

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. 30-015-54434
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 / 1000 FEL / TWSP: 26S / RANGE: 31E / SECTION: 23 / LAT: 32.0210572 / LONG: -103.7433934 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 100 FSL / 440 FEL / TWSP: 26S / RANGE: 31E / SECTION: 24 / LAT: 32.0211432 / LONG: -103.7415869 (TVD: 11496 feet, MD: 11574 feet)

BHL: NENE / 50 FNL / 440 FEL / TWSP: 26S / RANGE: 31E / SECTION: 14 / LAT: 32.0500489 / LONG: -103.7417114 (TVD: 11709 feet, MD: 21996 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- 54434	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 712H
7 OGRID No. 217817	8 Operator Name CONOCOPHILLIPS COMPANY	9 Elevation 3163.53'

10 Surface Location

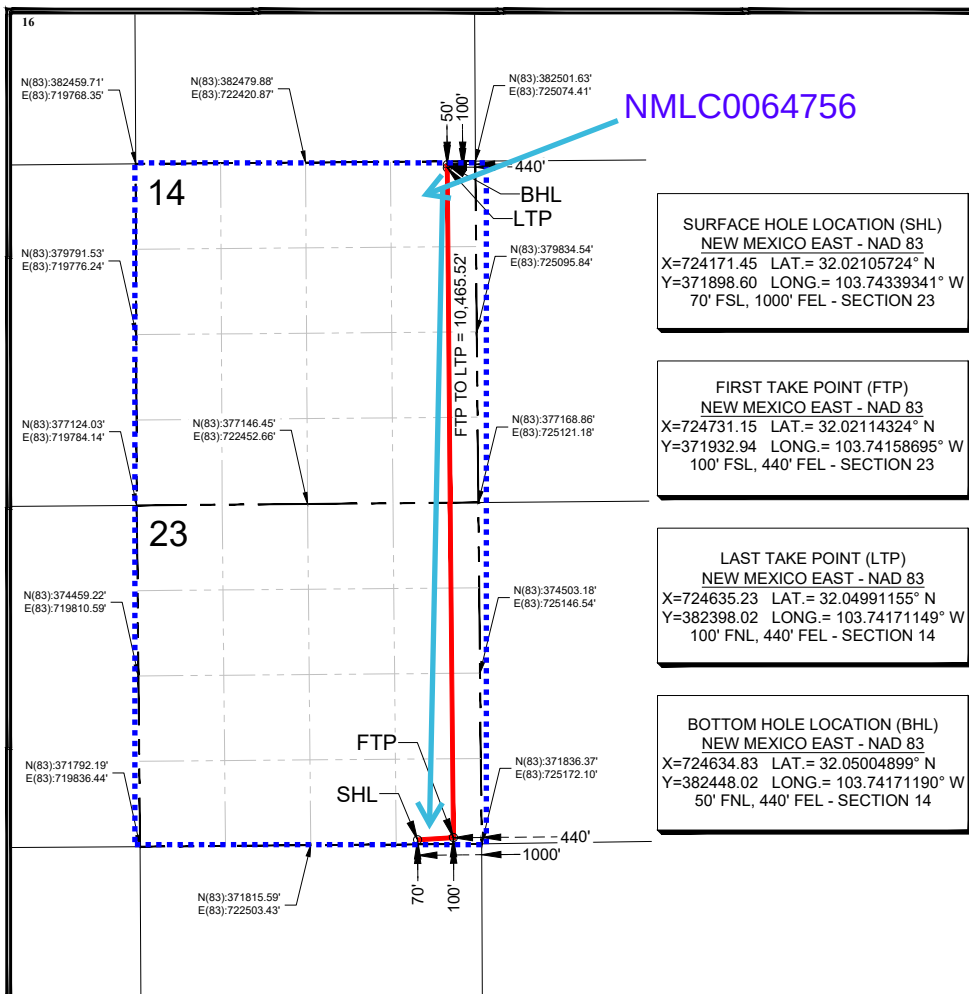
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	23	26-S	31-E		70'	SOUTH	1000'	EAST	EDDY

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
A	14	26-S	31-E		50'	NORTH	440'	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.



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.

Mayte Reyes 12/18/2022
Signature Date

Mayte Reyes
Printed Name

mayte.x.reyes@cop.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

10/25/2022
Date of Survey

Signature and Seal of Professional Surveyor:

25490

PROFESSOR SURVEYOR

NEW MEXICO

CHARLES J. JURICA

25490

PROFESSOR SURVEYOR

10/25/2022

25490

PROFESSOR SURVEYOR

10/25/2022

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 712H	30-015-	P-23-26S-31E	70' FSL & 1000' FEL 50' FNL & 440' 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 712H	Pending	7/25/2024	± 25 days from spud	11/22/2024	12/2/2024	12/7/2024

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 712H

1. Geologic Formations

TVD of target	11,709' EOL	Pilot hole depth	NA
MD at TD:	21,996'	Deepest expected fresh water:	405'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1056	Water	
Top of Salt	1448	Salt	
Base of Salt	3919	Salt	
Lamar	4138	Salt Water	
Bell Canyon	4163	Salt Water	
Cherry Canyon	5073	Oil/Gas	
Brushy Canyon	6466	Oil/Gas	
BSPG	8118	Oil/Gas	
BS1S	9154	Oil/Gas	
BS2S	9804	Oil/Gas	
BS3C	10277	Oil/Gas	
BS3S	10974	Oil/Gas	
WFMP	11357	Oil/Gas	
Wolfcamp A Shale	11709	Target Oil/Gas	
WFMP B	11884	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	1.14	2.88	2.88
8.750"	8500	11,100	7.625"	29.7	P110-ICY	W513	1.36	1.72	3.24	1.94
6.75"	0	10600	5.5"	23	P110-CY	TXP BTC	2.11	2.49	2.99	2.99
6.75"	10600	21,996	5.5"	23	P110-CY	W441	1.91	2.26	2.71	2.46
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 712H

	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 712H

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.	810	10.5	3.5	22.3	24	NeoCem
Stage 1	250	16.4	1.08	4.52	7	Tail: Class H
Prod	589	12.5	1.67	10.7	72	Lead: 50:50:10 H Blend
	899	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	10,600'	35% OH in Lateral (KOP to EOL)

ConocoPhillips Company - Zia Hills Unit 2331 WC 712H

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 712H

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 712H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	7615 psi at 11709' TVD
Abnormal Temperature	NO 175 Deg. F.

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

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

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N H₂S is present

Y H₂S Plan attached

8. Other Facets of Operation

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

x	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

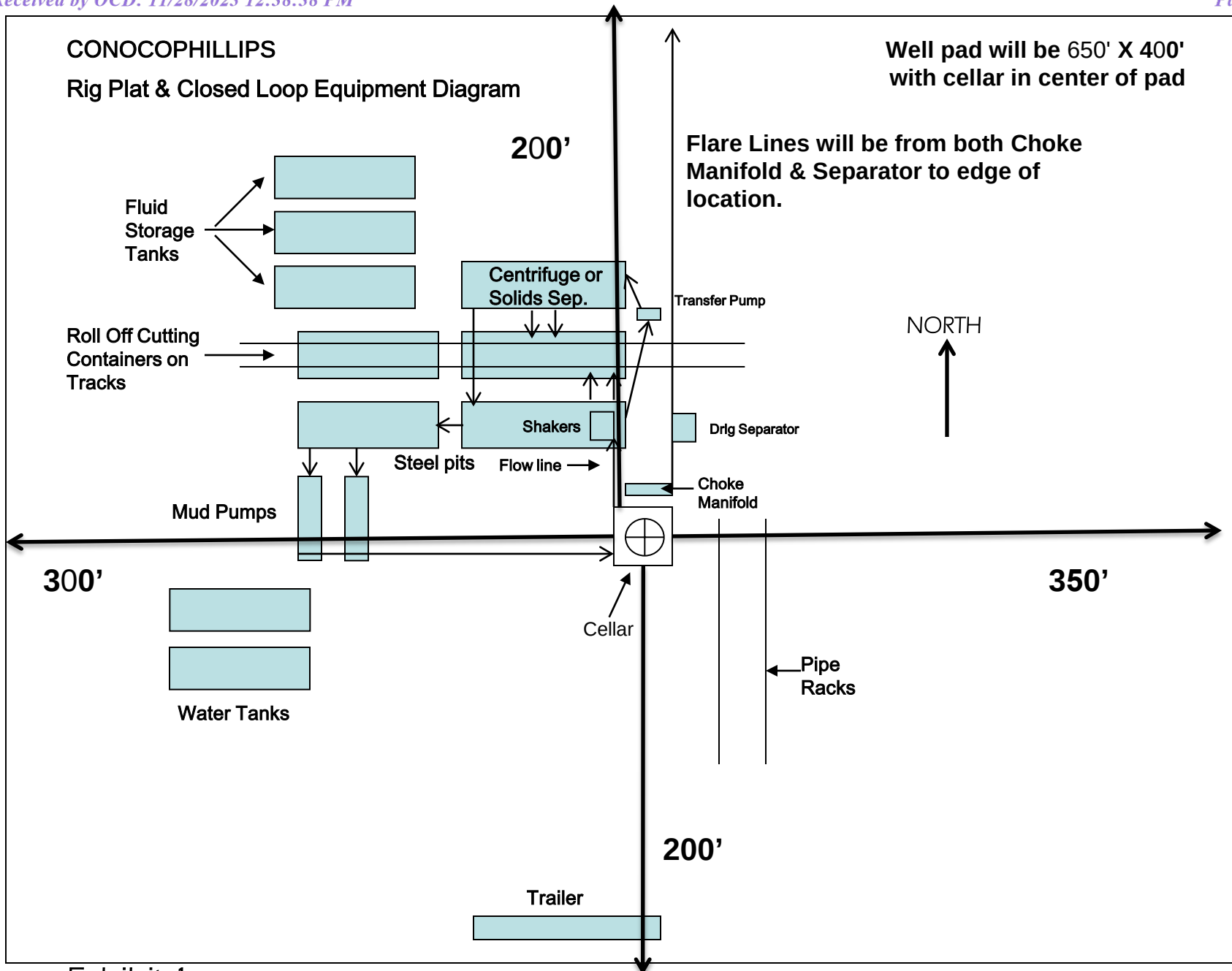


Exhibit 1

DELAWARE BASIN EAST

**BULLDOG PROSPECT (NM-E)
ZIA HILLS UNIT 2331 PROJECT
ZIA HILLS UNIT 2331 WC #712H**

**OWB
PWP0**

Anticollision Report

16 November, 2022

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	2,000.0	PWP0 (OWB)	r.5 SDI_KPR_ADK	SDI Keeper ADK rev.5	
2,000.0	11,182.4	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5	
11,182.4	21,996.4	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						
GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP	9,533.5	14,160.0	977.7	877.9	9.796	CC, ES, SF
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP						Out of range
SHETLAND 11 FEDERAL #714H - OWB - PWP0	21,996.4	16,466.2	668.2	519.2	4.484	CC, ES, SF
SHETLAND 11 FEDERAL #734H - OWB - PWP0	21,996.4	16,703.1	468.2	363.8	4.484	CC, ES, SF
SHETLAND 11-2 FEDERAL STATE COM #732H - OWB						Out of range
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	21,996.4	21,907.0	416.7	191.5	1.851	Advise and Monitor, CC, ES,
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	21,996.4	22,089.0	1,199.9	936.3	4.551	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #713H - OWB						Out of range
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	21,996.4	22,097.6	1,298.8	1,052.1	5.264	CC, ES, SF
ZHU 2331 WC #6H - OWB - AWP (PH)						Out of range
ZHU 2331 WC #6H - ST01 - AWP						Out of range
ZIA HILLS UNIT 2331 WC #707H - OWB - PWP0	1,000.0	1,000.0	150.3	142.2	18.687	CC, ES
ZIA HILLS UNIT 2331 WC #707H - OWB - PWP0	1,235.0	1,222.8	159.4	150.4	17.699	SF
ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0	2,000.0	2,000.0	120.3	108.9	10.574	CC, ES
ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0	2,090.0	2,086.3	123.1	111.3	10.468	SF
ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0	2,000.0	2,000.0	90.5	79.1	7.952	CC, ES
ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0	21,945.0	21,760.3	1,244.6	1,077.3	7.440	SF
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	2,000.0	2,001.0	60.4	49.0	5.309	CC, ES
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	21,996.4	21,956.2	821.5	654.8	4.928	SF
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	2,249.8	2,252.5	30.3	18.0	2.449	CC, ES
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	2,280.0	2,282.7	30.5	18.0	2.442	SF
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	1,500.0	1,500.0	30.0	20.4	3.116	CC
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	1,520.0	1,519.8	30.1	20.4	3.098	ES
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	21,996.4	21,875.4	444.8	273.8	2.602	SF
ZIA HILLS UNIT 2431 PROJECT						
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	21,996.4	22,167.4	801.6	632.5	4.741	CC, ES, SF
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	21,996.4	21,980.8	1,192.2	1,025.2	7.142	CC, ES, SF
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

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 #712H
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 #712H	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
Offset Well - Wellbore - Design						
ZIA HILLS UNIT 2331 PROJECT						
GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP	21,996.4	14,160.0				Out of Range @TD
GOLDEN SPUR FEDERAL #1H (P&A) - ST01 - AWP	21,996.4	13,450.0				Out of Range @TD
SHETLAND 11 FEDERAL #714H - OWB - PWP0	21,996.4	16,466.2	668.2	519.2	4.484	CC, ES, SF
SHETLAND 11 FEDERAL #734H - OWB - PWP0	21,996.4	16,703.1	468.2	363.8	4.484	CC, ES, SF
SHETLAND 11-2 FEDERAL STATE COM #732H - OWB	21,996.4	12,339.8				Out of Range @TD
SHETLAND 2-11 STATE FEDERAL COM #333H - OWB	21,996.4	21,907.0	416.7	191.5	1.851	Advise and Monitor, CC, ES,
SHETLAND 2-11 STATE FEDERAL COM #613H - OWB	21,996.4	22,089.0	1,199.9	936.3	4.551	CC, ES, SF
SHETLAND 2-11 STATE FEDERAL COM #713H - OWB	21,996.4	21,917.2				Out of Range @TD
SHETLAND 2-11 STATE FEDERAL COM #733H - OWB	21,996.4	22,097.6	1,298.8	1,052.1	5.264	CC, ES, SF
ZHU 2331 WC #6H - OWB - AWP (PH)	21,996.4	11,366.2				Out of Range @TD
ZHU 2331 WC #6H - ST01 - AWP	21,996.4	21,989.3				Out of Range @TD
ZIA HILLS UNIT 2331 WC #707H - OWB - PWP0	21,996.4	21,916.9				Out of Range @TD
ZIA HILLS UNIT 2331 WC #708H - OWB - PWP0	21,996.4	22,048.4				Out of Range @TD
ZIA HILLS UNIT 2331 WC #709H - OWB - PWP0	21,996.4	21,760.3	1,246.5	1,079.0	7.442	
ZIA HILLS UNIT 2331 WC #710H - OWB - PWP0	21,996.4	21,956.2	821.5	654.8	4.928	SF
ZIA HILLS UNIT 2331 WC #711H - OWB - PWP0	21,996.4	21,724.9	450.2	285.4	2.731	
ZIA HILLS UNIT 2331 WC #713H - OWB - PWP0	21,996.4	21,875.4	444.8	273.8	2.602	SF
ZIA HILLS UNIT 2431 PROJECT						
ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0	21,996.4	22,167.4	801.6	632.5	4.741	CC, ES, SF
ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0	21,996.4	21,980.8	1,192.2	1,025.2	7.142	CC, ES, SF
ZIA HILLS UNIT 2431 WC #703H - OWB - PWP0	21,996.4	22,116.6				Out of Range @TD
ZIA HILLS UNIT 2431 WC #704H - OWB - PWP0	21,996.4	21,955.0				Out of Range @TD
ZIA HILLS UNIT 2431 WC #705H - OWB - PWP0	21,996.4	22,153.6				Out of Range @TD
ZIA HILLS UNIT 2431 WC #706H - OWB - PWP0	21,996.4	22,019.2				Out of Range @TD

Offset Design: ZIA HILLS UNIT 2331 PROJECT - GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP													Offset Site Error: 0.0 usft	
Survey Program: 54-GYD-CT-CMS, 1153-MWD - OWSG R1													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	
8,700.0	8,664.1	14,160.0	9,471.6	23.1	84.0	113.70	-384.8	1,455.0	1,284.8	1,201.4	83.35	15.414		
8,740.0	8,704.1	14,160.0	9,471.6	23.1	84.0	113.70	-384.8	1,455.0	1,259.2	1,174.8	84.34	14.930		
8,800.0	8,764.1	14,160.0	9,471.6	23.1	84.0	113.70	-384.8	1,455.0	1,222.2	1,136.4	85.85	14.237		
8,835.0	8,799.1	14,160.0	9,471.6	23.1	84.0	113.70	-384.8	1,455.0	1,201.6	1,114.8	86.74	13.852		
8,900.0	8,864.1	14,160.0	9,471.6	23.1	84.0	113.70	-384.8	1,455.0	1,165.0	1,076.6	88.41	13.177		
8,930.0	8,894.1	14,160.0	9,471.6	23.2	84.0	113.70	-384.8	1,455.0	1,148.9	1,059.8	89.19	12.883		

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 #712H
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 #712H	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 - GOLDEN SPUR 25 FBS #3H (P&A) - OWB - AWP													Offset Site Error: 0.0 usft
Survey Program: 54-GYD-CT-CMS, 1153-MWD - OWSG R1													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	
9,000.0	8,964.1	14,160.0	9,471.6	23.2	84.0	113.70	-384.8	1,455.0	1,113.8	1,022.8	90.97	12.243	
9,025.0	8,989.1	14,160.0	9,471.6	23.2	84.0	113.70	-384.8	1,455.0	1,102.0	1,010.4	91.60	12.030	
9,100.0	9,064.1	14,160.0	9,471.6	23.2	84.0	113.70	-384.8	1,455.0	1,069.5	976.0	93.43	11.447	
9,120.0	9,084.1	14,160.0	9,471.6	23.2	84.0	113.70	-384.8	1,455.0	1,061.5	967.6	93.90	11.305	
9,200.0	9,164.1	14,160.0	9,471.6	23.3	84.0	113.70	-384.8	1,455.0	1,033.0	937.3	95.67	10.798	
9,215.0	9,179.1	14,160.0	9,471.6	23.3	84.0	113.70	-384.8	1,455.0	1,028.3	932.3	95.97	10.714	
9,300.0	9,264.1	14,160.0	9,471.6	23.3	84.0	113.70	-384.8	1,455.0	1,005.2	907.6	97.54	10.306	
9,310.0	9,274.1	14,160.0	9,471.6	23.3	84.0	113.70	-384.8	1,455.0	1,002.9	905.2	97.70	10.265	
9,400.0	9,364.1	14,160.0	9,471.6	23.3	84.0	113.70	-384.8	1,455.0	986.8	887.8	98.91	9.976	
9,405.0	9,369.1	14,160.0	9,471.6	23.3	84.0	113.70	-384.8	1,455.0	986.1	887.1	98.96	9.964	
9,500.0	9,464.1	14,160.0	9,471.6	23.4	84.0	113.70	-384.8	1,455.0	978.3	878.6	99.69	9.813	
9,533.5	9,497.6	14,160.0	9,471.6	23.4	84.0	113.70	-384.8	1,455.0	977.7	877.9	99.80	9.796 CC, ES, SF	
9,595.0	9,559.1	14,160.0	9,471.6	23.4	84.0	113.70	-384.8	1,455.0	979.6	879.8	99.82	9.814	
9,600.0	9,564.1	14,160.0	9,471.6	23.4	84.0	113.70	-384.8	1,455.0	979.9	880.1	99.81	9.818	
9,690.0	9,654.1	14,160.0	9,471.6	23.5	84.0	113.70	-384.8	1,455.0	990.1	890.8	99.37	9.964	
9,700.0	9,664.1	14,160.0	9,471.6	23.5	84.0	113.70	-384.8	1,455.0	991.8	892.5	99.29	9.988	
9,785.0	9,749.1	14,160.0	9,471.6	23.5	84.0	113.70	-384.8	1,455.0	1,009.5	911.1	98.41	10.258	
9,800.0	9,764.1	14,160.0	9,471.6	23.5	84.0	113.70	-384.8	1,455.0	1,013.4	915.1	98.22	10.317	
9,880.0	9,844.1	14,160.0	9,471.6	23.5	84.0	113.70	-384.8	1,455.0	1,037.3	940.2	97.03	10.690	
9,900.0	9,864.1	14,160.0	9,471.6	23.5	84.0	113.70	-384.8	1,455.0	1,044.1	947.4	96.70	10.797	
9,975.0	9,939.1	14,160.0	9,471.6	23.6	84.0	113.70	-384.8	1,455.0	1,072.7	977.4	95.36	11.249	
10,000.0	9,964.1	14,160.0	9,471.6	23.6	84.0	113.70	-384.8	1,455.0	1,083.3	988.4	94.89	11.416	
10,070.0	10,034.1	14,160.0	9,471.6	23.6	84.0	113.70	-384.8	1,455.0	1,115.2	1,021.7	93.51	11.926	
10,100.0	10,064.1	14,160.0	9,471.6	23.6	84.0	113.70	-384.8	1,455.0	1,129.9	1,037.0	92.91	12.162	
10,165.0	10,129.1	14,160.0	9,471.6	23.6	84.0	113.70	-384.8	1,455.0	1,163.9	1,072.3	91.59	12.708	
10,200.0	10,164.1	14,160.0	9,471.6	23.7	84.0	113.70	-384.8	1,455.0	1,183.2	1,092.4	90.88	13.020	
10,260.0	10,224.1	14,160.0	9,471.6	23.7	84.0	113.70	-384.8	1,455.0	1,218.1	1,128.4	89.67	13.583	
10,300.0	10,264.1	14,160.0	9,471.6	23.7	84.0	113.70	-384.8	1,455.0	1,242.3	1,153.4	88.88	13.977	
10,355.0	10,319.1	14,160.0	9,471.6	23.7	84.0	113.70	-384.8	1,455.0	1,277.0	1,189.2	87.83	14.540	
10,400.0	10,364.1	14,160.0	9,471.6	23.7	84.0	113.70	-384.8	1,455.0	1,306.4	1,219.4	86.99	15.018	

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 #712H
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 #712H	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 #714H - 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	
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	
21,185.0	11,624.0	16,466.2	11,736.9	78.4	88.0	-92.89	10,924.7	-88.2	1,312.4	1,215.3	97.10	13.515		
21,200.0	11,624.0	16,466.2	11,736.9	78.5	88.0	-92.89	10,924.7	-88.2	1,298.8	1,201.2	97.60	13.307		
21,280.0	11,624.0	16,466.2	11,736.9	79.1	88.0	-92.89	10,924.7	-88.2	1,226.7	1,126.3	100.44	12.214		
21,300.0	11,624.0	16,466.2	11,736.9	79.2	88.0	-92.89	10,924.7	-88.2	1,208.9	1,107.7	101.21	11.945		
21,375.0	11,624.0	16,466.2	11,736.9	79.8	88.0	-92.89	10,924.7	-88.2	1,142.6	1,038.3	104.31	10.954		
21,400.0	11,624.0	16,466.2	11,736.9	79.9	88.0	-92.89	10,924.7	-88.2	1,120.7	1,015.3	105.43	10.630		
21,470.0	11,624.0	16,466.2	11,736.9	80.5	88.0	-92.89	10,924.7	-88.2	1,060.3	951.5	108.81	9.744		
21,500.0	11,624.0	16,466.2	11,736.9	80.7	88.0	-92.89	10,924.7	-88.2	1,034.7	924.3	110.38	9.374		
21,565.0	11,624.0	16,466.2	11,736.9	81.1	88.0	-92.89	10,924.7	-88.2	980.2	866.2	114.05	8.595		
21,600.0	11,624.0	16,466.2	11,736.9	81.4	88.0	-92.89	10,924.7	-88.2	951.4	835.3	116.18	8.189		
21,660.0	11,624.0	16,466.2	11,736.9	81.8	88.0	-92.89	10,924.7	-88.2	903.1	783.0	120.13	7.518		
21,700.0	11,624.0	16,466.2	11,736.9	82.1	88.0	-92.89	10,924.7	-88.2	871.7	748.7	122.98	7.088		
21,755.0	11,624.0	16,466.2	11,736.9	82.5	88.0	-92.89	10,924.7	-88.2	829.7	702.5	127.16	6.525		
21,800.0	11,624.0	16,466.2	11,736.9	82.9	88.0	-92.89	10,924.7	-88.2	796.5	665.7	130.83	6.088		
21,850.0	11,624.0	16,466.2	11,736.9	83.2	88.0	-92.89	10,924.7	-88.2	761.1	625.9	135.16	5.631		
21,900.0	11,624.0	16,466.2	11,736.9	83.6	88.0	-92.89	10,924.7	-88.2	727.4	587.7	139.72	5.206		
21,945.0	11,624.0	16,466.2	11,736.9	83.9	88.0	-92.89	10,924.7	-88.2	698.7	554.7	144.00	4.852		
21,996.4	11,624.0	16,466.2	11,736.9	84.3	88.0	-92.89	10,924.7	-88.2	668.2	519.2	149.01	4.484	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 #712H
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 #712H	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 #734H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-MWD - OWSG R1												Offset Well Error:	10.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
21,090.0	11,624.0	16,703.1	11,962.0	77.7	88.8	156.13	10,929.2	571.5	1,314.5	1,237.6	76.83	17.109	
21,100.0	11,624.0	16,703.1	11,962.0	77.8	88.8	156.13	10,929.2	571.5	1,304.7	1,227.8	76.92	16.961	
21,185.0	11,624.0	16,703.1	11,962.0	78.4	88.8	156.13	10,929.2	571.5	1,221.7	1,143.9	77.78	15.707	
21,200.0	11,624.0	16,703.1	11,962.0	78.5	88.8	156.13	10,929.2	571.5	1,207.1	1,129.2	77.95	15.486	
21,280.0	11,624.0	16,703.1	11,962.0	79.1	88.8	156.13	10,929.2	571.5	1,129.4	1,050.4	78.91	14.311	
21,300.0	11,624.0	16,703.1	11,962.0	79.2	88.8	156.13	10,929.2	571.5	1,110.0	1,030.8	79.18	14.019	
21,375.0	11,624.0	16,703.1	11,962.0	79.8	88.8	156.13	10,929.2	571.5	1,037.5	957.2	80.27	12.925	
21,400.0	11,624.0	16,703.1	11,962.0	79.9	88.8	156.13	10,929.2	571.5	1,013.4	932.7	80.67	12.562	
21,470.0	11,624.0	16,703.1	11,962.0	80.5	88.8	156.13	10,929.2	571.5	946.2	864.3	81.93	11.549	
21,500.0	11,624.0	16,703.1	11,962.0	80.7	88.8	156.13	10,929.2	571.5	917.5	835.0	82.53	11.118	
21,565.0	11,624.0	16,703.1	11,962.0	81.1	88.8	156.13	10,929.2	571.5	855.7	771.8	83.99	10.189	
21,600.0	11,624.0	16,703.1	11,962.0	81.4	88.8	156.13	10,929.2	571.5	822.7	737.8	84.87	9.693	
21,660.0	11,624.0	16,703.1	11,962.0	81.8	88.8	156.13	10,929.2	571.5	766.4	679.8	86.60	8.850	
21,700.0	11,624.0	16,703.1	11,962.0	82.1	88.8	156.13	10,929.2	571.5	729.2	641.3	87.91	8.295	
21,755.0	11,624.0	16,703.1	11,962.0	82.5	88.8	156.13	10,929.2	571.5	678.6	588.6	89.97	7.542	
21,800.0	11,624.0	16,703.1	11,962.0	82.9	88.8	156.13	10,929.2	571.5	637.7	545.8	91.92	6.937	
21,850.0	11,624.0	16,703.1	11,962.0	83.2	88.8	156.13	10,929.2	571.5	592.9	498.5	94.42	6.280	
21,900.0	11,624.0	16,703.1	11,962.0	83.6	88.8	156.13	10,929.2	571.5	549.1	451.8	97.34	5.642	
21,945.0	11,624.0	16,703.1	11,962.0	83.9	88.8	156.13	10,929.2	571.5	510.7	410.3	100.38	5.087	
21,996.4	11,624.0	16,703.1	11,962.0	84.3	88.8	156.13	10,929.2	571.5	468.2	363.8	104.42	4.484	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 #712H
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 #712H	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 2-11 STATE FEDERAL COM #333H - OWB - AWP												Offset Site Error:	0.0 usft
Survey Program: 226-MWD												Offset Well Error:	10.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,900.0	11,624.0	21,907.0	11,495.6	76.3	178.7	-51.17	10,663.8	151.3	1,278.0	1,176.8	101.26	12.621	
20,995.0	11,624.0	21,907.0	11,495.6	77.0	178.7	-51.17	10,663.8	151.3	1,188.2	1,083.4	104.75	11.342	
21,000.0	11,624.0	21,907.0	11,495.6	77.0	178.7	-51.17	10,663.8	151.3	1,183.4	1,078.5	104.95	11.276	
21,090.0	11,624.0	21,907.0	11,495.6	77.7	178.7	-51.17	10,663.8	151.3	1,099.2	990.2	108.93	10.090	
21,100.0	11,624.0	21,907.0	11,495.6	77.8	178.7	-51.17	10,663.8	151.3	1,089.9	980.4	109.42	9.960	
21,185.0	11,624.0	21,907.0	11,495.6	78.4	178.7	-51.17	10,663.8	151.3	1,011.3	897.3	113.99	8.871	
21,200.0	11,624.0	21,907.0	11,495.6	78.5	178.7	-51.17	10,663.8	151.3	997.5	882.6	114.88	8.683	
21,280.0	11,624.0	21,907.0	11,495.6	79.1	178.7	-51.17	10,663.8	151.3	924.8	804.6	120.15	7.697	
21,300.0	11,624.0	21,907.0	11,495.6	79.2	178.7	-51.17	10,663.8	151.3	906.8	785.2	121.61	7.456	
21,375.0	11,624.0	21,907.0	11,495.6	79.8	178.7	-51.17	10,663.8	151.3	840.1	712.4	127.71	6.578	
21,400.0	11,624.0	21,907.0	11,495.6	79.9	178.7	-51.17	10,663.8	151.3	818.2	688.2	129.97	6.295	
21,470.0	11,624.0	21,907.0	11,495.6	80.5	178.7	-51.17	10,663.8	151.3	757.9	620.9	137.02	5.531	
21,500.0	11,624.0	21,907.0	11,495.6	80.7	178.7	-51.17	10,663.8	151.3	732.6	592.2	140.40	5.218	
21,565.0	11,624.0	21,907.0	11,495.6	81.1	178.7	-51.17	10,663.8	151.3	679.0	530.5	148.51	4.572	
21,600.0	11,624.0	21,907.0	11,495.6	81.4	178.7	-51.17	10,663.8	151.3	651.1	497.7	153.37	4.245	
21,660.0	11,624.0	21,907.0	11,495.6	81.8	178.7	-51.17	10,663.8	151.3	604.8	442.3	162.55	3.721	
21,700.0	11,624.0	21,907.0	11,495.6	82.1	178.7	-51.17	10,663.8	151.3	575.4	406.2	169.28	3.399	
21,755.0	11,624.0	21,907.0	11,495.6	82.5	178.7	-51.17	10,663.8	151.3	537.2	358.0	179.28	2.997	
21,800.0	11,624.0	21,907.0	11,495.6	82.9	178.7	-51.17	10,663.8	151.3	508.3	320.3	188.00	2.704	
21,850.0	11,624.0	21,907.0	11,495.6	83.2	178.7	-51.17	10,663.8	151.3	479.0	281.0	198.06	2.419	
21,900.0	11,624.0	21,907.0	11,495.6	83.6	178.7	-51.17	10,663.8	151.3	453.4	245.3	208.10	2.179	
21,945.0	11,624.0	21,907.0	11,495.6	83.9	178.7	-51.17	10,663.8	151.3	434.0	217.3	216.67	2.003	
21,996.4	11,624.0	21,907.0	11,495.6	84.3	178.7	-51.17	10,663.8	151.3	416.7	191.5	225.18	1.851 Advise and Monitor, CC, ES, SF	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	
21,565.0	11,624.0	22,089.0	11,669.7	81.1	179.6	-86.32	10,628.8	-731.1	1,305.4	1,060.4	244.97	5.329	
21,600.0	11,624.0	22,089.0	11,669.7	81.4	179.6	-86.32	10,628.8	-731.1	1,291.8	1,044.5	247.22	5.225	
21,660.0	11,624.0	22,089.0	11,669.7	81.8	179.6	-86.32	10,628.8	-731.1	1,270.4	1,019.5	250.87	5.064	
21,700.0	11,624.0	22,089.0	11,669.7	82.1	179.6	-86.32	10,628.8	-731.1	1,257.5	1,004.4	253.12	4.968	
21,755.0	11,624.0	22,089.0	11,669.7	82.5	179.6	-86.32	10,628.8	-731.1	1,241.7	985.7	255.95	4.851	
21,800.0	11,624.0	22,089.0	11,669.7	82.9	179.6	-86.32	10,628.8	-731.1	1,230.4	972.4	258.00	4.769	
21,850.0	11,624.0	22,089.0	11,669.7	83.2	179.6	-86.32	10,628.8	-731.1	1,219.7	959.8	259.98	4.692	
21,900.0	11,624.0	22,089.0	11,669.7	83.6	179.6	-86.32	10,628.8	-731.1	1,211.0	949.4	261.60	4.629	
21,945.0	11,624.0	22,089.0	11,669.7	83.9	179.6	-86.32	10,628.8	-731.1	1,204.9	942.1	262.75	4.586	
21,996.4	11,624.0	22,089.0	11,669.7	84.3	179.6	-86.32	10,628.8	-731.1	1,199.9	936.3	263.67	4.551	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 #712H
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 #712H	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 Well Error:	10.0 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		
21,945.0	11,624.0	22,097.6	12,034.9	83.9	173.7	-103.42	10,918.7	-747.6	1,314.8	1,070.7	244.08	5.387		
21,996.4	11,624.0	22,097.6	12,034.9	84.3	173.7	-103.42	10,918.7	-747.6	1,298.8	1,052.1	246.73	5.264	CC, ES, SF	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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 #707H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1000-r.5 MWD+IFR1, 11107-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-90.45	-1.2	-150.3	150.3				
95.0	95.0	95.0	95.0	3.0	3.0	-90.45	-1.2	-150.3	150.3	144.2	6.03	24.938	
100.0	100.0	100.0	100.0	3.0	3.0	-90.45	-1.2	-150.3	150.3	144.2	6.03	24.924	
190.0	190.0	190.0	190.0	3.1	3.1	-90.45	-1.2	-150.3	150.3	144.1	6.15	24.424	
200.0	200.0	200.0	200.0	3.1	3.1	-90.45	-1.2	-150.3	150.3	144.1	6.17	24.347	
285.0	285.0	285.0	285.0	3.2	3.2	-90.45	-1.2	-150.3	150.3	144.0	6.31	23.811	
300.0	300.0	300.0	300.0	3.2	3.2	-90.45	-1.2	-150.3	150.3	143.9	6.34	23.704	
380.0	380.0	380.0	380.0	3.3	3.3	-90.45	-1.2	-150.3	150.3	143.8	6.49	23.160	
400.0	400.0	400.0	400.0	3.3	3.3	-90.45	-1.2	-150.3	150.3	143.7	6.53	23.015	
475.0	475.0	475.0	475.0	3.4	3.4	-90.45	-1.2	-150.3	150.3	143.6	6.68	22.481	
500.0	500.0	500.0	500.0	3.4	3.4	-90.45	-1.2	-150.3	150.3	143.5	6.74	22.295	
570.0	570.0	570.0	570.0	3.5	3.5	-90.45	-1.2	-150.3	150.3	143.4	6.90	21.785	
600.0	600.0	600.0	600.0	3.5	3.5	-90.45	-1.2	-150.3	150.3	143.3	6.97	21.561	
665.0	665.0	665.0	665.0	3.6	3.6	-90.45	-1.2	-150.3	150.3	143.1	7.13	21.084	
700.0	700.0	700.0	700.0	3.7	3.7	-90.45	-1.2	-150.3	150.3	143.0	7.22	20.825	
760.0	760.0	760.0	760.0	3.8	3.8	-90.45	-1.2	-150.3	150.3	142.9	7.37	20.387	
800.0	800.0	800.0	800.0	3.8	3.8	-90.45	-1.2	-150.3	150.3	142.8	7.48	20.095	
855.0	855.0	855.0	855.0	3.9	3.9	-90.45	-1.2	-150.3	150.3	142.6	7.63	19.701	
900.0	900.0	900.0	900.0	4.0	4.0	-90.45	-1.2	-150.3	150.3	142.5	7.75	19.381	
950.0	950.0	950.0	950.0	4.1	4.1	-90.45	-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	-90.45	-1.2	-150.3	150.3	142.2	8.04	18.687 CC, ES	
1,045.0	1,045.0	1,042.8	1,042.8	4.2	4.2	-90.45	-1.2	-150.6	150.6	142.4	8.21	18.338	
1,100.0	1,100.0	1,095.0	1,095.0	4.3	4.3	-90.44	-1.2	-151.8	151.9	143.5	8.43	18.031	
1,140.0	1,140.0	1,132.9	1,132.9	4.4	4.4	-90.44	-1.2	-153.3	153.5	144.9	8.59	17.862	
1,200.0	1,200.0	1,189.8	1,189.6	4.5	4.5	-90.44	-1.2	-156.5	156.9	148.0	8.85	17.719	
1,235.0	1,235.0	1,222.8	1,222.6	4.6	4.6	-90.43	-1.2	-158.9	159.4	150.4	9.01	17.699 SF	
1,300.0	1,300.0	1,284.1	1,283.6	4.7	4.8	-90.43	-1.2	-164.3	165.2	155.9	9.29	17.772	
1,330.0	1,330.0	1,312.3	1,311.7	4.7	4.9	-90.42	-1.2	-167.3	168.3	158.8	9.43	17.852	
1,400.0	1,400.0	1,377.9	1,376.8	4.9	5.1	-90.42	-1.3	-175.1	176.7	166.9	9.74	18.140	
1,425.0	1,425.0	1,400.0	1,398.7	4.9	5.2	-90.41	-1.3	-178.1	180.1	170.2	9.84	18.293	
1,500.0	1,500.0	1,470.8	1,468.7	5.1	5.5	-90.40	-1.3	-188.9	191.4	181.2	10.20	18.770	
1,520.0	1,520.0	1,489.3	1,486.9	5.1	5.5	-90.40	-1.3	-191.9	194.8	184.5	10.29	18.925	
1,600.0	1,600.0	1,562.7	1,559.1	5.3	5.8	-90.39	-1.4	-205.4	209.4	198.7	10.67	19.628	
1,615.0	1,615.0	1,576.4	1,572.6	5.3	5.9	-90.39	-1.4	-208.1	212.3	201.6	10.74	19.775	
1,700.0	1,700.0	1,657.8	1,652.2	5.5	6.1	-90.37	-1.5	-224.9	229.9	218.8	11.14	20.635	
1,710.0	1,710.0	1,667.6	1,661.8	5.5	6.1	-90.37	-1.5	-226.9	232.0	220.8	11.19	20.733	
1,800.0	1,800.0	1,755.7	1,747.9	5.7	6.4	-90.36	-1.6	-245.2	250.7	239.1	11.63	21.552	
1,805.0	1,805.0	1,760.5	1,752.7	5.7	6.4	-90.36	-1.6	-246.2	251.7	240.1	11.66	21.595	
1,900.0	1,900.0	1,853.5	1,843.6	5.9	6.7	-90.35	-1.6	-265.6	271.5	259.4	12.14	22.355	
1,995.0	1,995.0	1,946.4	1,934.4	6.1	7.1	-90.34	-1.7	-284.9	291.3	278.6	12.65	23.028	
2,000.0	2,000.0	1,951.3	1,939.2	6.1	7.1	-90.34	-1.7	-285.9	292.3	279.6	12.67	23.061	
2,090.0	2,090.0	2,039.0	2,025.0	6.2	7.4	-179.50	-1.8	-304.1	312.4	299.2	13.20	23.669	
2,100.0	2,100.0	2,048.7	2,034.5	6.2	7.4	-179.49	-1.8	-306.2	314.8	301.5	13.26	23.744	
2,185.0	2,184.9	2,130.9	2,114.9	6.3	7.7	-179.49	-1.9	-323.2	336.6	322.8	13.76	24.458	
2,200.0	2,199.8	2,145.3	2,129.0	6.3	7.8	-179.49	-1.9	-326.2	340.7	326.8	13.85	24.596	
2,280.0	2,279.6	2,221.9	2,203.9	6.4	8.1	-179.49	-1.9	-342.2	363.8	349.4	14.34	25.370	
2,300.0	2,299.5	2,240.9	2,222.5	6.5	8.2	-179.49	-2.0	-346.1	369.9	355.4	14.46	25.577	
2,375.0	2,373.9	2,311.9	2,292.0	6.6	8.4	-179.49	-2.0	-360.9	394.0	379.1	14.93	26.383	
2,400.0	2,398.7	2,335.5	2,315.0	6.6	8.5	-179.50	-2.0	-365.8	402.5	387.4	15.09	26.666	
2,470.0	2,468.0	2,401.3	2,379.4	6.8	8.8	-179.50	-2.1	-379.5	426.4	410.9	15.50	27.510	
2,500.0	2,497.7	2,429.4	2,406.9	6.8	8.9	-179.51	-2.1	-385.3	436.7	421.0	15.68	27.856	
2,565.0	2,562.1	2,490.5	2,466.7	7.0	9.2	-179.51	-2.2	-398.0	458.9	442.8	16.07	28.561	

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 #712H
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 #712H	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 #707H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_ADK, 1000-r.5 MWD+IFR1, 11107-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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,596.8	2,523.4	2,498.9	7.1	9.3	-179.52	-2.2	-404.8	470.9	454.6	16.28	28.924	
2,660.0	2,656.2	2,579.8	2,554.0	7.2	9.5	-179.52	-2.2	-416.6	491.4	474.7	16.65	29.504	
2,700.0	2,695.8	2,617.4	2,590.8	7.3	9.7	-179.52	-2.3	-424.4	505.1	488.2	16.91	29.875	
2,755.0	2,750.2	2,669.1	2,641.3	7.4	9.9	-179.53	-2.3	-435.1	523.9	506.6	17.26	30.349	
2,800.0	2,794.8	2,711.4	2,682.7	7.6	10.1	-179.53	-2.3	-443.9	539.3	521.7	17.55	30.721	
2,850.0	2,844.3	2,758.3	2,728.6	7.7	10.3	-179.53	-2.4	-453.7	556.4	538.5	17.89	31.105	
2,900.0	2,893.8	2,805.3	2,774.6	7.8	10.5	-179.54	-2.4	-463.5	573.5	555.2	18.22	31.474	
2,945.0	2,938.4	2,847.6	2,816.0	8.0	10.6	-179.54	-2.5	-472.3	588.9	570.3	18.53	31.783	
3,000.0	2,992.9	2,899.3	2,866.5	8.1	10.9	-179.54	-2.5	-483.0	607.7	588.8	18.90	32.146	
3,040.0	3,032.5	2,936.9	2,903.3	8.2	11.0	-179.54	-2.5	-490.8	621.3	602.2	19.18	32.391	
3,100.0	3,091.9	2,993.3	2,958.4	8.4	11.3	-179.55	-2.6	-502.5	641.9	622.3	19.60	32.744	
3,135.0	3,126.5	3,026.2	2,990.6	8.5	11.4	-179.55	-2.6	-509.4	653.8	634.0	19.85	32.937	
3,200.0	3,190.9	3,087.2	3,050.4	8.7	11.7	-179.55	-2.7	-522.1	676.1	655.8	20.31	33.279	
3,230.0	3,220.6	3,115.4	3,077.9	8.8	11.8	-179.55	-2.7	-527.9	686.3	665.8	20.53	33.427	
3,300.0	3,289.9	3,181.2	3,142.3	9.1	12.1	-179.55	-2.7	-541.6	710.3	689.2	21.04	33.759	
3,325.0	3,314.7	3,204.7	3,165.2	9.1	12.2	-179.55	-2.8	-546.5	718.8	697.6	21.22	33.869	
3,400.0	3,389.0	3,275.2	3,234.2	9.4	12.5	-179.56	-2.8	-561.1	744.5	722.7	21.78	34.188	
3,420.0	3,408.8	3,294.0	3,252.6	9.5	12.6	-179.56	-2.8	-565.1	751.3	729.4	21.92	34.268	
3,500.0	3,488.0	3,369.1	3,326.1	9.7	12.9	-179.56	-2.9	-580.7	778.7	756.1	22.52	34.575	
3,515.0	3,502.9	3,383.2	3,339.9	9.8	13.0	-179.56	-2.9	-583.6	783.8	761.2	22.63	34.629	
3,600.0	3,587.0	3,463.1	3,418.0	10.1	13.3	-179.56	-3.0	-600.2	812.9	789.6	23.28	34.922	
3,610.0	3,596.9	3,472.5	3,427.2	10.1	13.4	-179.56	-3.0	-602.2	816.3	792.9	23.35	34.955	
3,700.0	3,686.0	3,557.1	3,509.9	10.4	13.8	-179.57	-3.1	-619.8	847.1	823.0	24.04	35.236	
3,705.0	3,691.0	3,561.8	3,514.5	10.4	13.8	-179.57	-3.1	-620.7	848.8	824.7	24.08	35.251	
3,800.0	3,785.1	3,651.0	3,601.9	10.8	14.2	-179.57	-3.1	-639.3	881.3	856.5	24.81	35.521	
3,895.0	3,879.2	3,740.3	3,689.2	11.1	14.6	-179.57	-3.2	-657.9	913.8	888.2	25.55	35.766	
3,900.0	3,884.1	3,745.0	3,693.8	11.1	14.6	-179.57	-3.2	-658.8	915.5	889.9	25.59	35.778	
3,990.0	3,973.2	3,829.6	3,776.5	11.5	15.0	-179.57	-3.3	-676.4	946.3	920.0	26.29	35.989	
4,000.0	3,983.1	3,839.0	3,785.7	11.5	15.0	-179.57	-3.3	-678.4	949.7	923.3	26.37	36.012	
4,085.0	4,067.3	3,918.9	3,863.8	11.8	15.4	-179.57	-3.4	-695.0	978.7	951.7	27.04	36.194	
4,100.0	4,082.2	3,933.0	3,877.6	11.9	15.4	-179.57	-3.4	-697.9	983.9	956.7	27.16	36.225	
4,180.0	4,161.4	4,008.1	3,951.1	12.2	15.8	-179.58	-3.4	-713.5	1,011.2	983.4	27.80	36.381	
4,200.0	4,181.2	4,026.9	3,969.5	12.3	15.9	-179.58	-3.4	-717.4	1,018.1	990.1	27.95	36.419	
4,275.0	4,255.5	4,097.4	4,038.5	12.6	16.2	-179.58	-3.5	-732.1	1,043.7	1,015.2	28.55	36.553	
4,300.0	4,280.2	4,120.9	4,061.4	12.6	16.3	-179.58	-3.5	-737.0	1,052.3	1,023.5	28.75	36.597	
4,370.0	4,349.5	4,186.7	4,125.8	12.9	16.6	-179.58	-3.6	-750.7	1,076.2	1,046.9	29.32	36.712	
4,400.0	4,379.2	4,214.9	4,153.3	13.0	16.7	-179.58	-3.6	-756.5	1,086.5	1,056.9	29.56	36.759	
4,465.0	4,443.6	4,275.9	4,213.1	13.3	17.0	-179.58	-3.7	-769.2	1,108.7	1,078.6	30.08	36.857	
4,500.0	4,478.3	4,308.8	4,245.3	13.4	17.2	-179.58	-3.7	-776.1	1,120.7	1,090.3	30.36	36.908	
4,560.0	4,537.7	4,365.2	4,300.4	13.7	17.4	-179.58	-3.7	-787.8	1,141.2	1,110.4	30.85	36.992	
4,600.0	4,577.3	4,402.8	4,337.2	13.8	17.6	-179.58	-3.8	-795.6	1,154.9	1,123.7	31.17	37.045	
4,655.0	4,631.8	4,454.5	4,387.7	14.0	17.8	-179.58	-3.8	-806.3	1,173.7	1,142.1	31.62	37.116	
4,700.0	4,676.3	4,496.8	4,429.1	14.2	18.0	-179.58	-3.8	-815.1	1,189.1	1,157.1	31.99	37.172	
4,750.0	4,725.8	4,543.8	4,475.1	14.4	18.2	-179.58	-3.9	-824.9	1,206.2	1,173.8	32.40	37.231	
4,800.0	4,775.3	4,590.7	4,521.0	14.6	18.4	-179.59	-3.9	-834.7	1,223.3	1,190.5	32.81	37.288	
4,845.0	4,819.9	4,633.0	4,562.4	14.8	18.6	-179.59	-4.0	-843.5	1,238.7	1,205.5	33.18	37.337	
4,900.0	4,874.4	4,684.7	4,612.9	15.0	18.9	-179.59	-4.0	-854.2	1,257.5	1,223.9	33.63	37.395	
4,940.0	4,914.0	4,722.3	4,649.7	15.2	19.0	-179.59	-4.0	-862.0	1,271.2	1,237.2	33.96	37.436	
5,000.0	4,973.4	4,778.7	4,704.8	15.4	19.3	-179.59	-4.1	-873.7	1,291.7	1,257.2	34.45	37.495	
5,035.0	5,008.1	4,811.6	4,737.0	15.5	19.5	-179.59	-4.1	-880.6	1,303.7	1,268.9	34.74	37.528	

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 #712H
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 #712H	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	Highside	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-90.45	-0.9	-120.3	120.3				
95.0	95.0	95.0	95.0	3.0	3.0	-90.45	-0.9	-120.3	120.3	114.3	6.03	19.967	
100.0	100.0	100.0	100.0	3.0	3.0	-90.45	-0.9	-120.3	120.3	114.3	6.03	19.956	
190.0	190.0	190.0	190.0	3.1	3.1	-90.45	-0.9	-120.3	120.3	114.2	6.15	19.556	
200.0	200.0	200.0	200.0	3.1	3.1	-90.45	-0.9	-120.3	120.3	114.1	6.17	19.494	
285.0	285.0	285.0	285.0	3.2	3.2	-90.45	-0.9	-120.3	120.3	114.0	6.31	19.065	
300.0	300.0	300.0	300.0	3.2	3.2	-90.45	-0.9	-120.3	120.3	114.0	6.34	18.980	
380.0	380.0	380.0	380.0	3.3	3.3	-90.45	-0.9	-120.3	120.3	113.8	6.49	18.544	
400.0	400.0	400.0	400.0	3.3	3.3	-90.45	-0.9	-120.3	120.3	113.8	6.53	18.427	
475.0	475.0	475.0	475.0	3.4	3.4	-90.45	-0.9	-120.3	120.3	113.6	6.68	18.000	
500.0	500.0	500.0	500.0	3.4	3.4	-90.45	-0.9	-120.3	120.3	113.6	6.74	17.852	
570.0	570.0	570.0	570.0	3.5	3.5	-90.45	-0.9	-120.3	120.3	113.4	6.90	17.443	
600.0	600.0	600.0	600.0	3.5	3.5	-90.45	-0.9	-120.3	120.3	113.3	6.97	17.264	
665.0	665.0	665.0	665.0	3.6	3.6	-90.45	-0.9	-120.3	120.3	113.2	7.13	16.881	
700.0	700.0	700.0	700.0	3.7	3.7	-90.45	-0.9	-120.3	120.3	113.1	7.22	16.674	
760.0	760.0	760.0	760.0	3.8	3.8	-90.45	-0.9	-120.3	120.3	112.9	7.37	16.323	
800.0	800.0	800.0	800.0	3.8	3.8	-90.45	-0.9	-120.3	120.3	112.8	7.48	16.090	
855.0	855.0	855.0	855.0	3.9	3.9	-90.45	-0.9	-120.3	120.3	112.7	7.63	15.774	
900.0	900.0	900.0	900.0	4.0	4.0	-90.45	-0.9	-120.3	120.3	112.6	7.75	15.518	
950.0	950.0	950.0	950.0	4.1	4.1	-90.45	-0.9	-120.3	120.3	112.4	7.90	15.238	
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	-90.45	-0.9	-120.3	120.3	112.3	8.04	14.962	
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	-90.45	-0.9	-120.3	120.3	112.1	8.17	14.718	
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	-90.45	-0.9	-120.3	120.3	112.0	8.34	14.425	
1,140.0	1,140.0	1,140.0	1,140.0	4.4	4.4	-90.45	-0.9	-120.3	120.3	111.9	8.46	14.217	
1,200.0	1,200.0	1,200.0	1,200.0	4.5	4.5	-90.45	-0.9	-120.3	120.3	111.7	8.65	13.910	
1,235.0	1,235.0	1,235.0	1,235.0	4.6	4.6	-90.45	-0.9	-120.3	120.3	111.6	8.76	13.735	
1,300.0	1,300.0	1,300.0	1,300.0	4.7	4.7	-90.45	-0.9	-120.3	120.3	111.3	8.97	13.417	
1,330.0	1,330.0	1,330.0	1,330.0	4.7	4.7	-90.45	-0.9	-120.3	120.3	111.2	9.06	13.273	
1,400.0	1,400.0	1,400.0	1,400.0	4.9	4.9	-90.45	-0.9	-120.3	120.3	111.0	9.29	12.946	
1,425.0	1,425.0	1,425.0	1,425.0	4.9	4.9	-90.45	-0.9	-120.3	120.3	110.9	9.38	12.832	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-90.45	-0.9	-120.3	120.3	110.7	9.63	12.498	
1,520.0	1,520.0	1,520.0	1,520.0	5.1	5.1	-90.45	-0.9	-120.3	120.3	110.6	9.69	12.411	
1,600.0	1,600.0	1,600.0	1,600.0	5.3	5.3	-90.45	-0.9	-120.3	120.3	110.3	9.97	12.072	
1,615.0	1,615.0	1,615.0	1,615.0	5.3	5.3	-90.45	-0.9	-120.3	120.3	110.3	10.02	12.010	
1,700.0	1,700.0	1,700.0	1,700.0	5.5	5.5	-90.45	-0.9	-120.3	120.3	110.0	10.31	11.667	
1,710.0	1,710.0	1,710.0	1,710.0	5.5	5.5	-90.45	-0.9	-120.3	120.3	110.0	10.35	11.628	
1,800.0	1,800.0	1,800.0	1,800.0	5.7	5.7	-90.45	-0.9	-120.3	120.3	109.7	10.66	11.284	
1,805.0	1,805.0	1,805.0	1,805.0	5.7	5.7	-90.45	-0.9	-120.3	120.3	109.6	10.68	11.265	
1,900.0	1,900.0	1,900.0	1,900.0	5.9	5.9	-90.45	-0.9	-120.3	120.3	109.3	11.02	10.919	
1,995.0	1,995.0	1,995.0	1,995.0	6.1	6.1	-90.45	-0.9	-120.3	120.3	109.0	11.36	10.591	
2,000.0	2,000.0	2,000.0	2,000.0	6.1	6.1	-90.45	-0.9	-120.3	120.3	108.9	11.38	10.574 CC, ES	
2,090.0	2,090.0	2,086.3	2,086.3	6.2	6.2	-179.61	-0.9	-121.6	123.1	111.3	11.76	10.468 SF	
2,100.0	2,100.0	2,095.9	2,095.8	6.2	6.2	-179.61	-0.9	-121.9	123.7	111.9	11.80	10.486	
2,185.0	2,184.9	2,176.8	2,176.7	6.3	6.3	-179.61	-1.0	-125.8	132.0	119.8	12.16	10.857	
2,200.0	2,199.8	2,191.1	2,190.9	6.3	6.3	-179.61	-1.0	-126.7	134.0	121.7	12.22	10.962	
2,280.0	2,279.6	2,266.3	2,265.9	6.4	6.4	-179.61	-1.0	-132.7	147.0	134.4	12.57	11.693	
2,300.0	2,299.5	2,284.9	2,284.5	6.5	6.4	-179.61	-1.0	-134.5	150.9	138.3	12.66	11.922	
2,375.0	2,373.9	2,354.1	2,353.2	6.6	6.5	-179.62	-1.0	-142.2	168.0	155.0	13.00	12.919	
2,400.0	2,398.7	2,376.9	2,375.8	6.6	6.6	-179.62	-1.0	-145.1	174.5	161.3	13.11	13.303	
2,470.0	2,468.0	2,440.1	2,438.3	6.8	6.7	-179.62	-1.0	-154.0	194.0	180.6	13.40	14.478	
2,500.0	2,497.7	2,466.9	2,464.8	6.8	6.8	-179.62	-1.0	-158.3	202.8	189.2	13.52	15.000	
2,565.0	2,562.1	2,524.5	2,521.5	7.0	7.0	-179.62	-1.1	-168.2	222.8	209.0	13.77	16.173	

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 #712H
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 #712H	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 (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,596.8	2,555.2	2,551.7	7.1	7.0	-179.62	-1.1	-173.9	234.0	220.1	13.90	16.839	
2,660.0	2,656.2	2,610.1	2,605.5	7.2	7.1	-179.62	-1.1	-184.8	254.0	239.8	14.14	17.968	
2,700.0	2,695.8	2,647.8	2,642.5	7.3	7.2	-179.62	-1.1	-192.3	267.3	253.0	14.33	18.662	
2,755.0	2,750.2	2,699.6	2,693.3	7.4	7.4	-179.61	-1.2	-202.7	285.7	271.1	14.60	19.573	
2,800.0	2,794.8	2,742.1	2,734.9	7.6	7.5	-179.61	-1.2	-211.1	300.7	285.9	14.83	20.282	
2,850.0	2,844.3	2,789.2	2,781.0	7.7	7.6	-179.61	-1.2	-220.5	317.4	302.3	15.09	21.033	
2,900.0	2,893.8	2,836.3	2,827.2	7.8	7.7	-179.61	-1.2	-229.9	334.1	318.7	15.36	21.750	
2,945.0	2,938.4	2,878.7	2,868.8	8.0	7.9	-179.61	-1.3	-238.4	349.1	333.5	15.61	22.362	
3,000.0	2,992.9	2,930.6	2,919.6	8.1	8.0	-179.61	-1.3	-248.7	367.5	351.6	15.92	23.076	
3,040.0	3,032.5	2,968.3	2,956.5	8.2	8.1	-179.61	-1.3	-256.2	380.8	364.7	16.16	23.568	
3,100.0	3,091.9	3,024.9	3,012.0	8.4	8.3	-179.61	-1.3	-267.5	400.9	384.3	16.51	24.273	
3,135.0	3,126.5	3,057.8	3,044.3	8.5	8.4	-179.61	-1.3	-274.1	412.5	395.8	16.73	24.662	
3,200.0	3,190.9	3,119.1	3,104.3	8.7	8.6	-179.61	-1.4	-286.3	434.2	417.1	17.13	25.353	
3,230.0	3,220.6	3,147.4	3,132.1	8.8	8.7	-179.61	-1.4	-291.9	444.2	426.9	17.32	25.653	
3,300.0	3,289.9	3,213.4	3,196.7	9.1	8.9	-179.60	-1.4	-305.1	467.6	449.9	17.76	26.326	
3,325.0	3,314.7	3,237.0	3,219.8	9.1	9.0	-179.60	-1.4	-309.8	476.0	458.0	17.93	26.552	
3,400.0	3,389.0	3,307.6	3,289.1	9.4	9.3	-179.60	-1.5	-323.9	501.0	482.6	18.42	27.204	
3,420.0	3,408.8	3,326.5	3,307.6	9.5	9.3	-179.60	-1.5	-327.6	507.7	489.1	18.55	27.368	
3,500.0	3,488.0	3,401.9	3,381.5	9.7	9.6	-179.60	-1.5	-342.7	534.4	515.3	19.09	27.997	
3,515.0	3,502.9	3,416.1	3,395.3	9.8	9.7	-179.60	-1.5	-345.5	539.4	520.2	19.19	28.108	
3,600.0	3,587.0	3,496.2	3,473.8	10.1	10.0	-179.60	-1.6	-361.5	567.8	548.0	19.77	28.713	
3,610.0	3,596.9	3,505.6	3,483.1	10.1	10.0	-179.60	-1.6	-363.4	571.1	551.3	19.84	28.780	
3,700.0	3,686.0	3,590.4	3,566.2	10.4	10.3	-179.60	-1.6	-380.3	601.1	580.7	20.47	29.361	
3,705.0	3,691.0	3,595.2	3,570.8	10.4	10.3	-179.60	-1.6	-381.2	602.8	582.3	20.51	29.392	
3,800.0	3,785.1	3,684.7	3,658.6	10.8	10.7	-179.60	-1.7	-399.1	634.5	613.3	21.19	29.949	
3,895.0	3,879.2	3,774.3	3,746.3	11.1	11.0	-179.60	-1.7	-416.9	666.2	644.4	21.87	30.457	
3,900.0	3,884.1	3,779.0	3,750.9	11.1	11.0	-179.60	-1.7	-417.9	667.9	646.0	21.91	30.483	
3,990.0	3,973.2	3,863.8	3,834.1	11.5	11.4	-179.60	-1.8	-434.8	697.9	675.4	22.57	30.922	
4,000.0	3,983.1	3,873.2	3,843.3	11.5	11.4	-179.60	-1.8	-436.6	701.3	678.6	22.64	30.969	
4,085.0	4,067.3	3,953.4	3,921.8	11.8	11.7	-179.60	-1.8	-452.6	729.6	706.4	23.28	31.348	
4,100.0	4,082.2	3,967.5	3,935.7	11.9	11.8	-179.60	-1.8	-455.4	734.7	711.3	23.39	31.412	
4,180.0	4,161.4	4,042.9	4,009.6	12.2	12.1	-179.60	-1.9	-470.5	761.4	737.4	23.99	31.738	
4,200.0	4,181.2	4,061.8	4,028.1	12.3	12.2	-179.60	-1.9	-474.2	768.0	743.9	24.14	31.817	
4,275.0	4,255.5	4,132.5	4,097.3	12.6	12.5	-179.60	-1.9	-488.3	793.1	768.4	24.71	32.097	
4,300.0	4,280.2	4,156.0	4,120.4	12.6	12.6	-179.60	-1.9	-493.0	801.4	776.5	24.90	32.187	
4,370.0	4,349.5	4,222.0	4,185.1	12.9	12.8	-179.60	-2.0	-506.2	824.8	799.3	25.43	32.428	
4,400.0	4,379.2	4,250.3	4,212.8	13.0	13.0	-179.60	-2.0	-511.8	834.8	809.1	25.66	32.527	
4,465.0	4,443.6	4,311.6	4,272.8	13.3	13.2	-179.60	-2.0	-524.0	856.5	830.3	26.17	32.733	
4,500.0	4,478.3	4,344.6	4,305.2	13.4	13.3	-179.60	-2.0	-530.6	868.2	841.7	26.44	32.839	
4,560.0	4,537.7	4,401.1	4,360.6	13.7	13.6	-179.60	-2.1	-541.9	888.2	861.3	26.90	33.014	
4,600.0	4,577.3	4,438.8	4,397.6	13.8	13.7	-179.60	-2.1	-549.4	901.6	874.3	27.22	33.126	
4,655.0	4,631.8	4,490.7	4,448.4	14.0	14.0	-179.60	-2.1	-559.7	919.9	892.3	27.65	33.275	
4,700.0	4,676.3	4,533.1	4,489.9	14.2	14.1	-179.60	-2.1	-568.2	934.9	906.9	28.00	33.391	
4,750.0	4,725.8	4,580.2	4,536.1	14.4	14.3	-179.60	-2.2	-577.6	951.6	923.2	28.39	33.516	
4,800.0	4,775.3	4,627.4	4,582.3	14.6	14.5	-179.60	-2.2	-587.0	968.3	939.5	28.79	33.636	
4,845.0	4,819.9	4,669.8	4,623.9	14.8	14.7	-179.60	-2.2	-595.4	983.3	954.2	29.14	33.740	
4,900.0	4,874.4	4,721.6	4,674.7	15.0	14.9	-179.60	-2.2	-605.8	1,001.7	972.1	29.58	33.863	
4,940.0	4,914.0	4,759.3	4,711.6	15.2	15.1	-179.60	-2.2	-613.3	1,015.0	985.1	29.90	33.948	
5,000.0	4,973.4	4,815.9	4,767.0	15.4	15.4	-179.60	-2.3	-624.6	1,035.1	1,004.7	30.38	34.073	
5,035.0	5,008.1	4,848.9	4,799.4	15.5	15.5	-179.60	-2.3	-631.2	1,046.8	1,016.1	30.66	34.142	
5,100.0	5,072.4	4,910.1	4,859.4	15.8	15.8	-179.60	-2.3	-643.4	1,068.5	1,037.3	31.18	34.268	
5,130.0	5,102.1	4,938.4	4,887.1	15.9	15.9	-179.60	-2.3	-649.0	1,078.5	1,047.1	31.42	34.323	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,171.5	5,004.4	4,951.8	16.2	16.2	-179.60	-2.4	-662.2	1,101.8	1,069.9	31.98	34.449		
5,225.0	5,196.2	5,028.0	4,974.9	16.3	16.3	-179.60	-2.4	-666.9	1,110.2	1,078.0	32.19	34.492		
5,300.0	5,270.5	5,098.7	5,044.2	16.6	16.6	-179.60	-2.4	-681.0	1,135.2	1,102.4	32.79	34.618		
5,320.0	5,290.3	5,117.5	5,062.6	16.7	16.7	-179.60	-2.4	-684.7	1,141.9	1,108.9	32.96	34.650		
5,400.0	5,369.5	5,192.9	5,136.5	17.0	17.0	-179.60	-2.5	-699.8	1,168.6	1,135.0	33.60	34.775		
5,415.0	5,384.4	5,207.1	5,150.4	17.1	17.1	-179.60	-2.5	-702.6	1,173.6	1,139.9	33.72	34.803		
5,420.7	5,390.0	5,212.4	5,155.6	17.1	17.1	-179.60	-2.5	-703.6	1,175.5	1,141.7	33.77	34.813		
5,500.0	5,468.6	5,287.3	5,229.0	17.4	17.4	-179.60	-2.5	-718.6	1,201.7	1,167.3	34.40	34.931		
5,510.0	5,478.5	5,296.7	5,238.2	17.4	17.5	-179.60	-2.5	-720.4	1,205.0	1,170.5	34.48	34.944		
5,600.0	5,567.7	5,381.9	5,321.7	17.8	17.8	-179.60	-2.6	-737.4	1,234.0	1,198.8	35.21	35.043		
5,605.0	5,572.7	5,386.7	5,326.4	17.8	17.9	-179.60	-2.6	-738.4	1,235.6	1,200.4	35.26	35.048		
5,700.0	5,667.0	5,476.8	5,414.7	18.2	18.2	-179.60	-2.6	-756.4	1,265.5	1,229.5	36.03	35.128		
5,795.0	5,761.4	5,567.3	5,503.3	18.6	18.7	-179.60	-2.7	-774.4	1,294.7	1,257.9	36.79	35.186		
5,800.0	5,766.4	5,572.0	5,508.0	18.6	18.7	-179.60	-2.7	-775.3	1,296.2	1,259.3	36.84	35.188		

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 #712H
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 #712H	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 Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	-90.47	-0.7	-90.5	90.5				
95.0	95.0	95.0	95.0	3.0	3.0	-90.47	-0.7	-90.5	90.5	84.5	6.03	15.017	
100.0	100.0	100.0	100.0	3.0	3.0	-90.47	-0.7	-90.5	90.5	84.5	6.03	15.008	
190.0	190.0	190.0	190.0	3.1	3.1	-90.47	-0.7	-90.5	90.5	84.3	6.15	14.707	
200.0	200.0	200.0	200.0	3.1	3.1	-90.47	-0.7	-90.5	90.5	84.3	6.17	14.661	
285.0	285.0	285.0	285.0	3.2	3.2	-90.47	-0.7	-90.5	90.5	84.2	6.31	14.338	
300.0	300.0	300.0	300.0	3.2	3.2	-90.47	-0.7	-90.5	90.5	84.1	6.34	14.274	
380.0	380.0	380.0	380.0	3.3	3.3	-90.47	-0.7	-90.5	90.5	84.0	6.49	13.946	
400.0	400.0	400.0	400.0	3.3	3.3	-90.47	-0.7	-90.5	90.5	84.0	6.53	13.859	
475.0	475.0	475.0	475.0	3.4	3.4	-90.47	-0.7	-90.5	90.5	83.8	6.68	13.537	
500.0	500.0	500.0	500.0	3.4	3.4	-90.47	-0.7	-90.5	90.5	83.7	6.74	13.425	
570.0	570.0	570.0	570.0	3.5	3.5	-90.47	-0.7	-90.5	90.5	83.6	6.90	13.118	
600.0	600.0	600.0	600.0	3.5	3.5	-90.47	-0.7	-90.5	90.5	83.5	6.97	12.983	
665.0	665.0	665.0	665.0	3.6	3.6	-90.47	-0.7	-90.5	90.5	83.4	7.13	12.696	
700.0	700.0	700.0	700.0	3.7	3.7	-90.47	-0.7	-90.5	90.5	83.3	7.22	12.540	
760.0	760.0	760.0	760.0	3.8	3.8	-90.47	-0.7	-90.5	90.5	83.1	7.37	12.276	
800.0	800.0	800.0	800.0	3.8	3.8	-90.47	-0.7	-90.5	90.5	83.0	7.48	12.101	
855.0	855.0	855.0	855.0	3.9	3.9	-90.47	-0.7	-90.5	90.5	82.9	7.63	11.863	
900.0	900.0	900.0	900.0	4.0	4.0	-90.47	-0.7	-90.5	90.5	82.7	7.75	11.670	
950.0	950.0	950.0	950.0	4.1	4.1	-90.47	-0.7	-90.5	90.5	82.6	7.90	11.460	
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	-90.47	-0.7	-90.5	90.5	82.4	8.04	11.252	
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	-90.47	-0.7	-90.5	90.5	82.3	8.17	11.069	
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	-90.47	-0.7	-90.5	90.5	82.1	8.34	10.849	
1,140.0	1,140.0	1,140.0	1,140.0	4.4	4.4	-90.47	-0.7	-90.5	90.5	82.0	8.46	10.692	
1,200.0	1,200.0	1,200.0	1,200.0	4.5	4.5	-90.47	-0.7	-90.5	90.5	81.8	8.65	10.461	
1,235.0	1,235.0	1,235.0	1,235.0	4.6	4.6	-90.47	-0.7	-90.5	90.5	81.7	8.76	10.329	
1,300.0	1,300.0	1,300.0	1,300.0	4.7	4.7	-90.47	-0.7	-90.5	90.5	81.5	8.97	10.090	
1,330.0	1,330.0	1,330.0	1,330.0	4.7	4.7	-90.47	-0.7	-90.5	90.5	81.4	9.06	9.982	
1,400.0	1,400.0	1,400.0	1,400.0	4.9	4.9	-90.47	-0.7	-90.5	90.5	81.2	9.29	9.736	
1,425.0	1,425.0	1,425.0	1,425.0	4.9	4.9	-90.47	-0.7	-90.5	90.5	81.1	9.38	9.650	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-90.47	-0.7	-90.5	90.5	80.9	9.63	9.399	
1,520.0	1,520.0	1,520.0	1,520.0	5.1	5.1	-90.47	-0.7	-90.5	90.5	80.8	9.69	9.334	
1,600.0	1,600.0	1,600.0	1,600.0	5.3	5.3	-90.47	-0.7	-90.5	90.5	80.5	9.97	9.079	
1,615.0	1,615.0	1,615.0	1,615.0	5.3	5.3	-90.47	-0.7	-90.5	90.5	80.5	10.02	9.032	
1,700.0	1,700.0	1,700.0	1,700.0	5.5	5.5	-90.47	-0.7	-90.5	90.5	80.2	10.31	8.775	
1,710.0	1,710.0	1,710.0	1,710.0	5.5	5.5	-90.47	-0.7	-90.5	90.5	80.1	10.35	8.745	
1,800.0	1,800.0	1,800.0	1,800.0	5.7	5.7	-90.47	-0.7	-90.5	90.5	79.8	10.66	8.486	
1,805.0	1,805.0	1,805.0	1,805.0	5.7	5.7	-90.47	-0.7	-90.5	90.5	79.8	10.68	8.472	
1,900.0	1,900.0	1,900.0	1,900.0	5.9	5.9	-90.47	-0.7	-90.5	90.5	79.5	11.02	8.212	
1,995.0	1,995.0	1,995.0	1,995.0	6.1	6.1	-90.47	-0.7	-90.5	90.5	79.1	11.36	7.965	
2,000.0	2,000.0	2,000.0	2,000.0	6.1	6.1	-90.47	-0.7	-90.5	90.5	79.1	11.38	7.952 CC, ES	
2,090.0	2,090.0	2,090.0	2,090.0	6.2	6.3	-179.64	-0.7	-90.5	91.9	80.2	11.74	7.830	
2,100.0	2,100.0	2,100.0	2,100.0	6.2	6.3	-179.64	-0.7	-90.5	92.2	80.5	11.78	7.831	
2,185.0	2,184.9	2,184.9	2,184.9	6.3	6.5	-179.66	-0.7	-90.5	96.5	84.3	12.12	7.957	
2,200.0	2,199.8	2,199.8	2,199.8	6.3	6.5	-179.66	-0.7	-90.5	97.5	85.3	12.18	7.999	
2,280.0	2,279.6	2,279.6	2,279.6	6.4	6.7	-179.68	-0.7	-90.5	104.2	91.6	12.52	8.317	
2,300.0	2,299.5	2,299.5	2,299.5	6.5	6.7	-179.69	-0.7	-90.5	106.2	93.6	12.61	8.422	
2,375.0	2,373.9	2,373.9	2,373.9	6.6	6.9	-179.71	-0.7	-90.5	115.0	102.1	12.94	8.887	
2,400.0	2,398.7	2,398.7	2,398.7	6.6	6.9	-179.72	-0.7	-90.5	118.4	105.3	13.05	9.069	
2,470.0	2,468.0	2,468.0	2,468.0	6.8	7.1	-179.74	-0.7	-90.5	128.1	114.8	13.32	9.614	
2,500.0	2,497.7	2,497.7	2,497.7	6.8	7.1	-179.75	-0.7	-90.5	132.3	118.8	13.44	9.841	
2,565.0	2,562.1	2,559.2	2,559.2	7.0	7.2	-179.76	-0.7	-91.1	142.0	128.3	13.71	10.356	

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 #712H
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 #712H	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 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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,600.0	2,596.8	2,592.0	2,592.0	7.1	7.3	-179.76	-0.7	-92.0	147.8	133.9	13.85	10.669	
2,660.0	2,656.2	2,648.0	2,648.0	7.2	7.3	-179.77	-0.7	-94.3	158.6	144.5	14.09	11.254	
2,700.0	2,695.8	2,685.2	2,685.0	7.3	7.4	-179.77	-0.7	-96.5	166.4	152.2	14.25	11.681	
2,755.0	2,750.2	2,735.9	2,735.6	7.4	7.4	-179.76	-0.7	-100.2	178.1	163.6	14.48	12.300	
2,800.0	2,794.8	2,777.1	2,776.6	7.6	7.5	-179.76	-0.7	-103.9	188.3	173.6	14.66	12.842	
2,850.0	2,844.3	2,822.5	2,821.8	7.7	7.5	-179.75	-0.7	-108.6	200.4	185.5	14.88	13.471	
2,900.0	2,893.8	2,867.6	2,866.6	7.8	7.6	-179.74	-0.7	-114.0	213.2	198.2	15.09	14.132	
2,945.0	2,938.4	2,907.8	2,906.4	8.0	7.6	-179.73	-0.7	-119.5	225.5	210.2	15.28	14.760	
3,000.0	2,992.9	2,957.1	2,955.1	8.1	7.6	-179.72	-0.7	-126.9	241.2	225.7	15.47	15.596	
3,040.0	3,032.5	2,995.3	2,992.9	8.2	7.6	-179.71	-0.7	-132.8	252.9	237.3	15.63	16.177	
3,100.0	3,091.9	3,052.7	3,049.6	8.4	7.7	-179.70	-0.7	-141.8	270.4	254.5	15.92	16.986	
3,135.0	3,126.5	3,086.2	3,082.6	8.5	7.8	-179.69	-0.7	-147.1	280.7	264.6	16.10	17.435	
3,200.0	3,190.9	3,148.3	3,144.0	8.7	7.9	-179.68	-0.7	-156.8	299.7	283.2	16.43	18.235	
3,230.0	3,220.6	3,177.0	3,172.4	8.8	8.0	-179.68	-0.7	-161.3	308.5	291.9	16.59	18.589	
3,300.0	3,289.9	3,244.0	3,238.5	9.1	8.1	-179.67	-0.7	-171.7	328.9	311.9	16.97	19.380	
3,325.0	3,314.7	3,267.9	3,262.1	9.1	8.2	-179.66	-0.7	-175.5	336.2	319.1	17.11	19.650	
3,400.0	3,389.0	3,339.6	3,332.9	9.4	8.4	-179.66	-0.7	-186.7	358.2	340.6	17.53	20.425	
3,420.0	3,408.8	3,358.7	3,351.8	9.5	8.4	-179.65	-0.7	-189.7	364.0	346.4	17.65	20.623	
3,500.0	3,488.0	3,435.2	3,427.4	9.7	8.6	-179.65	-0.7	-201.7	387.4	369.3	18.12	21.379	
3,515.0	3,502.9	3,449.6	3,441.6	9.8	8.7	-179.65	-0.7	-203.9	391.8	373.6	18.21	21.514	
3,600.0	3,587.0	3,530.9	3,521.9	10.1	8.9	-179.64	-0.7	-216.6	416.6	397.9	18.73	22.249	
3,610.0	3,596.9	3,540.4	3,531.3	10.1	8.9	-179.64	-0.7	-218.1	419.5	400.8	18.79	22.331	
3,700.0	3,686.0	3,626.5	3,616.3	10.4	9.2	-179.63	-0.7	-231.6	445.9	426.5	19.35	23.042	
3,705.0	3,691.0	3,631.3	3,621.0	10.4	9.2	-179.63	-0.7	-232.3	447.3	427.9	19.38	23.079	
3,800.0	3,785.1	3,722.1	3,710.8	10.8	9.4	-179.63	-0.6	-246.5	475.1	455.1	19.99	23.765	
3,895.0	3,879.2	3,813.0	3,800.5	11.1	9.7	-179.62	-0.6	-260.7	502.9	482.3	20.62	24.393	
3,900.0	3,884.1	3,817.7	3,805.2	11.1	9.7	-179.62	-0.6	-261.5	504.3	483.7	20.65	24.425	
3,990.0	3,973.2	3,903.8	3,890.2	11.5	10.0	-179.62	-0.6	-275.0	530.6	509.4	21.25	24.970	
4,000.0	3,983.1	3,913.4	3,899.7	11.5	10.1	-179.61	-0.6	-276.5	533.6	512.3	21.32	25.028	
4,085.0	4,067.3	3,994.7	3,980.0	11.8	10.3	-179.61	-0.6	-289.2	558.4	536.5	21.90	25.499	
4,100.0	4,082.2	4,009.0	3,994.1	11.9	10.4	-179.61	-0.6	-291.4	562.8	540.8	22.00	25.579	
4,180.0	4,161.4	4,085.5	4,069.7	12.2	10.6	-179.61	-0.6	-303.4	586.2	563.6	22.56	25.986	
4,200.0	4,181.2	4,104.6	4,088.6	12.3	10.7	-179.61	-0.6	-306.4	592.0	569.3	22.70	26.084	
4,275.0	4,255.5	4,176.4	4,159.4	12.6	10.9	-179.60	-0.6	-317.6	614.0	590.7	23.23	26.434	
4,300.0	4,280.2	4,200.3	4,183.0	12.6	11.0	-179.60	-0.6	-321.3	621.3	597.9	23.40	26.547	
4,370.0	4,349.5	4,267.2	4,249.1	12.9	11.3	-179.60	-0.6	-331.8	641.7	617.8	23.90	26.847	
4,400.0	4,379.2	4,295.9	4,277.5	13.0	11.4	-179.60	-0.6	-336.3	650.5	626.4	24.12	26.971	
4,465.0	4,443.6	4,358.1	4,338.9	13.3	11.6	-179.60	-0.6	-346.0	669.5	644.9	24.59	27.228	
4,500.0	4,478.3	4,391.5	4,371.9	13.4	11.7	-179.60	-0.6	-351.3	679.8	654.9	24.84	27.362	
4,560.0	4,537.7	4,448.9	4,428.6	13.7	11.9	-179.59	-0.6	-360.2	697.3	672.0	25.28	27.581	
4,600.0	4,577.3	4,487.2	4,466.4	13.8	12.1	-179.59	-0.6	-366.2	709.0	683.4	25.58	27.722	
4,655.0	4,631.8	4,539.8	4,518.3	14.0	12.2	-179.59	-0.6	-374.4	725.1	699.1	25.98	27.907	
4,700.0	4,676.3	4,582.8	4,560.8	14.2	12.4	-179.59	-0.5	-381.2	738.2	711.9	26.31	28.054	
4,750.0	4,725.8	4,630.6	4,608.1	14.4	12.6	-179.59	-0.5	-388.7	752.8	726.2	26.69	28.210	
4,800.0	4,775.3	4,678.4	4,655.3	14.6	12.8	-179.59	-0.5	-396.1	767.5	740.4	27.06	28.360	
4,845.0	4,819.9	4,721.5	4,697.8	14.8	12.9	-179.59	-0.5	-402.9	780.6	753.2	27.40	28.490	
4,900.0	4,874.4	4,774.1	4,749.7	15.0	13.1	-179.59	-0.5	-411.1	796.7	768.9	27.81	28.644	
4,940.0	4,914.0	4,812.3	4,787.5	15.2	13.3	-179.59	-0.5	-417.1	808.4	780.3	28.12	28.752	
5,000.0	4,973.4	4,869.7	4,844.2	15.4	13.5	-179.58	-0.5	-426.1	825.9	797.4	28.57	28.907	
5,035.0	5,008.1	4,903.2	4,877.3	15.5	13.6	-179.58	-0.5	-431.3	836.2	807.3	28.84	28.995	
5,100.0	5,072.4	4,965.3	4,938.7	15.8	13.9	-179.58	-0.5	-441.0	855.2	825.8	29.34	29.151	
5,130.0	5,102.1	4,994.0	4,967.0	15.9	14.0	-179.58	-0.5	-445.5	863.9	834.4	29.57	29.221	

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 #712H
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 #712H	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 Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,171.5	5,060.9	5,033.1	16.2	14.2	-179.58	-0.5	-456.0	884.4	854.3	30.10	29.378	
5,225.0	5,196.2	5,084.9	5,056.7	16.3	14.3	-179.58	-0.5	-459.7	891.7	861.4	30.30	29.433	
5,300.0	5,270.5	5,156.6	5,127.6	16.6	14.6	-179.58	-0.5	-470.9	913.6	882.8	30.88	29.590	
5,320.0	5,290.3	5,175.7	5,146.4	16.7	14.7	-179.58	-0.5	-473.9	919.5	888.5	31.03	29.630	
5,400.0	5,369.5	5,252.2	5,222.0	17.0	15.0	-179.58	-0.5	-485.9	942.9	911.2	31.65	29.787	
5,415.0	5,384.4	5,266.5	5,236.2	17.1	15.0	-179.58	-0.5	-488.1	947.3	915.5	31.77	29.820	
5,420.7	5,390.0	5,272.0	5,241.6	17.1	15.1	-179.58	-0.5	-489.0	948.9	917.1	31.81	29.832	
5,500.0	5,468.6	5,347.9	5,316.5	17.4	15.4	-179.58	-0.5	-500.9	971.9	939.4	32.42	29.978	
5,510.0	5,478.5	5,357.5	5,326.0	17.4	15.4	-179.58	-0.5	-502.4	974.7	942.2	32.50	29.994	
5,600.0	5,567.7	5,443.9	5,411.3	17.8	15.8	-179.58	-0.5	-515.9	1,000.0	966.8	33.20	30.122	
5,605.0	5,572.7	5,448.7	5,416.1	17.8	15.8	-179.58	-0.5	-516.6	1,001.4	968.2	33.24	30.129	
5,700.0	5,667.0	5,540.1	5,506.3	18.2	16.1	-179.57	-0.4	-530.9	1,027.3	993.3	33.98	30.236	
5,795.0	5,761.4	5,631.7	5,596.8	18.6	16.5	-179.57	-0.4	-545.3	1,052.5	1,017.8	34.72	30.318	
5,800.0	5,766.4	5,636.5	5,601.6	18.6	16.5	-179.57	-0.4	-546.0	1,053.8	1,019.0	34.75	30.321	
5,890.0	5,855.9	5,723.5	5,687.5	18.9	16.9	-179.57	-0.4	-559.6	1,076.9	1,041.5	35.45	30.377	
5,900.0	5,865.9	5,733.2	5,697.0	19.0	16.9	-179.57	-0.4	-561.1	1,079.4	1,043.9	35.53	30.382	
5,985.0	5,950.5	5,815.5	5,778.4	19.3	17.3	-179.57	-0.4	-574.0	1,100.6	1,064.4	36.19	30.415	
6,000.0	5,965.5	5,830.0	5,792.7	19.4	17.3	-179.57	-0.4	-576.3	1,104.2	1,067.9	36.30	30.418	
6,080.0	6,045.2	5,907.7	5,869.4	19.6	17.6	-179.57	-0.4	-588.4	1,123.4	1,086.5	36.92	30.433	
6,100.0	6,065.1	5,927.1	5,888.6	19.7	17.7	-179.57	-0.4	-591.5	1,128.2	1,091.1	37.07	30.434	
6,175.0	6,139.9	6,000.2	5,960.8	20.0	18.0	-179.57	-0.4	-602.9	1,145.6	1,107.9	37.64	30.433	
6,200.0	6,164.8	6,030.7	5,990.9	20.1	18.1	-179.57	-0.4	-607.6	1,151.2	1,113.3	37.88	30.389	
6,270.0	6,234.6	6,116.5	6,075.8	20.3	18.5	-179.56	-0.4	-619.9	1,166.0	1,127.4	38.54	30.251	
6,300.0	6,264.6	6,153.4	6,112.5	20.4	18.6	-179.56	-0.4	-624.8	1,171.9	1,133.0	38.82	30.185	
6,365.0	6,329.5	6,233.9	6,192.3	20.7	19.0	-179.56	-0.4	-634.7	1,183.7	1,144.3	39.42	30.031	
6,400.0	6,364.4	6,277.4	6,235.5	20.8	19.1	-179.56	-0.4	-639.6	1,189.6	1,149.8	39.73	29.940	
6,460.0	6,424.3	6,352.3	6,310.1	21.0	19.4	-179.56	-0.4	-647.2	1,198.7	1,158.5	40.26	29.778	
6,500.0	6,464.3	6,402.4	6,360.0	21.1	19.6	-179.56	-0.4	-651.8	1,204.3	1,163.6	40.60	29.660	
6,555.0	6,519.2	6,471.6	6,428.9	21.3	19.9	-179.56	-0.4	-657.4	1,211.0	1,170.0	41.06	29.497	
6,600.0	6,564.2	6,528.4	6,485.5	21.4	20.1	-179.56	-0.4	-661.3	1,215.9	1,174.5	41.42	29.355	
6,650.0	6,614.2	6,591.6	6,548.6	21.6	20.3	-179.56	-0.3	-665.1	1,220.6	1,178.8	41.81	29.195	
6,700.0	6,664.2	6,654.9	6,611.9	21.7	20.5	-179.56	-0.3	-668.1	1,224.5	1,182.3	42.18	29.031	
6,745.0	6,709.1	6,712.1	6,669.0	21.9	20.7	-179.56	-0.3	-670.3	1,227.4	1,184.9	42.50	28.880	
6,800.0	6,764.1	6,782.0	6,738.9	22.0	20.8	-179.56	-0.3	-672.1	1,230.0	1,187.2	42.86	28.699	
6,840.0	6,804.1	6,832.9	6,789.8	22.1	20.9	-179.56	-0.3	-672.9	1,231.4	1,188.3	43.07	28.593	
6,900.0	6,864.1	6,909.3	6,866.3	22.3	21.1	-179.56	-0.3	-673.3	1,232.4	1,189.1	43.33	28.441	
6,935.0	6,899.1	6,942.2	6,899.1	22.4	21.1	-179.56	-0.3	-673.3	1,232.8	1,189.4	43.41	28.401	
7,000.0	6,964.1	7,007.2	6,964.1	22.5	21.1	-179.56	-0.3	-673.3	1,233.1	1,189.5	43.56	28.306	
7,020.7	6,984.8	7,027.9	6,984.8	22.5	21.1	-90.40	-0.3	-673.3	1,233.1	1,189.5	43.59	28.291	
7,030.0	6,994.1	7,037.2	6,994.1	22.5	21.1	-90.40	-0.3	-673.3	1,233.1	1,189.5	43.59	28.288	
7,100.0	7,064.1	7,107.2	7,064.1	22.5	21.1	-90.40	-0.3	-673.3	1,233.1	1,189.5	43.63	28.261	
7,125.0	7,089.1	7,132.2	7,089.1	22.5	21.1	-90.40	-0.3	-673.3	1,233.1	1,189.4	43.65	28.250	
7,200.0	7,164.1	7,207.2	7,164.1	22.6	21.2	-90.40	-0.3	-673.3	1,233.1	1,189.4	43.70	28.217	
7,220.0	7,184.1	7,227.2	7,184.1	22.6	21.2	-90.40	-0.3	-673.3	1,233.1	1,189.4	43.71	28.208	
7,300.0	7,264.1	7,307.2	7,264.1	22.6	21.2	-90.40	-0.3	-673.3	1,233.1	1,189.3	43.77	28.172	
7,315.0	7,279.1	7,322.2	7,279.1	22.6	21.2	-90.40	-0.3	-673.3	1,233.1	1,189.3	43.78	28.166	
7,400.0	7,364.1	7,407.2	7,364.1	22.6	21.2	-90.40	-0.3	-673.3	1,233.1	1,189.3	43.84	28.128	
7,410.0	7,374.1	7,417.2	7,374.1	22.6	21.2	-90.40	-0.3	-673.3	1,233.1	1,189.2	43.85	28.123	
7,500.0	7,464.1	7,507.2	7,464.1	22.7	21.3	-90.40	-0.3	-673.3	1,233.1	1,189.2	43.91	28.083	
7,505.0	7,469.1	7,512.2	7,469.1	22.7	21.3	-90.40	-0.3	-673.3	1,233.1	1,189.2	43.91	28.081	
7,600.0	7,564.1	7,607.2	7,564.1	22.7	21.3	-90.40	-0.3	-673.3	1,233.1	1,189.1	43.98	28.038	
7,695.0	7,659.1	7,702.2	7,659.1	22.7	21.3	-90.40	-0.3	-673.3	1,233.1	1,189.0	44.05	27.995	

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 #712H
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 #712H	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		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	
7,700.0	7,664.1	7,707.2	7,664.1	22.7	21.3	-90.40	-0.3	-673.3	1,233.1	1,189.0	44.05	27.993		
7,790.0	7,754.1	7,797.2	7,754.1	22.8	21.4	-90.40	-0.3	-673.3	1,233.1	1,189.0	44.11	27.952		
7,800.0	7,764.1	7,807.2	7,764.1	22.8	21.4	-90.40	-0.3	-673.3	1,233.1	1,189.0	44.12	27.947		
7,885.0	7,849.1	7,892.2	7,849.1	22.8	21.4	-90.40	-0.3	-673.3	1,233.1	1,188.9	44.18	27.909		
7,900.0	7,864.1	7,907.2	7,864.1	22.8	21.4	-90.40	-0.3	-673.3	1,233.1	1,188.9	44.19	27.902		
7,980.0	7,944.1	7,987.2	7,944.1	22.8	21.4	-90.40	-0.3	-673.3	1,233.1	1,188.8	44.25	27.865		
8,000.0	7,964.1	8,007.2	7,964.1	22.8	21.4	-90.40	-0.3	-673.3	1,233.1	1,188.8	44.27	27.856		
8,075.0	8,039.1	8,082.2	8,039.1	22.9	21.5	-90.40	-0.3	-673.3	1,233.1	1,188.8	44.32	27.822		
8,100.0	8,064.1	8,107.2	8,064.1	22.9	21.5	-90.40	-0.3	-673.3	1,233.1	1,188.8	44.34	27.810		
8,170.0	8,134.1	8,177.2	8,134.1	22.9	21.5	-90.40	-0.3	-673.3	1,233.1	1,188.7	44.39	27.778		
8,200.0	8,164.1	8,207.2	8,164.1	22.9	21.5	-90.40	-0.3	-673.3	1,233.1	1,188.7	44.41	27.764		
8,265.0	8,229.1	8,272.2	8,229.1	22.9	21.5	-90.40	-0.3	-673.3	1,233.1	1,188.6	44.46	27.735		
8,300.0	8,264.1	8,307.2	8,264.1	22.9	21.6	-90.40	-0.3	-673.3	1,233.1	1,188.6	44.49	27.718		
8,360.0	8,324.1	8,367.2	8,324.1	23.0	21.6	-90.40	-0.3	-673.3	1,233.1	1,188.6	44.53	27.691		
8,400.0	8,364.1	8,407.2	8,364.1	23.0	21.6	-90.40	-0.3	-673.3	1,233.1	1,188.5	44.56	27.672		
8,455.0	8,419.1	8,462.2	8,419.1	23.0	21.6	-90.40	-0.3	-673.3	1,233.1	1,188.5	44.60	27.647		
8,500.0	8,464.1	8,507.2	8,464.1	23.0	21.6	-90.40	-0.3	-673.3	1,233.1	1,188.5	44.64	27.626		
8,550.0	8,514.1	8,557.2	8,514.1	23.0	21.7	-90.40	-0.3	-673.3	1,233.1	1,188.4	44.67	27.603		
8,600.0	8,564.1	8,607.2	8,564.1	23.0	21.7	-90.40	-0.3	-673.3	1,233.1	1,188.4	44.71	27.579		
8,645.0	8,609.1	8,652.2	8,609.1	23.1	21.7	-90.40	-0.3	-673.3	1,233.1	1,188.3	44.74	27.558		
8,700.0	8,664.1	8,707.2	8,664.1	23.1	21.7	-90.40	-0.3	-673.3	1,233.1	1,188.3	44.79	27.533		
8,740.0	8,704.1	8,747.2	8,704.1	23.1	21.7	-90.40	-0.3	-673.3	1,233.1	1,188.3	44.82	27.514		
8,800.0	8,764.1	8,807.2	8,764.1	23.1	21.8	-90.40	-0.3	-673.3	1,233.1	1,188.2	44.86	27.486		
8,835.0	8,799.1	8,842.2	8,799.1	23.1	21.8	-90.40	-0.3	-673.3	1,233.1	1,188.2	44.89	27.470		
8,900.0	8,864.1	8,907.2	8,864.1	23.1	21.8	-90.40	-0.3	-673.3	1,233.1	1,188.2	44.94	27.439		
8,930.0	8,894.1	8,937.2	8,894.1	23.2	21.8	-90.40	-0.3	-673.3	1,233.1	1,188.1	44.96	27.425		
9,000.0	8,964.1	9,007.2	8,964.1	23.2	21.8	-90.40	-0.3	-673.3	1,233.1	1,188.1	45.02	27.392		
9,025.0	8,989.1	9,032.2	8,989.1	23.2	21.8	-90.40	-0.3	-673.3	1,233.1	1,188.1	45.04	27.380		
9,100.0	9,064.1	9,107.2	9,064.1	23.2	21.9	-90.40	-0.3	-673.3	1,233.1	1,188.0	45.09	27.345		
9,120.0	9,084.1	9,127.2	9,084.1	23.2	21.9	-90.40	-0.3	-673.3	1,233.1	1,188.0	45.11	27.335		
9,200.0	9,164.1	9,207.2	9,164.1	23.3	21.9	-90.40	-0.3	-673.3	1,233.1	1,187.9	45.17	27.298		
9,215.0	9,179.1	9,222.2	9,179.1	23.3	21.9	-90.40	-0.3	-673.3	1,233.1	1,187.9	45.18	27.291		
9,300.0	9,264.1	9,307.2	9,264.1	23.3	22.0	-90.40	-0.3	-673.3	1,233.1	1,187.8	45.25	27.250		
9,310.0	9,274.1	9,317.2	9,274.1	23.3	22.0	-90.40	-0.3	-673.3	1,233.1	1,187.8	45.26	27.246		
9,400.0	9,364.1	9,407.2	9,364.1	23.3	22.0	-90.40	-0.3	-673.3	1,233.1	1,187.8	45.33	27.203		
9,405.0	9,369.1	9,412.2	9,369.1	23.3	22.0	-90.40	-0.3	-673.3	1,233.1	1,187.8	45.33	27.201		
9,500.0	9,464.1	9,507.2	9,464.1	23.4	22.0	-90.40	-0.3	-673.3	1,233.1	1,187.7	45.41	27.155		
9,595.0	9,559.1	9,602.2	9,559.1	23.4	22.1	-90.40	-0.3	-673.3	1,233.1	1,187.6	45.48	27.110		
9,600.0	9,564.1	9,607.2	9,564.1	23.4	22.1	-90.40	-0.3	-673.3	1,233.1	1,187.6	45.49	27.108		
9,690.0	9,654.1	9,697.2	9,654.1	23.5	22.1	-90.40	-0.3	-673.3	1,233.1	1,187.5	45.56	27.065		
9,700.0	9,664.1	9,707.2	9,664.1	23.5	22.1	-90.40	-0.3	-673.3	1,233.1	1,187.5	45.57	27.060		
9,785.0	9,749.1	9,792.2	9,749.1	23.5	22.2	-90.40	-0.3	-673.3	1,233.1	1,187.5	45.64	27.019		
9,800.0	9,764.1	9,807.2	9,764.1	23.5	22.2	-90.40	-0.3	-673.3	1,233.1	1,187.4	45.65	27.012		
9,880.0	9,844.1	9,887.2	9,844.1	23.5	22.2	-90.40	-0.3	-673.3	1,233.1	1,187.4	45.71	26.974		
9,900.0	9,864.1	9,907.2	9,864.1	23.5	22.2	-90.40	-0.3	-673.3	1,233.1	1,187.4	45.73	26.964		
9,975.0	9,939.1	9,982.2	9,939.1	23.6	22.2	-90.40	-0.3	-673.3	1,233.1	1,187.3	45.79	26.928		
10,000.0	9,964.1	10,007.2	9,964.1	23.6	22.2	-90.40	-0.3	-673.3	1,233.1	1,187.3	45.81	26.916		
10,070.0	10,034.1	10,077.2	10,034.1	23.6	22.3	-90.40	-0.3	-673.3	1,233.1	1,187.2	45.87	26.882		
10,100.0	10,064.1	10,107.2	10,064.1	23.6	22.3	-90.40	-0.3	-673.3	1,233.1	1,187.2	45.89	26.868		
10,165.0	10,129.1	10,172.2	10,129.1	23.6	22.3	-90.40	-0.3	-673.3	1,233.1	1,187.1	45.95	26.837		
10,200.0	10,164.1	10,207.2	10,164.1	23.7	22.3	-90.40	-0.3	-673.3	1,233.1	1,187.1	45.98	26.820		
10,260.0	10,224.1	10,267.2	10,224.1	23.7	22.4	-90.40	-0.3	-673.3	1,233.1	1,187.1	46.03	26.791		

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 #712H
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 #712H	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				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	10,264.1	10,307.2	10,264.1	23.7	22.4	-90.40	-0.3	-673.3	1,233.1	1,187.0	46.06	26.772	
10,355.0	10,319.1	10,362.2	10,319.1	23.7	22.4	-90.40	-0.3	-673.3	1,233.1	1,187.0	46.11	26.745	
10,400.0	10,364.1	10,407.2	10,364.1	23.7	22.4	-90.40	-0.3	-673.3	1,233.1	1,186.9	46.14	26.723	
10,450.0	10,414.1	10,457.2	10,414.1	23.8	22.4	-90.40	-0.3	-673.3	1,233.1	1,186.9	46.18	26.699	
10,500.0	10,464.1	10,507.2	10,464.1	23.8	22.5	-90.40	-0.3	-673.3	1,233.1	1,186.9	46.23	26.675	
10,545.0	10,509.1	10,552.2	10,509.1	23.8	22.5	-90.40	-0.3	-673.3	1,233.1	1,186.8	46.26	26.653	
10,600.0	10,564.1	10,607.2	10,564.1	23.8	22.5	-90.40	-0.3	-673.3	1,233.1	1,186.8	46.31	26.626	
10,640.0	10,604.1	10,647.2	10,604.1	23.8	22.5	-90.40	-0.3	-673.3	1,233.1	1,186.7	46.34	26.607	
10,700.0	10,664.1	10,707.2	10,664.1	23.9	22.5	-90.40	-0.3	-673.3	1,233.1	1,186.7	46.40	26.578	
10,735.0	10,699.1	10,742.2	10,699.1	23.9	22.6	-90.40	-0.3	-673.3	1,233.1	1,186.7	46.43	26.561	
10,800.0	10,764.1	10,807.2	10,764.1	23.9	22.6	-90.40	-0.3	-673.3	1,233.1	1,186.6	46.48	26.529	
10,830.0	10,794.1	10,837.2	10,794.1	23.9	22.6	-90.40	-0.3	-673.3	1,233.1	1,186.6	46.51	26.515	
10,900.0	10,864.1	10,907.2	10,864.1	23.9	22.6	-90.40	-0.3	-673.3	1,233.1	1,186.5	46.57	26.481	
10,925.0	10,889.1	10,932.2	10,889.1	23.9	22.6	-90.40	-0.3	-673.3	1,233.1	1,186.5	46.59	26.468	
11,000.0	10,964.1	11,007.2	10,964.1	24.0	22.7	-90.40	-0.3	-673.3	1,233.1	1,186.4	46.65	26.433	
11,001.3	10,965.5	11,008.5	10,965.5	24.0	22.7	-90.40	-0.3	-673.3	1,233.1	1,186.4	46.65	26.432	
11,020.0	10,984.1	11,027.2	10,984.1	24.0	22.7	-90.39	-0.3	-673.3	1,233.1	1,186.4	46.66	26.427	
11,100.0	11,064.1	11,105.8	11,062.2	24.0	22.7	-90.04	7.4	-673.4	1,233.1	1,186.4	46.70	26.406	
11,115.0	11,079.1	11,120.1	11,076.3	24.0	22.7	-89.91	10.2	-673.4	1,233.2	1,186.5	46.70	26.404	
11,182.4	11,146.5	11,182.1	11,135.9	24.0	22.7	-89.13	27.0	-673.6	1,233.5	1,186.8	46.72	26.402	
11,200.0	11,164.1	11,197.6	11,150.4	24.0	22.7	-88.35	32.4	-673.6	1,233.7	1,186.9	46.72	26.406	
11,210.0	11,174.1	11,206.3	11,158.5	24.0	22.7	-88.20	35.7	-673.6	1,233.8	1,187.0	46.72	26.408	
11,225.0	11,189.1	11,219.3	11,170.4	24.0	22.7	-87.98	40.8	-673.7	1,233.9	1,187.2	46.72	26.412	
11,250.0	11,213.9	11,240.7	11,189.8	24.0	22.7	-87.63	49.9	-673.8	1,234.3	1,187.5	46.72	26.420	
11,275.0	11,238.5	11,261.9	11,208.6	24.0	22.7	-87.28	59.8	-673.9	1,234.6	1,187.9	46.72	26.429	
11,300.0	11,262.9	11,282.9	11,226.6	24.1	22.7	-86.93	70.4	-674.0	1,235.0	1,188.3	46.71	26.438	
11,305.0	11,267.8	11,287.0	11,230.2	24.1	22.7	-86.86	72.6	-674.0	1,235.1	1,188.4	46.71	26.440	
11,325.0	11,287.0	11,303.6	11,244.1	24.1	22.7	-86.60	81.6	-674.1	1,235.5	1,188.8	46.71	26.448	
11,350.0	11,310.7	11,325.0	11,261.5	24.1	22.7	-86.26	94.0	-674.2	1,235.9	1,189.2	46.71	26.457	
11,375.0	11,333.9	11,344.4	11,276.8	24.1	22.7	-85.95	105.9	-674.3	1,236.4	1,189.7	46.72	26.466	
11,400.0	11,356.7	11,364.5	11,292.2	24.1	22.7	-85.64	118.9	-674.4	1,236.9	1,190.2	46.72	26.475	
11,425.0	11,378.8	11,384.4	11,306.9	24.1	22.7	-85.34	132.4	-674.5	1,237.5	1,190.7	46.73	26.484	
11,450.0	11,400.3	11,404.2	11,320.9	24.1	22.7	-85.05	146.4	-674.7	1,238.0	1,191.3	46.73	26.491	
11,475.0	11,421.1	11,425.0	11,334.9	24.1	22.7	-84.75	161.6	-674.8	1,238.5	1,191.8	46.74	26.498	
11,495.0	11,437.3	11,439.5	11,344.3	24.1	22.7	-84.55	172.6	-674.9	1,239.0	1,192.2	46.75	26.501	
11,500.0	11,441.2	11,443.4	11,346.8	24.1	22.7	-84.50	175.7	-674.9	1,239.1	1,192.3	46.75	26.502	
11,525.0	11,460.5	11,462.7	11,358.7	24.1	22.7	-84.24	190.9	-675.1	1,239.6	1,192.9	46.77	26.506	
11,550.0	11,478.9	11,482.0	11,369.9	24.1	22.8	-84.00	206.6	-675.2	1,240.1	1,193.4	46.78	26.508	
11,575.0	11,496.3	11,500.0	11,379.9	24.1	22.8	-83.78	221.6	-675.3	1,240.7	1,193.9	46.80	26.508	
11,590.0	11,506.4	11,512.6	11,386.5	24.1	22.8	-83.64	232.3	-675.4	1,241.0	1,194.2	46.82	26.507	
11,600.0	11,512.9	11,520.2	11,390.3	24.1	22.8	-83.55	238.8	-675.5	1,241.2	1,194.3	46.82	26.507	
11,625.0	11,528.4	11,539.1	11,399.4	24.1	22.8	-83.35	255.5	-675.6	1,241.6	1,194.8	46.85	26.503	
11,650.0	11,542.9	11,558.0	11,407.9	24.1	22.8	-83.16	272.3	-675.8	1,242.1	1,195.2	46.88	26.498	
11,675.0	11,556.3	11,575.0	11,414.9	24.1	22.8	-83.00	287.8	-675.9	1,242.5	1,195.6	46.91	26.490	
11,685.0	11,561.3	11,584.3	11,418.5	24.1	22.8	-82.93	296.4	-676.0	1,242.7	1,195.8	46.92	26.487	
11,700.0	11,568.5	11,595.5	11,422.6	24.1	22.8	-82.83	306.8	-676.1	1,242.9	1,196.0	46.94	26.481	
11,725.0	11,579.6	11,614.2	11,428.9	24.2	22.8	-82.69	324.4	-676.3	1,243.3	1,196.3	46.97	26.469	
11,750.0	11,589.6	11,632.8	11,434.5	24.2	22.8	-82.56	342.1	-676.4	1,243.6	1,196.6	47.01	26.455	
11,775.0	11,598.3	11,650.0	11,439.1	24.2	22.9	-82.46	358.7	-676.6	1,243.9	1,196.9	47.05	26.440	
11,780.0	11,599.9	11,655.1	11,440.3	24.2	22.9	-82.44	363.6	-676.6	1,244.0	1,196.9	47.06	26.436	
11,800.0	11,605.8	11,669.9	11,443.6	24.2	22.9	-82.36	378.1	-676.8	1,244.2	1,197.1	47.09	26.422	
11,825.0	11,612.0	11,688.4	11,447.1	24.2	22.9	-82.29	396.3	-676.9	1,244.4	1,197.2	47.13	26.402	

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 #712H
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 #712H	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 Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,850.0	11,616.9	11,706.9	11,449.9	24.2	22.9	-82.23	414.5	-677.1	1,244.5	1,197.4	47.18	26.381	
11,875.0	11,620.6	11,725.0	11,451.9	24.3	22.9	-82.18	432.5	-677.2	1,244.6	1,197.4	47.22	26.357	
11,900.0	11,622.9	11,743.8	11,453.3	24.3	23.0	-82.16	451.3	-677.4	1,244.7	1,197.4	47.27	26.332	
11,925.0	11,623.9	11,762.2	11,453.9	24.3	23.0	-82.15	469.7	-677.6	1,244.7	1,197.4	47.32	26.305	
11,932.4	11,624.0	11,769.6	11,454.0	24.3	23.0	-82.15	477.1	-677.7	1,244.7	1,197.4	47.34	26.295	
11,946.2	11,624.0	11,780.7	11,454.0	24.3	23.0	-82.15	488.2	-677.8	1,244.7	1,197.4	47.37	26.278	
11,970.0	11,624.0	11,804.6	11,454.0	24.4	23.0	-82.15	512.0	-678.0	1,244.7	1,197.3	47.43	26.245	
12,000.0	11,624.0	11,834.6	11,454.0	24.4	23.1	-82.15	542.0	-678.2	1,244.7	1,197.2	47.51	26.199	
12,065.0	11,624.0	11,899.6	11,454.0	24.5	23.2	-82.15	607.0	-678.8	1,244.7	1,197.0	47.71	26.092	
12,100.0	11,624.0	11,934.6	11,454.0	24.6	23.2	-82.15	642.0	-679.2	1,244.7	1,196.9	47.82	26.030	
12,160.0	11,624.0	11,994.6	11,454.0	24.7	23.3	-82.15	702.0	-679.7	1,244.7	1,196.7	48.03	25.917	
12,200.0	11,624.0	12,034.6	11,454.0	24.7	23.4	-82.15	742.0	-680.1	1,244.7	1,196.6	48.17	25.838	
12,255.0	11,624.0	12,089.6	11,454.0	24.8	23.5	-82.15	797.0	-680.6	1,244.7	1,196.3	48.39	25.723	
12,300.0	11,624.0	12,134.6	11,454.0	24.9	23.6	-82.15	842.0	-681.0	1,244.7	1,196.2	48.58	25.625	
12,350.0	11,624.0	12,184.6	11,454.0	25.0	23.7	-82.15	892.0	-681.4	1,244.7	1,195.9	48.79	25.510	
12,400.0	11,624.0	12,234.6	11,454.0	25.2	23.9	-82.15	942.0	-681.9	1,244.7	1,195.7	49.02	25.392	
12,445.0	11,624.0	12,279.6	11,454.0	25.3	24.0	-82.15	987.0	-682.3	1,244.7	1,195.5	49.24	25.280	
12,500.0	11,624.0	12,334.6	11,454.0	25.4	24.1	-82.15	1,042.0	-682.8	1,244.7	1,195.2	49.51	25.141	
12,540.0	11,624.0	12,374.6	11,454.0	25.5	24.2	-82.15	1,082.0	-683.1	1,244.7	1,195.0	49.72	25.036	
12,600.0	11,624.0	12,434.6	11,454.0	25.7	24.4	-82.15	1,142.0	-683.7	1,244.7	1,194.7	50.04	24.875	
12,635.0	11,624.0	12,469.6	11,454.0	25.8	24.5	-82.15	1,177.0	-684.0	1,244.7	1,194.5	50.24	24.775	
12,700.0	11,624.0	12,534.6	11,454.0	25.9	24.7	-82.15	1,242.0	-684.6	1,244.7	1,194.1	50.61	24.594	
12,730.0	11,624.0	12,564.6	11,454.0	26.0	24.8	-82.15	1,272.0	-684.9	1,244.7	1,193.9	50.79	24.507	
12,800.0	11,624.0	12,634.6	11,454.0	26.2	25.0	-82.15	1,342.0	-685.5	1,244.7	1,193.5	51.22	24.301	
12,825.0	11,624.0	12,659.6	11,454.0	26.3	25.1	-82.15	1,367.0	-685.7	1,244.7	1,193.3	51.38	24.225	
12,900.0	11,624.0	12,734.6	11,454.0	26.6	25.3	-82.15	1,442.0	-686.4	1,244.7	1,192.8	51.87	23.998	
12,920.0	11,624.0	12,754.6	11,454.0	26.6	25.4	-82.15	1,462.0	-686.6	1,244.7	1,192.7	52.00	23.935	
13,000.0	11,624.0	12,834.6	11,454.0	26.9	25.7	-82.15	1,542.0	-687.3	1,244.7	1,192.2	52.55	23.685	
13,015.0	11,624.0	12,849.6	11,454.0	26.9	25.7	-82.15	1,557.0	-687.5	1,244.7	1,192.0	52.66	23.637	
13,100.0	11,624.0	12,934.6	11,454.0	27.2	26.1	-82.15	1,642.0	-688.2	1,244.7	1,191.4	53.27	23.365	
13,110.0	11,624.0	12,944.6	11,454.0	27.3	26.1	-82.15	1,652.0	-688.3	1,244.7	1,191.4	53.35	23.333	
13,200.0	11,624.0	13,034.6	11,454.0	27.6	26.4	-82.15	1,742.0	-689.1	1,244.7	1,190.7	54.02	23.040	
13,205.0	11,624.0	13,039.6	11,454.0	27.6	26.5	-82.15	1,747.0	-689.2	1,244.7	1,190.6	54.06	23.023	
13,300.0	11,624.0	13,134.6	11,454.0	28.0	26.8	-82.15	1,842.0	-690.0	1,244.7	1,189.9	54.81	22.709	
13,395.0	11,624.0	13,229.6	11,454.0	28.4	27.2	-82.15	1,937.0	-690.9	1,244.7	1,189.1	55.58	22.393	
13,400.0	11,624.0	13,234.6	11,454.0	28.4	27.3	-82.15	1,942.0	-690.9	1,244.7	1,189.1	55.63	22.376	
13,490.0	11,624.0	13,324.6	11,454.0	28.8	27.7	-82.15	2,032.0	-691.8	1,244.7	1,188.3	56.39	22.075	
13,500.0	11,624.0	13,334.6	11,454.0	28.8	27.7	-82.15	2,042.0	-691.9	1,244.7	1,188.2	56.47	22.041	
13,585.0	11,624.0	13,419.6	11,454.0	29.2	28.1	-82.15	2,127.0	-692.6	1,244.7	1,187.5	57.21	21.755	
13,600.0	11,624.0	13,434.6	11,454.0	29.2	28.1	-82.15	2,142.0	-692.8	1,244.7	1,187.3	57.35	21.705	
13,680.0	11,624.0	13,514.6	11,454.0	29.6	28.5	-82.15	2,222.0	-693.5	1,244.7	1,186.6	58.06	21.436	
13,700.0	11,624.0	13,534.6	11,454.0	29.7	28.6	-82.15	2,242.0	-693.7	1,244.7	1,186.4	58.25	21.369	
13,775.0	11,624.0	13,609.6	11,454.0	30.0	29.0	-82.15	2,317.0	-694.4	1,244.7	1,185.7	58.94	21.118	
13,800.0	11,624.0	13,634.6	11,454.0	30.1	29.1	-82.15	2,342.0	-694.6	1,244.7	1,185.5	59.17	21.035	
13,870.0	11,624.0	13,704.6	11,454.0	30.5	29.4	-82.15	2,412.0	-695.2	1,244.7	1,184.8	59.84	20.801	
13,900.0	11,624.0	13,734.6	11,454.0	30.6	29.6	-82.15	2,442.0	-695.5	1,244.7	1,184.6	60.12	20.702	
13,965.0	11,624.0	13,799.6	11,454.0	30.9	29.9	-82.15	2,507.0	-696.1	1,244.7	1,183.9	60.75	20.487	
14,000.0	11,624.0	13,834.6	11,454.0	31.1	30.1	-82.15	2,542.0	-696.4	1,244.7	1,183.6	61.10	20.372	
14,060.0	11,624.0	13,894.6	11,454.0	31.4	30.4	-82.15	2,601.9	-696.9	1,244.7	1,183.0	61.69	20.175	
14,100.0	11,624.0	13,934.6	11,454.0	31.6	30.6	-82.15	2,641.9	-697.3	1,244.7	1,182.6	62.10	20.045	
14,155.0	11,624.0	13,989.6	11,454.0	31.9	30.9	-82.15	2,696.9	-697.8	1,244.7	1,182.0	62.65	19.866	
14,200.0	11,624.0	14,034.6	11,454.0	32.1	31.1	-82.15	2,741.9	-698.2	1,244.7	1,181.6	63.11	19.721	

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 #712H
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 #712H	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	Highside	Rule Assigned:				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,250.0	11,624.0	14,084.6	11,454.0	32.3	31.3	-82.15	2,791.9	-698.7	1,244.7	1,181.0	63.63	19.561	
14,300.0	11,624.0	14,134.6	11,454.0	32.6	31.6	-82.15	2,841.9	-699.1	1,244.7	1,180.5	64.15	19.402	
14,345.0	11,624.0	14,179.6	11,454.0	32.8	31.9	-82.15	2,886.9	-699.5	1,244.7	1,180.0	64.63	19.260	
14,400.0	11,624.0	14,234.6	11,454.0	33.1	32.2	-82.15	2,941.9	-700.0	1,244.7	1,179.5	65.21	19.087	
14,440.0	11,624.0	14,274.6	11,454.0	33.3	32.4	-82.15	2,981.9	-700.4	1,244.7	1,179.0	65.64	18.963	
14,500.0	11,624.0	14,334.6	11,454.0	33.7	32.7	-82.15	3,041.9	-700.9	1,244.7	1,178.4	66.28	18.777	
14,535.0	11,624.0	14,369.6	11,454.0	33.8	32.9	-82.15	3,076.9	-701.2	1,244.7	1,178.0	66.67	18.670	
14,600.0	11,624.0	14,434.6	11,454.0	34.2	33.3	-82.15	3,141.9	-701.8	1,244.7	1,177.3	67.38	18.473	
14,630.0	11,624.0	14,464.6	11,454.0	34.4	33.4	-82.15	3,171.9	-702.1	1,244.7	1,177.0	67.71	18.382	
14,700.0	11,624.0	14,534.6	11,454.0	34.7	33.8	-82.15	3,241.9	-702.7	1,244.7	1,176.2	68.49	18.173	
14,725.0	11,624.0	14,559.6	11,454.0	34.9	34.0	-82.15	3,266.9	-703.0	1,244.7	1,175.9	68.77	18.099	
14,800.0	11,624.0	14,634.6	11,454.0	35.3	34.4	-82.15	3,341.9	-703.7	1,244.7	1,175.0	69.61	17.879	
14,820.0	11,624.0	14,654.6	11,454.0	35.4	34.5	-82.15	3,361.9	-703.8	1,244.7	1,174.8	69.84	17.821	
14,900.0	11,624.0	14,734.6	11,454.0	35.9	35.0	-82.15	3,441.9	-704.6	1,244.7	1,173.9	70.75	17.591	
14,915.0	11,624.0	14,749.6	11,454.0	35.9	35.1	-82.15	3,456.9	-704.7	1,244.7	1,173.7	70.93	17.548	
15,000.0	11,624.0	14,834.6	11,454.0	36.4	35.6	-82.15	3,541.9	-705.5	1,244.7	1,172.7	71.91	17.308	
15,010.0	11,624.0	14,844.6	11,454.0	36.5	35.6	-82.15	3,551.9	-705.6	1,244.6	1,172.6	72.03	17.280	
15,100.0	11,624.0	14,934.6	11,454.0	37.0	36.1	-82.15	3,641.9	-706.4	1,244.6	1,171.6	73.08	17.032	
15,105.0	11,624.0	14,939.6	11,454.0	37.0	36.2	-82.15	3,646.9	-706.4	1,244.6	1,171.5	73.14	17.018	
15,200.0	11,624.0	15,034.6	11,454.0	37.6	36.7	-82.15	3,741.9	-707.3	1,244.6	1,170.4	74.26	16.760	
15,295.0	11,624.0	15,129.6	11,454.0	38.2	37.3	-82.15	3,836.9	-708.1	1,244.6	1,169.2	75.40	16.508	
15,300.0	11,624.0	15,134.6	11,454.0	38.2	37.3	-82.15	3,841.9	-708.2	1,244.6	1,169.2	75.46	16.495	
15,390.0	11,624.0	15,224.6	11,454.0	38.7	37.9	-82.15	3,931.9	-709.0	1,244.6	1,168.1	76.54	16.261	
15,400.0	11,624.0	15,234.6	11,454.0	38.8	38.0	-82.15	3,941.9	-709.1	1,244.6	1,168.0	76.66	16.236	
15,485.0	11,624.0	15,319.6	11,454.0	39.3	38.5	-82.15	4,026.9	-709.9	1,244.6	1,166.9	77.70	16.019	
15,500.0	11,624.0	15,334.6	11,454.0	39.4	38.6	-82.15	4,041.9	-710.0	1,244.6	1,166.8	77.88	15.982	
15,580.0	11,624.0	15,414.6	11,454.0	39.9	39.1	-82.15	4,121.9	-710.7	1,244.6	1,165.8	78.86	15.783	
15,600.0	11,624.0	15,434.6	11,454.0	40.0	39.2	-82.15	4,141.9	-710.9	1,244.6	1,165.5	79.11	15.734	
15,675.0	11,624.0	15,509.6	11,454.0	40.4	39.7	-82.15	4,216.9	-711.6	1,244.6	1,164.6	80.04	15.551	
15,700.0	11,624.0	15,534.6	11,454.0	40.6	39.8	-82.15	4,241.9	-711.8	1,244.6	1,164.3	80.35	15.491	
15,770.0	11,624.0	15,604.6	11,454.0	41.0	40.3	-82.15	4,311.9	-712.5	1,244.6	1,163.4	81.22	15.324	
15,800.0	11,624.0	15,634.6	11,454.0	41.2	40.4	-82.15	4,341.9	-712.7	1,244.6	1,163.0	81.59	15.254	
15,865.0	11,624.0	15,699.6	11,454.0	41.6	40.9	-82.15	4,406.9	-713.3	1,244.6	1,162.2	82.41	15.103	
15,900.0	11,624.0	15,734.6	11,454.0	41.8	41.1	-82.15	4,441.9	-713.6	1,244.6	1,161.8	82.85	15.022	
15,960.0	11,624.0	15,794.6	11,454.0	42.2	41.5	-82.15	4,501.9	-714.2	1,244.6	1,161.0	83.61	14.886	
16,000.0	11,624.0	15,834.6	11,454.0	42.5	41.7	-82.15	4,541.9	-714.5	1,244.6	1,160.5	84.12	14.796	
16,055.0	11,624.0	15,889.6	11,454.0	42.8	42.1	-82.15	4,596.9	-715.0	1,244.6	1,159.8	84.82	14.674	
16,100.0	11,624.0	15,934.6	11,454.0	43.1	42.4	-82.15	4,641.9	-715.5	1,244.6	1,159.2	85.39	14.575	
16,150.0	11,624.0	15,984.6	11,454.0	43.4	42.7	-82.15	4,691.9	-715.9	1,244.6	1,158.6	86.03	14.467	
16,200.0	11,624.0	16,034.6	11,454.0	43.7	43.0	-82.15	4,741.9	-716.4	1,244.6	1,157.9	86.68	14.359	
16,245.0	11,624.0	16,079.6	11,454.0	44.0	43.3	-82.15	4,786.9	-716.8	1,244.6	1,157.4	87.26	14.264	
16,300.0	11,624.0	16,134.6	11,454.0	44.4	43.7	-82.15	4,841.9	-717.3	1,244.6	1,156.6	87.97	14.149	
16,340.0	11,624.0	16,174.6	11,454.0	44.6	43.9	-82.15	4,881.9	-717.6	1,244.6	1,156.1	88.49	14.066	
16,400.0	11,624.0	16,234.6	11,454.0	45.0	44.3	-82.15	4,941.9	-718.2	1,244.6	1,155.3	89.27	13.943	
16,435.0	11,624.0	16,269.6	11,454.0	45.2	44.5	-82.15	4,976.9	-718.5	1,244.6	1,154.9	89.72	13.872	
16,500.0	11,624.0	16,334.6	11,454.0	45.7	45.0	-82.15	5,041.8	-719.1	1,244.6	1,154.0	90.57	13.742	
16,530.0	11,624.0	16,364.6	11,454.0	45.9	45.2	-82.15	5,071.8	-719.4	1,244.6	1,153.6	90.97	13.682	
16,600.0	11,624.0	16,434.6	11,454.0	46.3	45.6	-82.15	5,141.8	-720.0	1,244.6	1,152.7	91.88	13.545	
16,625.0	11,624.0	16,459.6	11,454.0	46.5	45.8	-82.15	5,166.8	-720.2	1,244.6	1,152.4	92.21	13.497	
16,700.0	11,624.0	16,534.6	11,454.0	47.0	46.3	-82.15	5,241.8	-720.9	1,244.6	1,151.4	93.20	13.354	
16,720.0	11,624.0	16,554.6	11,454.0	47.1	46.4	-82.15	5,261.8	-721.1	1,244.6	1,151.1	93.47	13.316	
16,800.0	11,624.0	16,634.6	11,454.0	47.6	47.0	-82.15	5,341.8	-721.8	1,244.6	1,150.1	94.53	13.166	

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 #712H
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 #712H	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	Highside	Rule Assigned:				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,815.0	11,624.0	16,649.6	11,454.0	47.7	47.1	-82.15	5,356.8	-721.9	1,244.6	1,149.9	94.73	13.139	
16,900.0	11,624.0	16,734.6	11,454.0	48.3	47.6	-82.15	5,441.8	-722.7	1,244.6	1,148.7	95.86	12.983	
16,910.0	11,624.0	16,744.6	11,454.0	48.4	47.7	-82.15	5,451.8	-722.8	1,244.6	1,148.6	95.99	12.965	
17,000.0	11,624.0	16,834.6	11,454.0	49.0	48.3	-82.15	5,541.8	-723.6	1,244.6	1,147.4	97.20	12.805	
17,005.0	11,624.0	16,839.6	11,454.0	49.0	48.3	-82.15	5,546.8	-723.7	1,244.6	1,147.3	97.26	12.796	
17,100.0	11,624.0	16,934.6	11,454.0	49.6	49.0	-82.15	5,641.8	-724.5	1,244.6	1,146.1	98.54	12.630	
17,195.0	11,624.0	17,029.6	11,454.0	50.3	49.6	-82.15	5,736.8	-725.4	1,244.6	1,144.8	99.82	12.468	
17,200.0	11,624.0	17,034.6	11,454.0	50.3	49.7	-82.15	5,741.8	-725.4	1,244.6	1,144.7	99.89	12.460	
17,290.0	11,624.0	17,124.6	11,454.0	50.9	50.3	-82.15	5,831.8	-726.3	1,244.6	1,143.5	101.11	12.310	
17,300.0	11,624.0	17,134.6	11,454.0	51.0	50.3	-82.15	5,841.8	-726.3	1,244.6	1,143.3	101.24	12.293	
17,385.0	11,624.0	17,219.6	11,454.0	51.5	50.9	-82.15	5,926.8	-727.1	1,244.6	1,142.2	102.40	12.155	
17,400.0	11,624.0	17,234.6	11,454.0	51.6	51.0	-82.15	5,941.8	-727.3	1,244.6	1,142.0	102.60	12.130	
17,480.0	11,624.0	17,314.6	11,454.0	52.2	51.6	-82.15	6,021.8	-728.0	1,244.6	1,140.9	103.69	12.003	
17,500.0	11,624.0	17,334.6	11,454.0	52.3	51.7	-82.15	6,041.8	-728.2	1,244.6	1,140.6	103.96	11.971	
17,575.0	11,624.0	17,409.6	11,454.0	52.8	52.2	-82.15	6,116.8	-728.8	1,244.6	1,139.6	104.99	11.854	
17,600.0	11,624.0	17,434.6	11,454.0	53.0	52.4	-82.15	6,141.8	-729.1	1,244.6	1,139.2	105.33	11.816	
17,670.0	11,624.0	17,504.6	11,454.0	53.5	52.9	-82.15	6,211.8	-729.7	1,244.6	1,138.3	106.29	11.709	
17,700.0	11,624.0	17,534.6	11,454.0	53.7	53.1	-82.15	6,241.8	-730.0	1,244.6	1,137.9	106.70	11.664	
17,765.0	11,624.0	17,599.6	11,454.0	54.1	53.5	-82.15	6,306.8	-730.6	1,244.6	1,137.0	107.60	11.567	
17,800.0	11,624.0	17,634.6	11,454.0	54.4	53.8	-82.15	6,341.8	-730.9	1,244.6	1,136.5	108.08	11.516	
17,860.0	11,624.0	17,694.6	11,454.0	54.8	54.2	-82.15	6,401.8	-731.4	1,244.6	1,135.7	108.90	11.428	
17,900.0	11,624.0	17,734.6	11,454.0	55.0	54.5	-82.15	6,441.8	-731.8	1,244.6	1,135.1	109.46	11.370	
17,955.0	11,624.0	17,789.6	11,454.0	55.4	54.9	-82.15	6,496.8	-732.3	1,244.6	1,134.3	110.22	11.292	
18,000.0	11,624.0	17,834.6	11,454.0	55.7	55.2	-82.15	6,541.8	-732.7	1,244.6	1,133.7	110.84	11.228	
18,050.0	11,624.0	17,884.6	11,454.0	56.1	55.5	-82.15	6,591.8	-733.2	1,244.6	1,133.0	111.53	11.159	
18,100.0	11,624.0	17,934.6	11,454.0	56.4	55.9	-82.15	6,641.8	-733.6	1,244.6	1,132.3	112.23	11.090	
18,145.0	11,624.0	17,979.6	11,454.0	56.7	56.2	-82.15	6,686.8	-734.0	1,244.6	1,131.7	112.85	11.028	
18,200.0	11,624.0	18,034.6	11,454.0	57.1	56.6	-82.15	6,741.8	-734.5	1,244.6	1,130.9	113.62	10.954	
18,240.0	11,624.0	18,074.6	11,454.0	57.4	56.8	-82.15	6,781.8	-734.9	1,244.6	1,130.4	114.18	10.900	
18,300.0	11,624.0	18,134.6	11,454.0	57.8	57.3	-82.15	6,841.8	-735.4	1,244.6	1,129.5	115.01	10.821	
18,335.0	11,624.0	18,169.6	11,454.0	58.1	57.5	-82.15	6,876.8	-735.7	1,244.6	1,129.1	115.50	10.775	
18,400.0	11,624.0	18,234.6	11,454.0	58.5	58.0	-82.15	6,941.8	-736.3	1,244.6	1,128.1	116.41	10.691	
18,430.0	11,624.0	18,264.6	11,454.0	58.7	58.2	-82.15	6,971.8	-736.6	1,244.6	1,127.7	116.83	10.652	
18,500.0	11,624.0	18,334.6	11,454.0	59.2	58.7	-82.15	7,041.8	-737.2	1,244.6	1,126.7	117.81	10.564	
18,525.0	11,624.0	18,359.6	11,454.0	59.4	58.8	-82.15	7,066.8	-737.5	1,244.6	1,126.4	118.16	10.532	
18,600.0	11,624.0	18,434.6	11,454.0	59.9	59.4	-82.15	7,141.8	-738.1	1,244.5	1,125.3	119.22	10.439	
18,620.0	11,624.0	18,454.6	11,454.0	60.0	59.5	-82.15	7,161.8	-738.3	1,244.5	1,125.0	119.50	10.415	
18,700.0	11,624.0	18,534.6	11,454.0	60.6	60.1	-82.15	7,241.8	-739.0	1,244.5	1,123.9	120.62	10.318	
18,715.0	11,624.0	18,549.6	11,454.0	60.7	60.2	-82.15	7,256.8	-739.2	1,244.5	1,123.7	120.84	10.299	
18,800.0	11,624.0	18,634.6	11,454.0	61.3	60.8	-82.15	7,341.8	-740.0	1,244.5	1,122.5	122.03	10.198	
18,810.0	11,624.0	18,644.6	11,454.0	61.4	60.9	-82.15	7,351.8	-740.0	1,244.5	1,122.4	122.18	10.186	
18,900.0	11,624.0	18,734.6	11,454.0	62.0	61.5	-82.15	7,441.7	-740.9	1,244.5	1,121.1	123.45	10.082	
18,905.0	11,624.0	18,739.6	11,454.0	62.0	61.5	-82.15	7,446.7	-740.9	1,244.5	1,121.0	123.52	10.076	
19,000.0	11,624.0	18,834.6	11,454.0	62.7	62.2	-82.15	7,541.7	-741.8	1,244.5	1,119.7	124.86	9.967	
19,095.0	11,624.0	18,929.6	11,454.0	63.4	62.9	-82.15	7,636.7	-742.6	1,244.5	1,118.3	126.21	9.861	
19,100.0	11,624.0	18,934.6	11,454.0	63.4	62.9	-82.15	7,641.7	-742.7	1,244.5	1,118.3	126.28	9.855	
19,190.0	11,624.0	19,024.6	11,454.0	64.1	63.6	-82.15	7,731.7	-743.5	1,244.5	1,117.0	127.56	9.756	
19,200.0	11,624.0	19,034.6	11,454.0	64.1	63.6	-82.15	7,741.7	-743.6	1,244.5	1,116.8	127.70	9.746	
19,285.0	11,624.0	19,119.6	11,454.0	64.7	64.2	-82.15	7,826.7	-744.4	1,244.5	1,115.6	128.91	9.654	
19,300.0	11,624.0	19,134.6	11,454.0	64.8	64.3	-82.15	7,841.7	-744.5	1,244.5	1,115.4	129.13	9.638	
19,380.0	11,624.0	19,214.6	11,454.0	65.4	64.9	-82.15	7,921.7	-745.2	1,244.5	1,114.3	130.27	9.554	
19,400.0	11,624.0	19,234.6	11,454.0	65.5	65.1	-82.15	7,941.7	-745.4	1,244.5	1,114.0	130.55	9.533	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,475.0	11,624.0	19,309.6	11,454.0	66.1	65.6	-82.15	8,016.7	-746.1	1,244.5	1,112.9	131.62	9.455	
19,500.0	11,624.0	19,334.6	11,454.0	66.3	65.8	-82.15	8,041.7	-746.3	1,244.5	1,112.5	131.98	9.430	
19,570.0	11,624.0	19,404.6	11,454.0	66.8	66.3	-82.15	8,111.7	-746.9	1,244.5	1,111.5	132.98	9.359	
19,600.0	11,624.0	19,434.6	11,454.0	67.0	66.5	-82.15	8,141.7	-747.2	1,244.5	1,111.1	133.41	9.329	
19,665.0	11,624.0	19,499.6	11,454.0	67.4	67.0	-82.15	8,206.7	-747.8	1,244.5	1,110.2	134.34	9.264	
19,700.0	11,624.0	19,534.6	11,454.0	67.7	67.2	-82.15	8,241.7	-748.1	1,244.5	1,109.7	134.84	9.230	
19,760.0	11,624.0	19,594.6	11,454.0	68.1	67.6	-82.15	8,301.7	-748.7	1,244.5	1,108.8	135.70	9.171	
19,800.0	11,624.0	19,634.6	11,454.0	68.4	67.9	-82.15	8,341.7	-749.0	1,244.5	1,108.2	136.28	9.132	
19,855.0	11,624.0	19,689.6	11,454.0	68.8	68.3	-82.15	8,396.7	-749.5	1,244.5	1,107.4	137.07	9.080	
19,900.0	11,624.0	19,734.6	11,454.0	69.1	68.7	-82.15	8,441.7	-749.9	1,244.5	1,106.8	137.71	9.037	
19,950.0	11,624.0	19,784.6	11,454.0	69.5	69.0	-82.15	8,491.7	-750.4	1,244.5	1,106.1	138.43	8.990	
20,000.0	11,624.0	19,834.6	11,454.0	69.8	69.4	-82.15	8,541.7	-750.8	1,244.5	1,105.4	139.15	8.944	
20,045.0	11,624.0	19,879.6	11,454.0	70.1	69.7	-82.15	8,586.7	-751.3	1,244.5	1,104.7	139.80	8.902	
20,100.0	11,624.0	19,934.6	11,454.0	70.5	70.1	-82.15	8,641.7	-751.8	1,244.5	1,103.9	140.59	8.852	
20,140.0	11,624.0	19,974.6	11,454.0	70.8	70.4	-82.15	8,681.7	-752.1	1,244.5	1,103.3	141.17	8.816	
20,200.0	11,624.0	20,034.6	11,454.0	71.3	70.8	-82.15	8,741.7	-752.7	1,244.5	1,102.5	142.03	8.762	
20,235.0	11,624.0	20,069.6	11,454.0	71.5	71.1	-82.15	8,776.7	-753.0	1,244.5	1,102.0	142.54	8.731	
20,300.0	11,624.0	20,134.6	11,454.0	72.0	71.5	-82.15	8,841.7	-753.6	1,244.5	1,101.0	143.48	8.674	
20,330.0	11,624.0	20,164.6	11,454.0	72.2	71.8	-82.15	8,871.7	-753.8	1,244.5	1,100.6	143.91	8.648	
20,400.0	11,624.0	20,234.6	11,454.0	72.7	72.3	-82.15	8,941.7	-754.5	1,244.5	1,099.6	144.92	8.587	
20,425.0	11,624.0	20,259.6	11,454.0	72.9	72.4	-82.15	8,966.7	-754.7	1,244.5	1,099.2	145.28	8.566	
20,500.0	11,624.0	20,334.6	11,454.0	73.4	73.0	-82.15	9,041.7	-755.4	1,244.5	1,098.1	146.37	8.502	
20,520.0	11,624.0	20,354.6	11,454.0	73.6	73.1	-82.15	9,061.7	-755.6	1,244.5	1,097.8	146.66	8.486	
20,600.0	11,624.0	20,434.6	11,454.0	74.1	73.7	-82.15	9,141.7	-756.3	1,244.5	1,096.7	147.82	8.419	
20,615.0	11,624.0	20,449.6	11,454.0	74.3	73.8	-82.15	9,156.7	-756.4	1,244.5	1,096.5	148.03	8.407	
20,700.0	11,624.0	20,534.6	11,454.0	74.9	74.4	-82.15	9,241.7	-757.2	1,244.5	1,095.2	149.27	8.337	
20,710.0	11,624.0	20,544.6	11,454.0	74.9	74.5	-82.15	9,251.7	-757.3	1,244.5	1,095.1	149.41	8.329	
20,800.0	11,624.0	20,634.6	11,454.0	75.6	75.2	-82.15	9,341.7	-758.1	1,244.5	1,093.8	150.72	8.257	
20,805.0	11,624.0	20,639.6	11,454.0	75.6	75.2	-82.15	9,346.7	-758.2	1,244.5	1,093.7	150.79	8.253	
20,900.0	11,624.0	20,734.6	11,454.0	76.3	75.9	-82.15	9,441.7	-759.0	1,244.5	1,092.3	152.17	8.178	
20,995.0	11,624.0	20,829.6	11,454.0	77.0	76.6	-82.15	9,536.7	-759.9	1,244.5	1,090.9	153.55	8.104	
21,000.0	11,624.0	20,834.6	11,454.0	77.0	76.6	-82.15	9,541.7	-759.9	1,244.5	1,090.9	153.63	8.101	
21,090.0	11,624.0	20,924.6	11,454.0	77.7	77.3	-82.15	9,631.7	-760.7	1,244.5	1,089.5	154.94	8.032	
21,100.0	11,624.0	20,934.6	11,454.0	77.8	77.4	-82.15	9,641.7	-760.8	1,244.5	1,089.4	155.08	8.025	
21,185.0	11,624.0	21,019.6	11,454.0	78.4	78.0	-82.15	9,726.7	-761.6	1,244.5	1,088.2	156.32	7.961	
21,200.0	11,624.0	21,034.6	11,454.0	78.5	78.1	-82.15	9,741.7	-761.7	1,244.5	1,087.9	156.54	7.950	
21,280.0	11,624.0	21,114.6	11,454.0	79.1	78.7	-82.15	9,821.7	-762.5	1,244.5	1,086.8	157.71	7.891	
21,300.0	11,624.0	21,134.6	11,454.0	79.2	78.8	-82.15	9,841.7	-762.6	1,244.5	1,086.5	158.00	7.876	
21,375.0	11,624.0	21,209.6	11,454.0	79.8	79.4	-82.15	9,916.6	-763.3	1,244.5	1,085.4	159.09	7.822	
21,400.0	11,624.0	21,234.6	11,454.0	79.9	79.6	-82.15	9,941.6	-763.6	1,244.5	1,085.0	159.46	7.804	
21,470.0	11,624.0	21,304.6	11,454.0	80.5	80.1	-82.15	10,011.6	-764.2	1,244.5	1,084.0	160.48	7.755	
21,500.0	11,624.0	21,334.6	11,454.0	80.7	80.3	-82.15	10,041.6	-764.5	1,244.5	1,083.5	160.92	7.733	
21,565.0	11,624.0	21,399.6	11,454.0	81.1	80.8	-82.15	10,106.6	-765.1	1,244.5	1,082.6	161.87	7.688	
21,600.0	11,624.0	21,434.6	11,454.0	81.4	81.0	-82.15	10,141.6	-765.4	1,244.5	1,082.1	162.38	7.664	
21,660.0	11,624.0	21,494.6	11,454.0	81.8	81.5	-82.15	10,201.6	-765.9	1,244.5	1,081.2	163.26	7.622	
21,700.0	11,624.0	21,534.6	11,454.0	82.1	81.7	-82.15	10,241.6	-766.3	1,244.5	1,080.6	163.85	7.595	
21,755.0	11,624.0	21,589.6	11,454.0	82.5	82.2	-82.15	10,296.6	-766.8	1,244.5	1,079.8	164.65	7.558	
21,800.0	11,624.0	21,634.6	11,454.0	82.9	82.5	-82.15	10,341.6	-767.2	1,244.5	1,079.1	165.31	7.528	
21,850.0	11,624.0	21,684.6	11,454.0	83.2	82.8	-82.15	10,391.6	-767.6	1,244.5	1,078.4	166.05	7.495	
21,900.0	11,624.0	21,734.6	11,454.0	83.6	83.2	-82.15	10,441.6	-768.1	1,244.5	1,077.7	166.78	7.462	
21,925.6	11,624.0	21,760.2	11,454.0	83.8	83.4	-82.15	10,467.2	-768.3	1,244.5	1,077.3	167.15	7.445	
21,945.0	11,624.0	21,760.3	11,454.0	83.9	83.4	-82.15	10,467.3	-768.3	1,244.6	1,077.3	167.29	7.440 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 #712H
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 #712H	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 Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
21,996.4	11,624.0	21,760.3	11,454.0	84.3	83.4	-82.15	10,467.3	-768.3	1,246.5	1,079.0	167.49	7.442		

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	3.0	3.0	-90.50	-0.5	-60.4	60.4				
95.0	95.0	96.0	96.0	3.0	3.0	-90.50	-0.5	-60.4	60.4	54.4	6.03	10.026	
100.0	100.0	101.0	101.0	3.0	3.0	-90.50	-0.5	-60.4	60.4	54.4	6.03	10.020	
190.0	190.0	191.0	191.0	3.1	3.1	-90.50	-0.5	-60.4	60.4	54.3	6.15	9.818	
200.0	200.0	201.0	201.0	3.1	3.1	-90.50	-0.5	-60.4	60.4	54.2	6.17	9.787	
285.0	285.0	286.0	286.0	3.2	3.2	-90.50	-0.5	-60.4	60.4	54.1	6.31	9.572	
300.0	300.0	301.0	301.0	3.2	3.2	-90.50	-0.5	-60.4	60.4	54.1	6.34	9.529	
380.0	380.0	381.0	381.0	3.3	3.3	-90.50	-0.5	-60.4	60.4	53.9	6.49	9.310	
400.0	400.0	401.0	401.0	3.3	3.3	-90.50	-0.5	-60.4	60.4	53.9	6.53	9.251	
475.0	475.0	476.0	476.0	3.4	3.4	-90.50	-0.5	-60.4	60.4	53.7	6.69	9.037	
500.0	500.0	501.0	501.0	3.4	3.4	-90.50	-0.5	-60.4	60.4	53.7	6.74	8.962	
570.0	570.0	571.0	571.0	3.5	3.5	-90.50	-0.5	-60.4	60.4	53.5	6.90	8.757	
600.0	600.0	601.0	601.0	3.5	3.5	-90.50	-0.5	-60.4	60.4	53.4	6.97	8.667	
665.0	665.0	666.0	666.0	3.6	3.6	-90.50	-0.5	-60.4	60.4	53.3	7.13	8.475	
700.0	700.0	701.0	701.0	3.7	3.7	-90.50	-0.5	-60.4	60.4	53.2	7.22	8.371	
760.0	760.0	761.0	761.0	3.8	3.8	-90.50	-0.5	-60.4	60.4	53.0	7.37	8.195	
800.0	800.0	801.0	801.0	3.8	3.8	-90.50	-0.5	-60.4	60.4	52.9	7.48	8.078	
855.0	855.0	856.0	856.0	3.9	3.9	-90.50	-0.5	-60.4	60.4	52.8	7.63	7.919	
900.0	900.0	901.0	901.0	4.0	4.0	-90.50	-0.5	-60.4	60.4	52.7	7.75	7.790	
950.0	950.0	951.0	951.0	4.1	4.1	-90.50	-0.5	-60.4	60.4	52.5	7.90	7.650	
1,000.0	1,000.0	1,001.0	1,001.0	4.2	4.2	-90.50	-0.5	-60.4	60.4	52.4	8.04	7.511	
1,045.0	1,045.0	1,046.0	1,046.0	4.2	4.2	-90.50	-0.5	-60.4	60.4	52.2	8.18	7.389	
1,100.0	1,100.0	1,101.0	1,101.0	4.3	4.3	-90.50	-0.5	-60.4	60.4	52.1	8.34	7.242	
1,140.0	1,140.0	1,141.0	1,141.0	4.4	4.4	-90.50	-0.5	-60.4	60.4	51.9	8.46	7.137	
1,200.0	1,200.0	1,201.0	1,201.0	4.5	4.5	-90.50	-0.5	-60.4	60.4	51.8	8.65	6.983	
1,235.0	1,235.0	1,236.0	1,236.0	4.6	4.6	-90.50	-0.5	-60.4	60.4	51.7	8.76	6.895	
1,300.0	1,300.0	1,301.0	1,301.0	4.7	4.7	-90.50	-0.5	-60.4	60.4	51.4	8.97	6.736	
1,330.0	1,330.0	1,331.0	1,331.0	4.7	4.7	-90.50	-0.5	-60.4	60.4	51.3	9.07	6.664	
1,400.0	1,400.0	1,401.0	1,401.0	4.9	4.9	-90.50	-0.5	-60.4	60.4	51.1	9.30	6.499	
1,425.0	1,425.0	1,426.0	1,426.0	4.9	4.9	-90.50	-0.5	-60.4	60.4	51.0	9.38	6.442	
1,500.0	1,500.0	1,501.0	1,501.0	5.1	5.1	-90.50	-0.5	-60.4	60.4	50.8	9.63	6.274	
1,520.0	1,520.0	1,521.0	1,521.0	5.1	5.1	-90.50	-0.5	-60.4	60.4	50.7	9.70	6.231	
1,600.0	1,600.0	1,601.0	1,601.0	5.3	5.3	-90.50	-0.5	-60.4	60.4	50.4	9.97	6.061	
1,615.0	1,615.0	1,616.0	1,616.0	5.3	5.3	-90.50	-0.5	-60.4	60.4	50.4	10.02	6.029	
1,700.0	1,700.0	1,701.0	1,701.0	5.5	5.5	-90.50	-0.5	-60.4	60.4	50.1	10.31	5.857	
1,710.0	1,710.0	1,711.0	1,711.0	5.5	5.5	-90.50	-0.5	-60.4	60.4	50.1	10.35	5.838	
1,800.0	1,800.0	1,801.0	1,801.0	5.7	5.7	-90.50	-0.5	-60.4	60.4	49.7	10.66	5.665	
1,805.0	1,805.0	1,806.0	1,806.0	5.7	5.7	-90.50	-0.5	-60.4	60.4	49.7	10.68	5.655	
1,900.0	1,900.0	1,901.0	1,901.0	5.9	5.9	-90.50	-0.5	-60.4	60.4	49.4	11.02	5.482	
1,995.0	1,995.0	1,996.0	1,996.0	6.1	6.1	-90.50	-0.5	-60.4	60.4	49.1	11.36	5.317	
2,000.0	2,000.0	2,001.0	2,001.0	6.1	6.1	-90.50	-0.5	-60.4	60.4	49.0	11.38	5.309 CC, ES	
2,090.0	2,090.0	2,091.0	2,091.0	6.2	6.3	-179.67	-0.5	-60.4	61.8	50.1	11.74	5.267	
2,100.0	2,100.0	2,101.0	2,101.0	6.2	6.3	-179.67	-0.5	-60.4	62.2	50.4	11.78	5.277	
2,185.0	2,184.9	2,185.9	2,185.9	6.3	6.5	-179.69	-0.5	-60.4	66.4	54.3	12.12	5.475	
2,200.0	2,199.8	2,200.8	2,200.8	6.3	6.5	-179.70	-0.5	-60.4	67.4	55.2	12.19	5.530	
2,280.0	2,279.6	2,280.6	2,280.6	6.4	6.7	-179.72	-0.5	-60.4	74.1	61.6	12.52	5.915	
2,300.0	2,299.5	2,300.5	2,300.5	6.5	6.7	-179.73	-0.5	-60.4	76.1	63.5	12.61	6.036	
2,375.0	2,373.9	2,374.9	2,374.9	6.6	6.9	-179.76	-0.5	-60.4	84.9	72.0	12.94	6.562	
2,400.0	2,398.7	2,399.7	2,399.7	6.6	6.9	-179.77	-0.5	-60.4	88.3	75.2	13.05	6.764	
2,470.0	2,468.0	2,469.0	2,469.0	6.8	7.1	-179.79	-0.5	-60.4	98.0	84.7	13.33	7.356	
2,500.0	2,497.7	2,498.7	2,498.7	6.8	7.2	-179.80	-0.5	-60.4	102.2	88.8	13.44	7.603	
2,565.0	2,562.1	2,563.1	2,563.1	7.0	7.3	-179.82	-0.5	-60.4	111.3	97.5	13.71	8.115	

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 #712H
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 #712H	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	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
2,600.0	2,596.8	2,597.8	2,597.8	7.1	7.4	-179.82	-0.5	-60.4	116.1	102.3	13.85	8.382	
2,660.0	2,656.2	2,657.2	2,657.2	7.2	7.5	-179.83	-0.5	-60.4	124.5	110.4	14.11	8.820	
2,700.0	2,695.8	2,696.8	2,696.8	7.3	7.6	-179.84	-0.5	-60.4	130.0	115.8	14.29	9.103	
2,755.0	2,750.2	2,751.2	2,751.2	7.4	7.7	-179.85	-0.5	-60.4	137.7	123.2	14.53	9.476	
2,800.0	2,794.8	2,795.8	2,795.8	7.6	7.8	-179.86	-0.5	-60.4	144.0	129.2	14.73	9.770	
2,850.0	2,844.3	2,845.3	2,845.3	7.7	7.9	-179.86	-0.5	-60.4	150.9	136.0	14.97	10.084	
2,900.0	2,893.8	2,894.8	2,894.8	7.8	8.0	-179.87	-0.5	-60.4	157.9	142.7	15.20	10.387	
2,945.0	2,938.4	2,939.4	2,939.4	8.0	8.1	-179.87	-0.5	-60.4	164.1	148.7	15.42	10.648	
3,000.0	2,992.9	2,993.9	2,993.9	8.1	8.2	-179.88	-0.5	-60.4	171.8	156.1	15.68	10.956	
3,040.0	3,032.5	3,031.5	3,031.5	8.2	8.3	-179.88	-0.5	-60.6	177.5	161.7	15.87	11.189	
3,100.0	3,091.9	3,087.2	3,087.2	8.4	8.4	-179.88	-0.5	-61.7	187.1	171.0	16.14	11.591	
3,135.0	3,126.5	3,119.5	3,119.5	8.5	8.4	-179.87	-0.5	-62.9	193.2	176.9	16.30	11.854	
3,200.0	3,190.9	3,179.2	3,179.1	8.7	8.5	-179.85	-0.4	-66.0	205.6	189.0	16.58	12.400	
3,230.0	3,220.6	3,206.6	3,206.4	8.8	8.5	-179.84	-0.4	-67.9	211.8	195.1	16.71	12.678	
3,300.0	3,289.9	3,271.5	3,271.2	9.1	8.5	-179.80	-0.3	-73.2	227.2	210.2	16.95	13.400	
3,325.0	3,314.7	3,295.9	3,295.4	9.1	8.5	-179.79	-0.3	-75.3	232.8	215.8	17.05	13.652	
3,400.0	3,389.0	3,369.0	3,368.2	9.4	8.6	-179.76	-0.2	-81.7	249.7	232.3	17.40	14.351	
3,420.0	3,408.8	3,388.5	3,387.6	9.5	8.6	-179.75	-0.1	-83.4	254.2	236.7	17.49	14.531	
3,500.0	3,488.0	3,466.4	3,465.3	9.7	8.7	-179.72	0.0	-90.2	272.2	254.3	17.88	15.222	
3,515.0	3,502.9	3,481.0	3,479.8	9.8	8.7	-179.71	0.0	-91.4	275.5	257.6	17.95	15.347	
3,600.0	3,587.0	3,563.9	3,562.4	10.1	8.8	-179.69	0.1	-98.7	294.7	276.3	18.38	16.028	
3,610.0	3,596.9	3,573.6	3,572.1	10.1	8.8	-179.68	0.1	-99.5	296.9	278.5	18.44	16.106	
3,700.0	3,686.0	3,661.3	3,659.4	10.4	8.8	-179.66	0.3	-107.2	317.2	298.2	18.91	16.775	
3,705.0	3,691.0	3,666.2	3,664.3	10.4	8.8	-179.66	0.3	-107.6	318.3	299.3	18.93	16.811	
3,800.0	3,785.1	3,758.7	3,756.5	10.8	8.9	-179.64	0.4	-115.6	339.6	320.2	19.45	17.463	
3,895.0	3,879.2	3,851.3	3,848.7	11.1	9.0	-179.62	0.5	-123.7	361.0	341.0	19.98	18.068	
3,900.0	3,884.1	3,856.2	3,853.6	11.1	9.0	-179.62	0.5	-124.1	362.1	342.1	20.01	18.099	
3,990.0	3,973.2	3,943.9	3,940.9	11.5	9.2	-179.60	0.7	-131.8	382.4	361.9	20.53	18.629	
4,000.0	3,983.1	3,953.6	3,950.6	11.5	9.2	-179.60	0.7	-132.6	384.6	364.0	20.58	18.686	
4,085.0	4,067.3	4,036.4	4,033.1	11.8	9.4	-179.58	0.8	-139.8	403.7	382.7	21.09	19.148	
4,100.0	4,082.2	4,051.1	4,047.7	11.9	9.4	-179.58	0.8	-141.1	407.1	385.9	21.17	19.227	
4,180.0	4,161.4	4,129.0	4,125.3	12.2	9.6	-179.57	1.0	-147.9	425.1	403.5	21.66	19.629	
4,200.0	4,181.2	4,148.5	4,144.8	12.3	9.6	-179.57	1.0	-149.6	429.6	407.8	21.78	19.726	
4,275.0	4,255.5	4,221.6	4,217.6	12.6	9.8	-179.56	1.1	-156.0	446.5	424.2	22.24	20.075	
4,300.0	4,280.2	4,245.9	4,241.8	12.6	9.9	-179.55	1.1	-158.1	452.1	429.7	22.40	20.187	
4,370.0	4,349.5	4,314.1	4,309.8	12.9	10.1	-179.54	1.2	-164.0	467.9	445.0	22.83	20.489	
4,400.0	4,379.2	4,343.4	4,338.9	13.0	10.1	-179.54	1.3	-166.6	474.6	451.6	23.02	20.612	
4,465.0	4,443.6	4,406.7	4,402.0	13.3	10.3	-179.53	1.4	-172.1	489.2	465.8	23.44	20.872	
4,500.0	4,478.3	4,440.8	4,436.0	13.4	10.4	-179.53	1.4	-175.1	497.1	473.4	23.66	21.006	
4,560.0	4,537.7	4,499.3	4,494.2	13.7	10.6	-179.52	1.5	-180.2	510.6	486.5	24.05	21.228	
4,600.0	4,577.3	4,538.2	4,533.0	13.8	10.7	-179.52	1.6	-183.6	519.6	495.3	24.31	21.370	
4,655.0	4,631.8	4,591.8	4,586.4	14.0	10.8	-179.51	1.6	-188.2	532.0	507.3	24.67	21.558	
4,700.0	4,676.3	4,635.7	4,630.1	14.2	10.9	-179.51	1.7	-192.1	542.1	517.1	24.97	21.707	
4,750.0	4,725.8	4,684.4	4,678.6	14.4	11.1	-179.51	1.8	-196.3	553.3	528.0	25.31	21.866	
4,800.0	4,775.3	4,733.1	4,727.2	14.6	11.2	-179.50	1.8	-200.6	564.6	538.9	25.64	22.019	
4,845.0	4,819.9	4,777.0	4,770.8	14.8	11.3	-179.50	1.9	-204.4	574.7	548.7	25.94	22.152	
4,900.0	4,874.4	4,830.6	4,824.2	15.0	11.5	-179.49	2.0	-209.0	587.1	560.7	26.32	22.308	
4,940.0	4,914.0	4,869.5	4,863.0	15.2	11.6	-179.49	2.0	-212.4	596.1	569.5	26.59	22.418	
5,000.0	4,973.4	4,928.0	4,921.3	15.4	11.8	-179.49	2.1	-217.5	609.6	582.6	27.00	22.577	
5,035.0	5,008.1	4,962.1	4,955.3	15.5	11.9	-179.48	2.2	-220.5	617.4	590.2	27.24	22.667	
5,100.0	5,072.4	5,025.4	5,018.4	15.8	12.1	-179.48	2.3	-226.0	632.0	604.4	27.69	22.827	
5,130.0	5,102.1	5,054.7	5,047.5	15.9	12.2	-179.48	2.3	-228.6	638.8	610.9	27.90	22.899	

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 #712H
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 #712H	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	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.0	5,171.5	5,122.9	5,115.4	16.2	12.4	-179.47	2.4	-234.5	654.5	626.2	28.38	23.062	
5,225.0	5,196.2	5,147.2	5,139.7	16.3	12.4	-179.47	2.5	-236.6	660.2	631.6	28.55	23.119	
5,300.0	5,270.5	5,224.7	5,216.8	16.6	12.7	-179.47	2.6	-243.3	676.9	647.8	29.10	23.261	
5,320.0	5,290.3	5,246.8	5,238.9	16.7	12.7	-179.47	2.6	-245.0	681.3	652.0	29.26	23.283	
5,400.0	5,369.5	5,335.8	5,327.7	17.0	13.0	-179.47	2.7	-251.2	697.8	668.0	29.89	23.346	
5,415.0	5,384.4	5,352.5	5,344.4	17.1	13.1	-179.47	2.7	-252.2	700.8	670.8	30.00	23.359	
5,420.7	5,390.0	5,358.9	5,350.8	17.1	13.1	-179.47	2.7	-252.5	701.9	671.9	30.04	23.363	
5,500.0	5,468.6	5,447.8	5,439.6	17.4	13.3	-179.47	2.8	-256.9	716.6	685.9	30.64	23.384	
5,510.0	5,478.5	5,459.1	5,450.8	17.4	13.4	-179.47	2.8	-257.4	718.3	687.6	30.72	23.383	
5,600.0	5,567.7	5,560.9	5,552.5	17.8	13.6	-179.47	2.9	-260.6	732.5	701.2	31.38	23.346	
5,605.0	5,572.7	5,566.5	5,558.2	17.8	13.6	-179.47	2.9	-260.7	733.3	701.9	31.41	23.342	
5,700.0	5,667.0	5,674.7	5,666.3	18.2	13.8	-179.48	2.9	-262.0	745.7	713.7	32.00	23.301	
5,795.0	5,761.4	5,770.8	5,762.4	18.6	13.9	-179.49	2.9	-262.0	756.2	723.8	32.43	23.317	
5,800.0	5,766.4	5,775.7	5,767.4	18.6	13.9	-179.49	2.9	-262.0	756.8	724.3	32.45	23.318	
5,890.0	5,855.9	5,865.3	5,856.9	18.9	13.9	-179.49	2.9	-262.0	766.0	733.1	32.85	23.318	
5,900.0	5,865.9	5,875.2	5,866.9	19.0	13.9	-179.50	2.9	-262.0	767.0	734.1	32.89	23.317	
5,985.0	5,950.5	5,959.8	5,951.5	19.3	14.0	-179.50	2.9	-262.0	775.0	741.7	33.26	23.299	
6,000.0	5,965.5	5,974.8	5,966.5	19.4	14.0	-179.50	2.9	-262.0	776.3	743.0	33.33	23.294	
6,080.0	6,045.2	6,054.5	6,046.2	19.6	14.0	-179.51	2.9	-262.0	783.1	749.5	33.67	23.262	
6,100.0	6,065.1	6,074.4	6,066.1	19.7	14.0	-179.51	2.9	-262.0	784.8	751.0	33.75	23.251	
6,175.0	6,139.9	6,149.2	6,140.9	20.0	14.1	-179.51	2.9	-262.0	790.5	756.5	34.06	23.207	
6,200.0	6,164.8	6,174.1	6,165.8	20.1	14.1	-179.51	2.9	-262.0	792.3	758.2	34.17	23.189	
6,270.0	6,234.6	6,244.0	6,235.6	20.3	14.1	-179.52	2.9	-262.0	797.1	762.7	34.46	23.136	
6,300.0	6,264.6	6,273.9	6,265.6	20.4	14.1	-179.52	2.9	-262.0	799.1	764.5	34.58	23.109	
6,365.0	6,329.5	6,338.8	6,330.5	20.7	14.2	-179.52	2.9	-262.0	803.0	768.1	34.84	23.049	
6,400.0	6,364.4	6,373.7	6,365.4	20.8	14.2	-179.52	2.9	-262.0	804.9	769.9	34.98	23.013	
6,460.0	6,424.3	6,433.7	6,425.3	21.0	14.2	-179.52	2.9	-262.0	808.0	772.8	35.21	22.949	
6,500.0	6,464.3	6,473.6	6,465.3	21.1	14.3	-179.52	2.9	-262.0	809.9	774.5	35.36	22.901	
6,555.0	6,519.2	6,528.6	6,520.2	21.3	14.3	-179.53	2.9	-262.0	812.3	776.7	35.57	22.835	
6,600.0	6,564.2	6,573.5	6,565.2	21.4	14.3	-179.53	2.9	-262.0	814.0	778.3	35.74	22.776	
6,650.0	6,614.2	6,623.5	6,615.2	21.6	14.3	-179.53	2.9	-262.0	815.7	779.8	35.92	22.711	
6,700.0	6,664.2	6,673.5	6,665.2	21.7	14.4	-179.53	2.9	-262.0	817.2	781.1	36.10	22.639	
6,745.0	6,709.1	6,718.5	6,710.1	21.9	14.4	-179.53	2.9	-262.0	818.4	782.2	36.25	22.576	
6,800.0	6,764.1	6,773.4	6,765.1	22.0	14.4	-179.53	2.9	-262.0	819.6	783.2	36.44	22.493	
6,840.0	6,804.1	6,813.4	6,805.1	22.1	14.4	-179.53	2.9	-262.0	820.3	783.7	36.56	22.436	
6,900.0	6,864.1	6,873.4	6,865.1	22.3	14.5	-179.53	2.9	-262.0	821.1	784.3	36.75	22.343	
6,935.0	6,899.1	6,908.4	6,900.1	22.4	14.5	-179.53	2.9	-262.0	821.4	784.6	36.84	22.295	
7,000.0	6,964.1	6,973.4	6,965.1	22.5	14.5	-179.53	2.9	-262.0	821.7	784.7	37.01	22.201	
7,020.7	6,984.8	6,994.1	6,985.8	22.5	14.5	-90.37	2.9	-262.0	821.7	784.7	37.04	22.185	
7,030.0	6,994.1	7,003.4	6,995.1	22.5	14.5	-90.37	2.9	-262.0	821.7	784.7	37.05	22.181	
7,100.0	7,064.1	7,073.4	7,065.1	22.5	14.6	-90.37	2.9	-262.0	821.7	784.6	37.10	22.147	
7,125.0	7,089.1	7,098.4	7,090.1	22.5	14.6	-90.37	2.9	-262.0	821.7	784.6	37.13	22.134	
7,200.0	7,164.1	7,173.4	7,165.1	22.6	14.6	-90.37	2.9	-262.0	821.7	784.5	37.19	22.094	
7,220.0	7,184.1	7,193.4	7,185.1	22.6	14.7	-90.37	2.9	-262.0	821.7	784.5	37.21	22.083	
7,300.0	7,264.1	7,273.4	7,265.1	22.6	14.7	-90.37	2.9	-262.0	821.7	784.4	37.28	22.040	
7,315.0	7,279.1	7,288.4	7,280.1	22.6	14.7	-90.37	2.9	-262.0	821.7	784.4	37.30	22.032	
7,400.0	7,364.1	7,373.4	7,365.1	22.6	14.8	-90.37	2.9	-262.0	821.7	784.3	37.37	21.987	
7,410.0	7,374.1	7,383.4	7,375.1	22.6	14.8	-90.37	2.9	-262.0	821.7	784.3	37.38	21.981	
7,500.0	7,464.1	7,473.4	7,465.1	22.7	14.8	-90.37	2.9	-262.0	821.7	784.3	37.47	21.933	
7,505.0	7,469.1	7,478.4	7,470.1	22.7	14.8	-90.37	2.9	-262.0	821.7	784.3	37.47	21.930	
7,600.0	7,564.1	7,573.4	7,565.1	22.7	14.9	-90.37	2.9	-262.0	821.7	784.2	37.56	21.879	
7,695.0	7,659.1	7,668.4	7,660.1	22.7	14.9	-90.37	2.9	-262.0	821.7	784.1	37.64	21.829	

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 #712H
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 #712H	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	Highside	Rule Assigned:									
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	Warning
7,700.0	7,664.1	7,673.4	7,665.1	22.7	14.9	-90.37	2.9	-262.0	821.7	784.1	37.65	21.826	
7,790.0	7,754.1	7,763.4	7,755.1	22.8	15.0	-90.37	2.9	-262.0	821.7	784.0	37.73	21.778	
7,800.0	7,764.1	7,773.4	7,765.1	22.8	15.0	-90.37	2.9	-262.0	821.7	784.0	37.74	21.772	
7,885.0	7,849.1	7,858.4	7,850.1	22.8	15.0	-90.37	2.9	-262.0	821.7	783.9	37.82	21.727	
7,900.0	7,864.1	7,873.4	7,865.1	22.8	15.0	-90.37	2.9	-262.0	821.7	783.9	37.83	21.719	
7,980.0	7,944.1	7,953.4	7,945.1	22.8	15.1	-90.37	2.9	-262.0	821.7	783.8	37.91	21.676	
8,000.0	7,964.1	7,973.4	7,965.1	22.8	15.1	-90.37	2.9	-262.0	821.7	783.8	37.93	21.665	
8,075.0	8,039.1	8,048.4	8,040.1	22.9	15.2	-90.37	2.9	-262.0	821.7	783.7	38.00	21.625	
8,100.0	8,064.1	8,073.4	8,065.1	22.9	15.2	-90.37	2.9	-262.0	821.7	783.7	38.02	21.612	
8,170.0	8,134.1	8,143.4	8,135.1	22.9	15.2	-90.37	2.9	-262.0	821.7	783.6	38.09	21.574	
8,200.0	8,164.1	8,173.4	8,165.1	22.9	15.2	-90.37	2.9	-262.0	821.7	783.6	38.12	21.558	
8,265.0	8,229.1	8,238.4	8,230.1	22.9	15.3	-90.37	2.9	-262.0	821.7	783.5	38.18	21.523	
8,300.0	8,264.1	8,273.4	8,265.1	22.9	15.3	-90.37	2.9	-262.0	821.7	783.5	38.21	21.505	
8,360.0	8,324.1	8,333.4	8,325.1	23.0	15.3	-90.37	2.9	-262.0	821.7	783.5	38.27	21.473	
8,400.0	8,364.1	8,373.4	8,365.1	23.0	15.3	-90.37	2.9	-262.0	821.7	783.4	38.31	21.451	
8,455.0	8,419.1	8,428.4	8,420.1	23.0	15.4	-90.37	2.9	-262.0	821.7	783.4	38.36	21.422	
8,500.0	8,464.1	8,473.4	8,465.1	23.0	15.4	-90.37	2.9	-262.0	821.7	783.3	38.40	21.398	
8,550.0	8,514.1	8,523.4	8,515.1	23.0	15.4	-90.37	2.9	-262.0	821.7	783.3	38.45	21.371	
8,600.0	8,564.1	8,573.4	8,565.1	23.0	15.5	-90.37	2.9	-262.0	821.7	783.2	38.50	21.344	
8,645.0	8,609.1	8,618.4	8,610.1	23.1	15.5	-90.37	2.9	-262.0	821.7	783.2	38.54	21.320	
8,700.0	8,664.1	8,673.4	8,665.1	23.1	15.5	-90.37	2.9	-262.0	821.7	783.1	38.60	21.291	
8,740.0	8,704.1	8,713.4	8,705.1	23.1	15.5	-90.37	2.9	-262.0	821.7	783.1	38.63	21.269	
8,800.0	8,764.1	8,773.4	8,765.1	23.1	15.6	-90.37	2.9	-262.0	821.7	783.0	38.69	21.237	
8,835.0	8,799.1	8,808.4	8,800.1	23.1	15.6	-90.37	2.9	-262.0	821.7	783.0	38.73	21.219	
8,900.0	8,864.1	8,873.4	8,865.1	23.1	15.6	-90.37	2.9	-262.0	821.7	782.9	38.79	21.184	
8,930.0	8,894.1	8,903.4	8,895.1	23.2	15.7	-90.37	2.9	-262.0	821.7	782.9	38.82	21.168	
9,000.0	8,964.1	8,973.4	8,965.1	23.2	15.7	-90.37	2.9	-262.0	821.7	782.8	38.89	21.131	
9,025.0	8,989.1	8,998.4	8,990.1	23.2	15.7	-90.37	2.9	-262.0	821.7	782.8	38.91	21.117	
9,100.0	9,064.1	9,073.4	9,065.1	23.2	15.8	-90.37	2.9	-262.0	821.7	782.7	38.99	21.077	
9,120.0	9,084.1	9,093.4	9,085.1	23.2	15.8	-90.37	2.9	-262.0	821.7	782.7	39.01	21.067	
9,200.0	9,164.1	9,173.4	9,165.1	23.3	15.8	-90.37	2.9	-262.0	821.7	782.6	39.08	21.024	
9,215.0	9,179.1	9,188.4	9,180.1	23.3	15.8	-90.37	2.9	-262.0	821.7	782.6	39.10	21.016	
9,300.0	9,264.1	9,273.4	9,265.1	23.3	15.9	-90.37	2.9	-262.0	821.7	782.5	39.18	20.971	
9,310.0	9,274.1	9,283.4	9,275.1	23.3	15.9	-90.37	2.9	-262.0	821.7	782.5	39.19	20.966	
9,400.0	9,364.1	9,373.4	9,365.1	23.3	15.9	-90.37	2.9	-262.0	821.7	782.4	39.28	20.918	
9,405.0	9,369.1	9,378.4	9,370.1	23.3	16.0	-90.37	2.9	-262.0	821.7	782.4	39.29	20.915	
9,500.0	9,464.1	9,473.4	9,465.1	23.4	16.0	-90.37	2.9	-262.0	821.7	782.3	39.38	20.865	
9,595.0	9,559.1	9,568.4	9,560.1	23.4	16.1	-90.37	2.9	-262.0	821.7	782.2	39.48	20.814	
9,600.0	9,564.1	9,573.4	9,565.1	23.4	16.1	-90.37	2.9	-262.0	821.7	782.2	39.48	20.812	
9,690.0	9,654.1	9,663.4	9,655.1	23.5	16.1	-90.37	2.9	-262.0	821.7	782.1	39.57	20.764	
9,700.0	9,664.1	9,673.4	9,665.1	23.5	16.1	-90.37	2.9	-262.0	821.7	782.1	39.58	20.759	
9,785.0	9,749.1	9,758.4	9,750.1	23.5	16.2	-90.37	2.9	-262.0	821.7	782.1	39.67	20.714	
9,800.0	9,764.1	9,773.4	9,765.1	23.5	16.2	-90.37	2.9	-262.0	821.7	782.0	39.69	20.706	
9,880.0	9,844.1	9,853.4	9,845.1	23.5	16.2	-90.37	2.9	-262.0	821.7	782.0	39.77	20.664	
9,900.0	9,864.1	9,873.4	9,865.1	23.5	16.3	-90.37	2.9	-262.0	821.7	781.9	39.79	20.653	
9,975.0	9,939.1	9,948.4	9,940.1	23.6	16.3	-90.37	2.9	-262.0	821.7	781.9	39.86	20.614	
10,000.0	9,964.1	9,973.4	9,965.1	23.6	16.3	-90.37	2.9	-262.0	821.7	781.8	39.89	20.600	
10,070.0	10,034.1	10,043.4	10,035.1	23.6	16.4	-90.37	2.9	-262.0	821.7	781.8	39.96	20.563	
10,100.0	10,064.1	10,073.4	10,065.1	23.6	16.4	-90.37	2.9	-262.0	821.7	781.7	39.99	20.548	
10,165.0	10,129.1	10,138.4	10,130.1	23.6	16.4	-90.37	2.9	-262.0	821.7	781.7	40.06	20.513	
10,200.0	10,164.1	10,173.4	10,165.1	23.7	16.4	-90.37	2.9	-262.0	821.7	781.6	40.09	20.495	
10,260.0	10,224.1	10,233.4	10,225.1	23.7	16.5	-90.37	2.9	-262.0	821.7	781.6	40.16	20.464	

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 #712H
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 #712H	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	
10,300.0	10,264.1	10,273.4	10,265.1	23.7	16.5	-90.37	2.9	-262.0	821.7	781.5	40.20	20.443	
10,355.0	10,319.1	10,328.4	10,320.1	23.7	16.5	-90.37	2.9	-262.0	821.7	781.5	40.25	20.414	
10,400.0	10,364.1	10,373.4	10,365.1	23.7	16.6	-90.37	2.9	-262.0	821.7	781.4	40.30	20.390	
10,450.0	10,414.1	10,423.4	10,415.1	23.8	16.6	-90.37	2.9	-262.0	821.7	781.4	40.35	20.364	
10,500.0	10,464.1	10,473.4	10,465.1	23.8	16.6	-90.37	2.9	-262.0	821.7	781.3	40.40	20.338	
10,545.0	10,509.1	10,518.4	10,510.1	23.8	16.7	-90.37	2.9	-262.0	821.7	781.3	40.45	20.314	
10,600.0	10,564.1	10,573.4	10,565.1	23.8	16.7	-90.37	2.9	-262.0	821.7	781.2	40.51	20.285	
10,640.0	10,604.1	10,613.4	10,605.1	23.8	16.7	-90.37	2.9	-262.0	821.7	781.2	40.55	20.265	
10,700.0	10,664.1	10,673.4	10,665.1	23.9	16.8	-90.37	2.9	-262.0	821.7	781.1	40.61	20.233	
10,735.0	10,699.1	10,708.4	10,700.1	23.9	16.8	-90.37	2.9	-262.0	821.7	781.1	40.65	20.215	
10,800.0	10,764.1	10,773.4	10,765.1	23.9	16.8	-90.37	2.9	-262.0	821.7	781.0	40.72	20.181	
10,830.0	10,794.1	10,803.4	10,795.1	23.9	16.8	-90.37	2.9	-262.0	821.7	781.0	40.75	20.165	
10,900.0	10,864.1	10,873.4	10,865.1	23.9	16.9	-90.37	2.9	-262.0	821.7	780.9	40.82	20.129	
10,925.0	10,889.1	10,898.4	10,890.1	23.9	16.9	-90.37	2.9	-262.0	821.7	780.9	40.85	20.116	
11,000.0	10,964.1	10,973.4	10,965.1	24.0	17.0	-90.37	2.9	-262.0	821.7	780.8	40.93	20.077	
11,020.0	10,984.1	10,993.4	10,985.1	24.0	17.0	-90.37	2.9	-262.0	821.7	780.8	40.95	20.067	
11,100.0	11,064.1	11,073.4	11,065.1	24.0	17.0	-90.37	2.9	-262.0	821.7	780.7	41.03	20.025	
11,115.0	11,079.1	11,088.4	11,080.1	24.0	17.0	-90.37	2.9	-262.0	821.7	780.7	41.05	20.018	
11,182.4	11,146.5	11,155.9	11,147.5	24.0	17.1	-90.37	2.9	-262.0	821.7	780.6	41.09	19.997	
11,200.0	11,164.1	11,173.4	11,165.0	24.0	17.1	-89.85	3.2	-262.0	821.7	780.6	41.09	19.996	
11,210.0	11,174.1	11,183.3	11,175.0	24.0	17.1	-89.85	3.7	-262.0	821.7	780.6	41.10	19.995	
11,225.0	11,189.1	11,198.2	11,189.9	24.0	17.1	-89.85	4.8	-262.0	821.7	780.6	41.10	19.994	
11,250.0	11,213.9	11,223.1	11,214.6	24.0	17.1	-89.85	7.6	-262.0	821.7	780.6	41.10	19.993	
11,275.0	11,238.5	11,248.0	11,239.1	24.0	17.1	-89.85	11.8	-262.0	821.7	780.6	41.10	19.991	
11,300.0	11,262.9	11,272.9	11,263.4	24.1	17.1	-89.85	17.2	-262.1	821.7	780.6	41.11	19.989	
11,305.0	11,267.8	11,277.9	11,268.2	24.1	17.1	-89.85	18.4	-262.1	821.7	780.6	41.11	19.989	
11,325.0	11,287.0	11,297.8	11,287.4	24.1	17.1	-89.86	23.8	-262.2	821.7	780.6	41.11	19.987	
11,350.0	11,310.7	11,322.7	11,311.0	24.1	17.1	-89.86	31.7	-262.2	821.7	780.6	41.12	19.985	
11,375.0	11,333.9	11,347.6	11,334.2	24.1	17.1	-89.86	40.9	-262.3	821.7	780.6	41.12	19.983	
11,400.0	11,356.7	11,372.5	11,356.8	24.1	17.1	-89.86	51.2	-262.4	821.7	780.6	41.13	19.980	
11,425.0	11,378.8	11,397.4	11,378.9	24.1	17.1	-89.87	62.7	-262.5	821.7	780.6	41.13	19.977	
11,450.0	11,400.3	11,422.3	11,400.4	24.1	17.1	-89.87	75.3	-262.6	821.7	780.6	41.14	19.973	
11,475.0	11,421.1	11,447.2	11,421.1	24.1	17.1	-89.88	89.0	-262.7	821.7	780.6	41.15	19.969	
11,495.0	11,437.3	11,467.1	11,437.2	24.1	17.1	-89.88	100.8	-262.9	821.7	780.6	41.16	19.965	
11,500.0	11,441.2	11,472.1	11,441.2	24.1	17.1	-89.88	103.8	-262.9	821.7	780.6	41.16	19.964	
11,525.0	11,460.5	11,497.0	11,460.4	24.1	17.1	-89.89	119.7	-263.0	821.7	780.5	41.17	19.958	
11,550.0	11,478.9	11,522.0	11,478.8	24.1	17.1	-89.89	136.5	-263.2	821.7	780.5	41.19	19.952	
11,575.0	11,496.3	11,546.9	11,496.3	24.1	17.1	-89.90	154.2	-263.3	821.7	780.5	41.20	19.944	
11,590.0	11,506.4	11,561.8	11,506.3	24.1	17.1	-89.90	165.3	-263.4	821.7	780.5	41.21	19.939	
11,600.0	11,512.9	11,571.8	11,512.8	24.1	17.1	-89.90	172.9	-263.5	821.7	780.5	41.22	19.935	
11,625.0	11,528.4	11,596.7	11,528.4	24.1	17.1	-89.91	192.4	-263.7	821.7	780.5	41.24	19.925	
11,650.0	11,542.9	11,621.7	11,542.9	24.1	17.2	-89.92	212.6	-263.9	821.7	780.4	41.26	19.913	
11,675.0	11,556.3	11,646.6	11,556.3	24.1	17.2	-89.92	233.6	-264.1	821.7	780.4	41.29	19.900	
11,685.0	11,561.3	11,656.6	11,561.4	24.1	17.2	-89.93	242.2	-264.1	821.7	780.4	41.30	19.895	
11,700.0	11,568.5	11,671.6	11,568.7	24.1	17.2	-89.93	255.3	-264.3	821.7	780.4	41.32	19.886	
11,725.0	11,579.6	11,696.5	11,579.8	24.2	17.2	-89.94	277.6	-264.5	821.7	780.4	41.36	19.870	
11,750.0	11,589.6	11,721.5	11,589.8	24.2	17.2	-89.94	300.5	-264.7	821.7	780.3	41.39	19.852	
11,775.0	11,598.3	11,746.4	11,598.6	24.2	17.3	-89.95	323.8	-264.9	821.7	780.3	41.43	19.832	
11,780.0	11,599.9	11,751.4	11,600.2	24.2	17.3	-89.95	328.6	-264.9	821.7	780.3	41.44	19.828	
11,800.0	11,605.8	11,771.4	11,606.2	24.2	17.3	-89.96	347.6	-265.1	821.7	780.2	41.48	19.811	
11,825.0	11,612.0	11,796.4	11,612.5	24.2	17.3	-89.97	371.8	-265.3	821.7	780.2	41.53	19.788	
11,850.0	11,616.9	11,821.3	11,617.5	24.2	17.3	-89.97	396.2	-265.5	821.7	780.1	41.58	19.763	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
11,875.0	11,620.6	11,846.3	11,621.3	24.3	17.4	-89.98	420.9	-265.8	821.7	780.1	41.63	19.736	
11,900.0	11,622.9	11,871.3	11,623.7	24.3	17.4	-89.99	445.8	-266.0	821.7	780.0	41.69	19.708	
11,925.0	11,623.9	11,896.3	11,624.9	24.3	17.4	-90.00	470.8	-266.2	821.7	779.9	41.76	19.678	
11,932.4	11,624.0	11,903.7	11,625.0	24.3	17.5	-90.00	478.2	-266.3	821.7	779.9	41.78	19.668	
11,970.0	11,624.0	11,941.3	11,625.0	24.4	17.5	-90.00	515.8	-266.6	821.7	779.8	41.89	19.614	
12,000.0	11,624.0	11,971.3	11,625.0	24.4	17.6	-90.00	545.8	-266.9	821.7	779.7	41.99	19.571	
12,065.0	11,624.0	12,036.3	11,625.0	24.5	17.7	-90.00	610.8	-267.5	821.7	779.5	42.22	19.465	
12,100.0	11,624.0	12,071.3	11,625.0	24.6	17.8	-90.00	645.8	-267.8	821.7	779.4	42.34	19.405	
12,160.0	11,624.0	12,131.3	11,625.0	24.7	17.9	-90.00	705.8	-268.3	821.7	779.1	42.59	19.295	
12,200.0	11,624.0	12,171.3	11,625.0	24.7	18.0	-90.00	745.8	-268.7	821.7	778.9	42.75	19.219	
12,255.0	11,624.0	12,226.3	11,625.0	24.8	18.2	-90.00	800.8	-269.2	821.7	778.7	43.01	19.107	
12,300.0	11,624.0	12,271.3	11,625.0	24.9	18.3	-90.00	845.8	-269.6	821.7	778.5	43.22	19.013	
12,350.0	11,624.0	12,321.3	11,625.0	25.0	18.4	-90.00	895.8	-270.1	821.7	778.2	43.47	18.903	
12,400.0	11,624.0	12,371.3	11,625.0	25.2	18.6	-90.00	945.8	-270.5	821.7	778.0	43.73	18.791	
12,445.0	11,624.0	12,416.3	11,625.0	25.3	18.7	-90.00	990.7	-270.9	821.7	777.7	43.98	18.685	
12,500.0	11,624.0	12,471.3	11,625.0	25.4	18.9	-90.00	1,045.7	-271.4	821.7	777.4	44.29	18.554	
12,540.0	11,624.0	12,511.3	11,625.0	25.5	19.0	-90.00	1,085.7	-271.8	821.7	777.2	44.52	18.455	
12,600.0	11,624.0	12,571.3	11,625.0	25.7	19.3	-90.00	1,145.7	-272.3	821.7	776.8	44.89	18.304	
12,635.0	11,624.0	12,606.3	11,625.0	25.8	19.4	-90.00	1,180.7	-272.7	821.7	776.6	45.11	18.214	
12,700.0	11,624.0	12,671.3	11,625.0	25.9	19.6	-90.00	1,245.7	-273.2	821.7	776.1	45.54	18.043	
12,730.0	11,624.0	12,701.3	11,625.0	26.0	19.7	-90.00	1,275.7	-273.5	821.7	775.9	45.74	17.963	
12,800.0	11,624.0	12,771.3	11,625.0	26.2	20.0	-90.00	1,345.7	-274.2	821.7	775.5	46.23	17.774	
12,825.0	11,624.0	12,796.3	11,625.0	26.3	20.1	-90.00	1,370.7	-274.4	821.7	775.3	46.41	17.706	
12,900.0	11,624.0	12,871.3	11,625.0	26.6	20.4	-90.00	1,445.7	-275.1	821.7	774.7	46.96	17.498	
12,920.0	11,624.0	12,891.3	11,625.0	26.6	20.5	-90.00	1,465.7	-275.2	821.7	774.6	47.11	17.442	
13,000.0	11,624.0	12,971.3	11,625.0	26.9	20.9	-90.00	1,545.7	-276.0	821.7	774.0	47.73	17.217	
13,015.0	11,624.0	12,986.3	11,625.0	26.9	20.9	-90.00	1,560.7	-276.1	821.7	773.8	47.84	17.174	
13,100.0	11,624.0	13,071.3	11,625.0	27.2	21.3	-90.00	1,645.7	-276.9	821.7	773.1	48.53	16.932	
13,110.0	11,624.0	13,081.3	11,625.0	27.3	21.4	-90.00	1,655.7	-277.0	821.7	773.1	48.61	16.903	
13,200.0	11,624.0	13,171.3	11,625.0	27.6	21.8	-90.00	1,745.7	-277.8	821.7	772.3	49.37	16.645	
13,205.0	11,624.0	13,176.3	11,625.0	27.6	21.8	-90.00	1,750.7	-277.8	821.7	772.3	49.41	16.630	
13,300.0	11,624.0	13,271.3	11,625.0	28.0	22.3	-90.00	1,845.7	-278.7	821.7	771.4	50.23	16.357	
13,395.0	11,624.0	13,366.3	11,625.0	28.4	22.7	-90.00	1,940.7	-279.6	821.7	770.6	51.09	16.083	
13,400.0	11,624.0	13,371.3	11,625.0	28.4	22.8	-90.00	1,945.7	-279.6	821.7	770.5	51.13	16.069	
13,490.0	11,624.0	13,461.3	11,625.0	28.8	23.2	-90.00	2,035.7	-280.4	821.7	769.7	51.97	15.810	
13,500.0	11,624.0	13,471.3	11,625.0	28.8	23.3	-90.00	2,045.7	-280.5	821.7	769.6	52.06	15.782	
13,585.0	11,624.0	13,556.3	11,625.0	29.2	23.7	-90.00	2,130.7	-281.3	821.7	768.8	52.88	15.539	
13,600.0	11,624.0	13,571.3	11,625.0	29.2	23.8	-90.00	2,145.7	-281.4	821.7	768.6	53.02	15.497	
13,680.0	11,624.0	13,651.3	11,625.0	29.6	24.2	-90.00	2,225.7	-282.1	821.7	767.9	53.81	15.271	
13,700.0	11,624.0	13,671.3	11,625.0	29.7	24.3	-90.00	2,245.7	-282.3	821.7	767.7	54.00	15.215	
13,775.0	11,624.0	13,746.3	11,625.0	30.0	24.8	-90.00	2,320.7	-283.0	821.7	766.9	54.76	15.005	
13,800.0	11,624.0	13,771.3	11,625.0	30.1	24.9	-90.00	2,345.7	-283.2	821.7	766.6	55.01	14.936	
13,870.0	11,624.0	13,841.3	11,625.0	30.5	25.3	-90.00	2,415.7	-283.9	821.7	765.9	55.73	14.743	
13,900.0	11,624.0	13,871.3	11,625.0	30.6	25.5	-90.00	2,445.7	-284.1	821.7	765.6	56.04	14.662	
13,965.0	11,624.0	13,936.3	11,625.0	30.9	25.8	-90.00	2,510.7	-284.7	821.6	764.9	56.72	14.485	
14,000.0	11,624.0	13,971.3	11,625.0	31.1	26.0	-90.00	2,545.7	-285.0	821.6	764.6	57.09	14.391	
14,060.0	11,624.0	14,031.3	11,625.0	31.4	26.4	-90.00	2,605.7	-285.6	821.6	763.9	57.74	14.231	
14,100.0	11,624.0	14,071.3	11,625.0	31.6	26.6	-90.00	2,645.7	-286.0	821.6	763.5	58.17	14.126	
14,155.0	11,624.0	14,126.3	11,625.0	31.9	26.9	-90.00	2,700.7	-286.5	821.6	762.9	58.77	13.982	
14,200.0	11,624.0	14,171.3	11,625.0	32.1	27.2	-90.00	2,745.7	-286.9	821.6	762.4	59.26	13.865	
14,250.0	11,624.0	14,221.3	11,625.0	32.3	27.5	-90.00	2,795.7	-287.3	821.6	761.8	59.81	13.737	
14,300.0	11,624.0	14,271.3	11,625.0	32.6	27.8	-90.00	2,845.7	-287.8	821.6	761.3	60.37	13.610	

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 #712H
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 #712H	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		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,345.0	11,624.0	14,316.3	11,625.0	32.8	28.1	-90.00	2,890.7	-288.2	821.6	760.8	60.88	13.497	
14,400.0	11,624.0	14,371.3	11,625.0	33.1	28.4	-90.00	2,945.7	-288.7	821.6	760.1	61.50	13.360	
14,440.0	11,624.0	14,411.3	11,625.0	33.3	28.7	-90.00	2,985.7	-289.0	821.6	759.7	61.96	13.262	
14,500.0	11,624.0	14,471.3	11,625.0	33.7	29.0	-90.00	3,045.7	-289.6	821.6	759.0	62.64	13.116	
14,535.0	11,624.0	14,506.3	11,625.0	33.8	29.3	-90.00	3,080.7	-289.9	821.6	758.6	63.05	13.032	
14,600.0	11,624.0	14,571.3	11,625.0	34.2	29.7	-90.00	3,145.7	-290.5	821.6	757.8	63.81	12.877	
14,630.0	11,624.0	14,601.3	11,625.0	34.4	29.8	-90.00	3,175.7	-290.8	821.6	757.5	64.16	12.807	
14,700.0	11,624.0	14,671.3	11,625.0	34.7	30.3	-90.00	3,245.7	-291.4	821.6	756.6	64.98	12.644	
14,725.0	11,624.0	14,696.3	11,625.0	34.9	30.4	-90.00	3,270.7	-291.6	821.6	756.3	65.28	12.587	
14,800.0	11,624.0	14,771.3	11,625.0	35.3	30.9	-90.00	3,345.7	-292.3	821.6	755.5	66.17	12.416	
14,820.0	11,624.0	14,791.3	11,625.0	35.4	31.1	-90.00	3,365.7	-292.5	821.6	755.2	66.41	12.372	
14,900.0	11,624.0	14,871.3	11,625.0	35.9	31.6	-90.00	3,445.6	-293.2	821.6	754.2	67.38	12.195	
14,915.0	11,624.0	14,886.3	11,625.0	35.9	31.7	-90.00	3,460.6	-293.3	821.6	754.1	67.56	12.162	
15,000.0	11,624.0	14,971.3	11,625.0	36.4	32.2	-90.00	3,545.6	-294.1	821.6	753.0	68.59	11.978	
15,010.0	11,624.0	14,981.3	11,625.0	36.5	32.3	-90.00	3,555.6	-294.2	821.6	752.9	68.71	11.957	
15,100.0	11,624.0	15,071.3	11,625.0	37.0	32.9	-90.00	3,645.6	-295.0	821.6	751.8	69.82	11.768	
15,105.0	11,624.0	15,076.3	11,625.0	37.0	32.9	-90.00	3,650.6	-295.1	821.6	751.7	69.88	11.757	
15,200.0	11,624.0	15,171.3	11,625.0	37.6	33.5	-90.00	3,745.6	-295.9	821.6	750.6	71.06	11.562	
15,295.0	11,624.0	15,266.3	11,625.0	38.2	34.1	-90.00	3,840.6	-296.8	821.6	749.4	72.25	11.372	
15,300.0	11,624.0	15,271.3	11,625.0	38.2	34.2	-90.00	3,845.6	-296.8	821.6	749.3	72.31	11.362	
15,390.0	11,624.0	15,361.3	11,625.0	38.7	34.8	-90.00	3,935.6	-297.7	821.6	748.2	73.45	11.187	
15,400.0	11,624.0	15,371.3	11,625.0	38.8	34.8	-90.00	3,945.6	-297.8	821.6	748.0	73.57	11.167	
15,485.0	11,624.0	15,456.3	11,625.0	39.3	35.4	-90.00	4,030.6	-298.5	821.6	747.0	74.65	11.006	
15,500.0	11,624.0	15,471.3	11,625.0	39.4	35.5	-90.00	4,045.6	-298.7	821.6	746.8	74.84	10.978	
15,580.0	11,624.0	15,551.3	11,625.0	39.9	36.0	-90.00	4,125.6	-299.4	821.6	745.7	75.87	10.830	
15,600.0	11,624.0	15,571.3	11,625.0	40.0	36.2	-90.00	4,145.6	-299.6	821.6	745.5	76.12	10.793	
15,675.0	11,624.0	15,646.3	11,625.0	40.4	36.7	-90.00	4,220.6	-300.2	821.6	744.5	77.09	10.658	
15,700.0	11,624.0	15,671.3	11,625.0	40.6	36.9	-90.00	4,245.6	-300.5	821.6	744.2	77.41	10.613	
15,770.0	11,624.0	15,741.3	11,625.0	41.0	37.3	-90.00	4,315.6	-301.1	821.6	743.3	78.32	10.490	
15,800.0	11,624.0	15,771.3	11,625.0	41.2	37.5	-90.00	4,345.6	-301.4	821.6	742.9	78.71	10.438	
15,865.0	11,624.0	15,836.3	11,625.0	41.6	38.0	-90.00	4,410.6	-302.0	821.6	742.0	79.56	10.327	
15,900.0	11,624.0	15,871.3	11,625.0	41.8	38.2	-90.00	4,445.6	-302.3	821.6	741.6	80.01	10.268	
15,960.0	11,624.0	15,931.3	11,625.0	42.2	38.6	-90.00	4,505.6	-302.8	821.6	740.8	80.80	10.168	
16,000.0	11,624.0	15,971.3	11,625.0	42.5	38.9	-90.00	4,545.6	-303.2	821.6	740.3	81.33	10.102	
16,055.0	11,624.0	16,026.3	11,625.0	42.8	39.3	-90.00	4,600.6	-303.7	821.6	739.5	82.05	10.013	
16,100.0	11,624.0	16,071.3	11,625.0	43.1	39.6	-90.00	4,645.6	-304.1	821.6	738.9	82.65	9.941	
16,150.0	11,624.0	16,121.3	11,625.0	43.4	39.9	-90.00	4,695.6	-304.6	821.6	738.3	83.31	9.862	
16,200.0	11,624.0	16,171.3	11,625.0	43.7	40.3	-90.00	4,745.6	-305.0	821.6	737.6	83.97	9.784	
16,245.0	11,624.0	16,216.3	11,625.0	44.0	40.6	-90.00	4,790.6	-305.4	821.6	737.0	84.57	9.714	
16,300.0	11,624.0	16,271.3	11,625.0	44.4	41.0	-90.00	4,845.6	-305.9	821.6	736.3	85.31	9.631	
16,340.0	11,624.0	16,311.3	11,625.0	44.6	41.3	-90.00	4,885.6	-306.3	821.6	735.7	85.84	9.571	
16,400.0	11,624.0	16,371.3	11,625.0	45.0	41.7	-90.00	4,945.6	-306.8	821.6	734.9	86.65	9.482	
16,435.0	11,624.0	16,406.3	11,625.0	45.2	41.9	-90.00	4,980.6	-307.1	821.6	734.5	87.12	9.431	
16,500.0	11,624.0	16,471.3	11,625.0	45.7	42.4	-90.00	5,045.6	-307.7	821.6	733.6	87.99	9.337	
16,530.0	11,624.0	16,501.3	11,625.0	45.9	42.6	-90.00	5,075.6	-308.0	821.6	733.2	88.40	9.294	
16,600.0	11,624.0	16,571.3	11,625.0	46.3	43.1	-90.00	5,145.6	-308.6	821.6	732.2	89.35	9.195	
16,625.0	11,624.0	16,596.3	11,625.0	46.5	43.2	-90.00	5,170.6	-308.9	821.6	731.9	89.68	9.161	
16,700.0	11,624.0	16,671.3	11,625.0	47.0	43.8	-90.00	5,245.6	-309.5	821.6	730.9	90.70	9.058	
16,720.0	11,624.0	16,691.3	11,625.0	47.1	43.9	-90.00	5,265.6	-309.7	821.6	730.6	90.98	9.031	
16,800.0	11,624.0	16,771.3	11,625.0	47.6	44.5	-90.00	5,345.6	-310.5	821.6	729.5	92.07	8.924	
16,815.0	11,624.0	16,786.3	11,625.0	47.7	44.6	-90.00	5,360.6	-310.6	821.6	729.3	92.27	8.904	
16,900.0	11,624.0	16,871.3	11,625.0	48.3	45.2	-90.00	5,445.6	-311.4	821.6	728.1	93.43	8.793	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
16,910.0	11,624.0	16,881.3	11,625.0	48.4	45.3	-90.00	5,455.6	-311.5	821.6	728.0	93.57	8.780	
17,000.0	11,624.0	16,971.3	11,625.0	49.0	45.9	-90.00	5,545.6	-312.3	821.6	726.8	94.81	8.666	
17,005.0	11,624.0	16,976.3	11,625.0	49.0	45.9	-90.00	5,550.6	-312.3	821.6	726.7	94.87	8.659	
17,100.0	11,624.0	17,071.3	11,625.0	49.6	46.6	-90.00	5,645.6	-313.2	821.6	725.4	96.18	8.542	
17,195.0	11,624.0	17,166.3	11,625.0	50.3	47.3	-90.00	5,740.6	-314.0	821.6	724.1	97.50	8.427	
17,200.0	11,624.0	17,171.3	11,625.0	50.3	47.3	-90.00	5,745.6	-314.1	821.6	724.0	97.56	8.421	
17,290.0	11,624.0	17,261.3	11,625.0	50.9	48.0	-90.00	5,835.5	-314.9	821.6	722.7	98.81	8.314	
17,300.0	11,624.0	17,271.3	11,625.0	51.0	48.0	-90.00	5,845.5	-315.0	821.6	722.6	98.95	8.303	
17,385.0	11,624.0	17,356.3	11,625.0	51.5	48.6	-90.00	5,930.5	-315.8	821.6	721.4	100.13	8.205	
17,400.0	11,624.0	17,371.3	11,625.0	51.6	48.7	-90.00	5,945.5	-315.9	821.6	721.2	100.34	8.188	
17,480.0	11,624.0	17,451.3	11,625.0	52.2	49.3	-90.00	6,025.5	-316.6	821.5	720.1	101.45	8.098	
17,500.0	11,624.0	17,471.3	11,625.0	52.3	49.5	-90.00	6,045.5	-316.8	821.5	719.8	101.73	8.076	
17,575.0	11,624.0	17,546.3	11,625.0	52.8	50.0	-90.00	6,120.5	-317.5	821.5	718.8	102.78	7.993	
17,600.0	11,624.0	17,571.3	11,625.0	53.0	50.2	-90.00	6,145.5	-317.7	821.5	718.4	103.13	7.966	
17,670.0	11,624.0	17,641.3	11,625.0	53.5	50.7	-90.00	6,215.5	-318.4	821.5	717.4	104.11	7.891	
17,700.0	11,624.0	17,671.3	11,625.0	53.7	50.9	-90.00	6,245.5	-318.6	821.5	717.0	104.53	7.859	
17,765.0	11,624.0	17,736.3	11,625.0	54.1	51.4	-90.00	6,310.5	-319.2	821.5	716.1	105.44	7.791	
17,800.0	11,624.0	17,771.3	11,625.0	54.4	51.6	-90.00	6,345.5	-319.5	821.5	715.6	105.94	7.755	
17,860.0	11,624.0	17,831.3	11,625.0	54.8	52.0	-90.00	6,405.5	-320.1	821.5	714.8	106.78	7.694	
17,900.0	11,624.0	17,871.3	11,625.0	55.0	52.3	-90.00	6,445.5	-320.4	821.5	714.2	107.34	7.653	
17,955.0	11,624.0	17,926.3	11,625.0	55.4	52.7	-90.00	6,500.5	-320.9	821.5	713.4	108.12	7.598	
18,000.0	11,624.0	17,971.3	11,625.0	55.7	53.1	-90.00	6,545.5	-321.3	821.5	712.8	108.75	7.554	
18,050.0	11,624.0	18,021.3	11,625.0	56.1	53.4	-90.00	6,595.5	-321.8	821.5	712.1	109.46	7.505	
18,100.0	11,624.0	18,071.3	11,625.0	56.4	53.8	-90.00	6,645.5	-322.3	821.5	711.4	110.17	7.457	
18,145.0	11,624.0	18,116.3	11,625.0	56.7	54.1	-90.00	6,690.5	-322.7	821.5	710.7	110.81	7.414	
18,200.0	11,624.0	18,171.3	11,625.0	57.1	54.5	-90.00	6,745.5	-323.2	821.5	709.9	111.59	7.362	
18,240.0	11,624.0	18,211.3	11,625.0	57.4	54.8	-90.00	6,785.5	-323.5	821.5	709.4	112.15	7.325	
18,300.0	11,624.0	18,271.3	11,625.0	57.8	55.2	-90.00	6,845.5	-324.1	821.5	708.5	113.01	7.270	
18,335.0	11,624.0	18,306.3	11,625.0	58.1	55.5	-90.00	6,880.5	-324.4	821.5	708.0	113.50	7.238	
18,400.0	11,624.0	18,371.3	11,625.0	58.5	56.0	-90.00	6,945.5	-325.0	821.5	707.1	114.43	7.179	
18,430.0	11,624.0	18,401.3	11,625.0	58.7	56.2	-90.00	6,975.5	-325.2	821.5	706.7	114.86	7.153	
18,500.0	11,624.0	18,471.3	11,625.0	59.2	56.7	-90.00	7,045.5	-325.9	821.5	705.7	115.85	7.091	
18,525.0	11,624.0	18,496.3	11,625.0	59.4	56.9	-90.00	7,070.5	-326.1	821.5	705.3	116.21	7.069	
18,600.0	11,624.0	18,571.3	11,625.0	59.9	57.4	-90.00	7,145.5	-326.8	821.5	704.2	117.28	7.005	
18,620.0	11,624.0	18,591.3	11,625.0	60.0	57.6	-90.00	7,165.5	-327.0	821.5	703.9	117.57	6.988	
18,700.0	11,624.0	18,671.3	11,625.0	60.6	58.1	-90.00	7,245.5	-327.7	821.5	702.8	118.71	6.920	
18,715.0	11,624.0	18,686.3	11,625.0	60.7	58.3	-90.00	7,260.5	-327.8	821.5	702.6	118.93	6.908	
18,800.0	11,624.0	18,771.3	11,625.0	61.3	58.9	-90.00	7,345.5	-328.6	821.5	701.4	120.14	6.838	
18,810.0	11,624.0	18,781.3	11,625.0	61.4	59.0	-90.00	7,355.5	-328.7	821.5	701.2	120.29	6.830	
18,900.0	11,624.0	18,871.3	11,625.0	62.0	59.6	-90.00	7,445.5	-329.5	821.5	699.9	121.58	6.757	
18,905.0	11,624.0	18,876.3	11,625.0	62.0	59.6	-90.00	7,450.5	-329.6	821.5	699.9	121.65	6.753	
19,000.0	11,624.0	18,971.3	11,625.0	62.7	60.3	-90.00	7,545.5	-330.4	821.5	698.5	123.02	6.678	
19,095.0	11,624.0	19,066.3	11,625.0	63.4	61.0	-90.00	7,640.5	-331.3	821.5	697.1	124.38	6.605	
19,100.0	11,624.0	19,071.3	11,625.0	63.4	61.1	-90.00	7,645.5	-331.3	821.5	697.0	124.46	6.601	
19,190.0	11,624.0	19,161.3	11,625.0	64.1	61.7	-90.00	7,735.5	-332.1	821.5	695.7	125.75	6.533	
19,200.0	11,624.0	19,171.3	11,625.0	64.1	61.8	-90.00	7,745.5	-332.2	821.5	695.6	125.90	6.525	
19,285.0	11,624.0	19,256.3	11,625.0	64.7	62.4	-90.00	7,830.5	-333.0	821.5	694.4	127.12	6.462	
19,300.0	11,624.0	19,271.3	11,625.0	64.8	62.5	-90.00	7,845.5	-333.1	821.5	694.2	127.34	6.451	
19,380.0	11,624.0	19,351.3	11,625.0	65.4	63.1	-90.00	7,925.5	-333.9	821.5	693.0	128.50	6.393	
19,400.0	11,624.0	19,371.3	11,625.0	65.5	63.3	-90.00	7,945.5	-334.1	821.5	692.7	128.79	6.379	
19,475.0	11,624.0	19,446.3	11,625.0	66.1	63.8	-90.00	8,020.5	-334.7	821.5	691.6	129.87	6.325	
19,500.0	11,624.0	19,471.3	11,625.0	66.3	64.0	-90.00	8,045.5	-335.0	821.5	691.3	130.23	6.308	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,570.0	11,624.0	19,541.3	11,625.0	66.8	64.5	-90.00	8,115.5	-335.6	821.5	690.2	131.25	6.259	
19,600.0	11,624.0	19,571.3	11,625.0	67.0	64.8	-90.00	8,145.5	-335.9	821.5	689.8	131.68	6.238	
19,665.0	11,624.0	19,636.3	11,625.0	67.4	65.2	-90.00	8,210.5	-336.5	821.5	688.9	132.62	6.194	
19,700.0	11,624.0	19,671.3	11,625.0	67.7	65.5	-90.00	8,245.4	-336.8	821.5	688.4	133.13	6.170	
19,760.0	11,624.0	19,731.3	11,625.0	68.1	65.9	-90.00	8,305.4	-337.3	821.5	687.5	134.00	6.130	
19,800.0	11,624.0	19,771.3	11,625.0	68.4	66.2	-90.00	8,345.4	-337.7	821.5	686.9	134.58	6.104	
19,855.0	11,624.0	19,826.3	11,625.0	68.8	66.6	-90.00	8,400.4	-338.2	821.5	686.1	135.38	6.068	
19,900.0	11,624.0	19,871.3	11,625.0	69.1	67.0	-90.00	8,445.4	-338.6	821.5	685.4	136.04	6.039	
19,950.0	11,624.0	19,921.3	11,625.0	69.5	67.3	-90.00	8,495.4	-339.0	821.5	684.7	136.77	6.006	
20,000.0	11,624.0	19,971.3	11,625.0	69.8	67.7	-90.00	8,545.4	-339.5	821.5	684.0	137.49	5.975	
20,045.0	11,624.0	20,016.3	11,625.0	70.1	68.0	-90.00	8,590.4	-339.9	821.5	683.3	138.15	5.946	
20,100.0	11,624.0	20,071.3	11,625.0	70.5	68.4	-90.00	8,645.4	-340.4	821.5	682.5	138.95	5.912	
20,140.0	11,624.0	20,111.3	11,625.0	70.8	68.7	-90.00	8,685.4	-340.8	821.5	681.9	139.53	5.887	
20,200.0	11,624.0	20,171.3	11,625.0	71.3	69.2	-90.00	8,745.4	-341.3	821.5	681.1	140.41	5.851	
20,235.0	11,624.0	20,206.3	11,625.0	71.5	69.4	-90.00	8,780.4	-341.6	821.5	680.5	140.92	5.829	
20,300.0	11,624.0	20,271.3	11,625.0	72.0	69.9	-90.00	8,845.4	-342.2	821.5	679.6	141.87	5.790	
20,330.0	11,624.0	20,301.3	11,625.0	72.2	70.1	-90.00	8,875.4	-342.5	821.5	679.2	142.31	5.772	
20,400.0	11,624.0	20,371.3	11,625.0	72.7	70.7	-90.00	8,945.4	-343.1	821.5	678.1	143.33	5.731	
20,425.0	11,624.0	20,396.3	11,625.0	72.9	70.9	-90.00	8,970.4	-343.4	821.5	677.8	143.70	5.717	
20,500.0	11,624.0	20,471.3	11,625.0	73.4	71.4	-90.00	9,045.4	-344.0	821.5	676.7	144.79	5.673	
20,520.0	11,624.0	20,491.3	11,625.0	73.6	71.6	-90.00	9,065.4	-344.2	821.5	676.4	145.09	5.662	
20,600.0	11,624.0	20,571.3	11,625.0	74.1	72.1	-90.00	9,145.4	-344.9	821.5	675.2	146.26	5.617	
20,615.0	11,624.0	20,586.3	11,625.0	74.3	72.3	-90.00	9,160.4	-345.1	821.5	675.0	146.48	5.608	
20,700.0	11,624.0	20,671.3	11,625.0	74.9	72.9	-90.00	9,245.4	-345.9	821.5	673.7	147.72	5.561	
20,710.0	11,624.0	20,681.3	11,625.0	74.9	73.0	-90.00	9,255.4	-345.9	821.5	673.6	147.87	5.555	
20,800.0	11,624.0	20,771.3	11,625.0	75.6	73.6	-90.00	9,345.4	-346.8	821.5	672.3	149.19	5.506	
20,805.0	11,624.0	20,776.3	11,625.0	75.6	73.7	-90.00	9,350.4	-346.8	821.5	672.2	149.26	5.503	
20,900.0	11,624.0	20,871.3	11,625.0	76.3	74.4	-90.00	9,445.4	-347.7	821.5	670.8	150.66	5.452	
20,995.0	11,624.0	20,966.3	11,625.0	77.0	75.1	-90.00	9,540.4	-348.5	821.4	669.4	152.05	5.402	
21,000.0	11,624.0	20,971.3	11,625.0	77.0	75.1	-90.00	9,545.4	-348.6	821.4	669.3	152.13	5.400	
21,090.0	11,624.0	21,061.3	11,625.0	77.7	75.8	-90.00	9,635.4	-349.4	821.4	668.0	153.45	5.353	
21,100.0	11,624.0	21,071.3	11,625.0	77.8	75.9	-90.00	9,645.4	-349.5	821.4	667.8	153.60	5.348	
21,185.0	11,624.0	21,156.3	11,625.0	78.4	76.5	-90.00	9,730.4	-350.3	821.4	666.6	154.85	5.305	
21,200.0	11,624.0	21,171.3	11,625.0	78.5	76.6	-90.00	9,745.4	-350.4	821.4	666.4	155.07	5.297	
21,280.0	11,624.0	21,251.3	11,625.0	79.1	77.2	-90.00	9,825.4	-351.1	821.4	665.2	156.25	5.257	
21,300.0	11,624.0	21,271.3	11,625.0	79.2	77.4	-90.00	9,845.4	-351.3	821.4	664.9	156.54	5.247	
21,375.0	11,624.0	21,346.3	11,625.0	79.8	77.9	-90.00	9,920.4	-352.0	821.4	663.8	157.64	5.211	
21,400.0	11,624.0	21,371.3	11,625.0	79.9	78.1	-90.00	9,945.4	-352.2	821.4	663.4	158.01	5.199	
21,470.0	11,624.0	21,441.3	11,625.0	80.5	78.6	-90.00	10,015.4	-352.8	821.4	662.4	159.04	5.165	
21,500.0	11,624.0	21,471.3	11,625.0	80.7	78.8	-90.00	10,045.4	-353.1	821.4	661.9	159.49	5.150	
21,565.0	11,624.0	21,536.3	11,625.0	81.1	79.3	-90.00	10,110.4	-353.7	821.4	661.0	160.45	5.120	
21,600.0	11,624.0	21,571.3	11,625.0	81.4	79.6	-90.00	10,145.4	-354.0	821.4	660.5	160.96	5.103	
21,660.0	11,624.0	21,631.3	11,625.0	81.8	80.0	-90.00	10,205.4	-354.6	821.4	659.6	161.85	5.075	
21,700.0	11,624.0	21,671.3	11,625.0	82.1	80.3	-90.00	10,245.4	-354.9	821.4	659.0	162.44	5.057	
21,755.0	11,624.0	21,726.3	11,625.0	82.5	80.7	-90.00	10,300.4	-355.4	821.4	658.2	163.25	5.032	
21,800.0	11,624.0	21,771.3	11,625.0	82.9	81.1	-90.00	10,345.4	-355.8	821.4	657.5	163.92	5.011	
21,850.0	11,624.0	21,821.3	11,625.0	83.2	81.5	-90.00	10,395.4	-356.3	821.4	656.8	164.65	4.989	
21,900.0	11,624.0	21,871.3	11,625.0	83.6	81.8	-90.00	10,445.4	-356.7	821.4	656.0	165.39	4.966	
21,945.0	11,624.0	21,916.3	11,625.0	83.9	82.2	-90.00	10,490.4	-357.2	821.4	655.4	166.06	4.947	
21,984.7	11,624.0	21,956.0	11,625.0	84.2	82.5	-90.00	10,530.0	-357.5	821.4	654.8	166.64	4.929	
21,996.4	11,624.0	21,956.2	11,625.0	84.3	82.5	-90.00	10,530.3	-357.5	821.5	654.8	166.70	4.928 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 #712H
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 #712H	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													Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	3.0	3.0	-90.40	-0.2	-30.5	30.5					
95.0	95.0	95.0	95.0	3.0	3.0	-90.40	-0.2	-30.5	30.5	24.4	6.03	5.055		
100.0	100.0	100.0	100.0	3.0	3.0	-90.40	-0.2	-30.5	30.5	24.4	6.03	5.052		
190.0	190.0	190.0	190.0	3.1	3.1	-90.40	-0.2	-30.5	30.5	24.3	6.15	4.951		
200.0	200.0	200.0	200.0	3.1	3.1	-90.40	-0.2	-30.5	30.5	24.3	6.17	4.935		
285.0	285.0	285.0	285.0	3.2	3.2	-90.40	-0.2	-30.5	30.5	24.2	6.31	4.827		
300.0	300.0	300.0	300.0	3.2	3.2	-90.40	-0.2	-30.5	30.5	24.1	6.34	4.805		
380.0	380.0	380.0	380.0	3.3	3.3	-90.40	-0.2	-30.5	30.5	24.0	6.49	4.695		
400.0	400.0	400.0	400.0	3.3	3.3	-90.40	-0.2	-30.5	30.5	23.9	6.53	4.665		
475.0	475.0	475.0	475.0	3.4	3.4	-90.40	-0.2	-30.5	30.5	23.8	6.68	4.557		
500.0	500.0	500.0	500.0	3.4	3.4	-90.40	-0.2	-30.5	30.5	23.7	6.74	4.520		
570.0	570.0	570.0	570.0	3.5	3.5	-90.40	-0.2	-30.5	30.5	23.6	6.90	4.416		
600.0	600.0	600.0	600.0	3.5	3.5	-90.40	-0.2	-30.5	30.5	23.5	6.97	4.371		
665.0	665.0	665.0	665.0	3.6	3.6	-90.40	-0.2	-30.5	30.5	23.3	7.13	4.274		
700.0	700.0	700.0	700.0	3.7	3.7	-90.40	-0.2	-30.5	30.5	23.2	7.22	4.221		
760.0	760.0	760.0	760.0	3.8	3.8	-90.40	-0.2	-30.5	30.5	23.1	7.37	4.133		
800.0	800.0	800.0	800.0	3.8	3.8	-90.40	-0.2	-30.5	30.5	23.0	7.48	4.074		
855.0	855.0	855.0	855.0	3.9	3.9	-90.40	-0.2	-30.5	30.5	22.8	7.63	3.994		
900.0	900.0	900.0	900.0	4.0	4.0	-90.40	-0.2	-30.5	30.5	22.7	7.75	3.929		
950.0	950.0	950.0	950.0	4.1	4.1	-90.40	-0.2	-30.5	30.5	22.6	7.90	3.858		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	-90.40	-0.2	-30.5	30.5	22.4	8.04	3.788		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	-90.40	-0.2	-30.5	30.5	22.3	8.17	3.726		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	-90.40	-0.2	-30.5	30.5	22.1	8.34	3.652		
1,140.0	1,140.0	1,140.0	1,140.0	4.4	4.4	-90.40	-0.2	-30.5	30.5	22.0	8.46	3.599		
1,200.0	1,200.0	1,200.0	1,200.0	4.5	4.5	-90.40	-0.2	-30.5	30.5	21.8	8.65	3.522		
1,235.0	1,235.0	1,235.0	1,235.0	4.6	4.6	-90.40	-0.2	-30.5	30.5	21.7	8.76	3.477		
1,300.0	1,300.0	1,300.0	1,300.0	4.7	4.7	-90.40	-0.2	-30.5	30.5	21.5	8.97	3.397		
1,330.0	1,330.0	1,330.0	1,330.0	4.7	4.7	-90.40	-0.2	-30.5	30.5	21.4	9.06	3.360		
1,400.0	1,400.0	1,400.0	1,400.0	4.9	4.9	-90.40	-0.2	-30.5	30.5	21.2	9.29	3.278		
1,425.0	1,425.0	1,425.0	1,425.0	4.9	4.9	-90.40	-0.2	-30.5	30.5	21.1	9.38	3.249		
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-90.40	-0.2	-30.5	30.5	20.8	9.63	3.164		
1,520.0	1,520.0	1,520.0	1,520.0	5.1	5.1	-90.40	-0.2	-30.5	30.5	20.8	9.69	3.142		
1,600.0	1,600.0	1,600.0	1,600.0	5.3	5.3	-90.40	-0.2	-30.5	30.5	20.5	9.97	3.056		
1,615.0	1,615.0	1,615.0	1,615.0	5.3	5.3	-90.40	-0.2	-30.5	30.5	20.4	10.02	3.041		
1,700.0	1,700.0	1,700.0	1,700.0	5.5	5.5	-90.40	-0.2	-30.5	30.5	20.1	10.31	2.954		
1,710.0	1,710.0	1,710.0	1,710.0	5.5	5.5	-90.40	-0.2	-30.5	30.5	20.1	10.35	2.944		
1,800.0	1,800.0	1,800.0	1,800.0	5.7	5.7	-90.40	-0.2	-30.5	30.5	19.8	10.66	2.857		
1,805.0	1,805.0	1,805.0	1,805.0	5.7	5.7	-90.40	-0.2	-30.5	30.5	19.8	10.68	2.852		
1,900.0	1,900.0	1,900.0	1,900.0	5.9	5.9	-90.40	-0.2	-30.5	30.5	19.4	11.02	2.765		
1,995.0	1,995.0	1,995.0	1,995.0	6.1	6.1	-90.40	-0.2	-30.5	30.5	19.1	11.36	2.681		
2,000.0	2,000.0	2,000.0	2,000.0	6.1	6.1	-90.40	-0.2	-30.5	30.5	19.1	11.38	2.677		
2,090.0	2,090.0	2,091.0	2,091.0	6.2	6.2	-179.50	-0.2	-29.0	30.4	18.7	11.77	2.588		
2,100.0	2,100.0	2,101.1	2,101.1	6.2	6.2	-179.49	-0.1	-28.7	30.4	18.6	11.81	2.578		
2,185.0	2,184.9	2,187.0	2,186.9	6.3	6.3	-179.32	0.0	-24.4	30.4	18.2	12.17	2.497		
2,200.0	2,199.8	2,202.1	2,202.0	6.3	6.3	-179.28	0.0	-23.3	30.4	18.2	12.24	2.484		
2,249.8	2,249.5	2,252.5	2,252.2	6.4	6.4	-179.12	0.2	-19.3	30.3	18.0	12.39	2.449 CC, ES		
2,280.0	2,279.6	2,282.7	2,282.2	6.4	6.4	-179.03	0.3	-16.7	30.5	18.0	12.49	2.442 SF		
2,300.0	2,299.5	2,302.7	2,302.1	6.5	6.4	-178.97	0.3	-15.0	30.8	18.2	12.56	2.451		
2,375.0	2,373.9	2,377.6	2,376.8	6.6	6.5	-178.81	0.6	-8.4	33.1	20.2	12.89	2.566		
2,400.0	2,398.7	2,402.6	2,401.7	6.6	6.5	-178.78	0.6	-6.3	34.3	21.3	13.00	2.637		
2,470.0	2,468.0	2,472.5	2,471.3	6.8	6.6	-178.71	0.9	-0.2	37.9	24.7	13.29	2.856		
2,500.0	2,497.7	2,502.4	2,501.2	6.8	6.6	-178.68	0.9	2.4	39.5	26.1	13.41	2.947		

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 #712H
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 #712H	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													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		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
2,565.0	2,562.1	2,567.4	2,565.8	7.0	6.8	-178.63	1.1	8.1	42.9	29.2	13.70	3.134	
2,600.0	2,596.8	2,602.3	2,600.7	7.1	6.8	-178.61	1.2	11.1	44.8	30.9	13.85	3.231	
2,660.0	2,656.2	2,662.2	2,660.3	7.2	7.0	-178.57	1.4	16.3	47.9	33.8	14.14	3.389	
2,700.0	2,695.8	2,702.2	2,700.1	7.3	7.1	-178.55	1.6	19.8	50.0	35.7	14.33	3.490	
2,755.0	2,750.2	2,757.1	2,754.9	7.4	7.2	-178.52	1.7	24.6	52.9	38.3	14.61	3.620	
2,800.0	2,794.8	2,802.0	2,799.6	7.6	7.3	-178.50	1.9	28.5	55.2	40.4	14.83	3.724	
2,850.0	2,844.3	2,852.0	2,849.4	7.7	7.4	-178.48	2.0	32.9	57.9	42.8	15.10	3.831	
2,900.0	2,893.8	2,901.9	2,899.1	7.8	7.6	-178.46	2.2	37.2	60.5	45.1	15.37	3.935	
2,945.0	2,938.4	2,946.8	2,943.9	8.0	7.7	-178.45	2.3	41.1	62.8	47.2	15.62	4.022	
3,000.0	2,992.9	3,001.8	2,998.6	8.1	7.8	-178.43	2.5	45.9	65.7	49.8	15.93	4.126	
3,040.0	3,032.5	3,041.7	3,038.4	8.2	7.9	-178.42	2.6	49.4	67.8	51.6	16.16	4.196	
3,100.0	3,091.9	3,101.6	3,098.1	8.4	8.1	-178.40	2.8	54.6	71.0	54.4	16.51	4.297	
3,135.0	3,126.5	3,136.6	3,132.9	8.5	8.2	-178.39	2.9	57.7	72.8	56.1	16.72	4.353	
3,200.0	3,190.9	3,201.5	3,197.5	8.7	8.4	-178.38	3.1	63.3	76.2	59.1	17.11	4.452	
3,230.0	3,220.6	3,231.4	3,227.4	8.8	8.5	-178.37	3.2	65.9	77.8	60.5	17.30	4.496	
3,300.0	3,289.9	3,301.3	3,297.0	9.1	8.7	-178.36	3.4	72.0	81.4	63.7	17.73	4.592	
3,325.0	3,314.7	3,326.3	3,321.9	9.1	8.7	-178.35	3.5	74.2	82.7	64.8	17.89	4.625	
3,400.0	3,389.0	3,401.2	3,396.5	9.4	9.0	-178.34	3.7	80.7	86.7	68.3	18.37	4.719	
3,420.0	3,408.8	3,421.2	3,416.4	9.5	9.0	-178.34	3.8	82.4	87.7	69.2	18.50	4.742	
3,500.0	3,488.0	3,501.1	3,496.0	9.7	9.3	-178.32	4.0	89.4	91.9	72.9	19.02	4.833	
3,515.0	3,502.9	3,516.1	3,510.9	9.8	9.3	-178.32	4.0	90.7	92.7	73.6	19.12	4.849	
3,600.0	3,587.0	3,600.9	3,595.5	10.1	9.6	-178.31	4.3	98.1	97.1	77.5	19.68	4.936	
3,610.0	3,596.9	3,610.9	3,605.4	10.1	9.6	-178.31	4.3	99.0	97.7	77.9	19.75	4.946	
3,700.0	3,686.0	3,700.6	3,694.8	10.4	9.9	-178.30	4.6	106.8	102.4	82.1	20.33	5.037	
3,705.0	3,691.0	3,705.6	3,699.7	10.4	9.9	-178.30	4.6	107.2	102.7	82.3	20.36	5.042	
3,800.0	3,785.1	3,800.0	3,793.8	10.8	10.2	-178.30	4.9	114.8	108.2	87.2	21.01	5.152	
3,895.0	3,879.2	3,893.4	3,887.0	11.1	10.5	-178.32	5.1	121.6	114.6	92.9	21.65	5.292	
3,900.0	3,884.1	3,898.4	3,891.9	11.1	10.5	-178.33	5.1	122.0	114.9	93.3	21.69	5.300	
3,990.0	3,973.2	3,987.2	3,980.6	11.5	10.8	-178.36	5.3	127.7	121.7	99.4	22.30	5.458	
4,000.0	3,983.1	3,997.1	3,990.4	11.5	10.8	-178.37	5.4	128.3	122.5	100.1	22.37	5.477	
4,085.0	4,067.3	4,080.8	4,074.1	11.8	11.1	-178.41	5.5	132.9	129.6	106.7	22.94	5.649	
4,100.0	4,082.2	4,095.6	4,088.8	11.9	11.1	-178.42	5.6	133.7	130.9	107.9	23.04	5.682	
4,180.0	4,161.4	4,174.3	4,167.5	12.2	11.3	-178.47	5.7	137.5	138.3	114.7	23.58	5.864	
4,200.0	4,181.2	4,194.0	4,187.1	12.3	11.4	-178.49	5.7	138.3	140.2	116.5	23.71	5.912	
4,275.0	4,255.5	4,267.7	4,260.8	12.6	11.6	-178.54	5.8	141.2	147.7	123.5	24.21	6.102	
4,300.0	4,280.2	4,292.3	4,285.3	12.6	11.7	-178.56	5.8	142.1	150.3	125.9	24.37	6.168	
4,370.0	4,349.5	4,360.9	4,353.9	12.9	11.9	-178.61	5.9	144.2	157.9	133.1	24.83	6.360	
4,400.0	4,379.2	4,390.3	4,383.3	13.0	12.0	-178.63	5.9	145.0	161.3	136.3	25.02	6.446	
4,465.0	4,443.6	4,454.0	4,446.9	13.3	12.1	-178.68	6.0	146.4	168.9	143.4	25.43	6.640	
4,500.0	4,478.3	4,488.2	4,481.2	13.4	12.2	-178.71	6.0	147.0	173.1	147.5	25.66	6.748	
4,560.0	4,537.7	4,546.8	4,539.8	13.7	12.4	-178.76	6.0	147.9	180.6	154.6	26.02	6.941	
4,600.0	4,577.3	4,585.9	4,578.8	13.8	12.5	-178.79	6.1	148.2	185.8	159.5	26.26	7.074	
4,655.0	4,631.8	4,639.5	4,632.5	14.0	12.5	-178.83	6.1	148.6	193.1	166.6	26.55	7.273	
4,700.0	4,676.3	4,683.3	4,676.3	14.2	12.6	-178.87	6.1	148.6	199.3	172.5	26.78	7.443	
4,750.0	4,725.8	4,732.9	4,725.8	14.4	12.6	-178.91	6.1	148.6	206.3	179.3	26.99	7.641	
4,800.0	4,775.3	4,782.4	4,775.3	14.6	12.6	-178.94	6.1	148.6	213.2	186.0	27.22	7.833	
4,845.0	4,819.9	4,826.9	4,819.9	14.8	12.7	-178.97	6.1	148.6	219.5	192.1	27.43	8.002	
4,900.0	4,874.4	4,881.4	4,874.4	15.0	12.7	-179.01	6.1	148.6	227.1	199.5	27.68	8.206	
4,940.0	4,914.0	4,921.0	4,914.0	15.2	12.7	-179.03	6.1	148.6	232.7	204.8	27.86	8.352	
5,000.0	4,973.4	4,980.4	4,973.4	15.4	12.8	-179.06	6.1	148.6	241.1	212.9	28.14	8.567	
5,035.0	5,008.1	5,015.1	5,008.1	15.5	12.8	-179.08	6.1	148.6	245.9	217.6	28.30	8.691	
5,100.0	5,072.4	5,079.5	5,072.4	15.8	12.8	-179.12	6.1	148.6	255.0	226.4	28.60	8.916	

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 #712H
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 #712H	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													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre	Distance	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,130.0	5,102.1	5,109.2	5,102.1	15.9	12.8	-179.13	6.1	148.6	259.1	230.4	28.73	9.018	
5,200.0	5,171.5	5,178.5	5,171.5	16.2	12.9	-179.16	6.1	148.6	268.9	239.8	29.06	9.253	
5,225.0	5,196.2	5,203.2	5,196.2	16.3	12.9	-179.17	6.1	148.6	272.4	243.2	29.17	9.336	
5,300.0	5,270.5	5,277.5	5,270.5	16.6	12.9	-179.20	6.1	148.6	282.8	253.3	29.52	9.579	
5,320.0	5,290.3	5,297.3	5,290.3	16.7	12.9	-179.21	6.1	148.6	285.6	256.0	29.62	9.643	
5,400.0	5,369.5	5,376.5	5,369.5	17.0	13.0	-179.24	6.1	148.6	296.7	266.7	29.99	9.895	
5,415.0	5,384.4	5,391.4	5,384.4	17.1	13.0	-179.25	6.1	148.6	298.8	268.8	30.05	9.943	
5,420.7	5,390.0	5,397.0	5,390.0	17.1	13.0	-179.25	6.1	148.6	299.6	269.5	30.08	9.961	
5,500.0	5,468.6	5,475.6	5,468.6	17.4	13.0	-179.27	6.1	148.6	310.4	279.9	30.44	10.197	
5,510.0	5,478.5	5,485.5	5,478.5	17.4	13.1	-179.28	6.1	148.6	311.7	281.2	30.48	10.225	
5,600.0	5,567.7	5,574.8	5,567.7	17.8	13.1	-179.30	6.1	148.6	323.2	292.3	30.90	10.459	
5,605.0	5,572.7	5,579.7	5,572.7	17.8	13.1	-179.31	6.1	148.6	323.8	292.9	30.92	10.471	
5,700.0	5,667.0	5,674.1	5,667.0	18.2	13.2	-179.33	6.1	148.6	335.1	303.7	31.36	10.687	
5,795.0	5,761.4	5,768.5	5,761.4	18.6	13.2	-179.35	6.1	148.6	345.6	313.8	31.79	10.874	
5,800.0	5,766.4	5,773.4	5,766.4	18.6	13.2	-179.35	6.1	148.6	346.2	314.3	31.81	10.883	
5,890.0	5,855.9	5,863.0	5,855.9	18.9	13.3	-179.37	6.1	148.6	355.4	323.2	32.21	11.033	
5,900.0	5,865.9	5,872.9	5,865.9	19.0	13.3	-179.37	6.1	148.6	356.4	324.1	32.25	11.048	
5,985.0	5,950.5	5,957.6	5,950.5	19.3	13.3	-179.38	6.1	148.6	364.3	331.7	32.63	11.166	
6,000.0	5,965.5	5,972.5	5,965.5	19.4	13.4	-179.39	6.1	148.6	365.7	333.0	32.70	11.185	
6,080.0	6,045.2	6,052.2	6,045.2	19.6	13.4	-179.40	6.1	148.6	372.5	339.5	33.04	11.274	
6,100.0	6,065.1	6,072.1	6,065.1	19.7	13.4	-179.40	6.1	148.6	374.1	341.0	33.13	11.294	
6,175.0	6,139.9	6,146.9	6,139.9	20.0	13.5	-179.41	6.1	148.6	379.9	346.5	33.45	11.359	
6,200.0	6,164.8	6,171.8	6,164.8	20.1	13.5	-179.41	6.1	148.6	381.7	348.2	33.55	11.377	
6,270.0	6,234.6	6,241.7	6,234.6	20.3	13.5	-179.42	6.1	148.6	386.5	352.7	33.85	11.420	
6,300.0	6,264.6	6,271.6	6,264.6	20.4	13.5	-179.42	6.1	148.6	388.5	354.5	33.97	11.435	
6,365.0	6,329.5	6,336.5	6,329.5	20.7	13.6	-179.43	6.1	148.6	392.4	358.1	34.23	11.461	
6,400.0	6,364.4	6,371.4	6,364.4	20.8	13.6	-179.43	6.1	148.6	394.3	359.9	34.38	11.470	
6,460.0	6,424.3	6,431.4	6,424.3	21.0	13.6	-179.44	6.1	148.6	397.4	362.8	34.61	11.481	
6,500.0	6,464.3	6,471.3	6,464.3	21.1	13.7	-179.44	6.1	148.6	399.3	364.5	34.77	11.483	
6,555.0	6,519.2	6,526.3	6,519.2	21.3	13.7	-179.44	6.1	148.6	401.6	366.7	34.98	11.481	
6,600.0	6,564.2	6,571.2	6,564.2	21.4	13.7	-179.45	6.1	148.6	403.4	368.2	35.15	11.475	
6,650.0	6,614.2	6,621.2	6,614.2	21.6	13.8	-179.45	6.1	148.6	405.1	369.8	35.34	11.464	
6,700.0	6,664.2	6,671.2	6,664.2	21.7	13.8	-179.45	6.1	148.6	406.6	371.1	35.52	11.448	
6,745.0	6,709.1	6,716.2	6,709.1	21.9	13.8	-179.45	6.1	148.6	407.8	372.1	35.68	11.430	
6,800.0	6,764.1	6,771.2	6,764.1	22.0	13.9	-179.45	6.1	148.6	409.0	373.1	35.87	11.403	
6,840.0	6,804.1	6,811.1	6,804.1	22.1	13.9	-179.46	6.1	148.6	409.7	373.7	36.00	11.382	
6,900.0	6,864.1	6,871.1	6,864.1	22.3	13.9	-179.46	6.1	148.6	410.5	374.3	36.19	11.343	
6,935.0	6,899.1	6,906.1	6,899.1	22.4	13.9	-179.46	6.1	148.6	410.8	374.5	36.28	11.322	
7,000.0	6,964.1	6,971.1	6,964.1	22.5	14.0	-179.46	6.1	148.6	411.1	374.6	36.46	11.276	
7,020.7	6,984.8	6,991.8	6,984.8	22.5	14.0	-90.30	6.1	148.6	411.1	374.6	36.49	11.268	
7,030.0	6,994.1	7,001.1	6,994.1	22.5	14.0	-90.30	6.1	148.6	411.1	374.6	36.49	11.265	
7,100.0	7,064.1	7,071.1	7,064.1	22.5	14.0	-90.30	6.1	148.6	411.1	374.6	36.55	11.246	
7,125.0	7,089.1	7,096.1	7,089.1	22.5	14.1	-90.30	6.1	148.6	411.1	374.5	36.58	11.239	
7,200.0	7,164.1	7,171.1	7,164.1	22.6	14.1	-90.30	6.1	148.6	411.1	374.5	36.65	11.217	
7,220.0	7,184.1	7,191.1	7,184.1	22.6	14.1	-90.30	6.1	148.6	411.1	374.4	36.67	11.211	
7,300.0	7,264.1	7,271.1	7,264.1	22.6	14.2	-90.30	6.1	148.6	411.1	374.4	36.75	11.187	
7,315.0	7,279.1	7,286.1	7,279.1	22.6	14.2	-90.30	6.1	148.6	411.1	374.3	36.76	11.182	
7,400.0	7,364.1	7,371.1	7,364.1	22.6	14.2	-90.30	6.1	148.6	411.1	374.3	36.85	11.157	
7,410.0	7,374.1	7,381.1	7,374.1	22.6	14.2	-90.30	6.1	148.6	411.1	374.3	36.86	11.154	
7,500.0	7,464.1	7,471.1	7,464.1	22.7	14.3	-90.30	6.1	148.6	411.1	374.2	36.95	11.128	
7,505.0	7,469.1	7,476.1	7,469.1	22.7	14.3	-90.30	6.1	148.6	411.1	374.2	36.95	11.126	
7,600.0	7,564.1	7,571.1	7,564.1	22.7	14.4	-90.30	6.1	148.6	411.1	374.1	37.04	11.098	

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 #712H
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 #712H	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													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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,695.0	7,659.1	7,666.1	7,659.1	22.7	14.4	-90.30	6.1	148.6	411.1	374.0	37.14	11.070	
7,700.0	7,664.1	7,671.1	7,664.1	22.7	14.4	-90.30	6.1	148.6	411.1	374.0	37.14	11.068	
7,790.0	7,754.1	7,761.1	7,754.1	22.8	14.5	-90.30	6.1	148.6	411.1	373.9	37.23	11.042	
7,800.0	7,764.1	7,771.1	7,764.1	22.8	14.5	-90.30	6.1	148.6	411.1	373.9	37.24	11.039	
7,885.0	7,849.1	7,856.1	7,849.1	22.8	14.5	-90.30	6.1	148.6	411.1	373.8	37.33	11.014	
7,900.0	7,864.1	7,871.1	7,864.1	22.8	14.6	-90.30	6.1	148.6	411.1	373.8	37.34	11.009	
7,980.0	7,944.1	7,951.1	7,944.1	22.8	14.6	-90.30	6.1	148.6	411.1	373.7	37.42	10.986	
8,000.0	7,964.1	7,971.1	7,964.1	22.8	14.6	-90.30	6.1	148.6	411.1	373.7	37.44	10.980	
8,075.0	8,039.1	8,046.1	8,039.1	22.9	14.7	-90.30	6.1	148.6	411.1	373.6	37.52	10.958	
8,100.0	8,064.1	8,071.1	8,064.1	22.9	14.7	-90.30	6.1	148.6	411.1	373.6	37.54	10.950	
8,170.0	8,134.1	8,141.1	8,134.1	22.9	14.7	-90.30	6.1	148.6	411.1	373.5	37.61	10.930	
8,200.0	8,164.1	8,171.1	8,164.1	22.9	14.8	-90.30	6.1	148.6	411.1	373.5	37.64	10.921	
8,265.0	8,229.1	8,236.1	8,229.1	22.9	14.8	-90.30	6.1	148.6	411.1	373.4	37.71	10.902	
8,300.0	8,264.1	8,271.1	8,264.1	22.9	14.8	-90.30	6.1	148.6	411.1	373.4	37.75	10.892	
8,360.0	8,324.1	8,331.1	8,324.1	23.0	14.9	-90.30	6.1	148.6	411.1	373.3	37.81	10.874	
8,400.0	8,364.1	8,371.1	8,364.1	23.0	14.9	-90.30	6.1	148.6	411.1	373.3	37.85	10.862	
8,455.0	8,419.1	8,426.1	8,419.1	23.0	14.9	-90.30	6.1	148.6	411.1	373.2	37.90	10.846	
8,500.0	8,464.1	8,471.1	8,464.1	23.0	15.0	-90.30	6.1	148.6	411.1	373.2	37.95	10.833	
8,550.0	8,514.1	8,521.1	8,514.1	23.0	15.0	-90.30	6.1	148.6	411.1	373.1	38.00	10.818	
8,600.0	8,564.1	8,571.1	8,564.1	23.0	15.0	-90.30	6.1	148.6	411.1	373.1	38.05	10.804	
8,645.0	8,609.1	8,616.1	8,609.1	23.1	15.0	-90.30	6.1	148.6	411.1	373.0	38.10	10.791	
8,700.0	8,664.1	8,671.1	8,664.1	23.1	15.1	-90.30	6.1	148.6	411.1	373.0	38.16	10.775	
8,740.0	8,704.1	8,711.1	8,704.1	23.1	15.1	-90.30	6.1	148.6	411.1	372.9	38.20	10.763	
8,800.0	8,764.1	8,771.1	8,764.1	23.1	15.2	-90.30	6.1	148.6	411.1	372.9	38.26	10.746	
8,835.0	8,799.1	8,806.1	8,799.1	23.1	15.2	-90.30	6.1	148.6	411.1	372.8	38.29	10.735	
8,900.0	8,864.1	8,871.1	8,864.1	23.1	15.2	-90.30	6.1	148.6	411.1	372.7	38.36	10.716	
8,930.0	8,894.1	8,901.1	8,894.1	23.2	15.2	-90.30	6.1	148.6	411.1	372.7	38.39	10.708	
9,000.0	8,964.1	8,971.1	8,964.1	23.2	15.3	-90.30	6.1	148.6	411.1	372.6	38.47	10.687	
9,025.0	8,989.1	8,996.1	8,989.1	23.2	15.3	-90.30	6.1	148.6	411.1	372.6	38.49	10.680	
9,100.0	9,064.1	9,071.1	9,064.1	23.2	15.4	-90.30	6.1	148.6	411.1	372.5	38.57	10.658	
9,120.0	9,084.1	9,091.1	9,084.1	23.2	15.4	-90.30	6.1	148.6	411.1	372.5	38.59	10.653	
9,200.0	9,164.1	9,171.1	9,164.1	23.3	15.4	-90.30	6.1	148.6	411.1	372.4	38.68	10.630	
9,215.0	9,179.1	9,186.1	9,179.1	23.3	15.4	-90.30	6.1	148.6	411.1	372.4	38.69	10.625	
9,300.0	9,264.1	9,271.1	9,264.1	23.3	15.5	-90.30	6.1	148.6	411.1	372.3	38.78	10.601	
9,310.0	9,274.1	9,281.1	9,274.1	23.3	15.5	-90.30	6.1	148.6	411.1	372.3	38.79	10.598	
9,400.0	9,364.1	9,371.1	9,364.1	23.3	15.6	-90.30	6.1	148.6	411.1	372.2	38.89	10.572	
9,405.0	9,369.1	9,376.1	9,369.1	23.3	15.6	-90.30	6.1	148.6	411.1	372.2	38.89	10.571	
9,500.0	9,464.1	9,471.1	9,464.1	23.4	15.6	-90.30	6.1	148.6	411.1	372.1	38.99	10.543	
9,595.0	9,559.1	9,566.1	9,559.1	23.4	15.7	-90.30	6.1	148.6	411.1	372.0	39.09	10.516	
9,600.0	9,564.1	9,571.1	9,564.1	23.4	15.7	-90.30	6.1	148.6	411.1	372.0	39.10	10.515	
9,690.0	9,654.1	9,661.1	9,654.1	23.5	15.8	-90.30	6.1	148.6	411.1	371.9	39.19	10.489	
9,700.0	9,664.1	9,671.1	9,664.1	23.5	15.8	-90.30	6.1	148.6	411.1	371.9	39.21	10.486	
9,785.0	9,749.1	9,756.1	9,749.1	23.5	15.8	-90.30	6.1	148.6	411.1	371.8	39.30	10.462	
9,800.0	9,764.1	9,771.1	9,764.1	23.5	15.8	-90.30	6.1	148.6	411.1	371.8	39.31	10.457	
9,880.0	9,844.1	9,851.1	9,844.1	23.5	15.9	-90.30	6.1	148.6	411.1	371.7	39.40	10.435	
9,900.0	9,864.1	9,871.1	9,864.1	23.5	15.9	-90.30	6.1	148.6	411.1	371.7	39.42	10.429	
9,975.0	9,939.1	9,946.1	9,939.1	23.6	15.9	-90.30	6.1	148.6	411.1	371.6	39.50	10.408	
10,000.0	9,964.1	9,971.1	9,964.1	23.6	16.0	-90.30	6.1	148.6	411.1	371.6	39.53	10.401	
10,070.0	10,034.1	10,041.1	10,034.1	23.6	16.0	-90.30	6.1	148.6	411.1	371.5	39.60	10.381	
10,100.0	10,064.1	10,071.1	10,064.1	23.6	16.0	-90.30	6.1	148.6	411.1	371.5	39.64	10.372	
10,165.0	10,129.1	10,136.1	10,129.1	23.6	16.1	-90.30	6.1	148.6	411.1	371.4	39.71	10.354	
10,200.0	10,164.1	10,171.1	10,164.1	23.7	16.1	-90.30	6.1	148.6	411.1	371.4	39.74	10.344	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,260.0	10,224.1	10,231.1	10,224.1	23.7	16.1	-90.30	6.1	148.6	411.1	371.3	39.81	10.327	
10,300.0	10,264.1	10,271.1	10,264.1	23.7	16.2	-90.30	6.1	148.6	411.1	371.3	39.85	10.316	
10,355.0	10,319.1	10,326.1	10,319.1	23.7	16.2	-90.30	6.1	148.6	411.1	371.2	39.91	10.300	
10,400.0	10,364.1	10,371.1	10,364.1	23.7	16.2	-90.30	6.1	148.6	411.1	371.1	39.96	10.288	
10,450.0	10,414.1	10,421.1	10,414.1	23.8	16.3	-90.30	6.1	148.6	411.1	371.1	40.02	10.274	
10,500.0	10,464.1	10,471.1	10,464.1	23.8	16.3	-90.30	6.1	148.6	411.1	371.0	40.07	10.259	
10,545.0	10,509.1	10,516.1	10,509.1	23.8	16.3	-90.30	6.1	148.6	411.1	371.0	40.12	10.247	
10,600.0	10,564.1	10,571.1	10,564.1	23.8	16.4	-90.30	6.1	148.6	411.1	370.9	40.18	10.231	
10,640.0	10,604.1	10,611.1	10,604.1	23.8	16.4	-90.30	6.1	148.6	411.1	370.9	40.22	10.220	
10,700.0	10,664.1	10,671.1	10,664.1	23.9	16.4	-90.30	6.1	148.6	411.1	370.8	40.29	10.204	
10,735.0	10,699.1	10,706.1	10,699.1	23.9	16.5	-90.30	6.1	148.6	411.1	370.8	40.33	10.194	
10,800.0	10,764.1	10,771.1	10,764.1	23.9	16.5	-90.30	6.1	148.6	411.1	370.7	40.40	10.176	
10,830.0	10,794.1	10,801.1	10,794.1	23.9	16.5	-90.30	6.1	148.6	411.1	370.7	40.43	10.167	
10,900.0	10,864.1	10,871.1	10,864.1	23.9	16.6	-90.30	6.1	148.6	411.1	370.6	40.51	10.148	
10,925.0	10,889.1	10,896.1	10,889.1	23.9	16.6	-90.30	6.1	148.6	411.1	370.6	40.54	10.141	
11,000.0	10,964.1	10,971.1	10,964.1	24.0	16.6	-90.30	6.1	148.6	411.1	370.5	40.61	10.124	
11,001.4	10,965.5	10,972.5	10,965.5	24.0	16.6	-90.30	6.1	148.6	411.1	370.5	40.61	10.124	
11,020.0	10,984.1	10,991.1	10,984.1	24.0	16.6	-90.29	6.1	148.6	411.1	370.5	40.62	10.121	
11,100.0	11,064.1	11,069.9	11,062.4	24.0	16.6	-89.21	13.9	148.6	411.2	370.6	40.64	10.118	
11,115.0	11,079.1	11,084.3	11,076.5	24.0	16.6	-88.82	16.7	148.5	411.3	370.7	40.64	10.121	
11,182.4	11,146.5	11,146.4	11,136.2	24.0	16.7	-86.47	33.6	148.4	412.3	371.7	40.57	10.161	
11,200.0	11,164.1	11,161.9	11,150.7	24.0	16.7	-85.18	39.0	148.3	412.7	372.2	40.54	10.181	
11,210.0	11,174.1	11,170.6	11,158.8	24.0	16.7	-84.75	42.2	148.3	413.0	372.5	40.52	10.194	
11,225.0	11,189.1	11,183.6	11,170.8	24.0	16.7	-84.10	47.4	148.3	413.5	373.1	40.49	10.213	
11,250.0	11,213.9	11,205.1	11,190.2	24.0	16.7	-83.04	56.6	148.2	414.5	374.1	40.44	10.249	
11,275.0	11,238.5	11,225.0	11,207.8	24.0	16.7	-82.06	65.8	148.1	415.6	375.2	40.40	10.287	
11,300.0	11,262.9	11,247.3	11,227.1	24.1	16.7	-80.99	77.1	148.0	416.8	376.4	40.35	10.327	
11,305.0	11,267.8	11,250.0	11,229.4	24.1	16.7	-80.85	78.5	148.0	417.0	376.7	40.35	10.335	
11,325.0	11,287.0	11,268.0	11,244.5	24.1	16.7	-80.00	88.3	147.9	418.0	377.7	40.32	10.369	
11,350.0	11,310.7	11,288.6	11,261.2	24.1	16.7	-79.04	100.2	147.8	419.4	379.1	40.29	10.410	
11,375.0	11,333.9	11,308.9	11,277.3	24.1	16.7	-78.11	112.7	147.7	420.8	380.6	40.27	10.450	
11,400.0	11,356.7	11,329.0	11,292.6	24.1	16.7	-77.22	125.7	147.6	422.3	382.1	40.26	10.489	
11,425.0	11,378.8	11,350.0	11,308.0	24.1	16.7	-76.32	139.9	147.4	423.9	383.6	40.26	10.527	
11,450.0	11,400.3	11,368.8	11,321.3	24.1	16.7	-75.52	153.2	147.3	425.4	385.1	40.29	10.560	
11,475.0	11,421.1	11,388.4	11,334.6	24.1	16.7	-74.73	167.7	147.2	427.0	386.7	40.32	10.591	
11,495.0	11,437.3	11,404.1	11,344.7	24.1	16.7	-74.12	179.6	147.1	428.3	387.9	40.35	10.614	
11,500.0	11,441.2	11,407.9	11,347.2	24.1	16.7	-73.97	182.6	147.0	428.6	388.2	40.36	10.619	
11,525.0	11,460.5	11,425.0	11,357.7	24.1	16.7	-73.32	196.0	146.9	430.1	389.7	40.43	10.639	
11,550.0	11,478.9	11,446.6	11,370.3	24.1	16.7	-72.58	213.5	146.8	431.7	391.2	40.48	10.664	
11,575.0	11,496.3	11,465.7	11,380.8	24.1	16.8	-71.94	229.5	146.6	433.1	392.6	40.55	10.682	
11,590.0	11,506.4	11,475.0	11,385.7	24.1	16.8	-71.63	237.4	146.5	434.0	393.4	40.62	10.685	
11,600.0	11,512.9	11,484.8	11,390.6	24.1	16.8	-71.35	245.9	146.5	434.6	394.0	40.63	10.695	
11,625.0	11,528.4	11,503.8	11,399.8	24.1	16.8	-70.79	262.5	146.3	436.0	395.2	40.72	10.705	
11,650.0	11,542.9	11,525.0	11,409.2	24.1	16.8	-70.24	281.5	146.1	437.3	396.5	40.80	10.718	
11,675.0	11,556.3	11,541.4	11,415.9	24.1	16.8	-69.81	296.6	146.0	438.5	397.6	40.92	10.716	
11,685.0	11,561.3	11,550.0	11,419.1	24.1	16.8	-69.62	304.5	145.9	439.0	398.0	40.95	10.719	
11,700.0	11,568.5	11,560.2	11,422.9	24.1	16.8	-69.38	313.9	145.8	439.6	398.6	41.03	10.716	
11,725.0	11,579.6	11,578.9	11,429.2	24.2	16.8	-69.00	331.5	145.7	440.7	399.6	41.13	10.714	
11,750.0	11,589.6	11,600.0	11,435.4	24.2	16.9	-68.63	351.7	145.5	441.6	400.4	41.22	10.714	
11,775.0	11,598.3	11,616.1	11,439.6	24.2	16.9	-68.37	367.2	145.4	442.5	401.1	41.34	10.703	
11,780.0	11,599.9	11,619.8	11,440.5	24.2	16.9	-68.31	370.8	145.3	442.6	401.2	41.36	10.701	
11,800.0	11,605.8	11,634.6	11,443.8	24.2	16.9	-68.12	385.3	145.2	443.2	401.7	41.44	10.694	

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 #712H
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 #712H	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													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		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)	Distance Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,825.0	11,612.0	11,650.0	11,446.7	24.2	16.9	-67.93	400.4	145.1	443.8	402.2	41.55	10.680		
11,850.0	11,616.9	11,671.6	11,450.0	24.2	17.0	-67.75	421.7	144.9	444.2	402.6	41.63	10.671		
11,875.0	11,620.6	11,690.0	11,452.0	24.3	17.0	-67.63	440.0	144.7	444.6	402.8	41.72	10.657		
11,900.0	11,622.9	11,708.5	11,453.3	24.3	17.0	-67.56	458.4	144.5	444.8	403.0	41.80	10.642		
11,925.0	11,623.9	11,726.9	11,454.0	24.3	17.0	-67.53	476.9	144.4	444.9	403.0	41.87	10.625		
11,932.4	11,624.0	11,732.4	11,454.0	24.3	17.0	-67.53	482.3	144.3	444.9	403.0	41.89	10.620		
11,946.1	11,624.0	11,745.6	11,454.0	24.3	17.1	-67.53	495.6	144.2	444.9	402.9	41.93	10.610		
11,970.0	11,624.0	11,769.5	11,454.0	24.4	17.1	-67.53	519.5	144.0	444.9	402.9	42.00	10.593		
12,000.0	11,624.0	11,799.5	11,454.0	24.4	17.2	-67.53	549.5	143.7	444.9	402.8	42.08	10.571		
12,065.0	11,624.0	11,864.5	11,454.0	24.5	17.3	-67.53	614.5	143.1	444.9	402.5	42.31	10.513		
12,100.0	11,624.0	11,899.5	11,454.0	24.6	17.4	-67.53	649.5	142.8	444.9	402.4	42.44	10.483		
12,160.0	11,624.0	11,959.5	11,454.0	24.7	17.5	-67.53	709.5	142.3	444.8	402.2	42.68	10.423		
12,200.0	11,624.0	11,999.5	11,454.0	24.7	17.6	-67.53	749.5	141.9	444.8	402.0	42.84	10.384		
12,255.0	11,624.0	12,054.5	11,454.0	24.8	17.8	-67.53	804.5	141.4	444.8	401.8	43.09	10.323		
12,300.0	11,624.0	12,099.5	11,454.0	24.9	17.9	-67.53	849.5	141.0	444.8	401.5	43.30	10.274		
12,350.0	11,624.0	12,149.5	11,454.0	25.0	18.0	-67.53	899.5	140.5	444.8	401.3	43.55	10.215		
12,400.0	11,624.0	12,199.5	11,454.0	25.2	18.2	-67.53	949.5	140.1	444.8	401.0	43.80	10.156		
12,445.0	11,624.0	12,244.5	11,454.0	25.3	18.3	-67.53	994.5	139.7	444.8	400.8	44.05	10.098		
12,500.0	11,624.0	12,299.5	11,454.0	25.4	18.5	-67.53	1,049.5	139.2	444.8	400.5	44.36	10.029		
12,540.0	11,624.0	12,339.5	11,454.0	25.5	18.7	-67.53	1,089.5	138.8	444.8	400.2	44.60	9.975		
12,600.0	11,624.0	12,399.5	11,454.0	25.7	18.9	-67.53	1,149.5	138.3	444.8	399.9	44.95	9.895		
12,635.0	11,624.0	12,434.5	11,454.0	25.8	19.0	-67.53	1,184.5	137.9	444.8	399.7	45.18	9.846		
12,700.0	11,624.0	12,499.5	11,454.0	25.9	19.3	-67.53	1,249.5	137.4	444.8	399.2	45.60	9.756		
12,730.0	11,624.0	12,529.5	11,454.0	26.0	19.4	-67.53	1,279.5	137.1	444.8	399.0	45.80	9.712		
12,800.0	11,624.0	12,599.5	11,454.0	26.2	19.7	-67.53	1,349.5	136.4	444.8	398.6	46.28	9.611		
12,825.0	11,624.0	12,624.5	11,454.0	26.3	19.8	-67.53	1,374.5	136.2	444.8	398.4	46.46	9.574		
12,900.0	11,624.0	12,699.5	11,454.0	26.6	20.1	-67.53	1,449.5	135.5	444.8	397.8	47.01	9.463		
12,920.0	11,624.0	12,719.5	11,454.0	26.6	20.2	-67.53	1,469.5	135.4	444.8	397.7	47.16	9.432		
13,000.0	11,624.0	12,799.5	11,454.0	26.9	20.5	-67.53	1,549.5	134.6	444.8	397.1	47.77	9.312		
13,015.0	11,624.0	12,814.5	11,454.0	26.9	20.6	-67.53	1,564.5	134.5	444.8	396.9	47.89	9.288		
13,100.0	11,624.0	12,899.5	11,454.0	27.2	21.0	-67.53	1,649.4	133.7	444.8	396.3	48.57	9.158		
13,110.0	11,624.0	12,909.5	11,454.0	27.3	21.0	-67.53	1,659.4	133.6	444.8	396.2	48.65	9.143		
13,200.0	11,624.0	12,999.5	11,454.0	27.6	21.5	-67.53	1,749.4	132.8	444.8	395.4	49.40	9.004		
13,205.0	11,624.0	13,004.5	11,454.0	27.6	21.5	-67.53	1,754.4	132.8	444.8	395.4	49.45	8.996		
13,300.0	11,624.0	13,099.5	11,454.0	28.0	21.9	-67.53	1,849.4	131.9	444.8	394.5	50.27	8.848		
13,395.0	11,624.0	13,194.5	11,454.0	28.4	22.4	-67.53	1,944.4	131.0	444.8	393.7	51.12	8.701		
13,400.0	11,624.0	13,199.5	11,454.0	28.4	22.5	-67.53	1,949.4	131.0	444.8	393.6	51.17	8.693		
13,490.0	11,624.0	13,289.5	11,454.0	28.8	22.9	-67.53	2,039.4	130.2	444.8	392.8	52.00	8.554		
13,500.0	11,624.0	13,299.5	11,454.0	28.8	23.0	-67.53	2,049.4	130.1	444.8	392.7	52.10	8.538		
13,585.0	11,624.0	13,384.5	11,454.0	29.2	23.4	-67.53	2,134.4	129.3	444.8	391.9	52.91	8.407		
13,600.0	11,624.0	13,399.5	11,454.0	29.2	23.5	-67.53	2,149.4	129.2	444.8	391.8	53.05	8.385		
13,680.0	11,624.0	13,479.5	11,454.0	29.6	23.9	-67.53	2,229.4	128.5	444.8	391.0	53.84	8.262		
13,700.0	11,624.0	13,499.5	11,454.0	29.7	24.1	-67.53	2,249.4	128.3	444.8	390.8	54.03	8.232		
13,775.0	11,624.0	13,574.5	11,454.0	30.0	24.5	-67.53	2,324.4	127.6	444.8	390.0	54.79	8.119		
13,800.0	11,624.0	13,599.5	11,454.0	30.1	24.6	-67.53	2,349.4	127.4	444.8	389.8	55.04	8.082		
13,870.0	11,624.0	13,669.5	11,454.0	30.5	25.0	-67.53	2,419.4	126.7	444.8	389.0	55.76	7.977		
13,900.0	11,624.0	13,699.5	11,454.0	30.6	25.2	-67.53	2,449.4	126.5	444.8	388.7	56.07	7.933		
13,965.0	11,624.0	13,764.5	11,454.0	30.9	25.6	-67.53	2,514.4	125.9	444.8	388.0	56.75	7.837		
14,000.0	11,624.0	13,799.5	11,454.0	31.1	25.8	-67.53	2,549.4	125.6	444.8	387.7	57.12	7.787		
14,060.0	11,624.0	13,859.5	11,454.0	31.4	26.1	-67.53	2,609.4	125.0	444.8	387.0	57.77	7.700		
14,100.0	11,624.0	13,899.5	11,454.0	31.6	26.4	-67.53	2,649.4	124.6	444.8	386.6	58.20	7.643		
14,155.0	11,624.0	13,954.5	11,454.0	31.9	26.7	-67.53	2,704.4	124.1	444.8	386.0	58.80	7.565		

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 #712H
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 #712H	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													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	
14,200.0	11,624.0	13,999.5	11,454.0	32.1	26.9	-67.53	2,749.4	123.7	444.8	385.5	59.29	7.502	
14,250.0	11,624.0	14,049.5	11,454.0	32.3	27.3	-67.53	2,799.4	123.3	444.8	384.9	59.85	7.432	
14,300.0	11,624.0	14,099.5	11,454.0	32.6	27.6	-67.53	2,849.4	122.8	444.8	384.4	60.40	7.364	
14,345.0	11,624.0	14,144.5	11,454.0	32.8	27.8	-67.53	2,894.4	122.4	444.8	383.9	60.91	7.302	
14,400.0	11,624.0	14,199.5	11,454.0	33.1	28.2	-67.53	2,949.4	121.9	444.8	383.3	61.53	7.229	
14,440.0	11,624.0	14,239.5	11,454.0	33.3	28.4	-67.53	2,989.4	121.6	444.8	382.8	61.99	7.175	
14,500.0	11,624.0	14,299.5	11,454.0	33.7	28.8	-67.53	3,049.4	121.0	444.8	382.1	62.68	7.096	
14,535.0	11,624.0	14,334.5	11,454.0	33.8	29.0	-67.53	3,084.4	120.7	444.8	381.7	63.09	7.050	
14,600.0	11,624.0	14,399.5	11,454.0	34.2	29.4	-67.53	3,149.4	120.1	444.8	380.9	63.84	6.967	
14,630.0	11,624.0	14,429.5	11,454.0	34.4	29.6	-67.53	3,179.4	119.8	444.8	380.6	64.20	6.928	
14,700.0	11,624.0	14,499.5	11,454.0	34.7	30.1	-67.53	3,249.4	119.2	444.8	379.8	65.02	6.841	
14,725.0	11,624.0	14,524.5	11,454.0	34.9	30.2	-67.53	3,274.4	119.0	444.8	379.5	65.32	6.809	
14,800.0	11,624.0	14,599.5	11,454.0	35.3	30.7	-67.53	3,349.4	118.3	444.8	378.6	66.21	6.717	
14,820.0	11,624.0	14,619.5	11,454.0	35.4	30.8	-67.53	3,369.4	118.1	444.8	378.3	66.46	6.693	
14,900.0	11,624.0	14,699.5	11,454.0	35.9	31.3	-67.53	3,449.4	117.4	444.8	377.4	67.42	6.597	
14,915.0	11,624.0	14,714.5	11,454.0	35.9	31.4	-67.53	3,464.4	117.2	444.8	377.2	67.60	6.579	
15,000.0	11,624.0	14,799.5	11,454.0	36.4	32.0	-67.53	3,549.4	116.5	444.8	376.1	68.64	6.480	
15,010.0	11,624.0	14,809.5	11,454.0	36.5	32.1	-67.53	3,559.4	116.4	444.8	376.0	68.76	6.468	
15,100.0	11,624.0	14,899.5	11,454.0	37.0	32.6	-67.53	3,649.4	115.6	444.8	374.9	69.87	6.366	
15,105.0	11,624.0	14,904.5	11,454.0	37.0	32.7	-67.53	3,654.4	115.5	444.8	374.8	69.93	6.360	
15,200.0	11,624.0	14,999.5	11,454.0	37.6	33.3	-67.53	3,749.4	114.7	444.8	373.7	71.11	6.254	
15,295.0	11,624.0	15,094.5	11,454.0	38.2	33.9	-67.53	3,844.4	113.8	444.8	372.5	72.31	6.151	
15,300.0	11,624.0	15,099.5	11,454.0	38.2	34.0	-67.53	3,849.4	113.8	444.8	372.4	72.37	6.146	
15,390.0	11,624.0	15,189.5	11,454.0	38.7	34.6	-67.53	3,939.4	112.9	444.8	371.3	73.51	6.051	
15,400.0	11,624.0	15,199.5	11,454.0	38.8	34.6	-67.53	3,949.4	112.8	444.8	371.1	73.63	6.040	
15,485.0	11,624.0	15,284.5	11,454.0	39.3	35.2	-67.53	4,034.4	112.1	444.8	370.0	74.72	5.953	
15,500.0	11,624.0	15,299.5	11,454.0	39.4	35.3	-67.53	4,049.3	111.9	444.8	369.9	74.91	5.938	
15,580.0	11,624.0	15,379.5	11,454.0	39.9	35.8	-67.53	4,129.3	111.2	444.8	368.8	75.93	5.857	
15,600.0	11,624.0	15,399.5	11,454.0	40.0	36.0	-67.53	4,149.3	111.0	444.8	368.6	76.19	5.837	
15,675.0	11,624.0	15,474.5	11,454.0	40.4	36.5	-67.53	4,224.3	110.4	444.8	367.6	77.16	5.764	
15,700.0	11,624.0	15,499.5	11,454.0	40.6	36.7	-67.53	4,249.3	110.1	444.8	367.3	77.48	5.740	
15,770.0	11,624.0	15,569.5	11,454.0	41.0	37.1	-67.53	4,319.3	109.5	444.8	366.4	78.39	5.673	
15,800.0	11,624.0	15,599.5	11,454.0	41.2	37.3	-67.53	4,349.3	109.2	444.8	366.0	78.78	5.645	
15,865.0	11,624.0	15,664.5	11,454.0	41.6	37.8	-67.53	4,414.3	108.6	444.8	365.1	79.64	5.585	
15,900.0	11,624.0	15,699.5	11,454.0	41.8	38.0	-67.53	4,449.3	108.3	444.8	364.7	80.09	5.553	
15,960.0	11,624.0	15,759.5	11,454.0	42.2	38.4	-67.53	4,509.3	107.8	444.8	363.9	80.88	5.499	
16,000.0	11,624.0	15,799.5	11,454.0	42.5	38.7	-67.53	4,549.3	107.4	444.7	363.3	81.41	5.463	
16,055.0	11,624.0	15,854.5	11,454.0	42.8	39.1	-67.53	4,604.3	106.9	444.7	362.6	82.14	5.415	
16,100.0	11,624.0	15,899.5	11,454.0	43.1	39.4	-67.53	4,649.3	106.5	444.7	362.0	82.74	5.376	
16,150.0	11,624.0	15,949.5	11,454.0	43.4	39.8	-67.53	4,699.3	106.0	444.7	361.3	83.40	5.333	
16,200.0	11,624.0	15,999.5	11,454.0	43.7	40.1	-67.53	4,749.3	105.6	444.7	360.7	84.07	5.290	
16,245.0	11,624.0	16,044.5	11,454.0	44.0	40.4	-67.53	4,794.3	105.2	444.7	360.1	84.67	5.253	
16,300.0	11,624.0	16,099.5	11,454.0	44.4	40.8	-67.53	4,849.3	104.7	444.7	359.3	85.40	5.207	
16,340.0	11,624.0	16,139.5	11,454.0	44.6	41.1	-67.53	4,889.3	104.3	444.7	358.8	85.94	5.175	
16,400.0	11,624.0	16,199.5	11,454.0	45.0	41.5	-67.53	4,949.3	103.8	444.7	358.0	86.75	5.127	
16,435.0	11,624.0	16,234.5	11,454.0	45.2	41.7	-67.53	4,984.3	103.5	444.7	357.5	87.22	5.099	
16,500.0	11,624.0	16,299.5	11,454.0	45.7	42.2	-67.53	5,049.3	102.9	444.7	356.6	88.10	5.048	
16,530.0	11,624.0	16,329.5	11,454.0	45.9	42.4	-67.53	5,079.3	102.6	444.7	356.2	88.51	5.025	
16,600.0	11,624.0	16,399.5	11,454.0	46.3	42.9	-67.53	5,149.3	102.0	444.7	355.3	89.46	4.972	
16,625.0	11,624.0	16,424.5	11,454.0	46.5	43.1	-67.53	5,174.3	101.7	444.7	354.9	89.80	4.953	
16,700.0	11,624.0	16,499.5	11,454.0	47.0	43.6	-67.53	5,249.3	101.0	444.7	353.9	90.82	4.897	
16,720.0	11,624.0	16,519.5	11,454.0	47.1	43.8	-67.53	5,269.3	100.9	444.7	353.6	91.09	4.882	

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 #712H
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 #712H	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
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Distance			Separation Factor	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)			
16,800.0	11,624.0	16,599.5	11,454.0	47.6	44.3	-67.53	5,349.3	100.1	444.7	352.5	92.18	4.824		
16,815.0	11,624.0	16,614.5	11,454.0	47.7	44.4	-67.53	5,364.3	100.0	444.7	352.3	92.39	4.814		
16,900.0	11,624.0	16,699.5	11,454.0	48.3	45.0	-67.53	5,449.3	99.2	444.7	351.2	93.56	4.754		
16,910.0	11,624.0	16,709.5	11,454.0	48.4	45.1	-67.53	5,459.3	99.1	444.7	351.0	93.69	4.747		
17,000.0	11,624.0	16,799.5	11,454.0	49.0	45.7	-67.53	5,549.3	98.3	444.7	349.8	94.93	4.685		
17,005.0	11,624.0	16,804.5	11,454.0	49.0	45.8	-67.53	5,554.3	98.3	444.7	349.7	95.00	4.681		
17,100.0	11,624.0	16,899.5	11,454.0	49.6	46.4	-67.53	5,649.3	97.4	444.7	348.4	96.32	4.617		
17,195.0	11,624.0	16,994.5	11,454.0	50.3	47.1	-67.53	5,744.3	96.6	444.7	347.1	97.63	4.555		
17,200.0	11,624.0	16,999.5	11,454.0	50.3	47.2	-67.53	5,749.3	96.5	444.7	347.0	97.70	4.552		
17,290.0	11,624.0	17,089.5	11,454.0	50.9	47.8	-67.53	5,839.3	95.7	444.7	345.8	98.95	4.494		
17,300.0	11,624.0	17,099.5	11,454.0	51.0	47.9	-67.53	5,849.3	95.6	444.7	345.6	99.09	4.488		
17,385.0	11,624.0	17,184.5	11,454.0	51.5	48.5	-67.53	5,934.3	94.8	444.7	344.4	100.28	4.435		
17,400.0	11,624.0	17,199.5	11,454.0	51.6	48.6	-67.53	5,949.3	94.7	444.7	344.2	100.49	4.426		
17,480.0	11,624.0	17,279.5	11,454.0	52.2	49.2	-67.53	6,029.3	94.0	444.7	343.1	101.61	4.377		
17,500.0	11,624.0	17,299.5	11,454.0	52.3	49.3	-67.53	6,049.3	93.8	444.7	342.8	101.89	4.365		
17,575.0	11,624.0	17,374.5	11,454.0	52.8	49.9	-67.53	6,124.3	93.1	444.7	341.8	102.94	4.320		
17,600.0	11,624.0	17,399.5	11,454.0	53.0	50.0	-67.53	6,149.3	92.9	444.7	341.4	103.29	4.306		
17,670.0	11,624.0	17,469.5	11,454.0	53.5	50.5	-67.53	6,219.3	92.2	444.7	340.4	104.27	4.265		
17,700.0	11,624.0	17,499.5	11,454.0	53.7	50.8	-67.53	6,249.3	92.0	444.7	340.0	104.69	4.248		
17,765.0	11,624.0	17,564.5	11,454.0	54.1	51.2	-67.53	6,314.3	91.4	444.7	339.1	105.61	4.211		
17,800.0	11,624.0	17,599.5	11,454.0	54.4	51.5	-67.53	6,349.3	91.1	444.7	338.6	106.10	4.191		
17,860.0	11,624.0	17,659.5	11,454.0	54.8	51.9	-67.53	6,409.3	90.5	444.7	337.7	106.95	4.158		
17,900.0	11,624.0	17,699.5	11,454.0	55.0	52.2	-67.52	6,449.3	90.2	444.7	337.2	107.52	4.136		
17,955.0	11,624.0	17,754.5	11,454.0	55.4	52.6	-67.52	6,504.2	89.7	444.7	336.4	108.29	4.106		
18,000.0	11,624.0	17,799.5	11,454.0	55.7	52.9	-67.52	6,549.2	89.3	444.7	335.8	108.93	4.082		
18,050.0	11,624.0	17,849.5	11,454.0	56.1	53.3	-67.52	6,599.2	88.8	444.7	335.1	109.64	4.056		
18,100.0	11,624.0	17,899.5	11,454.0	56.4	53.7	-67.52	6,649.2	88.3	444.7	334.3	110.35	4.030		
18,145.0	11,624.0	17,944.5	11,454.0	56.7	54.0	-67.52	6,694.2	87.9	444.7	333.7	110.99	4.007		
18,200.0	11,624.0	17,999.5	11,454.0	57.1	54.4	-67.52	6,749.2	87.4	444.7	332.9	111.77	3.979		
18,240.0	11,624.0	18,039.5	11,454.0	57.4	54.7	-67.52	6,789.2	87.1	444.7	332.3	112.34	3.958		
18,300.0	11,624.0	18,099.5	11,454.0	57.8	55.1	-67.52	6,849.2	86.5	444.7	331.5	113.20	3.928		
18,335.0	11,624.0	18,134.5	11,454.0	58.1	55.4	-67.52	6,884.2	86.2	444.7	331.0	113.70	3.911		
18,400.0	11,624.0	18,199.5	11,454.0	58.5	55.8	-67.52	6,949.2	85.6	444.7	330.1	114.63	3.879		
18,430.0	11,624.0	18,229.5	11,454.0	58.7	56.1	-67.52	6,979.2	85.3	444.7	329.6	115.05	3.865		
18,500.0	11,624.0	18,299.5	11,454.0	59.2	56.6	-67.52	7,049.2	84.7	444.7	328.6	116.06	3.832		
18,525.0	11,624.0	18,324.5	11,454.0	59.4	56.7	-67.52	7,074.2	84.5	444.7	328.3	116.41	3.820		
18,600.0	11,624.0	18,399.5	11,454.0	59.9	57.3	-67.52	7,149.2	83.8	444.7	327.2	117.49	3.785		
18,620.0	11,624.0	18,419.5	11,454.0	60.0	57.4	-67.52	7,169.2	83.6	444.7	326.9	117.78	3.776		
18,700.0	11,624.0	18,499.5	11,454.0	60.6	58.0	-67.52	7,249.2	82.9	444.7	325.8	118.92	3.739		
18,715.0	11,624.0	18,514.5	11,454.0	60.7	58.1	-67.52	7,264.2	82.8	444.7	325.5	119.14	3.732		
18,800.0	11,624.0	18,599.5	11,454.0	61.3	58.8	-67.52	7,349.2	82.0	444.7	324.3	120.36	3.694		
18,810.0	11,624.0	18,609.5	11,454.0	61.4	58.8	-67.52	7,359.2	81.9	444.7	324.2	120.51	3.690		
18,900.0	11,624.0	18,699.5	11,454.0	62.0	59.5	-67.52	7,449.2	81.1	444.7	322.9	121.80	3.651		
18,905.0	11,624.0	18,704.5	11,454.0	62.0	59.5	-67.52	7,454.2	81.0	444.7	322.8	121.87	3.649		
19,000.0	11,624.0	18,799.5	11,454.0	62.7	60.2	-67.52	7,549.2	80.2	444.7	321.4	123.24	3.608		
19,095.0	11,624.0	18,894.5	11,454.0	63.4	60.9	-67.52	7,644.2	79.3	444.7	320.1	124.62	3.568		
19,100.0	11,624.0	18,899.5	11,454.0	63.4	61.0	-67.52	7,649.2	79.3	444.7	320.0	124.69	3.566		
19,190.0	11,624.0	18,989.5	11,454.0	64.1	61.6	-67.52	7,739.2	78.5	444.7	318.7	125.99	3.529		
19,200.0	11,624.0	18,999.5	11,454.0	64.1	61.7	-67.52	7,749.2	78.4	444.7	318.5	126.13	3.525		
19,285.0	11,624.0	19,084.5	11,454.0	64.7	62.3	-67.52	7,834.2	77.6	444.7	317.3	127.37	3.491		
19,300.0	11,624.0	19,099.5	11,454.0	64.8	62.4	-67.52	7,849.2	77.5	444.7	317.1	127.58	3.485		
19,380.0	11,624.0	19,179.5	11,454.0	65.4	63.0	-67.52	7,929.2	76.7	444.7	315.9	128.74	3.454		

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 #712H
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 #712H	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													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	
19,400.0	11,624.0	19,199.5	11,454.0	65.5	63.2	-67.52	7,949.2	76.5	444.7	315.6	129.03	3.446	
19,475.0	11,624.0	19,274.5	11,454.0	66.1	63.7	-67.52	8,024.2	75.9	444.7	314.5	130.12	3.417	
19,500.0	11,624.0	19,299.5	11,454.0	66.3	63.9	-67.52	8,049.2	75.6	444.7	314.2	130.49	3.408	
19,570.0	11,624.0	19,369.5	11,454.0	66.8	64.4	-67.52	8,119.2	75.0	444.7	313.2	131.50	3.381	
19,600.0	11,624.0	19,399.5	11,454.0	67.0	64.6	-67.52	8,149.2	74.7	444.7	312.7	131.94	3.370	
19,665.0	11,624.0	19,464.5	11,454.0	67.4	65.1	-67.52	8,214.2	74.1	444.7	311.8	132.89	3.346	
19,700.0	11,624.0	19,499.5	11,454.0	67.7	65.4	-67.52	8,249.2	73.8	444.7	311.3	133.40	3.333	
19,760.0	11,624.0	19,559.5	11,454.0	68.1	65.8	-67.52	8,309.2	73.3	444.7	310.4	134.27	3.312	
19,800.0	11,624.0	19,599.5	11,454.0	68.4	66.1	-67.52	8,349.2	72.9	444.6	309.8	134.85	3.297	
19,855.0	11,624.0	19,654.5	11,454.0	68.8	66.5	-67.52	8,404.2	72.4	444.6	309.0	135.66	3.278	
19,900.0	11,624.0	19,699.5	11,454.0	69.1	66.9	-67.52	8,449.2	72.0	444.6	308.3	136.31	3.262	
19,950.0	11,624.0	19,749.5	11,454.0	69.5	67.2	-67.52	8,499.2	71.6	444.6	307.6	137.04	3.245	
20,000.0	11,624.0	19,799.5	11,454.0	69.8	67.6	-67.52	8,549.2	71.1	444.6	306.9	137.77	3.227	
20,045.0	11,624.0	19,844.5	11,454.0	70.1	67.9	-67.52	8,594.2	70.7	444.6	306.2	138.43	3.212	
20,100.0	11,624.0	19,899.5	11,454.0	70.5	68.3	-67.52	8,649.2	70.2	444.6	305.4	139.23	3.193	
20,140.0	11,624.0	19,939.5	11,454.0	70.8	68.6	-67.52	8,689.2	69.8	444.6	304.8	139.82	3.180	
20,200.0	11,624.0	19,999.5	11,454.0	71.3	69.1	-67.52	8,749.2	69.3	444.6	303.9	140.70	3.160	
20,235.0	11,624.0	20,034.5	11,454.0	71.5	69.3	-67.52	8,784.2	69.0	444.6	303.4	141.21	3.149	
20,300.0	11,624.0	20,099.5	11,454.0	72.0	69.8	-67.52	8,849.2	68.4	444.6	302.5	142.16	3.128	
20,330.0	11,624.0	20,129.5	11,454.0	72.2	70.0	-67.52	8,879.2	68.1	444.6	302.0	142.60	3.118	
20,400.0	11,624.0	20,199.5	11,454.0	72.7	70.6	-67.52	8,949.1	67.5	444.6	301.0	143.63	3.096	
20,425.0	11,624.0	20,224.5	11,454.0	72.9	70.7	-67.52	8,974.1	67.2	444.6	300.6	144.00	3.088	
20,500.0	11,624.0	20,299.5	11,454.0	73.4	71.3	-67.52	9,049.1	66.6	444.6	299.5	145.10	3.064	
20,520.0	11,624.0	20,319.5	11,454.0	73.6	71.5	-67.52	9,069.1	66.4	444.6	299.2	145.39	3.058	
20,600.0	11,624.0	20,399.5	11,454.0	74.1	72.0	-67.52	9,149.1	65.7	444.6	298.1	146.57	3.034	
20,615.0	11,624.0	20,414.5	11,454.0	74.3	72.2	-67.52	9,164.1	65.5	444.6	297.8	146.79	3.029	
20,700.0	11,624.0	20,499.5	11,454.0	74.9	72.8	-67.52	9,249.1	64.7	444.6	296.6	148.04	3.003	
20,710.0	11,624.0	20,509.5	11,454.0	74.9	72.9	-67.52	9,259.1	64.7	444.6	296.4	148.19	3.000	
20,800.0	11,624.0	20,599.5	11,454.0	75.6	73.5	-67.52	9,349.1	63.8	444.6	295.1	149.51	2.974	
20,805.0	11,624.0	20,604.5	11,454.0	75.6	73.6	-67.52	9,354.1	63.8	444.6	295.0	149.58	2.972	
20,900.0	11,624.0	20,699.5	11,454.0	76.3	74.3	-67.52	9,449.1	62.9	444.6	293.6	150.98	2.945	
20,995.0	11,624.0	20,794.5	11,454.0	77.0	75.0	-67.52	9,544.1	62.1	444.6	292.2	152.38	2.918	
21,000.0	11,624.0	20,799.5	11,454.0	77.0	75.0	-67.52	9,549.1	62.0	444.6	292.2	152.46	2.916	
21,090.0	11,624.0	20,889.5	11,454.0	77.7	75.7	-67.52	9,639.1	61.2	444.6	290.8	153.78	2.891	
21,100.0	11,624.0	20,899.5	11,454.0	77.8	75.8	-67.52	9,649.1	61.1	444.6	290.7	153.93	2.888	
21,185.0	11,624.0	20,984.5	11,454.0	78.4	76.4	-67.52	9,734.1	60.3	444.6	289.4	155.19	2.865	
21,200.0	11,624.0	20,999.5	11,454.0	78.5	76.5	-67.52	9,749.1	60.2	444.6	289.2	155.41	2.861	
21,280.0	11,624.0	21,079.5	11,454.0	79.1	77.1	-67.52	9,829.1	59.5	444.6	288.0	156.59	2.839	
21,300.0	11,624.0	21,099.5	11,454.0	79.2	77.3	-67.52	9,849.1	59.3	444.6	287.7	156.89	2.834	
21,375.0	11,624.0	21,174.5	11,454.0	79.8	77.8	-67.52	9,924.1	58.6	444.6	286.6	157.99	2.814	
21,400.0	11,624.0	21,199.5	11,454.0	79.9	78.0	-67.52	9,949.1	58.4	444.6	286.2	158.36	2.808	
21,470.0	11,624.0	21,269.5	11,454.0	80.5	78.5	-67.52	10,019.1	57.8	444.6	285.2	159.40	2.789	
21,500.0	11,624.0	21,299.5	11,454.0	80.7	78.8	-67.52	10,049.1	57.5	444.6	284.8	159.84	2.781	
21,565.0	11,624.0	21,364.5	11,454.0	81.1	79.2	-67.52	10,114.1	56.9	444.6	283.8	160.81	2.765	
21,600.0	11,624.0	21,399.5	11,454.0	81.4	79.5	-67.52	10,149.1	56.6	444.6	283.3	161.32	2.756	
21,660.0	11,624.0	21,459.5	11,454.0	81.8	79.9	-67.52	10,209.1	56.0	444.6	282.4	162.21	2.741	
21,700.0	11,624.0	21,499.5	11,454.0	82.1	80.2	-67.52	10,249.1	55.7	444.6	281.8	162.81	2.731	
21,755.0	11,624.0	21,554.5	11,454.0	82.5	80.7	-67.52	10,304.1	55.2	444.6	281.0	163.62	2.717	
21,800.0	11,624.0	21,599.5	11,454.0	82.9	81.0	-67.52	10,349.1	54.8	444.6	280.3	164.29	2.706	
21,850.0	11,624.0	21,649.5	11,454.0	83.2	81.4	-67.52	10,399.1	54.3	444.6	279.6	165.03	2.694	
21,900.0	11,624.0	21,699.5	11,454.0	83.6	81.7	-67.52	10,449.1	53.9	444.6	278.8	165.77	2.682	
21,925.2	11,624.0	21,724.7	11,454.0	83.8	81.9	-67.52	10,474.3	53.6	444.6	278.4	166.14	2.676	

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 #712H
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 #712H	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													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
21,945.0	11,624.0	21,724.9	11,454.0	83.9	81.9	-67.52	10,474.5	53.6	445.0	278.9	166.16	2.678		
21,996.4	11,624.0	21,724.9	11,454.0	84.3	81.9	-67.52	10,474.5	53.6	450.2	285.4	164.85	2.731		

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Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	3.0	3.0	89.75	0.1	30.0	30.0				
95.0	95.0	95.0	95.0	3.0	3.0	89.75	0.1	30.0	30.0	24.0	6.03	4.979		
100.0	100.0	100.0	100.0	3.0	3.0	89.75	0.1	30.0	30.0	24.0	6.03	4.976		
190.0	190.0	190.0	190.0	3.1	3.1	89.75	0.1	30.0	30.0	23.8	6.15	4.876		
200.0	200.0	200.0	200.0	3.1	3.1	89.75	0.1	30.0	30.0	23.8	6.17	4.861		
285.0	285.0	285.0	285.0	3.2	3.2	89.75	0.1	30.0	30.0	23.7	6.31	4.754		
300.0	300.0	300.0	300.0	3.2	3.2	89.75	0.1	30.0	30.0	23.7	6.34	4.733		
380.0	380.0	380.0	380.0	3.3	3.3	89.75	0.1	30.0	30.0	23.5	6.49	4.624		
400.0	400.0	400.0	400.0	3.3	3.3	89.75	0.1	30.0	30.0	23.5	6.53	4.595		
475.0	475.0	475.0	475.0	3.4	3.4	89.75	0.1	30.0	30.0	23.3	6.68	4.488		
500.0	500.0	500.0	500.0	3.4	3.4	89.75	0.1	30.0	30.0	23.3	6.74	4.451		
570.0	570.0	570.0	570.0	3.5	3.5	89.75	0.1	30.0	30.0	23.1	6.90	4.349		
600.0	600.0	600.0	600.0	3.5	3.5	89.75	0.1	30.0	30.0	23.0	6.97	4.305		
665.0	665.0	665.0	665.0	3.6	3.6	89.75	0.1	30.0	30.0	22.9	7.13	4.209		
700.0	700.0	700.0	700.0	3.7	3.7	89.75	0.1	30.0	30.0	22.8	7.22	4.158		
760.0	760.0	760.0	760.0	3.8	3.8	89.75	0.1	30.0	30.0	22.6	7.37	4.070		
800.0	800.0	800.0	800.0	3.8	3.8	89.75	0.1	30.0	30.0	22.5	7.48	4.012		
855.0	855.0	855.0	855.0	3.9	3.9	89.75	0.1	30.0	30.0	22.4	7.63	3.933		
900.0	900.0	900.0	900.0	4.0	4.0	89.75	0.1	30.0	30.0	22.2	7.75	3.869		
950.0	950.0	950.0	950.0	4.1	4.1	89.75	0.1	30.0	30.0	22.1	7.90	3.800		
1,000.0	1,000.0	1,000.0	1,000.0	4.2	4.2	89.75	0.1	30.0	30.0	22.0	8.04	3.731		
1,045.0	1,045.0	1,045.0	1,045.0	4.2	4.2	89.75	0.1	30.0	30.0	21.8	8.17	3.670		
1,100.0	1,100.0	1,100.0	1,100.0	4.3	4.3	89.75	0.1	30.0	30.0	21.7	8.34	3.597		
1,140.0	1,140.0	1,140.0	1,140.0	4.4	4.4	89.75	0.1	30.0	30.0	21.5	8.46	3.545		
1,200.0	1,200.0	1,200.0	1,200.0	4.5	4.5	89.75	0.1	30.0	30.0	21.4	8.65	3.468		
1,235.0	1,235.0	1,235.0	1,235.0	4.6	4.6	89.75	0.1	30.0	30.0	21.2	8.76	3.425		
1,300.0	1,300.0	1,300.0	1,300.0	4.7	4.7	89.75	0.1	30.0	30.0	21.0	8.97	3.345		
1,330.0	1,330.0	1,330.0	1,330.0	4.7	4.7	89.75	0.1	30.0	30.0	20.9	9.06	3.310		
1,400.0	1,400.0	1,400.0	1,400.0	4.9	4.9	89.75	0.1	30.0	30.0	20.7	9.29	3.228		
1,425.0	1,425.0	1,425.0	1,425.0	4.9	4.9	89.75	0.1	30.0	30.0	20.6	9.38	3.200		
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	89.75	0.1	30.0	30.0	20.4	9.63	3.116 CC		
1,520.0	1,520.0	1,519.8	1,519.8	5.1	5.1	89.75	0.1	30.1	30.1	20.4	9.71	3.098 ES		
1,600.0	1,600.0	1,598.9	1,598.9	5.3	5.2	89.72	0.2	31.7	31.7	21.7	10.02	3.165		
1,615.0	1,615.0	1,613.7	1,613.7	5.3	5.2	89.72	0.2	32.3	32.3	22.2	10.08	3.201		
1,700.0	1,700.0	1,697.6	1,697.5	5.5	5.4	89.66	0.2	36.8	36.9	26.5	10.44	3.535		
1,710.0	1,710.0	1,707.5	1,707.3	5.5	5.4	89.65	0.2	37.5	37.6	27.1	10.48	3.589		
1,800.0	1,800.0	1,795.8	1,795.3	5.7	5.6	89.58	0.3	45.3	45.5	34.6	10.86	4.190		
1,805.0	1,805.0	1,800.0	1,799.5	5.7	5.6	89.58	0.3	45.7	46.0	35.2	10.87	4.236		
1,900.0	1,900.0	1,893.4	1,892.1	5.9	5.9	89.51	0.5	57.0	57.5	46.2	11.29	5.092		
1,995.0	1,995.0	1,985.2	1,982.9	6.1	6.1	89.46	0.7	71.0	72.0	60.3	11.71	6.148		
2,000.0	2,000.0	1,990.0	1,987.6	6.1	6.2	89.46	0.7	71.8	72.9	61.1	11.74	6.209		
2,090.0	2,090.0	2,077.1	2,073.2	6.2	6.3	0.26	0.9	87.8	88.0	75.9	12.08	7.284		
2,100.0	2,100.0	2,086.9	2,082.9	6.2	6.4	0.26	0.9	89.7	89.6	77.5	12.12	7.390		
2,185.0	2,184.9	2,171.1	2,165.5	6.3	6.6	0.24	1.1	105.7	101.6	89.1	12.54	8.105		
2,200.0	2,199.8	2,186.0	2,180.1	6.3	6.6	0.24	1.2	108.6	103.5	90.9	12.62	8.204		
2,280.0	2,279.6	2,265.5	2,258.2	6.4	6.9	0.23	1.4	123.7	112.1	99.1	13.05	8.594		
2,300.0	2,299.5	2,285.4	2,277.7	6.5	6.9	0.23	1.4	127.5	114.0	100.8	13.16	8.660		
2,375.0	2,373.9	2,360.2	2,351.1	6.6	7.2	0.23	1.6	141.8	119.5	105.9	13.59	8.791		
2,400.0	2,398.7	2,385.2	2,375.6	6.6	7.2	0.23	1.7	146.6	120.9	107.2	13.74	8.800		
2,470.0	2,468.0	2,455.1	2,444.2	6.8	7.5	0.24	1.8	159.9	124.6	110.5	14.12	8.822		
2,500.0	2,497.7	2,485.0	2,473.7	6.8	7.6	0.24	1.9	165.6	126.2	111.9	14.29	8.829		
2,565.0	2,562.1	2,549.9	2,537.4	7.0	7.8	0.24	2.1	178.0	129.6	114.9	14.67	8.834		

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

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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	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance				Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
2,600.0	2,596.8	2,584.9	2,571.7	7.1	7.9	0.24	2.2	184.7	131.4	116.5	14.87	8.835		
2,660.0	2,656.2	2,644.8	2,630.5	7.2	8.1	0.24	2.3	196.1	134.5	119.3	15.24	8.828		
2,700.0	2,695.8	2,684.7	2,669.7	7.3	8.3	0.24	2.4	203.7	136.6	121.1	15.49	8.823		
2,755.0	2,750.2	2,739.7	2,723.6	7.4	8.5	0.25	2.5	214.2	139.5	123.7	15.84	8.809		
2,800.0	2,794.8	2,784.6	2,767.7	7.6	8.6	0.25	2.7	222.8	141.9	125.7	16.13	8.796		
2,850.0	2,844.3	2,834.5	2,816.8	7.7	8.8	0.25	2.8	232.3	144.5	128.0	16.46	8.778		
2,900.0	2,893.8	2,884.5	2,865.8	7.8	9.0	0.25	2.9	241.8	147.1	130.3	16.79	8.759		
2,945.0	2,938.4	2,929.4	2,909.9	8.0	9.2	0.25	3.0	250.4	149.5	132.3	17.10	8.738		
3,000.0	2,992.9	2,984.3	2,963.8	8.1	9.4	0.25	3.2	260.9	152.3	134.8	17.48	8.713		
3,040.0	3,032.5	3,024.3	3,003.0	8.2	9.5	0.25	3.3	268.5	154.4	136.7	17.76	8.693		
3,100.0	3,091.9	3,084.2	3,061.8	8.4	9.8	0.26	3.4	279.9	157.6	139.4	18.19	8.662		
3,135.0	3,126.5	3,119.2	3,096.1	8.5	9.9	0.26	3.5	286.6	159.4	141.0	18.44	8.643		
3,200.0	3,190.9	3,184.1	3,159.9	8.7	10.2	0.26	3.7	299.0	162.8	143.9	18.91	8.607		
3,230.0	3,220.6	3,214.0	3,189.3	8.8	10.3	0.26	3.7	304.7	164.4	145.2	19.14	8.589		
3,300.0	3,289.9	3,283.9	3,257.9	9.1	10.6	0.26	3.9	318.1	168.0	148.4	19.66	8.549		
3,325.0	3,314.7	3,308.9	3,282.4	9.1	10.7	0.26	4.0	322.8	169.3	149.5	19.84	8.534		
3,400.0	3,389.0	3,383.8	3,355.9	9.4	11.0	0.26	4.2	337.1	173.3	152.9	20.41	8.489		
3,420.0	3,408.8	3,403.8	3,375.5	9.5	11.1	0.26	4.2	340.9	174.3	153.7	20.56	8.477		
3,500.0	3,488.0	3,483.7	3,453.9	9.7	11.4	0.26	4.4	356.2	178.5	157.3	21.18	8.429		
3,515.0	3,502.9	3,498.6	3,468.6	9.8	11.5	0.26	4.4	359.0	179.3	158.0	21.29	8.420		
3,600.0	3,587.0	3,583.5	3,552.0	10.1	11.8	0.27	4.6	375.2	183.7	161.8	21.95	8.369		
3,610.0	3,596.9	3,593.5	3,561.8	10.1	11.8	0.27	4.7	377.1	184.3	162.2	22.03	8.363		
3,700.0	3,686.0	3,683.4	3,650.0	10.4	12.2	0.27	4.9	394.3	189.0	166.2	22.74	8.310		
3,705.0	3,691.0	3,688.4	3,654.9	10.4	12.2	0.27	4.9	395.2	189.2	166.4	22.78	8.307		
3,800.0	3,785.1	3,783.2	3,748.0	10.8	12.6	0.27	5.1	413.3	194.2	170.7	23.54	8.251		
3,895.0	3,879.2	3,878.1	3,841.1	11.1	13.1	0.27	5.4	431.4	199.2	174.9	24.30	8.196		
3,900.0	3,884.1	3,883.1	3,846.1	11.1	13.1	0.27	5.4	432.4	199.4	175.1	24.34	8.193		
3,990.0	3,973.2	3,973.0	3,934.3	11.5	13.5	0.27	5.6	449.5	204.1	179.1	25.07	8.142		
4,000.0	3,983.1	3,983.0	3,944.1	11.5	13.5	0.27	5.6	451.4	204.7	179.5	25.15	8.137		
4,085.0	4,067.3	4,067.8	4,027.4	11.8	13.9	0.27	5.9	467.6	209.1	183.3	25.85	8.090		
4,100.0	4,082.2	4,082.8	4,042.1	11.9	13.9	0.27	5.9	470.5	209.9	183.9	25.97	8.082		
4,180.0	4,161.4	4,162.7	4,120.5	12.2	14.3	0.27	6.1	485.7	214.1	187.5	26.63	8.039		
4,200.0	4,181.2	4,182.7	4,140.1	12.3	14.4	0.28	6.1	489.5	215.1	188.3	26.80	8.029		
4,275.0	4,255.5	4,257.6	4,213.7	12.6	14.7	0.28	6.3	503.8	219.1	191.6	27.42	7.990		
4,300.0	4,280.2	4,282.6	4,238.2	12.6	14.8	0.28	6.4	508.6	220.4	192.7	27.63	7.977		
4,370.0	4,349.5	4,352.5	4,306.8	12.9	15.1	0.28	6.6	521.9	224.0	195.8	28.21	7.942		
4,400.0	4,379.2	4,382.4	4,336.2	13.0	15.2	0.28	6.6	527.6	225.6	197.1	28.46	7.927		
4,465.0	4,443.6	4,447.3	4,399.9	13.3	15.5	0.28	6.8	540.0	229.0	200.0	29.00	7.895		
4,500.0	4,478.3	4,482.3	4,434.2	13.4	15.7	0.28	6.9	546.7	230.8	201.5	29.30	7.879		
4,560.0	4,537.7	4,542.2	4,493.0	13.7	15.9	0.28	7.0	558.1	234.0	204.2	29.80	7.850		
4,600.0	4,577.3	4,582.1	4,532.2	13.8	16.1	0.28	7.1	565.7	236.1	205.9	30.14	7.832		
4,655.0	4,631.8	4,637.1	4,586.2	14.0	16.4	0.28	7.3	576.2	238.9	208.3	30.61	7.807		
4,700.0	4,676.3	4,682.0	4,630.3	14.2	16.6	0.28	7.4	584.8	241.3	210.3	30.99	7.787		
4,750.0	4,725.8	4,731.9	4,679.3	14.4	16.8	0.28	7.5	594.3	243.9	212.5	31.41	7.765		
4,800.0	4,775.3	4,781.9	4,728.3	14.6	17.0	0.28	7.6	603.9	246.5	214.7	31.84	7.743		
4,845.0	4,819.9	4,826.8	4,772.4	14.8	17.2	0.28	7.8	612.4	248.9	216.7	32.22	7.724		
4,900.0	4,874.4	4,881.7	4,826.3	15.0	17.4	0.28	7.9	622.9	251.8	219.1	32.69	7.701		
4,940.0	4,914.0	4,921.7	4,865.5	15.2	17.6	0.28	8.0	630.5	253.9	220.8	33.04	7.684		
5,000.0	4,973.4	4,981.6	4,924.4	15.4	17.9	0.28	8.1	642.0	257.0	223.5	33.55	7.660		
5,035.0	5,008.1	5,016.5	4,958.7	15.5	18.0	0.28	8.2	648.6	258.8	225.0	33.85	7.646		
5,100.0	5,072.4	5,081.5	5,022.4	15.8	18.3	0.28	8.4	661.0	262.2	227.8	34.41	7.621		
5,130.0	5,102.1	5,111.4	5,051.8	15.9	18.5	0.28	8.5	666.7	263.8	229.1	34.67	7.609		

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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	Rule Assigned:										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,171.5	5,181.3	5,120.4	16.2	18.8	0.29	8.6	680.1	267.5	232.2	35.27	7.583	
5,225.0	5,196.2	5,206.3	5,144.9	16.3	18.9	0.29	8.7	684.8	268.8	233.3	35.49	7.574	
5,300.0	5,270.5	5,281.2	5,218.4	16.6	19.2	0.29	8.9	699.1	272.7	236.6	36.14	7.546	
5,320.0	5,290.3	5,301.2	5,238.1	16.7	19.3	0.29	8.9	702.9	273.7	237.4	36.31	7.539	
5,400.0	5,369.5	5,381.0	5,316.5	17.0	19.7	0.29	9.1	718.2	277.9	240.9	37.00	7.511	
5,415.0	5,384.4	5,396.0	5,331.2	17.1	19.7	0.29	9.2	721.0	278.7	241.6	37.13	7.507	
5,420.7	5,390.0	5,401.7	5,336.8	17.1	19.8	0.29	9.2	722.1	279.0	241.8	37.18	7.505	
5,500.0	5,468.6	5,480.9	5,414.5	17.4	20.1	0.29	9.4	737.2	283.4	245.6	37.85	7.488	
5,510.0	5,478.5	5,490.9	5,424.3	17.4	20.2	0.29	9.4	739.1	284.0	246.1	37.94	7.487	
5,600.0	5,567.7	5,580.7	5,512.5	17.8	20.6	0.29	9.6	756.3	289.8	251.1	38.72	7.485	
5,605.0	5,572.7	5,585.7	5,517.3	17.8	20.6	0.29	9.6	757.2	290.1	251.4	38.76	7.486	
5,700.0	5,667.0	5,680.4	5,610.4	18.2	21.0	0.29	9.9	775.3	297.0	257.5	39.57	7.506	
5,795.0	5,761.4	5,775.1	5,703.3	18.6	21.5	0.28	10.1	793.4	304.7	264.3	40.38	7.545	
5,800.0	5,766.4	5,780.1	5,708.2	18.6	21.5	0.28	10.1	794.3	305.1	264.7	40.43	7.548	
5,890.0	5,855.9	5,869.7	5,796.2	18.9	21.9	0.28	10.4	811.4	313.2	272.0	41.19	7.603	
5,900.0	5,865.9	5,879.7	5,806.0	19.0	21.9	0.28	10.4	813.3	314.1	272.8	41.27	7.610	
5,985.0	5,950.5	5,964.3	5,889.0	19.3	22.3	0.28	10.6	829.4	322.4	280.4	41.99	7.679	
6,000.0	5,965.5	5,979.2	5,903.6	19.4	22.4	0.28	10.6	832.3	323.9	281.8	42.11	7.693	
6,080.0	6,045.2	6,058.8	5,981.7	19.6	22.7	0.28	10.8	847.5	332.4	289.7	42.78	7.772	
6,100.0	6,065.1	6,078.6	6,001.2	19.7	22.8	0.28	10.9	851.3	334.7	291.7	42.94	7.793	
6,175.0	6,139.9	6,153.4	6,074.7	20.0	23.2	0.27	11.1	865.5	343.2	299.7	43.55	7.881	
6,200.0	6,164.8	6,179.8	6,100.6	20.1	23.3	0.27	11.1	870.5	346.1	302.4	43.77	7.909	
6,270.0	6,234.6	6,253.9	6,173.5	20.3	23.6	0.27	11.3	883.8	353.9	309.6	44.36	7.979	
6,300.0	6,264.6	6,285.7	6,204.8	20.4	23.7	0.27	11.4	889.2	357.1	312.5	44.61	8.005	
6,365.0	6,329.5	6,354.7	6,272.9	20.7	24.0	0.27	11.5	900.3	363.7	318.6	45.15	8.057	
6,400.0	6,364.4	6,392.0	6,309.7	20.8	24.2	0.26	11.6	906.0	367.1	321.7	45.43	8.082	
6,460.0	6,424.3	6,455.8	6,372.9	21.0	24.5	0.26	11.7	915.1	372.7	326.8	45.90	8.119	
6,500.0	6,464.3	6,498.5	6,415.2	21.1	24.7	0.26	11.8	920.8	376.2	330.0	46.21	8.140	
6,555.0	6,519.2	6,557.1	6,473.4	21.3	24.9	0.26	11.9	928.2	380.7	334.1	46.62	8.166	
6,600.0	6,564.2	6,605.2	6,521.1	21.4	25.1	0.26	12.0	933.8	384.2	337.3	46.95	8.183	
6,650.0	6,614.2	6,658.7	6,574.3	21.6	25.3	0.26	12.0	939.5	387.9	340.6	47.30	8.200	
6,700.0	6,664.2	6,712.2	6,627.6	21.7	25.5	0.26	12.1	944.8	391.3	343.6	47.65	8.212	
6,745.0	6,709.1	6,760.4	6,675.6	21.9	25.7	0.26	12.2	949.1	394.1	346.2	47.94	8.221	
6,800.0	6,764.1	6,819.4	6,734.4	22.0	25.9	0.25	12.2	953.8	397.3	349.0	48.29	8.228	
6,840.0	6,804.1	6,862.3	6,777.2	22.1	26.1	0.25	12.3	956.9	399.5	351.0	48.53	8.232	
6,900.0	6,864.1	6,926.8	6,841.5	22.3	26.3	0.25	12.3	960.8	402.4	353.5	48.87	8.234	
6,935.0	6,899.1	6,964.4	6,879.1	22.4	26.5	0.25	12.3	962.8	403.9	354.9	49.05	8.236	
7,000.0	6,964.1	7,034.3	6,948.9	22.5	26.7	0.25	12.4	965.9	406.5	357.1	49.36	8.235	
7,020.7	6,984.8	7,056.5	6,971.2	22.5	26.8	89.41	12.4	966.7	407.2	357.8	49.43	8.238	
7,030.0	6,994.1	7,066.6	6,981.2	22.5	26.8	89.41	12.4	967.0	407.5	358.0	49.45	8.240	
7,100.0	7,064.1	7,141.9	7,056.5	22.5	27.0	89.41	12.4	968.9	409.2	359.6	49.62	8.248	
7,125.0	7,089.1	7,168.8	7,083.4	22.5	27.1	89.41	12.4	969.3	409.7	360.0	49.67	8.247	
7,200.0	7,164.1	7,249.6	7,164.2	22.6	27.2	89.41	12.4	969.9	410.2	360.4	49.76	8.244	
7,200.9	7,165.0	7,250.5	7,165.1	22.6	27.2	89.41	12.4	969.9	410.2	360.4	49.76	8.244	
7,220.0	7,184.1	7,269.5	7,184.1	22.6	27.2	89.41	12.4	969.9	410.2	360.4	49.77	8.242	
7,300.0	7,264.1	7,349.5	7,264.1	22.6	27.2	89.41	12.4	969.9	410.2	360.4	49.81	8.235	
7,315.0	7,279.1	7,364.5	7,279.1	22.6	27.2	89.41	12.4	969.9	410.2	360.4	49.82	8.233	
7,400.0	7,364.1	7,449.5	7,364.1	22.6	27.3	89.41	12.4	969.9	410.2	360.3	49.87	8.225	
7,410.0	7,374.1	7,459.5	7,374.1	22.6	27.3	89.41	12.4	969.9	410.2	360.3	49.88	8.224	
7,500.0	7,464.1	7,549.5	7,464.1	22.7	27.3	89.41	12.4	969.9	410.2	360.2	49.93	8.215	
7,505.0	7,469.1	7,554.5	7,469.1	22.7	27.3	89.41	12.4	969.9	410.2	360.2	49.93	8.214	
7,600.0	7,564.1	7,649.5	7,564.1	22.7	27.3	89.41	12.4	969.9	410.2	360.2	49.99	8.205	

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 #712H
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 #712H	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						Rule Assigned:					Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis			Offset Wellbore Centre		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	
7,695.0	7,659.1	7,744.5	7,659.1	22.7	27.3	89.41	12.4	969.9	410.2	360.1	50.05	8.195		
7,700.0	7,664.1	7,749.5	7,664.1	22.7	27.3	89.41	12.4	969.9	410.2	360.1	50.05	8.194		
7,790.0	7,754.1	7,839.5	7,754.1	22.8	27.4	89.41	12.4	969.9	410.2	360.1	50.11	8.185		
7,800.0	7,764.1	7,849.5	7,764.1	22.8	27.4	89.41	12.4	969.9	410.2	360.1	50.12	8.184		
7,885.0	7,849.1	7,934.5	7,849.1	22.8	27.4	89.41	12.4	969.9	410.2	360.0	50.17	8.175		
7,900.0	7,864.1	7,949.5	7,864.1	22.8	27.4	89.41	12.4	969.9	410.2	360.0	50.18	8.174		
7,980.0	7,944.1	8,029.5	7,944.1	22.8	27.4	89.41	12.4	969.9	410.2	359.9	50.23	8.166		
8,000.0	7,964.1	8,049.5	7,964.1	22.8	27.4	89.41	12.4	969.9	410.2	359.9	50.24	8.164		
8,075.0	8,039.1	8,124.5	8,039.1	22.9	27.4	89.41	12.4	969.9	410.2	359.9	50.29	8.156		
8,100.0	8,064.1	8,149.5	8,064.1	22.9	27.5	89.41	12.4	969.9	410.2	359.9	50.31	8.153		
8,170.0	8,134.1	8,219.5	8,134.1	22.9	27.5	89.41	12.4	969.9	410.2	359.8	50.35	8.146		
8,200.0	8,164.1	8,249.5	8,164.1	22.9	27.5	89.41	12.4	969.9	410.2	359.8	50.37	8.143		
8,265.0	8,229.1	8,314.5	8,229.1	22.9	27.5	89.41	12.4	969.9	410.2	359.8	50.41	8.136		
8,300.0	8,264.1	8,349.5	8,264.1	22.9	27.5	89.41	12.4	969.9	410.2	359.7	50.44	8.132		
8,360.0	8,324.1	8,409.5	8,324.1	23.0	27.5	89.41	12.4	969.9	410.2	359.7	50.48	8.126		
8,400.0	8,364.1	8,449.5	8,364.1	23.0	27.5	89.41	12.4	969.9	410.2	359.7	50.50	8.122		
8,455.0	8,419.1	8,504.5	8,419.1	23.0	27.6	89.41	12.4	969.9	410.2	359.6	50.54	8.116		
8,500.0	8,464.1	8,549.5	8,464.1	23.0	27.6	89.41	12.4	969.9	410.2	359.6	50.57	8.111		
8,550.0	8,514.1	8,599.5	8,514.1	23.0	27.6	89.41	12.4	969.9	410.2	359.6	50.60	8.106		
8,600.0	8,564.1	8,649.5	8,564.1	23.0	27.6	89.41	12.4	969.9	410.2	359.5	50.63	8.101		
8,645.0	8,609.1	8,694.5	8,609.1	23.1	27.6	89.41	12.4	969.9	410.2	359.5	50.66	8.096		
8,700.0	8,664.1	8,749.5	8,664.1	23.1	27.6	89.41	12.4	969.9	410.2	359.5	50.70	8.090		
8,740.0	8,704.1	8,789.5	8,704.1	23.1	27.6	89.41	12.4	969.9	410.2	359.4	50.73	8.086		
8,800.0	8,764.1	8,849.5	8,764.1	23.1	27.7	89.41	12.4	969.9	410.2	359.4	50.77	8.079		
8,835.0	8,799.1	8,884.5	8,799.1	23.1	27.7	89.41	12.4	969.9	410.2	359.4	50.79	8.075		
8,900.0	8,864.1	8,949.5	8,864.1	23.1	27.7	89.41	12.4	969.9	410.2	359.3	50.84	8.068		
8,930.0	8,894.1	8,979.5	8,894.1	23.2	27.7	89.41	12.4	969.9	410.2	359.3	50.86	8.065		
9,000.0	8,964.1	9,049.5	8,964.1	23.2	27.7	89.41	12.4	969.9	410.2	359.3	50.90	8.058		
9,025.0	8,989.1	9,074.5	8,989.1	23.2	27.7	89.41	12.4	969.9	410.2	359.2	50.92	8.055		
9,100.0	9,064.1	9,149.5	9,064.1	23.2	27.8	89.41	12.4	969.9	410.2	359.2	50.97	8.047		
9,120.0	9,084.1	9,169.5	9,084.1	23.2	27.8	89.41	12.4	969.9	410.2	359.2	50.99	8.045		
9,200.0	9,164.1	9,249.5	9,164.1	23.3	27.8	89.41	12.4	969.9	410.2	359.1	51.04	8.036		
9,215.0	9,179.1	9,264.5	9,179.1	23.3	27.8	89.41	12.4	969.9	410.2	359.1	51.05	8.034		
9,300.0	9,264.1	9,349.5	9,264.1	23.3	27.8	89.41	12.4	969.9	410.2	359.1	51.11	8.025		
9,310.0	9,274.1	9,359.5	9,274.1	23.3	27.8	89.41	12.4	969.9	410.2	359.1	51.12	8.024		
9,400.0	9,364.1	9,449.5	9,364.1	23.3	27.8	89.41	12.4	969.9	410.2	359.0	51.18	8.014		
9,405.0	9,369.1	9,454.5	9,369.1	23.3	27.8	89.41	12.4	969.9	410.2	359.0	51.18	8.014		
9,500.0	9,464.1	9,549.5	9,464.1	23.4	27.9	89.41	12.4	969.9	410.2	358.9	51.25	8.003		
9,595.0	9,559.1	9,644.5	9,559.1	23.4	27.9	89.41	12.4	969.9	410.2	358.9	51.32	7.993		
9,600.0	9,564.1	9,649.5	9,564.1	23.4	27.9	89.41	12.4	969.9	410.2	358.8	51.32	7.992		
9,690.0	9,654.1	9,739.5	9,654.1	23.5	27.9	89.41	12.4	969.9	410.2	358.8	51.39	7.982		
9,700.0	9,664.1	9,749.5	9,664.1	23.5	27.9	89.41	12.4	969.9	410.2	358.8	51.39	7.981		
9,785.0	9,749.1	9,834.5	9,749.1	23.5	28.0	89.41	12.4	969.9	410.2	358.7	51.45	7.972		
9,800.0	9,764.1	9,849.5	9,764.1	23.5	28.0	89.41	12.4	969.9	410.2	358.7	51.46	7.970		
9,880.0	9,844.1	9,929.5	9,844.1	23.5	28.0	89.41	12.4	969.9	410.2	358.6	51.52	7.961		
9,900.0	9,864.1	9,949.5	9,864.1	23.5	28.0	89.41	12.4	969.9	410.2	358.6	51.54	7.959		
9,975.0	9,939.1	10,024.5	9,939.1	23.6	28.0	89.41	12.4	969.9	410.2	358.6	51.59	7.951		
10,000.0	9,964.1	10,049.5	9,964.1	23.6	28.0	89.41	12.4	969.9	410.2	358.6	51.61	7.948		
10,070.0	10,034.1	10,119.5	10,034.1	23.6	28.1	89.41	12.4	969.9	410.2	358.5	51.66	7.940		
10,100.0	10,064.1	10,149.5	10,064.1	23.6	28.1	89.41	12.4	969.9	410.2	358.5	51.68	7.937		
10,165.0	10,129.1	10,214.5	10,129.1	23.6	28.1	89.41	12.4	969.9	410.2	358.4	51.73	7.929		
10,200.0	10,164.1	10,249.5	10,164.1	23.7	28.1	89.41	12.4	969.9	410.2	358.4	51.75	7.925		

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 #712H
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 #712H	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				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	
10,260.0	10,224.1	10,309.5	10,224.1	23.7	28.1	89.41	12.4	969.9	410.2	358.4	51.80	7.919	
10,300.0	10,264.1	10,349.5	10,264.1	23.7	28.1	89.41	12.4	969.9	410.2	358.3	51.83	7.914	
10,355.0	10,319.1	10,404.5	10,319.1	23.7	28.2	89.41	12.4	969.9	410.2	358.3	51.87	7.908	
10,400.0	10,364.1	10,449.5	10,364.1	23.7	28.2	89.41	12.4	969.9	410.2	358.3	51.90	7.903	
10,450.0	10,414.1	10,499.5	10,414.1	23.8	28.2	89.41	12.4	969.9	410.2	358.2	51.94	7.897	
10,500.0	10,464.1	10,549.5	10,464.1	23.8	28.2	89.41	12.4	969.9	410.2	358.2	51.98	7.892	
10,545.0	10,509.1	10,594.5	10,509.1	23.8	28.2	89.41	12.4	969.9	410.2	358.2	52.01	7.887	
10,600.0	10,564.1	10,649.5	10,564.1	23.8	28.2	89.41	12.4	969.9	410.2	358.1	52.05	7.880	
10,640.0	10,604.1	10,689.5	10,604.1	23.8	28.3	89.41	12.4	969.9	410.2	358.1	52.08	7.876	
10,700.0	10,664.1	10,749.5	10,664.1	23.9	28.3	89.41	12.4	969.9	410.2	358.0	52.12	7.869	
10,735.0	10,699.1	10,784.5	10,699.1	23.9	28.3	89.41	12.4	969.9	410.2	358.0	52.15	7.865	
10,800.0	10,764.1	10,849.5	10,764.1	23.9	28.3	89.41	12.4	969.9	410.2	358.0	52.20	7.858	
10,830.0	10,794.1	10,879.5	10,794.1	23.9	28.3	89.41	12.4	969.9	410.2	357.9	52.22	7.854	
10,900.0	10,864.1	10,949.5	10,864.1	23.9	28.3	89.41	12.4	969.9	410.2	357.9	52.28	7.846	
10,925.0	10,889.1	10,974.5	10,889.1	23.9	28.4	89.41	12.4	969.9	410.2	357.9	52.30	7.843	
11,000.0	10,964.1	11,049.5	10,964.1	24.0	28.4	89.41	12.4	969.9	410.2	357.8	52.35	7.836	
11,001.6	10,965.7	11,051.1	10,965.7	24.0	28.4	89.41	12.4	969.9	410.2	357.8	52.35	7.835	
11,020.0	10,984.1	11,069.5	10,984.1	24.0	28.4	89.40	12.5	969.9	410.2	357.8	52.36	7.834	
11,022.5	10,986.6	11,072.0	10,986.6	24.0	28.4	89.39	12.5	969.9	410.2	357.8	52.36	7.834	
11,100.0	11,064.1	11,148.5	11,062.6	24.0	28.4	88.32	20.3	969.8	410.3	357.8	52.42	7.827	
11,115.0	11,079.1	11,162.9	11,076.7	24.0	28.4	87.93	23.1	969.8	410.3	357.9	52.43	7.826	
11,182.4	11,146.5	11,225.0	11,136.4	24.0	28.4	85.56	40.0	969.6	411.3	358.7	52.51	7.832	
11,200.0	11,164.1	11,240.6	11,151.1	24.0	28.4	85.31	45.5	969.6	411.7	359.2	52.52	7.839	
11,210.0	11,174.1	11,250.0	11,159.8	24.0	28.4	84.84	49.0	969.6	412.0	359.5	52.52	7.845	
11,225.0	11,189.1	11,262.4	11,171.2	24.0	28.4	84.22	53.9	969.5	412.5	360.0	52.54	7.852	
11,250.0	11,213.9	11,283.9	11,190.6	24.0	28.4	83.16	63.1	969.4	413.4	360.9	52.56	7.867	
11,275.0	11,238.5	11,305.2	11,209.4	24.0	28.4	82.11	73.1	969.3	414.5	361.9	52.58	7.884	
11,300.0	11,262.9	11,325.0	11,226.5	24.1	28.4	81.14	83.1	969.2	415.7	363.1	52.61	7.901	
11,305.0	11,267.8	11,330.3	11,231.0	24.1	28.4	80.90	85.9	969.2	415.9	363.3	52.60	7.907	
11,325.0	11,287.0	11,346.9	11,244.9	24.1	28.4	80.10	95.0	969.1	417.0	364.3	52.62	7.924	
11,350.0	11,310.7	11,367.5	11,261.6	24.1	28.4	79.14	106.9	969.0	418.3	365.7	52.64	7.946	
11,375.0	11,333.9	11,387.8	11,277.7	24.1	28.4	78.20	119.4	968.9	419.7	367.1	52.67	7.969	
11,400.0	11,356.7	11,408.0	11,293.1	24.1	28.4	77.30	132.4	968.8	421.2	368.5	52.71	7.992	
11,425.0	11,378.8	11,428.0	11,307.8	24.1	28.4	76.43	146.0	968.7	422.8	370.0	52.75	8.015	
11,450.0	11,400.3	11,450.0	11,323.2	24.1	28.4	75.52	161.6	968.5	424.3	371.6	52.76	8.042	
11,475.0	11,421.1	11,467.5	11,335.0	24.1	28.4	74.80	174.5	968.4	425.9	373.1	52.85	8.059	
11,495.0	11,437.3	11,483.1	11,345.2	24.1	28.4	74.18	186.4	968.3	427.2	374.3	52.89	8.076	
11,500.0	11,441.2	11,487.0	11,347.6	24.1	28.4	74.03	189.4	968.3	427.5	374.6	52.91	8.080	
11,525.0	11,460.5	11,506.4	11,359.5	24.1	28.4	73.31	204.8	968.2	429.1	376.1	52.97	8.100	
11,550.0	11,478.9	11,525.0	11,370.3	24.1	28.4	72.64	219.9	968.0	430.6	377.5	53.05	8.117	
11,575.0	11,496.3	11,544.8	11,381.2	24.1	28.4	71.98	236.5	967.9	432.1	379.0	53.11	8.135	
11,590.0	11,506.4	11,556.3	11,387.2	24.1	28.4	71.62	246.3	967.8	433.0	379.8	53.16	8.145	
11,600.0	11,512.9	11,563.9	11,391.0	24.1	28.4	71.38	252.9	967.7	433.5	380.4	53.19	8.151	
11,625.0	11,528.4	11,582.9	11,400.1	24.1	28.5	70.82	269.5	967.6	434.9	381.7	53.27	8.164	
11,650.0	11,542.9	11,600.0	11,407.7	24.1	28.5	70.34	284.8	967.4	436.3	382.9	53.38	8.173	
11,675.0	11,556.3	11,620.6	11,416.2	24.1	28.5	69.83	303.6	967.3	437.5	384.1	53.44	8.186	
11,685.0	11,561.3	11,628.1	11,419.0	24.1	28.5	69.65	310.5	967.2	438.0	384.5	53.48	8.190	
11,700.0	11,568.5	11,639.3	11,423.1	24.1	28.5	69.39	321.0	967.1	438.7	385.1	53.53	8.194	
11,725.0	11,579.6	11,658.0	11,429.4	24.2	28.5	69.01	338.6	966.9	439.7	386.1	53.62	8.201	
11,750.0	11,589.6	11,675.0	11,434.5	24.2	28.5	68.68	354.8	966.8	440.7	387.0	53.72	8.203	
11,775.0	11,598.3	11,695.2	11,439.8	24.2	28.5	68.36	374.3	966.6	441.5	387.7	53.79	8.208	
11,780.0	11,599.9	11,700.0	11,440.9	24.2	28.5	68.29	379.0	966.6	441.7	387.9	53.80	8.210	

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 #712H
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 #712H	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,800.0	11,605.8	11,713.8	11,443.9	24.2	28.5	68.10	392.4	966.5	442.2	388.4	53.87	8.209	
11,825.0	11,612.0	11,732.3	11,447.4	24.2	28.5	67.89	410.6	966.3	442.9	388.9	53.95	8.208	
11,850.0	11,616.9	11,750.0	11,450.0	24.2	28.6	67.73	428.1	966.1	443.3	389.3	54.03	8.205	
11,875.0	11,620.6	11,769.2	11,452.1	24.3	28.6	67.60	447.2	966.0	443.7	389.6	54.10	8.201	
11,900.0	11,622.9	11,787.7	11,453.4	24.3	28.6	67.52	465.6	965.8	443.9	389.8	54.17	8.196	
11,925.0	11,623.9	11,806.1	11,454.0	24.3	28.6	67.49	484.0	965.6	444.0	389.8	54.23	8.188	
11,932.4	11,624.0	11,812.0	11,454.0	24.3	28.6	67.49	489.9	965.6	444.0	389.8	54.24	8.186	
11,932.9	11,624.0	11,812.0	11,454.0	24.3	28.6	67.49	489.9	965.6	444.0	389.8	54.25	8.186	
11,970.0	11,624.0	11,849.0	11,454.0	24.4	28.7	67.49	526.9	965.2	444.0	389.7	54.33	8.173	
12,000.0	11,624.0	11,879.0	11,454.0	24.4	28.7	67.49	556.9	965.0	444.0	389.6	54.40	8.163	
12,065.0	11,624.0	11,944.0	11,454.0	24.5	28.8	67.49	621.9	964.4	444.0	389.5	54.57	8.137	
12,100.0	11,624.0	11,979.0	11,454.0	24.6	28.8	67.49	656.9	964.1	444.0	389.4	54.67	8.122	
12,160.0	11,624.0	12,039.0	11,454.0	24.7	28.9	67.49	716.9	963.5	444.1	389.2	54.86	8.095	
12,200.0	11,624.0	12,079.0	11,454.0	24.7	29.0	67.49	756.9	963.2	444.1	389.1	54.98	8.076	
12,255.0	11,624.0	12,134.0	11,454.0	24.8	29.1	67.49	811.9	962.7	444.1	388.9	55.17	8.048	
12,300.0	11,624.0	12,179.0	11,454.0	24.9	29.1	67.49	856.9	962.3	444.1	388.7	55.34	8.025	
12,350.0	11,624.0	12,229.0	11,454.0	25.0	29.2	67.49	906.9	961.8	444.1	388.5	55.53	7.997	
12,400.0	11,624.0	12,279.0	11,454.0	25.2	29.3	67.49	956.9	961.4	444.1	388.3	55.73	7.968	
12,445.0	11,624.0	12,324.0	11,454.0	25.3	29.4	67.49	1,001.9	961.0	444.1	388.2	55.92	7.941	
12,500.0	11,624.0	12,379.0	11,454.0	25.4	29.5	67.49	1,056.9	960.5	444.1	387.9	56.16	7.907	
12,540.0	11,624.0	12,419.0	11,454.0	25.5	29.6	67.49	1,096.9	960.1	444.1	387.7	56.35	7.881	
12,600.0	11,624.0	12,479.0	11,454.0	25.7	29.8	67.49	1,156.9	959.6	444.1	387.5	56.63	7.841	
12,635.0	11,624.0	12,514.0	11,454.0	25.8	29.8	67.49	1,191.9	959.2	444.1	387.3	56.81	7.817	
12,700.0	11,624.0	12,579.0	11,454.0	25.9	30.0	67.49	1,256.9	958.7	444.1	386.9	57.14	7.772	
12,730.0	11,624.0	12,609.0	11,454.0	26.0	30.1	67.49	1,286.9	958.4	444.1	386.8	57.30	7.750	
12,800.0	11,624.0	12,679.0	11,454.0	26.2	30.3	67.49	1,356.9	957.8	444.1	386.4	57.69	7.698	
12,825.0	11,624.0	12,704.0	11,454.0	26.3	30.3	67.49	1,381.9	957.5	444.1	386.3	57.83	7.679	
12,900.0	11,624.0	12,779.0	11,454.0	26.6	30.5	67.49	1,456.9	956.8	444.1	385.8	58.27	7.621	
12,920.0	11,624.0	12,799.0	11,454.0	26.6	30.6	67.49	1,476.9	956.7	444.1	385.7	58.39	7.606	
13,000.0	11,624.0	12,879.0	11,454.0	26.9	30.8	67.49	1,556.9	955.9	444.1	385.2	58.89	7.542	
13,015.0	11,624.0	12,894.0	11,454.0	26.9	30.9	67.49	1,571.9	955.8	444.1	385.1	58.98	7.530	
13,100.0	11,624.0	12,979.0	11,454.0	27.2	31.2	67.49	1,656.9	955.0	444.1	384.6	59.53	7.460	
13,110.0	11,624.0	12,989.0	11,454.0	27.3	31.2	67.49	1,666.9	955.0	444.1	384.5	59.60	7.452	
13,200.0	11,624.0	13,079.0	11,454.0	27.6	31.5	67.49	1,756.9	954.1	444.1	383.9	60.22	7.376	
13,205.0	11,624.0	13,084.0	11,454.0	27.6	31.5	67.49	1,761.9	954.1	444.1	383.9	60.25	7.371	
13,300.0	11,624.0	13,179.0	11,454.0	28.0	31.8	67.49	1,856.9	953.2	444.1	383.2	60.93	7.290	
13,395.0	11,624.0	13,274.0	11,454.0	28.4	32.2	67.50	1,951.9	952.4	444.1	382.5	61.63	7.206	
13,400.0	11,624.0	13,279.0	11,454.0	28.4	32.2	67.50	1,956.9	952.3	444.1	382.5	61.67	7.202	
13,490.0	11,624.0	13,369.0	11,454.0	28.8	32.5	67.50	2,046.9	951.5	444.1	381.8	62.36	7.122	
13,500.0	11,624.0	13,379.0	11,454.0	28.8	32.6	67.50	2,056.9	951.4	444.2	381.7	62.44	7.113	
13,585.0	11,624.0	13,464.0	11,454.0	29.2	32.9	67.50	2,141.9	950.7	444.2	381.0	63.12	7.037	
13,600.0	11,624.0	13,479.0	11,454.0	29.2	32.9	67.50	2,156.9	950.5	444.2	380.9	63.24	7.023	
13,680.0	11,624.0	13,559.0	11,454.0	29.6	33.3	67.50	2,236.9	949.8	444.2	380.3	63.90	6.951	
13,700.0	11,624.0	13,579.0	11,454.0	29.7	33.3	67.50	2,256.9	949.6	444.2	380.1	64.06	6.933	
13,775.0	11,624.0	13,654.0	11,454.0	30.0	33.6	67.50	2,331.9	949.0	444.2	379.5	64.70	6.865	
13,800.0	11,624.0	13,679.0	11,454.0	30.1	33.7	67.50	2,356.9	948.7	444.2	379.3	64.92	6.842	
13,870.0	11,624.0	13,749.0	11,454.0	30.5	34.0	67.50	2,426.9	948.1	444.2	378.6	65.53	6.778	
13,900.0	11,624.0	13,779.0	11,454.0	30.6	34.2	67.50	2,456.8	947.8	444.2	378.4	65.79	6.751	
13,965.0	11,624.0	13,844.0	11,454.0	30.9	34.4	67.50	2,521.8	947.2	444.2	377.8	66.38	6.692	
14,000.0	11,624.0	13,879.0	11,454.0	31.1	34.6	67.50	2,556.8	946.9	444.2	377.5	66.69	6.660	
14,060.0	11,624.0	13,939.0	11,454.0	31.4	34.9	67.50	2,616.8	946.4	444.2	376.9	67.24	6.606	
14,100.0	11,624.0	13,979.0	11,454.0	31.6	35.0	67.50	2,656.8	946.0	444.2	376.6	67.61	6.569	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,155.0	11,624.0	14,034.0	11,454.0	31.9	35.3	67.50	2,711.8	945.5	444.2	376.1	68.13	6.520	
14,200.0	11,624.0	14,079.0	11,454.0	32.1	35.5	67.50	2,756.8	945.1	444.2	375.6	68.56	6.479	
14,250.0	11,624.0	14,129.0	11,454.0	32.3	35.7	67.50	2,806.8	944.7	444.2	375.2	69.04	6.434	
14,300.0	11,624.0	14,179.0	11,454.0	32.6	36.0	67.50	2,856.8	944.2	444.2	374.7	69.53	6.389	
14,345.0	11,624.0	14,224.0	11,454.0	32.8	36.2	67.50	2,901.8	943.8	444.2	374.2	69.97	6.349	
14,400.0	11,624.0	14,279.0	11,454.0	33.1	36.4	67.50	2,956.8	943.3	444.2	373.7	70.51	6.300	
14,440.0	11,624.0	14,319.0	11,454.0	33.3	36.6	67.50	2,996.8	942.9	444.2	373.3	70.91	6.264	
14,500.0	11,624.0	14,379.0	11,454.0	33.7	36.9	67.50	3,056.8	942.4	444.2	372.7	71.52	6.212	
14,535.0	11,624.0	14,414.0	11,454.0	33.8	37.1	67.50	3,091.8	942.1	444.2	372.4	71.87	6.181	
14,600.0	11,624.0	14,479.0	11,454.0	34.2	37.4	67.50	3,156.8	941.5	444.2	371.7	72.54	6.124	
14,630.0	11,624.0	14,509.0	11,454.0	34.4	37.6	67.50	3,186.8	941.2	444.2	371.4	72.85	6.098	
14,700.0	11,624.0	14,579.0	11,454.0	34.7	37.9	67.50	3,256.8	940.6	444.2	370.7	73.58	6.037	
14,725.0	11,624.0	14,604.0	11,454.0	34.9	38.0	67.50	3,281.8	940.4	444.2	370.4	73.84	6.016	
14,800.0	11,624.0	14,679.0	11,454.0	35.3	38.4	67.50	3,356.8	939.7	444.2	369.6	74.64	5.952	
14,820.0	11,624.0	14,699.0	11,454.0	35.4	38.5	67.50	3,376.8	939.5	444.2	369.4	74.85	5.935	
14,900.0	11,624.0	14,779.0	11,454.0	35.9	39.0	67.50	3,456.8	938.8	444.3	368.5	75.71	5.868	
14,915.0	11,624.0	14,794.0	11,454.0	35.9	39.0	67.50	3,471.8	938.7	444.3	368.4	75.88	5.855	
15,000.0	11,624.0	14,879.0	11,454.0	36.4	39.5	67.50	3,556.8	937.9	444.3	367.5	76.80	5.784	
15,010.0	11,624.0	14,889.0	11,454.0	36.5	39.5	67.50	3,566.8	937.8	444.3	367.3	76.91	5.776	
15,100.0	11,624.0	14,979.0	11,454.0	37.0	40.0	67.50	3,656.8	937.0	444.3	366.4	77.91	5.702	
15,105.0	11,624.0	14,984.0	11,454.0	37.0	40.0	67.50	3,661.8	936.9	444.3	366.3	77.96	5.698	
15,200.0	11,624.0	15,079.0	11,454.0	37.6	40.6	67.50	3,756.8	936.1	444.3	365.2	79.03	5.622	
15,295.0	11,624.0	15,174.0	11,454.0	38.2	41.1	67.50	3,851.8	935.2	444.3	364.2	80.10	5.546	
15,300.0	11,624.0	15,179.0	11,454.0	38.2	41.1	67.50	3,856.8	935.2	444.3	364.1	80.16	5.542	
15,390.0	11,624.0	15,269.0	11,454.0	38.7	41.6	67.50	3,946.8	934.4	444.3	363.1	81.19	5.472	
15,400.0	11,624.0	15,279.0	11,454.0	38.8	41.7	67.50	3,956.8	934.3	444.3	363.0	81.31	5.464	
15,485.0	11,624.0	15,364.0	11,454.0	39.3	42.1	67.50	4,041.8	933.5	444.3	362.0	82.29	5.399	
15,500.0	11,624.0	15,379.0	11,454.0	39.4	42.2	67.50	4,056.8	933.4	444.3	361.8	82.47	5.388	
15,580.0	11,624.0	15,459.0	11,454.0	39.9	42.7	67.50	4,136.8	932.7	444.3	360.9	83.40	5.327	
15,600.0	11,624.0	15,479.0	11,454.0	40.0	42.8	67.50	4,156.8	932.5	444.3	360.7	83.64	5.312	
15,675.0	11,624.0	15,554.0	11,454.0	40.4	43.2	67.50	4,231.8	931.8	444.3	359.8	84.52	5.257	
15,700.0	11,624.0	15,579.0	11,454.0	40.6	43.4	67.50	4,256.8	931.6	444.3	359.5	84.82	5.238	
15,770.0	11,624.0	15,649.0	11,454.0	41.0	43.8	67.50	4,326.8	930.9	444.3	358.7	85.65	5.187	
15,800.0	11,624.0	15,679.0	11,454.0	41.2	44.0	67.50	4,356.8	930.7	444.3	358.3	86.01	5.166	
15,865.0	11,624.0	15,744.0	11,454.0	41.6	44.3	67.50	4,421.8	930.1	444.3	357.5	86.80	5.119	
15,900.0	11,624.0	15,779.0	11,454.0	41.8	44.5	67.50	4,456.8	929.8	444.3	357.1	87.22	5.094	
15,960.0	11,624.0	15,839.0	11,454.0	42.2	44.9	67.51	4,516.8	929.2	444.3	356.4	87.95	5.052	
16,000.0	11,624.0	15,879.0	11,454.0	42.5	45.1	67.51	4,556.8	928.9	444.3	355.9	88.43	5.025	
16,055.0	11,624.0	15,934.0	11,454.0	42.8	45.5	67.51	4,611.8	928.4	444.3	355.2	89.10	4.987	
16,100.0	11,624.0	15,979.0	11,454.0	43.1	45.7	67.51	4,656.8	928.0	444.3	354.7	89.66	4.956	
16,150.0	11,624.0	16,029.0	11,454.0	43.4	46.0	67.51	4,706.8	927.5	444.3	354.1	90.27	4.922	
16,200.0	11,624.0	16,079.0	11,454.0	43.7	46.3	67.51	4,756.8	927.1	444.3	353.5	90.89	4.889	
16,245.0	11,624.0	16,124.0	11,454.0	44.0	46.6	67.51	4,801.8	926.7	444.3	352.9	91.45	4.859	
16,300.0	11,624.0	16,179.0	11,454.0	44.4	46.9	67.51	4,856.8	926.2	444.4	352.2	92.13	4.823	
16,340.0	11,624.0	16,219.0	11,454.0	44.6	47.2	67.51	4,896.8	925.8	444.4	351.7	92.63	4.797	
16,400.0	11,624.0	16,279.0	11,454.0	45.0	47.5	67.51	4,956.7	925.3	444.4	351.0	93.38	4.758	
16,435.0	11,624.0	16,314.0	11,454.0	45.2	47.8	67.51	4,991.7	924.9	444.4	350.5	93.82	4.736	
16,500.0	11,624.0	16,379.0	11,454.0	45.7	48.2	67.51	5,056.7	924.4	444.4	349.7	94.64	4.695	
16,530.0	11,624.0	16,409.0	11,454.0	45.9	48.3	67.51	5,086.7	924.1	444.4	349.3	95.02	4.676	
16,600.0	11,624.0	16,479.0	11,454.0	46.3	48.8	67.51	5,156.7	923.5	444.4	348.5	95.91	4.633	
16,625.0	11,624.0	16,504.0	11,454.0	46.5	48.9	67.51	5,181.7	923.2	444.4	348.1	96.23	4.618	
16,700.0	11,624.0	16,579.0	11,454.0	47.0	49.4	67.51	5,256.7	922.6	444.4	347.2	97.19	4.573	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
16,720.0	11,624.0	16,599.0	11,454.0	47.1	49.5	67.51	5,276.7	922.4	444.4	346.9	97.44	4.561	
16,800.0	11,624.0	16,679.0	11,454.0	47.6	50.0	67.51	5,356.7	921.6	444.4	345.9	98.47	4.513	
16,815.0	11,624.0	16,694.0	11,454.0	47.7	50.1	67.51	5,371.7	921.5	444.4	345.7	98.66	4.504	
16,900.0	11,624.0	16,779.0	11,454.0	48.3	50.7	67.51	5,456.7	920.7	444.4	344.6	99.76	4.455	
16,910.0	11,624.0	16,789.0	11,454.0	48.4	50.7	67.51	5,466.7	920.7	444.4	344.5	99.89	4.449	
17,000.0	11,624.0	16,879.0	11,454.0	49.0	51.3	67.51	5,556.7	919.8	444.4	343.3	101.05	4.398	
17,005.0	11,624.0	16,884.0	11,454.0	49.0	51.3	67.51	5,561.7	919.8	444.4	343.3	101.12	4.395	
17,100.0	11,624.0	16,979.0	11,454.0	49.6	51.9	67.51	5,656.7	918.9	444.4	342.1	102.36	4.342	
17,195.0	11,624.0	17,074.0	11,454.0	50.3	52.5	67.51	5,751.7	918.1	444.4	340.8	103.60	4.290	
17,200.0	11,624.0	17,079.0	11,454.0	50.3	52.6	67.51	5,756.7	918.0	444.4	340.8	103.67	4.287	
17,290.0	11,624.0	17,169.0	11,454.0	50.9	53.2	67.51	5,846.7	917.2	444.4	339.6	104.85	4.239	
17,300.0	11,624.0	17,179.0	11,454.0	51.0	53.2	67.51	5,856.7	917.1	444.4	339.4	104.98	4.233	
17,385.0	11,624.0	17,264.0	11,454.0	51.5	53.8	67.51	5,941.7	916.4	444.4	338.3	106.11	4.189	
17,400.0	11,624.0	17,279.0	11,454.0	51.6	53.9	67.51	5,956.7	916.2	444.4	338.1	106.30	4.181	
17,480.0	11,624.0	17,359.0	11,454.0	52.2	54.4	67.51	6,036.7	915.5	444.4	337.1	107.37	4.139	
17,500.0	11,624.0	17,379.0	11,454.0	52.3	54.5	67.51	6,056.7	915.3	444.4	336.8	107.63	4.129	
17,575.0	11,624.0	17,454.0	11,454.0	52.8	55.0	67.51	6,131.7	914.7	444.4	335.8	108.63	4.091	
17,600.0	11,624.0	17,479.0	11,454.0	53.0	55.2	67.51	6,156.7	914.4	444.4	335.5	108.96	4.079	
17,670.0	11,624.0	17,549.0	11,454.0	53.5	55.6	67.51	6,226.7	913.8	444.5	334.6	109.90	4.044	
17,700.0	11,624.0	17,579.0	11,454.0	53.7	55.8	67.51	6,256.7	913.5	444.5	334.2	110.30	4.029	
17,765.0	11,624.0	17,644.0	11,454.0	54.1	56.2	67.51	6,321.7	912.9	444.5	333.3	111.17	3.998	
17,800.0	11,624.0	17,679.0	11,454.0	54.4	56.5	67.51	6,356.7	912.6	444.5	332.8	111.64	3.981	
17,860.0	11,624.0	17,739.0	11,454.0	54.8	56.9	67.51	6,416.7	912.1	444.5	332.0	112.45	3.952	
17,900.0	11,624.0	17,779.0	11,454.0	55.0	57.1	67.51	6,456.7	911.7	444.5	331.5	112.99	3.934	
17,955.0	11,624.0	17,834.0	11,454.0	55.4	57.5	67.51	6,511.7	911.2	444.5	330.7	113.74	3.908	
18,000.0	11,624.0	17,879.0	11,454.0	55.7	57.8	67.51	6,556.7	910.8	444.5	330.1	114.34	3.887	
18,050.0	11,624.0	17,929.0	11,454.0	56.1	58.1	67.51	6,606.7	910.4	444.5	329.5	115.02	3.864	
18,100.0	11,624.0	17,979.0	11,454.0	56.4	58.5	67.51	6,656.7	909.9	444.5	328.8	115.70	3.842	
18,145.0	11,624.0	18,024.0	11,454.0	56.7	58.8	67.51	6,701.7	909.5	444.5	328.2	116.31	3.821	
18,200.0	11,624.0	18,079.0	11,454.0	57.1	59.1	67.51	6,756.7	909.0	444.5	327.4	117.06	3.797	
18,240.0	11,624.0	18,119.0	11,454.0	57.4	59.4	67.51	6,796.7	908.7	444.5	326.9	117.61	3.779	
18,300.0	11,624.0	18,179.0	11,454.0	57.8	59.8	67.51	6,856.7	908.1	444.5	326.1	118.43	3.753	
18,335.0	11,624.0	18,214.0	11,454.0	58.1	60.0	67.51	6,891.7	907.8	444.5	325.6	118.91	3.738	
18,400.0	11,624.0	18,279.0	11,454.0	58.5	60.5	67.51	6,956.7	907.2	444.5	324.7	119.80	3.710	
18,430.0	11,624.0	18,309.0	11,454.0	58.7	60.7	67.51	6,986.7	906.9	444.5	324.3	120.21	3.698	
18,500.0	11,624.0	18,379.0	11,454.0	59.2	61.2	67.51	7,056.7	906.3	444.5	323.3	121.17	3.668	
18,525.0	11,624.0	18,404.0	11,454.0	59.4	61.3	67.52	7,081.7	906.1	444.5	323.0	121.51	3.658	
18,600.0	11,624.0	18,479.0	11,454.0	59.9	61.8	67.52	7,156.7	905.4	444.5	322.0	122.55	3.627	
18,620.0	11,624.0	18,499.0	11,454.0	60.0	62.0	67.52	7,176.7	905.2	444.5	321.7	122.82	3.619	
18,700.0	11,624.0	18,579.0	11,454.0	60.6	62.5	67.52	7,256.7	904.5	444.5	320.6	123.93	3.587	
18,715.0	11,624.0	18,594.0	11,454.0	60.7	62.6	67.52	7,271.7	904.4	444.5	320.4	124.14	3.581	
18,800.0	11,624.0	18,679.0	11,454.0	61.3	63.2	67.52	7,356.7	903.6	444.5	319.2	125.31	3.547	
18,810.0	11,624.0	18,689.0	11,454.0	61.4	63.3	67.52	7,366.6	903.5	444.5	319.1	125.45	3.543	
18,900.0	11,624.0	18,779.0	11,454.0	62.0	63.9	67.52	7,456.6	902.7	444.5	317.8	126.70	3.509	
18,905.0	11,624.0	18,784.0	11,454.0	62.0	63.9	67.52	7,461.6	902.6	444.5	317.8	126.77	3.507	
19,000.0	11,624.0	18,879.0	11,454.0	62.7	64.6	67.52	7,556.6	901.8	444.5	316.5	128.09	3.471	
19,095.0	11,624.0	18,974.0	11,454.0	63.4	65.2	67.52	7,651.6	900.9	444.6	315.1	129.42	3.435	
19,100.0	11,624.0	18,979.0	11,454.0	63.4	65.2	67.52	7,656.6	900.9	444.6	315.1	129.49	3.433	
19,190.0	11,624.0	19,069.0	11,454.0	64.1	65.9	67.52	7,746.6	900.1	444.6	313.8	130.75	3.400	
19,200.0	11,624.0	19,079.0	11,454.0	64.1	65.9	67.52	7,756.6	900.0	444.6	313.7	130.89	3.397	
19,285.0	11,624.0	19,164.0	11,454.0	64.7	66.5	67.52	7,841.6	899.2	444.6	312.5	132.08	3.366	
19,300.0	11,624.0	19,179.0	11,454.0	64.8	66.6	67.52	7,856.6	899.1	444.6	312.3	132.29	3.361	

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 #712H
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 #712H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,380.0	11,624.0	19,259.0	11,454.0	65.4	67.2	67.52	7,936.6	898.4	444.6	311.2	133.41	3.332	
19,400.0	11,624.0	19,279.0	11,454.0	65.5	67.3	67.52	7,956.6	898.2	444.6	310.9	133.69	3.325	
19,475.0	11,624.0	19,354.0	11,454.0	66.1	67.8	67.52	8,031.6	897.5	444.6	309.8	134.74	3.299	
19,500.0	11,624.0	19,379.0	11,454.0	66.3	68.0	67.52	8,056.6	897.3	444.6	309.5	135.10	3.291	
19,570.0	11,624.0	19,449.0	11,454.0	66.8	68.5	67.52	8,126.6	896.6	444.6	308.5	136.08	3.267	
19,600.0	11,624.0	19,479.0	11,454.0	67.0	68.7	67.52	8,156.6	896.4	444.6	308.1	136.51	3.257	
19,665.0	11,624.0	19,544.0	11,454.0	67.4	69.2	67.52	8,221.6	895.8	444.6	307.2	137.42	3.235	
19,700.0	11,624.0	19,579.0	11,454.0	67.7	69.4	67.52	8,256.6	895.5	444.6	306.7	137.92	3.224	
19,760.0	11,624.0	19,639.0	11,454.0	68.1	69.8	67.52	8,316.6	894.9	444.6	305.8	138.77	3.204	
19,800.0	11,624.0	19,679.0	11,454.0	68.4	70.1	67.52	8,356.6	894.6	444.6	305.3	139.33	3.191	
19,855.0	11,624.0	19,734.0	11,454.0	68.8	70.5	67.52	8,411.6	894.1	444.6	304.5	140.11	3.173	
19,900.0	11,624.0	19,779.0	11,454.0	69.1	70.8	67.52	8,456.6	893.7	444.6	303.9	140.75	3.159	
19,950.0	11,624.0	19,829.0	11,454.0	69.5	71.1	67.52	8,506.6	893.2	444.6	303.2	141.46	3.143	
20,000.0	11,624.0	19,879.0	11,454.0	69.8	71.5	67.52	8,556.6	892.8	444.6	302.5	142.17	3.127	
20,045.0	11,624.0	19,924.0	11,454.0	70.1	71.8	67.52	8,601.6	892.4	444.6	301.8	142.81	3.113	
20,100.0	11,624.0	19,979.0	11,454.0	70.5	72.2	67.52	8,656.6	891.9	444.6	301.0	143.59	3.096	
20,140.0	11,624.0	20,019.0	11,454.0	70.8	72.5	67.52	8,696.6	891.5	444.6	300.5	144.16	3.084	
20,200.0	11,624.0	20,079.0	11,454.0	71.3	72.9	67.52	8,756.6	891.0	444.6	299.6	145.01	3.066	
20,235.0	11,624.0	20,114.0	11,454.0	71.5	73.1	67.52	8,791.6	890.6	444.6	299.1	145.51	3.056	
20,300.0	11,624.0	20,179.0	11,454.0	72.0	73.6	67.52	8,856.6	890.1	444.6	298.2	146.44	3.036	
20,330.0	11,624.0	20,209.0	11,454.0	72.2	73.8	67.52	8,886.6	889.8	444.6	297.8	146.87	3.027	
20,400.0	11,624.0	20,279.0	11,454.0	72.7	74.3	67.52	8,956.6	889.2	444.6	296.8	147.87	3.007	
20,425.0	11,624.0	20,304.0	11,454.0	72.9	74.5	67.52	8,981.6	888.9	444.7	296.4	148.23	3.000	
20,500.0	11,624.0	20,379.0	11,454.0	73.4	75.0	67.52	9,056.6	888.3	444.7	295.4	149.30	2.978	
20,520.0	11,624.0	20,399.0	11,454.0	73.6	75.2	67.52	9,076.6	888.1	444.7	295.1	149.59	2.973	
20,600.0	11,624.0	20,479.0	11,454.0	74.1	75.7	67.52	9,156.6	887.4	444.7	293.9	150.73	2.950	
20,615.0	11,624.0	20,494.0	11,454.0	74.3	75.8	67.52	9,171.6	887.2	444.7	293.7	150.95	2.946	
20,700.0	11,624.0	20,579.0	11,454.0	74.9	76.4	67.52	9,256.6	886.4	444.7	292.5	152.17	2.922	
20,710.0	11,624.0	20,589.0	11,454.0	74.9	76.5	67.52	9,266.6	886.4	444.7	292.4	152.31	2.919	
20,800.0	11,624.0	20,679.0	11,454.0	75.6	77.1	67.52	9,356.6	885.5	444.7	291.1	153.60	2.895	
20,805.0	11,624.0	20,684.0	11,454.0	75.6	77.2	67.52	9,361.6	885.5	444.7	291.0	153.68	2.894	
20,900.0	11,624.0	20,779.0	11,454.0	76.3	77.8	67.52	9,456.6	884.6	444.7	289.6	155.04	2.868	
20,995.0	11,624.0	20,874.0	11,454.0	77.0	78.5	67.52	9,551.6	883.8	444.7	288.3	156.41	2.843	
21,000.0	11,624.0	20,879.0	11,454.0	77.0	78.6	67.52	9,556.6	883.7	444.7	288.2	156.48	2.842	
21,090.0	11,624.0	20,969.0	11,454.0	77.7	79.2	67.52	9,646.6	882.9	444.7	286.9	157.78	2.818	
21,100.0	11,624.0	20,979.0	11,454.0	77.8	79.3	67.53	9,656.6	882.8	444.7	286.8	157.93	2.816	
21,185.0	11,624.0	21,064.0	11,454.0	78.4	79.9	67.53	9,741.6	882.1	444.7	285.6	159.15	2.794	
21,200.0	11,624.0	21,079.0	11,454.0	78.5	80.0	67.53	9,756.6	881.9	444.7	285.3	159.37	2.790	
21,280.0	11,624.0	21,159.0	11,454.0	79.1	80.6	67.53	9,836.5	881.2	444.7	284.2	160.53	2.770	
21,300.0	11,624.0	21,179.0	11,454.0	79.2	80.7	67.53	9,856.5	881.0	444.7	283.9	160.81	2.765	
21,375.0	11,624.0	21,254.0	11,454.0	79.8	81.2	67.53	9,931.5	880.4	444.7	282.8	161.90	2.747	
21,400.0	11,624.0	21,279.0	11,454.0	79.9	81.4	67.53	9,956.5	880.1	444.7	282.5	162.26	2.741	
21,470.0	11,624.0	21,349.0	11,454.0	80.5	81.9	67.53	10,026.5	879.5	444.7	281.5	163.28	2.724	
21,500.0	11,624.0	21,379.0	11,454.0	80.7	82.1	67.53	10,056.5	879.2	444.7	281.0	163.71	2.717	
21,565.0	11,624.0	21,444.0	11,454.0	81.1	82.6	67.53	10,121.5	878.6	444.7	280.1	164.65	2.701	
21,600.0	11,624.0	21,479.0	11,454.0	81.4	82.8	67.53	10,156.5	878.3	444.7	279.6	165.16	2.693	
21,660.0	11,624.0	21,539.0	11,454.0	81.8	83.3	67.53	10,216.5	877.8	444.7	278.7	166.03	2.679	
21,700.0	11,624.0	21,579.0	11,454.0	82.1	83.6	67.53	10,256.5	877.4	444.7	278.1	166.61	2.669	
21,755.0	11,624.0	21,634.0	11,454.0	82.5	84.0	67.53	10,311.5	876.9	444.7	277.3	167.41	2.657	
21,800.0	11,624.0	21,679.0	11,454.0	82.9	84.3	67.53	10,356.5	876.5	444.8	276.7	168.07	2.646	
21,850.0	11,624.0	21,729.0	11,454.0	83.2	84.6	67.53	10,406.5	876.1	444.8	276.0	168.79	2.635	
21,900.0	11,624.0	21,779.0	11,454.0	83.6	85.0	67.53	10,456.5	875.6	444.8	275.2	169.52	2.624	

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 #712H
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 #712H	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	Vertical	Offset	Vertical	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		
21,945.0	11,624.0	21,824.0	11,454.0	83.9	85.3	67.53	10,501.5	875.2	444.8	274.6	170.18	2.614		
21,996.4	11,624.0	21,875.4	11,454.0	84.3	85.7	67.53	10,552.9	874.7	444.8	273.8	170.92	2.602 SF		

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,072.4	5,382.0	5,319.6	15.8	19.4	-5.25	138.9	1,688.6	1,313.9	1,279.5	34.40	38.191	
5,130.0	5,102.1	5,410.4	5,347.5	15.9	19.5	-5.20	136.8	1,683.6	1,304.4	1,269.8	34.64	37.652	
5,200.0	5,171.5	5,476.7	5,412.6	16.2	19.8	-5.06	131.8	1,671.9	1,282.2	1,247.0	35.20	36.422	
5,225.0	5,196.2	5,500.4	5,435.9	16.3	19.9	-5.01	130.1	1,667.8	1,274.3	1,238.9	35.40	35.993	
5,300.0	5,270.5	5,571.5	5,505.7	16.6	20.3	-4.86	124.8	1,655.3	1,250.5	1,214.5	36.00	34.732	
5,320.0	5,290.3	5,590.4	5,524.3	16.7	20.3	-4.82	123.4	1,651.9	1,244.2	1,208.0	36.17	34.402	
5,400.0	5,369.5	5,666.2	5,598.7	17.0	20.7	-4.65	117.7	1,638.6	1,218.8	1,182.0	36.81	33.114	
5,415.0	5,384.4	5,680.4	5,612.6	17.1	20.7	-4.61	116.6	1,636.1	1,214.1	1,177.2	36.92	32.882	
5,420.7	5,390.0	5,685.8	5,617.9	17.1	20.8	-4.60	116.2	1,635.2	1,212.3	1,175.3	36.97	32.794	
5,500.0	5,468.6	5,761.1	5,691.8	17.4	21.1	-4.41	110.6	1,622.0	1,187.4	1,149.8	37.59	31.587	
5,510.0	5,478.5	5,770.6	5,701.1	17.4	21.2	-4.39	109.9	1,620.3	1,184.3	1,146.7	37.67	31.438	
5,600.0	5,567.7	5,856.2	5,785.1	17.8	21.5	-4.16	103.5	1,605.3	1,156.8	1,118.5	38.39	30.134	
5,605.0	5,572.7	5,860.9	5,789.8	17.8	21.6	-4.15	103.2	1,604.4	1,155.3	1,116.9	38.43	30.064	
5,700.0	5,667.0	5,951.5	5,878.7	18.2	22.0	-3.89	96.4	1,588.5	1,127.1	1,087.9	39.18	28.765	
5,795.0	5,761.4	6,040.6	5,966.2	18.6	22.4	-3.63	89.8	1,572.9	1,099.7	1,059.7	39.92	27.545	
5,800.0	5,766.4	6,045.0	5,970.5	18.6	22.4	-3.61	89.5	1,572.1	1,098.3	1,058.3	39.96	27.483	
5,890.0	5,855.9	6,124.3	6,048.4	18.9	22.8	-3.37	83.7	1,558.6	1,073.4	1,032.8	40.66	26.402	
5,900.0	5,865.9	6,133.1	6,057.1	19.0	22.8	-3.35	83.1	1,557.1	1,070.8	1,030.0	40.73	26.286	
5,985.0	5,950.5	6,208.5	6,131.2	19.3	23.1	-3.12	77.9	1,544.8	1,048.6	1,007.3	41.39	25.336	
6,000.0	5,965.5	6,221.8	6,144.4	19.4	23.2	-3.08	76.9	1,542.6	1,044.9	1,003.3	41.50	25.174	
6,080.0	6,045.2	6,293.2	6,214.7	19.6	23.5	-2.86	72.2	1,531.4	1,025.3	983.1	42.11	24.346	
6,100.0	6,065.1	6,311.1	6,232.3	19.7	23.6	-2.81	71.0	1,528.7	1,020.5	978.2	42.26	24.146	
6,175.0	6,139.9	6,378.4	6,298.7	20.0	23.9	-2.61	66.7	1,518.6	1,003.3	960.5	42.82	23.428	
6,200.0	6,164.8	6,400.0	6,320.1	20.1	24.0	-2.54	65.4	1,515.4	997.8	954.7	43.01	23.198	
6,270.0	6,234.6	6,464.0	6,383.3	20.3	24.3	-2.35	61.5	1,506.2	982.8	939.3	43.52	22.580	
6,300.0	6,264.6	6,491.2	6,410.1	20.4	24.4	-2.27	59.9	1,502.4	976.6	932.9	43.74	22.325	
6,365.0	6,329.5	6,550.1	6,468.4	20.7	24.6	-2.09	56.5	1,494.4	963.7	919.5	44.21	21.797	
6,400.0	6,364.4	6,581.9	6,499.9	20.8	24.8	-2.00	54.7	1,490.2	957.1	912.6	44.46	21.524	
6,460.0	6,424.3	6,636.6	6,554.0	21.0	25.0	-1.84	51.7	1,483.1	946.1	901.2	44.89	21.078	
6,500.0	6,464.3	6,673.1	6,590.2	21.1	25.2	-1.74	49.7	1,478.6	939.1	893.9	45.17	20.793	
6,555.0	6,519.2	6,723.4	6,640.1	21.3	25.4	-1.60	47.1	1,472.4	929.9	884.4	45.54	20.419	
6,600.0	6,564.2	6,764.7	6,681.0	21.4	25.6	-1.48	45.1	1,467.5	922.8	876.9	45.85	20.127	
6,650.0	6,614.2	6,810.6	6,726.6	21.6	25.7	-1.35	42.8	1,462.2	915.2	869.1	46.18	19.819	
6,700.0	6,664.2	6,856.6	6,772.3	21.7	25.9	-1.23	40.7	1,457.1	908.1	861.6	46.51	19.525	
6,745.0	6,709.1	6,900.0	6,815.3	21.9	26.1	-1.11	38.7	1,452.5	902.0	855.2	46.80	19.275	
6,800.0	6,764.1	6,948.9	6,863.9	22.0	26.3	-0.99	36.5	1,447.4	895.0	847.9	47.14	18.986	
6,840.0	6,804.1	6,985.9	6,900.7	22.1	26.5	-0.89	34.9	1,443.6	890.2	842.9	47.38	18.788	
6,900.0	6,864.1	7,041.5	6,956.0	22.3	26.7	-0.75	32.6	1,438.3	883.6	835.8	47.74	18.507	
6,935.0	6,899.1	7,073.9	6,988.3	22.4	26.8	-0.68	31.4	1,435.2	879.9	832.0	47.93	18.358	
7,000.0	6,964.1	7,134.3	7,048.3	22.5	27.1	-0.53	29.1	1,429.8	873.8	825.5	48.28	18.096	
7,020.7	6,984.8	7,153.6	7,067.5	22.5	27.1	88.67	28.4	1,428.2	871.9	823.6	48.37	18.027	
7,030.0	6,994.1	7,162.2	7,076.1	22.5	27.2	88.69	28.0	1,427.4	871.1	822.7	48.40	17.998	
7,100.0	7,064.1	7,227.3	7,141.0	22.5	27.4	88.83	25.8	1,422.0	865.3	816.7	48.65	17.788	
7,125.0	7,089.1	7,250.6	7,164.2	22.5	27.5	88.88	25.0	1,420.2	863.3	814.6	48.73	17.715	
7,200.0	7,164.1	7,320.5	7,233.8	22.6	27.8	89.03	22.8	1,415.0	857.6	808.6	49.00	17.503	
7,220.0	7,184.1	7,339.1	7,252.4	22.6	27.9	89.06	22.2	1,413.6	856.2	807.1	49.07	17.449	
7,300.0	7,264.1	7,413.8	7,326.8	22.6	28.1	89.20	20.0	1,408.6	850.7	801.4	49.34	17.241	
7,315.0	7,279.1	7,427.8	7,340.8	22.6	28.2	89.23	19.7	1,407.7	849.7	800.4	49.39	17.204	
7,400.0	7,364.1	7,507.2	7,420.0	22.6	28.5	89.36	17.6	1,402.9	844.6	794.9	49.68	17.002	
7,410.0	7,374.1	7,516.5	7,429.4	22.6	28.5	89.38	17.4	1,402.3	844.0	794.3	49.71	16.979	
7,500.0	7,464.1	7,600.0	7,512.7	22.7	28.8	89.50	15.5	1,397.9	839.2	789.2	50.00	16.784	
7,505.0	7,469.1	7,605.3	7,518.0	22.7	28.8	89.51	15.4	1,397.6	838.9	788.9	50.02	16.773	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)		
7,600.0	7,564.1	7,694.2	7,606.8	22.7	29.1	89.63	13.7	1,393.5	834.6	784.2	50.31	16.587	
7,695.0	7,659.1	7,783.2	7,695.7	22.7	29.4	89.73	12.2	1,390.1	830.9	780.3	50.60	16.420	
7,700.0	7,664.1	7,787.8	7,700.3	22.7	29.4	89.73	12.1	1,389.9	830.7	780.1	50.61	16.412	
7,790.0	7,754.1	7,872.2	7,784.6	22.8	29.7	89.81	11.0	1,387.2	827.8	777.0	50.87	16.273	
7,800.0	7,764.1	7,881.5	7,794.0	22.8	29.7	89.81	10.9	1,387.0	827.6	776.7	50.90	16.258	
7,885.0	7,849.1	7,961.2	7,873.6	22.8	30.0	89.87	10.1	1,385.1	825.5	774.4	51.13	16.144	
7,900.0	7,864.1	7,975.3	7,887.7	22.8	30.0	89.88	9.9	1,384.8	825.2	774.0	51.17	16.126	
7,980.0	7,944.1	8,050.3	7,962.7	22.8	30.2	89.92	9.4	1,383.5	823.9	772.5	51.37	16.036	
8,000.0	7,964.1	8,069.0	7,981.4	22.8	30.2	89.92	9.3	1,383.3	823.6	772.2	51.42	16.016	
8,075.0	8,039.1	8,139.4	8,051.8	22.9	30.4	89.94	9.0	1,382.6	822.9	771.3	51.59	15.951	
8,100.0	8,064.1	8,162.8	8,075.2	22.9	30.5	89.95	9.0	1,382.5	822.7	771.1	51.64	15.933	
8,170.0	8,134.1	8,228.9	8,141.3	22.9	30.5	89.95	8.9	1,382.3	822.6	770.8	51.74	15.898	
8,200.0	8,164.1	8,258.9	8,171.3	22.9	30.6	89.95	8.9	1,382.3	822.6	770.8	51.76	15.894	
8,265.0	8,229.1	8,323.9	8,236.3	22.9	30.6	89.95	8.9	1,382.3	822.6	770.8	51.79	15.884	
8,300.0	8,264.1	8,358.9	8,271.3	22.9	30.6	89.95	8.9	1,382.3	822.6	770.8	51.81	15.878	
8,360.0	8,324.1	8,418.9	8,331.3	23.0	30.6	89.95	8.9	1,382.3	822.6	770.7	51.84	15.868	
8,400.0	8,364.1	8,458.9	8,371.3	23.0	30.6	89.95	8.9	1,382.3	822.6	770.7	51.86	15.861	
8,455.0	8,419.1	8,513.9	8,426.3	23.0	30.6	89.95	8.9	1,382.3	822.6	770.7	51.89	15.852	
8,500.0	8,464.1	8,558.9	8,471.3	23.0	30.6	89.95	8.9	1,382.3	822.6	770.7	51.92	15.844	
8,550.0	8,514.1	8,608.9	8,521.3	23.0	30.6	89.95	8.9	1,382.3	822.6	770.6	51.95	15.836	
8,600.0	8,564.1	8,658.9	8,571.3	23.0	30.6	89.95	8.9	1,382.3	822.6	770.6	51.97	15.827	
8,645.0	8,609.1	8,703.9	8,616.3	23.1	30.6	89.95	8.9	1,382.3	822.6	770.6	52.00	15.819	
8,700.0	8,664.1	8,758.9	8,671.3	23.1	30.6	89.95	8.9	1,382.3	822.6	770.6	52.03	15.810	
8,740.0	8,704.1	8,798.9	8,711.3	23.1	30.7	89.95	8.9	1,382.3	822.6	770.5	52.05	15.803	
8,800.0	8,764.1	8,858.9	8,771.3	23.1	30.7	89.95	8.9	1,382.3	822.6	770.5	52.09	15.793	
8,835.0	8,799.1	8,893.9	8,806.3	23.1	30.7	89.95	8.9	1,382.3	822.6	770.5	52.11	15.787	
8,900.0	8,864.1	8,958.9	8,871.3	23.1	30.7	89.95	8.9	1,382.3	822.6	770.4	52.14	15.776	
8,930.0	8,894.1	8,988.9	8,901.3	23.2	30.7	89.95	8.9	1,382.3	822.6	770.4	52.16	15.770	
9,000.0	8,964.1	9,058.9	8,971.3	23.2	30.7	89.95	8.9	1,382.3	822.6	770.4	52.20	15.758	
9,025.0	8,989.1	9,083.9	8,996.3	23.2	30.7	89.95	8.9	1,382.3	822.6	770.4	52.22	15.754	
9,100.0	9,064.1	9,158.9	9,071.3	23.2	30.7	89.95	8.9	1,382.3	822.6	770.3	52.26	15.741	
9,120.0	9,084.1	9,178.9	9,091.3	23.2	30.7	89.95	8.9	1,382.3	822.6	770.3	52.27	15.737	
9,200.0	9,164.1	9,258.9	9,171.3	23.3	30.7	89.95	8.9	1,382.3	822.6	770.3	52.32	15.723	
9,215.0	9,179.1	9,273.9	9,186.3	23.3	30.7	89.95	8.9	1,382.3	822.6	770.3	52.33	15.720	
9,300.0	9,264.1	9,358.9	9,271.3	23.3	30.8	89.95	8.9	1,382.3	822.6	770.2	52.38	15.705	
9,310.0	9,274.1	9,368.9	9,281.3	23.3	30.8	89.95	8.9	1,382.3	822.6	770.2	52.38	15.704	
9,400.0	9,364.1	9,458.9	9,371.3	23.3	30.8	89.95	8.9	1,382.3	822.6	770.2	52.44	15.688	
9,405.0	9,369.1	9,463.9	9,376.3	23.3	30.8	89.95	8.9	1,382.3	822.6	770.1	52.44	15.687	
9,500.0	9,464.1	9,558.9	9,471.3	23.4	30.8	89.95	8.9	1,382.3	822.6	770.1	52.50	15.670	
9,595.0	9,559.1	9,653.9	9,566.3	23.4	30.8	89.95	8.9	1,382.3	822.6	770.0	52.55	15.653	
9,600.0	9,564.1	9,658.9	9,571.3	23.4	30.8	89.95	8.9	1,382.3	822.6	770.0	52.56	15.652	
9,690.0	9,654.1	9,748.9	9,661.3	23.5	30.8	89.95	8.9	1,382.3	822.6	770.0	52.61	15.636	
9,700.0	9,664.1	9,758.9	9,671.3	23.5	30.8	89.95	8.9	1,382.3	822.6	770.0	52.62	15.634	
9,785.0	9,749.1	9,843.9	9,756.3	23.5	30.9	89.95	8.9	1,382.3	822.6	769.9	52.67	15.618	
9,800.0	9,764.1	9,858.9	9,771.3	23.5	30.9	89.95	8.9	1,382.3	822.6	769.9	52.68	15.616	
9,880.0	9,844.1	9,938.9	9,851.3	23.5	30.9	89.95	8.9	1,382.3	822.6	769.9	52.73	15.601	
9,900.0	9,864.1	9,958.9	9,871.3	23.5	30.9	89.95	8.9	1,382.3	822.6	769.8	52.74	15.597	
9,975.0	9,939.1	10,033.9	9,946.3	23.6	30.9	89.95	8.9	1,382.3	822.6	769.8	52.79	15.584	
10,000.0	9,964.1	10,058.9	9,971.3	23.6	30.9	89.95	8.9	1,382.3	822.6	769.8	52.80	15.579	
10,070.0	10,034.1	10,128.9	10,041.3	23.6	30.9	89.95	8.9	1,382.3	822.6	769.7	52.84	15.566	
10,100.0	10,064.1	10,158.9	10,071.3	23.6	30.9	89.95	8.9	1,382.3	822.6	769.7	52.86	15.561	
10,165.0	10,129.1	10,223.9	10,136.3	23.6	31.0	89.95	8.9	1,382.3	822.6	769.7	52.90	15.549	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)		
10,200.0	10,164.1	10,258.9	10,171.3	23.7	31.0	89.95	8.9	1,382.3	822.6	769.7	52.93	15.542	
10,260.0	10,224.1	10,318.9	10,231.3	23.7	31.0	89.95	8.9	1,382.3	822.6	769.6	52.96	15.531	
10,300.0	10,264.1	10,358.9	10,271.3	23.7	31.0	89.95	8.9	1,382.3	822.6	769.6	52.99	15.524	
10,355.0	10,319.1	10,413.9	10,326.3	23.7	31.0	89.95	8.9	1,382.3	822.6	769.6	53.02	15.513	
10,400.0	10,364.1	10,458.9	10,371.3	23.7	31.0	89.95	8.9	1,382.3	822.6	769.5	53.05	15.505	
10,450.0	10,414.1	10,508.9	10,421.3	23.8	31.0	89.95	8.9	1,382.3	822.6	769.5	53.08	15.496	
10,500.0	10,464.1	10,558.9	10,471.3	23.8	31.0	89.95	8.9	1,382.3	822.6	769.5	53.12	15.486	
10,545.0	10,509.1	10,603.9	10,516.3	23.8	31.0	89.95	8.9	1,382.3	822.6	769.4	53.15	15.478	
10,600.0	10,564.1	10,658.9	10,571.3	23.8	31.1	89.95	8.9	1,382.3	822.6	769.4	53.18	15.468	
10,640.0	10,604.1	10,698.9	10,611.3	23.8	31.1	89.95	8.9	1,382.3	822.6	769.4	53.21	15.460	
10,700.0	10,664.1	10,758.9	10,671.3	23.9	31.1	89.95	8.9	1,382.3	822.6	769.3	53.25	15.449	
10,735.0	10,699.1	10,793.9	10,706.3	23.9	31.1	89.95	8.9	1,382.3	822.6	769.3	53.27	15.442	
10,800.0	10,764.1	10,858.9	10,771.3	23.9	31.1	89.95	8.9	1,382.3	822.6	769.3	53.31	15.430	
10,830.0	10,794.1	10,888.9	10,801.3	23.9	31.1	89.95	8.9	1,382.3	822.6	769.3	53.33	15.424	
10,900.0	10,864.1	10,958.9	10,871.3	23.9	31.1	89.95	8.9	1,382.3	822.6	769.2	53.38	15.411	
10,925.0	10,889.1	10,983.9	10,896.3	23.9	31.1	89.95	8.9	1,382.3	822.6	769.2	53.39	15.406	
11,000.0	10,964.1	11,058.9	10,971.3	24.0	31.1	89.95	8.9	1,382.3	822.6	769.1	53.44	15.392	
11,020.0	10,984.1	11,078.9	10,991.3	24.0	31.2	89.95	8.9	1,382.3	822.6	769.1	53.46	15.388	
11,100.0	11,064.1	11,158.9	11,071.3	24.0	31.2	89.95	8.9	1,382.3	822.6	769.1	53.51	15.373	
11,115.0	11,079.1	11,173.9	11,086.3	24.0	31.2	89.95	8.9	1,382.3	822.6	769.1	53.52	15.370	
11,182.4	11,146.5	11,241.3	11,153.7	24.0	31.2	89.95	8.9	1,382.3	822.6	769.0	53.55	15.360	
11,200.0	11,164.1	11,258.9	11,171.3	24.0	31.2	90.50	8.9	1,382.3	822.6	769.0	53.55	15.360	
11,210.0	11,174.1	11,268.9	11,181.3	24.0	31.2	90.53	8.9	1,382.3	822.6	769.0	53.55	15.361	
11,225.0	11,189.1	11,283.9	11,196.3	24.0	31.2	90.60	8.9	1,382.3	822.6	769.1	53.54	15.363	
11,250.0	11,213.9	11,309.2	11,221.6	24.0	31.2	90.78	9.2	1,382.3	822.6	769.1	53.52	15.370	
11,275.0	11,238.5	11,334.7	11,247.0	24.0	31.2	90.97	10.7	1,382.3	822.7	769.2	53.50	15.378	
11,300.0	11,262.9	11,360.3	11,272.5	24.1	31.2	91.18	13.3	1,382.3	822.7	769.2	53.47	15.386	
11,305.0	11,267.8	11,365.5	11,277.6	24.1	31.2	91.22	13.9	1,382.3	822.7	769.3	53.47	15.388	
11,325.0	11,287.0	11,386.1	11,298.0	24.1	31.2	91.40	17.0	1,382.2	822.8	769.3	53.45	15.395	
11,350.0	11,310.7	11,412.0	11,323.4	24.1	31.2	91.63	21.9	1,382.2	822.9	769.4	53.42	15.404	
11,375.0	11,333.9	11,438.0	11,348.7	24.1	31.2	91.87	28.0	1,382.1	822.9	769.6	53.39	15.414	
11,400.0	11,356.7	11,464.1	11,373.9	24.1	31.2	92.13	35.3	1,382.0	823.1	769.7	53.36	15.424	
11,425.0	11,378.8	11,490.5	11,398.8	24.1	31.2	92.39	43.7	1,381.9	823.2	769.8	53.33	15.434	
11,450.0	11,400.3	11,516.9	11,423.4	24.1	31.2	92.67	53.4	1,381.8	823.3	770.0	53.31	15.445	
11,475.0	11,421.1	11,543.6	11,447.8	24.1	31.2	92.96	64.3	1,381.6	823.5	770.2	53.28	15.455	
11,495.0	11,437.3	11,565.1	11,467.0	24.1	31.3	93.19	73.9	1,381.5	823.7	770.4	53.26	15.464	
11,500.0	11,441.2	11,570.5	11,471.8	24.1	31.3	93.25	76.4	1,381.5	823.7	770.4	53.26	15.466	
11,525.0	11,460.5	11,597.5	11,495.3	24.1	31.3	93.56	89.7	1,381.3	823.9	770.7	53.24	15.476	
11,550.0	11,478.9	11,624.8	11,518.4	24.1	31.3	93.87	104.2	1,381.2	824.2	771.0	53.22	15.485	
11,575.0	11,496.3	11,652.3	11,540.9	24.1	31.3	94.19	119.9	1,381.0	824.5	771.3	53.21	15.494	
11,590.0	11,506.4	11,668.9	11,554.2	24.1	31.3	94.39	129.9	1,380.8	824.7	771.4	53.21	15.499	
11,600.0	11,512.9	11,680.0	11,562.9	24.1	31.3	94.52	136.8	1,380.8	824.8	771.6	53.21	15.502	
11,625.0	11,528.4	11,707.9	11,584.1	24.1	31.3	94.85	155.0	1,380.5	825.1	771.9	53.20	15.509	
11,650.0	11,542.9	11,736.2	11,604.7	24.1	31.3	95.19	174.3	1,380.3	825.5	772.3	53.21	15.514	
11,675.0	11,556.3	11,764.6	11,624.5	24.1	31.3	95.54	194.8	1,380.0	825.9	772.7	53.23	15.518	
11,685.0	11,561.3	11,776.1	11,632.1	24.1	31.3	95.67	203.3	1,379.9	826.1	772.9	53.23	15.519	
11,700.0	11,568.5	11,793.4	11,643.3	24.1	31.3	95.88	216.5	1,379.8	826.4	773.1	53.25	15.520	
11,725.0	11,579.6	11,822.4	11,661.3	24.2	31.3	96.23	239.3	1,379.5	826.9	773.6	53.28	15.520	
11,750.0	11,589.6	11,851.8	11,678.2	24.2	31.3	96.59	263.3	1,379.2	827.4	774.1	53.32	15.518	
11,775.0	11,598.3	11,881.5	11,694.1	24.2	31.4	96.94	288.4	1,378.9	827.9	774.6	53.37	15.513	
11,780.0	11,599.9	11,887.4	11,697.1	24.2	31.4	97.02	293.5	1,378.8	828.1	774.7	53.38	15.512	
11,800.0	11,605.8	11,911.5	11,708.8	24.2	31.4	97.30	314.5	1,378.6	828.5	775.1	53.43	15.506	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance			Minimum	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
11,825.0	11,612.0	11,941.8	11,722.2	24.2	31.4	97.66	341.7	1,378.2	829.1	775.6	53.50	15.497	
11,850.0	11,616.9	11,972.5	11,734.3	24.2	31.4	98.01	369.9	1,377.9	829.8	776.2	53.59	15.485	
11,875.0	11,620.6	12,003.5	11,745.0	24.3	31.4	98.37	399.0	1,377.5	830.4	776.8	53.68	15.470	
11,900.0	11,622.9	12,034.9	11,754.2	24.3	31.4	98.72	429.0	1,377.1	831.1	777.3	53.79	15.452	
11,925.0	11,623.9	12,066.7	11,761.8	24.3	31.5	99.07	459.9	1,376.8	831.8	777.9	53.90	15.432	
11,932.4	11,624.0	12,076.2	11,763.8	24.3	31.5	99.17	469.2	1,376.7	832.1	778.1	53.94	15.426	
11,970.0	11,624.0	12,125.2	11,771.3	24.4	31.5	99.69	517.5	1,376.1	832.9	778.8	54.14	15.385	
12,000.0	11,624.0	12,164.9	11,774.4	24.4	31.5	99.90	557.2	1,375.6	833.2	778.9	54.31	15.343	
12,065.0	11,624.0	12,236.1	11,775.0	24.5	31.6	99.94	628.3	1,374.7	833.1	778.5	54.52	15.279	
12,100.0	11,624.0	12,271.1	11,775.0	24.6	31.6	99.94	663.3	1,374.3	833.0	778.3	54.61	15.253	
12,160.0	11,624.0	12,331.1	11,775.0	24.7	31.7	99.94	723.3	1,373.5	832.8	778.0	54.77	15.204	
12,200.0	11,624.0	12,371.1	11,775.0	24.7	31.8	99.94	763.3	1,373.0	832.6	777.8	54.89	15.170	
12,255.0	11,624.0	12,426.1	11,775.0	24.8	31.8	99.94	818.3	1,372.3	832.5	777.4	55.06	15.120	
12,300.0	11,624.0	12,471.1	11,775.0	24.9	31.9	99.95	863.3	1,371.8	832.3	777.1	55.20	15.077	
12,350.0	11,624.0	12,521.1	11,775.0	25.0	32.0	99.95	913.3	1,371.2	832.2	776.8	55.38	15.026	
12,400.0	11,624.0	12,571.1	11,775.0	25.2	32.0	99.95	963.3	1,370.6	832.0	776.4	55.56	14.974	
12,445.0	11,624.0	12,616.1	11,775.0	25.3	32.1	99.95	1,008.3	1,370.0	831.9	776.1	55.74	14.924	
12,500.0	11,624.0	12,671.1	11,775.0	25.4	32.2	99.95	1,063.3	1,369.3	831.7	775.7	55.96	14.862	
12,540.0	11,624.0	12,711.1	11,775.0	25.5	32.3	99.96	1,103.3	1,368.8	831.6	775.4	56.13	14.814	
12,600.0	11,624.0	12,771.1	11,775.0	25.7	32.4	99.96	1,163.3	1,368.1	831.4	775.0	56.40	14.741	
12,635.0	11,624.0	12,806.1	11,775.0	25.8	32.4	99.96	1,198.3	1,367.7	831.3	774.7	56.56	14.697	
12,700.0	11,624.0	12,871.1	11,775.0	25.9	32.6	99.96	1,263.3	1,366.9	831.0	774.2	56.87	14.613	
12,730.0	11,624.0	12,901.1	11,775.0	26.0	32.6	99.96	1,293.3	1,366.5	831.0	773.9	57.02	14.573	
12,800.0	11,624.0	12,971.1	11,775.0	26.2	32.8	99.97	1,363.3	1,365.6	830.7	773.3	57.38	14.477	
12,825.0	11,624.0	12,996.1	11,775.0	26.3	32.8	99.97	1,388.3	1,365.3	830.7	773.1	57.52	14.442	
12,900.0	11,624.0	13,071.1	11,775.0	26.6	33.0	99.97	1,463.3	1,364.4	830.4	772.5	57.93	14.335	
12,920.0	11,624.0	13,091.1	11,775.0	26.6	33.0	99.97	1,483.3	1,364.2	830.4	772.3	58.05	14.305	
13,000.0	11,624.0	13,171.1	11,775.0	26.9	33.2	99.97	1,563.3	1,363.2	830.1	771.6	58.51	14.186	
13,015.0	11,624.0	13,186.1	11,775.0	26.9	33.3	99.97	1,578.3	1,363.0	830.0	771.4	58.60	14.164	
13,100.0	11,624.0	13,271.1	11,775.0	27.2	33.5	99.98	1,663.3	1,361.9	829.8	770.6	59.13	14.033	
13,110.0	11,624.0	13,281.1	11,775.0	27.3	33.5	99.98	1,673.3	1,361.8	829.7	770.6	59.19	14.018	
13,200.0	11,624.0	13,371.1	11,775.0	27.6	33.7	99.98	1,763.2	1,360.7	829.5	769.7	59.78	13.876	
13,205.0	11,624.0	13,376.1	11,775.0	27.6	33.7	99.98	1,768.2	1,360.6	829.4	769.6	59.81	13.868	
13,300.0	11,624.0	13,471.1	11,775.0	28.0	34.0	99.98	1,863.2	1,359.5	829.1	768.7	60.46	13.714	
13,395.0	11,624.0	13,566.1	11,775.0	28.4	34.3	99.99	1,958.2	1,358.3	828.8	767.7	61.13	13.558	
13,400.0	11,624.0	13,571.1	11,775.0	28.4	34.3	99.99	1,963.2	1,358.2	828.8	767.7	61.17	13.550	
13,490.0	11,624.0	13,661.1	11,775.0	28.8	34.5	99.99	2,053.2	1,357.1	828.5	766.7	61.83	13.399	
13,500.0	11,624.0	13,671.1	11,775.0	28.8	34.6	99.99	2,063.2	1,357.0	828.5	766.6	61.91	13.383	
13,585.0	11,624.0	13,756.1	11,775.0	29.2	34.8	100.00	2,148.2	1,356.0	828.2	765.7	62.56	13.239	
13,600.0	11,624.0	13,771.1	11,775.0	29.2	34.9	100.00	2,163.2	1,355.8	828.2	765.5	62.68	13.213	
13,680.0	11,624.0	13,851.1	11,775.0	29.6	35.1	100.00	2,243.2	1,354.8	827.9	764.6	63.31	13.077	
13,700.0	11,624.0	13,871.1	11,775.0	29.7	35.2	100.00	2,263.2	1,354.5	827.9	764.4	63.47	13.043	
13,775.0	11,624.0	13,946.1	11,775.0	30.0	35.5	100.00	2,338.2	1,353.6	827.6	763.5	64.09	12.914	
13,800.0	11,624.0	13,971.1	11,775.0	30.1	35.6	100.00	2,363.2	1,353.3	827.6	763.3	64.30	12.871	
13,870.0	11,624.0	14,041.1	11,775.0	30.5	35.8	100.01	2,433.2	1,352.4	827.3	762.4	64.89	12.750	
13,900.0	11,624.0	14,071.1	11,775.0	30.6	35.9	100.01	2,463.2	1,352.1	827.2	762.1	65.14	12.699	
13,965.0	11,624.0	14,136.1	11,775.0	30.9	36.1	100.01	2,528.2	1,351.3	827.0	761.3	65.71	12.586	
14,000.0	11,624.0	14,171.1	11,775.0	31.1	36.3	100.01	2,563.2	1,350.8	826.9	760.9	66.02	12.526	
14,060.0	11,624.0	14,231.1	11,775.0	31.4	36.5	100.01	2,623.2	1,350.1	826.7	760.2	66.55	12.422	
14,100.0	11,624.0	14,271.1	11,775.0	31.6	36.6	100.02	2,663.2	1,349.6	826.6	759.7	66.91	12.354	
14,155.0	11,624.0	14,326.1	11,775.0	31.9	36.8	100.02	2,718.2	1,348.9	826.4	759.0	67.41	12.259	
14,200.0	11,624.0	14,371.1	11,775.0	32.1	37.0	100.02	2,763.2	1,348.4	826.3	758.5	67.83	12.182	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,250.0	11,624.0	14,421.1	11,775.0	32.3	37.2	100.02	2,813.2	1,347.8	826.1	757.8	68.30	12.096	
14,300.0	11,624.0	14,471.1	11,775.0	32.6	37.4	100.02	2,863.2	1,347.1	826.0	757.2	68.77	12.011	
14,345.0	11,624.0	14,516.1	11,775.0	32.8	37.6	100.03	2,908.2	1,346.6	825.8	756.6	69.20	11.934	
14,400.0	11,624.0	14,571.1	11,775.0	33.1	37.8	100.03	2,963.1	1,345.9	825.7	755.9	69.73	11.841	
14,440.0	11,624.0	14,611.1	11,775.0	33.3	38.0	100.03	3,003.1	1,345.4	825.5	755.4	70.12	11.773	
14,500.0	11,624.0	14,671.1	11,775.0	33.7	38.2	100.03	3,063.1	1,344.7	825.3	754.6	70.71	11.673	
14,535.0	11,624.0	14,706.1	11,775.0	33.8	38.4	100.03	3,098.1	1,344.2	825.2	754.2	71.05	11.614	
14,600.0	11,624.0	14,771.1	11,775.0	34.2	38.7	100.04	3,163.1	1,343.4	825.0	753.3	71.71	11.506	
14,630.0	11,624.0	14,801.1	11,775.0	34.4	38.8	100.04	3,193.1	1,343.1	824.9	752.9	72.01	11.456	
14,700.0	11,624.0	14,871.1	11,775.0	34.7	39.1	100.04	3,263.1	1,342.2	824.7	752.0	72.72	11.340	
14,725.0	11,624.0	14,896.1	11,775.0	34.9	39.2	100.04	3,288.1	1,341.9	824.6	751.6	72.98	11.299	
14,800.0	11,624.0	14,971.1	11,775.0	35.3	39.5	100.04	3,363.1	1,341.0	824.4	750.6	73.76	11.177	
14,820.0	11,624.0	14,991.1	11,775.0	35.4	39.6	100.04	3,383.1	1,340.7	824.3	750.4	73.97	11.145	
14,900.0	11,624.0	15,071.1	11,775.0	35.9	40.0	100.05	3,463.1	1,339.7	824.1	749.3	74.81	11.016	
14,915.0	11,624.0	15,086.1	11,775.0	35.9	40.1	100.05	3,478.1	1,339.6	824.0	749.0	74.97	10.992	
15,000.0	11,624.0	15,171.1	11,775.0	36.4	40.5	100.05	3,563.1	1,338.5	823.7	747.9	75.88	10.857	
15,010.0	11,624.0	15,181.1	11,775.0	36.5	40.5	100.05	3,573.1	1,338.4	823.7	747.7	75.98	10.841	
15,100.0	11,624.0	15,271.1	11,775.0	37.0	40.9	100.06	3,663.1	1,337.3	823.4	746.5	76.96	10.700	
15,105.0	11,624.0	15,276.1	11,775.0	37.0	41.0	100.06	3,668.1	1,337.2	823.4	746.4	77.01	10.692	
15,200.0	11,624.0	15,371.1	11,775.0	37.6	41.4	100.06	3,763.1	1,336.0	823.1	745.1	78.06	10.545	
15,295.0	11,624.0	15,466.1	11,775.0	38.2	41.9	100.06	3,858.1	1,334.9	822.8	743.7	79.11	10.401	
15,300.0	11,624.0	15,471.1	11,775.0	38.2	41.9	100.06	3,863.1	1,334.8	822.8	743.6	79.17	10.393	
15,390.0	11,624.0	15,561.1	11,775.0	38.7	42.4	100.07	3,953.1	1,333.7	822.5	742.3	80.18	10.258	
15,400.0	11,624.0	15,571.1	11,775.0	38.8	42.4	100.07	3,963.1	1,333.6	822.5	742.2	80.29	10.243	
15,485.0	11,624.0	15,656.1	11,775.0	39.3	42.9	100.07	4,048.1	1,332.5	822.2	740.9	81.26	10.118	
15,500.0	11,624.0	15,671.1	11,775.0	39.4	42.9	100.07	4,063.1	1,332.3	822.2	740.7	81.43	10.096	
15,580.0	11,624.0	15,751.1	11,775.0	39.9	43.3	100.07	4,143.1	1,331.4	821.9	739.6	82.35	9.980	
15,600.0	11,624.0	15,771.1	11,775.0	40.0	43.4	100.07	4,163.1	1,331.1	821.8	739.3	82.58	9.952	
15,675.0	11,624.0	15,846.1	11,775.0	40.4	43.8	100.08	4,238.0	1,330.2	821.6	738.2	83.45	9.845	
15,700.0	11,624.0	15,871.1	11,775.0	40.6	44.0	100.08	4,263.0	1,329.9	821.5	737.8	83.74	9.810	
15,770.0	11,624.0	15,941.1	11,775.0	41.0	44.3	100.08	4,333.0	1,329.0	821.3	736.7	84.57	9.712	
15,800.0	11,624.0	15,971.1	11,775.0	41.2	44.5	100.08	4,363.0	1,328.6	821.2	736.3	84.92	9.671	
15,865.0	11,624.0	16,036.1	11,775.0	41.6	44.8	100.09	4,428.0	1,327.8	821.0	735.3	85.69	9.581	
15,900.0	11,624.0	16,071.1	11,775.0	41.8	45.0	100.09	4,463.0	1,327.4	820.9	734.8	86.10	9.534	
15,960.0	11,624.0	16,131.1	11,775.0	42.2	45.4	100.09	4,523.0	1,326.7	820.7	733.9	86.82	9.453	
16,000.0	11,624.0	16,171.1	11,775.0	42.5	45.6	100.09	4,563.0	1,326.2	820.6	733.3	87.30	9.400	
16,055.0	11,624.0	16,226.1	11,775.0	42.8	45.9	100.09	4,618.0	1,325.5	820.4	732.4	87.96	9.327	
16,100.0	11,624.0	16,271.1	11,775.0	43.1	46.1	100.09	4,663.0	1,324.9	820.3	731.8	88.51	9.268	
16,150.0	11,624.0	16,321.1	11,775.0	43.4	46.4	100.10	4,713.0	1,324.3	820.1	731.0	89.11	9.203	
16,200.0	11,624.0	16,371.1	11,775.0	43.7	46.7	100.10	4,763.0	1,323.7	819.9	730.2	89.72	9.139	
16,245.0	11,624.0	16,416.1	11,775.0	44.0	46.9	100.10	4,808.0	1,323.2	819.8	729.5	90.27	9.081	
16,300.0	11,624.0	16,471.1	11,775.0	44.4	47.3	100.10	4,863.0	1,322.5	819.6	728.7	90.95	9.012	
16,340.0	11,624.0	16,511.1	11,775.0	44.6	47.5	100.10	4,903.0	1,322.0	819.5	728.1	91.44	8.962	
16,400.0	11,624.0	16,571.1	11,775.0	45.0	47.8	100.11	4,963.0	1,321.2	819.3	727.1	92.18	8.888	
16,435.0	11,624.0	16,606.1	11,775.0	45.2	48.0	100.11	4,998.0	1,320.8	819.2	726.6	92.61	8.845	
16,500.0	11,624.0	16,671.1	11,775.0	45.7	48.4	100.11	5,063.0	1,320.0	819.0	725.6	93.42	8.766	
16,530.0	11,624.0	16,701.1	11,775.0	45.9	48.6	100.11	5,093.0	1,319.6	818.9	725.1	93.80	8.730	
16,600.0	11,624.0	16,771.1	11,775.0	46.3	49.0	100.11	5,163.0	1,318.8	818.7	724.0	94.67	8.647	
16,625.0	11,624.0	16,796.1	11,775.0	46.5	49.1	100.12	5,188.0	1,318.5	818.6	723.6	94.99	8.618	
16,700.0	11,624.0	16,871.1	11,775.0	47.0	49.6	100.12	5,263.0	1,317.6	818.4	722.4	95.93	8.530	
16,720.0	11,624.0	16,891.1	11,775.0	47.1	49.7	100.12	5,283.0	1,317.3	818.3	722.1	96.19	8.507	
16,800.0	11,624.0	16,971.1	11,775.0	47.6	50.1	100.12	5,363.0	1,316.3	818.0	720.8	97.20	8.416	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,815.0	11,624.0	16,986.1	11,775.0	47.7	50.2	100.12	5,378.0	1,316.1	818.0	720.6	97.39	8.399	
16,900.0	11,624.0	17,071.1	11,775.0	48.3	50.7	100.13	5,462.9	1,315.1	817.7	719.2	98.47	8.304	
16,910.0	11,624.0	17,081.1	11,775.0	48.4	50.8	100.13	5,472.9	1,315.0	817.7	719.1	98.60	8.293	
17,000.0	11,624.0	17,171.1	11,775.0	49.0	51.3	100.13	5,562.9	1,313.9	817.4	717.6	99.75	8.194	
17,005.0	11,624.0	17,176.1	11,775.0	49.0	51.4	100.13	5,567.9	1,313.8	817.4	717.6	99.82	8.189	
17,100.0	11,624.0	17,271.1	11,775.0	49.6	51.9	100.13	5,662.9	1,312.6	817.1	716.0	101.04	8.087	
17,195.0	11,624.0	17,366.1	11,775.0	50.3	52.5	100.14	5,757.9	1,311.4	816.8	714.5	102.27	7.986	
17,200.0	11,624.0	17,371.1	11,775.0	50.3	52.6	100.14	5,762.9	1,311.4	816.8	714.4	102.34	7.981	
17,290.0	11,624.0	17,461.1	11,775.0	50.9	53.1	100.14	5,852.9	1,310.3	816.5	713.0	103.51	7.888	
17,300.0	11,624.0	17,471.1	11,775.0	51.0	53.2	100.14	5,862.9	1,310.2	816.4	712.8	103.64	7.878	
17,385.0	11,624.0	17,556.1	11,775.0	51.5	53.7	100.15	5,947.9	1,309.1	816.2	711.4	104.75	7.792	
17,400.0	11,624.0	17,571.1	11,775.0	51.6	53.8	100.15	5,962.9	1,308.9	816.1	711.2	104.94	7.777	
17,480.0	11,624.0	17,651.1	11,775.0	52.2	54.3	100.15	6,042.9	1,307.9	815.9	709.9	105.99	7.697	
17,500.0	11,624.0	17,671.1	11,775.0	52.3	54.4	100.15	6,062.9	1,307.7	815.8	709.6	106.26	7.678	
17,575.0	11,624.0	17,746.1	11,775.0	52.8	54.9	100.15	6,137.9	1,306.8	815.6	708.3	107.25	7.605	
17,600.0	11,624.0	17,771.1	11,775.0	53.0	55.0	100.15	6,162.9	1,306.5	815.5	707.9	107.58	7.581	
17,670.0	11,624.0	17,841.1	11,775.0	53.5	55.5	100.16	6,232.9	1,305.6	815.3	706.8	108.50	7.514	
17,700.0	11,624.0	17,871.1	11,775.0	53.7	55.7	100.16	6,262.9	1,305.2	815.2	706.3	108.90	7.486	
17,765.0	11,624.0	17,936.1	11,775.0	54.1	56.1	100.16	6,327.9	1,304.4	815.0	705.2	109.76	7.425	
17,800.0	11,624.0	17,971.1	11,775.0	54.4	56.3	100.16	6,362.9	1,304.0	814.9	704.6	110.23	7.392	
17,860.0	11,624.0	18,031.1	11,775.0	54.8	56.7	100.17	6,422.9	1,303.3	814.7	703.6	111.03	7.337	
17,900.0	11,624.0	18,071.1	11,775.0	55.0	56.9	100.17	6,462.9	1,302.8	814.5	703.0	111.56	7.301	
17,955.0	11,624.0	18,126.1	11,775.0	55.4	57.3	100.17	6,517.9	1,302.1	814.4	702.1	112.30	7.252	
18,000.0	11,624.0	18,171.1	11,775.0	55.7	57.6	100.17	6,562.9	1,301.5	814.2	701.3	112.90	7.212	
18,050.0	11,624.0	18,221.1	11,775.0	56.1	57.9	100.17	6,612.9	1,300.9	814.1	700.5	113.57	7.168	
18,100.0	11,624.0	18,271.1	11,775.0	56.4	58.2	100.17	6,662.8	1,300.3	813.9	699.7	114.25	7.124	
18,145.0	11,624.0	18,316.1	11,775.0	56.7	58.5	100.18	6,707.8	1,299.7	813.8	698.9	114.85	7.085	
18,200.0	11,624.0	18,371.1	11,775.0	57.1	58.8	100.18	6,762.8	1,299.1	813.6	698.0	115.59	7.038	
18,240.0	11,624.0	18,411.1	11,775.0	57.4	59.1	100.18	6,802.8	1,298.6	813.5	697.3	116.14	7.004	
18,300.0	11,624.0	18,471.1	11,775.0	57.8	59.5	100.18	6,862.8	1,297.8	813.3	696.3	116.95	6.954	
18,335.0	11,624.0	18,506.1	11,775.0	58.1	59.7	100.18	6,897.8	1,297.4	813.2	695.7	117.42	6.925	
18,400.0	11,624.0	18,571.1	11,775.0	58.5	60.1	100.19	6,962.8	1,296.6	813.0	694.7	118.30	6.872	
18,430.0	11,624.0	18,601.1	11,775.0	58.7	60.3	100.19	6,992.8	1,296.2	812.9	694.2	118.71	6.847	
18,500.0	11,624.0	18,671.1	11,775.0	59.2	60.8	100.19	7,062.8	1,295.4	812.6	693.0	119.67	6.791	
18,525.0	11,624.0	18,696.1	11,775.0	59.4	61.0	100.19	7,087.8	1,295.1	812.6	692.6	120.01	6.771	
18,600.0	11,624.0	18,771.1	11,775.0	59.9	61.5	100.20	7,162.8	1,294.1	812.3	691.3	121.03	6.712	
18,620.0	11,624.0	18,791.1	11,775.0	60.0	61.6	100.20	7,182.8	1,293.9	812.3	691.0	121.30	6.696	
18,700.0	11,624.0	18,871.1	11,775.0	60.6	62.1	100.20	7,262.8	1,292.9	812.0	689.6	122.40	6.634	
18,715.0	11,624.0	18,886.1	11,775.0	60.7	62.2	100.20	7,277.8	1,292.7	812.0	689.4	122.61	6.623	
18,800.0	11,624.0	18,971.1	11,775.0	61.3	62.8	100.20	7,362.8	1,291.7	811.7	687.9	123.77	6.558	
18,810.0	11,624.0	18,981.1	11,775.0	61.4	62.8	100.20	7,372.8	1,291.5	811.7	687.7	123.91	6.550	
18,900.0	11,624.0	19,071.1	11,775.0	62.0	63.4	100.21	7,462.8	1,290.4	811.4	686.2	125.15	6.483	
18,905.0	11,624.0	19,076.1	11,775.0	62.0	63.5	100.21	7,467.8	1,290.4	811.4	686.1	125.22	6.480	
19,000.0	11,624.0	19,171.1	11,775.0	62.7	64.1	100.21	7,562.8	1,289.2	811.1	684.5	126.53	6.410	
19,095.0	11,624.0	19,266.1	11,775.0	63.4	64.7	100.22	7,657.8	1,288.0	810.8	682.9	127.84	6.342	
19,100.0	11,624.0	19,271.1	11,775.0	63.4	64.8	100.22	7,662.8	1,288.0	810.7	682.8	127.91	6.338	
19,190.0	11,624.0	19,361.1	11,775.0	64.1	65.4	100.22	7,752.8	1,286.9	810.5	681.3	129.16	6.275	
19,200.0	11,624.0	19,371.1	11,775.0	64.1	65.4	100.22	7,762.8	1,286.7	810.4	681.1	129.30	6.268	
19,285.0	11,624.0	19,456.1	11,775.0	64.7	66.0	100.22	7,847.8	1,285.7	810.2	679.7	130.48	6.209	
19,300.0	11,624.0	19,471.1	11,775.0	64.8	66.1	100.22	7,862.7	1,285.5	810.1	679.4	130.69	6.199	
19,380.0	11,624.0	19,551.1	11,775.0	65.4	66.7	100.23	7,942.7	1,284.5	809.9	678.0	131.80	6.144	
19,400.0	11,624.0	19,571.1	11,775.0	65.5	66.8	100.23	7,962.7	1,284.3	809.8	677.7	132.08	6.131	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #701H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1, 11290-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,475.0	11,624.0	19,646.1	11,775.0	66.1	67.3	100.23	8,037.7	1,283.3	809.5	676.4	133.13	6.081	
19,500.0	11,624.0	19,671.1	11,775.0	66.3	67.5	100.23	8,062.7	1,283.0	809.5	676.0	133.48	6.065	
19,570.0	11,624.0	19,741.1	11,775.0	66.8	67.9	100.23	8,132.7	1,282.2	809.2	674.8	134.46	6.019	
19,600.0	11,624.0	19,771.1	11,775.0	67.0	68.1	100.24	8,162.7	1,281.8	809.2	674.3	134.87	5.999	
19,665.0	11,624.0	19,836.1	11,775.0	67.4	68.6	100.24	8,227.7	1,281.0	808.9	673.2	135.79	5.958	
19,700.0	11,624.0	19,871.1	11,775.0	67.7	68.8	100.24	8,262.7	1,280.6	808.8	672.6	136.28	5.935	
19,760.0	11,624.0	19,931.1	11,775.0	68.1	69.2	100.24	8,322.7	1,279.8	808.6	671.5	137.12	5.897	
19,800.0	11,624.0	19,971.1	11,775.0	68.4	69.5	100.24	8,362.7	1,279.3	808.5	670.8	137.68	5.872	
19,855.0	11,624.0	20,026.1	11,775.0	68.8	69.9	100.25	8,417.7	1,278.7	808.3	669.9	138.45	5.838	
19,900.0	11,624.0	20,071.1	11,775.0	69.1	70.2	100.25	8,462.7	1,278.1	808.2	669.1	139.09	5.811	
19,950.0	11,624.0	20,121.1	11,775.0	69.5	70.5	100.25	8,512.7	1,277.5	808.0	668.3	139.79	5.780	
20,000.0	11,624.0	20,171.1	11,775.0	69.8	70.9	100.25	8,562.7	1,276.9	807.9	667.4	140.50	5.750	
20,045.0	11,624.0	20,216.1	11,775.0	70.1	71.2	100.25	8,607.7	1,276.3	807.7	666.6	141.13	5.723	
20,100.0	11,624.0	20,271.1	11,775.0	70.5	71.6	100.26	8,662.7	1,275.6	807.6	665.7	141.91	5.691	
20,140.0	11,624.0	20,311.1	11,775.0	70.8	71.8	100.26	8,702.7	1,275.1	807.4	665.0	142.47	5.667	
20,200.0	11,624.0	20,371.1	11,775.0	71.3	72.3	100.26	8,762.7	1,274.4	807.2	663.9	143.32	5.632	
20,235.0	11,624.0	20,406.1	11,775.0	71.5	72.5	100.26	8,797.7	1,274.0	807.1	663.3	143.82	5.612	
20,300.0	11,624.0	20,471.1	11,775.0	72.0	72.9	100.26	8,862.7	1,273.2	806.9	662.2	144.74	5.575	
20,330.0	11,624.0	20,501.1	11,775.0	72.2	73.1	100.27	8,892.7	1,272.8	806.8	661.7	145.16	5.558	
20,400.0	11,624.0	20,571.1	11,775.0	72.7	73.6	100.27	8,962.7	1,271.9	806.6	660.5	146.16	5.519	
20,425.0	11,624.0	20,596.1	11,775.0	72.9	73.8	100.27	8,987.7	1,271.6	806.5	660.0	146.51	5.505	
20,500.0	11,624.0	20,671.1	11,775.0	73.4	74.3	100.27	9,062.7	1,270.7	806.3	658.7	147.58	5.464	
20,520.0	11,624.0	20,691.1	11,775.0	73.6	74.5	100.27	9,082.7	1,270.5	806.2	658.4	147.86	5.453	
20,600.0	11,624.0	20,771.1	11,775.0	74.1	75.0	100.28	9,162.6	1,269.5	806.0	657.0	149.00	5.409	
20,615.0	11,624.0	20,786.1	11,775.0	74.3	75.1	100.28	9,177.6	1,269.3	805.9	656.7	149.21	5.401	
20,700.0	11,624.0	20,871.1	11,775.0	74.9	75.7	100.28	9,262.6	1,268.2	805.7	655.2	150.42	5.356	
20,710.0	11,624.0	20,881.1	11,775.0	74.9	75.8	100.28	9,272.6	1,268.1	805.6	655.1	150.57	5.351	
20,800.0	11,624.0	20,971.1	11,775.0	75.6	76.4	100.28	9,362.6	1,267.0	805.3	653.5	151.85	5.304	
20,805.0	11,624.0	20,976.1	11,775.0	75.6	76.5	100.29	9,367.6	1,266.9	805.3	653.4	151.92	5.301	
20,900.0	11,624.0	21,071.1	11,775.0	76.3	77.1	100.29	9,462.6	1,265.8	805.0	651.7	153.28	5.252	
20,995.0	11,624.0	21,166.1	11,775.0	77.0	77.8	100.29	9,557.6	1,264.6	804.7	650.1	154.64	5.204	
21,000.0	11,624.0	21,171.1	11,775.0	77.0	77.8	100.29	9,562.6	1,264.5	804.7	650.0	154.71	5.201	
21,090.0	11,624.0	21,261.1	11,775.0	77.7	78.4	100.30	9,652.6	1,263.4	804.4	648.4	156.00	5.157	
21,100.0	11,624.0	21,271.1	11,775.0	77.8	78.5	100.30	9,662.6	1,263.3	804.4	648.3	156.14	5.152	
21,185.0	11,624.0	21,356.1	11,775.0	78.4	79.1	100.30	9,747.6	1,262.3	804.1	646.8	157.36	5.110	
21,200.0	11,624.0	21,371.1	11,775.0	78.5	79.2	100.30	9,762.6	1,262.1	804.1	646.5	157.58	5.103	
21,280.0	11,624.0	21,451.1	11,775.0	79.1	79.8	100.30	9,842.6	1,261.1	803.8	645.1	158.73	5.064	
21,300.0	11,624.0	21,471.1	11,775.0	79.2	79.9	100.31	9,862.6	1,260.8	803.8	644.7	159.01	5.055	
21,375.0	11,624.0	21,546.1	11,775.0	79.8	80.5	100.31	9,937.6	1,259.9	803.5	643.4	160.09	5.019	
21,400.0	11,624.0	21,571.1	11,775.0	79.9	80.6	100.31	9,962.6	1,259.6	803.4	643.0	160.45	5.007	
21,470.0	11,624.0	21,641.1	11,775.0	80.5	81.1	100.31	10,032.6	1,258.7	803.2	641.8	161.46	4.975	
21,500.0	11,624.0	21,671.1	11,775.0	80.7	81.3	100.31	10,062.6	1,258.4	803.1	641.2	161.89	4.961	
21,565.0	11,624.0	21,736.1	11,775.0	81.1	81.8	100.32	10,127.6	1,257.6	802.9	640.1	162.83	4.931	
21,600.0	11,624.0	21,771.1	11,775.0	81.4	82.0	100.32	10,162.6	1,257.1	802.8	639.5	163.33	4.915	
21,660.0	11,624.0	21,831.1	11,775.0	81.8	82.5	100.32	10,222.6	1,256.4	802.6	638.4	164.20	4.888	
21,700.0	11,624.0	21,871.1	11,775.0	82.1	82.7	100.32	10,262.6	1,255.9	802.5	637.7	164.78	4.870	
21,755.0	11,624.0	21,926.1	11,775.0	82.5	83.1	100.32	10,317.6	1,255.2	802.3	636.7	165.57	4.846	
21,800.0	11,624.0	21,971.1	11,775.0	82.9	83.5	100.33	10,362.5	1,254.7	802.2	636.0	166.22	4.826	
21,850.0	11,624.0	22,021.1	11,775.0	83.2	83.8	100.33	10,412.5	1,254.1	802.0	635.1	166.94	4.804	
21,900.0	11,624.0	22,071.1	11,775.0	83.6	84.2	100.33	10,462.5	1,253.4	801.9	634.2	167.67	4.782	
21,945.0	11,624.0	22,116.1	11,775.0	83.9	84.5	100.33	10,507.5	1,252.9	801.7	633.4	168.32	4.763	
21,996.4	11,624.0	22,167.4	11,775.0	84.3	84.9	100.33	10,558.9	1,252.3	801.6	632.5	169.06	4.741	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 #712H
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 #712H	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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
5,890.0	5,855.9	5,986.5	5,943.4	18.9	23.0	0.12	24.0	1,816.8	1,315.3	1,276.3	38.98	33.743	
5,900.0	5,865.9	5,995.5	5,952.4	19.0	23.0	0.13	23.6	1,816.3	1,313.7	1,274.7	39.05	33.646	
5,985.0	5,950.5	6,072.3	6,029.0	19.3	23.3	0.27	20.5	1,811.9	1,300.9	1,261.3	39.59	32.863	
6,000.0	5,965.5	6,085.9	6,042.6	19.4	23.4	0.30	19.9	1,811.2	1,298.8	1,259.1	39.68	32.730	
6,080.0	6,045.2	6,158.4	6,115.0	19.6	23.6	0.41	17.3	1,807.5	1,287.9	1,247.7	40.18	32.053	
6,100.0	6,065.1	6,176.6	6,133.1	19.7	23.7	0.44	16.6	1,806.6	1,285.3	1,245.0	40.30	31.890	
6,175.0	6,139.9	6,244.8	6,201.2	20.0	23.9	0.54	14.4	1,803.6	1,276.2	1,235.5	40.76	31.310	
6,200.0	6,164.8	6,267.5	6,223.9	20.1	24.0	0.57	13.8	1,802.7	1,273.4	1,232.5	40.91	31.124	
6,270.0	6,234.6	6,331.4	6,287.7	20.3	24.2	0.65	12.0	1,800.3	1,265.9	1,224.6	41.33	30.631	
6,300.0	6,264.6	6,358.8	6,315.1	20.4	24.3	0.69	11.3	1,799.3	1,263.0	1,221.4	41.50	30.429	
6,365.0	6,329.5	6,418.2	6,374.4	20.7	24.5	0.75	9.9	1,797.4	1,257.0	1,215.1	41.88	30.015	
6,400.0	6,364.4	6,450.2	6,406.4	20.8	24.6	0.78	9.3	1,796.5	1,254.0	1,212.0	42.08	29.803	
6,460.0	6,424.3	6,505.2	6,461.4	21.0	24.8	0.83	8.3	1,795.1	1,249.4	1,207.0	42.41	29.459	
6,500.0	6,464.3	6,541.8	6,498.0	21.1	24.9	0.86	7.7	1,794.3	1,246.6	1,204.0	42.63	29.243	
6,555.0	6,519.2	6,592.3	6,548.4	21.3	25.0	0.89	7.0	1,793.3	1,243.2	1,200.3	42.92	28.964	
6,600.0	6,564.2	6,633.6	6,589.8	21.4	25.1	0.92	6.5	1,792.7	1,240.8	1,197.6	43.16	28.751	
6,650.0	6,614.2	6,679.5	6,635.7	21.6	25.3	0.94	6.1	1,792.1	1,238.4	1,195.0	43.41	28.531	
6,700.0	6,664.2	6,725.5	6,681.6	21.7	25.4	0.95	5.7	1,791.6	1,236.4	1,192.8	43.65	28.327	
6,745.0	6,709.1	6,766.8	6,723.0	21.9	25.5	0.96	5.5	1,791.4	1,235.0	1,191.1	43.85	28.162	
6,800.0	6,764.1	6,817.4	6,773.6	22.0	25.6	0.97	5.4	1,791.2	1,233.6	1,189.5	44.08	27.985	
6,840.0	6,804.1	6,855.6	6,811.7	22.1	25.6	0.97	5.4	1,791.2	1,232.9	1,188.7	44.20	27.895	
6,900.0	6,864.1	6,915.6	6,871.7	22.3	25.6	0.97	5.4	1,791.2	1,232.1	1,187.7	44.36	27.776	
6,935.0	6,899.1	6,950.6	6,906.7	22.4	25.6	0.97	5.4	1,791.2	1,231.8	1,187.3	44.44	27.719	
7,000.0	6,964.1	7,015.6	6,971.7	22.5	25.6	0.97	5.4	1,791.2	1,231.5	1,186.9	44.58	27.621	
7,020.7	6,984.8	7,036.3	6,992.4	22.5	25.6	90.13	5.4	1,791.2	1,231.4	1,186.8	44.60	27.608	
7,030.0	6,994.1	7,045.6	7,001.7	22.5	25.6	90.13	5.4	1,791.2	1,231.4	1,186.8	44.61	27.605	
7,100.0	7,064.1	7,115.6	7,071.7	22.5	25.6	90.13	5.4	1,791.2	1,231.4	1,186.8	44.64	27.585	
7,125.0	7,089.1	7,140.6	7,096.7	22.5	25.6	90.13	5.4	1,791.2	1,231.4	1,186.8	44.66	27.577	
7,200.0	7,164.1	7,215.6	7,171.7	22.6	25.6	90.13	5.4	1,791.2	1,231.4	1,186.7	44.70	27.551	
7,220.0	7,184.1	7,235.6	7,191.7	22.6	25.7	90.13	5.4	1,791.2	1,231.4	1,186.7	44.71	27.544	
7,300.0	7,264.1	7,315.6	7,271.7	22.6	25.7	90.13	5.4	1,791.2	1,231.4	1,186.7	44.75	27.517	
7,315.0	7,279.1	7,330.6	7,286.7	22.6	25.7	90.13	5.4	1,791.2	1,231.4	1,186.7	44.76	27.511	
7,400.0	7,364.1	7,415.6	7,371.7	22.6	25.7	90.13	5.4	1,791.2	1,231.4	1,186.6	44.81	27.482	
7,410.0	7,374.1	7,425.6	7,381.7	22.6	25.7	90.13	5.4	1,791.2	1,231.4	1,186.6	44.81	27.478	
7,500.0	7,464.1	7,515.6	7,471.7	22.7	25.7	90.13	5.4	1,791.2	1,231.4	1,186.6	44.87	27.447	
7,505.0	7,469.1	7,520.6	7,476.7	22.7	25.7	90.13	5.4	1,791.2	1,231.4	1,186.6	44.87	27.445	
7,600.0	7,564.1	7,615.6	7,571.7	22.7	25.7	90.13	5.4	1,791.2	1,231.4	1,186.5	44.92	27.412	
7,695.0	7,659.1	7,710.6	7,666.7	22.7	25.8	90.13	5.4	1,791.2	1,231.4	1,186.5	44.98	27.378	
7,700.0	7,664.1	7,715.6	7,671.7	22.7	25.8	90.13	5.4	1,791.2	1,231.4	1,186.5	44.98	27.376	
7,790.0	7,754.1	7,805.6	7,761.7	22.8	25.8	90.13	5.4	1,791.2	1,231.4	1,186.4	45.03	27.344	
7,800.0	7,764.1	7,815.6	7,771.7	22.8	25.8	90.13	5.4	1,791.2	1,231.4	1,186.4	45.04	27.341	
7,885.0	7,849.1	7,900.6	7,856.7	22.8	25.8	90.13	5.4	1,791.2	1,231.4	1,186.3	45.09	27.310	
7,900.0	7,864.1	7,915.6	7,871.7	22.8	25.8	90.13	5.4	1,791.2	1,231.4	1,186.3	45.10	27.305	
7,980.0	7,944.1	7,995.6	7,951.7	22.8	25.8	90.13	5.4	1,791.2	1,231.4	1,186.3	45.15	27.276	
8,000.0	7,964.1	8,015.6	7,971.7	22.8	25.8	90.13	5.4	1,791.2	1,231.4	1,186.3	45.16	27.269	
8,075.0	8,039.1	8,090.6	8,046.7	22.9	25.8	90.13	5.4	1,791.2	1,231.4	1,186.2	45.20	27.242	
8,100.0	8,064.1	8,115.6	8,071.7	22.9	25.8	90.13	5.4	1,791.2	1,231.4	1,186.2	45.22	27.233	
8,170.0	8,134.1	8,185.6	8,141.7	22.9	25.9	90.13	5.4	1,791.2	1,231.4	1,186.2	45.26	27.207	
8,200.0	8,164.1	8,215.6	8,171.7	22.9	25.9	90.13	5.4	1,791.2	1,231.4	1,186.2	45.28	27.196	
8,265.0	8,229.1	8,280.6	8,236.7	22.9	25.9	90.13	5.4	1,791.2	1,231.4	1,186.1	45.32	27.172	
8,300.0	8,264.1	8,315.6	8,271.7	22.9	25.9	90.13	5.4	1,791.2	1,231.4	1,186.1	45.34	27.159	
8,360.0	8,324.1	8,375.6	8,331.7	23.0	25.9	90.13	5.4	1,791.2	1,231.4	1,186.1	45.38	27.137	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	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
8,400.0	8,364.1	8,415.6	8,371.7	23.0	25.9	90.13	5.4	1,791.2	1,231.4	1,186.0	45.40	27.123	
8,455.0	8,419.1	8,470.6	8,426.7	23.0	25.9	90.13	5.4	1,791.2	1,231.4	1,186.0	45.44	27.102	
8,500.0	8,464.1	8,515.6	8,471.7	23.0	25.9	90.13	5.4	1,791.2	1,231.4	1,186.0	45.46	27.086	
8,550.0	8,514.1	8,565.6	8,521.7	23.0	25.9	90.13	5.4	1,791.2	1,231.4	1,185.9	45.50	27.067	
8,600.0	8,564.1	8,615.6	8,571.7	23.0	26.0	90.13	5.4	1,791.2	1,231.4	1,185.9	45.53	27.048	
8,645.0	8,609.1	8,660.6	8,616.7	23.1	26.0	90.13	5.4	1,791.2	1,231.4	1,185.9	45.56	27.031	
8,700.0	8,664.1	8,715.6	8,671.7	23.1	26.0	90.13	5.4	1,791.2	1,231.4	1,185.8	45.59	27.011	
8,740.0	8,704.1	8,755.6	8,711.7	23.1	26.0	90.13	5.4	1,791.2	1,231.4	1,185.8	45.62	26.996	
8,800.0	8,764.1	8,815.6	8,771.7	23.1	26.0	90.13	5.4	1,791.2	1,231.4	1,185.8	45.65	26.973	
8,835.0	8,799.1	8,850.6	8,806.7	23.1	26.0	90.13	5.4	1,791.2	1,231.4	1,185.8	45.68	26.960	
8,900.0	8,864.1	8,915.6	8,871.7	23.1	26.0	90.13	5.4	1,791.2	1,231.4	1,185.7	45.72	26.935	
8,930.0	8,894.1	8,945.6	8,901.7	23.2	26.0	90.13	5.4	1,791.2	1,231.4	1,185.7	45.74	26.924	
9,000.0	8,964.1	9,015.6	8,971.7	23.2	26.1	90.13	5.4	1,791.2	1,231.4	1,185.7	45.78	26.897	
9,025.0	8,989.1	9,040.6	8,996.7	23.2	26.1	90.13	5.4	1,791.2	1,231.4	1,185.6	45.80	26.888	
9,100.0	9,064.1	9,115.6	9,071.7	23.2	26.1	90.13	5.4	1,791.2	1,231.4	1,185.6	45.85	26.859	
9,120.0	9,084.1	9,135.6	9,091.7	23.2	26.1	90.13	5.4	1,791.2	1,231.4	1,185.6	45.86	26.851	
9,200.0	9,164.1	9,215.6	9,171.7	23.3	26.1	90.13	5.4	1,791.2	1,231.4	1,185.5	45.91	26.821	
9,215.0	9,179.1	9,230.6	9,186.7	23.3	26.1	90.13	5.4	1,791.2	1,231.4	1,185.5	45.92	26.815	
9,300.0	9,264.1	9,315.6	9,271.7	23.3	26.1	90.13	5.4	1,791.2	1,231.4	1,185.5	45.98	26.782	
9,310.0	9,274.1	9,325.6	9,281.7	23.3	26.1	90.13	5.4	1,791.2	1,231.4	1,185.5	45.99	26.778	
9,400.0	9,364.1	9,415.6	9,371.7	23.3	26.2	90.13	5.4	1,791.2	1,231.4	1,185.4	46.05	26.744	
9,405.0	9,369.1	9,420.6	9,376.7	23.3	26.2	90.13	5.4	1,791.2	1,231.4	1,185.4	46.05	26.742	
9,500.0	9,464.1	9,515.6	9,471.7	23.4	26.2	90.13	5.4	1,791.2	1,231.4	1,185.3	46.11	26.705	
9,595.0	9,559.1	9,610.6	9,566.7	23.4	26.2	90.13	5.4	1,791.2	1,231.4	1,185.3	46.18	26.668	
9,600.0	9,564.1	9,615.6	9,571.7	23.4	26.2	90.13	5.4	1,791.2	1,231.4	1,185.3	46.18	26.666	
9,690.0	9,654.1	9,705.6	9,661.7	23.5	26.2	90.13	5.4	1,791.2	1,231.4	1,185.2	46.24	26.630	
9,700.0	9,664.1	9,715.6	9,671.7	23.5	26.2	90.13	5.4	1,791.2	1,231.4	1,185.2	46.25	26.626	
9,785.0	9,749.1	9,800.6	9,756.7	23.5	26.3	90.13	5.4	1,791.2	1,231.4	1,185.1	46.31	26.593	
9,800.0	9,764.1	9,815.6	9,771.7	23.5	26.3	90.13	5.4	1,791.2	1,231.4	1,185.1	46.32	26.587	
9,880.0	9,844.1	9,895.6	9,851.7	23.5	26.3	90.13	5.4	1,791.2	1,231.4	1,185.1	46.37	26.555	
9,900.0	9,864.1	9,915.6	9,871.7	23.5	26.3	90.13	5.4	1,791.2	1,231.4	1,185.1	46.39	26.548	
9,975.0	9,939.1	9,990.6	9,946.7	23.6	26.3	90.13	5.4	1,791.2	1,231.4	1,185.0	46.44	26.518	
10,000.0	9,964.1	10,015.6	9,971.7	23.6	26.3	90.13	5.4	1,791.2	1,231.4	1,185.0	46.46	26.508	
10,070.0	10,034.1	10,085.6	10,041.7	23.6	26.3	90.13	5.4	1,791.2	1,231.4	1,184.9	46.50	26.480	
10,100.0	10,064.1	10,115.6	10,071.7	23.6	26.3	90.13	5.4	1,791.2	1,231.4	1,184.9	46.53	26.468	
10,165.0	10,129.1	10,180.6	10,136.7	23.6	26.4	90.13	5.4	1,791.2	1,231.4	1,184.9	46.57	26.442	
10,200.0	10,164.1	10,215.6	10,171.7	23.7	26.4	90.13	5.4	1,791.2	1,231.4	1,184.8	46.60	26.428	
10,260.0	10,224.1	10,275.6	10,231.7	23.7	26.4	90.13	5.4	1,791.2	1,231.4	1,184.8	46.64	26.404	
10,300.0	10,264.1	10,315.6	10,271.7	23.7	26.4	90.13	5.4	1,791.2	1,231.4	1,184.8	46.67	26.388	
10,355.0	10,319.1	10,370.6	10,326.7	23.7	26.4	90.13	5.4	1,791.2	1,231.4	1,184.7	46.71	26.366	
10,400.0	10,364.1	10,415.6	10,371.7	23.7	26.4	90.13	5.4	1,791.2	1,231.4	1,184.7	46.74	26.348	
10,450.0	10,414.1	10,465.6	10,421.7	23.8	26.4	90.13	5.4	1,791.2	1,231.4	1,184.7	46.77	26.328	
10,500.0	10,464.1	10,515.6	10,471.7	23.8	26.5	90.13	5.4	1,791.2	1,231.4	1,184.6	46.81	26.308	
10,545.0	10,509.1	10,560.6	10,516.7	23.8	26.5	90.13	5.4	1,791.2	1,231.4	1,184.6	46.84	26.289	
10,600.0	10,564.1	10,615.6	10,571.7	23.8	26.5	90.13	5.4	1,791.2	1,231.4	1,184.6	46.88	26.267	
10,640.0	10,604.1	10,655.6	10,611.7	23.8	26.5	90.13	5.4	1,791.2	1,231.4	1,184.5	46.91	26.251	
10,700.0	10,664.1	10,715.6	10,671.7	23.9	26.5	90.13	5.4	1,791.2	1,231.4	1,184.5	46.95	26.226	
10,735.0	10,699.1	10,750.6	10,706.7	23.9	26.5	90.13	5.4	1,791.2	1,231.4	1,184.5	46.98	26.212	
10,800.0	10,764.1	10,815.6	10,771.7	23.9	26.5	90.13	5.4	1,791.2	1,231.4	1,184.4	47.03	26.186	
10,830.0	10,794.1	10,845.6	10,801.7	23.9	26.6	90.13	5.4	1,791.2	1,231.4	1,184.4	47.05	26.173	
10,900.0	10,864.1	10,915.6	10,871.7	23.9	26.6	90.13	5.4	1,791.2	1,231.4	1,184.3	47.10	26.145	
10,925.0	10,889.1	10,940.6	10,896.7	23.9	26.6	90.13	5.4	1,791.2	1,231.4	1,184.3	47.12	26.135	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
11,000.0	10,964.1	11,015.6	10,971.7	24.0	26.6	90.13	5.4	1,791.2	1,231.4	1,184.3	47.17	26.104	
11,020.0	10,984.1	11,035.6	10,991.7	24.0	26.6	90.13	5.4	1,791.2	1,231.4	1,184.3	47.19	26.096	
11,100.0	11,064.1	11,116.3	11,072.4	24.0	26.6	90.11	5.8	1,791.2	1,231.4	1,184.2	47.25	26.065	
11,115.0	11,079.1	11,131.7	11,087.9	24.0	26.6	90.07	6.7	1,791.2	1,231.4	1,184.2	47.26	26.057	
11,182.4	11,146.5	11,200.2	11,155.8	24.0	26.7	89.67	15.3	1,791.0	1,231.3	1,184.0	47.35	26.003	
11,200.0	11,164.1	11,217.7	11,172.9	24.0	26.7	90.05	18.7	1,791.0	1,231.3	1,183.9	47.38	25.988	
11,210.0	11,174.1	11,227.7	11,182.6	24.0	26.7	89.97	21.0	1,791.0	1,231.3	1,183.9	47.40	25.979	
11,225.0	11,189.1	11,242.5	11,197.0	24.0	26.7	89.85	24.6	1,790.9	1,231.3	1,183.9	47.42	25.967	
11,250.0	11,213.9	11,267.1	11,220.7	24.0	26.7	89.66	31.4	1,790.8	1,231.3	1,183.8	47.45	25.949	
11,265.2	11,228.9	11,282.1	11,234.9	24.0	26.7	89.55	36.1	1,790.8	1,231.3	1,183.8	47.47	25.939	
11,275.0	11,238.5	11,291.6	11,243.9	24.0	26.7	89.48	39.2	1,790.7	1,231.3	1,183.8	47.48	25.933	
11,300.0	11,262.9	11,316.0	11,266.6	24.1	26.7	89.32	47.9	1,790.6	1,231.3	1,183.8	47.51	25.919	
11,305.0	11,267.8	11,320.9	11,271.1	24.1	26.7	89.29	49.8	1,790.6	1,231.3	1,183.8	47.51	25.916	
11,325.0	11,287.0	11,340.3	11,288.9	24.1	26.7	89.16	57.6	1,790.5	1,231.3	1,183.8	47.53	25.907	
11,350.0	11,310.7	11,364.4	11,310.6	24.1	26.7	89.02	68.1	1,790.4	1,231.3	1,183.8	47.55	25.896	
11,375.0	11,333.9	11,388.5	11,331.8	24.1	26.7	88.89	79.5	1,790.2	1,231.3	1,183.7	47.56	25.887	
11,400.0	11,356.7	11,412.5	11,352.5	24.1	26.8	88.77	91.7	1,790.1	1,231.3	1,183.7	47.58	25.880	
11,425.0	11,378.8	11,436.4	11,372.5	24.1	26.8	88.67	104.8	1,789.9	1,231.3	1,183.7	47.59	25.873	
11,450.0	11,400.3	11,460.2	11,391.9	24.1	26.8	88.57	118.6	1,789.7	1,231.3	1,183.7	47.60	25.868	
11,475.0	11,421.1	11,484.0	11,410.7	24.1	26.8	88.49	133.2	1,789.5	1,231.3	1,183.7	47.61	25.864	
11,495.0	11,437.3	11,503.0	11,425.2	24.1	26.8	88.44	145.4	1,789.4	1,231.3	1,183.7	47.61	25.862	
11,500.0	11,441.2	11,507.7	11,428.8	24.1	26.8	88.43	148.5	1,789.3	1,231.3	1,183.7	47.61	25.861	
11,525.0	11,460.5	11,531.4	11,446.2	24.1	26.8	88.37	164.5	1,789.1	1,231.3	1,183.6	47.62	25.858	
11,550.0	11,478.9	11,555.1	11,463.0	24.1	26.8	88.33	181.2	1,788.9	1,231.2	1,183.6	47.62	25.856	
11,575.0	11,496.3	11,578.7	11,479.0	24.1	26.8	88.30	198.6	1,788.7	1,231.2	1,183.6	47.62	25.854	
11,590.0	11,506.4	11,592.9	11,488.3	24.1	26.9	88.30	209.3	1,788.6	1,231.1	1,183.5	47.62	25.853	
11,600.0	11,512.9	11,602.3	11,494.3	24.1	26.9	88.29	216.6	1,788.5	1,231.1	1,183.5	47.62	25.852	
11,625.0	11,528.4	11,625.9	11,508.8	24.1	26.9	88.29	235.2	1,788.2	1,231.1	1,183.4	47.62	25.849	
11,650.0	11,542.9	11,650.0	11,522.8	24.1	26.9	88.31	254.8	1,788.0	1,231.0	1,183.3	47.63	25.845	
11,675.0	11,556.3	11,673.1	11,535.5	24.1	26.9	88.33	274.1	1,787.7	1,230.9	1,183.3	47.63	25.843	
11,685.0	11,561.3	11,682.6	11,540.5	24.1	26.9	88.35	282.1	1,787.6	1,230.8	1,183.2	47.63	25.841	
11,700.0	11,568.5	11,696.7	11,547.6	24.1	26.9	88.37	294.4	1,787.5	1,230.8	1,183.2	47.63	25.839	
11,725.0	11,579.6	11,720.4	11,558.9	24.2	26.9	88.43	315.1	1,787.2	1,230.7	1,183.0	47.64	25.833	
11,750.0	11,589.6	11,744.1	11,569.4	24.2	26.9	88.49	336.4	1,786.9	1,230.6	1,182.9	47.65	25.826	
11,775.0	11,598.3	11,767.8	11,578.9	24.2	27.0	88.57	358.1	1,786.6	1,230.4	1,182.8	47.66	25.818	
11,780.0	11,599.9	11,772.5	11,580.7	24.2	27.0	88.59	362.5	1,786.6	1,230.4	1,182.8	47.66	25.816	
11,800.0	11,605.8	11,791.5	11,587.6	24.2	27.0	88.67	380.2	1,786.4	1,230.3	1,182.6	47.67	25.808	
11,825.0	11,612.0	11,815.4	11,595.4	24.2	27.0	88.77	402.7	1,786.1	1,230.2	1,182.5	47.69	25.796	
11,850.0	11,616.9	11,839.2	11,602.2	24.2	27.0	88.89	425.6	1,785.8	1,230.0	1,182.3	47.71	25.783	
11,875.0	11,620.6	11,863.2	11,608.1	24.3	27.0	89.02	448.8	1,785.5	1,229.9	1,182.2	47.73	25.767	
11,900.0	11,622.9	11,887.2	11,613.1	24.3	27.0	89.16	472.3	1,785.2	1,229.8	1,182.0	47.76	25.748	
11,925.0	11,623.9	11,911.4	11,617.0	24.3	27.1	89.32	496.1	1,784.9	1,229.6	1,181.8	47.79	25.728	
11,932.4	11,624.0	11,918.5	11,618.0	24.3	27.1	89.37	503.2	1,784.8	1,229.6	1,181.8	47.80	25.721	
11,970.0	11,624.0	11,955.2	11,621.7	24.4	27.1	89.54	539.7	1,784.3	1,229.4	1,181.5	47.87	25.683	
12,000.0	11,624.0	11,984.7	11,622.9	24.4	27.1	89.59	569.2	1,783.9	1,229.3	1,181.4	47.93	25.650	
12,065.0	11,624.0	12,049.5	11,622.9	24.5	27.2	89.59	634.0	1,783.1	1,229.0	1,181.0	48.09	25.557	
12,100.0	11,624.0	12,084.5	11,622.8	24.6	27.2	89.59	669.0	1,782.7	1,228.9	1,180.7	48.18	25.506	
12,160.0	11,624.0	12,144.5	11,622.7	24.7	27.3	89.58	729.0	1,781.9	1,228.7	1,180.3	48.36	25.406	
12,200.0	11,624.0	12,184.5	11,622.6	24.7	27.3	89.58	769.0	1,781.4	1,228.5	1,180.1	48.48	25.339	
12,255.0	11,624.0	12,239.5	11,622.5	24.8	27.4	89.58	824.0	1,780.7	1,228.3	1,179.7	48.68	25.235	
12,300.0	11,624.0	12,284.5	11,622.5	24.9	27.4	89.57	869.0	1,780.1	1,228.2	1,179.3	48.83	25.150	
12,350.0	11,624.0	12,334.5	11,622.4	25.0	27.5	89.57	919.0	1,779.4	1,228.0	1,179.0	49.03	25.046	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,400.0	11,624.0	12,384.5	11,622.3	25.2	27.6	89.57	969.0	1,778.8	1,227.8	1,178.6	49.23	24.941	
12,445.0	11,624.0	12,429.5	11,622.2	25.3	27.6	89.56	1,014.0	1,778.2	1,227.6	1,178.2	49.42	24.839	
12,500.0	11,624.0	12,484.5	11,622.1	25.4	27.7	89.56	1,069.0	1,777.5	1,227.4	1,177.8	49.67	24.713	
12,540.0	11,624.0	12,524.5	11,622.0	25.5	27.8	89.55	1,108.9	1,777.0	1,227.3	1,177.4	49.86	24.616	
12,600.0	11,624.0	12,584.5	11,621.9	25.7	27.9	89.55	1,168.9	1,776.2	1,227.1	1,176.9	50.15	24.469	
12,635.0	11,624.0	12,619.5	11,621.9	25.8	27.9	89.55	1,203.9	1,775.8	1,226.9	1,176.6	50.33	24.378	
12,700.0	11,624.0	12,684.5	11,621.8	25.9	28.1	89.54	1,268.9	1,774.9	1,226.7	1,176.0	50.67	24.209	
12,730.0	11,624.0	12,714.5	11,621.7	26.0	28.1	89.54	1,298.9	1,774.6	1,226.6	1,175.7	50.84	24.127	
12,800.0	11,624.0	12,784.5	11,621.6	26.2	28.3	89.53	1,368.9	1,773.7	1,226.3	1,175.1	51.23	23.936	
12,825.0	11,624.0	12,809.5	11,621.5	26.3	28.3	89.53	1,393.9	1,773.3	1,226.2	1,174.8	51.38	23.865	
12,900.0	11,624.0	12,884.5	11,621.4	26.6	28.5	89.52	1,468.9	1,772.4	1,225.9	1,174.1	51.84	23.650	
12,920.0	11,624.0	12,904.5	11,621.4	26.6	28.5	89.52	1,488.9	1,772.1	1,225.9	1,173.9	51.96	23.592	
13,000.0	11,624.0	12,984.5	11,621.2	26.9	28.7	89.52	1,568.9	1,771.1	1,225.6	1,173.1	52.48	23.355	
13,015.0	11,624.0	12,999.5	11,621.2	26.9	28.7	89.51	1,583.9	1,770.9	1,225.5	1,172.9	52.57	23.310	
13,100.0	11,624.0	13,084.5	11,621.1	27.2	28.9	89.51	1,668.9	1,769.8	1,225.2	1,172.0	53.15	23.051	
13,110.0	11,624.0	13,094.5	11,621.0	27.3	29.0	89.51	1,678.9	1,769.7	1,225.2	1,171.9	53.22	23.020	
13,200.0	11,624.0	13,184.5	11,620.9	27.6	29.2	89.50	1,768.9	1,768.5	1,224.8	1,171.0	53.86	22.740	
13,205.0	11,624.0	13,189.5	11,620.9	27.6	29.2	89.50	1,773.9	1,768.5	1,224.8	1,170.9	53.90	22.724	
13,300.0	11,624.0	13,284.5	11,620.7	28.0	29.4	89.49	1,868.9	1,767.2	1,224.4	1,169.8	54.61	22.423	
13,395.0	11,624.0	13,379.5	11,620.5	28.4	29.7	89.48	1,963.9	1,766.0	1,224.1	1,168.8	55.34	22.118	
13,400.0	11,624.0	13,384.5	11,620.5	28.4	29.7	89.48	1,968.9	1,766.0	1,224.1	1,168.7	55.38	22.102	
13,490.0	11,624.0	13,474.5	11,620.4	28.8	30.0	89.47	2,058.9	1,764.8	1,223.7	1,167.6	56.11	21.810	
13,500.0	11,624.0	13,484.5	11,620.4	28.8	30.0	89.47	2,068.9	1,764.7	1,223.7	1,167.5	56.19	21.778	
13,585.0	11,624.0	13,569.5	11,620.2	29.2	30.3	89.47	2,153.8	1,763.6	1,223.4	1,166.5	56.90	21.501	
13,600.0	11,624.0	13,584.5	11,620.2	29.2	30.3	89.47	2,168.8	1,763.4	1,223.3	1,166.3	57.03	21.452	
13,680.0	11,624.0	13,664.5	11,620.1	29.6	30.6	89.46	2,248.8	1,762.4	1,223.0	1,165.3	57.72	21.190	
13,700.0	11,624.0	13,684.5	11,620.0	29.7	30.7	89.46	2,268.8	1,762.1	1,223.0	1,165.1	57.89	21.125	
13,775.0	11,624.0	13,759.5	11,619.9	30.0	30.9	89.45	2,343.8	1,761.1	1,222.7	1,164.1	58.56	20.879	
13,800.0	11,624.0	13,784.5	11,619.8	30.1	31.0	89.45	2,368.8	1,760.8	1,222.6	1,163.8	58.78	20.798	
13,870.0	11,624.0	13,854.5	11,619.7	30.5	31.3	89.44	2,438.8	1,759.9	1,222.3	1,162.9	59.42	20.569	
13,900.0	11,624.0	13,884.5	11,619.7	30.6	31.4	89.44	2,468.8	1,759.5	1,222.2	1,162.5	59.70	20.472	
13,965.0	11,624.0	13,949.5	11,619.6	30.9	31.6	89.44	2,533.8	1,758.7	1,222.0	1,161.7	60.31	20.261	
14,000.0	11,624.0	13,984.5	11,619.5	31.1	31.8	89.43	2,568.8	1,758.3	1,221.8	1,161.2	60.64	20.148	
14,060.0	11,624.0	14,044.5	11,619.4	31.4	32.0	89.43	2,628.8	1,757.5	1,221.6	1,160.4	61.22	19.954	
14,100.0	11,624.0	14,084.5	11,619.3	31.6	32.1	89.42	2,668.8	1,757.0	1,221.5	1,159.9	61.61	19.826	
14,155.0	11,624.0	14,139.5	11,619.2	31.9	32.4	89.42	2,723.8	1,756.3	1,221.3	1,159.1	62.15	19.650	
14,200.0	11,624.0	14,184.5	11,619.1	32.1	32.5	89.42	2,768.8	1,755.7	1,221.1	1,158.5	62.60	19.507	
14,250.0	11,624.0	14,234.5	11,619.1	32.3	32.8	89.41	2,818.8	1,755.0	1,220.9	1,157.8	63.10	19.348	
14,300.0	11,624.0	14,284.5	11,619.0	32.6	33.0	89.41	2,868.8	1,754.4	1,220.7	1,157.1	63.61	19.192	
14,345.0	11,624.0	14,329.5	11,618.9	32.8	33.2	89.40	2,913.8	1,753.8	1,220.6	1,156.5	64.07	19.050	
14,400.0	11,624.0	14,384.5	11,618.8	33.1	33.4	89.40	2,968.8	1,753.1	1,220.4	1,155.7	64.64	18.880	
14,440.0	11,624.0	14,424.5	11,618.7	33.3	33.6	89.40	3,008.8	1,752.6	1,220.2	1,155.2	65.06	18.756	
14,500.0	11,624.0	14,484.5	11,618.6	33.7	33.8	89.39	3,068.8	1,751.8	1,220.0	1,154.3	65.69	18.573	
14,535.0	11,624.0	14,519.5	11,618.6	33.8	34.0	89.39	3,103.8	1,751.4	1,219.9	1,153.8	66.06	18.466	
14,600.0	11,624.0	14,584.5	11,618.5	34.2	34.3	89.38	3,168.8	1,750.5	1,219.6	1,152.9	66.76	18.270	
14,630.0	11,624.0	14,614.5	11,618.4	34.4	34.4	89.38	3,198.8	1,750.2	1,219.5	1,152.4	67.08	18.180	
14,700.0	11,624.0	14,684.5	11,618.3	34.7	34.8	89.37	3,268.7	1,749.3	1,219.2	1,151.4	67.84	17.972	
14,725.0	11,624.0	14,709.5	11,618.2	34.9	34.9	89.37	3,293.7	1,748.9	1,219.1	1,151.0	68.12	17.898	
14,800.0	11,624.0	14,784.5	11,618.1	35.3	35.2	89.37	3,368.7	1,748.0	1,218.9	1,149.9	68.94	17.679	
14,820.0	11,624.0	14,804.5	11,618.1	35.4	35.3	89.36	3,388.7	1,747.7	1,218.8	1,149.6	69.17	17.621	
14,900.0	11,624.0	14,884.5	11,617.9	35.9	35.7	89.36	3,468.7	1,746.7	1,218.5	1,148.4	70.06	17.392	
14,915.0	11,624.0	14,899.5	11,617.9	35.9	35.8	89.36	3,483.7	1,746.5	1,218.4	1,148.2	70.23	17.349	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre		Distance			Minimum	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
15,000.0	11,624.0	14,984.5	11,617.8	36.4	36.2	89.35	3,568.7	1,745.4	1,218.1	1,146.9	71.20	17.110	
15,010.0	11,624.0	14,994.5	11,617.7	36.5	36.3	89.35	3,578.7	1,745.3	1,218.1	1,146.8	71.31	17.082	
15,100.0	11,624.0	15,084.5	11,617.6	37.0	36.7	89.34	3,668.7	1,744.1	1,217.8	1,145.4	72.34	16.833	
15,105.0	11,624.0	15,089.5	11,617.6	37.0	36.8	89.34	3,673.7	1,744.1	1,217.7	1,145.3	72.40	16.819	
15,200.0	11,624.0	15,184.5	11,617.4	37.6	37.3	89.33	3,768.7	1,742.8	1,217.4	1,143.9	73.51	16.562	
15,295.0	11,624.0	15,279.5	11,617.2	38.2	37.8	89.32	3,863.7	1,741.6	1,217.0	1,142.4	74.62	16.309	
15,300.0	11,624.0	15,284.5	11,617.2	38.2	37.8	89.32	3,868.7	1,741.6	1,217.0	1,142.3	74.68	16.296	
15,390.0	11,624.0	15,374.5	11,617.1	38.7	38.3	89.32	3,958.7	1,740.4	1,216.7	1,140.9	75.75	16.062	
15,400.0	11,624.0	15,384.5	11,617.1	38.8	38.3	89.32	3,968.7	1,740.3	1,216.6	1,140.8	75.87	16.036	
15,485.0	11,624.0	15,469.5	11,616.9	39.3	38.8	89.31	4,053.7	1,739.2	1,216.3	1,139.4	76.89	15.819	
15,500.0	11,624.0	15,484.5	11,616.9	39.4	38.9	89.31	4,068.7	1,739.0	1,216.3	1,139.2	77.07	15.782	
15,580.0	11,624.0	15,564.5	11,616.7	39.9	39.3	89.30	4,148.7	1,738.0	1,216.0	1,137.9	78.04	15.582	
15,600.0	11,624.0	15,584.5	11,616.7	40.0	39.4	89.30	4,168.7	1,737.7	1,215.9	1,137.6	78.28	15.533	
15,675.0	11,624.0	15,659.5	11,616.6	40.4	39.8	89.29	4,243.7	1,736.7	1,215.6	1,136.4	79.20	15.350	
15,700.0	11,624.0	15,684.5	11,616.5	40.6	40.0	89.29	4,268.7	1,736.4	1,215.5	1,136.0	79.50	15.289	
15,770.0	11,624.0	15,754.5	11,616.4	41.0	40.4	89.28	4,338.6	1,735.5	1,215.3	1,134.9	80.36	15.122	
15,800.0	11,624.0	15,784.5	11,616.4	41.2	40.6	89.28	4,368.6	1,735.1	1,215.2	1,134.4	80.73	15.051	
15,865.0	11,624.0	15,849.5	11,616.2	41.6	40.9	89.28	4,433.6	1,734.3	1,214.9	1,133.4	81.54	14.899	
15,900.0	11,624.0	15,884.5	11,616.2	41.8	41.1	89.27	4,468.6	1,733.9	1,214.8	1,132.8	81.98	14.819	
15,960.0	11,624.0	15,944.5	11,616.1	42.2	41.5	89.27	4,528.6	1,733.1	1,214.6	1,131.8	82.73	14.681	
16,000.0	11,624.0	15,984.5	11,616.0	42.5	41.7	89.26	4,568.6	1,732.6	1,214.4	1,131.2	83.23	14.591	
16,055.0	11,624.0	16,039.5	11,615.9	42.8	42.1	89.26	4,623.6	1,731.9	1,214.2	1,130.3	83.92	14.468	
16,100.0	11,624.0	16,084.5	11,615.8	43.1	42.3	89.26	4,668.6	1,731.3	1,214.0	1,129.5	84.49	14.369	
16,150.0	11,624.0	16,134.5	11,615.8	43.4	42.6	89.25	4,718.6	1,730.6	1,213.8	1,128.7	85.12	14.260	
16,200.0	11,624.0	16,184.5	11,615.7	43.7	42.9	89.25	4,768.6	1,730.0	1,213.7	1,127.9	85.76	14.152	
16,245.0	11,624.0	16,229.5	11,615.6	44.0	43.2	89.24	4,813.6	1,729.4	1,213.5	1,127.2	86.33	14.056	
16,300.0	11,624.0	16,284.5	11,615.5	44.4	43.5	89.24	4,868.6	1,728.7	1,213.3	1,126.3	87.04	13.940	
16,340.0	11,624.0	16,324.5	11,615.4	44.6	43.8	89.24	4,908.6	1,728.2	1,213.1	1,125.6	87.55	13.856	
16,400.0	11,624.0	16,384.5	11,615.3	45.0	44.1	89.23	4,968.6	1,727.4	1,212.9	1,124.6	88.32	13.733	
16,435.0	11,624.0	16,419.5	11,615.3	45.2	44.3	89.23	5,003.6	1,727.0	1,212.8	1,124.0	88.78	13.661	
16,500.0	11,624.0	16,484.5	11,615.1	45.7	44.8	89.22	5,068.6	1,726.1	1,212.5	1,122.9	89.62	13.530	
16,530.0	11,624.0	16,514.5	11,615.1	45.9	44.9	89.22	5,098.6	1,725.8	1,212.4	1,122.4	90.01	13.471	
16,600.0	11,624.0	16,584.5	11,615.0	46.3	45.4	89.21	5,168.6	1,724.9	1,212.2	1,121.3	90.92	13.333	
16,625.0	11,624.0	16,609.5	11,614.9	46.5	45.5	89.21	5,193.6	1,724.5	1,212.1	1,120.8	91.24	13.284	
16,700.0	11,624.0	16,684.5	11,614.8	47.0	46.0	89.21	5,268.6	1,723.6	1,211.8	1,119.6	92.23	13.140	
16,720.0	11,624.0	16,704.5	11,614.8	47.1	46.1	89.20	5,288.6	1,723.3	1,211.7	1,119.2	92.49	13.101	
16,800.0	11,624.0	16,784.5	11,614.6	47.6	46.6	89.20	5,368.6	1,722.3	1,211.4	1,117.9	93.54	12.951	
16,815.0	11,624.0	16,799.5	11,614.6	47.7	46.7	89.20	5,383.6	1,722.1	1,211.4	1,117.6	93.74	12.923	
16,900.0	11,624.0	16,884.5	11,614.4	48.3	47.3	89.19	5,468.5	1,721.0	1,211.1	1,116.2	94.86	12.767	
16,910.0	11,624.0	16,894.5	11,614.4	48.4	47.3	89.19	5,478.5	1,720.9	1,211.0	1,116.0	94.99	12.749	
17,000.0	11,624.0	16,984.5	11,614.3	49.0	47.9	89.18	5,568.5	1,719.7	1,210.7	1,114.5	96.19	12.587	
17,005.0	11,624.0	16,989.5	11,614.3	49.0	47.9	89.18	5,573.5	1,719.7	1,210.7	1,114.4	96.25	12.578	
17,100.0	11,624.0	17,084.5	11,614.1	49.6	48.5	89.17	5,668.5	1,718.4	1,210.3	1,112.8	97.52	12.411	
17,195.0	11,624.0	17,179.5	11,613.9	50.3	49.2	89.16	5,763.5	1,717.2	1,210.0	1,111.2	98.79	12.248	
17,200.0	11,624.0	17,184.5	11,613.9	50.3	49.2	89.16	5,768.5	1,717.2	1,209.9	1,111.1	98.86	12.239	
17,290.0	11,624.0	17,274.5	11,613.8	50.9	49.8	89.16	5,858.5	1,716.0	1,209.6	1,109.5	100.07	12.088	
17,300.0	11,624.0	17,284.5	11,613.8	51.0	49.8	89.15	5,868.5	1,715.9	1,209.6	1,109.4	100.20	12.071	
17,385.0	11,624.0	17,369.5	11,613.6	51.5	50.4	89.15	5,953.5	1,714.8	1,209.3	1,107.9	101.35	11.931	
17,400.0	11,624.0	17,384.5	11,613.6	51.6	50.5	89.15	5,968.5	1,714.6	1,209.2	1,107.7	101.55	11.907	
17,480.0	11,624.0	17,464.5	11,613.4	52.2	51.0	89.14	6,048.5	1,713.6	1,208.9	1,106.3	102.64	11.779	
17,500.0	11,624.0	17,484.5	11,613.4	52.3	51.2	89.14	6,068.5	1,713.3	1,208.8	1,105.9	102.91	11.747	
17,575.0	11,624.0	17,559.5	11,613.3	52.8	51.7	89.13	6,143.5	1,712.3	1,208.6	1,104.6	103.93	11.629	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS													Offset Well Error: 3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,600.0	11,624.0	17,584.5	11,613.2	53.0	51.8	89.13	6,168.5	1,712.0	1,208.5	1,104.2	104.27	11.590	
17,670.0	11,624.0	17,654.5	11,613.1	53.5	52.3	89.12	6,238.5	1,711.1	1,208.2	1,103.0	105.22	11.483	
17,700.0	11,624.0	17,684.5	11,613.1	53.7	52.5	89.12	6,268.5	1,710.7	1,208.1	1,102.5	105.63	11.437	
17,765.0	11,624.0	17,749.5	11,612.9	54.1	52.9	89.12	6,333.5	1,709.9	1,207.9	1,101.3	106.52	11.339	
17,800.0	11,624.0	17,784.5	11,612.9	54.4	53.2	89.11	6,368.5	1,709.5	1,207.7	1,100.7	107.00	11.287	
17,860.0	11,624.0	17,844.5	11,612.8	54.8	53.6	89.11	6,428.5	1,708.7	1,207.5	1,099.7	107.82	11.199	
17,900.0	11,624.0	17,884.5	11,612.7	55.0	53.8	89.10	6,468.5	1,708.2	1,207.4	1,099.0	108.37	11.141	
17,955.0	11,624.0	17,939.5	11,612.6	55.4	54.2	89.10	6,523.4	1,707.5	1,207.1	1,098.0	109.13	11.062	
18,000.0	11,624.0	17,984.5	11,612.5	55.7	54.5	89.09	6,568.4	1,706.9	1,207.0	1,097.2	109.75	10.998	
18,050.0	11,624.0	18,034.5	11,612.4	56.1	54.8	89.09	6,618.4	1,706.2	1,206.8	1,096.4	110.44	10.927	
18,100.0	11,624.0	18,084.5	11,612.4	56.4	55.2	89.09	6,668.4	1,705.6	1,206.6	1,095.5	111.13	10.858	
18,145.0	11,624.0	18,129.5	11,612.3	56.7	55.5	89.08	6,713.4	1,705.0	1,206.4	1,094.7	111.75	10.796	
18,200.0	11,624.0	18,184.5	11,612.2	57.1	55.9	89.08	6,768.4	1,704.3	1,206.2	1,093.7	112.51	10.721	
18,240.0	11,624.0	18,224.5	11,612.1	57.4	56.1	89.07	6,808.4	1,703.8	1,206.1	1,093.0	113.07	10.667	
18,300.0	11,624.0	18,284.5	11,612.0	57.8	56.5	89.07	6,868.4	1,703.0	1,205.9	1,092.0	113.90	10.587	
18,335.0	11,624.0	18,319.5	11,612.0	58.1	56.8	89.07	6,903.4	1,702.6	1,205.7	1,091.4	114.39	10.541	
18,400.0	11,624.0	18,384.5	11,611.8	58.5	57.2	89.06	6,968.4	1,701.7	1,205.5	1,090.2	115.29	10.456	
18,430.0	11,624.0	18,414.5	11,611.8	58.7	57.4	89.06	6,998.4	1,701.4	1,205.4	1,089.7	115.71	10.417	
18,500.0	11,624.0	18,484.5	11,611.7	59.2	57.9	89.05	7,068.4	1,700.5	1,205.1	1,088.4	116.69	10.328	
18,525.0	11,624.0	18,509.5	11,611.6	59.4	58.1	89.05	7,093.4	1,700.1	1,205.0	1,088.0	117.04	10.296	
18,600.0	11,624.0	18,584.5	11,611.5	59.9	58.6	89.04	7,168.4	1,699.2	1,204.8	1,086.7	118.08	10.203	
18,620.0	11,624.0	18,604.5	11,611.5	60.0	58.7	89.04	7,188.4	1,698.9	1,204.7	1,086.3	118.36	10.178	
18,700.0	11,624.0	18,684.5	11,611.3	60.6	59.3	89.04	7,268.4	1,697.9	1,204.4	1,084.9	119.49	10.080	
18,715.0	11,624.0	18,699.5	11,611.3	60.7	59.4	89.03	7,283.4	1,697.7	1,204.3	1,084.6	119.70	10.062	
18,800.0	11,624.0	18,784.5	11,611.1	61.3	60.0	89.03	7,368.4	1,696.6	1,204.0	1,083.1	120.89	9.960	
18,810.0	11,624.0	18,794.5	11,611.1	61.4	60.0	89.03	7,378.4	1,696.5	1,204.0	1,082.9	121.03	9.948	
18,900.0	11,624.0	18,884.5	11,611.0	62.0	60.7	89.02	7,468.4	1,695.3	1,203.6	1,081.3	122.30	9.842	
18,905.0	11,624.0	18,889.5	11,611.0	62.0	60.7	89.02	7,473.4	1,695.3	1,203.6	1,081.3	122.37	9.836	
19,000.0	11,624.0	18,984.5	11,610.8	62.7	61.4	89.01	7,568.3	1,694.0	1,203.3	1,079.6	123.71	9.727	
19,095.0	11,624.0	19,079.5	11,610.6	63.4	62.0	89.00	7,663.3	1,692.8	1,202.9	1,077.9	125.05	9.620	
19,100.0	11,624.0	19,084.5	11,610.6	63.4	62.1	89.00	7,668.3	1,692.8	1,202.9	1,077.8	125.12	9.614	
19,190.0	11,624.0	19,174.5	11,610.5	64.1	62.7	88.99	7,758.3	1,691.6	1,202.6	1,076.2	126.39	9.514	
19,200.0	11,624.0	19,184.5	11,610.4	64.1	62.8	88.99	7,768.3	1,691.5	1,202.5	1,076.0	126.54	9.503	
19,285.0	11,624.0	19,269.5	11,610.3	64.7	63.4	88.98	7,853.3	1,690.4	1,202.2	1,074.5	127.74	9.411	
19,300.0	11,624.0	19,284.5	11,610.3	64.8	63.5	88.98	7,868.3	1,690.2	1,202.2	1,074.2	127.95	9.395	
19,380.0	11,624.0	19,364.5	11,610.1	65.4	64.0	88.98	7,948.3	1,689.2	1,201.9	1,072.8	129.09	9.310	
19,400.0	11,624.0	19,384.5	11,610.1	65.5	64.2	88.97	7,968.3	1,688.9	1,201.8	1,072.4	129.38	9.289	
19,475.0	11,624.0	19,459.5	11,610.0	66.1	64.7	88.97	8,043.3	1,687.9	1,201.5	1,071.1	130.44	9.211	
19,500.0	11,624.0	19,484.5	11,609.9	66.3	64.9	88.97	8,068.3	1,687.6	1,201.4	1,070.6	130.80	9.185	
19,570.0	11,624.0	19,554.5	11,609.8	66.8	65.4	88.96	8,138.3	1,686.7	1,201.2	1,069.4	131.80	9.114	
19,600.0	11,624.0	19,584.5	11,609.8	67.0	65.6	88.96	8,168.3	1,686.3	1,201.0	1,068.8	132.22	9.083	
19,665.0	11,624.0	19,649.5	11,609.6	67.4	66.0	88.95	8,233.3	1,685.5	1,200.8	1,067.7	133.15	9.018	
19,700.0	11,624.0	19,684.5	11,609.6	67.7	66.3	88.95	8,268.3	1,685.1	1,200.7	1,067.0	133.65	8.984	
19,760.0	11,624.0	19,744.5	11,609.5	68.1	66.7	88.94	8,328.3	1,684.3	1,200.5	1,065.9	134.51	8.925	
19,800.0	11,624.0	19,784.5	11,609.4	68.4	67.0	88.94	8,368.3	1,683.8	1,200.3	1,065.2	135.08	8.886	
19,855.0	11,624.0	19,839.5	11,609.3	68.8	67.4	88.94	8,423.3	1,683.1	1,200.1	1,064.2	135.87	8.833	
19,900.0	11,624.0	19,884.5	11,609.2	69.1	67.7	88.93	8,468.3	1,682.5	1,199.9	1,063.4	136.51	8.790	
19,950.0	11,624.0	19,934.5	11,609.1	69.5	68.1	88.93	8,518.3	1,681.8	1,199.7	1,062.5	137.23	8.743	
20,000.0	11,624.0	19,984.5	11,609.1	69.8	68.4	88.92	8,568.3	1,681.2	1,199.6	1,061.6	137.95	8.696	
20,045.0	11,624.0	20,029.5	11,609.0	70.1	68.7	88.92	8,613.3	1,680.6	1,199.4	1,060.8	138.59	8.654	
20,100.0	11,624.0	20,084.5	11,608.9	70.5	69.1	88.91	8,668.2	1,679.9	1,199.2	1,059.8	139.38	8.604	
20,140.0	11,624.0	20,124.5	11,608.8	70.8	69.4	88.91	8,708.2	1,679.4	1,199.0	1,059.1	139.96	8.567	

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 #712H
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 #712H	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 2431 PROJECT - ZIA HILLS UNIT 2431 WC #702H - OWB - PWP0												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1000-r.5 MWD+IFR1, 11094-r.5 MWD+IFR1+MS												Offset Well Error:	3.0 usft
Reference	Offset	Semi Major Axis	Distance	Rule Assigned:									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,200.0	11,624.0	20,184.5	11,608.7	71.3	69.8	88.91	8,768.2	1,678.6	1,198.8	1,058.0	140.82	8.513	
20,235.0	11,624.0	20,219.5	11,608.6	71.5	70.1	88.90	8,803.2	1,678.2	1,198.7	1,057.4	141.33	8.482	
20,300.0	11,624.0	20,284.5	11,608.5	72.0	70.6	88.90	8,868.2	1,677.3	1,198.5	1,056.2	142.26	8.424	
20,330.0	11,624.0	20,314.5	11,608.5	72.2	70.8	88.89	8,898.2	1,677.0	1,198.3	1,055.6	142.69	8.398	
20,400.0	11,624.0	20,384.5	11,608.4	72.7	71.3	88.89	8,968.2	1,676.1	1,198.1	1,054.4	143.70	8.337	
20,425.0	11,624.0	20,409.5	11,608.3	72.9	71.5	88.89	8,993.2	1,675.7	1,198.0	1,053.9	144.06	8.316	
20,500.0	11,624.0	20,484.5	11,608.2	73.4	72.0	88.88	9,068.2	1,674.8	1,197.7	1,052.6	145.15	8.252	
20,520.0	11,624.0	20,504.5	11,608.2	73.6	72.1	88.88	9,088.2	1,674.5	1,197.6	1,052.2	145.44	8.235	
20,600.0	11,624.0	20,584.5	11,608.0	74.1	72.7	88.87	9,168.2	1,673.5	1,197.3	1,050.7	146.59	8.168	
20,615.0	11,624.0	20,599.5	11,608.0	74.3	72.8	88.87	9,183.2	1,673.3	1,197.3	1,050.5	146.81	8.155	
20,700.0	11,624.0	20,684.5	11,607.8	74.9	73.4	88.86	9,268.2	1,672.2	1,197.0	1,048.9	148.04	8.085	
20,710.0	11,624.0	20,694.5	11,607.8	74.9	73.5	88.86	9,278.2	1,672.1	1,196.9	1,048.7	148.18	8.077	
20,800.0	11,624.0	20,784.5	11,607.7	75.6	74.1	88.85	9,368.2	1,670.9	1,196.6	1,047.1	149.49	8.005	
20,805.0	11,624.0	20,789.5	11,607.7	75.6	74.2	88.85	9,373.2	1,670.9	1,196.6	1,047.0	149.56	8.001	
20,900.0	11,624.0	20,884.5	11,607.5	76.3	74.9	88.85	9,468.2	1,669.6	1,196.2	1,045.3	150.94	7.925	
20,995.0	11,624.0	20,979.5	11,607.3	77.0	75.6	88.84	9,563.2	1,668.4	1,195.9	1,043.6	152.32	7.851	
21,000.0	11,624.0	20,984.5	11,607.3	77.0	75.6	88.84	9,568.2	1,668.4	1,195.9	1,043.5	152.39	7.847	
21,090.0	11,624.0	21,074.5	11,607.2	77.7	76.2	88.83	9,658.2	1,667.2	1,195.5	1,041.8	153.70	7.778	
21,100.0	11,624.0	21,084.5	11,607.1	77.8	76.3	88.83	9,668.2	1,667.1	1,195.5	1,041.6	153.84	7.771	
21,185.0	11,624.0	21,169.5	11,607.0	78.4	76.9	88.82	9,753.1	1,666.0	1,195.2	1,040.1	155.08	7.707	
21,200.0	11,624.0	21,184.5	11,607.0	78.5	77.0	88.82	9,768.1	1,665.8	1,195.1	1,039.8	155.30	7.696	
21,280.0	11,624.0	21,264.4	11,606.8	79.1	77.6	88.81	9,848.1	1,664.8	1,194.8	1,038.4	156.46	7.636	
21,300.0	11,624.0	21,284.4	11,606.8	79.2	77.8	88.81	9,868.1	1,664.5	1,194.7	1,038.0	156.75	7.622	
21,375.0	11,624.0	21,359.4	11,606.7	79.8	78.3	88.80	9,943.1	1,663.5	1,194.5	1,036.6	157.85	7.567	
21,400.0	11,624.0	21,384.4	11,606.6	79.9	78.5	88.80	9,968.1	1,663.2	1,194.4	1,036.2	158.21	7.549	
21,470.0	11,624.0	21,454.4	11,606.5	80.5	79.0	88.80	10,038.1	1,662.3	1,194.1	1,034.9	159.23	7.499	
21,500.0	11,624.0	21,484.4	11,606.4	80.7	79.2	88.79	10,068.1	1,661.9	1,194.0	1,034.3	159.67	7.478	
21,565.0	11,624.0	21,549.4	11,606.3	81.1	79.7	88.79	10,133.1	1,661.1	1,193.8	1,033.2	160.62	7.432	
21,600.0	11,624.0	21,584.4	11,606.3	81.4	79.9	88.78	10,168.1	1,660.7	1,193.6	1,032.5	161.13	7.408	
21,660.0	11,624.0	21,644.4	11,606.2	81.8	80.4	88.78	10,228.1	1,659.9	1,193.4	1,031.4	162.01	7.366	
21,700.0	11,624.0	21,684.4	11,606.1	82.1	80.7	88.78	10,268.1	1,659.4	1,193.3	1,030.7	162.59	7.339	
21,755.0	11,624.0	21,739.4	11,606.0	82.5	81.1	88.77	10,323.1	1,658.7	1,193.1	1,029.7	163.40	7.302	
21,800.0	11,624.0	21,784.4	11,605.9	82.9	81.4	88.77	10,368.1	1,658.1	1,192.9	1,028.8	164.05	7.271	
21,850.0	11,624.0	21,834.4	11,605.8	83.2	81.8	88.76	10,418.1	1,657.4	1,192.7	1,027.9	164.78	7.238	
21,900.0	11,624.0	21,884.4	11,605.7	83.6	82.1	88.76	10,468.1	1,656.8	1,192.5	1,027.0	165.52	7.205	
21,945.0	11,624.0	21,929.4	11,605.7	83.9	82.4	88.75	10,513.1	1,656.2	1,192.4	1,026.2	166.18	7.175	
21,996.4	11,624.0	21,980.8	11,605.6	84.3	82.8	88.75	10,564.4	1,655.6	1,192.2	1,025.2	166.93	7.142 CC, ES, SF	

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 #712H
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 #712H	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

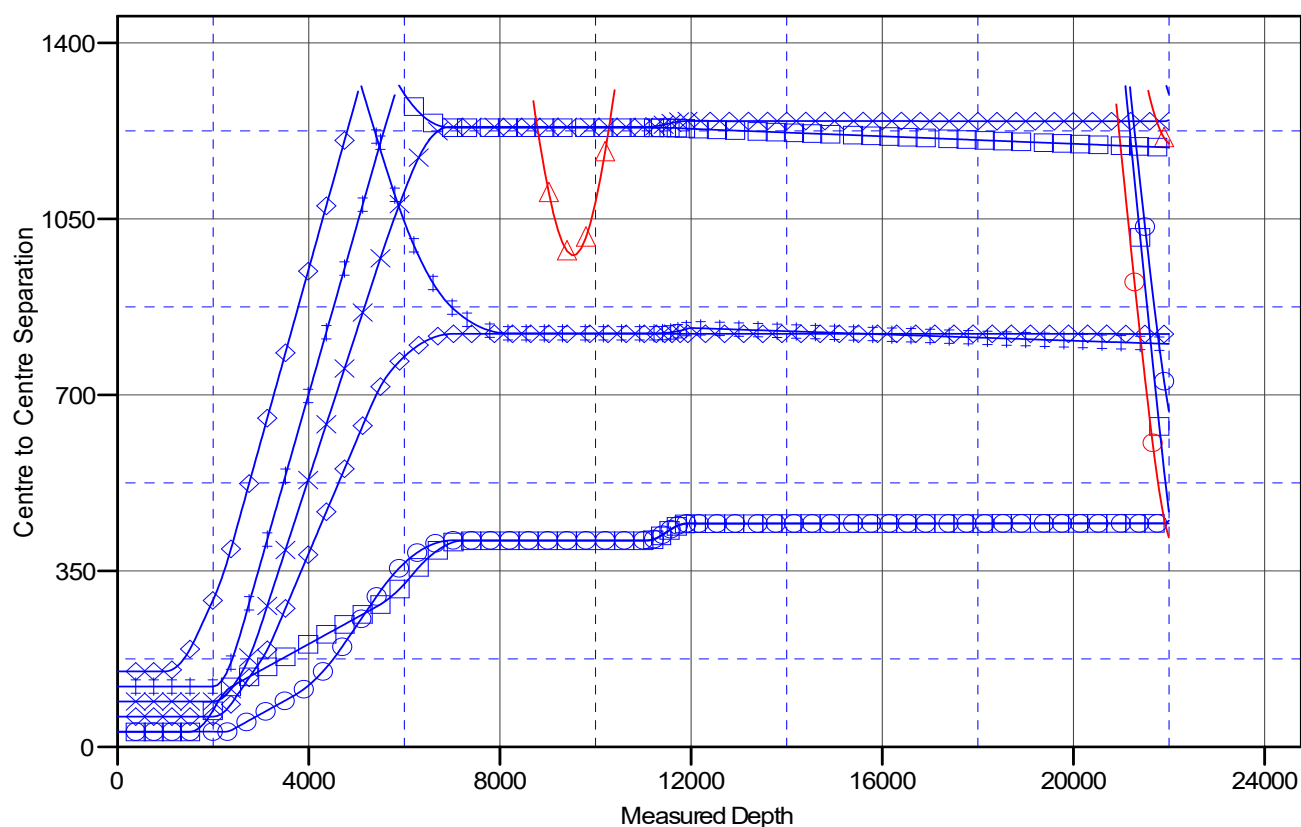
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: ZIA HILLS UNIT 2331 WC #712H

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

Grid Convergence at Surface is: 0.31°

Ladder Plot



LEGEND

● ZIA HILLS UNIT 2331 WC #711H, OWB, PWP0 V0	● ZIA HILLS UNIT 2331 WC #708H, OWB, PWP0 V0	● SHETLAND 2-11 STATE FEDERAL COM #613H, OWB, AWP V0
▲ GOLDEN SPUR 25 FBS #3H (P&A), OWB, AWP V0	● SHETLAND 2-11 STATE FEDERAL COM #733H, OWB, PWP0 V0	● ZIA HILLS UNIT 2331 WC #710H, OWB, PWP0 V0
● ZIA HILLS UNIT 2331 WC #703H, OWB, PWP0 V0	● ZIA HILLS UNIT 2331 WC #713H, OWB, PWP0 V0	● ZIA HILLS UNIT 2431 WC #701H, OWB, PWP0 V0
● ZIA HILLS UNIT 2331 WC #709H, OWB, PWP0 V0	● SHETLAND 11 FEDERAL #716H, OWB, PWP0 V0	● ZIA HILLS UNIT 2431 WC #702H, OWB, PWP0 V0
▲ SHETLAND 2-11 STATE FEDERAL COM #613H, OWB, AWP V0	● SHETLAND 11 FEDERAL #736H, OWB, PWP0 V0	

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

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)

ZIA HILLS UNIT 2331 PROJECT

ZIA HILLS UNIT 2331 WC #712H

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 #712H
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 #712H	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 #712H					
Well Position	+N/-S	106.5 usft	Northing:	371,841.43 usft	Latitude:	32° 1' 15.355 N
	+E/-W	4,335.0 usft	Easting:	682,984.45 usft	Longitude:	103° 44' 34.516 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	47,263.55075591

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	2.52

Plan Survey Tool Program	Date	11/16/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	2,000.0 PWP0 (OWB)	r.5 SDI_KPR_ADK SDI Keeper ADK rev.5	
2	2,000.0	11,182.4 PWP0 (OWB)	r.5 MWD+IFR1 OWSG MWD + IFR1 rev.5	
3	11,182.4	21,996.4 PWP0 (OWB)	r.5 MWD+IFR1+MS OWSG MWD + IFR1 + Multi-St	

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Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,400.0	8.00	89.16	2,398.7	0.4	27.9	2.00	2.00	0.00	89.16	
5,420.7	8.00	89.16	5,390.0	6.6	448.2	0.00	0.00	0.00	0.00	
7,020.7	0.00	0.00	6,984.8	8.2	559.7	0.50	-0.50	0.00	180.00	
11,182.4	0.00	0.00	11,146.5	8.2	559.7	0.00	0.00	0.00	0.00	
11,932.4	90.00	359.48	11,624.0	485.7	555.4	12.00	12.00	-0.07	359.48	
21,996.4	90.00	359.48	11,624.0	10,549.2	463.8	0.00	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 #712H
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 #712H	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	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	2.00	89.16	2,100.0	0.0	1.7	0.1	2.00	2.00	0.00
2,200.0	4.00	89.16	2,199.8	0.1	7.0	0.4	2.00	2.00	0.00
2,300.0	6.00	89.16	2,299.5	0.2	15.7	0.9	2.00	2.00	0.00
2,400.0	8.00	89.16	2,398.7	0.4	27.9	1.6	2.00	2.00	0.00
2,500.0	8.00	89.16	2,497.7	0.6	41.8	2.4	0.00	0.00	0.00
2,600.0	8.00	89.16	2,596.8	0.8	55.7	3.3	0.00	0.00	0.00
2,700.0	8.00	89.16	2,695.8	1.0	69.6	4.1	0.00	0.00	0.00
2,800.0	8.00	89.16	2,794.8	1.2	83.5	4.9	0.00	0.00	0.00
2,900.0	8.00	89.16	2,893.8	1.4	97.5	5.7	0.00	0.00	0.00
3,000.0	8.00	89.16	2,992.9	1.6	111.4	6.5	0.00	0.00	0.00
3,100.0	8.00	89.16	3,091.9	1.8	125.3	7.3	0.00	0.00	0.00
3,200.0	8.00	89.16	3,190.9	2.0	139.2	8.2	0.00	0.00	0.00
3,300.0	8.00	89.16	3,289.9	2.2	153.1	9.0	0.00	0.00	0.00
3,400.0	8.00	89.16	3,389.0	2.4	167.0	9.8	0.00	0.00	0.00
3,500.0	8.00	89.16	3,488.0	2.7	181.0	10.6	0.00	0.00	0.00
3,600.0	8.00	89.16	3,587.0	2.9	194.9	11.4	0.00	0.00	0.00
3,700.0	8.00	89.16	3,686.0	3.1	208.8	12.2	0.00	0.00	0.00
3,800.0	8.00	89.16	3,785.1	3.3	222.7	13.0	0.00	0.00	0.00
3,900.0	8.00	89.16	3,884.1	3.5	236.6	13.9	0.00	0.00	0.00
4,000.0	8.00	89.16	3,983.1	3.7	250.5	14.7	0.00	0.00	0.00
4,100.0	8.00	89.16	4,082.2	3.9	264.4	15.5	0.00	0.00	0.00
4,200.0	8.00	89.16	4,181.2	4.1	278.4	16.3	0.00	0.00	0.00
4,300.0	8.00	89.16	4,280.2	4.3	292.3	17.1	0.00	0.00	0.00
4,400.0	8.00	89.16	4,379.2	4.5	306.2	17.9	0.00	0.00	0.00
4,500.0	8.00	89.16	4,478.3	4.7	320.1	18.7	0.00	0.00	0.00
4,600.0	8.00	89.16	4,577.3	4.9	334.0	19.6	0.00	0.00	0.00
4,700.0	8.00	89.16	4,676.3	5.1	347.9	20.4	0.00	0.00	0.00
4,800.0	8.00	89.16	4,775.3	5.3	361.9	21.2	0.00	0.00	0.00
4,900.0	8.00	89.16	4,874.4	5.5	375.8	22.0	0.00	0.00	0.00
5,000.0	8.00	89.16	4,973.4	5.7	389.7	22.8	0.00	0.00	0.00
5,100.0	8.00	89.16	5,072.4	5.9	403.6	23.6	0.00	0.00	0.00
5,200.0	8.00	89.16	5,171.5	6.1	417.5	24.5	0.00	0.00	0.00
5,300.0	8.00	89.16	5,270.5	6.3	431.4	25.3	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	8.00	89.16	5,369.5	6.5	445.4	26.1	0.00	0.00	0.00
5,420.7	8.00	89.16	5,390.0	6.6	448.2	26.3	0.00	0.00	0.00
5,500.0	7.60	89.16	5,468.6	6.7	459.0	26.9	0.50	-0.50	0.00
5,600.0	7.10	89.16	5,567.7	6.9	471.8	27.6	0.50	-0.50	0.00
5,700.0	6.60	89.16	5,667.0	7.1	483.7	28.3	0.50	-0.50	0.00
5,800.0	6.10	89.16	5,766.4	7.3	494.8	29.0	0.50	-0.50	0.00
5,900.0	5.60	89.16	5,865.9	7.4	505.0	29.6	0.50	-0.50	0.00
6,000.0	5.10	89.16	5,965.5	7.5	514.3	30.1	0.50	-0.50	0.00
6,100.0	4.60	89.16	6,065.1	7.7	522.8	30.6	0.50	-0.50	0.00
6,200.0	4.10	89.16	6,164.8	7.8	530.4	31.1	0.50	-0.50	0.00
6,300.0	3.60	89.16	6,264.6	7.9	537.1	31.5	0.50	-0.50	0.00
6,400.0	3.10	89.16	6,364.4	8.0	542.9	31.8	0.50	-0.50	0.00
6,500.0	2.60	89.16	6,464.3	8.0	547.9	32.1	0.50	-0.50	0.00
6,600.0	2.10	89.16	6,564.2	8.1	552.0	32.3	0.50	-0.50	0.00
6,700.0	1.60	89.16	6,664.2	8.1	555.3	32.5	0.50	-0.50	0.00
6,800.0	1.10	89.16	6,764.1	8.2	557.6	32.7	0.50	-0.50	0.00
6,900.0	0.60	89.16	6,864.1	8.2	559.1	32.7	0.50	-0.50	0.00
7,000.0	0.10	89.16	6,964.1	8.2	559.7	32.8	0.50	-0.50	0.00
7,020.7	0.00	0.00	6,984.8	8.2	559.7	32.8	0.50	-0.50	0.00
7,100.0	0.00	0.00	7,064.1	8.2	559.7	32.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,164.1	8.2	559.7	32.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,264.1	8.2	559.7	32.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,364.1	8.2	559.7	32.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,464.1	8.2	559.7	32.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,564.1	8.2	559.7	32.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,664.1	8.2	559.7	32.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,764.1	8.2	559.7	32.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,864.1	8.2	559.7	32.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,964.1	8.2	559.7	32.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,064.1	8.2	559.7	32.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,164.1	8.2	559.7	32.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,264.1	8.2	559.7	32.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,364.1	8.2	559.7	32.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,464.1	8.2	559.7	32.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,564.1	8.2	559.7	32.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,664.1	8.2	559.7	32.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,764.1	8.2	559.7	32.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,864.1	8.2	559.7	32.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,964.1	8.2	559.7	32.8	0.00	0.00	0.00
9,100.0	0.00	0.00	9,064.1	8.2	559.7	32.8	0.00	0.00	0.00
9,200.0	0.00	0.00	9,164.1	8.2	559.7	32.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,264.1	8.2	559.7	32.8	0.00	0.00	0.00
9,400.0	0.00	0.00	9,364.1	8.2	559.7	32.8	0.00	0.00	0.00
9,500.0	0.00	0.00	9,464.1	8.2	559.7	32.8	0.00	0.00	0.00
9,600.0	0.00	0.00	9,564.1	8.2	559.7	32.8	0.00	0.00	0.00
9,700.0	0.00	0.00	9,664.1	8.2	559.7	32.8	0.00	0.00	0.00
9,800.0	0.00	0.00	9,764.1	8.2	559.7	32.8	0.00	0.00	0.00
9,900.0	0.00	0.00	9,864.1	8.2	559.7	32.8	0.00	0.00	0.00
10,000.0	0.00	0.00	9,964.1	8.2	559.7	32.8	0.00	0.00	0.00
10,100.0	0.00	0.00	10,064.1	8.2	559.7	32.8	0.00	0.00	0.00
10,200.0	0.00	0.00	10,164.1	8.2	559.7	32.8	0.00	0.00	0.00
10,300.0	0.00	0.00	10,264.1	8.2	559.7	32.8	0.00	0.00	0.00
10,400.0	0.00	0.00	10,364.1	8.2	559.7	32.8	0.00	0.00	0.00
10,500.0	0.00	0.00	10,464.1	8.2	559.7	32.8	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	10,564.1	8.2	559.7	32.8	0.00	0.00	0.00
10,700.0	0.00	0.00	10,664.1	8.2	559.7	32.8	0.00	0.00	0.00
10,800.0	0.00	0.00	10,764.1	8.2	559.7	32.8	0.00	0.00	0.00
10,900.0	0.00	0.00	10,864.1	8.2	559.7	32.8	0.00	0.00	0.00
11,000.0	0.00	0.00	10,964.1	8.2	559.7	32.8	0.00	0.00	0.00
11,100.0	0.00	0.00	11,064.1	8.2	559.7	32.8	0.00	0.00	0.00
11,182.4	0.00	0.00	11,146.5	8.2	559.7	32.8	0.00	0.00	0.00
11,200.0	2.11	359.48	11,164.1	8.5	559.7	33.1	12.00	12.00	0.00
11,225.0	5.11	359.48	11,189.1	10.1	559.7	34.7	12.00	12.00	0.00
11,250.0	8.11	359.48	11,213.9	13.0	559.7	37.6	12.00	12.00	0.00
11,275.0	11.11	359.48	11,238.5	17.2	559.7	41.7	12.00	12.00	0.00
11,300.0	14.11	359.48	11,262.9	22.6	559.6	47.2	12.00	12.00	0.00
11,325.0	17.11	359.48	11,287.0	29.3	559.5	53.9	12.00	12.00	0.00
11,350.0	20.11	359.48	11,310.7	37.3	559.5	61.8	12.00	12.00	0.00
11,375.0	23.11	359.48	11,333.9	46.5	559.4	71.0	12.00	12.00	0.00
11,400.0	26.11	359.48	11,356.7	56.9	559.3	81.4	12.00	12.00	0.00
11,425.0	29.11	359.48	11,378.8	68.5	559.2	93.0	12.00	12.00	0.00
11,450.0	32.11	359.48	11,400.3	81.2	559.1	105.7	12.00	12.00	0.00
11,475.0	35.11	359.48	11,421.1	95.1	558.9	119.5	12.00	12.00	0.00
11,500.0	38.11	359.48	11,441.2	110.0	558.8	134.4	12.00	12.00	0.00
11,525.0	41.11	359.48	11,460.5	125.9	558.7	150.3	12.00	12.00	0.00
11,550.0	44.11	359.48	11,478.9	142.8	558.5	167.2	12.00	12.00	0.00
11,575.0	47.11	359.48	11,496.3	160.7	558.4	185.1	12.00	12.00	0.00
11,600.0	50.11	359.48	11,512.9	179.5	558.2	203.8	12.00	12.00	0.00
11,625.0	53.11	359.48	11,528.4	199.0	558.0	223.4	12.00	12.00	0.00
11,650.0	56.11	359.48	11,542.9	219.4	557.8	243.7	12.00	12.00	0.00
11,675.0	59.11	359.48	11,556.3	240.5	557.6	264.8	12.00	12.00	0.00
11,700.0	62.11	359.48	11,568.5	262.3	557.4	286.5	12.00	12.00	0.00
11,725.0	65.11	359.48	11,579.6	284.7	557.2	308.9	12.00	12.00	0.00
11,750.0	68.11	359.48	11,589.6	307.6	557.0	331.8	12.00	12.00	0.00
11,775.0	71.11	359.48	11,598.3	331.1	556.8	355.2	12.00	12.00	0.00
11,800.0	74.11	359.48	11,605.8	354.9	556.6	379.0	12.00	12.00	0.00
11,825.0	77.11	359.48	11,612.0	379.1	556.4	403.2	12.00	12.00	0.00
11,850.0	80.11	359.48	11,616.9	403.6	556.1	427.7	12.00	12.00	0.00
11,875.0	83.11	359.48	11,620.6	428.4	555.9	452.4	12.00	12.00	0.00
11,900.0	86.11	359.48	11,622.9	453.3	555.7	477.2	12.00	12.00	0.00
11,925.0	89.11	359.48	11,623.9	478.2	555.5	502.2	12.00	12.00	0.00
11,932.4	90.00	359.48	11,624.0	485.7	555.4	509.6	12.00	12.00	0.00
12,000.0	90.00	359.48	11,624.0	553.2	554.8	577.1	0.00	0.00	0.00
12,100.0	90.00	359.48	11,624.0	653.2	553.9	676.9	0.00	0.00	0.00
12,200.0	90.00	359.48	11,624.0	753.2	553.0	776.8	0.00	0.00	0.00
12,300.0	90.00	359.48	11,624.0	853.2	552.0	876.6	0.00	0.00	0.00
12,400.0	90.00	359.48	11,624.0	953.2	551.1	976.5	0.00	0.00	0.00
12,500.0	90.00	359.48	11,624.0	1,053.2	550.2	1,076.4	0.00	0.00	0.00
12,600.0	90.00	359.48	11,624.0	1,153.2	549.3	1,176.2	0.00	0.00	0.00
12,700.0	90.00	359.48	11,624.0	1,253.2	548.4	1,276.1	0.00	0.00	0.00
12,800.0	90.00	359.48	11,624.0	1,353.2	547.5	1,375.9	0.00	0.00	0.00
12,900.0	90.00	359.48	11,624.0	1,453.2	546.6	1,475.8	0.00	0.00	0.00
13,000.0	90.00	359.48	11,624.0	1,553.2	545.7	1,575.7	0.00	0.00	0.00
13,100.0	90.00	359.48	11,624.0	1,653.2	544.8	1,675.5	0.00	0.00	0.00
13,200.0	90.00	359.48	11,624.0	1,753.2	543.9	1,775.4	0.00	0.00	0.00
13,300.0	90.00	359.48	11,624.0	1,853.2	542.9	1,875.2	0.00	0.00	0.00
13,400.0	90.00	359.48	11,624.0	1,953.2	542.0	1,975.1	0.00	0.00	0.00
13,500.0	90.00	359.48	11,624.0	2,053.2	541.1	2,074.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	11,624.0	2,153.2	540.2	2,174.8	0.00	0.00	0.00
13,700.0	90.00	359.48	11,624.0	2,253.2	539.3	2,274.7	0.00	0.00	0.00
13,800.0	90.00	359.48	11,624.0	2,353.2	538.4	2,374.5	0.00	0.00	0.00
13,900.0	90.00	359.48	11,624.0	2,453.1	537.5	2,474.4	0.00	0.00	0.00
14,000.0	90.00	359.48	11,624.0	2,553.1	536.6	2,574.2	0.00	0.00	0.00
14,100.0	90.00	359.48	11,624.0	2,653.1	535.7	2,674.1	0.00	0.00	0.00
14,200.0	90.00	359.48	11,624.0	2,753.1	534.7	2,774.0	0.00	0.00	0.00
14,300.0	90.00	359.48	11,624.0	2,853.1	533.8	2,873.8	0.00	0.00	0.00
14,400.0	90.00	359.48	11,624.0	2,953.1	532.9	2,973.7	0.00	0.00	0.00
14,500.0	90.00	359.48	11,624.0	3,053.1	532.0	3,073.5	0.00	0.00	0.00
14,600.0	90.00	359.48	11,624.0	3,153.1	531.1	3,173.4	0.00	0.00	0.00
14,700.0	90.00	359.48	11,624.0	3,253.1	530.2	3,273.3	0.00	0.00	0.00
14,800.0	90.00	359.48	11,624.0	3,353.1	529.3	3,373.1	0.00	0.00	0.00
14,900.0	90.00	359.48	11,624.0	3,453.1	528.4	3,473.0	0.00	0.00	0.00
15,000.0	90.00	359.48	11,624.0	3,553.1	527.5	3,572.8	0.00	0.00	0.00
15,100.0	90.00	359.48	11,624.0	3,653.1	526.6	3,672.7	0.00	0.00	0.00
15,200.0	90.00	359.48	11,624.0	3,753.1	525.6	3,772.6	0.00	0.00	0.00
15,300.0	90.00	359.48	11,624.0	3,853.1	524.7	3,872.4	0.00	0.00	0.00
15,400.0	90.00	359.48	11,624.0	3,953.1	523.8	3,972.3	0.00	0.00	0.00
15,500.0	90.00	359.48	11,624.0	4,053.1	522.9	4,072.1	0.00	0.00	0.00
15,600.0	90.00	359.48	11,624.0	4,153.1	522.0	4,172.0	0.00	0.00	0.00
15,700.0	90.00	359.48	11,624.0	4,253.1	521.1	4,271.9	0.00	0.00	0.00
15,800.0	90.00	359.48	11,624.0	4,353.1	520.2	4,371.7	0.00	0.00	0.00
15,900.0	90.00	359.48	11,624.0	4,453.1	519.3	4,471.6	0.00	0.00	0.00
16,000.0	90.00	359.48	11,624.0	4,553.1	518.4	4,571.4	0.00	0.00	0.00
16,100.0	90.00	359.48	11,624.0	4,653.1	517.5	4,671.3	0.00	0.00	0.00
16,200.0	90.00	359.48	11,624.0	4,753.1	516.5	4,771.2	0.00	0.00	0.00
16,300.0	90.00	359.48	11,624.0	4,853.0	515.6	4,871.0	0.00	0.00	0.00
16,400.0	90.00	359.48	11,624.0	4,953.0	514.7	4,970.9	0.00	0.00	0.00
16,500.0	90.00	359.48	11,624.0	5,053.0	513.8	5,070.7	0.00	0.00	0.00
16,600.0	90.00	359.48	11,624.0	5,153.0	512.9	5,170.6	0.00	0.00	0.00
16,700.0	90.00	359.48	11,624.0	5,253.0	512.0	5,270.4	0.00	0.00	0.00
16,800.0	90.00	359.48	11,624.0	5,353.0	511.1	5,370.3	0.00	0.00	0.00
16,900.0	90.00	359.48	11,624.0	5,453.0	510.2	5,470.2	0.00	0.00	0.00
17,000.0	90.00	359.48	11,624.0	5,553.0	509.3	5,570.0	0.00	0.00	0.00
17,100.0	90.00	359.48	11,624.0	5,653.0	508.3	5,669.9	0.00	0.00	0.00
17,200.0	90.00	359.48	11,624.0	5,753.0	507.4	5,769.7	0.00	0.00	0.00
17,300.0	90.00	359.48	11,624.0	5,853.0	506.5	5,869.6	0.00	0.00	0.00
17,400.0	90.00	359.48	11,624.0	5,953.0	505.6	5,969.5	0.00	0.00	0.00
17,500.0	90.00	359.48	11,624.0	6,053.0	504.7	6,069.3	0.00	0.00	0.00
17,600.0	90.00	359.48	11,624.0	6,153.0	503.8	6,169.2	0.00	0.00	0.00
17,700.0	90.00	359.48	11,624.0	6,253.0	502.9	6,269.0	0.00	0.00	0.00
17,800.0	90.00	359.48	11,624.0	6,353.0	502.0	6,368.9	0.00	0.00	0.00
17,900.0	90.00	359.48	11,624.0	6,453.0	501.1	6,468.8	0.00	0.00	0.00
18,000.0	90.00	359.48	11,624.0	6,553.0	500.2	6,568.6	0.00	0.00	0.00
18,100.0	90.00	359.48	11,624.0	6,653.0	499.2	6,668.5	0.00	0.00	0.00
18,200.0	90.00	359.48	11,624.0	6,753.0	498.3	6,768.3	0.00	0.00	0.00
18,300.0	90.00	359.48	11,624.0	6,853.0	497.4	6,868.2	0.00	0.00	0.00
18,400.0	90.00	359.48	11,624.0	6,953.0	496.5	6,968.1	0.00	0.00	0.00
18,500.0	90.00	359.48	11,624.0	7,053.0	495.6	7,067.9	0.00	0.00	0.00
18,600.0	90.00	359.48	11,624.0	7,153.0	494.7	7,167.8	0.00	0.00	0.00
18,700.0	90.00	359.48	11,624.0	7,252.9	493.8	7,267.6	0.00	0.00	0.00
18,800.0	90.00	359.48	11,624.0	7,352.9	492.9	7,367.5	0.00	0.00	0.00
18,900.0	90.00	359.48	11,624.0	7,452.9	492.0	7,467.4	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 15 Central Prod	Local Co-ordinate Reference:	Well ZIA HILLS UNIT 2331 WC #712H
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 #712H	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	11,624.0	7,552.9	491.0	7,567.2	0.00	0.00	0.00	
19,100.0	90.00	359.48	11,624.0	7,652.9	490.1	7,667.1	0.00	0.00	0.00	
19,200.0	90.00	359.48	11,624.0	7,752.9	489.2	7,766.9	0.00	0.00	0.00	
19,300.0	90.00	359.48	11,624.0	7,852.9	488.3	7,866.8	0.00	0.00	0.00	
19,400.0	90.00	359.48	11,624.0	7,952.9	487.4	7,966.7	0.00	0.00	0.00	
19,500.0	90.00	359.48	11,624.0	8,052.9	486.5	8,066.5	0.00	0.00	0.00	
19,600.0	90.00	359.48	11,624.0	8,152.9	485.6	8,166.4	0.00	0.00	0.00	
19,700.0	90.00	359.48	11,624.0	8,252.9	484.7	8,266.2	0.00	0.00	0.00	
19,800.0	90.00	359.48	11,624.0	8,352.9	483.8	8,366.1	0.00	0.00	0.00	
19,900.0	90.00	359.48	11,624.0	8,452.9	482.9	8,465.9	0.00	0.00	0.00	
20,000.0	90.00	359.48	11,624.0	8,552.9	481.9	8,565.8	0.00	0.00	0.00	
20,100.0	90.00	359.48	11,624.0	8,652.9	481.0	8,665.7	0.00	0.00	0.00	
20,200.0	90.00	359.48	11,624.0	8,752.9	480.1	8,765.5	0.00	0.00	0.00	
20,300.0	90.00	359.48	11,624.0	8,852.9	479.2	8,865.4	0.00	0.00	0.00	
20,400.0	90.00	359.48	11,624.0	8,952.9	478.3	8,965.2	0.00	0.00	0.00	
20,500.0	90.00	359.48	11,624.0	9,052.9	477.4	9,065.1	0.00	0.00	0.00	
20,600.0	90.00	359.48	11,624.0	9,152.9	476.5	9,165.0	0.00	0.00	0.00	
20,700.0	90.00	359.48	11,624.0	9,252.9	475.6	9,264.8	0.00	0.00	0.00	
20,800.0	90.00	359.48	11,624.0	9,352.9	474.7	9,364.7	0.00	0.00	0.00	
20,900.0	90.00	359.48	11,624.0	9,452.9	473.8	9,464.5	0.00	0.00	0.00	
21,000.0	90.00	359.48	11,624.0	9,552.9	472.8	9,564.4	0.00	0.00	0.00	
21,100.0	90.00	359.48	11,624.0	9,652.8	471.9	9,664.3	0.00	0.00	0.00	
21,200.0	90.00	359.48	11,624.0	9,752.8	471.0	9,764.1	0.00	0.00	0.00	
21,300.0	90.00	359.48	11,624.0	9,852.8	470.1	9,864.0	0.00	0.00	0.00	
21,400.0	90.00	359.48	11,624.0	9,952.8	469.2	9,963.8	0.00	0.00	0.00	
21,500.0	90.00	359.48	11,624.0	10,052.8	468.3	10,063.7	0.00	0.00	0.00	
21,600.0	90.00	359.48	11,624.0	10,152.8	467.4	10,163.6	0.00	0.00	0.00	
21,700.0	90.00	359.48	11,624.0	10,252.8	466.5	10,263.4	0.00	0.00	0.00	
21,800.0	90.00	359.48	11,624.0	10,352.8	465.6	10,363.3	0.00	0.00	0.00	
21,900.0	90.00	359.48	11,624.0	10,452.8	464.6	10,463.1	0.00	0.00	0.00	
21,996.4	90.00	359.48	11,624.0	10,549.2	463.8	10,559.4	0.00	0.00	0.00	

Design Targets										
Target Name										
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting			
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude	
LTP (ZIA HILLS UNIT 23	0.00	0.00	11,624.0	10,499.2	464.2	382,340.62	683,448.62	32° 2' 59.232 N	103° 44' 28.457 W	
- plan misses target center by 46.4usft at 21900.0usft MD (11624.0 TVD, 10452.8 N, 464.6 E)										
- Point										
FTP (ZIA HILLS UNIT 23	0.00	0.00	11,624.0	34.3	559.7	371,875.78	683,544.13	32° 1' 15.665 N	103° 44' 28.013 W	
- plan misses target center by 179.6usft at 11574.0usft MD (11495.7 TVD, 160.0 N, 558.4 E)										
- Circle (radius 50.0)										
PBHL (ZIA HILLS UNIT 23	0.00	179.48	11,624.0	10,549.2	463.8	382,390.61	683,448.22	32° 2' 59.726 N	103° 44' 28.458 W	
- plan hits target center										
- Rectangle (sides W100.0 H10,515.5 D20.0)										



Project: BULLDOG PROSPECT (NM-E)
Site: ZIA HILLS UNIT 2331 PROJECT
Well: ZIA HILLS UNIT 2331 WC #712H
Wellbore: OWB
Design: PWP0
GL: 3164.0
KB=31ft @ 3195.0usft

WELL DETAILS: ZIA HILLS UNIT 2331 WC #712H

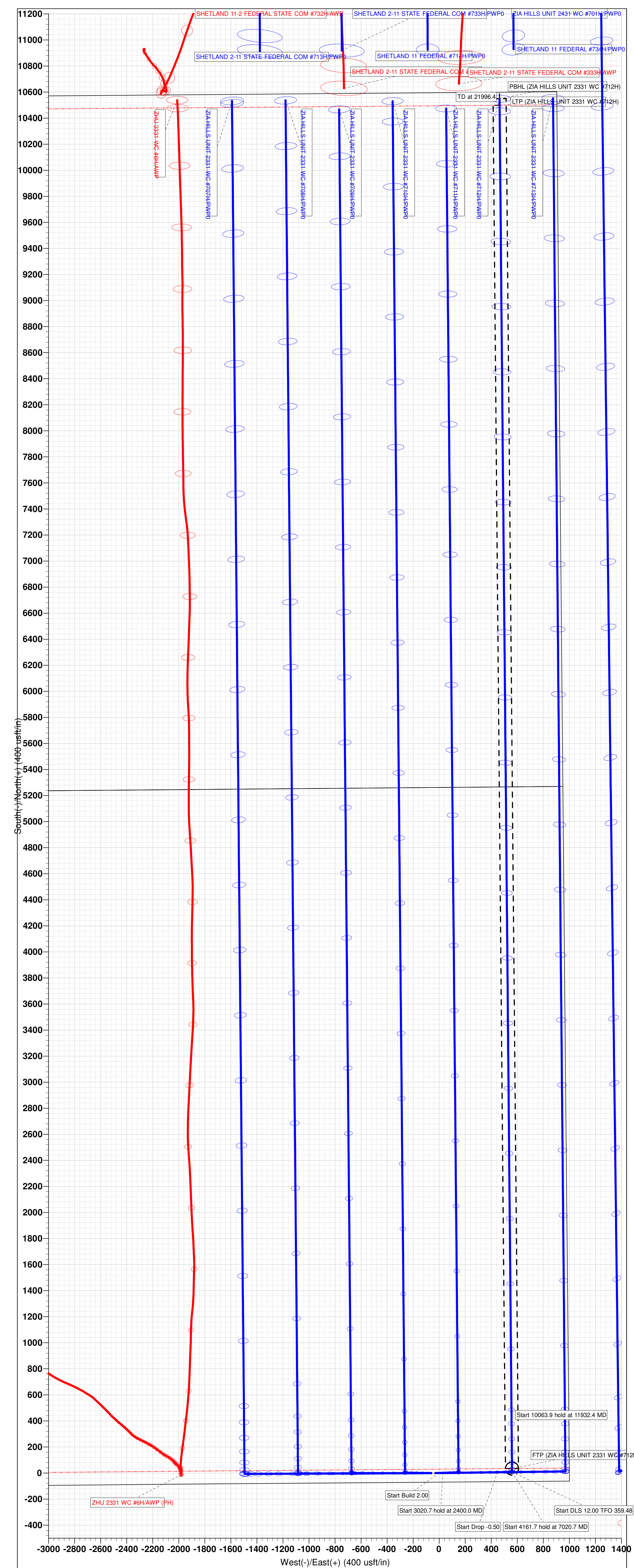
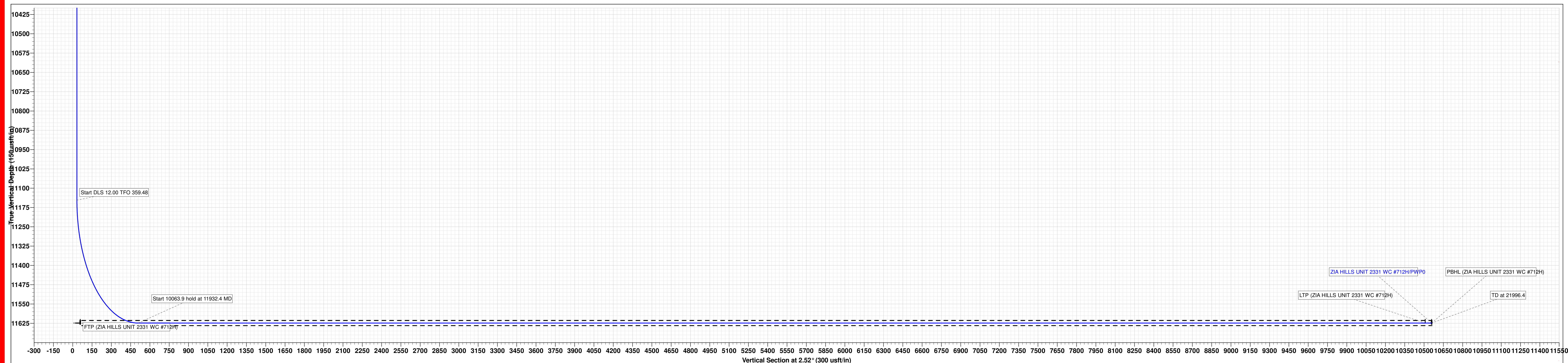
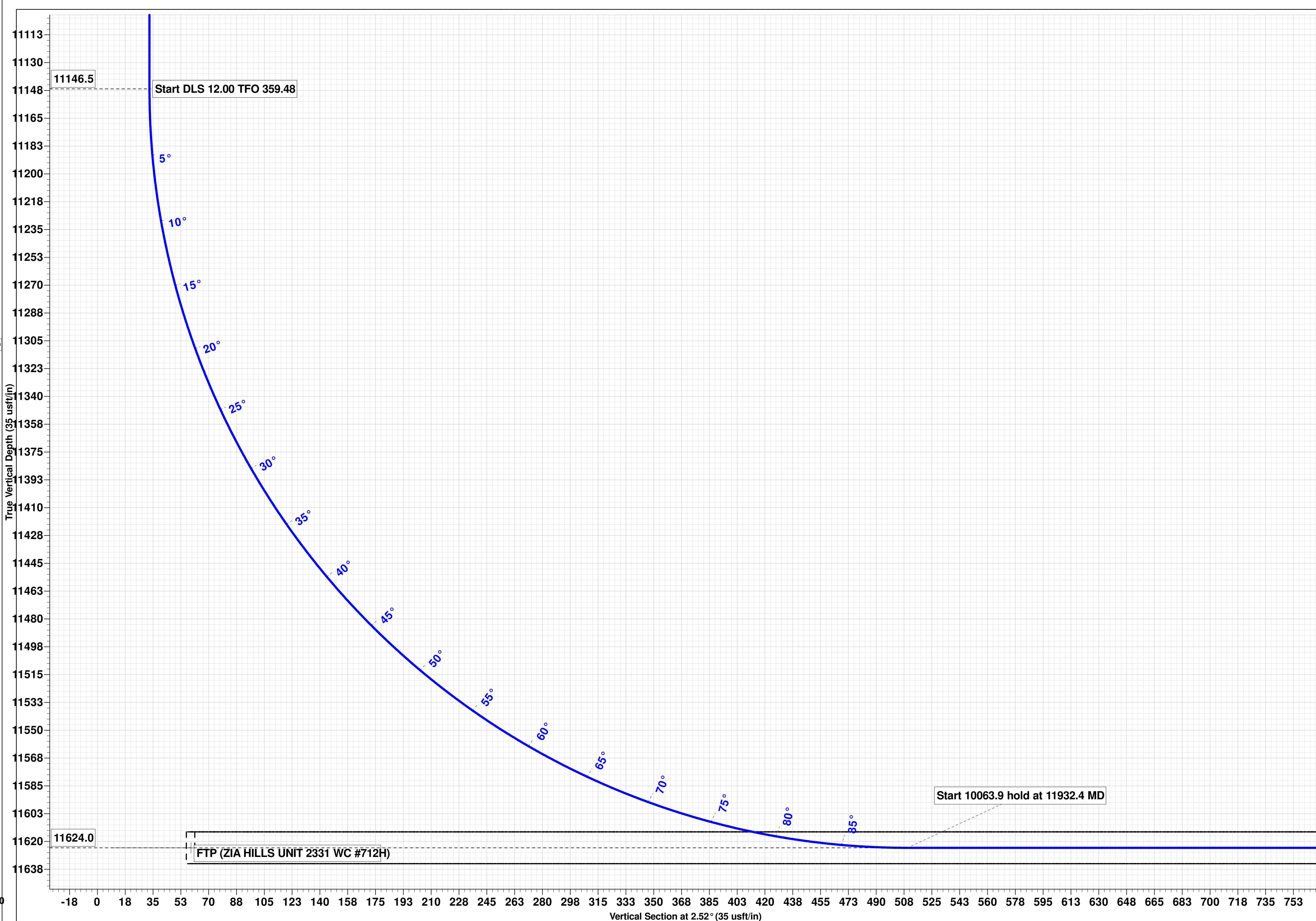
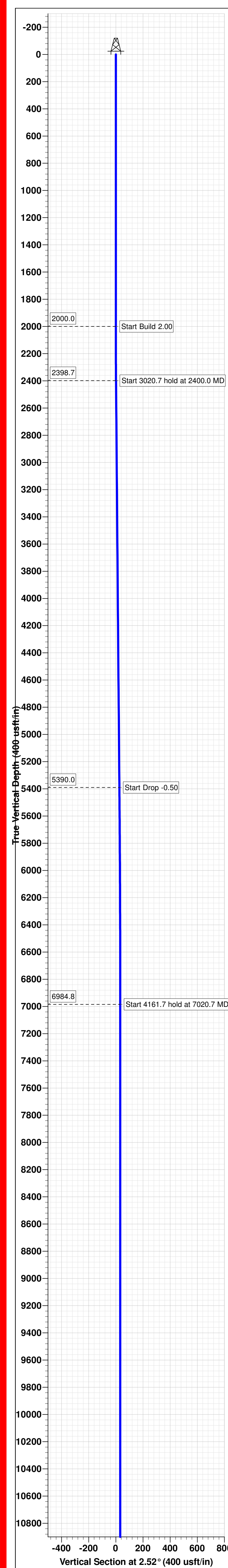
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	371841.43	682984.45	32° 1' 15.355 N	103° 44' 34.516 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (ZIA HILLS UNIT 2331 WC #712H)	11624.0	34.4	559.7	371875.78	683544.13
LTP (ZIA HILLS UNIT 2331 WC #712H)	11624.0	10499.2	464.2	382340.62	683448.62
PBHL (ZIA HILLS UNIT 2331 WC #712H)	11624.0	10549.2	463.8	382390.61	683448.22

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
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0
2400.0	8.00	89.16	2398.7	0.4	27.9	2.00	89.16	1.6
5420.7	8.00	89.16	5390.0	6.6	448.2	0.00	0.00	26.3
7020.7	0.00	0.00	6984.8	8.2	559.7	0.50	180.00	32.8
11182.4	0.00	0.00	11146.5	8.2	559.7	0.00	0.00	32.8
11932.4	90.00	359.48	11624.0	485.7	555.4	12.00	359.48	509.6
21996.4	90.00	359.48	11624.0	10549.2	463.8	0.00	0.00	10559.4





Project: BULLDOG PROSPECT (NM-E)
Site: ZIA HILLS UNIT 2331 PROJECT
Well: ZIA HILLS UNIT 2331 WC #712H
Wellbore: OWB
Design: PWP0
GL: 3164.0
KB=31ft @ 3195.0usft

WELL DETAILS: ZIA HILLS UNIT 2331 WC #712H

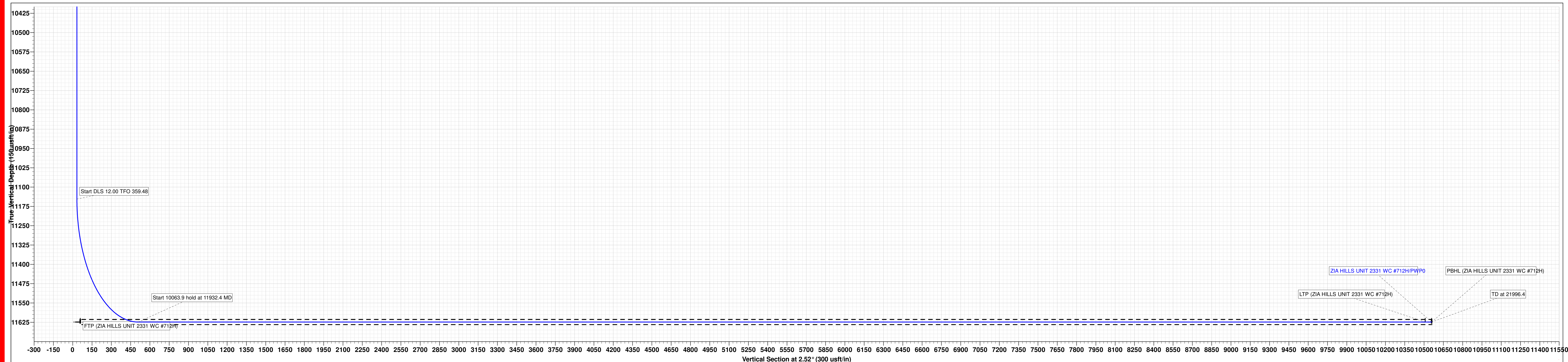
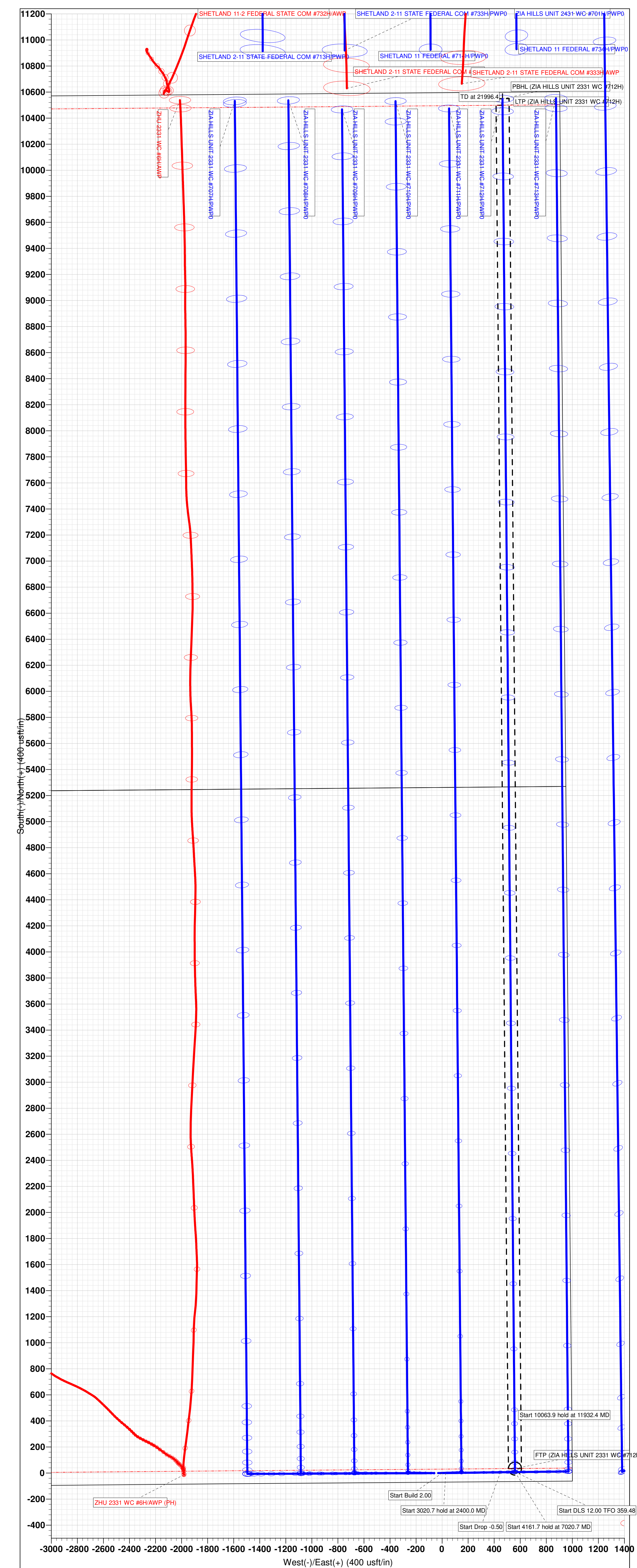
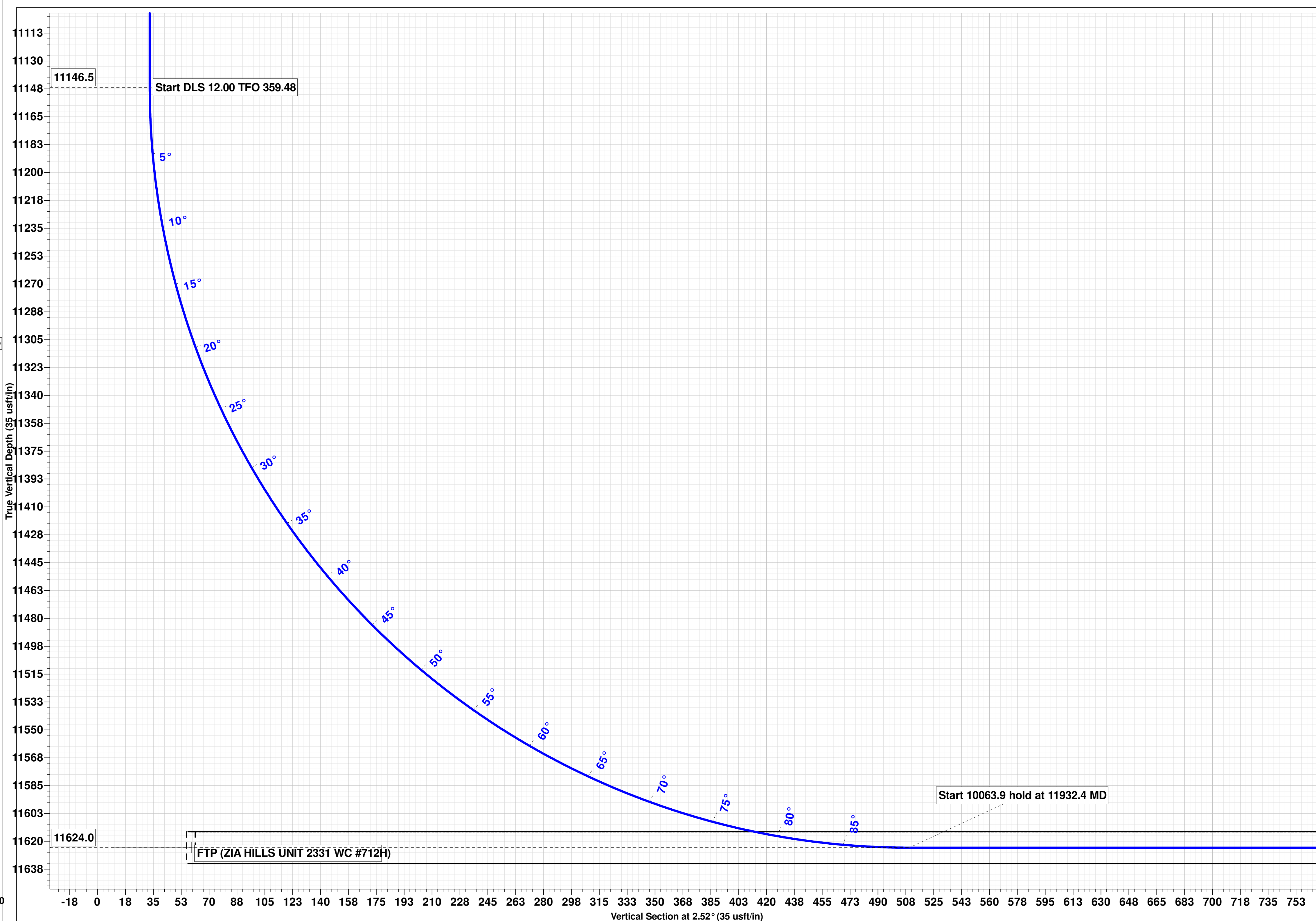
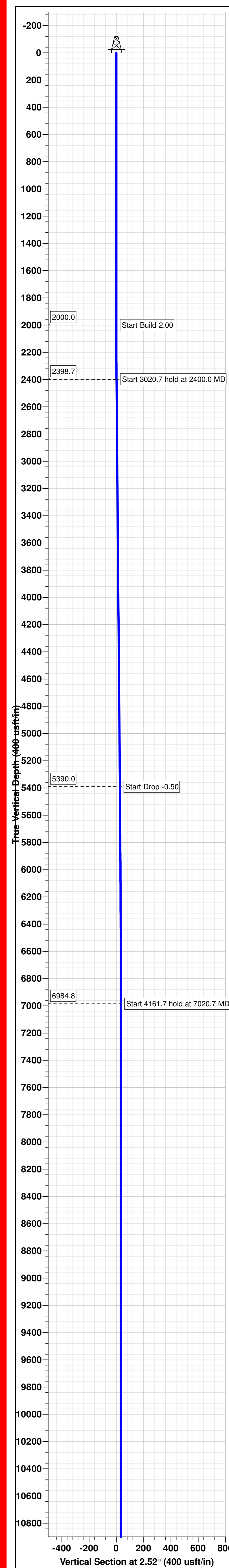
+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.0	0.0	371841.43	682984.45	32° 1' 15.355 N	103° 44' 34.516 W

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting
FTP (ZIA HILLS UNIT 2331 WC #712H)	11624.0	34.4	559.7	371875.78	683544.13
LTP (ZIA HILLS UNIT 2331 WC #712H)	11624.0	10499.2	464.2	382340.62	683448.62
PBHL (ZIA HILLS UNIT 2331 WC #712H)	11624.0	10549.2	463.8	382390.61	683448.22

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
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0
2400.0	8.00	89.16	2398.7	0.4	27.9	2.00	89.16	1.6
5420.7	8.00	89.16	5390.0	6.6	448.2	0.00	0.00	26.3
7020.7	0.00	0.00	6984.8	8.2	559.7	0.50	180.00	32.8
11182.4	0.00	0.00	11146.5	8.2	559.7	0.00	0.00	32.8
11932.4	90.00	359.48	11624.0	485.7	555.4	12.00	359.48	509.6
21996.4	90.00	359.48	11624.0	10549.2	463.8	0.00	0.00	10559.4



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 712H
SURFACE HOLE FOOTAGE:	70'/S & 1000'/E
BOTTOM HOLE FOOTAGE:	50'/N & 440'/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

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 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 288984

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 288984
	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	12/7/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	12/7/2023
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	12/7/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	12/7/2023
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	12/7/2023
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	12/7/2023