

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

Form C-101
August 1, 2011
Permit 407905

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701		2. OGRID Number 229137
4. Property Code 317530		3. API Number 30-025-55897
5. Property Name COLUMBUS FEDERAL COM		6. Well No. 505H

7. Surface Location

UL - Lot C	Section 34	Township 25S	Range 33E	Lot Idn	Feet From 400	N/S Line N	Feet From 2425	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot O	Section 3	Township 26S	Range 33E	Lot Idn O	Feet From 50	N/S Line S	Feet From 1430	E/W Line E	County Lea
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9. Pool Information

WC-025 G-09 S253335K;LWR BONE SPRIN	97741
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Federal	15. Ground Level Elevation 3330
16. Multiple N	17. Proposed Depth 21199	18. Formation 2nd Bone Spring Sand	19. Contractor	20. Spud Date 1/1/2027
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1149	790	0
Int1	12.25	9.625	40	4800	1290	0
Prod	8.75	5.5	20	21199	2680	3800

Casing/Cement Program: Additional Comments

Tapered production hole: 0' - 10400' 8.75", 10400' - 21199' 7.875".

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	10000	5000	N/A

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature:	OIL CONSERVATION DIVISION		
	Printed Name: Electronically filed by Robyn Russell	Approved By: Jeffrey Harrison	
	Title: Supervisor Delaware Regulatory	Title: Petroleum Specialist III	
	Email Address: robyn.m.russell@conocophillips.com	Approved Date: 2/5/2026	Expiration Date: 2/5/2028
	Date: 1/28/2026	Phone: 432-685-4385	Conditions of Approval Attached

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024			
		Submittal Type: <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> Initial Submittal</td> </tr> <tr> <td><input type="checkbox"/> Amended Report</td> </tr> <tr> <td><input type="checkbox"/> As Drilled</td> </tr> </table>	<input checked="" type="checkbox"/> Initial Submittal	<input type="checkbox"/> Amended Report	<input type="checkbox"/> As Drilled
<input checked="" type="checkbox"/> Initial Submittal					
<input type="checkbox"/> Amended Report					
<input type="checkbox"/> As Drilled					

WELL LOCATION INFORMATION

API Number 30-025- 55897	Pool Code 97741	Pool Name WC-025 G-09 S253335K; LWR Bone Spring
Property Code 317530	Property Name COLUMBUS FEDERAL COM	Well Number 505H
OGRID No. 229137	Operator Name COG OPERATING LLC	Ground Level Elevation 3329.8'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	34	25-S	33-E		400 FNL	2425 FWL	32.093166°N	103.560922°W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
0	3	26-S	33-E		50 FSL	1430 FEL	32.065388°N	103.556289°W	LEA

Dedicated Acres 960	Infill or Defining Well Infill	Defining Well API Pending 504H	Overlapping Spacing Unit (Y/N) Yes	Consolidation Code Com
Order Numbers.			Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	34	25-S	33-E		400 FNL	2425 FWL	32.093166°N	103.560922°W	LEA

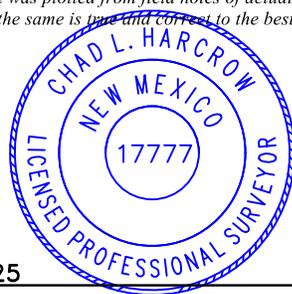
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	34	25-S	33-E		100 FNL	1430 FEL	32.093995°N	103.556274°W	LEA

Last Take Point (LTP)

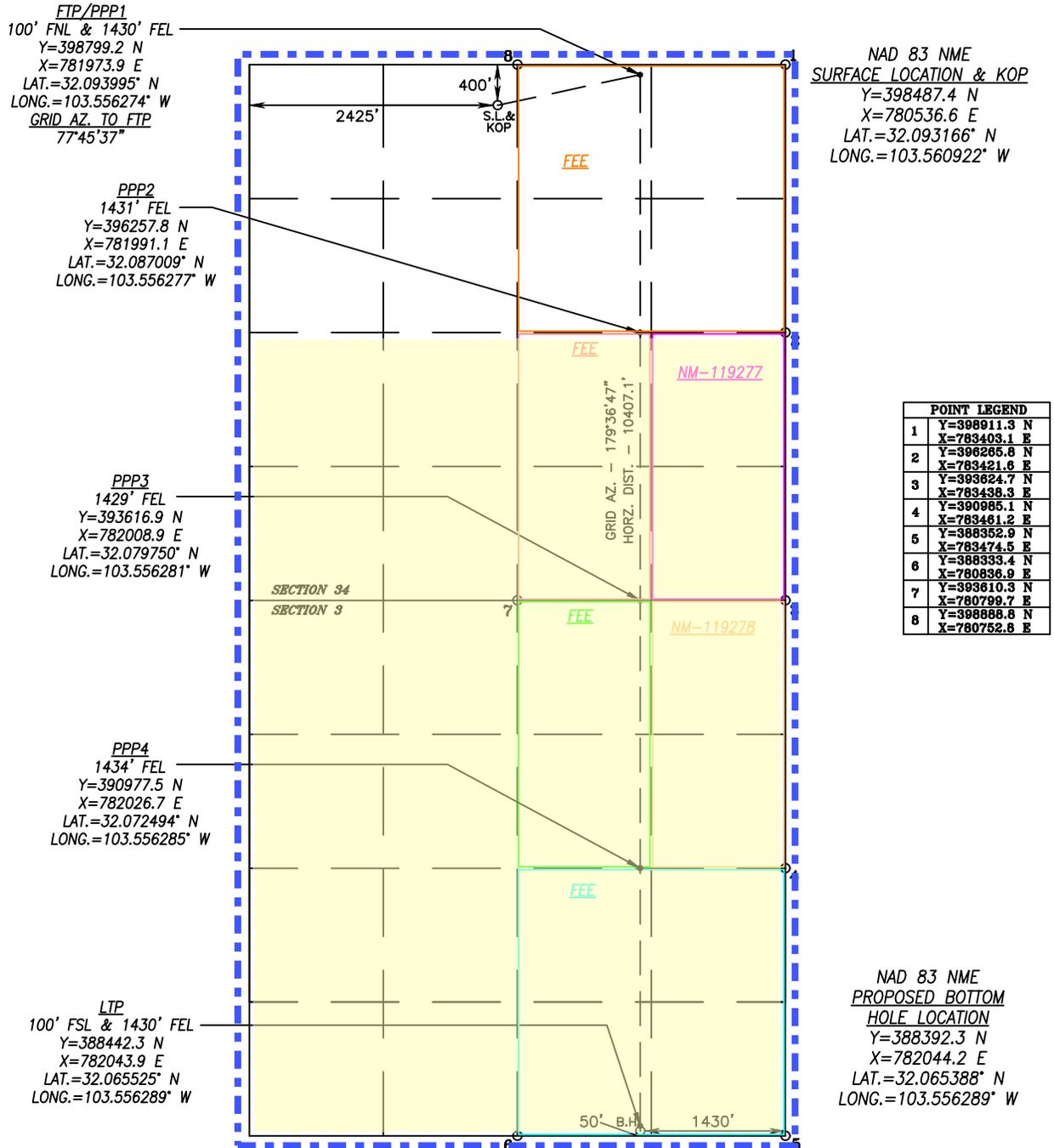
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
0	3	26-S	33-E		100 FSL	1430 FEL	32.065525°N	103.556289°W	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3329.8'
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<p>OPERATOR CERTIFICATIONS</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p><i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i></p>	<p>SURVEYOR CERTIFICATIONS</p> <p><i>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.</i></p> <div style="text-align: right;">  <p><i>Chad Harcrow</i> 11/30/25</p> </div>
Signature <i>Stan Wagner</i> Date 1/22/26	Signature and Seal of Professional Surveyor
Printed Name Stan Wagner	Certificate Number 17777
Email Address	Date of Survey NOVEMBER 10, 2025
W.O.#25-1386 DRAWN BY: WN PAGE 1 OF 2	

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
		Submittal Type: <input checked="" type="checkbox"/> Initial Submittal <input type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION

API Number 30-025- 55897	Pool Code 51020	Pool Name Red Hills; Lower Bone Springs
Property Code 317530	Property Name COLUMBUS FEDERAL COM	Well Number 505H
OGRID No. 229137	Operator Name COG OPERATING LLC	Ground Level Elevation 3329.8'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

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Dedicated Acres 320	Infill or Defining Well Infill	Defining Well API Pending 504H	Overlapping Spacing Unit (Y/N) Yes	Consolidation Code Com
Order Numbers.			Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

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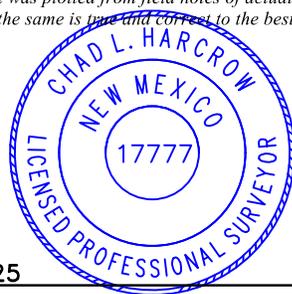
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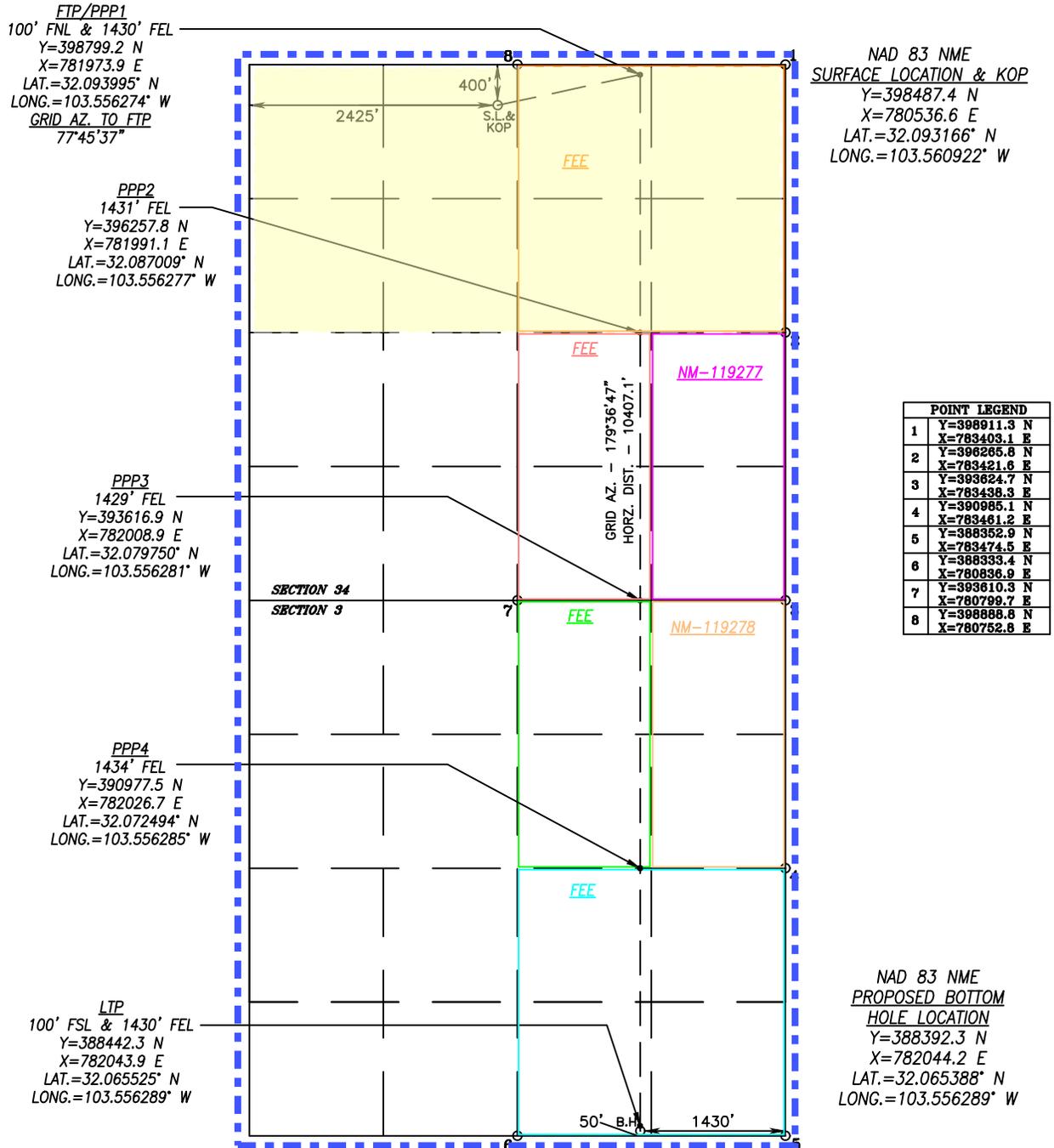
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Signature: <i>Stan Wagner</i> Date: 1/22/26	Signature and Seal of Professional Surveyor
Printed Name: Stan Wagner Email Address:	Certificate Number: 17777 Date of Survey: NOVEMBER 10, 2025
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 407905

PERMIT COMMENTS

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701		API Number: 30-025-55897
		Well: COLUMBUS FEDERAL COM #505H
Created By	Comment	Comment Date
jeffrey.harrison	Infill to 30-025-55896 COLUMBUS FEDERAL COM #504H	2/5/2026

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

Form APD Conditions

Permit 407905

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: COG OPERATING LLC [229137] 600 W Illinois Ave Midland, TX 79701	API Number: 30-025-55897
	Well: COLUMBUS FEDERAL COM #505H

OCD Reviewer	Condition
jeffrey.harrison	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.
jeffrey.harrison	NSP required if not included in an existing order or not an infill to an appropriate defining well in the same pool and spacing unit.
jeffrey.harrison	Cement must be in place for at least 8 hours and achieve a minimum compressive strength of 500 psi before performing further operations on the well.
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
jeffrey.harrison	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.
jeffrey.harrison	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.

DELAWARE BASIN EAST

**LEA COUNT SOUTH WEST (NM-E)
COLUMBUS FEDERAL PROJECT
_COLUMBUS FEDERAL COM 505H**

**OWB
PWP0**

Anticollision Report

14 January, 2026

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference	PWP0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Max. Cent. Dist. of 1,000.00usft or Max. Ell. Sep. of 500.00usft	Error Surface:	Combined Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Added to Error Values

Survey Tool Program	Date	1/13/2026		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	21,103.19	PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corr

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Summary						
Offset Well - Wellbore - Design						
COLUMBUS FEDERAL PROJECT						
_COLUMBUS FEDERAL COM 503H - OWB - PWP0	2,000.00	2,000.00	59.94	48.50	5.240	CC, ES, SF
_COLUMBUS FEDERAL COM 504H - OWB - PWP0	2,004.45	2,006.28	34.08	22.53	2.949	Normal Operations, CC, ES, SF
_COLUMBUS FEDERAL COM 506H - OWB - PWP0	1,500.00	1,500.00	40.00	30.18	4.072	CC, ES, SF
_COLUMBUS FEDERAL COM 651H - OWB - PWP0	2,000.00	2,000.00	119.94	108.50	10.485	CC, ES
_COLUMBUS FEDERAL COM 651H - OWB - PWP0	2,100.00	2,095.94	123.30	111.42	10.382	SF
_COLUMBUS FEDERAL COM 652H - OWB - PWP0	2,000.00	2,000.00	79.94	68.50	6.988	CC, ES, SF
_COLUMBUS FEDERAL COM 653H - OWB - PWP0	2,000.00	2,000.00	19.94	8.50	1.743	Caution - Monitor Closely, CC, ES, SF
_COLUMBUS FEDERAL COM 654H - OWB - PWP0	1,500.00	1,500.00	20.06	10.24	2.042	Caution - Monitor Closely, CC, ES, SF
CALM BREEZE 2 FEDERAL COM #704H - OWB - AWP						Out of range
COLUMBUS FEDERAL COM #21H - OWB - AWP						Out of range
COLUMBUS FEDERAL COM #22H - OWB - AWP	10,751.20	10,584.43	232.97	198.86	6.831	CC, ES, SF
COLUMBUS FEDERAL COM #701H - OWB - AWP						Out of range
COLUMBUS FEDERAL COM 501H - OWB - PWP1	1,710.00	1,710.00	139.93	130.82	15.353	CC, ES
COLUMBUS FEDERAL COM 501H - OWB - PWP1	1,900.00	1,892.97	143.63	133.90	14.754	SF
COLUMBUS FEDERAL COM 502H - OWB - PWP1	2,000.00	2,000.00	99.94	90.05	10.107	CC, ES
COLUMBUS FEDERAL COM 502H - OWB - PWP1	2,100.00	2,096.60	103.29	92.98	10.016	SF
COLUMBUS FEE #23H - OWB (PH) - AWP	9,211.15	9,073.58	74.16	39.64	2.148	Caution - Monitor Closely, SF
COLUMBUS FEE #23H - OWB (PH) - AWP	9,281.14	9,142.03	72.72	39.28	2.174	Caution - Monitor Closely, CC, ES
COLUMBUS FEE #23H - ST01 - AWP	9,211.15	9,073.58	74.16	39.64	2.148	Caution - Monitor Closely, SF
COLUMBUS FEE #23H - ST01 - AWP	9,281.14	9,142.03	72.72	39.28	2.174	Caution - Monitor Closely, CC, ES
COLUMBUS FEE #24H - OWB - AWP	5,952.49	5,876.29	58.72	25.44	1.764	Caution - Monitor Closely, CC, ES, SF
COLUMBUS FEE #2H - OWB - AWP	5,505.72	5,439.48	73.47	56.54	4.339	CC, ES, SF
RED BULL 35 FEDERAL #1H - OWB - AWP						Out of range
ROJO 7811 34 27 FEDERAL #21H - OWB - AWP						Out of range
ROJO C 7811 JV-P #1H - OWB - AWP						Out of range
SALADO DRAW 10 FEDERAL #2H - OWB - AWP	6,372.19	6,272.21	497.35	461.15	13.742	CC
SALADO DRAW 10 FEDERAL #2H - OWB - AWP	6,500.00	6,398.20	497.89	461.00	13.499	ES
SALADO DRAW 10 FEDERAL #2H - OWB - AWP	7,200.00	7,081.29	522.45	481.73	12.828	SF
VALOR PROJECT						
_VALOR FEDERAL COM 501H - 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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 503H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
0.00	0.00	0.00	0.00	0.00	0.00	-90.40	-0.42	-59.94	59.94						
100.00	100.00	100.00	100.00	0.77	0.77	-90.40	-0.42	-59.94	59.94	57.95	1.99	30.103			
200.00	200.00	200.00	200.00	1.44	1.44	-90.40	-0.42	-59.94	59.94	56.63	3.31	18.101			
300.00	300.00	300.00	300.00	1.88	1.88	-90.40	-0.42	-59.94	59.94	55.75	4.20	14.288			
400.00	400.00	400.00	400.00	2.25	2.25	-90.40	-0.42	-59.94	59.94	55.03	4.91	12.203			
500.00	500.00	500.00	500.00	2.56	2.56	-90.40	-0.42	-59.94	59.94	54.41	5.53	10.833			
600.00	600.00	600.00	600.00	2.84	2.84	-90.40	-0.42	-59.94	59.94	53.85	6.09	9.842			
700.00	700.00	700.00	700.00	3.10	3.10	-90.40	-0.42	-59.94	59.94	53.34	6.60	9.080			
800.00	800.00	800.00	800.00	3.34	3.34	-90.40	-0.42	-59.94	59.94	52.86	7.08	8.470			
900.00	900.00	900.00	900.00	3.57	3.57	-90.40	-0.42	-59.94	59.94	52.42	7.52	7.967			
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	-90.40	-0.42	-59.94	59.94	51.99	7.95	7.542			
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	-90.40	-0.42	-59.94	59.94	51.59	8.35	7.177			
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	-90.40	-0.42	-59.94	59.94	51.20	8.74	6.859			
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	-90.40	-0.42	-59.94	59.94	50.83	9.11	6.578			
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	-90.40	-0.42	-59.94	59.94	50.47	9.47	6.327			
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	-90.40	-0.42	-59.94	59.94	50.12	9.82	6.102			
1,600.00	1,600.00	1,600.00	1,600.00	4.91	4.91	-90.40	-0.42	-59.94	59.94	49.78	10.16	5.898			
1,700.00	1,700.00	1,700.00	1,700.00	5.08	5.08	-90.40	-0.42	-59.94	59.94	49.45	10.49	5.712			
1,800.00	1,800.00	1,800.00	1,800.00	5.24	5.24	-90.40	-0.42	-59.94	59.94	49.13	10.82	5.542			
1,900.00	1,900.00	1,900.00	1,900.00	5.40	5.40	-90.40	-0.42	-59.94	59.94	48.81	11.13	5.385			
2,000.00	2,000.00	2,000.00	2,000.00	5.56	5.56	-90.40	-0.42	-59.94	59.94	48.50	11.44	5.240	CC, ES, SF		
2,100.00	2,099.98	2,098.53	2,098.51	5.79	5.79	-167.39	0.83	-61.08	62.81	50.96	11.85	5.301			
2,200.00	2,199.84	2,196.54	2,196.38	6.00	6.03	-165.27	4.56	-64.48	71.45	59.21	12.24	5.838			
2,300.00	2,299.45	2,293.49	2,292.98	6.22	6.28	-162.67	10.69	-70.05	85.96	73.33	12.63	6.807			
2,400.00	2,398.70	2,388.91	2,387.72	6.43	6.54	-160.21	19.07	-77.68	106.33	93.32	13.02	8.169			
2,500.00	2,497.47	2,483.28	2,481.01	6.64	6.72	-158.14	29.56	-87.23	132.40	119.07	13.33	9.932			
2,564.11	2,560.47	2,544.54	2,541.50	6.71	6.85	-157.27	36.74	-93.77	151.20	137.68	13.51	11.190			
2,600.00	2,595.67	2,578.74	2,575.26	6.74	6.94	-156.99	40.75	-97.42	162.08	148.48	13.61	11.912			
2,700.00	2,693.74	2,674.00	2,669.32	6.88	7.18	-156.39	51.93	-107.59	192.43	178.48	13.95	13.797			
2,800.00	2,791.80	2,769.27	2,763.38	7.02	7.44	-155.95	63.10	-117.77	222.79	208.49	14.30	15.575			
2,900.00	2,889.87	2,864.54	2,857.45	7.16	7.72	-155.62	74.27	-127.94	253.16	238.48	14.68	17.250			
3,000.00	2,987.94	2,959.81	2,951.51	7.31	8.01	-155.36	85.45	-138.11	283.53	268.47	15.06	18.825			
3,100.00	3,086.01	3,055.08	3,045.57	7.47	8.31	-155.15	96.62	-148.28	313.91	298.45	15.46	20.305			
3,200.00	3,184.07	3,150.34	3,139.63	7.62	8.62	-154.97	107.79	-158.45	344.30	328.43	15.87	21.695			
3,300.00	3,282.14	3,245.61	3,233.69	7.78	8.95	-154.83	118.96	-168.62	374.68	358.39	16.29	23.000			
3,400.00	3,380.21	3,340.88	3,327.76	7.94	9.28	-154.71	130.14	-178.79	405.07	388.35	16.72	24.225			
3,500.00	3,478.28	3,436.15	3,421.82	8.10	9.61	-154.60	141.31	-188.97	435.46	418.30	17.16	25.375			
3,600.00	3,576.34	3,531.42	3,515.88	8.27	9.96	-154.51	152.48	-199.14	465.85	448.24	17.61	26.454			
3,700.00	3,674.41	3,626.68	3,609.94	8.44	10.31	-154.43	163.66	-209.31	496.24	478.17	18.07	27.468			
3,800.00	3,772.48	3,721.95	3,704.01	8.61	10.66	-154.35	174.83	-219.48	526.63	508.10	18.53	28.421			
3,900.00	3,870.55	3,817.22	3,798.07	8.78	11.03	-154.29	186.00	-229.65	557.02	538.02	19.00	29.317			
4,000.00	3,968.61	3,912.49	3,892.13	8.95	11.39	-154.23	197.17	-239.82	587.41	567.94	19.48	30.160			
4,100.00	4,066.68	4,007.76	3,986.19	9.13	11.76	-154.18	208.35	-249.99	617.81	597.85	19.96	30.954			
4,200.00	4,164.75	4,103.02	4,080.25	9.31	12.13	-154.13	219.52	-260.16	648.20	627.76	20.45	31.703			
4,300.00	4,262.82	4,198.29	4,174.32	9.49	12.51	-154.09	230.69	-270.34	678.60	657.66	20.94	32.408			
4,400.00	4,360.88	4,293.56	4,268.38	9.67	12.89	-154.05	241.87	-280.51	708.99	687.55	21.44	33.074			
4,500.00	4,458.95	4,397.38	4,370.98	9.85	13.30	-154.04	253.63	-291.21	738.97	717.00	21.97	33.633			
4,600.00	4,557.02	4,504.84	4,477.44	10.03	13.72	-154.11	264.39	-301.01	767.52	745.00	22.52	34.081			
4,700.00	4,655.09	4,613.23	4,585.09	10.22	14.13	-154.27	273.74	-309.53	794.59	771.53	23.05	34.465			
4,800.00	4,753.15	4,722.49	4,693.82	10.40	14.54	-154.50	281.65	-316.72	820.16	796.59	23.57	34.796			
4,900.00	4,851.22	4,832.55	4,803.54	10.59	14.93	-154.80	288.06	-322.56	844.23	820.16	24.06	35.081			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 503H - OWB - PWP0												Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)			
5,000.00	4,949.29	4,943.33	4,914.12	10.78	15.30	-155.17	292.94	-327.00	866.78	842.25	24.53	35.333	
5,100.00	5,047.36	5,054.77	5,025.47	10.97	15.65	-155.60	296.25	-330.01	887.84	862.87	24.96	35.565	
5,200.00	5,145.43	5,166.78	5,137.45	11.16	15.95	-156.09	297.96	-331.57	907.39	882.05	25.35	35.801	
5,300.00	5,243.49	5,272.82	5,243.49	11.35	16.08	-156.61	298.21	-331.80	925.61	900.03	25.58	36.186	
5,400.00	5,341.56	5,370.89	5,341.56	11.54	16.14	-157.08	298.21	-331.80	943.65	917.89	25.77	36.624	
5,500.00	5,439.63	5,468.96	5,439.63	11.73	16.20	-157.53	298.21	-331.80	961.76	935.79	25.96	37.044	
5,600.00	5,537.70	5,567.02	5,537.70	11.92	16.26	-157.97	298.21	-331.80	979.91	953.75	26.16	37.454	
5,700.00	5,635.76	5,665.09	5,635.76	12.12	16.33	-158.39	298.21	-331.80	998.12	971.76	26.37	37.854	

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 504H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
0.00	0.00	0.00	0.00	0.00	0.00	-90.42	-0.29	-39.94	39.94						
100.00	100.00	100.00	100.00	0.77	0.77	-90.42	-0.29	-39.94	39.94	37.95	1.99	20.058			
200.00	200.00	200.00	200.00	1.44	1.44	-90.42	-0.29	-39.94	39.94	36.63	3.31	12.061			
300.00	300.00	300.00	300.00	1.88	1.88	-90.42	-0.29	-39.94	39.94	35.75	4.20	9.520			
400.00	400.00	400.00	400.00	2.25	2.25	-90.42	-0.29	-39.94	39.94	35.03	4.91	8.131			
500.00	500.00	500.00	500.00	2.56	2.56	-90.42	-0.29	-39.94	39.94	34.41	5.53	7.219			
600.00	600.00	600.00	600.00	2.84	2.84	-90.42	-0.29	-39.94	39.94	33.85	6.09	6.558			
700.00	700.00	700.00	700.00	3.10	3.10	-90.42	-0.29	-39.94	39.94	33.34	6.60	6.051			
800.00	800.00	800.00	800.00	3.34	3.34	-90.42	-0.29	-39.94	39.94	32.86	7.08	5.644			
900.00	900.00	900.00	900.00	3.57	3.57	-90.42	-0.29	-39.94	39.94	32.42	7.52	5.309			
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	-90.42	-0.29	-39.94	39.94	31.99	7.95	5.026			
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	-90.42	-0.29	-39.94	39.94	31.59	8.35	4.782			
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	-90.42	-0.29	-39.94	39.94	31.20	8.74	4.570			
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	-90.42	-0.29	-39.94	39.94	30.83	9.11	4.383			
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	-90.42	-0.29	-39.94	39.94	30.47	9.47	4.216			
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	-90.42	-0.29	-39.94	39.94	30.12	9.82	4.066			
1,600.00	1,600.00	1,600.45	1,600.43	4.91	5.01	-88.01	1.36	-39.34	39.36	29.19	10.17	3.870			
1,700.00	1,700.00	1,700.65	1,700.48	5.08	5.27	-80.46	6.31	-37.54	38.07	27.57	10.50	3.627			
1,800.00	1,800.00	1,801.03	1,800.51	5.24	5.36	-67.66	14.07	-34.24	37.02	26.29	10.73	3.449			
1,900.00	1,900.00	1,901.69	1,900.65	5.40	5.55	-51.75	21.84	-27.71	35.29	24.15	11.14	3.168			
2,000.00	2,000.00	2,001.84	2,000.03	5.56	5.74	-31.38	29.10	-17.75	34.08	22.54	11.54	2.953	Normal Operations		
2,004.45	2,004.45	2,006.28	2,004.43	5.57	5.75	-108.20	29.41	-17.23	34.08	22.53	11.56	2.949	Normal Operations, CC, ES, SF		
2,100.00	2,099.98	2,101.37	2,098.47	5.79	5.84	-87.91	35.86	-4.65	36.09	24.27	11.82	3.052			
2,200.00	2,199.84	2,200.82	2,196.73	6.00	5.99	-74.36	42.52	9.13	41.23	29.10	12.13	3.399			
2,300.00	2,299.45	2,300.56	2,295.27	6.22	6.15	-68.02	49.20	22.96	46.70	34.26	12.44	3.755			
2,400.00	2,398.70	2,400.45	2,393.97	6.43	6.31	-66.54	55.88	36.81	51.13	38.39	12.75	4.012			
2,500.00	2,497.47	2,500.37	2,492.71	6.64	6.47	-68.67	62.57	50.66	54.22	41.18	13.04	4.159			
2,564.11	2,560.47	2,564.39	2,555.97	6.71	6.58	-71.69	66.86	59.53	55.64	42.46	13.18	4.222			
2,600.00	2,595.67	2,600.23	2,591.37	6.74	6.64	-73.72	69.26	64.50	56.39	43.14	13.24	4.257			
2,700.00	2,693.74	2,700.05	2,690.01	6.88	6.80	-79.06	75.94	78.34	58.82	45.31	13.51	4.355			
2,800.00	2,791.80	2,799.88	2,788.64	7.02	6.97	-83.95	82.62	92.17	61.72	47.95	13.77	4.482			
2,900.00	2,889.87	2,899.70	2,887.28	7.16	7.14	-88.36	89.31	106.01	65.03	51.00	14.03	4.634			
3,000.00	2,987.94	2,999.53	2,985.92	7.31	7.31	-92.33	95.99	119.85	68.69	54.39	14.30	4.803			
3,100.00	3,086.01	3,099.35	3,084.55	7.47	7.48	-95.89	102.67	133.69	72.64	58.07	14.57	4.985			
3,200.00	3,184.07	3,199.18	3,183.19	7.62	7.65	-99.07	109.35	147.53	76.85	62.00	14.85	5.176			
3,300.00	3,282.14	3,299.01	3,281.82	7.78	7.83	-101.91	116.04	161.36	81.26	66.14	15.12	5.374			
3,400.00	3,380.21	3,398.83	3,380.46	7.94	8.01	-104.45	122.72	175.20	85.86	70.45	15.40	5.574			
3,500.00	3,478.28	3,498.66	3,479.10	8.10	8.18	-106.73	129.40	189.04	90.60	74.92	15.69	5.776			
3,600.00	3,576.34	3,598.48	3,577.73	8.27	8.36	-108.78	136.09	202.88	95.48	79.50	15.97	5.977			
3,700.00	3,674.41	3,698.31	3,676.37	8.44	8.54	-110.63	142.77	216.71	100.46	84.20	16.26	6.177			
3,800.00	3,772.48	3,798.13	3,775.00	8.61	8.72	-112.30	149.45	230.55	105.54	88.99	16.56	6.375			
3,900.00	3,870.55	3,897.96	3,873.64	8.78	8.91	-113.82	156.13	244.39	110.70	93.85	16.85	6.570			
4,000.00	3,968.61	3,997.79	3,972.27	8.95	9.09	-115.20	162.82	258.23	115.94	98.79	17.15	6.761			
4,100.00	4,066.68	4,097.61	4,070.91	9.13	9.27	-116.47	169.50	272.06	121.23	103.78	17.45	6.948			
4,200.00	4,164.75	4,197.44	4,169.55	9.31	9.46	-117.62	176.18	285.90	126.58	108.82	17.75	7.130			
4,300.00	4,262.82	4,297.26	4,268.18	9.49	9.64	-118.69	182.87	299.74	131.97	113.92	18.06	7.309			
4,400.00	4,360.88	4,397.09	4,366.82	9.67	9.83	-119.66	189.55	313.58	137.41	119.04	18.36	7.483			
4,500.00	4,458.95	4,496.91	4,465.45	9.85	10.02	-120.57	196.23	327.42	142.88	124.21	18.67	7.653			
4,600.00	4,557.02	4,596.74	4,564.09	10.03	10.20	-121.41	202.91	341.25	148.39	129.41	18.98	7.818			
4,700.00	4,655.09	4,696.57	4,662.72	10.22	10.39	-122.18	209.60	355.09	153.92	134.63	19.29	7.978			
4,800.00	4,753.15	4,796.39	4,761.36	10.40	10.58	-122.91	216.28	368.93	159.48	139.88	19.61	8.134			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 504H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,900.00	4,851.22	4,896.22	4,860.00	10.59	10.77	-123.58	222.96	382.77	165.07	145.15	19.92	8.286		
5,000.00	4,949.29	4,996.04	4,958.63	10.78	10.96	-124.21	229.65	396.60	170.68	150.44	20.24	8.434		
5,100.00	5,047.36	5,095.87	5,057.27	10.97	11.15	-124.80	236.33	410.44	176.30	155.75	20.55	8.577		
5,200.00	5,145.43	5,195.69	5,155.90	11.16	11.34	-125.35	243.01	424.28	181.95	161.07	20.87	8.717		
5,300.00	5,243.49	5,295.52	5,254.54	11.35	11.53	-125.87	249.70	438.12	187.61	166.41	21.19	8.852		
5,400.00	5,341.56	5,395.35	5,353.18	11.54	11.72	-126.36	256.38	451.95	193.28	171.77	21.51	8.984		
5,500.00	5,439.63	5,495.17	5,451.81	11.73	11.91	-126.82	263.06	465.79	198.97	177.13	21.84	9.112		
5,600.00	5,537.70	5,595.00	5,550.45	11.92	12.10	-127.26	269.74	479.63	204.67	182.51	22.16	9.236		
5,700.00	5,635.76	5,694.35	5,648.63	12.12	12.26	-127.69	276.36	493.33	210.41	187.96	22.45	9.372		
5,800.00	5,733.83	5,792.59	5,745.90	12.31	12.45	-128.41	282.35	505.72	216.72	193.94	22.78	9.515		
5,900.00	5,831.90	5,890.63	5,843.19	12.51	12.63	-129.47	287.59	516.59	223.81	200.69	23.12	9.682		
6,000.00	5,929.97	5,988.41	5,940.42	12.71	12.81	-130.83	292.11	525.94	231.75	208.29	23.46	9.877		
6,100.00	6,028.03	6,085.87	6,037.49	12.90	12.98	-132.45	295.89	533.77	240.64	216.82	23.82	10.101		
6,200.00	6,126.10	6,182.97	6,134.34	13.10	13.14	-134.27	298.94	540.09	250.58	226.39	24.19	10.359		
6,300.00	6,224.17	6,279.65	6,230.87	13.30	13.30	-136.25	301.27	544.91	261.67	237.10	24.57	10.652		
6,400.00	6,322.24	6,375.86	6,327.00	13.50	13.45	-138.35	302.88	548.25	274.01	249.07	24.95	10.983		
6,500.00	6,420.30	6,471.55	6,422.66	13.70	13.59	-140.51	303.79	550.13	287.71	262.38	25.33	11.357		
6,600.00	6,518.37	6,567.26	6,518.37	13.90	13.67	-142.71	304.02	550.60	302.82	277.13	25.69	11.787		
6,700.00	6,616.44	6,665.32	6,616.44	14.10	13.73	-144.83	304.02	550.60	318.71	292.66	26.05	12.233		
6,800.00	6,714.51	6,763.39	6,714.51	14.30	13.80	-146.75	304.02	550.60	334.99	308.57	26.42	12.680		
6,900.00	6,812.57	6,861.46	6,812.57	14.50	13.87	-148.49	304.02	550.60	351.61	324.83	26.78	13.131		
7,000.00	6,910.64	6,959.53	6,910.64	14.70	13.95	-150.07	304.02	550.60	368.51	341.38	27.13	13.584		
7,100.00	7,008.71	7,057.59	7,008.71	14.91	14.02	-151.51	304.02	550.60	385.67	358.19	27.48	14.037		
7,200.00	7,106.78	7,155.66	7,106.78	15.11	14.09	-152.83	304.02	550.60	403.04	375.23	27.82	14.489		
7,300.00	7,204.84	7,253.73	7,204.84	15.31	14.16	-154.05	304.02	550.60	420.61	392.46	28.15	14.940		
7,400.00	7,302.91	7,351.80	7,302.91	15.52	14.23	-155.16	304.02	550.60	438.35	409.86	28.49	15.388		
7,500.00	7,400.98	7,449.87	7,400.98	15.72	14.31	-156.19	304.02	550.60	456.23	427.42	28.81	15.833		
7,600.00	7,499.05	7,547.93	7,499.05	15.93	14.38	-157.14	304.02	550.60	474.25	445.11	29.14	16.275		
7,700.00	7,597.11	7,646.00	7,597.11	16.13	14.45	-158.02	304.02	550.60	492.39	462.93	29.46	16.712		
7,800.00	7,695.18	7,744.07	7,695.18	16.34	14.52	-158.84	304.02	550.60	510.63	480.85	29.78	17.145		
7,900.00	7,793.25	7,842.14	7,793.25	16.54	14.60	-159.61	304.02	550.60	528.97	498.87	30.10	17.572		
8,000.00	7,891.32	7,940.20	7,891.32	16.75	14.67	-160.32	304.02	550.60	547.39	516.97	30.42	17.995		
8,100.00	7,989.38	8,038.27	7,989.38	16.96	14.74	-160.99	304.02	550.60	565.89	535.16	30.73	18.413		
8,200.00	8,087.45	8,136.34	8,087.45	17.16	14.81	-161.61	304.02	550.60	584.46	553.41	31.05	18.825		
8,300.00	8,185.52	8,234.41	8,185.52	17.37	14.89	-162.19	304.02	550.60	603.09	571.73	31.36	19.231		
8,400.00	8,283.59	8,332.47	8,283.59	17.58	14.96	-162.74	304.02	550.60	621.78	590.11	31.67	19.633		
8,500.00	8,381.66	8,430.54	8,381.66	17.79	15.03	-163.26	304.02	550.60	640.52	608.54	31.98	20.028		
8,600.00	8,479.72	8,528.61	8,479.72	17.99	15.11	-163.75	304.02	550.60	659.30	627.01	32.29	20.418		
8,700.00	8,577.79	8,626.68	8,577.79	18.20	15.18	-164.21	304.02	550.60	678.14	645.54	32.60	20.802		
8,800.00	8,675.86	8,724.74	8,675.86	18.41	15.25	-164.65	304.02	550.60	697.01	664.10	32.91	21.180		
8,900.00	8,773.93	8,822.81	8,773.93	18.62	15.33	-165.06	304.02	550.60	715.92	682.70	33.22	21.553		
9,000.00	8,871.99	8,920.88	8,871.99	18.83	15.40	-165.46	304.02	550.60	734.86	701.34	33.52	21.921		
9,100.00	8,970.06	9,018.95	8,970.06	19.04	15.47	-165.83	304.02	550.60	753.84	720.01	33.83	22.282		
9,200.00	9,068.13	9,117.01	9,068.13	19.25	15.55	-166.18	304.02	550.60	772.84	738.70	34.14	22.639		
9,211.15	9,079.07	9,127.95	9,079.07	19.27	15.55	-166.22	304.02	550.60	774.96	740.79	34.17	22.680		
9,300.00	9,166.33	9,215.21	9,166.33	19.47	15.62	-166.55	304.02	550.60	791.22	756.77	34.45	22.967		
9,400.00	9,264.84	9,313.72	9,264.84	19.67	15.69	-166.87	304.02	550.60	807.95	773.20	34.75	23.252		
9,500.00	9,363.64	9,412.52	9,363.64	19.87	15.77	-167.15	304.02	550.60	823.02	787.99	35.04	23.488		
9,600.00	9,462.69	9,511.57	9,462.69	20.06	15.84	-167.39	304.02	550.60	836.43	801.10	35.32	23.678		
9,700.00	9,561.96	9,610.85	9,561.96	20.25	15.92	-167.59	304.02	550.60	848.15	812.55	35.60	23.823		

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

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 504H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,800.00	9,661.43	9,710.32	9,661.43	20.43	15.99	-167.76	304.02	550.60	858.18	822.31	35.87	23.924		
9,900.00	9,761.07	9,809.95	9,761.07	20.61	16.07	-167.90	304.02	550.60	866.52	830.39	36.13	23.982		
10,000.00	9,860.83	9,909.72	9,860.83	20.78	16.14	-168.00	304.02	550.60	873.16	836.78	36.38	23.999		
10,100.00	9,960.71	10,009.59	9,960.71	20.93	16.22	-168.08	304.02	550.60	878.10	841.48	36.62	23.976		
10,200.00	10,060.65	10,109.54	10,060.65	21.08	16.29	-168.13	304.02	550.60	881.34	844.49	36.85	23.917		
10,300.00	10,160.64	10,209.52	10,160.64	21.21	16.37	-168.16	304.02	550.60	882.86	845.81	37.06	23.825		
10,339.36	10,200.00	10,248.89	10,200.00	21.23	16.40	-90.32	304.02	550.60	882.99	845.89	37.11	23.797		
10,400.00	10,260.64	10,309.52	10,260.64	21.25	16.44	-90.32	304.02	550.60	882.99	845.83	37.16	23.761		
10,424.90	10,285.54	10,334.43	10,285.54	21.25	16.45	-90.32	304.02	550.60	882.99	845.82	37.18	23.751		
10,450.00	10,310.62	10,359.60	10,310.70	21.25	16.45	90.10	303.41	550.61	882.99	845.82	37.18	23.751		
10,475.00	10,335.54	10,384.68	10,335.71	21.24	16.43	90.10	301.48	550.62	882.99	845.83	37.17	23.757		
10,500.00	10,360.33	10,409.76	10,360.58	21.23	16.42	90.10	298.25	550.65	882.99	845.84	37.16	23.764		
10,525.00	10,384.90	10,434.85	10,385.25	21.22	16.40	90.11	293.71	550.68	882.99	845.85	37.14	23.773		
10,550.00	10,409.21	10,459.94	10,409.64	21.21	16.39	90.11	287.88	550.72	883.00	845.87	37.13	23.784		
10,575.00	10,433.18	10,485.03	10,433.70	21.20	16.37	90.11	280.78	550.77	883.00	845.89	37.11	23.796		
10,600.00	10,456.74	10,510.12	10,457.36	21.19	16.35	90.11	272.42	550.84	883.00	845.91	37.09	23.809		
10,625.00	10,479.83	10,535.21	10,480.54	21.18	16.33	90.11	262.83	550.91	883.00	845.93	37.06	23.823		
10,650.00	10,502.39	10,560.30	10,503.19	21.17	16.32	90.11	252.04	550.98	883.00	845.95	37.04	23.838		
10,675.00	10,524.36	10,585.39	10,525.24	21.16	16.30	90.12	240.07	551.07	883.00	845.98	37.02	23.854		
10,700.00	10,545.67	10,610.49	10,546.64	21.16	16.29	90.12	226.96	551.17	883.00	846.00	36.99	23.870		
10,725.00	10,566.26	10,635.58	10,567.31	21.15	16.27	90.12	212.74	551.27	883.00	846.03	36.97	23.886		
10,750.00	10,586.09	10,660.67	10,587.21	21.14	16.26	90.12	197.46	551.38	883.00	846.05	36.94	23.902		
10,775.00	10,605.10	10,685.77	10,606.28	21.14	16.25	90.11	181.16	551.50	883.00	846.08	36.92	23.917		
10,800.00	10,623.23	10,710.86	10,624.47	21.14	16.25	90.11	163.87	551.63	883.00	846.10	36.90	23.932		
10,825.00	10,640.43	10,735.95	10,641.72	21.14	16.24	90.11	145.66	551.76	883.00	846.12	36.88	23.945		
10,850.00	10,656.66	10,761.04	10,657.99	21.15	16.24	90.11	126.56	551.90	883.00	846.14	36.86	23.957		
10,875.00	10,671.87	10,786.13	10,673.23	21.15	16.24	90.11	106.64	552.05	883.00	846.15	36.84	23.967		
10,900.00	10,686.03	10,811.22	10,687.41	21.16	16.24	90.11	85.94	552.20	883.00	846.16	36.83	23.974		
10,925.00	10,699.08	10,836.30	10,700.47	21.18	16.25	90.10	64.53	552.36	883.00	846.17	36.82	23.980		
10,950.00	10,711.01	10,861.39	10,712.40	21.19	16.26	90.10	42.47	552.52	882.99	846.18	36.82	23.982		
10,975.00	10,721.77	10,886.47	10,723.15	21.21	16.27	90.10	19.81	552.68	882.99	846.18	36.82	23.982		
11,000.00	10,731.33	10,911.55	10,732.69	21.24	16.28	90.09	-3.37	552.85	882.99	846.17	36.82	23.979		
11,025.00	10,739.67	10,936.62	10,741.00	21.26	16.30	90.09	-27.03	553.02	882.99	846.16	36.83	23.972		
11,050.00	10,746.76	10,961.69	10,748.06	21.30	16.32	90.09	-51.08	553.20	882.99	846.15	36.85	23.962		
11,075.00	10,752.59	10,986.76	10,753.85	21.33	16.35	90.08	-75.47	553.38	882.99	846.12	36.87	23.949		
11,100.00	10,757.14	11,011.83	10,758.34	21.37	16.38	90.08	-100.13	553.56	882.99	846.10	36.90	23.932		
11,125.00	10,760.40	11,036.89	10,761.54	21.41	16.41	90.07	-124.98	553.74	882.99	846.07	36.93	23.912		
11,150.00	10,762.36	11,061.95	10,763.43	21.46	16.44	90.07	-149.96	553.92	882.99	846.03	36.96	23.889		
11,174.62	10,763.00	11,086.61	10,764.01	21.50	16.48	90.06	-174.62	554.10	882.99	845.99	37.00	23.864		
11,174.90	10,763.01	11,086.90	10,764.01	21.50	16.48	90.06	-174.91	554.11	882.99	845.99	37.00	23.864		
11,200.00	10,763.01	11,112.00	10,764.01	21.56	16.52	90.06	-200.00	554.29	882.99	845.94	37.05	23.832		
11,300.00	10,763.01	11,212.00	10,764.01	21.79	16.69	90.06	-300.00	555.02	882.99	845.68	37.31	23.666		
11,400.00	10,763.00	11,312.00	10,764.00	22.05	16.90	90.06	-400.00	555.75	882.99	845.35	37.65	23.455		
11,500.00	10,763.00	11,412.00	10,764.00	22.33	17.13	90.06	-499.99	556.48	882.99	844.94	38.06	23.203		
11,600.00	10,763.00	11,512.00	10,764.00	22.64	17.40	90.06	-599.99	557.21	882.99	844.46	38.54	22.914		
11,700.00	10,763.00	11,612.00	10,764.00	22.97	17.69	90.06	-699.99	557.94	882.99	843.91	39.08	22.592		
11,800.00	10,763.00	11,712.00	10,764.00	23.31	18.02	90.06	-799.99	558.68	882.99	843.30	39.70	22.243		
11,900.00	10,763.00	11,812.00	10,764.00	23.68	18.38	90.06	-899.98	559.41	882.99	842.62	40.37	21.870		
12,000.00	10,763.00	11,912.00	10,764.00	24.07	18.77	90.06	-999.98	560.14	882.99	841.88	41.11	21.479		
12,100.00	10,763.00	12,012.00	10,764.00	24.48	19.18	90.06	-1,099.98	560.87	882.99	841.09	41.90	21.073		
12,200.00	10,763.00	12,112.00	10,764.00	24.91	19.63	90.06	-1,199.98	561.60	882.99	840.25	42.75	20.656		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 504H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
12,300.00	10,763.00	12,212.00	10,764.00	25.35	20.10	90.06	-1,299.97	562.33	883.00	839.35	43.64	20.232			
12,400.00	10,763.00	12,312.00	10,764.00	25.81	20.60	90.06	-1,399.97	563.06	883.00	838.41	44.58	19.805			
12,500.00	10,763.00	12,412.00	10,764.00	26.28	21.12	90.06	-1,499.97	563.79	883.00	837.42	45.57	19.376			
12,600.00	10,763.00	12,512.00	10,764.00	26.78	21.67	90.06	-1,599.97	564.52	883.00	836.40	46.60	18.949			
12,700.00	10,763.00	12,612.00	10,764.00	27.28	22.23	90.06	-1,699.96	565.26	883.00	835.33	47.66	18.526			
12,800.00	10,763.00	12,712.00	10,764.00	27.80	22.81	90.06	-1,799.96	565.99	883.00	834.23	48.76	18.107			
12,900.00	10,763.00	12,812.00	10,764.00	28.34	23.42	90.06	-1,899.96	566.72	883.00	833.10	49.90	17.695			
13,000.00	10,763.00	12,912.00	10,764.00	28.89	24.03	90.06	-1,999.95	567.45	883.00	831.93	51.07	17.291			
13,100.00	10,763.00	13,012.00	10,764.00	29.45	24.66	90.06	-2,099.95	568.18	883.00	830.73	52.26	16.896			
13,200.00	10,763.00	13,112.00	10,764.00	30.03	25.31	90.06	-2,199.95	568.91	883.00	829.51	53.48	16.509			
13,300.00	10,763.00	13,212.00	10,764.00	30.61	25.97	90.06	-2,299.95	569.64	883.00	828.26	54.73	16.133			
13,400.00	10,763.00	13,312.00	10,764.00	31.21	26.64	90.06	-2,399.94	570.37	883.00	826.99	56.00	15.767			
13,500.00	10,763.00	13,412.00	10,764.00	31.82	27.32	90.06	-2,499.94	571.10	883.00	825.70	57.30	15.411			
13,600.00	10,763.00	13,512.00	10,764.00	32.44	28.01	90.06	-2,599.94	571.84	883.00	824.38	58.61	15.065			
13,700.00	10,763.00	13,612.00	10,764.00	33.07	28.71	90.06	-2,699.94	572.57	883.00	823.05	59.94	14.730			
13,800.00	10,763.00	13,712.00	10,764.00	33.70	29.42	90.06	-2,799.93	573.30	883.00	821.70	61.30	14.405			
13,900.00	10,763.00	13,812.00	10,764.00	34.35	30.13	90.06	-2,899.93	574.03	883.00	820.33	62.66	14.091			
14,000.00	10,763.00	13,912.00	10,764.00	35.01	30.86	90.06	-2,999.93	574.76	883.00	818.95	64.05	13.786			
14,100.00	10,763.00	14,012.00	10,764.00	35.67	31.59	90.06	-3,099.93	575.49	883.00	817.55	65.45	13.492			
14,200.00	10,763.00	14,112.00	10,764.00	36.34	32.32	90.06	-3,199.92	576.22	883.00	816.14	66.86	13.207			
14,300.00	10,763.00	14,212.00	10,764.00	37.02	33.07	90.06	-3,299.92	576.95	883.00	814.71	68.28	12.931			
14,400.00	10,763.00	14,312.00	10,764.00	37.70	33.82	90.06	-3,399.92	577.68	883.00	813.28	69.72	12.665			
14,500.00	10,763.00	14,412.00	10,764.00	38.40	34.57	90.06	-3,499.91	578.42	883.00	811.83	71.17	12.407			
14,600.00	10,763.00	14,512.00	10,764.00	39.09	35.33	90.06	-3,599.91	579.15	883.00	810.37	72.63	12.158			
14,700.00	10,763.00	14,612.00	10,764.00	39.80	36.09	90.06	-3,699.91	579.88	883.00	808.90	74.10	11.917			
14,800.00	10,763.00	14,712.00	10,764.00	40.51	36.86	90.06	-3,799.91	580.61	883.00	807.42	75.58	11.683			
14,900.00	10,763.00	14,812.00	10,764.00	41.22	37.63	90.06	-3,899.90	581.34	883.00	805.93	77.06	11.458			
15,000.00	10,763.00	14,912.00	10,764.00	41.94	38.41	90.06	-3,999.90	582.07	883.00	804.44	78.56	11.240			
15,100.00	10,763.00	15,012.00	10,764.00	42.67	39.19	90.06	-4,099.90	582.80	883.00	802.93	80.06	11.029			
15,200.00	10,763.00	15,112.00	10,764.00	43.40	39.97	90.06	-4,199.90	583.53	883.00	801.42	81.58	10.824			
15,300.00	10,763.00	15,212.00	10,764.00	44.13	40.76	90.06	-4,299.89	584.26	883.00	799.90	83.09	10.626			
15,400.00	10,763.00	15,312.00	10,764.00	44.87	41.54	90.06	-4,399.89	584.99	883.00	798.38	84.62	10.435			
15,500.00	10,763.00	15,412.00	10,764.00	45.62	42.34	90.06	-4,499.89	585.73	883.00	796.85	86.15	10.249			
15,600.00	10,763.00	15,512.00	10,764.00	46.36	43.13	90.06	-4,599.89	586.46	883.00	795.31	87.69	10.070			
15,700.00	10,763.00	15,612.00	10,764.00	47.11	43.93	90.06	-4,699.88	587.19	883.00	793.76	89.23	9.895			
15,800.00	10,763.00	15,712.00	10,764.00	47.87	44.72	90.06	-4,799.88	587.92	883.00	792.22	90.78	9.727			
15,900.00	10,763.00	15,812.00	10,764.00	48.63	45.53	90.06	-4,899.88	588.65	883.00	790.66	92.34	9.563			
16,000.00	10,763.00	15,912.00	10,764.00	49.39	46.33	90.06	-4,999.87	589.38	883.00	789.10	93.89	9.404			
16,100.00	10,763.00	16,012.00	10,764.00	50.15	47.13	90.06	-5,099.87	590.11	883.00	787.54	95.46	9.250			
16,200.00	10,763.00	16,112.00	10,764.00	50.92	47.94	90.06	-5,199.87	590.84	883.00	785.97	97.02	9.101			
16,300.00	10,763.00	16,212.00	10,764.00	51.69	48.75	90.06	-5,299.87	591.57	883.00	784.40	98.60	8.956			
16,400.00	10,763.00	16,312.00	10,764.00	52.46	49.56	90.06	-5,399.86	592.31	883.00	782.83	100.17	8.815			
16,500.00	10,763.00	16,412.00	10,764.00	53.23	50.37	90.06	-5,499.86	593.04	883.00	781.25	101.75	8.678			
16,600.00	10,763.00	16,512.00	10,764.00	54.01	51.18	90.06	-5,599.86	593.77	883.00	779.66	103.34	8.545			
16,700.00	10,763.00	16,612.00	10,764.00	54.79	52.00	90.06	-5,699.86	594.50	883.00	778.08	104.92	8.416			
16,800.00	10,763.00	16,712.00	10,764.00	55.57	52.82	90.06	-5,799.85	595.23	883.00	776.49	106.51	8.290			
16,900.00	10,763.00	16,812.00	10,764.00	56.36	53.63	90.06	-5,899.85	595.96	883.00	774.89	108.11	8.168			
17,000.00	10,763.00	16,912.00	10,764.00	57.14	54.45	90.06	-5,999.85	596.69	883.00	773.30	109.70	8.049			
17,100.00	10,763.00	17,012.00	10,764.00	57.93	55.27	90.06	-6,099.85	597.42	883.00	771.70	111.30	7.933			
17,200.00	10,763.00	17,112.00	10,764.00	58.72	56.09	90.06	-6,199.84	598.15	883.00	770.10	112.90	7.821			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 504H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)				
17,300.00	10,763.00	17,212.00	10,764.00	59.52	56.92	90.06	-6,299.84	598.89	883.00	768.49	114.51	7.711		
17,400.00	10,763.00	17,312.00	10,764.00	60.31	57.74	90.06	-6,399.84	599.62	883.00	766.88	116.11	7.605		
17,500.00	10,763.00	17,412.00	10,764.00	61.11	58.56	90.06	-6,499.83	600.35	883.00	765.27	117.72	7.501		
17,600.00	10,763.00	17,512.00	10,764.00	61.90	59.39	90.06	-6,599.83	601.08	883.00	763.66	119.34	7.399		
17,700.00	10,763.00	17,612.00	10,764.00	62.70	60.22	90.06	-6,699.83	601.81	883.00	762.05	120.95	7.300		
17,800.00	10,763.00	17,712.00	10,764.00	63.50	61.04	90.06	-6,799.83	602.54	883.00	760.43	122.57	7.204		
17,900.00	10,763.00	17,812.00	10,764.00	64.31	61.87	90.06	-6,899.82	603.27	883.00	758.81	124.19	7.110		
18,000.00	10,763.00	17,912.00	10,764.00	65.11	62.70	90.06	-6,999.82	604.00	883.00	757.19	125.81	7.019		
18,100.00	10,763.00	18,012.00	10,764.00	65.91	63.53	90.06	-7,099.82	604.73	883.00	755.57	127.43	6.929		
18,200.00	10,763.00	18,112.00	10,764.00	66.72	64.36	90.06	-7,199.82	605.47	883.00	753.95	129.05	6.842		
18,300.00	10,763.00	18,212.00	10,764.00	67.53	65.19	90.06	-7,299.81	606.20	883.00	752.32	130.68	6.757		
18,400.00	10,763.00	18,312.00	10,764.00	68.34	66.03	90.06	-7,399.81	606.93	883.00	750.69	132.31	6.674		
18,500.00	10,763.00	18,412.00	10,764.00	69.15	66.86	90.06	-7,499.81	607.66	883.00	749.06	133.94	6.593		
18,600.00	10,763.00	18,512.00	10,764.00	69.96	67.69	90.06	-7,599.81	608.39	883.00	747.43	135.57	6.513		
18,700.00	10,763.00	18,612.00	10,764.00	70.77	68.53	90.06	-7,699.80	609.12	883.00	745.80	137.20	6.436		
18,800.00	10,763.00	18,712.00	10,764.00	71.58	69.36	90.06	-7,799.80	609.85	883.00	744.17	138.83	6.360		
18,900.00	10,763.00	18,812.00	10,764.00	72.40	70.20	90.06	-7,899.80	610.58	883.00	742.53	140.47	6.286		
19,000.00	10,763.00	18,912.00	10,764.00	73.21	71.03	90.06	-7,999.79	611.31	883.00	740.90	142.10	6.214		
19,100.00	10,763.00	19,012.00	10,764.00	74.03	71.87	90.06	-8,099.79	612.05	883.00	739.26	143.74	6.143		
19,200.00	10,763.00	19,112.00	10,764.00	74.85	72.70	90.06	-8,199.79	612.78	883.00	737.62	145.38	6.074		
19,300.00	10,763.00	19,212.00	10,764.00	75.67	73.54	90.06	-8,299.79	613.51	883.00	735.98	147.02	6.006		
19,400.00	10,763.00	19,312.00	10,764.00	76.48	74.38	90.06	-8,399.78	614.24	883.00	734.34	148.66	5.940		
19,500.00	10,763.00	19,412.00	10,764.00	77.30	75.22	90.06	-8,499.78	614.97	883.00	732.69	150.31	5.875		
19,600.00	10,763.00	19,512.00	10,764.00	78.13	76.06	90.06	-8,599.78	615.70	883.00	731.05	151.95	5.811		
19,700.00	10,763.00	19,612.00	10,764.00	78.95	76.90	90.06	-8,699.78	616.43	883.00	729.40	153.60	5.749		
19,800.00	10,763.00	19,712.00	10,764.00	79.77	77.74	90.06	-8,799.77	617.16	883.00	727.76	155.24	5.688		
19,900.00	10,763.00	19,812.00	10,764.00	80.59	78.58	90.06	-8,899.77	617.89	883.00	726.11	156.89	5.628		
20,000.00	10,763.00	19,912.00	10,764.00	81.42	79.42	90.06	-8,999.77	618.62	883.00	724.46	158.54	5.570		
20,100.00	10,763.00	20,012.00	10,764.00	82.24	80.26	90.06	-9,099.77	619.36	883.00	722.81	160.19	5.512		
20,200.00	10,763.00	20,112.00	10,764.00	83.07	81.10	90.06	-9,199.76	620.09	883.00	721.16	161.84	5.456		
20,300.00	10,763.00	20,212.00	10,764.00	83.89	81.94	90.06	-9,299.76	620.82	883.00	719.51	163.49	5.401		
20,400.00	10,763.00	20,312.00	10,764.00	84.72	82.78	90.06	-9,399.76	621.55	883.00	717.86	165.14	5.347		
20,500.00	10,763.00	20,412.00	10,764.00	85.55	83.62	90.06	-9,499.75	622.28	883.00	716.21	166.79	5.294		
20,600.00	10,763.00	20,512.00	10,764.00	86.37	84.47	90.06	-9,599.75	623.01	883.00	714.56	168.45	5.242		
20,700.00	10,763.00	20,612.00	10,764.00	87.20	85.31	90.06	-9,699.75	623.74	883.00	712.90	170.10	5.191		
20,800.00	10,763.00	20,712.00	10,764.00	88.03	86.15	90.06	-9,799.75	624.47	883.00	711.25	171.75	5.141		
20,900.00	10,763.00	20,812.00	10,764.00	88.86	87.00	90.06	-9,899.74	625.20	883.00	709.59	173.41	5.092		
21,000.00	10,763.00	20,912.00	10,764.00	89.69	87.84	90.06	-9,999.74	625.94	883.00	707.93	175.07	5.044		
21,099.96	10,763.00	21,011.96	10,764.00	90.52	88.68	90.06	-10,099.70	626.67	883.00	706.28	176.72	4.997		
21,100.41	10,763.00	21,012.41	10,764.00	90.53	88.69	90.06	-10,100.15	626.67	883.00	706.27	176.73	4.996		
21,103.19	10,763.00	21,014.47	10,764.00	90.55	88.72	90.06	-10,102.21	626.68	883.00	706.24	176.76	4.996		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 506H - OWB - PWP0														Offset Site Error: 0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)				
0.00	0.00	0.00	0.00	0.00	0.00	89.67	0.23	40.00	40.00					
100.00	100.00	100.00	100.00	0.77	0.77	89.67	0.23	40.00	40.00	38.01	1.99	20.088		
200.00	200.00	200.00	200.00	1.44	1.44	89.67	0.23	40.00	40.00	36.69	3.31	12.079		
300.00	300.00	300.00	300.00	1.88	1.88	89.67	0.23	40.00	40.00	35.81	4.20	9.534		
400.00	400.00	400.00	400.00	2.25	2.25	89.67	0.23	40.00	40.00	35.09	4.91	8.144		
500.00	500.00	500.00	500.00	2.56	2.56	89.67	0.23	40.00	40.00	34.47	5.53	7.229		
600.00	600.00	600.00	600.00	2.84	2.84	89.67	0.23	40.00	40.00	33.91	6.09	6.568		
700.00	700.00	700.00	700.00	3.10	3.10	89.67	0.23	40.00	40.00	33.40	6.60	6.060		
800.00	800.00	800.00	800.00	3.34	3.34	89.67	0.23	40.00	40.00	32.92	7.08	5.653		
900.00	900.00	900.00	900.00	3.57	3.57	89.67	0.23	40.00	40.00	32.48	7.52	5.317		
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	89.67	0.23	40.00	40.00	32.05	7.95	5.033		
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	89.67	0.23	40.00	40.00	31.65	8.35	4.790		
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	89.67	0.23	40.00	40.00	31.26	8.74	4.577		
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	89.67	0.23	40.00	40.00	30.89	9.11	4.390		
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	89.67	0.23	40.00	40.00	30.53	9.47	4.222		
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	89.67	0.23	40.00	40.00	30.18	9.82	4.072 CC, ES, SF		
1,600.00	1,600.00	1,598.58	1,598.56	4.91	5.00	89.68	0.23	41.70	41.72	31.48	10.24	4.072		
1,700.00	1,700.00	1,696.94	1,696.78	5.08	5.24	89.72	0.23	46.77	46.88	36.24	10.64	4.407		
1,800.00	1,800.00	1,794.83	1,794.31	5.24	5.32	89.71	0.28	55.15	55.45	44.59	10.86	5.108		
1,900.00	1,900.00	1,892.05	1,890.83	5.40	5.55	89.90	0.70	66.75	67.38	56.18	11.21	6.012		
2,000.00	2,000.00	1,988.38	1,986.03	5.56	5.77	88.91	1.55	81.44	82.64	71.09	11.55	7.154		
2,100.00	2,099.98	2,083.93	2,079.91	5.79	6.00	10.65	2.82	99.13	99.50	87.55	11.95	8.325		
2,200.00	2,199.84	2,178.96	2,172.65	6.00	6.22	10.47	4.51	119.80	116.24	103.91	12.33	9.429		
2,300.00	2,299.45	2,273.49	2,264.16	6.22	6.43	10.45	6.60	143.36	132.84	120.15	12.69	10.466		
2,400.00	2,398.70	2,367.90	2,354.74	6.43	6.58	10.52	9.09	169.86	149.27	136.29	12.97	11.505		
2,500.00	2,497.47	2,466.85	2,449.28	6.64	6.72	10.76	11.88	198.94	163.68	150.36	13.32	12.287		
2,564.11	2,560.47	2,530.51	2,510.10	6.71	6.82	11.01	13.68	217.65	171.13	157.63	13.50	12.679		
2,600.00	2,595.67	2,566.20	2,544.20	6.74	6.88	11.18	14.68	228.14	174.91	161.33	13.58	12.879		
2,700.00	2,693.74	2,665.64	2,639.20	6.88	7.04	11.62	17.49	257.37	185.46	171.56	13.90	13.344		
2,800.00	2,791.80	2,765.07	2,734.20	7.02	7.21	12.01	20.30	286.59	196.01	181.79	14.22	13.781		
2,900.00	2,889.87	2,864.50	2,829.20	7.16	7.38	12.36	23.10	315.81	206.58	192.02	14.56	14.193		
3,000.00	2,987.94	2,963.93	2,924.20	7.31	7.56	12.67	25.91	345.03	217.15	202.26	14.89	14.581		
3,100.00	3,086.01	3,063.37	3,019.20	7.47	7.74	12.96	28.71	374.26	227.73	212.49	15.24	14.946		
3,200.00	3,184.07	3,162.80	3,114.20	7.62	7.92	13.22	31.52	403.48	238.31	222.72	15.59	15.290		
3,300.00	3,282.14	3,262.23	3,209.21	7.78	8.11	13.46	34.32	432.70	248.90	232.96	15.94	15.615		
3,400.00	3,380.21	3,361.67	3,304.21	7.94	8.30	13.68	37.13	461.92	259.49	243.19	16.30	15.921		
3,500.00	3,478.28	3,461.10	3,399.21	8.10	8.49	13.89	39.93	491.15	270.08	253.42	16.66	16.209		
3,600.00	3,576.34	3,560.53	3,494.21	8.27	8.68	14.07	42.74	520.37	280.68	263.65	17.03	16.482		
3,700.00	3,674.41	3,659.96	3,589.21	8.44	8.88	14.25	45.55	549.59	291.28	273.88	17.40	16.740		
3,800.00	3,772.48	3,759.40	3,684.21	8.61	9.08	14.41	48.35	578.81	301.88	284.11	17.78	16.983		
3,900.00	3,870.55	3,858.83	3,779.21	8.78	9.29	14.56	51.16	608.04	312.49	294.33	18.15	17.214		
4,000.00	3,968.61	3,958.26	3,874.21	8.95	9.50	14.70	53.96	637.26	323.09	304.56	18.53	17.432		
4,100.00	4,066.68	4,057.70	3,969.21	9.13	9.71	14.83	56.77	666.48	333.70	314.78	18.92	17.639		
4,200.00	4,164.75	4,157.13	4,064.21	9.31	9.92	14.96	59.57	695.70	344.31	325.01	19.31	17.835		
4,300.00	4,262.82	4,256.56	4,159.21	9.49	10.13	15.07	62.38	724.93	354.92	335.23	19.69	18.021		
4,400.00	4,360.88	4,355.99	4,254.21	9.67	10.35	15.18	65.18	754.15	365.54	345.45	20.09	18.198		
4,500.00	4,458.95	4,455.43	4,349.21	9.85	10.57	15.28	67.99	783.37	376.15	355.67	20.48	18.366		
4,600.00	4,557.02	4,554.86	4,444.21	10.03	10.80	15.38	70.80	812.60	386.77	365.89	20.88	18.526		
4,700.00	4,655.09	4,654.29	4,539.21	10.22	11.02	15.47	73.60	841.82	397.38	376.11	21.28	18.678		
4,800.00	4,753.15	4,753.73	4,634.21	10.40	11.25	15.56	76.41	871.04	408.00	386.33	21.68	18.823		
4,900.00	4,851.22	4,853.16	4,729.21	10.59	11.48	15.65	79.21	900.26	418.62	396.54	22.08	18.961		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 506H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
5,000.00	4,949.29	4,952.59	4,824.21	10.78	11.71	15.72	82.02	929.49	429.24	406.76	22.48	19.093			
5,100.00	5,047.36	5,052.02	4,919.21	10.97	11.95	15.80	84.82	958.71	439.86	416.97	22.89	19.219			
5,200.00	5,145.43	5,151.46	5,014.21	11.16	12.18	15.87	87.63	987.93	450.48	427.19	23.29	19.339			
5,300.00	5,243.49	5,250.89	5,109.21	11.35	12.42	15.94	90.43	1,017.15	461.10	437.40	23.70	19.454			
5,400.00	5,341.56	5,350.32	5,204.21	11.54	12.66	16.01	93.24	1,046.38	471.72	447.61	24.11	19.564			
5,500.00	5,439.63	5,449.76	5,299.21	11.73	12.90	16.07	96.05	1,075.60	482.35	457.82	24.52	19.669			
5,600.00	5,537.70	5,549.19	5,394.21	11.92	13.14	16.13	98.85	1,104.82	492.97	468.03	24.94	19.770			
5,700.00	5,635.76	5,648.62	5,489.21	12.12	13.38	16.18	101.66	1,134.04	503.59	478.24	25.35	19.867			
5,800.00	5,733.83	5,748.05	5,584.21	12.31	13.62	16.24	104.46	1,163.27	514.22	488.45	25.76	19.959			
5,900.00	5,831.90	5,847.49	5,679.21	12.51	13.86	16.29	107.27	1,192.49	524.84	498.66	26.18	20.048			
6,000.00	5,929.97	5,946.92	5,774.21	12.71	14.10	16.34	110.07	1,221.71	535.47	508.87	26.60	20.133			
6,100.00	6,028.03	6,046.35	5,869.21	12.90	14.35	16.39	112.88	1,250.93	546.09	519.08	27.01	20.216			
6,200.00	6,126.10	6,145.79	5,964.21	13.10	14.59	16.44	115.69	1,280.16	556.72	529.29	27.43	20.294			
6,300.00	6,224.17	6,245.22	6,059.21	13.30	14.84	16.48	118.49	1,309.38	567.34	539.49	27.85	20.370			
6,400.00	6,322.24	6,344.65	6,154.21	13.50	15.08	16.53	121.30	1,338.60	577.97	549.70	28.27	20.443			
6,500.00	6,420.30	6,444.08	6,249.22	13.70	15.33	16.57	124.10	1,367.83	588.60	559.90	28.69	20.514			
6,600.00	6,518.37	6,543.52	6,344.22	13.90	15.57	16.61	126.91	1,397.05	599.22	570.11	29.12	20.581			
6,700.00	6,616.44	6,642.95	6,439.22	14.10	15.82	16.65	129.71	1,426.27	609.85	580.31	29.54	20.647			
6,800.00	6,714.51	6,742.38	6,534.22	14.30	16.07	16.68	132.52	1,455.49	620.48	590.52	29.96	20.709			
6,900.00	6,812.57	6,841.82	6,629.22	14.50	16.32	16.72	135.32	1,484.72	631.11	600.72	30.39	20.770			
7,000.00	6,910.64	6,941.25	6,724.22	14.70	16.56	16.76	138.13	1,513.94	641.74	610.93	30.81	20.829			
7,100.00	7,008.71	7,040.68	6,819.22	14.91	16.81	16.79	140.94	1,543.16	652.36	621.13	31.24	20.885			
7,200.00	7,106.78	7,140.11	6,914.22	15.11	17.06	16.82	143.74	1,572.38	662.99	631.33	31.66	20.940			
7,300.00	7,204.84	7,239.55	7,009.22	15.31	17.31	16.85	146.55	1,601.61	673.62	641.53	32.09	20.993			
7,400.00	7,302.91	7,338.98	7,104.22	15.52	17.56	16.89	149.35	1,630.83	684.25	651.74	32.52	21.044			
7,500.00	7,400.98	7,438.41	7,199.22	15.72	17.81	16.92	152.16	1,660.05	694.88	661.94	32.94	21.094			
7,600.00	7,499.05	7,537.85	7,294.22	15.93	18.06	16.94	154.96	1,689.27	705.51	672.14	33.37	21.141			
7,700.00	7,597.11	7,637.28	7,389.22	16.13	18.31	16.97	157.77	1,718.50	716.14	682.34	33.80	21.188			
7,800.00	7,695.18	7,736.71	7,484.22	16.34	18.56	17.00	160.57	1,747.72	726.77	692.54	34.23	21.233			
7,900.00	7,793.25	7,836.14	7,579.22	16.54	18.81	17.03	163.38	1,776.94	737.40	702.74	34.66	21.276			
8,000.00	7,891.32	7,935.58	7,674.22	16.75	19.06	17.05	166.19	1,806.16	748.03	712.94	35.09	21.318			
8,100.00	7,989.38	8,035.01	7,769.22	16.96	19.31	17.08	168.99	1,835.39	758.66	723.14	35.52	21.359			
8,200.00	8,087.45	8,134.44	7,864.22	17.16	19.57	17.10	171.80	1,864.61	769.29	733.34	35.95	21.399			
8,300.00	8,185.52	8,233.88	7,959.22	17.37	19.82	17.13	174.60	1,893.83	779.92	743.54	36.38	21.437			
8,400.00	8,283.59	8,333.31	8,054.22	17.58	20.07	17.15	177.41	1,923.05	790.55	753.74	36.81	21.475			
8,500.00	8,381.66	8,432.74	8,149.22	17.79	20.32	17.17	180.21	1,952.28	801.18	763.93	37.25	21.511			
8,600.00	8,479.72	8,532.17	8,244.22	17.99	20.57	17.19	183.02	1,981.50	811.81	774.13	37.68	21.546			
8,700.00	8,577.79	8,631.61	8,339.22	18.20	20.83	17.21	185.83	2,010.72	822.44	784.33	38.11	21.580			
8,800.00	8,675.86	8,731.04	8,434.22	18.41	21.08	17.23	188.63	2,039.95	833.07	794.53	38.55	21.613			
8,900.00	8,773.93	8,834.16	8,532.77	18.62	21.34	17.26	191.54	2,070.20	843.66	804.66	38.99	21.636			
9,000.00	8,871.99	8,950.68	8,644.58	18.83	21.63	17.30	194.67	2,102.82	852.86	813.39	39.47	21.606			
9,100.00	8,970.06	9,067.58	8,757.41	19.04	21.90	17.37	197.59	2,133.26	860.07	820.13	39.94	21.532			
9,200.00	9,068.13	9,184.76	8,871.11	19.25	22.16	17.48	200.30	2,161.48	865.28	824.88	40.40	21.418			
9,211.15	9,079.07	9,197.85	8,883.83	19.27	22.19	17.49	200.59	2,164.48	865.73	825.29	40.45	21.404			
9,300.00	9,166.33	9,302.11	8,985.53	19.47	22.41	17.60	202.79	2,187.40	869.14	828.29	40.85	21.277			
9,400.00	9,264.84	9,419.56	9,100.55	19.67	22.64	17.72	205.05	2,211.01	872.64	831.37	41.27	21.143			
9,500.00	9,363.64	9,537.10	9,216.13	19.87	22.86	17.82	207.10	2,232.28	875.80	834.12	41.68	21.012			
9,600.00	9,462.69	9,654.71	9,332.19	20.06	23.07	17.91	208.91	2,251.20	878.61	836.54	42.07	20.884			
9,700.00	9,561.96	9,772.40	9,448.70	20.25	23.26	17.99	210.50	2,267.75	881.07	838.63	42.44	20.759			
9,800.00	9,661.43	9,890.14	9,565.58	20.43	23.45	18.06	211.86	2,281.93	883.17	840.38	42.79	20.638			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 506H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning		
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
9,900.00	9,761.07	10,007.94	9,682.77	20.61	23.62	18.11	212.99	2,293.71	884.92	841.80	43.13	20.520			
10,000.00	9,860.83	10,125.78	9,800.23	20.78	23.78	18.16	213.90	2,303.10	886.31	842.88	43.43	20.406			
10,100.00	9,960.71	10,243.65	9,917.90	20.93	23.93	18.19	214.57	2,310.08	887.35	843.63	43.72	20.297			
10,200.00	10,060.65	10,361.55	10,035.70	21.08	24.07	18.21	215.00	2,314.65	888.03	844.06	43.97	20.195			
10,300.00	10,160.64	10,479.46	10,153.59	21.21	24.19	18.22	215.21	2,316.81	888.35	844.16	44.19	20.104			
10,339.36	10,200.00	10,525.87	10,200.00	21.23	24.23	96.06	215.23	2,317.00	888.38	844.15	44.22	20.088			
10,359.58	10,220.21	10,546.08	10,220.21	21.24	24.23	96.06	215.23	2,317.00	888.38	844.14	44.24	20.083			
10,400.00	10,260.64	10,586.51	10,260.64	21.25	24.25	96.06	215.23	2,317.00	888.38	844.12	44.26	20.072			
10,424.90	10,285.54	10,611.41	10,285.54	21.25	24.25	96.06	215.23	2,317.00	888.38	844.11	44.27	20.068			
10,450.00	10,310.62	10,632.33	10,306.45	21.25	24.25	-83.53	214.81	2,317.00	888.36	844.07	44.29	20.060			
10,475.00	10,335.54	10,653.00	10,327.08	21.24	24.24	-83.56	213.51	2,317.01	888.32	844.02	44.30	20.052			
10,500.00	10,360.33	10,675.00	10,348.95	21.23	24.23	-83.60	211.13	2,317.03	888.25	843.94	44.31	20.045			
10,525.00	10,384.90	10,694.39	10,368.12	21.22	24.22	-83.65	208.21	2,317.05	888.16	843.83	44.33	20.035			
10,550.00	10,409.21	10,715.12	10,388.46	21.21	24.22	-83.72	204.23	2,317.08	888.04	843.70	44.34	20.026			
10,575.00	10,433.18	10,735.89	10,408.65	21.20	24.21	-83.81	199.35	2,317.12	887.90	843.54	44.36	20.018			
10,600.00	10,456.74	10,756.70	10,428.64	21.19	24.20	-83.91	193.60	2,317.16	887.74	843.37	44.37	20.009			
10,625.00	10,479.83	10,777.55	10,448.41	21.18	24.20	-84.02	186.96	2,317.21	887.56	843.18	44.38	20.000			
10,650.00	10,502.39	10,800.00	10,469.34	21.17	24.20	-84.16	178.85	2,317.27	887.36	842.98	44.38	19.994			
10,675.00	10,524.36	10,819.42	10,487.13	21.16	24.20	-84.29	171.05	2,317.32	887.14	842.74	44.40	19.982			
10,700.00	10,545.67	10,840.46	10,506.02	21.16	24.20	-84.45	161.80	2,317.39	886.91	842.50	44.41	19.973			
10,725.00	10,566.26	10,861.57	10,524.54	21.15	24.20	-84.62	151.68	2,317.47	886.66	842.25	44.41	19.964			
10,750.00	10,586.09	10,882.76	10,542.68	21.14	24.20	-84.80	140.72	2,317.55	886.41	841.99	44.42	19.954			
10,775.00	10,605.10	10,904.05	10,560.38	21.14	24.21	-84.99	128.90	2,317.63	886.14	841.71	44.43	19.944			
10,800.00	10,623.23	10,925.00	10,577.27	21.14	24.22	-85.19	116.51	2,317.72	885.87	841.43	44.44	19.933			
10,825.00	10,640.43	10,946.91	10,594.34	21.14	24.23	-85.41	102.78	2,317.83	885.60	841.15	44.45	19.923			
10,850.00	10,656.66	10,968.51	10,610.53	21.15	24.25	-85.64	88.49	2,317.93	885.32	840.86	44.46	19.913			
10,875.00	10,671.87	10,990.22	10,626.14	21.15	24.27	-85.88	73.39	2,318.04	885.05	840.58	44.47	19.901			
10,900.00	10,686.03	11,012.07	10,641.14	21.16	24.29	-86.13	57.51	2,318.16	884.78	840.29	44.48	19.890			
10,925.00	10,699.08	11,034.06	10,655.48	21.18	24.31	-86.39	40.85	2,318.28	884.51	840.01	44.50	19.878			
10,950.00	10,711.01	11,056.19	10,669.13	21.19	24.34	-86.66	23.43	2,318.41	884.26	839.74	44.51	19.866			
10,975.00	10,721.77	11,078.47	10,682.04	21.21	24.37	-86.94	5.27	2,318.54	884.01	839.48	44.53	19.853			
11,000.00	10,731.33	11,100.00	10,693.69	21.24	24.40	-87.21	-12.83	2,318.67	883.78	839.23	44.55	19.838			
11,025.00	10,739.67	11,123.55	10,705.49	21.26	24.43	-87.52	-33.20	2,318.82	883.57	839.01	44.56	19.827			
11,050.00	10,746.76	11,146.36	10,715.95	21.30	24.47	-87.82	-53.47	2,318.97	883.38	838.79	44.58	19.814			
11,075.00	10,752.59	11,169.36	10,725.50	21.33	24.52	-88.12	-74.39	2,319.13	883.21	838.60	44.60	19.801			
11,100.00	10,757.14	11,192.56	10,734.11	21.37	24.57	-88.44	-95.93	2,319.28	883.06	838.43	44.63	19.788			
11,125.00	10,760.40	11,215.98	10,741.72	21.41	24.62	-88.75	-118.07	2,319.45	882.93	838.29	44.65	19.776			
11,150.00	10,762.36	11,239.61	10,748.30	21.46	24.67	-89.08	-140.78	2,319.61	882.84	838.17	44.67	19.764			
11,174.90	10,763.01	11,263.39	10,753.77	21.50	24.73	-89.40	-163.92	2,319.78	882.77	838.08	44.69	19.753			
11,200.00	10,763.01	11,287.71	10,758.17	21.56	24.79	-89.69	-187.83	2,319.96	882.73	838.02	44.72	19.741			
11,239.44	10,763.01	11,326.69	10,762.67	21.65	24.89	-89.98	-226.53	2,320.24	882.72	837.94	44.78	19.714			
11,300.00	10,763.01	11,387.26	10,764.01	21.79	25.06	-90.06	-287.07	2,320.69	882.72	837.82	44.90	19.658			
11,400.00	10,763.00	11,487.26	10,764.01	22.05	25.37	-90.06	-387.06	2,321.42	882.72	837.53	45.19	19.533			
11,500.00	10,763.00	11,587.26	10,764.00	22.33	25.68	-90.06	-487.06	2,322.16	882.73	837.18	45.54	19.383			
11,600.00	10,763.00	11,687.26	10,764.00	22.64	26.02	-90.06	-587.06	2,322.89	882.73	836.78	45.95	19.210			
11,700.00	10,763.00	11,787.26	10,764.00	22.97	26.36	-90.06	-687.05	2,323.62	882.73	836.31	46.42	19.015			
11,800.00	10,763.00	11,887.26	10,764.00	23.31	26.72	-90.06	-787.05	2,324.36	882.74	835.79	46.95	18.802			
11,900.00	10,763.00	11,987.26	10,764.00	23.68	27.10	-90.06	-887.05	2,325.09	882.74	835.21	47.53	18.572			
12,000.00	10,763.00	12,087.26	10,764.00	24.07	27.49	-90.06	-987.05	2,325.83	882.74	834.58	48.17	18.327			
12,100.00	10,763.00	12,187.26	10,764.00	24.48	27.89	-90.06	-1,087.04	2,326.56	882.74	833.89	48.85	18.070			
12,200.00	10,763.00	12,287.26	10,764.00	24.91	28.31	-90.06	-1,187.04	2,327.29	882.75	833.16	49.59	17.802			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 506H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
12,300.00	10,763.00	12,387.26	10,764.00	25.35	28.74	-90.06	-1,287.04	2,328.03	882.75	832.38	50.37	17.526			
12,400.00	10,763.00	12,487.26	10,764.00	25.81	29.18	-90.06	-1,387.04	2,328.76	882.75	831.56	51.19	17.243			
12,500.00	10,763.00	12,587.26	10,764.00	26.28	29.64	-90.06	-1,487.03	2,329.50	882.75	830.69	52.06	16.956			
12,600.00	10,763.00	12,687.26	10,764.00	26.78	30.11	-90.06	-1,587.03	2,330.23	882.76	829.79	52.97	16.665			
12,700.00	10,763.00	12,787.26	10,764.00	27.28	30.59	-90.06	-1,687.03	2,330.96	882.76	828.84	53.92	16.372			
12,800.00	10,763.00	12,887.26	10,764.00	27.80	31.09	-90.06	-1,787.03	2,331.70	882.76	827.86	54.90	16.079			
12,900.00	10,763.00	12,987.26	10,764.00	28.34	31.59	-90.06	-1,887.02	2,332.43	882.77	826.85	55.92	15.787			
13,000.00	10,763.00	13,087.26	10,764.00	28.89	32.11	-90.06	-1,987.02	2,333.17	882.77	825.80	56.97	15.496			
13,100.00	10,763.00	13,187.26	10,764.00	29.45	32.64	-90.06	-2,087.02	2,333.90	882.77	824.72	58.05	15.207			
13,200.00	10,763.00	13,287.26	10,764.00	30.03	33.18	-90.06	-2,187.01	2,334.63	882.77	823.62	59.16	14.922			
13,300.00	10,763.00	13,387.26	10,764.00	30.61	33.73	-90.06	-2,287.01	2,335.37	882.78	822.48	60.30	14.641			
13,400.00	10,763.00	13,487.26	10,764.00	31.21	34.30	-90.06	-2,387.01	2,336.10	882.78	821.32	61.46	14.364			
13,500.00	10,763.00	13,587.26	10,764.00	31.82	34.87	-90.06	-2,487.01	2,336.84	882.78	820.14	62.65	14.092			
13,600.00	10,763.00	13,687.26	10,764.00	32.44	35.45	-90.06	-2,587.00	2,337.57	882.79	818.93	63.86	13.825			
13,700.00	10,763.00	13,787.26	10,764.00	33.07	36.04	-90.06	-2,687.00	2,338.30	882.79	817.70	65.09	13.563			
13,800.00	10,763.00	13,887.26	10,764.00	33.70	36.64	-90.06	-2,787.00	2,339.04	882.79	816.45	66.34	13.307			
13,900.00	10,763.00	13,987.26	10,764.00	34.35	37.25	-90.06	-2,887.00	2,339.77	882.79	815.18	67.61	13.057			
14,000.00	10,763.00	14,087.26	10,764.00	35.01	37.87	-90.06	-2,986.99	2,340.51	882.80	813.89	68.90	12.812			
14,100.00	10,763.00	14,187.26	10,764.00	35.67	38.49	-90.06	-3,086.99	2,341.24	882.80	812.59	70.21	12.574			
14,200.00	10,763.00	14,287.26	10,764.00	36.34	39.12	-90.06	-3,186.99	2,341.97	882.80	811.27	71.53	12.341			
14,300.00	10,763.00	14,387.26	10,764.00	37.02	39.76	-90.06	-3,286.98	2,342.71	882.81	809.93	72.87	12.114			
14,400.00	10,763.00	14,487.26	10,764.00	37.70	40.41	-90.06	-3,386.98	2,343.44	882.81	808.58	74.23	11.893			
14,500.00	10,763.00	14,587.26	10,764.00	38.40	41.07	-90.06	-3,486.98	2,344.18	882.81	807.22	75.60	11.678			
14,600.00	10,763.00	14,687.26	10,764.00	39.09	41.73	-90.06	-3,586.98	2,344.91	882.81	805.84	76.98	11.469			
14,700.00	10,763.00	14,787.26	10,764.00	39.80	42.39	-90.06	-3,686.97	2,345.64	882.82	804.45	78.37	11.265			
14,800.00	10,763.00	14,887.26	10,764.00	40.51	43.07	-90.06	-3,786.97	2,346.38	882.82	803.05	79.77	11.067			
14,900.00	10,763.00	14,987.26	10,764.00	41.22	43.75	-90.06	-3,886.97	2,347.11	882.82	801.63	81.19	10.874			
15,000.00	10,763.00	15,087.26	10,764.00	41.94	44.43	-90.06	-3,986.97	2,347.85	882.83	800.21	82.62	10.686			
15,100.00	10,763.00	15,187.26	10,764.00	42.67	45.12	-90.06	-4,086.96	2,348.58	882.83	798.78	84.05	10.503			
15,200.00	10,763.00	15,287.26	10,764.00	43.40	45.82	-90.06	-4,186.96	2,349.31	882.83	797.33	85.50	10.326			
15,300.00	10,763.00	15,387.26	10,764.00	44.13	46.52	-90.06	-4,286.96	2,350.05	882.83	795.88	86.95	10.153			
15,400.00	10,763.00	15,487.26	10,764.00	44.87	47.22	-90.06	-4,386.96	2,350.78	882.84	794.42	88.42	9.985			
15,500.00	10,763.00	15,587.26	10,764.00	45.62	47.93	-90.06	-4,486.95	2,351.52	882.84	792.95	89.89	9.822			
15,600.00	10,763.00	15,687.26	10,764.00	46.36	48.65	-90.06	-4,586.95	2,352.25	882.84	791.48	91.37	9.663			
15,700.00	10,763.00	15,787.26	10,764.00	47.11	49.37	-90.06	-4,686.95	2,352.98	882.85	789.99	92.85	9.508			
15,800.00	10,763.00	15,887.26	10,764.00	47.87	50.09	-90.06	-4,786.94	2,353.72	882.85	788.50	94.35	9.357			
15,900.00	10,763.00	15,987.26	10,764.00	48.63	50.82	-90.06	-4,886.94	2,354.45	882.85	787.00	95.85	9.211			
16,000.00	10,763.00	16,087.26	10,764.00	49.39	51.55	-90.06	-4,986.94	2,355.19	882.85	785.50	97.35	9.068			
16,100.00	10,763.00	16,187.26	10,764.00	50.15	52.28	-90.06	-5,086.94	2,355.92	882.86	783.99	98.87	8.930			
16,200.00	10,763.00	16,287.26	10,764.00	50.92	53.02	-90.06	-5,186.93	2,356.65	882.86	782.47	100.39	8.795			
16,300.00	10,763.00	16,387.26	10,764.00	51.69	53.76	-90.06	-5,286.93	2,357.39	882.86	780.95	101.91	8.663			
16,400.00	10,763.00	16,487.26	10,764.00	52.46	54.51	-90.06	-5,386.93	2,358.12	882.87	779.43	103.44	8.535			
16,500.00	10,763.00	16,587.26	10,764.00	53.23	55.25	-90.06	-5,486.93	2,358.86	882.87	777.89	104.97	8.410			
16,600.00	10,763.00	16,687.26	10,764.00	54.01	56.00	-90.06	-5,586.92	2,359.59	882.87	776.36	106.51	8.289			
16,700.00	10,763.00	16,787.26	10,764.00	54.79	56.76	-90.06	-5,686.92	2,360.32	882.87	774.82	108.06	8.170			
16,800.00	10,763.00	16,887.26	10,764.00	55.57	57.51	-90.06	-5,786.92	2,361.06	882.88	773.27	109.61	8.055			
16,900.00	10,763.00	16,987.26	10,764.00	56.36	58.27	-90.06	-5,886.91	2,361.79	882.88	771.72	111.16	7.942			
17,000.00	10,763.00	17,087.26	10,764.00	57.14	59.04	-90.06	-5,986.91	2,362.53	882.88	770.17	112.72	7.833			
17,100.00	10,763.00	17,187.26	10,764.00	57.93	59.80	-90.06	-6,086.91	2,363.26	882.89	768.61	114.28	7.726			
17,200.00	10,763.00	17,287.26	10,764.00	58.72	60.57	-90.06	-6,186.91	2,363.99	882.89	767.05	115.84	7.622			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 506H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)				
17,300.00	10,763.00	17,387.26	10,764.00	59.52	61.34	-90.06	-6,286.90	2,364.73	882.89	765.48	117.41	7.520		
17,400.00	10,763.00	17,487.26	10,764.00	60.31	62.11	-90.06	-6,386.90	2,365.46	882.89	763.91	118.98	7.420		
17,500.00	10,763.00	17,587.26	10,764.00	61.11	62.88	-90.06	-6,486.90	2,366.20	882.90	762.34	120.56	7.324		
17,600.00	10,763.00	17,687.26	10,764.00	61.90	63.66	-90.06	-6,586.90	2,366.93	882.90	760.77	122.13	7.229		
17,700.00	10,763.00	17,787.26	10,764.00	62.70	64.43	-90.06	-6,686.89	2,367.66	882.90	759.19	123.71	7.137		
17,800.00	10,763.00	17,887.26	10,764.00	63.50	65.21	-90.06	-6,786.89	2,368.40	882.91	757.61	125.30	7.046		
17,900.00	10,763.00	17,987.26	10,764.00	64.31	65.99	-90.06	-6,886.89	2,369.13	882.91	756.02	126.89	6.958		
18,000.00	10,763.00	18,087.26	10,764.00	65.11	66.78	-90.06	-6,986.89	2,369.87	882.91	754.44	128.48	6.872		
18,100.00	10,763.00	18,187.26	10,764.00	65.91	67.56	-90.06	-7,086.88	2,370.60	882.91	752.85	130.07	6.788		
18,200.00	10,763.00	18,287.26	10,764.00	66.72	68.35	-90.06	-7,186.88	2,371.33	882.92	751.25	131.66	6.706		
18,300.00	10,763.00	18,387.26	10,764.00	67.53	69.14	-90.06	-7,286.88	2,372.07	882.92	749.66	133.26	6.626		
18,400.00	10,763.00	18,487.26	10,764.00	68.34	69.93	-90.06	-7,386.87	2,372.80	882.92	748.06	134.86	6.547		
18,500.00	10,763.00	18,587.26	10,764.00	69.15	70.72	-90.06	-7,486.87	2,373.54	882.93	746.46	136.46	6.470		
18,600.00	10,763.00	18,687.26	10,764.00	69.96	71.51	-90.06	-7,586.87	2,374.27	882.93	744.86	138.07	6.395		
18,700.00	10,763.00	18,787.26	10,764.00	70.77	72.31	-90.06	-7,686.87	2,375.00	882.93	743.26	139.67	6.321		
18,800.00	10,763.00	18,887.26	10,764.00	71.58	73.10	-90.06	-7,786.86	2,375.74	882.93	741.65	141.28	6.250		
18,900.00	10,763.00	18,987.26	10,764.00	72.40	73.90	-90.06	-7,886.86	2,376.47	882.94	740.05	142.89	6.179		
19,000.00	10,763.00	19,087.26	10,764.00	73.21	74.70	-90.06	-7,986.86	2,377.21	882.94	738.44	144.50	6.110		
19,100.00	10,763.00	19,187.26	10,764.00	74.03	75.50	-90.06	-8,086.86	2,377.94	882.94	736.83	146.12	6.043		
19,200.00	10,763.00	19,287.26	10,764.00	74.85	76.30	-90.06	-8,186.85	2,378.67	882.95	735.21	147.73	5.977		
19,300.00	10,763.00	19,387.26	10,764.00	75.67	77.10	-90.06	-8,286.85	2,379.41	882.95	733.60	149.35	5.912		
19,400.00	10,763.00	19,487.26	10,764.00	76.48	77.91	-90.06	-8,386.85	2,380.14	882.95	731.98	150.97	5.849		
19,500.00	10,763.00	19,587.26	10,764.00	77.30	78.71	-90.06	-8,486.84	2,380.88	882.95	730.36	152.59	5.786		
19,600.00	10,763.00	19,687.26	10,764.00	78.13	79.52	-90.06	-8,586.84	2,381.61	882.96	728.74	154.21	5.726		
19,700.00	10,763.00	19,787.26	10,764.00	78.95	80.32	-90.06	-8,686.84	2,382.34	882.96	727.12	155.84	5.666		
19,800.00	10,763.00	19,887.26	10,764.00	79.77	81.13	-90.06	-8,786.84	2,383.08	882.96	725.50	157.46	5.607		
19,900.00	10,763.00	19,987.26	10,764.00	80.59	81.94	-90.06	-8,886.83	2,383.81	882.97	723.88	159.09	5.550		
20,000.00	10,763.00	20,087.26	10,764.00	81.42	82.75	-90.06	-8,986.83	2,384.55	882.97	722.25	160.72	5.494		
20,100.00	10,763.00	20,187.26	10,764.00	82.24	83.56	-90.06	-9,086.83	2,385.28	882.97	720.62	162.35	5.439		
20,200.00	10,763.00	20,287.26	10,764.00	83.07	84.37	-90.06	-9,186.83	2,386.01	882.97	719.00	163.98	5.385		
20,300.00	10,763.00	20,387.26	10,764.00	83.89	85.19	-90.06	-9,286.82	2,386.75	882.98	717.37	165.61	5.332		
20,400.00	10,763.00	20,487.26	10,764.00	84.72	86.00	-90.06	-9,386.82	2,387.48	882.98	715.74	167.24	5.280		
20,500.00	10,763.00	20,587.26	10,764.00	85.55	86.81	-90.06	-9,486.82	2,388.22	882.98	714.10	168.88	5.229		
20,600.00	10,763.00	20,687.26	10,764.00	86.37	87.63	-90.06	-9,586.82	2,388.95	882.99	712.47	170.51	5.178		
20,700.00	10,763.00	20,787.26	10,764.00	87.20	88.45	-90.06	-9,686.81	2,389.68	882.99	710.84	172.15	5.129		
20,800.00	10,763.00	20,887.26	10,764.00	88.03	89.26	-90.06	-9,786.81	2,390.42	882.99	709.20	173.79	5.081		
20,900.00	10,763.00	20,987.26	10,764.00	88.86	90.08	-90.06	-9,886.81	2,391.15	882.99	707.57	175.43	5.033		
21,000.00	10,763.00	21,087.26	10,764.00	89.69	90.90	-90.06	-9,986.80	2,391.89	883.00	705.93	177.07	4.987		
21,099.96	10,763.00	21,187.21	10,764.00	90.52	91.72	-90.06	-10,086.76	2,392.62	883.00	704.29	178.71	4.941		
21,103.19	10,763.00	21,190.44	10,764.00	90.55	91.74	-90.06	-10,089.99	2,392.64	883.00	704.24	178.76	4.940		

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

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 651H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
0.00	0.00	0.00	0.00	0.00	0.00	-90.39	-0.82	-119.94	119.94						
100.00	100.00	100.00	100.00	0.77	0.77	-90.39	-0.82	-119.94	119.94	117.95	1.99	60.235			
200.00	200.00	200.00	200.00	1.44	1.44	-90.39	-0.82	-119.94	119.94	116.63	3.31	36.220			
300.00	300.00	300.00	300.00	1.88	1.88	-90.39	-0.82	-119.94	119.94	115.75	4.20	28.589			
400.00	400.00	400.00	400.00	2.25	2.25	-90.39	-0.82	-119.94	119.94	115.03	4.91	24.418			
500.00	500.00	500.00	500.00	2.56	2.56	-90.39	-0.82	-119.94	119.94	114.41	5.53	21.678			
600.00	600.00	600.00	600.00	2.84	2.84	-90.39	-0.82	-119.94	119.94	113.85	6.09	19.694			
700.00	700.00	700.00	700.00	3.10	3.10	-90.39	-0.82	-119.94	119.94	113.34	6.60	18.170			
800.00	800.00	800.00	800.00	3.34	3.34	-90.39	-0.82	-119.94	119.94	112.87	7.08	16.949			
900.00	900.00	900.00	900.00	3.57	3.57	-90.39	-0.82	-119.94	119.94	112.42	7.52	15.942			
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	-90.39	-0.82	-119.94	119.94	112.00	7.95	15.092			
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	-90.39	-0.82	-119.94	119.94	111.59	8.35	14.361			
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	-90.39	-0.82	-119.94	119.94	111.20	8.74	13.724			
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	-90.39	-0.82	-119.94	119.94	110.83	9.11	13.162			
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	-90.39	-0.82	-119.94	119.94	110.47	9.47	12.661			
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	-90.39	-0.82	-119.94	119.94	110.12	9.82	12.211			
1,600.00	1,600.00	1,600.00	1,600.00	4.91	4.91	-90.39	-0.82	-119.94	119.94	109.78	10.16	11.803			
1,700.00	1,700.00	1,700.00	1,700.00	5.08	5.08	-90.39	-0.82	-119.94	119.94	109.45	10.49	11.431			
1,800.00	1,800.00	1,800.00	1,800.00	5.24	5.24	-90.39	-0.82	-119.94	119.94	109.13	10.82	11.090			
1,900.00	1,900.00	1,900.00	1,900.00	5.40	5.40	-90.39	-0.82	-119.94	119.94	108.81	11.13	10.776			
2,000.00	2,000.00	2,000.00	2,000.00	5.56	5.56	-90.39	-0.82	-119.94	119.94	108.50	11.44	10.485 CC, ES			
2,100.00	2,099.98	2,095.94	2,095.92	5.79	5.78	-168.24	-0.54	-121.52	123.30	111.42	11.88	10.382 SF			
2,200.00	2,199.84	2,191.24	2,191.10	6.00	5.98	-168.25	0.31	-126.22	133.33	121.06	12.28	10.862			
2,300.00	2,299.45	2,285.28	2,284.80	6.22	6.19	-168.27	1.69	-133.91	149.97	137.32	12.66	11.849			
2,400.00	2,398.70	2,377.46	2,376.37	6.43	6.38	-168.28	3.58	-144.38	173.09	160.07	13.02	13.295			
2,500.00	2,497.47	2,467.25	2,465.18	6.64	6.57	-168.27	5.91	-157.36	202.52	189.16	13.36	15.153			
2,564.11	2,560.47	2,523.33	2,520.42	6.71	6.69	-168.25	7.62	-166.85	224.61	211.08	13.52	16.610			
2,600.00	2,595.67	2,554.25	2,550.80	6.74	6.75	-168.28	8.64	-172.54	237.84	224.25	13.59	17.497			
2,700.00	2,693.74	2,638.99	2,633.71	6.88	6.89	-168.28	11.75	-189.79	276.54	262.74	13.80	20.038			
2,800.00	2,791.80	2,728.70	2,721.08	7.02	6.98	-168.21	15.35	-209.80	317.08	303.07	14.01	22.633			
2,900.00	2,889.87	2,820.09	2,810.08	7.16	7.11	-168.15	19.02	-230.24	357.67	343.39	14.28	25.054			
3,000.00	2,987.94	2,911.48	2,899.08	7.31	7.24	-168.11	22.70	-250.68	398.26	383.71	14.55	27.374			
3,100.00	3,086.01	3,002.88	2,988.08	7.47	7.37	-168.07	26.38	-271.12	438.85	424.02	14.83	29.597			
3,200.00	3,184.07	3,094.27	3,077.08	7.62	7.51	-168.04	30.05	-291.55	479.44	464.33	15.11	31.726			
3,300.00	3,282.14	3,185.66	3,166.08	7.78	7.65	-168.01	33.73	-311.99	520.03	504.63	15.40	33.764			
3,400.00	3,380.21	3,277.05	3,255.08	7.94	7.80	-167.99	37.41	-332.43	560.62	544.93	15.70	35.716			
3,500.00	3,478.28	3,368.44	3,344.08	8.10	7.95	-167.97	41.08	-352.87	601.22	585.22	16.00	37.584			
3,600.00	3,576.34	3,459.83	3,433.08	8.27	8.10	-167.95	44.76	-373.31	641.81	625.51	16.30	39.372			
3,700.00	3,674.41	3,551.22	3,522.08	8.44	8.25	-167.94	48.44	-393.75	682.40	665.79	16.61	41.084			
3,800.00	3,772.48	3,642.61	3,611.08	8.61	8.40	-167.93	52.12	-414.19	722.99	706.07	16.92	42.723			
3,900.00	3,870.55	3,734.00	3,700.08	8.78	8.56	-167.91	55.79	-434.63	763.58	746.34	17.24	44.293			
4,000.00	3,968.61	3,825.39	3,789.08	8.95	8.72	-167.90	59.47	-455.07	804.17	786.62	17.56	45.796			
4,100.00	4,066.68	3,916.78	3,878.08	9.13	8.88	-167.89	63.15	-475.51	844.77	826.88	17.88	47.237			
4,200.00	4,164.75	4,008.17	3,967.08	9.31	9.04	-167.88	66.82	-495.95	885.36	867.15	18.21	48.617			
4,300.00	4,262.82	4,099.57	4,056.08	9.49	9.20	-167.88	70.50	-516.38	925.95	907.41	18.54	49.940			
4,400.00	4,360.88	4,190.96	4,145.08	9.67	9.37	-167.87	74.18	-536.82	966.54	947.67	18.87	51.208			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 652H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
0.00	0.00	0.00	0.00	0.00	0.00	-90.39	-0.55	-79.94	79.94						
100.00	100.00	100.00	100.00	0.77	0.77	-90.39	-0.55	-79.94	79.94	77.95	1.99	40.147			
200.00	200.00	200.00	200.00	1.44	1.44	-90.39	-0.55	-79.94	79.94	76.63	3.31	24.140			
300.00	300.00	300.00	300.00	1.88	1.88	-90.39	-0.55	-79.94	79.94	75.75	4.20	19.055			
400.00	400.00	400.00	400.00	2.25	2.25	-90.39	-0.55	-79.94	79.94	75.03	4.91	16.275			
500.00	500.00	500.00	500.00	2.56	2.56	-90.39	-0.55	-79.94	79.94	74.41	5.53	14.448			
600.00	600.00	600.00	600.00	2.84	2.84	-90.39	-0.55	-79.94	79.94	73.85	6.09	13.126			
700.00	700.00	700.00	700.00	3.10	3.10	-90.39	-0.55	-79.94	79.94	73.34	6.60	12.110			
800.00	800.00	800.00	800.00	3.34	3.34	-90.39	-0.55	-79.94	79.94	72.87	7.08	11.297			
900.00	900.00	900.00	900.00	3.57	3.57	-90.39	-0.55	-79.94	79.94	72.42	7.52	10.625			
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	-90.39	-0.55	-79.94	79.94	71.99	7.95	10.059			
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	-90.39	-0.55	-79.94	79.94	71.59	8.35	9.572			
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	-90.39	-0.55	-79.94	79.94	71.20	8.74	9.147			
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	-90.39	-0.55	-79.94	79.94	70.83	9.11	8.773			
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	-90.39	-0.55	-79.94	79.94	70.47	9.47	8.439			
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	-90.39	-0.55	-79.94	79.94	70.12	9.82	8.138			
1,600.00	1,600.00	1,600.00	1,600.00	4.91	4.91	-90.39	-0.55	-79.94	79.94	69.78	10.16	7.866			
1,700.00	1,700.00	1,700.00	1,700.00	5.08	5.08	-90.39	-0.55	-79.94	79.94	69.45	10.49	7.619			
1,800.00	1,800.00	1,800.00	1,800.00	5.24	5.24	-90.39	-0.55	-79.94	79.94	69.13	10.82	7.391			
1,900.00	1,900.00	1,900.00	1,900.00	5.40	5.40	-90.39	-0.55	-79.94	79.94	68.81	11.13	7.182			
2,000.00	2,000.00	2,000.00	2,000.00	5.56	5.56	-90.39	-0.55	-79.94	79.94	68.50	11.44	6.988 CC, ES, SF			
2,100.00	2,099.98	2,097.54	2,097.52	5.79	5.78	-167.89	0.27	-81.39	83.13	71.26	11.87	7.006			
2,200.00	2,199.84	2,194.47	2,194.32	6.00	6.00	-166.99	2.70	-85.68	92.68	80.42	12.26	7.559			
2,300.00	2,299.45	2,290.22	2,289.72	6.22	6.21	-165.84	6.68	-92.73	108.56	95.92	12.64	8.588			
2,400.00	2,398.70	2,385.78	2,384.65	6.43	6.30	-164.72	12.08	-102.28	130.44	117.53	12.91	10.104			
2,500.00	2,497.47	2,482.41	2,480.58	6.64	6.43	-164.12	17.81	-112.41	156.11	142.88	13.23	11.796			
2,564.11	2,560.47	2,543.89	2,541.61	6.71	6.52	-163.97	21.45	-118.86	174.28	160.89	13.39	13.016			
2,600.00	2,595.67	2,578.20	2,575.67	6.74	6.57	-163.98	23.49	-122.46	184.82	171.36	13.46	13.730			
2,700.00	2,693.74	2,673.80	2,670.57	6.88	6.71	-164.01	29.15	-132.48	214.18	200.45	13.73	15.601			
2,800.00	2,791.80	2,769.39	2,765.46	7.02	6.85	-164.03	34.82	-142.51	243.54	229.54	14.00	17.396			
2,900.00	2,889.87	2,864.98	2,860.36	7.16	6.99	-164.04	40.49	-152.53	272.90	258.63	14.28	19.116			
3,000.00	2,987.94	2,960.57	2,955.26	7.31	7.14	-164.06	46.15	-162.56	302.26	287.71	14.56	20.764			
3,100.00	3,086.01	3,056.16	3,050.15	7.47	7.28	-164.07	51.82	-172.58	331.63	316.78	14.84	22.344			
3,200.00	3,184.07	3,151.76	3,145.05	7.62	7.43	-164.08	57.49	-182.61	360.99	345.86	15.13	23.859			
3,300.00	3,282.14	3,247.35	3,239.94	7.78	7.58	-164.08	63.16	-192.63	390.35	374.93	15.42	25.311			
3,400.00	3,380.21	3,342.94	3,334.84	7.94	7.73	-164.09	68.82	-202.66	419.71	404.00	15.72	26.704			
3,500.00	3,478.28	3,438.53	3,429.74	8.10	7.88	-164.10	74.49	-212.68	449.08	433.06	16.02	28.040			
3,600.00	3,576.34	3,534.13	3,524.63	8.27	8.04	-164.10	80.16	-222.71	478.44	462.12	16.32	29.321			
3,700.00	3,674.41	3,629.72	3,619.53	8.44	8.19	-164.11	85.82	-232.73	507.80	491.18	16.62	30.550			
3,800.00	3,772.48	3,725.31	3,714.42	8.61	8.34	-164.11	91.49	-242.75	537.16	520.23	16.93	31.730			
3,900.00	3,870.55	3,820.90	3,809.32	8.78	8.50	-164.11	97.16	-252.78	566.52	549.29	17.24	32.864			
4,000.00	3,968.61	3,916.49	3,904.22	8.95	8.66	-164.12	102.83	-262.80	595.89	578.34	17.55	33.952			
4,100.00	4,066.68	4,012.09	3,999.11	9.13	8.82	-164.12	108.49	-272.83	625.25	607.38	17.87	34.998			
4,200.00	4,164.75	4,107.68	4,094.01	9.31	8.98	-164.12	114.16	-282.85	654.61	636.43	18.18	36.003			
4,300.00	4,262.82	4,203.27	4,188.90	9.49	9.14	-164.12	119.83	-292.88	683.97	665.47	18.50	36.970			
4,400.00	4,360.88	4,298.86	4,283.80	9.67	9.30	-164.13	125.49	-302.90	713.33	694.51	18.82	37.899			
4,500.00	4,458.95	4,394.45	4,378.70	9.85	9.46	-164.13	131.16	-312.93	742.70	723.55	19.14	38.794			
4,600.00	4,557.02	4,490.05	4,473.59	10.03	9.62	-164.13	136.83	-322.95	772.06	752.59	19.47	39.655			
4,700.00	4,655.09	4,585.64	4,568.49	10.22	9.78	-164.13	142.50	-332.98	801.42	781.63	19.80	40.485			
4,800.00	4,753.15	4,681.23	4,663.38	10.40	9.95	-164.13	148.16	-343.00	830.78	810.66	20.12	41.284			
4,900.00	4,851.22	4,776.82	4,758.28	10.59	10.11	-164.14	153.83	-353.03	860.15	839.69	20.45	42.054			

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

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 652H - OWB - PWP0												Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)			
5,000.00	4,949.29	4,872.42	4,853.18	10.78	10.27	-164.14	159.50	-363.05	889.51	868.72	20.78	42.797	
5,100.00	5,047.36	4,968.01	4,948.07	10.97	10.44	-164.14	165.16	-373.08	918.87	897.75	21.12	43.513	
5,200.00	5,145.43	5,063.60	5,042.97	11.16	10.60	-164.14	170.83	-383.10	948.23	926.78	21.45	44.204	
5,300.00	5,243.49	5,159.19	5,137.86	11.35	10.77	-164.14	176.50	-393.13	977.59	955.81	21.79	44.871	

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 653H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	0.00	-90.43	-0.15	-19.94	19.94				
100.00	100.00	100.00	100.00	0.77	0.77	-90.43	-0.15	-19.94	-19.94	19.94	17.95	1.99	10.014	
200.00	200.00	200.00	200.00	1.44	1.44	-90.43	-0.15	-19.94	-19.94	19.94	16.63	3.31	6.022	
300.00	300.00	300.00	300.00	1.88	1.88	-90.43	-0.15	-19.94	-19.94	19.94	15.75	4.20	4.753	
400.00	400.00	400.00	400.00	2.25	2.25	-90.43	-0.15	-19.94	-19.94	19.94	15.03	4.91	4.060	
500.00	500.00	500.00	500.00	2.56	2.56	-90.43	-0.15	-19.94	-19.94	19.94	14.41	5.53	3.604	
600.00	600.00	600.00	600.00	2.84	2.84	-90.43	-0.15	-19.94	-19.94	19.94	13.85	6.09	3.274	
700.00	700.00	700.00	700.00	3.10	3.10	-90.43	-0.15	-19.94	-19.94	19.94	13.34	6.60	3.021	
800.00	800.00	800.00	800.00	3.34	3.34	-90.43	-0.15	-19.94	-19.94	19.94	12.86	7.08	2.818	Normal Operations
900.00	900.00	900.00	900.00	3.57	3.57	-90.43	-0.15	-19.94	-19.94	19.94	12.42	7.52	2.650	Normal Operations
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	-90.43	-0.15	-19.94	-19.94	19.94	11.99	7.95	2.509	Normal Operations
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	-90.43	-0.15	-19.94	-19.94	19.94	11.59	8.35	2.388	Caution - Monitor Closely
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	-90.43	-0.15	-19.94	-19.94	19.94	11.20	8.74	2.282	Caution - Monitor Closely
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	-90.43	-0.15	-19.94	-19.94	19.94	10.83	9.11	2.188	Caution - Monitor Closely
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	-90.43	-0.15	-19.94	-19.94	19.94	10.47	9.47	2.105	Caution - Monitor Closely
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	-90.43	-0.15	-19.94	-19.94	19.94	10.12	9.82	2.030	Caution - Monitor Closely
1,600.00	1,600.00	1,600.00	1,600.00	4.91	4.91	-90.43	-0.15	-19.94	-19.94	19.94	9.78	10.16	1.962	Caution - Monitor Closely
1,700.00	1,700.00	1,700.00	1,700.00	5.08	5.08	-90.43	-0.15	-19.94	-19.94	19.94	9.45	10.49	1.900	Caution - Monitor Closely
1,800.00	1,800.00	1,800.00	1,800.00	5.24	5.24	-90.43	-0.15	-19.94	-19.94	19.94	9.12	10.82	1.844	Caution - Monitor Closely
1,900.00	1,900.00	1,900.00	1,900.00	5.40	5.40	-90.43	-0.15	-19.94	-19.94	19.94	8.81	11.13	1.791	Caution - Monitor Closely
2,000.00	2,000.00	2,000.00	2,000.00	5.56	5.56	-90.43	-0.15	-19.94	-19.94	19.94	8.50	11.44	1.743	Caution - Monitor Closely, CC, ES, SF
2,100.00	2,099.98	2,099.98	2,099.98	5.79	5.71	-169.20	-0.15	-19.94	-19.94	21.65	9.84	11.82	1.832	Caution - Monitor Closely
2,200.00	2,199.84	2,199.84	2,199.84	6.00	5.86	-171.28	-0.15	-19.94	-19.94	26.81	14.63	12.18	2.202	Caution - Monitor Closely
2,300.00	2,299.45	2,299.45	2,299.45	6.22	6.01	-173.40	-0.15	-19.94	-19.94	35.45	22.91	12.54	2.828	Normal Operations
2,400.00	2,398.70	2,398.70	2,398.70	6.43	6.15	-175.06	-0.15	-19.94	-19.94	47.58	34.69	12.89	3.691	
2,500.00	2,497.47	2,497.47	2,497.47	6.64	6.29	-176.26	-0.15	-19.94	-19.94	63.18	49.94	13.24	4.772	
2,564.11	2,560.47	2,560.47	2,560.47	6.71	6.38	-176.84	-0.15	-19.94	-19.94	74.99	61.60	13.40	5.598	
2,600.00	2,595.67	2,595.67	2,595.67	6.74	6.43	-177.11	-0.15	-19.94	-19.94	82.01	68.54	13.47	6.088	
2,700.00	2,693.74	2,693.74	2,693.74	6.88	6.57	-177.67	-0.15	-19.94	-19.94	101.55	87.81	13.74	7.391	
2,800.00	2,791.80	2,791.80	2,791.80	7.02	6.70	-178.04	-0.15	-19.94	-19.94	121.10	107.09	14.01	8.642	
2,900.00	2,889.87	2,889.87	2,889.87	7.16	6.83	-178.32	-0.15	-19.94	-19.94	140.66	126.37	14.29	9.844	
3,000.00	2,987.94	2,987.94	2,987.94	7.31	6.96	-178.52	-0.15	-19.94	-19.94	160.21	145.65	14.56	11.000	
3,100.00	3,086.01	3,091.73	3,091.71	7.47	7.16	-178.67	0.18	-18.51	-178.40	178.40	163.49	14.90	11.969	
3,200.00	3,184.07	3,197.52	3,197.36	7.62	7.35	-178.76	1.38	-13.31	-192.99	192.99	177.75	15.24	12.666	
3,300.00	3,282.14	3,304.32	3,303.75	7.78	7.54	-178.79	3.49	-4.21	-203.90	203.90	188.34	15.56	13.105	
3,400.00	3,380.21	3,409.74	3,408.37	7.94	7.66	-178.78	6.41	8.44	-211.22	211.22	195.41	15.82	13.353	
3,500.00	3,478.28	3,509.55	3,507.27	8.10	7.80	-178.76	9.41	21.41	-217.54	217.54	201.41	16.12	13.494	
3,600.00	3,576.34	3,609.35	3,606.18	8.27	7.91	-178.75	12.41	34.38	-223.85	223.85	207.44	16.41	13.644	
3,700.00	3,674.41	3,709.15	3,705.09	8.44	8.03	-178.73	15.41	47.35	-230.16	230.16	213.46	16.70	13.784	
3,800.00	3,772.48	3,808.95	3,804.00	8.61	8.16	-178.72	18.41	60.32	-236.47	236.47	219.48	16.99	13.916	
3,900.00	3,870.55	3,908.75	3,902.91	8.78	8.28	-178.70	21.41	73.29	-242.78	242.78	225.49	17.29	14.040	
4,000.00	3,968.61	4,008.55	4,001.82	8.95	8.41	-178.69	24.41	86.26	-249.10	249.10	231.50	17.60	14.156	
4,100.00	4,066.68	4,108.35	4,100.73	9.13	8.54	-178.68	27.41	99.23	-255.41	255.41	237.50	17.90	14.265	
4,200.00	4,164.75	4,208.15	4,199.64	9.31	8.68	-178.66	30.41	112.20	-261.72	261.72	243.50	18.22	14.368	
4,300.00	4,262.82	4,307.95	4,298.54	9.49	8.81	-178.65	33.41	125.17	-268.03	268.03	249.50	18.53	14.464	
4,400.00	4,360.88	4,407.75	4,397.45	9.67	8.95	-178.64	36.41	138.15	-274.34	274.34	255.49	18.85	14.554	
4,500.00	4,458.95	4,507.55	4,496.36	9.85	9.09	-178.63	39.41	151.12	-280.66	280.66	261.48	19.17	14.639	
4,600.00	4,557.02	4,607.35	4,595.27	10.03	9.23	-178.62	42.41	164.09	-286.97	286.97	267.47	19.50	14.718	
4,700.00	4,655.09	4,707.15	4,694.18	10.22	9.38	-178.61	45.41	177.06	-293.28	293.28	273.45	19.83	14.793	
4,800.00	4,753.15	4,806.95	4,793.09	10.40	9.52	-178.60	48.41	190.03	-299.59	299.59	279.44	20.16	14.863	
4,900.00	4,851.22	4,906.75	4,892.00	10.59	9.67	-178.60	51.41	203.00	-305.90	305.90	285.41	20.49	14.929	

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 653H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
5,000.00	4,949.29	5,006.55	4,990.90	10.78	9.82	-178.59	54.41	215.97	312.22	291.39	20.83	14.991			
5,100.00	5,047.36	5,106.35	5,089.81	10.97	9.97	-178.58	57.41	228.94	318.53	297.36	21.16	15.050			
5,200.00	5,145.43	5,206.16	5,188.72	11.16	10.12	-178.57	60.41	241.91	324.84	303.34	21.51	15.105			
5,300.00	5,243.49	5,305.96	5,287.63	11.35	10.27	-178.56	63.41	254.88	331.15	309.30	21.85	15.157			
5,400.00	5,341.56	5,405.76	5,386.54	11.54	10.43	-178.56	66.41	267.85	337.47	315.27	22.19	15.205			
5,500.00	5,439.63	5,505.56	5,485.45	11.73	10.58	-178.55	69.41	280.82	343.78	321.24	22.54	15.251			
5,600.00	5,537.70	5,605.36	5,584.36	11.92	10.74	-178.54	72.41	293.79	350.09	327.20	22.89	15.295			
5,700.00	5,635.76	5,705.16	5,683.27	12.12	10.90	-178.54	75.41	306.76	356.40	333.16	23.24	15.336			
5,800.00	5,733.83	5,804.96	5,782.17	12.31	11.06	-178.53	78.41	319.73	362.71	339.12	23.59	15.374			
5,900.00	5,831.90	5,904.76	5,881.08	12.51	11.22	-178.53	81.41	332.70	369.03	345.08	23.95	15.410			
6,000.00	5,929.97	6,004.56	5,979.99	12.71	11.38	-178.52	84.41	345.67	375.34	351.04	24.30	15.444			
6,100.00	6,028.03	6,104.36	6,078.90	12.90	11.54	-178.51	87.41	358.64	381.65	356.99	24.66	15.477			
6,200.00	6,126.10	6,204.16	6,177.81	13.10	11.71	-178.51	90.41	371.61	387.96	362.94	25.02	15.507			
6,300.00	6,224.17	6,303.96	6,276.72	13.30	11.87	-178.50	93.41	384.58	394.28	368.90	25.38	15.536			
6,400.00	6,322.24	6,403.76	6,375.63	13.50	12.04	-178.50	96.41	397.55	400.59	374.85	25.74	15.563			
6,500.00	6,420.30	6,503.56	6,474.54	13.70	12.20	-178.49	99.41	410.52	406.90	380.80	26.10	15.589			
6,600.00	6,518.37	6,603.36	6,573.44	13.90	12.37	-178.49	102.41	423.49	413.21	386.75	26.47	15.613			
6,700.00	6,616.44	6,703.16	6,672.35	14.10	12.54	-178.48	105.41	436.46	419.52	392.69	26.83	15.636			
6,800.00	6,714.51	6,802.96	6,771.26	14.30	12.71	-178.48	108.41	449.43	425.84	398.64	27.20	15.658			
6,900.00	6,812.57	6,902.77	6,870.17	14.50	12.88	-178.48	111.40	462.40	432.15	404.59	27.56	15.678			
7,000.00	6,910.64	7,002.57	6,969.08	14.70	13.05	-178.47	114.40	475.37	438.46	410.53	27.93	15.698			
7,100.00	7,008.71	7,102.37	7,067.99	14.91	13.22	-178.47	117.40	488.34	444.77	416.47	28.30	15.716			
7,200.00	7,106.78	7,202.17	7,166.90	15.11	13.39	-178.46	120.40	501.31	451.09	422.41	28.67	15.733			
7,300.00	7,204.84	7,301.97	7,265.80	15.31	13.56	-178.46	123.40	514.28	457.40	428.36	29.04	15.750			
7,400.00	7,302.91	7,401.77	7,364.71	15.52	13.74	-178.46	126.40	527.25	463.71	434.30	29.41	15.765			
7,500.00	7,400.98	7,501.57	7,463.62	15.72	13.91	-178.45	129.40	540.22	470.02	440.24	29.79	15.780			
7,600.00	7,499.05	7,601.37	7,562.53	15.93	14.08	-178.45	132.40	553.19	476.33	446.18	30.16	15.794			
7,700.00	7,597.11	7,701.17	7,661.44	16.13	14.26	-178.45	135.40	566.16	482.65	452.11	30.53	15.807			
7,800.00	7,695.18	7,800.97	7,760.35	16.34	14.43	-178.44	138.40	579.14	488.96	458.05	30.91	15.820			
7,900.00	7,793.25	7,900.77	7,859.26	16.54	14.61	-178.44	141.40	592.11	495.27	463.99	31.28	15.831			
8,000.00	7,891.32	8,000.57	7,958.17	16.75	14.79	-178.44	144.40	605.08	501.58	469.92	31.66	15.843			
8,100.00	7,989.38	8,100.37	8,057.07	16.96	14.96	-178.43	147.40	618.05	507.90	475.86	32.04	15.853			
8,200.00	8,087.45	8,200.17	8,155.98	17.16	15.14	-178.43	150.40	631.02	514.21	481.79	32.42	15.863			
8,300.00	8,185.52	8,299.97	8,254.89	17.37	15.32	-178.43	153.40	643.99	520.52	487.73	32.79	15.873			
8,400.00	8,283.59	8,399.77	8,353.80	17.58	15.50	-178.42	156.40	656.96	526.83	493.66	33.17	15.882			
8,500.00	8,381.66	8,499.57	8,452.71	17.79	15.67	-178.42	159.40	669.93	533.14	499.59	33.55	15.890			
8,600.00	8,479.72	8,599.37	8,551.62	17.99	15.85	-178.42	162.40	682.90	539.46	505.52	33.93	15.898			
8,700.00	8,577.79	8,699.18	8,650.53	18.20	16.03	-178.42	165.40	695.87	545.77	511.46	34.31	15.906			
8,800.00	8,675.86	8,798.98	8,749.44	18.41	16.21	-178.41	168.40	708.84	552.08	517.39	34.69	15.913			
8,900.00	8,773.93	8,898.78	8,848.34	18.62	16.39	-178.41	171.40	721.81	558.39	523.32	35.08	15.920			
9,000.00	8,871.99	8,998.58	8,947.25	18.83	16.57	-178.41	174.40	734.78	564.71	529.25	35.46	15.926			
9,100.00	8,970.06	9,098.38	9,046.16	19.04	16.75	-178.40	177.40	747.75	571.02	535.18	35.84	15.932			
9,200.00	9,068.13	9,198.18	9,145.07	19.25	16.94	-178.40	180.40	760.72	577.33	541.11	36.22	15.938			
9,211.15	9,079.07	9,209.31	9,156.10	19.27	16.96	-178.40	180.73	762.17	578.03	541.77	36.26	15.940			
9,300.00	9,166.33	9,298.02	9,244.02	19.47	17.12	-178.40	183.40	773.69	582.96	546.34	36.61	15.922			
9,400.00	9,264.84	9,397.94	9,343.05	19.67	17.30	-178.39	186.40	786.68	586.85	549.86	36.99	15.865			
9,500.00	9,363.64	9,497.92	9,442.13	19.87	17.48	-178.38	189.41	799.67	589.00	551.63	37.36	15.764			
9,600.00	9,462.69	9,597.91	9,541.23	20.06	17.67	-178.36	192.41	812.67	589.40	551.67	37.73	15.621			
9,700.00	9,561.96	9,697.90	9,640.33	20.25	17.85	-178.34	195.42	825.66	588.06	549.97	38.09	15.437			
9,800.00	9,661.43	9,797.51	9,739.05	20.43	18.03	-178.31	198.41	838.61	584.98	546.54	38.44	15.216			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 653H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR											Rule Assigned:		Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,900.00	9,761.07	9,888.21	9,829.04	20.61	18.24	-178.28	200.97	849.65	581.00	542.19	38.81	14.971		
10,000.00	9,860.83	9,978.97	9,919.25	20.78	18.40	-178.25	203.20	859.31	576.86	537.73	39.13	14.743		
10,100.00	9,960.71	10,069.77	10,009.65	20.93	18.56	-178.23	205.11	867.58	572.56	533.13	39.43	14.522		
10,200.00	10,060.65	10,160.64	10,100.24	21.08	18.71	-178.20	206.70	874.46	568.10	528.39	39.71	14.306		
10,300.00	10,160.64	10,251.56	10,190.99	21.21	18.85	-178.18	207.97	879.94	563.47	523.51	39.97	14.098		
10,339.36	10,200.00	10,287.37	10,226.75	21.23	18.91	-100.33	208.38	881.71	561.61	521.57	40.04	14.026		
10,400.00	10,260.64	10,342.56	10,281.89	21.25	18.99	-100.32	208.91	884.01	559.01	518.89	40.13	13.931		
10,424.90	10,285.54	10,365.24	10,304.56	21.25	19.02	-100.32	209.10	884.81	558.12	517.95	40.16	13.897		
10,450.00	10,310.62	10,388.08	10,327.39	21.25	19.06	80.27	209.26	885.53	557.20	517.01	40.19	13.864		
10,475.00	10,335.54	10,410.78	10,350.08	21.24	19.09	80.58	209.41	886.15	556.17	515.96	40.21	13.833		
10,500.00	10,360.33	10,433.35	10,372.64	21.23	19.12	81.02	209.53	886.68	555.03	514.82	40.21	13.802		
10,525.00	10,384.90	10,455.74	10,395.03	21.22	19.15	81.58	209.63	887.12	553.82	513.60	40.22	13.770		
10,550.00	10,409.21	10,477.89	10,417.17	21.21	19.18	82.27	209.72	887.48	552.55	512.34	40.22	13.739		
10,575.00	10,433.18	10,500.00	10,439.28	21.20	19.21	83.07	209.78	887.75	551.28	511.07	40.21	13.710		
10,600.00	10,456.74	10,521.23	10,460.51	21.19	19.22	83.95	209.82	887.93	550.05	509.87	40.18	13.689		
10,625.00	10,479.83	10,542.30	10,481.58	21.18	19.24	84.93	209.84	888.03	548.91	508.77	40.15	13.673		
10,650.00	10,502.39	10,563.11	10,502.39	21.17	19.25	85.98	209.85	888.06	547.93	507.83	40.10	13.664		
10,675.00	10,524.36	10,585.08	10,524.36	21.16	19.26	87.17	209.85	888.06	547.12	507.08	40.04	13.664		
10,700.00	10,545.67	10,606.39	10,545.67	21.16	19.26	88.41	209.85	888.06	546.53	506.56	39.97	13.673		
10,725.00	10,566.26	10,626.98	10,566.26	21.15	19.28	89.67	209.85	888.06	546.25	506.36	39.89	13.693		
10,731.60	10,571.58	10,632.30	10,571.58	21.15	19.28	90.00	209.85	888.06	546.24	506.37	39.87	13.701		
10,750.00	10,586.09	10,646.81	10,586.09	21.14	19.29	90.92	209.85	888.06	546.35	506.55	39.80	13.728		
10,775.00	10,605.10	10,665.82	10,605.10	21.14	19.30	92.15	209.85	888.06	546.93	507.24	39.69	13.779		
10,800.00	10,623.23	10,683.95	10,623.23	21.14	19.31	93.32	209.85	888.06	548.07	508.50	39.57	13.851		
10,825.00	10,640.43	10,701.15	10,640.43	21.14	19.32	94.40	209.85	888.06	549.84	510.41	39.43	13.945		
10,850.00	10,656.66	10,717.38	10,656.66	21.15	19.33	95.39	209.85	888.06	552.34	513.07	39.27	14.064		
10,875.00	10,671.87	10,732.59	10,671.87	21.15	19.33	96.25	209.85	888.06	555.63	516.53	39.10	14.209		
10,900.00	10,686.03	10,746.75	10,686.03	21.16	19.34	96.95	209.85	888.06	559.77	520.85	38.92	14.384		
10,925.00	10,699.08	10,759.80	10,699.08	21.18	19.35	97.49	209.85	888.06	564.81	526.09	38.71	14.589		
10,950.00	10,711.01	10,771.73	10,711.01	21.19	19.36	97.83	209.85	888.06	570.79	532.29	38.50	14.825		
10,975.00	10,721.77	10,782.48	10,721.77	21.21	19.36	97.97	209.85	888.06	577.74	539.47	38.28	15.094		
11,000.00	10,731.33	10,792.05	10,731.33	21.24	19.37	97.89	209.85	888.06	585.68	547.63	38.04	15.395		
11,025.00	10,739.67	10,800.39	10,739.67	21.26	19.37	97.56	209.85	888.06	594.58	556.78	37.80	15.728		
11,050.00	10,746.76	10,807.48	10,746.76	21.30	19.37	96.99	209.85	888.06	604.45	566.89	37.56	16.093		
11,075.00	10,752.59	10,813.31	10,752.59	21.33	19.38	96.15	209.85	888.06	615.25	577.94	37.32	16.488		
11,100.00	10,757.14	10,817.86	10,757.14	21.37	19.38	95.03	209.85	888.06	626.94	589.87	37.07	16.911		
11,125.00	10,760.40	10,821.12	10,760.40	21.41	19.38	93.63	209.85	888.06	639.47	602.64	36.83	17.362		
11,150.00	10,762.36	10,823.08	10,762.36	21.46	19.38	91.95	209.85	888.06	652.78	616.18	36.60	17.837		
11,174.90	10,763.01	10,823.72	10,763.01	21.50	19.38	90.00	209.85	888.06	666.73	630.36	36.37	18.333		
11,200.00	10,763.01	10,823.72	10,763.01	21.56	19.38	90.00	209.85	888.06	681.43	645.28	36.15	18.852		
11,300.00	10,763.01	10,823.72	10,763.01	21.79	19.38	90.00	209.85	888.06	745.54	710.16	35.38	21.070		
11,400.00	10,763.00	10,823.72	10,763.00	22.05	19.38	90.00	209.85	888.06	816.89	782.10	34.79	23.481		
11,500.00	10,763.00	11,937.87	11,375.00	22.33	20.14	138.23	-497.21	892.80	820.60	775.17	45.43	18.064		
11,600.00	10,763.00	12,037.87	11,375.00	22.64	20.41	138.22	-597.20	893.47	820.64	774.69	45.95	17.861		
11,700.00	10,763.00	12,137.87	11,375.00	22.97	20.71	138.22	-697.20	894.14	820.68	774.18	46.50	17.650		
11,800.00	10,763.00	12,237.87	11,375.00	23.31	21.04	138.22	-797.20	894.81	820.72	773.64	47.08	17.433		
11,900.00	10,763.00	12,337.87	11,375.00	23.68	21.39	138.21	-897.20	895.48	820.76	773.07	47.69	17.211		
12,000.00	10,763.00	12,437.87	11,375.00	24.07	21.77	138.21	-997.19	896.15	820.80	772.47	48.33	16.984		
12,100.00	10,763.00	12,537.87	11,375.00	24.48	22.17	138.21	-1,097.19	896.82	820.84	771.85	48.99	16.754		
12,200.00	10,763.00	12,637.87	11,375.00	24.91	22.59	138.21	-1,197.19	897.50	820.88	771.20	49.69	16.521		
12,300.00	10,763.00	12,737.87	11,375.00	25.35	23.04	138.20	-1,297.19	898.17	820.92	770.52	50.40	16.287		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 653H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference				Semi Major Axis		Offset Wellbore Centre		Distance			Separation		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)	No-Go Distance (usft)	Factor			
12,400.00	10,763.00	12,837.87	11,375.00	25.81	23.50	138.20	-1,397.18	898.84	820.96	769.82	51.14	16.052		
12,500.00	10,763.00	12,937.87	11,375.00	26.28	23.98	138.20	-1,497.18	899.51	821.00	769.10	51.91	15.816		
12,600.00	10,763.00	13,037.87	11,375.00	26.78	24.48	138.19	-1,597.18	900.18	821.04	768.35	52.69	15.581		
12,700.00	10,763.00	13,137.87	11,375.00	27.28	25.00	138.19	-1,697.18	900.85	821.09	767.58	53.50	15.347		
12,800.00	10,763.00	13,237.87	11,375.00	27.80	25.54	138.19	-1,797.18	901.52	821.13	766.80	54.33	15.114		
12,900.00	10,763.00	13,337.87	11,375.00	28.34	26.09	138.18	-1,897.17	902.19	821.17	765.99	55.17	14.883		
13,000.00	10,763.00	13,437.87	11,375.00	28.89	26.66	138.18	-1,997.17	902.86	821.21	765.17	56.04	14.654		
13,100.00	10,763.00	13,537.87	11,375.00	29.45	27.24	138.18	-2,097.17	903.53	821.25	764.33	56.92	14.428		
13,200.00	10,763.00	13,637.87	11,375.00	30.03	27.83	138.17	-2,197.17	904.20	821.29	763.47	57.82	14.204		
13,300.00	10,763.00	13,737.87	11,375.00	30.61	28.44	138.17	-2,297.16	904.87	821.33	762.59	58.73	13.984		
13,400.00	10,763.00	13,837.87	11,375.00	31.21	29.06	138.17	-2,397.16	905.54	821.37	761.70	59.66	13.767		
13,500.00	10,763.00	13,937.87	11,375.00	31.82	29.69	138.16	-2,497.16	906.21	821.41	760.80	60.61	13.553		
13,600.00	10,763.00	14,037.87	11,375.00	32.44	30.33	138.16	-2,597.16	906.88	821.45	759.88	61.56	13.343		
13,700.00	10,763.00	14,137.87	11,375.00	33.07	30.99	138.16	-2,697.16	907.55	821.49	758.95	62.54	13.136		
13,800.00	10,763.00	14,237.87	11,375.00	33.70	31.65	138.15	-2,797.15	908.22	821.53	758.01	63.52	12.934		
13,900.00	10,763.00	14,337.87	11,375.00	34.35	32.32	138.15	-2,897.15	908.89	821.57	757.06	64.51	12.735		
14,000.00	10,763.00	14,437.87	11,375.00	35.01	33.00	138.15	-2,997.15	909.57	821.61	756.09	65.52	12.540		
14,100.00	10,763.00	14,537.87	11,375.00	35.67	33.68	138.15	-3,097.15	910.24	821.65	755.11	66.54	12.348		
14,200.00	10,763.00	14,637.87	11,375.00	36.34	34.38	138.14	-3,197.14	910.91	821.69	754.12	67.57	12.161		
14,300.00	10,763.00	14,737.87	11,375.00	37.02	35.08	138.14	-3,297.14	911.58	821.73	753.13	68.61	11.978		
14,400.00	10,763.00	14,837.87	11,375.00	37.70	35.79	138.14	-3,397.14	912.25	821.77	752.12	69.65	11.798		
14,500.00	10,763.00	14,937.87	11,375.00	38.40	36.50	138.13	-3,497.14	912.92	821.81	751.10	70.71	11.622		
14,600.00	10,763.00	15,037.87	11,375.00	39.09	37.22	138.13	-3,597.14	913.59	821.85	750.08	71.78	11.450		
14,700.00	10,763.00	15,137.87	11,375.00	39.80	37.95	138.13	-3,697.13	914.26	821.89	749.04	72.85	11.282		
14,800.00	10,763.00	15,237.87	11,375.00	40.51	38.68	138.12	-3,797.13	914.93	821.93	748.00	73.93	11.118		
14,900.00	10,763.00	15,337.87	11,375.00	41.22	39.42	138.12	-3,897.13	915.60	821.97	746.95	75.02	10.957		
15,000.00	10,763.00	15,437.87	11,375.00	41.94	40.16	138.12	-3,997.13	916.27	822.02	745.90	76.12	10.799		
15,100.00	10,763.00	15,537.87	11,375.00	42.67	40.91	138.11	-4,097.12	916.94	822.06	744.84	77.22	10.646		
15,200.00	10,763.00	15,637.87	11,375.00	43.40	41.66	138.11	-4,197.12	917.61	822.10	743.77	78.33	10.495		
15,300.00	10,763.00	15,737.87	11,375.00	44.13	42.41	138.11	-4,297.12	918.28	822.14	742.69	79.45	10.348		
15,400.00	10,763.00	15,837.87	11,375.00	44.87	43.17	138.10	-4,397.12	918.95	822.18	741.61	80.57	10.205		
15,500.00	10,763.00	15,937.87	11,375.00	45.62	43.93	138.10	-4,497.11	919.62	822.22	740.52	81.70	10.064		
15,600.00	10,763.00	16,037.87	11,375.00	46.36	44.70	138.10	-4,597.11	920.29	822.26	739.42	82.83	9.927		
15,700.00	10,763.00	16,137.87	11,375.00	47.11	45.47	138.10	-4,697.11	920.96	822.30	738.33	83.97	9.792		
15,800.00	10,763.00	16,237.87	11,375.00	47.87	46.24	138.09	-4,797.11	921.64	822.34	737.22	85.12	9.661		
15,900.00	10,763.00	16,337.87	11,375.00	48.63	47.01	138.09	-4,897.11	922.31	822.38	736.11	86.27	9.533		
16,000.00	10,763.00	16,437.87	11,375.00	49.39	47.79	138.09	-4,997.10	922.98	822.42	735.00	87.42	9.407		
16,100.00	10,763.00	16,537.87	11,375.00	50.15	48.57	138.08	-5,097.10	923.65	822.46	733.88	88.58	9.285		
16,200.00	10,763.00	16,637.87	11,375.00	50.92	49.36	138.08	-5,197.10	924.32	822.50	732.75	89.75	9.165		
16,300.00	10,763.00	16,737.87	11,375.00	51.69	50.14	138.08	-5,297.10	924.99	822.54	731.63	90.91	9.047		
16,400.00	10,763.00	16,837.87	11,375.00	52.46	50.93	138.07	-5,397.09	925.66	822.58	730.50	92.09	8.933		
16,500.00	10,763.00	16,937.87	11,375.00	53.23	51.72	138.07	-5,497.09	926.33	822.62	729.36	93.26	8.821		
16,600.00	10,763.00	17,037.87	11,375.00	54.01	52.51	138.07	-5,597.09	927.00	822.66	728.22	94.44	8.711		
16,700.00	10,763.00	17,137.87	11,375.00	54.79	53.31	138.06	-5,697.09	927.67	822.70	727.08	95.63	8.603		
16,800.00	10,763.00	17,237.87	11,375.00	55.57	54.10	138.06	-5,797.09	928.34	822.74	725.93	96.81	8.498		
16,900.00	10,763.00	17,337.87	11,375.00	56.36	54.90	138.06	-5,897.08	929.01	822.78	724.78	98.00	8.395		
17,000.00	10,763.00	17,437.87	11,375.00	57.14	55.70	138.05	-5,997.08	929.68	822.82	723.63	99.20	8.295		
17,100.00	10,763.00	17,537.87	11,375.00	57.93	56.50	138.05	-6,097.08	930.35	822.87	722.47	100.40	8.196		
17,200.00	10,763.00	17,637.87	11,375.00	58.72	57.31	138.05	-6,197.08	931.02	822.91	721.31	101.60	8.100		
17,300.00	10,763.00	17,737.87	11,375.00	59.52	58.11	138.04	-6,297.07	931.69	822.95	720.15	102.80	8.005		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 653H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
17,400.00	10,763.00	17,837.87	11,375.00	60.31	58.92	138.04	-6,397.07	932.36	822.99	718.98	104.01	7.913			
17,500.00	10,763.00	17,937.87	11,375.00	61.11	59.73	138.04	-6,497.07	933.03	823.03	717.81	105.21	7.822			
17,600.00	10,763.00	18,037.87	11,375.00	61.90	60.54	138.04	-6,597.07	933.71	823.07	716.64	106.43	7.734			
17,700.00	10,763.00	18,137.87	11,375.00	62.70	61.35	138.03	-6,697.06	934.38	823.11	715.47	107.64	7.647			
17,800.00	10,763.00	18,237.87	11,375.00	63.50	62.16	138.03	-6,797.06	935.05	823.15	714.29	108.86	7.562			
17,900.00	10,763.00	18,337.87	11,375.00	64.31	62.97	138.03	-6,897.06	935.72	823.19	713.11	110.08	7.478			
18,000.00	10,763.00	18,437.87	11,375.00	65.11	63.79	138.02	-6,997.06	936.39	823.23	711.93	111.30	7.397			
18,100.00	10,763.00	18,537.87	11,375.00	65.91	64.60	138.02	-7,097.06	937.06	823.27	710.75	112.52	7.317			
18,200.00	10,763.00	18,637.87	11,375.00	66.72	65.42	138.02	-7,197.05	937.73	823.31	709.56	113.75	7.238			
18,300.00	10,763.00	18,737.87	11,375.00	67.53	66.24	138.01	-7,297.05	938.40	823.35	708.38	114.98	7.161			
18,400.00	10,763.00	18,837.86	11,375.00	68.34	67.06	138.01	-7,397.05	939.07	823.39	707.19	116.21	7.086			
18,500.00	10,763.00	18,937.86	11,375.00	69.15	67.88	138.01	-7,497.05	939.74	823.43	705.99	117.44	7.012			
18,600.00	10,763.00	19,037.86	11,375.00	69.96	68.70	138.00	-7,597.04	940.41	823.47	704.80	118.67	6.939			
18,700.00	10,763.00	19,137.86	11,375.00	70.77	69.52	138.00	-7,697.04	941.08	823.51	703.60	119.91	6.868			
18,800.00	10,763.00	19,237.86	11,375.00	71.58	70.34	138.00	-7,797.04	941.75	823.55	702.41	121.15	6.798			
18,900.00	10,763.00	19,337.86	11,375.00	72.40	71.16	137.99	-7,897.04	942.42	823.59	701.21	122.39	6.729			
19,000.00	10,763.00	19,437.86	11,375.00	73.21	71.99	137.99	-7,997.04	943.09	823.64	700.01	123.63	6.662			
19,100.00	10,763.00	19,537.86	11,375.00	74.03	72.81	137.99	-8,097.03	943.76	823.68	698.80	124.87	6.596			
19,200.00	10,763.00	19,637.86	11,375.00	74.85	73.64	137.99	-8,197.03	944.43	823.72	697.60	126.12	6.531			
19,300.00	10,763.00	19,737.86	11,375.00	75.67	74.47	137.98	-8,297.03	945.10	823.76	696.39	127.36	6.468			
19,400.00	10,763.00	19,837.86	11,375.00	76.48	75.29	137.98	-8,397.03	945.78	823.80	695.19	128.61	6.405			
19,500.00	10,763.00	19,937.86	11,375.00	77.30	76.12	137.98	-8,497.02	946.45	823.84	693.98	129.86	6.344			
19,600.00	10,763.00	20,037.86	11,375.00	78.13	76.95	137.97	-8,597.02	947.12	823.88	692.77	131.11	6.284			
19,700.00	10,763.00	20,137.86	11,375.00	78.95	77.78	137.97	-8,697.02	947.79	823.92	691.56	132.36	6.225			
19,800.00	10,763.00	20,237.86	11,375.00	79.77	78.61	137.97	-8,797.02	948.46	823.96	690.34	133.62	6.167			
19,900.00	10,763.00	20,337.86	11,375.00	80.59	79.44	137.96	-8,897.02	949.13	824.00	689.13	134.87	6.109			
20,000.00	10,763.00	20,437.86	11,375.00	81.42	80.27	137.96	-8,997.01	949.80	824.04	687.91	136.13	6.053			
20,100.00	10,763.00	20,537.86	11,375.00	82.24	81.10	137.96	-9,097.01	950.47	824.08	686.70	137.39	5.998			
20,200.00	10,763.00	20,637.86	11,375.00	83.07	81.93	137.95	-9,197.01	951.14	824.12	685.48	138.65	5.944			
20,300.00	10,763.00	20,737.86	11,375.00	83.89	82.77	137.95	-9,297.01	951.81	824.16	684.26	139.91	5.891			
20,400.00	10,763.00	20,837.86	11,375.00	84.72	83.60	137.95	-9,397.00	952.48	824.20	683.04	141.17	5.839			
20,500.00	10,763.00	20,937.86	11,375.00	85.55	84.43	137.94	-9,497.00	953.15	824.24	681.81	142.43	5.787			
20,600.00	10,763.00	21,037.86	11,375.00	86.37	85.27	137.94	-9,597.00	953.82	824.28	680.59	143.69	5.736			
20,700.00	10,763.00	21,137.86	11,375.00	87.20	86.10	137.94	-9,697.00	954.49	824.33	679.37	144.96	5.687			
20,800.00	10,763.00	21,237.86	11,375.00	88.03	86.94	137.94	-9,796.99	955.16	824.37	678.14	146.22	5.638			
20,900.00	10,763.00	21,337.86	11,375.00	88.86	87.78	137.93	-9,896.99	955.83	824.41	676.92	147.49	5.590			
21,000.00	10,763.00	21,437.86	11,375.00	89.69	88.61	137.93	-9,996.99	956.50	824.45	675.69	148.76	5.542			
21,099.96	10,763.00	21,537.82	11,375.00	90.52	89.45	137.93	-10,096.95	957.17	824.49	674.46	150.03	5.496			
21,103.19	10,763.00	21,539.67	11,375.00	90.55	89.46	137.93	-10,098.80	957.19	824.49	674.47	150.02	5.496			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 654H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)				
0.00	0.00	0.00	0.00	0.00	0.00	89.69	0.11	20.06	20.06					
100.00	100.00	100.00	100.00	0.77	0.77	89.69	0.11	20.06	20.06	18.07	1.99	10.074		
200.00	200.00	200.00	200.00	1.44	1.44	89.69	0.11	20.06	20.06	16.75	3.31	6.058		
300.00	300.00	300.00	300.00	1.88	1.88	89.69	0.11	20.06	20.06	15.86	4.20	4.782		
400.00	400.00	400.00	400.00	2.25	2.25	89.69	0.11	20.06	20.06	15.15	4.91	4.084		
500.00	500.00	500.00	500.00	2.56	2.56	89.69	0.11	20.06	20.06	14.53	5.53	3.626		
600.00	600.00	600.00	600.00	2.84	2.84	89.69	0.11	20.06	20.06	13.97	6.09	3.294		
700.00	700.00	700.00	700.00	3.10	3.10	89.69	0.11	20.06	20.06	13.46	6.60	3.039		
800.00	800.00	800.00	800.00	3.34	3.34	89.69	0.11	20.06	20.06	12.98	7.08	2.835	Normal Operations	
900.00	900.00	900.00	900.00	3.57	3.57	89.69	0.11	20.06	20.06	12.54	7.52	2.666	Normal Operations	
1,000.00	1,000.00	1,000.00	1,000.00	3.79	3.79	89.69	0.11	20.06	20.06	12.11	7.95	2.524	Normal Operations	
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.99	89.69	0.11	20.06	20.06	11.71	8.35	2.402	Caution - Monitor Closely	
1,200.00	1,200.00	1,200.00	1,200.00	4.19	4.19	89.69	0.11	20.06	20.06	11.32	8.74	2.295	Caution - Monitor Closely	
1,300.00	1,300.00	1,300.00	1,300.00	4.38	4.38	89.69	0.11	20.06	20.06	10.95	9.11	2.201	Caution - Monitor Closely	
1,400.00	1,400.00	1,400.00	1,400.00	4.56	4.56	89.69	0.11	20.06	20.06	10.59	9.47	2.118	Caution - Monitor Closely	
1,500.00	1,500.00	1,500.00	1,500.00	4.74	4.74	89.69	0.11	20.06	20.06	10.24	9.82	2.042	Caution - Monitor Closely, CC, ES, SF	
1,600.00	1,600.00	1,599.27	1,599.25	4.91	5.00	89.28	0.27	21.77	21.79	11.54	10.25	2.126	Caution - Monitor Closely	
1,700.00	1,700.00	1,698.30	1,698.14	5.08	5.24	88.37	0.77	26.89	26.96	16.32	10.64	2.534	Normal Operations	
1,800.00	1,800.00	1,796.86	1,796.32	5.24	5.48	87.44	1.58	35.36	35.58	24.57	11.02	3.230		
1,900.00	1,900.00	1,894.71	1,893.47	5.40	5.71	86.71	2.70	47.08	47.61	36.24	11.37	4.186		
2,000.00	2,000.00	1,991.65	1,989.24	5.56	5.94	86.19	4.13	61.95	63.02	51.30	11.72	5.378		
2,100.00	2,099.98	2,087.79	2,083.68	5.79	6.16	8.10	5.85	79.88	80.04	67.93	12.11	6.608		
2,200.00	2,199.84	2,183.40	2,176.94	6.00	6.37	8.16	7.86	100.82	96.95	84.47	12.48	7.766		
2,300.00	2,299.45	2,279.83	2,270.29	6.22	6.49	8.39	10.17	124.85	113.54	100.78	12.76	8.898		
2,400.00	2,398.70	2,378.86	2,366.00	6.43	6.63	8.79	12.60	150.18	127.38	114.27	13.11	9.716		
2,500.00	2,497.47	2,478.30	2,462.10	6.64	6.79	9.35	15.04	175.62	137.82	124.34	13.48	10.225		
2,564.11	2,560.47	2,542.21	2,523.86	6.71	6.89	9.79	16.61	191.96	142.71	129.06	13.65	10.453		
2,600.00	2,595.67	2,578.02	2,558.47	6.74	6.95	10.06	17.49	201.12	145.06	131.33	13.74	10.561		
2,700.00	2,693.74	2,677.78	2,654.88	6.88	7.11	10.77	19.94	226.64	151.62	137.58	14.05	10.793		
2,800.00	2,791.80	2,777.55	2,751.30	7.02	7.28	11.42	22.39	252.16	158.21	143.84	14.37	11.012		
2,900.00	2,889.87	2,877.32	2,847.72	7.16	7.45	12.01	24.84	277.68	164.81	150.12	14.69	11.218		
3,000.00	2,987.94	2,977.09	2,944.14	7.31	7.63	12.57	27.29	303.20	171.43	156.40	15.02	11.412		
3,100.00	3,086.01	3,076.86	3,040.56	7.47	7.80	13.08	29.73	328.72	178.06	162.70	15.36	11.595		
3,200.00	3,184.07	3,176.62	3,136.97	7.62	7.99	13.55	32.18	354.24	184.70	169.01	15.70	11.767		
3,300.00	3,282.14	3,276.39	3,233.39	7.78	8.17	13.99	34.63	379.76	191.36	175.32	16.04	11.929		
3,400.00	3,380.21	3,376.16	3,329.81	7.94	8.35	14.40	37.08	405.27	198.03	181.64	16.39	12.082		
3,500.00	3,478.28	3,475.93	3,426.23	8.10	8.54	14.79	39.53	430.79	204.71	187.96	16.74	12.226		
3,600.00	3,576.34	3,575.69	3,522.64	8.27	8.73	15.15	41.98	456.31	211.39	194.29	17.10	12.362		
3,700.00	3,674.41	3,675.46	3,619.06	8.44	8.93	15.48	44.43	481.83	218.09	200.63	17.46	12.491		
3,800.00	3,772.48	3,775.23	3,715.48	8.61	9.12	15.80	46.88	507.35	224.79	206.96	17.82	12.612		
3,900.00	3,870.55	3,875.00	3,811.90	8.78	9.32	16.10	49.33	532.87	231.49	213.30	18.19	12.727		
4,000.00	3,968.61	3,974.77	3,908.32	8.95	9.52	16.38	51.78	558.39	238.21	219.65	18.56	12.836		
4,100.00	4,066.68	4,074.53	4,004.73	9.13	9.72	16.65	54.23	583.91	244.93	226.00	18.93	12.939		
4,200.00	4,164.75	4,174.30	4,101.15	9.31	9.92	16.90	56.68	609.42	251.65	232.35	19.30	13.036		
4,300.00	4,262.82	4,274.07	4,197.57	9.49	10.12	17.14	59.13	634.94	258.38	238.70	19.68	13.129		
4,400.00	4,360.88	4,373.84	4,293.99	9.67	10.33	17.37	61.57	660.46	265.11	245.05	20.06	13.217		
4,500.00	4,458.95	4,473.60	4,390.40	9.85	10.53	17.59	64.02	685.98	271.85	251.41	20.44	13.300		
4,600.00	4,557.02	4,573.37	4,486.82	10.03	10.74	17.79	66.47	711.50	278.59	257.77	20.82	13.380		
4,700.00	4,655.09	4,673.14	4,583.24	10.22	10.95	17.99	68.92	737.02	285.33	264.12	21.21	13.455		
4,800.00	4,753.15	4,772.91	4,679.66	10.40	11.16	18.18	71.37	762.54	292.08	270.49	21.59	13.527		
4,900.00	4,851.22	4,872.67	4,776.08	10.59	11.37	18.35	73.82	788.05	298.83	276.85	21.98	13.596		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 654H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
5,000.00	4,949.29	4,972.44	4,872.49	10.78	11.58	18.52	76.27	813.57	305.58	283.21	22.37	13.661			
5,100.00	5,047.36	5,072.21	4,968.91	10.97	11.80	18.69	78.72	839.09	312.33	289.58	22.76	13.723			
5,200.00	5,145.43	5,171.98	5,065.33	11.16	12.01	18.84	81.17	864.61	319.09	295.94	23.15	13.783			
5,300.00	5,243.49	5,271.75	5,161.75	11.35	12.23	18.99	83.62	890.13	325.85	302.31	23.54	13.840			
5,400.00	5,341.56	5,371.51	5,258.17	11.54	12.44	19.14	86.07	915.65	332.61	308.68	23.94	13.894			
5,500.00	5,439.63	5,471.28	5,354.58	11.73	12.66	19.28	88.52	941.17	339.38	315.04	24.33	13.946			
5,600.00	5,537.70	5,571.05	5,451.00	11.92	12.87	19.41	90.97	966.69	346.14	321.41	24.73	13.996			
5,700.00	5,635.76	5,670.82	5,547.42	12.12	13.09	19.54	93.41	992.20	352.91	327.78	25.13	14.044			
5,800.00	5,733.83	5,770.58	5,643.84	12.31	13.31	19.66	95.86	1,017.72	359.68	334.15	25.53	14.090			
5,900.00	5,831.90	5,870.35	5,740.25	12.51	13.53	19.78	98.31	1,043.24	366.45	340.52	25.93	14.134			
6,000.00	5,929.97	5,970.12	5,836.67	12.71	13.75	19.89	100.76	1,068.76	373.22	346.90	26.33	14.176			
6,100.00	6,028.03	6,069.89	5,933.09	12.90	13.97	20.00	103.21	1,094.28	380.00	353.27	26.73	14.216			
6,200.00	6,126.10	6,169.65	6,029.51	13.10	14.19	20.11	105.66	1,119.80	386.77	359.64	27.13	14.255			
6,300.00	6,224.17	6,269.42	6,125.93	13.30	14.42	20.21	108.11	1,145.32	393.55	366.01	27.54	14.292			
6,400.00	6,322.24	6,369.19	6,222.34	13.50	14.64	20.31	110.56	1,170.84	400.33	372.39	27.94	14.328			
6,500.00	6,420.30	6,468.96	6,318.76	13.70	14.86	20.40	113.01	1,196.35	407.11	378.76	28.34	14.363			
6,600.00	6,518.37	6,568.73	6,415.18	13.90	15.08	20.50	115.46	1,221.87	413.89	385.14	28.75	14.396			
6,700.00	6,616.44	6,668.49	6,511.60	14.10	15.31	20.59	117.91	1,247.39	420.67	391.51	29.16	14.428			
6,800.00	6,714.51	6,768.26	6,608.01	14.30	15.53	20.67	120.36	1,272.91	427.45	397.89	29.56	14.459			
6,900.00	6,812.57	6,868.03	6,704.43	14.50	15.76	20.76	122.81	1,298.43	434.23	404.26	29.97	14.489			
7,000.00	6,910.64	6,967.80	6,800.85	14.70	15.98	20.84	125.25	1,323.95	441.01	410.64	30.38	14.518			
7,100.00	7,008.71	7,067.56	6,897.27	14.91	16.21	20.92	127.70	1,349.47	447.80	417.01	30.79	14.546			
7,200.00	7,106.78	7,167.33	6,993.69	15.11	16.44	20.99	130.15	1,374.99	454.58	423.39	31.19	14.573			
7,300.00	7,204.84	7,267.10	7,090.10	15.31	16.66	21.07	132.60	1,400.50	461.37	429.77	31.60	14.599			
7,400.00	7,302.91	7,366.87	7,186.52	15.52	16.89	21.14	135.05	1,426.02	468.16	436.14	32.01	14.624			
7,500.00	7,400.98	7,466.64	7,282.94	15.72	17.12	21.21	137.50	1,451.54	474.95	442.52	32.42	14.648			
7,600.00	7,499.05	7,566.40	7,379.36	15.93	17.34	21.28	139.95	1,477.06	481.73	448.90	32.83	14.671			
7,700.00	7,597.11	7,666.17	7,475.77	16.13	17.57	21.34	142.40	1,502.58	488.52	455.28	33.25	14.694			
7,800.00	7,695.18	7,765.94	7,572.19	16.34	17.80	21.41	144.85	1,528.10	495.31	461.65	33.66	14.716			
7,900.00	7,793.25	7,865.71	7,668.61	16.54	18.03	21.47	147.30	1,553.62	502.10	468.03	34.07	14.737			
8,000.00	7,891.32	7,965.47	7,765.03	16.75	18.26	21.53	149.75	1,579.14	508.89	474.41	34.48	14.758			
8,100.00	7,989.38	8,065.24	7,861.45	16.96	18.49	21.59	152.20	1,604.65	515.68	480.79	34.90	14.778			
8,200.00	8,087.45	8,165.01	7,957.86	17.16	18.72	21.65	154.65	1,630.17	522.48	487.17	35.31	14.797			
8,300.00	8,185.52	8,264.78	8,054.28	17.37	18.95	21.71	157.09	1,655.69	529.27	493.55	35.72	14.816			
8,400.00	8,283.59	8,364.54	8,150.70	17.58	19.18	21.76	159.54	1,681.21	536.06	499.93	36.14	14.834			
8,500.00	8,381.66	8,464.31	8,247.12	17.79	19.41	21.81	161.99	1,706.73	542.86	506.30	36.55	14.852			
8,600.00	8,479.72	8,564.08	8,343.53	17.99	19.64	21.87	164.44	1,732.25	549.65	512.68	36.97	14.869			
8,700.00	8,577.79	8,663.85	8,439.95	18.20	19.87	21.92	166.89	1,757.77	556.44	519.06	37.38	14.886			
8,800.00	8,675.86	8,763.62	8,536.37	18.41	20.10	21.97	169.34	1,783.29	563.24	525.44	37.80	14.902			
8,900.00	8,773.93	8,863.38	8,632.79	18.62	20.34	22.02	171.79	1,808.80	570.03	531.82	38.21	14.918			
9,000.00	8,871.99	8,963.15	8,729.21	18.83	20.57	22.06	174.24	1,834.32	576.83	538.20	38.63	14.933			
9,100.00	8,970.06	9,062.92	8,825.62	19.04	20.80	22.11	176.69	1,859.84	583.62	544.58	39.04	14.948			
9,200.00	9,068.13	9,162.69	8,922.04	19.25	21.03	22.15	179.14	1,885.36	590.42	550.96	39.46	14.963			
9,211.15	9,079.07	9,173.81	8,932.79	19.27	21.06	22.16	179.41	1,888.21	591.18	551.68	39.50	14.966			
9,300.00	9,166.33	9,262.41	9,018.42	19.47	21.27	22.20	181.59	1,910.87	597.85	557.97	39.88	14.990			
9,400.00	9,264.84	9,362.00	9,114.66	19.67	21.50	22.19	184.03	1,936.34	606.89	566.59	40.30	15.060			
9,500.00	9,363.64	9,461.42	9,210.75	19.87	21.73	22.13	186.47	1,961.77	617.53	576.82	40.71	15.168			
9,600.00	9,462.69	9,560.65	9,306.64	20.06	21.96	22.01	188.91	1,987.15	629.78	588.66	41.13	15.313			
9,700.00	9,561.96	9,659.66	9,402.33	20.25	22.19	21.85	191.34	2,012.48	643.65	602.11	41.53	15.498			
9,800.00	9,661.43	9,768.76	9,507.95	20.43	22.44	21.64	193.95	2,039.65	658.47	616.51	41.96	15.693			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 654H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
9,900.00	9,761.07	9,880.16	9,616.32	20.61	22.69	21.42	196.41	2,065.35	673.08	630.70	42.38	15.881			
10,000.00	9,860.83	9,991.92	9,725.52	20.78	22.94	21.19	198.69	2,089.03	687.45	644.66	42.79	16.065			
10,100.00	9,960.71	10,104.05	9,835.52	20.93	23.18	20.96	200.76	2,110.64	701.57	658.39	43.18	16.247			
10,200.00	10,060.65	10,216.52	9,946.27	21.08	23.41	20.72	202.63	2,130.16	715.44	671.89	43.55	16.427			
10,300.00	10,160.64	10,329.36	10,057.74	21.21	23.63	20.48	204.30	2,147.57	729.04	685.15	43.89	16.609			
10,339.36	10,200.00	10,373.87	10,101.81	21.23	23.72	98.22	204.91	2,153.84	734.33	690.33	44.00	16.688			
10,400.00	10,260.64	10,442.59	10,169.93	21.25	23.85	98.06	205.77	2,162.84	742.09	697.94	44.15	16.808			
10,424.90	10,285.54	10,470.87	10,197.99	21.25	23.91	97.99	206.10	2,166.31	745.07	700.87	44.21	16.854			
10,450.00	10,310.62	10,499.39	10,226.31	21.25	23.96	-81.37	206.43	2,169.67	747.87	703.60	44.27	16.894			
10,475.00	10,335.54	10,527.74	10,254.48	21.24	24.01	-81.30	206.73	2,172.87	750.34	706.01	44.33	16.927			
10,500.00	10,360.33	10,555.95	10,282.52	21.23	24.06	-81.38	207.02	2,175.91	752.51	708.12	44.39	16.951			
10,525.00	10,384.90	10,583.94	10,310.37	21.22	24.11	-81.59	207.30	2,178.80	754.40	709.93	44.46	16.967			
10,550.00	10,409.21	10,611.65	10,337.94	21.21	24.16	-81.93	207.56	2,181.52	756.02	711.48	44.54	16.975			
10,575.00	10,433.18	10,638.99	10,365.15	21.20	24.21	-82.39	207.81	2,184.08	757.41	712.80	44.61	16.978			
10,600.00	10,456.74	10,665.88	10,391.94	21.19	24.26	-82.95	208.04	2,186.47	758.60	713.91	44.69	16.975			
10,625.00	10,479.83	10,692.26	10,418.22	21.18	24.30	-83.62	208.25	2,188.69	759.64	714.87	44.77	16.967			
10,650.00	10,502.39	10,718.04	10,443.92	21.17	24.34	-84.36	208.45	2,190.75	760.58	715.73	44.85	16.957			
10,675.00	10,524.36	10,743.16	10,468.97	21.16	24.39	-85.18	208.63	2,192.64	761.48	716.54	44.94	16.945			
10,700.00	10,545.67	10,767.55	10,493.30	21.16	24.43	-86.04	208.80	2,194.37	762.38	717.35	45.02	16.933			
10,725.00	10,566.26	10,791.14	10,516.83	21.15	24.46	-86.94	208.95	2,195.95	763.35	718.24	45.11	16.923			
10,750.00	10,586.09	10,813.86	10,539.51	21.14	24.50	-87.86	209.08	2,197.38	764.46	719.27	45.19	16.915			
10,775.00	10,605.10	10,835.64	10,561.25	21.14	24.53	-88.77	209.21	2,198.66	765.78	720.50	45.28	16.913			
10,800.00	10,623.23	10,856.44	10,582.02	21.14	24.57	-89.65	209.32	2,199.81	767.37	722.01	45.36	16.916			
10,825.00	10,640.43	10,876.18	10,601.73	21.14	24.60	-90.49	209.42	2,200.84	769.30	723.85	45.45	16.927			
10,850.00	10,656.66	10,894.82	10,620.35	21.15	24.63	-91.27	209.50	2,201.74	771.63	726.10	45.53	16.947			
10,875.00	10,671.87	10,912.29	10,637.80	21.15	24.65	-91.97	209.58	2,202.53	774.42	728.81	45.61	16.979			
10,900.00	10,686.03	10,928.56	10,654.05	21.16	24.67	-92.56	209.65	2,203.22	777.74	732.05	45.69	17.022			
10,925.00	10,699.08	10,943.56	10,669.05	21.18	24.70	-93.04	209.70	2,203.82	781.62	735.86	45.77	17.079			
10,950.00	10,711.01	10,957.27	10,682.75	21.19	24.72	-93.39	209.75	2,204.33	786.13	740.29	45.84	17.150			
10,975.00	10,721.77	10,969.64	10,695.11	21.21	24.73	-93.58	209.79	2,204.76	791.29	745.38	45.91	17.236			
11,000.00	10,731.33	10,980.64	10,706.10	21.24	24.75	-93.61	209.83	2,205.12	797.13	751.15	45.98	17.338			
11,025.00	10,739.67	10,990.22	10,715.68	21.26	24.76	-93.47	209.86	2,205.42	803.67	757.63	46.04	17.456			
11,050.00	10,746.76	10,998.38	10,723.83	21.30	24.77	-93.14	209.88	2,205.66	810.92	764.82	46.10	17.590			
11,075.00	10,752.59	11,005.07	10,730.52	21.33	24.78	-92.61	209.90	2,205.85	818.87	772.72	46.16	17.741			
11,100.00	10,757.14	11,010.28	10,735.73	21.37	24.79	-91.89	209.91	2,205.99	827.53	781.32	46.21	17.908			
11,125.00	10,760.40	11,014.00	10,739.44	21.41	24.80	-90.95	209.92	2,206.09	836.86	790.60	46.26	18.091			
11,150.00	10,762.36	11,016.20	10,741.65	21.46	24.80	-89.81	209.93	2,206.15	846.84	800.54	46.30	18.289			
11,174.90	10,763.01	11,016.89	10,742.34	21.50	24.80	-88.47	209.93	2,206.17	857.38	811.04	46.34	18.501			
11,200.00	10,763.01	11,016.82	10,742.27	21.56	24.80	-88.46	209.93	2,206.16	868.58	822.20	46.38	18.727			
11,300.00	10,763.01	11,016.56	10,742.00	21.79	24.80	-88.44	209.93	2,206.16	918.70	872.19	46.51	19.753			
11,400.00	10,763.00	11,016.29	10,741.74	22.05	24.80	-88.42	209.93	2,206.15	976.51	929.92	46.59	20.958			
11,500.00	10,763.00	12,143.12	11,375.00	22.33	26.18	-128.36	-488.35	2,212.75	986.18	942.18	44.00	22.413			
11,600.00	10,763.00	12,243.12	11,375.00	22.64	26.50	-128.36	-588.35	2,213.42	986.13	942.05	44.08	22.372			
11,700.00	10,763.00	12,343.12	11,375.00	22.97	26.84	-128.36	-688.35	2,214.09	986.09	941.88	44.21	22.307			
11,800.00	10,763.00	12,443.12	11,375.00	23.31	27.20	-128.36	-788.34	2,214.76	986.04	941.66	44.38	22.219			
11,900.00	10,763.00	12,543.12	11,375.00	23.68	27.57	-128.37	-888.34	2,215.43	985.99	941.40	44.60	22.109			
12,000.00	10,763.00	12,643.12	11,375.00	24.07	27.96	-128.37	-988.34	2,216.10	985.94	941.08	44.86	21.978			
12,100.00	10,763.00	12,743.12	11,375.00	24.48	28.36	-128.37	-1,088.34	2,216.77	985.90	940.73	45.17	21.826			
12,200.00	10,763.00	12,843.12	11,375.00	24.91	28.77	-128.37	-1,188.34	2,217.44	985.85	940.33	45.52	21.656			
12,300.00	10,763.00	12,943.12	11,375.00	25.35	29.20	-128.38	-1,288.33	2,218.11	985.80	939.88	45.92	21.469			
12,400.00	10,763.00	13,043.12	11,375.00	25.81	29.64	-128.38	-1,388.33	2,218.78	985.76	939.40	46.36	21.265			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 654H - OWB - PWP0														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
12,500.00	10,763.00	13,143.12	11,375.00	26.28	30.09	-128.38	-1,488.33	2,219.45	985.71	938.87	46.83	21.047			
12,600.00	10,763.00	13,243.12	11,375.00	26.78	30.56	-128.38	-1,588.33	2,220.13	985.66	938.31	47.35	20.816			
12,700.00	10,763.00	13,343.12	11,375.00	27.28	31.04	-128.38	-1,688.32	2,220.80	985.61	937.71	47.91	20.574			
12,800.00	10,763.00	13,443.12	11,375.00	27.80	31.53	-128.39	-1,788.32	2,221.47	985.57	937.07	48.50	20.322			
12,900.00	10,763.00	13,543.12	11,375.00	28.34	32.03	-128.39	-1,888.32	2,222.14	985.52	936.40	49.12	20.062			
13,000.00	10,763.00	13,643.12	11,375.00	28.89	32.55	-128.39	-1,988.32	2,222.81	985.47	935.69	49.78	19.795			
13,100.00	10,763.00	13,743.12	11,375.00	29.45	33.08	-128.39	-2,088.32	2,223.48	985.42	934.95	50.48	19.522			
13,200.00	10,763.00	13,843.12	11,375.00	30.03	33.61	-128.40	-2,188.31	2,224.15	985.38	934.18	51.20	19.245			
13,300.00	10,763.00	13,943.12	11,375.00	30.61	34.16	-128.40	-2,288.31	2,224.82	985.33	933.37	51.96	18.965			
13,400.00	10,763.00	14,043.12	11,375.00	31.21	34.72	-128.40	-2,388.31	2,225.49	985.28	932.54	52.74	18.682			
13,500.00	10,763.00	14,143.12	11,375.00	31.82	35.29	-128.40	-2,488.31	2,226.16	985.24	931.69	53.55	18.398			
13,600.00	10,763.00	14,243.12	11,375.00	32.44	35.86	-128.40	-2,588.30	2,226.83	985.19	930.80	54.39	18.115			
13,700.00	10,763.00	14,343.12	11,375.00	33.07	36.45	-128.41	-2,688.30	2,227.50	985.14	929.89	55.25	17.831			
13,800.00	10,763.00	14,443.12	11,375.00	33.70	37.05	-128.41	-2,788.30	2,228.18	985.09	928.96	56.13	17.549			
13,900.00	10,763.00	14,543.12	11,375.00	34.35	37.65	-128.41	-2,888.30	2,228.85	985.05	928.01	57.04	17.269			
14,000.00	10,763.00	14,643.12	11,375.00	35.01	38.26	-128.41	-2,988.30	2,229.52	985.00	927.03	57.97	16.992			
14,100.00	10,763.00	14,743.12	11,375.00	35.67	38.88	-128.41	-3,088.29	2,230.19	984.95	926.03	58.92	16.717			
14,200.00	10,763.00	14,843.12	11,375.00	36.34	39.51	-128.42	-3,188.29	2,230.86	984.90	925.02	59.89	16.445			
14,300.00	10,763.00	14,943.12	11,375.00	37.02	40.15	-128.42	-3,288.29	2,231.53	984.86	923.98	60.88	16.178			
14,400.00	10,763.00	15,043.12	11,375.00	37.70	40.79	-128.42	-3,388.29	2,232.20	984.81	922.93	61.88	15.914			
14,500.00	10,763.00	15,143.12	11,375.00	38.40	41.44	-128.42	-3,488.28	2,232.87	984.76	921.86	62.91	15.655			
14,600.00	10,763.00	15,243.12	11,375.00	39.09	42.09	-128.43	-3,588.28	2,233.54	984.72	920.77	63.94	15.400			
14,700.00	10,763.00	15,343.12	11,375.00	39.80	42.76	-128.43	-3,688.28	2,234.21	984.67	919.67	65.00	15.149			
14,800.00	10,763.00	15,443.12	11,375.00	40.51	43.43	-128.43	-3,788.28	2,234.88	984.62	918.56	66.07	14.904			
14,900.00	10,763.00	15,543.12	11,375.00	41.22	44.10	-128.43	-3,888.27	2,235.55	984.57	917.43	67.15	14.663			
15,000.00	10,763.00	15,643.12	11,375.00	41.94	44.78	-128.43	-3,988.27	2,236.23	984.53	916.28	68.24	14.427			
15,100.00	10,763.00	15,743.12	11,375.00	42.67	45.47	-128.44	-4,088.27	2,236.90	984.48	915.13	69.35	14.196			
15,200.00	10,763.00	15,843.12	11,375.00	43.40	46.16	-128.44	-4,188.27	2,237.57	984.43	913.96	70.47	13.969			
15,300.00	10,763.00	15,943.12	11,375.00	44.13	46.85	-128.44	-4,288.27	2,238.24	984.39	912.78	71.60	13.748			
15,400.00	10,763.00	16,043.12	11,375.00	44.87	47.56	-128.44	-4,388.26	2,238.91	984.34	911.59	72.74	13.532			
15,500.00	10,763.00	16,143.12	11,375.00	45.62	48.26	-128.45	-4,488.26	2,239.58	984.29	910.40	73.90	13.320			
15,600.00	10,763.00	16,243.12	11,375.00	46.36	48.97	-128.45	-4,588.26	2,240.25	984.24	909.19	75.06	13.113			
15,700.00	10,763.00	16,343.12	11,375.00	47.11	49.69	-128.45	-4,688.26	2,240.92	984.20	907.97	76.23	12.911			
15,800.00	10,763.00	16,443.12	11,375.00	47.87	50.41	-128.45	-4,788.25	2,241.59	984.15	906.74	77.41	12.714			
15,900.00	10,763.00	16,543.12	11,375.00	48.63	51.13	-128.45	-4,888.25	2,242.26	984.10	905.50	78.60	12.521			
16,000.00	10,763.00	16,643.12	11,375.00	49.39	51.85	-128.46	-4,988.25	2,242.93	984.05	904.26	79.79	12.332			
16,100.00	10,763.00	16,743.12	11,375.00	50.15	52.59	-128.46	-5,088.25	2,243.61	984.01	903.01	81.00	12.148			
16,200.00	10,763.00	16,843.12	11,375.00	50.92	53.32	-128.46	-5,188.25	2,244.28	983.96	901.75	82.21	11.969			
16,300.00	10,763.00	16,943.12	11,375.00	51.69	54.06	-128.46	-5,288.24	2,244.95	983.91	900.48	83.43	11.793			
16,400.00	10,763.00	17,043.12	11,375.00	52.46	54.80	-128.46	-5,388.24	2,245.62	983.87	899.21	84.66	11.622			
16,500.00	10,763.00	17,143.12	11,375.00	53.23	55.54	-128.47	-5,488.24	2,246.29	983.82	897.93	85.89	11.455			
16,600.00	10,763.00	17,243.12	11,375.00	54.01	56.29	-128.47	-5,588.24	2,246.96	983.77	896.64	87.13	11.291			
16,700.00	10,763.00	17,343.12	11,375.00	54.79	57.04	-128.47	-5,688.23	2,247.63	983.72	895.35	88.37	11.132			
16,800.00	10,763.00	17,443.12	11,375.00	55.57	57.79	-128.47	-5,788.23	2,248.30	983.68	894.06	89.62	10.976			
16,900.00	10,763.00	17,543.12	11,375.00	56.36	58.55	-128.48	-5,888.23	2,248.97	983.63	892.75	90.88	10.824			
17,000.00	10,763.00	17,643.12	11,375.00	57.14	59.31	-128.48	-5,988.23	2,249.64	983.58	891.44	92.14	10.675			
17,100.00	10,763.00	17,743.12	11,375.00	57.93	60.07	-128.48	-6,088.22	2,250.31	983.54	890.13	93.40	10.530			
17,200.00	10,763.00	17,843.12	11,375.00	58.72	60.83	-128.48	-6,188.22	2,250.98	983.49	888.81	94.67	10.388			
17,300.00	10,763.00	17,943.12	11,375.00	59.52	61.60	-128.48	-6,288.22	2,251.66	983.44	887.49	95.95	10.250			
17,400.00	10,763.00	18,043.12	11,375.00	60.31	62.36	-128.49	-6,388.22	2,252.33	983.39	886.16	97.23	10.114			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - _COLUMBUS FEDERAL COM 654H - OWB - PWP0													Offset Site Error:	0.00 usft
Survey Program: 0-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
17,500.00	10,763.00	18,143.12	11,375.00	61.11	63.13	-128.49	-6,488.22	2,253.00	983.35	884.83	98.51	9.982		
17,600.00	10,763.00	18,243.12	11,375.00	61.90	63.91	-128.49	-6,588.21	2,253.67	983.30	883.50	99.80	9.853		
17,700.00	10,763.00	18,343.12	11,375.00	62.70	64.68	-128.49	-6,688.21	2,254.34	983.25	882.16	101.09	9.726		
17,800.00	10,763.00	18,443.12	11,375.00	63.50	65.46	-128.50	-6,788.21	2,255.01	983.20	880.82	102.39	9.603		
17,900.00	10,763.00	18,543.12	11,375.00	64.31	66.24	-128.50	-6,888.21	2,255.68	983.16	879.47	103.69	9.482		
18,000.00	10,763.00	18,643.12	11,375.00	65.11	67.02	-128.50	-6,988.20	2,256.35	983.11	878.12	104.99	9.364		
18,100.00	10,763.00	18,743.12	11,375.00	65.91	67.80	-128.50	-7,088.20	2,257.02	983.06	876.77	106.30	9.248		
18,200.00	10,763.00	18,843.12	11,375.00	66.72	68.58	-128.50	-7,188.20	2,257.69	983.02	875.41	107.61	9.135		
18,300.00	10,763.00	18,943.12	11,375.00	67.53	69.37	-128.51	-7,288.20	2,258.36	982.97	874.05	108.92	9.025		
18,400.00	10,763.00	19,043.12	11,375.00	68.34	70.16	-128.51	-7,388.20	2,259.03	982.92	872.69	110.24	8.917		
18,500.00	10,763.00	19,143.12	11,375.00	69.15	70.95	-128.51	-7,488.19	2,259.71	982.87	871.32	111.55	8.811		
18,600.00	10,763.00	19,243.12	11,375.00	69.96	71.74	-128.51	-7,588.19	2,260.38	982.83	869.95	112.88	8.707		
18,700.00	10,763.00	19,343.12	11,375.00	70.77	72.53	-128.52	-7,688.19	2,261.05	982.78	868.58	114.20	8.606		
18,800.00	10,763.00	19,443.12	11,375.00	71.58	73.32	-128.52	-7,788.19	2,261.72	982.73	867.21	115.53	8.507		
18,900.00	10,763.00	19,543.12	11,375.00	72.40	74.12	-128.52	-7,888.18	2,262.39	982.69	865.83	116.86	8.409		
19,000.00	10,763.00	19,643.12	11,375.00	73.21	74.91	-128.52	-7,988.18	2,263.06	982.64	864.45	118.19	8.314		
19,100.00	10,763.00	19,743.12	11,375.00	74.03	75.71	-128.52	-8,088.18	2,263.73	982.59	863.07	119.52	8.221		
19,200.00	10,763.00	19,843.12	11,375.00	74.85	76.51	-128.53	-8,188.18	2,264.40	982.54	861.69	120.86	8.130		
19,300.00	10,763.00	19,943.12	11,375.00	75.67	77.31	-128.53	-8,288.18	2,265.07	982.50	860.30	122.20	8.040		
19,400.00	10,763.00	20,043.12	11,375.00	76.48	78.11	-128.53	-8,388.17	2,265.74	982.45	858.91	123.54	7.953		
19,500.00	10,763.00	20,143.12	11,375.00	77.30	78.91	-128.53	-8,488.17	2,266.41	982.40	857.52	124.88	7.867		
19,600.00	10,763.00	20,243.12	11,375.00	78.13	79.72	-128.53	-8,588.17	2,267.08	982.36	856.13	126.22	7.783		
19,700.00	10,763.00	20,343.12	11,375.00	78.95	80.52	-128.54	-8,688.17	2,267.76	982.31	854.74	127.57	7.700		
19,800.00	10,763.00	20,443.12	11,375.00	79.77	81.33	-128.54	-8,788.16	2,268.43	982.26	853.34	128.92	7.619		
19,900.00	10,763.00	20,543.12	11,375.00	80.59	82.14	-128.54	-8,888.16	2,269.10	982.21	851.95	130.27	7.540		
20,000.00	10,763.00	20,643.12	11,375.00	81.42	82.94	-128.54	-8,988.16	2,269.77	982.17	850.55	131.62	7.462		
20,100.00	10,763.00	20,743.12	11,375.00	82.24	83.75	-128.55	-9,088.16	2,270.44	982.12	849.15	132.97	7.386		
20,200.00	10,763.00	20,843.12	11,375.00	83.07	84.56	-128.55	-9,188.15	2,271.11	982.07	847.75	134.33	7.311		
20,300.00	10,763.00	20,943.12	11,375.00	83.89	85.37	-128.55	-9,288.15	2,271.78	982.03	846.34	135.68	7.238		
20,400.00	10,763.00	21,043.12	11,375.00	84.72	86.19	-128.55	-9,388.15	2,272.45	981.98	844.94	137.04	7.166		
20,500.00	10,763.00	21,143.12	11,375.00	85.55	87.00	-128.55	-9,488.15	2,273.12	981.93	843.53	138.40	7.095		
20,600.00	10,763.00	21,243.12	11,375.00	86.37	87.81	-128.56	-9,588.15	2,273.79	981.88	842.12	139.76	7.025		
20,700.00	10,763.00	21,343.12	11,375.00	87.20	88.63	-128.56	-9,688.14	2,274.46	981.84	840.71	141.12	6.957		
20,800.00	10,763.00	21,443.12	11,375.00	88.03	89.44	-128.56	-9,788.14	2,275.14	981.79	839.30	142.49	6.890		
20,900.00	10,763.00	21,543.12	11,375.00	88.86	90.26	-128.56	-9,888.14	2,275.81	981.74	837.89	143.85	6.825		
21,000.00	10,763.00	21,643.12	11,375.00	89.69	91.07	-128.57	-9,988.14	2,276.48	981.70	836.48	145.22	6.760		
21,099.96	10,763.00	21,743.08	11,375.00	90.52	91.89	-128.57	-10,088.09	2,277.15	981.65	835.06	146.59	6.697		
21,101.46	10,763.00	21,744.12	11,375.00	90.53	91.90	-128.57	-10,089.13	2,277.15	981.65	835.04	146.61	6.696		
21,103.19	10,763.00	21,744.12	11,375.00	90.55	91.90	-128.57	-10,089.13	2,277.15	981.65	835.01	146.64	6.694		

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_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEDERAL COM #22H - OWB - AWP													Offset Site Error:	0.00 usft
Survey Program: 100- VES GyroFlex, 11798-MWD - OWSG R1										Rule Assigned:			Offset Well Error:	3.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,600.00	5,537.70	5,519.01	5,528.39	11.92	6.94	9.44	186.19	1,615.99	982.55	963.25	19.31	50.893		
5,700.00	5,635.76	5,614.98	5,624.35	12.12	7.07	9.66	185.78	1,617.04	964.30	944.68	19.62	49.145		
5,800.00	5,733.83	5,712.02	5,721.38	12.31	7.19	9.86	185.77	1,618.26	946.25	926.30	19.95	47.440		
5,900.00	5,831.90	5,810.02	5,819.37	12.51	7.31	10.05	186.09	1,619.57	928.29	908.01	20.27	45.793		
6,000.00	5,929.97	5,909.48	5,918.82	12.71	7.43	10.26	186.17	1,620.82	910.26	889.67	20.60	44.194		
6,100.00	6,028.03	6,005.36	6,014.69	12.90	7.56	10.49	186.13	1,622.13	892.34	871.42	20.93	42.643		
6,200.00	6,126.10	6,101.77	6,111.09	13.10	7.68	10.70	186.36	1,623.68	874.68	853.43	21.26	41.149		
6,300.00	6,224.17	6,200.54	6,209.85	13.30	7.80	10.93	186.74	1,625.34	857.12	835.53	21.59	39.707		
6,400.00	6,322.24	6,299.54	6,308.83	13.50	7.92	11.15	187.14	1,626.95	839.51	817.59	21.92	38.304		
6,500.00	6,420.30	6,396.12	6,405.39	13.70	8.04	11.38	187.58	1,628.59	821.99	799.74	22.25	36.945		
6,600.00	6,518.37	6,492.39	6,501.65	13.90	8.16	11.62	188.12	1,630.45	804.72	782.13	22.58	35.636		
6,700.00	6,616.44	6,593.28	6,602.52	14.10	8.27	11.86	188.86	1,632.41	787.46	764.55	22.91	34.372		
6,800.00	6,714.51	6,692.67	6,701.89	14.30	8.39	12.10	189.66	1,634.09	769.98	746.74	23.24	33.133		
6,900.00	6,812.57	6,790.39	6,799.59	14.50	8.50	12.36	190.33	1,635.72	752.49	728.92	23.57	31.926		
7,000.00	6,910.64	6,887.71	6,896.89	14.70	8.62	12.62	191.08	1,637.47	735.14	711.23	23.90	30.758		
7,100.00	7,008.71	6,986.15	6,995.31	14.91	8.73	12.89	191.97	1,639.33	717.89	693.66	24.23	29.627		
7,200.00	7,106.78	7,085.68	7,094.82	15.11	8.85	13.17	192.91	1,641.13	700.58	676.02	24.56	28.527		
7,300.00	7,204.84	7,185.09	7,194.21	15.31	8.96	13.48	193.76	1,642.76	683.12	658.24	24.89	27.450		
7,400.00	7,302.91	7,282.68	7,291.79	15.52	9.08	13.79	194.57	1,644.33	665.66	640.44	25.21	26.400		
7,500.00	7,400.98	7,380.50	7,389.59	15.72	9.19	14.11	195.56	1,646.05	648.34	622.80	25.54	25.384		
7,600.00	7,499.05	7,480.18	7,489.25	15.93	9.31	14.46	196.47	1,647.75	631.02	605.15	25.87	24.394		
7,700.00	7,597.11	7,577.71	7,586.76	16.13	9.43	14.83	197.21	1,649.32	613.62	587.43	26.20	23.425		
7,800.00	7,695.18	7,675.63	7,684.66	16.34	9.56	15.23	197.99	1,651.07	596.42	569.90	26.52	22.486		
7,900.00	7,793.25	7,776.10	7,785.11	16.54	9.69	15.67	198.68	1,652.75	579.15	552.30	26.85	21.570		
8,000.00	7,891.32	7,875.94	7,884.95	16.75	9.82	16.17	199.04	1,654.01	561.53	534.35	27.18	20.662		
8,100.00	7,989.38	7,971.84	7,980.84	16.96	9.96	16.72	199.07	1,655.24	543.99	516.48	27.51	19.775		
8,200.00	8,087.45	8,069.48	8,078.46	17.16	10.10	17.32	198.97	1,656.91	526.95	499.11	27.84	18.928		
8,300.00	8,185.52	8,165.80	8,174.77	17.37	10.24	17.93	199.09	1,658.69	510.07	481.91	28.17	18.108		
8,400.00	8,283.59	8,263.49	8,272.43	17.58	10.38	18.56	199.45	1,660.96	493.69	465.20	28.49	17.327		
8,500.00	8,381.66	8,362.71	8,371.63	17.79	10.52	19.22	199.92	1,663.20	477.31	448.49	28.81	16.566		
8,600.00	8,479.72	8,461.05	8,469.94	17.99	10.66	19.91	200.56	1,665.33	460.88	431.75	29.13	15.823		
8,700.00	8,577.79	8,559.75	8,568.62	18.20	10.79	20.66	201.11	1,667.53	444.59	415.15	29.44	15.102		
8,800.00	8,675.86	8,658.44	8,667.28	18.41	10.94	21.50	201.43	1,669.58	428.27	398.52	29.75	14.397		
8,900.00	8,773.93	8,756.31	8,765.13	18.62	11.08	22.46	201.30	1,671.59	412.10	382.05	30.05	13.714		
9,000.00	8,871.99	8,856.18	8,864.98	18.83	11.23	23.50	201.36	1,673.71	396.09	365.75	30.34	13.054		
9,100.00	8,970.06	8,956.37	8,965.16	19.04	11.37	24.61	201.62	1,675.26	379.61	348.98	30.63	12.395		
9,200.00	9,068.13	9,056.14	9,064.91	19.25	11.51	25.81	201.99	1,676.49	362.96	332.06	30.90	11.748		
9,211.15	9,079.07	9,067.31	9,076.09	19.27	11.53	25.96	202.02	1,676.60	361.08	330.16	30.92	11.678		
9,300.00	9,166.33	9,156.00	9,164.78	19.47	11.64	27.05	202.28	1,677.23	346.62	315.47	31.15	11.128		
9,400.00	9,264.84	9,255.85	9,264.63	19.67	11.73	28.21	202.89	1,677.66	331.61	300.26	31.35	10.577		
9,500.00	9,363.64	9,355.71	9,364.47	19.87	11.78	29.32	203.76	1,677.80	317.90	286.39	31.52	10.087		
9,600.00	9,462.69	9,454.52	9,463.28	20.06	11.82	30.27	205.06	1,677.89	305.65	273.98	31.67	9.651		
9,700.00	9,561.96	9,553.21	9,561.96	20.25	11.88	31.22	205.87	1,678.09	295.26	263.44	31.82	9.278		
9,800.00	9,661.43	9,652.24	9,660.99	20.43	11.96	32.04	206.75	1,678.46	286.55	254.56	31.99	8.958		
9,900.00	9,761.07	9,751.80	9,760.55	20.61	12.06	32.81	207.21	1,678.86	279.57	247.41	32.16	8.693		
10,000.00	9,860.83	9,852.05	9,860.79	20.78	12.16	33.34	208.13	1,679.32	273.97	241.64	32.33	8.474		
10,100.00	9,960.71	9,952.47	9,961.21	20.93	12.22	33.74	208.89	1,679.53	269.69	237.21	32.48	8.304		
10,200.00	10,060.65	10,054.51	10,063.25	21.08	12.25	33.94	209.85	1,679.41	266.49	233.87	32.61	8.171		
10,300.00	10,160.64	10,157.05	10,165.78	21.21	12.22	34.01	210.88	1,678.14	263.67	230.96	32.71	8.060		
10,339.36	10,200.00	10,197.18	10,205.89	21.23	12.20	111.86	211.20	1,677.36	262.73	230.01	32.72	8.029		
10,400.00	10,260.64	10,258.85	10,267.55	21.25	12.16	111.90	211.61	1,675.90	261.25	228.53	32.72	7.984		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEDERAL COM #22H - OWB - AWP													Offset Site Error:	0.00 usft		
Survey Program: 100- VES GyroFlex, 11798-MWD - OWSG R1													Offset Well Error:	3.00 usft		
Reference													Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor				
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)						
10,424.90	10,285.54	10,284.18	10,292.86	21.25	12.14	111.92	211.76	1,675.22	260.57	227.85	32.72	7.964				
10,450.00	10,310.62	10,309.33	10,318.00	21.25	12.13	-67.87	211.90	1,674.50	259.60	226.87	32.73	7.933				
10,475.00	10,335.54	10,333.75	10,342.42	21.24	12.11	-68.39	211.99	1,673.81	258.18	225.42	32.75	7.882				
10,500.00	10,360.33	10,358.05	10,366.71	21.23	12.10	-69.21	212.03	1,673.15	256.34	223.53	32.81	7.814				
10,525.00	10,384.90	10,382.17	10,390.81	21.22	12.08	-70.34	212.01	1,672.53	254.13	221.25	32.88	7.729				
10,550.00	10,409.21	10,406.20	10,414.84	21.21	12.07	-71.78	211.94	1,671.93	251.61	218.63	32.98	7.630				
10,575.00	10,433.18	10,430.38	10,439.01	21.20	12.05	-73.55	211.84	1,671.32	248.82	215.72	33.09	7.518				
10,600.00	10,456.74	10,454.18	10,462.80	21.19	12.04	-75.62	211.72	1,670.68	245.84	212.61	33.23	7.398				
10,625.00	10,479.83	10,477.52	10,486.13	21.18	12.02	-77.97	211.58	1,670.04	242.81	209.43	33.38	7.274				
10,650.00	10,502.39	10,500.35	10,508.95	21.17	12.01	-80.56	211.43	1,669.38	239.86	206.32	33.54	7.152				
10,675.00	10,524.36	10,522.15	10,530.74	21.16	11.99	-83.31	211.27	1,668.76	237.20	203.50	33.70	7.040				
10,700.00	10,545.67	10,543.32	10,551.90	21.16	11.98	-86.21	211.11	1,668.17	235.02	201.18	33.85	6.943				
10,725.00	10,566.26	10,563.78	10,572.36	21.15	11.97	-89.19	210.96	1,667.62	233.55	199.56	33.99	6.872				
10,750.00	10,586.09	10,583.50	10,592.07	21.14	11.96	-92.18	210.82	1,667.11	232.97	198.87	34.10	6.832				
10,751.20	10,587.02	10,584.43	10,593.00	21.14	11.96	-92.33	210.82	1,667.09	232.97	198.86	34.10	6.831 CC, ES, SF				
10,775.00	10,605.10	10,602.39	10,610.96	21.14	11.95	-95.11	210.69	1,666.64	233.51	199.33	34.18	6.832				
10,800.00	10,623.23	10,620.39	10,628.94	21.14	11.94	-97.89	210.54	1,666.21	235.35	201.14	34.21	6.879				
10,825.00	10,640.43	10,637.54	10,646.09	21.14	11.93	-100.48	210.36	1,665.83	238.67	204.47	34.19	6.980				
10,850.00	10,656.66	10,653.81	10,662.36	21.15	11.92	-102.81	210.17	1,665.48	243.58	209.45	34.12	7.138				
10,875.00	10,671.87	10,669.14	10,677.69	21.15	11.92	-104.85	209.96	1,665.18	250.16	216.16	34.01	7.356				
10,900.00	10,686.03	10,683.50	10,692.04	21.16	11.91	-106.55	209.75	1,664.91	258.45	224.61	33.85	7.636				
10,925.00	10,699.08	10,696.84	10,705.38	21.18	11.91	-107.87	209.52	1,664.68	268.43	234.78	33.65	7.976				
10,950.00	10,711.01	10,708.88	10,717.42	21.19	11.90	-108.73	209.32	1,664.48	280.05	246.62	33.44	8.376				
10,975.00	10,721.77	10,719.68	10,728.21	21.21	11.90	-109.14	209.14	1,664.31	293.24	260.03	33.21	8.830				
11,000.00	10,731.33	10,729.28	10,737.80	21.24	11.89	-109.06	209.00	1,664.16	307.89	274.91	32.98	9.335				
11,025.00	10,739.67	10,737.65	10,746.18	21.26	11.89	-108.46	208.88	1,664.03	323.87	291.11	32.76	9.886				
11,050.00	10,746.76	10,744.80	10,753.32	21.30	11.89	-107.30	208.79	1,663.93	341.04	308.49	32.55	10.478				
11,075.00	10,752.59	10,750.69	10,759.22	21.33	11.89	-105.55	208.72	1,663.84	359.27	326.92	32.35	11.104				
11,100.00	10,757.14	10,755.34	10,763.86	21.37	11.88	-103.16	208.66	1,663.78	378.42	346.25	32.17	11.762				
11,125.00	10,760.40	10,758.72	10,767.24	21.41	11.88	-100.08	208.62	1,663.73	398.35	366.34	32.01	12.444				
11,150.00	10,762.36	10,760.85	10,769.37	21.46	11.88	-96.29	208.60	1,663.70	418.93	387.07	31.86	13.147				
11,174.90	10,763.01	10,761.73	10,770.25	21.50	11.88	-91.81	208.59	1,663.69	439.96	408.23	31.73	13.864				
11,200.00	10,763.01	10,761.98	10,770.51	21.56	11.88	-91.87	208.59	1,663.68	461.56	429.94	31.61	14.600				
11,300.00	10,763.01	10,763.00	10,771.52	21.79	11.88	-92.13	208.58	1,663.67	550.57	519.32	31.25	17.619				
11,400.00	10,763.00	10,763.99	10,772.51	22.05	11.88	-92.37	208.56	1,663.66	642.82	611.82	31.00	20.734				
11,500.00	10,763.00	10,764.96	10,773.48	22.33	11.88	-92.62	208.55	1,663.64	737.09	706.26	30.83	23.905				
11,600.00	10,763.00	10,765.91	10,774.43	22.64	11.88	-92.85	208.54	1,663.63	832.70	801.99	30.72	27.110				
11,700.00	10,763.00	10,766.85	10,775.37	22.97	11.88	-93.09	208.53	1,663.62	929.23	898.60	30.63	30.334				

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

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEDERAL COM 501H - OWB - PWP1														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1750-r.5 MWD+IFR1+SAG+FDIR, 10558-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Rule Assigned:															
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	-90.39	-0.95	-139.93	139.93					
100.00	100.00	100.00	100.00	0.77	0.52	-90.39	-90.39	-0.95	-139.93	139.93	138.17	1.76	79.362		
200.00	200.00	200.00	200.00	1.44	1.03	-90.39	-90.39	-0.95	-139.93	139.93	137.01	2.93	47.819		
300.00	300.00	300.00	300.00	1.88	1.36	-90.39	-90.39	-0.95	-139.93	139.93	136.24	3.70	37.851		
400.00	400.00	400.00	400.00	2.25	1.64	-90.39	-90.39	-0.95	-139.93	139.93	135.61	4.32	32.398		
500.00	500.00	500.00	500.00	2.56	1.89	-90.39	-90.39	-0.95	-139.93	139.93	135.08	4.86	28.812		
600.00	600.00	600.00	600.00	2.84	2.11	-90.39	-90.39	-0.95	-139.93	139.93	134.60	5.34	26.216		
700.00	700.00	700.00	700.00	3.10	2.31	-90.39	-90.39	-0.95	-139.93	139.93	134.16	5.78	24.219		
800.00	800.00	800.00	800.00	3.34	2.51	-90.39	-90.39	-0.95	-139.93	139.93	133.75	6.19	22.620		
900.00	900.00	900.00	900.00	3.57	2.69	-90.39	-90.39	-0.95	-139.93	139.93	133.36	6.57	21.301		
1,000.00	1,000.00	1,000.00	1,000.00	3.79	2.87	-90.39	-90.39	-0.95	-139.93	139.93	133.00	6.93	20.187		
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.04	-90.39	-90.39	-0.95	-139.93	139.93	132.66	7.28	19.229		
1,200.00	1,200.00	1,200.00	1,200.00	4.19	3.21	-90.39	-90.39	-0.95	-139.93	139.93	132.33	7.61	18.395		
1,300.00	1,300.00	1,300.00	1,300.00	4.38	3.37	-90.39	-90.39	-0.95	-139.93	139.93	132.01	7.92	17.658		
1,400.00	1,400.00	1,400.00	1,400.00	4.56	3.53	-90.39	-90.39	-0.95	-139.93	139.93	131.70	8.23	17.002		
1,500.00	1,500.00	1,500.00	1,500.00	4.74	3.68	-90.39	-90.39	-0.95	-139.93	139.93	131.41	8.53	16.411		
1,600.00	1,600.00	1,600.00	1,600.00	4.91	3.83	-90.39	-90.39	-0.95	-139.93	139.93	131.12	8.81	15.877		
1,700.00	1,700.00	1,700.00	1,700.00	5.08	3.98	-90.39	-90.39	-0.95	-139.93	139.93	130.84	9.09	15.390		
1,710.00	1,710.00	1,710.00	1,710.00	5.09	3.99	-90.39	-90.39	-0.95	-139.93	139.93	130.82	9.11	15.353 CC, ES		
1,800.00	1,800.00	1,797.69	1,797.69	5.24	4.05	-90.36	-90.36	-0.89	-140.32	140.34	131.03	9.31	15.071		
1,900.00	1,900.00	1,892.97	1,892.97	5.40	4.22	-90.17	-90.17	-0.43	-143.46	143.63	133.90	9.74	14.754 SF		
2,000.00	2,000.00	1,987.94	1,987.66	5.56	4.39	-89.81	-89.81	0.49	-149.70	150.21	140.06	10.14	14.808		
2,100.00	2,099.98	2,082.18	2,081.44	5.79	4.56	-167.25	-167.25	1.85	-158.96	161.74	151.13	10.62	15.237		
2,200.00	2,199.84	2,175.04	2,173.48	6.00	4.77	-166.98	-166.98	3.62	-171.07	179.85	168.79	11.05	16.271		
2,300.00	2,299.45	2,265.94	2,263.16	6.22	5.00	-166.81	-166.81	5.78	-185.77	204.38	192.91	11.47	17.819		
2,400.00	2,398.70	2,354.36	2,349.89	6.43	5.24	-166.72	-166.72	8.28	-202.77	235.16	223.29	11.86	19.821		
2,500.00	2,497.47	2,439.84	2,433.20	6.64	5.46	-166.67	-166.67	11.06	-221.71	271.96	259.73	12.24	22.225		
2,564.11	2,560.47	2,492.91	2,484.61	6.71	5.60	-166.65	-166.65	12.97	-234.70	298.62	286.21	12.41	24.062		
2,600.00	2,595.67	2,522.58	2,513.25	6.74	5.65	-166.71	-166.71	14.10	-242.37	314.35	301.89	12.46	25.229		
2,700.00	2,693.74	2,612.30	2,599.77	6.88	5.80	-166.85	-166.85	17.55	-265.87	358.51	345.77	12.74	28.139		
2,800.00	2,791.80	2,702.02	2,686.29	7.02	5.96	-166.96	-166.96	21.00	-289.36	402.66	389.63	13.03	30.900		
2,900.00	2,889.87	2,791.74	2,772.81	7.16	6.12	-167.05	-167.05	24.45	-312.86	446.82	433.49	13.33	33.525		
3,000.00	2,987.94	2,881.46	2,859.33	7.31	6.29	-167.13	-167.13	27.90	-336.35	490.98	477.35	13.63	36.021		
3,100.00	3,086.01	2,971.18	2,945.85	7.47	6.45	-167.19	-167.19	31.35	-359.85	535.14	521.20	13.94	38.393		
3,200.00	3,184.07	3,060.90	3,032.37	7.62	6.62	-167.24	-167.24	34.80	-383.35	579.30	565.05	14.25	40.647		
3,300.00	3,282.14	3,150.62	3,118.89	7.78	6.80	-167.29	-167.29	38.25	-406.84	623.46	608.89	14.57	42.791		
3,400.00	3,380.21	3,240.34	3,205.41	7.94	6.97	-167.32	-167.32	41.71	-430.34	667.62	652.73	14.89	44.829		
3,500.00	3,478.28	3,330.06	3,291.93	8.10	7.15	-167.36	-167.36	45.16	-453.83	711.78	696.56	15.22	46.768		
3,600.00	3,576.34	3,419.78	3,378.45	8.27	7.33	-167.39	-167.39	48.61	-477.33	755.94	740.39	15.55	48.613		
3,700.00	3,674.41	3,509.50	3,464.97	8.44	7.51	-167.41	-167.41	52.06	-500.82	800.10	784.22	15.88	50.368		
3,800.00	3,772.48	3,599.22	3,551.49	8.61	7.69	-167.44	-167.44	55.51	-524.32	844.26	828.04	16.22	52.040		
3,900.00	3,870.55	3,688.94	3,638.02	8.78	7.87	-167.46	-167.46	58.96	-547.81	888.42	871.86	16.56	53.633		
4,000.00	3,968.61	3,778.66	3,724.54	8.95	8.06	-167.48	-167.48	62.41	-571.31	932.59	915.68	16.91	55.151		
4,100.00	4,066.68	3,868.38	3,811.06	9.13	8.25	-167.50	-167.50	65.86	-594.81	976.75	959.49	17.26	56.598		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEDERAL COM 502H - OWB - PWP1														Offset Site Error:	0.00 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1, 10422-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Rule Assigned:															
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	-90.24	-0.42	-99.94	99.94					
100.00	100.00	100.00	100.00	0.77	0.52	-90.24	-0.42	-99.94	-99.94	99.94	98.18	1.76	56.681		
200.00	200.00	200.00	200.00	1.44	1.03	-90.24	-0.42	-99.94	-99.94	99.94	97.01	2.93	34.153		
300.00	300.00	300.00	300.00	1.88	1.36	-90.24	-0.42	-99.94	-99.94	99.94	96.24	3.70	27.034		
400.00	400.00	400.00	400.00	2.25	1.64	-90.24	-0.42	-99.94	-99.94	99.94	95.62	4.32	23.139		
500.00	500.00	500.00	500.00	2.56	1.89	-90.24	-0.42	-99.94	-99.94	99.94	95.08	4.86	20.578		
600.00	600.00	600.00	600.00	2.84	2.11	-90.24	-0.42	-99.94	-99.94	99.94	94.60	5.34	18.723		
700.00	700.00	700.00	700.00	3.10	2.31	-90.24	-0.42	-99.94	-99.94	99.94	94.16	5.78	17.298		
800.00	800.00	800.00	800.00	3.34	2.51	-90.24	-0.42	-99.94	-99.94	99.94	93.75	6.19	16.155		
900.00	900.00	900.00	900.00	3.57	2.69	-90.24	-0.42	-99.94	-99.94	99.94	93.37	6.57	15.213		
1,000.00	1,000.00	1,000.00	1,000.00	3.79	2.87	-90.24	-0.42	-99.94	-99.94	99.94	93.01	6.93	14.417		
1,100.00	1,100.00	1,100.00	1,100.00	3.99	3.04	-90.24	-0.42	-99.94	-99.94	99.94	92.66	7.28	13.734		
1,200.00	1,200.00	1,200.00	1,200.00	4.19	3.21	-90.24	-0.42	-99.94	-99.94	99.94	92.33	7.61	13.138		
1,300.00	1,300.00	1,300.00	1,300.00	4.38	3.37	-90.24	-0.42	-99.94	-99.94	99.94	92.02	7.92	12.612		
1,400.00	1,400.00	1,400.00	1,400.00	4.56	3.53	-90.24	-0.42	-99.94	-99.94	99.94	91.71	8.23	12.143		
1,500.00	1,500.00	1,500.00	1,500.00	4.74	3.68	-90.24	-0.42	-99.94	-99.94	99.94	91.41	8.53	11.721		
1,600.00	1,600.00	1,600.00	1,600.00	4.91	3.83	-90.24	-0.42	-99.94	-99.94	99.94	91.13	8.81	11.339		
1,700.00	1,700.00	1,700.00	1,700.00	5.08	3.98	-90.24	-0.42	-99.94	-99.94	99.94	90.85	9.09	10.991		
1,800.00	1,800.00	1,800.00	1,800.00	5.24	4.13	-90.24	-0.42	-99.94	-99.94	99.94	90.58	9.36	10.673		
1,900.00	1,900.00	1,900.00	1,900.00	5.40	4.27	-90.24	-0.42	-99.94	-99.94	99.94	90.31	9.63	10.379		
2,000.00	2,000.00	2,000.00	2,000.00	5.56	4.41	-90.24	-0.42	-99.94	-99.94	99.94	90.05	9.89	10.107 CC, ES		
2,100.00	2,099.98	2,096.60	2,096.58	5.79	4.53	-168.06	-0.07	-101.53	-103.29	103.29	92.98	10.31	10.016 SF		
2,200.00	2,199.84	2,192.55	2,192.41	6.00	4.69	-168.02	0.95	-106.26	-113.33	113.33	102.54	10.79	10.507		
2,300.00	2,299.45	2,287.23	2,286.75	6.22	4.86	-167.95	2.63	-114.00	-129.97	129.97	118.71	11.26	11.546		
2,400.00	2,398.70	2,380.05	2,378.93	6.43	5.08	-167.87	4.91	-124.54	-153.08	153.08	141.35	11.72	13.056		
2,500.00	2,497.47	2,470.45	2,468.34	6.64	5.36	-167.77	7.75	-137.61	-182.50	182.50	170.31	12.19	14.973		
2,564.11	2,560.47	2,526.91	2,523.95	6.71	5.55	-167.70	9.82	-147.16	-204.58	204.58	192.15	12.42	16.466		
2,600.00	2,595.67	2,558.04	2,554.52	6.74	5.66	-167.70	11.06	-152.89	-217.80	217.80	205.26	12.54	17.367		
2,700.00	2,693.74	2,643.78	2,638.38	6.88	5.92	-167.63	14.84	-170.33	-256.50	256.50	243.62	12.87	19.924		
2,800.00	2,791.80	2,735.49	2,727.81	7.02	6.19	-167.51	19.14	-190.14	-296.37	296.37	283.11	13.26	22.349		
2,900.00	2,889.87	2,827.19	2,817.25	7.16	6.49	-167.42	23.43	-209.95	-336.25	336.25	322.55	13.70	24.546		
3,000.00	2,987.94	2,918.89	2,906.69	7.31	6.82	-167.35	27.72	-229.76	-376.13	376.13	361.97	14.16	26.570		
3,100.00	3,086.01	3,010.60	2,996.12	7.47	7.15	-167.30	32.02	-249.57	-416.01	416.01	401.38	14.63	28.432		
3,200.00	3,184.07	3,102.30	3,085.56	7.62	7.50	-167.25	36.31	-269.38	-455.89	455.89	440.76	15.12	30.145		
3,300.00	3,282.14	3,194.00	3,174.99	7.78	7.86	-167.21	40.61	-289.19	-495.77	495.77	480.14	15.63	31.719		
3,400.00	3,380.21	3,285.71	3,264.43	7.94	8.23	-167.18	44.90	-309.00	-535.65	535.65	519.50	16.15	33.167		
3,500.00	3,478.28	3,377.41	3,353.86	8.10	8.60	-167.15	49.20	-328.81	-575.53	575.53	558.85	16.68	34.501		
3,600.00	3,576.34	3,469.11	3,443.30	8.27	8.98	-167.13	53.49	-348.62	-615.41	615.41	598.18	17.22	35.729		
3,700.00	3,674.41	3,560.82	3,532.73	8.44	9.36	-167.10	57.79	-368.43	-655.29	655.29	637.51	17.78	36.862		
3,800.00	3,772.48	3,652.52	3,622.17	8.61	9.75	-167.08	62.08	-388.24	-695.17	695.17	676.83	18.34	37.909		
3,900.00	3,870.55	3,744.23	3,711.60	8.78	10.15	-167.07	66.38	-408.05	-735.05	735.05	716.14	18.91	38.876		
4,000.00	3,968.61	3,835.93	3,801.04	8.95	10.54	-167.05	70.67	-427.86	-774.93	774.93	755.44	19.48	39.772		
4,100.00	4,066.68	3,927.63	3,890.47	9.13	10.95	-167.04	74.97	-447.67	-814.81	814.81	794.74	20.07	40.603		
4,200.00	4,164.75	4,019.34	3,979.91	9.31	11.35	-167.02	79.26	-467.48	-854.69	854.69	834.03	20.66	41.374		
4,300.00	4,262.82	4,111.04	4,069.34	9.49	11.76	-167.01	83.56	-487.29	-894.57	894.57	873.32	21.25	42.091		
4,400.00	4,360.88	4,202.74	4,158.78	9.67	12.17	-167.00	87.85	-507.10	-934.45	934.45	912.60	21.85	42.759		
4,500.00	4,458.95	4,294.45	4,248.21	9.85	12.58	-166.99	92.14	-526.91	-974.33	974.33	951.87	22.46	43.381		

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_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #23H - OWB (PH) - AWP														Offset Site Error:	0.00 usft
Survey Program: 176-r.5 MWD+IFR1														Offset Well Error:	3.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
5,000.00	4,949.29	4,966.35	4,974.38	10.78	14.08	5.00	236.54	1,493.84	982.10	957.94	24.17	40.639			
5,100.00	5,047.36	5,074.16	5,082.12	10.97	14.26	5.05	237.23	1,490.32	959.51	935.01	24.50	39.158			
5,200.00	5,145.43	5,176.28	5,184.15	11.16	14.46	5.06	238.22	1,486.15	936.19	911.34	24.85	37.676			
5,300.00	5,243.49	5,275.26	5,283.03	11.35	14.67	5.07	239.26	1,481.77	912.53	887.33	25.20	36.212			
5,400.00	5,341.56	5,377.41	5,385.06	11.54	14.88	5.06	240.53	1,476.92	888.60	863.04	25.56	34.766			
5,500.00	5,439.63	5,477.81	5,485.30	11.73	15.11	5.04	241.93	1,471.56	864.11	838.18	25.93	33.329			
5,600.00	5,537.70	5,575.71	5,583.04	11.92	15.33	5.00	243.49	1,466.08	839.39	813.09	26.30	31.916			
5,700.00	5,635.76	5,670.15	5,677.32	12.12	15.55	4.97	244.92	1,460.87	814.76	788.08	26.68	30.542			
5,800.00	5,733.83	5,769.15	5,776.17	12.31	15.78	4.96	245.97	1,455.55	790.19	763.12	27.06	29.198			
5,900.00	5,831.90	5,859.75	5,866.66	12.51	15.99	5.00	246.44	1,450.95	765.85	738.39	27.45	27.895			
6,000.00	5,929.97	5,954.33	5,961.14	12.71	16.18	5.09	246.34	1,446.81	742.11	714.25	27.85	26.645			
6,100.00	6,028.03	6,052.63	6,059.35	12.90	16.38	5.22	245.94	1,442.64	718.45	690.19	28.26	25.426			
6,200.00	6,126.10	6,153.65	6,160.27	13.10	16.60	5.37	245.49	1,437.97	694.43	665.76	28.67	24.220			
6,300.00	6,224.17	6,254.05	6,260.53	13.30	16.82	5.52	245.00	1,432.78	669.89	640.79	29.10	23.023			
6,400.00	6,322.24	6,350.74	6,357.08	13.50	17.04	5.66	244.61	1,427.47	645.05	615.52	29.53	21.846			
6,500.00	6,420.30	6,442.09	6,448.31	13.70	17.25	5.82	244.20	1,423.01	620.78	590.83	29.96	20.723			
6,600.00	6,518.37	6,538.43	6,544.56	13.90	17.46	6.02	243.62	1,418.78	597.00	566.61	30.39	19.645			
6,700.00	6,616.44	6,637.06	6,643.09	14.10	17.68	6.24	242.97	1,414.40	573.16	542.33	30.83	18.592			
6,800.00	6,714.51	6,735.16	6,741.07	14.30	17.90	6.50	242.17	1,409.68	548.95	517.68	31.27	17.553			
6,900.00	6,812.57	6,829.04	6,834.86	14.50	18.10	6.80	241.18	1,405.54	525.13	493.41	31.72	16.555			
7,000.00	6,910.64	6,925.32	6,931.05	14.70	18.30	7.16	239.95	1,401.66	501.66	469.49	32.17	15.595			
7,100.00	7,008.71	7,022.68	7,028.32	14.91	18.50	7.57	238.59	1,397.80	478.28	445.66	32.62	14.662			
7,200.00	7,106.78	7,119.31	7,124.87	15.11	18.70	8.04	237.13	1,393.92	454.86	421.79	33.07	13.753			
7,300.00	7,204.84	7,214.29	7,219.77	15.31	18.90	8.55	235.76	1,390.49	431.87	398.35	33.53	12.882			
7,400.00	7,302.91	7,310.97	7,316.40	15.52	19.10	9.08	234.66	1,387.38	409.32	375.34	33.98	12.046			
7,500.00	7,400.98	7,408.58	7,413.94	15.72	19.32	9.64	233.83	1,384.12	386.70	352.26	34.44	11.230			
7,600.00	7,499.05	7,506.25	7,511.56	15.93	19.54	10.24	233.12	1,380.90	364.15	329.26	34.90	10.435			
7,700.00	7,597.11	7,603.21	7,608.46	16.13	19.76	10.93	232.35	1,377.55	341.51	306.14	35.37	9.656			
7,800.00	7,695.18	7,698.82	7,704.02	16.34	19.98	11.67	231.83	1,374.63	319.31	283.48	35.83	8.912			
7,900.00	7,793.25	7,794.25	7,799.43	16.54	20.18	12.54	231.16	1,372.31	297.78	261.49	36.28	8.207			
8,000.00	7,891.32	7,890.73	7,895.89	16.75	20.37	13.55	230.47	1,370.57	276.93	240.22	36.72	7.542			
8,100.00	7,989.38	7,986.76	7,991.90	16.96	20.54	14.71	229.82	1,369.20	256.57	219.44	37.13	6.911			
8,200.00	8,087.45	8,084.08	8,089.22	17.16	20.69	16.03	229.33	1,368.45	236.94	199.43	37.51	6.317			
8,300.00	8,185.52	8,181.80	8,186.93	17.37	20.84	17.56	228.94	1,367.71	217.47	179.59	37.88	5.741			
8,400.00	8,283.59	8,279.87	8,285.01	17.58	20.97	19.45	228.36	1,367.01	198.24	160.02	38.22	5.187			
8,500.00	8,381.66	8,378.07	8,383.19	17.79	21.12	21.81	227.65	1,366.12	179.10	140.57	38.53	4.648			
8,600.00	8,479.72	8,476.48	8,481.59	17.99	21.28	24.78	226.82	1,364.97	160.09	121.28	38.81	4.125			
8,700.00	8,577.79	8,573.51	8,578.61	18.20	21.42	28.53	225.89	1,363.81	141.61	102.63	38.98	3.633			
8,800.00	8,675.86	8,671.42	8,676.51	18.41	21.54	33.51	224.61	1,362.83	124.21	85.26	38.95	3.189			
8,900.00	8,773.93	8,768.96	8,774.04	18.62	21.66	40.06	223.21	1,361.86	108.09	69.46	38.63	2.798 Normal Operations			
9,000.00	8,871.99	8,867.07	8,872.13	18.83	21.78	48.68	221.90	1,360.92	93.81	55.94	37.87	2.477 Caution - Monitor Closely			
9,100.00	8,970.06	8,964.94	8,969.98	19.04	21.98	59.95	220.69	1,359.80	82.17	45.59	36.57	2.247 Caution - Monitor Closely			
9,200.00	9,068.13	9,062.69	9,067.72	19.25	22.16	74.20	219.41	1,358.50	74.67	39.93	34.74	2.149 Caution - Monitor Closely			
9,211.15	9,079.07	9,073.58	9,078.60	19.27	22.18	75.94	219.26	1,358.35	74.16	39.64	34.53	2.148 Caution - Monitor Closely, SF			
9,281.14	9,147.78	9,142.03	9,147.05	19.42	22.29	86.87	218.31	1,357.44	72.72	39.28	33.45	2.174 Caution - Monitor Closely, CC, ES			
9,300.00	9,166.33	9,160.53	9,165.54	19.47	22.32	89.76	218.05	1,357.19	72.82	39.56	33.26	2.190 Caution - Monitor Closely			
9,400.00	9,264.84	9,258.84	9,263.84	19.67	22.49	103.94	216.69	1,355.71	76.18	43.12	33.06	2.305 Caution - Monitor Closely			
9,500.00	9,363.64	9,357.33	9,362.30	19.87	22.67	115.43	215.57	1,354.07	82.84	48.94	33.90	2.444 Caution - Monitor Closely			
9,600.00	9,462.69	9,455.82	9,460.76	20.06	22.88	124.29	214.26	1,351.96	91.69	56.56	35.13	2.610 Normal Operations			
9,700.00	9,561.96	9,554.96	9,559.87	20.25	23.09	130.85	212.98	1,349.76	101.18	64.83	36.35	2.783 Normal Operations			
9,800.00	9,661.43	9,654.34	9,659.22	20.43	23.30	135.57	211.86	1,347.77	110.24	72.83	37.41	2.947 Normal Operations			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #23H - OWB (PH) - AWP														Offset Site Error:	0.00 usft
Survey Program: 176-r.5 MWD+IFR1														Offset Well Error:	3.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
9,900.00	9,761.07	9,754.12	9,758.98	20.61	23.52	139.04	210.88	1,345.83	118.46	80.15	38.31	3.092			
10,000.00	9,860.83	9,853.58	9,858.42	20.78	23.75	141.63	210.18	1,343.89	125.45	86.38	39.07	3.211			
10,100.00	9,960.71	9,952.55	9,957.35	20.93	24.00	143.75	209.58	1,341.23	131.68	91.92	39.76	3.312			
10,200.00	10,060.65	10,051.63	10,056.36	21.08	24.27	145.60	209.11	1,337.57	137.22	96.81	40.40	3.396			
10,300.00	10,160.64	10,152.79	10,157.46	21.21	24.54	146.82	208.51	1,334.16	141.29	100.34	40.95	3.451			
10,339.36	10,200.00	10,192.46	10,197.11	21.23	24.62	-135.16	208.16	1,333.31	142.24	101.16	41.08	3.462			
10,400.00	10,260.64	10,253.48	10,258.13	21.25	24.75	-135.07	207.51	1,332.34	143.38	102.13	41.25	3.476			
10,424.90	10,285.54	10,278.28	10,282.92	21.25	24.79	-135.07	207.19	1,332.03	143.82	102.52	41.30	3.482			
10,450.00	10,310.62	10,303.26	10,307.90	21.25	24.83	45.51	206.83	1,331.74	143.83	102.44	41.38	3.475			
10,475.00	10,335.54	10,328.11	10,332.74	21.24	24.86	46.11	206.42	1,331.46	142.94	101.42	41.52	3.443			
10,500.00	10,360.33	10,352.82	10,357.45	21.23	24.90	47.16	205.98	1,331.21	141.18	99.46	41.72	3.384			
10,525.00	10,384.90	10,377.31	10,381.94	21.22	24.92	48.66	205.47	1,330.98	138.62	96.62	42.00	3.301			
10,550.00	10,409.21	10,401.59	10,406.20	21.21	24.95	50.67	204.90	1,330.78	135.32	92.98	42.34	3.196			
10,575.00	10,433.18	10,425.59	10,430.20	21.20	24.98	53.22	204.27	1,330.60	131.40	88.64	42.76	3.073			
10,600.00	10,456.74	10,449.25	10,453.84	21.19	25.00	56.38	203.59	1,330.43	126.97	83.71	43.26	2.935 Normal Operations			
10,625.00	10,479.83	10,472.47	10,477.05	21.18	25.02	60.20	202.89	1,330.26	122.24	78.41	43.83	2.789 Normal Operations			
10,650.00	10,502.39	10,495.22	10,499.79	21.17	25.04	64.71	202.18	1,330.08	117.45	73.01	44.44	2.643 Normal Operations			
10,675.00	10,524.36	10,517.44	10,522.00	21.16	25.06	69.91	201.47	1,329.89	112.91	67.84	45.07	2.505 Normal Operations			
10,700.00	10,545.67	10,539.12	10,543.67	21.16	25.08	75.75	200.74	1,329.69	109.03	63.39	45.64	2.389 Caution - Monitor Closely			
10,725.00	10,566.26	10,560.24	10,564.77	21.15	25.10	82.08	200.04	1,329.51	106.24	60.23	46.01	2.309 Caution - Monitor Closely			
10,750.00	10,586.09	10,580.60	10,585.12	21.14	25.12	88.65	199.38	1,329.33	105.08	59.02	46.06	2.281 Caution - Monitor Closely			
10,752.05	10,587.68	10,582.23	10,586.75	21.14	25.12	89.20	199.33	1,329.32	105.08	59.03	46.05	2.282 Caution - Monitor Closely			
10,775.00	10,605.10	10,600.14	10,604.65	21.14	25.13	95.18	198.77	1,329.17	106.04	60.36	45.68	2.321 Caution - Monitor Closely			
10,800.00	10,623.23	10,618.82	10,623.32	21.14	25.15	101.37	198.18	1,329.03	109.52	64.66	44.85	2.442 Caution - Monitor Closely			
10,825.00	10,640.43	10,636.51	10,641.00	21.14	25.17	106.96	197.64	1,328.89	115.69	72.01	43.68	2.649 Normal Operations			
10,850.00	10,656.66	10,653.22	10,657.70	21.15	25.19	111.82	197.12	1,328.74	124.56	82.22	42.34	2.942 Normal Operations			
10,875.00	10,671.87	10,668.96	10,673.44	21.15	25.21	115.90	196.62	1,328.58	135.92	94.92	41.00	3.315			
10,900.00	10,686.03	10,683.70	10,688.17	21.16	25.22	119.18	196.15	1,328.42	149.50	109.72	39.78	3.758			
10,925.00	10,699.08	10,697.38	10,701.84	21.18	25.24	121.68	195.70	1,328.25	165.00	126.26	38.74	4.259			
10,950.00	10,711.01	10,709.98	10,714.43	21.19	25.25	123.41	195.28	1,328.08	182.14	144.26	37.89	4.808			
10,975.00	10,721.77	10,721.46	10,725.90	21.21	25.27	124.39	194.90	1,327.92	200.67	163.47	37.20	5.394			
11,000.00	10,731.33	10,731.81	10,736.25	21.24	25.28	124.62	194.55	1,327.76	220.36	183.70	36.66	6.011			
11,025.00	10,739.67	10,740.97	10,745.40	21.26	25.30	124.05	194.23	1,327.62	241.05	204.82	36.23	6.653			
11,050.00	10,746.76	10,748.92	10,753.34	21.30	25.31	122.59	193.96	1,327.50	262.56	226.67	35.89	7.316			
11,075.00	10,752.59	10,755.62	10,760.03	21.33	25.32	120.11	193.72	1,327.39	284.78	249.15	35.62	7.994			
11,100.00	10,757.14	10,761.05	10,765.47	21.37	25.33	116.43	193.53	1,327.30	307.56	272.15	35.41	8.686			
11,125.00	10,760.40	10,765.20	10,769.62	21.41	25.33	111.30	193.39	1,327.23	330.80	295.57	35.24	9.388			
11,150.00	10,762.36	10,768.06	10,772.47	21.46	25.34	104.48	193.28	1,327.18	354.40	319.30	35.10	10.097			
11,174.90	10,763.01	10,769.60	10,774.01	21.50	25.34	95.86	193.23	1,327.16	378.18	343.19	34.99	10.809			
11,200.00	10,763.01	10,770.50	10,774.91	21.56	25.34	96.33	193.20	1,327.14	402.29	367.40	34.90	11.529			
11,300.00	10,763.01	10,774.10	10,778.50	21.79	25.35	98.21	193.07	1,327.08	499.33	464.67	34.66	14.405			
11,400.00	10,763.00	10,777.72	10,782.12	22.05	25.35	100.09	192.94	1,327.02	597.33	562.78	34.55	17.287			
11,500.00	10,763.00	10,781.37	10,785.77	22.33	25.36	101.96	192.81	1,326.95	695.88	661.38	34.50	20.172			
11,600.00	10,763.00	10,785.06	10,789.45	22.64	25.36	103.82	192.67	1,326.89	794.77	760.30	34.47	23.056			
11,700.00	10,763.00	10,788.76	10,793.16	22.97	25.37	105.65	192.54	1,326.82	893.90	859.44	34.46	25.938			
11,800.00	10,763.00	10,792.50	10,796.89	23.31	25.37	107.47	192.40	1,326.75	993.19	958.72	34.46	28.818			

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_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #23H - ST01 - AWP													Offset Site Error:	0.00 usft
Survey Program: 176-r.5 MWD+IFR1, 11791-r.5 MWD+IFR1+MS													Offset Well Error:	3.00 usft
Rule Assigned:														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,949.29	4,966.35	4,974.38	10.78	14.08	5.00	236.54	1,493.84	982.10	957.94	24.17	40.639		
5,100.00	5,047.36	5,074.16	5,082.12	10.97	14.26	5.05	237.23	1,490.32	959.51	935.01	24.50	39.158		
5,200.00	5,145.43	5,176.28	5,184.15	11.16	14.46	5.06	238.22	1,486.15	936.19	911.34	24.85	37.676		
5,300.00	5,243.49	5,275.26	5,283.03	11.35	14.67	5.07	239.26	1,481.77	912.53	887.33	25.20	36.212		
5,400.00	5,341.56	5,377.41	5,385.06	11.54	14.88	5.06	240.53	1,476.92	888.60	863.04	25.56	34.766		
5,500.00	5,439.63	5,477.81	5,485.30	11.73	15.11	5.04	241.93	1,471.56	864.11	838.18	25.93	33.329		
5,600.00	5,537.70	5,575.71	5,583.04	11.92	15.33	5.00	243.49	1,466.08	839.39	813.09	26.30	31.916		
5,700.00	5,635.76	5,670.15	5,677.32	12.12	15.55	4.97	244.92	1,460.87	814.76	788.08	26.68	30.542		
5,800.00	5,733.83	5,769.15	5,776.17	12.31	15.78	4.96	245.97	1,455.55	790.19	763.12	27.06	29.198		
5,900.00	5,831.90	5,859.75	5,866.66	12.51	15.99	5.00	246.44	1,450.95	765.85	738.39	27.45	27.895		
6,000.00	5,929.97	5,954.33	5,961.14	12.71	16.18	5.09	246.34	1,446.81	742.11	714.25	27.85	26.645		
6,100.00	6,028.03	6,052.63	6,059.35	12.90	16.38	5.22	245.94	1,442.64	718.45	690.19	28.26	25.426		
6,200.00	6,126.10	6,153.65	6,160.27	13.10	16.60	5.37	245.49	1,437.97	694.43	665.76	28.67	24.220		
6,300.00	6,224.17	6,254.05	6,260.53	13.30	16.82	5.52	245.00	1,432.78	669.89	640.79	29.10	23.023		
6,400.00	6,322.24	6,350.74	6,357.08	13.50	17.04	5.66	244.61	1,427.47	645.05	615.52	29.53	21.846		
6,500.00	6,420.30	6,442.09	6,448.31	13.70	17.25	5.82	244.20	1,423.01	620.78	590.83	29.96	20.723		
6,600.00	6,518.37	6,538.43	6,544.56	13.90	17.46	6.02	243.62	1,418.78	597.00	566.61	30.39	19.645		
6,700.00	6,616.44	6,637.06	6,643.09	14.10	17.68	6.24	242.97	1,414.40	573.16	542.33	30.83	18.592		
6,800.00	6,714.51	6,735.16	6,741.07	14.30	17.90	6.50	242.17	1,409.68	548.95	517.68	31.27	17.553		
6,900.00	6,812.57	6,829.04	6,834.86	14.50	18.10	6.80	241.18	1,405.54	525.13	493.41	31.72	16.555		
7,000.00	6,910.64	6,925.32	6,931.05	14.70	18.30	7.16	239.95	1,401.66	501.66	469.49	32.17	15.595		
7,100.00	7,008.71	7,022.68	7,028.32	14.91	18.50	7.57	238.59	1,397.80	478.28	445.66	32.62	14.662		
7,200.00	7,106.78	7,119.31	7,124.87	15.11	18.70	8.04	237.13	1,393.92	454.86	421.79	33.07	13.753		
7,300.00	7,204.84	7,214.29	7,219.77	15.31	18.90	8.55	235.76	1,390.49	431.87	398.35	33.53	12.882		
7,400.00	7,302.91	7,310.97	7,316.40	15.52	19.10	9.08	234.66	1,387.38	409.32	375.34	33.98	12.046		
7,500.00	7,400.98	7,408.58	7,413.94	15.72	19.32	9.64	233.83	1,384.12	386.70	352.26	34.44	11.230		
7,600.00	7,499.05	7,506.25	7,511.56	15.93	19.54	10.24	233.12	1,380.90	364.15	329.26	34.90	10.435		
7,700.00	7,597.11	7,603.21	7,608.46	16.13	19.76	10.93	232.35	1,377.55	341.51	306.14	35.37	9.656		
7,800.00	7,695.18	7,698.82	7,704.02	16.34	19.98	11.67	231.83	1,374.63	319.31	283.48	35.83	8.912		
7,900.00	7,793.25	7,794.25	7,799.43	16.54	20.18	12.54	231.16	1,372.31	297.78	261.49	36.28	8.207		
8,000.00	7,891.32	7,890.73	7,895.89	16.75	20.37	13.55	230.47	1,370.57	276.93	240.22	36.72	7.542		
8,100.00	7,989.38	7,986.76	7,991.90	16.96	20.54	14.71	229.82	1,369.20	256.57	219.44	37.13	6.911		
8,200.00	8,087.45	8,084.08	8,089.22	17.16	20.69	16.03	229.33	1,368.45	236.94	199.43	37.51	6.317		
8,300.00	8,185.52	8,181.80	8,186.93	17.37	20.84	17.56	228.94	1,367.71	217.47	179.59	37.88	5.741		
8,400.00	8,283.59	8,279.87	8,285.01	17.58	20.97	19.45	228.36	1,367.01	198.24	160.02	38.22	5.187		
8,500.00	8,381.66	8,378.07	8,383.19	17.79	21.12	21.81	227.65	1,366.12	179.10	140.57	38.53	4.648		
8,600.00	8,479.72	8,476.48	8,481.59	17.99	21.28	24.78	226.82	1,364.97	160.09	121.28	38.81	4.125		
8,700.00	8,577.79	8,573.51	8,578.61	18.20	21.42	28.53	225.89	1,363.81	141.61	102.63	38.98	3.633		
8,800.00	8,675.86	8,671.42	8,676.51	18.41	21.54	33.51	224.61	1,362.83	124.21	85.26	38.95	3.189		
8,900.00	8,773.93	8,768.96	8,774.04	18.62	21.66	40.06	223.21	1,361.86	108.09	69.46	38.63	2.798 Normal Operations		
9,000.00	8,871.99	8,867.07	8,872.13	18.83	21.78	48.68	221.90	1,360.92	93.81	55.94	37.87	2.477 Caution - Monitor Closely		
9,100.00	8,970.06	8,964.94	8,969.98	19.04	21.98	59.95	220.69	1,359.80	82.17	45.59	36.57	2.247 Caution - Monitor Closely		
9,200.00	9,068.13	9,062.69	9,067.72	19.25	22.16	74.20	219.41	1,358.50	74.67	39.93	34.74	2.149 Caution - Monitor Closely		
9,211.15	9,079.07	9,073.58	9,078.60	19.27	22.18	75.94	219.26	1,358.35	74.16	39.64	34.53	2.148 Caution - Monitor Closely, SF		
9,281.14	9,147.78	9,142.03	9,147.05	19.42	22.29	86.87	218.31	1,357.44	72.72	39.28	33.45	2.174 Caution - Monitor Closely, CC, ES		
9,300.00	9,166.33	9,160.53	9,165.54	19.47	22.32	89.76	218.05	1,357.19	72.82	39.56	33.26	2.190 Caution - Monitor Closely		
9,400.00	9,264.84	9,258.84	9,263.84	19.67	22.49	103.94	216.69	1,355.71	76.18	43.12	33.06	2.305 Caution - Monitor Closely		
9,500.00	9,363.64	9,357.33	9,362.30	19.87	22.67	115.43	215.57	1,354.07	82.84	48.94	33.90	2.444 Caution - Monitor Closely		
9,600.00	9,462.69	9,455.82	9,460.76	20.06	22.88	124.29	214.26	1,351.96	91.69	56.56	35.13	2.610 Normal Operations		
9,700.00	9,561.96	9,554.96	9,559.87	20.25	23.09	130.85	212.98	1,349.76	101.18	64.83	36.35	2.783 Normal Operations		
9,800.00	9,661.43	9,654.34	9,659.22	20.43	23.30	135.57	211.86	1,347.77	110.24	72.83	37.41	2.947 Normal Operations		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #23H - ST01 - AWP														Offset Site Error:	0.00 usft		
Survey Program: 176-r.5 MWD+IFR1, 11791-r.5 MWD+IFR1+MS														Offset Well Error:	3.00 usft		
Reference														Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor					
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)							
9,900.00	9,761.07	9,754.12	9,758.98	20.61	23.52	139.04	210.88	1,345.83	118.46	80.15	38.31	3.092					
10,000.00	9,860.83	9,853.58	9,858.42	20.78	23.75	141.63	210.18	1,343.89	125.45	86.38	39.07	3.211					
10,100.00	9,960.71	9,952.55	9,957.35	20.93	24.00	143.75	209.58	1,341.23	131.68	91.92	39.76	3.312					
10,200.00	10,060.65	10,051.63	10,056.36	21.08	24.27	145.60	209.11	1,337.57	137.22	96.81	40.40	3.396					
10,300.00	10,160.64	10,152.79	10,157.46	21.21	24.54	146.82	208.51	1,334.16	141.29	100.34	40.95	3.451					
10,339.36	10,200.00	10,192.46	10,197.11	21.23	24.62	-135.16	208.16	1,333.31	142.24	101.15	41.08	3.462					
10,400.00	10,260.64	10,253.48	10,258.13	21.25	24.75	-135.07	207.51	1,332.34	143.38	102.13	41.25	3.476					
10,424.90	10,285.54	10,278.28	10,282.92	21.25	24.79	-135.07	207.19	1,332.03	143.82	102.52	41.30	3.482					
10,450.00	10,310.62	10,303.26	10,307.90	21.25	24.83	45.51	206.83	1,331.74	143.83	102.44	41.38	3.475					
10,475.00	10,335.54	10,328.11	10,332.74	21.24	24.86	46.11	206.42	1,331.46	142.94	101.42	41.52	3.443					
10,500.00	10,360.33	10,352.82	10,357.45	21.23	24.90	47.16	205.98	1,331.21	141.18	99.46	41.72	3.384					
10,525.00	10,384.90	10,377.31	10,381.94	21.22	24.92	48.66	205.47	1,330.98	138.62	96.62	42.00	3.301					
10,550.00	10,409.21	10,401.59	10,406.20	21.21	24.95	50.67	204.90	1,330.78	135.32	92.98	42.34	3.196					
10,575.00	10,433.18	10,425.59	10,430.20	21.20	24.98	53.22	204.27	1,330.60	131.40	88.64	42.76	3.073					
10,600.00	10,456.74	10,449.25	10,453.84	21.19	25.00	56.38	203.59	1,330.43	126.97	83.71	43.26	2.935 Normal Operations					
10,625.00	10,479.83	10,472.47	10,477.05	21.18	25.02	60.20	202.89	1,330.26	122.24	78.41	43.83	2.789 Normal Operations					
10,650.00	10,502.39	10,495.22	10,499.79	21.17	25.04	64.71	202.18	1,330.08	117.45	73.01	44.44	2.643 Normal Operations					
10,675.00	10,524.36	10,517.44	10,522.00	21.16	25.06	69.91	201.47	1,329.89	112.91	67.84	45.07	2.505 Normal Operations					
10,700.00	10,545.67	10,539.12	10,543.67	21.16	25.08	75.75	200.74	1,329.69	109.03	63.39	45.64	2.389 Caution - Monitor Closely					
10,725.00	10,566.26	10,560.24	10,564.77	21.15	25.10	82.08	200.04	1,329.51	106.24	60.23	46.01	2.309 Caution - Monitor Closely					
10,750.00	10,586.09	10,580.60	10,585.12	21.14	25.12	88.65	199.38	1,329.33	105.08	59.02	46.06	2.281 Caution - Monitor Closely					
10,752.05	10,587.68	10,582.23	10,586.75	21.14	25.12	89.20	199.33	1,329.32	105.08	59.03	46.05	2.282 Caution - Monitor Closely					
10,775.00	10,605.10	10,600.14	10,604.65	21.14	25.13	95.18	198.77	1,329.17	106.04	60.36	45.68	2.321 Caution - Monitor Closely					
10,800.00	10,623.23	10,618.82	10,623.32	21.14	25.15	101.37	198.18	1,329.03	109.52	64.66	44.85	2.442 Caution - Monitor Closely					
10,825.00	10,640.43	10,636.51	10,641.00	21.14	25.17	106.96	197.64	1,328.89	115.69	72.01	43.68	2.649 Normal Operations					
10,850.00	10,656.66	10,653.22	10,657.70	21.15	25.19	111.82	197.12	1,328.74	124.56	82.22	42.34	2.942 Normal Operations					
10,875.00	10,671.87	10,668.96	10,673.44	21.15	25.21	115.90	196.62	1,328.58	135.92	94.92	41.00	3.315					
10,900.00	10,686.03	10,683.70	10,688.17	21.16	25.22	119.18	196.15	1,328.42	149.50	109.72	39.78	3.758					
10,925.00	10,699.08	10,697.38	10,701.84	21.18	25.24	121.68	195.70	1,328.25	165.00	126.26	38.74	4.259					
10,950.00	10,711.01	10,709.98	10,714.43	21.19	25.25	123.41	195.28	1,328.08	182.14	144.26	37.89	4.808					
10,975.00	10,721.77	10,721.46	10,725.90	21.21	25.27	124.39	194.90	1,327.92	200.67	163.47	37.20	5.394					
11,000.00	10,731.33	10,731.81	10,736.25	21.24	25.28	124.62	194.55	1,327.76	220.36	183.70	36.66	6.011					
11,025.00	10,739.67	10,740.97	10,745.40	21.26	25.30	124.05	194.23	1,327.62	241.05	204.82	36.23	6.653					
11,050.00	10,746.76	10,748.92	10,753.34	21.30	25.31	122.59	193.96	1,327.50	262.56	226.67	35.89	7.316					
11,075.00	10,752.59	10,755.62	10,760.03	21.33	25.32	120.11	193.72	1,327.39	284.78	249.15	35.62	7.994					
11,100.00	10,757.14	10,761.05	10,765.47	21.37	25.33	116.43	193.53	1,327.30	307.56	272.15	35.41	8.686					
11,125.00	10,760.40	10,765.20	10,769.62	21.41	25.33	111.30	193.39	1,327.23	330.80	295.57	35.24	9.388					
11,150.00	10,762.36	10,768.06	10,772.47	21.46	25.34	104.48	193.28	1,327.18	354.40	319.30	35.10	10.097					
11,174.90	10,763.01	10,769.60	10,774.01	21.50	25.34	95.86	193.23	1,327.16	378.18	343.19	34.99	10.809					
11,200.00	10,763.01	10,770.50	10,774.91	21.56	25.34	96.33	193.20	1,327.14	402.29	367.40	34.90	11.529					
11,300.00	10,763.01	10,774.10	10,778.50	21.79	25.35	98.21	193.07	1,327.08	499.33	464.67	34.66	14.405					
11,400.00	10,763.00	10,777.72	10,782.12	22.05	25.35	100.09	192.94	1,327.02	597.33	562.78	34.55	17.287					
11,500.00	10,763.00	10,781.37	10,785.77	22.33	25.36	101.96	192.81	1,326.95	695.88	661.38	34.50	20.172					
11,600.00	10,763.00	10,785.06	10,789.45	22.64	25.36	103.82	192.67	1,326.89	794.77	760.30	34.47	23.056					
11,700.00	10,763.00	10,788.76	10,793.16	22.97	25.37	105.65	192.54	1,326.82	893.90	859.44	34.46	25.938					
11,800.00	10,763.00	10,792.50	10,796.89	23.31	25.37	107.47	192.40	1,326.75	993.19	958.72	34.46	28.818					

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #24H - OWB - AWP														Offset Site Error:	0.00 usft
Survey Program: 146-MWD - OWSG R1											Rule Assigned:		Offset Well Error:	3.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning		
0.00	0.00	0.00	8.00	0.00	3.00	73.51	194.70	657.80	686.06						
100.00	100.00	95.09	103.09	0.77	3.00	73.51	194.67	657.59	685.80	681.00	4.80	142.789			
185.24	185.24	177.25	185.25	1.34	3.02	73.50	194.67	657.17	685.40	680.31	5.08	134.842			
200.00	200.00	190.07	198.07	1.44	3.02	73.49	194.74	657.17	685.42	680.27	5.15	133.171			
300.00	300.00	281.53	289.52	1.88	3.08	73.42	195.84	657.90	686.51	681.00	5.51	124.545			
400.00	400.00	379.92	387.89	2.25	3.17	73.35	197.12	659.25	688.19	682.29	5.90	116.616			
500.00	500.00	482.40	490.35	2.56	3.31	73.30	198.27	660.70	689.87	683.56	6.32	109.238			
600.00	600.00	585.48	593.42	2.84	3.48	73.27	198.95	661.70	691.00	684.25	6.75	102.419			
700.00	700.00	687.96	695.91	3.10	3.68	73.27	199.08	662.50	691.78	684.59	7.19	96.231			
800.00	800.00	793.79	801.73	3.34	3.90	73.30	198.81	662.81	691.99	684.35	7.64	90.544			
900.00	900.00	896.88	904.82	3.57	4.13	73.31	198.55	662.36	691.50	683.40	8.09	85.429			
1,000.00	1,000.00	996.60	1,004.54	3.79	4.37	73.31	198.39	661.69	690.81	682.26	8.55	80.829			
1,100.00	1,100.00	1,094.46	1,102.40	3.99	4.63	73.30	198.32	661.22	690.32	681.32	9.00	76.699			
1,200.00	1,200.00	1,193.44	1,201.37	4.19	4.89	73.30	198.26	660.91	690.00	680.54	9.46	72.918			
1,248.40	1,248.40	1,240.47	1,248.40	4.28	5.02	73.30	198.29	660.85	689.95	680.27	9.68	71.241			
1,300.00	1,300.00	1,291.32	1,299.25	4.38	5.17	73.29	198.43	660.85	690.00	680.07	9.93	69.512			
1,400.00	1,400.00	1,393.35	1,401.28	4.56	5.47	73.26	198.73	660.71	689.95	679.54	10.41	66.298			
1,500.00	1,500.00	1,493.53	1,501.46	4.74	5.76	73.23	199.03	660.36	689.70	678.81	10.89	63.360			
1,600.00	1,600.00	1,592.47	1,600.41	4.91	6.07	73.20	199.36	660.15	689.60	678.24	11.36	60.688			
1,700.00	1,700.00	1,692.56	1,700.49	5.08	6.38	73.16	199.81	659.94	689.53	677.68	11.85	58.202			
1,800.00	1,800.00	1,792.48	1,800.41	5.24	6.69	73.11	200.29	659.73	689.47	677.13	12.33	55.903			
1,900.00	1,900.00	1,892.09	1,900.02	5.40	7.01	73.07	200.78	659.54	689.43	676.61	12.82	53.776			
2,000.00	2,000.00	1,992.53	2,000.46	5.56	7.33	73.02	201.33	659.36	689.41	676.10	13.31	51.788			
2,100.00	2,099.98	2,092.30	2,100.22	5.79	7.66	-4.89	202.04	659.08	687.61	673.74	13.87	49.582			
2,200.00	2,199.84	2,190.90	2,198.83	6.00	7.98	-5.01	202.79	658.90	682.45	668.04	14.41	47.355			
2,300.00	2,299.45	2,289.70	2,297.61	6.22	8.31	-5.16	203.67	658.85	673.98	659.02	14.95	45.068			
2,400.00	2,398.70	2,387.79	2,395.71	6.43	8.64	-5.36	204.70	658.86	662.17	646.68	15.50	42.731			
2,500.00	2,497.47	2,484.52	2,492.43	6.64	8.96	-5.62	206.01	659.17	647.30	631.26	16.03	40.375			
2,564.11	2,560.47	2,549.79	2,557.69	6.71	9.18	-5.82	206.88	659.30	635.90	619.56	16.34	38.922			
2,600.00	2,595.67	2,585.61	2,593.51	6.74	9.30	-5.93	207.32	659.31	629.05	612.55	16.49	38.139			
2,700.00	2,693.74	2,683.27	2,691.16	6.88	9.63	-6.23	208.52	659.21	609.88	592.90	16.98	35.916			
2,800.00	2,791.80	2,778.67	2,786.55	7.02	9.95	-6.55	209.96	659.42	591.10	573.64	17.46	33.848			
2,900.00	2,889.87	2,875.46	2,883.32	7.16	10.28	-6.93	211.70	659.89	572.69	554.73	17.96	31.894			
3,000.00	2,987.94	2,971.51	2,979.35	7.31	10.61	-7.32	213.46	660.58	554.52	536.07	18.45	30.056			
3,100.00	3,086.01	3,068.80	3,076.61	7.47	10.94	-7.72	215.25	661.78	536.87	517.92	18.95	28.332			
3,200.00	3,184.07	3,166.24	3,174.04	7.62	11.27	-8.02	215.93	663.31	519.17	499.72	19.45	26.693			
3,300.00	3,282.14	3,266.23	3,274.01	7.78	11.60	-8.31	216.42	665.26	501.76	481.80	19.96	25.135			
3,400.00	3,380.21	3,366.84	3,374.61	7.94	11.94	-8.68	217.04	666.39	483.65	463.17	20.48	23.612			
3,500.00	3,478.28	3,464.11	3,471.88	8.10	12.28	-9.10	217.90	667.33	465.51	444.52	21.00	22.171			
3,600.00	3,576.34	3,561.12	3,568.87	8.27	12.61	-9.57	219.01	668.49	447.70	426.19	21.51	20.811			
3,700.00	3,674.41	3,666.26	3,674.00	8.44	12.97	-10.14	220.18	669.24	429.49	407.43	22.06	19.469			
3,800.00	3,772.48	3,769.10	3,776.84	8.61	13.33	-10.76	220.71	668.43	409.71	387.12	22.60	18.132			
3,900.00	3,870.55	3,861.01	3,868.74	8.78	13.63	-11.28	220.71	668.13	390.19	367.10	23.10	16.895			
4,000.00	3,968.61	3,957.00	3,964.72	8.95	13.95	-11.70	220.10	669.30	371.86	348.25	23.60	15.754			
4,100.00	4,066.68	4,056.74	4,064.46	9.13	14.29	-12.26	219.99	670.35	353.61	329.47	24.13	14.652			
4,200.00	4,164.75	4,156.06	4,163.77	9.31	14.64	-13.07	220.67	670.68	335.08	310.41	24.67	13.583			
4,300.00	4,262.82	4,260.71	4,268.41	9.49	14.99	-13.92	220.22	669.82	315.11	289.90	25.21	12.502			
4,400.00	4,360.88	4,357.79	4,365.47	9.67	15.32	-14.71	218.91	668.45	294.31	268.59	25.72	11.443			
4,500.00	4,458.95	4,452.49	4,460.17	9.85	15.63	-15.43	217.37	668.33	274.55	248.32	26.23	10.466			
4,600.00	4,557.02	4,550.34	4,558.00	10.03	15.95	-16.26	215.89	668.67	255.31	228.56	26.75	9.544			
4,700.00	4,655.09	4,647.90	4,655.54	10.22	16.28	-17.00	213.68	669.47	236.18	208.91	27.27	8.660			

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_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #24H - OWB - AWP													Offset Site Error:	0.00 usft
Survey Program: 146-MWD - OWSG R1													Offset Well Error:	3.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)				
4,800.00	4,753.15	4,744.36	4,751.95	10.40	16.60	-17.67	211.10	671.06	217.61	189.82	27.79	7.829		
4,900.00	4,851.22	4,841.51	4,849.07	10.59	16.93	-18.89	210.19	672.65	199.93	171.61	28.32	7.059		
5,000.00	4,949.29	4,939.77	4,947.33	10.78	17.27	-20.64	210.08	673.93	182.51	153.66	28.85	6.326		
5,100.00	5,047.36	5,037.94	5,045.49	10.97	17.61	-22.74	209.99	675.30	165.38	135.99	29.38	5.628		
5,200.00	5,145.43	5,136.32	5,143.86	11.16	17.95	-25.24	209.76	676.81	148.54	118.63	29.91	4.966		
5,300.00	5,243.49	5,234.63	5,242.15	11.35	18.29	-28.36	209.50	678.29	132.00	101.57	30.43	4.338		
5,400.00	5,341.56	5,332.79	5,340.30	11.54	18.63	-32.43	209.42	679.75	116.07	85.13	30.94	3.752		
5,500.00	5,439.63	5,431.22	5,438.72	11.73	18.97	-37.64	209.25	681.40	100.96	69.52	31.43	3.212		
5,600.00	5,537.70	5,529.62	5,537.11	11.92	19.31	-44.66	209.08	682.89	86.85	54.95	31.90	2.723 Normal Operations		
5,700.00	5,635.76	5,627.99	5,635.46	12.12	19.65	-54.20	208.91	684.31	74.49	42.18	32.32	2.305 Caution - Monitor Closely		
5,800.00	5,733.83	5,726.34	5,733.80	12.31	19.99	-66.87	208.67	685.77	64.88	32.20	32.69	1.985 Caution - Monitor Closely		
5,900.00	5,831.90	5,824.64	5,832.09	12.51	20.33	-82.75	208.45	687.19	59.47	26.42	33.06	1.799 Caution - Monitor Closely		
5,952.49	5,883.37	5,876.29	5,883.74	12.61	20.51	-91.83	208.33	687.98	58.72	25.44	33.28	1.764 Caution - Monitor Closely, CC, ES, SF		
6,000.00	5,929.97	5,923.03	5,930.47	12.71	20.68	-100.11	208.18	688.63	59.35	25.82	33.52	1.770 Caution - Monitor Closely		
6,100.00	6,028.03	6,020.95	6,028.39	12.90	21.02	-116.14	208.04	689.81	64.86	30.73	34.13	1.900 Caution - Monitor Closely		
6,200.00	6,126.10	6,118.31	6,125.74	13.10	21.36	-128.54	208.77	690.53	75.53	40.74	34.79	2.171 Caution - Monitor Closely		
6,300.00	6,224.17	6,215.73	6,223.15	13.30	21.70	-137.53	210.16	690.49	89.90	54.45	35.45	2.536 Normal Operations		
6,400.00	6,322.24	6,313.71	6,321.12	13.50	22.04	-144.13	211.49	689.97	106.28	70.20	36.08	2.945 Normal Operations		
6,500.00	6,420.30	6,411.58	6,418.98	13.70	22.38	-148.95	212.84	689.37	123.77	87.07	36.70	3.373		
6,600.00	6,518.37	6,509.43	6,516.82	13.90	22.72	-152.57	214.20	688.66	142.00	104.71	37.29	3.808		
6,700.00	6,616.44	6,607.34	6,614.72	14.10	23.06	-155.38	215.53	687.89	160.73	122.85	37.88	4.243		
6,800.00	6,714.51	6,705.30	6,712.66	14.30	23.40	-157.61	216.85	687.09	179.76	141.30	38.46	4.674		
6,900.00	6,812.57	6,803.03	6,810.38	14.50	23.74	-159.41	218.16	686.28	199.03	160.00	39.03	5.099		
7,000.00	6,910.64	6,900.74	6,908.07	14.70	24.08	-160.90	219.46	685.27	218.64	179.05	39.60	5.522		
7,100.00	7,008.71	6,998.79	7,006.12	14.91	24.42	-162.22	220.49	684.29	238.32	198.16	40.17	5.934		
7,200.00	7,106.78	7,096.45	7,103.77	15.11	24.76	-163.36	221.39	683.27	258.14	217.41	40.73	6.338		
7,300.00	7,204.84	7,194.07	7,201.38	15.31	25.10	-164.37	222.13	682.13	278.16	236.87	41.29	6.737		
7,400.00	7,302.91	7,291.38	7,298.68	15.52	25.44	-165.25	222.82	680.89	298.34	256.50	41.84	7.130		
7,500.00	7,400.98	7,388.83	7,396.11	15.72	25.77	-166.00	223.67	679.45	318.79	276.39	42.40	7.519		
7,600.00	7,499.05	7,486.55	7,493.82	15.93	26.11	-166.66	224.52	677.97	339.33	296.37	42.96	7.899		
7,700.00	7,597.11	7,584.34	7,591.60	16.13	26.45	-167.25	225.34	676.48	359.92	316.40	43.52	8.271		
7,800.00	7,695.18	7,681.47	7,688.71	16.34	26.79	-167.77	226.14	674.93	380.60	336.53	44.07	8.637		
7,900.00	7,793.25	7,778.90	7,786.12	16.54	27.13	-168.25	226.86	673.21	401.47	356.85	44.62	8.997		
8,000.00	7,891.32	7,876.68	7,883.88	16.75	27.47	-168.70	227.56	671.47	422.39	377.21	45.18	9.349		
8,100.00	7,989.38	7,974.41	7,981.60	16.96	27.81	-169.09	228.28	669.74	443.33	397.59	45.74	9.693		
8,200.00	8,087.45	8,072.10	8,079.26	17.16	28.15	-169.45	228.98	668.00	464.29	417.99	46.30	10.029		
8,300.00	8,185.52	8,169.17	8,176.32	17.37	28.49	-169.78	229.70	666.20	485.33	438.49	46.85	10.360		
8,400.00	8,283.59	8,267.54	8,274.67	17.58	28.83	-170.08	230.43	664.36	506.40	458.99	47.41	10.681		
8,500.00	8,381.66	8,365.81	8,372.92	17.79	29.17	-170.38	230.99	662.66	527.36	479.39	47.97	10.993		
8,600.00	8,479.72	8,463.62	8,470.71	17.99	29.51	-170.67	231.37	661.00	548.31	499.78	48.53	11.298		
8,700.00	8,577.79	8,564.14	8,571.23	18.20	29.86	-170.98	231.51	659.60	569.00	519.89	49.11	11.587		
8,800.00	8,675.86	8,663.12	8,670.20	18.41	30.20	-171.28	231.48	658.62	589.31	539.64	49.67	11.864		
8,900.00	8,773.93	8,760.02	8,767.10	18.62	30.54	-171.55	231.41	657.54	609.75	559.53	50.22	12.141		
9,000.00	8,871.99	8,858.70	8,865.77	18.83	30.88	-171.82	231.29	656.59	630.07	579.28	50.78	12.407		
9,100.00	8,970.06	8,955.92	8,962.98	19.04	31.22	-172.06	231.23	655.50	650.55	599.21	51.34	12.672		
9,200.00	9,068.13	9,053.85	9,060.91	19.25	31.56	-172.29	231.19	654.54	670.89	619.00	51.90	12.927		
9,211.15	9,079.07	9,064.39	9,071.45	19.27	31.59	-172.31	231.19	654.42	673.18	621.22	51.96	12.957		
9,300.00	9,166.33	9,150.06	9,157.11	19.47	31.89	-172.50	231.34	653.30	690.87	638.42	52.45	13.171		
9,400.00	9,264.84	9,248.99	9,256.04	19.67	32.24	-172.66	231.74	651.98	709.19	656.17	53.01	13.377		
9,500.00	9,363.64	9,348.52	9,355.55	19.87	32.59	-172.79	232.32	650.75	725.69	672.12	53.58	13.545		

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #24H - OWB - AWP														Offset Site Error:	0.00 usft
Survey Program: 146-MWD - OWSG R1											Rule Assigned:		Offset Well Error:	3.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning		
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
9,600.00	9,462.69	9,448.86	9,455.88	20.06	32.94	-172.89	232.85	649.67	740.34	686.20	54.14	13.675			
9,700.00	9,561.96	9,550.56	9,557.58	20.25	33.30	-172.98	233.38	648.83	753.01	698.31	54.70	13.765			
9,800.00	9,661.43	9,653.65	9,660.67	20.43	33.66	-173.09	233.35	648.47	763.56	708.29	55.27	13.816			
9,900.00	9,761.07	9,753.68	9,760.69	20.61	34.00	-173.26	232.26	648.53	772.07	716.27	55.80	13.836			
10,000.00	9,860.83	9,849.50	9,856.51	20.78	34.32	-173.40	231.21	648.36	779.10	722.78	56.31	13.835			
10,100.00	9,960.71	9,942.55	9,949.55	20.93	34.64	-173.50	230.30	647.54	785.09	728.29	56.80	13.821			
10,200.00	10,060.65	10,041.08	10,048.06	21.08	34.98	-173.61	229.20	646.13	789.91	732.59	57.31	13.782			
10,300.00	10,160.64	10,141.56	10,148.53	21.21	35.33	-173.69	228.08	644.67	793.01	735.19	57.82	13.714			
10,339.36	10,200.00	10,180.44	10,187.39	21.23	35.47	-95.88	227.67	644.10	793.76	735.76	58.00	13.685			
10,400.00	10,260.64	10,240.19	10,247.14	21.25	35.67	-95.92	227.02	643.19	794.75	736.49	58.26	13.641			
10,424.90	10,285.54	10,264.46	10,271.40	21.25	35.76	-95.94	226.72	642.79	795.19	736.82	58.37	13.624			
10,450.00	10,310.62	10,288.90	10,295.84	21.25	35.84	84.46	226.39	642.38	795.58	737.11	58.47	13.607			
10,475.00	10,335.54	10,313.21	10,320.14	21.24	35.93	84.54	226.02	641.95	795.87	737.30	58.56	13.590			
10,500.00	10,360.33	10,338.07	10,344.99	21.23	36.01	84.72	225.62	641.51	796.05	737.39	58.66	13.571			
10,525.00	10,384.90	10,363.38	10,370.29	21.22	36.10	85.02	225.20	641.07	796.11	737.36	58.76	13.550			
10,550.00	10,409.21	10,388.43	10,395.33	21.21	36.19	85.42	224.78	640.66	796.07	737.22	58.85	13.527			
10,575.00	10,433.18	10,413.15	10,420.05	21.20	36.27	85.91	224.37	640.27	795.95	737.01	58.94	13.504			
10,600.00	10,456.74	10,436.60	10,443.50	21.19	36.35	86.47	223.98	639.91	795.80	736.78	59.02	13.483			
10,625.00	10,479.83	10,459.37	10,466.26	21.18	36.43	87.09	223.64	639.55	795.68	736.57	59.10	13.463			
10,650.00	10,502.39	10,481.60	10,488.49	21.17	36.51	87.76	223.33	639.18	795.62	736.44	59.17	13.445			
10,651.53	10,503.75	10,482.94	10,489.83	21.17	36.51	87.81	223.32	639.16	795.62	736.44	59.18	13.444			
10,675.00	10,524.36	10,503.24	10,510.12	21.16	36.58	88.48	223.07	638.80	795.68	736.43	59.24	13.431			
10,700.00	10,545.67	10,524.22	10,531.10	21.16	36.66	89.23	222.84	638.43	795.90	736.60	59.31	13.420			
10,725.00	10,566.26	10,544.53	10,551.40	21.15	36.73	89.99	222.60	638.05	796.35	736.99	59.37	13.414			
10,750.00	10,586.09	10,564.11	10,570.98	21.14	36.79	90.75	222.36	637.68	797.07	737.65	59.42	13.414			
10,775.00	10,605.10	10,582.92	10,589.78	21.14	36.86	91.49	222.13	637.32	798.12	738.65	59.47	13.421			
10,800.00	10,623.23	10,600.89	10,607.75	21.14	36.92	92.19	221.89	636.96	799.55	740.04	59.51	13.436			
10,825.00	10,640.43	10,618.85	10,625.70	21.14	36.98	92.89	221.65	636.59	801.41	741.86	59.55	13.458			
10,850.00	10,656.66	10,636.07	10,642.92	21.15	37.04	93.53	221.43	636.27	803.73	744.15	59.58	13.490			
10,875.00	10,671.87	10,652.23	10,659.07	21.15	37.10	94.10	221.22	635.97	806.57	746.96	59.61	13.531			
10,900.00	10,686.03	10,667.27	10,674.11	21.16	37.15	94.56	221.03	635.71	809.98	750.35	59.63	13.584			
10,925.00	10,699.08	10,681.18	10,688.01	21.18	37.20	94.91	220.86	635.48	813.99	754.36	59.64	13.649			
10,950.00	10,711.01	10,693.89	10,700.73	21.19	37.25	95.13	220.86	635.28	818.66	759.02	59.64	13.727			
10,975.00	10,721.77	10,705.34	10,712.17	21.21	37.28	95.21	220.58	635.11	823.99	764.36	59.63	13.818			
11,000.00	10,731.33	10,715.55	10,722.38	21.24	37.32	95.13	220.45	634.96	830.03	770.41	59.62	13.922			
11,025.00	10,739.67	10,724.51	10,731.34	21.26	37.35	94.89	220.34	634.83	836.77	777.18	59.60	14.041			
11,050.00	10,746.76	10,732.20	10,739.03	21.30	37.38	94.48	220.24	634.72	844.23	784.66	59.57	14.173			
11,075.00	10,752.59	10,738.59	10,745.42	21.33	37.40	93.89	220.16	634.63	852.40	792.86	59.53	14.319			
11,100.00	10,757.14	10,743.67	10,750.49	21.37	37.42	93.11	220.09	634.56	861.25	801.77	59.49	14.478			
11,125.00	10,760.40	10,747.41	10,754.23	21.41	37.43	92.13	220.04	634.51	870.78	811.35	59.43	14.651			
11,150.00	10,762.36	10,749.80	10,756.62	21.46	37.44	90.97	220.01	634.48	880.95	821.58	59.38	14.837			
11,174.90	10,763.01	10,750.83	10,757.65	21.50	37.44	89.62	219.99	634.47	891.68	832.37	59.31	15.034			
11,200.00	10,763.01	10,751.19	10,758.01	21.56	37.44	89.64	219.99	634.46	903.06	843.82	59.24	15.243			
11,300.00	10,763.01	10,752.61	10,759.43	21.79	37.45	89.74	219.97	634.44	953.62	894.63	58.99	16.165			

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_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #2H - OWB - AWP													Offset Site Error:	0.00 usft
Survey Program: 100- VES GyroFlex, 8769-r.5 MWD											Rule Assigned:		Offset Well Error:	3.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
0.00	0.00	0.00	8.00	0.00	3.00	70.73	194.00	554.90	587.89					
100.00	100.00	87.56	95.56	0.77	3.00	70.72	194.21	555.18	588.18	583.38	4.80	122.562		
200.00	200.00	186.31	194.30	1.44	3.01	70.70	194.72	555.94	589.08	583.96	5.13	114.921		
300.00	300.00	284.33	292.32	1.88	3.02	70.69	195.18	556.94	590.20	584.76	5.44	108.428		
400.00	400.00	384.00	391.98	2.25	3.04	70.71	195.44	558.28	591.56	585.80	5.75	102.843		
500.00	500.00	483.95	491.92	2.56	3.07	70.76	195.32	559.76	592.91	586.86	6.05	97.961		
600.00	600.00	585.17	593.13	2.84	3.10	70.82	195.21	561.17	594.19	587.84	6.35	93.614		
700.00	700.00	688.96	696.92	3.10	3.14	70.86	195.09	562.16	595.06	588.42	6.64	89.677		
800.00	800.00	786.34	794.29	3.34	3.19	70.89	195.00	562.89	595.74	588.82	6.92	86.137		
900.00	900.00	888.00	895.94	3.57	3.24	70.93	194.92	563.86	596.62	589.42	7.19	82.929		
1,000.00	1,000.00	986.27	994.21	3.79	3.30	70.97	194.79	564.72	597.40	589.93	7.47	80.003		
1,100.00	1,100.00	1,080.88	1,088.81	3.99	3.37	70.99	195.03	566.02	598.78	591.04	7.74	77.372		
1,200.00	1,200.00	1,176.07	1,183.98	4.19	3.44	71.01	195.56	568.14	601.07	593.06	8.01	75.046		
1,300.00	1,300.00	1,274.06	1,281.93	4.38	3.51	71.04	196.13	570.93	603.95	595.67	8.28	72.948		
1,400.00	1,400.00	1,375.72	1,383.54	4.56	3.60	71.11	196.37	573.98	606.86	598.31	8.55	70.982		
1,500.00	1,500.00	1,481.73	1,489.52	4.74	3.69	71.14	196.83	576.37	609.15	600.32	8.82	69.052		
1,600.00	1,600.00	1,586.58	1,594.35	4.91	3.76	71.08	197.88	577.45	610.44	601.35	9.09	67.188		
1,700.00	1,700.00	1,687.92	1,695.69	5.08	3.82	70.99	199.08	577.87	611.22	601.89	9.33	65.504		
1,800.00	1,800.00	1,790.46	1,798.21	5.24	3.86	70.84	200.80	577.84	611.73	602.18	9.56	64.016		
1,900.00	1,900.00	1,889.89	1,897.62	5.40	3.90	70.65	202.78	577.48	612.05	602.28	9.77	62.660		
2,000.00	2,000.00	1,995.43	2,003.15	5.56	3.92	70.48	204.51	576.85	612.04	602.08	9.96	61.426		
2,100.00	2,099.98	2,096.20	2,103.91	5.79	3.92	-7.50	205.48	575.87	609.71	599.49	10.22	59.634		
2,200.00	2,199.84	2,196.39	2,204.09	6.00	3.92	-7.70	206.42	574.81	603.85	593.38	10.47	57.668		
2,300.00	2,299.45	2,296.93	2,304.62	6.22	3.93	-7.97	207.43	573.61	594.44	583.72	10.72	55.463		
2,400.00	2,398.70	2,396.39	2,404.06	6.43	3.94	-8.33	208.61	572.22	581.48	570.51	10.97	53.024		
2,500.00	2,497.47	2,491.52	2,499.17	6.64	3.97	-8.81	210.26	570.96	565.39	554.16	11.23	50.358		
2,564.11	2,560.47	2,553.07	2,560.70	6.71	4.00	-9.18	211.55	570.36	553.59	542.26	11.33	48.872		
2,600.00	2,595.67	2,587.56	2,595.18	6.74	4.02	-9.38	212.34	570.06	546.67	535.30	11.36	48.101		
2,700.00	2,693.74	2,684.07	2,691.66	6.88	4.09	-9.99	214.65	569.40	527.61	516.05	11.56	45.632		
2,800.00	2,791.80	2,784.70	2,792.27	7.02	4.15	-10.62	216.67	568.81	508.56	496.80	11.76	43.232		
2,900.00	2,889.87	2,884.36	2,891.92	7.16	4.18	-11.17	217.52	568.15	489.07	477.12	11.95	40.940		
3,000.00	2,987.94	2,981.92	2,989.48	7.31	4.16	-11.64	217.39	567.78	469.48	457.36	12.12	38.747		
3,100.00	3,086.01	3,078.19	3,085.75	7.47	4.15	-12.10	217.12	567.73	450.17	437.85	12.31	36.561		
3,200.00	3,184.07	3,174.29	3,181.85	7.62	4.18	-12.57	216.80	568.18	431.31	418.77	12.54	34.393		
3,300.00	3,282.14	3,268.63	3,276.18	7.78	4.23	-13.01	216.37	569.33	413.12	400.34	12.79	32.310		
3,400.00	3,380.21	3,363.95	3,371.48	7.94	4.30	-13.44	215.94	571.51	395.91	382.86	13.04	30.356		
3,500.00	3,478.28	3,464.80	3,472.30	8.10	4.39	-14.00	216.05	573.82	378.97	365.66	13.31	28.480		
3,600.00	3,576.34	3,565.66	3,573.15	8.27	4.49	-14.72	216.26	574.98	361.09	347.52	13.58	26.597		
3,700.00	3,674.41	3,663.83	3,671.32	8.44	4.59	-15.56	216.68	575.68	343.00	329.15	13.85	24.760		
3,800.00	3,772.48	3,761.10	3,768.58	8.61	4.70	-16.45	217.03	576.63	325.18	311.05	14.13	23.007		
3,900.00	3,870.55	3,857.63	3,865.10	8.78	4.80	-17.44	217.60	577.91	307.86	293.44	14.42	21.350		
4,000.00	3,968.61	3,955.87	3,963.33	8.95	4.92	-18.52	218.22	579.75	291.13	276.42	14.71	19.796		
4,100.00	4,066.68	4,056.41	4,063.85	9.13	5.03	-19.83	218.89	581.10	274.08	259.09	14.99	18.285		
4,200.00	4,164.75	4,155.40	4,162.84	9.31	5.14	-21.40	219.60	581.51	256.45	241.18	15.27	16.793		
4,300.00	4,262.82	4,252.35	4,259.79	9.49	5.25	-23.19	220.44	582.04	239.23	223.67	15.56	15.376		
4,400.00	4,360.88	4,348.99	4,356.40	9.67	5.37	-25.11	221.31	583.37	222.94	207.09	15.85	14.067		
4,500.00	4,458.95	4,446.99	4,454.38	9.85	5.48	-27.13	221.90	585.70	207.53	191.40	16.13	12.868		
4,600.00	4,557.02	4,546.28	4,553.63	10.03	5.59	-29.24	221.71	588.44	192.18	175.79	16.39	11.727		
4,700.00	4,655.09	4,646.50	4,653.81	10.22	5.67	-31.51	220.65	591.29	176.60	159.98	16.62	10.626		
4,800.00	4,753.15	4,747.39	4,754.66	10.40	5.72	-34.35	218.77	592.98	159.97	143.16	16.80	9.521		
4,900.00	4,851.22	4,846.28	4,853.51	10.59	5.74	-37.94	216.24	593.51	142.54	125.59	16.94	8.413		

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_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - COLUMBUS FEE #2H - OWB - AWP														Offset Site Error:	0.00 usft
Survey Program: 100- VES GyroFlex, 8769-r.5 MWD														Offset Well Error:	3.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
5,000.00	4,949.29	4,943.98	4,951.18	10.78	5.75	-42.49	213.97	594.05	125.99	108.94	17.05	7.391			
5,100.00	5,047.36	5,042.17	5,049.36	10.97	5.77	-48.48	211.79	594.45	110.48	93.39	17.09	6.464			
5,200.00	5,145.43	5,140.25	5,147.41	11.16	5.78	-56.33	209.52	594.66	96.37	79.31	17.06	5.649			
5,300.00	5,243.49	5,238.16	5,245.29	11.35	5.80	-66.57	207.34	594.82	84.73	67.77	16.96	4.996			
5,400.00	5,341.56	5,336.11	5,343.22	11.54	5.81	-79.48	205.19	594.87	76.66	59.80	16.86	4.547			
5,500.00	5,439.63	5,433.89	5,440.98	11.73	5.83	-94.42	203.14	594.79	73.48	56.56	16.92	4.343			
5,505.72	5,445.24	5,439.48	5,446.56	11.74	5.83	-95.29	203.03	594.78	73.47	56.54	16.93	4.339	CC, ES, SF		
5,600.00	5,537.70	5,531.61	5,538.68	11.92	5.86	-109.28	201.50	594.84	76.00	58.74	17.26	4.402			
5,700.00	5,635.76	5,629.71	5,636.78	12.12	5.91	-122.07	200.37	595.20	83.51	65.70	17.81	4.689			
5,800.00	5,733.83	5,728.20	5,735.25	12.31	5.97	-132.46	198.92	595.89	94.06	75.65	18.40	5.111			
5,900.00	5,831.90	5,826.16	5,833.20	12.51	6.04	-140.46	197.64	596.64	107.06	88.11	18.95	5.648			
6,000.00	5,929.97	5,924.38	5,931.42	12.71	6.12	-146.61	196.51	597.42	121.74	102.29	19.45	6.259			
6,100.00	6,028.03	6,022.58	6,029.60	12.90	6.20	-151.47	195.21	598.26	137.39	117.50	19.89	6.906			
6,200.00	6,126.10	6,119.99	6,127.00	13.10	6.27	-155.33	193.88	598.77	154.14	133.85	20.29	7.598			
6,300.00	6,224.17	6,217.74	6,224.74	13.30	6.32	-158.45	192.59	598.97	171.76	151.11	20.65	8.319			
6,400.00	6,322.24	6,315.83	6,322.82	13.50	6.38	-160.98	191.36	599.11	189.85	168.86	20.99	9.047			
6,500.00	6,420.30	6,413.99	6,420.98	13.70	6.45	-162.98	190.46	599.37	208.14	186.82	21.31	9.766			
6,600.00	6,518.37	6,511.00	6,517.98	13.90	6.51	-164.58	189.77	599.36	226.92	205.30	21.61	10.498			
6,700.00	6,616.44	6,609.71	6,616.69	14.10	6.56	-165.93	189.24	599.31	245.89	223.98	21.91	11.221			
6,800.00	6,714.51	6,708.14	6,715.12	14.30	6.64	-167.07	188.73	599.48	264.76	242.53	22.22	11.914			
6,900.00	6,812.57	6,805.52	6,812.50	14.50	6.71	-168.07	188.15	599.58	283.77	261.26	22.52	12.602			
7,000.00	6,910.64	6,902.29	6,909.27	14.70	6.76	-168.95	187.47	599.36	303.20	280.41	22.79	13.303			
7,100.00	7,008.71	7,000.95	7,007.93	14.91	6.80	-169.76	186.67	599.04	322.78	299.71	23.07	13.993			
7,200.00	7,106.78	7,098.17	7,105.14	15.11	6.85	-170.50	185.71	598.73	342.42	319.08	23.34	14.670			
7,300.00	7,204.84	7,196.75	7,203.71	15.31	6.90	-171.19	184.62	598.40	362.14	338.52	23.62	15.332			
7,400.00	7,302.91	7,292.99	7,299.94	15.52	6.94	-171.77	183.67	597.95	382.02	358.13	23.89	15.993			
7,500.00	7,400.98	7,391.24	7,398.19	15.72	6.98	-172.32	182.63	597.28	402.14	377.98	24.16	16.646			
7,600.00	7,499.05	7,486.40	7,493.33	15.93	7.02	-172.81	181.50	596.44	422.51	398.10	24.42	17.302			
7,700.00	7,597.11	7,582.96	7,589.88	16.13	7.04	-173.27	180.20	595.08	443.43	418.75	24.68	17.964			
7,800.00	7,695.18	7,681.46	7,688.36	16.34	7.08	-173.74	178.65	593.67	464.43	439.47	24.96	18.609			
7,900.00	7,793.25	7,781.89	7,788.78	16.54	7.11	-174.11	177.62	592.55	485.09	459.85	25.23	19.224			
8,000.00	7,891.32	7,882.50	7,889.38	16.75	7.13	-174.37	177.32	591.93	505.19	479.68	25.51	19.803			
8,100.00	7,989.38	7,981.61	7,988.49	16.96	7.19	-174.62	176.95	591.72	524.91	499.12	25.79	20.350			
8,200.00	8,087.45	8,082.74	8,089.62	17.16	7.28	-174.89	176.26	591.88	544.32	518.22	26.10	20.856			
8,300.00	8,185.52	8,179.80	8,186.67	17.37	7.40	-175.14	175.57	592.34	563.45	537.05	26.40	21.341			
8,400.00	8,283.59	8,278.58	8,285.46	17.58	7.51	-175.37	174.96	592.63	582.74	556.03	26.71	21.817			
8,500.00	8,381.66	8,376.96	8,383.83	17.79	7.63	-175.57	174.47	593.06	601.89	574.87	27.02	22.275			
8,600.00	8,479.72	8,474.87	8,481.74	17.99	7.75	-175.75	174.07	593.45	621.06	593.72	27.34	22.720			
8,700.00	8,577.79	8,571.45	8,578.32	18.20	7.87	-175.90	173.88	593.70	640.35	612.71	27.64	23.166			
8,800.00	8,675.86	8,670.40	8,677.27	18.41	7.99	-176.05	173.65	593.84	659.77	631.81	27.96	23.599			
8,900.00	8,773.93	8,768.69	8,775.54	18.62	8.14	-176.32	171.84	594.34	679.06	650.77	28.30	23.999			
9,000.00	8,871.99	8,850.85	8,856.87	18.83	8.22	-177.30	161.23	595.35	699.43	670.87	28.56	24.491			
9,100.00	8,970.06	8,924.10	8,926.95	19.04	8.36	-179.07	140.14	596.53	722.75	693.92	28.83	25.068			
9,200.00	9,068.13	8,990.54	8,987.93	19.25	8.49	-178.84	113.86	596.92	750.53	721.41	29.13	25.769			
9,211.15	9,079.07	8,998.21	8,994.79	19.27	8.51	-178.58	110.42	596.97	753.90	724.74	29.16	25.857			
9,300.00	9,166.33	9,051.00	9,040.36	19.47	8.68	-176.58	83.83	597.47	782.23	752.77	29.46	26.553			
9,400.00	9,264.84	9,098.00	9,078.54	19.67	8.77	-174.63	56.45	597.69	818.15	788.35	29.80	27.452			
9,500.00	9,363.64	9,145.00	9,114.40	19.87	8.91	-172.59	26.11	596.81	859.29	829.08	30.21	28.443			
9,600.00	9,462.69	9,169.36	9,132.05	20.06	8.98	-171.56	9.35	595.85	905.07	874.43	30.64	29.541			
9,700.00	9,561.96	9,217.78	9,165.99	20.25	9.13	-169.49	-25.09	593.48	954.94	923.84	31.10	30.706			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well_COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - SALADO DRAW 10 FEDERAL #2H - OWB - AWP														Offset Site Error:	0.00 usft
Survey Program: 100-r-5 GYRO-NS, 8578-MWD - OWSG R1														Offset Well Error:	3.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (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)					
2,564.11	2,560.47	2,587.75	2,615.79	6.71	9.84	40.79	-446.75	928.90	989.17	972.24	16.93	58.415			
2,600.00	2,595.67	2,623.56	2,651.54	6.74	9.97	41.05	-445.72	927.16	981.81	964.72	17.09	57.455			
2,700.00	2,693.74	2,722.54	2,750.36	6.88	10.30	41.81	-442.80	922.23	961.27	943.69	17.57	54.696			
2,800.00	2,791.80	2,822.22	2,849.86	7.02	10.64	42.61	-439.73	917.08	940.68	922.61	18.07	52.066			
2,900.00	2,889.87	2,923.18	2,950.61	7.16	10.99	43.45	-436.36	911.56	919.88	901.32	18.57	49.545			
3,000.00	2,987.94	3,021.92	3,049.13	7.31	11.33	44.30	-432.84	905.91	898.95	879.89	19.06	47.159			
3,100.00	3,086.01	3,118.79	3,145.77	7.47	11.66	45.18	-429.36	900.34	878.17	858.62	19.55	44.910			
3,200.00	3,184.07	3,215.93	3,242.69	7.62	12.00	46.10	-425.73	894.71	857.50	837.45	20.05	42.769			
3,300.00	3,282.14	3,306.79	3,333.35	7.78	12.31	46.95	-422.00	890.16	837.47	816.95	20.53	40.797			
3,400.00	3,380.21	3,404.50	3,430.86	7.94	12.64	47.81	-417.14	886.19	817.95	796.92	21.03	38.895			
3,500.00	3,478.28	3,502.11	3,528.23	8.10	12.98	48.62	-411.14	882.98	798.57	777.03	21.54	37.082			
3,600.00	3,576.34	3,596.48	3,622.34	8.27	13.30	49.35	-404.44	880.75	779.52	757.49	22.03	35.379			
3,700.00	3,674.41	3,691.96	3,717.53	8.44	13.63	50.07	-397.24	879.22	760.95	738.41	22.54	33.764			
3,800.00	3,772.48	3,788.61	3,813.90	8.61	13.96	50.81	-389.97	877.94	742.73	719.68	23.05	32.228			
3,900.00	3,870.55	3,882.34	3,907.39	8.78	14.28	51.59	-383.33	876.76	724.97	701.42	23.55	30.790			
4,000.00	3,968.61	3,978.85	4,003.69	8.95	14.62	52.48	-377.15	875.58	707.80	683.75	24.05	29.426			
4,100.00	4,066.68	4,075.06	4,099.73	9.13	14.95	53.47	-371.73	873.98	690.97	666.42	24.56	28.135			
4,200.00	4,164.75	4,172.31	4,196.84	9.31	15.28	54.58	-366.90	872.06	674.57	649.51	25.07	26.909			
4,300.00	4,262.82	4,267.41	4,291.81	9.49	15.61	55.71	-362.19	870.37	658.59	633.02	25.57	25.755			
4,400.00	4,360.88	4,362.60	4,386.87	9.67	15.93	56.83	-357.30	869.48	643.36	617.29	26.07	24.674			
4,500.00	4,458.95	4,458.16	4,482.31	9.85	16.26	57.99	-352.55	868.94	628.77	602.19	26.58	23.657			
4,600.00	4,557.02	4,552.70	4,576.75	10.03	16.58	59.17	-348.01	868.85	614.91	587.83	27.08	22.707			
4,700.00	4,655.09	4,646.67	4,670.60	10.22	16.91	60.33	-343.44	869.74	601.99	574.41	27.58	21.828			
4,800.00	4,753.15	4,740.40	4,764.21	10.40	17.23	61.47	-339.03	871.51	590.07	561.99	28.08	21.017			
4,900.00	4,851.22	4,834.35	4,858.05	10.59	17.55	62.66	-335.23	873.78	579.25	550.68	28.57	20.274			
5,000.00	4,949.29	4,930.16	4,953.80	10.78	17.88	63.99	-332.28	875.96	569.38	540.31	29.07	19.584			
5,100.00	5,047.36	5,028.40	5,052.00	10.97	18.21	65.53	-330.28	877.29	560.13	530.54	29.59	18.932			
5,200.00	5,145.43	5,126.95	5,150.53	11.16	18.55	67.20	-328.59	877.98	551.17	521.07	30.10	18.311			
5,300.00	5,243.49	5,223.28	5,246.85	11.35	18.88	68.87	-327.14	878.93	543.04	512.43	30.60	17.744			
5,400.00	5,341.56	5,322.61	5,346.16	11.54	19.23	70.65	-325.60	879.79	535.31	504.19	31.12	17.199			
5,500.00	5,439.63	5,418.64	5,442.18	11.73	19.56	72.43	-324.42	880.64	528.39	496.76	31.63	16.707			
5,600.00	5,537.70	5,517.91	5,541.43	11.92	19.90	74.30	-323.09	881.70	522.03	489.89	32.15	16.238			
5,700.00	5,635.76	5,614.98	5,638.49	12.12	20.24	76.18	-321.98	882.64	516.37	483.71	32.66	15.810			
5,800.00	5,733.83	5,715.09	5,738.59	12.31	20.58	78.17	-320.74	883.50	511.18	477.99	33.19	15.401			
5,900.00	5,831.90	5,812.94	5,836.44	12.51	20.92	80.21	-319.60	883.80	506.48	472.76	33.71	15.024			
6,000.00	5,929.97	5,908.86	5,932.36	12.71	21.25	82.27	-318.84	883.94	502.75	468.52	34.23	14.689			
6,100.00	6,028.03	6,005.45	6,028.95	12.90	21.58	84.41	-318.50	883.96	500.10	465.36	34.74	14.394			
6,200.00	6,126.10	6,103.27	6,126.76	13.10	21.92	86.60	-318.37	883.86	498.38	463.10	35.27	14.129			
6,300.00	6,224.17	6,200.75	6,224.25	13.30	22.26	88.81	-318.32	883.75	497.50	461.70	35.80	13.896			
6,372.19	6,294.96	6,272.21	6,295.70	13.44	22.50	90.43	-318.30	883.60	497.35	461.15	36.19	13.742 CC			
6,400.00	6,322.24	6,299.72	6,323.22	13.50	22.60	91.06	-318.26	883.53	497.37	461.03	36.34	13.686			
6,500.00	6,420.30	6,398.20	6,421.69	13.70	22.94	93.33	-318.11	883.01	497.89	461.00	36.88	13.499 ES			
6,600.00	6,518.37	6,494.99	6,518.48	13.90	23.27	95.56	-318.04	882.45	499.28	461.86	37.42	13.344			
6,700.00	6,616.44	6,593.72	6,617.20	14.10	23.61	97.80	-318.00	882.09	501.52	463.56	37.97	13.210			
6,800.00	6,714.51	6,694.39	6,717.88	14.30	23.96	100.06	-317.62	881.70	504.21	465.68	38.53	13.086			
6,900.00	6,812.57	6,792.14	6,815.62	14.50	24.30	102.25	-316.99	881.09	507.40	468.32	39.08	12.983			
7,000.00	6,910.64	6,890.14	6,913.62	14.70	24.64	104.43	-316.39	880.37	511.40	471.76	39.64	12.902			
7,100.00	7,008.71	6,985.93	7,009.41	14.91	24.97	106.51	-316.00	879.81	516.33	476.15	40.18	12.849			
7,200.00	7,106.78	7,081.29	7,104.76	15.11	25.30	108.51	-316.09	879.55	522.45	481.73	40.73	12.828 SF			
7,300.00	7,204.84	7,177.63	7,201.10	15.31	25.63	110.44	-316.64	879.53	529.67	488.39	41.28	12.832			
7,400.00	7,302.91	7,274.07	7,297.54	15.52	25.96	112.32	-317.47	879.53	537.78	495.95	41.83	12.857			

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 _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Offset Design: COLUMBUS FEDERAL PROJECT - SALADO DRAW 10 FEDERAL #2H - OWB - AWP												Offset Site Error:	0.00 usft
Survey Program: 100-r.5 GYRO-NS, 8578-MWD - OWSG R1												Offset Well Error:	3.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
7,500.00	7,400.98	7,372.59	7,396.06	15.72	26.30	114.22	-318.39	879.13	546.65	504.26	42.40	12.894	
7,600.00	7,499.05	7,471.93	7,495.39	15.93	26.64	116.08	-319.10	878.75	555.89	512.92	42.97	12.937	
7,700.00	7,597.11	7,566.72	7,590.18	16.13	26.97	117.76	-319.88	878.66	565.73	522.21	43.52	13.000	
7,800.00	7,695.18	7,663.05	7,686.50	16.34	27.30	119.43	-321.26	878.28	576.72	532.65	44.07	13.085	
7,900.00	7,793.25	7,761.53	7,784.96	16.54	27.63	121.03	-322.76	878.24	588.19	543.54	44.65	13.174	
8,000.00	7,891.32	7,860.63	7,884.06	16.75	27.98	122.62	-324.06	877.96	599.99	554.77	45.23	13.267	
8,100.00	7,989.38	7,960.02	7,983.44	16.96	28.32	124.19	-324.97	877.33	612.00	566.20	45.81	13.361	
8,200.00	8,087.45	8,056.82	8,080.23	17.16	28.65	125.67	-325.69	876.60	624.34	577.97	46.37	13.463	
8,300.00	8,185.52	8,151.95	8,175.35	17.37	28.98	127.05	-326.88	876.04	637.47	590.55	46.93	13.584	
8,400.00	8,283.59	8,247.45	8,270.84	17.58	29.31	128.33	-328.62	875.71	651.38	603.89	47.49	13.718	
8,500.00	8,381.66	8,342.65	8,366.02	17.79	29.64	129.54	-330.75	875.40	665.96	617.92	48.04	13.863	
8,600.00	8,479.72	8,436.52	8,459.84	17.99	29.97	130.67	-333.37	875.10	681.32	632.73	48.58	14.023	
8,700.00	8,577.79	8,529.71	8,552.98	18.20	30.29	131.75	-336.47	874.40	697.60	648.48	49.12	14.201	
8,800.00	8,675.86	8,624.00	8,647.21	18.41	30.39	132.81	-339.61	873.34	714.35	664.96	49.40	14.462	
8,900.00	8,773.93	8,687.00	8,710.03	18.62	30.39	133.41	-344.12	872.47	734.49	685.06	49.42	14.861	
9,000.00	8,871.99	8,728.78	8,751.35	18.83	30.39	133.68	-350.22	871.58	760.79	711.54	49.25	15.447	
9,100.00	8,970.06	8,782.00	8,803.35	19.04	30.40	133.83	-361.44	870.93	792.63	743.55	49.08	16.150	
9,200.00	9,068.13	8,844.00	8,862.74	19.25	30.41	133.68	-379.15	872.23	828.82	779.88	48.95	16.933	
9,211.15	9,079.07	8,844.00	8,862.74	19.27	30.41	133.68	-379.15	872.23	833.13	784.26	48.86	17.051	
9,300.00	9,166.33	8,889.56	8,905.52	19.47	30.42	133.73	-394.76	873.19	869.07	820.43	48.64	17.869	
9,400.00	9,264.84	8,939.00	8,950.88	19.67	30.44	133.69	-414.40	874.02	912.92	864.58	48.34	18.887	
9,500.00	9,363.64	8,971.00	8,979.46	19.87	30.46	133.75	-428.77	874.46	960.27	912.44	47.82	20.079	

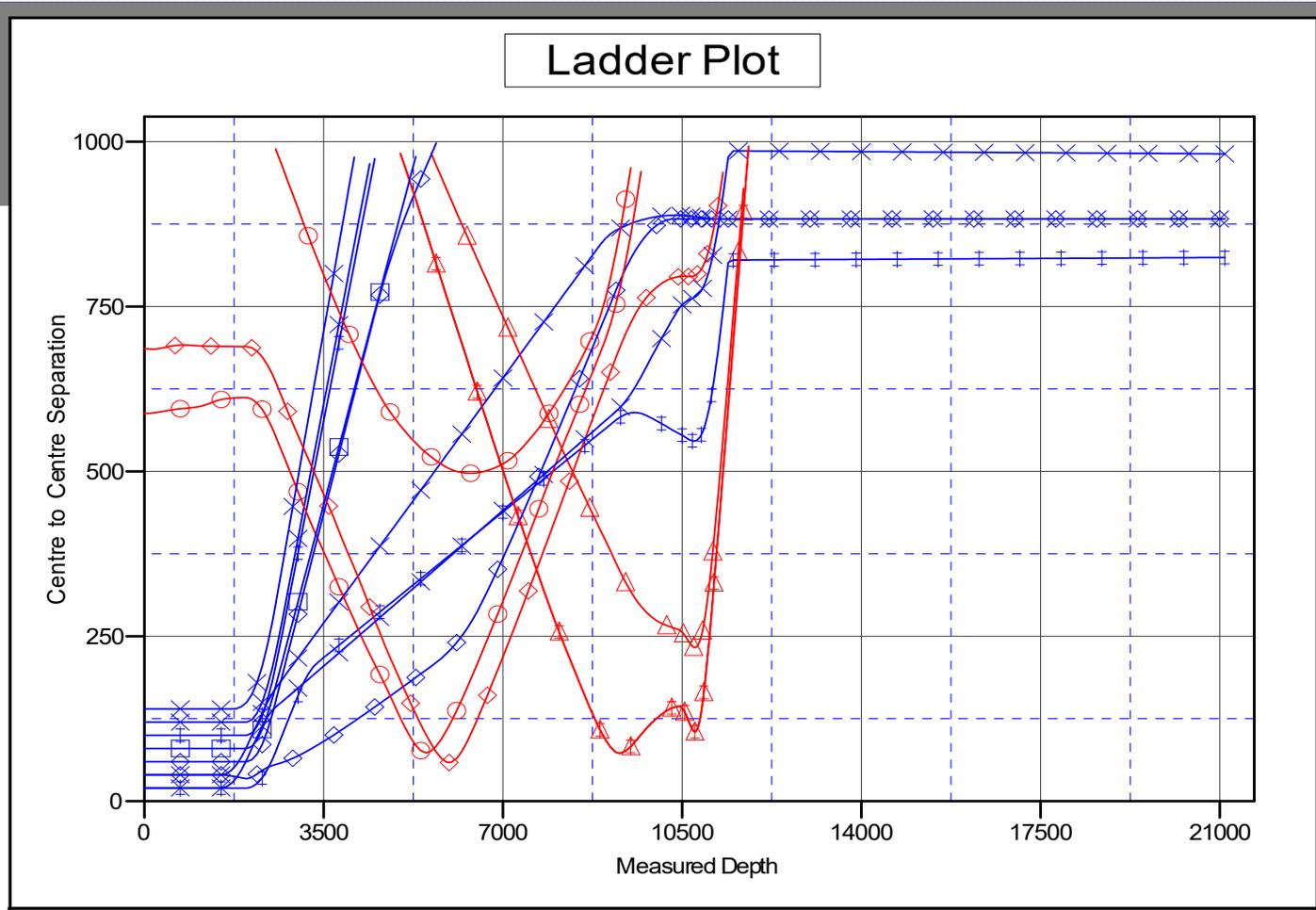
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 3362.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.41°



LEGEND

<ul style="list-style-type: none"> ✕ _COLUMBUS FEDERAL COM504H, OWB, PWP0 V0 ✕ _COLUMBUS FEDERAL COM506H, OWB, PWP0 V0 ✕ COLUMBUS FEDERAL COM #2H, OWB, AWP V0 ✕ COLUMBUS FEDERAL COM #53H, OWB, PWP0 V0 ✕ COLUMBUS FEDERAL COM #52H, OWB, PWP1 V0 	<ul style="list-style-type: none"> ✕ _COLUMBUS FEDERAL COM551H, OWB, PWP0 V0 ○ COLUMBUS FEE #2H, OWB, AWP V0 △ COLUMBUS FEDERAL COM553H, OWB, PWP0 V0 ✕ COLUMBUS FEDERAL COM 51H, OWB, PWP1 V0 ○ COLUMBUS FEE #24H, OWB, AWP V0 	<ul style="list-style-type: none"> ✕ _COLUMBUS FEDERAL COM554H, OWB, PWP0 V0 ○ COLUMBUS FEE #23H, STD, AWP V0 △ COLUMBUS FEE #23H, OWB (F4) AWP V0 ✕ COLUMBUS FEDERAL COM552H, OWB, PWP0 V0 ○ SALADO DRAW 10 FEDERAL#2H, OWB, AWP V0
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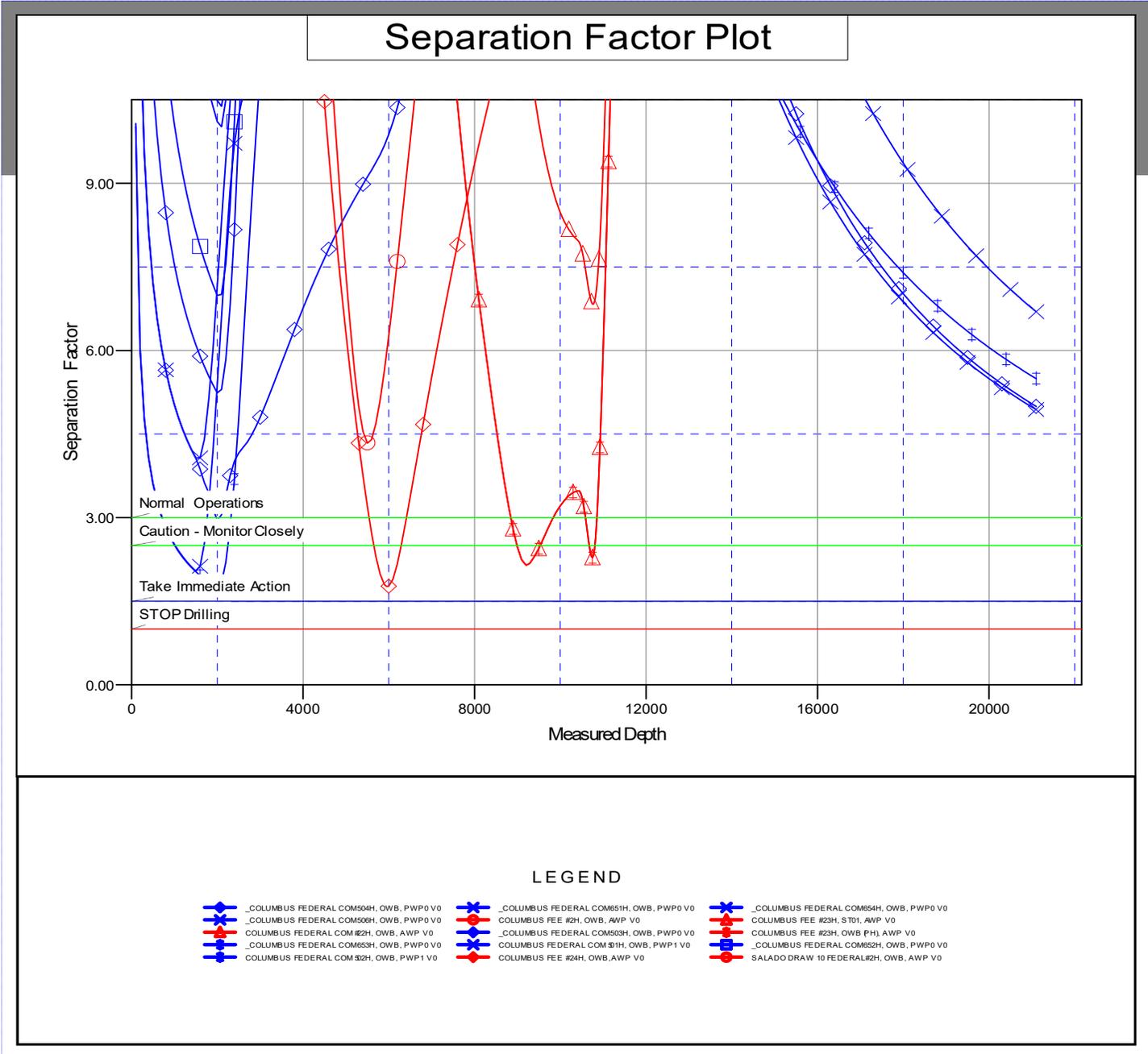
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

ConocoPhillips Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Project:	LEA COUNT SOUTH WEST (NM-E)	TVD Reference:	KB @ 3362.00usft
Reference Site:	COLUMBUS FEDERAL PROJECT	MD Reference:	KB @ 3362.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT 17 Permian Prod
Reference Design:	PWP0	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 3362.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.41°



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

DELAWARE BASIN EAST

LEA COUNT SOUTH WEST (NM-E)

COLUMBUS FEDERAL PROJECT

_COLUMBUS FEDERAL COM 505H - Slot SLOT 8

OWB

Plan: PWP0

Standard Planning Report

14 January, 2026

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Project	LEA COUNT SOUTH WEST (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	COLUMBUS FEDERAL PROJECT				
Site Position:		Northing:	398,637.10 usft	Latitude:	32° 5' 36.820 N
From:	Map	Easting:	741,887.40 usft	Longitude:	103° 33' 8.116 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	_COLUMBUS FEDERAL COM 505H - Slot SLOT 8					
Well Position	+N/-S	0.00 usft	Northing:	398,429.80 usft	Latitude:	32° 5' 34.950 N
	+E/-W	0.00 usft	Easting:	739,350.00 usft	Longitude:	103° 33' 37.628 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,330.00 usft
Grid Convergence:	0.41 °					

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2025	10/1/2026	6.10	59.54	46,956.99580692

Design	PWP0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	171.50

Plan Survey Tool Program	Date	1/13/2026		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,103.19 PWP0 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG	

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Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,564.11	11.28	77.84	2,560.47	11.66	54.12	2.00	2.00	0.00	77.84	
9,211.15	11.28	77.84	9,079.07	285.67	1,325.35	0.00	0.00	0.00	0.00	
10,339.36	0.00	0.00	10,200.00	309.00	1,433.58	1.00	-1.00	0.00	180.00	
10,424.90	0.00	0.00	10,285.54	309.00	1,433.58	0.00	0.00	0.00	0.00	
11,174.90	90.00	179.58	10,763.01	-168.45	1,437.08	12.00	12.00	23.94	179.58	
21,103.19	90.00	179.58	10,763.00	-10,096.47	1,509.67	0.00	0.00	0.00	0.00	

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Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	
30.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	0.00	
45.00	0.00	0.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	
60.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	
75.00	0.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00	
90.00	0.00	0.00	90.00	0.00	0.00	0.00	0.00	0.00	0.00	
105.00	0.00	0.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
165.00	0.00	0.00	165.00	0.00	0.00	0.00	0.00	0.00	0.00	
180.00	0.00	0.00	180.00	0.00	0.00	0.00	0.00	0.00	0.00	
195.00	0.00	0.00	195.00	0.00	0.00	0.00	0.00	0.00	0.00	
210.00	0.00	0.00	210.00	0.00	0.00	0.00	0.00	0.00	0.00	
225.00	0.00	0.00	225.00	0.00	0.00	0.00	0.00	0.00	0.00	
240.00	0.00	0.00	240.00	0.00	0.00	0.00	0.00	0.00	0.00	
255.00	0.00	0.00	255.00	0.00	0.00	0.00	0.00	0.00	0.00	
270.00	0.00	0.00	270.00	0.00	0.00	0.00	0.00	0.00	0.00	
285.00	0.00	0.00	285.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
315.00	0.00	0.00	315.00	0.00	0.00	0.00	0.00	0.00	0.00	
330.00	0.00	0.00	330.00	0.00	0.00	0.00	0.00	0.00	0.00	
345.00	0.00	0.00	345.00	0.00	0.00	0.00	0.00	0.00	0.00	
360.00	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	
375.00	0.00	0.00	375.00	0.00	0.00	0.00	0.00	0.00	0.00	
390.00	0.00	0.00	390.00	0.00	0.00	0.00	0.00	0.00	0.00	
405.00	0.00	0.00	405.00	0.00	0.00	0.00	0.00	0.00	0.00	
420.00	0.00	0.00	420.00	0.00	0.00	0.00	0.00	0.00	0.00	
435.00	0.00	0.00	435.00	0.00	0.00	0.00	0.00	0.00	0.00	
450.00	0.00	0.00	450.00	0.00	0.00	0.00	0.00	0.00	0.00	
465.00	0.00	0.00	465.00	0.00	0.00	0.00	0.00	0.00	0.00	
480.00	0.00	0.00	480.00	0.00	0.00	0.00	0.00	0.00	0.00	
495.00	0.00	0.00	495.00	0.00	0.00	0.00	0.00	0.00	0.00	
510.00	0.00	0.00	510.00	0.00	0.00	0.00	0.00	0.00	0.00	
525.00	0.00	0.00	525.00	0.00	0.00	0.00	0.00	0.00	0.00	
540.00	0.00	0.00	540.00	0.00	0.00	0.00	0.00	0.00	0.00	
555.00	0.00	0.00	555.00	0.00	0.00	0.00	0.00	0.00	0.00	
570.00	0.00	0.00	570.00	0.00	0.00	0.00	0.00	0.00	0.00	
585.00	0.00	0.00	585.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
615.00	0.00	0.00	615.00	0.00	0.00	0.00	0.00	0.00	0.00	
630.00	0.00	0.00	630.00	0.00	0.00	0.00	0.00	0.00	0.00	
645.00	0.00	0.00	645.00	0.00	0.00	0.00	0.00	0.00	0.00	
660.00	0.00	0.00	660.00	0.00	0.00	0.00	0.00	0.00	0.00	
675.00	0.00	0.00	675.00	0.00	0.00	0.00	0.00	0.00	0.00	
690.00	0.00	0.00	690.00	0.00	0.00	0.00	0.00	0.00	0.00	
705.00	0.00	0.00	705.00	0.00	0.00	0.00	0.00	0.00	0.00	
720.00	0.00	0.00	720.00	0.00	0.00	0.00	0.00	0.00	0.00	
735.00	0.00	0.00	735.00	0.00	0.00	0.00	0.00	0.00	0.00	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	
765.00	0.00	0.00	765.00	0.00	0.00	0.00	0.00	0.00	0.00	
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	0.00	

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Planning Report

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Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
795.00	0.00	0.00	795.00	0.00	0.00	0.00	0.00	0.00	0.00	
810.00	0.00	0.00	810.00	0.00	0.00	0.00	0.00	0.00	0.00	
825.00	0.00	0.00	825.00	0.00	0.00	0.00	0.00	0.00	0.00	
840.00	0.00	0.00	840.00	0.00	0.00	0.00	0.00	0.00	0.00	
855.00	0.00	0.00	855.00	0.00	0.00	0.00	0.00	0.00	0.00	
870.00	0.00	0.00	870.00	0.00	0.00	0.00	0.00	0.00	0.00	
885.00	0.00	0.00	885.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
915.00	0.00	0.00	915.00	0.00	0.00	0.00	0.00	0.00	0.00	
930.00	0.00	0.00	930.00	0.00	0.00	0.00	0.00	0.00	0.00	
945.00	0.00	0.00	945.00	0.00	0.00	0.00	0.00	0.00	0.00	
960.00	0.00	0.00	960.00	0.00	0.00	0.00	0.00	0.00	0.00	
975.00	0.00	0.00	975.00	0.00	0.00	0.00	0.00	0.00	0.00	
990.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,005.00	0.00	0.00	1,005.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,020.00	0.00	0.00	1,020.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,035.00	0.00	0.00	1,035.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,065.00	0.00	0.00	1,065.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,080.00	0.00	0.00	1,080.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,095.00	0.00	0.00	1,095.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,110.00	0.00	0.00	1,110.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,125.00	0.00	0.00	1,125.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,140.00	0.00	0.00	1,140.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,155.00	0.00	0.00	1,155.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,170.00	0.00	0.00	1,170.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,185.00	0.00	0.00	1,185.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,215.00	0.00	0.00	1,215.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,230.00	0.00	0.00	1,230.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,245.00	0.00	0.00	1,245.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,260.00	0.00	0.00	1,260.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,275.00	0.00	0.00	1,275.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,290.00	0.00	0.00	1,290.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,305.00	0.00	0.00	1,305.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,320.00	0.00	0.00	1,320.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,335.00	0.00	0.00	1,335.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,365.00	0.00	0.00	1,365.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,380.00	0.00	0.00	1,380.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,395.00	0.00	0.00	1,395.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,410.00	0.00	0.00	1,410.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,425.00	0.00	0.00	1,425.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,440.00	0.00	0.00	1,440.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,455.00	0.00	0.00	1,455.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,470.00	0.00	0.00	1,470.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,485.00	0.00	0.00	1,485.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,515.00	0.00	0.00	1,515.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,530.00	0.00	0.00	1,530.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,545.00	0.00	0.00	1,545.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,560.00	0.00	0.00	1,560.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,575.00	0.00	0.00	1,575.00	0.00	0.00	0.00	0.00	0.00	0.00	

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Planning Report

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Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
1,590.00	0.00	0.00	1,590.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,605.00	0.00	0.00	1,605.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,620.00	0.00	0.00	1,620.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,635.00	0.00	0.00	1,635.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,650.00	0.00	0.00	1,650.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,665.00	0.00	0.00	1,665.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,680.00	0.00	0.00	1,680.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,695.00	0.00	0.00	1,695.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,710.00	0.00	0.00	1,710.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,725.00	0.00	0.00	1,725.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,740.00	0.00	0.00	1,740.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,755.00	0.00	0.00	1,755.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,770.00	0.00	0.00	1,770.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,785.00	0.00	0.00	1,785.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,815.00	0.00	0.00	1,815.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,830.00	0.00	0.00	1,830.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,845.00	0.00	0.00	1,845.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,860.00	0.00	0.00	1,860.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,875.00	0.00	0.00	1,875.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,890.00	0.00	0.00	1,890.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,905.00	0.00	0.00	1,905.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,920.00	0.00	0.00	1,920.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,935.00	0.00	0.00	1,935.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,950.00	0.00	0.00	1,950.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,965.00	0.00	0.00	1,965.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,980.00	0.00	0.00	1,980.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,995.00	0.00	0.00	1,995.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,010.00	0.20	77.84	2,010.00	0.00	0.02	0.00	2.00	2.00	0.00	
2,025.00	0.50	77.84	2,025.00	0.02	0.11	-0.01	2.00	2.00	0.00	
2,040.00	0.80	77.84	2,040.00	0.06	0.27	-0.02	2.00	2.00	0.00	
2,055.00	1.10	77.84	2,055.00	0.11	0.52	-0.03	2.00	2.00	0.00	
2,070.00	1.40	77.84	2,069.99	0.18	0.84	-0.05	2.00	2.00	0.00	
2,085.00	1.70	77.84	2,084.99	0.27	1.23	-0.08	2.00	2.00	0.00	
2,100.00	2.00	77.84	2,099.98	0.37	1.71	-0.11	2.00	2.00	0.00	
2,115.00	2.30	77.84	2,114.97	0.49	2.26	-0.15	2.00	2.00	0.00	
2,130.00	2.60	77.84	2,129.96	0.62	2.88	-0.19	2.00	2.00	0.00	
2,145.00	2.90	77.84	2,144.94	0.77	3.59	-0.23	2.00	2.00	0.00	
2,160.00	3.20	77.84	2,159.92	0.94	4.37	-0.29	2.00	2.00	0.00	
2,175.00	3.50	77.84	2,174.89	1.13	5.22	-0.34	2.00	2.00	0.00	
2,190.00	3.80	77.84	2,189.86	1.33	6.16	-0.40	2.00	2.00	0.00	
2,205.00	4.10	77.84	2,204.83	1.54	7.17	-0.47	2.00	2.00	0.00	
2,220.00	4.40	77.84	2,219.78	1.78	8.25	-0.54	2.00	2.00	0.00	
2,235.00	4.70	77.84	2,234.74	2.03	9.42	-0.61	2.00	2.00	0.00	
2,250.00	5.00	77.84	2,249.68	2.30	10.66	-0.70	2.00	2.00	0.00	
2,265.00	5.30	77.84	2,264.62	2.58	11.97	-0.78	2.00	2.00	0.00	
2,280.00	5.60	77.84	2,279.55	2.88	13.37	-0.87	2.00	2.00	0.00	
2,295.00	5.90	77.84	2,294.48	3.20	14.83	-0.97	2.00	2.00	0.00	
2,310.00	6.20	77.84	2,309.40	3.53	16.38	-1.07	2.00	2.00	0.00	
2,325.00	6.50	77.84	2,324.30	3.88	18.00	-1.18	2.00	2.00	0.00	
2,340.00	6.80	77.84	2,339.20	4.25	19.70	-1.29	2.00	2.00	0.00	
2,355.00	7.10	77.84	2,354.09	4.63	21.47	-1.40	2.00	2.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
2,370.00	7.40	77.84	2,368.97	5.03	23.32	-1.52	2.00	2.00	0.00	
2,385.00	7.70	77.84	2,383.84	5.44	25.25	-1.65	2.00	2.00	0.00	
2,400.00	8.00	77.84	2,398.70	5.87	27.25	-1.78	2.00	2.00	0.00	
2,415.00	8.30	77.84	2,413.55	6.32	29.33	-1.92	2.00	2.00	0.00	
2,430.00	8.60	77.84	2,428.39	6.79	31.49	-2.06	2.00	2.00	0.00	
2,445.00	8.90	77.84	2,443.21	7.27	33.72	-2.20	2.00	2.00	0.00	
2,460.00	9.20	77.84	2,458.03	7.76	36.02	-2.35	2.00	2.00	0.00	
2,475.00	9.50	77.84	2,472.83	8.28	38.41	-2.51	2.00	2.00	0.00	
2,490.00	9.80	77.84	2,487.61	8.81	40.86	-2.67	2.00	2.00	0.00	
2,505.00	10.10	77.84	2,502.39	9.35	43.40	-2.83	2.00	2.00	0.00	
2,520.00	10.40	77.84	2,517.15	9.92	46.01	-3.00	2.00	2.00	0.00	
2,535.00	10.70	77.84	2,531.90	10.50	48.69	-3.18	2.00	2.00	0.00	
2,550.00	11.00	77.84	2,546.63	11.09	51.45	-3.36	2.00	2.00	0.00	
2,564.11	11.28	77.84	2,560.47	11.66	54.12	-3.53	2.00	2.00	0.00	
2,565.00	11.28	77.84	2,561.34	11.70	54.29	-3.54	0.00	0.00	0.00	
2,580.00	11.28	77.84	2,576.05	12.32	57.16	-3.73	0.00	0.00	0.00	
2,595.00	11.28	77.84	2,590.76	12.94	60.03	-3.92	0.00	0.00	0.00	
2,610.00	11.28	77.84	2,605.47	13.56	62.89	-4.11	0.00	0.00	0.00	
2,625.00	11.28	77.84	2,620.18	14.17	65.76	-4.29	0.00	0.00	0.00	
2,640.00	11.28	77.84	2,634.90	14.79	68.63	-4.48	0.00	0.00	0.00	
2,655.00	11.28	77.84	2,649.61	15.41	71.50	-4.67	0.00	0.00	0.00	
2,670.00	11.28	77.84	2,664.32	16.03	74.37	-4.86	0.00	0.00	0.00	
2,685.00	11.28	77.84	2,679.03	16.65	77.24	-5.04	0.00	0.00	0.00	
2,700.00	11.28	77.84	2,693.74	17.27	80.11	-5.23	0.00	0.00	0.00	
2,715.00	11.28	77.84	2,708.45	17.88	82.98	-5.42	0.00	0.00	0.00	
2,730.00	11.28	77.84	2,723.16	18.50	85.84	-5.61	0.00	0.00	0.00	
2,745.00	11.28	77.84	2,737.87	19.12	88.71	-5.79	0.00	0.00	0.00	
2,760.00	11.28	77.84	2,752.58	19.74	91.58	-5.98	0.00	0.00	0.00	
2,775.00	11.28	77.84	2,767.29	20.36	94.45	-6.17	0.00	0.00	0.00	
2,790.00	11.28	77.84	2,782.00	20.98	97.32	-6.35	0.00	0.00	0.00	
2,805.00	11.28	77.84	2,796.71	21.59	100.19	-6.54	0.00	0.00	0.00	
2,820.00	11.28	77.84	2,811.42	22.21	103.06	-6.73	0.00	0.00	0.00	
2,835.00	11.28	77.84	2,826.13	22.83	105.92	-6.92	0.00	0.00	0.00	
2,850.00	11.28	77.84	2,840.84	23.45	108.79	-7.10	0.00	0.00	0.00	
2,865.00	11.28	77.84	2,855.55	24.07	111.66	-7.29	0.00	0.00	0.00	
2,880.00	11.28	77.84	2,870.26	24.69	114.53	-7.48	0.00	0.00	0.00	
2,895.00	11.28	77.84	2,884.97	25.30	117.40	-7.67	0.00	0.00	0.00	
2,910.00	11.28	77.84	2,899.68	25.92	120.27	-7.85	0.00	0.00	0.00	
2,925.00	11.28	77.84	2,914.39	26.54	123.14	-8.04	0.00	0.00	0.00	
2,940.00	11.28	77.84	2,929.10	27.16	126.01	-8.23	0.00	0.00	0.00	
2,955.00	11.28	77.84	2,943.81	27.78	128.87	-8.41	0.00	0.00	0.00	
2,970.00	11.28	77.84	2,958.52	28.40	131.74	-8.60	0.00	0.00	0.00	
2,985.00	11.28	77.84	2,973.23	29.01	134.61	-8.79	0.00	0.00	0.00	
3,000.00	11.28	77.84	2,987.94	29.63	137.48	-8.98	0.00	0.00	0.00	
3,015.00	11.28	77.84	3,002.65	30.25	140.35	-9.16	0.00	0.00	0.00	
3,030.00	11.28	77.84	3,017.36	30.87	143.22	-9.35	0.00	0.00	0.00	
3,045.00	11.28	77.84	3,032.07	31.49	146.09	-9.54	0.00	0.00	0.00	
3,060.00	11.28	77.84	3,046.78	32.11	148.96	-9.73	0.00	0.00	0.00	
3,075.00	11.28	77.84	3,061.49	32.72	151.82	-9.91	0.00	0.00	0.00	
3,090.00	11.28	77.84	3,076.20	33.34	154.69	-10.10	0.00	0.00	0.00	
3,105.00	11.28	77.84	3,090.91	33.96	157.56	-10.29	0.00	0.00	0.00	
3,120.00	11.28	77.84	3,105.62	34.58	160.43	-10.48	0.00	0.00	0.00	
3,135.00	11.28	77.84	3,120.33	35.20	163.30	-10.66	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
3,150.00	11.28	77.84	3,135.04	35.82	166.17	-10.85	0.00	0.00	0.00	
3,165.00	11.28	77.84	3,149.75	36.43	169.04	-11.04	0.00	0.00	0.00	
3,180.00	11.28	77.84	3,164.46	37.05	171.91	-11.22	0.00	0.00	0.00	
3,195.00	11.28	77.84	3,179.17	37.67	174.77	-11.41	0.00	0.00	0.00	
3,210.00	11.28	77.84	3,193.88	38.29	177.64	-11.60	0.00	0.00	0.00	
3,225.00	11.28	77.84	3,208.59	38.91	180.51	-11.79	0.00	0.00	0.00	
3,240.00	11.28	77.84	3,223.30	39.53	183.38	-11.97	0.00	0.00	0.00	
3,255.00	11.28	77.84	3,238.01	40.14	186.25	-12.16	0.00	0.00	0.00	
3,270.00	11.28	77.84	3,252.72	40.76	189.12	-12.35	0.00	0.00	0.00	
3,285.00	11.28	77.84	3,267.43	41.38	191.99	-12.54	0.00	0.00	0.00	
3,300.00	11.28	77.84	3,282.14	42.00	194.86	-12.72	0.00	0.00	0.00	
3,315.00	11.28	77.84	3,296.85	42.62	197.72	-12.91	0.00	0.00	0.00	
3,330.00	11.28	77.84	3,311.56	43.24	200.59	-13.10	0.00	0.00	0.00	
3,345.00	11.28	77.84	3,326.27	43.85	203.46	-13.28	0.00	0.00	0.00	
3,360.00	11.28	77.84	3,340.98	44.47	206.33	-13.47	0.00	0.00	0.00	
3,375.00	11.28	77.84	3,355.69	45.09	209.20	-13.66	0.00	0.00	0.00	
3,390.00	11.28	77.84	3,370.40	45.71	212.07	-13.85	0.00	0.00	0.00	
3,405.00	11.28	77.84	3,385.11	46.33	214.94	-14.03	0.00	0.00	0.00	
3,420.00	11.28	77.84	3,399.82	46.95	217.80	-14.22	0.00	0.00	0.00	
3,435.00	11.28	77.84	3,414.53	47.56	220.67	-14.41	0.00	0.00	0.00	
3,450.00	11.28	77.84	3,429.24	48.18	223.54	-14.60	0.00	0.00	0.00	
3,465.00	11.28	77.84	3,443.95	48.80	226.41	-14.78	0.00	0.00	0.00	
3,480.00	11.28	77.84	3,458.66	49.42	229.28	-14.97	0.00	0.00	0.00	
3,495.00	11.28	77.84	3,473.37	50.04	232.15	-15.16	0.00	0.00	0.00	
3,510.00	11.28	77.84	3,488.08	50.66	235.02	-15.35	0.00	0.00	0.00	
3,525.00	11.28	77.84	3,502.79	51.27	237.89	-15.53	0.00	0.00	0.00	
3,540.00	11.28	77.84	3,517.50	51.89	240.75	-15.72	0.00	0.00	0.00	
3,555.00	11.28	77.84	3,532.21	52.51	243.62	-15.91	0.00	0.00	0.00	
3,570.00	11.28	77.84	3,546.92	53.13	246.49	-16.09	0.00	0.00	0.00	
3,585.00	11.28	77.84	3,561.63	53.75	249.36	-16.28	0.00	0.00	0.00	
3,600.00	11.28	77.84	3,576.34	54.37	252.23	-16.47	0.00	0.00	0.00	
3,615.00	11.28	77.84	3,591.05	54.98	255.10	-16.66	0.00	0.00	0.00	
3,630.00	11.28	77.84	3,605.76	55.60	257.97	-16.84	0.00	0.00	0.00	
3,645.00	11.28	77.84	3,620.47	56.22	260.84	-17.03	0.00	0.00	0.00	
3,660.00	11.28	77.84	3,635.18	56.84	263.70	-17.22	0.00	0.00	0.00	
3,675.00	11.28	77.84	3,649.89	57.46	266.57	-17.41	0.00	0.00	0.00	
3,690.00	11.28	77.84	3,664.60	58.08	269.44	-17.59	0.00	0.00	0.00	
3,705.00	11.28	77.84	3,679.31	58.69	272.31	-17.78	0.00	0.00	0.00	
3,720.00	11.28	77.84	3,694.02	59.31	275.18	-17.97	0.00	0.00	0.00	
3,735.00	11.28	77.84	3,708.74	59.93	278.05	-18.15	0.00	0.00	0.00	
3,750.00	11.28	77.84	3,723.45	60.55	280.92	-18.34	0.00	0.00	0.00	
3,765.00	11.28	77.84	3,738.16	61.17	283.79	-18.53	0.00	0.00	0.00	
3,780.00	11.28	77.84	3,752.87	61.79	286.65	-18.72	0.00	0.00	0.00	
3,795.00	11.28	77.84	3,767.58	62.40	289.52	-18.90	0.00	0.00	0.00	
3,810.00	11.28	77.84	3,782.29	63.02	292.39	-19.09	0.00	0.00	0.00	
3,825.00	11.28	77.84	3,797.00	63.64	295.26	-19.28	0.00	0.00	0.00	
3,840.00	11.28	77.84	3,811.71	64.26	298.13	-19.47	0.00	0.00	0.00	
3,855.00	11.28	77.84	3,826.42	64.88	301.00	-19.65	0.00	0.00	0.00	
3,870.00	11.28	77.84	3,841.13	65.50	303.87	-19.84	0.00	0.00	0.00	
3,885.00	11.28	77.84	3,855.84	66.11	306.74	-20.03	0.00	0.00	0.00	
3,900.00	11.28	77.84	3,870.55	66.73	309.60	-20.22	0.00	0.00	0.00	
3,915.00	11.28	77.84	3,885.26	67.35	312.47	-20.40	0.00	0.00	0.00	
3,930.00	11.28	77.84	3,899.97	67.97	315.34	-20.59	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
3,945.00	11.28	77.84	3,914.68	68.59	318.21	-20.78	0.00	0.00	0.00	
3,960.00	11.28	77.84	3,929.39	69.21	321.08	-20.96	0.00	0.00	0.00	
3,975.00	11.28	77.84	3,944.10	69.82	323.95	-21.15	0.00	0.00	0.00	
3,990.00	11.28	77.84	3,958.81	70.44	326.82	-21.34	0.00	0.00	0.00	
4,005.00	11.28	77.84	3,973.52	71.06	329.69	-21.53	0.00	0.00	0.00	
4,020.00	11.28	77.84	3,988.23	71.68	332.55	-21.71	0.00	0.00	0.00	
4,035.00	11.28	77.84	4,002.94	72.30	335.42	-21.90	0.00	0.00	0.00	
4,050.00	11.28	77.84	4,017.65	72.92	338.29	-22.09	0.00	0.00	0.00	
4,065.00	11.28	77.84	4,032.36	73.53	341.16	-22.28	0.00	0.00	0.00	
4,080.00	11.28	77.84	4,047.07	74.15	344.03	-22.46	0.00	0.00	0.00	
4,095.00	11.28	77.84	4,061.78	74.77	346.90	-22.65	0.00	0.00	0.00	
4,110.00	11.28	77.84	4,076.49	75.39	349.77	-22.84	0.00	0.00	0.00	
4,125.00	11.28	77.84	4,091.20	76.01	352.63	-23.02	0.00	0.00	0.00	
4,140.00	11.28	77.84	4,105.91	76.63	355.50	-23.21	0.00	0.00	0.00	
4,155.00	11.28	77.84	4,120.62	77.24	358.37	-23.40	0.00	0.00	0.00	
4,170.00	11.28	77.84	4,135.33	77.86	361.24	-23.59	0.00	0.00	0.00	
4,185.00	11.28	77.84	4,150.04	78.48	364.11	-23.77	0.00	0.00	0.00	
4,200.00	11.28	77.84	4,164.75	79.10	366.98	-23.96	0.00	0.00	0.00	
4,215.00	11.28	77.84	4,179.46	79.72	369.85	-24.15	0.00	0.00	0.00	
4,230.00	11.28	77.84	4,194.17	80.34	372.72	-24.34	0.00	0.00	0.00	
4,245.00	11.28	77.84	4,208.88	80.95	375.58	-24.52	0.00	0.00	0.00	
4,260.00	11.28	77.84	4,223.59	81.57	378.45	-24.71	0.00	0.00	0.00	
4,275.00	11.28	77.84	4,238.30	82.19	381.32	-24.90	0.00	0.00	0.00	
4,290.00	11.28	77.84	4,253.01	82.81	384.19	-25.09	0.00	0.00	0.00	
4,305.00	11.28	77.84	4,267.72	83.43	387.06	-25.27	0.00	0.00	0.00	
4,320.00	11.28	77.84	4,282.43	84.05	389.93	-25.46	0.00	0.00	0.00	
4,335.00	11.28	77.84	4,297.14	84.66	392.80	-25.65	0.00	0.00	0.00	
4,350.00	11.28	77.84	4,311.85	85.28	395.67	-25.83	0.00	0.00	0.00	
4,365.00	11.28	77.84	4,326.56	85.90	398.53	-26.02	0.00	0.00	0.00	
4,380.00	11.28	77.84	4,341.27	86.52	401.40	-26.21	0.00	0.00	0.00	
4,395.00	11.28	77.84	4,355.98	87.14	404.27	-26.40	0.00	0.00	0.00	
4,410.00	11.28	77.84	4,370.69	87.76	407.14	-26.58	0.00	0.00	0.00	
4,425.00	11.28	77.84	4,385.40	88.37	410.01	-26.77	0.00	0.00	0.00	
4,440.00	11.28	77.84	4,400.11	88.99	412.88	-26.96	0.00	0.00	0.00	
4,455.00	11.28	77.84	4,414.82	89.61	415.75	-27.15	0.00	0.00	0.00	
4,470.00	11.28	77.84	4,429.53	90.23	418.62	-27.33	0.00	0.00	0.00	
4,485.00	11.28	77.84	4,444.24	90.85	421.48	-27.52	0.00	0.00	0.00	
4,500.00	11.28	77.84	4,458.95	91.47	424.35	-27.71	0.00	0.00	0.00	
4,515.00	11.28	77.84	4,473.66	92.08	427.22	-27.89	0.00	0.00	0.00	
4,530.00	11.28	77.84	4,488.37	92.70	430.09	-28.08	0.00	0.00	0.00	
4,545.00	11.28	77.84	4,503.08	93.32	432.96	-28.27	0.00	0.00	0.00	
4,560.00	11.28	77.84	4,517.79	93.94	435.83	-28.46	0.00	0.00	0.00	
4,575.00	11.28	77.84	4,532.50	94.56	438.70	-28.64	0.00	0.00	0.00	
4,590.00	11.28	77.84	4,547.21	95.18	441.57	-28.83	0.00	0.00	0.00	
4,605.00	11.28	77.84	4,561.92	95.79	444.43	-29.02	0.00	0.00	0.00	
4,620.00	11.28	77.84	4,576.63	96.41	447.30	-29.21	0.00	0.00	0.00	
4,635.00	11.28	77.84	4,591.34	97.03	450.17	-29.39	0.00	0.00	0.00	
4,650.00	11.28	77.84	4,606.05	97.65	453.04	-29.58	0.00	0.00	0.00	
4,665.00	11.28	77.84	4,620.76	98.27	455.91	-29.77	0.00	0.00	0.00	
4,680.00	11.28	77.84	4,635.47	98.89	458.78	-29.96	0.00	0.00	0.00	
4,695.00	11.28	77.84	4,650.18	99.50	461.65	-30.14	0.00	0.00	0.00	
4,710.00	11.28	77.84	4,664.89	100.12	464.51	-30.33	0.00	0.00	0.00	
4,725.00	11.28	77.84	4,679.60	100.74	467.38	-30.52	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
4,740.00	11.28	77.84	4,694.31	101.36	470.25	-30.70	0.00	0.00	0.00	
4,755.00	11.28	77.84	4,709.02	101.98	473.12	-30.89	0.00	0.00	0.00	
4,770.00	11.28	77.84	4,723.73	102.60	475.99	-31.08	0.00	0.00	0.00	
4,785.00	11.28	77.84	4,738.44	103.21	478.86	-31.27	0.00	0.00	0.00	
4,800.00	11.28	77.84	4,753.15	103.83	481.73	-31.45	0.00	0.00	0.00	
4,815.00	11.28	77.84	4,767.86	104.45	484.60	-31.64	0.00	0.00	0.00	
4,830.00	11.28	77.84	4,782.58	105.07	487.46	-31.83	0.00	0.00	0.00	
4,845.00	11.28	77.84	4,797.29	105.69	490.33	-32.02	0.00	0.00	0.00	
4,860.00	11.28	77.84	4,812.00	106.31	493.20	-32.20	0.00	0.00	0.00	
4,875.00	11.28	77.84	4,826.71	106.92	496.07	-32.39	0.00	0.00	0.00	
4,890.00	11.28	77.84	4,841.42	107.54	498.94	-32.58	0.00	0.00	0.00	
4,905.00	11.28	77.84	4,856.13	108.16	501.81	-32.76	0.00	0.00	0.00	
4,920.00	11.28	77.84	4,870.84	108.78	504.68	-32.95	0.00	0.00	0.00	
4,935.00	11.28	77.84	4,885.55	109.40	507.55	-33.14	0.00	0.00	0.00	
4,950.00	11.28	77.84	4,900.26	110.02	510.41	-33.33	0.00	0.00	0.00	
4,965.00	11.28	77.84	4,914.97	110.63	513.28	-33.51	0.00	0.00	0.00	
4,980.00	11.28	77.84	4,929.68	111.25	516.15	-33.70	0.00	0.00	0.00	
4,995.00	11.28	77.84	4,944.39	111.87	519.02	-33.89	0.00	0.00	0.00	
5,010.00	11.28	77.84	4,959.10	112.49	521.89	-34.08	0.00	0.00	0.00	
5,025.00	11.28	77.84	4,973.81	113.11	524.76	-34.26	0.00	0.00	0.00	
5,040.00	11.28	77.84	4,988.52	113.73	527.63	-34.45	0.00	0.00	0.00	
5,055.00	11.28	77.84	5,003.23	114.34	530.50	-34.64	0.00	0.00	0.00	
5,070.00	11.28	77.84	5,017.94	114.96	533.36	-34.83	0.00	0.00	0.00	
5,085.00	11.28	77.84	5,032.65	115.58	536.23	-35.01	0.00	0.00	0.00	
5,100.00	11.28	77.84	5,047.36	116.20	539.10	-35.20	0.00	0.00	0.00	
5,115.00	11.28	77.84	5,062.07	116.82	541.97	-35.39	0.00	0.00	0.00	
5,130.00	11.28	77.84	5,076.78	117.44	544.84	-35.57	0.00	0.00	0.00	
5,145.00	11.28	77.84	5,091.49	118.05	547.71	-35.76	0.00	0.00	0.00	
5,160.00	11.28	77.84	5,106.20	118.67	550.58	-35.95	0.00	0.00	0.00	
5,175.00	11.28	77.84	5,120.91	119.29	553.45	-36.14	0.00	0.00	0.00	
5,190.00	11.28	77.84	5,135.62	119.91	556.31	-36.32	0.00	0.00	0.00	
5,205.00	11.28	77.84	5,150.33	120.53	559.18	-36.51	0.00	0.00	0.00	
5,220.00	11.28	77.84	5,165.04	121.15	562.05	-36.70	0.00	0.00	0.00	
5,235.00	11.28	77.84	5,179.75	121.76	564.92	-36.89	0.00	0.00	0.00	
5,250.00	11.28	77.84	5,194.46	122.38	567.79	-37.07	0.00	0.00	0.00	
5,265.00	11.28	77.84	5,209.17	123.00	570.66	-37.26	0.00	0.00	0.00	
5,280.00	11.28	77.84	5,223.88	123.62	573.53	-37.45	0.00	0.00	0.00	
5,295.00	11.28	77.84	5,238.59	124.24	576.39	-37.63	0.00	0.00	0.00	
5,310.00	11.28	77.84	5,253.30	124.86	579.26	-37.82	0.00	0.00	0.00	
5,325.00	11.28	77.84	5,268.01	125.47	582.13	-38.01	0.00	0.00	0.00	
5,340.00	11.28	77.84	5,282.72	126.09	585.00	-38.20	0.00	0.00	0.00	
5,355.00	11.28	77.84	5,297.43	126.71	587.87	-38.38	0.00	0.00	0.00	
5,370.00	11.28	77.84	5,312.14	127.33	590.74	-38.57	0.00	0.00	0.00	
5,385.00	11.28	77.84	5,326.85	127.95	593.61	-38.76	0.00	0.00	0.00	
5,400.00	11.28	77.84	5,341.56	128.57	596.48	-38.95	0.00	0.00	0.00	
5,415.00	11.28	77.84	5,356.27	129.18	599.34	-39.13	0.00	0.00	0.00	
5,430.00	11.28	77.84	5,370.98	129.80	602.21	-39.32	0.00	0.00	0.00	
5,445.00	11.28	77.84	5,385.69	130.42	605.08	-39.51	0.00	0.00	0.00	
5,460.00	11.28	77.84	5,400.40	131.04	607.95	-39.70	0.00	0.00	0.00	
5,475.00	11.28	77.84	5,415.11	131.66	610.82	-39.88	0.00	0.00	0.00	
5,490.00	11.28	77.84	5,429.82	132.28	613.69	-40.07	0.00	0.00	0.00	
5,505.00	11.28	77.84	5,444.53	132.89	616.56	-40.26	0.00	0.00	0.00	
5,520.00	11.28	77.84	5,459.24	133.51	619.43	-40.44	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
5,535.00	11.28	77.84	5,473.95	134.13	622.29	-40.63	0.00	0.00	0.00	
5,550.00	11.28	77.84	5,488.66	134.75	625.16	-40.82	0.00	0.00	0.00	
5,565.00	11.28	77.84	5,503.37	135.37	628.03	-41.01	0.00	0.00	0.00	
5,580.00	11.28	77.84	5,518.08	135.99	630.90	-41.19	0.00	0.00	0.00	
5,595.00	11.28	77.84	5,532.79	136.60	633.77	-41.38	0.00	0.00	0.00	
5,610.00	11.28	77.84	5,547.50	137.22	636.64	-41.57	0.00	0.00	0.00	
5,625.00	11.28	77.84	5,562.21	137.84	639.51	-41.76	0.00	0.00	0.00	
5,640.00	11.28	77.84	5,576.92	138.46	642.38	-41.94	0.00	0.00	0.00	
5,655.00	11.28	77.84	5,591.63	139.08	645.24	-42.13	0.00	0.00	0.00	
5,670.00	11.28	77.84	5,606.34	139.70	648.11	-42.32	0.00	0.00	0.00	
5,685.00	11.28	77.84	5,621.05	140.31	650.98	-42.50	0.00	0.00	0.00	
5,700.00	11.28	77.84	5,635.76	140.93	653.85	-42.69	0.00	0.00	0.00	
5,715.00	11.28	77.84	5,650.47	141.55	656.72	-42.88	0.00	0.00	0.00	
5,730.00	11.28	77.84	5,665.18	142.17	659.59	-43.07	0.00	0.00	0.00	
5,745.00	11.28	77.84	5,679.89	142.79	662.46	-43.25	0.00	0.00	0.00	
5,760.00	11.28	77.84	5,694.60	143.41	665.33	-43.44	0.00	0.00	0.00	
5,775.00	11.28	77.84	5,709.31	144.02	668.19	-43.63	0.00	0.00	0.00	
5,790.00	11.28	77.84	5,724.02	144.64	671.06	-43.82	0.00	0.00	0.00	
5,805.00	11.28	77.84	5,738.73	145.26	673.93	-44.00	0.00	0.00	0.00	
5,820.00	11.28	77.84	5,753.44	145.88	676.80	-44.19	0.00	0.00	0.00	
5,835.00	11.28	77.84	5,768.15	146.50	679.67	-44.38	0.00	0.00	0.00	
5,850.00	11.28	77.84	5,782.86	147.12	682.54	-44.57	0.00	0.00	0.00	
5,865.00	11.28	77.84	5,797.57	147.73	685.41	-44.75	0.00	0.00	0.00	
5,880.00	11.28	77.84	5,812.28	148.35	688.27	-44.94	0.00	0.00	0.00	
5,895.00	11.28	77.84	5,826.99	148.97	691.14	-45.13	0.00	0.00	0.00	
5,910.00	11.28	77.84	5,841.70	149.59	694.01	-45.31	0.00	0.00	0.00	
5,925.00	11.28	77.84	5,856.42	150.21	696.88	-45.50	0.00	0.00	0.00	
5,940.00	11.28	77.84	5,871.13	150.83	699.75	-45.69	0.00	0.00	0.00	
5,955.00	11.28	77.84	5,885.84	151.44	702.62	-45.88	0.00	0.00	0.00	
5,970.00	11.28	77.84	5,900.55	152.06	705.49	-46.06	0.00	0.00	0.00	
5,985.00	11.28	77.84	5,915.26	152.68	708.36	-46.25	0.00	0.00	0.00	
6,000.00	11.28	77.84	5,929.97	153.30	711.22	-46.44	0.00	0.00	0.00	
6,015.00	11.28	77.84	5,944.68	153.92	714.09	-46.63	0.00	0.00	0.00	
6,030.00	11.28	77.84	5,959.39	154.54	716.96	-46.81	0.00	0.00	0.00	
6,045.00	11.28	77.84	5,974.10	155.15	719.83	-47.00	0.00	0.00	0.00	
6,060.00	11.28	77.84	5,988.81	155.77	722.70	-47.19	0.00	0.00	0.00	
6,075.00	11.28	77.84	6,003.52	156.39	725.57	-47.37	0.00	0.00	0.00	
6,090.00	11.28	77.84	6,018.23	157.01	728.44	-47.56	0.00	0.00	0.00	
6,105.00	11.28	77.84	6,032.94	157.63	731.31	-47.75	0.00	0.00	0.00	
6,120.00	11.28	77.84	6,047.65	158.25	734.17	-47.94	0.00	0.00	0.00	
6,135.00	11.28	77.84	6,062.36	158.86	737.04	-48.12	0.00	0.00	0.00	
6,150.00	11.28	77.84	6,077.07	159.48	739.91	-48.31	0.00	0.00	0.00	
6,165.00	11.28	77.84	6,091.78	160.10	742.78	-48.50	0.00	0.00	0.00	
6,180.00	11.28	77.84	6,106.49	160.72	745.65	-48.69	0.00	0.00	0.00	
6,195.00	11.28	77.84	6,121.20	161.34	748.52	-48.87	0.00	0.00	0.00	
6,210.00	11.28	77.84	6,135.91	161.96	751.39	-49.06	0.00	0.00	0.00	
6,225.00	11.28	77.84	6,150.62	162.57	754.26	-49.25	0.00	0.00	0.00	
6,240.00	11.28	77.84	6,165.33	163.19	757.12	-49.44	0.00	0.00	0.00	
6,255.00	11.28	77.84	6,180.04	163.81	759.99	-49.62	0.00	0.00	0.00	
6,270.00	11.28	77.84	6,194.75	164.43	762.86	-49.81	0.00	0.00	0.00	
6,285.00	11.28	77.84	6,209.46	165.05	765.73	-50.00	0.00	0.00	0.00	
6,300.00	11.28	77.84	6,224.17	165.67	768.60	-50.18	0.00	0.00	0.00	
6,315.00	11.28	77.84	6,238.88	166.28	771.47	-50.37	0.00	0.00	0.00	

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
6,330.00	11.28	77.84	6,253.59	166.90	774.34	-50.56	0.00	0.00	0.00	
6,345.00	11.28	77.84	6,268.30	167.52	777.21	-50.75	0.00	0.00	0.00	
6,360.00	11.28	77.84	6,283.01	168.14	780.07	-50.93	0.00	0.00	0.00	
6,375.00	11.28	77.84	6,297.72	168.76	782.94	-51.12	0.00	0.00	0.00	
6,390.00	11.28	77.84	6,312.43	169.38	785.81	-51.31	0.00	0.00	0.00	
6,405.00	11.28	77.84	6,327.14	169.99	788.68	-51.50	0.00	0.00	0.00	
6,420.00	11.28	77.84	6,341.85	170.61	791.55	-51.68	0.00	0.00	0.00	
6,435.00	11.28	77.84	6,356.56	171.23	794.42	-51.87	0.00	0.00	0.00	
6,450.00	11.28	77.84	6,371.27	171.85	797.29	-52.06	0.00	0.00	0.00	
6,465.00	11.28	77.84	6,385.98	172.47	800.15	-52.24	0.00	0.00	0.00	
6,480.00	11.28	77.84	6,400.69	173.09	803.02	-52.43	0.00	0.00	0.00	
6,495.00	11.28	77.84	6,415.40	173.70	805.89	-52.62	0.00	0.00	0.00	
6,510.00	11.28	77.84	6,430.11	174.32	808.76	-52.81	0.00	0.00	0.00	
6,525.00	11.28	77.84	6,444.82	174.94	811.63	-52.99	0.00	0.00	0.00	
6,540.00	11.28	77.84	6,459.53	175.56	814.50	-53.18	0.00	0.00	0.00	
6,555.00	11.28	77.84	6,474.24	176.18	817.37	-53.37	0.00	0.00	0.00	
6,570.00	11.28	77.84	6,488.95	176.80	820.24	-53.56	0.00	0.00	0.00	
6,585.00	11.28	77.84	6,503.66	177.41	823.10	-53.74	0.00	0.00	0.00	
6,600.00	11.28	77.84	6,518.37	178.03	825.97	-53.93	0.00	0.00	0.00	
6,615.00	11.28	77.84	6,533.08	178.65	828.84	-54.12	0.00	0.00	0.00	
6,630.00	11.28	77.84	6,547.79	179.27	831.71	-54.31	0.00	0.00	0.00	
6,645.00	11.28	77.84	6,562.50	179.89	834.58	-54.49	0.00	0.00	0.00	
6,660.00	11.28	77.84	6,577.21	180.51	837.45	-54.68	0.00	0.00	0.00	
6,675.00	11.28	77.84	6,591.92	181.12	840.32	-54.87	0.00	0.00	0.00	
6,690.00	11.28	77.84	6,606.63	181.74	843.19	-55.05	0.00	0.00	0.00	
6,705.00	11.28	77.84	6,621.34	182.36	846.05	-55.24	0.00	0.00	0.00	
6,720.00	11.28	77.84	6,636.05	182.98	848.92	-55.43	0.00	0.00	0.00	
6,735.00	11.28	77.84	6,650.76	183.60	851.79	-55.62	0.00	0.00	0.00	
6,750.00	11.28	77.84	6,665.47	184.22	854.66	-55.80	0.00	0.00	0.00	
6,765.00	11.28	77.84	6,680.18	184.83	857.53	-55.99	0.00	0.00	0.00	
6,780.00	11.28	77.84	6,694.89	185.45	860.40	-56.18	0.00	0.00	0.00	
6,795.00	11.28	77.84	6,709.60	186.07	863.27	-56.37	0.00	0.00	0.00	
6,810.00	11.28	77.84	6,724.31	186.69	866.14	-56.55	0.00	0.00	0.00	
6,825.00	11.28	77.84	6,739.02	187.31	869.00	-56.74	0.00	0.00	0.00	
6,840.00	11.28	77.84	6,753.73	187.93	871.87	-56.93	0.00	0.00	0.00	
6,855.00	11.28	77.84	6,768.44	188.54	874.74	-57.11	0.00	0.00	0.00	
6,870.00	11.28	77.84	6,783.15	189.16	877.61	-57.30	0.00	0.00	0.00	
6,885.00	11.28	77.84	6,797.86	189.78	880.48	-57.49	0.00	0.00	0.00	
6,900.00	11.28	77.84	6,812.57	190.40	883.35	-57.68	0.00	0.00	0.00	
6,915.00	11.28	77.84	6,827.28	191.02	886.22	-57.86	0.00	0.00	0.00	
6,930.00	11.28	77.84	6,841.99	191.64	889.09	-58.05	0.00	0.00	0.00	
6,945.00	11.28	77.84	6,856.70	192.25	891.95	-58.24	0.00	0.00	0.00	
6,960.00	11.28	77.84	6,871.41	192.87	894.82	-58.43	0.00	0.00	0.00	
6,975.00	11.28	77.84	6,886.12	193.49	897.69	-58.61	0.00	0.00	0.00	
6,990.00	11.28	77.84	6,900.83	194.11	900.56	-58.80	0.00	0.00	0.00	
7,005.00	11.28	77.84	6,915.54	194.73	903.43	-58.99	0.00	0.00	0.00	
7,020.00	11.28	77.84	6,930.26	195.35	906.30	-59.18	0.00	0.00	0.00	
7,035.00	11.28	77.84	6,944.97	195.96	909.17	-59.36	0.00	0.00	0.00	
7,050.00	11.28	77.84	6,959.68	196.58	912.03	-59.55	0.00	0.00	0.00	
7,065.00	11.28	77.84	6,974.39	197.20	914.90	-59.74	0.00	0.00	0.00	
7,080.00	11.28	77.84	6,989.10	197.82	917.77	-59.92	0.00	0.00	0.00	
7,095.00	11.28	77.84	7,003.81	198.44	920.64	-60.11	0.00	0.00	0.00	
7,110.00	11.28	77.84	7,018.52	199.06	923.51	-60.30	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
7,125.00	11.28	77.84	7,033.23	199.67	926.38	-60.49	0.00	0.00	0.00	
7,140.00	11.28	77.84	7,047.94	200.29	929.25	-60.67	0.00	0.00	0.00	
7,155.00	11.28	77.84	7,062.65	200.91	932.12	-60.86	0.00	0.00	0.00	
7,170.00	11.28	77.84	7,077.36	201.53	934.98	-61.05	0.00	0.00	0.00	
7,185.00	11.28	77.84	7,092.07	202.15	937.85	-61.24	0.00	0.00	0.00	
7,200.00	11.28	77.84	7,106.78	202.77	940.72	-61.42	0.00	0.00	0.00	
7,215.00	11.28	77.84	7,121.49	203.38	943.59	-61.61	0.00	0.00	0.00	
7,230.00	11.28	77.84	7,136.20	204.00	946.46	-61.80	0.00	0.00	0.00	
7,245.00	11.28	77.84	7,150.91	204.62	949.33	-61.98	0.00	0.00	0.00	
7,260.00	11.28	77.84	7,165.62	205.24	952.20	-62.17	0.00	0.00	0.00	
7,275.00	11.28	77.84	7,180.33	205.86	955.07	-62.36	0.00	0.00	0.00	
7,290.00	11.28	77.84	7,195.04	206.48	957.93	-62.55	0.00	0.00	0.00	
7,305.00	11.28	77.84	7,209.75	207.09	960.80	-62.73	0.00	0.00	0.00	
7,320.00	11.28	77.84	7,224.46	207.71	963.67	-62.92	0.00	0.00	0.00	
7,335.00	11.28	77.84	7,239.17	208.33	966.54	-63.11	0.00	0.00	0.00	
7,350.00	11.28	77.84	7,253.88	208.95	969.41	-63.30	0.00	0.00	0.00	
7,365.00	11.28	77.84	7,268.59	209.57	972.28	-63.48	0.00	0.00	0.00	
7,380.00	11.28	77.84	7,283.30	210.19	975.15	-63.67	0.00	0.00	0.00	
7,395.00	11.28	77.84	7,298.01	210.80	978.02	-63.86	0.00	0.00	0.00	
7,410.00	11.28	77.84	7,312.72	211.42	980.88	-64.05	0.00	0.00	0.00	
7,425.00	11.28	77.84	7,327.43	212.04	983.75	-64.23	0.00	0.00	0.00	
7,440.00	11.28	77.84	7,342.14	212.66	986.62	-64.42	0.00	0.00	0.00	
7,455.00	11.28	77.84	7,356.85	213.28	989.49	-64.61	0.00	0.00	0.00	
7,470.00	11.28	77.84	7,371.56	213.90	992.36	-64.79	0.00	0.00	0.00	
7,485.00	11.28	77.84	7,386.27	214.51	995.23	-64.98	0.00	0.00	0.00	
7,500.00	11.28	77.84	7,400.98	215.13	998.10	-65.17	0.00	0.00	0.00	
7,515.00	11.28	77.84	7,415.69	215.75	1,000.97	-65.36	0.00	0.00	0.00	
7,530.00	11.28	77.84	7,430.40	216.37	1,003.83	-65.54	0.00	0.00	0.00	
7,545.00	11.28	77.84	7,445.11	216.99	1,006.70	-65.73	0.00	0.00	0.00	
7,560.00	11.28	77.84	7,459.82	217.61	1,009.57	-65.92	0.00	0.00	0.00	
7,575.00	11.28	77.84	7,474.53	218.22	1,012.44	-66.11	0.00	0.00	0.00	
7,590.00	11.28	77.84	7,489.24	218.84	1,015.31	-66.29	0.00	0.00	0.00	
7,605.00	11.28	77.84	7,503.95	219.46	1,018.18	-66.48	0.00	0.00	0.00	
7,620.00	11.28	77.84	7,518.66	220.08	1,021.05	-66.67	0.00	0.00	0.00	
7,635.00	11.28	77.84	7,533.37	220.70	1,023.92	-66.85	0.00	0.00	0.00	
7,650.00	11.28	77.84	7,548.08	221.32	1,026.78	-67.04	0.00	0.00	0.00	
7,665.00	11.28	77.84	7,562.79	221.93	1,029.65	-67.23	0.00	0.00	0.00	
7,680.00	11.28	77.84	7,577.50	222.55	1,032.52	-67.42	0.00	0.00	0.00	
7,695.00	11.28	77.84	7,592.21	223.17	1,035.39	-67.60	0.00	0.00	0.00	
7,710.00	11.28	77.84	7,606.92	223.79	1,038.26	-67.79	0.00	0.00	0.00	
7,725.00	11.28	77.84	7,621.63	224.41	1,041.13	-67.98	0.00	0.00	0.00	
7,740.00	11.28	77.84	7,636.34	225.03	1,044.00	-68.17	0.00	0.00	0.00	
7,755.00	11.28	77.84	7,651.05	225.64	1,046.86	-68.35	0.00	0.00	0.00	
7,770.00	11.28	77.84	7,665.76	226.26	1,049.73	-68.54	0.00	0.00	0.00	
7,785.00	11.28	77.84	7,680.47	226.88	1,052.60	-68.73	0.00	0.00	0.00	
7,800.00	11.28	77.84	7,695.18	227.50	1,055.47	-68.92	0.00	0.00	0.00	
7,815.00	11.28	77.84	7,709.89	228.12	1,058.34	-69.10	0.00	0.00	0.00	
7,830.00	11.28	77.84	7,724.60	228.74	1,061.21	-69.29	0.00	0.00	0.00	
7,845.00	11.28	77.84	7,739.31	229.35	1,064.08	-69.48	0.00	0.00	0.00	
7,860.00	11.28	77.84	7,754.02	229.97	1,066.95	-69.66	0.00	0.00	0.00	
7,875.00	11.28	77.84	7,768.73	230.59	1,069.81	-69.85	0.00	0.00	0.00	
7,890.00	11.28	77.84	7,783.44	231.21	1,072.68	-70.04	0.00	0.00	0.00	
7,905.00	11.28	77.84	7,798.15	231.83	1,075.55	-70.23	0.00	0.00	0.00	

ConocoPhillips Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
7,920.00	11.28	77.84	7,812.86	232.45	1,078.42	-70.41	0.00	0.00	0.00	
7,935.00	11.28	77.84	7,827.57	233.06	1,081.29	-70.60	0.00	0.00	0.00	
7,950.00	11.28	77.84	7,842.28	233.68	1,084.16	-70.79	0.00	0.00	0.00	
7,965.00	11.28	77.84	7,856.99	234.30	1,087.03	-70.98	0.00	0.00	0.00	
7,980.00	11.28	77.84	7,871.70	234.92	1,089.90	-71.16	0.00	0.00	0.00	
7,995.00	11.28	77.84	7,886.41	235.54	1,092.76	-71.35	0.00	0.00	0.00	
8,010.00	11.28	77.84	7,901.12	236.16	1,095.63	-71.54	0.00	0.00	0.00	
8,025.00	11.28	77.84	7,915.83	236.77	1,098.50	-71.72	0.00	0.00	0.00	
8,040.00	11.28	77.84	7,930.54	237.39	1,101.37	-71.91	0.00	0.00	0.00	
8,055.00	11.28	77.84	7,945.25	238.01	1,104.24	-72.10	0.00	0.00	0.00	
8,070.00	11.28	77.84	7,959.96	238.63	1,107.11	-72.29	0.00	0.00	0.00	
8,085.00	11.28	77.84	7,974.67	239.25	1,109.98	-72.47	0.00	0.00	0.00	
8,100.00	11.28	77.84	7,989.38	239.87	1,112.85	-72.66	0.00	0.00	0.00	
8,115.00	11.28	77.84	8,004.10	240.48	1,115.71	-72.85	0.00	0.00	0.00	
8,130.00	11.28	77.84	8,018.81	241.10	1,118.58	-73.04	0.00	0.00	0.00	
8,145.00	11.28	77.84	8,033.52	241.72	1,121.45	-73.22	0.00	0.00	0.00	
8,160.00	11.28	77.84	8,048.23	242.34	1,124.32	-73.41	0.00	0.00	0.00	
8,175.00	11.28	77.84	8,062.94	242.96	1,127.19	-73.60	0.00	0.00	0.00	
8,190.00	11.28	77.84	8,077.65	243.58	1,130.06	-73.79	0.00	0.00	0.00	
8,205.00	11.28	77.84	8,092.36	244.19	1,132.93	-73.97	0.00	0.00	0.00	
8,220.00	11.28	77.84	8,107.07	244.81	1,135.80	-74.16	0.00	0.00	0.00	
8,235.00	11.28	77.84	8,121.78	245.43	1,138.66	-74.35	0.00	0.00	0.00	
8,250.00	11.28	77.84	8,136.49	246.05	1,141.53	-74.53	0.00	0.00	0.00	
8,265.00	11.28	77.84	8,151.20	246.67	1,144.40	-74.72	0.00	0.00	0.00	
8,280.00	11.28	77.84	8,165.91	247.29	1,147.27	-74.91	0.00	0.00	0.00	
8,295.00	11.28	77.84	8,180.62	247.90	1,150.14	-75.10	0.00	0.00	0.00	
8,310.00	11.28	77.84	8,195.33	248.52	1,153.01	-75.28	0.00	0.00	0.00	
8,325.00	11.28	77.84	8,210.04	249.14	1,155.88	-75.47	0.00	0.00	0.00	
8,340.00	11.28	77.84	8,224.75	249.76	1,158.74	-75.66	0.00	0.00	0.00	
8,355.00	11.28	77.84	8,239.46	250.38	1,161.61	-75.85	0.00	0.00	0.00	
8,370.00	11.28	77.84	8,254.17	251.00	1,164.48	-76.03	0.00	0.00	0.00	
8,385.00	11.28	77.84	8,268.88	251.61	1,167.35	-76.22	0.00	0.00	0.00	
8,400.00	11.28	77.84	8,283.59	252.23	1,170.22	-76.41	0.00	0.00	0.00	
8,415.00	11.28	77.84	8,298.30	252.85	1,173.09	-76.59	0.00	0.00	0.00	
8,430.00	11.28	77.84	8,313.01	253.47	1,175.96	-76.78	0.00	0.00	0.00	
8,445.00	11.28	77.84	8,327.72	254.09	1,178.83	-76.97	0.00	0.00	0.00	
8,460.00	11.28	77.84	8,342.43	254.71	1,181.69	-77.16	0.00	0.00	0.00	
8,475.00	11.28	77.84	8,357.14	255.32	1,184.56	-77.34	0.00	0.00	0.00	
8,490.00	11.28	77.84	8,371.85	255.94	1,187.43	-77.53	0.00	0.00	0.00	
8,505.00	11.28	77.84	8,386.56	256.56	1,190.30	-77.72	0.00	0.00	0.00	
8,520.00	11.28	77.84	8,401.27	257.18	1,193.17	-77.91	0.00	0.00	0.00	
8,535.00	11.28	77.84	8,415.98	257.80	1,196.04	-78.09	0.00	0.00	0.00	
8,550.00	11.28	77.84	8,430.69	258.42	1,198.91	-78.28	0.00	0.00	0.00	
8,565.00	11.28	77.84	8,445.40	259.03	1,201.78	-78.47	0.00	0.00	0.00	
8,580.00	11.28	77.84	8,460.11	259.65	1,204.64	-78.66	0.00	0.00	0.00	
8,595.00	11.28	77.84	8,474.82	260.27	1,207.51	-78.84	0.00	0.00	0.00	
8,610.00	11.28	77.84	8,489.53	260.89	1,210.38	-79.03	0.00	0.00	0.00	
8,625.00	11.28	77.84	8,504.24	261.51	1,213.25	-79.22	0.00	0.00	0.00	
8,640.00	11.28	77.84	8,518.95	262.13	1,216.12	-79.40	0.00	0.00	0.00	
8,655.00	11.28	77.84	8,533.66	262.75	1,218.99	-79.59	0.00	0.00	0.00	
8,670.00	11.28	77.84	8,548.37	263.36	1,221.86	-79.78	0.00	0.00	0.00	
8,685.00	11.28	77.84	8,563.08	263.98	1,224.73	-79.97	0.00	0.00	0.00	
8,700.00	11.28	77.84	8,577.79	264.60	1,227.59	-80.15	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
8,715.00	11.28	77.84	8,592.50	265.22	1,230.46	-80.34	0.00	0.00	0.00	
8,730.00	11.28	77.84	8,607.21	265.84	1,233.33	-80.53	0.00	0.00	0.00	
8,745.00	11.28	77.84	8,621.92	266.46	1,236.20	-80.72	0.00	0.00	0.00	
8,760.00	11.28	77.84	8,636.63	267.07	1,239.07	-80.90	0.00	0.00	0.00	
8,775.00	11.28	77.84	8,651.34	267.69	1,241.94	-81.09	0.00	0.00	0.00	
8,790.00	11.28	77.84	8,666.05	268.31	1,244.81	-81.28	0.00	0.00	0.00	
8,805.00	11.28	77.84	8,680.76	268.93	1,247.68	-81.47	0.00	0.00	0.00	
8,820.00	11.28	77.84	8,695.47	269.55	1,250.54	-81.65	0.00	0.00	0.00	
8,835.00	11.28	77.84	8,710.18	270.17	1,253.41	-81.84	0.00	0.00	0.00	
8,850.00	11.28	77.84	8,724.89	270.78	1,256.28	-82.03	0.00	0.00	0.00	
8,865.00	11.28	77.84	8,739.60	271.40	1,259.15	-82.21	0.00	0.00	0.00	
8,880.00	11.28	77.84	8,754.31	272.02	1,262.02	-82.40	0.00	0.00	0.00	
8,895.00	11.28	77.84	8,769.02	272.64	1,264.89	-82.59	0.00	0.00	0.00	
8,910.00	11.28	77.84	8,783.73	273.26	1,267.76	-82.78	0.00	0.00	0.00	
8,925.00	11.28	77.84	8,798.44	273.88	1,270.62	-82.96	0.00	0.00	0.00	
8,940.00	11.28	77.84	8,813.15	274.49	1,273.49	-83.15	0.00	0.00	0.00	
8,955.00	11.28	77.84	8,827.86	275.11	1,276.36	-83.34	0.00	0.00	0.00	
8,970.00	11.28	77.84	8,842.57	275.73	1,279.23	-83.53	0.00	0.00	0.00	
8,985.00	11.28	77.84	8,857.28	276.35	1,282.10	-83.71	0.00	0.00	0.00	
9,000.00	11.28	77.84	8,871.99	276.97	1,284.97	-83.90	0.00	0.00	0.00	
9,015.00	11.28	77.84	8,886.70	277.59	1,287.84	-84.09	0.00	0.00	0.00	
9,030.00	11.28	77.84	8,901.41	278.20	1,290.71	-84.27	0.00	0.00	0.00	
9,045.00	11.28	77.84	8,916.12	278.82	1,293.57	-84.46	0.00	0.00	0.00	
9,060.00	11.28	77.84	8,930.83	279.44	1,296.44	-84.65	0.00	0.00	0.00	
9,075.00	11.28	77.84	8,945.54	280.06	1,299.31	-84.84	0.00	0.00	0.00	
9,090.00	11.28	77.84	8,960.25	280.68	1,302.18	-85.02	0.00	0.00	0.00	
9,105.00	11.28	77.84	8,974.96	281.30	1,305.05	-85.21	0.00	0.00	0.00	
9,120.00	11.28	77.84	8,989.67	281.91	1,307.92	-85.40	0.00	0.00	0.00	
9,135.00	11.28	77.84	9,004.38	282.53	1,310.79	-85.59	0.00	0.00	0.00	
9,150.00	11.28	77.84	9,019.09	283.15	1,313.66	-85.77	0.00	0.00	0.00	
9,165.00	11.28	77.84	9,033.80	283.77	1,316.52	-85.96	0.00	0.00	0.00	
9,180.00	11.28	77.84	9,048.51	284.39	1,319.39	-86.15	0.00	0.00	0.00	
9,195.00	11.28	77.84	9,063.22	285.01	1,322.26	-86.34	0.00	0.00	0.00	
9,210.00	11.28	77.84	9,077.94	285.62	1,325.13	-86.52	0.00	0.00	0.00	
9,211.15	11.28	77.84	9,079.07	285.67	1,325.35	-86.54	0.00	0.00	0.00	
9,225.00	11.14	77.84	9,092.65	286.24	1,327.98	-86.71	1.00	-1.00	0.00	
9,240.00	10.99	77.84	9,107.37	286.85	1,330.80	-86.89	1.00	-1.00	0.00	
9,255.00	10.84	77.84	9,122.10	287.44	1,333.58	-87.07	1.00	-1.00	0.00	
9,270.00	10.69	77.84	9,136.83	288.03	1,336.32	-87.25	1.00	-1.00	0.00	
9,285.00	10.54	77.84	9,151.58	288.62	1,339.02	-87.43	1.00	-1.00	0.00	
9,300.00	10.39	77.84	9,166.33	289.19	1,341.68	-87.60	1.00	-1.00	0.00	
9,315.00	10.24	77.84	9,181.08	289.76	1,344.31	-87.77	1.00	-1.00	0.00	
9,330.00	10.09	77.84	9,195.85	290.31	1,346.90	-87.94	1.00	-1.00	0.00	
9,345.00	9.94	77.84	9,210.62	290.86	1,349.45	-88.11	1.00	-1.00	0.00	
9,360.00	9.79	77.84	9,225.40	291.41	1,351.96	-88.27	1.00	-1.00	0.00	
9,375.00	9.64	77.84	9,240.18	291.94	1,354.44	-88.44	1.00	-1.00	0.00	
9,390.00	9.49	77.84	9,254.97	292.47	1,356.87	-88.59	1.00	-1.00	0.00	
9,405.00	9.34	77.84	9,269.77	292.98	1,359.27	-88.75	1.00	-1.00	0.00	
9,420.00	9.19	77.84	9,284.58	293.49	1,361.64	-88.91	1.00	-1.00	0.00	
9,435.00	9.04	77.84	9,299.39	293.99	1,363.96	-89.06	1.00	-1.00	0.00	
9,450.00	8.89	77.84	9,314.20	294.49	1,366.24	-89.21	1.00	-1.00	0.00	
9,465.00	8.74	77.84	9,329.03	294.97	1,368.49	-89.35	1.00	-1.00	0.00	
9,480.00	8.59	77.84	9,343.85	295.45	1,370.70	-89.50	1.00	-1.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
9,495.00	8.44	77.84	9,358.69	295.91	1,372.88	-89.64	1.00	-1.00	0.00	
9,510.00	8.29	77.84	9,373.53	296.37	1,375.01	-89.78	1.00	-1.00	0.00	
9,525.00	8.14	77.84	9,388.38	296.83	1,377.11	-89.92	1.00	-1.00	0.00	
9,540.00	7.99	77.84	9,403.23	297.27	1,379.16	-90.05	1.00	-1.00	0.00	
9,555.00	7.84	77.84	9,418.08	297.71	1,381.18	-90.18	1.00	-1.00	0.00	
9,570.00	7.69	77.84	9,432.95	298.13	1,383.17	-90.31	1.00	-1.00	0.00	
9,585.00	7.54	77.84	9,447.81	298.55	1,385.11	-90.44	1.00	-1.00	0.00	
9,600.00	7.39	77.84	9,462.69	298.96	1,387.02	-90.56	1.00	-1.00	0.00	
9,615.00	7.24	77.84	9,477.56	299.36	1,388.88	-90.68	1.00	-1.00	0.00	
9,630.00	7.09	77.84	9,492.45	299.76	1,390.71	-90.80	1.00	-1.00	0.00	
9,645.00	6.94	77.84	9,507.33	300.15	1,392.51	-90.92	1.00	-1.00	0.00	
9,660.00	6.79	77.84	9,522.23	300.52	1,394.26	-91.04	1.00	-1.00	0.00	
9,675.00	6.64	77.84	9,537.12	300.89	1,395.97	-91.15	1.00	-1.00	0.00	
9,690.00	6.49	77.84	9,552.03	301.25	1,397.65	-91.26	1.00	-1.00	0.00	
9,705.00	6.34	77.84	9,566.93	301.61	1,399.29	-91.36	1.00	-1.00	0.00	
9,720.00	6.19	77.84	9,581.84	301.95	1,400.89	-91.47	1.00	-1.00	0.00	
9,735.00	6.04	77.84	9,596.76	302.29	1,402.45	-91.57	1.00	-1.00	0.00	
9,750.00	5.89	77.84	9,611.67	302.62	1,403.98	-91.67	1.00	-1.00	0.00	
9,765.00	5.74	77.84	9,626.60	302.94	1,405.47	-91.77	1.00	-1.00	0.00	
9,780.00	5.59	77.84	9,641.52	303.25	1,406.91	-91.86	1.00	-1.00	0.00	
9,795.00	5.44	77.84	9,656.45	303.56	1,408.32	-91.95	1.00	-1.00	0.00	
9,810.00	5.29	77.84	9,671.39	303.85	1,409.70	-92.04	1.00	-1.00	0.00	
9,825.00	5.14	77.84	9,686.33	304.14	1,411.03	-92.13	1.00	-1.00	0.00	
9,840.00	4.99	77.84	9,701.27	304.42	1,412.33	-92.22	1.00	-1.00	0.00	
9,855.00	4.84	77.84	9,716.21	304.69	1,413.58	-92.30	1.00	-1.00	0.00	
9,870.00	4.69	77.84	9,731.16	304.95	1,414.80	-92.38	1.00	-1.00	0.00	
9,885.00	4.54	77.84	9,746.11	305.21	1,415.98	-92.45	1.00	-1.00	0.00	
9,900.00	4.39	77.84	9,761.07	305.45	1,417.13	-92.53	1.00	-1.00	0.00	
9,915.00	4.24	77.84	9,776.02	305.69	1,418.23	-92.60	1.00	-1.00	0.00	
9,930.00	4.09	77.84	9,790.98	305.92	1,419.30	-92.67	1.00	-1.00	0.00	
9,945.00	3.94	77.84	9,805.95	306.14	1,420.32	-92.74	1.00	-1.00	0.00	
9,960.00	3.79	77.84	9,820.91	306.35	1,421.31	-92.80	1.00	-1.00	0.00	
9,975.00	3.64	77.84	9,835.88	306.56	1,422.26	-92.86	1.00	-1.00	0.00	
9,990.00	3.49	77.84	9,850.85	306.76	1,423.18	-92.92	1.00	-1.00	0.00	
10,005.00	3.34	77.84	9,865.83	306.94	1,424.05	-92.98	1.00	-1.00	0.00	
10,020.00	3.19	77.84	9,880.80	307.13	1,424.89	-93.04	1.00	-1.00	0.00	
10,035.00	3.04	77.84	9,895.78	307.30	1,425.68	-93.09	1.00	-1.00	0.00	
10,050.00	2.89	77.84	9,910.76	307.46	1,426.44	-93.14	1.00	-1.00	0.00	
10,065.00	2.74	77.84	9,925.74	307.62	1,427.16	-93.18	1.00	-1.00	0.00	
10,080.00	2.59	77.84	9,940.72	307.76	1,427.85	-93.23	1.00	-1.00	0.00	
10,095.00	2.44	77.84	9,955.71	307.90	1,428.49	-93.27	1.00	-1.00	0.00	
10,110.00	2.29	77.84	9,970.70	308.03	1,429.10	-93.31	1.00	-1.00	0.00	
10,125.00	2.14	77.84	9,985.69	308.16	1,429.67	-93.35	1.00	-1.00	0.00	
10,140.00	1.99	77.84	10,000.68	308.27	1,430.19	-93.38	1.00	-1.00	0.00	
10,155.00	1.84	77.84	10,015.67	308.38	1,430.69	-93.41	1.00	-1.00	0.00	
10,170.00	1.69	77.84	10,030.66	308.47	1,431.14	-93.44	1.00	-1.00	0.00	
10,185.00	1.54	77.84	10,045.65	308.56	1,431.55	-93.47	1.00	-1.00	0.00	
10,200.00	1.39	77.84	10,060.65	308.64	1,431.93	-93.50	1.00	-1.00	0.00	
10,215.00	1.24	77.84	10,075.65	308.72	1,432.27	-93.52	1.00	-1.00	0.00	
10,230.00	1.09	77.84	10,090.64	308.78	1,432.56	-93.54	1.00	-1.00	0.00	
10,245.00	0.94	77.84	10,105.64	308.84	1,432.83	-93.55	1.00	-1.00	0.00	
10,260.00	0.79	77.84	10,120.64	308.88	1,433.05	-93.57	1.00	-1.00	0.00	
10,275.00	0.64	77.84	10,135.64	308.92	1,433.23	-93.58	1.00	-1.00	0.00	

ConocoPhillips Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
10,290.00	0.49	77.84	10,150.64	308.96	1,433.38	-93.59	1.00	-1.00	0.00	
10,305.00	0.34	77.84	10,165.64	308.98	1,433.48	-93.60	1.00	-1.00	0.00	
10,320.00	0.19	77.84	10,180.64	308.99	1,433.55	-93.60	1.00	-1.00	0.00	
10,335.00	0.04	77.84	10,195.64	309.00	1,433.58	-93.60	1.00	-1.00	0.00	
10,339.36	0.00	0.00	10,200.00	309.00	1,433.58	-93.60	1.00	-1.00	0.00	
10,350.00	0.00	0.00	10,210.64	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,365.00	0.00	0.00	10,225.64	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,380.00	0.00	0.00	10,240.64	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,395.00	0.00	0.00	10,255.64	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,410.00	0.00	0.00	10,270.64	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,424.90	0.00	0.00	10,285.54	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,425.00	0.00	179.58	10,285.64	309.00	1,433.58	-93.60	0.00	0.00	0.00	
10,440.00	1.81	179.58	10,300.63	308.76	1,433.59	-93.37	12.08	12.08	0.00	
10,455.00	3.61	179.58	10,315.62	308.05	1,433.59	-92.66	12.00	12.00	0.00	
10,470.00	5.41	179.58	10,330.57	306.87	1,433.60	-91.50	12.00	12.00	0.00	
10,485.00	7.21	179.58	10,345.48	305.22	1,433.61	-89.86	12.00	12.00	0.00	
10,500.00	9.01	179.58	10,360.33	303.11	1,433.63	-87.77	12.00	12.00	0.00	
10,515.00	10.81	179.58	10,375.10	300.53	1,433.65	-85.21	12.00	12.00	0.00	
10,530.00	12.61	179.58	10,389.79	297.48	1,433.67	-82.20	12.00	12.00	0.00	
10,545.00	14.41	179.58	10,404.37	293.98	1,433.69	-78.73	12.00	12.00	0.00	
10,560.00	16.21	179.58	10,418.84	290.02	1,433.72	-74.81	12.00	12.00	0.00	
10,575.00	18.01	179.58	10,433.18	285.60	1,433.76	-70.44	12.00	12.00	0.00	
10,590.00	19.81	179.58	10,447.37	280.74	1,433.79	-65.62	12.00	12.00	0.00	
10,605.00	21.61	179.58	10,461.40	275.44	1,433.83	-60.37	12.00	12.00	0.00	
10,620.00	23.41	179.58	10,475.25	269.69	1,433.87	-54.69	12.00	12.00	0.00	
10,635.00	25.21	179.58	10,488.92	263.52	1,433.92	-48.57	12.00	12.00	0.00	
10,650.00	27.01	179.58	10,502.39	256.92	1,433.97	-42.04	12.00	12.00	0.00	
10,665.00	28.81	179.58	10,515.64	249.90	1,434.02	-35.09	12.00	12.00	0.00	
10,680.00	30.61	179.58	10,528.67	242.46	1,434.07	-27.73	12.00	12.00	0.00	
10,695.00	32.41	179.58	10,541.46	234.62	1,434.13	-19.96	12.00	12.00	0.00	
10,710.00	34.21	179.58	10,553.99	226.39	1,434.19	-11.81	12.00	12.00	0.00	
10,725.00	36.01	179.58	10,566.26	217.76	1,434.25	-3.27	12.00	12.00	0.00	
10,740.00	37.81	179.58	10,578.26	208.75	1,434.32	5.65	12.00	12.00	0.00	
10,755.00	39.61	179.58	10,589.96	199.37	1,434.39	14.94	12.00	12.00	0.00	
10,770.00	41.41	179.58	10,601.37	189.63	1,434.46	24.59	12.00	12.00	0.00	
10,785.00	43.21	179.58	10,612.46	179.53	1,434.53	34.58	12.00	12.00	0.00	
10,800.00	45.01	179.58	10,623.23	169.09	1,434.61	44.92	12.00	12.00	0.00	
10,815.00	46.81	179.58	10,633.66	158.32	1,434.69	55.59	12.00	12.00	0.00	
10,830.00	48.61	179.58	10,643.76	147.22	1,434.77	66.57	12.00	12.00	0.00	
10,845.00	50.41	179.58	10,653.49	135.81	1,434.85	77.87	12.00	12.00	0.00	
10,860.00	52.21	179.58	10,662.87	124.11	1,434.94	89.46	12.00	12.00	0.00	
10,875.00	54.01	179.58	10,671.87	112.11	1,435.02	101.33	12.00	12.00	0.00	
10,890.00	55.81	179.58	10,680.50	99.84	1,435.11	113.49	12.00	12.00	0.00	
10,905.00	57.61	179.58	10,688.73	87.30	1,435.21	125.90	12.00	12.00	0.00	
10,920.00	59.41	179.58	10,696.56	74.51	1,435.30	138.56	12.00	12.00	0.00	
10,935.00	61.21	179.58	10,703.99	61.48	1,435.39	151.46	12.00	12.00	0.00	
10,950.00	63.01	179.58	10,711.01	48.22	1,435.49	164.59	12.00	12.00	0.00	
10,965.00	64.81	179.58	10,717.60	34.75	1,435.59	177.93	12.00	12.00	0.00	
10,980.00	66.61	179.58	10,723.77	21.08	1,435.69	191.46	12.00	12.00	0.00	
10,995.00	68.41	179.58	10,729.51	7.22	1,435.79	205.18	12.00	12.00	0.00	
11,010.00	70.21	179.58	10,734.81	-6.81	1,435.89	219.08	12.00	12.00	0.00	
11,025.00	72.01	179.58	10,739.67	-21.00	1,436.00	233.13	12.00	12.00	0.00	
11,040.00	73.81	179.58	10,744.07	-35.34	1,436.10	247.32	12.00	12.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
11,055.00	75.61	179.58	10,748.03	-49.81	1,436.21	261.65	12.00	12.00	0.00	
11,070.00	77.41	179.58	10,751.53	-64.39	1,436.32	276.09	12.00	12.00	0.00	
11,085.00	79.21	179.58	10,754.57	-79.08	1,436.42	290.63	12.00	12.00	0.00	
11,100.00	81.01	179.58	10,757.14	-93.86	1,436.53	305.26	12.00	12.00	0.00	
11,115.00	82.81	179.58	10,759.25	-108.71	1,436.64	319.96	12.00	12.00	0.00	
11,130.00	84.61	179.58	10,760.90	-123.62	1,436.75	334.72	12.00	12.00	0.00	
11,145.00	86.41	179.58	10,762.07	-138.57	1,436.86	349.53	12.00	12.00	0.00	
11,160.00	88.21	179.58	10,762.77	-153.55	1,436.97	364.36	12.00	12.00	0.00	
11,174.90	90.00	179.58	10,763.01	-168.45	1,437.08	379.12	12.00	12.00	0.00	
11,175.00	90.00	179.58	10,763.01	-168.55	1,437.08	379.21	0.00	0.00	0.00	
11,190.00	90.00	179.58	10,763.01	-183.55	1,437.19	394.06	0.00	0.00	0.00	
11,205.00	90.00	179.58	10,763.01	-198.55	1,437.30	408.91	0.00	0.00	0.00	
11,220.00	90.00	179.58	10,763.01	-213.55	1,437.41	423.76	0.00	0.00	0.00	
11,235.00	90.00	179.58	10,763.01	-228.55	1,437.52	438.61	0.00	0.00	0.00	
11,250.00	90.00	179.58	10,763.01	-243.55	1,437.63	453.46	0.00	0.00	0.00	
11,265.00	90.00	179.58	10,763.01	-258.55	1,437.73	468.32	0.00	0.00	0.00	
11,280.00	90.00	179.58	10,763.01	-273.55	1,437.84	483.17	0.00	0.00	0.00	
11,295.00	90.00	179.58	10,763.01	-288.54	1,437.95	498.02	0.00	0.00	0.00	
11,310.00	90.00	179.58	10,763.00	-303.54	1,438.06	512.87	0.00	0.00	0.00	
11,325.00	90.00	179.58	10,763.00	-318.54	1,438.17	527.72	0.00	0.00	0.00	
11,340.00	90.00	179.58	10,763.00	-333.54	1,438.28	542.57	0.00	0.00	0.00	
11,355.00	90.00	179.58	10,763.00	-348.54	1,438.39	557.42	0.00	0.00	0.00	
11,370.00	90.00	179.58	10,763.00	-363.54	1,438.50	572.27	0.00	0.00	0.00	
11,385.00	90.00	179.58	10,763.00	-378.54	1,438.61	587.12	0.00	0.00	0.00	
11,400.00	90.00	179.58	10,763.00	-393.54	1,438.72	601.97	0.00	0.00	0.00	
11,415.00	90.00	179.58	10,763.00	-408.54	1,438.83	616.82	0.00	0.00	0.00	
11,430.00	90.00	179.58	10,763.00	-423.54	1,438.94	631.68	0.00	0.00	0.00	
11,445.00	90.00	179.58	10,763.00	-438.54	1,439.05	646.53	0.00	0.00	0.00	
11,460.00	90.00	179.58	10,763.00	-453.54	1,439.16	661.38	0.00	0.00	0.00	
11,475.00	90.00	179.58	10,763.00	-468.54	1,439.27	676.23	0.00	0.00	0.00	
11,490.00	90.00	179.58	10,763.00	-483.54	1,439.38	691.08	0.00	0.00	0.00	
11,505.00	90.00	179.58	10,763.00	-498.54	1,439.49	705.93	0.00	0.00	0.00	
11,520.00	90.00	179.58	10,763.00	-513.54	1,439.60	720.78	0.00	0.00	0.00	
11,535.00	90.00	179.58	10,763.00	-528.54	1,439.71	735.63	0.00	0.00	0.00	
11,550.00	90.00	179.58	10,763.00	-543.54	1,439.82	750.48	0.00	0.00	0.00	
11,565.00	90.00	179.58	10,763.00	-558.54	1,439.93	765.33	0.00	0.00	0.00	
11,580.00	90.00	179.58	10,763.00	-573.54	1,440.04	780.18	0.00	0.00	0.00	
11,595.00	90.00	179.58	10,763.00	-588.54	1,440.15	795.04	0.00	0.00	0.00	
11,610.00	90.00	179.58	10,763.00	-603.54	1,440.26	809.89	0.00	0.00	0.00	
11,625.00	90.00	179.58	10,763.00	-618.54	1,440.37	824.74	0.00	0.00	0.00	
11,640.00	90.00	179.58	10,763.00	-633.54	1,440.48	839.59	0.00	0.00	0.00	
11,655.00	90.00	179.58	10,763.00	-648.54	1,440.59	854.44	0.00	0.00	0.00	
11,670.00	90.00	179.58	10,763.00	-663.53	1,440.70	869.29	0.00	0.00	0.00	
11,685.00	90.00	179.58	10,763.00	-678.53	1,440.81	884.14	0.00	0.00	0.00	
11,700.00	90.00	179.58	10,763.00	-693.53	1,440.92	898.99	0.00	0.00	0.00	
11,715.00	90.00	179.58	10,763.00	-708.53	1,441.02	913.84	0.00	0.00	0.00	
11,730.00	90.00	179.58	10,763.00	-723.53	1,441.13	928.69	0.00	0.00	0.00	
11,745.00	90.00	179.58	10,763.00	-738.53	1,441.24	943.54	0.00	0.00	0.00	
11,760.00	90.00	179.58	10,763.00	-753.53	1,441.35	958.40	0.00	0.00	0.00	
11,775.00	90.00	179.58	10,763.00	-768.53	1,441.46	973.25	0.00	0.00	0.00	
11,790.00	90.00	179.58	10,763.00	-783.53	1,441.57	988.10	0.00	0.00	0.00	
11,805.00	90.00	179.58	10,763.00	-798.53	1,441.68	1,002.95	0.00	0.00	0.00	
11,820.00	90.00	179.58	10,763.00	-813.53	1,441.79	1,017.80	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
11,835.00	90.00	179.58	10,763.00	-828.53	1,441.90	1,032.65	0.00	0.00	0.00	
11,850.00	90.00	179.58	10,763.00	-843.53	1,442.01	1,047.50	0.00	0.00	0.00	
11,865.00	90.00	179.58	10,763.00	-858.53	1,442.12	1,062.35	0.00	0.00	0.00	
11,880.00	90.00	179.58	10,763.00	-873.53	1,442.23	1,077.20	0.00	0.00	0.00	
11,895.00	90.00	179.58	10,763.00	-888.53	1,442.34	1,092.05	0.00	0.00	0.00	
11,910.00	90.00	179.58	10,763.00	-903.53	1,442.45	1,106.90	0.00	0.00	0.00	
11,925.00	90.00	179.58	10,763.00	-918.53	1,442.56	1,121.76	0.00	0.00	0.00	
11,940.00	90.00	179.58	10,763.00	-933.53	1,442.67	1,136.61	0.00	0.00	0.00	
11,955.00	90.00	179.58	10,763.00	-948.53	1,442.78	1,151.46	0.00	0.00	0.00	
11,970.00	90.00	179.58	10,763.00	-963.53	1,442.89	1,166.31	0.00	0.00	0.00	
11,985.00	90.00	179.58	10,763.00	-978.53	1,443.00	1,181.16	0.00	0.00	0.00	
12,000.00	90.00	179.58	10,763.00	-993.53	1,443.11	1,196.01	0.00	0.00	0.00	
12,015.00	90.00	179.58	10,763.00	-1,008.53	1,443.22	1,210.86	0.00	0.00	0.00	
12,030.00	90.00	179.58	10,763.00	-1,023.53	1,443.33	1,225.71	0.00	0.00	0.00	
12,045.00	90.00	179.58	10,763.00	-1,038.52	1,443.44	1,240.56	0.00	0.00	0.00	
12,060.00	90.00	179.58	10,763.00	-1,053.52	1,443.55	1,255.41	0.00	0.00	0.00	
12,075.00	90.00	179.58	10,763.00	-1,068.52	1,443.66	1,270.26	0.00	0.00	0.00	
12,090.00	90.00	179.58	10,763.00	-1,083.52	1,443.77	1,285.12	0.00	0.00	0.00	
12,105.00	90.00	179.58	10,763.00	-1,098.52	1,443.88	1,299.97	0.00	0.00	0.00	
12,120.00	90.00	179.58	10,763.00	-1,113.52	1,443.99	1,314.82	0.00	0.00	0.00	
12,135.00	90.00	179.58	10,763.00	-1,128.52	1,444.10	1,329.67	0.00	0.00	0.00	
12,150.00	90.00	179.58	10,763.00	-1,143.52	1,444.21	1,344.52	0.00	0.00	0.00	
12,165.00	90.00	179.58	10,763.00	-1,158.52	1,444.32	1,359.37	0.00	0.00	0.00	
12,180.00	90.00	179.58	10,763.00	-1,173.52	1,444.42	1,374.22	0.00	0.00	0.00	
12,195.00	90.00	179.58	10,763.00	-1,188.52	1,444.53	1,389.07	0.00	0.00	0.00	
12,210.00	90.00	179.58	10,763.00	-1,203.52	1,444.64	1,403.92	0.00	0.00	0.00	
12,225.00	90.00	179.58	10,763.00	-1,218.52	1,444.75	1,418.77	0.00	0.00	0.00	
12,240.00	90.00	179.58	10,763.00	-1,233.52	1,444.86	1,433.62	0.00	0.00	0.00	
12,255.00	90.00	179.58	10,763.00	-1,248.52	1,444.97	1,448.47	0.00	0.00	0.00	
12,270.00	90.00	179.58	10,763.00	-1,263.52	1,445.08	1,463.33	0.00	0.00	0.00	
12,285.00	90.00	179.58	10,763.00	-1,278.52	1,445.19	1,478.18	0.00	0.00	0.00	
12,300.00	90.00	179.58	10,763.00	-1,293.52	1,445.30	1,493.03	0.00	0.00	0.00	
12,315.00	90.00	179.58	10,763.00	-1,308.52	1,445.41	1,507.88	0.00	0.00	0.00	
12,330.00	90.00	179.58	10,763.00	-1,323.52	1,445.52	1,522.73	0.00	0.00	0.00	
12,345.00	90.00	179.58	10,763.00	-1,338.52	1,445.63	1,537.58	0.00	0.00	0.00	
12,360.00	90.00	179.58	10,763.00	-1,353.52	1,445.74	1,552.43	0.00	0.00	0.00	
12,375.00	90.00	179.58	10,763.00	-1,368.52	1,445.85	1,567.28	0.00	0.00	0.00	
12,390.00	90.00	179.58	10,763.00	-1,383.52	1,445.96	1,582.13	0.00	0.00	0.00	
12,405.00	90.00	179.58	10,763.00	-1,398.52	1,446.07	1,596.98	0.00	0.00	0.00	
12,420.00	90.00	179.58	10,763.00	-1,413.51	1,446.18	1,611.83	0.00	0.00	0.00	
12,435.00	90.00	179.58	10,763.00	-1,428.51	1,446.29	1,626.69	0.00	0.00	0.00	
12,450.00	90.00	179.58	10,763.00	-1,443.51	1,446.40	1,641.54	0.00	0.00	0.00	
12,465.00	90.00	179.58	10,763.00	-1,458.51	1,446.51	1,656.39	0.00	0.00	0.00	
12,480.00	90.00	179.58	10,763.00	-1,473.51	1,446.62	1,671.24	0.00	0.00	0.00	
12,495.00	90.00	179.58	10,763.00	-1,488.51	1,446.73	1,686.09	0.00	0.00	0.00	
12,510.00	90.00	179.58	10,763.00	-1,503.51	1,446.84	1,700.94	0.00	0.00	0.00	
12,525.00	90.00	179.58	10,763.00	-1,518.51	1,446.95	1,715.79	0.00	0.00	0.00	
12,540.00	90.00	179.58	10,763.00	-1,533.51	1,447.06	1,730.64	0.00	0.00	0.00	
12,555.00	90.00	179.58	10,763.00	-1,548.51	1,447.17	1,745.49	0.00	0.00	0.00	
12,570.00	90.00	179.58	10,763.00	-1,563.51	1,447.28	1,760.34	0.00	0.00	0.00	
12,585.00	90.00	179.58	10,763.00	-1,578.51	1,447.39	1,775.19	0.00	0.00	0.00	
12,600.00	90.00	179.58	10,763.00	-1,593.51	1,447.50	1,790.05	0.00	0.00	0.00	
12,615.00	90.00	179.58	10,763.00	-1,608.51	1,447.61	1,804.90	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
12,630.00	90.00	179.58	10,763.00	-1,623.51	1,447.71	1,819.75	0.00	0.00	0.00	
12,645.00	90.00	179.58	10,763.00	-1,638.51	1,447.82	1,834.60	0.00	0.00	0.00	
12,660.00	90.00	179.58	10,763.00	-1,653.51	1,447.93	1,849.45	0.00	0.00	0.00	
12,675.00	90.00	179.58	10,763.00	-1,668.51	1,448.04	1,864.30	0.00	0.00	0.00	
12,690.00	90.00	179.58	10,763.00	-1,683.51	1,448.15	1,879.15	0.00	0.00	0.00	
12,705.00	90.00	179.58	10,763.00	-1,698.51	1,448.26	1,894.00	0.00	0.00	0.00	
12,720.00	90.00	179.58	10,763.00	-1,713.51	1,448.37	1,908.85	0.00	0.00	0.00	
12,735.00	90.00	179.58	10,763.00	-1,728.51	1,448.48	1,923.70	0.00	0.00	0.00	
12,750.00	90.00	179.58	10,763.00	-1,743.51	1,448.59	1,938.55	0.00	0.00	0.00	
12,765.00	90.00	179.58	10,763.00	-1,758.51	1,448.70	1,953.41	0.00	0.00	0.00	
12,780.00	90.00	179.58	10,763.00	-1,773.51	1,448.81	1,968.26	0.00	0.00	0.00	
12,795.00	90.00	179.58	10,763.00	-1,788.50	1,448.92	1,983.11	0.00	0.00	0.00	
12,810.00	90.00	179.58	10,763.00	-1,803.50	1,449.03	1,997.96	0.00	0.00	0.00	
12,825.00	90.00	179.58	10,763.00	-1,818.50	1,449.14	2,012.81	0.00	0.00	0.00	
12,840.00	90.00	179.58	10,763.00	-1,833.50	1,449.25	2,027.66	0.00	0.00	0.00	
12,855.00	90.00	179.58	10,763.00	-1,848.50	1,449.36	2,042.51	0.00	0.00	0.00	
12,870.00	90.00	179.58	10,763.00	-1,863.50	1,449.47	2,057.36	0.00	0.00	0.00	
12,885.00	90.00	179.58	10,763.00	-1,878.50	1,449.58	2,072.21	0.00	0.00	0.00	
12,900.00	90.00	179.58	10,763.00	-1,893.50	1,449.69	2,087.06	0.00	0.00	0.00	
12,915.00	90.00	179.58	10,763.00	-1,908.50	1,449.80	2,101.91	0.00	0.00	0.00	
12,930.00	90.00	179.58	10,763.00	-1,923.50	1,449.91	2,116.77	0.00	0.00	0.00	
12,945.00	90.00	179.58	10,763.00	-1,938.50	1,450.02	2,131.62	0.00	0.00	0.00	
12,960.00	90.00	179.58	10,763.00	-1,953.50	1,450.13	2,146.47	0.00	0.00	0.00	
12,975.00	90.00	179.58	10,763.00	-1,968.50	1,450.24	2,161.32	0.00	0.00	0.00	
12,990.00	90.00	179.58	10,763.00	-1,983.50	1,450.35	2,176.17	0.00	0.00	0.00	
13,005.00	90.00	179.58	10,763.00	-1,998.50	1,450.46	2,191.02	0.00	0.00	0.00	
13,020.00	90.00	179.58	10,763.00	-2,013.50	1,450.57	2,205.87	0.00	0.00	0.00	
13,035.00	90.00	179.58	10,763.00	-2,028.50	1,450.68	2,220.72	0.00	0.00	0.00	
13,050.00	90.00	179.58	10,763.00	-2,043.50	1,450.79	2,235.57	0.00	0.00	0.00	
13,065.00	90.00	179.58	10,763.00	-2,058.50	1,450.90	2,250.42	0.00	0.00	0.00	
13,080.00	90.00	179.58	10,763.00	-2,073.50	1,451.01	2,265.27	0.00	0.00	0.00	
13,095.00	90.00	179.58	10,763.00	-2,088.50	1,451.11	2,280.13	0.00	0.00	0.00	
13,110.00	90.00	179.58	10,763.00	-2,103.50	1,451.22	2,294.98	0.00	0.00	0.00	
13,125.00	90.00	179.58	10,763.00	-2,118.50	1,451.33	2,309.83	0.00	0.00	0.00	
13,140.00	90.00	179.58	10,763.00	-2,133.50	1,451.44	2,324.68	0.00	0.00	0.00	
13,155.00	90.00	179.58	10,763.00	-2,148.50	1,451.55	2,339.53	0.00	0.00	0.00	
13,170.00	90.00	179.58	10,763.00	-2,163.49	1,451.66	2,354.38	0.00	0.00	0.00	
13,185.00	90.00	179.58	10,763.00	-2,178.49	1,451.77	2,369.23	0.00	0.00	0.00	
13,200.00	90.00	179.58	10,763.00	-2,193.49	1,451.88	2,384.08	0.00	0.00	0.00	
13,215.00	90.00	179.58	10,763.00	-2,208.49	1,451.99	2,398.93	0.00	0.00	0.00	
13,230.00	90.00	179.58	10,763.00	-2,223.49	1,452.10	2,413.78	0.00	0.00	0.00	
13,245.00	90.00	179.58	10,763.00	-2,238.49	1,452.21	2,428.63	0.00	0.00	0.00	
13,260.00	90.00	179.58	10,763.00	-2,253.49	1,452.32	2,443.49	0.00	0.00	0.00	
13,275.00	90.00	179.58	10,763.00	-2,268.49	1,452.43	2,458.34	0.00	0.00	0.00	
13,290.00	90.00	179.58	10,763.00	-2,283.49	1,452.54	2,473.19	0.00	0.00	0.00	
13,305.00	90.00	179.58	10,763.00	-2,298.49	1,452.65	2,488.04	0.00	0.00	0.00	
13,320.00	90.00	179.58	10,763.00	-2,313.49	1,452.76	2,502.89	0.00	0.00	0.00	
13,335.00	90.00	179.58	10,763.00	-2,328.49	1,452.87	2,517.74	0.00	0.00	0.00	
13,350.00	90.00	179.58	10,763.00	-2,343.49	1,452.98	2,532.59	0.00	0.00	0.00	
13,365.00	90.00	179.58	10,763.00	-2,358.49	1,453.09	2,547.44	0.00	0.00	0.00	
13,380.00	90.00	179.58	10,763.00	-2,373.49	1,453.20	2,562.29	0.00	0.00	0.00	
13,395.00	90.00	179.58	10,763.00	-2,388.49	1,453.31	2,577.14	0.00	0.00	0.00	
13,410.00	90.00	179.58	10,763.00	-2,403.49	1,453.42	2,591.99	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
13,425.00	90.00	179.58	10,763.00	-2,418.49	1,453.53	2,606.85	0.00	0.00	0.00	
13,440.00	90.00	179.58	10,763.00	-2,433.49	1,453.64	2,621.70	0.00	0.00	0.00	
13,455.00	90.00	179.58	10,763.00	-2,448.49	1,453.75	2,636.55	0.00	0.00	0.00	
13,470.00	90.00	179.58	10,763.00	-2,463.49	1,453.86	2,651.40	0.00	0.00	0.00	
13,485.00	90.00	179.58	10,763.00	-2,478.49	1,453.97	2,666.25	0.00	0.00	0.00	
13,500.00	90.00	179.58	10,763.00	-2,493.49	1,454.08	2,681.10	0.00	0.00	0.00	
13,515.00	90.00	179.58	10,763.00	-2,508.49	1,454.19	2,695.95	0.00	0.00	0.00	
13,530.00	90.00	179.58	10,763.00	-2,523.49	1,454.30	2,710.80	0.00	0.00	0.00	
13,545.00	90.00	179.58	10,763.00	-2,538.48	1,454.41	2,725.65	0.00	0.00	0.00	
13,560.00	90.00	179.58	10,763.00	-2,553.48	1,454.51	2,740.50	0.00	0.00	0.00	
13,575.00	90.00	179.58	10,763.00	-2,568.48	1,454.62	2,755.35	0.00	0.00	0.00	
13,590.00	90.00	179.58	10,763.00	-2,583.48	1,454.73	2,770.21	0.00	0.00	0.00	
13,605.00	90.00	179.58	10,763.00	-2,598.48	1,454.84	2,785.06	0.00	0.00	0.00	
13,620.00	90.00	179.58	10,763.00	-2,613.48	1,454.95	2,799.91	0.00	0.00	0.00	
13,635.00	90.00	179.58	10,763.00	-2,628.48	1,455.06	2,814.76	0.00	0.00	0.00	
13,650.00	90.00	179.58	10,763.00	-2,643.48	1,455.17	2,829.61	0.00	0.00	0.00	
13,665.00	90.00	179.58	10,763.00	-2,658.48	1,455.28	2,844.46	0.00	0.00	0.00	
13,680.00	90.00	179.58	10,763.00	-2,673.48	1,455.39	2,859.31	0.00	0.00	0.00	
13,695.00	90.00	179.58	10,763.00	-2,688.48	1,455.50	2,874.16	0.00	0.00	0.00	
13,710.00	90.00	179.58	10,763.00	-2,703.48	1,455.61	2,889.01	0.00	0.00	0.00	
13,725.00	90.00	179.58	10,763.00	-2,718.48	1,455.72	2,903.86	0.00	0.00	0.00	
13,740.00	90.00	179.58	10,763.00	-2,733.48	1,455.83	2,918.71	0.00	0.00	0.00	
13,755.00	90.00	179.58	10,763.00	-2,748.48	1,455.94	2,933.57	0.00	0.00	0.00	
13,770.00	90.00	179.58	10,763.00	-2,763.48	1,456.05	2,948.42	0.00	0.00	0.00	
13,785.00	90.00	179.58	10,763.00	-2,778.48	1,456.16	2,963.27	0.00	0.00	0.00	
13,800.00	90.00	179.58	10,763.00	-2,793.48	1,456.27	2,978.12	0.00	0.00	0.00	
13,815.00	90.00	179.58	10,763.00	-2,808.48	1,456.38	2,992.97	0.00	0.00	0.00	
13,830.00	90.00	179.58	10,763.00	-2,823.48	1,456.49	3,007.82	0.00	0.00	0.00	
13,845.00	90.00	179.58	10,763.00	-2,838.48	1,456.60	3,022.67	0.00	0.00	0.00	
13,860.00	90.00	179.58	10,763.00	-2,853.48	1,456.71	3,037.52	0.00	0.00	0.00	
13,875.00	90.00	179.58	10,763.00	-2,868.48	1,456.82	3,052.37	0.00	0.00	0.00	
13,890.00	90.00	179.58	10,763.00	-2,883.48	1,456.93	3,067.22	0.00	0.00	0.00	
13,905.00	90.00	179.58	10,763.00	-2,898.48	1,457.04	3,082.07	0.00	0.00	0.00	
13,920.00	90.00	179.58	10,763.00	-2,913.47	1,457.15	3,096.93	0.00	0.00	0.00	
13,935.00	90.00	179.58	10,763.00	-2,928.47	1,457.26	3,111.78	0.00	0.00	0.00	
13,950.00	90.00	179.58	10,763.00	-2,943.47	1,457.37	3,126.63	0.00	0.00	0.00	
13,965.00	90.00	179.58	10,763.00	-2,958.47	1,457.48	3,141.48	0.00	0.00	0.00	
13,980.00	90.00	179.58	10,763.00	-2,973.47	1,457.59	3,156.33	0.00	0.00	0.00	
13,995.00	90.00	179.58	10,763.00	-2,988.47	1,457.70	3,171.18	0.00	0.00	0.00	
14,010.00	90.00	179.58	10,763.00	-3,003.47	1,457.80	3,186.03	0.00	0.00	0.00	
14,025.00	90.00	179.58	10,763.00	-3,018.47	1,457.91	3,200.88	0.00	0.00	0.00	
14,040.00	90.00	179.58	10,763.00	-3,033.47	1,458.02	3,215.73	0.00	0.00	0.00	
14,055.00	90.00	179.58	10,763.00	-3,048.47	1,458.13	3,230.58	0.00	0.00	0.00	
14,070.00	90.00	179.58	10,763.00	-3,063.47	1,458.24	3,245.43	0.00	0.00	0.00	
14,085.00	90.00	179.58	10,763.00	-3,078.47	1,458.35	3,260.28	0.00	0.00	0.00	
14,100.00	90.00	179.58	10,763.00	-3,093.47	1,458.46	3,275.14	0.00	0.00	0.00	
14,115.00	90.00	179.58	10,763.00	-3,108.47	1,458.57	3,289.99	0.00	0.00	0.00	
14,130.00	90.00	179.58	10,763.00	-3,123.47	1,458.68	3,304.84	0.00	0.00	0.00	
14,145.00	90.00	179.58	10,763.00	-3,138.47	1,458.79	3,319.69	0.00	0.00	0.00	
14,160.00	90.00	179.58	10,763.00	-3,153.47	1,458.90	3,334.54	0.00	0.00	0.00	
14,175.00	90.00	179.58	10,763.00	-3,168.47	1,459.01	3,349.39	0.00	0.00	0.00	
14,190.00	90.00	179.58	10,763.00	-3,183.47	1,459.12	3,364.24	0.00	0.00	0.00	
14,205.00	90.00	179.58	10,763.00	-3,198.47	1,459.23	3,379.09	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,220.00	90.00	179.58	10,763.00	-3,213.47	1,459.34	3,393.94	0.00	0.00	0.00	
14,235.00	90.00	179.58	10,763.00	-3,228.47	1,459.45	3,408.79	0.00	0.00	0.00	
14,250.00	90.00	179.58	10,763.00	-3,243.47	1,459.56	3,423.64	0.00	0.00	0.00	
14,265.00	90.00	179.58	10,763.00	-3,258.47	1,459.67	3,438.50	0.00	0.00	0.00	
14,280.00	90.00	179.58	10,763.00	-3,273.47	1,459.78	3,453.35	0.00	0.00	0.00	
14,295.00	90.00	179.58	10,763.00	-3,288.46	1,459.89	3,468.20	0.00	0.00	0.00	
14,310.00	90.00	179.58	10,763.00	-3,303.46	1,460.00	3,483.05	0.00	0.00	0.00	
14,325.00	90.00	179.58	10,763.00	-3,318.46	1,460.11	3,497.90	0.00	0.00	0.00	
14,340.00	90.00	179.58	10,763.00	-3,333.46	1,460.22	3,512.75	0.00	0.00	0.00	
14,355.00	90.00	179.58	10,763.00	-3,348.46	1,460.33	3,527.60	0.00	0.00	0.00	
14,370.00	90.00	179.58	10,763.00	-3,363.46	1,460.44	3,542.45	0.00	0.00	0.00	
14,385.00	90.00	179.58	10,763.00	-3,378.46	1,460.55	3,557.30	0.00	0.00	0.00	
14,400.00	90.00	179.58	10,763.00	-3,393.46	1,460.66	3,572.15	0.00	0.00	0.00	
14,415.00	90.00	179.58	10,763.00	-3,408.46	1,460.77	3,587.00	0.00	0.00	0.00	
14,430.00	90.00	179.58	10,763.00	-3,423.46	1,460.88	3,601.86	0.00	0.00	0.00	
14,445.00	90.00	179.58	10,763.00	-3,438.46	1,460.99	3,616.71	0.00	0.00	0.00	
14,460.00	90.00	179.58	10,763.00	-3,453.46	1,461.10	3,631.56	0.00	0.00	0.00	
14,475.00	90.00	179.58	10,763.00	-3,468.46	1,461.20	3,646.41	0.00	0.00	0.00	
14,490.00	90.00	179.58	10,763.00	-3,483.46	1,461.31	3,661.26	0.00	0.00	0.00	
14,505.00	90.00	179.58	10,763.00	-3,498.46	1,461.42	3,676.11	0.00	0.00	0.00	
14,520.00	90.00	179.58	10,763.00	-3,513.46	1,461.53	3,690.96	0.00	0.00	0.00	
14,535.00	90.00	179.58	10,763.00	-3,528.46	1,461.64	3,705.81	0.00	0.00	0.00	
14,550.00	90.00	179.58	10,763.00	-3,543.46	1,461.75	3,720.66	0.00	0.00	0.00	
14,565.00	90.00	179.58	10,763.00	-3,558.46	1,461.86	3,735.51	0.00	0.00	0.00	
14,580.00	90.00	179.58	10,763.00	-3,573.46	1,461.97	3,750.36	0.00	0.00	0.00	
14,595.00	90.00	179.58	10,763.00	-3,588.46	1,462.08	3,765.22	0.00	0.00	0.00	
14,610.00	90.00	179.58	10,763.00	-3,603.46	1,462.19	3,780.07	0.00	0.00	0.00	
14,625.00	90.00	179.58	10,763.00	-3,618.46	1,462.30	3,794.92	0.00	0.00	0.00	
14,640.00	90.00	179.58	10,763.00	-3,633.46	1,462.41	3,809.77	0.00	0.00	0.00	
14,655.00	90.00	179.58	10,763.00	-3,648.45	1,462.52	3,824.62	0.00	0.00	0.00	
14,670.00	90.00	179.58	10,763.00	-3,663.45	1,462.63	3,839.47	0.00	0.00	0.00	
14,685.00	90.00	179.58	10,763.00	-3,678.45	1,462.74	3,854.32	0.00	0.00	0.00	
14,700.00	90.00	179.58	10,763.00	-3,693.45	1,462.85	3,869.17	0.00	0.00	0.00	
14,715.00	90.00	179.58	10,763.00	-3,708.45	1,462.96	3,884.02	0.00	0.00	0.00	
14,730.00	90.00	179.58	10,763.00	-3,723.45	1,463.07	3,898.87	0.00	0.00	0.00	
14,745.00	90.00	179.58	10,763.00	-3,738.45	1,463.18	3,913.72	0.00	0.00	0.00	
14,760.00	90.00	179.58	10,763.00	-3,753.45	1,463.29	3,928.58	0.00	0.00	0.00	
14,775.00	90.00	179.58	10,763.00	-3,768.45	1,463.40	3,943.43	0.00	0.00	0.00	
14,790.00	90.00	179.58	10,763.00	-3,783.45	1,463.51	3,958.28	0.00	0.00	0.00	
14,805.00	90.00	179.58	10,763.00	-3,798.45	1,463.62	3,973.13	0.00	0.00	0.00	
14,820.00	90.00	179.58	10,763.00	-3,813.45	1,463.73	3,987.98	0.00	0.00	0.00	
14,835.00	90.00	179.58	10,763.00	-3,828.45	1,463.84	4,002.83	0.00	0.00	0.00	
14,850.00	90.00	179.58	10,763.00	-3,843.45	1,463.95	4,017.68	0.00	0.00	0.00	
14,865.00	90.00	179.58	10,763.00	-3,858.45	1,464.06	4,032.53	0.00	0.00	0.00	
14,880.00	90.00	179.58	10,763.00	-3,873.45	1,464.17	4,047.38	0.00	0.00	0.00	
14,895.00	90.00	179.58	10,763.00	-3,888.45	1,464.28	4,062.23	0.00	0.00	0.00	
14,910.00	90.00	179.58	10,763.00	-3,903.45	1,464.39	4,077.08	0.00	0.00	0.00	
14,925.00	90.00	179.58	10,763.00	-3,918.45	1,464.49	4,091.94	0.00	0.00	0.00	
14,940.00	90.00	179.58	10,763.00	-3,933.45	1,464.60	4,106.79	0.00	0.00	0.00	
14,955.00	90.00	179.58	10,763.00	-3,948.45	1,464.71	4,121.64	0.00	0.00	0.00	
14,970.00	90.00	179.58	10,763.00	-3,963.45	1,464.82	4,136.49	0.00	0.00	0.00	
14,985.00	90.00	179.58	10,763.00	-3,978.45	1,464.93	4,151.34	0.00	0.00	0.00	
15,000.00	90.00	179.58	10,763.00	-3,993.45	1,465.04	4,166.19	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
15,015.00	90.00	179.58	10,763.00	-4,008.45	1,465.15	4,181.04	0.00	0.00	0.00	
15,030.00	90.00	179.58	10,763.00	-4,023.44	1,465.26	4,195.89	0.00	0.00	0.00	
15,045.00	90.00	179.58	10,763.00	-4,038.44	1,465.37	4,210.74	0.00	0.00	0.00	
15,060.00	90.00	179.58	10,763.00	-4,053.44	1,465.48	4,225.59	0.00	0.00	0.00	
15,075.00	90.00	179.58	10,763.00	-4,068.44	1,465.59	4,240.44	0.00	0.00	0.00	
15,090.00	90.00	179.58	10,763.00	-4,083.44	1,465.70	4,255.30	0.00	0.00	0.00	
15,105.00	90.00	179.58	10,763.00	-4,098.44	1,465.81	4,270.15	0.00	0.00	0.00	
15,120.00	90.00	179.58	10,763.00	-4,113.44	1,465.92	4,285.00	0.00	0.00	0.00	
15,135.00	90.00	179.58	10,763.00	-4,128.44	1,466.03	4,299.85	0.00	0.00	0.00	
15,150.00	90.00	179.58	10,763.00	-4,143.44	1,466.14	4,314.70	0.00	0.00	0.00	
15,165.00	90.00	179.58	10,763.00	-4,158.44	1,466.25	4,329.55	0.00	0.00	0.00	
15,180.00	90.00	179.58	10,763.00	-4,173.44	1,466.36	4,344.40	0.00	0.00	0.00	
15,195.00	90.00	179.58	10,763.00	-4,188.44	1,466.47	4,359.25	0.00	0.00	0.00	
15,210.00	90.00	179.58	10,763.00	-4,203.44	1,466.58	4,374.10	0.00	0.00	0.00	
15,225.00	90.00	179.58	10,763.00	-4,218.44	1,466.69	4,388.95	0.00	0.00	0.00	
15,240.00	90.00	179.58	10,763.00	-4,233.44	1,466.80	4,403.80	0.00	0.00	0.00	
15,255.00	90.00	179.58	10,763.00	-4,248.44	1,466.91	4,418.66	0.00	0.00	0.00	
15,270.00	90.00	179.58	10,763.00	-4,263.44	1,467.02	4,433.51	0.00	0.00	0.00	
15,285.00	90.00	179.58	10,763.00	-4,278.44	1,467.13	4,448.36	0.00	0.00	0.00	
15,300.00	90.00	179.58	10,763.00	-4,293.44	1,467.24	4,463.21	0.00	0.00	0.00	
15,315.00	90.00	179.58	10,763.00	-4,308.44	1,467.35	4,478.06	0.00	0.00	0.00	
15,330.00	90.00	179.58	10,763.00	-4,323.44	1,467.46	4,492.91	0.00	0.00	0.00	
15,345.00	90.00	179.58	10,763.00	-4,338.44	1,467.57	4,507.76	0.00	0.00	0.00	
15,360.00	90.00	179.58	10,763.00	-4,353.44	1,467.68	4,522.61	0.00	0.00	0.00	
15,375.00	90.00	179.58	10,763.00	-4,368.44	1,467.79	4,537.46	0.00	0.00	0.00	
15,390.00	90.00	179.58	10,763.00	-4,383.44	1,467.89	4,552.31	0.00	0.00	0.00	
15,405.00	90.00	179.58	10,763.00	-4,398.43	1,468.00	4,567.16	0.00	0.00	0.00	
15,420.00	90.00	179.58	10,763.00	-4,413.43	1,468.11	4,582.02	0.00	0.00	0.00	
15,435.00	90.00	179.58	10,763.00	-4,428.43	1,468.22	4,596.87	0.00	0.00	0.00	
15,450.00	90.00	179.58	10,763.00	-4,443.43	1,468.33	4,611.72	0.00	0.00	0.00	
15,465.00	90.00	179.58	10,763.00	-4,458.43	1,468.44	4,626.57	0.00	0.00	0.00	
15,480.00	90.00	179.58	10,763.00	-4,473.43	1,468.55	4,641.42	0.00	0.00	0.00	
15,495.00	90.00	179.58	10,763.00	-4,488.43	1,468.66	4,656.27	0.00	0.00	0.00	
15,510.00	90.00	179.58	10,763.00	-4,503.43	1,468.77	4,671.12	0.00	0.00	0.00	
15,525.00	90.00	179.58	10,763.00	-4,518.43	1,468.88	4,685.97	0.00	0.00	0.00	
15,540.00	90.00	179.58	10,763.00	-4,533.43	1,468.99	4,700.82	0.00	0.00	0.00	
15,555.00	90.00	179.58	10,763.00	-4,548.43	1,469.10	4,715.67	0.00	0.00	0.00	
15,570.00	90.00	179.58	10,763.00	-4,563.43	1,469.21	4,730.52	0.00	0.00	0.00	
15,585.00	90.00	179.58	10,763.00	-4,578.43	1,469.32	4,745.38	0.00	0.00	0.00	
15,600.00	90.00	179.58	10,763.00	-4,593.43	1,469.43	4,760.23	0.00	0.00	0.00	
15,615.00	90.00	179.58	10,763.00	-4,608.43	1,469.54	4,775.08	0.00	0.00	0.00	
15,630.00	90.00	179.58	10,763.00	-4,623.43	1,469.65	4,789.93	0.00	0.00	0.00	
15,645.00	90.00	179.58	10,763.00	-4,638.43	1,469.76	4,804.78	0.00	0.00	0.00	
15,660.00	90.00	179.58	10,763.00	-4,653.43	1,469.87	4,819.63	0.00	0.00	0.00	
15,675.00	90.00	179.58	10,763.00	-4,668.43	1,469.98	4,834.48	0.00	0.00	0.00	
15,690.00	90.00	179.58	10,763.00	-4,683.43	1,470.09	4,849.33	0.00	0.00	0.00	
15,705.00	90.00	179.58	10,763.00	-4,698.43	1,470.20	4,864.18	0.00	0.00	0.00	
15,720.00	90.00	179.58	10,763.00	-4,713.43	1,470.31	4,879.03	0.00	0.00	0.00	
15,735.00	90.00	179.58	10,763.00	-4,728.43	1,470.42	4,893.88	0.00	0.00	0.00	
15,750.00	90.00	179.58	10,763.00	-4,743.43	1,470.53	4,908.73	0.00	0.00	0.00	
15,765.00	90.00	179.58	10,763.00	-4,758.43	1,470.64	4,923.59	0.00	0.00	0.00	
15,780.00	90.00	179.58	10,763.00	-4,773.42	1,470.75	4,938.44	0.00	0.00	0.00	
15,795.00	90.00	179.58	10,763.00	-4,788.42	1,470.86	4,953.29	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
15,810.00	90.00	179.58	10,763.00	-4,803.42	1,470.97	4,968.14	0.00	0.00	0.00	
15,825.00	90.00	179.58	10,763.00	-4,818.42	1,471.08	4,982.99	0.00	0.00	0.00	
15,840.00	90.00	179.58	10,763.00	-4,833.42	1,471.19	4,997.84	0.00	0.00	0.00	
15,855.00	90.00	179.58	10,763.00	-4,848.42	1,471.29	5,012.69	0.00	0.00	0.00	
15,870.00	90.00	179.58	10,763.00	-4,863.42	1,471.40	5,027.54	0.00	0.00	0.00	
15,885.00	90.00	179.58	10,763.00	-4,878.42	1,471.51	5,042.39	0.00	0.00	0.00	
15,900.00	90.00	179.58	10,763.00	-4,893.42	1,471.62	5,057.24	0.00	0.00	0.00	
15,915.00	90.00	179.58	10,763.00	-4,908.42	1,471.73	5,072.09	0.00	0.00	0.00	
15,930.00	90.00	179.58	10,763.00	-4,923.42	1,471.84	5,086.95	0.00	0.00	0.00	
15,945.00	90.00	179.58	10,763.00	-4,938.42	1,471.95	5,101.80	0.00	0.00	0.00	
15,960.00	90.00	179.58	10,763.00	-4,953.42	1,472.06	5,116.65	0.00	0.00	0.00	
15,975.00	90.00	179.58	10,763.00	-4,968.42	1,472.17	5,131.50	0.00	0.00	0.00	
15,990.00	90.00	179.58	10,763.00	-4,983.42	1,472.28	5,146.35	0.00	0.00	0.00	
16,005.00	90.00	179.58	10,763.00	-4,998.42	1,472.39	5,161.20	0.00	0.00	0.00	
16,020.00	90.00	179.58	10,763.00	-5,013.42	1,472.50	5,176.05	0.00	0.00	0.00	
16,035.00	90.00	179.58	10,763.00	-5,028.42	1,472.61	5,190.90	0.00	0.00	0.00	
16,050.00	90.00	179.58	10,763.00	-5,043.42	1,472.72	5,205.75	0.00	0.00	0.00	
16,065.00	90.00	179.58	10,763.00	-5,058.42	1,472.83	5,220.60	0.00	0.00	0.00	
16,080.00	90.00	179.58	10,763.00	-5,073.42	1,472.94	5,235.45	0.00	0.00	0.00	
16,095.00	90.00	179.58	10,763.00	-5,088.42	1,473.05	5,250.31	0.00	0.00	0.00	
16,110.00	90.00	179.58	10,763.00	-5,103.42	1,473.16	5,265.16	0.00	0.00	0.00	
16,125.00	90.00	179.58	10,763.00	-5,118.42	1,473.27	5,280.01	0.00	0.00	0.00	
16,140.00	90.00	179.58	10,763.00	-5,133.42	1,473.38	5,294.86	0.00	0.00	0.00	
16,155.00	90.00	179.58	10,763.00	-5,148.41	1,473.49	5,309.71	0.00	0.00	0.00	
16,170.00	90.00	179.58	10,763.00	-5,163.41	1,473.60	5,324.56	0.00	0.00	0.00	
16,185.00	90.00	179.58	10,763.00	-5,178.41	1,473.71	5,339.41	0.00	0.00	0.00	
16,200.00	90.00	179.58	10,763.00	-5,193.41	1,473.82	5,354.26	0.00	0.00	0.00	
16,215.00	90.00	179.58	10,763.00	-5,208.41	1,473.93	5,369.11	0.00	0.00	0.00	
16,230.00	90.00	179.58	10,763.00	-5,223.41	1,474.04	5,383.96	0.00	0.00	0.00	
16,245.00	90.00	179.58	10,763.00	-5,238.41	1,474.15	5,398.81	0.00	0.00	0.00	
16,260.00	90.00	179.58	10,763.00	-5,253.41	1,474.26	5,413.67	0.00	0.00	0.00	
16,275.00	90.00	179.58	10,763.00	-5,268.41	1,474.37	5,428.52	0.00	0.00	0.00	
16,290.00	90.00	179.58	10,763.00	-5,283.41	1,474.48	5,443.37	0.00	0.00	0.00	
16,305.00	90.00	179.58	10,763.00	-5,298.41	1,474.58	5,458.22	0.00	0.00	0.00	
16,320.00	90.00	179.58	10,763.00	-5,313.41	1,474.69	5,473.07	0.00	0.00	0.00	
16,335.00	90.00	179.58	10,763.00	-5,328.41	1,474.80	5,487.92	0.00	0.00	0.00	
16,350.00	90.00	179.58	10,763.00	-5,343.41	1,474.91	5,502.77	0.00	0.00	0.00	
16,365.00	90.00	179.58	10,763.00	-5,358.41	1,475.02	5,517.62	0.00	0.00	0.00	
16,380.00	90.00	179.58	10,763.00	-5,373.41	1,475.13	5,532.47	0.00	0.00	0.00	
16,395.00	90.00	179.58	10,763.00	-5,388.41	1,475.24	5,547.32	0.00	0.00	0.00	
16,410.00	90.00	179.58	10,763.00	-5,403.41	1,475.35	5,562.17	0.00	0.00	0.00	
16,425.00	90.00	179.58	10,763.00	-5,418.41	1,475.46	5,577.03	0.00	0.00	0.00	
16,440.00	90.00	179.58	10,763.00	-5,433.41	1,475.57	5,591.88	0.00	0.00	0.00	
16,455.00	90.00	179.58	10,763.00	-5,448.41	1,475.68	5,606.73	0.00	0.00	0.00	
16,470.00	90.00	179.58	10,763.00	-5,463.41	1,475.79	5,621.58	0.00	0.00	0.00	
16,485.00	90.00	179.58	10,763.00	-5,478.41	1,475.90	5,636.43	0.00	0.00	0.00	
16,500.00	90.00	179.58	10,763.00	-5,493.41	1,476.01	5,651.28	0.00	0.00	0.00	
16,515.00	90.00	179.58	10,763.00	-5,508.41	1,476.12	5,666.13	0.00	0.00	0.00	
16,530.00	90.00	179.58	10,763.00	-5,523.40	1,476.23	5,680.98	0.00	0.00	0.00	
16,545.00	90.00	179.58	10,763.00	-5,538.40	1,476.34	5,695.83	0.00	0.00	0.00	
16,560.00	90.00	179.58	10,763.00	-5,553.40	1,476.45	5,710.68	0.00	0.00	0.00	
16,575.00	90.00	179.58	10,763.00	-5,568.40	1,476.56	5,725.53	0.00	0.00	0.00	
16,590.00	90.00	179.58	10,763.00	-5,583.40	1,476.67	5,740.39	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
16,605.00	90.00	179.58	10,763.00	-5,598.40	1,476.78	5,755.24	0.00	0.00	0.00	
16,620.00	90.00	179.58	10,763.00	-5,613.40	1,476.89	5,770.09	0.00	0.00	0.00	
16,635.00	90.00	179.58	10,763.00	-5,628.40	1,477.00	5,784.94	0.00	0.00	0.00	
16,650.00	90.00	179.58	10,763.00	-5,643.40	1,477.11	5,799.79	0.00	0.00	0.00	
16,665.00	90.00	179.58	10,763.00	-5,658.40	1,477.22	5,814.64	0.00	0.00	0.00	
16,680.00	90.00	179.58	10,763.00	-5,673.40	1,477.33	5,829.49	0.00	0.00	0.00	
16,695.00	90.00	179.58	10,763.00	-5,688.40	1,477.44	5,844.34	0.00	0.00	0.00	
16,710.00	90.00	179.58	10,763.00	-5,703.40	1,477.55	5,859.19	0.00	0.00	0.00	
16,725.00	90.00	179.58	10,763.00	-5,718.40	1,477.66	5,874.04	0.00	0.00	0.00	
16,740.00	90.00	179.58	10,763.00	-5,733.40	1,477.77	5,888.89	0.00	0.00	0.00	
16,755.00	90.00	179.58	10,763.00	-5,748.40	1,477.88	5,903.75	0.00	0.00	0.00	
16,770.00	90.00	179.58	10,763.00	-5,763.40	1,477.98	5,918.60	0.00	0.00	0.00	
16,785.00	90.00	179.58	10,763.00	-5,778.40	1,478.09	5,933.45	0.00	0.00	0.00	
16,800.00	90.00	179.58	10,763.00	-5,793.40	1,478.20	5,948.30	0.00	0.00	0.00	
16,815.00	90.00	179.58	10,763.00	-5,808.40	1,478.31	5,963.15	0.00	0.00	0.00	
16,830.00	90.00	179.58	10,763.00	-5,823.40	1,478.42	5,978.00	0.00	0.00	0.00	
16,845.00	90.00	179.58	10,763.00	-5,838.40	1,478.53	5,992.85	0.00	0.00	0.00	
16,860.00	90.00	179.58	10,763.00	-5,853.40	1,478.64	6,007.70	0.00	0.00	0.00	
16,875.00	90.00	179.58	10,763.00	-5,868.40	1,478.75	6,022.55	0.00	0.00	0.00	
16,890.00	90.00	179.58	10,763.00	-5,883.40	1,478.86	6,037.40	0.00	0.00	0.00	
16,905.00	90.00	179.58	10,763.00	-5,898.39	1,478.97	6,052.25	0.00	0.00	0.00	
16,920.00	90.00	179.58	10,763.00	-5,913.39	1,479.08	6,067.11	0.00	0.00	0.00	
16,935.00	90.00	179.58	10,763.00	-5,928.39	1,479.19	6,081.96	0.00	0.00	0.00	
16,950.00	90.00	179.58	10,763.00	-5,943.39	1,479.30	6,096.81	0.00	0.00	0.00	
16,965.00	90.00	179.58	10,763.00	-5,958.39	1,479.41	6,111.66	0.00	0.00	0.00	
16,980.00	90.00	179.58	10,763.00	-5,973.39	1,479.52	6,126.51	0.00	0.00	0.00	
16,995.00	90.00	179.58	10,763.00	-5,988.39	1,479.63	6,141.36	0.00	0.00	0.00	
17,010.00	90.00	179.58	10,763.00	-6,003.39	1,479.74	6,156.21	0.00	0.00	0.00	
17,025.00	90.00	179.58	10,763.00	-6,018.39	1,479.85	6,171.06	0.00	0.00	0.00	
17,040.00	90.00	179.58	10,763.00	-6,033.39	1,479.96	6,185.91	0.00	0.00	0.00	
17,055.00	90.00	179.58	10,763.00	-6,048.39	1,480.07	6,200.76	0.00	0.00	0.00	
17,070.00	90.00	179.58	10,763.00	-6,063.39	1,480.18	6,215.61	0.00	0.00	0.00	
17,085.00	90.00	179.58	10,763.00	-6,078.39	1,480.29	6,230.47	0.00	0.00	0.00	
17,100.00	90.00	179.58	10,763.00	-6,093.39	1,480.40	6,245.32	0.00	0.00	0.00	
17,115.00	90.00	179.58	10,763.00	-6,108.39	1,480.51	6,260.17	0.00	0.00	0.00	
17,130.00	90.00	179.58	10,763.00	-6,123.39	1,480.62	6,275.02	0.00	0.00	0.00	
17,145.00	90.00	179.58	10,763.00	-6,138.39	1,480.73	6,289.87	0.00	0.00	0.00	
17,160.00	90.00	179.58	10,763.00	-6,153.39	1,480.84	6,304.72	0.00	0.00	0.00	
17,175.00	90.00	179.58	10,763.00	-6,168.39	1,480.95	6,319.57	0.00	0.00	0.00	
17,190.00	90.00	179.58	10,763.00	-6,183.39	1,481.06	6,334.42	0.00	0.00	0.00	
17,205.00	90.00	179.58	10,763.00	-6,198.39	1,481.17	6,349.27	0.00	0.00	0.00	
17,220.00	90.00	179.58	10,763.00	-6,213.39	1,481.27	6,364.12	0.00	0.00	0.00	
17,235.00	90.00	179.58	10,763.00	-6,228.39	1,481.38	6,378.97	0.00	0.00	0.00	
17,250.00	90.00	179.58	10,763.00	-6,243.39	1,481.49	6,393.83	0.00	0.00	0.00	
17,265.00	90.00	179.58	10,763.00	-6,258.39	1,481.60	6,408.68	0.00	0.00	0.00	
17,280.00	90.00	179.58	10,763.00	-6,273.38	1,481.71	6,423.53	0.00	0.00	0.00	
17,295.00	90.00	179.58	10,763.00	-6,288.38	1,481.82	6,438.38	0.00	0.00	0.00	
17,310.00	90.00	179.58	10,763.00	-6,303.38	1,481.93	6,453.23	0.00	0.00	0.00	
17,325.00	90.00	179.58	10,763.00	-6,318.38	1,482.04	6,468.08	0.00	0.00	0.00	
17,340.00	90.00	179.58	10,763.00	-6,333.38	1,482.15	6,482.93	0.00	0.00	0.00	
17,355.00	90.00	179.58	10,763.00	-6,348.38	1,482.26	6,497.78	0.00	0.00	0.00	
17,370.00	90.00	179.58	10,763.00	-6,363.38	1,482.37	6,512.63	0.00	0.00	0.00	
17,385.00	90.00	179.58	10,763.00	-6,378.38	1,482.48	6,527.48	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
17,400.00	90.00	179.58	10,763.00	-6,393.38	1,482.59	6,542.33	0.00	0.00	0.00	
17,415.00	90.00	179.58	10,763.00	-6,408.38	1,482.70	6,557.19	0.00	0.00	0.00	
17,430.00	90.00	179.58	10,763.00	-6,423.38	1,482.81	6,572.04	0.00	0.00	0.00	
17,445.00	90.00	179.58	10,763.00	-6,438.38	1,482.92	6,586.89	0.00	0.00	0.00	
17,460.00	90.00	179.58	10,763.00	-6,453.38	1,483.03	6,601.74	0.00	0.00	0.00	
17,475.00	90.00	179.58	10,763.00	-6,468.38	1,483.14	6,616.59	0.00	0.00	0.00	
17,490.00	90.00	179.58	10,763.00	-6,483.38	1,483.25	6,631.44	0.00	0.00	0.00	
17,505.00	90.00	179.58	10,763.00	-6,498.38	1,483.36	6,646.29	0.00	0.00	0.00	
17,520.00	90.00	179.58	10,763.00	-6,513.38	1,483.47	6,661.14	0.00	0.00	0.00	
17,535.00	90.00	179.58	10,763.00	-6,528.38	1,483.58	6,675.99	0.00	0.00	0.00	
17,550.00	90.00	179.58	10,763.00	-6,543.38	1,483.69	6,690.84	0.00	0.00	0.00	
17,565.00	90.00	179.58	10,763.00	-6,558.38	1,483.80	6,705.69	0.00	0.00	0.00	
17,580.00	90.00	179.58	10,763.00	-6,573.38	1,483.91	6,720.54	0.00	0.00	0.00	
17,595.00	90.00	179.58	10,763.00	-6,588.38	1,484.02	6,735.40	0.00	0.00	0.00	
17,610.00	90.00	179.58	10,763.00	-6,603.38	1,484.13	6,750.25	0.00	0.00	0.00	
17,625.00	90.00	179.58	10,763.00	-6,618.38	1,484.24	6,765.10	0.00	0.00	0.00	
17,640.00	90.00	179.58	10,763.00	-6,633.38	1,484.35	6,779.95	0.00	0.00	0.00	
17,655.00	90.00	179.58	10,763.00	-6,648.37	1,484.46	6,794.80	0.00	0.00	0.00	
17,670.00	90.00	179.58	10,763.00	-6,663.37	1,484.57	6,809.65	0.00	0.00	0.00	
17,685.00	90.00	179.58	10,763.00	-6,678.37	1,484.67	6,824.50	0.00	0.00	0.00	
17,700.00	90.00	179.58	10,763.00	-6,693.37	1,484.78	6,839.35	0.00	0.00	0.00	
17,715.00	90.00	179.58	10,763.00	-6,708.37	1,484.89	6,854.20	0.00	0.00	0.00	
17,730.00	90.00	179.58	10,763.00	-6,723.37	1,485.00	6,869.05	0.00	0.00	0.00	
17,745.00	90.00	179.58	10,763.00	-6,738.37	1,485.11	6,883.90	0.00	0.00	0.00	
17,760.00	90.00	179.58	10,763.00	-6,753.37	1,485.22	6,898.76	0.00	0.00	0.00	
17,775.00	90.00	179.58	10,763.00	-6,768.37	1,485.33	6,913.61	0.00	0.00	0.00	
17,790.00	90.00	179.58	10,763.00	-6,783.37	1,485.44	6,928.46	0.00	0.00	0.00	
17,805.00	90.00	179.58	10,763.00	-6,798.37	1,485.55	6,943.31	0.00	0.00	0.00	
17,820.00	90.00	179.58	10,763.00	-6,813.37	1,485.66	6,958.16	0.00	0.00	0.00	
17,835.00	90.00	179.58	10,763.00	-6,828.37	1,485.77	6,973.01	0.00	0.00	0.00	
17,850.00	90.00	179.58	10,763.00	-6,843.37	1,485.88	6,987.86	0.00	0.00	0.00	
17,865.00	90.00	179.58	10,763.00	-6,858.37	1,485.99	7,002.71	0.00	0.00	0.00	
17,880.00	90.00	179.58	10,763.00	-6,873.37	1,486.10	7,017.56	0.00	0.00	0.00	
17,895.00	90.00	179.58	10,763.00	-6,888.37	1,486.21	7,032.41	0.00	0.00	0.00	
17,910.00	90.00	179.58	10,763.00	-6,903.37	1,486.32	7,047.26	0.00	0.00	0.00	
17,925.00	90.00	179.58	10,763.00	-6,918.37	1,486.43	7,062.12	0.00	0.00	0.00	
17,940.00	90.00	179.58	10,763.00	-6,933.37	1,486.54	7,076.97	0.00	0.00	0.00	
17,955.00	90.00	179.58	10,763.00	-6,948.37	1,486.65	7,091.82	0.00	0.00	0.00	
17,970.00	90.00	179.58	10,763.00	-6,963.37	1,486.76	7,106.67	0.00	0.00	0.00	
17,985.00	90.00	179.58	10,763.00	-6,978.37	1,486.87	7,121.52	0.00	0.00	0.00	
18,000.00	90.00	179.58	10,763.00	-6,993.37	1,486.98	7,136.37	0.00	0.00	0.00	
18,015.00	90.00	179.58	10,763.00	-7,008.37	1,487.09	7,151.22	0.00	0.00	0.00	
18,030.00	90.00	179.58	10,763.00	-7,023.36	1,487.20	7,166.07	0.00	0.00	0.00	
18,045.00	90.00	179.58	10,763.00	-7,038.36	1,487.31	7,180.92	0.00	0.00	0.00	
18,060.00	90.00	179.58	10,763.00	-7,053.36	1,487.42	7,195.77	0.00	0.00	0.00	
18,075.00	90.00	179.58	10,763.00	-7,068.36	1,487.53	7,210.62	0.00	0.00	0.00	
18,090.00	90.00	179.58	10,763.00	-7,083.36	1,487.64	7,225.48	0.00	0.00	0.00	
18,105.00	90.00	179.58	10,763.00	-7,098.36	1,487.75	7,240.33	0.00	0.00	0.00	
18,120.00	90.00	179.58	10,763.00	-7,113.36	1,487.86	7,255.18	0.00	0.00	0.00	
18,135.00	90.00	179.58	10,763.00	-7,128.36	1,487.97	7,270.03	0.00	0.00	0.00	
18,150.00	90.00	179.58	10,763.00	-7,143.36	1,488.07	7,284.88	0.00	0.00	0.00	
18,165.00	90.00	179.58	10,763.00	-7,158.36	1,488.18	7,299.73	0.00	0.00	0.00	
18,180.00	90.00	179.58	10,763.00	-7,173.36	1,488.29	7,314.58	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	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)	
18,195.00	90.00	179.58	10,763.00	-7,188.36	1,488.40	7,329.43	0.00	0.00	0.00	
18,210.00	90.00	179.58	10,763.00	-7,203.36	1,488.51	7,344.28	0.00	0.00	0.00	
18,225.00	90.00	179.58	10,763.00	-7,218.36	1,488.62	7,359.13	0.00	0.00	0.00	
18,240.00	90.00	179.58	10,763.00	-7,233.36	1,488.73	7,373.98	0.00	0.00	0.00	
18,255.00	90.00	179.58	10,763.00	-7,248.36	1,488.84	7,388.84	0.00	0.00	0.00	
18,270.00	90.00	179.58	10,763.00	-7,263.36	1,488.95	7,403.69	0.00	0.00	0.00	
18,285.00	90.00	179.58	10,763.00	-7,278.36	1,489.06	7,418.54	0.00	0.00	0.00	
18,300.00	90.00	179.58	10,763.00	-7,293.36	1,489.17	7,433.39	0.00	0.00	0.00	
18,315.00	90.00	179.58	10,763.00	-7,308.36	1,489.28	7,448.24	0.00	0.00	0.00	
18,330.00	90.00	179.58	10,763.00	-7,323.36	1,489.39	7,463.09	0.00	0.00	0.00	
18,345.00	90.00	179.58	10,763.00	-7,338.36	1,489.50	7,477.94	0.00	0.00	0.00	
18,360.00	90.00	179.58	10,763.00	-7,353.36	1,489.61	7,492.79	0.00	0.00	0.00	
18,375.00	90.00	179.58	10,763.00	-7,368.36	1,489.72	7,507.64	0.00	0.00	0.00	
18,390.00	90.00	179.58	10,763.00	-7,383.36	1,489.83	7,522.49	0.00	0.00	0.00	
18,405.00	90.00	179.58	10,763.00	-7,398.35	1,489.94	7,537.34	0.00	0.00	0.00	
18,420.00	90.00	179.58	10,763.00	-7,413.35	1,490.05	7,552.20	0.00	0.00	0.00	
18,435.00	90.00	179.58	10,763.00	-7,428.35	1,490.16	7,567.05	0.00	0.00	0.00	
18,450.00	90.00	179.58	10,763.00	-7,443.35	1,490.27	7,581.90	0.00	0.00	0.00	
18,465.00	90.00	179.58	10,763.00	-7,458.35	1,490.38	7,596.75	0.00	0.00	0.00	
18,480.00	90.00	179.58	10,763.00	-7,473.35	1,490.49	7,611.60	0.00	0.00	0.00	
18,495.00	90.00	179.58	10,763.00	-7,488.35	1,490.60	7,626.45	0.00	0.00	0.00	
18,510.00	90.00	179.58	10,763.00	-7,503.35	1,490.71	7,641.30	0.00	0.00	0.00	
18,525.00	90.00	179.58	10,763.00	-7,518.35	1,490.82	7,656.15	0.00	0.00	0.00	
18,540.00	90.00	179.58	10,763.00	-7,533.35	1,490.93	7,671.00	0.00	0.00	0.00	
18,555.00	90.00	179.58	10,763.00	-7,548.35	1,491.04	7,685.85	0.00	0.00	0.00	
18,570.00	90.00	179.58	10,763.00	-7,563.35	1,491.15	7,700.70	0.00	0.00	0.00	
18,585.00	90.00	179.58	10,763.00	-7,578.35	1,491.26	7,715.56	0.00	0.00	0.00	
18,600.00	90.00	179.58	10,763.00	-7,593.35	1,491.36	7,730.41	0.00	0.00	0.00	
18,615.00	90.00	179.58	10,763.00	-7,608.35	1,491.47	7,745.26	0.00	0.00	0.00	
18,630.00	90.00	179.58	10,763.00	-7,623.35	1,491.58	7,760.11	0.00	0.00	0.00	
18,645.00	90.00	179.58	10,763.00	-7,638.35	1,491.69	7,774.96	0.00	0.00	0.00	
18,660.00	90.00	179.58	10,763.00	-7,653.35	1,491.80	7,789.81	0.00	0.00	0.00	
18,675.00	90.00	179.58	10,763.00	-7,668.35	1,491.91	7,804.66	0.00	0.00	0.00	
18,690.00	90.00	179.58	10,763.00	-7,683.35	1,492.02	7,819.51	0.00	0.00	0.00	
18,705.00	90.00	179.58	10,763.00	-7,698.35	1,492.13	7,834.36	0.00	0.00	0.00	
18,720.00	90.00	179.58	10,763.00	-7,713.35	1,492.24	7,849.21	0.00	0.00	0.00	
18,735.00	90.00	179.58	10,763.00	-7,728.35	1,492.35	7,864.06	0.00	0.00	0.00	
18,750.00	90.00	179.58	10,763.00	-7,743.35	1,492.46	7,878.92	0.00	0.00	0.00	
18,765.00	90.00	179.58	10,763.00	-7,758.35	1,492.57	7,893.77	0.00	0.00	0.00	
18,780.00	90.00	179.58	10,763.00	-7,773.34	1,492.68	7,908.62	0.00	0.00	0.00	
18,795.00	90.00	179.58	10,763.00	-7,788.34	1,492.79	7,923.47	0.00	0.00	0.00	
18,810.00	90.00	179.58	10,763.00	-7,803.34	1,492.90	7,938.32	0.00	0.00	0.00	
18,825.00	90.00	179.58	10,763.00	-7,818.34	1,493.01	7,953.17	0.00	0.00	0.00	
18,840.00	90.00	179.58	10,763.00	-7,833.34	1,493.12	7,968.02	0.00	0.00	0.00	
18,855.00	90.00	179.58	10,763.00	-7,848.34	1,493.23	7,982.87	0.00	0.00	0.00	
18,870.00	90.00	179.58	10,763.00	-7,863.34	1,493.34	7,997.72	0.00	0.00	0.00	
18,885.00	90.00	179.58	10,763.00	-7,878.34	1,493.45	8,012.57	0.00	0.00	0.00	
18,900.00	90.00	179.58	10,763.00	-7,893.34	1,493.56	8,027.42	0.00	0.00	0.00	
18,915.00	90.00	179.58	10,763.00	-7,908.34	1,493.67	8,042.28	0.00	0.00	0.00	
18,930.00	90.00	179.58	10,763.00	-7,923.34	1,493.78	8,057.13	0.00	0.00	0.00	
18,945.00	90.00	179.58	10,763.00	-7,938.34	1,493.89	8,071.98	0.00	0.00	0.00	
18,960.00	90.00	179.58	10,763.00	-7,953.34	1,494.00	8,086.83	0.00	0.00	0.00	
18,975.00	90.00	179.58	10,763.00	-7,968.34	1,494.11	8,101.68	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
18,990.00	90.00	179.58	10,763.00	-7,983.34	1,494.22	8,116.53	0.00	0.00	0.00	
19,005.00	90.00	179.58	10,763.00	-7,998.34	1,494.33	8,131.38	0.00	0.00	0.00	
19,020.00	90.00	179.58	10,763.00	-8,013.34	1,494.44	8,146.23	0.00	0.00	0.00	
19,035.00	90.00	179.58	10,763.00	-8,028.34	1,494.55	8,161.08	0.00	0.00	0.00	
19,050.00	90.00	179.58	10,763.00	-8,043.34	1,494.66	8,175.93	0.00	0.00	0.00	
19,065.00	90.00	179.58	10,763.00	-8,058.34	1,494.76	8,190.78	0.00	0.00	0.00	
19,080.00	90.00	179.58	10,763.00	-8,073.34	1,494.87	8,205.64	0.00	0.00	0.00	
19,095.00	90.00	179.58	10,763.00	-8,088.34	1,494.98	8,220.49	0.00	0.00	0.00	
19,110.00	90.00	179.58	10,763.00	-8,103.34	1,495.09	8,235.34	0.00	0.00	0.00	
19,125.00	90.00	179.58	10,763.00	-8,118.34	1,495.20	8,250.19	0.00	0.00	0.00	
19,140.00	90.00	179.58	10,763.00	-8,133.34	1,495.31	8,265.04	0.00	0.00	0.00	
19,155.00	90.00	179.58	10,763.00	-8,148.33	1,495.42	8,279.89	0.00	0.00	0.00	
19,170.00	90.00	179.58	10,763.00	-8,163.33	1,495.53	8,294.74	0.00	0.00	0.00	
19,185.00	90.00	179.58	10,763.00	-8,178.33	1,495.64	8,309.59	0.00	0.00	0.00	
19,200.00	90.00	179.58	10,763.00	-8,193.33	1,495.75	8,324.44	0.00	0.00	0.00	
19,215.00	90.00	179.58	10,763.00	-8,208.33	1,495.86	8,339.29	0.00	0.00	0.00	
19,230.00	90.00	179.58	10,763.00	-8,223.33	1,495.97	8,354.14	0.00	0.00	0.00	
19,245.00	90.00	179.58	10,763.00	-8,238.33	1,496.08	8,369.00	0.00	0.00	0.00	
19,260.00	90.00	179.58	10,763.00	-8,253.33	1,496.19	8,383.85	0.00	0.00	0.00	
19,275.00	90.00	179.58	10,763.00	-8,268.33	1,496.30	8,398.70	0.00	0.00	0.00	
19,290.00	90.00	179.58	10,763.00	-8,283.33	1,496.41	8,413.55	0.00	0.00	0.00	
19,305.00	90.00	179.58	10,763.00	-8,298.33	1,496.52	8,428.40	0.00	0.00	0.00	
19,320.00	90.00	179.58	10,763.00	-8,313.33	1,496.63	8,443.25	0.00	0.00	0.00	
19,335.00	90.00	179.58	10,763.00	-8,328.33	1,496.74	8,458.10	0.00	0.00	0.00	
19,350.00	90.00	179.58	10,763.00	-8,343.33	1,496.85	8,472.95	0.00	0.00	0.00	
19,365.00	90.00	179.58	10,763.00	-8,358.33	1,496.96	8,487.80	0.00	0.00	0.00	
19,380.00	90.00	179.58	10,763.00	-8,373.33	1,497.07	8,502.65	0.00	0.00	0.00	
19,395.00	90.00	179.58	10,763.00	-8,388.33	1,497.18	8,517.50	0.00	0.00	0.00	
19,410.00	90.00	179.58	10,763.00	-8,403.33	1,497.29	8,532.35	0.00	0.00	0.00	
19,425.00	90.00	179.58	10,763.00	-8,418.33	1,497.40	8,547.21	0.00	0.00	0.00	
19,440.00	90.00	179.58	10,763.00	-8,433.33	1,497.51	8,562.06	0.00	0.00	0.00	
19,455.00	90.00	179.58	10,763.00	-8,448.33	1,497.62	8,576.91	0.00	0.00	0.00	
19,470.00	90.00	179.58	10,763.00	-8,463.33	1,497.73	8,591.76	0.00	0.00	0.00	
19,485.00	90.00	179.58	10,763.00	-8,478.33	1,497.84	8,606.61	0.00	0.00	0.00	
19,500.00	90.00	179.58	10,763.00	-8,493.33	1,497.95	8,621.46	0.00	0.00	0.00	
19,515.00	90.00	179.58	10,763.00	-8,508.33	1,498.05	8,636.31	0.00	0.00	0.00	
19,530.00	90.00	179.58	10,763.00	-8,523.32	1,498.16	8,651.16	0.00	0.00	0.00	
19,545.00	90.00	179.58	10,763.00	-8,538.32	1,498.27	8,666.01	0.00	0.00	0.00	
19,560.00	90.00	179.58	10,763.00	-8,553.32	1,498.38	8,680.86	0.00	0.00	0.00	
19,575.00	90.00	179.58	10,763.00	-8,568.32	1,498.49	8,695.71	0.00	0.00	0.00	
19,590.00	90.00	179.58	10,763.00	-8,583.32	1,498.60	8,710.57	0.00	0.00	0.00	
19,605.00	90.00	179.58	10,763.00	-8,598.32	1,498.71	8,725.42	0.00	0.00	0.00	
19,620.00	90.00	179.58	10,763.00	-8,613.32	1,498.82	8,740.27	0.00	0.00	0.00	
19,635.00	90.00	179.58	10,763.00	-8,628.32	1,498.93	8,755.12	0.00	0.00	0.00	
19,650.00	90.00	179.58	10,763.00	-8,643.32	1,499.04	8,769.97	0.00	0.00	0.00	
19,665.00	90.00	179.58	10,763.00	-8,658.32	1,499.15	8,784.82	0.00	0.00	0.00	
19,680.00	90.00	179.58	10,763.00	-8,673.32	1,499.26	8,799.67	0.00	0.00	0.00	
19,695.00	90.00	179.58	10,763.00	-8,688.32	1,499.37	8,814.52	0.00	0.00	0.00	
19,710.00	90.00	179.58	10,763.00	-8,703.32	1,499.48	8,829.37	0.00	0.00	0.00	
19,725.00	90.00	179.58	10,763.00	-8,718.32	1,499.59	8,844.22	0.00	0.00	0.00	
19,740.00	90.00	179.58	10,763.00	-8,733.32	1,499.70	8,859.07	0.00	0.00	0.00	
19,755.00	90.00	179.58	10,763.00	-8,748.32	1,499.81	8,873.93	0.00	0.00	0.00	
19,770.00	90.00	179.58	10,763.00	-8,763.32	1,499.92	8,888.78	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	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)	
19,785.00	90.00	179.58	10,763.00	-8,778.32	1,500.03	8,903.63	0.00	0.00	0.00	
19,800.00	90.00	179.58	10,763.00	-8,793.32	1,500.14	8,918.48	0.00	0.00	0.00	
19,815.00	90.00	179.58	10,763.00	-8,808.32	1,500.25	8,933.33	0.00	0.00	0.00	
19,830.00	90.00	179.58	10,763.00	-8,823.32	1,500.36	8,948.18	0.00	0.00	0.00	
19,845.00	90.00	179.58	10,763.00	-8,838.32	1,500.47	8,963.03	0.00	0.00	0.00	
19,860.00	90.00	179.58	10,763.00	-8,853.32	1,500.58	8,977.88	0.00	0.00	0.00	
19,875.00	90.00	179.58	10,763.00	-8,868.32	1,500.69	8,992.73	0.00	0.00	0.00	
19,890.00	90.00	179.58	10,763.00	-8,883.32	1,500.80	9,007.58	0.00	0.00	0.00	
19,905.00	90.00	179.58	10,763.00	-8,898.31	1,500.91	9,022.43	0.00	0.00	0.00	
19,920.00	90.00	179.58	10,763.00	-8,913.31	1,501.02	9,037.29	0.00	0.00	0.00	
19,935.00	90.00	179.58	10,763.00	-8,928.31	1,501.13	9,052.14	0.00	0.00	0.00	
19,950.00	90.00	179.58	10,763.00	-8,943.31	1,501.24	9,066.99	0.00	0.00	0.00	
19,965.00	90.00	179.58	10,763.00	-8,958.31	1,501.35	9,081.84	0.00	0.00	0.00	
19,980.00	90.00	179.58	10,763.00	-8,973.31	1,501.45	9,096.69	0.00	0.00	0.00	
19,995.00	90.00	179.58	10,763.00	-8,988.31	1,501.56	9,111.54	0.00	0.00	0.00	
20,010.00	90.00	179.58	10,763.00	-9,003.31	1,501.67	9,126.39	0.00	0.00	0.00	
20,025.00	90.00	179.58	10,763.00	-9,018.31	1,501.78	9,141.24	0.00	0.00	0.00	
20,040.00	90.00	179.58	10,763.00	-9,033.31	1,501.89	9,156.09	0.00	0.00	0.00	
20,055.00	90.00	179.58	10,763.00	-9,048.31	1,502.00	9,170.94	0.00	0.00	0.00	
20,070.00	90.00	179.58	10,763.00	-9,063.31	1,502.11	9,185.79	0.00	0.00	0.00	
20,085.00	90.00	179.58	10,763.00	-9,078.31	1,502.22	9,200.65	0.00	0.00	0.00	
20,100.00	90.00	179.58	10,763.00	-9,093.31	1,502.33	9,215.50	0.00	0.00	0.00	
20,115.00	90.00	179.58	10,763.00	-9,108.31	1,502.44	9,230.35	0.00	0.00	0.00	
20,130.00	90.00	179.58	10,763.00	-9,123.31	1,502.55	9,245.20	0.00	0.00	0.00	
20,145.00	90.00	179.58	10,763.00	-9,138.31	1,502.66	9,260.05	0.00	0.00	0.00	
20,160.00	90.00	179.58	10,763.00	-9,153.31	1,502.77	9,274.90	0.00	0.00	0.00	
20,175.00	90.00	179.58	10,763.00	-9,168.31	1,502.88	9,289.75	0.00	0.00	0.00	
20,190.00	90.00	179.58	10,763.00	-9,183.31	1,502.99	9,304.60	0.00	0.00	0.00	
20,205.00	90.00	179.58	10,763.00	-9,198.31	1,503.10	9,319.45	0.00	0.00	0.00	
20,220.00	90.00	179.58	10,763.00	-9,213.31	1,503.21	9,334.30	0.00	0.00	0.00	
20,235.00	90.00	179.58	10,763.00	-9,228.31	1,503.32	9,349.15	0.00	0.00	0.00	
20,250.00	90.00	179.58	10,763.00	-9,243.31	1,503.43	9,364.01	0.00	0.00	0.00	
20,265.00	90.00	179.58	10,763.00	-9,258.31	1,503.54	9,378.86	0.00	0.00	0.00	
20,280.00	90.00	179.58	10,763.00	-9,273.30	1,503.65	9,393.71	0.00	0.00	0.00	
20,295.00	90.00	179.58	10,763.00	-9,288.30	1,503.76	9,408.56	0.00	0.00	0.00	
20,310.00	90.00	179.58	10,763.00	-9,303.30	1,503.87	9,423.41	0.00	0.00	0.00	
20,325.00	90.00	179.58	10,763.00	-9,318.30	1,503.98	9,438.26	0.00	0.00	0.00	
20,340.00	90.00	179.58	10,763.00	-9,333.30	1,504.09	9,453.11	0.00	0.00	0.00	
20,355.00	90.00	179.58	10,763.00	-9,348.30	1,504.20	9,467.96	0.00	0.00	0.00	
20,370.00	90.00	179.58	10,763.00	-9,363.30	1,504.31	9,482.81	0.00	0.00	0.00	
20,385.00	90.00	179.58	10,763.00	-9,378.30	1,504.42	9,497.66	0.00	0.00	0.00	
20,400.00	90.00	179.58	10,763.00	-9,393.30	1,504.53	9,512.51	0.00	0.00	0.00	
20,415.00	90.00	179.58	10,763.00	-9,408.30	1,504.64	9,527.37	0.00	0.00	0.00	
20,430.00	90.00	179.58	10,763.00	-9,423.30	1,504.74	9,542.22	0.00	0.00	0.00	
20,445.00	90.00	179.58	10,763.00	-9,438.30	1,504.85	9,557.07	0.00	0.00	0.00	
20,460.00	90.00	179.58	10,763.00	-9,453.30	1,504.96	9,571.92	0.00	0.00	0.00	
20,475.00	90.00	179.58	10,763.00	-9,468.30	1,505.07	9,586.77	0.00	0.00	0.00	
20,490.00	90.00	179.58	10,763.00	-9,483.30	1,505.18	9,601.62	0.00	0.00	0.00	
20,505.00	90.00	179.58	10,763.00	-9,498.30	1,505.29	9,616.47	0.00	0.00	0.00	
20,520.00	90.00	179.58	10,763.00	-9,513.30	1,505.40	9,631.32	0.00	0.00	0.00	
20,535.00	90.00	179.58	10,763.00	-9,528.30	1,505.51	9,646.17	0.00	0.00	0.00	
20,550.00	90.00	179.58	10,763.00	-9,543.30	1,505.62	9,661.02	0.00	0.00	0.00	
20,565.00	90.00	179.58	10,763.00	-9,558.30	1,505.73	9,675.87	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _ COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_ COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
20,580.00	90.00	179.58	10,763.00	-9,573.30	1,505.84	9,690.73	0.00	0.00	0.00	
20,595.00	90.00	179.58	10,763.00	-9,588.30	1,505.95	9,705.58	0.00	0.00	0.00	
20,610.00	90.00	179.58	10,763.00	-9,603.30	1,506.06	9,720.43	0.00	0.00	0.00	
20,625.00	90.00	179.58	10,763.00	-9,618.30	1,506.17	9,735.28	0.00	0.00	0.00	
20,640.00	90.00	179.58	10,763.00	-9,633.30	1,506.28	9,750.13	0.00	0.00	0.00	
20,655.00	90.00	179.58	10,763.00	-9,648.29	1,506.39	9,764.98	0.00	0.00	0.00	
20,670.00	90.00	179.58	10,763.00	-9,663.29	1,506.50	9,779.83	0.00	0.00	0.00	
20,685.00	90.00	179.58	10,763.00	-9,678.29	1,506.61	9,794.68	0.00	0.00	0.00	
20,700.00	90.00	179.58	10,763.00	-9,693.29	1,506.72	9,809.53	0.00	0.00	0.00	
20,715.00	90.00	179.58	10,763.00	-9,708.29	1,506.83	9,824.38	0.00	0.00	0.00	
20,730.00	90.00	179.58	10,763.00	-9,723.29	1,506.94	9,839.23	0.00	0.00	0.00	
20,745.00	90.00	179.58	10,763.00	-9,738.29	1,507.05	9,854.09	0.00	0.00	0.00	
20,760.00	90.00	179.58	10,763.00	-9,753.29	1,507.16	9,868.94	0.00	0.00	0.00	
20,775.00	90.00	179.58	10,763.00	-9,768.29	1,507.27	9,883.79	0.00	0.00	0.00	
20,790.00	90.00	179.58	10,763.00	-9,783.29	1,507.38	9,898.64	0.00	0.00	0.00	
20,805.00	90.00	179.58	10,763.00	-9,798.29	1,507.49	9,913.49	0.00	0.00	0.00	
20,820.00	90.00	179.58	10,763.00	-9,813.29	1,507.60	9,928.34	0.00	0.00	0.00	
20,835.00	90.00	179.58	10,763.00	-9,828.29	1,507.71	9,943.19	0.00	0.00	0.00	
20,850.00	90.00	179.58	10,763.00	-9,843.29	1,507.82	9,958.04	0.00	0.00	0.00	
20,865.00	90.00	179.58	10,763.00	-9,858.29	1,507.93	9,972.89	0.00	0.00	0.00	
20,880.00	90.00	179.58	10,763.00	-9,873.29	1,508.04	9,987.74	0.00	0.00	0.00	
20,895.00	90.00	179.58	10,763.00	-9,888.29	1,508.14	10,002.59	0.00	0.00	0.00	
20,910.00	90.00	179.58	10,763.00	-9,903.29	1,508.25	10,017.45	0.00	0.00	0.00	
20,925.00	90.00	179.58	10,763.00	-9,918.29	1,508.36	10,032.30	0.00	0.00	0.00	
20,940.00	90.00	179.58	10,763.00	-9,933.29	1,508.47	10,047.15	0.00	0.00	0.00	
20,955.00	90.00	179.58	10,763.00	-9,948.29	1,508.58	10,062.00	0.00	0.00	0.00	
20,970.00	90.00	179.58	10,763.00	-9,963.29	1,508.69	10,076.85	0.00	0.00	0.00	
20,985.00	90.00	179.58	10,763.00	-9,978.29	1,508.80	10,091.70	0.00	0.00	0.00	
21,000.00	90.00	179.58	10,763.00	-9,993.29	1,508.91	10,106.55	0.00	0.00	0.00	
21,015.00	90.00	179.58	10,763.00	-10,008.29	1,509.02	10,121.40	0.00	0.00	0.00	
21,030.00	90.00	179.58	10,763.00	-10,023.28	1,509.13	10,136.25	0.00	0.00	0.00	
21,045.00	90.00	179.58	10,763.00	-10,038.28	1,509.24	10,151.10	0.00	0.00	0.00	
21,060.00	90.00	179.58	10,763.00	-10,053.28	1,509.35	10,165.95	0.00	0.00	0.00	
21,075.00	90.00	179.58	10,763.00	-10,068.28	1,509.46	10,180.80	0.00	0.00	0.00	
21,090.00	90.00	179.58	10,763.00	-10,083.28	1,509.57	10,195.66	0.00	0.00	0.00	
21,103.19	90.00	179.58	10,763.00	-10,096.47	1,509.67	10,208.71	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LTP_COLUMBUS FED (- hit/miss target - Shape)	90.00	179.58	10,763.00	-10,046.47	1,509.30	388,383.33	740,859.30	32° 3' 55.425 N	103° 33' 20.926 W	
- plan hits target center - Circle (radius 50.00)										
PBHL_COLUMBUS FEI	0.00	359.58	10,763.00	-10,096.47	1,509.67	388,333.33	740,859.66	32° 3' 54.931 N	103° 33' 20.926 W	
- plan hits target center - Rectangle (sides W100.00 H10,407.00 D20.00)										
FTP_COLUMBUS FED (0.00	0.00	10,763.00	309.89	1,433.58	398,739.69	740,783.58	32° 5' 37.914 N	103° 33' 20.938 W	
- plan misses target center by 198.40usft at 10800.00usft MD (10623.23 TVD, 169.09 N, 1434.61 E) - Circle (radius 50.00)										

ConocoPhillips Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well _COLUMBUS FEDERAL COM 505H - Slot SLOT 8
Company:	DELAWARE BASIN EAST	TVD Reference:	KB @ 3362.00usft
Project:	LEA COUNT SOUTH WEST (NM-E)	MD Reference:	KB @ 3362.00usft
Site:	COLUMBUS FEDERAL PROJECT	North Reference:	Grid
Well:	_COLUMBUS FEDERAL COM 505H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

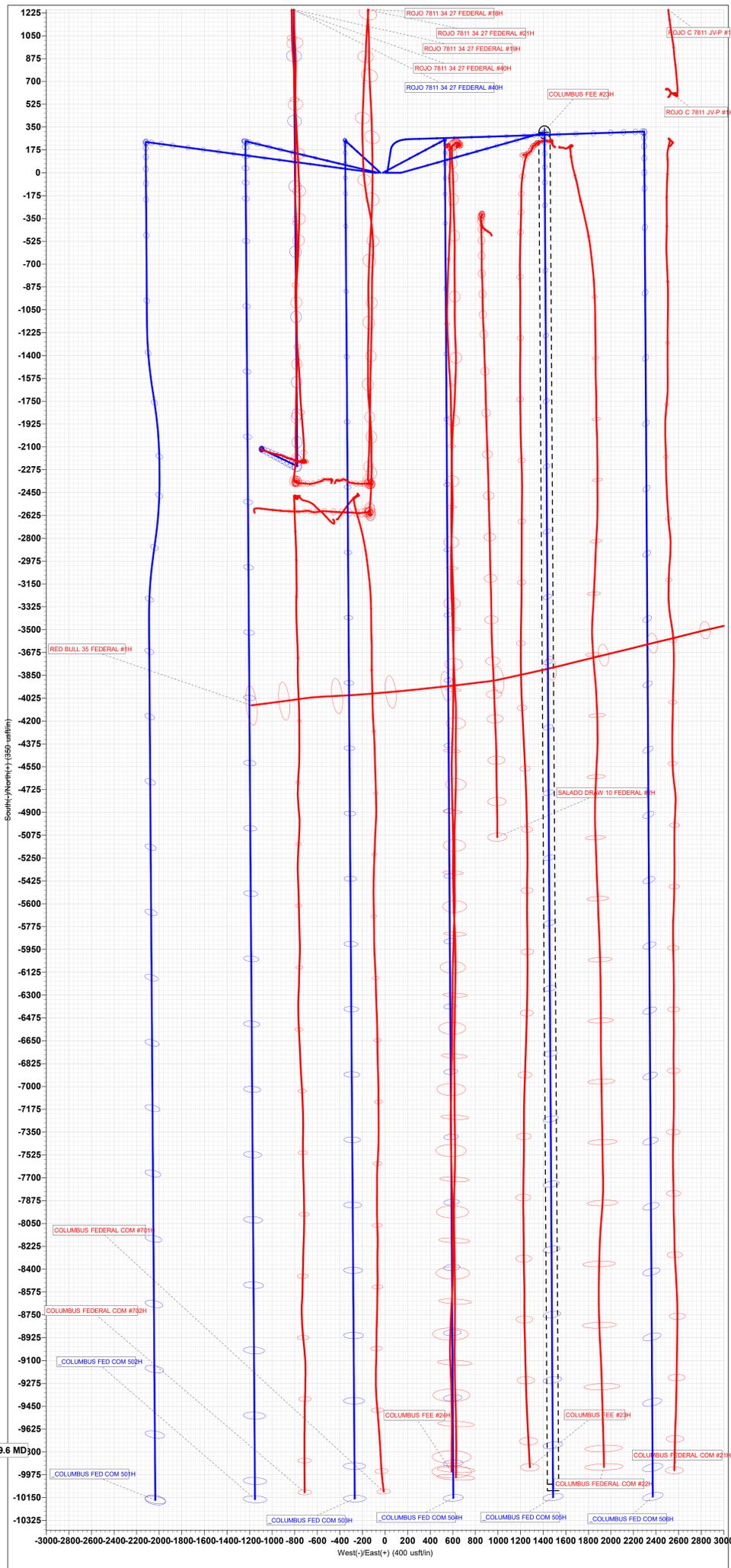
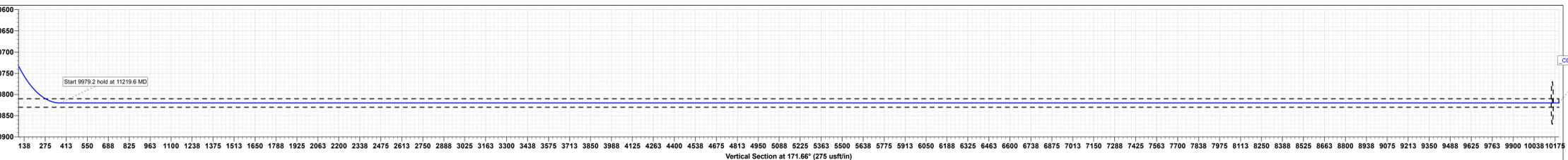
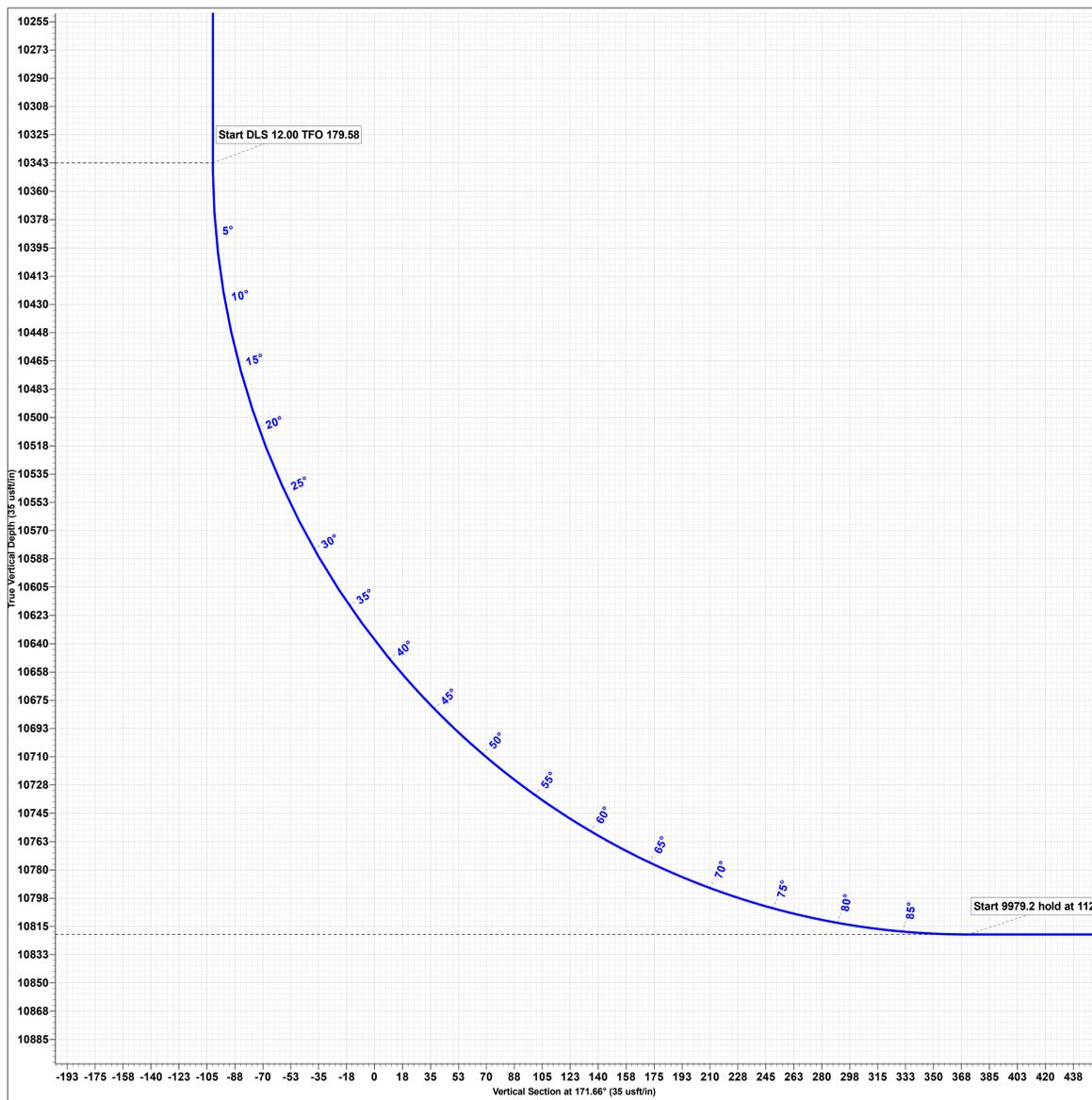
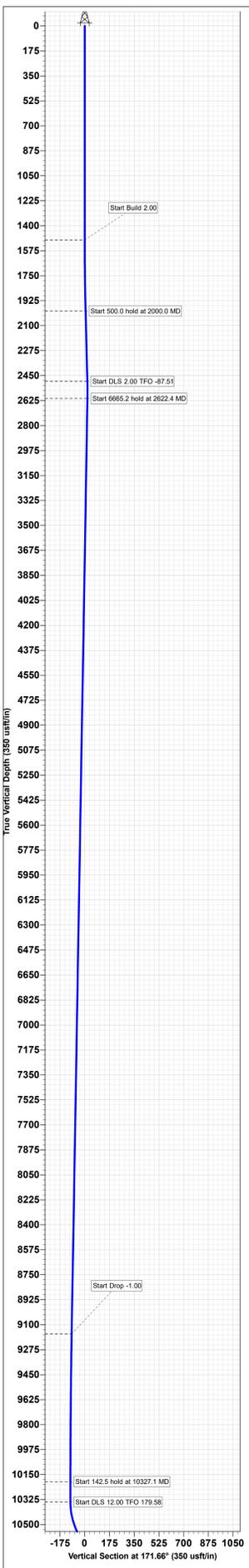
Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
21,103.19	10,763.00	5-1/2" Production Casing	5-1/2	6



Project: LEA COUNT SOUTH WEST (NM-E)
 Site: COLUMBUS FEDERAL PROJECT
 Well: COLUMBUS FED COM 505H
 Wellbore: OWB
 Design: PWPO

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0
2000.0	10.00	90.00	1997.5	0.0	43.5	2.00	90.00	6.3
2500.0	10.00	90.00	2489.9	0.0	130.3	0.00	0.00	18.9
2622.4	10.40	76.32	2610.4	2.6	151.7	2.00	-87.51	19.4
9287.6	10.40	76.32	9166.1	287.1	1320.3	0.00	0.00	-92.5
10327.1	0.00	0.00	10200.0	309.3	1411.6	1.00	180.00	-101.3
10469.6	0.00	0.00	10342.5	309.3	1411.6	0.00	0.00	-101.3
11219.6	90.00	179.58	10820.0	-168.1	1415.1	12.00	179.58	371.6
21198.8	90.00	179.58	10820.0	-10147.0	1488.0	0.00	0.00	10255.5



ConocoPhillips Company - Columbus Federal Com 505H

1. Geologic Formations

TVD of target	10,820' EOL	Pilot hole depth	NA
MD at TD:	21,199'	Deepest expected fresh water:	314'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1019	Water	
Top of Salt	1378	Salt	
USGS Marker Bed 126	-	Salt	
Base of Salt	4750	Salt Water	
Lamar	4864	Salt Water	
Bell Canyon	5019	Oil/Gas	
Cherry Canyon	6058	Oil/Gas	
Brushy Canyon	7693	Oil/Gas	
Bone Spring	9074	Oil/Gas	
1st Bone Spring Sand	10106	Oil/Gas	
2nd Bone Spring Sand	10734	Target	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1149	13.375"	54.5	J55	BTC	2.15	1.35	14.52
12.25"	0	4800	9.625"	40	L80-IC	BTC	1.55	1.35	4.93
8.75"	0	10,400	5.5"	20	P110-ICY	TXP BTC	2.30	3.37	3.37
7.875"	10,400	21,199	5.5"	20	P110-ICY	TXP BTC	2.30	3.37	3.37
BLM Minimum Safety Factor							1.125	1	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.

All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172

Contingency program will be run if large water flows are encountered.

The 5 1/2" TXP BTC comply the coupling OD clearance is greater than .422" for the cement bond tie in.

ConocoPhillips Company - Columbus Federal Com 505H

	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?	
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	
If yes, are the first three strings cemented to surface?	N
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	
If yes, are there three strings cemented to surface?	N

ConocoPhillips Company - Columbus Federal Com 505H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	620	13.5	1.75	9.21	12	Lead: Class C
	170	14.8	1.35	6.8	8	Tail: Class C
Inter.	940	12.8	1.8	9.21	12	Lead: Class C
	350	14.8	1.34	6.52	8	Tail: Class C
Prod.	700	10.2	2.98	14.92	72	Lead: Tuned Light
	1980	13.2	1.42	7.45	19	Tail: Class H

Intermediate #1 Salt string cemented to surface. **Intermediate cement job to be performed offline.**
 Drill out to wait for 500PSI compressive strength.

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.

Top of cement for production casing string is planned to be minimum 200 ft overlap with previos Intermediate casing

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	3,800'	0% OH in Lateral (KOP to EOL)

If conditions dictate, an offline bradenhead cement job will be performed to ensure cement to surface. A CBL will be ran Offline to verify TOC after 2nd Stage Bradenhead.

ConocoPhillips Company - Columbus Federal Com 505H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
Y	A variance is requested for the use of BOPE break testing on intermediate skids (in accordance with the 30 day full BOPE test requirements).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4"	13-5/8"	5M	Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4" x 7-7/8"	13-5/8"	10M	Annular	x	50% testing pressure
			Blind Ram	x	10M
			Pipe Ram	x	
			Double Ram		
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3170 Subpart 3172 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 43 CFR Part 3170 Subpart 3172.
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?
N	A multibowl wellhead is being used. The BOP will be tested per 43 CFR Part 3170 Subpart 3172 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 - Columbus Federal Com 505H

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	9-5/8" Int shoe	Saturated Brine	9 - 10	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine or OBM	8.6 - 9.5	28-34	N/C

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

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

6. Logging and Testing Procedures

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

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
N	CBL	Production casing
Y	Mud log	Intermediate shoe to TD
N	PEX	

ConocoPhillips Company - Columbus Federal Com 505H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5350 psi at 10820' TVD
Abnormal Temperature	NO 165 Deg. F.

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

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

Hydrogen Sulfide (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 43 CFR Part 3170 Subpart 3176. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

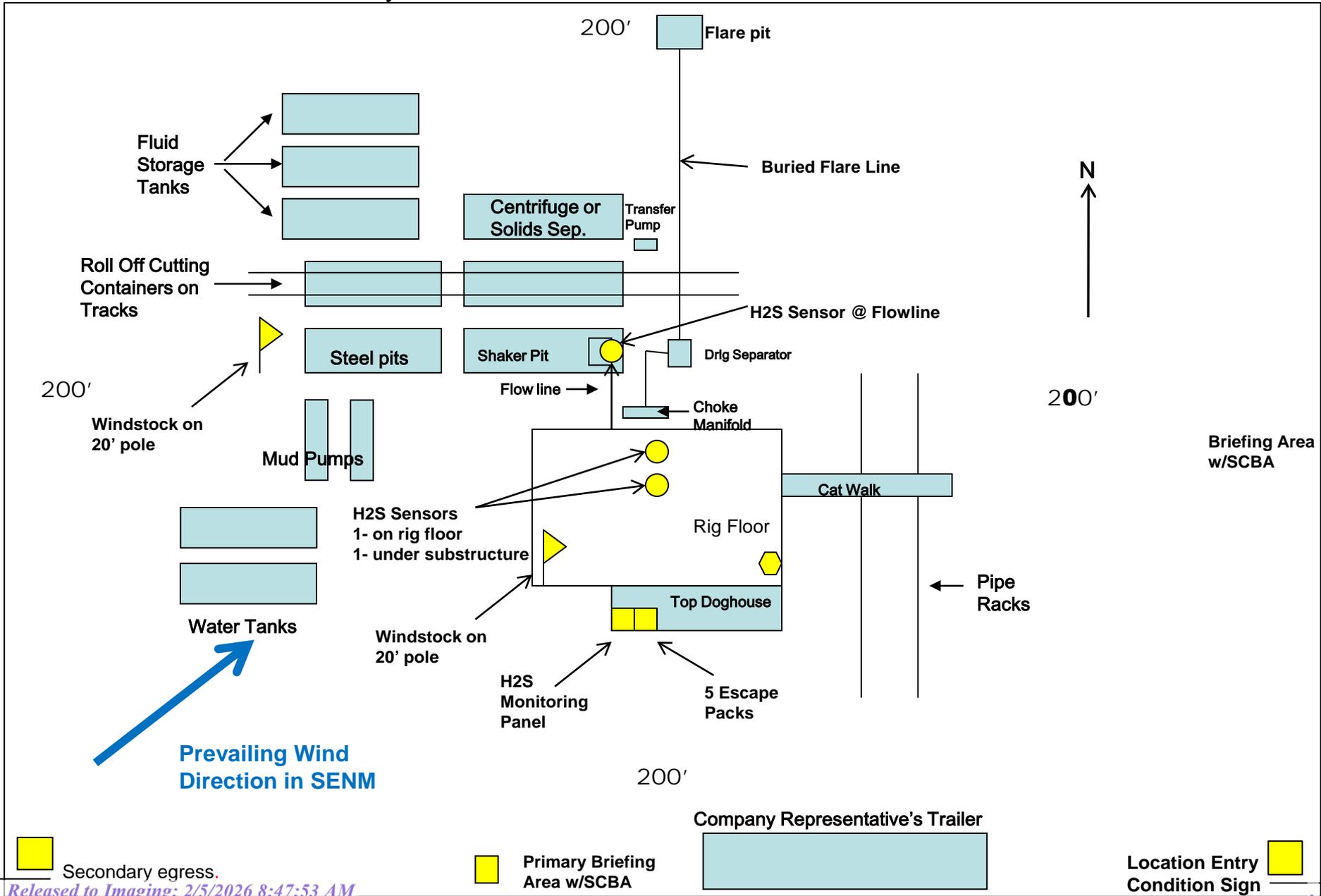
8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?
Y	Is Pad Batch Drilled?

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

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

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



COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S. If H₂S greater than 100 ppm is encountered in the gas stream we will shut in and install H₂S equipment.

- a. Well Control Equipment:
 - Flare line.
 - Choke manifold with remotely operated choke.
 - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE**

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
Dallas Daley	432-818-2329	432-631-6977

EMERGENCY RESPONSE NUMBERS

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description Effective May 25, 2021

I. Operator: COG Operating LLC

OGRID: 229137

Date: 01/20/2026

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
Columbus Federal Com 501H	30-025-	C-34-25S-33E	400 FNL & 2285 FWL	± 473	± 1606	± 1225
Columbus Federal Com 502H	30-025-	C-34-25S-33E	400 FNL & 2325 FWL	± 473	± 1606	± 1225
Columbus Federal Com 503H	30-025-	C-34-25S-33E	400 FNL & 2365 FWL	± 473	± 1606	± 1225
Columbus Federal Com 504H	30-025-	C-34-25S-33E	400 FNL & 2385 FWL	± 473	± 1606	± 1225
Columbus Federal Com 505H	30-025-	C-34-25S-33E	400 FNL & 2425 FWL	± 473	± 1606	± 1225
Columbus Federal Com 506H	30-025-	C-34-25S-33E	400 FNL & 2465 FWL	± 473	± 1606	± 1225

IV. Central Delivery Point Name: 34 C CTB 350' FNL & 1785' FWL 34-25S-33E [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
Columbus Federal Com	Pending	± 07/01/2027	± 25 days from spud	TBD	TBD	TBD
501H, 502H, 503H, 504H, 505H, 506H						

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

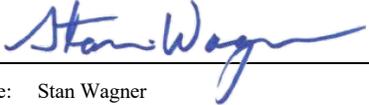
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 01/20/2026
Phone: 432-253-9685
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

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

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

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

C. Completion Operations

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

D. Venting and flaring during production operations

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

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

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

- F. 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.
- G. 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

Waste Minimization Plan

Per § 3162.3-1 Drilling applications and plans. Part J:

B. The anticipated initial oil production rate from the oil well and the anticipated production decline over the first 3 years of production.

- See attached Anticipated Production & Decline Curve

C. The anticipated initial oil-well gas production rate from the oil well and the anticipated production decline over the first 3 years of production.

- See attached Anticipated Production & Decline Curve

D. Certification that the operator has a valid, executed gas sales contract to sell to a purchaser 100 percent of the produced oil-well gas, less gas anticipated for use on-lease pursuant to 43 CFR subpart 3178.

- See attached NMOCD – Natural Gas Management Plan

E. Any other information demonstrating the operator's plans to avoid the waste of gas production from any source, including, as appropriate, from pneumatic equipment, storage tanks, and leaks.

- This location will comply with NSPS OOOOb which will include reduced associated gas flaring, non-emitting pneumatic equipment, storage tanks that are controlled and a rigorous leak detection and repair program. In addition, this facility complies with 20.2.50 NMAC (Ozone Precursor Pollutants) which also imposes standards on pneumatic equipment, tank controls, and leak detection and repair. Finally, this facility must comply with 19.15.27 NMAC (Venting and Flaring of Natural Gas) which

significantly reduces instances of flaring.

Anticipated Production Decline Curve

