434.6	55.39	8.847		
11,300.0	11,164.4	11,326.2	11,174.9	37.3	18.7	-90.02	26.2	-1,835.4	490.3	434.8	55.49	8.836		
11,305.0	11,169.0	11,331.0	11,179.7	37.3	18.7	-90.17	26.7	-1,835.4	490.3	434.8	55.49	8.836		
11,325.0	11,187.2	11,351.9	11,200.4	37.3	18.7	-90.84	29.8	-1,835.7	490.6	435.1	55.49	8.841		
11,350.0	11,209.3	11,380.3	11,228.2	37.3	18.7	-91.73	35.5	-1,835.9	490.9	435.4	55.47	8.849		
11,375.0	11,230.8	11,409.0	11,255.9	37.3	18.7	-92.61	42.9	-1,835.9	491.1	435.6	55.44	8.858		
11,400.0	11,251.6	11,437.3	11,282.8	37.3	18.8	-93.46	51.8	-1,835.7	491.2	435.8	55.41	8.866		
11,425.0	11,271.6	11,466.1	11,309.5	37.3	18.9	-94.33	62.4	-1,835.4	491.3	435.9	55.36	8.874		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11306+/-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		
11,450.0	11,290.9	11,495.5	11,336.2	37.3	18.9	-95.21	74.7	-1,834.9	491.3	436.0	55.31	8.882		
11,475.0	11,309.3	11,542.9	11,377.4	37.3	19.0	-96.54	98.0	-1,833.1	490.9	435.8	55.11	8.908		
11,495.0	11,323.3	11,568.5	11,398.5	37.3	19.0	-97.22	112.5	-1,831.7	490.1	435.0	55.05	8.903		
11,500.0	11,326.7	11,575.2	11,403.8	37.3	19.0	-97.39	116.5	-1,831.3	489.9	434.8	55.03	8.902		
11,525.0	11,343.2	11,622.5	11,439.2	37.3	19.1	-98.33	147.7	-1,827.8	488.4	433.6	54.83	8.908		
11,550.0	11,358.7	11,655.6	11,461.5	37.3	19.1	-98.95	171.9	-1,824.6	486.1	431.3	54.76	8.877		
11,575.0	11,373.2	11,680.3	11,477.9	37.3	19.1	-99.59	190.3	-1,822.2	483.9	429.1	54.76	8.837		
11,590.0	11,381.3	11,698.3	11,489.7	37.3	19.1	-100.07	203.8	-1,820.4	482.7	427.9	54.73	8.820		
11,600.0	11,386.6	11,711.0	11,497.7	37.3	19.1	-100.40	213.5	-1,819.1	481.8	427.1	54.70	8.809		
11,625.0	11,398.8	11,743.0	11,516.9	37.3	19.2	-101.25	238.9	-1,815.7	479.7	425.0	54.64	8.780		
11,650.0	11,409.9	11,776.6	11,535.2	37.3	19.2	-102.10	266.8	-1,812.0	477.4	422.8	54.56	8.751		
11,675.0	11,419.8	11,805.4	11,549.4	37.3	19.2	-102.84	291.6	-1,808.8	475.0	420.5	54.52	8.712		
11,685.0	11,423.4	11,815.9	11,554.5	37.3	19.2	-103.14	300.8	-1,807.6	474.1	419.6	54.52	8.697		
11,700.0	11,428.5	11,831.8	11,561.8	37.4	19.3	-103.61	314.7	-1,805.8	472.8	418.3	54.50	8.676		
11,725.0	11,435.9	11,859.4	11,574.0	37.4	19.3	-104.43	339.4	-1,802.8	470.9	416.4	54.47	8.644		
11,750.0	11,442.1	11,887.7	11,585.0	37.4	19.3	-105.25	365.3	-1,799.8	469.1	414.7	54.44	8.617		
11,775.0	11,447.0	11,916.9	11,595.7	37.4	19.3	-106.16	392.2	-1,796.7	467.5	413.1	54.39	8.595		
11,780.0	11,447.8	11,922.7	11,597.8	37.4	19.3	-106.35	397.7	-1,796.1	467.2	412.9	54.38	8.591		
11,800.0	11,450.6	11,943.1	11,604.8	37.4	19.3	-107.07	416.6	-1,793.8	466.2	411.8	54.36	8.575		
11,825.0	11,452.9	11,966.8	11,613.2	37.4	19.4	-108.02	438.6	-1,791.2	465.3	410.9	54.34	8.563		
11,850.0	11,454.0	11,990.5	11,621.4	37.4	19.4	-109.02	460.7	-1,788.6	464.9	410.6	54.30	8.562		
11,854.1	11,454.0	11,994.4	11,622.7	37.4	19.4	-109.19	464.4	-1,788.2	464.9	410.6	54.29	8.563		
11,856.9	11,454.0	11,997.0	11,623.5	37.4	19.4	-109.30	466.9	-1,787.9	464.9	410.6	54.28	8.564		
11,875.0	11,454.0	12,014.6	11,629.0	37.5	19.4	-110.01	483.4	-1,786.2	465.0	410.7	54.25	8.570		
11,900.0	11,454.0	12,041.4	11,636.7	37.5	19.4	-111.01	509.1	-1,783.7	465.1	410.9	54.20	8.582		
11,970.0	11,454.0	12,122.6	11,655.6	37.5	19.5	-113.54	587.6	-1,776.4	464.9	410.8	54.09	8.595		
12,000.0	11,454.0	12,152.3	11,660.3	37.6	19.6	-114.20	616.8	-1,774.2	464.5	410.4	54.09	8.588		
12,065.0	11,454.0	12,219.8	11,668.6	37.6	19.7	-115.38	683.6	-1,770.0	463.7	409.5	54.20	8.555		
12,100.0	11,454.0	12,256.7	11,670.9	37.7	19.7	-115.74	720.5	-1,768.5	463.1	408.8	54.30	8.528		
12,160.0	11,454.0	12,319.6	11,673.2	37.8	19.8	-116.13	783.3	-1,766.4	461.7	407.2	54.46	8.478		
12,200.0	11,454.0	12,361.6	11,674.5	37.8	19.9	-116.38	825.3	-1,764.8	460.6	406.0	54.57	8.440		
12,255.0	11,454.0	12,419.9	11,675.7	37.9	20.0	-116.67	883.5	-1,762.6	458.7	404.0	54.75	8.379		
12,300.0	11,454.0	12,467.3	11,676.0	38.0	20.1	-116.84	930.8	-1,760.7	456.9	402.0	54.90	8.323		
12,350.0	11,454.0	12,519.4	11,676.2	38.0	20.2	-117.01	982.9	-1,758.5	454.7	399.6	55.09	8.254		
12,400.0	11,454.0	12,563.7	11,676.1	38.1	20.3	-117.13	1,027.1	-1,756.7	452.5	397.1	55.33	8.178		
12,445.0	11,454.0	12,598.1	11,676.4	38.2	20.4	-117.22	1,061.6	-1,756.0	451.4	395.9	55.57	8.124		
12,466.7	11,454.0	12,614.8	11,676.6	38.2	20.5	-117.26	1,078.2	-1,755.9	451.3	395.6	55.68	8.106		
12,500.0	11,454.0	12,648.4	11,677.3	38.3	20.6	-117.34	1,111.8	-1,756.1	451.5	395.7	55.87	8.081		
12,540.0	11,454.0	12,725.7	11,679.4	38.4	21.1	-117.87	1,189.0	-1,752.0	449.8	393.7	56.12	8.015		
12,600.0	11,454.0	12,785.4	11,681.5	38.5	21.3	-118.52	1,248.2	-1,745.7	444.8	388.4	56.37	7.890		
12,635.0	11,454.0	12,819.2	11,682.8	38.5	21.4	-118.90	1,281.9	-1,742.2	441.9	385.4	56.52	7.820		
12,700.0	11,454.0	12,868.4	11,684.7	38.7	21.6	-119.41	1,330.9	-1,738.1	437.8	380.9	56.92	7.692		
12,730.0	11,454.0	12,890.7	11,685.4	38.7	21.7	-119.58	1,353.1	-1,736.9	436.8	379.7	57.11	7.648		
12,800.0	11,454.0	12,956.5	11,687.4	38.9	22.0	-119.94	1,418.9	-1,735.5	435.8	378.3	57.51	7.578		
12,825.0	11,454.0	12,984.9	11,687.9	38.9	22.1	-120.06	1,447.3	-1,734.7	435.3	377.7	57.65	7.551		
12,900.0	11,454.0	13,062.7	11,688.4	39.1	22.3	-120.32	1,525.1	-1,732.4	433.1	375.0	58.08	7.456		
12,920.0	11,454.0	13,082.5	11,688.4	39.2	22.4	-120.36	1,544.9	-1,731.9	432.4	374.2	58.21	7.429		
12,993.8	11,454.0	13,143.3	11,688.2	39.3	22.7	-120.43	1,605.6	-1,731.2	431.0	372.3	58.71	7.342		
13,000.0	11,454.0	13,147.9	11,688.2	39.4	22.7	-120.43	1,610.2	-1,731.2	431.0	372.3	58.75	7.337		
13,015.0	11,454.0	13,159.2	11,688.3	39.4	22.8	-120.43	1,621.5	-1,731.4	431.1	372.3	58.85	7.326		
13,100.0	11,454.0	13,234.5	11,689.0	39.6	23.1	-120.35	1,696.8	-1,734.5	433.8	374.4	59.44	7.298		
13,110.0	11,454.0	13,245.8	11,689.0	39.6	23.2	-120.33	1,708.0	-1,735.0	434.2	374.6	59.52	7.294		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11306+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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)						
13,200.0	11,454.0	13,335.4	11,688.2	39.9	23.6	-120.03	1,797.5	-1,739.0	436.5	376.3	60.22	7.249		
13,205.0	11,454.0	13,339.8	11,688.2	39.9	23.6	-120.01	1,801.9	-1,739.2	436.6	376.4	60.25	7.247		
13,300.0	11,454.0	13,433.7	11,686.3	40.2	24.0	-119.43	1,895.6	-1,745.7	440.6	379.6	61.04	7.218		
13,395.0	11,454.0	13,534.9	11,683.8	40.4	24.5	-118.86	1,996.6	-1,751.1	443.1	381.2	61.89	7.160		
13,400.0	11,454.0	13,540.0	11,683.7	40.5	24.5	-118.84	2,001.7	-1,751.3	443.2	381.3	61.93	7.157		
13,490.0	11,454.0	13,631.7	11,682.7	40.7	24.9	-118.56	2,093.3	-1,754.8	445.1	382.4	62.70	7.099		
13,500.0	11,454.0	13,641.9	11,682.5	40.8	25.0	-118.53	2,103.5	-1,755.2	445.3	382.5	62.78	7.092		
13,585.0	11,454.0	13,726.7	11,680.9	41.0	25.4	-118.18	2,188.3	-1,758.6	446.8	383.2	63.53	7.032		
13,600.0	11,454.0	13,741.6	11,680.6	41.1	25.5	-118.12	2,203.1	-1,759.2	447.0	383.4	63.66	7.022		
13,680.0	11,454.0	13,817.7	11,679.2	41.3	25.8	-117.81	2,279.1	-1,762.5	448.8	384.4	64.37	6.972		
13,700.0	11,454.0	13,836.4	11,679.0	41.4	25.9	-117.74	2,297.8	-1,763.4	449.4	384.8	64.54	6.962		
13,775.0	11,454.0	13,902.7	11,678.5	41.7	26.3	-117.51	2,364.1	-1,767.1	452.3	387.1	65.18	6.939		
13,800.0	11,454.0	13,924.2	11,678.6	41.8	26.4	-117.45	2,385.5	-1,768.5	453.6	388.2	65.38	6.938		
13,870.0	11,454.0	13,992.9	11,679.5	42.0	26.8	-117.29	2,454.0	-1,773.6	458.0	392.0	66.03	6.937		
13,900.0	11,454.0	14,025.6	11,679.9	42.1	26.9	-117.22	2,486.6	-1,775.8	459.7	393.4	66.33	6.931		
13,965.0	11,454.0	14,109.8	11,680.2	42.3	27.4	-117.07	2,570.7	-1,779.8	462.1	395.0	67.09	6.888		
14,000.0	11,454.0	14,153.6	11,679.9	42.5	27.7	-117.03	2,614.5	-1,780.4	462.1	394.7	67.46	6.850		
14,060.0	11,454.0	14,217.0	11,680.3	42.7	28.0	-117.13	2,677.9	-1,780.0	461.5	393.5	68.03	6.783		
14,100.0	11,454.0	14,259.6	11,681.3	42.9	28.3	-117.31	2,720.5	-1,779.0	460.8	392.4	68.40	6.737		
14,155.0	11,454.0	14,318.4	11,683.4	43.1	28.6	-117.70	2,779.2	-1,776.9	459.5	390.6	68.89	6.670		
14,200.0	11,454.0	14,365.2	11,685.5	43.2	28.9	-118.09	2,825.9	-1,774.6	458.1	388.9	69.28	6.612		
14,250.0	11,454.0	14,416.9	11,687.8	43.4	29.1	-118.53	2,877.4	-1,771.9	456.5	386.7	69.73	6.547		
14,300.0	11,454.0	14,462.3	11,689.9	43.6	29.4	-118.93	2,922.7	-1,769.6	454.9	384.8	70.18	6.483		
14,345.0	11,454.0	14,502.5	11,692.2	43.8	29.6	-119.32	2,962.8	-1,767.8	454.1	383.5	70.58	6.434		
14,400.0	11,454.0	14,562.6	11,695.9	44.0	30.0	-119.92	3,022.7	-1,765.1	453.2	382.1	71.08	6.376		
14,440.0	11,454.0	14,609.5	11,698.1	44.2	30.2	-120.36	3,069.6	-1,762.5	451.9	380.5	71.44	6.325		
14,500.0	11,454.0	14,669.7	11,700.4	44.4	30.6	-120.88	3,129.5	-1,758.9	449.5	377.5	72.00	6.243		
14,535.0	11,454.0	14,704.7	11,701.7	44.6	30.8	-121.17	3,164.5	-1,756.8	448.1	375.8	72.34	6.195		
14,600.0	11,454.0	14,770.0	11,703.7	44.9	31.2	-121.69	3,229.7	-1,753.1	445.5	372.5	72.96	6.106		
14,630.0	11,454.0	14,800.4	11,704.7	45.0	31.4	-121.93	3,260.0	-1,751.3	444.3	371.0	73.25	6.065		
14,700.0	11,454.0	14,884.0	11,705.0	45.3	31.9	-122.37	3,343.4	-1,746.3	440.3	366.4	73.94	5.955		
14,725.0	11,454.0	14,908.9	11,704.4	45.4	32.0	-122.43	3,368.3	-1,744.7	438.4	364.2	74.20	5.909		
14,800.0	11,454.0	14,977.4	11,703.1	45.7	32.4	-122.60	3,436.6	-1,740.9	433.6	358.6	75.01	5.780		
14,820.0	11,454.0	14,995.9	11,702.8	45.8	32.5	-122.64	3,455.2	-1,740.0	432.5	357.2	75.23	5.749		
14,900.0	11,454.0	15,071.3	11,700.8	46.2	33.0	-122.64	3,530.4	-1,737.6	428.6	352.4	76.12	5.630		
14,915.0	11,454.0	15,079.0	11,700.5	46.3	33.1	-122.62	3,538.2	-1,737.5	428.0	351.7	76.28	5.611		
14,976.3	11,454.0	15,128.9	11,699.2	46.5	33.4	-122.50	3,588.0	-1,737.5	426.8	349.8	76.96	5.545		
15,000.0	11,454.0	15,146.3	11,699.0	46.7	33.5	-122.46	3,605.4	-1,738.0	426.9	349.7	77.20	5.531		
15,010.0	11,454.0	15,153.6	11,699.0	46.7	33.6	-122.44	3,612.8	-1,738.2	427.1	349.8	77.29	5.526		
15,100.0	11,454.0	15,241.7	11,699.2	47.1	34.1	-122.25	3,700.7	-1,742.1	429.9	351.6	78.32	5.489		
15,105.0	11,454.0	15,247.1	11,699.2	47.1	34.2	-122.23	3,706.1	-1,742.3	430.0	351.6	78.39	5.486		
15,200.0	11,454.0	15,348.1	11,698.7	47.6	34.8	-122.00	3,807.1	-1,745.6	431.7	352.1	79.54	5.427		
15,295.0	11,454.0	15,442.6	11,698.5	48.0	35.4	-121.89	3,901.6	-1,747.8	432.6	352.0	80.65	5.365		
15,300.0	11,454.0	15,447.5	11,698.5	48.1	35.4	-121.89	3,906.5	-1,747.9	432.7	352.0	80.70	5.362		
15,390.0	11,454.0	15,550.6	11,697.5	48.5	36.1	-121.75	4,009.6	-1,749.2	432.6	350.7	81.83	5.286		
15,400.0	11,454.0	15,560.1	11,697.3	48.6	36.2	-121.74	4,019.1	-1,749.2	432.4	350.4	81.95	5.276		
15,485.0	11,454.0	15,640.1	11,696.4	49.0	36.7	-121.67	4,099.0	-1,749.4	431.4	348.5	82.94	5.202		
15,500.0	11,454.0	15,656.3	11,696.3	49.1	36.8	-121.67	4,115.2	-1,749.5	431.3	348.2	83.12	5.189		
15,580.0	11,454.0	15,749.5	11,694.9	49.5	37.4	-121.62	4,208.4	-1,748.7	429.5	345.4	84.11	5.107		
15,600.0	11,454.0	15,774.7	11,694.1	49.6	37.6	-121.59	4,233.6	-1,748.1	428.6	344.3	84.34	5.082		
15,675.0	11,454.0	15,855.9	11,689.8	49.9	38.1	-121.35	4,314.6	-1,745.1	423.5	338.3	85.25	4.968		
15,700.0	11,454.0	15,875.9	11,688.7	50.1	38.2	-121.28	4,334.6	-1,744.5	422.0	336.5	85.57	4.932		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-Standard Keeper 104, 11306-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	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N-S (usft)	+E-W (usft)						
15,770.0	11,454.0	15,933.3	11,686.8	50.4	38.6	-121.15	4,392.0	-1,743.7	419.4	332.9	86.44	4.852		
15,800.0	11,454.0	15,963.4	11,686.1	50.6	38.8	-121.10	4,422.0	-1,743.6	418.6	331.8	86.81	4.823		
15,865.0	11,454.0	16,021.0	11,684.9	50.9	39.2	-121.03	4,479.6	-1,743.1	417.1	329.5	87.58	4.762		
15,900.0	11,454.0	16,054.9	11,684.3	51.1	39.5	-120.98	4,513.5	-1,743.2	416.6	328.6	88.02	4.733		
15,908.6	11,454.0	16,061.7	11,684.2	51.1	39.5	-120.97	4,520.4	-1,743.3	416.6	328.5	88.12	4.728 CC		
15,960.0	11,454.0	16,102.7	11,683.8	51.4	39.8	-120.85	4,561.3	-1,744.5	417.2	328.5	88.69	4.704		
16,000.0	11,454.0	16,140.0	11,683.5	51.6	40.0	-120.71	4,598.6	-1,746.4	418.5	329.3	89.18	4.693		
16,055.0	11,454.0	16,195.9	11,682.3	51.9	40.4	-120.39	4,654.4	-1,749.6	420.1	330.2	89.90	4.674		
16,100.0	11,454.0	16,240.7	11,681.1	52.2	40.7	-120.10	4,699.1	-1,752.2	421.5	331.0	90.48	4.658		
16,150.0	11,454.0	16,290.1	11,680.5	52.4	41.1	-119.87	4,748.4	-1,754.8	423.0	331.9	91.12	4.642		
16,200.0	11,454.0	16,333.4	11,680.6	52.7	41.3	-119.76	4,791.7	-1,757.0	424.9	333.2	91.67	4.634		
16,245.0	11,454.0	16,370.5	11,681.6	52.9	41.6	-119.76	4,828.6	-1,759.1	427.4	335.3	92.12	4.639		
16,300.0	11,454.0	16,418.8	11,684.1	53.2	41.9	-119.87	4,876.8	-1,762.3	431.5	338.8	92.69	4.656		
16,340.0	11,454.0	16,457.5	11,686.6	53.5	42.2	-120.01	4,915.3	-1,764.9	434.8	341.7	93.16	4.667		
16,400.0	11,454.0	16,522.2	11,691.2	53.8	42.6	-120.30	4,979.7	-1,768.9	439.7	345.8	93.99	4.679		
16,435.0	11,454.0	16,565.2	11,693.7	54.0	42.9	-120.47	5,022.6	-1,771.0	442.0	347.4	94.55	4.674		
16,500.0	11,454.0	16,653.1	11,696.5	54.3	43.5	-120.69	5,110.4	-1,773.2	443.9	348.3	95.61	4.643		
16,530.0	11,454.0	16,695.0	11,696.3	54.5	43.8	-120.71	5,152.3	-1,773.2	443.6	347.6	96.04	4.619		
16,600.0	11,454.0	16,766.8	11,695.2	54.9	44.3	-120.66	5,224.1	-1,772.6	442.1	345.1	96.94	4.560		
16,625.0	11,454.0	16,791.9	11,694.7	55.0	44.5	-120.63	5,249.2	-1,772.4	441.4	344.1	97.26	4.538		
16,700.0	11,454.0	16,865.3	11,693.2	55.5	45.0	-120.56	5,322.6	-1,771.6	439.3	341.1	98.23	4.473		
16,720.0	11,454.0	16,886.3	11,692.9	55.6	45.1	-120.55	5,343.5	-1,771.3	438.8	340.3	98.49	4.456		
16,800.0	11,454.0	16,969.6	11,690.7	56.0	45.7	-120.43	5,426.8	-1,770.3	436.2	336.7	99.53	4.383		
16,815.0	11,454.0	16,983.2	11,690.3	56.1	45.8	-120.40	5,440.4	-1,770.1	435.7	336.0	99.72	4.369		
16,900.0	11,454.0	17,060.6	11,688.7	56.6	46.3	-120.30	5,517.8	-1,769.6	433.8	332.9	100.82	4.302		
16,910.0	11,454.0	17,070.0	11,688.6	56.7	46.4	-120.30	5,527.2	-1,769.6	433.6	332.7	100.95	4.295		
17,000.0	11,454.0	17,154.1	11,688.3	57.2	47.0	-120.28	5,611.3	-1,770.0	433.1	331.0	102.10	4.242		
17,005.0	11,454.0	17,159.3	11,688.3	57.2	47.0	-120.28	5,616.5	-1,770.1	433.1	330.9	102.17	4.239		
17,041.2	11,454.0	17,196.8	11,688.3	57.4	47.3	-120.29	5,654.0	-1,770.3	433.0	330.4	102.65	4.219		
17,100.0	11,454.0	17,255.5	11,688.2	57.8	47.7	-120.30	5,712.7	-1,770.6	432.7	329.3	103.42	4.184		
17,106.5	11,454.0	17,260.9	11,688.2	57.8	47.7	-120.30	5,718.1	-1,770.6	432.7	329.2	103.50	4.181		
17,195.0	11,454.0	17,339.0	11,688.7	58.3	48.3	-120.27	5,796.2	-1,772.6	434.2	329.6	104.59	4.152		
17,200.0	11,454.0	17,339.0	11,688.7	58.3	48.3	-120.27	5,796.2	-1,772.6	434.4	329.8	104.60	4.153		
17,290.0	11,454.0	17,414.6	11,690.7	58.9	48.8	-120.28	5,871.6	-1,776.6	439.0	333.4	105.57	4.159		
17,300.0	11,454.0	17,422.9	11,691.1	58.9	48.9	-120.29	5,879.9	-1,777.2	439.7	334.0	105.67	4.161		
17,385.0	11,454.0	17,532.8	11,694.5	59.4	49.7	-120.39	5,989.6	-1,782.4	444.0	336.8	107.17	4.143		
17,400.0	11,454.0	17,546.4	11,694.7	59.5	49.8	-120.41	6,003.2	-1,782.7	444.2	336.9	107.35	4.138		
17,480.0	11,454.0	17,630.4	11,697.1	60.0	50.4	-120.65	6,087.2	-1,783.7	445.6	337.2	108.44	4.109		
17,500.0	11,454.0	17,658.9	11,697.7	60.1	50.6	-120.74	6,115.6	-1,783.6	445.6	336.9	108.76	4.097		
17,575.0	11,454.0	17,752.2	11,697.1	60.6	51.2	-120.91	6,208.9	-1,780.9	442.8	333.1	109.76	4.035		
17,600.0	11,454.0	17,778.9	11,696.6	60.7	51.4	-120.95	6,235.6	-1,779.8	441.5	331.4	110.08	4.011		
17,670.0	11,454.0	17,845.9	11,695.7	61.2	51.9	-121.09	6,302.5	-1,776.7	437.7	326.7	111.03	3.942		
17,700.0	11,454.0	17,872.9	11,695.6	61.3	52.1	-121.18	6,329.4	-1,775.6	436.4	324.9	111.43	3.916		
17,765.0	11,454.0	17,934.7	11,696.2	61.7	52.5	-121.44	6,391.3	-1,773.3	434.1	321.8	112.30	3.865		
17,800.0	11,454.0	17,969.6	11,696.2	61.9	52.7	-121.54	6,426.1	-1,772.2	432.9	320.1	112.77	3.839		
17,860.0	11,454.0	18,034.4	11,695.8	62.3	53.2	-121.67	6,490.8	-1,770.2	430.7	317.1	113.56	3.792		
17,900.0	11,454.0	18,079.4	11,695.3	62.6	53.5	-121.78	6,535.9	-1,768.2	428.6	314.6	114.07	3.757		
17,955.0	11,454.0	18,129.2	11,694.6	62.9	53.9	-121.88	6,585.6	-1,766.1	425.8	310.9	114.84	3.707		
18,000.0	11,454.0	18,168.9	11,693.6	63.2	54.2	-121.87	6,625.2	-1,765.2	424.0	308.6	115.47	3.672		
18,050.0	11,454.0	18,215.3	11,692.3	63.5	54.5	-121.76	6,671.6	-1,765.0	422.7	306.5	116.16	3.639		
18,100.0	11,454.0	18,262.4	11,690.9	63.8	54.8	-121.62	6,718.7	-1,765.2	421.7	304.8	116.84	3.609		
18,145.0	11,454.0	18,307.7	11,689.5	64.1	55.2	-121.44	6,764.0	-1,765.6	421.0	303.5	117.47	3.584		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error:	0.0 usft
Survey Program:		100-Standard Keeper 104, 11306-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	
18,200.0	11,454.0	18,364.2	11,687.1	64.4	55.6	-121.16	6,820.5	-1,766.3	419.9	301.7	118.24	3.551		
18,240.0	11,454.0	18,401.4	11,685.4	64.7	55.8	-120.94	6,857.6	-1,766.9	419.2	300.4	118.79	3.529		
18,300.0	11,454.0	18,456.7	11,683.0	65.0	56.2	-120.60	6,912.8	-1,768.3	418.7	299.0	119.61	3.500		
18,335.0	11,454.0	18,490.6	11,681.6	65.3	56.5	-120.37	6,946.7	-1,769.4	418.6	298.5	120.10	3.486		
18,339.3	11,454.0	18,494.9	11,681.4	65.3	56.5	-120.34	6,950.9	-1,769.5	418.6	298.5	120.16	3.484		
18,400.0	11,454.0	18,554.3	11,678.5	65.7	56.9	-119.89	7,010.2	-1,771.8	418.7	297.7	121.01	3.460		
18,430.0	11,454.0	18,584.5	11,676.9	65.8	57.1	-119.63	7,040.4	-1,773.1	418.8	297.4	121.43	3.449		
18,500.0	11,454.0	18,650.0	11,673.2	66.3	57.6	-119.03	7,105.7	-1,776.0	419.0	296.6	122.39	3.423		
18,525.0	11,454.0	18,675.4	11,671.8	66.4	57.8	-118.80	7,131.1	-1,777.2	419.2	296.4	122.75	3.415		
18,600.0	11,454.0	18,744.0	11,670.0	66.9	58.3	-118.38	7,199.5	-1,781.0	421.2	297.5	123.75	3.404		
18,620.0	11,454.0	18,744.0	11,670.0	67.0	58.3	-118.38	7,199.5	-1,781.0	422.3	298.6	123.65	3.415		
18,700.0	11,454.0	18,814.5	11,670.4	67.6	58.8	-118.07	7,269.8	-1,787.0	428.0	303.5	124.54	3.437		
18,715.0	11,454.0	18,825.7	11,670.6	67.7	58.9	-118.02	7,280.9	-1,788.3	429.5	304.9	124.64	3.446		
18,800.0	11,454.0	18,903.6	11,672.8	68.2	59.5	-117.71	7,358.1	-1,798.2	439.5	313.9	125.62	3.498		
18,810.0	11,454.0	18,913.2	11,673.1	68.3	59.6	-117.68	7,367.6	-1,799.4	440.7	314.9	125.75	3.505		
18,900.0	11,454.0	19,033.5	11,677.1	68.8	60.5	-117.50	7,487.3	-1,811.1	449.3	321.5	127.86	3.514		
18,905.0	11,454.0	19,040.8	11,677.3	68.9	60.5	-117.50	7,494.5	-1,811.5	449.6	321.6	127.97	3.513		
19,000.0	11,454.0	19,148.4	11,681.1	69.5	61.3	-117.83	7,602.0	-1,814.4	452.6	323.1	129.46	3.496		
19,095.0	11,454.0	19,241.9	11,684.7	70.1	62.0	-118.19	7,695.4	-1,815.7	454.7	323.9	130.76	3.477		
19,100.0	11,454.0	19,246.8	11,684.8	70.1	62.0	-118.21	7,700.3	-1,815.7	454.8	324.0	130.82	3.477		
19,190.0	11,454.0	19,335.3	11,688.5	70.7	62.7	-118.57	7,788.8	-1,817.2	457.1	325.1	132.05	3.462		
19,200.0	11,454.0	19,345.3	11,688.9	70.8	62.7	-118.61	7,798.7	-1,817.4	457.4	325.2	132.19	3.460		
19,285.0	11,454.0	19,430.6	11,692.3	71.3	63.3	-118.95	7,883.9	-1,818.9	459.7	326.4	133.37	3.447		
19,300.0	11,454.0	19,445.9	11,693.0	71.4	63.5	-119.01	7,899.3	-1,819.2	460.1	326.6	133.58	3.445		
19,380.0	11,454.0	19,530.8	11,696.5	71.9	64.1	-119.37	7,984.0	-1,820.2	462.0	327.2	134.75	3.429		
19,400.0	11,454.0	19,553.8	11,697.0	72.1	64.2	-119.43	8,007.1	-1,820.4	462.2	327.2	135.06	3.423		
19,475.0	11,454.0	19,637.8	11,696.8	72.6	64.8	-119.41	8,091.1	-1,821.1	462.1	325.9	136.17	3.393		
19,500.0	11,454.0	19,664.9	11,696.3	72.7	65.0	-119.37	8,118.1	-1,821.2	461.7	325.2	136.52	3.382		
19,570.0	11,454.0	19,741.3	11,694.2	73.2	65.6	-119.19	8,194.5	-1,821.2	460.2	322.7	137.52	3.347		
19,600.0	11,454.0	19,774.1	11,693.1	73.4	65.8	-119.10	8,227.3	-1,820.9	459.3	321.3	137.94	3.329		
19,665.0	11,454.0	19,837.1	11,690.8	73.8	66.3	-118.91	8,290.2	-1,820.3	457.0	318.1	138.86	3.291		
19,700.0	11,454.0	19,869.9	11,689.6	74.0	66.5	-118.81	8,323.0	-1,820.2	456.0	316.7	139.37	3.272		
19,760.0	11,454.0	19,933.3	11,687.1	74.4	67.0	-118.58	8,386.4	-1,820.1	454.3	314.1	140.21	3.240		
19,800.0	11,454.0	19,976.9	11,685.0	74.7	67.3	-118.39	8,429.9	-1,819.8	452.9	312.1	140.77	3.217		
19,855.0	11,454.0	20,024.4	11,683.2	75.1	67.7	-118.23	8,477.3	-1,819.4	451.0	309.5	141.58	3.186		
19,900.0	11,454.0	20,063.2	11,682.7	75.4	67.9	-118.21	8,516.2	-1,819.2	450.2	308.0	142.21	3.166		
19,950.0	11,454.0	20,111.8	11,683.0	75.7	68.3	-118.28	8,564.7	-1,819.1	449.8	306.9	142.92	3.147		
20,000.0	11,454.0	20,161.7	11,683.7	76.0	68.7	-118.41	8,614.7	-1,818.7	449.4	305.8	143.62	3.129		
20,036.3	11,454.0	20,194.6	11,684.4	76.3	68.9	-118.52	8,647.5	-1,818.5	449.3	305.2	144.12	3.117		
20,045.0	11,454.0	20,202.3	11,684.6	76.3	69.0	-118.54	8,655.3	-1,818.5	449.3	305.1	144.24	3.115		
20,100.0	11,454.0	20,251.5	11,686.0	76.7	69.3	-118.72	8,704.4	-1,818.6	449.8	304.8	144.97	3.103		
20,140.0	11,454.0	20,290.3	11,687.3	77.0	69.6	-118.86	8,743.3	-1,819.0	450.5	304.9	145.52	3.095		
20,200.0	11,454.0	20,350.3	11,689.2	77.4	70.0	-119.07	8,803.2	-1,819.7	451.5	305.2	146.37	3.085		
20,235.0	11,454.0	20,382.9	11,690.3	77.6	70.3	-119.18	8,835.8	-1,820.2	452.2	305.4	146.84	3.080		
20,300.0	11,454.0	20,442.8	11,693.0	78.0	70.7	-119.44	8,895.6	-1,821.2	454.1	306.4	147.69	3.075		
20,330.0	11,454.0	20,476.0	11,694.6	78.2	71.0	-119.61	8,928.7	-1,821.8	455.1	306.9	148.16	3.071		
20,400.0	11,454.0	20,556.2	11,697.8	78.7	71.5	-119.98	9,008.9	-1,822.1	456.1	306.9	149.27	3.056		
20,425.0	11,454.0	20,583.2	11,698.7	78.9	71.7	-120.10	9,035.8	-1,821.9	456.2	306.6	149.64	3.049		
20,492.1	11,454.0	20,650.7	11,700.4	79.3	72.2	-120.37	9,103.4	-1,821.3	456.0	305.4	150.60	3.028		
20,500.0	11,454.0	20,657.0	11,700.6	79.4	72.3	-120.40	9,109.7	-1,821.2	456.0	305.3	150.70	3.026		
20,520.0	11,454.0	20,673.0	11,701.1	79.5	72.4	-120.46	9,125.6	-1,821.2	456.2	305.2	150.95	3.022		
20,600.0	11,454.0	20,741.0	11,704.1	80.0	72.9	-120.74	9,193.6	-1,822.5	458.5	306.6	151.94	3.018		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZHU 2331 WC #6H - ST01 - AWP													Offset Site Error: 0.0 usft		
Survey Program: Reference		100-Standard Keeper 104, 11306-r.5 MWD+IFR1+MS				Semi Major Axis		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)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
20,615.0	11,454.0	20,761.5	11,704.9	80.2	73.1	-120.80	9,214.0	-1,823.0	459.0	306.8	152.24	3.015			
20,700.0	11,454.0	20,863.3	11,704.7	80.7	73.8	-120.78	9,315.8	-1,824.1	459.0	305.3	153.62	2.988			
20,710.0	11,454.0	20,873.1	11,704.6	80.8	73.9	-120.76	9,325.6	-1,824.2	458.9	305.1	153.76	2.984			
20,800.0	11,454.0	20,961.8	11,702.6	81.4	74.5	-120.53	9,414.3	-1,825.3	458.2	303.1	155.06	2.955			
20,805.0	11,454.0	20,966.8	11,702.5	81.4	74.6	-120.51	9,419.3	-1,825.4	458.1	303.0	155.13	2.953			
20,900.0	11,454.0	21,060.7	11,700.1	82.1	75.3	-120.20	9,513.2	-1,827.0	457.6	301.1	156.50	2.924			
20,969.5	11,454.0	21,128.3	11,698.2	82.6	75.8	-119.94	9,580.7	-1,828.5	457.4	299.9	157.50	2.904			
20,995.0	11,454.0	21,152.4	11,697.5	82.7	75.9	-119.84	9,604.8	-1,829.2	457.4	299.6	157.86	2.898			
21,000.0	11,454.0	21,157.2	11,697.4	82.8	76.0	-119.82	9,609.5	-1,829.3	457.4	299.5	157.93	2.897			
21,090.0	11,454.0	21,245.4	11,695.0	83.4	76.6	-119.43	9,697.7	-1,832.3	458.1	298.9	159.22	2.877			
21,100.0	11,454.0	21,255.7	11,694.7	83.4	76.7	-119.38	9,708.0	-1,832.6	458.2	298.8	159.37	2.875			
21,185.0	11,454.0	21,342.1	11,691.9	84.0	77.3	-118.95	9,794.2	-1,835.5	458.6	298.0	160.62	2.855			
21,200.0	11,454.0	21,357.2	11,691.4	84.1	77.5	-118.88	9,809.3	-1,835.9	458.7	297.8	160.84	2.852			
21,280.0	11,454.0	21,434.6	11,688.9	84.7	78.0	-118.50	9,886.6	-1,838.4	459.1	297.1	161.98	2.834			
21,300.0	11,454.0	21,453.2	11,688.5	84.8	78.2	-118.42	9,905.3	-1,839.1	459.3	297.1	162.26	2.831			
21,375.0	11,454.0	21,528.1	11,687.2	85.3	78.7	-118.16	9,980.1	-1,841.8	460.5	297.1	163.35	2.819			
21,400.0	11,454.0	21,554.7	11,686.6	85.5	78.9	-118.06	10,006.7	-1,842.7	460.8	297.0	163.73	2.814			
21,470.0	11,454.0	21,626.8	11,684.7	86.0	79.5	-117.75	10,078.8	-1,844.9	461.2	296.4	164.76	2.799			
21,500.0	11,454.0	21,657.1	11,683.8	86.2	79.7	-117.63	10,109.0	-1,845.8	461.3	296.1	165.20	2.793			
21,565.0	11,454.0	21,720.9	11,682.0	86.6	80.1	-117.35	10,172.8	-1,847.6	461.7	295.5	166.14	2.779			
21,600.0	11,454.0	21,754.9	11,681.1	86.9	80.4	-117.21	10,206.7	-1,848.7	462.0	295.3	166.64	2.772			
21,660.0	11,454.0	21,815.4	11,679.5	87.3	80.9	-116.95	10,267.2	-1,850.7	462.5	295.0	167.52	2.761			
21,700.0	11,454.0	21,856.4	11,678.4	87.6	81.2	-116.77	10,308.2	-1,852.0	462.8	294.7	168.11	2.753			
21,755.0	11,454.0	21,909.6	11,676.8	87.9	81.5	-116.54	10,361.3	-1,853.7	463.2	294.3	168.90	2.743			
21,800.0	11,454.0	21,952.4	11,675.7	88.3	81.9	-116.35	10,404.1	-1,855.3	463.8	294.3	169.53	2.736 ES			
21,850.0	11,454.0	21,997.6	11,674.8	88.6	82.2	-116.16	10,449.2	-1,857.1	464.8	294.6	170.21	2.731			
21,900.0	11,454.0	22,044.0	11,674.1	88.9	82.5	-115.98	10,495.5	-1,859.5	466.3	295.4	170.88	2.729			
21,918.8	11,454.0	22,062.7	11,673.8	89.1	82.7	-115.91	10,514.2	-1,860.5	466.9	295.8	171.16	2.728 SF			

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
0.0	0.0	0.0	0.0	3.0	3.0	89.56	0.2	29.9	30.0					
95.0	95.0	95.0	95.0	3.0	3.0	89.56	0.2	29.9	30.0	23.9	6.03	4.971		
100.0	100.0	100.0	100.0	3.0	3.0	89.56	0.2	29.9	30.0	23.9	6.03	4.968		
190.0	190.0	190.0	190.0	3.1	3.1	89.56	0.2	29.9	30.0	23.8	6.15	4.868		
200.0	200.0	200.0	200.0	3.1	3.1	89.56	0.2	29.9	30.0	23.8	6.17	4.853		
285.0	285.0	285.0	285.0	3.2	3.2	89.56	0.2	29.9	30.0	23.6	6.31	4.746		
300.0	300.0	300.0	300.0	3.2	3.2	89.56	0.2	29.9	30.0	23.6	6.34	4.725		
380.0	380.0	380.0	380.0	3.3	3.3	89.56	0.2	29.9	30.0	23.5	6.49	4.616		
400.0	400.0	400.0	400.0	3.3	3.3	89.56	0.2	29.9	30.0	23.4	6.53	4.587		
475.0	475.0	475.0	475.0	3.4	3.4	89.56	0.2	29.9	30.0	23.3	6.68	4.481		
500.0	500.0	500.0	500.0	3.4	3.4	89.56	0.2	29.9	30.0	23.2	6.74	4.444		
570.0	570.0	570.0	570.0	3.5	3.5	89.56	0.2	29.9	30.0	23.1	6.90	4.342		
600.0	600.0	600.0	600.0	3.5	3.5	89.56	0.2	29.9	30.0	23.0	6.97	4.298		
665.0	665.0	665.0	665.0	3.6	3.6	89.56	0.2	29.9	30.0	22.8	7.13	4.202		
700.0	700.0	700.0	700.0	3.7	3.7	89.56	0.2	29.9	30.0	22.7	7.22	4.151		
760.0	760.0	760.0	760.0	3.8	3.8	89.56	0.2	29.9	30.0	22.6	7.37	4.064		
800.0	800.0	800.0	800.0	3.8	3.8	89.56	0.2	29.9	30.0	22.5	7.48	4.005		
855.0	855.0	855.0	855.0	3.9	3.9	89.56	0.2	29.9	30.0	22.3	7.63	3.927		
900.0	900.0	900.0	900.0	4.0	4.0	89.56	0.2	29.9	30.0	22.2	7.75	3.863		
950.0	950.0	950.0	950.0	4.1	4.1	89.56	0.2	29.9	30.0	22.1	7.90	3.793		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.56	0.2	29.9	30.0	21.9	8.04	3.725 CC, ES		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	179.79	0.2	29.9	30.3	22.1	8.22	3.687		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	179.80	0.2	29.9	31.7	23.3	8.44	3.755		
1,140.0	1,139.9	1,139.9	1,139.9	4.4	4.4	179.81	0.2	29.9	33.4	24.7	8.62	3.870		
1,200.0	1,199.8	1,199.8	1,199.8	4.6	4.5	179.83	0.2	29.9	36.9	28.0	8.90	4.150		
1,235.0	1,234.7	1,234.7	1,234.7	4.7	4.6	179.84	0.2	29.9	39.6	30.5	9.06	4.368		
1,300.0	1,299.5	1,299.5	1,299.5	4.9	4.7	179.86	0.2	29.9	45.6	36.3	9.37	4.869		
1,330.0	1,329.3	1,329.3	1,329.3	5.0	4.7	179.87	0.2	29.9	48.9	39.4	9.52	5.140		
1,400.0	1,398.7	1,398.7	1,398.7	5.2	4.9	179.89	0.2	29.9	57.8	48.0	9.87	5.861		
1,425.0	1,423.4	1,423.4	1,423.4	5.3	4.9	179.90	0.2	29.9	61.4	51.4	9.99	6.145		
1,500.0	1,497.5	1,497.5	1,497.5	5.6	5.1	179.91	0.2	29.9	73.5	63.1	10.38	7.078		
1,520.0	1,517.1	1,517.1	1,517.1	5.6	5.1	179.92	0.2	29.9	77.0	66.5	10.49	7.344		
1,600.0	1,595.6	1,595.6	1,595.6	5.9	5.3	179.93	0.2	29.9	92.6	81.6	10.91	8.480		
1,615.0	1,610.3	1,610.3	1,610.3	6.0	5.3	179.93	0.2	29.9	95.7	84.7	10.99	8.709		
1,700.0	1,693.4	1,693.4	1,693.4	6.2	5.5	179.94	0.2	29.9	113.3	102.0	11.39	9.953		
1,710.0	1,703.2	1,703.2	1,703.2	6.3	5.5	179.94	0.2	29.9	115.4	104.0	11.44	10.092		
1,800.0	1,791.3	1,791.3	1,791.3	6.6	5.7	179.95	0.2	29.9	134.1	122.3	11.88	11.290		
1,805.0	1,796.1	1,796.1	1,796.1	6.6	5.7	179.95	0.2	29.9	135.2	123.3	11.91	11.353		
1,900.0	1,889.1	1,889.1	1,889.1	6.9	5.9	179.96	0.2	29.9	154.9	142.5	12.39	12.500		
1,995.0	1,982.0	1,982.0	1,982.0	7.2	6.0	179.96	0.2	29.9	174.7	161.8	12.90	13.544		
2,000.0	1,986.9	1,986.9	1,986.9	7.3	6.1	179.96	0.2	29.9	175.7	162.8	12.92	13.596		
2,090.0	2,074.9	2,080.3	2,080.3	7.6	6.2	179.97	0.2	28.8	193.4	179.9	13.47	14.360		
2,100.0	2,084.7	2,090.9	2,090.9	7.6	6.2	179.97	0.2	28.5	195.2	181.6	13.53	14.427		
2,185.0	2,167.8	2,181.2	2,181.0	7.9	6.3	179.97	0.2	24.2	208.9	194.8	14.06	14.856		
2,200.0	2,182.5	2,197.2	2,197.0	8.0	6.3	179.97	0.2	23.2	211.0	196.9	14.15	14.909		
2,280.0	2,260.8	2,283.0	2,282.6	8.3	6.4	179.97	0.2	16.0	221.0	206.4	14.67	15.067		
2,300.0	2,280.3	2,304.6	2,304.0	8.4	6.5	179.97	0.2	13.8	223.2	208.4	14.80	15.079		
2,375.0	2,353.7	2,385.7	2,384.5	8.7	6.6	179.96	0.2	4.0	229.8	214.5	15.30	15.020		
2,400.0	2,378.1	2,412.8	2,411.4	8.8	6.7	179.96	0.2	0.3	231.6	216.1	15.47	14.969		
2,470.0	2,446.6	2,488.9	2,486.6	9.1	6.9	179.96	0.1	-11.7	235.2	219.3	15.95	14.745		
2,500.0	2,476.0	2,521.6	2,518.7	9.2	7.0	179.96	0.1	-17.4	236.2	220.1	16.15	14.629		
2,565.0	2,539.5	2,591.0	2,586.8	9.5	7.1	179.95	0.1	-30.8	237.2	220.7	16.55	14.337		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
2,600.0	2,573.8	2,626.0	2,621.1	9.6	7.2	179.95	0.1	-37.7	237.6	220.8	16.78	14.157		
2,660.0	2,632.5	2,686.0	2,679.9	9.9	7.3	179.95	0.0	-49.7	238.1	220.9	17.19	13.846		
2,700.0	2,671.6	2,726.0	2,719.1	10.0	7.4	179.94	0.0	-57.7	238.4	220.9	17.48	13.642		
2,755.0	2,725.4	2,781.0	2,773.0	10.3	7.6	179.94	0.0	-68.6	238.9	221.0	17.87	13.368		
2,800.0	2,769.4	2,826.0	2,817.1	10.4	7.7	179.94	-0.1	-77.6	239.3	221.1	18.20	13.149		
2,850.0	2,818.3	2,876.0	2,866.1	10.7	7.9	179.94	-0.1	-87.6	239.7	221.2	18.57	12.910		
2,900.0	2,867.2	2,926.0	2,915.1	10.9	8.0	179.93	-0.1	-97.5	240.2	221.2	18.95	12.677		
2,945.0	2,911.2	2,971.0	2,959.2	11.1	8.2	179.93	-0.1	-106.5	240.6	221.3	19.29	12.472		
3,000.0	2,965.0	3,026.0	3,013.1	11.3	8.3	179.93	-0.2	-117.5	241.0	221.3	19.71	12.229		
3,040.0	3,004.2	3,066.0	3,052.3	11.5	8.5	179.92	-0.2	-125.4	241.4	221.4	20.02	12.056		
3,100.0	3,062.8	3,126.0	3,111.1	11.7	8.7	179.92	-0.2	-137.4	241.9	221.4	20.49	11.804		
3,135.0	3,097.1	3,161.0	3,145.4	11.9	8.8	179.92	-0.2	-144.4	242.2	221.4	20.77	11.661		
3,200.0	3,160.7	3,226.0	3,209.1	12.2	9.0	179.91	-0.3	-157.3	242.8	221.5	21.29	11.402		
3,230.0	3,190.0	3,256.0	3,238.5	12.3	9.1	179.91	-0.3	-163.3	243.1	221.5	21.54	11.286		
3,300.0	3,258.5	3,326.0	3,307.1	12.6	9.3	179.91	-0.3	-177.3	243.7	221.6	22.11	11.022		
3,325.0	3,282.9	3,351.0	3,331.5	12.7	9.4	179.91	-0.3	-182.3	243.9	221.6	22.31	10.930		
3,400.0	3,356.3	3,426.0	3,405.0	13.1	9.7	179.90	-0.4	-197.2	244.5	221.6	22.93	10.663		
3,420.0	3,375.9	3,446.0	3,424.6	13.1	9.8	179.90	-0.4	-201.2	244.7	221.6	23.10	10.594		
3,500.0	3,454.1	3,526.0	3,503.0	13.5	10.1	179.90	-0.4	-217.2	245.4	221.6	23.77	10.325		
3,515.0	3,468.8	3,541.0	3,517.7	13.6	10.1	179.89	-0.4	-220.1	245.5	221.6	23.90	10.275		
3,600.0	3,551.9	3,626.0	3,601.0	13.9	10.5	179.89	-0.5	-237.1	246.3	221.7	24.62	10.005		
3,610.0	3,561.7	3,636.0	3,610.8	14.0	10.5	179.89	-0.5	-239.1	246.4	221.7	24.70	9.974		
3,700.0	3,649.7	3,726.0	3,699.0	14.4	10.8	179.88	-0.5	-257.0	247.2	221.7	25.47	9.703		
3,705.0	3,654.6	3,731.0	3,703.9	14.4	10.9	179.88	-0.5	-258.0	247.2	221.7	25.52	9.688		
3,800.0	3,747.5	3,826.0	3,797.0	14.8	11.2	179.88	-0.6	-277.0	248.0	221.7	26.34	9.418		
3,895.0	3,840.5	3,921.0	3,890.1	15.3	11.6	179.87	-0.6	-295.9	248.9	221.7	27.16	9.161		
3,900.0	3,845.4	3,926.0	3,895.0	15.3	11.6	179.87	-0.6	-296.9	248.9	221.7	27.21	9.148		
3,990.0	3,933.4	4,016.0	3,983.2	15.7	12.0	179.87	-0.7	-314.8	249.7	221.7	28.00	8.918		
4,000.0	3,943.2	4,026.0	3,993.0	15.7	12.0	179.87	-0.7	-316.8	249.8	221.7	28.08	8.894		
4,085.0	4,026.3	4,111.0	4,076.3	16.1	12.4	179.86	-0.7	-333.8	250.5	221.7	28.84	8.688		
4,100.0	4,041.0	4,126.0	4,091.0	16.2	12.4	179.86	-0.7	-336.8	250.6	221.7	28.97	8.652		
4,180.0	4,119.2	4,205.9	4,169.4	16.6	12.8	179.86	-0.8	-352.7	251.3	221.7	29.68	8.469		
4,200.0	4,138.8	4,225.9	4,189.0	16.7	12.8	179.85	-0.8	-356.7	251.5	221.7	29.86	8.424		
4,275.0	4,212.2	4,300.9	4,262.4	17.0	13.2	179.85	-0.8	-371.7	252.2	221.6	30.53	8.261		
4,300.0	4,236.6	4,325.9	4,286.9	17.1	13.3	179.85	-0.8	-376.6	252.4	221.6	30.75	8.208		
4,370.0	4,305.1	4,395.9	4,355.5	17.4	13.6	179.85	-0.9	-390.6	253.0	221.6	31.38	8.063		
4,400.0	4,334.4	4,425.9	4,384.9	17.6	13.7	179.84	-0.9	-396.6	253.3	221.6	31.65	8.002		
4,465.0	4,398.0	4,490.9	4,448.6	17.9	14.0	179.84	-0.9	-409.5	253.8	221.6	32.23	7.875		
4,500.0	4,432.3	4,525.9	4,482.9	18.0	14.1	179.84	-1.0	-416.5	254.1	221.6	32.55	7.807		
4,560.0	4,490.9	4,585.9	4,541.7	18.3	14.4	179.83	-1.0	-428.5	254.7	221.6	33.09	7.695		
4,600.0	4,530.1	4,625.9	4,580.9	18.5	14.5	179.83	-1.0	-436.4	255.0	221.6	33.46	7.622		
4,655.0	4,583.9	4,680.9	4,634.8	18.7	14.8	179.83	-1.0	-447.4	255.5	221.5	33.96	7.524		
4,700.0	4,627.9	4,725.9	4,678.9	18.9	15.0	179.83	-1.1	-456.4	255.9	221.5	34.37	7.446		
4,750.0	4,676.8	4,775.9	4,727.9	19.2	15.2	179.82	-1.1	-466.4	256.3	221.5	34.82	7.361		
4,800.0	4,725.7	4,825.9	4,776.9	19.4	15.4	179.82	-1.1	-476.3	256.8	221.5	35.28	7.278		
4,845.0	4,769.7	4,870.9	4,821.0	19.6	15.6	179.82	-1.1	-485.3	257.1	221.5	35.69	7.205		
4,900.0	4,823.5	4,925.9	4,874.9	19.9	15.8	179.82	-1.2	-496.3	257.6	221.4	36.19	7.118		
4,940.0	4,862.6	4,965.9	4,914.1	20.1	16.0	179.81	-1.2	-504.2	258.0	221.4	36.56	7.056		
5,000.0	4,921.3	5,025.9	4,972.9	20.3	16.3	179.81	-1.2	-516.2	258.5	221.4	37.11	6.966		
5,035.0	4,955.6	5,060.9	5,007.2	20.5	16.4	179.81	-1.2	-523.2	258.8	221.4	37.43	6.914		
5,100.0	5,019.1	5,125.9	5,070.8	20.8	16.7	179.80	-1.3	-536.1	259.4	221.3	38.03	6.820		
5,130.0	5,048.5	5,155.9	5,100.2	20.9	16.8	179.80	-1.3	-542.1	259.6	221.3	38.31	6.778		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
5,200.0	5,117.0	5,225.9	5,168.8	21.3	17.1	179.80	-1.3	-556.1	260.2	221.3	38.95	6.681		
5,225.0	5,141.4	5,250.9	5,193.3	21.4	17.3	179.80	-1.3	-561.0	260.5	221.3	39.18	6.647		
5,300.0	5,214.8	5,325.9	5,266.8	21.7	17.6	179.79	-1.4	-576.0	261.1	221.2	39.88	6.548		
5,320.0	5,234.3	5,345.9	5,286.4	21.8	17.7	179.79	-1.4	-580.0	261.3	221.2	40.06	6.522		
5,400.0	5,312.6	5,425.9	5,364.8	22.2	18.0	179.79	-1.4	-595.9	262.0	221.2	40.80	6.421		
5,415.0	5,327.3	5,440.9	5,379.5	22.3	18.1	179.79	-1.4	-598.9	262.1	221.2	40.94	6.402		
5,500.0	5,410.4	5,525.9	5,462.8	22.7	18.5	179.78	-1.5	-615.9	262.9	221.1	41.73	6.299		
5,510.0	5,420.2	5,535.9	5,472.6	22.7	18.5	179.78	-1.5	-617.9	262.9	221.1	41.82	6.287		
5,600.0	5,508.2	5,625.9	5,560.8	23.1	18.9	179.78	-1.5	-635.8	263.7	221.1	42.66	6.182		
5,605.0	5,513.1	5,630.9	5,565.7	23.1	18.9	179.78	-1.5	-636.8	263.8	221.1	42.71	6.177		
5,700.0	5,606.0	5,725.9	5,658.8	23.6	19.4	179.77	-1.6	-655.7	264.6	221.0	43.59	6.070		
5,795.0	5,699.0	5,820.9	5,751.9	24.0	19.8	179.77	-1.6	-674.7	265.4	221.0	44.48	5.968		
5,800.0	5,703.8	5,825.9	5,756.8	24.0	19.8	179.77	-1.6	-675.7	265.5	221.0	44.52	5.963		
5,890.0	5,791.9	5,915.9	5,845.0	24.5	20.2	179.76	-1.7	-693.6	266.3	220.9	45.36	5.869		
5,900.0	5,801.7	5,925.9	5,854.8	24.5	20.3	179.76	-1.7	-695.6	266.4	220.9	45.46	5.859		
5,985.0	5,884.8	6,010.9	5,938.0	24.9	20.6	179.76	-1.7	-712.6	267.1	220.8	46.25	5.775		
6,000.0	5,899.5	6,025.9	5,952.7	25.0	20.7	179.76	-1.7	-715.6	267.2	220.8	46.39	5.760		
6,080.0	5,977.7	6,105.9	6,031.1	25.4	21.1	179.75	-1.8	-731.5	267.9	220.8	47.14	5.683		
6,100.0	5,997.3	6,125.9	6,050.7	25.5	21.2	179.75	-1.8	-735.5	268.1	220.8	47.33	5.664		
6,175.0	6,070.6	6,200.9	6,124.2	25.8	21.5	179.75	-1.8	-750.4	268.8	220.7	48.03	5.595		
6,200.0	6,095.1	6,225.9	6,148.7	25.9	21.6	179.75	-1.8	-755.4	269.0	220.7	48.27	5.573		
6,270.0	6,163.6	6,295.9	6,217.3	26.2	21.9	179.74	-1.9	-769.4	269.6	220.7	48.92	5.510		
6,300.0	6,192.9	6,325.9	6,246.7	26.4	22.1	179.74	-1.9	-775.4	269.8	220.6	49.21	5.484		
6,365.0	6,256.5	6,390.9	6,310.4	26.7	22.4	179.74	-1.9	-788.3	270.4	220.6	49.82	5.428		
6,400.0	6,290.7	6,425.9	6,344.7	26.9	22.5	179.74	-2.0	-795.3	270.7	220.6	50.15	5.399		
6,460.0	6,349.4	6,485.9	6,403.5	27.1	22.8	179.74	-2.0	-807.3	271.2	220.5	50.71	5.349		
6,500.0	6,388.5	6,525.9	6,442.7	27.3	23.0	179.73	-2.0	-815.2	271.6	220.5	51.08	5.317		
6,555.0	6,442.3	6,579.2	6,494.9	27.6	23.2	179.73	-2.0	-825.8	272.2	220.6	51.58	5.277		
6,562.8	6,450.0	6,586.6	6,502.3	27.6	23.2	179.73	-2.0	-827.2	272.3	220.7	51.65	5.273		
6,600.0	6,486.4	6,622.1	6,537.1	27.8	23.4	179.73	-2.1	-833.9	273.0	221.0	51.98	5.252		
6,650.0	6,535.3	6,669.8	6,584.0	28.0	23.6	179.73	-2.1	-842.6	274.0	221.6	52.42	5.227		
6,700.0	6,584.3	6,717.5	6,631.0	28.2	23.8	179.73	-2.1	-850.9	275.3	222.4	52.87	5.207		
6,745.0	6,628.5	6,760.4	6,673.3	28.5	24.0	179.73	-2.1	-858.0	276.6	223.3	53.26	5.193		
6,800.0	6,682.5	6,812.9	6,725.1	28.7	24.2	179.73	-2.1	-866.2	278.4	224.7	53.74	5.181		
6,840.0	6,721.8	6,851.0	6,762.8	28.9	24.4	179.73	-2.2	-871.9	279.9	225.8	54.07	5.175		
6,900.0	6,780.8	6,908.1	6,819.4	29.2	24.6	179.73	-2.2	-880.0	282.3	227.7	54.57	5.173		
6,935.0	6,815.2	6,941.5	6,852.4	29.3	24.8	179.73	-2.2	-884.5	283.8	229.0	54.86	5.174		
7,000.0	6,879.2	7,003.3	6,913.7	29.6	25.0	179.73	-2.2	-892.3	287.0	231.6	55.38	5.182		
7,030.0	6,908.8	7,031.8	6,942.1	29.8	25.1	179.73	-2.2	-895.6	288.5	232.9	55.62	5.188		
7,100.0	6,977.9	7,100.0	7,009.8	30.1	25.4	179.73	-2.2	-903.1	292.5	236.3	56.19	5.205		
7,125.0	7,002.5	7,122.1	7,031.8	30.2	25.5	179.73	-2.2	-905.3	293.9	237.6	56.35	5.217		
7,200.0	7,076.6	7,193.3	7,102.7	30.5	25.8	179.73	-2.3	-912.0	298.7	241.8	56.90	5.250		
7,220.0	7,096.4	7,212.2	7,121.6	30.6	25.9	179.73	-2.3	-913.6	300.1	243.0	57.04	5.260		
7,300.0	7,175.5	7,288.0	7,197.1	30.9	26.1	179.74	-2.3	-919.4	305.7	248.1	57.61	5.307		
7,315.0	7,190.3	7,300.0	7,209.1	31.0	26.2	179.74	-2.3	-920.3	306.9	249.2	57.66	5.322		
7,400.0	7,274.5	7,382.6	7,291.5	31.4	26.5	179.74	-2.3	-925.3	313.6	255.3	58.27	5.381		
7,410.0	7,284.4	7,392.0	7,300.9	31.4	26.5	179.74	-2.3	-925.8	314.4	256.0	58.34	5.389		
7,500.0	7,373.6	7,477.0	7,385.8	31.8	26.8	179.75	-2.3	-929.7	322.1	263.2	58.90	5.470		
7,505.0	7,378.6	7,481.7	7,390.5	31.8	26.8	179.75	-2.3	-929.9	322.6	263.7	58.93	5.474		
7,600.0	7,472.9	7,571.2	7,480.0	32.2	27.1	179.75	-2.3	-932.5	331.5	272.0	59.47	5.575		
7,695.0	7,567.3	7,660.4	7,569.2	32.6	27.2	179.76	-2.3	-933.7	341.1	281.2	59.89	5.695		
7,700.0	7,572.2	7,665.1	7,573.9	32.6	27.2	179.76	-2.3	-933.7	341.6	281.7	59.91	5.702		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWPO													Offset Site Error: 0.0 usft	
Survey Program:		0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-r.5 MWD+IFR1+MS						Rule Assigned:					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	Warning	
7,790.0	7,661.7	7,752.9	7,661.7	33.0	27.3	179.77	-2.3	-933.8	351.1	290.8	60.29	5.824		
7,800.0	7,671.7	7,762.9	7,671.7	33.0	27.3	179.77	-2.3	-933.8	352.1	291.8	60.33	5.836		
7,885.0	7,756.3	7,847.5	7,756.3	33.4	27.3	179.77	-2.3	-933.8	360.4	299.7	60.69	5.938		
7,900.0	7,771.2	7,862.4	7,771.2	33.4	27.3	179.77	-2.3	-933.8	361.8	301.1	60.76	5.955		
7,980.0	7,850.9	7,942.1	7,850.9	33.8	27.3	179.78	-2.3	-933.8	368.9	307.9	61.09	6.039		
8,000.0	7,870.8	7,962.0	7,870.8	33.8	27.3	179.78	-2.3	-933.8	370.6	309.5	61.17	6.059		
8,075.0	7,945.6	8,036.8	7,945.6	34.1	27.4	179.78	-2.3	-933.8	376.7	315.2	61.48	6.127		
8,100.0	7,970.5	8,061.7	7,970.5	34.2	27.4	179.78	-2.3	-933.8	378.6	317.0	61.58	6.148		
8,170.0	8,040.3	8,131.5	8,040.3	34.5	27.4	179.79	-2.3	-933.8	383.7	321.8	61.86	6.202		
8,200.0	8,070.2	8,161.5	8,070.2	34.6	27.4	179.79	-2.3	-933.8	385.7	323.7	61.98	6.223		
8,265.0	8,135.1	8,226.3	8,135.1	34.8	27.4	179.79	-2.3	-933.8	389.8	327.6	62.23	6.264		
8,300.0	8,170.0	8,261.3	8,170.0	34.9	27.4	179.79	-2.3	-933.8	391.9	329.5	62.37	6.284		
8,360.0	8,229.9	8,321.2	8,229.9	35.1	27.4	179.79	-2.3	-933.8	395.2	332.6	62.59	6.314		
8,400.0	8,269.9	8,361.1	8,269.9	35.3	27.5	179.79	-2.3	-933.8	397.2	334.5	62.74	6.332		
8,455.0	8,324.8	8,416.1	8,324.8	35.5	27.5	179.80	-2.3	-933.8	399.8	336.9	62.94	6.352		
8,500.0	8,369.8	8,461.0	8,369.8	35.6	27.5	179.80	-2.3	-933.8	401.7	338.6	63.10	6.366		
8,550.0	8,419.8	8,511.0	8,419.8	35.8	27.5	179.80	-2.3	-933.8	403.6	340.4	63.27	6.379		
8,600.0	8,469.7	8,561.0	8,469.7	35.9	27.5	179.80	-2.3	-933.8	405.3	341.9	63.45	6.388		
8,645.0	8,514.7	8,605.9	8,514.7	36.1	27.5	179.80	-2.3	-933.8	406.7	343.1	63.59	6.395		
8,700.0	8,569.7	8,660.9	8,569.7	36.2	27.5	179.80	-2.3	-933.8	408.1	344.3	63.77	6.399		
8,740.0	8,609.7	8,700.9	8,609.7	36.3	27.6	179.80	-2.3	-933.8	408.9	345.0	63.89	6.400		
8,800.0	8,669.7	8,760.9	8,669.7	36.5	27.6	179.80	-2.3	-933.8	409.9	345.8	64.07	6.398		
8,835.0	8,704.7	8,795.9	8,704.7	36.6	27.6	179.80	-2.3	-933.8	410.4	346.2	64.16	6.395		
8,900.0	8,769.7	8,860.9	8,769.7	36.7	27.6	179.80	-2.3	-933.8	410.9	346.6	64.33	6.387		
8,930.0	8,799.7	8,890.9	8,799.7	36.8	27.6	179.80	-2.3	-933.8	411.0	346.6	64.37	6.385		
8,962.8	8,832.5	8,923.7	8,832.5	36.8	27.6	89.57	-2.3	-933.8	411.1	346.6	64.42	6.381		
9,000.0	8,869.7	8,960.9	8,869.7	36.8	27.6	89.57	-2.3	-933.8	411.1	346.6	64.43	6.380		
9,025.0	8,894.7	8,985.9	8,894.7	36.8	27.6	89.57	-2.3	-933.8	411.1	346.6	64.44	6.379		
9,100.0	8,969.7	9,060.9	8,969.7	36.8	27.7	89.57	-2.3	-933.8	411.1	346.6	64.48	6.375		
9,120.0	8,989.7	9,080.9	8,989.7	36.8	27.7	89.57	-2.3	-933.8	411.1	346.6	64.49	6.374		
9,200.0	9,069.7	9,160.9	9,069.7	36.8	27.7	89.57	-2.3	-933.8	411.1	346.5	64.53	6.370		
9,215.0	9,084.7	9,175.9	9,084.7	36.8	27.7	89.57	-2.3	-933.8	411.1	346.5	64.54	6.369		
9,300.0	9,169.7	9,260.9	9,169.7	36.9	27.7	89.57	-2.3	-933.8	411.1	346.5	64.58	6.365		
9,310.0	9,179.7	9,270.9	9,179.7	36.9	27.7	89.57	-2.3	-933.8	411.1	346.5	64.59	6.365		
9,400.0	9,269.7	9,360.9	9,269.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.4	64.63	6.360		
9,405.0	9,274.7	9,365.9	9,274.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.4	64.64	6.360		
9,500.0	9,369.7	9,460.9	9,369.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.4	64.68	6.355		
9,595.0	9,464.7	9,555.9	9,464.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.3	64.73	6.350		
9,600.0	9,469.7	9,560.9	9,469.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.3	64.74	6.350		
9,690.0	9,559.7	9,650.9	9,559.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.3	64.78	6.345		
9,700.0	9,569.7	9,660.9	9,569.7	36.9	27.8	89.57	-2.3	-933.8	411.1	346.3	64.79	6.345		
9,785.0	9,654.7	9,745.9	9,654.7	37.0	27.9	89.57	-2.3	-933.8	411.1	346.2	64.83	6.341		
9,800.0	9,669.7	9,760.9	9,669.7	37.0	27.9	89.57	-2.3	-933.8	411.1	346.2	64.84	6.340		
9,880.0	9,749.7	9,840.9	9,749.7	37.0	27.9	89.57	-2.3	-933.8	411.1	346.2	64.88	6.336		
9,900.0	9,769.7	9,860.9	9,769.7	37.0	27.9	89.57	-2.3	-933.8	411.1	346.2	64.89	6.335		
9,975.0	9,844.7	9,935.9	9,844.7	37.0	27.9	89.57	-2.3	-933.8	411.1	346.1	64.93	6.331		
10,000.0	9,869.7	9,960.9	9,869.7	37.0	27.9	89.57	-2.3	-933.8	411.1	346.1	64.95	6.329		
10,070.0	9,939.7	10,030.9	9,939.7	37.0	28.0	89.57	-2.3	-933.8	411.1	346.1	64.98	6.326		
10,100.0	9,969.7	10,060.9	9,969.7	37.0	28.0	89.57	-2.3	-933.8	411.1	346.1	65.00	6.324		
10,165.0	10,034.7	10,125.9	10,034.7	37.0	28.0	89.57	-2.3	-933.8	411.1	346.0	65.03	6.321		
10,200.0	10,069.7	10,160.9	10,069.7	37.1	28.0	89.57	-2.3	-933.8	411.1	346.0	65.05	6.319		
10,260.0	10,129.7	10,220.9	10,129.7	37.1	28.0	89.57	-2.3	-933.8	411.1	346.0	65.08	6.316		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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 (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.0	10,169.7	10,260.9	10,169.7	37.1	28.0	89.57	-2.3	-933.8	411.1	346.0	65.11	6.314		
10,355.0	10,224.7	10,315.9	10,224.7	37.1	28.1	89.57	-2.3	-933.8	411.1	345.9	65.14	6.311		
10,400.0	10,269.7	10,360.9	10,269.7	37.1	28.1	89.57	-2.3	-933.8	411.1	345.9	65.16	6.308		
10,450.0	10,319.7	10,410.9	10,319.7	37.1	28.1	89.57	-2.3	-933.8	411.1	345.9	65.19	6.306		
10,500.0	10,369.7	10,460.9	10,369.7	37.1	28.1	89.57	-2.3	-933.8	411.1	345.9	65.22	6.303		
10,545.0	10,414.7	10,505.9	10,414.7	37.1	28.1	89.57	-2.3	-933.8	411.1	345.8	65.24	6.301		
10,600.0	10,469.7	10,560.9	10,469.7	37.1	28.1	89.57	-2.3	-933.8	411.1	345.8	65.27	6.298		
10,640.0	10,509.7	10,600.9	10,509.7	37.2	28.1	89.57	-2.3	-933.8	411.1	345.8	65.29	6.296		
10,700.0	10,569.7	10,660.9	10,569.7	37.2	28.2	89.57	-2.3	-933.8	411.1	345.7	65.33	6.293		
10,735.0	10,604.7	10,695.9	10,604.7	37.2	28.2	89.57	-2.3	-933.8	411.1	345.7	65.35	6.291		
10,800.0	10,669.7	10,760.9	10,669.7	37.2	28.2	89.57	-2.3	-933.8	411.1	345.7	65.38	6.287		
10,830.0	10,699.7	10,790.9	10,699.7	37.2	28.2	89.57	-2.3	-933.8	411.1	345.7	65.40	6.286		
10,900.0	10,769.7	10,860.9	10,769.7	37.2	28.2	89.57	-2.3	-933.8	411.1	345.6	65.44	6.282		
10,925.0	10,794.7	10,885.9	10,794.7	37.2	28.2	89.57	-2.3	-933.8	411.1	345.6	65.45	6.280		
11,000.0	10,869.7	10,960.9	10,869.7	37.2	28.3	89.57	-2.3	-933.8	411.1	345.6	65.49	6.276		
11,020.0	10,889.7	10,980.9	10,889.7	37.2	28.3	89.57	-2.3	-933.8	411.1	345.6	65.51	6.275		
11,106.9	10,976.5	11,067.8	10,976.5	37.3	28.3	89.57	-2.3	-933.8	411.1	345.5	65.56	6.270		
11,115.0	10,984.7	11,075.9	10,984.7	37.3	28.3	90.10	-2.3	-933.8	411.1	345.5	65.56	6.270		
11,125.0	10,994.7	11,085.9	10,994.7	37.3	28.3	90.14	-2.3	-933.8	411.1	345.5	65.56	6.270		
11,150.0	11,019.6	11,110.8	11,019.6	37.3	28.3	90.36	-2.3	-933.8	411.1	345.5	65.58	6.269		
11,175.0	11,044.4	11,135.7	11,044.4	37.3	28.3	90.76	-2.3	-933.8	411.1	345.5	65.59	6.268		
11,200.0	11,069.1	11,160.3	11,069.1	37.3	28.3	91.33	-2.3	-933.8	411.2	345.6	65.60	6.268		
11,210.0	11,078.9	11,170.1	11,078.9	37.3	28.3	91.60	-2.3	-933.8	411.2	345.6	65.60	6.269		
11,225.0	11,093.5	11,184.7	11,093.5	37.3	28.3	92.05	-2.3	-933.8	411.3	345.7	65.60	6.271		
11,250.0	11,117.5	11,208.8	11,117.5	37.3	28.3	92.92	-2.3	-933.8	411.7	346.1	65.58	6.277		
11,275.0	11,141.2	11,232.4	11,141.2	37.3	28.3	93.91	-2.3	-933.8	412.2	346.6	65.55	6.288		
11,300.0	11,164.4	11,257.3	11,166.0	37.3	28.3	95.05	-1.9	-933.8	412.9	347.4	65.52	6.302		
11,305.0	11,169.0	11,262.4	11,171.1	37.3	28.3	95.28	-1.7	-933.8	413.1	347.6	65.52	6.305		
11,325.0	11,187.2	11,283.0	11,191.7	37.3	28.4	96.19	-0.2	-933.8	413.8	348.3	65.50	6.318		
11,350.0	11,209.3	11,309.2	11,217.7	37.3	28.4	97.34	3.0	-933.8	414.9	349.4	65.49	6.336		
11,375.0	11,230.8	11,336.1	11,244.1	37.3	28.4	98.47	7.8	-933.9	416.2	350.7	65.48	6.357		
11,400.0	11,251.6	11,363.5	11,270.8	37.3	28.4	99.59	14.1	-933.9	417.7	352.2	65.47	6.380		
11,425.0	11,271.6	11,391.6	11,297.8	37.3	28.4	100.69	22.3	-934.0	419.3	353.8	65.47	6.404		
11,450.0	11,290.9	11,420.4	11,324.8	37.3	28.4	101.78	32.2	-934.1	421.0	355.5	65.48	6.429		
11,475.0	11,309.3	11,449.9	11,351.8	37.3	28.4	102.84	44.0	-934.2	422.8	357.3	65.51	6.454		
11,495.0	11,323.3	11,474.1	11,373.3	37.3	28.4	103.67	55.0	-934.3	424.3	358.8	65.54	6.475		
11,500.0	11,326.7	11,480.2	11,378.7	37.3	28.4	103.88	57.9	-934.3	424.7	359.2	65.54	6.480		
11,525.0	11,343.2	11,511.2	11,405.2	37.3	28.4	104.88	73.8	-934.5	426.7	361.1	65.60	6.505		
11,550.0	11,358.7	11,542.9	11,431.4	37.3	28.4	105.85	91.9	-934.6	428.7	363.0	65.66	6.529		
11,575.0	11,373.2	11,575.5	11,456.8	37.3	28.4	106.77	112.2	-934.8	430.7	365.0	65.75	6.551		
11,590.0	11,381.3	11,595.4	11,471.7	37.3	28.4	107.31	125.5	-934.9	431.9	366.1	65.81	6.563		
11,600.0	11,386.6	11,608.9	11,481.4	37.3	28.4	107.65	134.8	-935.0	432.7	366.9	65.85	6.571		
11,625.0	11,398.8	11,643.0	11,504.8	37.3	28.4	108.48	159.5	-935.3	434.7	368.7	65.97	6.589		
11,650.0	11,409.9	11,677.9	11,526.9	37.3	28.4	109.24	186.6	-935.5	436.5	370.4	66.10	6.604		
11,675.0	11,419.8	11,713.5	11,547.4	37.3	28.4	109.94	215.7	-935.8	438.3	372.0	66.24	6.616		
11,685.0	11,423.4	11,728.0	11,555.0	37.3	28.4	110.20	228.0	-935.9	438.9	372.6	66.30	6.620		
11,700.0	11,428.5	11,749.8	11,565.9	37.4	28.4	110.57	246.9	-936.1	439.9	373.5	66.39	6.625		
11,725.0	11,435.9	11,786.8	11,582.3	37.4	28.4	111.12	280.1	-936.4	441.3	374.7	66.54	6.631		
11,750.0	11,442.1	11,824.3	11,596.3	37.4	28.5	111.58	314.9	-936.7	442.5	375.8	66.69	6.635		
11,775.0	11,447.0	11,862.3	11,607.6	37.4	28.5	111.95	351.1	-937.0	443.4	376.6	66.83	6.635		
11,780.0	11,447.8	11,870.0	11,609.5	37.4	28.5	112.01	358.5	-937.1	443.6	376.7	66.86	6.635		
11,800.0	11,450.6	11,900.7	11,616.1	37.4	28.5	112.22	388.6	-937.3	444.2	377.2	66.96	6.634		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
11,825.0	11,452.9	11,939.4	11,621.5	37.4	28.5	112.39	426.8	-937.7	444.6	377.6	67.06	6.630		
11,850.0	11,454.0	11,978.1	11,623.9	37.4	28.6	112.47	465.5	-938.0	444.8	377.7	67.15	6.624		
11,856.9	11,454.0	11,988.8	11,624.0	37.4	28.6	112.47	476.2	-938.1	444.8	377.7	67.17	6.622		
11,857.9	11,454.0	11,990.4	11,624.0	37.4	28.6	112.47	477.7	-938.2	444.8	377.7	67.18	6.622		
11,875.0	11,454.0	12,006.6	11,624.0	37.5	28.6	112.47	493.9	-938.3	444.8	377.6	67.20	6.619		
11,900.0	11,454.0	12,031.6	11,624.0	37.5	28.6	112.47	518.9	-938.5	444.8	377.6	67.25	6.614		
11,970.0	11,454.0	12,101.6	11,624.0	37.5	28.7	112.47	588.9	-939.2	444.8	377.4	67.40	6.600		
12,000.0	11,454.0	12,131.6	11,624.0	37.6	28.8	112.47	618.9	-939.4	444.8	377.4	67.46	6.594		
12,065.0	11,454.0	12,196.6	11,624.0	37.6	28.9	112.47	683.9	-940.0	444.8	377.2	67.62	6.578		
12,100.0	11,454.0	12,231.6	11,624.0	37.7	28.9	112.47	718.9	-940.4	444.8	377.1	67.71	6.569		
12,160.0	11,454.0	12,291.6	11,624.0	37.8	29.0	112.47	778.9	-940.9	444.8	376.9	67.88	6.553		
12,200.0	11,454.0	12,331.6	11,624.0	37.8	29.1	112.47	818.9	-941.3	444.8	376.8	67.99	6.542		
12,255.0	11,454.0	12,386.6	11,624.0	37.9	29.2	112.47	873.9	-941.8	444.8	376.7	68.16	6.526		
12,300.0	11,454.0	12,431.6	11,624.0	38.0	29.3	112.47	918.9	-942.2	444.8	376.5	68.31	6.512		
12,350.0	11,454.0	12,481.6	11,624.0	38.0	29.4	112.47	968.9	-942.6	444.8	376.3	68.48	6.496		
12,400.0	11,454.0	12,531.6	11,624.0	38.1	29.5	112.47	1,018.9	-943.1	444.8	376.2	68.66	6.479		
12,445.0	11,454.0	12,576.6	11,624.0	38.2	29.6	112.47	1,063.9	-943.5	444.8	376.0	68.83	6.463		
12,500.0	11,454.0	12,631.6	11,624.0	38.3	29.7	112.47	1,118.9	-944.0	444.8	375.8	69.04	6.443		
12,540.0	11,454.0	12,671.6	11,624.0	38.4	29.8	112.47	1,158.9	-944.4	444.8	375.6	69.20	6.428		
12,600.0	11,454.0	12,731.6	11,624.0	38.5	29.9	112.47	1,218.9	-944.9	444.8	375.4	69.45	6.405		
12,635.0	11,454.0	12,766.6	11,624.0	38.5	30.0	112.47	1,253.9	-945.2	444.8	375.2	69.60	6.391		
12,700.0	11,454.0	12,831.6	11,624.0	38.7	30.2	112.47	1,318.9	-945.8	444.8	374.9	69.90	6.364		
12,730.0	11,454.0	12,861.6	11,624.0	38.7	30.3	112.47	1,348.9	-946.1	444.8	374.8	70.04	6.351		
12,800.0	11,454.0	12,931.6	11,624.0	38.9	30.5	112.47	1,418.9	-946.7	444.8	374.5	70.37	6.321		
12,825.0	11,454.0	12,956.6	11,624.0	38.9	30.5	112.47	1,443.9	-947.0	444.8	374.3	70.50	6.310		
12,900.0	11,454.0	13,031.6	11,624.0	39.1	30.8	112.47	1,518.9	-947.6	444.8	373.9	70.88	6.276		
12,920.0	11,454.0	13,051.6	11,624.0	39.2	30.8	112.47	1,538.9	-947.8	444.8	373.8	70.98	6.267		
13,000.0	11,454.0	13,131.6	11,624.0	39.4	31.1	112.47	1,618.9	-948.6	444.8	373.4	71.41	6.229		
13,015.0	11,454.0	13,146.6	11,624.0	39.4	31.1	112.47	1,633.9	-948.7	444.8	373.3	71.50	6.222		
13,100.0	11,454.0	13,231.6	11,624.0	39.6	31.4	112.47	1,718.9	-949.5	444.8	372.8	71.98	6.180		
13,110.0	11,454.0	13,241.6	11,624.0	39.6	31.4	112.47	1,728.9	-949.6	444.8	372.8	72.04	6.175		
13,200.0	11,454.0	13,331.6	11,624.0	39.9	31.7	112.47	1,818.9	-950.4	444.8	372.3	72.57	6.130		
13,205.0	11,454.0	13,336.6	11,624.0	39.9	31.7	112.47	1,823.9	-950.4	444.8	372.2	72.60	6.127		
13,300.0	11,454.0	13,431.6	11,624.0	40.2	32.1	112.47	1,918.9	-951.3	444.8	371.6	73.19	6.078		
13,395.0	11,454.0	13,526.6	11,624.0	40.4	32.4	112.47	2,013.9	-952.2	444.8	371.0	73.80	6.027		
13,400.0	11,454.0	13,531.6	11,624.0	40.5	32.4	112.47	2,018.9	-952.2	444.8	371.0	73.83	6.025		
13,490.0	11,454.0	13,621.6	11,624.0	40.7	32.8	112.47	2,108.9	-953.0	444.8	370.4	74.44	5.976		
13,500.0	11,454.0	13,631.6	11,624.0	40.8	32.8	112.47	2,118.9	-953.1	444.8	370.3	74.51	5.970		
13,585.0	11,454.0	13,716.6	11,624.0	41.0	33.2	112.47	2,203.9	-953.9	444.8	369.7	75.10	5.923		
13,600.0	11,454.0	13,731.6	11,624.0	41.1	33.2	112.47	2,218.9	-954.0	444.8	369.6	75.21	5.915		
13,680.0	11,454.0	13,811.6	11,624.0	41.3	33.5	112.47	2,298.9	-954.8	444.8	369.0	75.78	5.870		
13,700.0	11,454.0	13,831.6	11,624.0	41.4	33.6	112.47	2,318.8	-954.9	444.8	368.9	75.93	5.858		
13,775.0	11,454.0	13,906.6	11,624.0	41.7	33.9	112.47	2,393.8	-955.6	444.8	368.3	76.48	5.816		
13,800.0	11,454.0	13,931.6	11,624.0	41.8	34.0	112.47	2,418.8	-955.9	444.8	368.1	76.67	5.801		
13,870.0	11,454.0	14,001.6	11,624.0	42.0	34.3	112.47	2,488.8	-956.5	444.8	367.6	77.21	5.761		
13,900.0	11,454.0	14,031.6	11,624.0	42.1	34.5	112.47	2,518.8	-956.8	444.8	367.4	77.44	5.744		
13,965.0	11,454.0	14,096.6	11,624.0	42.3	34.8	112.47	2,583.8	-957.4	444.8	366.9	77.96	5.706		
14,000.0	11,454.0	14,131.6	11,624.0	42.5	34.9	112.47	2,618.8	-957.7	444.8	366.6	78.23	5.686		
14,060.0	11,454.0	14,191.6	11,624.0	42.7	35.2	112.47	2,678.8	-958.2	444.8	366.1	78.72	5.651		
14,100.0	11,454.0	14,231.6	11,624.0	42.9	35.4	112.47	2,718.8	-958.6	444.8	365.8	79.05	5.627		
14,155.0	11,454.0	14,286.6	11,624.0	43.1	35.6	112.47	2,773.8	-959.1	444.8	365.3	79.51	5.595		
14,200.0	11,454.0	14,331.6	11,624.0	43.2	35.8	112.47	2,818.8	-959.5	444.8	364.9	79.88	5.568		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
14,250.0	11,454.0	14,381.6	11,624.0	43.4	36.1	112.47	2,868.8	-960.0	444.8	364.5	80.31	5.539		
14,300.0	11,454.0	14,431.6	11,624.0	43.6	36.3	112.47	2,918.8	-960.4	444.8	364.1	80.74	5.509		
14,345.0	11,454.0	14,476.6	11,624.0	43.8	36.5	112.47	2,963.8	-960.8	444.8	363.7	81.13	5.483		
14,400.0	11,454.0	14,531.6	11,624.0	44.0	36.8	112.47	3,018.8	-961.3	444.8	363.2	81.61	5.450		
14,440.0	11,454.0	14,571.6	11,624.0	44.2	37.0	112.47	3,058.8	-961.7	444.8	362.8	81.97	5.427		
14,500.0	11,454.0	14,631.6	11,624.0	44.4	37.3	112.47	3,118.8	-962.2	444.8	362.3	82.51	5.391		
14,535.0	11,454.0	14,666.6	11,624.0	44.6	37.5	112.47	3,153.8	-962.6	444.8	362.0	82.82	5.371		
14,600.0	11,454.0	14,731.6	11,624.0	44.9	37.8	112.47	3,218.8	-963.2	444.8	361.4	83.42	5.332		
14,630.0	11,454.0	14,761.6	11,624.0	45.0	37.9	112.47	3,248.8	-963.4	444.8	361.1	83.70	5.315		
14,700.0	11,454.0	14,831.6	11,624.0	45.3	38.3	112.47	3,318.8	-964.1	444.8	360.5	84.35	5.273		
14,725.0	11,454.0	14,856.6	11,624.0	45.4	38.4	112.47	3,343.8	-964.3	444.8	360.2	84.58	5.259		
14,800.0	11,454.0	14,931.6	11,624.0	45.7	38.8	112.47	3,418.8	-965.0	444.8	359.5	85.30	5.215		
14,820.0	11,454.0	14,951.6	11,624.0	45.8	38.9	112.47	3,438.8	-965.2	444.8	359.3	85.49	5.203		
14,900.0	11,454.0	15,031.6	11,624.0	46.2	39.3	112.47	3,518.8	-965.9	444.8	358.5	86.26	5.157		
14,915.0	11,454.0	15,046.6	11,624.0	46.3	39.4	112.47	3,533.8	-966.0	444.8	358.4	86.41	5.148		
15,000.0	11,454.0	15,131.6	11,624.0	46.7	39.9	112.47	3,618.8	-966.8	444.8	357.6	87.24	5.099		
15,010.0	11,454.0	15,141.6	11,624.0	46.7	39.9	112.47	3,628.8	-966.9	444.8	357.5	87.34	5.093		
15,100.0	11,454.0	15,231.6	11,624.0	47.1	40.4	112.47	3,718.8	-967.7	444.8	356.6	88.24	5.041		
15,105.0	11,454.0	15,236.6	11,624.0	47.1	40.4	112.47	3,723.8	-967.8	444.8	356.5	88.29	5.038		
15,200.0	11,454.0	15,331.6	11,624.0	47.6	41.0	112.47	3,818.8	-968.6	444.8	355.6	89.25	4.984		
15,295.0	11,454.0	15,426.6	11,624.0	48.0	41.5	112.47	3,913.8	-969.5	444.8	354.6	90.22	4.930		
15,300.0	11,454.0	15,431.6	11,624.0	48.1	41.5	112.47	3,918.8	-969.5	444.8	354.5	90.27	4.927		
15,390.0	11,454.0	15,521.6	11,624.0	48.5	42.0	112.47	4,008.8	-970.4	444.8	353.6	91.21	4.877		
15,400.0	11,454.0	15,531.6	11,624.0	48.6	42.1	112.47	4,018.8	-970.4	444.8	353.5	91.31	4.871		
15,485.0	11,454.0	15,616.6	11,624.0	49.0	42.6	112.47	4,103.8	-971.2	444.8	352.6	92.21	4.824		
15,500.0	11,454.0	15,631.6	11,624.0	49.1	42.7	112.47	4,118.8	-971.4	444.8	352.4	92.37	4.816		
15,580.0	11,454.0	15,711.6	11,624.0	49.5	43.1	112.47	4,198.8	-972.1	444.8	351.6	93.22	4.772		
15,600.0	11,454.0	15,731.6	11,624.0	49.6	43.2	112.47	4,218.8	-972.3	444.8	351.4	93.43	4.761		
15,675.0	11,454.0	15,806.6	11,624.0	49.9	43.7	112.47	4,293.8	-973.0	444.8	350.6	94.24	4.720		
15,700.0	11,454.0	15,831.6	11,624.0	50.1	43.8	112.47	4,318.8	-973.2	444.8	350.3	94.51	4.706		
15,770.0	11,454.0	15,901.6	11,624.0	50.4	44.2	112.47	4,388.8	-973.8	444.8	349.5	95.28	4.669		
15,800.0	11,454.0	15,931.6	11,624.0	50.6	44.4	112.47	4,418.8	-974.1	444.8	349.2	95.60	4.653		
15,865.0	11,454.0	15,996.6	11,624.0	50.9	44.8	112.47	4,483.8	-974.7	444.8	348.5	96.32	4.618		
15,900.0	11,454.0	16,031.6	11,624.0	51.1	45.0	112.47	4,518.8	-975.0	444.8	348.1	96.71	4.599		
15,960.0	11,454.0	16,091.6	11,624.0	51.4	45.3	112.47	4,578.8	-975.6	444.8	347.4	97.38	4.568		
16,000.0	11,454.0	16,131.6	11,624.0	51.6	45.6	112.47	4,618.8	-975.9	444.8	347.0	97.82	4.547		
16,055.0	11,454.0	16,186.6	11,624.0	51.9	45.9	112.47	4,673.8	-976.4	444.8	346.4	98.44	4.518		
16,100.0	11,454.0	16,231.6	11,624.0	52.2	46.2	112.47	4,718.7	-976.8	444.8	345.9	98.95	4.495		
16,150.0	11,454.0	16,281.6	11,624.0	52.4	46.5	112.47	4,768.7	-977.3	444.8	345.3	99.52	4.470		
16,200.0	11,454.0	16,331.6	11,624.0	52.7	46.8	112.47	4,818.7	-977.7	444.8	344.7	100.09	4.444		
16,245.0	11,454.0	16,376.6	11,624.0	52.9	47.1	112.47	4,863.7	-978.2	444.8	344.2	100.60	4.421		
16,300.0	11,454.0	16,431.6	11,624.0	53.2	47.4	112.47	4,918.7	-978.7	444.8	343.6	101.23	4.394		
16,340.0	11,454.0	16,471.6	11,624.0	53.5	47.6	112.47	4,958.7	-979.0	444.8	343.1	101.69	4.374		
16,400.0	11,454.0	16,531.6	11,624.0	53.8	48.0	112.47	5,018.7	-979.6	444.8	342.4	102.39	4.344		
16,435.0	11,454.0	16,566.6	11,624.0	54.0	48.2	112.47	5,053.7	-979.9	444.8	342.0	102.80	4.327		
16,500.0	11,454.0	16,631.6	11,624.0	54.3	48.6	112.47	5,118.7	-980.5	444.8	341.2	103.56	4.295		
16,530.0	11,454.0	16,661.6	11,624.0	54.5	48.8	112.47	5,148.7	-980.8	444.8	340.9	103.91	4.281		
16,600.0	11,454.0	16,731.6	11,624.0	54.9	49.2	112.47	5,218.7	-981.4	444.8	340.1	104.73	4.247		
16,625.0	11,454.0	16,756.6	11,624.0	55.0	49.4	112.47	5,243.7	-981.6	444.8	339.8	105.03	4.235		
16,700.0	11,454.0	16,831.6	11,624.0	55.5	49.9	112.47	5,318.7	-982.3	444.8	338.9	105.92	4.199		
16,720.0	11,454.0	16,851.6	11,624.0	55.6	50.0	112.47	5,338.7	-982.5	444.8	338.6	106.16	4.190		
16,800.0	11,454.0	16,931.6	11,624.0	56.0	50.5	112.47	5,418.7	-983.2	444.8	337.7	107.11	4.153		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
16,815.0	11,454.0	16,946.6	11,624.0	56.1	50.6	112.47	5,433.7	-983.4	444.8	337.5	107.29	4.146		
16,900.0	11,454.0	17,031.6	11,624.0	56.6	51.1	112.47	5,518.7	-984.1	444.8	336.5	108.31	4.107		
16,910.0	11,454.0	17,041.6	11,624.0	56.7	51.2	112.47	5,528.7	-984.2	444.8	336.4	108.43	4.102		
17,000.0	11,454.0	17,131.6	11,624.0	57.2	51.8	112.47	5,618.7	-985.0	444.8	335.3	109.52	4.061		
17,005.0	11,454.0	17,136.6	11,624.0	57.2	51.8	112.47	5,623.7	-985.1	444.8	335.2	109.58	4.059		
17,100.0	11,454.0	17,231.6	11,624.0	57.8	52.4	112.47	5,718.7	-986.0	444.8	334.1	110.74	4.017		
17,195.0	11,454.0	17,326.6	11,624.0	58.3	53.0	112.47	5,813.7	-986.8	444.8	332.9	111.91	3.975		
17,200.0	11,454.0	17,331.6	11,624.0	58.3	53.1	112.47	5,818.7	-986.9	444.8	332.8	111.97	3.973		
17,290.0	11,454.0	17,421.6	11,624.0	58.9	53.6	112.47	5,908.7	-987.7	444.8	331.7	113.08	3.934		
17,300.0	11,454.0	17,431.6	11,624.0	58.9	53.7	112.47	5,918.7	-987.8	444.8	331.6	113.20	3.929		
17,385.0	11,454.0	17,516.6	11,624.0	59.4	54.3	112.47	6,003.7	-988.5	444.8	330.5	114.26	3.893		
17,400.0	11,454.0	17,531.6	11,624.0	59.5	54.4	112.47	6,018.7	-988.7	444.8	330.4	114.44	3.887		
17,480.0	11,454.0	17,611.6	11,624.0	60.0	54.9	112.47	6,098.7	-989.4	444.8	329.4	115.44	3.853		
17,500.0	11,454.0	17,631.6	11,624.0	60.1	55.0	112.47	6,118.7	-989.6	444.8	329.1	115.69	3.845		
17,575.0	11,454.0	17,706.6	11,624.0	60.6	55.5	112.47	6,193.7	-990.3	444.8	328.2	116.63	3.814		
17,600.0	11,454.0	17,731.6	11,624.0	60.7	55.7	112.47	6,218.7	-990.5	444.8	327.8	116.94	3.803		
17,670.0	11,454.0	17,801.6	11,624.0	61.2	56.1	112.47	6,288.7	-991.1	444.8	327.0	117.82	3.775		
17,700.0	11,454.0	17,831.6	11,624.0	61.3	56.3	112.47	6,318.7	-991.4	444.8	326.6	118.20	3.763		
17,765.0	11,454.0	17,896.6	11,624.0	61.7	56.7	112.47	6,383.7	-992.0	444.8	325.8	119.03	3.737		
17,800.0	11,454.0	17,931.6	11,624.0	61.9	57.0	112.47	6,418.7	-992.3	444.8	325.3	119.47	3.723		
17,860.0	11,454.0	17,991.6	11,624.0	62.3	57.4	112.47	6,478.7	-992.9	444.8	324.6	120.23	3.699		
17,900.0	11,454.0	18,031.6	11,624.0	62.6	57.6	112.47	6,518.7	-993.2	444.8	324.0	120.74	3.684		
17,955.0	11,454.0	18,086.6	11,624.0	62.9	58.0	112.47	6,573.7	-993.7	444.8	323.3	121.45	3.662		
18,000.0	11,454.0	18,131.6	11,624.0	63.2	58.3	112.47	6,618.7	-994.2	444.8	322.8	122.02	3.645		
18,050.0	11,454.0	18,181.6	11,624.0	63.5	58.6	112.47	6,668.7	-994.6	444.8	322.1	122.66	3.626		
18,100.0	11,454.0	18,231.6	11,624.0	63.8	59.0	112.47	6,718.7	-995.1	444.8	321.5	123.31	3.607		
18,145.0	11,454.0	18,276.6	11,624.0	64.1	59.3	112.47	6,763.7	-995.5	444.8	320.9	123.89	3.590		
18,200.0	11,454.0	18,331.6	11,624.0	64.4	59.6	112.47	6,818.7	-996.0	444.8	320.2	124.60	3.570		
18,240.0	11,454.0	18,371.6	11,624.0	64.7	59.9	112.47	6,858.7	-996.3	444.8	319.7	125.12	3.555		
18,300.0	11,454.0	18,431.6	11,624.0	65.0	60.3	112.47	6,918.7	-996.9	444.8	318.9	125.89	3.533		
18,335.0	11,454.0	18,466.6	11,624.0	65.3	60.6	112.47	6,953.7	-997.2	444.8	318.4	126.35	3.520		
18,400.0	11,454.0	18,531.6	11,624.0	65.7	61.0	112.47	7,018.7	-997.8	444.8	317.6	127.19	3.497		
18,430.0	11,454.0	18,561.6	11,624.0	65.8	61.2	112.47	7,048.7	-998.1	444.8	317.2	127.59	3.486		
18,500.0	11,454.0	18,631.6	11,624.0	66.3	61.7	112.47	7,118.6	-998.7	444.8	316.3	128.50	3.461		
18,525.0	11,454.0	18,656.6	11,624.0	66.4	61.8	112.47	7,143.6	-998.9	444.8	316.0	128.83	3.453		
18,600.0	11,454.0	18,731.6	11,624.0	66.9	62.4	112.47	7,218.6	-999.6	444.8	315.0	129.81	3.426		
18,620.0	11,454.0	18,751.6	11,624.0	67.0	62.5	112.47	7,238.6	-999.8	444.8	314.7	130.07	3.419		
18,700.0	11,454.0	18,831.6	11,624.0	67.6	63.0	112.47	7,318.6	-1,000.5	444.8	313.7	131.13	3.392		
18,715.0	11,454.0	18,846.6	11,624.0	67.7	63.1	112.47	7,333.6	-1,000.7	444.8	313.5	131.32	3.387		
18,800.0	11,454.0	18,931.6	11,624.0	68.2	63.7	112.47	7,418.6	-1,001.5	444.8	312.3	132.45	3.358		
18,810.0	11,454.0	18,941.6	11,624.0	68.3	63.8	112.47	7,428.6	-1,001.5	444.8	312.2	132.58	3.355		
18,900.0	11,454.0	19,031.6	11,624.0	68.8	64.4	112.47	7,518.6	-1,002.4	444.8	311.0	133.77	3.325		
18,905.0	11,454.0	19,036.6	11,624.0	68.9	64.4	112.47	7,523.6	-1,002.4	444.8	310.9	133.84	3.323		
19,000.0	11,454.0	19,131.6	11,624.0	69.5	65.1	112.47	7,618.6	-1,003.3	444.8	309.7	135.10	3.292		
19,095.0	11,454.0	19,226.6	11,624.0	70.1	65.7	112.47	7,713.6	-1,004.1	444.8	308.4	136.37	3.262		
19,100.0	11,454.0	19,231.6	11,624.0	70.1	65.8	112.47	7,718.6	-1,004.2	444.8	308.3	136.43	3.260		
19,190.0	11,454.0	19,321.6	11,624.0	70.7	66.4	112.47	7,808.6	-1,005.0	444.8	307.1	137.64	3.232		
19,200.0	11,454.0	19,331.6	11,624.0	70.8	66.5	112.47	7,818.6	-1,005.1	444.8	307.0	137.77	3.228		
19,285.0	11,454.0	19,416.6	11,624.0	71.3	67.0	112.47	7,903.6	-1,005.9	444.8	305.9	138.91	3.202		
19,300.0	11,454.0	19,431.6	11,624.0	71.4	67.2	112.47	7,918.6	-1,006.0	444.8	305.7	139.11	3.197		
19,380.0	11,454.0	19,511.6	11,624.0	71.9	67.7	112.47	7,998.6	-1,006.7	444.8	304.6	140.19	3.173		
19,400.0	11,454.0	19,531.6	11,624.0	72.1	67.8	112.47	8,018.6	-1,006.9	444.8	304.3	140.46	3.167		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 11238-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		
19,475.0	11,454.0	19,606.6	11,624.0	72.6	68.4	112.47	8,093.6	-1,007.6	444.8	303.3	141.47	3.144		
19,500.0	11,454.0	19,631.6	11,624.0	72.7	68.5	112.47	8,118.6	-1,007.8	444.8	303.0	141.81	3.137		
19,570.0	11,454.0	19,701.6	11,624.0	73.2	69.0	112.47	8,188.6	-1,008.5	444.8	302.0	142.75	3.116		
19,600.0	11,454.0	19,731.6	11,624.0	73.4	69.2	112.47	8,218.6	-1,008.7	444.8	301.6	143.16	3.107		
19,665.0	11,454.0	19,796.6	11,624.0	73.8	69.7	112.47	8,283.6	-1,009.3	444.8	300.7	144.04	3.088		
19,700.0	11,454.0	19,831.6	11,624.0	74.0	69.9	112.47	8,318.6	-1,009.7	444.8	300.3	144.52	3.078		
19,760.0	11,454.0	19,891.6	11,624.0	74.4	70.3	112.47	8,378.6	-1,010.2	444.8	299.4	145.33	3.060		
19,800.0	11,454.0	19,931.6	11,624.0	74.7	70.6	112.47	8,418.6	-1,010.6	444.8	298.9	145.88	3.049		
19,855.0	11,454.0	19,986.6	11,624.0	75.1	71.0	112.47	8,473.6	-1,011.1	444.8	298.2	146.62	3.033		
19,900.0	11,454.0	20,031.6	11,624.0	75.4	71.3	112.47	8,518.6	-1,011.5	444.8	297.5	147.24	3.021		
19,950.0	11,454.0	20,081.6	11,624.0	75.7	71.7	112.47	8,568.6	-1,011.9	444.8	296.9	147.92	3.007		
20,000.0	11,454.0	20,131.6	11,624.0	76.0	72.0	112.47	8,618.6	-1,012.4	444.8	296.2	148.60	2.993		
20,045.0	11,454.0	20,176.6	11,624.0	76.3	72.3	112.47	8,663.6	-1,012.8	444.8	295.6	149.22	2.981		
20,100.0	11,454.0	20,231.6	11,624.0	76.7	72.7	112.47	8,718.6	-1,013.3	444.8	294.8	149.97	2.966		
20,140.0	11,454.0	20,271.6	11,624.0	77.0	73.0	112.47	8,758.6	-1,013.7	444.8	294.3	150.52	2.955		
20,200.0	11,454.0	20,331.6	11,624.0	77.4	73.4	112.47	8,818.6	-1,014.2	444.8	293.4	151.35	2.939		
20,235.0	11,454.0	20,366.6	11,624.0	77.6	73.7	112.47	8,853.6	-1,014.5	444.8	292.9	151.83	2.929		
20,300.0	11,454.0	20,431.6	11,624.0	78.0	74.1	112.47	8,918.6	-1,015.1	444.8	292.1	152.72	2.912		
20,330.0	11,454.0	20,461.6	11,624.0	78.2	74.4	112.47	8,948.6	-1,015.4	444.8	291.6	153.14	2.904		
20,400.0	11,454.0	20,531.6	11,624.0	78.7	74.8	112.47	9,018.6	-1,016.0	444.8	290.7	154.10	2.886		
20,425.0	11,454.0	20,556.6	11,624.0	78.9	75.0	112.47	9,043.6	-1,016.3	444.8	290.3	154.45	2.880		
20,500.0	11,454.0	20,631.6	11,624.0	79.4	75.6	112.47	9,118.6	-1,017.0	444.8	289.3	155.48	2.861		
20,520.0	11,454.0	20,651.6	11,624.0	79.5	75.7	112.47	9,138.6	-1,017.1	444.8	289.0	155.76	2.856		
20,600.0	11,454.0	20,731.6	11,624.0	80.0	76.3	112.47	9,218.6	-1,017.9	444.8	287.9	156.87	2.835		
20,615.0	11,454.0	20,746.6	11,624.0	80.2	76.4	112.47	9,233.6	-1,018.0	444.8	287.7	157.07	2.832		
20,700.0	11,454.0	20,831.6	11,624.0	80.7	77.0	112.47	9,318.6	-1,018.8	444.8	286.5	158.25	2.810		
20,710.0	11,454.0	20,841.6	11,624.0	80.8	77.0	112.47	9,328.6	-1,018.9	444.8	286.4	158.39	2.808		
20,800.0	11,454.0	20,931.6	11,624.0	81.4	77.7	112.47	9,418.6	-1,019.7	444.8	285.1	159.64	2.786		
20,805.0	11,454.0	20,936.6	11,624.0	81.4	77.7	112.47	9,423.6	-1,019.7	444.8	285.1	159.71	2.785		
20,900.0	11,454.0	21,031.6	11,624.0	82.1	78.4	112.47	9,518.5	-1,020.6	444.8	283.7	161.04	2.762		
20,995.0	11,454.0	21,126.6	11,624.0	82.7	79.1	112.47	9,613.5	-1,021.5	444.8	282.4	162.36	2.739		
21,000.0	11,454.0	21,131.6	11,624.0	82.8	79.1	112.47	9,618.5	-1,021.5	444.8	282.3	162.43	2.738		
21,090.0	11,454.0	21,221.6	11,624.0	83.4	79.7	112.47	9,708.5	-1,022.3	444.8	281.1	163.69	2.717		
21,100.0	11,454.0	21,231.6	11,624.0	83.4	79.8	112.47	9,718.5	-1,022.4	444.8	280.9	163.83	2.715		
21,185.0	11,454.0	21,316.6	11,624.0	84.0	80.4	112.47	9,803.5	-1,023.2	444.8	279.8	165.02	2.695		
21,200.0	11,454.0	21,331.6	11,624.0	84.1	80.5	112.47	9,818.5	-1,023.3	444.8	279.5	165.23	2.692		
21,280.0	11,454.0	21,411.6	11,624.0	84.7	81.1	112.47	9,898.5	-1,024.1	444.8	278.4	166.35	2.674		
21,300.0	11,454.0	21,431.6	11,624.0	84.8	81.2	112.47	9,918.5	-1,024.3	444.8	278.1	166.63	2.669		
21,375.0	11,454.0	21,506.6	11,624.0	85.3	81.8	112.47	9,993.5	-1,024.9	444.8	277.1	167.68	2.652		
21,400.0	11,454.0	21,531.6	11,624.0	85.5	82.0	112.47	10,018.5	-1,025.2	444.8	276.7	168.03	2.647		
21,470.0	11,454.0	21,601.6	11,624.0	86.0	82.5	112.47	10,088.5	-1,025.8	444.8	275.8	169.02	2.631		
21,500.0	11,454.0	21,631.6	11,624.0	86.2	82.7	112.47	10,118.5	-1,026.1	444.8	275.3	169.44	2.625		
21,565.0	11,454.0	21,696.6	11,624.0	86.6	83.1	112.47	10,183.5	-1,026.7	444.8	274.4	170.35	2.611		
21,600.0	11,454.0	21,731.6	11,624.0	86.9	83.4	112.47	10,218.5	-1,027.0	444.8	273.9	170.85	2.603		
21,660.0	11,454.0	21,791.6	11,624.0	87.3	83.8	112.47	10,278.5	-1,027.5	444.8	273.1	171.69	2.590		
21,700.0	11,454.0	21,831.6	11,624.0	87.6	84.1	112.47	10,318.5	-1,027.9	444.8	272.5	172.26	2.582		
21,755.0	11,454.0	21,886.6	11,624.0	87.9	84.5	112.47	10,373.5	-1,028.4	444.8	271.7	173.04	2.570		
21,800.0	11,454.0	21,931.6	11,624.0	88.3	84.8	112.47	10,418.5	-1,028.8	444.8	271.1	173.67	2.561		
21,850.0	11,454.0	21,981.6	11,624.0	88.6	85.2	112.47	10,468.5	-1,029.3	444.8	270.4	174.38	2.551		
21,900.0	11,454.0	22,031.6	11,624.0	88.9	85.5	112.47	10,518.5	-1,029.7	444.8	269.7	175.08	2.540		
21,918.8	11,454.0	22,050.3	11,624.0	89.1	85.7	112.47	10,537.3	-1,029.9	444.8	269.4	175.35	2.536 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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-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		
0.0	0.0	0.0	0.0	3.0	3.0	89.60	0.4	59.8	59.8					
95.0	95.0	95.0	95.0	3.0	3.0	89.60	0.4	59.8	59.8	53.8	6.03	9.921		
100.0	100.0	100.0	100.0	3.0	3.0	89.60	0.4	59.8	59.8	53.8	6.03	9.916		
190.0	190.0	190.0	190.0	3.1	3.1	89.60	0.4	59.8	59.8	53.6	6.15	9.717		
200.0	200.0	200.0	200.0	3.1	3.1	89.60	0.4	59.8	59.8	53.6	6.17	9.686		
285.0	285.0	285.0	285.0	3.2	3.2	89.60	0.4	59.8	59.8	53.5	6.31	9.473		
300.0	300.0	300.0	300.0	3.2	3.2	89.60	0.4	59.8	59.8	53.4	6.34	9.431		
380.0	380.0	380.0	380.0	3.3	3.3	89.60	0.4	59.8	59.8	53.3	6.49	9.214		
400.0	400.0	400.0	400.0	3.3	3.3	89.60	0.4	59.8	59.8	53.3	6.53	9.156		
475.0	475.0	475.0	475.0	3.4	3.4	89.60	0.4	59.8	59.8	53.1	6.68	8.944		
500.0	500.0	500.0	500.0	3.4	3.4	89.60	0.4	59.8	59.8	53.0	6.74	8.870		
570.0	570.0	570.0	570.0	3.5	3.5	89.60	0.4	59.8	59.8	52.9	6.90	8.667		
600.0	600.0	600.0	600.0	3.5	3.5	89.60	0.4	59.8	59.8	52.8	6.97	8.578		
665.0	665.0	665.0	665.0	3.6	3.6	89.60	0.4	59.8	59.8	52.7	7.13	8.388		
700.0	700.0	700.0	700.0	3.7	3.7	89.60	0.4	59.8	59.8	52.6	7.22	8.285		
760.0	760.0	760.0	760.0	3.8	3.8	89.60	0.4	59.8	59.8	52.4	7.37	8.111		
800.0	800.0	800.0	800.0	3.8	3.8	89.60	0.4	59.8	59.8	52.3	7.48	7.995		
855.0	855.0	855.0	855.0	3.9	3.9	89.60	0.4	59.8	59.8	52.2	7.63	7.838		
900.0	900.0	900.0	900.0	4.0	4.0	89.60	0.4	59.8	59.8	52.0	7.75	7.711		
950.0	950.0	950.0	950.0	4.1	4.1	89.60	0.4	59.8	59.8	51.9	7.90	7.572		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.60	0.4	59.8	59.8	51.7	8.04	7.434 CC, ES		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	179.83	0.4	59.8	60.1	51.9	8.22	7.317		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	179.83	0.4	59.8	61.5	53.1	8.44	7.288		
1,140.0	1,139.9	1,139.9	1,139.9	4.4	4.4	179.84	0.4	59.8	63.2	54.6	8.62	7.330		
1,200.0	1,199.8	1,199.8	1,199.8	4.6	4.5	179.85	0.4	59.8	66.8	57.9	8.90	7.502		
1,235.0	1,234.7	1,234.7	1,234.7	4.7	4.6	179.85	0.4	59.8	69.4	60.4	9.06	7.659		
1,300.0	1,299.5	1,299.5	1,299.5	4.9	4.7	179.86	0.4	59.8	75.5	66.1	9.37	8.052		
1,330.0	1,329.3	1,329.3	1,329.3	5.0	4.7	179.87	0.4	59.8	78.8	69.2	9.52	8.274		
1,400.0	1,398.7	1,398.7	1,398.7	5.2	4.9	179.88	0.4	59.8	87.7	77.8	9.87	8.884		
1,425.0	1,423.4	1,423.4	1,423.4	5.3	4.9	179.89	0.4	59.8	91.2	81.3	9.99	9.130		
1,500.0	1,497.5	1,497.5	1,497.5	5.6	5.1	179.90	0.4	59.8	103.3	92.9	10.38	9.951		
1,520.0	1,517.1	1,517.1	1,517.1	5.6	5.1	179.90	0.4	59.8	106.8	96.4	10.49	10.188		
1,600.0	1,595.6	1,595.6	1,595.6	5.9	5.3	179.91	0.4	59.8	122.4	111.5	10.91	11.213		
1,615.0	1,610.3	1,610.3	1,610.3	6.0	5.3	179.92	0.4	59.8	125.5	114.5	10.99	11.425		
1,700.0	1,693.4	1,693.4	1,693.4	6.2	5.5	179.93	0.4	59.8	143.2	131.8	11.39	12.573		
1,710.0	1,703.2	1,703.2	1,703.2	6.3	5.5	179.93	0.4	59.8	145.3	133.8	11.44	12.701		
1,800.0	1,791.3	1,791.3	1,791.3	6.6	5.7	179.94	0.4	59.8	164.0	152.1	11.88	13.801		
1,805.0	1,796.1	1,796.1	1,796.1	6.6	5.7	179.94	0.4	59.8	165.0	153.1	11.91	13.859		
1,900.0	1,889.1	1,889.1	1,889.1	6.9	5.9	179.94	0.4	59.8	184.8	172.4	12.39	14.907		
1,995.0	1,982.0	1,982.0	1,982.0	7.2	6.0	179.95	0.4	59.8	204.5	191.6	12.90	15.857		
2,000.0	1,986.9	1,986.9	1,986.9	7.3	6.1	179.95	0.4	59.8	205.5	192.6	12.92	15.904		
2,090.0	2,074.9	2,074.9	2,074.9	7.6	6.2	179.95	0.4	59.8	224.3	210.8	13.41	16.718		
2,100.0	2,084.7	2,084.7	2,084.7	7.6	6.3	179.95	0.4	59.8	226.3	212.9	13.47	16.804		
2,185.0	2,167.8	2,167.8	2,167.8	7.9	6.4	179.96	0.4	59.8	244.0	230.1	13.94	17.500		
2,200.0	2,182.5	2,182.5	2,182.5	8.0	6.5	179.96	0.4	59.8	247.1	233.1	14.03	17.617		
2,280.0	2,260.8	2,260.8	2,260.8	8.3	6.6	179.96	0.4	59.8	263.8	249.3	14.48	18.212		
2,300.0	2,280.3	2,280.3	2,280.3	8.4	6.7	179.96	0.4	59.8	267.9	253.3	14.60	18.354		
2,375.0	2,353.7	2,353.7	2,353.7	8.7	6.8	179.96	0.4	59.8	283.5	268.5	15.03	18.861		
2,400.0	2,378.1	2,378.1	2,378.1	8.8	6.9	179.96	0.4	59.8	288.7	273.5	15.18	19.023		
2,470.0	2,446.6	2,446.6	2,446.6	9.1	7.0	179.97	0.4	59.8	303.3	287.7	15.59	19.455		
2,500.0	2,476.0	2,476.0	2,476.0	9.2	7.1	179.97	0.4	59.8	309.5	293.7	15.77	19.632		
2,565.0	2,539.5	2,544.6	2,544.6	9.5	7.2	179.97	0.4	59.4	322.7	306.5	16.18	19.940		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWPO														Offset Site Error: 0.0 usft	
Survey Program: Reference		0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-r.5 MWD+IFR1+MS						Rule Assigned:						Offset Well Error: 3.0 usft	
Offset		Offset		Semi Major Axis		Offset Wellbore Centre		Distance						Warning	
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside									
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
2,600.0	2,573.8	2,583.4	2,583.3	9.6	7.3	179.97	0.4	58.6	329.2	312.8	16.42	20.050			
2,660.0	2,632.5	2,650.3	2,650.3	9.9	7.3	179.97	0.4	55.8	339.3	322.5	16.82	20.174			
2,700.0	2,671.6	2,695.2	2,695.1	10.0	7.4	179.96	0.4	53.1	345.2	328.2	17.08	20.212			
2,755.0	2,725.4	2,757.3	2,757.0	10.3	7.5	179.96	0.4	48.2	352.4	334.9	17.45	20.194			
2,800.0	2,769.4	2,808.4	2,807.8	10.4	7.5	179.96	0.4	43.2	357.4	339.6	17.75	20.130			
2,850.0	2,818.3	2,865.3	2,864.3	10.7	7.6	179.95	0.4	36.5	362.0	343.9	18.10	20.002			
2,900.0	2,867.2	2,922.5	2,920.9	10.9	7.6	179.95	0.4	28.7	365.5	347.1	18.41	19.853			
2,945.0	2,911.2	2,970.9	2,968.8	11.1	7.6	179.94	0.4	21.2	368.0	349.3	18.67	19.713			
3,000.0	2,965.0	3,025.8	3,023.0	11.3	7.7	179.94	0.5	12.6	370.9	351.9	19.00	19.517			
3,040.0	3,004.2	3,065.8	3,062.5	11.5	7.7	179.93	0.5	6.4	373.0	353.7	19.26	19.361			
3,100.0	3,062.8	3,125.7	3,121.7	11.7	7.8	179.93	0.5	-3.0	376.1	356.5	19.66	19.127			
3,135.0	3,097.1	3,160.6	3,156.2	11.9	7.9	179.92	0.5	-8.4	378.0	358.1	19.90	18.992			
3,200.0	3,160.7	3,225.6	3,220.3	12.2	8.1	179.92	0.5	-18.6	381.4	361.0	20.35	18.744			
3,230.0	3,190.0	3,255.5	3,249.9	12.3	8.1	179.91	0.5	-23.3	382.9	362.4	20.56	18.630			
3,300.0	3,258.5	3,325.4	3,318.9	12.6	8.3	179.91	0.5	-34.2	386.6	365.5	21.05	18.367			
3,325.0	3,282.9	3,350.4	3,343.6	12.7	8.4	179.91	0.5	-38.1	387.9	366.7	21.23	18.274			
3,400.0	3,356.3	3,425.3	3,417.6	13.1	8.6	179.90	0.5	-49.8	391.8	370.1	21.77	18.000			
3,420.0	3,375.9	3,445.3	3,437.3	13.1	8.6	179.90	0.5	-53.0	392.9	371.0	21.92	17.927			
3,500.0	3,454.1	3,525.1	3,516.2	13.5	8.9	179.89	0.5	-65.5	397.1	374.6	22.51	17.642			
3,515.0	3,468.8	3,540.1	3,531.0	13.6	8.9	179.89	0.5	-67.8	397.8	375.2	22.62	17.589			
3,600.0	3,551.9	3,625.0	3,614.9	13.9	9.2	179.88	0.5	-81.1	402.3	379.0	23.26	17.296			
3,610.0	3,561.7	3,635.0	3,624.7	14.0	9.2	179.88	0.5	-82.6	402.8	379.5	23.34	17.262			
3,700.0	3,649.7	3,724.9	3,713.5	14.4	9.5	179.87	0.5	-96.7	407.5	383.5	24.03	16.962			
3,705.0	3,654.6	3,729.9	3,718.4	14.4	9.5	179.87	0.5	-97.5	407.8	383.7	24.06	16.946			
3,800.0	3,747.5	3,824.7	3,812.1	14.8	9.8	179.86	0.5	-112.3	412.8	388.0	24.81	16.640			
3,895.0	3,840.5	3,919.6	3,905.8	15.3	10.1	179.85	0.6	-127.2	417.7	392.2	25.56	16.346			
3,900.0	3,845.4	3,924.6	3,910.8	15.3	10.1	179.85	0.6	-128.0	418.0	392.4	25.60	16.330			
3,990.0	3,933.4	4,014.5	3,999.5	15.7	10.4	179.85	0.6	-142.0	422.7	396.4	26.32	16.062			
4,000.0	3,943.2	4,024.5	4,009.4	15.7	10.4	179.85	0.6	-143.6	423.2	396.8	26.40	16.033			
4,085.0	4,026.3	4,109.3	4,093.2	16.1	10.7	179.84	0.6	-156.9	427.7	400.6	27.09	15.790			
4,100.0	4,041.0	4,124.3	4,108.0	16.2	10.8	179.84	0.6	-159.2	428.5	401.3	27.21	15.748			
4,180.0	4,119.2	4,204.2	4,186.9	16.6	11.0	179.83	0.6	-171.7	432.7	404.8	27.86	15.528			
4,200.0	4,138.8	4,224.2	4,206.7	16.7	11.1	179.83	0.6	-174.8	433.7	405.7	28.03	15.474			
4,275.0	4,212.2	4,299.1	4,280.6	17.0	11.4	179.82	0.6	-186.5	437.6	409.0	28.65	15.277			
4,300.0	4,236.6	4,324.0	4,305.3	17.1	11.5	179.82	0.6	-190.4	438.9	410.1	28.85	15.212			
4,370.0	4,305.1	4,394.0	4,374.3	17.4	11.7	179.82	0.6	-201.4	442.6	413.2	29.44	15.036			
4,400.0	4,334.4	4,423.9	4,403.9	17.6	11.8	179.81	0.6	-206.1	444.2	414.5	29.69	14.961			
4,465.0	4,398.0	4,488.8	4,468.0	17.9	12.1	179.81	0.6	-216.2	447.6	417.3	30.23	14.804			
4,500.0	4,432.3	4,523.8	4,502.6	18.0	12.2	179.81	0.6	-221.7	449.4	418.9	30.53	14.721			
4,560.0	4,490.9	4,583.7	4,561.7	18.3	12.4	179.80	0.6	-231.1	452.5	421.5	31.04	14.582			
4,600.0	4,530.1	4,623.6	4,601.2	18.5	12.6	179.80	0.6	-237.3	454.6	423.3	31.37	14.491			
4,655.0	4,583.9	4,678.6	4,655.4	18.7	12.8	179.80	0.6	-245.9	457.5	425.7	31.84	14.368			
4,700.0	4,627.9	4,723.5	4,699.8	18.9	12.9	179.79	0.6	-252.9	459.9	427.6	32.23	14.270			
4,750.0	4,676.8	4,773.4	4,749.1	19.2	13.1	179.79	0.6	-260.7	462.5	429.8	32.65	14.164			
4,800.0	4,725.7	4,823.4	4,798.5	19.4	13.3	179.79	0.6	-268.5	465.1	432.0	33.08	14.059			
4,845.0	4,769.7	4,868.3	4,842.8	19.6	13.5	179.78	0.7	-275.6	467.5	434.0	33.47	13.967			
4,900.0	4,823.5	4,923.2	4,897.1	19.9	13.7	179.78	0.7	-284.2	470.3	436.4	33.94	13.857			
4,940.0	4,862.6	4,963.2	4,936.5	20.1	13.9	179.78	0.7	-290.4	472.4	438.1	34.29	13.778			
5,000.0	4,921.3	5,023.1	4,995.7	20.3	14.1	179.77	0.7	-299.8	475.6	440.8	34.81	13.663			
5,035.0	4,955.6	5,058.0	5,030.2	20.5	14.2	179.77	0.7	-305.3	477.4	442.3	35.11	13.597			
5,100.0	5,019.1	5,123.0	5,094.4	20.8	14.5	179.77	0.7	-315.4	480.8	445.1	35.68	13.477			
5,130.0	5,048.5	5,152.9	5,123.9	20.9	14.6	179.77	0.7	-320.1	482.4	446.4	35.94	13.422			

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-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		
5,200.0	5,117.0	5,222.8	5,193.0	21.3	14.9	179.76	0.7	-331.0	486.0	449.5	36.55	13.298		
5,225.0	5,141.4	5,247.8	5,217.6	21.4	15.0	179.76	0.7	-334.9	487.3	450.6	36.77	13.255		
5,300.0	5,214.8	5,322.7	5,291.6	21.7	15.3	179.76	0.7	-346.7	491.3	453.8	37.42	13.127		
5,320.0	5,234.3	5,342.7	5,311.3	21.8	15.4	179.75	0.7	-349.8	492.3	454.7	37.60	13.093		
5,400.0	5,312.6	5,422.5	5,390.3	22.2	15.7	179.75	0.7	-362.3	496.5	458.2	38.30	12.962		
5,415.0	5,327.3	5,437.5	5,405.0	22.3	15.7	179.75	0.7	-364.6	497.3	458.9	38.44	12.938		
5,500.0	5,410.4	5,522.4	5,488.9	22.7	16.1	179.74	0.7	-377.9	501.7	462.6	39.19	12.804		
5,510.0	5,420.2	5,532.4	5,498.7	22.7	16.1	179.74	0.7	-379.5	502.3	463.0	39.27	12.789		
5,600.0	5,508.2	5,622.3	5,587.5	23.1	16.5	179.74	0.7	-393.5	507.0	466.9	40.07	12.653		
5,605.0	5,513.1	5,627.3	5,592.5	23.1	16.5	179.74	0.7	-394.3	507.2	467.1	40.11	12.645		
5,700.0	5,606.0	5,722.1	5,686.2	23.6	16.9	179.73	0.7	-409.1	512.2	471.3	40.96	12.507		
5,795.0	5,699.0	5,817.0	5,779.9	24.0	17.3	179.73	0.8	-424.0	517.2	475.4	41.80	12.373		
5,800.0	5,703.8	5,822.0	5,784.8	24.0	17.3	179.73	0.8	-424.8	517.4	475.6	41.84	12.366		
5,890.0	5,791.9	5,911.9	5,873.6	24.5	17.7	179.72	0.8	-438.8	522.2	479.5	42.65	12.244		
5,900.0	5,801.7	5,921.9	5,883.4	24.5	17.7	179.72	0.8	-440.4	522.7	479.9	42.73	12.231		
5,985.0	5,884.8	6,006.1	5,966.6	24.9	18.0	179.72	0.8	-453.6	527.1	483.6	43.49	12.121		
6,000.0	5,899.5	6,019.8	5,980.2	25.0	18.1	179.72	0.8	-455.7	528.0	484.3	43.62	12.105		
6,080.0	5,977.7	6,092.9	6,052.5	25.4	18.4	179.71	0.8	-466.4	532.9	488.6	44.29	12.034		
6,100.0	5,997.3	6,111.2	6,070.6	25.5	18.5	179.71	0.8	-468.9	534.3	489.9	44.45	12.021		
6,175.0	6,070.6	6,179.5	6,138.3	25.8	18.7	179.71	0.8	-477.9	540.2	495.1	45.06	11.986		
6,200.0	6,095.1	6,200.0	6,158.6	25.9	18.8	179.71	0.8	-480.4	542.3	497.1	45.25	11.985		
6,270.0	6,163.6	6,265.9	6,224.1	26.2	19.1	179.71	0.8	-488.1	548.8	503.0	45.82	11.977		
6,300.0	6,192.9	6,293.2	6,251.2	26.4	19.2	179.71	0.8	-491.0	551.9	505.8	46.06	11.981		
6,365.0	6,256.5	6,352.1	6,309.8	26.7	19.4	179.71	0.8	-496.9	558.9	512.4	46.56	12.003		
6,400.0	6,290.7	6,383.7	6,341.3	26.9	19.5	179.71	0.8	-499.9	563.0	516.2	46.83	12.022		
6,460.0	6,349.4	6,437.9	6,395.3	27.1	19.7	179.71	0.8	-504.5	570.4	523.1	47.28	12.064		
6,500.0	6,388.5	6,473.9	6,431.3	27.3	19.9	179.71	0.8	-507.3	575.7	528.1	47.58	12.100		
6,555.0	6,442.3	6,523.4	6,480.6	27.6	20.0	179.72	0.8	-510.7	583.3	535.4	47.97	12.160		
6,562.8	6,450.0	6,530.4	6,487.6	27.6	20.1	179.72	0.8	-511.2	584.5	536.4	48.03	12.170		
6,600.0	6,486.4	6,563.8	6,520.9	27.8	20.2	179.72	0.8	-513.2	589.9	541.6	48.28	12.217		
6,650.0	6,535.3	6,608.6	6,565.6	28.0	20.3	179.72	0.8	-515.7	597.3	548.7	48.63	12.283		
6,700.0	6,584.3	6,653.3	6,610.3	28.2	20.5	179.72	0.8	-517.8	604.9	556.0	48.97	12.354		
6,745.0	6,628.5	6,693.5	6,650.5	28.5	20.6	179.72	0.8	-519.4	611.9	562.7	49.27	12.421		
6,800.0	6,682.5	6,742.5	6,699.5	28.7	20.7	179.73	0.8	-520.9	620.7	571.1	49.61	12.510		
6,840.0	6,721.8	6,778.1	6,735.1	28.9	20.8	179.73	0.8	-521.8	627.2	577.3	49.86	12.578		
6,900.0	6,780.8	6,831.4	6,788.3	29.2	20.9	179.73	0.8	-522.7	637.1	586.9	50.18	12.695		
6,935.0	6,815.2	6,862.5	6,819.4	29.3	21.0	179.74	0.8	-522.9	643.0	592.6	50.35	12.770		
7,000.0	6,879.2	6,922.3	6,879.2	29.6	21.1	179.74	0.8	-523.1	654.1	603.4	50.66	12.911		
7,030.0	6,908.8	6,951.9	6,908.8	29.8	21.1	179.74	0.8	-523.1	659.2	608.4	50.81	12.974		
7,100.0	6,977.9	7,020.9	6,977.9	30.1	21.1	179.75	0.8	-523.1	670.7	619.6	51.15	13.114		
7,125.0	7,002.5	7,045.6	7,002.5	30.2	21.1	179.75	0.8	-523.1	674.7	623.5	51.27	13.161		
7,200.0	7,076.6	7,119.7	7,076.6	30.5	21.1	179.75	0.8	-523.1	686.5	634.8	51.62	13.297		
7,220.0	7,096.4	7,139.5	7,096.4	30.6	21.1	179.75	0.8	-523.1	689.5	637.8	51.72	13.332		
7,300.0	7,175.5	7,218.6	7,175.5	30.9	21.2	179.76	0.8	-523.1	701.4	649.3	52.10	13.462		
7,315.0	7,190.3	7,233.4	7,190.3	31.0	21.2	179.76	0.8	-523.1	703.5	651.4	52.17	13.486		
7,400.0	7,274.5	7,317.6	7,274.5	31.4	21.2	179.76	0.8	-523.1	715.4	662.8	52.57	13.609		
7,410.0	7,284.4	7,327.5	7,284.4	31.4	21.2	179.76	0.8	-523.1	716.7	664.1	52.61	13.623		
7,500.0	7,373.6	7,416.7	7,373.6	31.8	21.2	179.77	0.8	-523.1	728.6	675.5	53.03	13.739		
7,505.0	7,378.6	7,421.7	7,378.6	31.8	21.2	179.77	0.8	-523.1	729.2	676.1	53.05	13.745		
7,600.0	7,472.9	7,516.0	7,472.9	32.2	21.3	179.77	0.8	-523.1	740.9	687.4	53.48	13.852		
7,695.0	7,567.3	7,610.3	7,567.3	32.6	21.3	179.78	0.8	-523.1	751.7	697.8	53.91	13.944		
7,700.0	7,572.2	7,615.3	7,572.2	32.6	21.3	179.78	0.8	-523.1	752.3	698.3	53.93	13.948		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWPO													Offset Site Error:	0.0 usft	
Survey Program:		0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-r.5 MWD+IFR1+MS					Rule Assigned:							Offset Well Error:	3.0 usft
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning		
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor			
7,790.0	7,661.7	7,704.8	7,661.7	33.0	21.3	179.78	0.8	-523.1	761.8	707.5	54.33	14.022			
7,800.0	7,671.7	7,714.7	7,671.7	33.0	21.3	179.78	0.8	-523.1	762.8	708.5	54.38	14.029			
7,885.0	7,756.3	7,799.3	7,756.3	33.4	21.4	179.78	0.8	-523.1	771.1	716.4	54.74	14.086			
7,900.0	7,771.2	7,814.3	7,771.2	33.4	21.4	179.78	0.8	-523.1	772.5	717.7	54.81	14.095			
7,980.0	7,850.9	7,894.0	7,850.9	33.8	21.4	179.78	0.8	-523.1	779.7	724.5	55.15	14.137			
8,000.0	7,870.8	7,913.9	7,870.8	33.8	21.4	179.78	0.8	-523.1	781.4	726.1	55.24	14.146			
8,075.0	7,945.6	7,988.6	7,945.6	34.1	21.4	179.79	0.8	-523.1	787.4	731.9	55.55	14.175			
8,100.0	7,970.5	8,013.6	7,970.5	34.2	21.4	179.79	0.8	-523.1	789.3	733.7	55.65	14.183			
8,170.0	8,040.3	8,083.4	8,040.3	34.5	21.5	179.79	0.8	-523.1	794.4	738.4	55.94	14.201			
8,200.0	8,070.2	8,113.3	8,070.2	34.6	21.5	179.79	0.8	-523.1	796.4	740.4	56.06	14.206			
8,265.0	8,135.1	8,178.2	8,135.1	34.8	21.5	179.79	0.8	-523.1	800.6	744.2	56.32	14.215			
8,300.0	8,170.0	8,213.1	8,170.0	34.9	21.5	179.79	0.8	-523.1	802.6	746.2	56.46	14.216			
8,360.0	8,229.9	8,273.0	8,229.9	35.1	21.5	179.79	0.8	-523.1	805.9	749.3	56.69	14.217			
8,400.0	8,269.9	8,313.0	8,269.9	35.3	21.6	179.79	0.8	-523.1	808.0	751.1	56.84	14.214			
8,455.0	8,324.8	8,367.9	8,324.8	35.5	21.6	179.79	0.8	-523.1	810.5	753.5	57.05	14.208			
8,500.0	8,369.8	8,412.9	8,369.8	35.6	21.6	179.79	0.8	-523.1	812.4	755.2	57.21	14.200			
8,550.0	8,419.8	8,462.8	8,419.8	35.8	21.6	179.79	0.8	-523.1	814.4	757.0	57.39	14.189			
8,600.0	8,469.7	8,512.8	8,469.7	35.9	21.6	179.79	0.8	-523.1	816.1	758.5	57.57	14.175			
8,645.0	8,514.7	8,557.8	8,514.7	36.1	21.7	179.79	0.8	-523.1	817.4	759.7	57.72	14.161			
8,700.0	8,569.7	8,612.8	8,569.7	36.2	21.7	179.80	0.8	-523.1	818.8	760.9	57.90	14.140			
8,740.0	8,609.7	8,652.8	8,609.7	36.3	21.7	179.80	0.8	-523.1	819.6	761.6	58.03	14.124			
8,800.0	8,669.7	8,712.8	8,669.7	36.5	21.7	179.80	0.8	-523.1	820.6	762.4	58.22	14.096			
8,835.0	8,704.7	8,747.8	8,704.7	36.6	21.7	179.80	0.8	-523.1	821.1	762.8	58.31	14.081			
8,900.0	8,769.7	8,812.8	8,769.7	36.7	21.8	179.80	0.8	-523.1	821.6	763.1	58.49	14.048			
8,930.0	8,799.7	8,842.8	8,799.7	36.8	21.8	179.80	0.8	-523.1	821.7	763.2	58.53	14.039			
8,962.8	8,832.5	8,875.6	8,832.5	36.8	21.8	89.57	0.8	-523.1	821.8	763.2	58.58	14.029			
9,000.0	8,869.7	8,912.8	8,869.7	36.8	21.8	89.57	0.8	-523.1	821.8	763.2	58.60	14.025			
9,025.0	8,894.7	8,937.8	8,894.7	36.8	21.8	89.57	0.8	-523.1	821.8	763.2	58.61	14.021			
9,100.0	8,969.7	9,012.8	8,969.7	36.8	21.8	89.57	0.8	-523.1	821.8	763.1	58.66	14.010			
9,120.0	8,989.7	9,032.8	8,989.7	36.8	21.8	89.57	0.8	-523.1	821.8	763.1	58.67	14.007			
9,200.0	9,069.7	9,112.8	9,069.7	36.8	21.9	89.57	0.8	-523.1	821.8	763.1	58.72	13.996			
9,215.0	9,084.7	9,127.8	9,084.7	36.8	21.9	89.57	0.8	-523.1	821.8	763.1	58.73	13.994			
9,300.0	9,169.7	9,212.8	9,169.7	36.9	21.9	89.57	0.8	-523.1	821.8	763.0	58.78	13.982			
9,310.0	9,179.7	9,222.8	9,179.7	36.9	21.9	89.57	0.8	-523.1	821.8	763.0	58.78	13.980			
9,400.0	9,269.7	9,312.8	9,269.7	36.9	22.0	89.57	0.8	-523.1	821.8	763.0	58.84	13.967			
9,405.0	9,274.7	9,317.8	9,274.7	36.9	22.0	89.57	0.8	-523.1	821.8	763.0	58.84	13.966			
9,500.0	9,369.7	9,412.8	9,369.7	36.9	22.0	89.57	0.8	-523.1	821.8	762.9	58.90	13.952			
9,595.0	9,464.7	9,507.8	9,464.7	36.9	22.0	89.57	0.8	-523.1	821.8	762.8	58.96	13.939			
9,600.0	9,469.7	9,512.8	9,469.7	36.9	22.0	89.57	0.8	-523.1	821.8	762.8	58.96	13.938			
9,690.0	9,559.7	9,602.8	9,559.7	36.9	22.1	89.57	0.8	-523.1	821.8	762.8	59.02	13.925			
9,700.0	9,569.7	9,612.8	9,569.7	36.9	22.1	89.57	0.8	-523.1	821.8	762.8	59.02	13.923			
9,785.0	9,654.7	9,697.8	9,654.7	37.0	22.1	89.57	0.8	-523.1	821.8	762.7	59.08	13.911			
9,800.0	9,669.7	9,712.8	9,669.7	37.0	22.1	89.57	0.8	-523.1	821.8	762.7	59.09	13.908			
9,880.0	9,749.7	9,792.8	9,749.7	37.0	22.2	89.57	0.8	-523.1	821.8	762.7	59.14	13.897			
9,900.0	9,769.7	9,812.8	9,769.7	37.0	22.2	89.57	0.8	-523.1	821.8	762.6	59.15	13.894			
9,975.0	9,844.7	9,887.8	9,844.7	37.0	22.2	89.57	0.8	-523.1	821.8	762.6	59.20	13.882			
10,000.0	9,869.7	9,912.8	9,869.7	37.0	22.2	89.57	0.8	-523.1	821.8	762.6	59.21	13.879			
10,070.0	9,939.7	9,982.8	9,939.7	37.0	22.2	89.57	0.8	-523.1	821.8	762.5	59.26	13.868			
10,100.0	9,969.7	10,012.8	9,969.7	37.0	22.2	89.57	0.8	-523.1	821.8	762.5	59.28	13.864			
10,165.0	10,034.7	10,077.8	10,034.7	37.0	22.3	89.57	0.8	-523.1	821.8	762.5	59.32	13.854			
10,200.0	10,069.7	10,112.8	10,069.7	37.1	22.3	89.57	0.8	-523.1	821.8	762.5	59.34	13.849			
10,260.0	10,129.7	10,172.8	10,129.7	37.1	22.3	89.57	0.8	-523.1	821.8	762.4	59.38	13.840			

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Rule Assigned:								
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Tooface	+N/-S	+E/-W	Between	Between	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	Centres	Ellipses	(usft)			
									(usft)	(usft)				
10,300.0	10,169.7	10,212.8	10,169.7	37.1	22.3	89.57	0.8	-523.1	821.8	762.4	59.41	13.834		
10,355.0	10,224.7	10,267.8	10,224.7	37.1	22.4	89.57	0.8	-523.1	821.8	762.4	59.44	13.825		
10,400.0	10,269.7	10,312.8	10,269.7	37.1	22.4	89.57	0.8	-523.1	821.8	762.3	59.47	13.819		
10,450.0	10,319.7	10,362.8	10,319.7	37.1	22.4	89.57	0.8	-523.1	821.8	762.3	59.50	13.811		
10,500.0	10,369.7	10,412.8	10,369.7	37.1	22.4	89.57	0.8	-523.1	821.8	762.3	59.54	13.803		
10,545.0	10,414.7	10,457.8	10,414.7	37.1	22.4	89.57	0.8	-523.1	821.8	762.2	59.57	13.797		
10,600.0	10,469.7	10,512.8	10,469.7	37.1	22.5	89.57	0.8	-523.1	821.8	762.2	59.60	13.788		
10,640.0	10,509.7	10,552.8	10,509.7	37.2	22.5	89.57	0.8	-523.1	821.8	762.2	59.63	13.782		
10,700.0	10,569.7	10,612.8	10,569.7	37.2	22.5	89.57	0.8	-523.1	821.8	762.1	59.67	13.773		
10,735.0	10,604.7	10,647.8	10,604.7	37.2	22.5	89.57	0.8	-523.1	821.8	762.1	59.69	13.768		
10,800.0	10,669.7	10,712.8	10,669.7	37.2	22.5	89.57	0.8	-523.1	821.8	762.1	59.73	13.758		
10,830.0	10,699.7	10,742.8	10,699.7	37.2	22.6	89.57	0.8	-523.1	821.8	762.0	59.75	13.753		
10,900.0	10,769.7	10,812.8	10,769.7	37.2	22.6	89.57	0.8	-523.1	821.8	762.0	59.80	13.742		
10,925.0	10,794.7	10,837.8	10,794.7	37.2	22.6	89.57	0.8	-523.1	821.8	762.0	59.82	13.738		
11,000.0	10,869.7	10,912.8	10,869.7	37.2	22.6	89.57	0.8	-523.1	821.8	761.9	59.87	13.727		
11,020.0	10,889.7	10,932.8	10,889.7	37.2	22.6	89.57	0.8	-523.1	821.8	761.9	59.88	13.724		
11,106.9	10,976.5	11,019.6	10,976.5	37.3	22.7	89.57	0.8	-523.1	821.8	761.9	59.93	13.711		
11,115.0	10,984.7	11,027.8	10,984.7	37.3	22.7	90.09	0.9	-523.1	821.8	761.9	59.94	13.711		
11,125.0	10,994.7	11,037.8	10,994.7	37.3	22.7	90.09	1.2	-523.1	821.8	761.9	59.94	13.711		
11,150.0	11,019.6	11,062.9	11,019.7	37.3	22.7	90.09	2.8	-523.1	821.8	761.9	59.94	13.710		
11,175.0	11,044.4	11,087.9	11,044.6	37.3	22.7	90.09	5.7	-523.1	821.8	761.9	59.94	13.710		
11,200.0	11,069.1	11,113.0	11,069.3	37.3	22.7	90.09	9.9	-523.1	821.8	761.8	59.95	13.709		
11,210.0	11,078.9	11,123.0	11,079.1	37.3	22.7	90.09	12.0	-523.2	821.8	761.8	59.95	13.708		
11,225.0	11,093.5	11,138.1	11,093.8	37.3	22.7	90.09	15.4	-523.2	821.8	761.8	59.95	13.708		
11,250.0	11,117.5	11,163.1	11,117.9	37.3	22.7	90.08	22.2	-523.3	821.8	761.8	59.95	13.707		
11,275.0	11,141.2	11,188.2	11,141.6	37.3	22.7	90.08	30.3	-523.3	821.8	761.8	59.96	13.706		
11,300.0	11,164.4	11,213.2	11,164.9	37.3	22.7	90.08	39.5	-523.4	821.8	761.8	59.96	13.705		
11,305.0	11,169.0	11,218.3	11,169.5	37.3	22.7	90.08	41.5	-523.4	821.8	761.8	59.96	13.705		
11,325.0	11,187.2	11,238.3	11,187.6	37.3	22.7	90.08	50.0	-523.5	821.8	761.8	59.97	13.704		
11,350.0	11,209.3	11,263.4	11,209.8	37.3	22.7	90.08	61.7	-523.6	821.8	761.8	59.97	13.703		
11,375.0	11,230.8	11,288.4	11,231.3	37.3	22.7	90.07	74.5	-523.7	821.8	761.8	59.98	13.702		
11,400.0	11,251.6	11,313.5	11,252.2	37.3	22.7	90.07	88.4	-523.9	821.8	761.8	59.98	13.701		
11,425.0	11,271.6	11,338.5	11,272.2	37.3	22.7	90.07	103.4	-524.0	821.8	761.8	59.99	13.699		
11,450.0	11,290.9	11,363.6	11,291.5	37.3	22.7	90.07	119.4	-524.1	821.8	761.8	60.00	13.697		
11,475.0	11,309.3	11,388.6	11,309.9	37.3	22.7	90.06	136.4	-524.3	821.8	761.8	60.01	13.695		
11,495.0	11,323.3	11,408.7	11,323.9	37.3	22.7	90.06	150.7	-524.4	821.8	761.8	60.02	13.693		
11,500.0	11,326.7	11,413.7	11,327.3	37.3	22.7	90.06	154.4	-524.5	821.8	761.8	60.02	13.692		
11,525.0	11,343.2	11,438.7	11,343.8	37.3	22.7	90.06	173.2	-524.6	821.8	761.8	60.03	13.689		
11,550.0	11,358.7	11,463.7	11,359.3	37.3	22.7	90.05	192.9	-524.8	821.8	761.8	60.05	13.686		
11,575.0	11,373.2	11,488.8	11,373.8	37.3	22.8	90.05	213.4	-525.0	821.8	761.7	60.07	13.682		
11,590.0	11,381.3	11,503.8	11,381.9	37.3	22.8	90.05	226.0	-525.1	821.8	761.7	60.08	13.679		
11,600.0	11,386.6	11,513.8	11,387.1	37.3	22.8	90.05	234.5	-525.2	821.8	761.7	60.08	13.678		
11,625.0	11,398.8	11,538.8	11,399.3	37.3	22.8	90.04	256.4	-525.4	821.8	761.7	60.11	13.673		
11,650.0	11,409.9	11,563.9	11,410.4	37.3	22.8	90.04	278.8	-525.6	821.8	761.7	60.13	13.667		
11,675.0	11,419.8	11,588.9	11,420.2	37.3	22.8	90.03	301.8	-525.8	821.8	761.6	60.16	13.661		
11,685.0	11,423.4	11,598.9	11,423.8	37.3	22.8	90.03	311.2	-525.9	821.8	761.6	60.17	13.659		
11,700.0	11,428.5	11,613.9	11,428.8	37.4	22.8	90.03	325.3	-526.0	821.8	761.6	60.18	13.655		
11,725.0	11,435.9	11,638.9	11,436.2	37.4	22.8	90.02	349.2	-526.2	821.8	761.6	60.22	13.648		
11,750.0	11,442.1	11,664.0	11,442.4	37.4	22.9	90.02	373.5	-526.4	821.8	761.6	60.25	13.640		
11,775.0	11,447.0	11,689.0	11,447.2	37.4	22.9	90.01	398.0	-526.7	821.8	761.5	60.29	13.631		
11,780.0	11,447.8	11,694.0	11,448.0	37.4	22.9	90.01	402.9	-526.7	821.8	761.5	60.30	13.630		
11,800.0	11,450.6	11,714.0	11,450.8	37.4	22.9	90.01	422.8	-526.9	821.8	761.5	60.33	13.623		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-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		
11,825.0	11,452.9	11,739.0	11,453.0	37.4	22.9	90.01	447.7	-527.1	821.8	761.4	60.37	13.613		
11,850.0	11,454.0	11,764.0	11,454.0	37.4	23.0	90.00	472.6	-527.3	821.8	761.4	60.41	13.603		
11,856.9	11,454.0	11,770.9	11,454.0	37.4	23.0	90.00	479.5	-527.4	821.8	761.4	60.43	13.600		
11,875.0	11,454.0	11,789.0	11,454.0	37.5	23.0	90.00	497.6	-527.6	821.8	761.3	60.46	13.592		
11,900.0	11,454.0	11,814.0	11,454.0	37.5	23.0	90.00	522.6	-527.8	821.8	761.3	60.52	13.580		
11,970.0	11,454.0	11,884.0	11,454.0	37.5	23.1	90.00	592.6	-528.4	821.8	761.1	60.69	13.541		
12,000.0	11,454.0	11,914.0	11,454.0	37.6	23.2	90.00	622.6	-528.7	821.8	761.0	60.77	13.524		
12,065.0	11,454.0	11,979.0	11,454.0	37.6	23.3	90.00	687.6	-529.3	821.8	760.9	60.95	13.483		
12,100.0	11,454.0	12,014.0	11,454.0	37.7	23.4	90.00	722.6	-529.6	821.8	760.8	61.05	13.461		
12,160.0	11,454.0	12,074.0	11,454.0	37.8	23.5	90.00	782.6	-530.2	821.8	760.6	61.25	13.418		
12,200.0	11,454.0	12,114.0	11,454.0	37.8	23.6	90.00	822.6	-530.5	821.8	760.4	61.38	13.389		
12,255.0	11,454.0	12,169.0	11,454.0	37.9	23.7	90.00	877.6	-531.0	821.8	760.2	61.58	13.346		
12,300.0	11,454.0	12,214.0	11,454.0	38.0	23.8	90.00	922.6	-531.4	821.8	760.1	61.74	13.310		
12,350.0	11,454.0	12,264.0	11,454.0	38.0	23.9	90.00	972.6	-531.9	821.8	759.9	61.94	13.267		
12,400.0	11,454.0	12,314.0	11,454.0	38.1	24.1	90.00	1,022.6	-532.3	821.8	759.7	62.15	13.224		
12,445.0	11,454.0	12,359.0	11,454.0	38.2	24.2	90.00	1,067.6	-532.7	821.8	759.5	62.34	13.183		
12,500.0	11,454.0	12,414.0	11,454.0	38.3	24.3	90.00	1,122.6	-533.2	821.8	759.3	62.58	13.132		
12,540.0	11,454.0	12,454.0	11,454.0	38.4	24.4	90.00	1,162.6	-533.6	821.8	759.1	62.77	13.093		
12,600.0	11,454.0	12,514.0	11,454.0	38.5	24.6	90.00	1,222.6	-534.1	821.8	758.8	63.06	13.033		
12,635.0	11,454.0	12,549.0	11,454.0	38.5	24.7	90.00	1,257.6	-534.5	821.8	758.6	63.23	12.997		
12,700.0	11,454.0	12,614.0	11,454.0	38.7	24.9	90.00	1,322.6	-535.1	821.8	758.3	63.56	12.930		
12,730.0	11,454.0	12,644.0	11,454.0	38.7	25.0	90.00	1,352.6	-535.3	821.8	758.1	63.72	12.897		
12,800.0	11,454.0	12,714.0	11,454.0	38.9	25.3	90.00	1,422.6	-536.0	821.8	757.7	64.10	12.821		
12,825.0	11,454.0	12,739.0	11,454.0	38.9	25.3	90.00	1,447.6	-536.2	821.8	757.6	64.25	12.792		
12,900.0	11,454.0	12,814.0	11,454.0	39.1	25.6	90.00	1,522.6	-536.9	821.8	757.2	64.68	12.707		
12,920.0	11,454.0	12,834.0	11,454.0	39.2	25.7	90.00	1,542.6	-537.1	821.9	757.1	64.80	12.684		
13,000.0	11,454.0	12,914.0	11,454.0	39.4	26.0	90.00	1,622.6	-537.8	821.9	756.6	65.28	12.590		
13,015.0	11,454.0	12,929.0	11,454.0	39.4	26.0	90.00	1,637.6	-537.9	821.9	756.5	65.37	12.572		
13,100.0	11,454.0	13,014.0	11,454.0	39.6	26.4	90.00	1,722.6	-538.7	821.9	755.9	65.91	12.469		
13,110.0	11,454.0	13,024.0	11,454.0	39.6	26.4	90.00	1,732.6	-538.8	821.9	755.9	65.98	12.456		
13,200.0	11,454.0	13,114.0	11,454.0	39.9	26.8	90.00	1,822.6	-539.6	821.9	755.3	66.58	12.344		
13,205.0	11,454.0	13,119.0	11,454.0	39.9	26.8	90.00	1,827.6	-539.6	821.9	755.2	66.61	12.338		
13,300.0	11,454.0	13,214.0	11,454.0	40.2	27.2	90.00	1,922.6	-540.5	821.9	754.6	67.27	12.217		
13,395.0	11,454.0	13,309.0	11,454.0	40.4	27.6	90.00	2,017.6	-541.4	821.9	753.9	67.95	12.095		
13,400.0	11,454.0	13,314.0	11,454.0	40.5	27.6	90.00	2,022.6	-541.4	821.9	753.9	67.99	12.088		
13,490.0	11,454.0	13,404.0	11,454.0	40.7	28.0	90.00	2,112.6	-542.2	821.9	753.2	68.66	11.970		
13,500.0	11,454.0	13,414.0	11,454.0	40.8	28.0	90.00	2,122.6	-542.3	821.9	753.1	68.74	11.957		
13,585.0	11,454.0	13,499.0	11,454.0	41.0	28.4	90.00	2,207.6	-543.1	821.9	752.5	69.39	11.844		
13,600.0	11,454.0	13,514.0	11,454.0	41.1	28.5	90.00	2,222.6	-543.2	821.9	752.4	69.51	11.824		
13,680.0	11,454.0	13,594.0	11,454.0	41.3	28.9	90.00	2,302.6	-544.0	821.9	751.7	70.14	11.717		
13,700.0	11,454.0	13,614.0	11,454.0	41.4	29.0	90.00	2,322.6	-544.1	821.9	751.6	70.30	11.690		
13,775.0	11,454.0	13,689.0	11,454.0	41.7	29.3	90.00	2,397.6	-544.8	821.9	751.0	70.92	11.589		
13,800.0	11,454.0	13,714.0	11,454.0	41.8	29.5	90.00	2,422.6	-545.0	821.9	750.8	71.12	11.556		
13,870.0	11,454.0	13,784.0	11,454.0	42.0	29.8	90.00	2,492.6	-545.7	821.9	750.2	71.71	11.461		
13,900.0	11,454.0	13,814.0	11,454.0	42.1	30.0	90.00	2,522.6	-545.9	821.9	749.9	71.97	11.420		
13,965.0	11,454.0	13,879.0	11,454.0	42.3	30.3	90.00	2,587.5	-546.5	821.9	749.4	72.53	11.332		
14,000.0	11,454.0	13,914.0	11,454.0	42.5	30.5	90.00	2,622.5	-546.9	821.9	749.1	72.83	11.285		
14,060.0	11,454.0	13,974.0	11,454.0	42.7	30.8	90.00	2,682.5	-547.4	821.9	748.5	73.36	11.203		
14,100.0	11,454.0	14,014.0	11,454.0	42.9	31.0	90.00	2,722.5	-547.8	821.9	748.2	73.72	11.149		
14,155.0	11,454.0	14,069.0	11,454.0	43.1	31.3	90.00	2,777.5	-548.3	821.9	747.7	74.22	11.074		
14,200.0	11,454.0	14,114.0	11,454.0	43.2	31.5	90.00	2,822.5	-548.7	821.9	747.3	74.62	11.014		
14,250.0	11,454.0	14,164.0	11,454.0	43.4	31.8	90.00	2,872.5	-549.1	821.9	746.8	75.09	10.946		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-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		
14,300.0	11,454.0	14,214.0	11,454.0	43.6	32.0	90.00	2,922.5	-549.6	821.9	746.4	75.55	10.879		
14,345.0	11,454.0	14,259.0	11,454.0	43.8	32.3	90.00	2,967.5	-550.0	821.9	745.9	75.98	10.818		
14,400.0	11,454.0	14,314.0	11,454.0	44.0	32.6	90.00	3,022.5	-550.5	821.9	745.4	76.50	10.744		
14,440.0	11,454.0	14,354.0	11,454.0	44.2	32.8	90.00	3,062.5	-550.8	821.9	745.0	76.88	10.691		
14,500.0	11,454.0	14,414.0	11,454.0	44.4	33.1	90.00	3,122.5	-551.4	821.9	744.4	77.46	10.611		
14,535.0	11,454.0	14,449.0	11,454.0	44.6	33.3	90.00	3,157.5	-551.7	821.9	744.1	77.80	10.564		
14,600.0	11,454.0	14,514.0	11,454.0	44.9	33.7	90.00	3,222.5	-552.3	821.9	743.5	78.44	10.478		
14,630.0	11,454.0	14,544.0	11,454.0	45.0	33.9	90.00	3,252.5	-552.6	821.9	743.2	78.74	10.438		
14,700.0	11,454.0	14,614.0	11,454.0	45.3	34.3	90.00	3,322.5	-553.2	821.9	742.5	79.44	10.347		
14,725.0	11,454.0	14,639.0	11,454.0	45.4	34.4	90.00	3,347.5	-553.4	821.9	742.2	79.69	10.314		
14,800.0	11,454.0	14,714.0	11,454.0	45.7	34.8	90.00	3,422.5	-554.1	821.9	741.5	80.45	10.216		
14,820.0	11,454.0	14,734.0	11,454.0	45.8	35.0	90.00	3,442.5	-554.3	821.9	741.3	80.66	10.190		
14,900.0	11,454.0	14,814.0	11,454.0	46.2	35.4	90.00	3,522.5	-555.0	821.9	740.4	81.48	10.087		
14,915.0	11,454.0	14,829.0	11,454.0	46.3	35.5	90.00	3,537.5	-555.2	821.9	740.3	81.64	10.068		
15,000.0	11,454.0	14,914.0	11,454.0	46.7	36.0	90.00	3,622.5	-555.9	821.9	739.4	82.53	9.960		
15,010.0	11,454.0	14,924.0	11,454.0	46.7	36.1	90.00	3,632.5	-556.0	821.9	739.3	82.63	9.947		
15,100.0	11,454.0	15,014.0	11,454.0	47.1	36.6	90.00	3,722.5	-556.8	821.9	738.3	83.59	9.833		
15,105.0	11,454.0	15,019.0	11,454.0	47.1	36.6	90.00	3,727.5	-556.9	821.9	738.3	83.64	9.827		
15,200.0	11,454.0	15,114.0	11,454.0	47.6	37.2	90.00	3,822.5	-557.7	821.9	737.3	84.66	9.709		
15,295.0	11,454.0	15,209.0	11,454.0	48.0	37.8	90.00	3,917.5	-558.6	821.9	736.2	85.69	9.592		
15,300.0	11,454.0	15,214.0	11,454.0	48.1	37.8	90.00	3,922.5	-558.7	821.9	736.2	85.74	9.586		
15,390.0	11,454.0	15,304.0	11,454.0	48.5	38.4	90.00	4,012.5	-559.5	821.9	735.2	86.73	9.477		
15,400.0	11,454.0	15,314.0	11,454.0	48.6	38.4	90.00	4,022.5	-559.6	821.9	735.1	86.84	9.465		
15,485.0	11,454.0	15,399.0	11,454.0	49.0	39.0	90.00	4,107.5	-560.3	821.9	734.2	87.79	9.363		
15,500.0	11,454.0	15,414.0	11,454.0	49.1	39.1	90.00	4,122.5	-560.5	821.9	734.0	87.96	9.345		
15,580.0	11,454.0	15,494.0	11,454.0	49.5	39.6	90.00	4,202.5	-561.2	821.9	733.1	88.85	9.251		
15,600.0	11,454.0	15,514.0	11,454.0	49.6	39.7	90.00	4,222.5	-561.4	821.9	732.9	89.08	9.227		
15,675.0	11,454.0	15,589.0	11,454.0	49.9	40.2	90.00	4,297.5	-562.1	822.0	732.0	89.93	9.140		
15,700.0	11,454.0	15,614.0	11,454.0	50.1	40.3	90.00	4,322.5	-562.3	822.0	731.7	90.21	9.111		
15,770.0	11,454.0	15,684.0	11,454.0	50.4	40.8	90.00	4,392.5	-562.9	822.0	730.9	91.02	9.031		
15,800.0	11,454.0	15,714.0	11,454.0	50.6	41.0	90.00	4,422.5	-563.2	822.0	730.6	91.36	8.997		
15,865.0	11,454.0	15,779.0	11,454.0	50.9	41.4	90.00	4,487.5	-563.8	822.0	729.8	92.11	8.924		
15,900.0	11,454.0	15,814.0	11,454.0	51.1	41.6	90.00	4,522.5	-564.1	822.0	729.4	92.52	8.884		
15,960.0	11,454.0	15,874.0	11,454.0	51.4	42.0	90.00	4,582.5	-564.6	822.0	728.7	93.22	8.818		
16,000.0	11,454.0	15,914.0	11,454.0	51.6	42.2	90.00	4,622.5	-565.0	822.0	728.3	93.68	8.774		
16,055.0	11,454.0	15,969.0	11,454.0	51.9	42.6	90.00	4,677.5	-565.5	822.0	727.6	94.33	8.714		
16,100.0	11,454.0	16,014.0	11,454.0	52.2	42.9	90.00	4,722.5	-565.9	822.0	727.1	94.86	8.665		
16,150.0	11,454.0	16,064.0	11,454.0	52.4	43.2	90.00	4,772.5	-566.4	822.0	726.5	95.45	8.611		
16,200.0	11,454.0	16,114.0	11,454.0	52.7	43.5	90.00	4,822.5	-566.8	822.0	725.9	96.05	8.558		
16,245.0	11,454.0	16,159.0	11,454.0	52.9	43.8	90.00	4,867.5	-567.2	822.0	725.4	96.58	8.510		
16,300.0	11,454.0	16,214.0	11,454.0	53.2	44.2	90.00	4,922.5	-567.7	822.0	724.7	97.24	8.453		
16,340.0	11,454.0	16,254.0	11,454.0	53.5	44.4	90.00	4,962.5	-568.1	822.0	724.3	97.72	8.411		
16,400.0	11,454.0	16,314.0	11,454.0	53.8	44.8	90.00	5,022.4	-568.6	822.0	723.5	98.45	8.349		
16,435.0	11,454.0	16,349.0	11,454.0	54.0	45.1	90.00	5,057.4	-569.0	822.0	723.1	98.87	8.314		
16,500.0	11,454.0	16,414.0	11,454.0	54.3	45.5	90.00	5,122.4	-569.5	822.0	722.3	99.66	8.248		
16,530.0	11,454.0	16,444.0	11,454.0	54.5	45.7	90.00	5,152.4	-569.8	822.0	722.0	100.03	8.218		
16,600.0	11,454.0	16,514.0	11,454.0	54.9	46.2	90.00	5,222.4	-570.5	822.0	721.1	100.88	8.148		
16,625.0	11,454.0	16,539.0	11,454.0	55.0	46.3	90.00	5,247.4	-570.7	822.0	720.8	101.19	8.123		
16,700.0	11,454.0	16,614.0	11,454.0	55.5	46.8	90.00	5,322.4	-571.4	822.0	719.9	102.11	8.050		
16,720.0	11,454.0	16,634.0	11,454.0	55.6	47.0	90.00	5,342.4	-571.5	822.0	719.6	102.36	8.031		
16,800.0	11,454.0	16,714.0	11,454.0	56.0	47.5	90.00	5,422.4	-572.3	822.0	718.6	103.35	7.954		
16,815.0	11,454.0	16,729.0	11,454.0	56.1	47.6	90.00	5,437.4	-572.4	822.0	718.5	103.53	7.939		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Rule Assigned:			Distance					
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	
16,900.0	11,454.0	16,814.0	11,454.0	56.6	48.2	90.00	5,522.4	-573.2	822.0	717.4	104.59	7.859		
16,910.0	11,454.0	16,824.0	11,454.0	56.7	48.2	90.00	5,532.4	-573.3	822.0	717.3	104.72	7.850		
17,000.0	11,454.0	16,914.0	11,454.0	57.2	48.8	90.00	5,622.4	-574.1	822.0	716.2	105.84	7.766		
17,005.0	11,454.0	16,919.0	11,454.0	57.2	48.9	90.00	5,627.4	-574.1	822.0	716.1	105.91	7.762		
17,100.0	11,454.0	17,014.0	11,454.0	57.8	49.5	90.00	5,722.4	-575.0	822.0	714.9	107.10	7.675		
17,195.0	11,454.0	17,109.0	11,454.0	58.3	50.2	90.00	5,817.4	-575.9	822.0	713.7	108.30	7.590		
17,200.0	11,454.0	17,114.0	11,454.0	58.3	50.2	90.00	5,822.4	-575.9	822.0	713.6	108.37	7.585		
17,290.0	11,454.0	17,204.0	11,454.0	58.9	50.8	90.00	5,912.4	-576.7	822.0	712.5	109.51	7.506		
17,300.0	11,454.0	17,214.0	11,454.0	58.9	50.9	90.00	5,922.4	-576.8	822.0	712.4	109.64	7.497		
17,385.0	11,454.0	17,299.0	11,454.0	59.4	51.5	90.00	6,007.4	-577.6	822.0	711.3	110.73	7.424		
17,400.0	11,454.0	17,314.0	11,454.0	59.5	51.6	90.00	6,022.4	-577.7	822.0	711.1	110.92	7.411		
17,480.0	11,454.0	17,394.0	11,454.0	60.0	52.1	90.00	6,102.4	-578.4	822.0	710.1	111.94	7.343		
17,500.0	11,454.0	17,414.0	11,454.0	60.1	52.3	90.00	6,122.4	-578.6	822.0	709.8	112.20	7.326		
17,575.0	11,454.0	17,489.0	11,454.0	60.6	52.8	90.00	6,197.4	-579.3	822.0	708.9	113.17	7.264		
17,600.0	11,454.0	17,514.0	11,454.0	60.7	52.9	90.00	6,222.4	-579.5	822.0	708.5	113.49	7.243		
17,670.0	11,454.0	17,584.0	11,454.0	61.2	53.4	90.00	6,292.4	-580.2	822.0	707.6	114.40	7.186		
17,700.0	11,454.0	17,614.0	11,454.0	61.3	53.6	90.00	6,322.4	-580.4	822.0	707.2	114.79	7.161		
17,765.0	11,454.0	17,679.0	11,454.0	61.7	54.1	90.00	6,387.4	-581.0	822.0	706.4	115.63	7.109		
17,800.0	11,454.0	17,714.0	11,454.0	61.9	54.3	90.00	6,422.4	-581.3	822.0	705.9	116.09	7.081		
17,860.0	11,454.0	17,774.0	11,454.0	62.3	54.7	90.00	6,482.4	-581.9	822.0	705.2	116.87	7.034		
17,900.0	11,454.0	17,814.0	11,454.0	62.6	55.0	90.00	6,522.4	-582.3	822.0	704.6	117.39	7.002		
17,955.0	11,454.0	17,869.0	11,454.0	62.9	55.4	90.00	6,577.4	-582.7	822.0	703.9	118.11	6.960		
18,000.0	11,454.0	17,914.0	11,454.0	63.2	55.7	90.00	6,622.4	-583.2	822.0	703.3	118.70	6.925		
18,050.0	11,454.0	17,964.0	11,454.0	63.5	56.1	90.00	6,672.4	-583.6	822.0	702.7	119.36	6.887		
18,100.0	11,454.0	18,014.0	11,454.0	63.8	56.4	90.00	6,722.4	-584.1	822.0	702.0	120.02	6.849		
18,145.0	11,454.0	18,059.0	11,454.0	64.1	56.7	90.00	6,767.4	-584.5	822.0	701.4	120.62	6.815		
18,200.0	11,454.0	18,114.0	11,454.0	64.4	57.1	90.00	6,822.4	-585.0	822.0	700.7	121.34	6.775		
18,240.0	11,454.0	18,154.0	11,454.0	64.7	57.4	90.00	6,862.4	-585.3	822.0	700.2	121.87	6.745		
18,300.0	11,454.0	18,214.0	11,454.0	65.0	57.8	90.00	6,922.4	-585.9	822.0	699.4	122.67	6.701		
18,335.0	11,454.0	18,249.0	11,454.0	65.3	58.1	90.00	6,957.4	-586.2	822.0	698.9	123.13	6.676		
18,400.0	11,454.0	18,314.0	11,454.0	65.7	58.5	90.00	7,022.4	-586.8	822.1	698.1	124.00	6.630		
18,430.0	11,454.0	18,344.0	11,454.0	65.8	58.7	90.00	7,052.4	-587.1	822.1	697.7	124.40	6.608		
18,500.0	11,454.0	18,414.0	11,454.0	66.3	59.2	90.00	7,122.4	-587.7	822.1	696.7	125.33	6.559		
18,525.0	11,454.0	18,439.0	11,454.0	66.4	59.4	90.00	7,147.4	-587.9	822.1	696.4	125.67	6.542		
18,600.0	11,454.0	18,514.0	11,454.0	66.9	59.9	90.00	7,222.4	-588.6	822.1	695.4	126.67	6.490		
18,620.0	11,454.0	18,534.0	11,454.0	67.0	60.1	90.00	7,242.4	-588.8	822.1	695.1	126.94	6.476		
18,700.0	11,454.0	18,614.0	11,454.0	67.6	60.6	90.00	7,322.4	-589.5	822.1	694.0	128.02	6.422		
18,715.0	11,454.0	18,629.0	11,454.0	67.7	60.7	90.00	7,337.4	-589.6	822.1	693.8	128.22	6.411		
18,800.0	11,454.0	18,714.0	11,454.0	68.2	61.4	90.00	7,422.3	-590.4	822.1	692.7	129.36	6.355		
18,810.0	11,454.0	18,724.0	11,454.0	68.3	61.4	90.00	7,432.3	-590.5	822.1	692.6	129.50	6.348		
18,900.0	11,454.0	18,814.0	11,454.0	68.8	62.1	90.00	7,522.3	-591.3	822.1	691.4	130.71	6.289		
18,905.0	11,454.0	18,819.0	11,454.0	68.9	62.1	90.00	7,527.3	-591.4	822.1	691.3	130.78	6.286		
19,000.0	11,454.0	18,914.0	11,454.0	69.5	62.8	90.00	7,622.3	-592.2	822.1	690.0	132.07	6.225		
19,095.0	11,454.0	19,009.0	11,454.0	70.1	63.4	90.00	7,717.3	-593.1	822.1	688.7	133.36	6.164		
19,100.0	11,454.0	19,014.0	11,454.0	70.1	63.5	90.00	7,722.3	-593.1	822.1	688.7	133.43	6.161		
19,190.0	11,454.0	19,104.0	11,454.0	70.7	64.1	90.00	7,812.3	-594.0	822.1	687.4	134.65	6.105		
19,200.0	11,454.0	19,114.0	11,454.0	70.8	64.2	90.00	7,822.3	-594.0	822.1	687.3	134.79	6.099		
19,285.0	11,454.0	19,199.0	11,454.0	71.3	64.8	90.00	7,907.3	-594.8	822.1	686.1	135.95	6.047		
19,300.0	11,454.0	19,214.0	11,454.0	71.4	64.9	90.00	7,922.3	-595.0	822.1	685.9	136.15	6.038		
19,380.0	11,454.0	19,294.0	11,454.0	71.9	65.5	90.00	8,002.3	-595.7	822.1	684.8	137.25	5.990		
19,400.0	11,454.0	19,314.0	11,454.0	72.1	65.6	90.00	8,022.3	-595.9	822.1	684.6	137.52	5.978		
19,475.0	11,454.0	19,389.0	11,454.0	72.6	66.2	90.00	8,097.3	-596.5	822.1	683.5	138.55	5.934		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0													Offset Site Error: 0.0 usft		
Survey Program: Reference		0-r.5 SDI_KPR_ADK, 2500-r.5 MWD+IFR1, 11020-r.5 MWD+IFR1+MS		Offset		Semi Major Axis		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)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
19,500.0	11,454.0	19,414.0	11,454.0	72.7	66.3	90.00	8,122.3	-596.8	822.1	683.2	138.89	5.919			
19,570.0	11,454.0	19,484.0	11,454.0	73.2	66.8	90.00	8,192.3	-597.4	822.1	682.2	139.86	5.878			
19,600.0	11,454.0	19,514.0	11,454.0	73.4	67.1	90.00	8,222.3	-597.7	822.1	681.8	140.27	5.861			
19,665.0	11,454.0	19,579.0	11,454.0	73.8	67.5	90.00	8,287.3	-598.3	822.1	680.9	141.16	5.824			
19,700.0	11,454.0	19,614.0	11,454.0	74.0	67.8	90.00	8,322.3	-598.6	822.1	680.5	141.65	5.804			
19,760.0	11,454.0	19,674.0	11,454.0	74.4	68.2	90.00	8,382.3	-599.1	822.1	679.6	142.47	5.770			
19,800.0	11,454.0	19,714.0	11,454.0	74.7	68.5	90.00	8,422.3	-599.5	822.1	679.1	143.03	5.748			
19,855.0	11,454.0	19,769.0	11,454.0	75.1	68.9	90.00	8,477.3	-600.0	822.1	678.3	143.79	5.717			
19,900.0	11,454.0	19,814.0	11,454.0	75.4	69.2	90.00	8,522.3	-600.4	822.1	677.7	144.41	5.693			
19,950.0	11,454.0	19,864.0	11,454.0	75.7	69.6	90.00	8,572.3	-600.9	822.1	677.0	145.10	5.666			
20,000.0	11,454.0	19,914.0	11,454.0	76.0	69.9	90.00	8,622.3	-601.3	822.1	676.3	145.80	5.639			
20,045.0	11,454.0	19,959.0	11,454.0	76.3	70.3	90.00	8,667.3	-601.7	822.1	675.7	146.42	5.615			
20,100.0	11,454.0	20,014.0	11,454.0	76.7	70.7	90.00	8,722.3	-602.2	822.1	674.9	147.19	5.586			
20,140.0	11,454.0	20,054.0	11,454.0	77.0	71.0	90.00	8,762.3	-602.6	822.1	674.4	147.74	5.564			
20,200.0	11,454.0	20,114.0	11,454.0	77.4	71.4	90.00	8,822.3	-603.1	822.1	673.5	148.58	5.533			
20,235.0	11,454.0	20,149.0	11,454.0	77.6	71.6	90.00	8,857.3	-603.4	822.1	673.1	149.07	5.515			
20,300.0	11,454.0	20,214.0	11,454.0	78.0	72.1	90.00	8,922.3	-604.0	822.1	672.1	149.97	5.482			
20,330.0	11,454.0	20,244.0	11,454.0	78.2	72.3	90.00	8,952.3	-604.3	822.1	671.7	150.39	5.467			
20,400.0	11,454.0	20,314.0	11,454.0	78.7	72.8	90.00	9,022.3	-604.9	822.1	670.8	151.37	5.431			
20,425.0	11,454.0	20,339.0	11,454.0	78.9	73.0	90.00	9,047.3	-605.2	822.1	670.4	151.72	5.419			
20,500.0	11,454.0	20,414.0	11,454.0	79.4	73.6	90.00	9,122.3	-605.8	822.1	669.4	152.77	5.381			
20,520.0	11,454.0	20,434.0	11,454.0	79.5	73.7	90.00	9,142.3	-606.0	822.1	669.1	153.05	5.372			
20,600.0	11,454.0	20,514.0	11,454.0	80.0	74.3	90.00	9,222.3	-606.8	822.1	668.0	154.17	5.333			
20,615.0	11,454.0	20,529.0	11,454.0	80.2	74.4	90.00	9,237.3	-606.9	822.1	667.8	154.38	5.325			
20,700.0	11,454.0	20,614.0	11,454.0	80.7	75.0	90.00	9,322.3	-607.7	822.1	666.6	155.58	5.284			
20,710.0	11,454.0	20,624.0	11,454.0	80.8	75.1	90.00	9,332.3	-607.8	822.1	666.4	155.72	5.280			
20,800.0	11,454.0	20,714.0	11,454.0	81.4	75.7	90.00	9,422.3	-608.6	822.1	665.2	156.98	5.237			
20,805.0	11,454.0	20,719.0	11,454.0	81.4	75.8	90.00	9,427.3	-608.6	822.1	665.1	157.05	5.235			
20,900.0	11,454.0	20,814.0	11,454.0	82.1	76.5	90.00	9,522.3	-609.5	822.1	663.8	158.39	5.191			
20,995.0	11,454.0	20,909.0	11,454.0	82.7	77.2	90.00	9,617.3	-610.3	822.1	662.4	159.73	5.147			
21,000.0	11,454.0	20,914.0	11,454.0	82.8	77.2	90.00	9,622.3	-610.4	822.1	662.3	159.80	5.145			
21,090.0	11,454.0	21,004.0	11,454.0	83.4	77.9	90.00	9,712.3	-611.2	822.2	661.1	161.07	5.104			
21,100.0	11,454.0	21,014.0	11,454.0	83.4	77.9	90.00	9,722.3	-611.3	822.2	660.9	161.21	5.100			
21,185.0	11,454.0	21,099.0	11,454.0	84.0	78.6	90.00	9,807.3	-612.1	822.2	659.7	162.42	5.062			
21,200.0	11,454.0	21,114.0	11,454.0	84.1	78.7	90.00	9,822.3	-612.2	822.2	659.5	162.63	5.055			
21,280.0	11,454.0	21,194.0	11,454.0	84.7	79.3	90.00	9,902.2	-612.9	822.2	658.4	163.76	5.020			
21,300.0	11,454.0	21,214.0	11,454.0	84.8	79.4	90.00	9,922.2	-613.1	822.2	658.1	164.05	5.012			
21,375.0	11,454.0	21,289.0	11,454.0	85.3	79.9	90.00	9,997.2	-613.8	822.2	657.1	165.11	4.979			
21,400.0	11,454.0	21,314.0	11,454.0	85.5	80.1	90.00	10,022.2	-614.0	822.2	656.7	165.47	4.969			
21,470.0	11,454.0	21,384.0	11,454.0	86.0	80.6	90.00	10,092.2	-614.6	822.2	655.7	166.46	4.939			
21,500.0	11,454.0	21,414.0	11,454.0	86.2	80.9	90.00	10,122.2	-614.9	822.2	655.3	166.89	4.927			
21,565.0	11,454.0	21,479.0	11,454.0	86.6	81.3	90.00	10,187.2	-615.5	822.2	654.4	167.81	4.899			
21,600.0	11,454.0	21,514.0	11,454.0	86.9	81.6	90.00	10,222.2	-615.8	822.2	653.9	168.31	4.885			
21,660.0	11,454.0	21,574.0	11,454.0	87.3	82.0	90.00	10,282.2	-616.4	822.2	653.0	169.16	4.860			
21,700.0	11,454.0	21,614.0	11,454.0	87.6	82.3	90.00	10,322.2	-616.7	822.2	652.4	169.73	4.844			
21,755.0	11,454.0	21,669.0	11,454.0	87.9	82.7	90.00	10,377.2	-617.2	822.2	651.7	170.52	4.822			
21,800.0	11,454.0	21,714.0	11,454.0	88.3	83.1	90.00	10,422.2	-617.6	822.2	651.0	171.16	4.804			
21,804.0	11,454.0	21,718.0	11,454.0	88.3	83.1	90.00	10,426.2	-617.7	822.2	651.0	171.22	4.802			
21,850.0	11,454.0	21,760.3	11,454.0	88.6	83.4	90.00	10,468.5	-618.1	822.2	650.4	171.81	4.785 SF			
21,900.0	11,454.0	21,760.3	11,454.0	88.9	83.4	90.00	10,468.5	-618.1	823.9	652.5	171.43	4.806			
21,918.8	11,454.0	21,760.3	11,454.0	89.1	83.4	90.00	10,468.5	-618.1	825.4	654.2	171.14	4.823			

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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		
0.0	0.0	1.0	1.0	3.0	3.0	89.59	0.6	89.8	89.9					
95.0	95.0	96.0	96.0	3.0	3.0	89.59	0.6	89.8	89.9	83.8	6.03	14.911		
100.0	100.0	101.0	101.0	3.0	3.0	89.59	0.6	89.8	89.9	83.8	6.03	14.902		
190.0	190.0	191.0	191.0	3.1	3.1	89.59	0.6	89.8	89.9	83.7	6.15	14.602		
200.0	200.0	201.0	201.0	3.1	3.1	89.59	0.6	89.8	89.9	83.7	6.17	14.557		
285.0	285.0	286.0	286.0	3.2	3.2	89.59	0.6	89.8	89.9	83.5	6.31	14.236		
300.0	300.0	301.0	301.0	3.2	3.2	89.59	0.6	89.8	89.9	83.5	6.34	14.172		
380.0	380.0	381.0	381.0	3.3	3.3	89.59	0.6	89.8	89.9	83.4	6.49	13.847		
400.0	400.0	401.0	401.0	3.3	3.3	89.59	0.6	89.8	89.9	83.3	6.53	13.760		
475.0	475.0	476.0	476.0	3.4	3.4	89.59	0.6	89.8	89.9	83.2	6.69	13.440		
500.0	500.0	501.0	501.0	3.4	3.4	89.59	0.6	89.8	89.9	83.1	6.74	13.330		
570.0	570.0	571.0	571.0	3.5	3.5	89.59	0.6	89.8	89.9	83.0	6.90	13.024		
600.0	600.0	601.0	601.0	3.5	3.5	89.59	0.6	89.8	89.9	82.9	6.97	12.891		
665.0	665.0	666.0	666.0	3.6	3.6	89.59	0.6	89.8	89.9	82.7	7.13	12.605		
700.0	700.0	701.0	701.0	3.7	3.7	89.59	0.6	89.8	89.9	82.6	7.22	12.450		
760.0	760.0	761.0	761.0	3.8	3.8	89.59	0.6	89.8	89.9	82.5	7.37	12.188		
800.0	800.0	801.0	801.0	3.8	3.8	89.59	0.6	89.8	89.9	82.4	7.48	12.014		
855.0	855.0	856.0	856.0	3.9	3.9	89.59	0.6	89.8	89.9	82.2	7.63	11.778		
900.0	900.0	901.0	901.0	4.0	4.0	89.59	0.6	89.8	89.9	82.1	7.75	11.587		
950.0	950.0	951.0	951.0	4.1	4.1	89.59	0.6	89.8	89.9	82.0	7.90	11.378		
1,000.0	1,000.0	1,001.0	1,001.0	4.2	4.2	89.59	0.6	89.8	89.9	81.8	8.04	11.172 CC, ES		
1,045.0	1,045.0	1,046.0	1,046.0	4.2	4.2	179.82	0.6	89.8	90.2	82.0	8.22	10.974		
1,100.0	1,100.0	1,101.0	1,101.0	4.3	4.3	179.83	0.6	89.8	91.6	83.2	8.44	10.849		
1,140.0	1,139.9	1,140.9	1,140.9	4.4	4.4	179.83	0.6	89.8	93.3	84.6	8.62	10.816		
1,200.0	1,199.8	1,200.8	1,200.8	4.6	4.5	179.83	0.6	89.8	96.8	87.9	8.90	10.879		
1,235.0	1,234.7	1,235.7	1,235.7	4.7	4.6	179.84	0.6	89.8	99.5	90.4	9.06	10.975		
1,300.0	1,299.5	1,300.5	1,300.5	4.9	4.7	179.85	0.6	89.8	105.5	96.2	9.38	11.258		
1,330.0	1,329.3	1,330.3	1,330.3	5.0	4.7	179.85	0.6	89.8	108.8	99.3	9.52	11.431		
1,400.0	1,398.7	1,399.7	1,399.7	5.2	4.9	179.86	0.6	89.8	117.7	107.9	9.87	11.930		
1,425.0	1,423.4	1,424.4	1,424.4	5.3	4.9	179.87	0.6	89.8	121.3	111.3	10.00	12.137		
1,500.0	1,497.5	1,498.5	1,498.5	5.6	5.1	179.88	0.6	89.8	133.4	123.0	10.38	12.846		
1,520.0	1,517.1	1,518.1	1,518.1	5.6	5.1	179.88	0.6	89.8	136.9	126.4	10.49	13.054		
1,600.0	1,595.6	1,596.6	1,596.6	5.9	5.3	179.89	0.6	89.8	152.5	141.5	10.92	13.966		
1,615.0	1,610.3	1,611.3	1,611.3	6.0	5.3	179.89	0.6	89.8	155.6	144.6	10.99	14.160		
1,700.0	1,693.4	1,694.4	1,694.4	6.2	5.5	179.91	0.6	89.8	173.2	161.9	11.39	15.211		
1,710.0	1,703.2	1,704.2	1,704.2	6.3	5.5	179.91	0.6	89.8	175.3	163.9	11.44	15.328		
1,800.0	1,791.3	1,792.3	1,792.3	6.6	5.7	179.92	0.6	89.8	194.0	182.2	11.88	16.330		
1,805.0	1,796.1	1,797.1	1,797.1	6.6	5.7	179.92	0.6	89.8	195.1	183.2	11.91	16.382		
1,900.0	1,889.1	1,890.1	1,890.1	6.9	5.9	179.92	0.6	89.8	214.8	202.4	12.40	17.331		
1,995.0	1,982.0	1,983.0	1,983.0	7.2	6.1	179.93	0.6	89.8	234.6	221.7	12.90	18.186		
2,000.0	1,986.9	1,987.9	1,987.9	7.3	6.1	179.93	0.6	89.8	235.6	222.7	12.93	18.229		
2,090.0	2,074.9	2,075.9	2,075.9	7.6	6.2	179.94	0.6	89.8	254.3	240.9	13.42	18.957		
2,100.0	2,084.7	2,085.7	2,085.7	7.6	6.3	179.94	0.6	89.8	256.4	242.9	13.47	19.034		
2,185.0	2,167.8	2,168.8	2,168.8	7.9	6.4	179.94	0.6	89.8	274.1	260.1	13.95	19.654		
2,200.0	2,182.5	2,183.5	2,183.5	8.0	6.5	179.94	0.6	89.8	277.2	263.2	14.03	19.759		
2,280.0	2,260.8	2,261.8	2,261.8	8.3	6.6	179.94	0.6	89.8	293.8	279.3	14.48	20.286		
2,300.0	2,280.3	2,281.3	2,281.3	8.4	6.7	179.95	0.6	89.8	298.0	283.4	14.60	20.412		
2,375.0	2,353.7	2,354.7	2,354.7	8.7	6.8	179.95	0.6	89.8	313.6	298.6	15.03	20.859		
2,400.0	2,378.1	2,379.1	2,379.1	8.8	6.9	179.95	0.6	89.8	318.8	303.6	15.18	21.002		
2,470.0	2,446.6	2,447.6	2,447.6	9.1	7.0	179.95	0.6	89.8	333.3	317.7	15.59	21.381		
2,500.0	2,476.0	2,477.0	2,477.0	9.2	7.1	179.95	0.6	89.8	339.6	323.8	15.77	21.537		
2,565.0	2,539.5	2,540.5	2,540.5	9.5	7.2	179.95	0.6	89.8	353.1	336.9	16.15	21.858		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0													Offset Site Error: 0.0 usft	
Survey Program: Reference		0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-r.5 MWD+IFR1+MS					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)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,600.0	2,573.8	2,574.8	2,574.8	9.6	7.3	179.95	0.6	89.8	360.4	344.0	16.36	22.023		
2,660.0	2,632.5	2,633.5	2,633.5	9.9	7.4	179.96	0.6	89.8	372.8	356.1	16.72	22.293		
2,700.0	2,671.6	2,672.6	2,672.6	10.0	7.5	179.96	0.6	89.8	381.2	364.2	16.97	22.466		
2,755.0	2,725.4	2,726.4	2,726.4	10.3	7.6	179.96	0.6	89.8	392.6	375.3	17.30	22.693		
2,800.0	2,769.4	2,770.4	2,770.4	10.4	7.7	179.96	0.6	89.8	401.9	384.4	17.57	22.871		
2,850.0	2,818.3	2,819.3	2,819.3	10.7	7.9	179.96	0.6	89.8	412.3	394.5	17.88	23.060		
2,900.0	2,867.2	2,868.2	2,868.2	10.9	8.0	179.96	0.6	89.8	422.7	404.6	18.19	23.242		
2,945.0	2,911.2	2,912.2	2,912.2	11.1	8.1	179.96	0.6	89.8	432.1	413.6	18.47	23.399		
3,000.0	2,965.0	2,966.0	2,966.0	11.3	8.2	179.96	0.6	89.8	443.5	424.7	18.81	23.583		
3,040.0	3,004.2	3,006.1	3,006.1	11.5	8.3	179.96	0.6	89.8	451.8	432.8	19.06	23.704		
3,100.0	3,062.8	3,076.2	3,076.2	11.7	8.4	179.96	0.7	88.8	463.5	444.0	19.49	23.777		
3,135.0	3,097.1	3,117.3	3,117.3	11.9	8.4	179.96	0.7	87.4	469.6	449.9	19.74	23.792		
3,200.0	3,160.7	3,194.3	3,194.2	12.2	8.5	179.95	0.8	83.3	479.6	459.5	20.18	23.769		
3,230.0	3,190.0	3,230.0	3,229.8	12.3	8.5	179.94	0.8	80.6	483.7	463.3	20.35	23.767		
3,300.0	3,258.5	3,302.9	3,302.4	12.6	8.5	179.93	0.9	74.3	492.3	471.5	20.72	23.755		
3,325.0	3,282.9	3,327.7	3,327.1	12.7	8.5	179.92	0.9	72.2	495.3	474.4	20.87	23.733		
3,400.0	3,356.3	3,402.1	3,401.2	13.1	8.6	179.91	1.0	65.7	504.5	483.1	21.31	23.669		
3,420.0	3,375.9	3,422.0	3,421.0	13.1	8.6	179.91	1.1	64.0	506.9	485.5	21.43	23.649		
3,500.0	3,454.1	3,501.4	3,500.1	13.5	8.7	179.89	1.2	57.0	516.6	494.7	21.92	23.569		
3,515.0	3,468.8	3,516.3	3,515.0	13.6	8.7	179.89	1.2	55.7	518.5	496.5	22.01	23.552		
3,600.0	3,551.9	3,600.6	3,599.0	13.9	8.8	179.87	1.3	48.4	528.8	506.3	22.55	23.457		
3,610.0	3,561.7	3,610.6	3,608.9	14.0	8.8	179.87	1.4	47.5	530.1	507.4	22.61	23.444		
3,700.0	3,649.7	3,699.9	3,697.9	14.4	8.9	179.86	1.5	39.7	541.0	517.8	23.19	23.335		
3,705.0	3,654.6	3,704.9	3,702.8	14.4	8.9	179.86	1.5	39.3	541.6	518.4	23.22	23.328		
3,800.0	3,747.5	3,799.2	3,796.8	14.8	9.0	179.84	1.6	31.1	553.2	529.4	23.84	23.205		
3,895.0	3,840.5	3,893.4	3,890.7	15.3	9.1	179.83	1.8	22.9	564.8	540.3	24.48	23.076		
3,900.0	3,845.4	3,898.4	3,895.6	15.3	9.1	179.83	1.8	22.4	565.4	540.9	24.51	23.069		
3,990.0	3,933.4	3,987.7	3,984.6	15.7	9.3	179.81	1.9	14.7	576.4	551.3	25.12	22.943		
4,000.0	3,943.2	3,997.7	3,994.5	15.7	9.3	179.81	1.9	13.8	577.6	552.4	25.19	22.929		
4,085.0	4,026.3	4,082.0	4,078.5	16.1	9.5	179.80	2.1	6.4	588.0	562.2	25.78	22.807		
4,100.0	4,041.0	4,096.9	4,093.4	16.2	9.5	179.80	2.1	5.1	589.8	563.9	25.88	22.786		
4,180.0	4,119.2	4,176.3	4,172.5	16.6	9.7	179.79	2.2	-1.8	599.5	573.1	26.45	22.670		
4,200.0	4,138.8	4,196.2	4,192.3	16.7	9.8	179.79	2.2	-3.5	602.0	575.4	26.59	22.641		
4,275.0	4,212.2	4,270.6	4,266.4	17.0	10.0	179.78	2.3	-10.0	611.1	584.0	27.12	22.531		
4,300.0	4,236.6	4,295.4	4,291.1	17.1	10.0	179.77	2.4	-12.2	614.2	586.9	27.30	22.495		
4,370.0	4,305.1	4,364.9	4,360.3	17.4	10.2	179.76	2.5	-18.2	622.7	594.9	27.81	22.393		
4,400.0	4,334.4	4,394.7	4,390.0	17.6	10.3	179.76	2.5	-20.8	626.4	598.3	28.03	22.350		
4,465.0	4,398.0	4,459.2	4,454.3	17.9	10.4	179.75	2.6	-26.4	634.3	605.8	28.50	22.255		
4,500.0	4,432.3	4,493.9	4,488.9	18.0	10.5	179.75	2.7	-29.5	638.5	609.8	28.76	22.204		
4,560.0	4,490.9	4,553.5	4,548.2	18.3	10.7	179.74	2.7	-34.6	645.9	616.7	29.20	22.117		
4,600.0	4,530.1	4,593.2	4,587.8	18.5	10.8	179.74	2.8	-38.1	650.7	621.2	29.50	22.060		
4,655.0	4,583.9	4,647.8	4,642.1	18.7	11.0	179.73	2.9	-42.9	657.4	627.5	29.91	21.982		
4,700.0	4,627.9	4,692.4	4,686.6	18.9	11.1	179.73	3.0	-46.7	662.9	632.7	30.25	21.918		
4,750.0	4,676.8	4,742.1	4,736.1	19.2	11.2	179.72	3.0	-51.1	669.0	638.4	30.62	21.847		
4,800.0	4,725.7	4,791.7	4,785.5	19.4	11.4	179.72	3.1	-55.4	675.1	644.1	31.00	21.778		
4,845.0	4,769.7	4,836.4	4,830.0	19.6	11.5	179.71	3.2	-59.3	680.6	649.3	31.34	21.715		
4,900.0	4,823.5	4,891.0	4,884.4	19.9	11.7	179.71	3.2	-64.0	687.3	655.5	31.76	21.640		
4,940.0	4,862.6	4,930.7	4,923.9	20.1	11.8	179.70	3.3	-67.5	692.2	660.1	32.07	21.585		
5,000.0	4,921.3	4,990.2	4,983.3	20.3	12.0	179.70	3.4	-72.7	699.5	667.0	32.53	21.504		
5,035.0	4,955.6	5,024.9	5,017.9	20.5	12.1	179.69	3.4	-75.7	703.8	671.0	32.80	21.458		
5,100.0	5,019.1	5,089.5	5,082.1	20.8	12.3	179.69	3.5	-81.3	711.7	678.4	33.30	21.372		
5,130.0	5,048.5	5,119.2	5,111.8	20.9	12.4	179.68	3.6	-83.9	715.3	681.8	33.53	21.334		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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		
5,200.0	5,117.0	5,188.6	5,180.9	21.3	12.6	179.68	3.7	-90.0	723.9	689.8	34.07	21.248		
5,225.0	5,141.4	5,210.6	5,202.8	21.4	12.6	179.68	3.7	-91.9	727.0	692.7	34.24	21.231		
5,300.0	5,214.8	5,276.6	5,268.6	21.7	12.8	179.67	3.8	-97.0	736.8	702.1	34.77	21.191		
5,320.0	5,234.3	5,294.1	5,286.1	21.8	12.9	179.67	3.8	-98.2	739.6	704.7	34.91	21.185		
5,400.0	5,312.6	5,364.1	5,356.0	22.2	13.1	179.67	3.9	-102.6	751.3	715.9	35.46	21.186		
5,415.0	5,327.3	5,377.2	5,369.1	22.3	13.1	179.67	3.9	-103.3	753.6	718.1	35.57	21.190		
5,500.0	5,410.4	5,451.3	5,443.0	22.7	13.3	179.67	4.0	-106.8	767.3	731.2	36.13	21.235		
5,510.0	5,420.2	5,460.0	5,451.7	22.7	13.4	179.67	4.0	-107.2	769.0	732.8	36.20	21.243		
5,600.0	5,508.2	5,538.0	5,529.7	23.1	13.6	179.67	4.0	-109.8	784.8	748.0	36.78	21.338		
5,605.0	5,513.1	5,542.3	5,534.0	23.1	13.6	179.67	4.0	-109.9	785.7	748.9	36.81	21.345		
5,700.0	5,606.0	5,624.2	5,615.9	23.6	13.7	179.67	4.0	-111.4	803.8	766.4	37.37	21.506		
5,795.0	5,699.0	5,708.3	5,700.0	24.0	13.8	179.68	4.1	-111.7	823.1	785.3	37.86	21.743		
5,800.0	5,703.8	5,713.2	5,704.8	24.0	13.8	179.68	4.1	-111.7	824.2	786.3	37.88	21.755		
5,890.0	5,791.9	5,801.2	5,792.9	24.5	13.9	179.69	4.1	-111.7	842.9	804.5	38.35	21.978		
5,900.0	5,801.7	5,811.0	5,802.7	24.5	13.9	179.69	4.1	-111.7	844.9	806.5	38.40	22.003		
5,985.0	5,884.8	5,894.1	5,885.8	24.9	13.9	179.69	4.1	-111.7	862.6	823.8	38.84	22.207		
6,000.0	5,899.5	5,908.8	5,900.5	25.0	13.9	179.70	4.1	-111.7	865.7	826.8	38.92	22.243		
6,080.0	5,977.7	5,987.0	5,978.7	25.4	14.0	179.70	4.1	-111.7	882.4	843.0	39.34	22.431		
6,100.0	5,997.3	6,006.6	5,998.3	25.5	14.0	179.70	4.1	-111.7	886.5	847.1	39.44	22.477		
6,175.0	6,070.6	6,080.0	6,071.6	25.8	14.0	179.71	4.1	-111.7	902.1	862.3	39.83	22.648		
6,200.0	6,095.1	6,104.4	6,096.1	25.9	14.1	179.71	4.1	-111.7	907.3	867.4	39.96	22.704		
6,270.0	6,163.6	6,172.9	6,164.6	26.2	14.1	179.71	4.1	-111.7	921.9	881.5	40.33	22.860		
6,300.0	6,192.9	6,202.2	6,193.9	26.4	14.1	179.72	4.1	-111.7	928.1	887.6	40.48	22.925		
6,365.0	6,256.5	6,265.8	6,257.5	26.7	14.1	179.72	4.1	-111.7	941.6	900.8	40.82	23.066		
6,400.0	6,290.7	6,300.1	6,291.7	26.9	14.2	179.72	4.1	-111.7	948.9	907.9	41.01	23.141		
6,460.0	6,349.4	6,358.7	6,350.4	27.1	14.2	179.73	4.1	-111.7	961.4	920.1	41.32	23.267		
6,500.0	6,388.5	6,397.9	6,389.5	27.3	14.2	179.73	4.1	-111.7	969.7	928.2	41.53	23.350		
6,555.0	6,442.3	6,451.7	6,443.3	27.6	14.2	179.73	4.1	-111.7	981.1	939.3	41.81	23.466		
6,562.8	6,450.0	6,459.3	6,451.0	27.6	14.2	179.73	4.1	-111.7	982.8	940.9	41.85	23.483		
6,600.0	6,486.4	6,495.7	6,487.4	27.8	14.3	179.73	4.1	-111.7	990.4	948.4	42.04	23.560		
6,650.0	6,535.3	6,544.7	6,536.3	28.0	14.3	179.74	4.1	-111.7	1,000.6	958.3	42.30	23.655		
6,700.0	6,584.3	6,593.7	6,585.3	28.2	14.3	179.74	4.1	-111.7	1,010.5	967.9	42.56	23.744		
6,745.0	6,628.5	6,637.8	6,629.5	28.5	14.3	179.74	4.1	-111.7	1,019.2	976.4	42.79	23.819		
6,800.0	6,682.5	6,691.8	6,683.5	28.7	14.4	179.75	4.1	-111.7	1,029.7	986.6	43.07	23.904		
6,840.0	6,721.8	6,731.1	6,722.8	28.9	14.4	179.75	4.1	-111.7	1,037.1	993.8	43.28	23.963		
6,900.0	6,780.8	6,790.1	6,781.8	29.2	14.4	179.75	4.1	-111.7	1,048.0	1,004.4	43.59	24.044		
6,935.0	6,815.2	6,824.6	6,816.2	29.3	14.4	179.75	4.1	-111.7	1,054.2	1,010.4	43.76	24.088		
7,000.0	6,879.2	6,888.6	6,880.2	29.6	14.5	179.75	4.1	-111.7	1,065.5	1,021.4	44.10	24.163		
7,030.0	6,908.8	6,918.1	6,909.8	29.8	14.5	179.76	4.1	-111.7	1,070.5	1,026.3	44.25	24.195		
7,100.0	6,977.9	6,987.2	6,978.9	30.1	14.5	179.76	4.1	-111.7	1,082.1	1,037.5	44.60	24.262		
7,125.0	7,002.5	7,011.9	7,003.5	30.2	14.6	179.76	4.1	-111.7	1,086.1	1,041.4	44.72	24.285		
7,200.0	7,076.6	7,085.9	7,077.6	30.5	14.6	179.76	4.1	-111.7	1,097.8	1,052.7	45.10	24.343		
7,220.0	7,096.4	7,105.7	7,097.4	30.6	14.6	179.76	4.1	-111.7	1,100.9	1,055.7	45.20	24.357		
7,300.0	7,175.5	7,184.8	7,176.5	30.9	14.7	179.77	4.1	-111.7	1,112.7	1,067.1	45.59	24.406		
7,315.0	7,190.3	7,199.7	7,191.3	31.0	14.7	179.77	4.1	-111.7	1,114.9	1,069.2	45.67	24.414		
7,400.0	7,274.5	7,283.8	7,275.5	31.4	14.7	179.77	4.1	-111.7	1,126.8	1,080.7	46.08	24.451		
7,410.0	7,284.4	7,293.7	7,285.4	31.4	14.7	179.77	4.1	-111.7	1,128.1	1,082.0	46.13	24.455		
7,500.0	7,373.6	7,383.0	7,374.6	31.8	14.8	179.77	4.1	-111.7	1,139.9	1,093.4	46.56	24.480		
7,505.0	7,378.6	7,387.9	7,379.6	31.8	14.8	179.77	4.1	-111.7	1,140.6	1,094.0	46.59	24.481		
7,600.0	7,472.9	7,482.2	7,473.9	32.2	14.8	179.77	4.1	-111.7	1,152.2	1,105.2	47.04	24.493		
7,695.0	7,567.3	7,576.6	7,568.3	32.6	14.9	179.78	4.1	-111.7	1,163.1	1,115.6	47.49	24.492		
7,700.0	7,572.2	7,581.5	7,573.2	32.6	14.9	179.78	4.1	-111.7	1,163.6	1,116.1	47.51	24.492		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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		
7,790.0	7,661.7	7,671.0	7,662.7	33.0	14.9	179.78	4.1	-111.7	1,173.2	1,125.3	47.93	24.478		
7,800.0	7,671.7	7,681.0	7,672.7	33.0	14.9	179.78	4.1	-111.7	1,174.2	1,126.2	47.98	24.475		
7,885.0	7,756.3	7,765.6	7,757.3	33.4	15.0	179.78	4.1	-111.7	1,182.5	1,134.1	48.36	24.451		
7,900.0	7,771.2	7,780.5	7,772.2	33.4	15.0	179.78	4.1	-111.7	1,183.9	1,135.5	48.43	24.445		
7,980.0	7,850.9	7,860.2	7,851.9	33.8	15.0	179.78	4.1	-111.7	1,191.0	1,142.3	48.79	24.412		
8,000.0	7,870.8	7,880.1	7,871.8	33.8	15.1	179.78	4.1	-111.7	1,192.7	1,143.9	48.88	24.402		
8,075.0	7,945.6	7,954.9	7,946.6	34.1	15.1	179.78	4.1	-111.7	1,198.8	1,149.6	49.21	24.362		
8,100.0	7,970.5	7,979.8	7,971.5	34.2	15.1	179.78	4.1	-111.7	1,200.7	1,151.4	49.32	24.346		
8,170.0	8,040.3	8,049.6	8,041.3	34.5	15.2	179.79	4.1	-111.7	1,205.7	1,156.1	49.62	24.301		
8,200.0	8,070.2	8,079.6	8,071.2	34.6	15.2	179.79	4.1	-111.7	1,207.8	1,158.0	49.75	24.279		
8,265.0	8,135.1	8,144.4	8,136.1	34.8	15.2	179.79	4.1	-111.7	1,211.9	1,161.9	50.02	24.230		
8,300.0	8,170.0	8,179.4	8,171.0	34.9	15.2	179.79	4.1	-111.7	1,214.0	1,163.8	50.16	24.201		
8,360.0	8,229.9	8,239.3	8,230.9	35.1	15.3	179.79	4.1	-111.7	1,217.3	1,166.9	50.41	24.150		
8,400.0	8,269.9	8,279.2	8,270.9	35.3	15.3	179.79	4.1	-111.7	1,219.3	1,168.8	50.57	24.112		
8,455.0	8,324.8	8,334.2	8,325.8	35.5	15.3	179.79	4.1	-111.7	1,221.9	1,171.1	50.79	24.060		
8,500.0	8,369.8	8,379.1	8,370.8	35.6	15.3	179.79	4.1	-111.7	1,223.8	1,172.9	50.96	24.015		
8,550.0	8,419.8	8,429.1	8,420.8	35.8	15.4	179.79	4.1	-111.7	1,225.7	1,174.6	51.15	23.964		
8,600.0	8,469.7	8,479.1	8,470.7	35.9	15.4	179.79	4.1	-111.7	1,227.4	1,176.1	51.34	23.909		
8,645.0	8,514.7	8,524.0	8,515.7	36.1	15.4	179.79	4.1	-111.7	1,228.8	1,177.3	51.50	23.860		
8,700.0	8,569.7	8,579.0	8,570.7	36.2	15.5	179.79	4.1	-111.7	1,230.1	1,178.5	51.69	23.797		
8,740.0	8,609.7	8,619.0	8,610.7	36.3	15.5	179.79	4.1	-111.7	1,231.0	1,179.2	51.83	23.752		
8,800.0	8,669.7	8,679.0	8,670.7	36.5	15.5	179.79	4.1	-111.7	1,232.0	1,180.0	52.03	23.681		
8,835.0	8,704.7	8,714.0	8,705.7	36.6	15.5	179.79	4.1	-111.7	1,232.4	1,180.3	52.13	23.643		
8,900.0	8,769.7	8,779.0	8,770.7	36.7	15.6	179.79	4.1	-111.7	1,233.0	1,180.7	52.32	23.567		
8,930.0	8,799.7	8,809.0	8,800.7	36.8	15.6	179.79	4.1	-111.7	1,233.1	1,180.7	52.37	23.547		
8,962.8	8,832.5	8,841.8	8,833.5	36.8	15.6	89.56	4.1	-111.7	1,233.2	1,180.7	52.42	23.523		
9,000.0	8,869.7	8,879.0	8,870.7	36.8	15.6	89.56	4.1	-111.7	1,233.2	1,180.7	52.45	23.512		
9,025.0	8,894.7	8,904.0	8,895.7	36.8	15.7	89.56	4.1	-111.7	1,233.2	1,180.7	52.47	23.503		
9,100.0	8,969.7	8,979.0	8,970.7	36.8	15.7	89.56	4.1	-111.7	1,233.2	1,180.6	52.53	23.476		
9,120.0	8,989.7	8,999.0	8,990.7	36.8	15.7	89.56	4.1	-111.7	1,233.2	1,180.6	52.54	23.469		
9,200.0	9,069.7	9,079.0	9,070.7	36.8	15.8	89.56	4.1	-111.7	1,233.2	1,180.6	52.61	23.440		
9,215.0	9,084.7	9,094.0	9,085.7	36.8	15.8	89.56	4.1	-111.7	1,233.2	1,180.5	52.62	23.434		
9,300.0	9,169.7	9,179.0	9,170.7	36.9	15.8	89.56	4.1	-111.7	1,233.2	1,180.5	52.69	23.404		
9,310.0	9,179.7	9,189.0	9,180.7	36.9	15.8	89.56	4.1	-111.7	1,233.2	1,180.5	52.70	23.400		
9,400.0	9,269.7	9,279.0	9,270.7	36.9	15.9	89.56	4.1	-111.7	1,233.2	1,180.4	52.77	23.367		
9,405.0	9,274.7	9,284.0	9,275.7	36.9	15.9	89.56	4.1	-111.7	1,233.2	1,180.4	52.78	23.366		
9,500.0	9,369.7	9,379.0	9,370.7	36.9	16.0	89.56	4.1	-111.7	1,233.2	1,180.3	52.85	23.331		
9,595.0	9,464.7	9,474.0	9,465.7	36.9	16.0	89.56	4.1	-111.7	1,233.2	1,180.2	52.93	23.297		
9,600.0	9,469.7	9,479.0	9,470.7	36.9	16.0	89.56	4.1	-111.7	1,233.2	1,180.2	52.94	23.295		
9,690.0	9,559.7	9,569.0	9,560.7	36.9	16.1	89.56	4.1	-111.7	1,233.2	1,180.1	53.01	23.262		
9,700.0	9,569.7	9,579.0	9,570.7	36.9	16.1	89.56	4.1	-111.7	1,233.2	1,180.1	53.02	23.258		
9,785.0	9,654.7	9,664.0	9,655.7	37.0	16.1	89.56	4.1	-111.7	1,233.2	1,180.1	53.09	23.228		
9,800.0	9,669.7	9,679.0	9,670.7	37.0	16.1	89.56	4.1	-111.7	1,233.2	1,180.1	53.10	23.222		
9,880.0	9,749.7	9,759.0	9,750.7	37.0	16.2	89.56	4.1	-111.7	1,233.2	1,180.0	53.17	23.193		
9,900.0	9,769.7	9,779.0	9,770.7	37.0	16.2	89.56	4.1	-111.7	1,233.2	1,180.0	53.19	23.186		
9,975.0	9,844.7	9,854.0	9,845.7	37.0	16.2	89.56	4.1	-111.7	1,233.2	1,179.9	53.25	23.158		
10,000.0	9,869.7	9,879.0	9,870.7	37.0	16.3	89.56	4.1	-111.7	1,233.2	1,179.9	53.27	23.149		
10,070.0	9,939.7	9,949.0	9,940.7	37.0	16.3	89.56	4.1	-111.7	1,233.2	1,179.8	53.33	23.124		
10,100.0	9,969.7	9,979.0	9,970.7	37.0	16.3	89.56	4.1	-111.7	1,233.2	1,179.8	53.35	23.113		
10,165.0	10,034.7	10,044.0	10,035.7	37.0	16.4	89.56	4.1	-111.7	1,233.2	1,179.8	53.41	23.089		
10,200.0	10,069.7	10,079.0	10,070.7	37.1	16.4	89.56	4.1	-111.7	1,233.2	1,179.7	53.44	23.076		
10,260.0	10,129.7	10,139.0	10,130.7	37.1	16.4	89.56	4.1	-111.7	1,233.2	1,179.7	53.49	23.054		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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		
10,300.0	10,169.7	10,179.0	10,170.7	37.1	16.5	89.56	4.1	-111.7	1,233.2	1,179.6	53.52	23.040		
10,355.0	10,224.7	10,234.0	10,225.7	37.1	16.5	89.56	4.1	-111.7	1,233.2	1,179.6	53.57	23.020		
10,400.0	10,269.7	10,279.0	10,270.7	37.1	16.5	89.56	4.1	-111.7	1,233.2	1,179.6	53.61	23.003		
10,450.0	10,319.7	10,329.0	10,320.7	37.1	16.5	89.56	4.1	-111.7	1,233.2	1,179.5	53.65	22.985		
10,500.0	10,369.7	10,379.0	10,370.7	37.1	16.6	89.56	4.1	-111.7	1,233.2	1,179.5	53.69	22.967		
10,545.0	10,414.7	10,424.0	10,415.7	37.1	16.6	89.56	4.1	-111.7	1,233.2	1,179.4	53.73	22.950		
10,600.0	10,469.7	10,479.0	10,470.7	37.1	16.6	89.56	4.1	-111.7	1,233.2	1,179.4	53.78	22.930		
10,640.0	10,509.7	10,519.0	10,510.7	37.2	16.7	89.56	4.1	-111.7	1,233.2	1,179.3	53.81	22.915		
10,700.0	10,569.7	10,579.0	10,570.7	37.2	16.7	89.56	4.1	-111.7	1,233.2	1,179.3	53.87	22.893		
10,735.0	10,604.7	10,614.0	10,605.7	37.2	16.7	89.56	4.1	-111.7	1,233.2	1,179.3	53.90	22.880		
10,800.0	10,669.7	10,679.0	10,670.7	37.2	16.8	89.56	4.1	-111.7	1,233.2	1,179.2	53.95	22.857		
10,830.0	10,699.7	10,709.0	10,700.7	37.2	16.8	89.56	4.1	-111.7	1,233.2	1,179.2	53.98	22.846		
10,900.0	10,769.7	10,779.0	10,770.7	37.2	16.8	89.56	4.1	-111.7	1,233.2	1,179.1	54.04	22.820		
10,925.0	10,794.7	10,804.0	10,795.7	37.2	16.8	89.56	4.1	-111.7	1,233.2	1,179.1	54.06	22.811		
11,000.0	10,869.7	10,879.0	10,870.7	37.2	16.9	89.56	4.1	-111.7	1,233.2	1,179.0	54.13	22.783		
11,020.0	10,889.7	10,899.0	10,890.7	37.2	16.9	89.56	4.1	-111.7	1,233.2	1,179.0	54.14	22.776		
11,106.9	10,976.5	10,985.9	10,977.5	37.3	17.0	89.56	4.1	-111.7	1,233.2	1,178.9	54.22	22.744		
11,115.0	10,984.7	10,994.0	10,985.7	37.3	17.0	90.09	4.1	-111.7	1,233.2	1,178.9	54.22	22.742		
11,125.0	10,994.7	11,004.0	10,995.7	37.3	17.0	90.10	4.1	-111.7	1,233.2	1,178.9	54.23	22.739		
11,150.0	11,019.6	11,028.9	11,020.6	37.3	17.0	90.17	4.1	-111.7	1,233.2	1,178.9	54.25	22.731		
11,175.0	11,044.4	11,053.8	11,045.4	37.3	17.0	90.31	4.1	-111.7	1,233.2	1,178.9	54.27	22.724		
11,200.0	11,069.1	11,078.4	11,070.1	37.3	17.0	90.49	4.1	-111.7	1,233.2	1,178.9	54.29	22.717		
11,210.0	11,078.9	11,088.2	11,079.9	37.3	17.0	90.58	4.1	-111.7	1,233.2	1,178.9	54.29	22.714		
11,225.0	11,093.5	11,102.8	11,094.5	37.3	17.0	90.74	4.1	-111.7	1,233.3	1,179.0	54.30	22.711		
11,250.0	11,117.5	11,126.9	11,118.5	37.3	17.0	91.02	4.1	-111.7	1,233.4	1,179.1	54.31	22.709		
11,275.0	11,141.2	11,150.5	11,142.2	37.3	17.1	91.36	4.1	-111.7	1,233.6	1,179.2	54.32	22.709		
11,300.0	11,164.4	11,175.4	11,167.1	37.3	17.1	91.73	4.5	-111.7	1,233.8	1,179.5	54.33	22.710		
11,305.0	11,169.0	11,180.5	11,172.2	37.3	17.1	91.81	4.7	-111.7	1,233.9	1,179.5	54.33	22.710		
11,325.0	11,187.2	11,201.2	11,192.8	37.3	17.1	92.12	6.2	-111.7	1,234.1	1,179.8	54.34	22.710		
11,350.0	11,209.3	11,227.5	11,218.9	37.3	17.1	92.51	9.4	-111.8	1,234.5	1,180.1	54.36	22.710		
11,375.0	11,230.8	11,254.4	11,245.4	37.3	17.1	92.89	14.2	-111.8	1,234.9	1,180.6	54.38	22.710		
11,400.0	11,251.6	11,282.0	11,272.2	37.3	17.1	93.27	20.6	-111.9	1,235.4	1,181.0	54.40	22.709		
11,425.0	11,271.6	11,310.1	11,299.1	37.3	17.1	93.65	28.8	-111.9	1,236.0	1,181.6	54.43	22.707		
11,450.0	11,290.9	11,339.0	11,326.2	37.3	17.1	94.02	38.8	-112.0	1,236.6	1,182.1	54.47	22.704		
11,475.0	11,309.3	11,368.6	11,353.3	37.3	17.1	94.39	50.7	-112.1	1,237.2	1,182.7	54.50	22.699		
11,495.0	11,323.3	11,392.8	11,374.9	37.3	17.1	94.68	61.7	-112.2	1,237.7	1,183.2	54.54	22.695		
11,500.0	11,326.7	11,398.9	11,380.3	37.3	17.1	94.75	64.6	-112.3	1,237.9	1,183.3	54.55	22.693		
11,525.0	11,343.2	11,430.0	11,406.9	37.3	17.1	95.11	80.6	-112.4	1,238.5	1,184.0	54.60	22.686		
11,550.0	11,358.7	11,461.9	11,433.0	37.3	17.1	95.45	98.8	-112.6	1,239.2	1,184.6	54.65	22.676		
11,575.0	11,373.2	11,494.6	11,458.5	37.3	17.1	95.78	119.2	-112.8	1,239.9	1,185.2	54.71	22.664		
11,590.0	11,381.3	11,514.5	11,473.4	37.3	17.1	95.97	132.5	-112.9	1,240.4	1,185.6	54.75	22.655		
11,600.0	11,386.6	11,528.0	11,483.1	37.3	17.1	96.09	141.9	-113.0	1,240.6	1,185.9	54.78	22.649		
11,625.0	11,398.8	11,562.2	11,506.6	37.3	17.1	96.39	166.8	-113.2	1,241.3	1,186.5	54.85	22.632		
11,650.0	11,409.9	11,597.2	11,528.7	37.3	17.1	96.67	193.9	-113.4	1,242.0	1,187.0	54.93	22.612		
11,675.0	11,419.8	11,632.9	11,549.1	37.3	17.2	96.93	223.2	-113.7	1,242.6	1,187.6	55.01	22.589		
11,685.0	11,423.4	11,647.4	11,556.7	37.3	17.2	97.02	235.5	-113.8	1,242.8	1,187.8	55.04	22.580		
11,700.0	11,428.5	11,669.3	11,567.6	37.4	17.2	97.16	254.5	-114.0	1,243.1	1,188.0	55.09	22.564		
11,725.0	11,435.9	11,706.4	11,583.9	37.4	17.2	97.36	287.8	-114.3	1,243.6	1,188.4	55.18	22.537		
11,750.0	11,442.1	11,744.0	11,597.8	37.4	17.2	97.53	322.7	-114.6	1,244.0	1,188.8	55.27	22.508		
11,775.0	11,447.0	11,782.0	11,609.0	37.4	17.3	97.67	359.0	-114.9	1,244.4	1,189.0	55.36	22.478		
11,780.0	11,447.8	11,789.7	11,610.9	37.4	17.3	97.69	366.5	-115.0	1,244.4	1,189.1	55.38	22.472		
11,800.0	11,450.6	11,820.4	11,617.4	37.4	17.3	97.76	396.5	-115.3	1,244.6	1,189.2	55.45	22.447		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0														Offset Site Error: 0.0 usft	
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-r.5 MWD+IFR1+MS		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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		
11,825.0	11,452.9	11,859.1	11,622.7	37.4	17.4	97.83	434.8	-115.6	1,244.8	1,189.2	55.53	22.414			
11,850.0	11,454.0	11,897.9	11,624.9	37.4	17.4	97.85	473.5	-116.0	1,244.8	1,189.2	55.62	22.382			
11,856.7	11,454.0	11,907.5	11,625.0	37.4	17.5	97.85	483.1	-116.1	1,244.8	1,189.2	55.64	22.374			
11,856.9	11,454.0	11,907.6	11,625.0	37.4	17.5	97.85	483.2	-116.1	1,244.8	1,189.2	55.64	22.374			
11,875.0	11,454.0	11,925.7	11,625.0	37.5	17.5	97.85	501.4	-116.2	1,244.8	1,189.2	55.69	22.355			
11,900.0	11,454.0	11,950.7	11,625.0	37.5	17.5	97.85	526.4	-116.4	1,244.8	1,189.1	55.75	22.329			
11,970.0	11,454.0	12,020.7	11,625.0	37.5	17.7	97.85	596.4	-117.1	1,244.8	1,188.9	55.95	22.250			
12,000.0	11,454.0	12,050.7	11,625.0	37.6	17.7	97.85	626.4	-117.4	1,244.8	1,188.8	56.04	22.213			
12,065.0	11,454.0	12,115.7	11,625.0	37.6	17.9	97.85	691.4	-117.9	1,244.8	1,188.6	56.26	22.128			
12,100.0	11,454.0	12,150.7	11,625.0	37.7	18.0	97.85	726.4	-118.3	1,244.8	1,188.5	56.38	22.080			
12,160.0	11,454.0	12,210.7	11,625.0	37.8	18.1	97.85	786.4	-118.8	1,244.9	1,188.2	56.60	21.993			
12,200.0	11,454.0	12,250.7	11,625.0	37.8	18.2	97.85	826.4	-119.2	1,244.9	1,188.1	56.76	21.932			
12,255.0	11,454.0	12,305.7	11,625.0	37.9	18.4	97.85	881.4	-119.7	1,244.9	1,187.9	56.99	21.845			
12,300.0	11,454.0	12,350.7	11,625.0	38.0	18.5	97.85	926.4	-120.1	1,244.9	1,187.7	57.18	21.769			
12,350.0	11,454.0	12,400.7	11,625.0	38.0	18.7	97.85	976.3	-120.5	1,244.9	1,187.4	57.41	21.684			
12,400.0	11,454.0	12,450.7	11,625.0	38.1	18.8	97.85	1,026.3	-121.0	1,244.9	1,187.2	57.65	21.594			
12,445.0	11,454.0	12,495.7	11,625.0	38.2	19.0	97.85	1,071.3	-121.4	1,244.9	1,187.0	57.87	21.511			
12,500.0	11,454.0	12,550.7	11,625.0	38.3	19.2	97.85	1,126.3	-121.9	1,244.9	1,186.7	58.15	21.407			
12,540.0	11,454.0	12,590.7	11,625.0	38.4	19.3	97.85	1,166.3	-122.3	1,244.9	1,186.5	58.36	21.329			
12,600.0	11,454.0	12,650.7	11,625.0	38.5	19.5	97.85	1,226.3	-122.8	1,244.9	1,186.2	58.69	21.209			
12,635.0	11,454.0	12,685.7	11,625.0	38.5	19.7	97.85	1,261.3	-123.1	1,244.9	1,186.0	58.89	21.138			
12,700.0	11,454.0	12,750.7	11,625.0	38.7	19.9	97.85	1,326.3	-123.7	1,244.9	1,185.6	59.27	21.002			
12,730.0	11,454.0	12,780.7	11,625.0	38.7	20.1	97.85	1,356.3	-124.0	1,244.9	1,185.4	59.45	20.938			
12,800.0	11,454.0	12,850.7	11,625.0	38.9	20.3	97.85	1,426.3	-124.6	1,244.9	1,185.0	59.89	20.787			
12,825.0	11,454.0	12,875.7	11,625.0	38.9	20.4	97.85	1,451.3	-124.8	1,244.9	1,184.8	60.05	20.732			
12,900.0	11,454.0	12,950.7	11,625.0	39.1	20.8	97.85	1,526.3	-125.5	1,244.9	1,184.3	60.54	20.564			
12,920.0	11,454.0	12,970.7	11,625.0	39.2	20.9	97.85	1,546.3	-125.7	1,244.9	1,184.2	60.67	20.519			
13,000.0	11,454.0	13,050.7	11,625.0	39.4	21.2	97.85	1,626.3	-126.4	1,244.9	1,183.7	61.22	20.336			
13,015.0	11,454.0	13,065.7	11,625.0	39.4	21.3	97.85	1,641.3	-126.6	1,244.9	1,183.6	61.32	20.301			
13,100.0	11,454.0	13,150.7	11,625.0	39.6	21.7	97.85	1,726.3	-127.3	1,244.9	1,183.0	61.93	20.103			
13,110.0	11,454.0	13,160.7	11,625.0	39.6	21.7	97.85	1,736.3	-127.4	1,244.9	1,182.9	62.00	20.079			
13,200.0	11,454.0	13,250.7	11,625.0	39.9	22.2	97.85	1,826.3	-128.2	1,244.9	1,182.2	62.67	19.865			
13,205.0	11,454.0	13,255.7	11,625.0	39.9	22.2	97.85	1,831.3	-128.3	1,244.9	1,182.2	62.70	19.853			
13,300.0	11,454.0	13,350.7	11,625.0	40.2	22.7	97.85	1,926.3	-129.2	1,244.9	1,181.5	63.44	19.625			
13,395.0	11,454.0	13,445.7	11,625.0	40.4	23.1	97.85	2,021.3	-130.0	1,244.9	1,180.7	64.19	19.394			
13,400.0	11,454.0	13,450.7	11,625.0	40.5	23.2	97.85	2,026.3	-130.1	1,244.9	1,180.7	64.23	19.382			
13,490.0	11,454.0	13,540.7	11,625.0	40.7	23.6	97.85	2,116.3	-130.9	1,244.9	1,179.9	64.97	19.161			
13,500.0	11,454.0	13,550.7	11,625.0	40.8	23.7	97.85	2,126.3	-131.0	1,244.9	1,179.8	65.05	19.137			
13,585.0	11,454.0	13,635.7	11,625.0	41.0	24.2	97.85	2,211.3	-131.7	1,244.9	1,179.1	65.77	18.928			
13,600.0	11,454.0	13,650.7	11,625.0	41.1	24.2	97.85	2,226.3	-131.9	1,244.9	1,179.0	65.90	18.891			
13,680.0	11,454.0	13,730.7	11,625.0	41.3	24.7	97.85	2,306.3	-132.6	1,244.9	1,178.3	66.59	18.694			
13,700.0	11,454.0	13,750.7	11,625.0	41.4	24.8	97.85	2,326.3	-132.8	1,244.9	1,178.1	66.77	18.645			
13,775.0	11,454.0	13,825.7	11,625.0	41.7	25.2	97.85	2,401.3	-133.5	1,244.9	1,177.5	67.44	18.461			
13,800.0	11,454.0	13,850.7	11,625.0	41.8	25.3	97.85	2,426.3	-133.7	1,244.9	1,177.3	67.66	18.399			
13,870.0	11,454.0	13,920.7	11,625.0	42.0	25.7	97.85	2,496.3	-134.3	1,244.9	1,176.6	68.30	18.228			
13,900.0	11,454.0	13,950.7	11,625.0	42.1	25.9	97.85	2,526.3	-134.6	1,244.9	1,176.3	68.57	18.154			
13,965.0	11,454.0	14,015.7	11,625.0	42.3	26.3	97.85	2,591.3	-135.2	1,244.9	1,175.7	69.18	17.995			
14,000.0	11,454.0	14,050.7	11,625.0	42.5	26.5	97.85	2,626.3	-135.5	1,244.9	1,175.4	69.51	17.910			
14,060.0	11,454.0	14,110.7	11,625.0	42.7	26.9	97.85	2,686.3	-136.0	1,244.9	1,174.8	70.08	17.764			
14,100.0	11,454.0	14,150.7	11,625.0	42.9	27.1	97.85	2,726.3	-136.4	1,244.9	1,174.5	70.46	17.668			
14,155.0	11,454.0	14,205.7	11,625.0	43.1	27.4	97.85	2,781.3	-136.9	1,244.9	1,173.9	71.00	17.535			
14,200.0	11,454.0	14,250.7	11,625.0	43.2	27.7	97.85	2,826.3	-137.3	1,244.9	1,173.5	71.44	17.427			

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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		
14,250.0	11,454.0	14,300.7	11,625.0	43.4	28.0	97.85	2,876.3	-137.8	1,244.9	1,173.0	71.93	17.308		
14,300.0	11,454.0	14,350.7	11,625.0	43.6	28.3	97.85	2,926.3	-138.2	1,244.9	1,172.5	72.43	17.189		
14,345.0	11,454.0	14,395.7	11,625.0	43.8	28.6	97.85	2,971.3	-138.6	1,244.9	1,172.1	72.88	17.082		
14,400.0	11,454.0	14,450.7	11,625.0	44.0	28.9	97.85	3,026.3	-139.1	1,244.9	1,171.5	73.43	16.953		
14,440.0	11,454.0	14,490.7	11,625.0	44.2	29.2	97.85	3,066.3	-139.5	1,244.9	1,171.1	73.84	16.859		
14,500.0	11,454.0	14,550.7	11,625.0	44.4	29.5	97.85	3,126.3	-140.0	1,244.9	1,170.5	74.46	16.720		
14,535.0	11,454.0	14,585.7	11,625.0	44.6	29.7	97.85	3,161.3	-140.4	1,244.9	1,170.1	74.82	16.638		
14,600.0	11,454.0	14,650.7	11,625.0	44.9	30.2	97.85	3,226.3	-141.0	1,244.9	1,169.4	75.50	16.489		
14,630.0	11,454.0	14,680.7	11,625.0	45.0	30.3	97.85	3,256.3	-141.2	1,244.9	1,169.1	75.82	16.420		
14,700.0	11,454.0	14,750.7	11,625.0	45.3	30.8	97.85	3,326.3	-141.9	1,244.9	1,168.4	76.56	16.262		
14,725.0	11,454.0	14,775.7	11,625.0	45.4	31.0	97.85	3,351.3	-142.1	1,244.9	1,168.1	76.82	16.205		
14,800.0	11,454.0	14,850.7	11,625.0	45.7	31.4	97.85	3,426.2	-142.8	1,244.9	1,167.3	77.63	16.038		
14,820.0	11,454.0	14,870.7	11,625.0	45.8	31.6	97.85	3,446.2	-142.9	1,244.9	1,167.1	77.84	15.993		
14,900.0	11,454.0	14,950.7	11,625.0	46.2	32.1	97.85	3,526.2	-143.7	1,245.0	1,166.2	78.71	15.817		
14,915.0	11,454.0	14,965.7	11,625.0	46.3	32.2	97.85	3,541.2	-143.8	1,245.0	1,166.1	78.88	15.784		
15,000.0	11,454.0	15,050.7	11,625.0	46.7	32.7	97.85	3,626.2	-144.6	1,245.0	1,165.1	79.81	15.599		
15,010.0	11,454.0	15,060.7	11,625.0	46.7	32.8	97.85	3,636.2	-144.7	1,245.0	1,165.0	79.92	15.577		
15,100.0	11,454.0	15,150.7	11,625.0	47.1	33.4	97.85	3,726.2	-145.5	1,245.0	1,164.0	80.92	15.385		
15,105.0	11,454.0	15,155.7	11,625.0	47.1	33.4	97.85	3,731.2	-145.5	1,245.0	1,164.0	80.98	15.374		
15,200.0	11,454.0	15,250.7	11,625.0	47.6	34.0	97.85	3,826.2	-146.4	1,245.0	1,162.9	82.04	15.174		
15,295.0	11,454.0	15,345.7	11,625.0	48.0	34.7	97.85	3,921.2	-147.3	1,245.0	1,161.8	83.12	14.977		
15,300.0	11,454.0	15,350.7	11,625.0	48.1	34.7	97.85	3,926.2	-147.3	1,245.0	1,161.8	83.18	14.967		
15,390.0	11,454.0	15,440.7	11,625.0	48.5	35.3	97.85	4,016.2	-148.1	1,245.0	1,160.8	84.21	14.784		
15,400.0	11,454.0	15,450.7	11,625.0	48.6	35.4	97.85	4,026.2	-148.2	1,245.0	1,160.6	84.33	14.764		
15,485.0	11,454.0	15,535.7	11,625.0	49.0	35.9	97.85	4,111.2	-149.0	1,245.0	1,159.7	85.31	14.593		
15,500.0	11,454.0	15,550.7	11,625.0	49.1	36.0	97.85	4,126.2	-149.1	1,245.0	1,159.5	85.48	14.564		
15,580.0	11,454.0	15,630.7	11,625.0	49.5	36.6	97.85	4,206.2	-149.8	1,245.0	1,158.6	86.42	14.406		
15,600.0	11,454.0	15,650.7	11,625.0	49.6	36.7	97.85	4,226.2	-150.0	1,245.0	1,158.3	86.65	14.367		
15,675.0	11,454.0	15,725.7	11,625.0	49.9	37.2	97.85	4,301.2	-150.7	1,245.0	1,157.4	87.54	14.222		
15,700.0	11,454.0	15,750.7	11,625.0	50.1	37.4	97.85	4,326.2	-150.9	1,245.0	1,157.1	87.83	14.175		
15,770.0	11,454.0	15,820.7	11,625.0	50.4	37.9	97.85	4,396.2	-151.6	1,245.0	1,156.3	88.66	14.042		
15,800.0	11,454.0	15,850.7	11,625.0	50.6	38.1	97.85	4,426.2	-151.8	1,245.0	1,156.0	89.02	13.985		
15,865.0	11,454.0	15,915.7	11,625.0	50.9	38.5	97.85	4,491.2	-152.4	1,245.0	1,155.2	89.80	13.864		
15,900.0	11,454.0	15,950.7	11,625.0	51.1	38.8	97.85	4,526.2	-152.7	1,245.0	1,154.8	90.22	13.800		
15,960.0	11,454.0	16,010.7	11,625.0	51.4	39.2	97.85	4,586.2	-153.3	1,245.0	1,154.0	90.94	13.690		
16,000.0	11,454.0	16,050.7	11,625.0	51.6	39.4	97.85	4,626.2	-153.7	1,245.0	1,153.6	91.42	13.618		
16,055.0	11,454.0	16,105.7	11,625.0	51.9	39.8	97.85	4,681.2	-154.2	1,245.0	1,152.9	92.09	13.519		
16,100.0	11,454.0	16,150.7	11,625.0	52.2	40.1	97.85	4,726.2	-154.6	1,245.0	1,152.4	92.64	13.439		
16,150.0	11,454.0	16,200.7	11,625.0	52.4	40.5	97.85	4,776.2	-155.0	1,245.0	1,151.7	93.25	13.351		
16,200.0	11,454.0	16,250.7	11,625.0	52.7	40.8	97.85	4,826.2	-155.5	1,245.0	1,151.1	93.86	13.264		
16,245.0	11,454.0	16,295.7	11,625.0	52.9	41.1	97.85	4,871.2	-155.9	1,245.0	1,150.6	94.42	13.186		
16,300.0	11,454.0	16,350.7	11,625.0	53.2	41.5	97.85	4,926.2	-156.4	1,245.0	1,149.9	95.10	13.092		
16,340.0	11,454.0	16,390.7	11,625.0	53.5	41.8	97.85	4,966.2	-156.7	1,245.0	1,149.4	95.59	13.024		
16,400.0	11,454.0	16,450.7	11,625.0	53.8	42.2	97.85	5,026.2	-157.3	1,245.0	1,148.7	96.34	12.923		
16,435.0	11,454.0	16,485.7	11,625.0	54.0	42.5	97.85	5,061.2	-157.6	1,245.0	1,148.2	96.77	12.865		
16,500.0	11,454.0	16,550.7	11,625.0	54.3	42.9	97.85	5,126.2	-158.2	1,245.0	1,147.4	97.58	12.758		
16,530.0	11,454.0	16,580.7	11,625.0	54.5	43.1	97.85	5,156.2	-158.5	1,245.0	1,147.0	97.96	12.709		
16,600.0	11,454.0	16,650.7	11,625.0	54.9	43.6	97.85	5,226.2	-159.1	1,245.0	1,146.2	98.84	12.596		
16,625.0	11,454.0	16,675.7	11,625.0	55.0	43.8	97.85	5,251.2	-159.3	1,245.0	1,145.9	99.15	12.556		
16,700.0	11,454.0	16,750.7	11,625.0	55.5	44.3	97.85	5,326.2	-160.0	1,245.0	1,144.9	100.10	12.438		
16,720.0	11,454.0	16,770.7	11,625.0	55.6	44.5	97.85	5,346.2	-160.2	1,245.0	1,144.7	100.36	12.406		
16,800.0	11,454.0	16,850.7	11,625.0	56.0	45.0	97.85	5,426.2	-160.9	1,245.0	1,143.7	101.37	12.282		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0													Offset Site Error: 0.0 usft	
Survey Program:		0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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	
16,815.0	11,454.0	16,865.7	11,625.0	56.1	45.1	97.85	5,441.2	-161.1	1,245.0	1,143.5	101.56	12.259		
16,900.0	11,454.0	16,950.7	11,625.0	56.6	45.7	97.85	5,526.2	-161.8	1,245.0	1,142.4	102.65	12.129		
16,910.0	11,454.0	16,960.7	11,625.0	56.7	45.8	97.85	5,536.2	-161.9	1,245.0	1,142.3	102.77	12.114		
17,000.0	11,454.0	17,050.7	11,625.0	57.2	46.5	97.85	5,626.2	-162.7	1,245.0	1,141.1	103.93	11.980		
17,005.0	11,454.0	17,055.7	11,625.0	57.2	46.5	97.85	5,631.2	-162.8	1,245.0	1,141.0	103.99	11.972		
17,100.0	11,454.0	17,150.7	11,625.0	57.8	47.2	97.85	5,726.2	-163.6	1,245.0	1,139.8	105.22	11.833		
17,195.0	11,454.0	17,245.7	11,625.0	58.3	47.8	97.85	5,821.1	-164.5	1,245.0	1,138.6	106.44	11.697		
17,200.0	11,454.0	17,250.7	11,625.0	58.3	47.9	97.85	5,826.1	-164.5	1,245.0	1,138.5	106.51	11.689		
17,290.0	11,454.0	17,340.7	11,625.0	58.9	48.5	97.85	5,916.1	-165.4	1,245.0	1,137.4	107.68	11.563		
17,300.0	11,454.0	17,350.7	11,625.0	58.9	48.6	97.85	5,926.1	-165.5	1,245.0	1,137.2	107.81	11.549		
17,385.0	11,454.0	17,435.7	11,625.0	59.4	49.2	97.85	6,011.1	-166.2	1,245.0	1,136.1	108.92	11.431		
17,400.0	11,454.0	17,450.7	11,625.0	59.5	49.3	97.85	6,026.1	-166.4	1,245.0	1,135.9	109.11	11.411		
17,480.0	11,454.0	17,530.7	11,625.0	60.0	49.9	97.85	6,106.1	-167.1	1,245.0	1,134.9	110.16	11.302		
17,500.0	11,454.0	17,550.7	11,625.0	60.1	50.0	97.85	6,126.1	-167.3	1,245.0	1,134.6	110.42	11.275		
17,575.0	11,454.0	17,625.7	11,625.0	60.6	50.6	97.85	6,201.1	-168.0	1,245.0	1,133.6	111.41	11.175		
17,600.0	11,454.0	17,650.7	11,625.0	60.7	50.7	97.85	6,226.1	-168.2	1,245.0	1,133.3	111.74	11.142		
17,670.0	11,454.0	17,720.7	11,625.0	61.2	51.3	97.85	6,296.1	-168.8	1,245.1	1,132.4	112.66	11.051		
17,700.0	11,454.0	17,750.7	11,625.0	61.3	51.5	97.85	6,326.1	-169.1	1,245.1	1,132.0	113.06	11.012		
17,765.0	11,454.0	17,815.7	11,625.0	61.7	51.9	97.85	6,391.1	-169.7	1,245.1	1,131.1	113.92	10.929		
17,800.0	11,454.0	17,850.7	11,625.0	61.9	52.2	97.85	6,426.1	-170.0	1,245.1	1,130.7	114.38	10.885		
17,860.0	11,454.0	17,910.7	11,625.0	62.3	52.6	97.85	6,486.1	-170.5	1,245.1	1,129.9	115.18	10.809		
17,900.0	11,454.0	17,950.7	11,625.0	62.6	52.9	97.85	6,526.1	-170.9	1,245.1	1,129.3	115.71	10.760		
17,955.0	11,454.0	18,005.7	11,625.0	62.9	53.3	97.85	6,581.1	-171.4	1,245.1	1,128.6	116.45	10.692		
18,000.0	11,454.0	18,050.7	11,625.0	63.2	53.6	97.85	6,626.1	-171.8	1,245.1	1,128.0	117.05	10.637		
18,050.0	11,454.0	18,100.7	11,625.0	63.5	54.0	97.85	6,676.1	-172.3	1,245.1	1,127.3	117.72	10.577		
18,100.0	11,454.0	18,150.7	11,625.0	63.8	54.4	97.85	6,726.1	-172.7	1,245.1	1,126.7	118.39	10.517		
18,145.0	11,454.0	18,195.7	11,625.0	64.1	54.7	97.85	6,771.1	-173.1	1,245.1	1,126.1	118.99	10.463		
18,200.0	11,454.0	18,250.7	11,625.0	64.4	55.1	97.85	6,826.1	-173.6	1,245.1	1,125.3	119.73	10.399		
18,240.0	11,454.0	18,290.7	11,625.0	64.7	55.4	97.85	6,866.1	-174.0	1,245.1	1,124.8	120.27	10.352		
18,300.0	11,454.0	18,350.7	11,625.0	65.0	55.8	97.85	6,926.1	-174.5	1,245.1	1,124.0	121.08	10.283		
18,335.0	11,454.0	18,385.7	11,625.0	65.3	56.1	97.85	6,961.1	-174.8	1,245.1	1,123.5	121.55	10.243		
18,400.0	11,454.0	18,450.7	11,625.0	65.7	56.5	97.85	7,026.1	-175.4	1,245.1	1,122.6	122.43	10.170		
18,430.0	11,454.0	18,480.7	11,625.0	65.8	56.8	97.85	7,056.1	-175.7	1,245.1	1,122.2	122.84	10.136		
18,500.0	11,454.0	18,550.7	11,625.0	66.3	57.3	97.85	7,126.1	-176.3	1,245.1	1,121.3	123.79	10.058		
18,525.0	11,454.0	18,575.7	11,625.0	66.4	57.5	97.85	7,151.1	-176.6	1,245.1	1,121.0	124.12	10.031		
18,600.0	11,454.0	18,650.7	11,625.0	66.9	58.0	97.85	7,226.1	-177.3	1,245.1	1,119.9	125.14	9.949		
18,620.0	11,454.0	18,670.7	11,625.0	67.0	58.1	97.85	7,246.1	-177.4	1,245.1	1,119.7	125.42	9.928		
18,700.0	11,454.0	18,750.7	11,625.0	67.6	58.7	97.85	7,326.1	-178.2	1,245.1	1,118.6	126.51	9.842		
18,715.0	11,454.0	18,765.7	11,625.0	67.7	58.8	97.85	7,341.1	-178.3	1,245.1	1,118.4	126.71	9.826		
18,800.0	11,454.0	18,850.7	11,625.0	68.2	59.5	97.85	7,426.1	-179.1	1,245.1	1,117.2	127.87	9.737		
18,810.0	11,454.0	18,860.7	11,625.0	68.3	59.5	97.85	7,436.1	-179.2	1,245.1	1,117.1	128.01	9.727		
18,900.0	11,454.0	18,950.7	11,625.0	68.8	60.2	97.85	7,526.1	-180.0	1,245.1	1,115.9	129.24	9.634		
18,905.0	11,454.0	18,955.7	11,625.0	68.9	60.2	97.85	7,531.1	-180.0	1,245.1	1,115.8	129.31	9.629		
19,000.0	11,454.0	19,050.7	11,625.0	69.5	60.9	97.85	7,626.1	-180.9	1,245.1	1,114.5	130.62	9.533		
19,095.0	11,454.0	19,145.7	11,625.0	70.1	61.6	97.85	7,721.1	-181.7	1,245.1	1,113.2	131.92	9.438		
19,100.0	11,454.0	19,150.7	11,625.0	70.1	61.7	97.85	7,726.1	-181.8	1,245.1	1,113.1	131.99	9.433		
19,190.0	11,454.0	19,240.7	11,625.0	70.7	62.3	97.85	7,816.1	-182.6	1,245.1	1,111.9	133.23	9.345		
19,200.0	11,454.0	19,250.7	11,625.0	70.8	62.4	97.85	7,826.1	-182.7	1,245.1	1,111.7	133.37	9.336		
19,285.0	11,454.0	19,335.7	11,625.0	71.3	63.0	97.85	7,911.1	-183.5	1,245.1	1,110.6	134.55	9.254		
19,300.0	11,454.0	19,350.7	11,625.0	71.4	63.1	97.85	7,926.1	-183.6	1,245.1	1,110.4	134.75	9.240		
19,380.0	11,454.0	19,430.7	11,625.0	71.9	63.7	97.85	8,006.1	-184.3	1,245.1	1,109.3	135.86	9.165		
19,400.0	11,454.0	19,450.7	11,625.0	72.1	63.9	97.85	8,026.1	-184.5	1,245.1	1,109.0	136.14	9.146		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 3000-r.5 MWD+IFR1, 11156-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)	Semi Major Axis Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
19,475.0	11,454.0	19,525.7	11,625.0	72.6	64.4	97.85	8,101.1	-185.2	1,245.1	1,107.9	137.18	9.077		
19,500.0	11,454.0	19,550.7	11,625.0	72.7	64.6	97.85	8,126.1	-185.4	1,245.1	1,107.6	137.53	9.054		
19,570.0	11,454.0	19,620.7	11,625.0	73.2	65.1	97.85	8,196.1	-186.1	1,245.1	1,106.6	138.50	8.990		
19,600.0	11,454.0	19,650.7	11,625.0	73.4	65.3	97.85	8,226.1	-186.3	1,245.1	1,106.2	138.92	8.963		
19,665.0	11,454.0	19,715.7	11,625.0	73.8	65.8	97.85	8,291.0	-186.9	1,245.1	1,105.3	139.82	8.905		
19,700.0	11,454.0	19,750.7	11,625.0	74.0	66.1	97.85	8,326.0	-187.2	1,245.1	1,104.8	140.31	8.874		
19,760.0	11,454.0	19,810.7	11,625.0	74.4	66.5	97.85	8,386.0	-187.8	1,245.1	1,104.0	141.15	8.821		
19,800.0	11,454.0	19,850.7	11,625.0	74.7	66.8	97.85	8,426.0	-188.1	1,245.1	1,103.4	141.71	8.787		
19,855.0	11,454.0	19,905.7	11,625.0	75.1	67.2	97.85	8,481.0	-188.6	1,245.1	1,102.7	142.48	8.739		
19,900.0	11,454.0	19,950.7	11,625.0	75.4	67.6	97.85	8,526.0	-189.1	1,245.1	1,102.0	143.11	8.701		
19,950.0	11,454.0	20,000.7	11,625.0	75.7	67.9	97.85	8,576.0	-189.5	1,245.1	1,101.3	143.81	8.658		
20,000.0	11,454.0	20,050.7	11,625.0	76.0	68.3	97.85	8,626.0	-190.0	1,245.1	1,100.6	144.51	8.616		
20,045.0	11,454.0	20,095.7	11,625.0	76.3	68.6	97.85	8,671.0	-190.4	1,245.1	1,100.0	145.14	8.579		
20,100.0	11,454.0	20,150.7	11,625.0	76.7	69.0	97.85	8,726.0	-190.9	1,245.1	1,099.2	145.91	8.534		
20,140.0	11,454.0	20,190.7	11,625.0	77.0	69.3	97.85	8,766.0	-191.2	1,245.1	1,098.7	146.47	8.501		
20,200.0	11,454.0	20,250.7	11,625.0	77.4	69.8	97.85	8,826.0	-191.8	1,245.1	1,097.8	147.32	8.452		
20,235.0	11,454.0	20,285.7	11,625.0	77.6	70.0	97.85	8,861.0	-192.1	1,245.1	1,097.3	147.81	8.424		
20,300.0	11,454.0	20,350.7	11,625.0	78.0	70.5	97.85	8,926.0	-192.7	1,245.1	1,096.4	148.73	8.372		
20,330.0	11,454.0	20,380.7	11,625.0	78.2	70.7	97.85	8,956.0	-193.0	1,245.1	1,096.0	149.15	8.348		
20,400.0	11,454.0	20,450.7	11,625.0	78.7	71.3	97.85	9,026.0	-193.6	1,245.2	1,095.0	150.14	8.294		
20,425.0	11,454.0	20,475.7	11,625.0	78.9	71.4	97.85	9,051.0	-193.8	1,245.2	1,094.7	150.49	8.274		
20,500.0	11,454.0	20,550.7	11,625.0	79.4	72.0	97.85	9,126.0	-194.5	1,245.2	1,093.6	151.55	8.216		
20,520.0	11,454.0	20,570.7	11,625.0	79.5	72.1	97.85	9,146.0	-194.7	1,245.2	1,093.3	151.83	8.201		
20,600.0	11,454.0	20,650.7	11,625.0	80.0	72.7	97.85	9,226.0	-195.4	1,245.2	1,092.2	152.96	8.140		
20,615.0	11,454.0	20,665.7	11,625.0	80.2	72.9	97.85	9,241.0	-195.5	1,245.2	1,092.0	153.18	8.129		
20,700.0	11,454.0	20,750.7	11,625.0	80.7	73.5	97.85	9,326.0	-196.3	1,245.2	1,090.8	154.38	8.066		
20,710.0	11,454.0	20,760.7	11,625.0	80.8	73.6	97.85	9,336.0	-196.4	1,245.2	1,090.6	154.52	8.058		
20,800.0	11,454.0	20,850.7	11,625.0	81.4	74.2	97.85	9,426.0	-197.2	1,245.2	1,089.4	155.80	7.992		
20,805.0	11,454.0	20,855.7	11,625.0	81.4	74.3	97.85	9,431.0	-197.3	1,245.2	1,089.3	155.87	7.988		
20,900.0	11,454.0	20,950.7	11,625.0	82.1	75.0	97.85	9,526.0	-198.1	1,245.2	1,087.9	157.22	7.920		
20,995.0	11,454.0	21,045.7	11,625.0	82.7	75.7	97.85	9,621.0	-199.0	1,245.2	1,086.6	158.57	7.852		
21,000.0	11,454.0	21,050.7	11,625.0	82.8	75.7	97.85	9,626.0	-199.0	1,245.2	1,086.5	158.64	7.849		
21,090.0	11,454.0	21,140.7	11,625.0	83.4	76.4	97.85	9,716.0	-199.9	1,245.2	1,085.3	159.93	7.786		
21,100.0	11,454.0	21,150.7	11,625.0	83.4	76.5	97.85	9,726.0	-199.9	1,245.2	1,085.1	160.07	7.779		
21,185.0	11,454.0	21,235.7	11,625.0	84.0	77.1	97.85	9,811.0	-200.7	1,245.2	1,083.9	161.28	7.721		
21,200.0	11,454.0	21,250.7	11,625.0	84.1	77.2	97.85	9,826.0	-200.8	1,245.2	1,083.7	161.49	7.710		
21,280.0	11,454.0	21,330.7	11,625.0	84.7	77.8	97.85	9,906.0	-201.6	1,245.2	1,082.5	162.64	7.656		
21,300.0	11,454.0	21,350.7	11,625.0	84.8	77.9	97.85	9,926.0	-201.8	1,245.2	1,082.3	162.92	7.643		
21,375.0	11,454.0	21,425.7	11,625.0	85.3	78.5	97.85	10,001.0	-202.4	1,245.2	1,081.2	163.99	7.593		
21,400.0	11,454.0	21,450.7	11,625.0	85.5	78.7	97.85	10,026.0	-202.7	1,245.2	1,080.8	164.35	7.576		
21,470.0	11,454.0	21,520.7	11,625.0	86.0	79.2	97.85	10,096.0	-203.3	1,245.2	1,079.8	165.35	7.530		
21,500.0	11,454.0	21,550.7	11,625.0	86.2	79.4	97.85	10,126.0	-203.6	1,245.2	1,079.4	165.78	7.511		
21,565.0	11,454.0	21,615.7	11,625.0	86.6	79.9	97.85	10,191.0	-204.2	1,245.2	1,078.5	166.72	7.469		
21,600.0	11,454.0	21,650.7	11,625.0	86.9	80.2	97.85	10,226.0	-204.5	1,245.2	1,078.0	167.22	7.447		
21,660.0	11,454.0	21,710.7	11,625.0	87.3	80.6	97.85	10,286.0	-205.0	1,245.2	1,077.1	168.08	7.408		
21,700.0	11,454.0	21,750.7	11,625.0	87.6	80.9	97.85	10,326.0	-205.4	1,245.2	1,076.5	168.65	7.383		
21,755.0	11,454.0	21,805.7	11,625.0	87.9	81.3	97.85	10,381.0	-205.9	1,245.2	1,075.8	169.44	7.349		
21,800.0	11,454.0	21,850.7	11,625.0	88.3	81.7	97.85	10,426.0	-206.3	1,245.2	1,075.1	170.09	7.321		
21,850.0	11,454.0	21,900.7	11,625.0	88.6	82.1	97.85	10,476.0	-206.7	1,245.2	1,074.4	170.81	7.290		
21,900.0	11,454.0	21,950.7	11,625.0	88.9	82.4	97.85	10,526.0	-207.2	1,245.2	1,073.7	171.53	7.260		
21,918.8	11,454.0	21,966.2	11,625.0	89.1	82.5	97.85	10,531.4	-207.3	1,245.3	1,073.7	171.62	7.256 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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 10984-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		
0.0	0.0	0.0	0.0	3.0	3.0	89.54	1.0	119.8	119.8					
95.0	95.0	95.0	95.0	3.0	3.0	89.54	1.0	119.8	119.8	113.8	6.03	19.883		
100.0	100.0	100.0	100.0	3.0	3.0	89.54	1.0	119.8	119.8	113.8	6.03	19.871		
190.0	190.0	190.0	190.0	3.1	3.1	89.54	1.0	119.8	119.8	113.7	6.15	19.473		
200.0	200.0	200.0	200.0	3.1	3.1	89.54	1.0	119.8	119.8	113.6	6.17	19.412		
285.0	285.0	285.0	285.0	3.2	3.2	89.54	1.0	119.8	119.8	113.5	6.31	18.984		
300.0	300.0	300.0	300.0	3.2	3.2	89.54	1.0	119.8	119.8	113.5	6.34	18.899		
380.0	380.0	380.0	380.0	3.3	3.3	89.54	1.0	119.8	119.8	113.3	6.49	18.465		
400.0	400.0	400.0	400.0	3.3	3.3	89.54	1.0	119.8	119.8	113.3	6.53	18.349		
475.0	475.0	475.0	475.0	3.4	3.4	89.54	1.0	119.8	119.8	113.1	6.68	17.923		
500.0	500.0	500.0	500.0	3.4	3.4	89.54	1.0	119.8	119.8	113.1	6.74	17.776		
570.0	570.0	570.0	570.0	3.5	3.5	89.54	1.0	119.8	119.8	112.9	6.90	17.369		
600.0	600.0	600.0	600.0	3.5	3.5	89.54	1.0	119.8	119.8	112.8	6.97	17.191		
665.0	665.0	665.0	665.0	3.6	3.6	89.54	1.0	119.8	119.8	112.7	7.13	16.810		
700.0	700.0	700.0	700.0	3.7	3.7	89.54	1.0	119.8	119.8	112.6	7.22	16.603		
760.0	760.0	760.0	760.0	3.8	3.8	89.54	1.0	119.8	119.8	112.4	7.37	16.254		
800.0	800.0	800.0	800.0	3.8	3.8	89.54	1.0	119.8	119.8	112.3	7.48	16.022		
855.0	855.0	855.0	855.0	3.9	3.9	89.54	1.0	119.8	119.8	112.2	7.63	15.707		
900.0	900.0	900.0	900.0	4.0	4.0	89.54	1.0	119.8	119.8	112.1	7.75	15.452		
950.0	950.0	950.0	950.0	4.1	4.1	89.54	1.0	119.8	119.8	111.9	7.90	15.174		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.54	1.0	119.8	119.8	111.8	8.04	14.899 CC, ES		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	179.77	1.0	119.8	120.2	111.9	8.22	14.620		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	179.77	1.0	119.8	121.5	113.1	8.44	14.399		
1,140.0	1,139.9	1,139.9	1,139.9	4.4	4.4	179.78	1.0	119.8	123.2	114.6	8.62	14.292		
1,200.0	1,199.8	1,199.8	1,199.8	4.6	4.5	179.78	1.0	119.8	126.8	117.9	8.90	14.246 SF		
1,235.0	1,234.7	1,234.7	1,234.7	4.7	4.6	179.79	1.0	119.8	129.4	120.4	9.06	14.281		
1,300.0	1,299.5	1,299.5	1,299.5	4.9	4.7	179.80	1.0	119.8	135.5	126.1	9.37	14.455		
1,330.0	1,329.3	1,329.3	1,329.3	5.0	4.7	179.80	1.0	119.8	138.8	129.3	9.52	14.579		
1,400.0	1,398.7	1,398.7	1,398.7	5.2	4.9	179.81	1.0	119.8	147.7	137.8	9.87	14.967		
1,425.0	1,423.4	1,423.4	1,423.4	5.3	4.9	179.82	1.0	119.8	151.3	141.3	9.99	15.135		
1,500.0	1,497.5	1,497.5	1,497.5	5.6	5.1	179.83	1.0	119.8	163.3	152.9	10.38	15.733		
1,520.0	1,517.1	1,517.1	1,517.1	5.6	5.1	179.83	1.0	119.8	166.9	156.4	10.49	15.912		
1,600.0	1,595.6	1,595.6	1,595.6	5.9	5.3	179.85	1.0	119.8	182.4	171.5	10.91	16.712		
1,615.0	1,610.3	1,610.3	1,610.3	6.0	5.3	179.85	1.0	119.8	185.5	174.5	10.99	16.889		
1,700.0	1,693.4	1,693.4	1,693.4	6.2	5.5	179.86	1.0	119.8	203.2	191.8	11.39	17.843		
1,710.0	1,703.2	1,703.2	1,703.2	6.3	5.5	179.86	1.0	119.8	205.3	193.8	11.44	17.949		
1,800.0	1,791.3	1,791.3	1,791.3	6.6	5.7	179.87	1.0	119.8	224.0	212.1	11.88	18.853		
1,805.0	1,796.1	1,796.1	1,796.1	6.6	5.7	179.88	1.0	119.8	225.0	213.1	11.91	18.900		
1,900.0	1,889.1	1,889.1	1,889.1	6.9	5.9	179.89	1.0	119.8	244.8	232.4	12.39	19.750		
1,995.0	1,982.0	1,982.0	1,982.0	7.2	6.0	179.89	1.0	119.8	264.5	251.6	12.90	20.510		
2,000.0	1,986.9	1,986.9	1,986.9	7.3	6.1	179.89	1.0	119.8	265.6	252.6	12.92	20.549		
2,090.0	2,074.9	2,068.1	2,068.1	7.6	6.2	179.90	1.0	120.6	285.2	271.8	13.41	21.269		
2,100.0	2,084.7	2,077.0	2,077.0	7.6	6.2	179.90	1.0	120.8	287.5	274.0	13.46	21.358		
2,185.0	2,167.8	2,151.6	2,151.5	7.9	6.3	179.88	1.1	123.8	308.5	294.6	13.91	22.170		
2,200.0	2,182.5	2,164.7	2,164.6	8.0	6.3	179.88	1.1	124.5	312.4	298.4	13.99	22.325		
2,280.0	2,260.8	2,233.8	2,233.5	8.3	6.4	179.86	1.3	129.3	334.4	320.1	14.37	23.272		
2,300.0	2,280.3	2,251.0	2,250.7	8.4	6.4	179.86	1.3	130.8	340.2	325.8	14.45	23.541		
2,375.0	2,353.7	2,322.7	2,322.1	8.7	6.4	179.83	1.6	137.0	362.1	347.3	14.83	24.419		
2,400.0	2,378.1	2,346.6	2,346.0	8.8	6.5	179.82	1.6	139.1	369.5	354.5	14.97	24.678		
2,470.0	2,446.6	2,413.6	2,412.6	9.1	6.5	179.81	1.8	144.9	389.9	374.5	15.37	25.367		
2,500.0	2,476.0	2,442.3	2,441.2	9.2	6.6	179.80	1.9	147.4	398.7	383.1	15.55	25.644		
2,565.0	2,539.5	2,504.4	2,503.1	9.5	6.6	179.78	2.1	152.9	417.7	401.8	15.93	26.218		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWPO													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 10984-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		
2,600.0	2,573.8	2,537.9	2,536.5	9.6	6.7	179.78	2.2	155.8	427.9	411.8	16.14	26.507		
2,660.0	2,632.5	2,595.3	2,593.6	9.9	6.8	179.76	2.4	160.8	445.5	429.0	16.51	26.979		
2,700.0	2,671.6	2,633.5	2,631.8	10.0	6.9	179.76	2.5	164.1	457.2	440.4	16.76	27.274		
2,755.0	2,725.4	2,686.1	2,684.2	10.3	7.0	179.75	2.7	168.7	473.2	456.1	17.11	27.660		
2,800.0	2,769.4	2,729.2	2,727.0	10.4	7.1	179.74	2.8	172.4	486.4	469.0	17.40	27.958		
2,850.0	2,818.3	2,777.0	2,774.7	10.7	7.2	179.73	3.0	176.6	501.0	483.3	17.72	28.270		
2,900.0	2,867.2	2,824.8	2,822.3	10.9	7.4	179.72	3.1	180.8	515.6	497.6	18.05	28.567		
2,945.0	2,911.2	2,867.8	2,865.2	11.1	7.5	179.72	3.2	184.5	528.8	510.4	18.35	28.818		
3,000.0	2,965.0	2,920.4	2,917.6	11.3	7.6	179.71	3.4	189.1	544.9	526.1	18.72	29.110		
3,040.0	3,004.2	2,958.7	2,955.7	11.5	7.7	179.71	3.5	192.4	556.6	537.6	18.99	29.310		
3,100.0	3,062.8	3,016.1	3,012.8	11.7	7.9	179.70	3.7	197.4	574.1	554.7	19.40	29.596		
3,135.0	3,097.1	3,049.5	3,046.2	11.9	7.9	179.69	3.8	200.3	584.3	564.7	19.64	29.752		
3,200.0	3,160.7	3,111.7	3,108.1	12.2	8.1	179.69	4.0	205.7	603.3	583.2	20.09	30.030		
3,230.0	3,190.0	3,140.4	3,136.7	12.3	8.2	179.68	4.1	208.2	612.1	591.8	20.30	30.151		
3,300.0	3,258.5	3,207.3	3,203.4	12.6	8.4	179.68	4.3	214.1	632.6	611.8	20.79	30.420		
3,325.0	3,282.9	3,231.2	3,227.2	12.7	8.5	179.67	4.3	216.2	639.9	618.9	20.97	30.510		
3,400.0	3,356.3	3,303.0	3,298.6	13.1	8.7	179.67	4.6	222.4	661.8	640.3	21.51	30.770		
3,420.0	3,375.9	3,322.1	3,317.7	13.1	8.7	179.67	4.6	224.1	667.6	646.0	21.65	30.835		
3,500.0	3,454.1	3,398.6	3,393.9	13.5	9.0	179.66	4.9	230.7	691.0	668.8	22.23	31.085		
3,515.0	3,468.8	3,412.9	3,408.2	13.6	9.0	179.66	4.9	232.0	695.4	673.1	22.34	31.129		
3,600.0	3,551.9	3,494.2	3,489.2	13.9	9.3	179.65	5.1	239.1	720.3	697.3	22.96	31.369		
3,610.0	3,561.7	3,503.8	3,498.7	14.0	9.3	179.65	5.2	239.9	723.2	700.2	23.03	31.396		
3,700.0	3,649.7	3,589.8	3,584.4	14.4	9.6	179.64	5.4	247.4	749.5	725.8	23.70	31.626		
3,705.0	3,654.6	3,594.6	3,589.2	14.4	9.6	179.64	5.5	247.8	751.0	727.2	23.74	31.638		
3,800.0	3,747.5	3,685.8	3,680.0	14.8	9.8	179.64	5.7	255.8	778.7	754.3	24.43	31.879		
3,895.0	3,840.5	3,783.6	3,777.4	15.3	10.1	179.63	6.0	263.8	806.1	780.9	25.18	32.009		
3,900.0	3,845.4	3,788.7	3,782.6	15.3	10.2	179.63	6.0	264.2	807.5	782.3	25.22	32.014		
3,990.0	3,933.4	3,881.8	3,875.4	15.7	10.5	179.63	6.3	271.1	832.6	806.7	25.95	32.088		
4,000.0	3,943.2	3,892.2	3,885.7	15.7	10.5	179.63	6.3	271.8	835.4	809.4	26.03	32.094		
4,085.0	4,026.3	3,980.5	3,973.9	16.1	10.8	179.63	6.5	277.5	858.4	831.7	26.71	32.134		
4,100.0	4,041.0	3,996.1	3,989.5	16.2	10.8	179.63	6.5	278.5	862.4	835.6	26.83	32.138		
4,180.0	4,119.2	4,079.7	4,072.9	16.6	11.1	179.63	6.7	283.1	883.4	855.9	27.48	32.152		
4,200.0	4,138.8	4,100.6	4,093.9	16.7	11.1	179.63	6.7	284.2	888.6	860.9	27.64	32.152		
4,275.0	4,212.2	4,179.3	4,172.5	17.0	11.4	179.63	6.9	287.9	907.6	879.4	28.23	32.146		
4,300.0	4,236.6	4,205.6	4,198.8	17.1	11.4	179.63	6.9	289.1	913.8	885.4	28.43	32.141		
4,370.0	4,305.1	4,279.5	4,272.5	17.4	11.7	179.63	7.0	291.9	931.0	902.0	28.98	32.121		
4,400.0	4,334.4	4,311.2	4,304.2	17.6	11.7	179.63	7.0	292.9	938.2	909.0	29.22	32.109		
4,465.0	4,398.0	4,380.0	4,373.0	17.9	11.9	179.63	7.1	295.0	953.6	923.9	29.73	32.080		
4,500.0	4,432.3	4,417.1	4,410.1	18.0	12.0	179.64	7.1	295.9	961.7	931.7	29.99	32.063		
4,560.0	4,490.9	4,481.0	4,473.9	18.3	12.2	179.64	7.2	297.2	975.4	944.9	30.45	32.030		
4,600.0	4,530.1	4,523.6	4,516.6	18.5	12.3	179.64	7.2	297.8	984.3	953.5	30.75	32.010		
4,655.0	4,583.9	4,582.3	4,575.3	18.7	12.4	179.64	7.2	298.5	996.3	965.2	31.15	31.981		
4,700.0	4,627.9	4,630.5	4,623.5	18.9	12.5	179.65	7.2	298.8	1,006.0	974.5	31.45	31.985		
4,750.0	4,676.8	4,684.1	4,677.1	19.2	12.6	179.65	7.2	298.9	1,016.5	984.7	31.76	32.005		
4,800.0	4,725.7	4,732.7	4,725.7	19.4	12.6	179.66	7.2	298.9	1,026.9	994.9	32.01	32.083		
4,845.0	4,769.7	4,776.7	4,769.7	19.6	12.6	179.66	7.2	298.9	1,036.2	1,004.0	32.24	32.141		
4,900.0	4,823.5	4,830.5	4,823.5	19.9	12.7	179.66	7.2	298.9	1,047.7	1,015.1	32.53	32.210		
4,940.0	4,862.6	4,869.7	4,862.6	20.1	12.7	179.66	7.2	298.9	1,056.0	1,023.2	32.73	32.259		
5,000.0	4,921.3	4,928.4	4,921.3	20.3	12.7	179.67	7.2	298.9	1,068.4	1,035.4	33.05	32.332		
5,035.0	4,955.6	4,962.6	4,955.6	20.5	12.7	179.67	7.2	298.9	1,075.7	1,042.5	33.23	32.374		
5,100.0	5,019.1	5,026.2	5,019.1	20.8	12.8	179.67	7.2	298.9	1,089.2	1,055.7	33.57	32.450		
5,130.0	5,048.5	5,055.5	5,048.5	20.9	12.8	179.68	7.2	298.9	1,095.5	1,061.7	33.72	32.484		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Offset Design: ZIA HILLS UNIT 2331 PROJECT - ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 2000-r.5 MWD+IFR1, 10984-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)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.0	5,117.0	5,124.0	5,117.0	21.3	12.8	179.68	7.2	298.9	1,110.0	1,075.9	34.09	32.563		
5,225.0	5,141.4	5,148.4	5,141.4	21.4	12.9	179.68	7.2	298.9	1,115.2	1,081.0	34.22	32.591		
5,300.0	5,214.8	5,221.8	5,214.8	21.7	12.9	179.69	7.2	298.9	1,130.8	1,096.2	34.61	32.672		
5,320.0	5,234.3	5,241.4	5,234.3	21.8	12.9	179.69	7.2	298.9	1,135.0	1,100.3	34.72	32.693		
5,400.0	5,312.6	5,319.6	5,312.6	22.2	13.0	179.69	7.2	298.9	1,151.6	1,116.5	35.13	32.777		
5,415.0	5,327.3	5,334.3	5,327.3	22.3	13.0	179.69	7.2	298.9	1,154.7	1,119.5	35.21	32.793		
5,500.0	5,410.4	5,417.4	5,410.4	22.7	13.0	179.70	7.2	298.9	1,172.4	1,136.7	35.66	32.879		
5,510.0	5,420.2	5,427.2	5,420.2	22.7	13.0	179.70	7.2	298.9	1,174.5	1,138.8	35.71	32.889		
5,600.0	5,508.2	5,515.2	5,508.2	23.1	13.1	179.70	7.2	298.9	1,193.2	1,157.0	36.18	32.976		
5,605.0	5,513.1	5,520.1	5,513.1	23.1	13.1	179.70	7.2	298.9	1,194.2	1,158.0	36.21	32.981		
5,700.0	5,606.0	5,613.1	5,606.0	23.6	13.1	179.71	7.2	298.9	1,214.0	1,177.3	36.71	33.071		
5,795.0	5,699.0	5,706.0	5,699.0	24.0	13.2	179.71	7.2	298.9	1,233.7	1,196.5	37.21	33.158		
5,800.0	5,703.8	5,710.9	5,703.8	24.0	13.2	179.71	7.2	298.9	1,234.8	1,197.5	37.23	33.162		
5,890.0	5,791.9	5,798.9	5,791.9	24.5	13.2	179.72	7.2	298.9	1,253.5	1,215.8	37.71	33.242		
5,900.0	5,801.7	5,808.7	5,801.7	24.5	13.3	179.72	7.2	298.9	1,255.6	1,217.8	37.76	33.250		
5,985.0	5,884.8	5,891.8	5,884.8	24.9	13.3	179.72	7.2	298.9	1,273.2	1,235.0	38.21	33.323		
6,000.0	5,899.5	5,906.5	5,899.5	25.0	13.3	179.72	7.2	298.9	1,276.4	1,238.1	38.29	33.335		
6,080.0	5,977.7	5,984.8	5,977.7	25.4	13.4	179.73	7.2	298.9	1,293.0	1,254.3	38.71	33.402		
6,100.0	5,997.3	6,004.3	5,997.3	25.5	13.4	179.73	7.2	298.9	1,297.1	1,258.3	38.82	33.418		
6,175.0	6,070.6	6,077.7	6,070.6	25.8	13.4	179.73	7.2	298.9	1,312.7	1,273.5	39.21	33.478		
6,200.0	6,095.1	6,102.1	6,095.1	25.9	13.4	179.73	7.2	298.9	1,317.9	1,278.6	39.34	33.498		

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset 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, 2000-r.5 MWD+IFR1, 11182-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		
0.0	0.0	0.0	0.0	3.0	3.0	89.55	1.2	150.3	150.3					
95.0	95.0	95.0	95.0	3.0	3.0	89.55	1.2	150.3	150.3	144.2	6.03	24.938		
100.0	100.0	100.0	100.0	3.0	3.0	89.55	1.2	150.3	150.3	144.2	6.03	24.924		
190.0	190.0	190.0	190.0	3.1	3.1	89.55	1.2	150.3	150.3	144.1	6.15	24.424		
200.0	200.0	200.0	200.0	3.1	3.1	89.55	1.2	150.3	150.3	144.1	6.17	24.347		
285.0	285.0	285.0	285.0	3.2	3.2	89.55	1.2	150.3	150.3	144.0	6.31	23.811		
300.0	300.0	300.0	300.0	3.2	3.2	89.55	1.2	150.3	150.3	143.9	6.34	23.704		
380.0	380.0	380.0	380.0	3.3	3.3	89.55	1.2	150.3	150.3	143.8	6.49	23.160		
400.0	400.0	400.0	400.0	3.3	3.3	89.55	1.2	150.3	150.3	143.7	6.53	23.015		
475.0	475.0	475.0	475.0	3.4	3.4	89.55	1.2	150.3	150.3	143.6	6.68	22.481		
500.0	500.0	500.0	500.0	3.4	3.4	89.55	1.2	150.3	150.3	143.5	6.74	22.295		
570.0	570.0	570.0	570.0	3.5	3.5	89.55	1.2	150.3	150.3	143.4	6.90	21.785		
600.0	600.0	600.0	600.0	3.5	3.5	89.55	1.2	150.3	150.3	143.3	6.97	21.561		
665.0	665.0	665.0	665.0	3.6	3.6	89.55	1.2	150.3	150.3	143.1	7.13	21.084		
700.0	700.0	700.0	700.0	3.7	3.7	89.55	1.2	150.3	150.3	143.0	7.22	20.825		
760.0	760.0	760.0	760.0	3.8	3.8	89.55	1.2	150.3	150.3	142.9	7.37	20.387		
800.0	800.0	800.0	800.0	3.8	3.8	89.55	1.2	150.3	150.3	142.8	7.48	20.095		
855.0	855.0	855.0	855.0	3.9	3.9	89.55	1.2	150.3	150.3	142.6	7.63	19.701		
900.0	900.0	900.0	900.0	4.0	4.0	89.55	1.2	150.3	150.3	142.5	7.75	19.381		
950.0	950.0	950.0	950.0	4.1	4.1	89.55	1.2	150.3	150.3	142.4	7.90	19.032		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.55	1.2	150.3	150.3	142.2	8.04	18.687 CC, ES		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	179.78	1.2	150.3	150.6	142.4	8.22	18.326		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	179.79	1.2	150.3	152.0	143.6	8.44	18.007		
1,140.0	1,139.9	1,139.9	1,139.9	4.4	4.4	179.79	1.2	150.3	153.7	145.1	8.62	17.825		
1,200.0	1,199.8	1,199.8	1,199.8	4.6	4.5	179.79	1.2	150.3	157.2	148.3	8.90	17.669		
1,235.0	1,234.7	1,234.7	1,234.7	4.7	4.6	179.80	1.2	150.3	159.9	150.8	9.06	17.642 SF		
1,300.0	1,299.5	1,299.5	1,299.5	4.9	4.7	179.80	1.2	150.3	166.0	156.6	9.37	17.705		
1,330.0	1,329.3	1,329.3	1,329.3	5.0	4.7	179.81	1.2	150.3	169.3	159.7	9.52	17.778		
1,400.0	1,398.7	1,398.7	1,398.7	5.2	4.9	179.82	1.2	150.3	178.1	168.3	9.87	18.054		
1,425.0	1,423.4	1,423.4	1,423.4	5.3	4.9	179.82	1.2	150.3	181.7	171.7	9.99	18.183		
1,500.0	1,497.5	1,497.5	1,497.5	5.6	5.1	179.83	1.2	150.3	193.8	183.4	10.38	18.667		
1,520.0	1,517.1	1,517.1	1,517.1	5.6	5.1	179.83	1.2	150.3	197.3	186.8	10.49	18.817		
1,600.0	1,595.6	1,595.6	1,595.6	5.9	5.3	179.84	1.2	150.3	212.9	202.0	10.91	19.503		
1,615.0	1,610.3	1,610.3	1,610.3	6.0	5.3	179.85	1.2	150.3	216.0	205.0	10.99	19.662		
1,700.0	1,693.4	1,693.4	1,693.4	6.2	5.5	179.86	1.2	150.3	233.7	222.3	11.39	20.518		
1,710.0	1,703.2	1,703.2	1,703.2	6.3	5.5	179.86	1.2	150.3	235.7	224.3	11.44	20.612		
1,800.0	1,791.3	1,791.3	1,791.3	6.6	5.7	179.87	1.2	150.3	254.4	242.6	11.88	21.417		
1,805.0	1,796.1	1,796.1	1,796.1	6.6	5.7	179.87	1.2	150.3	255.5	243.6	11.91	21.458		
1,900.0	1,889.1	1,889.1	1,889.1	6.9	5.9	179.88	1.2	150.3	275.2	262.8	12.39	22.208		
1,995.0	1,982.0	1,982.0	1,982.0	7.2	6.0	179.89	1.2	150.3	295.0	282.1	12.90	22.872		
2,000.0	1,986.9	1,986.9	1,986.9	7.3	6.1	179.89	1.2	150.3	296.0	283.1	12.92	22.905		
2,090.0	2,074.9	2,067.5	2,067.5	7.6	6.2	179.89	1.2	151.1	315.6	302.2	13.41	23.542		
2,100.0	2,084.7	2,076.2	2,076.2	7.6	6.2	179.89	1.2	151.3	317.9	304.5	13.46	23.623		
2,185.0	2,167.8	2,150.2	2,150.1	7.9	6.3	179.89	1.2	154.2	338.9	325.0	13.91	24.361		
2,200.0	2,182.5	2,163.1	2,163.0	8.0	6.3	179.89	1.2	154.9	342.8	328.8	13.99	24.503		
2,280.0	2,260.8	2,231.6	2,231.3	8.3	6.4	179.89	1.3	159.6	364.8	350.4	14.41	25.306		
2,300.0	2,280.3	2,248.5	2,248.2	8.4	6.4	179.89	1.3	161.0	370.6	356.1	14.52	25.520		
2,375.0	2,353.7	2,311.6	2,311.0	8.7	6.5	179.89	1.4	167.2	393.3	378.3	14.92	26.359		
2,400.0	2,378.1	2,332.4	2,331.7	8.8	6.5	179.88	1.5	169.5	401.2	386.1	15.05	26.650		
2,470.0	2,446.6	2,390.2	2,389.0	9.1	6.6	179.88	1.6	176.8	424.2	408.8	15.42	27.503		
2,500.0	2,476.0	2,417.0	2,415.5	9.2	6.7	179.88	1.6	180.5	434.5	418.9	15.59	27.864		
2,565.0	2,539.5	2,478.0	2,476.0	9.5	6.8	179.87	1.7	189.0	456.7	440.7	15.97	28.591		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset 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, 2000-r.5 MWD+IFR1, 11182-r.5 MWD+IFR1+MS		Offset		Semi Major Axis			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)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
2,600.0	2,573.8	2,510.9	2,508.5	9.6	6.9	179.87	1.8	193.6	468.7	452.5	16.18	28.962			
2,660.0	2,632.5	2,567.3	2,564.4	9.9	7.0	179.86	1.9	201.4	489.2	472.6	16.55	29.559			
2,700.0	2,671.6	2,604.9	2,601.6	10.0	7.1	179.86	2.0	206.6	502.9	486.1	16.80	29.940			
2,755.0	2,725.4	2,656.6	2,652.8	10.3	7.2	179.85	2.1	213.8	521.7	504.5	17.14	30.427			
2,800.0	2,769.4	2,698.9	2,694.7	10.4	7.3	179.85	2.2	219.7	537.1	519.6	17.43	30.810			
2,850.0	2,818.3	2,745.9	2,741.2	10.7	7.4	179.85	2.3	226.3	554.2	536.4	17.76	31.204			
2,900.0	2,867.2	2,792.8	2,787.7	10.9	7.5	179.85	2.4	232.8	571.3	553.2	18.09	31.582			
2,945.0	2,911.2	2,835.1	2,829.6	11.1	7.7	179.84	2.5	238.7	586.7	568.3	18.39	31.900			
3,000.0	2,965.0	2,886.8	2,880.8	11.3	7.8	179.84	2.6	245.9	605.5	586.7	18.76	32.271			
3,040.0	3,004.2	2,924.4	2,918.0	11.5	7.9	179.84	2.6	251.1	619.1	600.1	19.04	32.524			
3,100.0	3,062.8	2,980.8	2,973.8	11.7	8.1	179.84	2.8	259.0	639.7	620.2	19.45	32.884			
3,135.0	3,097.1	3,013.7	3,006.4	11.9	8.2	179.83	2.8	263.5	651.6	631.9	19.70	33.083			
3,200.0	3,160.7	3,074.7	3,066.9	12.2	8.3	179.83	3.0	272.0	673.9	653.7	20.16	33.432			
3,230.0	3,190.0	3,102.9	3,094.8	12.3	8.4	179.83	3.0	276.0	684.1	663.8	20.37	33.586			
3,300.0	3,258.5	3,168.7	3,159.9	12.6	8.6	179.83	3.1	285.1	708.1	687.2	20.87	33.922			
3,325.0	3,282.9	3,192.2	3,183.2	12.7	8.7	179.83	3.2	288.4	716.6	695.6	21.05	34.037			
3,400.0	3,356.3	3,262.7	3,253.0	13.1	8.9	179.82	3.3	298.2	742.3	720.7	21.60	34.360			
3,420.0	3,375.9	3,281.5	3,271.6	13.1	9.0	179.82	3.4	300.8	749.1	727.4	21.75	34.443			
3,500.0	3,454.1	3,356.7	3,346.0	13.5	9.2	179.82	3.5	311.3	776.5	754.1	22.34	34.754			
3,515.0	3,468.8	3,370.7	3,360.0	13.6	9.3	179.82	3.6	313.2	781.6	759.1	22.45	34.809			
3,600.0	3,551.9	3,450.6	3,439.1	13.9	9.6	179.82	3.7	324.3	810.7	787.6	23.09	35.108			
3,610.0	3,561.7	3,460.0	3,448.4	14.0	9.6	179.82	3.7	325.6	814.1	790.9	23.17	35.141			
3,700.0	3,649.7	3,544.6	3,532.2	14.4	9.9	179.82	3.9	337.4	844.9	821.0	23.85	35.427			
3,705.0	3,654.6	3,549.3	3,536.8	14.4	9.9	179.82	3.9	338.1	846.6	822.7	23.89	35.442			
3,800.0	3,747.5	3,638.6	3,625.2	14.8	10.2	179.81	4.1	350.5	879.1	854.5	24.61	35.715			
3,895.0	3,840.5	3,727.8	3,713.6	15.3	10.5	179.81	4.3	362.9	911.6	886.2	25.35	35.963			
3,900.0	3,845.4	3,732.5	3,718.3	15.3	10.5	179.81	4.3	363.6	913.3	887.9	25.39	35.975			
3,990.0	3,933.4	3,817.1	3,802.0	15.7	10.8	179.81	4.5	375.3	944.1	918.0	26.09	36.189			
4,000.0	3,943.2	3,826.5	3,811.3	15.7	10.9	179.81	4.5	376.6	947.5	921.3	26.17	36.211			
4,085.0	4,026.3	3,906.4	3,890.4	16.1	11.2	179.81	4.7	387.8	976.5	949.7	26.83	36.395			
4,100.0	4,041.0	3,920.5	3,904.4	16.2	11.2	179.81	4.7	389.7	981.7	954.7	26.95	36.426			
4,180.0	4,119.2	3,995.6	3,978.8	16.6	11.5	179.80	4.8	400.2	1,009.0	981.5	27.58	36.583			
4,200.0	4,138.8	4,014.4	3,997.4	16.7	11.6	179.80	4.9	402.8	1,015.9	988.1	27.74	36.621			
4,275.0	4,212.2	4,084.9	4,067.2	17.0	11.8	179.80	5.0	412.6	1,041.5	1,013.2	28.34	36.756			
4,300.0	4,236.6	4,108.4	4,090.5	17.1	11.9	179.80	5.1	415.9	1,050.1	1,021.5	28.54	36.799			
4,370.0	4,305.1	4,174.2	4,155.6	17.4	12.2	179.80	5.2	425.0	1,074.0	1,044.9	29.10	36.914			
4,400.0	4,334.4	4,202.4	4,183.5	17.6	12.3	179.80	5.3	429.0	1,084.3	1,054.9	29.34	36.962			
4,465.0	4,398.0	4,263.5	4,244.0	17.9	12.5	179.80	5.4	437.5	1,106.5	1,076.7	29.86	37.060			
4,500.0	4,432.3	4,296.3	4,276.6	18.0	12.6	179.80	5.4	442.0	1,118.5	1,088.3	30.14	37.111			
4,560.0	4,490.9	4,352.7	4,332.4	18.3	12.9	179.80	5.6	449.9	1,139.0	1,108.4	30.62	37.194			
4,600.0	4,530.1	4,390.3	4,369.6	18.5	13.0	179.80	5.6	455.1	1,152.7	1,121.7	30.95	37.247			
4,655.0	4,583.9	4,442.0	4,420.8	18.7	13.2	179.80	5.7	462.3	1,171.5	1,140.1	31.39	37.317			
4,700.0	4,627.9	4,484.3	4,462.7	18.9	13.4	179.80	5.8	468.2	1,186.9	1,155.1	31.76	37.372			
4,750.0	4,676.8	4,531.3	4,509.2	19.2	13.5	179.80	5.9	474.7	1,204.0	1,171.8	32.17	37.431			
4,800.0	4,725.7	4,578.3	4,555.8	19.4	13.7	179.80	6.0	481.3	1,221.1	1,188.5	32.57	37.488			
4,845.0	4,769.7	4,620.5	4,597.6	19.6	13.9	179.80	6.1	487.1	1,236.5	1,203.5	32.94	37.537			
4,900.0	4,823.5	4,672.2	4,648.8	19.9	14.1	179.79	6.2	494.3	1,255.3	1,221.9	33.39	37.594			
4,940.0	4,862.6	4,709.8	4,686.0	20.1	14.2	179.79	6.3	499.6	1,269.0	1,235.3	33.72	37.635			
5,000.0	4,921.3	4,766.2	4,741.9	20.3	14.5	179.79	6.4	507.4	1,289.5	1,255.3	34.21	37.693			
5,035.0	4,955.6	4,799.1	4,774.4	20.5	14.6	179.79	6.5	512.0	1,301.5	1,267.0	34.50	37.725			

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

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Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset 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, 11062-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		
0.0	0.0	0.0	0.0	3.0	3.0	89.59	1.3	180.3	180.3					
95.0	95.0	95.0	95.0	3.0	3.0	89.59	1.3	180.3	180.3	174.2	6.03	29.917		
100.0	100.0	100.0	100.0	3.0	3.0	89.59	1.3	180.3	180.3	174.2	6.03	29.900		
190.0	190.0	190.0	190.0	3.1	3.1	89.59	1.3	180.3	180.3	174.1	6.15	29.300		
200.0	200.0	200.0	200.0	3.1	3.1	89.59	1.3	180.3	180.3	174.1	6.17	29.208		
285.0	285.0	285.0	285.0	3.2	3.2	89.59	1.3	180.3	180.3	174.0	6.31	28.565		
300.0	300.0	300.0	300.0	3.2	3.2	89.59	1.3	180.3	180.3	173.9	6.34	28.437		
380.0	380.0	380.0	380.0	3.3	3.3	89.59	1.3	180.3	180.3	173.8	6.49	27.784		
400.0	400.0	400.0	400.0	3.3	3.3	89.59	1.3	180.3	180.3	173.7	6.53	27.610		
475.0	475.0	475.0	475.0	3.4	3.4	89.59	1.3	180.3	180.3	173.6	6.68	26.969		
500.0	500.0	500.0	500.0	3.4	3.4	89.59	1.3	180.3	180.3	173.5	6.74	26.747		
570.0	570.0	570.0	570.0	3.5	3.5	89.59	1.3	180.3	180.3	173.4	6.90	26.134		
600.0	600.0	600.0	600.0	3.5	3.5	89.59	1.3	180.3	180.3	173.3	6.97	25.866		
665.0	665.0	665.0	665.0	3.6	3.6	89.59	1.3	180.3	180.3	173.1	7.13	25.293		
700.0	700.0	700.0	700.0	3.7	3.7	89.59	1.3	180.3	180.3	173.0	7.22	24.982		
760.0	760.0	760.0	760.0	3.8	3.8	89.59	1.3	180.3	180.3	172.9	7.37	24.457		
800.0	800.0	800.0	800.0	3.8	3.8	89.59	1.3	180.3	180.3	172.8	7.48	24.107		
855.0	855.0	855.0	855.0	3.9	3.9	89.59	1.3	180.3	180.3	172.6	7.63	23.635		
900.0	900.0	900.0	900.0	4.0	4.0	89.59	1.3	180.3	180.3	172.5	7.75	23.250		
950.0	950.0	950.0	950.0	4.1	4.1	89.59	1.3	180.3	180.3	172.4	7.90	22.831		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.59	1.3	180.3	180.3	172.2	8.04	22.417 CC, ES		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	179.82	1.3	180.3	180.6	172.4	8.22	21.977		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	179.82	1.3	180.3	182.0	173.6	8.44	21.561		
1,140.0	1,139.9	1,139.9	1,139.9	4.4	4.4	179.82	1.3	180.3	183.7	175.1	8.62	21.304		
1,200.0	1,199.8	1,199.8	1,199.8	4.6	4.5	179.82	1.3	180.3	187.2	178.3	8.90	21.040		
1,235.0	1,234.7	1,234.7	1,234.7	4.7	4.6	179.83	1.3	180.3	189.9	180.8	9.06	20.952		
1,300.0	1,299.5	1,299.5	1,299.5	4.9	4.7	179.83	1.3	180.3	196.0	186.6	9.37	20.905 SF		
1,330.0	1,329.3	1,329.3	1,329.3	5.0	4.7	179.83	1.3	180.3	199.3	189.7	9.52	20.930		
1,400.0	1,398.7	1,398.7	1,398.7	5.2	4.9	179.84	1.3	180.3	208.1	198.3	9.87	21.095		
1,425.0	1,423.4	1,423.4	1,423.4	5.3	4.9	179.84	1.3	180.3	211.7	201.7	9.99	21.185		
1,500.0	1,497.5	1,497.5	1,497.5	5.6	5.1	179.85	1.3	180.3	223.8	213.4	10.38	21.557		
1,520.0	1,517.1	1,515.9	1,515.9	5.6	5.1	179.85	1.3	180.3	227.4	216.9	10.49	21.667		
1,600.0	1,595.6	1,588.1	1,588.1	5.9	5.2	179.86	1.3	181.6	244.3	233.4	10.95	22.318		
1,615.0	1,610.3	1,600.0	1,600.0	6.0	5.2	179.86	1.3	182.0	247.9	236.9	11.02	22.509		
1,700.0	1,693.4	1,676.9	1,676.8	6.2	5.3	179.86	1.4	185.7	269.6	258.2	11.46	23.537		
1,710.0	1,703.2	1,685.7	1,685.6	6.3	5.3	179.86	1.4	186.3	272.3	260.8	11.51	23.665		
1,800.0	1,791.3	1,764.2	1,763.8	6.6	5.5	179.86	1.5	192.4	297.9	285.9	11.97	24.876		
1,805.0	1,796.1	1,768.5	1,768.1	6.6	5.5	179.86	1.5	192.8	299.4	287.4	12.00	24.945		
1,900.0	1,889.1	1,849.9	1,849.0	6.9	5.7	179.86	1.6	201.6	329.0	316.5	12.50	26.312		
1,995.0	1,982.0	1,929.6	1,928.0	7.2	6.0	179.85	1.7	212.4	361.2	348.2	13.02	27.746		
2,000.0	1,986.9	1,933.8	1,932.1	7.3	6.0	179.85	1.7	213.0	363.0	349.9	13.05	27.823		
2,090.0	2,074.9	2,007.8	2,005.1	7.6	6.2	179.85	1.9	225.1	395.8	382.3	13.53	29.263		
2,100.0	2,084.7	2,015.9	2,013.1	7.6	6.2	179.85	1.9	226.6	399.6	386.0	13.57	29.448		
2,185.0	2,167.8	2,089.4	2,085.3	7.9	6.4	179.84	2.1	240.4	432.6	418.6	13.99	30.927		
2,200.0	2,182.5	2,103.2	2,098.9	8.0	6.4	179.84	2.1	243.0	438.5	424.4	14.07	31.159		
2,280.0	2,260.8	2,176.8	2,171.1	8.3	6.6	179.83	2.3	257.1	469.7	455.1	14.57	32.230		
2,300.0	2,280.3	2,195.3	2,189.2	8.4	6.7	179.83	2.4	260.6	477.5	462.8	14.70	32.484		
2,375.0	2,353.7	2,264.3	2,257.0	8.7	6.9	179.82	2.5	273.8	506.8	491.6	15.19	33.365		
2,400.0	2,378.1	2,287.3	2,279.6	8.8	6.9	179.82	2.6	278.2	516.6	501.2	15.35	33.644		
2,470.0	2,446.6	2,351.7	2,342.8	9.1	7.1	179.82	2.7	290.5	543.9	528.1	15.83	34.367		
2,500.0	2,476.0	2,379.4	2,369.9	9.2	7.2	179.82	2.8	295.7	555.7	539.6	16.03	34.660		
2,565.0	2,539.5	2,439.2	2,428.7	9.5	7.4	179.81	3.0	307.1	581.1	564.6	16.48	35.252		

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 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset 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, 11062-r.5 MWD+IFR1+MS														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		
2,600.0	2,573.8	2,471.4	2,460.3	9.6	7.5	179.81	3.0	313.3	594.7	578.0	16.73	35.552			
2,660.0	2,632.5	2,526.6	2,514.5	9.9	7.7	179.81	3.2	323.8	618.2	601.0	17.16	36.034			
2,700.0	2,671.6	2,563.5	2,550.6	10.0	7.8	179.81	3.3	330.9	633.8	616.4	17.44	36.336			
2,755.0	2,725.4	2,614.1	2,600.3	10.3	8.0	179.81	3.4	340.5	655.3	637.5	17.84	36.727			
2,800.0	2,769.4	2,655.5	2,641.0	10.4	8.2	179.81	3.5	348.4	672.9	654.7	18.17	37.027			
2,850.0	2,818.3	2,701.5	2,686.2	10.7	8.3	179.80	3.6	357.2	692.4	673.9	18.54	37.343			
2,900.0	2,867.2	2,747.6	2,731.4	10.9	8.5	179.80	3.7	366.0	712.0	693.0	18.92	37.638			
2,945.0	2,911.2	2,789.0	2,772.0	11.1	8.6	179.80	3.8	373.9	729.5	710.3	19.25	37.890			
3,000.0	2,965.0	2,839.6	2,821.7	11.3	8.8	179.80	4.0	383.5	751.0	731.4	19.67	38.179			
3,040.0	3,004.2	2,876.4	2,857.9	11.5	9.0	179.80	4.1	390.6	766.7	746.7	19.98	38.378			
3,100.0	3,062.8	2,931.7	2,912.1	11.7	9.2	179.80	4.2	401.1	790.1	769.7	20.44	38.660			
3,135.0	3,097.1	2,963.9	2,943.7	11.9	9.3	179.80	4.3	407.3	803.8	783.1	20.71	38.814			
3,200.0	3,160.7	3,023.7	3,002.4	12.2	9.5	179.79	4.4	418.7	829.2	808.0	21.21	39.088			
3,230.0	3,190.0	3,051.3	3,029.6	12.3	9.6	179.79	4.5	423.9	840.9	819.5	21.45	39.206			
3,300.0	3,258.5	3,115.8	3,092.8	12.6	9.9	179.79	4.7	436.2	868.3	846.3	22.00	39.470			
3,325.0	3,282.9	3,138.8	3,115.4	12.7	10.0	179.79	4.7	440.6	878.0	855.8	22.20	39.559			
3,400.0	3,356.3	3,207.8	3,183.2	13.1	10.3	179.79	4.9	453.8	907.3	884.5	22.79	39.813			
3,420.0	3,375.9	3,226.2	3,201.2	13.1	10.3	179.79	4.9	457.3	915.1	892.2	22.95	39.877			
3,500.0	3,454.1	3,299.9	3,273.5	13.5	10.6	179.79	5.1	471.4	946.4	922.8	23.59	40.121			
3,515.0	3,468.8	3,313.7	3,287.1	13.6	10.7	179.79	5.1	474.0	952.3	928.6	23.71	40.164			
3,600.0	3,551.9	3,391.9	3,363.9	13.9	11.0	179.79	5.3	488.9	985.5	961.1	24.39	40.398			
3,610.0	3,561.7	3,401.1	3,372.9	14.0	11.0	179.79	5.4	490.7	989.4	964.9	24.47	40.424			
3,700.0	3,649.7	3,484.0	3,454.2	14.4	11.4	179.79	5.6	506.5	1,024.5	999.3	25.20	40.648			
3,705.0	3,654.6	3,488.6	3,458.8	14.4	11.4	179.79	5.6	507.4	1,026.5	1,001.3	25.25	40.660			
3,800.0	3,747.5	3,576.0	3,544.6	14.8	11.8	179.78	5.8	524.0	1,063.6	1,037.6	26.02	40.875			
3,895.0	3,840.5	3,663.5	3,630.4	15.3	12.1	179.78	6.0	540.7	1,100.7	1,073.9	26.80	41.071			
3,900.0	3,845.4	3,668.1	3,635.0	15.3	12.2	179.78	6.0	541.6	1,102.7	1,075.8	26.84	41.081			
3,990.0	3,933.4	3,750.9	3,716.3	15.7	12.5	179.78	6.2	557.4	1,137.9	1,110.3	27.58	41.251			
4,000.0	3,943.2	3,760.1	3,725.3	15.7	12.5	179.78	6.3	559.2	1,141.8	1,114.1	27.67	41.269			
4,085.0	4,026.3	3,838.4	3,802.1	16.1	12.9	179.78	6.5	574.1	1,175.0	1,146.6	28.37	41.415			
4,100.0	4,041.0	3,852.2	3,815.7	16.2	12.9	179.78	6.5	576.7	1,180.8	1,152.3	28.50	41.440			
4,180.0	4,119.2	3,925.8	3,888.0	16.6	13.3	179.78	6.7	590.8	1,212.1	1,182.9	29.16	41.566			
4,200.0	4,138.8	3,944.2	3,906.0	16.7	13.3	179.78	6.7	594.3	1,219.9	1,190.6	29.33	41.596			
4,275.0	4,212.2	4,013.3	3,973.8	17.0	13.6	179.78	6.9	607.5	1,249.2	1,219.3	29.95	41.705			
4,300.0	4,236.6	4,036.3	3,996.4	17.1	13.7	179.78	6.9	611.9	1,259.0	1,228.8	30.16	41.739			
4,370.0	4,305.1	4,100.7	4,059.7	17.4	14.0	179.78	7.1	624.1	1,286.3	1,255.6	30.75	41.833			
4,400.0	4,334.4	4,128.3	4,086.8	17.6	14.1	179.78	7.2	629.4	1,298.1	1,267.1	31.00	41.871			

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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company: DELAWARE BASIN EAST
Project: BULLDOG PROSPECT (NM-E)
Reference Site: ZIA HILLS UNIT 2331 PROJECT
Site Error: 0.0 usft
Reference Well: ZIA HILLS UNIT 2331 WC #707H
Well Error: 3.0 usft
Reference Wellbore: OWB
Reference Design: PWP0

Local Co-ordinate Reference: Well ZIA HILLS UNIT 2331 WC #707H
TVD Reference: KB=31ft @ 3195.0usft
MD Reference: KB=31ft @ 3195.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDT 15 Central Prod
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=31ft @ 3195.0usft

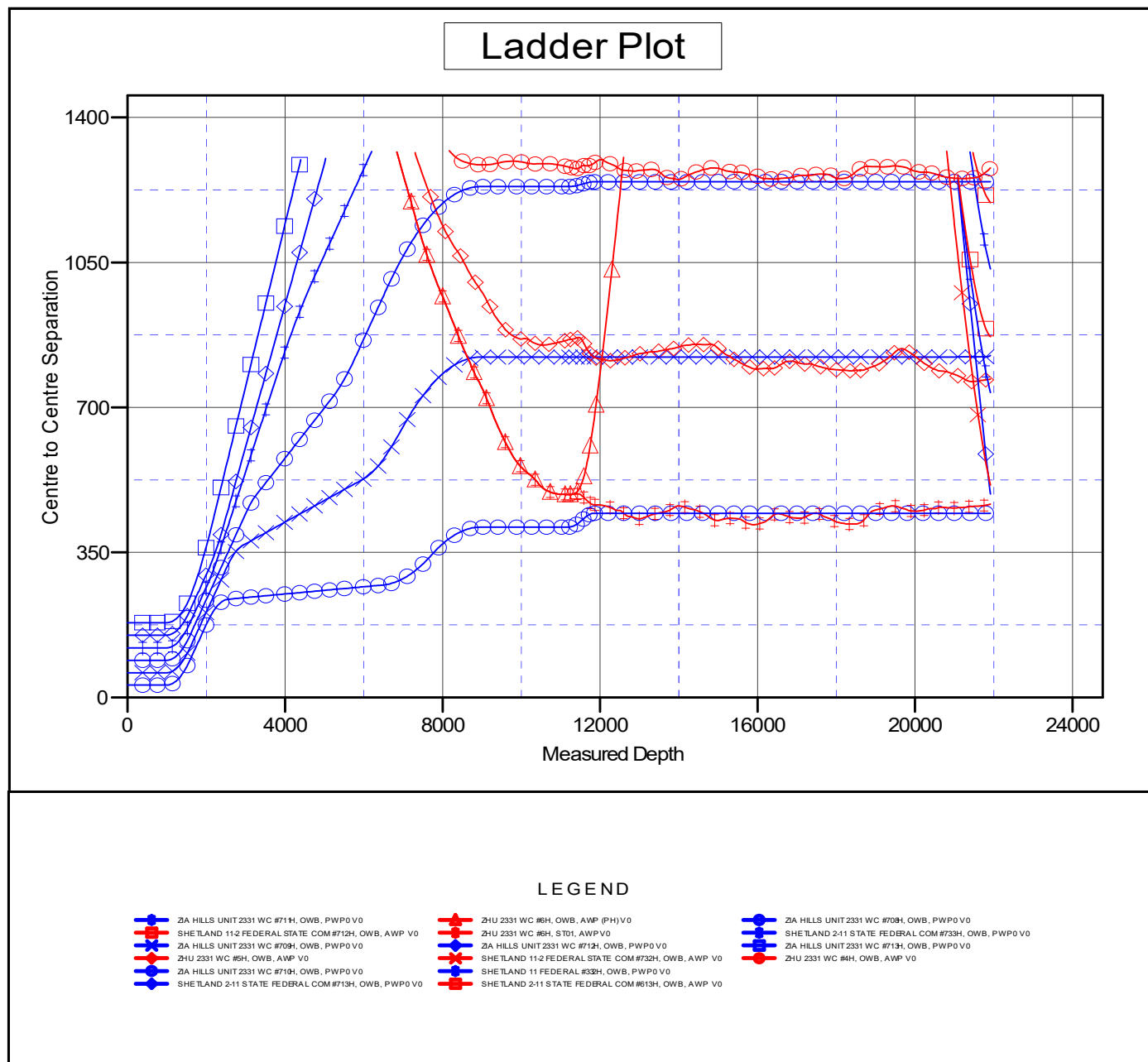
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2331 WC #707H

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

Grid Convergence at Surface is: 0.31°



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

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COMPASS 5000.15 Build 91E

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #707H
Project:	BULLDOG PROSPECT (NM-E)	TVD Reference:	KB=31ft @ 3195.0usft
Reference Site:	ZIA HILLS UNIT 2331 PROJECT	MD Reference:	KB=31ft @ 3195.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	ZIA HILLS UNIT 2331 WC #707H	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:	Offset Datum

Reference Depths are relative to KB=31ft @ 3195.0usft

Offset Depths are relative to Offset Datum

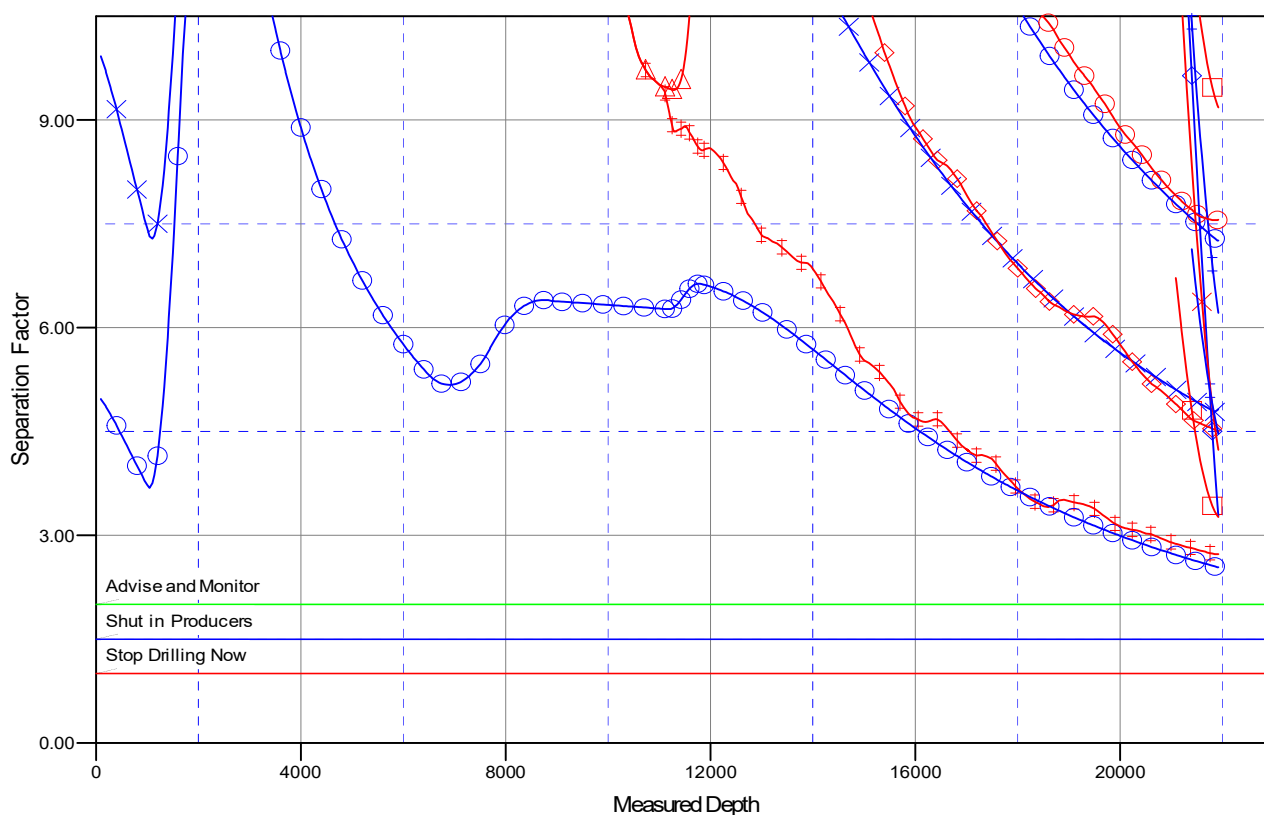
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2331 WC #707H

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

Grid Convergence at Surface is: 0.31°

Separation Factor Plot



LEGEND

ZIA HILLS UNIT 2331 WC #711H, OWB, PWP0 V0	ZHU 2331 WC #6H, OWB, AWP (PH) V0	ZIA HILLS UNIT 2331 WC #709H, OWB, PWP0 V0
SHELTLAND 11-2 FEDERAL STATE COM #712H, OWB, AWP V0	ZHU 2331 WC #5H, ST01, AWP V0	SHELTLAND 2-11 STATE FEDERAL COM #732H, OWB, PWP0 V0
ZIA HILLS UNIT 2331 WC #709H, OWB, PWP0 V0	ZIA HILLS UNIT 2331 WC #712H, OWB, PWP0 V0	ZIA HILLS UNIT 2331 WC #713H, OWB, PWP0 V0
ZHU 2331 WC #5H, OWB, AWP V0	SHELTLAND 11-2 FEDERAL STATE COM #732H, OWB, AWP V0	ZHU 2331 WC #4H, OWB, AWP V0
ZIA HILLS UNIT 2331 WC #710H, OWB, PWP0 V0	SHELTLAND 11 FEDERAL #32H, OWB, PWP0 V0	
SHELTLAND 2-11 STATE FEDERAL COM #713H, OWB, PWP0 V0	SHELTLAND 2-11 STATE FEDERAL COM #613H, OWB, AWP V0	

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

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COMPASS 5000.15 Build 91E

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	ConocoPhillips
LEASE NO.:	NMLC064756
LOCATION:	Section 23, T.26 S, R.31 E., NMPM
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	Zia Hills Unit 2331 WC 707H
SURFACE HOLE FOOTAGE:	70'/S & 1150'/E
BOTTOM HOLE FOOTAGE:	50'/N & 2495'/E

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 **Brushy Canyon and Cherry Canyon** 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 **1050** 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)**Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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 10/17/2023

CONOCOPHILLIPS
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.

CONOCOPHILLIPS 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 CONOCOPHILLIPS FOREMAN AT MAIN OFFICE***

CONOCOPHILLIPS

1-575-748-6940

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 288928

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID:
	217817
	Action Number: 288928
	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	12/19/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/19/2023
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	12/19/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	12/19/2023
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	12/19/2023
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	12/19/2023