

<b>Well Name:</b> AVION FEDERAL COM	<b>Well Location:</b> T23S / R32E / SEC 22 / NWNE / 32.296511 / -103.658381	<b>County or Parish/State:</b> LEA / NM
<b>Well Number:</b> 701H	<b>Type of Well:</b> OIL WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM88163	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3002553594	<b>Operator:</b> COG OPERATING LLC	

**Notice of Intent**

**Sundry ID:** 2833101

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 01/21/2025

**Time Sundry Submitted:** 02:31

**Date proposed operation will begin:** 01/21/2025

**Procedure Description:** COG Operating LLC, respectfully requests approval for the following changes to the original approved APD. SHL Change: Due to another company pipelines being in the way of the original SHL. From: 325' FNL & 1365' FEL Section 22. T23S. R32E. To: 265' FNL & 1305' FEL Section 22. T23S. R32E. C102 Attached. Drilling: Drilling Program, Directional Program, AC Report and Specs Attached.

**NOI Attachments**

**Procedure Description**

- AVION\_FEDERAL\_COM\_701H\_Updated\_New\_C102\_20250121142646.pdf
- AVION\_FEDERAL\_COM\_701H\_PWP1\_DIR\_RPT\_20250121142643.pdf
- Avion\_Fed\_Com\_701H\_Updated\_Drilling\_Program\_for\_Sundry\_20250121142643.pdf
- AVION\_FEDERAL\_COM\_701H\_PWP1\_AC\_RPT\_20250121142643.pdf
- AVION\_FEDERAL\_COM\_701H\_PWP1\_WPLOT\_20250121142643.pdf
- 5.500\_23\_P110\_CY\_WEDGE\_441\_08192024\_20250121142643.pdf
- 5.500\_23\_P110\_CY\_TXP\_BTC\_08192024\_20250121142640.pdf

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Well Number: 701H

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Allottee or Tribe Name:

Lease Number: NMNM88163

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002553594

Operator: COG OPERATING LLC

### Conditions of Approval

#### Additional

SEC22\_T23S\_R32E\_AVION\_FED\_COM\_Lea\_\_CONOCOPHILLIPS\_COMPANY\_45567\_JS\_20250129105417.pdf  
AVION\_FED\_COM\_701H\_COAs\_20250129105417.pdf

### Operator

*I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a*

Operator Electronic Signature: MAYTE REYES

Signed on: JAN 21, 2025 02:45 PM

Name: COG OPERATING LLC

Title: Regulatory Analyst

Street Address: 925 N ELDRIDGE PARKWAY

City: HOUSTON

State: TX

Phone: (281) 293-1000

Email address: MAYTE.X.REYES@CONOCOPHILLIPS.COM

### Field

Representative Name: Gerald Herrera

Street Address: 2208 West Main Street

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-6940

Email address: gerald.a.herrera@conocophillips.com

### BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 01/29/2025

Signature: Chris Walls

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

**WELL LOCATION INFORMATION**

API Number <b>30-025-53594</b>	Pool Code <b>98248</b>	Pool Name <b>WC-025 G-08 S243217P;UPR Wolfcamp</b>
Property Code	Property Name <b>AVION FEDERAL COM</b>	Well Number <b>701H</b>
OGRID No. <b>229137</b>	Operator Name <b>COG OPERATING LLC</b>	Ground Level Elevation <b>3702.1'</b>
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 type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

**Surface Location**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>A</b>	<b>22</b>	<b>23-S</b>	<b>32-E</b>		<b>265 FNL</b>	<b>1305 FEL</b>	<b>32.296676°N</b>	<b>103.658186°W</b>	<b>LEA</b>

**Bottom Hole Location**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>P</b>	<b>27</b>	<b>23-S</b>	<b>32-E</b>		<b>50 FSL</b>	<b>330 FEL</b>	<b>32.268514°N</b>	<b>103.655024°W</b>	<b>LEA</b>

Dedicated Acres <b>640</b>	Infill or Defining Well <b>Infill</b>	Defining Well API <b>30-025-53595</b>	Overlapping Spacing Unit (Y/N) <b>N</b>	Consolidation Code
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
<b>A</b>	<b>22</b>	<b>23-S</b>	<b>32-E</b>		<b>265 FNL</b>	<b>1305 FEL</b>	<b>32.296676°N</b>	<b>103.658186°W</b>	<b>LEA</b>

**First Take Point (FTP)**

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>A</b>	<b>22</b>	<b>23-S</b>	<b>32-E</b>		<b>100 FNL</b>	<b>330 FEL</b>	<b>32.297137°N</b>	<b>103.655032°W</b>	<b>LEA</b>

**Last Take Point (LTP)**

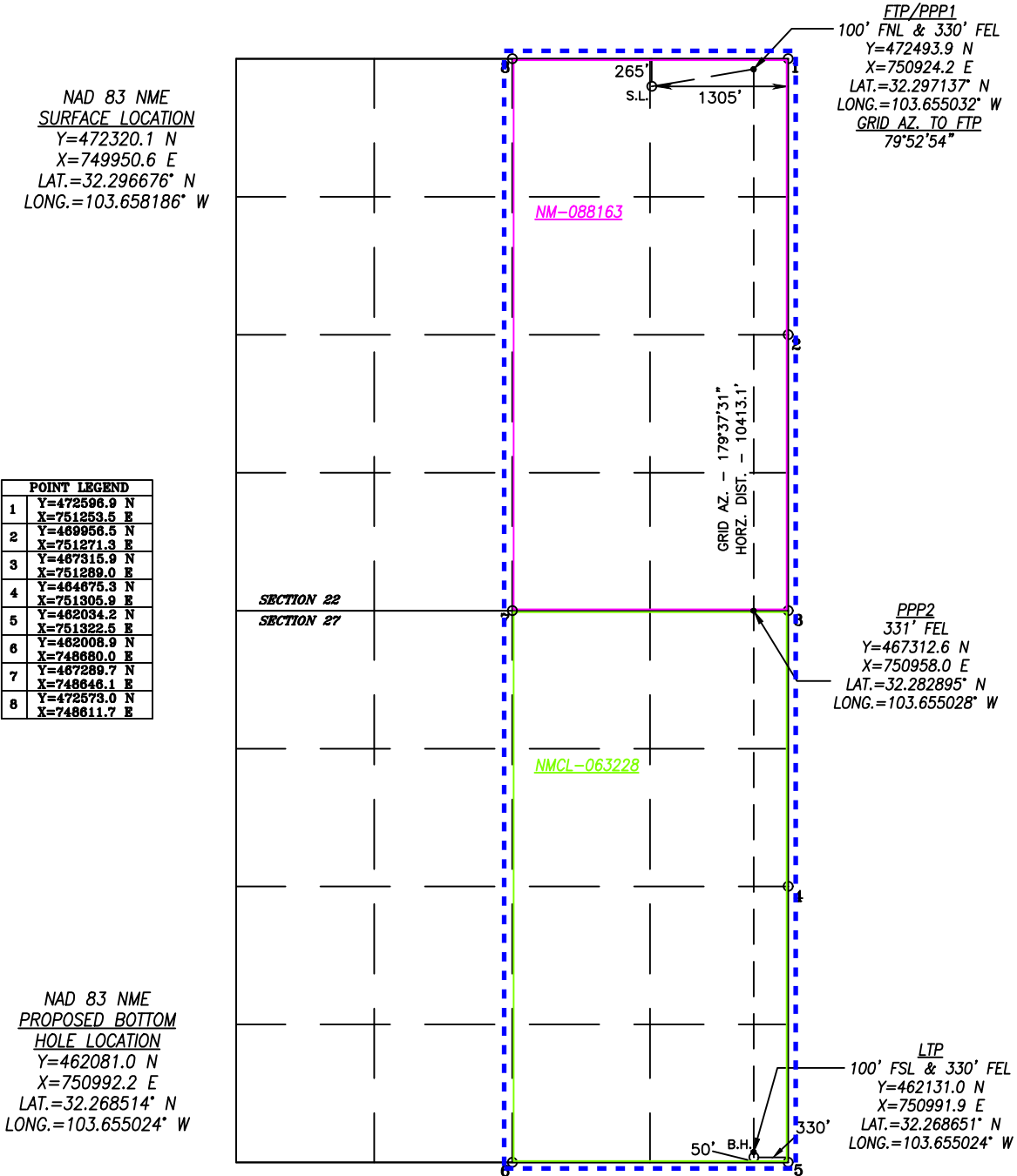
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>P</b>	<b>27</b>	<b>23-S</b>	<b>32-E</b>		<b>100 FSL</b>	<b>330 FEL</b>	<b>32.268651°N</b>	<b>103.655024°W</b>	<b>LEA</b>

Unitized Area or Area of Uniform Interest <b>COM</b>	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: <b>3702.1'</b>
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<p><b>OPERATOR CERTIFICATIONS</b></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><b>SURVEYOR CERTIFICATIONS</b></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;">  </div> <p style="text-align: right;"><i>Chad Harcrow</i>      12/16/24</p>
Signature <b>Mayte Reyes</b> Date <b>1/21/2025</b>	Signature and Seal of Professional Surveyor
Printed Name <b>Mayte Reyes</b>	Certificate Number <b>17777</b>
Email Address <b>mayte.x.reyes@cop.com</b>	Date of Survey <b>DECEMBER 10, 2024</b>
W.O.#24-1251    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.



## ConocoPhillips - Avion Fed Com 701H

### 1. Geologic Formations

TVD of target	12,404' EOL	Pilot hole depth	NA
MD at TD:	22,763'	Deepest expected fresh water:	713'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1227	Water	
Top of Salt	1696	Salt	
Base of Salt	4695	Salt	
Lamar	4943	Salt Water	
Bell Canyon	5000	Salt Water	
Cherry Canyon	5894	Oil/Gas	
Brushy Canyon	7055	Oil/Gas	
Bone Spring	8781	Oil/Gas	
1st Bone Spring Sand	9907	Oil/Gas	
2nd Bone Spring Sand	10516	Oil/Gas	
3rd Bone Spring Sand	11865	Oil/Gas	
Wolfcamp Sand	12304	Target Oil/Gas	

### 2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
14.75"	0	1350	10.75"	45.5	J55	BTC	3.38	1.15	11.64	12.96
9.875"	0	8200	7.625"	29.7	L80-ICY	BTC	1.50	1.07	2.98	3.01
8.750"	8200	11925	7.625"	29.7	P110-ICY	W513	1.29	1.62	3.02	1.81
6.75"	0	11725	5.5"	23	P110-CY	BTC	1.91	2.13	2.70	2.70
6.75"	11725	22,763	5.5"	23	P110-CY	W441	1.80	2.13	2.56	2.32
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172

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

**ConocoPhillips - Avion Fed Com 701H**

	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
<b>Is well located within Capitan Reef?</b>	
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary?	
<b>Is well located in SOPA but not in R-111-P?</b>	
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	N
<b>Is well located in R-111-P and SOPA?</b>	
If yes, are the first three strings cemented to surface?	N
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
<b>Is well located in high Cave/Karst?</b>	
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?	
<b>Is well located in critical Cave/Karst?</b>	
If yes, are there three strings cemented to surface?	N

ConocoPhillips - Avion Fed Com 701H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	501	13.5	1.75	9	12	Lead: Class C
	187	14.8	1.34	6.34	8	Tail: Class C
Int. Stage 1	1202	11	2.54	15.33	12	Lead: Class C
	112	14.8	1.34	6.52	8	Tail: Class C
Int. Stage 2	524	12.9	1.9	10.52	24	Lead: Class C
	192	14.8	1.34	6.52	8	Tail: Class C
Prod	648	12.7	1.68	9.09	72	Lead: Class C
	1055	14.5	1.18	5.26	19	Tail: Class H

Intermediate cement job to be performed offline.

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

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

Casing String	TOC	% Excess
Surface	0'	50%
Int Stg 1	0'	50%
Int Stg 2	0'	20%
Production	11,425'	35% OH in Lateral (KOP to EOL)

3b. Contingency Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	501	13.5	1.75	9	12	Lead: Class C
	187	14.8	1.34	6.34	8	Tail: Class C
Bradenhead Stage 1	641	15.6	1.216	5.28	6	Stage 1 Lead: Class H
	134	16.2	1.123	4.6	11	Stage 1 Tail: Class H
Bradenhead Stage 2	2500	14.8	1.5	7.2	4	Bradenhead: Thixotropic Class C
	400	14.8	1.33	6.4	5	Top Out: Class C
Prod	648	12.7	1.68	9.09	72	Lead: Class C
	1055	14.5	1.18	5.26	19	Tail: Class H

If conditions dictate, an offline bradenhead cement job will be performed to ensure cement to surface.

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

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

Casing String	TOC	% Excess
Surface	0'	50%
BH Stg 1	0'	50%
BH Stg 2	7,055'	151%
Production	11,425'	35% OH in Lateral (KOP to EOL)

**ConocoPhillips - Avion Fed Com 701H**

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

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 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?
Y	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 - Avion Fed Com 701H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9.2	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9 - 12.5	35-45	<20

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

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

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

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

**ConocoPhillips - Avion Fed Com 701H**

**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	8065 psi at 12404' TVD
Abnormal Temperature	NO 180 Deg. F.

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

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

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

**8. Other Facets of Operation**

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

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

# **DELAWARE BASIN EAST**

**LEA COUNTY SOUTHEAST  
AVION FEDERAL COM PROJECT  
AVION FEDERAL COM 701H**

**OWB  
PWP1**

## **Anticollision Report**

**12 January, 2025**

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PWP1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.0usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.0 to 22,763.3usft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum centre distance of 1,000.0usft	<b>Error Surface:</b>	Combined Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.79 Sigma	<b>Casing Method:</b>	Added to Error Values

<b>Survey Tool Program</b>	Date	1/12/2025		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	1,500.0	PWP1 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp-Initialzd Cor
1,500.0	12,028.4	PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corro
12,028.4	22,762.9	PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR	ISCWSA MWD + IFR1 + SAG + FDIR Corro

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
AVION FEDERAL COM PROJECT						
AVION FEDERAL COM 301H - OWB - AWP	9,077.6	8,995.5	67.9	44.7	2.934	Normal Operations, CC, ES, SF
AVION FEDERAL COM 501H - OWB - PWP1	1,500.0	1,500.0	20.0	13.0	2.860	Normal Operations, CC, ES, SF
AVION FEDERAL COM 502H - OWB - PWP1	1,500.0	1,500.0	60.0	53.0	8.581	CC, ES
AVION FEDERAL COM 502H - OWB - PWP1	1,700.0	1,700.6	65.6	57.7	8.325	SF
AVION FEDERAL COM 503H - OWB - PWP1	1,500.0	1,499.0	99.9	92.9	14.289	CC, ES
AVION FEDERAL COM 503H - OWB - PWP1	1,600.0	1,595.8	103.2	95.7	13.830	SF
AVION FEDERAL COM 702H - OWB - PWP1	1,561.0	1,562.4	30.9	23.3	4.042	CC, ES
AVION FEDERAL COM 702H - OWB - PWP1	22,763.3	22,679.8	680.1	499.2	3.761	SF
AVION FEDERAL COM 703H - OWB - PWP1	1,500.0	1,499.0	80.0	72.7	10.930	CC, ES
AVION FEDERAL COM 703H - OWB - PWP1	1,600.0	1,599.0	81.7	74.2	10.865	SF
AVION FEDERAL COM 704H - OWB - PWP1	1,200.0	1,199.0	119.9	113.6	19.111	CC, ES
AVION FEDERAL COM 704H - OWB - PWP1	1,400.0	1,390.9	126.4	119.3	17.971	SF
CUERVO FEDERAL 23H - OWB - AWP	9,950.0	14,280.0	859.0	750.3	7.900	CC, ES, SF
DIAMONDTAIL 23 FEDERAL 1H - OWB - AWP	6,926.7	6,809.2	950.6	911.6	24.339	CC, ES
DIAMONDTAIL 23 FEDERAL 1H - OWB - AWP	9,400.0	9,239.0	980.2	929.8	19.467	SF
GRUMPY CAT 15 FEDERAL 214H - OWB - AWP	10,794.2	15,725.0	153.2	84.1	2.218	Caution - Monitor Closely, CC, ES
GRUMPY CAT 15 FEDERAL 214H - OWB - AWP	10,800.0	15,725.0	153.3	84.2	2.218	Caution - Monitor Closely, SF
BEDLINGTON FEDERAL PROJECT (BULLDOG 2332)						
BEDLINGTON FED COM 701H - ST01 - ST01	19,111.0	21,154.1	677.9	539.8	4.910	CC, ES
BEDLINGTON FED COM 701H - ST01 - ST01	22,200.0	18,078.2	683.2	541.7	4.829	SF
REDTAIL FED COM PROJECT						
CUERVO FEDERAL 23H - OWB - AWP	9,950.0	14,280.0	859.0	760.1	8.683	CC, ES, SF

<b>Offset Design:</b> AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS												<b>Offset Well Error:</b>	3.0 usft
Reference	Offset	Semi Major Axis		Reference		Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	(usft)	(usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)		Separation Factor
0.0	0.0	0.0	0.0	0.0	3.0	101.94	-206.3	976.1	997.7				
100.0	100.0	97.1	97.1	0.6	3.0	101.95	-206.6	976.0	997.6	992.8	4.77	209.082	
116.8	116.8	112.6	112.6	0.6	3.0	101.96	-206.7	975.9	997.6	992.8	4.80	207.890	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP														Offset Site Error: 0.0 usft
Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS										Rule Assigned:				Offset Well Error: 3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
200.0	200.0	193.8	193.8	1.1	3.1	101.99	-207.3	975.9	997.7	992.7	4.97	200.717		
300.0	300.0	293.4	293.4	1.4	3.1	102.03	-208.0	976.0	997.9	992.7	5.16	193.270		
400.0	400.0	394.5	394.5	1.7	3.1	102.07	-208.7	976.0	998.1	992.7	5.35	186.577		
500.0	500.0	495.2	495.2	1.9	3.2	102.10	-209.3	976.1	998.3	992.7	5.53	180.528		
600.0	600.0	595.9	595.8	2.1	3.2	102.14	-209.9	976.0	998.3	992.6	5.70	175.058		
700.0	700.0	696.2	696.2	2.3	3.3	102.17	-210.5	975.9	998.3	992.4	5.87	170.075		
800.0	800.0	796.9	796.9	2.5	3.3	102.19	-210.8	975.6	998.2	992.1	6.03	165.522		
900.0	900.0	897.1	897.1	2.7	3.4	102.20	-210.9	975.5	998.0	991.8	6.19	161.311		
948.7	948.7	944.4	944.4	2.8	3.4	102.20	-210.9	975.4	998.0	991.7	6.26	159.387		
1,000.0	1,000.0	995.9	995.9	2.9	3.4	102.20	-211.0	975.4	998.0	991.7	6.34	157.401		
1,011.7	1,011.7	1,007.4	1,007.4	2.9	3.4	102.20	-211.0	975.4	998.0	991.6	6.36	156.971		
1,100.0	1,100.0	1,094.1	1,094.1	3.1	3.4	102.20	-211.0	975.5	998.1	991.6	6.49	153.773		
1,200.0	1,200.0	1,193.6	1,193.6	3.2	3.5	102.20	-211.0	975.6	998.2	991.6	6.64	150.326		
1,300.0	1,300.0	1,292.1	1,292.1	3.4	3.5	102.20	-210.9	976.0	998.5	991.7	6.79	147.047		
1,400.0	1,400.0	1,391.3	1,391.3	3.5	3.5	102.19	-210.8	976.4	999.0	992.0	6.94	143.886		
1,500.0	1,500.0	1,491.3	1,491.3	3.7	3.5	102.18	-210.9	976.9	999.4	992.3	7.10	140.823		
1,600.0	1,600.0	1,592.6	1,592.6	3.8	3.6	25.13	-210.9	977.3	998.2	990.8	7.37	135.514		
1,700.0	1,699.8	1,693.0	1,693.0	4.0	3.6	25.29	-210.8	977.5	993.7	986.0	7.73	128.618		
1,800.0	1,799.5	1,793.5	1,793.5	4.3	3.6	25.56	-210.6	977.7	986.0	977.9	8.07	122.128		
1,900.0	1,898.7	1,891.6	1,891.6	4.6	3.6	25.94	-210.4	978.0	975.2	966.8	8.41	115.937		
2,000.0	1,997.5	1,990.3	1,990.3	4.8	3.7	26.46	-210.2	978.5	961.5	952.8	8.75	109.906		
2,100.0	2,095.6	2,087.7	2,087.7	5.1	3.7	27.11	-210.0	978.8	944.8	935.7	9.08	104.034		
2,125.0	2,120.0	2,112.1	2,112.1	5.1	3.7	27.29	-210.0	979.0	940.1	931.0	9.11	103.146		
2,200.0	2,193.3	2,186.6	2,186.5	5.2	3.7	27.74	-209.8	979.2	925.9	916.6	9.26	99.974		
2,300.0	2,290.9	2,281.7	2,281.7	5.4	3.8	28.33	-209.5	979.7	907.1	897.6	9.50	95.477		
2,400.0	2,388.5	2,380.0	2,379.9	5.6	3.8	28.97	-209.3	980.2	888.4	878.6	9.75	91.120		
2,500.0	2,486.2	2,477.1	2,477.1	5.8	3.9	29.62	-209.0	980.8	869.9	859.9	10.00	86.988		
2,600.0	2,583.8	2,574.0	2,574.0	6.0	3.9	30.29	-208.5	981.5	851.6	841.4	10.25	83.086		
2,700.0	2,681.4	2,672.1	2,672.1	6.2	4.0	30.99	-208.0	982.3	833.5	823.0	10.50	79.356		
2,800.0	2,779.1	2,769.1	2,769.0	6.4	4.0	31.69	-207.3	983.2	815.5	804.8	10.75	75.838		
2,900.0	2,876.7	2,867.5	2,867.4	6.5	4.1	32.43	-206.5	984.2	797.8	786.8	11.01	72.484		
3,000.0	2,974.3	2,964.0	2,964.0	6.7	4.2	33.18	-205.6	985.1	780.1	768.8	11.26	69.305		
3,100.0	3,071.9	3,061.7	3,061.6	6.9	4.2	33.96	-204.6	986.3	762.7	751.2	11.51	66.280		
3,200.0	3,169.6	3,159.0	3,158.9	7.1	4.3	34.75	-203.3	987.6	745.5	733.7	11.76	63.411		
3,300.0	3,267.2	3,257.5	3,257.4	7.3	4.4	35.59	-202.0	989.0	728.5	716.5	12.00	60.681		
3,400.0	3,364.8	3,354.9	3,354.7	7.5	4.5	36.44	-200.7	990.5	711.7	699.4	12.25	58.080		
3,500.0	3,462.5	3,452.9	3,452.7	7.7	4.5	37.35	-199.4	991.9	695.0	682.5	12.50	55.605		
3,600.0	3,560.1	3,551.8	3,551.6	7.9	4.6	38.30	-198.0	993.4	678.5	665.8	12.74	53.251		
3,700.0	3,657.7	3,649.1	3,648.9	8.2	4.7	39.28	-196.6	994.8	662.2	649.2	12.98	51.007		
3,800.0	3,755.4	3,746.8	3,746.6	8.4	4.8	40.32	-195.1	996.2	646.0	632.8	13.22	48.871		
3,900.0	3,853.0	3,845.7	3,845.5	8.6	4.9	41.42	-193.7	997.6	630.1	616.7	13.45	46.840		
4,000.0	3,950.6	3,947.0	3,946.8	8.8	5.0	42.64	-192.5	998.6	614.2	600.5	13.67	44.919		
4,100.0	4,048.2	4,046.4	4,046.1	9.0	5.0	43.94	-191.4	999.0	598.0	584.1	13.87	43.104		
4,200.0	4,145.9	4,143.7	4,143.5	9.2	5.1	45.32	-190.5	999.1	582.0	568.0	14.07	41.377		
4,300.0	4,243.5	4,239.5	4,239.3	9.4	5.1	46.83	-190.4	999.0	566.6	552.4	14.26	39.750		
4,400.0	4,341.1	4,335.1	4,334.9	9.6	5.0	48.47	-190.9	998.7	552.0	537.5	14.47	38.150		
4,500.0	4,438.8	4,429.8	4,429.5	9.8	5.0	50.19	-191.7	998.8	538.2	523.5	14.70	36.625		
4,600.0	4,536.4	4,522.3	4,522.1	10.0	5.0	51.98	-193.2	999.2	525.8	510.8	14.93	35.215		
4,700.0	4,634.0	4,616.9	4,616.6	10.2	5.1	53.92	-195.5	1,000.1	514.9	499.7	15.16	33.958		
4,800.0	4,731.7	4,721.4	4,721.1	10.4	5.1	56.16	-198.0	1,000.9	504.5	489.1	15.38	32.797		
4,900.0	4,829.3	4,827.6	4,827.2	10.7	5.0	58.53	-198.9	1,000.2	492.7	477.1	15.56	31.656		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP														Offset Site Error:	0.0 usft	
Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS										Rule Assigned:				Offset Well Error:		3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
5,000.0	4,926.9	4,924.6	4,924.3	10.9	5.0	60.83	-199.6	999.0	481.2	465.4	15.75	30.554				
5,100.0	5,024.5	5,021.6	5,021.2	11.1	4.9	63.25	-200.3	997.6	470.5	454.5	15.94	29.520				
5,200.0	5,122.2	5,119.6	5,119.2	11.3	4.9	65.80	-201.0	996.3	460.7	444.6	16.13	28.563				
5,300.0	5,219.8	5,217.4	5,217.1	11.5	4.8	68.44	-201.7	995.0	451.9	435.6	16.33	27.674				
5,400.0	5,317.4	5,314.7	5,314.3	11.7	4.8	71.15	-202.2	993.7	443.9	427.4	16.53	26.849				
5,500.0	5,415.1	5,411.2	5,410.8	11.9	4.7	73.93	-202.9	992.4	437.2	420.5	16.75	26.105				
5,600.0	5,512.7	5,507.9	5,507.5	12.1	4.7	76.78	-203.5	991.2	431.6	414.7	16.97	25.431				
5,700.0	5,610.3	5,605.3	5,604.9	12.4	4.6	79.72	-204.3	990.0	427.3	410.1	17.21	24.831				
5,797.0	5,705.0	5,700.0	5,699.6	12.6	4.6	82.62	-205.0	988.8	424.2	406.8	17.44	24.321				
5,800.0	5,708.0	5,703.2	5,702.8	12.6	4.6	82.72	-205.0	988.8	424.2	406.7	17.45	24.309				
5,900.0	5,805.8	5,800.8	5,800.3	12.9	4.6	85.61	-205.8	987.6	422.3	404.5	17.89	23.603				
6,000.0	5,904.0	5,909.1	5,908.6	13.1	4.6	88.46	-205.3	986.9	420.8	402.6	18.14	23.200				
6,100.0	6,002.4	6,027.3	6,026.7	13.3	4.6	90.96	-200.3	987.7	416.7	398.3	18.37	22.677				
6,200.0	6,101.2	6,129.1	6,128.3	13.5	4.6	92.82	-192.8	988.3	410.0	391.4	18.61	22.036				
6,300.0	6,200.2	6,248.2	6,246.7	13.7	4.6	94.73	-180.7	988.6	400.9	382.1	18.86	21.263				
6,400.0	6,299.5	6,359.5	6,356.7	13.9	4.7	96.16	-163.6	989.1	386.7	367.7	19.10	20.251				
6,500.0	6,399.0	6,458.9	6,454.7	14.1	4.7	97.22	-147.5	989.6	371.8	352.5	19.32	19.245				
6,600.0	6,498.6	6,555.8	6,550.4	14.3	4.8	98.05	-131.9	990.2	356.9	337.4	19.53	18.278				
6,700.0	6,598.3	6,656.9	6,650.2	14.4	4.8	98.81	-115.5	990.3	341.8	322.1	19.74	17.317				
6,800.0	6,698.2	6,755.3	6,747.3	14.6	4.9	99.58	-99.3	988.9	326.1	306.2	19.94	16.354				
6,900.0	6,798.2	6,853.7	6,844.3	14.8	5.0	100.10	-83.2	987.6	310.3	290.1	20.13	15.413				
7,000.0	6,898.1	6,951.9	6,941.1	14.9	5.0	100.29	-67.4	986.6	294.4	274.1	20.30	14.501				
7,046.9	6,945.0	6,998.1	6,986.8	14.9	5.1	177.36	-60.0	986.2	286.9	266.6	20.35	14.098				
7,100.0	6,998.1	7,050.6	7,038.6	14.9	5.1	177.37	-51.6	985.8	278.4	258.0	20.41	13.643				
7,200.0	7,098.1	7,146.7	7,133.5	15.0	5.2	177.39	-36.7	985.0	262.9	242.4	20.54	12.802				
7,300.0	7,198.1	7,242.7	7,228.6	15.1	5.3	177.35	-22.9	984.6	248.5	227.8	20.67	12.023				
7,400.0	7,298.1	7,337.6	7,322.7	15.1	5.4	177.28	-10.4	984.3	235.4	214.6	20.79	11.320				
7,500.0	7,398.1	7,434.5	7,418.8	15.2	5.5	177.14	0.9	984.3	223.7	202.8	20.92	10.693				
7,600.0	7,498.1	7,532.1	7,515.9	15.2	5.7	176.89	11.4	984.7	213.0	191.9	21.05	10.116				
7,700.0	7,598.1	7,638.8	7,621.8	15.3	5.8	176.62	23.9	985.0	201.3	180.0	21.24	9.475				
7,800.0	7,698.1	7,737.1	7,719.2	15.3	5.9	176.34	37.6	985.1	187.4	166.0	21.39	8.761				
7,900.0	7,798.1	7,834.8	7,816.0	15.4	6.0	175.78	50.5	985.9	174.3	152.8	21.52	8.101				
8,000.0	7,898.1	7,933.6	7,914.0	15.4	6.2	175.06	63.0	987.0	161.7	140.1	21.65	7.470				
8,100.0	7,998.1	8,030.8	8,010.5	15.5	6.3	174.30	74.6	988.0	150.0	128.2	21.77	6.889				
8,200.0	8,098.1	8,129.1	8,108.3	15.6	6.4	173.49	85.1	988.9	139.4	117.5	21.90	6.367				
8,300.0	8,198.1	8,229.9	8,208.4	15.6	6.6	173.15	96.4	988.4	128.2	106.1	22.07	5.807				
8,400.0	8,298.1	8,328.0	8,306.0	15.7	6.7	172.91	107.1	987.6	117.3	95.1	22.22	5.280				
8,500.0	8,398.1	8,426.1	8,403.6	15.7	6.9	172.52	116.6	987.2	107.7	85.3	22.36	4.815				
8,600.0	8,498.1	8,525.4	8,502.5	15.8	7.0	171.95	125.3	987.0	98.9	76.4	22.51	4.393				
8,700.0	8,598.1	8,624.8	8,601.5	15.9	7.1	171.09	134.2	987.1	90.1	67.5	22.66	3.978				
8,800.0	8,698.1	8,723.5	8,699.8	15.9	7.3	170.09	142.0	987.3	82.3	59.5	22.78	3.614				
8,900.0	8,798.1	8,822.3	8,798.4	16.0	7.4	169.17	148.8	987.4	75.6	52.7	22.91	3.300				
9,000.0	8,898.1	8,921.1	8,897.0	16.0	7.6	168.14	154.3	987.6	70.1	47.1	23.03	3.046				
9,077.6	8,975.7	8,995.5	8,971.4	16.1	7.6	167.48	156.6	987.9	67.9	44.7	23.13	2.934 Normal Operations, CC, ES, SF				
9,100.0	8,998.1	9,016.6	8,992.6	16.1	7.6	167.54	156.4	987.9	68.1	44.9	23.18	2.936 Normal Operations				
9,200.0	9,098.1	9,110.4	9,086.1	16.2	7.7	169.24	150.9	986.9	73.7	50.1	23.56	3.127				
9,300.0	9,198.1	9,199.9	9,174.3	16.2	7.9	172.22	135.8	985.1	90.0	65.7	24.32	3.702				
9,400.0	9,298.1	9,282.5	9,253.3	16.3	8.1	175.24	112.4	982.4	118.0	92.5	25.51	4.628				
9,500.0	9,398.1	9,358.0	9,322.9	16.3	8.2	176.09	83.0	982.8	157.2	130.4	26.77	5.872				
9,600.0	9,498.1	9,433.0	9,388.9	16.4	8.4	176.11	47.7	985.1	204.6	176.9	27.71	7.383				
9,700.0	9,598.1	9,499.0	9,444.3	16.5	8.5	176.66	11.8	985.5	259.0	230.2	28.78	8.999				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 301H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 100-r.5 SDI_KPR_WL_NS-CT, 8911-r.5 MWD+IFR1+MS													Offset Well Error:	3.0 usft
Reference							Offset		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		No-Go Distance (usft)	Separation Factor		
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,800.0	9,698.1	9,555.0	9,489.0	16.5	8.7	177.50	-22.0	983.9	319.5	289.5	30.01	10.644		
9,900.0	9,798.1	9,594.0	9,517.8	16.6	8.9	178.05	-48.2	982.4	387.0	355.5	31.50	12.286		
10,000.0	9,898.1	9,641.0	9,549.1	16.6	9.1	178.47	-83.1	981.4	461.0	428.6	32.45	14.207		
10,100.0	9,998.1	9,655.9	9,558.2	16.7	9.1	178.53	-95.0	981.3	539.4	505.6	33.75	15.981		
10,200.0	10,098.1	9,689.0	9,576.5	16.8	9.2	178.56	-122.5	981.9	622.1	587.6	34.55	18.007		
10,300.0	10,198.1	9,689.0	9,576.5	16.8	9.2	178.56	-122.5	981.9	707.4	671.9	35.56	19.892		
10,400.0	10,298.1	9,713.4	9,588.5	16.9	9.3	178.53	-143.8	982.6	795.0	758.8	36.21	21.956		
10,500.0	10,398.1	9,736.0	9,598.3	16.9	9.4	178.52	-164.1	983.2	884.7	847.9	36.81	24.033		
10,600.0	10,498.1	9,736.0	9,598.3	17.0	9.4	178.52	-164.1	983.2	975.6	938.2	37.48	26.029		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 501H - OWB - PWP1													Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 10558-r.5 MWD+IFR1+SAG+FDIR													Rule Assigned:		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
0.0	0.0	0.0	0.0	0.0	0.0	-90.57	-0.2	-20.0	20.0							
100.0	100.0	100.0	100.0	0.6	0.6	-90.57	-0.2	-20.0	20.0	18.4	1.58	12.635				
200.0	200.0	200.0	200.0	1.1	1.1	-90.57	-0.2	-20.0	20.0	17.5	2.52	7.940				
300.0	300.0	300.0	300.0	1.4	1.4	-90.57	-0.2	-20.0	20.0	16.9	3.14	6.360				
400.0	400.0	400.0	400.0	1.7	1.7	-90.57	-0.2	-20.0	20.0	16.4	3.65	5.481				
500.0	500.0	500.0	500.0	1.9	1.9	-90.57	-0.2	-20.0	20.0	15.9	4.08	4.898				
600.0	600.0	600.0	600.0	2.1	2.1	-90.57	-0.2	-20.0	20.0	15.5	4.47	4.473				
700.0	700.0	700.0	700.0	2.3	2.3	-90.57	-0.2	-20.0	20.0	15.2	4.82	4.146				
800.0	800.0	800.0	800.0	2.5	2.5	-90.57	-0.2	-20.0	20.0	14.9	5.15	3.883				
900.0	900.0	900.0	900.0	2.7	2.7	-90.57	-0.2	-20.0	20.0	14.5	5.46	3.666				
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	-90.57	-0.2	-20.0	20.0	14.3	5.74	3.483				
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	-90.57	-0.2	-20.0	20.0	14.0	6.02	3.325				
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	-90.57	-0.2	-20.0	20.0	13.7	6.28	3.187				
1,300.0	1,300.0	1,300.0	1,300.0	3.4	3.4	-90.57	-0.2	-20.0	20.0	13.5	6.52	3.066				
1,400.0	1,400.0	1,400.0	1,400.0	3.5	3.5	-90.57	-0.2	-20.0	20.0	13.2	6.76	2.958 Normal Operations				
1,500.0	1,500.0	1,500.0	1,500.0	3.7	3.7	-90.57	-0.2	-20.0	20.0	13.0	6.99	2.860 Normal Operations, CC, ES, SF				
1,600.0	1,600.0	1,600.0	1,600.0	3.8	3.8	-168.65	-0.2	-20.0	21.7	14.4	7.35	2.953 Normal Operations				
1,700.0	1,699.8	1,699.8	1,699.8	4.0	4.0	-170.83	-0.2	-20.0	26.9	19.1	7.80	3.444				
1,800.0	1,799.5	1,799.5	1,799.5	4.3	4.1	-173.05	-0.2	-20.0	35.5	27.3	8.23	4.310				
1,900.0	1,898.7	1,898.7	1,898.7	4.6	4.3	-174.80	-0.2	-20.0	47.6	39.0	8.66	5.501				
2,000.0	1,997.5	1,997.5	1,997.5	4.8	4.4	-176.07	-0.2	-20.0	63.2	54.1	9.06	6.974				
2,100.0	2,095.6	2,098.4	2,098.4	5.1	4.5	-176.80	0.3	-18.4	80.6	71.1	9.56	8.433				
2,125.0	2,120.0	2,123.7	2,123.6	5.1	4.6	-176.90	0.6	-17.5	85.0	75.3	9.65	8.808				
2,200.0	2,193.3	2,200.1	2,200.0	5.2	4.7	-177.06	2.0	-13.4	97.1	87.1	9.96	9.747				
2,300.0	2,290.9	2,303.0	2,302.4	5.4	4.9	-176.97	4.8	-4.8	110.1	99.7	10.41	10.584				
2,400.0	2,388.5	2,406.6	2,405.3	5.6	5.1	-176.64	8.9	7.3	119.7	108.8	10.84	11.035				
2,500.0	2,486.2	2,510.9	2,508.2	5.8	5.3	-176.08	14.1	23.1	125.6	114.4	11.26	11.159				
2,600.0	2,583.8	2,612.5	2,608.0	6.0	5.4	-175.37	20.1	41.3	128.7	117.2	11.54	11.149				
2,700.0	2,681.4	2,712.5	2,706.1	6.2	5.6	-174.68	26.1	59.4	131.5	119.6	11.91	11.048				
2,800.0	2,779.1	2,812.4	2,804.2	6.4	5.8	-174.02	32.1	77.5	134.4	122.1	12.27	10.952				
2,900.0	2,876.7	2,912.3	2,902.3	6.5	5.9	-173.38	38.1	95.6	137.3	124.6	12.64	10.860				
3,000.0	2,974.3	3,012.3	3,000.4	6.7	6.1	-172.78	44.1	113.7	140.2	127.2	13.01	10.772				
3,100.0	3,071.9	3,112.2	3,098.5	6.9	6.3	-172.19	50.1	131.8	143.1	129.7	13.39	10.688				
3,200.0	3,169.6	3,212.2	3,196.6	7.1	6.5	-171.63	56.1	149.9	146.0	132.3	13.77	10.608				
3,300.0	3,267.2	3,312.1	3,294.8	7.3	6.6	-171.10	62.1	168.0	149.0	134.8	14.15	10.531				
3,400.0	3,364.8	3,412.1	3,392.9	7.5	6.8	-170.58	68.1	186.1	151.9	137.4	14.53	10.458				
3,500.0	3,462.5	3,512.0	3,491.0	7.7	7.0	-170.08	74.1	204.2	154.9	140.0	14.91	10.388				
3,600.0	3,560.1	3,612.0	3,589.1	7.9	7.2	-169.61	80.1	222.3	157.9	142.6	15.29	10.322				
3,700.0	3,657.7	3,711.9	3,687.2	8.2	7.4	-169.15	86.1	240.4	160.8	145.2	15.68	10.258				
3,800.0	3,755.4	3,811.9	3,785.3	8.4	7.6	-168.70	92.1	258.5	163.8	147.8	16.07	10.198				
3,900.0	3,853.0	3,911.8	3,883.4	8.6	7.8	-168.28	98.1	276.6	166.8	150.4	16.45	10.141				
4,000.0	3,950.6	4,011.8	3,981.5	8.8	8.0	-167.86	104.1	294.7	169.9	153.0	16.84	10.086				
4,100.0	4,048.2	4,111.7	4,079.6	9.0	8.1	-167.47	110.1	312.8	172.9	155.7	17.23	10.033				
4,200.0	4,145.9	4,211.7	4,177.8	9.2	8.3	-167.08	116.1	330.9	175.9	158.3	17.62	9.983				
4,300.0	4,243.5	4,311.6	4,275.9	9.4	8.5	-166.71	122.1	349.0	179.0	160.9	18.01	9.935				
4,400.0	4,341.1	4,411.6	4,374.0	9.6	8.7	-166.35	128.1	367.1	182.0	163.6	18.40	9.890				
4,500.0	4,438.8	4,511.5	4,472.1	9.8	8.9	-166.00	134.1	385.2	185.1	166.3	18.80	9.846				
4,600.0	4,536.4	4,611.4	4,570.2	10.0	9.1	-165.67	140.1	403.3	188.1	168.9	19.19	9.804				
4,700.0	4,634.0	4,711.4	4,668.3	10.2	9.3	-165.34	146.1	421.4	191.2	171.6	19.58	9.764				
4,800.0	4,731.7	4,811.3	4,766.4	10.4	9.5	-165.03	152.1	439.6	194.3	174.3	19.97	9.726				
4,900.0	4,829.3	4,911.3	4,864.5	10.7	9.7	-164.72	158.1	457.7	197.3	177.0	20.37	9.689				

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



### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 501H - OWB - PWP1														Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 10558-r.5 MWD+IFR1+SAG+FDIR														Rule Assigned:		Offset Well Error:	0.0 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)							
5,000.0	4,926.9	5,011.2	4,962.6	10.9	9.9	-164.43	164.1	475.8	200.4	179.7	20.76	9.654					
5,100.0	5,024.5	5,111.2	5,060.8	11.1	10.1	-164.14	170.1	493.9	203.5	182.3	21.15	9.620					
5,200.0	5,122.2	5,211.1	5,158.9	11.3	10.3	-163.86	176.1	512.0	206.6	185.0	21.55	9.588					
5,300.0	5,219.8	5,311.1	5,257.0	11.5	10.5	-163.59	182.1	530.1	209.7	187.8	21.94	9.557					
5,400.0	5,317.4	5,411.0	5,355.1	11.7	10.7	-163.33	188.1	548.2	212.8	190.5	22.34	9.527					
5,500.0	5,415.1	5,511.0	5,453.2	11.9	10.9	-163.08	194.1	566.3	215.9	193.2	22.73	9.499					
5,600.0	5,512.7	5,608.8	5,549.3	12.1	11.1	-162.86	199.9	583.8	219.2	196.1	23.09	9.494					
5,700.0	5,610.3	5,703.6	5,642.7	12.4	11.3	-162.84	205.0	598.9	224.4	200.9	23.49	9.556					
5,797.0	5,705.0	5,795.2	5,733.4	12.6	11.5	-163.04	209.1	611.5	231.7	207.8	23.86	9.708					
5,800.0	5,708.0	5,800.0	5,738.1	12.6	11.5	-163.06	209.3	612.1	232.0	208.1	23.88	9.711					
5,900.0	5,805.8	5,892.3	5,829.7	12.9	11.7	-163.42	212.8	622.5	240.9	216.5	24.40	9.873					
6,000.0	5,904.0	5,986.2	5,923.2	13.1	11.9	-163.86	215.6	631.0	250.4	225.6	24.76	10.113					
6,100.0	6,002.4	6,079.8	6,016.6	13.3	12.0	-164.35	217.7	637.2	260.5	235.4	25.11	10.377					
6,200.0	6,101.2	6,173.1	6,109.8	13.5	12.2	-164.89	219.0	641.3	271.3	245.9	25.43	10.667					
6,300.0	6,200.2	6,266.1	6,202.8	13.7	12.3	-165.46	219.6	643.2	282.7	257.0	25.72	10.993					
6,400.0	6,299.5	6,362.9	6,299.5	13.9	12.4	-166.05	219.7	643.4	294.3	268.3	25.98	11.326					
6,500.0	6,399.0	6,462.3	6,399.0	14.1	12.5	-166.55	219.7	643.4	304.4	278.1	26.25	11.595					
6,600.0	6,498.6	6,561.9	6,498.6	14.3	12.5	-166.94	219.7	643.4	312.8	286.3	26.51	11.800					
6,700.0	6,598.3	6,661.7	6,598.3	14.4	12.6	-167.23	219.7	643.4	319.6	292.8	26.76	11.942					
6,800.0	6,698.2	6,761.6	6,698.2	14.6	12.7	-167.44	219.7	643.4	324.6	297.6	27.00	12.023					
6,900.0	6,798.2	6,861.5	6,798.2	14.8	12.7	-167.58	219.7	643.4	328.0	300.8	27.22	12.047					
7,000.0	6,898.1	6,961.5	6,898.1	14.9	12.8	-167.65	219.7	643.4	329.6	302.2	27.43	12.016					
7,046.9	6,945.0	7,008.3	6,945.0	14.9	12.8	-90.56	219.7	643.4	329.8	302.3	27.49	11.998					
7,100.0	6,998.1	7,061.5	6,998.1	14.9	12.9	-90.56	219.7	643.4	329.8	302.3	27.54	11.977					
7,200.0	7,098.1	7,161.5	7,098.1	15.0	13.0	-90.56	219.7	643.4	329.8	302.2	27.66	11.925					
7,300.0	7,198.1	7,261.5	7,198.1	15.1	13.0	-90.56	219.7	643.4	329.8	302.0	27.78	11.873					
7,400.0	7,298.1	7,361.5	7,298.1	15.1	13.1	-90.56	219.7	643.4	329.8	301.9	27.90	11.822					
7,500.0	7,398.1	7,461.5	7,398.1	15.2	13.2	-90.56	219.7	643.4	329.8	301.8	28.02	11.771					
7,600.0	7,498.1	7,561.5	7,498.1	15.2	13.2	-90.56	219.7	643.4	329.8	301.7	28.14	11.720					
7,700.0	7,598.1	7,661.5	7,598.1	15.3	13.3	-90.56	219.7	643.4	329.8	301.6	28.26	11.669					
7,800.0	7,698.1	7,761.5	7,698.1	15.3	13.4	-90.56	219.7	643.4	329.8	301.4	28.39	11.619					
7,900.0	7,798.1	7,861.5	7,798.1	15.4	13.4	-90.56	219.7	643.4	329.8	301.3	28.51	11.569					
8,000.0	7,898.1	7,961.5	7,898.1	15.4	13.5	-90.56	219.7	643.4	329.8	301.2	28.63	11.519					
8,100.0	7,998.1	8,061.5	7,998.1	15.5	13.6	-90.56	219.7	643.4	329.8	301.1	28.76	11.469					
8,200.0	8,098.1	8,161.5	8,098.1	15.6	13.6	-90.56	219.7	643.4	329.8	300.9	28.88	11.420					
8,300.0	8,198.1	8,261.5	8,198.1	15.6	13.7	-90.56	219.7	643.4	329.8	300.8	29.00	11.371					
8,400.0	8,298.1	8,361.5	8,298.1	15.7	13.8	-90.56	219.7	643.4	329.8	300.7	29.13	11.323					
8,500.0	8,398.1	8,461.5	8,398.1	15.7	13.9	-90.56	219.7	643.4	329.8	300.6	29.25	11.274					
8,600.0	8,498.1	8,561.5	8,498.1	15.8	13.9	-90.56	219.7	643.4	329.8	300.4	29.38	11.226					
8,700.0	8,598.1	8,661.5	8,598.1	15.9	14.0	-90.56	219.7	643.4	329.8	300.3	29.51	11.178					
8,800.0	8,698.1	8,761.5	8,698.1	15.9	14.1	-90.56	219.7	643.4	329.8	300.2	29.63	11.131					
8,900.0	8,798.1	8,861.5	8,798.1	16.0	14.1	-90.56	219.7	643.4	329.8	300.1	29.76	11.083					
9,000.0	8,898.1	8,961.5	8,898.1	16.0	14.2	-90.56	219.7	643.4	329.8	299.9	29.88	11.036					
9,100.0	8,998.1	9,061.5	8,998.1	16.1	14.3	-90.56	219.7	643.4	329.8	299.8	30.01	10.990					
9,200.0	9,098.1	9,161.5	9,098.1	16.2	14.3	-90.56	219.7	643.4	329.8	299.7	30.14	10.943					
9,300.0	9,198.1	9,261.5	9,198.1	16.2	14.4	-90.56	219.7	643.4	329.8	299.5	30.27	10.897					
9,400.0	9,298.1	9,361.5	9,298.1	16.3	14.5	-90.56	219.7	643.4	329.8	299.4	30.39	10.851					
9,500.0	9,398.1	9,461.5	9,398.1	16.3	14.6	-90.56	219.7	643.4	329.8	299.3	30.52	10.805					
9,600.0	9,498.1	9,561.5	9,498.1	16.4	14.6	-90.56	219.7	643.4	329.8	299.2	30.65	10.760					
9,700.0	9,598.1	9,661.5	9,598.1	16.5	14.7	-90.56	219.7	643.4	329.8	299.0	30.78	10.715					
9,800.0	9,698.1	9,761.5	9,698.1	16.5	14.8	-90.56	219.7	643.4	329.8	298.9	30.91	10.670					

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 501H - OWB - PWP1													Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 10558-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.0 usft		
Reference													Rule Assigned:			
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)						
9,900.0	9,798.1	9,861.5	9,798.1	16.6	14.8	-90.56	219.7	643.4	329.8	298.8	31.04	10.626				
10,000.0	9,898.1	9,961.5	9,898.1	16.6	14.9	-90.56	219.7	643.4	329.8	298.6	31.17	10.581				
10,100.0	9,998.1	10,061.5	9,998.1	16.7	15.0	-90.56	219.7	643.4	329.8	298.5	31.30	10.537				
10,200.0	10,098.1	10,161.5	10,098.1	16.8	15.1	-90.56	219.7	643.4	329.8	298.4	31.43	10.494				
10,300.0	10,198.1	10,261.5	10,198.1	16.8	15.1	-90.56	219.7	643.4	329.8	298.3	31.56	10.450				
10,400.0	10,298.1	10,361.5	10,298.1	16.9	15.2	-90.56	219.7	643.4	329.8	298.1	31.69	10.407				
10,500.0	10,398.1	10,461.5	10,398.1	16.9	15.3	-90.56	219.7	643.4	329.8	298.0	31.82	10.364				
10,565.4	10,463.6	10,526.9	10,463.6	17.0	15.3	-90.56	219.7	643.4	329.8	297.9	31.90	10.339				
10,600.0	10,498.1	10,561.5	10,498.1	17.0	15.3	-90.56	219.7	643.4	329.8	297.9	31.93	10.328				
10,604.4	10,502.6	10,565.9	10,502.6	17.0	15.3	-90.57	219.6	643.4	329.8	297.9	31.94	10.327				
10,700.0	10,598.1	10,659.7	10,598.1	17.1	15.4	-92.43	208.9	643.5	330.0	298.0	32.06	10.295				
10,800.0	10,698.1	10,750.0	10,681.5	17.1	15.4	-97.15	181.6	643.6	332.5	300.3	32.26	10.307				
10,900.0	10,798.1	10,827.8	10,750.3	17.2	15.4	-103.24	145.4	643.9	341.7	309.0	32.63	10.471				
11,000.0	10,898.1	10,892.4	10,802.4	17.3	15.5	-109.37	107.2	644.1	361.7	328.3	33.37	10.839				
11,100.0	10,998.1	10,945.1	10,840.7	17.3	15.5	-114.78	71.1	644.4	394.9	360.3	34.57	11.423				
11,200.0	11,098.1	10,987.8	10,868.7	17.4	15.5	-119.25	38.9	644.6	441.0	405.0	36.08	12.223				
11,300.0	11,198.1	11,025.0	10,890.6	17.4	15.6	-123.09	8.9	644.8	498.2	460.6	37.61	13.248				
11,400.0	11,298.1	11,050.0	10,904.0	17.5	15.6	-125.61	-12.2	644.9	564.3	525.1	39.14	14.417				
11,500.0	11,398.1	11,075.0	10,916.3	17.6	15.6	-128.06	-34.0	645.0	637.0	596.6	40.43	15.757				
11,600.0	11,498.1	11,100.0	10,927.5	17.6	15.7	-130.41	-56.4	645.2	715.0	673.5	41.51	17.223				
11,700.0	11,598.1	11,112.5	10,932.6	17.7	15.7	-131.56	-67.8	645.3	796.9	754.3	42.58	18.715				
11,800.0	11,698.1	11,125.0	10,937.4	17.8	15.7	-132.67	-79.3	645.3	881.8	838.3	43.50	20.272				
11,900.0	11,798.1	11,139.9	10,942.8	17.8	15.7	-133.96	-93.2	645.4	969.0	924.8	44.28	21.882				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 502H - OWB - PWP1														Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 9487-r.5 MWD+IFR1+SAG+FDIR														Rule Assigned:		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning				
0.0	0.0	0.0	0.0	0.0	0.0	-90.38	-0.4	-60.0	60.0								
100.0	100.0	100.0	100.0	0.6	0.6	-90.38	-0.4	-60.0	60.0	58.4	1.58	37.905					
200.0	200.0	200.0	200.0	1.1	1.1	-90.38	-0.4	-60.0	60.0	57.5	2.52	23.818					
300.0	300.0	300.0	300.0	1.4	1.4	-90.38	-0.4	-60.0	60.0	56.9	3.14	19.080					
400.0	400.0	400.0	400.0	1.7	1.7	-90.38	-0.4	-60.0	60.0	56.4	3.65	16.443					
500.0	500.0	500.0	500.0	1.9	1.9	-90.38	-0.4	-60.0	60.0	55.9	4.08	14.693					
600.0	600.0	600.0	600.0	2.1	2.1	-90.38	-0.4	-60.0	60.0	55.5	4.47	13.420					
700.0	700.0	700.0	700.0	2.3	2.3	-90.38	-0.4	-60.0	60.0	55.2	4.82	12.438					
800.0	800.0	800.0	800.0	2.5	2.5	-90.38	-0.4	-60.0	60.0	54.9	5.15	11.650					
900.0	900.0	900.0	900.0	2.7	2.7	-90.38	-0.4	-60.0	60.0	54.5	5.46	10.998					
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	-90.38	-0.4	-60.0	60.0	54.3	5.74	10.448					
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	-90.38	-0.4	-60.0	60.0	54.0	6.02	9.974					
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	-90.38	-0.4	-60.0	60.0	53.7	6.28	9.562					
1,300.0	1,300.0	1,300.0	1,300.0	3.4	3.4	-90.38	-0.4	-60.0	60.0	53.5	6.52	9.197					
1,400.0	1,400.0	1,400.0	1,400.0	3.5	3.5	-90.38	-0.4	-60.0	60.0	53.2	6.76	8.873					
1,500.0	1,500.0	1,500.0	1,500.0	3.7	3.7	-90.38	-0.4	-60.0	60.0	53.0	6.99	8.581 CC, ES					
1,600.0	1,600.0	1,600.4	1,600.4	3.8	3.9	-166.22	1.3	-59.7	61.4	54.0	7.35	8.348					
1,700.0	1,699.8	1,700.6	1,700.4	4.0	4.2	-162.77	6.5	-58.6	65.6	57.7	7.88	8.325 SF					
1,800.0	1,799.5	1,800.3	1,799.8	4.3	4.5	-157.94	15.0	-56.9	73.1	64.7	8.37	8.730					
1,900.0	1,898.7	1,899.4	1,898.1	4.6	4.8	-152.67	26.8	-54.5	84.2	75.4	8.84	9.531					
2,000.0	1,997.5	1,997.9	1,995.5	4.8	4.9	-147.90	41.5	-51.5	99.2	90.0	9.19	10.799					
2,100.0	2,095.6	2,096.1	2,092.5	5.1	5.1	-145.07	56.6	-48.5	117.5	107.9	9.61	12.229					
2,125.0	2,120.0	2,120.5	2,116.6	5.1	5.1	-144.63	60.3	-47.7	122.6	112.9	9.67	12.672					
2,200.0	2,193.3	2,193.9	2,189.1	5.2	5.3	-143.73	71.6	-45.4	138.0	128.1	9.90	13.935					
2,300.0	2,290.9	2,291.8	2,285.7	5.4	5.4	-142.80	86.6	-42.4	158.6	148.4	10.25	15.475					
2,400.0	2,388.5	2,389.6	2,382.3	5.6	5.6	-142.09	101.6	-39.4	179.3	168.7	10.60	16.919					
2,500.0	2,486.2	2,487.4	2,478.9	5.8	5.8	-141.52	116.6	-36.3	200.0	189.0	10.94	18.273					
2,600.0	2,583.8	2,585.2	2,575.6	6.0	6.0	-141.06	131.6	-33.3	220.6	209.3	11.29	19.547					
2,700.0	2,681.4	2,683.2	2,672.3	6.2	6.1	-140.68	146.6	-30.3	241.3	229.7	11.58	20.832					
2,800.0	2,779.1	2,782.2	2,770.2	6.4	6.3	-140.59	160.7	-27.4	261.8	249.8	11.92	21.966					
2,900.0	2,876.7	2,881.3	2,868.5	6.5	6.4	-140.86	173.1	-24.9	281.8	269.5	12.26	22.978					
3,000.0	2,974.3	2,980.5	2,967.1	6.7	6.6	-141.42	184.0	-22.7	301.4	288.8	12.61	23.908					
3,100.0	3,071.9	3,079.7	3,065.9	6.9	6.8	-142.21	193.1	-20.8	320.7	307.7	12.95	24.766					
3,200.0	3,169.6	3,179.0	3,164.9	7.1	7.0	-143.20	200.6	-19.3	339.7	326.4	13.29	25.563					
3,300.0	3,267.2	3,278.1	3,263.9	7.3	7.2	-144.36	206.3	-18.2	358.4	344.8	13.62	26.309					
3,400.0	3,364.8	3,377.1	3,362.8	7.5	7.3	-145.66	210.4	-17.3	377.0	363.1	13.96	27.012					
3,500.0	3,462.5	3,476.0	3,461.6	7.7	7.5	-147.08	212.9	-16.9	395.5	381.2	14.29	27.681					
3,600.0	3,560.1	3,574.5	3,560.1	7.9	7.6	-148.61	213.6	-16.7	414.1	399.5	14.59	28.384					
3,700.0	3,657.7	3,672.1	3,657.7	8.2	7.7	-150.09	213.6	-16.7	432.8	417.9	14.90	29.052					
3,800.0	3,755.4	3,769.8	3,755.4	8.4	7.8	-151.45	213.6	-16.7	451.8	436.6	15.23	29.669					
3,900.0	3,853.0	3,867.4	3,853.0	8.6	7.9	-152.70	213.6	-16.7	471.0	455.5	15.56	30.273					
4,000.0	3,950.6	3,965.0	3,950.6	8.8	8.0	-153.86	213.6	-16.7	490.4	474.6	15.89	30.864					
4,100.0	4,048.2	4,062.6	4,048.2	9.0	8.1	-154.92	213.6	-16.7	510.1	493.8	16.22	31.440					
4,200.0	4,145.9	4,160.3	4,145.9	9.2	8.2	-155.91	213.6	-16.7	529.8	513.3	16.56	32.003					
4,300.0	4,243.5	4,257.9	4,243.5	9.4	8.3	-156.83	213.6	-16.7	549.7	532.8	16.89	32.552					
4,400.0	4,341.1	4,355.5	4,341.1	9.6	8.4	-157.68	213.6	-16.7	569.7	552.5	17.22	33.087					
4,500.0	4,438.8	4,453.2	4,438.8	9.8	8.5	-158.48	213.6	-16.7	589.9	572.3	17.55	33.608					
4,600.0	4,536.4	4,550.8	4,536.4	10.0	8.6	-159.22	213.6	-16.7	610.1	592.3	17.88	34.116					
4,700.0	4,634.0	4,648.4	4,634.0	10.2	8.7	-159.92	213.6	-16.7	630.5	612.3	18.22	34.610					
4,800.0	4,731.7	4,746.1	4,731.7	10.4	8.8	-160.57	213.6	-16.7	650.9	632.4	18.55	35.092					
4,900.0	4,829.3	4,843.7	4,829.3	10.7	8.9	-161.18	213.6	-16.7	671.4	652.5	18.88	35.561					

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 502H - OWB - PWP1														Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 9487-r.5 MWD+IFR1+SAG+FDIR														Rule Assigned:		Offset Well Error:	0.0 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)							
5,000.0	4,926.9	4,941.3	4,926.9	10.9	9.1	-161.76	213.6	-16.7	692.0	672.8	19.21	36.017					
5,100.0	5,024.5	5,038.9	5,024.5	11.1	9.2	-162.30	213.6	-16.7	712.6	693.1	19.54	36.461					
5,200.0	5,122.2	5,136.6	5,122.2	11.3	9.3	-162.82	213.6	-16.7	733.3	713.4	19.88	36.894					
5,300.0	5,219.8	5,234.2	5,219.8	11.5	9.4	-163.30	213.6	-16.7	754.0	733.8	20.21	37.315					
5,400.0	5,317.4	5,331.8	5,317.4	11.7	9.5	-163.76	213.6	-16.7	774.8	754.3	20.54	37.726					
5,500.0	5,415.1	5,429.5	5,415.1	11.9	9.6	-164.20	213.6	-16.7	795.7	774.8	20.87	38.125					
5,600.0	5,512.7	5,527.1	5,512.7	12.1	9.7	-164.61	213.6	-16.7	816.6	795.4	21.20	38.515					
5,700.0	5,610.3	5,624.7	5,610.3	12.4	9.8	-165.00	213.6	-16.7	837.5	815.9	21.53	38.894					
5,797.0	5,705.0	5,719.4	5,705.0	12.6	9.9	-165.36	213.6	-16.7	857.8	835.9	21.85	39.257					
5,800.0	5,708.0	5,722.4	5,708.0	12.6	9.9	-165.38	213.6	-16.7	858.4	836.6	21.86	39.271					
5,900.0	5,805.8	5,820.2	5,805.8	12.9	10.0	-165.77	213.6	-16.7	878.5	856.2	22.33	39.336					
6,000.0	5,904.0	5,918.4	5,904.0	13.1	10.1	-166.11	213.6	-16.7	897.0	874.4	22.66	39.594					
6,100.0	6,002.4	6,016.8	6,002.4	13.3	10.2	-166.41	213.6	-16.7	913.8	890.9	22.97	39.780					
6,200.0	6,101.2	6,115.6	6,101.2	13.5	10.3	-166.67	213.6	-16.7	929.0	905.7	23.28	39.898					
6,300.0	6,200.2	6,214.6	6,200.2	13.7	10.4	-166.90	213.6	-16.7	942.5	918.9	23.59	39.951					
6,400.0	6,299.5	6,313.9	6,299.5	13.9	10.5	-167.09	213.6	-16.7	954.3	930.5	23.89	39.943					
6,500.0	6,399.0	6,413.4	6,399.0	14.1	10.6	-167.25	213.6	-16.7	964.5	940.3	24.19	39.876					
6,600.0	6,498.6	6,513.0	6,498.6	14.3	10.7	-167.38	213.6	-16.7	972.9	948.5	24.47	39.755					
6,700.0	6,598.3	6,612.7	6,598.3	14.4	10.7	-167.48	213.6	-16.7	979.7	954.9	24.75	39.581					
6,800.0	6,698.2	6,712.6	6,698.2	14.6	10.8	-167.56	213.6	-16.7	984.8	959.7	25.02	39.359					
6,900.0	6,798.2	6,812.6	6,798.2	14.8	10.9	-167.61	213.6	-16.7	988.1	962.8	25.28	39.094					
7,000.0	6,898.1	6,912.5	6,898.1	14.9	11.0	-167.64	213.6	-16.7	989.8	964.2	25.51	38.795					
7,046.9	6,945.0	6,959.4	6,945.0	14.9	11.1	-90.54	213.6	-16.7	989.9	964.4	25.58	38.696					
7,100.0	6,998.1	7,012.5	6,998.1	14.9	11.1	-90.54	213.6	-16.7	989.9	964.3	25.64	38.606					
7,200.0	7,098.1	7,112.5	7,098.1	15.0	11.2	-90.54	213.6	-16.7	989.9	964.2	25.79	38.389					
7,300.0	7,198.1	7,212.5	7,198.1	15.1	11.3	-90.54	213.6	-16.7	989.9	964.0	25.93	38.175					
7,400.0	7,298.1	7,312.5	7,298.1	15.1	11.4	-90.54	213.6	-16.7	989.9	963.9	26.08	37.962					
7,500.0	7,398.1	7,412.5	7,398.1	15.2	11.5	-90.54	213.6	-16.7	989.9	963.7	26.22	37.752					
7,600.0	7,498.1	7,512.5	7,498.1	15.2	11.6	-90.54	213.6	-16.7	989.9	963.6	26.37	37.544					
7,700.0	7,598.1	7,612.5	7,598.1	15.3	11.7	-90.54	213.6	-16.7	989.9	963.4	26.51	37.337					
7,800.0	7,698.1	7,712.5	7,698.1	15.3	11.8	-90.54	213.6	-16.7	989.9	963.3	26.66	37.133					
7,900.0	7,798.1	7,812.5	7,798.1	15.4	11.9	-90.54	213.6	-16.7	989.9	963.1	26.81	36.931					
8,000.0	7,898.1	7,912.5	7,898.1	15.4	12.0	-90.54	213.6	-16.7	989.9	963.0	26.95	36.730					
8,100.0	7,998.1	8,012.5	7,998.1	15.5	12.1	-90.54	213.6	-16.7	989.9	962.8	27.10	36.532					
8,200.0	8,098.1	8,112.5	8,098.1	15.6	12.2	-90.54	213.6	-16.7	989.9	962.7	27.24	36.335					
8,300.0	8,198.1	8,212.5	8,198.1	15.6	12.3	-90.54	213.6	-16.7	989.9	962.6	27.39	36.141					
8,400.0	8,298.1	8,312.5	8,298.1	15.7	12.4	-90.54	213.6	-16.7	989.9	962.4	27.54	35.948					
8,500.0	8,398.1	8,412.5	8,398.1	15.7	12.5	-90.54	213.6	-16.7	989.9	962.3	27.69	35.757					
8,600.0	8,498.1	8,512.5	8,498.1	15.8	12.6	-90.54	213.6	-16.7	989.9	962.1	27.83	35.568					
8,700.0	8,598.1	8,612.5	8,598.1	15.9	12.7	-90.54	213.6	-16.7	989.9	962.0	27.98	35.381					
8,800.0	8,698.1	8,712.5	8,698.1	15.9	12.8	-90.54	213.6	-16.7	989.9	961.8	28.13	35.195					
8,900.0	8,798.1	8,812.5	8,798.1	16.0	12.9	-90.54	213.6	-16.7	989.9	961.7	28.27	35.011					
9,000.0	8,898.1	8,912.5	8,898.1	16.0	13.0	-90.54	213.6	-16.7	989.9	961.5	28.42	34.829					
9,100.0	8,998.1	9,012.5	8,998.1	16.1	13.1	-90.54	213.6	-16.7	989.9	961.4	28.57	34.649					
9,200.0	9,098.1	9,112.5	9,098.1	16.2	13.1	-90.54	213.6	-16.7	989.9	961.2	28.72	34.470					
9,300.0	9,198.1	9,212.5	9,198.1	16.2	13.2	-90.54	213.6	-16.7	989.9	961.1	28.87	34.293					
9,400.0	9,298.1	9,312.5	9,298.1	16.3	13.3	-90.54	213.6	-16.7	989.9	960.9	29.02	34.118					
9,500.0	9,398.1	9,412.5	9,398.1	16.3	13.4	-90.54	213.6	-16.7	989.9	960.8	29.16	33.946					
9,506.6	9,404.8	9,419.2	9,404.8	16.3	13.4	-90.54	213.6	-16.7	989.9	960.8	29.17	33.935					
9,600.0	9,498.1	9,512.4	9,497.9	16.4	13.5	-90.58	212.9	-16.7	989.9	960.7	29.29	33.799					
9,700.0	9,598.1	9,609.1	9,593.3	16.5	13.6	-91.44	198.1	-16.6	990.1	960.7	29.38	33.705					

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> AVION FEDERAL COM PROJECT - AVION FEDERAL COM 502H - OWB - PWP1													<b>Offset Site Error:</b> 0.0 usft
<b>Survey Program:</b> 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 9487-r.5 MWD+IFR1+SAG+FDIR													<b>Offset Well Error:</b> 0.0 usft
<b>Reference:</b>													
<b>Offset</b>				<b>Semi Major Axis</b>			<b>Offset Wellbore Centre</b>		<b>Distance</b>				<b>Warning</b>
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Highside Toolface (°)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Between Centres (usft)</b>	<b>Between Ellipses (usft)</b>	<b>No-Go Distance (usft)</b>	<b>Separation Factor</b>	
9,800.0	9,698.1	9,696.6	9,675.5	16.5	13.6	-93.16	168.3	-16.4	991.4	961.9	29.47	33.636	
9,900.0	9,798.1	9,771.4	9,740.4	16.6	13.7	-95.29	131.4	-16.2	995.3	965.7	29.59	33.637	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 503H - OWB - PWP1													Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 10536-r.5 MWD+IFR1+SAG+FDIR													Rule Assigned:		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
0.0	0.0	0.0	0.0	0.0	0.0	-90.52	-0.9	-99.9	99.9							
100.0	100.0	99.0	99.0	0.6	0.6	-90.52	-0.9	-99.9	99.9	98.3	1.58	63.333				
200.0	200.0	199.0	199.0	1.1	1.0	-90.52	-0.9	-99.9	99.9	97.4	2.51	39.731				
300.0	300.0	299.0	299.0	1.4	1.4	-90.52	-0.9	-99.9	99.9	96.8	3.14	31.801				
400.0	400.0	399.0	399.0	1.7	1.7	-90.52	-0.9	-99.9	99.9	96.3	3.65	27.397				
500.0	500.0	499.0	499.0	1.9	1.9	-90.52	-0.9	-99.9	99.9	95.8	4.08	24.478				
600.0	600.0	599.0	599.0	2.1	2.1	-90.52	-0.9	-99.9	99.9	95.4	4.47	22.355				
700.0	700.0	699.0	699.0	2.3	2.3	-90.52	-0.9	-99.9	99.9	95.1	4.82	20.717				
800.0	800.0	799.0	799.0	2.5	2.5	-90.52	-0.9	-99.9	99.9	94.8	5.15	19.403				
900.0	900.0	899.0	899.0	2.7	2.7	-90.52	-0.9	-99.9	99.9	94.4	5.45	18.317				
1,000.0	1,000.0	999.0	999.0	2.9	2.9	-90.52	-0.9	-99.9	99.9	94.2	5.74	17.400				
1,100.0	1,100.0	1,099.0	1,099.0	3.1	3.1	-90.52	-0.9	-99.9	99.9	93.9	6.01	16.611				
1,200.0	1,200.0	1,199.0	1,199.0	3.2	3.2	-90.52	-0.9	-99.9	99.9	93.6	6.27	15.924				
1,300.0	1,300.0	1,299.0	1,299.0	3.4	3.4	-90.52	-0.9	-99.9	99.9	93.4	6.52	15.317				
1,400.0	1,400.0	1,399.0	1,399.0	3.5	3.5	-90.52	-0.9	-99.9	99.9	93.1	6.76	14.776				
1,500.0	1,500.0	1,499.0	1,499.0	3.7	3.7	-90.52	-0.9	-99.9	99.9	92.9	6.99	14.289 CC, ES				
1,600.0	1,600.0	1,595.8	1,595.7	3.8	3.8	-167.49	-0.4	-101.4	103.2	95.7	7.46	13.830 SF				
1,700.0	1,699.8	1,691.9	1,691.7	4.0	4.0	-167.15	1.3	-105.9	113.0	104.9	8.08	13.975				
1,800.0	1,799.5	1,786.8	1,786.3	4.3	4.3	-166.69	4.0	-113.4	129.3	120.6	8.67	14.916				
1,900.0	1,898.7	1,879.8	1,878.7	4.6	4.5	-166.20	7.6	-123.6	151.9	142.7	9.21	16.497				
2,000.0	1,997.5	1,971.8	1,969.7	4.8	4.7	-165.72	12.2	-136.3	180.7	171.1	9.60	18.830				
2,100.0	2,095.6	2,066.3	2,063.0	5.1	4.8	-165.46	17.2	-150.2	213.6	203.6	10.01	21.339				
2,125.0	2,120.0	2,089.6	2,086.1	5.1	4.9	-165.44	18.5	-153.6	222.3	212.2	10.08	22.058				
2,200.0	2,193.3	2,159.9	2,155.4	5.2	5.0	-165.51	22.2	-164.0	248.7	238.4	10.31	24.128				
2,300.0	2,290.9	2,253.5	2,247.9	5.4	5.2	-165.58	27.2	-177.7	284.0	273.3	10.65	26.656				
2,400.0	2,388.5	2,347.0	2,340.3	5.6	5.3	-165.64	32.1	-191.5	319.2	308.2	11.00	29.019				
2,500.0	2,486.2	2,440.6	2,432.7	5.8	5.5	-165.69	37.1	-205.3	354.5	343.2	11.35	31.230				
2,600.0	2,583.8	2,534.2	2,525.2	6.0	5.7	-165.73	42.1	-219.0	389.8	378.1	11.70	33.303				
2,700.0	2,681.4	2,627.8	2,617.6	6.2	5.9	-165.76	47.0	-232.8	425.0	413.0	12.06	35.247				
2,800.0	2,779.1	2,721.4	2,710.0	6.4	6.0	-165.79	52.0	-246.6	460.3	447.8	12.41	37.074				
2,900.0	2,876.7	2,814.9	2,802.4	6.5	6.2	-165.81	57.0	-260.4	495.5	482.7	12.77	38.794				
3,000.0	2,974.3	2,908.5	2,894.9	6.7	6.4	-165.83	61.9	-274.1	530.8	517.6	13.13	40.415				
3,100.0	3,071.9	3,002.1	2,987.3	6.9	6.6	-165.85	66.9	-287.9	566.0	552.5	13.49	41.944				
3,200.0	3,169.6	3,095.7	3,079.7	7.1	6.7	-165.86	71.9	-301.7	601.3	587.4	13.86	43.388				
3,300.0	3,267.2	3,189.3	3,172.1	7.3	6.9	-165.88	76.8	-315.4	636.5	622.3	14.22	44.755				
3,400.0	3,364.8	3,282.8	3,264.6	7.5	7.1	-165.89	81.8	-329.2	671.8	657.2	14.59	46.049				
3,500.0	3,462.5	3,376.4	3,357.0	7.7	7.3	-165.90	86.8	-343.0	707.0	692.1	14.96	47.276				
3,600.0	3,560.1	3,470.0	3,449.4	7.9	7.5	-165.91	91.7	-356.8	742.3	727.0	15.32	48.440				
3,700.0	3,657.7	3,563.6	3,541.9	8.2	7.7	-165.92	96.7	-370.5	777.5	761.8	15.69	49.547				
3,800.0	3,755.4	3,657.2	3,634.3	8.4	7.8	-165.93	101.7	-384.3	812.8	796.7	16.06	50.599				
3,900.0	3,853.0	3,750.7	3,726.7	8.6	8.0	-165.94	106.6	-398.1	848.0	831.6	16.43	51.601				
4,000.0	3,950.6	3,844.3	3,819.1	8.8	8.2	-165.94	111.6	-411.8	883.3	866.5	16.81	52.556				
4,100.0	4,048.2	3,937.9	3,911.6	9.0	8.4	-165.95	116.6	-425.6	918.6	901.4	17.18	53.467				
4,200.0	4,145.9	4,031.5	4,004.0	9.2	8.6	-165.96	121.5	-439.4	953.8	936.3	17.55	54.337				
4,300.0	4,243.5	4,125.1	4,096.4	9.4	8.8	-165.96	126.5	-453.2	989.1	971.1	17.93	55.168				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1													Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR													Rule Assigned:		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning			
0.0	0.0	0.0	0.0	0.0	0.0	-90.57	-0.4	-39.9	39.9							
100.0	100.0	100.0	100.0	0.6	0.6	-90.57	-0.4	-39.9	39.9	38.3	1.58	25.208				
200.0	200.0	200.0	200.0	1.1	1.1	-90.57	-0.4	-39.9	39.9	37.4	2.52	15.839				
300.0	300.0	300.0	300.0	1.4	1.4	-90.57	-0.4	-39.9	39.9	36.8	3.14	12.689				
400.0	400.0	400.0	400.0	1.7	1.7	-90.57	-0.4	-39.9	39.9	36.3	3.65	10.935				
500.0	500.0	500.0	500.0	1.9	1.9	-90.57	-0.4	-39.9	39.9	35.8	4.08	9.771				
600.0	600.0	600.0	600.0	2.1	2.1	-90.57	-0.4	-39.9	39.9	35.4	4.47	8.925				
700.0	700.0	700.0	700.0	2.3	2.3	-90.57	-0.4	-39.9	39.9	35.1	4.82	8.271				
800.0	800.0	800.0	800.0	2.5	2.5	-90.57	-0.4	-39.9	39.9	34.8	5.15	7.747				
900.0	900.0	900.0	900.0	2.7	2.7	-90.57	-0.4	-39.9	39.9	34.4	5.46	7.314				
1,000.0	1,000.0	1,000.0	1,000.0	2.9	2.9	-90.57	-0.4	-39.9	39.9	34.2	5.74	6.948				
1,100.0	1,100.0	1,100.0	1,100.0	3.1	3.1	-90.57	-0.4	-39.9	39.9	33.9	6.02	6.633				
1,200.0	1,200.0	1,200.0	1,200.0	3.2	3.2	-90.57	-0.4	-39.9	39.9	33.6	6.28	6.359				
1,300.0	1,300.0	1,300.9	1,300.9	3.4	3.5	-88.58	1.0	-38.8	38.8	32.2	6.59	5.889				
1,400.0	1,400.0	1,401.5	1,401.3	3.5	3.8	-81.91	5.0	-35.3	35.7	28.8	6.97	5.126				
1,500.0	1,500.0	1,501.6	1,501.1	3.7	4.1	-68.41	11.8	-29.7	32.0	24.6	7.34	4.356				
1,561.0	1,561.0	1,562.4	1,561.4	3.8	4.3	-133.76	17.1	-25.2	30.9	23.3	7.65	4.042 CC, ES				
1,600.0	1,600.0	1,601.2	1,599.9	3.8	4.4	-125.80	21.1	-21.9	31.4	23.5	7.85	3.997				
1,700.0	1,699.8	1,700.7	1,698.4	4.0	4.6	-110.18	31.7	-13.0	36.1	27.6	8.42	4.282				
1,800.0	1,799.5	1,801.5	1,798.2	4.3	4.8	-101.83	41.5	-2.4	42.0	33.0	9.01	4.659				
1,900.0	1,898.7	1,902.0	1,897.4	4.6	4.9	-97.48	49.7	10.8	46.5	37.2	9.32	4.991				
2,000.0	1,997.5	2,001.8	1,996.1	4.8	5.1	-97.50	57.7	24.2	51.3	41.6	9.67	5.306				
2,100.0	2,095.6	2,101.6	2,094.7	5.1	5.3	-100.99	65.6	37.7	56.7	46.7	9.99	5.676				
2,125.0	2,120.0	2,126.5	2,119.2	5.1	5.3	-102.28	67.6	41.0	58.2	48.1	10.03	5.797				
2,200.0	2,193.3	2,201.3	2,193.1	5.2	5.5	-106.14	73.5	51.1	62.9	52.6	10.23	6.144				
2,300.0	2,290.9	2,301.0	2,291.5	5.4	5.6	-110.45	81.5	64.5	69.5	59.0	10.55	6.587				
2,400.0	2,388.5	2,400.6	2,389.9	5.6	5.8	-113.99	89.4	78.0	76.5	65.6	10.89	7.028				
2,500.0	2,486.2	2,500.3	2,488.4	5.8	6.0	-116.93	97.3	91.4	83.7	72.5	11.22	7.459				
2,600.0	2,583.8	2,599.9	2,586.8	6.0	6.2	-119.40	105.2	104.8	91.1	79.6	11.57	7.877				
2,700.0	2,681.4	2,699.6	2,685.2	6.2	6.4	-121.50	113.1	118.3	98.7	86.8	11.92	8.280				
2,800.0	2,779.1	2,799.2	2,783.6	6.4	6.6	-123.30	121.1	131.7	106.3	94.1	12.27	8.668				
2,900.0	2,876.7	2,898.9	2,882.1	6.5	6.8	-124.85	129.0	145.1	114.1	101.5	12.62	9.040				
3,000.0	2,974.3	2,998.5	2,980.5	6.7	7.0	-126.21	136.9	158.6	121.9	108.9	12.97	9.396				
3,100.0	3,071.9	3,098.2	3,078.9	6.9	7.2	-127.40	144.8	172.0	129.8	116.5	13.33	9.737				
3,200.0	3,169.6	3,197.9	3,177.4	7.1	7.4	-128.45	152.8	185.4	137.7	124.0	13.69	10.063				
3,300.0	3,267.2	3,297.5	3,275.8	7.3	7.6	-129.39	160.7	198.8	145.7	131.7	14.04	10.375				
3,400.0	3,364.8	3,397.2	3,374.2	7.5	7.8	-130.23	168.6	212.3	153.7	139.3	14.40	10.674				
3,500.0	3,462.5	3,496.8	3,472.6	7.7	8.0	-130.99	176.5	225.7	161.7	147.0	14.76	10.959				
3,600.0	3,560.1	3,595.9	3,570.5	7.9	8.1	-131.74	184.3	238.9	169.9	154.8	15.06	11.280				
3,700.0	3,657.7	3,694.2	3,667.8	8.2	8.3	-132.84	191.3	250.7	178.7	163.3	15.42	11.589				
3,800.0	3,755.4	3,792.2	3,765.1	8.4	8.5	-134.30	197.4	261.1	188.3	172.6	15.79	11.931				
3,900.0	3,853.0	3,889.9	3,862.3	8.6	8.7	-136.04	202.6	269.9	198.9	182.8	16.16	12.311				
4,000.0	3,950.6	3,987.3	3,959.3	8.8	8.8	-137.98	207.0	277.4	210.5	194.0	16.53	12.732				
4,100.0	4,048.2	4,084.2	4,055.9	9.0	9.0	-140.08	210.5	283.4	223.2	206.3	16.91	13.198				
4,200.0	4,145.9	4,180.6	4,152.2	9.2	9.2	-142.28	213.2	287.9	237.2	219.9	17.30	13.713				
4,300.0	4,243.5	4,276.6	4,248.1	9.4	9.3	-144.51	215.1	291.1	252.5	234.8	17.68	14.280				
4,400.0	4,341.1	4,371.9	4,343.4	9.6	9.5	-146.75	216.1	292.9	269.1	251.1	18.06	14.903				
4,500.0	4,438.8	4,467.3	4,438.8	9.8	9.6	-148.97	216.4	293.3	287.3	268.9	18.39	15.616				
4,600.0	4,536.4	4,564.9	4,536.4	10.0	9.6	-151.05	216.4	293.3	306.1	287.4	18.74	16.333				
4,700.0	4,634.0	4,662.5	4,634.0	10.2	9.7	-152.89	216.4	293.3	325.3	306.2	19.10	17.035				
4,800.0	4,731.7	4,760.2	4,731.7	10.4	9.8	-154.52	216.4	293.3	344.8	325.4	19.45	17.730				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1														Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR														Rule Assigned:		Offset Well Error:	0.0 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)							
4,900.0	4,829.3	4,857.8	4,829.3	10.7	9.9	-155.98	216.4	293.3	364.5	344.8	19.79	18.418					
5,000.0	4,926.9	4,955.4	4,926.9	10.9	10.0	-157.29	216.4	293.3	384.5	364.4	20.14	19.096					
5,100.0	5,024.5	5,053.0	5,024.5	11.1	10.1	-158.47	216.4	293.3	404.6	384.1	20.47	19.763					
5,200.0	5,122.2	5,150.7	5,122.2	11.3	10.2	-159.53	216.4	293.3	424.9	404.1	20.81	20.418					
5,300.0	5,219.8	5,248.3	5,219.8	11.5	10.2	-160.50	216.4	293.3	445.3	424.1	21.14	21.062					
5,400.0	5,317.4	5,345.9	5,317.4	11.7	10.3	-161.39	216.4	293.3	465.8	444.3	21.47	21.693					
5,500.0	5,415.1	5,443.6	5,415.1	11.9	10.4	-162.20	216.4	293.3	486.4	464.6	21.80	22.311					
5,600.0	5,512.7	5,541.2	5,512.7	12.1	10.5	-162.95	216.4	293.3	507.1	485.0	22.13	22.916					
5,700.0	5,610.3	5,638.8	5,610.3	12.4	10.6	-163.64	216.4	293.3	527.8	505.4	22.45	23.508					
5,797.0	5,705.0	5,733.5	5,705.0	12.6	10.7	-164.25	216.4	293.3	548.1	525.3	22.77	24.073					
5,800.0	5,708.0	5,736.5	5,708.0	12.6	10.7	-164.27	216.4	293.3	548.7	525.9	22.77	24.092					
5,900.0	5,805.8	5,834.3	5,805.8	12.9	10.8	-164.89	216.4	293.3	568.7	545.5	23.24	24.474					
6,000.0	5,904.0	5,932.4	5,904.0	13.1	10.8	-165.42	216.4	293.3	587.1	563.6	23.55	24.931					
6,100.0	6,002.4	6,030.9	6,002.4	13.3	10.9	-165.88	216.4	293.3	603.9	580.1	23.86	25.313					
6,200.0	6,101.2	6,129.7	6,101.2	13.5	11.0	-166.27	216.4	293.3	619.0	594.9	24.16	25.623					
6,300.0	6,200.2	6,228.7	6,200.2	13.7	11.1	-166.60	216.4	293.3	632.5	608.1	24.46	25.864					
6,400.0	6,299.5	6,328.0	6,299.5	13.9	11.2	-166.87	216.4	293.3	644.3	619.6	24.75	26.038					
6,500.0	6,399.0	6,427.5	6,399.0	14.1	11.3	-167.10	216.4	293.3	654.5	629.5	25.03	26.149					
6,600.0	6,498.6	6,527.1	6,498.6	14.3	11.4	-167.29	216.4	293.3	662.9	637.6	25.30	26.198					
6,700.0	6,598.3	6,626.8	6,598.3	14.4	11.5	-167.43	216.4	293.3	669.7	644.1	25.57	26.190					
6,800.0	6,698.2	6,726.7	6,698.2	14.6	11.5	-167.54	216.4	293.3	674.7	648.9	25.83	26.125					
6,900.0	6,798.2	6,826.6	6,798.2	14.8	11.6	-167.61	216.4	293.3	678.1	652.0	26.07	26.010					
7,000.0	6,898.1	6,926.6	6,898.1	14.9	11.7	-167.64	216.4	293.3	679.7	653.4	26.30	25.850					
7,046.9	6,945.0	6,973.5	6,945.0	14.9	11.8	-90.55	216.4	293.3	679.9	653.6	26.36	25.792					
7,100.0	6,998.1	7,026.6	6,998.1	14.9	11.8	-90.55	216.4	293.3	679.9	653.5	26.42	25.738					
7,200.0	7,098.1	7,126.6	7,098.1	15.0	11.9	-90.55	216.4	293.3	679.9	653.4	26.55	25.606					
7,300.0	7,198.1	7,226.6	7,198.1	15.1	12.0	-90.55	216.4	293.3	679.9	653.2	26.69	25.476					
7,400.0	7,298.1	7,326.6	7,298.1	15.1	12.1	-90.55	216.4	293.3	679.9	653.1	26.83	25.346					
7,500.0	7,398.1	7,426.6	7,398.1	15.2	12.1	-90.55	216.4	293.3	679.9	653.0	26.96	25.218					
7,600.0	7,498.1	7,526.6	7,498.1	15.2	12.2	-90.55	216.4	293.3	679.9	652.8	27.10	25.090					
7,700.0	7,598.1	7,626.6	7,598.1	15.3	12.3	-90.55	216.4	293.3	679.9	652.7	27.24	24.964					
7,800.0	7,698.1	7,726.6	7,698.1	15.3	12.4	-90.55	216.4	293.3	679.9	652.6	27.37	24.839					
7,900.0	7,798.1	7,826.6	7,798.1	15.4	12.5	-90.55	216.4	293.3	679.9	652.4	27.51	24.715					
8,000.0	7,898.1	7,926.6	7,898.1	15.4	12.6	-90.55	216.4	293.3	679.9	652.3	27.65	24.591					
8,100.0	7,998.1	8,026.6	7,998.1	15.5	12.7	-90.55	216.4	293.3	679.9	652.1	27.79	24.469					
8,200.0	8,098.1	8,126.6	8,098.1	15.6	12.8	-90.55	216.4	293.3	679.9	652.0	27.93	24.348					
8,300.0	8,198.1	8,226.6	8,198.1	15.6	12.8	-90.55	216.4	293.3	679.9	651.9	28.06	24.227					
8,400.0	8,298.1	8,326.6	8,298.1	15.7	12.9	-90.55	216.4	293.3	679.9	651.7	28.20	24.108					
8,500.0	8,398.1	8,426.6	8,398.1	15.7	13.0	-90.55	216.4	293.3	679.9	651.6	28.34	23.990					
8,600.0	8,498.1	8,526.6	8,498.1	15.8	13.1	-90.55	216.4	293.3	679.9	651.4	28.48	23.872					
8,700.0	8,598.1	8,626.6	8,598.1	15.9	13.2	-90.55	216.4	293.3	679.9	651.3	28.62	23.756					
8,800.0	8,698.1	8,726.6	8,698.1	15.9	13.3	-90.55	216.4	293.3	679.9	651.2	28.76	23.640					
8,900.0	8,798.1	8,826.6	8,798.1	16.0	13.4	-90.55	216.4	293.3	679.9	651.0	28.90	23.526					
9,000.0	8,898.1	8,926.6	8,898.1	16.0	13.4	-90.55	216.4	293.3	679.9	650.9	29.04	23.412					
9,100.0	8,998.1	9,026.6	8,998.1	16.1	13.5	-90.55	216.4	293.3	679.9	650.7	29.18	23.299					
9,200.0	9,098.1	9,126.6	9,098.1	16.2	13.6	-90.55	216.4	293.3	679.9	650.6	29.32	23.188					
9,300.0	9,198.1	9,226.6	9,198.1	16.2	13.7	-90.55	216.4	293.3	679.9	650.5	29.46	23.077					
9,400.0	9,298.1	9,326.6	9,298.1	16.3	13.8	-90.55	216.4	293.3	679.9	650.3	29.60	22.967					
9,500.0	9,398.1	9,426.6	9,398.1	16.3	13.9	-90.55	216.4	293.3	679.9	650.2	29.75	22.858					
9,600.0	9,498.1	9,526.6	9,498.1	16.4	14.0	-90.55	216.4	293.3	679.9	650.0	29.89	22.749					
9,700.0	9,598.1	9,626.6	9,598.1	16.5	14.0	-90.55	216.4	293.3	679.9	649.9	30.03	22.642					

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



### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1														Offset Site Error:	0.0 usft	
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR														Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)					
9,800.0	9,698.1	9,726.6	9,698.1	16.5	14.1	-90.55	216.4	293.3	679.9	649.8	30.17	22.536				
9,900.0	9,798.1	9,826.6	9,798.1	16.6	14.2	-90.55	216.4	293.3	679.9	649.6	30.31	22.430				
10,000.0	9,898.1	9,926.6	9,898.1	16.6	14.3	-90.55	216.4	293.3	679.9	649.5	30.46	22.325				
10,100.0	9,998.1	10,026.6	9,998.1	16.7	14.4	-90.55	216.4	293.3	679.9	649.3	30.60	22.221				
10,200.0	10,098.1	10,126.6	10,098.1	16.8	14.5	-90.55	216.4	293.3	679.9	649.2	30.74	22.118				
10,300.0	10,198.1	10,226.6	10,198.1	16.8	14.6	-90.55	216.4	293.3	679.9	649.0	30.88	22.016				
10,400.0	10,298.1	10,326.6	10,298.1	16.9	14.6	-90.55	216.4	293.3	679.9	648.9	31.03	21.914				
10,500.0	10,398.1	10,426.6	10,398.1	16.9	14.7	-90.55	216.4	293.3	679.9	648.8	31.17	21.814				
10,600.0	10,498.1	10,526.6	10,498.1	17.0	14.8	-90.55	216.4	293.3	679.9	648.6	31.31	21.714				
10,700.0	10,598.1	10,626.6	10,598.1	17.1	14.9	-90.55	216.4	293.3	679.9	648.5	31.46	21.615				
10,800.0	10,698.1	10,726.6	10,698.1	17.1	15.0	-90.55	216.4	293.3	679.9	648.3	31.60	21.516				
10,900.0	10,798.1	10,826.6	10,798.1	17.2	15.1	-90.55	216.4	293.3	679.9	648.2	31.74	21.419				
11,000.0	10,898.1	10,926.6	10,898.1	17.3	15.2	-90.55	216.4	293.3	679.9	648.0	31.89	21.322				
11,100.0	10,998.1	11,026.6	10,998.1	17.3	15.2	-90.55	216.4	293.3	679.9	647.9	32.03	21.226				
11,200.0	11,098.1	11,126.6	11,098.1	17.4	15.3	-90.55	216.4	293.3	679.9	647.8	32.18	21.131				
11,300.0	11,198.1	11,226.6	11,198.1	17.4	15.4	-90.55	216.4	293.3	679.9	647.6	32.32	21.036				
11,400.0	11,298.1	11,326.6	11,298.1	17.5	15.5	-90.55	216.4	293.3	679.9	647.5	32.47	20.942				
11,500.0	11,398.1	11,426.6	11,398.1	17.6	15.6	-90.55	216.4	293.3	679.9	647.3	32.61	20.849				
11,600.0	11,498.1	11,526.6	11,498.1	17.6	15.7	-90.55	216.4	293.3	679.9	647.2	32.76	20.757				
11,700.0	11,598.1	11,626.6	11,598.1	17.7	15.7	-90.55	216.4	293.3	679.9	647.0	32.90	20.666				
11,800.0	11,698.1	11,726.6	11,698.1	17.8	15.8	-90.55	216.4	293.3	679.9	646.9	33.05	20.575				
11,900.0	11,798.1	11,826.6	11,798.1	17.8	15.9	-90.55	216.4	293.3	679.9	646.7	33.19	20.484				
12,000.0	11,898.1	11,926.6	11,898.1	17.9	16.0	-90.55	216.4	293.3	679.9	646.6	33.33	20.399				
12,001.1	11,899.2	11,927.7	11,899.2	17.9	16.0	-90.55	216.4	293.3	679.9	646.6	33.33	20.399				
12,028.4	11,926.5	11,955.0	11,926.5	17.9	16.0	-90.55	216.3	293.3	679.9	646.6	33.35	20.385				
12,050.0	11,948.1	11,976.5	11,948.0	17.9	16.0	89.79	215.5	293.3	679.9	646.6	33.37	20.378				
12,075.0	11,973.1	12,001.3	11,972.7	17.9	16.0	89.76	213.3	293.3	679.9	646.6	33.37	20.375				
12,100.0	11,997.9	12,026.2	11,997.3	17.9	16.0	89.72	209.9	293.3	679.9	646.6	33.37	20.374				
12,125.0	12,022.5	12,051.0	12,021.7	17.9	16.0	89.69	205.1	293.4	679.9	646.6	33.38	20.372				
12,150.0	12,046.8	12,075.8	12,045.7	17.9	16.1	89.66	199.1	293.4	679.9	646.6	33.38	20.371				
12,175.0	12,070.8	12,100.6	12,069.4	17.9	16.1	89.63	191.9	293.5	679.9	646.6	33.38	20.371				
12,200.0	12,094.5	12,125.3	12,092.7	18.0	16.1	89.60	183.5	293.5	679.9	646.6	33.38	20.371				
12,225.0	12,117.6	12,150.0	12,115.4	18.0	16.1	89.57	173.9	293.6	679.9	646.6	33.38	20.371				
12,250.0	12,140.3	12,174.8	12,137.8	18.0	16.1	89.54	163.1	293.6	680.0	646.6	33.38	20.370				
12,275.0	12,162.3	12,199.5	12,159.4	18.0	16.1	89.51	151.2	293.7	680.0	646.6	33.38	20.370				
12,300.0	12,183.7	12,224.2	12,180.4	18.0	16.1	89.49	138.2	293.8	680.0	646.6	33.38	20.368				
12,325.0	12,204.4	12,248.9	12,200.7	18.0	16.1	89.46	124.1	293.9	680.0	646.6	33.39	20.366				
12,350.0	12,224.4	12,273.5	12,220.2	18.0	16.2	89.44	109.1	294.0	680.0	646.6	33.39	20.363				
12,375.0	12,243.5	12,298.2	12,238.9	18.0	16.2	89.42	93.0	294.1	680.0	646.6	33.40	20.359				
12,400.0	12,261.7	12,322.8	12,256.7	18.1	16.2	89.40	76.0	294.2	680.0	646.6	33.41	20.352				
12,425.0	12,279.1	12,347.4	12,273.6	18.1	16.2	89.38	58.1	294.3	680.0	646.5	33.42	20.344				
12,450.0	12,295.4	12,372.1	12,289.6	18.1	16.2	89.37	39.4	294.5	680.0	646.5	33.44	20.334				
12,475.0	12,310.8	12,396.7	12,304.6	18.1	16.3	89.35	19.9	294.6	680.0	646.5	33.46	20.322				
12,500.0	12,325.1	12,421.3	12,318.6	18.2	16.3	89.34	-0.4	294.7	680.0	646.5	33.49	20.306				
12,525.0	12,338.3	12,445.9	12,331.4	18.2	16.3	89.33	-21.3	294.8	680.0	646.5	33.52	20.288				
12,550.0	12,350.4	12,470.4	12,343.2	18.2	16.3	89.32	-42.9	295.0	680.0	646.4	33.55	20.267				
12,575.0	12,361.3	12,495.0	12,353.9	18.3	16.3	89.31	-65.0	295.1	680.0	646.4	33.59	20.243				
12,600.0	12,371.1	12,519.6	12,363.4	18.3	16.4	89.31	-87.7	295.3	680.0	646.3	33.64	20.216				
12,625.0	12,379.6	12,544.2	12,371.7	18.3	16.4	89.31	-110.8	295.4	680.0	646.3	33.69	20.186				
12,650.0	12,386.8	12,568.8	12,378.9	18.4	16.4	89.30	-134.3	295.6	680.0	646.2	33.74	20.152				
12,675.0	12,392.8	12,593.3	12,384.8	18.4	16.4	89.30	-158.2	295.7	680.0	646.2	33.80	20.115				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1														Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR														Rule Assigned:		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning				
12,700.0	12,397.6	12,617.9	12,389.5	18.4	16.5	89.31	-182.3	295.9	680.0	646.1	33.87	20.076					
12,725.0	12,401.0	12,642.5	12,392.9	18.5	16.5	89.31	-206.6	296.1	680.0	646.0	33.94	20.033					
12,750.0	12,403.2	12,667.1	12,395.1	18.5	16.5	89.32	-231.1	296.2	680.0	646.0	34.02	19.988					
12,775.0	12,404.0	12,691.7	12,396.0	18.6	16.5	89.32	-255.7	296.4	680.0	645.9	34.10	19.940					
12,778.4	12,404.0	12,695.0	12,396.0	18.6	16.6	89.33	-259.0	296.4	680.0	645.9	34.11	19.933					
12,780.1	12,404.0	12,696.7	12,396.0	18.6	16.6	89.33	-260.7	296.4	680.0	645.9	34.12	19.930					
12,800.0	12,404.0	12,716.6	12,396.0	18.6	16.6	89.33	-280.6	296.5	680.0	645.8	34.19	19.886					
12,900.0	12,404.0	12,816.6	12,396.0	18.9	16.7	89.33	-380.6	297.2	680.0	645.3	34.63	19.634					
13,000.0	12,404.0	12,916.6	12,396.0	19.1	16.9	89.33	-480.6	297.8	680.0	644.8	35.15	19.346					
13,100.0	12,404.0	13,016.6	12,396.0	19.4	17.2	89.33	-580.6	298.5	680.0	644.2	35.74	19.026					
13,200.0	12,404.0	13,116.6	12,396.0	19.7	17.5	89.33	-680.6	299.1	680.0	643.6	36.40	18.681					
13,300.0	12,404.0	13,216.6	12,396.0	20.0	17.9	89.33	-780.6	299.8	680.0	642.9	37.13	18.314					
13,400.0	12,404.0	13,316.6	12,396.0	20.4	18.2	89.33	-880.6	300.4	680.0	642.1	37.92	17.932					
13,500.0	12,404.0	13,416.6	12,396.0	20.8	18.7	89.33	-980.6	301.1	680.0	641.2	38.77	17.538					
13,600.0	12,404.0	13,516.6	12,396.0	21.2	19.1	89.33	-1,080.6	301.7	680.0	640.3	39.68	17.138					
13,700.0	12,404.0	13,616.6	12,396.0	21.7	19.6	89.33	-1,180.6	302.4	680.0	639.4	40.64	16.734					
13,800.0	12,404.0	13,716.6	12,396.0	22.1	20.1	89.33	-1,280.6	303.0	680.0	638.3	41.64	16.330					
13,900.0	12,404.0	13,816.6	12,396.0	22.6	20.7	89.33	-1,380.6	303.7	680.0	637.3	42.69	15.928					
14,000.0	12,404.0	13,916.6	12,396.0	23.2	21.3	89.33	-1,480.6	304.4	680.0	636.2	43.78	15.531					
14,100.0	12,404.0	14,016.6	12,396.0	23.7	21.8	89.33	-1,580.6	305.0	680.0	635.1	44.91	15.140					
14,200.0	12,404.0	14,116.6	12,396.0	24.3	22.4	89.33	-1,680.6	305.7	680.0	633.9	46.08	14.757					
14,300.0	12,404.0	14,216.6	12,396.0	24.8	23.1	89.33	-1,780.6	306.3	680.0	632.7	47.28	14.383					
14,400.0	12,404.0	14,316.6	12,396.0	25.4	23.7	89.33	-1,880.5	307.0	680.0	631.5	48.51	14.019					
14,500.0	12,404.0	14,416.6	12,396.0	26.0	24.4	89.33	-1,980.5	307.6	680.0	630.2	49.76	13.665					
14,600.0	12,404.0	14,516.6	12,396.0	26.6	25.0	89.33	-2,080.5	308.3	680.0	628.9	51.05	13.321					
14,700.0	12,404.0	14,616.6	12,396.0	27.3	25.7	89.33	-2,180.5	308.9	680.0	627.6	52.35	12.989					
14,800.0	12,404.0	14,716.6	12,396.0	27.9	26.4	89.33	-2,280.5	309.6	680.0	626.3	53.68	12.667					
14,900.0	12,404.0	14,816.6	12,396.0	28.6	27.1	89.33	-2,380.5	310.2	680.0	625.0	55.03	12.356					
15,000.0	12,404.0	14,916.6	12,396.0	29.3	27.8	89.33	-2,480.5	310.9	680.0	623.6	56.40	12.056					
15,100.0	12,404.0	15,016.6	12,396.0	29.9	28.5	89.33	-2,580.5	311.5	680.0	622.2	57.79	11.767					
15,200.0	12,404.0	15,116.6	12,396.0	30.6	29.2	89.33	-2,680.5	312.2	680.0	620.8	59.19	11.488					
15,300.0	12,404.0	15,216.6	12,396.0	31.3	30.0	89.33	-2,780.5	312.8	680.0	619.4	60.61	11.219					
15,400.0	12,404.0	15,316.6	12,396.0	32.0	30.7	89.33	-2,880.5	313.5	680.0	618.0	62.04	10.960					
15,500.0	12,404.0	15,416.6	12,396.0	32.7	31.4	89.33	-2,980.5	314.1	680.0	616.5	63.49	10.710					
15,600.0	12,404.0	15,516.6	12,396.0	33.5	32.2	89.33	-3,080.5	314.8	680.0	615.1	64.95	10.470					
15,700.0	12,404.0	15,616.6	12,396.0	34.2	32.9	89.33	-3,180.5	315.4	680.0	613.6	66.42	10.238					
15,800.0	12,404.0	15,716.6	12,396.0	34.9	33.7	89.33	-3,280.5	316.1	680.0	612.1	67.90	10.015					
15,900.0	12,404.0	15,816.6	12,396.0	35.7	34.5	89.33	-3,380.5	316.7	680.0	610.6	69.39	9.800					
16,000.0	12,404.0	15,916.6	12,396.0	36.4	35.2	89.33	-3,480.5	317.4	680.0	609.1	70.89	9.592					
16,100.0	12,404.0	16,016.6	12,396.0	37.2	36.0	89.33	-3,580.5	318.0	680.0	607.6	72.40	9.392					
16,200.0	12,404.0	16,116.6	12,396.0	37.9	36.8	89.33	-3,680.5	318.7	680.0	606.1	73.92	9.199					
16,300.0	12,404.0	16,216.6	12,396.0	38.7	37.6	89.33	-3,780.5	319.3	680.0	604.6	75.45	9.013					
16,400.0	12,404.0	16,316.6	12,396.0	39.4	38.4	89.33	-3,880.5	320.0	680.0	603.0	76.98	8.834					
16,500.0	12,404.0	16,416.6	12,396.0	40.2	39.1	89.33	-3,980.5	320.6	680.0	601.5	78.52	8.660					
16,600.0	12,404.0	16,516.6	12,396.0	41.0	39.9	89.33	-4,080.5	321.3	680.0	599.9	80.07	8.493					
16,700.0	12,404.0	16,616.6	12,396.0	41.7	40.7	89.33	-4,180.5	321.9	680.0	598.4	81.62	8.331					
16,800.0	12,404.0	16,716.6	12,396.0	42.5	41.5	89.33	-4,280.5	322.6	680.0	596.8	83.18	8.175					
16,900.0	12,404.0	16,816.6	12,396.0	43.3	42.3	89.33	-4,380.5	323.2	680.0	595.3	84.74	8.024					
17,000.0	12,404.0	16,916.6	12,396.0	44.1	43.1	89.33	-4,480.5	323.9	680.0	593.7	86.31	7.879					
17,100.0	12,404.0	17,016.6	12,396.0	44.9	43.9	89.33	-4,580.5	324.5	680.0	592.1	87.89	7.737					
17,200.0	12,404.0	17,116.6	12,396.0	45.7	44.7	89.33	-4,680.5	325.2	680.0	590.5	89.47	7.601					

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1														Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR														Rule Assigned:		Offset Well Error:	0.0 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)							
17,300.0	12,404.0	17,216.6	12,396.0	46.5	45.6	89.33	-4,780.5	325.8	680.0	589.0	91.05	7.469					
17,400.0	12,404.0	17,316.6	12,396.0	47.3	46.4	89.33	-4,880.5	326.5	680.0	587.4	92.64	7.341					
17,500.0	12,404.0	17,416.6	12,396.0	48.0	47.2	89.33	-4,980.5	327.1	680.0	585.8	94.23	7.217					
17,531.3	12,404.0	17,447.9	12,396.0	48.3	47.4	89.33	-5,011.8	327.3	680.0	585.3	94.73	7.179					
17,600.0	12,404.0	17,516.6	12,396.0	48.8	48.0	89.33	-5,080.5	327.8	680.0	584.2	95.82	7.097					
17,700.0	12,404.0	17,616.6	12,396.0	49.6	48.8	89.33	-5,180.5	328.4	680.0	582.6	97.42	6.980					
17,800.0	12,404.0	17,716.6	12,396.0	50.4	49.6	89.33	-5,280.5	329.1	680.0	581.0	99.02	6.867					
17,900.0	12,404.0	17,816.6	12,396.0	51.3	50.4	89.33	-5,380.5	329.7	680.0	579.4	100.63	6.758					
18,000.0	12,404.0	17,916.6	12,396.0	52.1	51.3	89.33	-5,480.5	330.4	680.0	577.8	102.24	6.651					
18,100.0	12,404.0	18,016.6	12,396.0	52.9	52.1	89.33	-5,580.5	331.0	680.0	576.2	103.85	6.548					
18,200.0	12,404.0	18,116.6	12,396.0	53.7	52.9	89.33	-5,680.5	331.7	680.0	574.6	105.46	6.448					
18,300.0	12,404.0	18,216.6	12,396.0	54.5	53.7	89.33	-5,780.5	332.4	680.0	572.9	107.08	6.351					
18,400.0	12,404.0	18,316.6	12,396.0	55.3	54.6	89.33	-5,880.5	333.0	680.0	571.3	108.70	6.256					
18,500.0	12,404.0	18,416.6	12,396.0	56.1	55.4	89.33	-5,980.5	333.7	680.0	569.7	110.32	6.164					
18,600.0	12,404.0	18,516.6	12,396.0	56.9	56.2	89.33	-6,080.5	334.3	680.0	568.1	111.95	6.075					
18,700.0	12,404.0	18,616.6	12,396.0	57.8	57.0	89.33	-6,180.5	335.0	680.0	566.5	113.57	5.988					
18,800.0	12,404.0	18,716.6	12,396.0	58.6	57.9	89.33	-6,280.5	335.6	680.0	564.8	115.20	5.903					
18,900.0	12,404.0	18,816.6	12,396.0	59.4	58.7	89.33	-6,380.5	336.3	680.0	563.2	116.83	5.820					
19,000.0	12,404.0	18,916.6	12,396.0	60.2	59.5	89.33	-6,480.5	336.9	680.0	561.6	118.47	5.740					
19,100.0	12,404.0	19,016.6	12,396.0	61.0	60.4	89.33	-6,580.4	337.6	680.0	559.9	120.10	5.662					
19,200.0	12,404.0	19,116.6	12,396.0	61.9	61.2	89.33	-6,680.4	338.2	680.0	558.3	121.74	5.586					
19,300.0	12,404.0	19,216.6	12,396.0	62.7	62.0	89.33	-6,780.4	338.9	680.0	556.7	123.38	5.512					
19,400.0	12,404.0	19,316.6	12,396.0	63.5	62.9	89.33	-6,880.4	339.5	680.0	555.0	125.02	5.439					
19,500.0	12,404.0	19,416.6	12,396.0	64.3	63.7	89.33	-6,980.4	340.2	680.0	553.4	126.66	5.369					
19,600.0	12,404.0	19,516.6	12,396.0	65.2	64.5	89.33	-7,080.4	340.8	680.0	551.7	128.30	5.300					
19,700.0	12,404.0	19,616.6	12,396.0	66.0	65.4	89.33	-7,180.4	341.5	680.0	550.1	129.95	5.233					
19,800.0	12,404.0	19,716.6	12,396.0	66.8	66.2	89.33	-7,280.4	342.1	680.0	548.4	131.59	5.168					
19,900.0	12,404.0	19,816.6	12,396.0	67.7	67.1	89.33	-7,380.4	342.8	680.0	546.8	133.24	5.104					
20,000.0	12,404.0	19,916.6	12,396.0	68.5	67.9	89.33	-7,480.4	343.4	680.0	545.1	134.89	5.041					
20,100.0	12,404.0	20,016.6	12,396.0	69.3	68.7	89.33	-7,580.4	344.1	680.0	543.5	136.54	4.980					
20,200.0	12,404.0	20,116.6	12,396.0	70.2	69.6	89.33	-7,680.4	344.7	680.0	541.8	138.19	4.921					
20,300.0	12,404.0	20,216.6	12,396.0	71.0	70.4	89.33	-7,780.4	345.4	680.0	540.2	139.84	4.863					
20,400.0	12,404.0	20,316.6	12,396.0	71.8	71.3	89.33	-7,880.4	346.0	680.0	538.5	141.50	4.806					
20,500.0	12,404.0	20,416.6	12,396.0	72.7	72.1	89.33	-7,980.4	346.7	680.0	536.9	143.15	4.750					
20,600.0	12,404.0	20,516.6	12,396.0	73.5	72.9	89.33	-8,080.4	347.3	680.0	535.2	144.81	4.696					
20,700.0	12,404.0	20,616.6	12,396.0	74.3	73.8	89.33	-8,180.4	348.0	680.0	533.6	146.47	4.643					
20,800.0	12,404.0	20,716.6	12,396.0	75.2	74.6	89.33	-8,280.4	348.6	680.0	531.9	148.12	4.591					
20,900.0	12,404.0	20,816.6	12,396.0	76.0	75.5	89.33	-8,380.4	349.3	680.0	530.3	149.78	4.540					
21,000.0	12,404.0	20,916.6	12,396.0	76.8	76.3	89.33	-8,480.4	349.9	680.0	528.6	151.44	4.490					
21,100.0	12,404.0	21,016.6	12,396.0	77.7	77.2	89.33	-8,580.4	350.6	680.0	526.9	153.10	4.442					
21,200.0	12,404.0	21,116.6	12,396.0	78.5	78.0	89.33	-8,680.4	351.2	680.0	525.3	154.77	4.394					
21,300.0	12,404.0	21,216.6	12,396.0	79.4	78.8	89.33	-8,780.4	351.9	680.0	523.6	156.43	4.347					
21,400.0	12,404.0	21,316.6	12,396.0	80.2	79.7	89.33	-8,880.4	352.5	680.0	522.0	158.09	4.302					
21,500.0	12,404.0	21,416.6	12,396.0	81.0	80.5	89.33	-8,980.4	353.2	680.0	520.3	159.76	4.257					
21,600.0	12,404.0	21,516.6	12,396.0	81.9	81.4	89.33	-9,080.4	353.8	680.0	518.6	161.42	4.213					
21,700.0	12,404.0	21,616.6	12,396.0	82.7	82.2	89.33	-9,180.4	354.5	680.0	517.0	163.09	4.170					
21,800.0	12,404.0	21,716.6	12,396.0	83.6	83.1	89.33	-9,280.4	355.1	680.0	515.3	164.75	4.128					
21,900.0	12,404.0	21,816.6	12,396.0	84.4	83.9	89.33	-9,380.4	355.8	680.0	513.6	166.42	4.086					
22,000.0	12,404.0	21,916.6	12,396.0	85.3	84.8	89.33	-9,480.4	356.4	680.1	512.0	168.09	4.046					
22,100.0	12,404.0	22,016.6	12,396.0	86.1	85.6	89.33	-9,580.4	357.1	680.1	510.3	169.76	4.006					
22,200.0	12,404.0	22,116.6	12,396.0	86.9	86.5	89.33	-9,680.4	357.7	680.1	508.6	171.43	3.967					

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> AVION FEDERAL COM PROJECT - AVION FEDERAL COM 702H - OWB - PWP1													<b>Offset Site Error:</b> 0.0 usft
<b>Survey Program:</b> 0-r.5 SDI_KPR_WL_NS-CT, 1200-r.5 MWD+IFR1+SAG+FDIR, 11947-r.5 MWD+IFR1+SAG+FDIR													<b>Offset Well Error:</b> 0.0 usft
<b>Reference:</b>													
<b>Offset</b>													
<b>Semi Major Axis</b>													
<b>Offset Wellbore Centre</b>													
<b>Distance</b>													
<b>Measured Reference</b>	<b>Vertical Reference</b>	<b>Measured Offset</b>	<b>Vertical Offset</b>	<b>Reference</b>	<b>Offset</b>	<b>Highside Toolface</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Between Centres</b>	<b>Between Ellipses</b>	<b>No-Go Distance</b>	<b>Separation Factor</b>	<b>Warning</b>
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
22,300.0	12,404.0	22,216.6	12,396.0	87.8	87.3	89.33	-9,780.4	358.4	680.1	507.0	173.10	3.929	
22,400.0	12,404.0	22,316.6	12,396.0	88.6	88.2	89.33	-9,880.4	359.0	680.1	505.3	174.77	3.891	
22,500.0	12,404.0	22,416.6	12,396.0	89.5	89.0	89.33	-9,980.4	359.7	680.1	503.6	176.44	3.854	
22,600.0	12,404.0	22,516.6	12,396.0	90.3	89.9	89.33	-10,080.4	360.4	680.1	501.9	178.11	3.818	
22,700.0	12,404.0	22,616.6	12,396.0	91.2	90.7	89.33	-10,180.4	361.0	680.1	500.3	179.78	3.783	
22,712.9	12,404.0	22,629.4	12,396.0	91.3	90.8	89.33	-10,193.2	361.1	680.1	500.1	179.99	3.778	
22,762.9	12,404.0	22,679.4	12,396.0	91.7	91.2	89.33	-10,243.2	361.4	680.1	499.2	180.83	3.761	
22,763.3	12,404.0	22,679.8	12,396.0	91.7	91.2	89.33	-10,243.6	361.4	680.1	499.2	180.83	3.761 SF	

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

## ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 703H - OWB - PWP1													Offset Site Error:	0.0 usft		
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 11926-r.5 MWD+IFR1+SAG+FDIR													Rule Assigned:		Offset Well Error:	0.0 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)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.50	-0.7	-80.0	80.0							
100.0	100.0	99.0	99.0	0.6	0.6	-90.50	-0.7	-80.0	80.0	78.1	1.91	41.984				
200.0	200.0	199.0	199.0	1.1	1.0	-90.50	-0.7	-80.0	80.0	77.2	2.84	28.144				
300.0	300.0	299.0	299.0	1.4	1.4	-90.50	-0.7	-80.0	80.0	76.5	3.47	23.058				
400.0	400.0	399.0	399.0	1.7	1.7	-90.50	-0.7	-80.0	80.0	76.0	3.97	20.128				
500.0	500.0	499.0	499.0	1.9	1.9	-90.50	-0.7	-80.0	80.0	75.6	4.41	18.143				
600.0	600.0	599.0	599.0	2.1	2.1	-90.50	-0.7	-80.0	80.0	75.2	4.80	16.677				
700.0	700.0	699.0	699.0	2.3	2.3	-90.50	-0.7	-80.0	80.0	74.9	5.15	15.533				
800.0	800.0	799.0	799.0	2.5	2.5	-90.50	-0.7	-80.0	80.0	74.5	5.48	14.607				
900.0	900.0	899.0	899.0	2.7	2.7	-90.50	-0.7	-80.0	80.0	74.2	5.78	13.836				
1,000.0	1,000.0	999.0	999.0	2.9	2.9	-90.50	-0.7	-80.0	80.0	73.9	6.07	13.181				
1,100.0	1,100.0	1,099.0	1,099.0	3.1	3.1	-90.50	-0.7	-80.0	80.0	73.7	6.34	12.614				
1,200.0	1,200.0	1,199.0	1,199.0	3.2	3.2	-90.50	-0.7	-80.0	80.0	73.4	6.60	12.118				
1,300.0	1,300.0	1,299.0	1,299.0	3.4	3.4	-90.50	-0.7	-80.0	80.0	73.2	6.85	11.678				
1,400.0	1,400.0	1,399.0	1,399.0	3.5	3.5	-90.50	-0.7	-80.0	80.0	72.9	7.09	11.285				
1,500.0	1,500.0	1,499.0	1,499.0	3.7	3.7	-90.50	-0.7	-80.0	80.0	72.7	7.32	10.930 CC, ES				
1,600.0	1,600.0	1,599.0	1,599.0	3.8	3.8	-167.86	-0.7	-80.0	81.7	74.2	7.52	10.865 SF				
1,700.0	1,699.8	1,698.8	1,698.8	4.0	4.0	-168.56	-0.7	-80.0	86.8	78.9	7.96	10.904				
1,800.0	1,799.5	1,798.5	1,798.5	4.3	4.1	-169.57	-0.7	-80.0	95.4	87.0	8.39	11.368				
1,900.0	1,898.7	1,897.7	1,897.7	4.6	4.3	-170.71	-0.7	-80.0	107.4	98.6	8.81	12.197				
2,000.0	1,997.5	1,996.5	1,996.5	4.8	4.4	-171.84	-0.7	-80.0	122.9	113.7	9.21	13.342				
2,100.0	2,095.6	2,094.6	2,094.6	5.1	4.6	-172.89	-0.7	-80.0	141.8	132.1	9.69	14.639				
2,125.0	2,120.0	2,119.0	2,119.0	5.1	4.7	-173.13	-0.7	-80.0	147.0	137.3	9.75	15.081				
2,200.0	2,193.3	2,192.3	2,192.3	5.2	4.8	-173.81	-0.7	-80.0	163.2	153.2	9.99	16.343				
2,300.0	2,290.9	2,286.0	2,286.0	5.4	4.9	-174.22	0.1	-81.0	185.7	175.3	10.36	17.914				
2,400.0	2,388.5	2,378.4	2,378.3	5.6	5.1	-173.93	2.7	-84.4	210.4	199.6	10.73	19.605				
2,500.0	2,486.2	2,469.6	2,469.2	5.8	5.3	-173.18	7.1	-90.0	237.3	226.2	11.09	21.401				
2,600.0	2,583.8	2,560.1	2,559.2	6.0	5.4	-172.14	13.3	-97.8	266.4	255.0	11.37	23.436				
2,700.0	2,681.4	2,655.4	2,653.7	6.2	5.5	-171.09	20.4	-106.9	296.5	284.8	11.67	25.406				
2,800.0	2,779.1	2,750.6	2,748.2	6.4	5.7	-170.24	27.6	-116.0	326.6	314.6	12.00	27.207				
2,900.0	2,876.7	2,845.8	2,842.8	6.5	5.8	-169.53	34.8	-125.2	356.8	344.5	12.34	28.910				
3,000.0	2,974.3	2,941.1	2,937.3	6.7	6.0	-168.93	41.9	-134.3	387.1	374.4	12.68	30.521				
3,100.0	3,071.9	3,036.3	3,031.8	6.9	6.1	-168.41	49.1	-143.4	417.3	404.3	13.02	32.046				
3,200.0	3,169.6	3,131.6	3,126.4	7.1	6.3	-167.97	56.3	-152.5	447.6	434.3	13.37	33.492				
3,300.0	3,267.2	3,226.8	3,220.9	7.3	6.4	-167.58	63.5	-161.7	478.0	464.3	13.71	34.863				
3,400.0	3,364.8	3,322.1	3,315.4	7.5	6.6	-167.24	70.6	-170.8	508.3	494.3	14.06	36.165				
3,500.0	3,462.5	3,417.3	3,410.0	7.7	6.7	-166.94	77.8	-179.9	538.7	524.3	14.40	37.402				
3,600.0	3,560.1	3,512.5	3,504.5	7.9	6.9	-166.67	85.0	-189.1	569.1	554.3	14.75	38.579				
3,700.0	3,657.7	3,607.8	3,599.0	8.2	7.0	-166.42	92.1	-198.2	599.4	584.3	15.10	39.700				
3,800.0	3,755.4	3,703.0	3,693.6	8.4	7.2	-166.20	99.3	-207.3	629.8	614.4	15.45	40.768				
3,900.0	3,853.0	3,798.3	3,788.1	8.6	7.4	-166.00	106.5	-216.5	660.2	644.4	15.80	41.786				
4,000.0	3,950.6	3,893.5	3,882.6	8.8	7.5	-165.82	113.7	-225.6	690.6	674.5	16.15	42.758				
4,100.0	4,048.2	3,988.8	3,977.2	9.0	7.7	-165.66	120.8	-234.7	721.1	704.5	16.51	43.687				
4,200.0	4,145.9	4,084.0	4,071.7	9.2	7.8	-165.50	128.0	-243.9	751.5	734.6	16.86	44.575				
4,300.0	4,243.5	4,179.2	4,166.2	9.4	8.0	-165.36	135.2	-253.0	781.9	764.7	17.21	45.424				
4,400.0	4,341.1	4,274.5	4,260.8	9.6	8.2	-165.23	142.3	-262.1	812.3	794.7	17.57	46.238				
4,500.0	4,438.8	4,369.7	4,355.3	9.8	8.3	-165.11	149.5	-271.2	842.7	824.8	17.92	47.017				
4,600.0	4,536.4	4,465.0	4,449.8	10.0	8.5	-165.00	156.7	-280.4	873.2	854.9	18.28	47.765				
4,700.0	4,634.0	4,560.2	4,544.4	10.2	8.7	-164.89	163.9	-289.5	903.6	885.0	18.64	48.483				
4,800.0	4,731.7	4,655.5	4,638.9	10.4	8.8	-164.79	171.0	-298.6	934.1	915.1	19.00	49.172				
4,900.0	4,829.3	4,750.7	4,733.4	10.7	9.0	-164.70	178.2	-307.8	964.5	945.1	19.36	49.826				

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> AVION FEDERAL COM PROJECT - AVION FEDERAL COM 703H - OWB - PWP1													<b>Offset Site Error:</b> 0.0 usft		
<b>Survey Program:</b> 0-r.5 SDI_KPR_WL_NS-CT, 2000-r.5 MWD+IFR1+SAG+FDIR, 11926-r.5 MWD+IFR1+SAG+FDIR													<b>Offset Well Error:</b> 0.0 usft		
<b>Reference:</b>													<b>Rule Assigned:</b>		
<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Measured Depth (usft)</b>	<b>Vertical Depth (usft)</b>	<b>Reference (usft)</b>	<b>Offset (usft)</b>	<b>Semi Major Axis</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>No-Go Distance (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
5,000.0	4,926.9	4,852.6	4,834.6	10.9	9.2	-164.62		185.8	-317.4	994.8	975.1	19.74	50.400		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - AVION FEDERAL COM 704H - OWB - PWP1													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1500-r.5 MWD+IFR1+SAG+FDIR, 11999-r.5 MWD+IFR1+SAG+FDIR													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface		Offset Wellbore Centre		Distance			Rule Assigned:	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.53	-1.1	-119.9	119.9					
100.0	100.0	99.0	99.0	0.6	0.6	-90.53	-1.1	-119.9	119.9	118.3	1.58	76.013		
200.0	200.0	199.0	199.0	1.1	1.0	-90.53	-1.1	-119.9	119.9	117.4	2.51	47.686		
300.0	300.0	299.0	299.0	1.4	1.4	-90.53	-1.1	-119.9	119.9	116.8	3.14	38.168		
400.0	400.0	399.0	399.0	1.7	1.7	-90.53	-1.1	-119.9	119.9	116.3	3.65	32.882		
500.0	500.0	499.0	499.0	1.9	1.9	-90.53	-1.1	-119.9	119.9	115.8	4.08	29.379		
600.0	600.0	599.0	599.0	2.1	2.1	-90.53	-1.1	-119.9	119.9	115.4	4.47	26.830		
700.0	700.0	699.0	699.0	2.3	2.3	-90.53	-1.1	-119.9	119.9	115.1	4.82	24.865		
800.0	800.0	799.0	799.0	2.5	2.5	-90.53	-1.1	-119.9	119.9	114.8	5.15	23.288		
900.0	900.0	899.0	899.0	2.7	2.7	-90.53	-1.1	-119.9	119.9	114.5	5.45	21.985		
1,000.0	1,000.0	999.0	999.0	2.9	2.9	-90.53	-1.1	-119.9	119.9	114.2	5.74	20.884		
1,100.0	1,100.0	1,099.0	1,099.0	3.1	3.1	-90.53	-1.1	-119.9	119.9	113.9	6.01	19.937		
1,200.0	1,200.0	1,199.0	1,199.0	3.2	3.2	-90.53	-1.1	-119.9	119.9	113.6	6.27	19.111 CC, ES		
1,300.0	1,300.0	1,295.1	1,295.1	3.4	3.4	-90.35	-0.7	-121.4	121.5	114.8	6.66	18.242		
1,400.0	1,400.0	1,390.9	1,390.8	3.5	3.6	-89.85	0.3	-126.1	126.4	119.3	7.03	17.971 SF		
1,500.0	1,500.0	1,486.4	1,485.9	3.7	3.8	-89.09	2.1	-133.8	134.5	127.1	7.39	18.196		
1,600.0	1,600.0	1,580.9	1,579.8	3.8	4.0	-165.38	4.6	-144.5	147.6	139.7	7.85	18.795		
1,700.0	1,699.8	1,674.0	1,671.8	4.0	4.3	-164.75	7.7	-158.0	167.1	158.7	8.41	19.865		
1,800.0	1,799.5	1,764.9	1,761.3	4.3	4.5	-164.31	11.4	-174.0	193.1	184.1	8.95	21.562		
1,900.0	1,898.7	1,853.3	1,847.6	4.6	4.8	-164.00	15.6	-192.2	225.2	215.7	9.45	23.836		
2,000.0	1,997.5	1,942.1	1,933.9	4.8	5.0	-163.80	20.4	-212.7	262.9	253.0	9.90	26.565		
2,100.0	2,095.6	2,033.2	2,022.3	5.1	5.2	-163.74	25.3	-234.2	304.2	293.9	10.31	29.503		
2,125.0	2,120.0	2,055.7	2,044.1	5.1	5.2	-163.75	26.6	-239.5	314.9	304.6	10.38	30.351		
2,200.0	2,193.3	2,123.2	2,109.6	5.2	5.3	-163.95	30.2	-255.4	347.6	337.0	10.60	32.796		
2,300.0	2,290.9	2,213.2	2,197.0	5.4	5.5	-164.18	35.1	-276.7	391.1	380.2	10.93	35.789		
2,400.0	2,388.5	2,303.3	2,284.3	5.6	5.6	-164.35	40.1	-297.9	434.7	423.4	11.26	38.590		
2,500.0	2,486.2	2,393.3	2,371.7	5.8	5.8	-164.50	45.0	-319.1	478.2	466.6	11.60	41.212		
2,600.0	2,583.8	2,483.3	2,459.0	6.0	6.0	-164.62	49.9	-340.3	521.7	509.8	11.95	43.671		
2,700.0	2,681.4	2,573.3	2,546.4	6.2	6.1	-164.72	54.8	-361.5	565.3	553.0	12.29	45.977		
2,800.0	2,779.1	2,663.3	2,633.7	6.4	6.3	-164.81	59.7	-382.8	608.8	596.2	12.65	48.144		
2,900.0	2,876.7	2,753.4	2,721.1	6.5	6.5	-164.88	64.6	-404.0	652.4	639.4	13.00	50.181		
3,000.0	2,974.3	2,843.4	2,808.4	6.7	6.7	-164.95	69.5	-425.2	695.9	682.6	13.36	52.098		
3,100.0	3,071.9	2,933.4	2,895.7	6.9	6.9	-165.01	74.4	-446.4	739.5	725.7	13.72	53.905		
3,200.0	3,169.6	3,023.4	2,983.1	7.1	7.0	-165.06	79.3	-467.6	783.0	768.9	14.08	55.608		
3,300.0	3,267.2	3,113.4	3,070.4	7.3	7.2	-165.11	84.2	-488.9	826.6	812.1	14.45	57.217		
3,400.0	3,364.8	3,203.5	3,157.8	7.5	7.4	-165.15	89.1	-510.1	870.1	855.3	14.81	58.738		
3,500.0	3,462.5	3,293.5	3,245.1	7.7	7.6	-165.19	94.0	-531.3	913.6	898.5	15.18	60.176		
3,600.0	3,560.1	3,383.5	3,332.5	7.9	7.8	-165.22	98.9	-552.5	957.2	941.6	15.55	61.539		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - CUERVO FEDERAL 23H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 139-MWD - OWSG R1													Offset Well Error:	3.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance			Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)			
9,500.0	9,398.1	14,280.0	9,850.1	16.3	83.9	60.87	641.1	1,723.6	969.7	869.9	99.87	9.710		
9,600.0	9,498.1	14,280.0	9,850.1	16.4	83.9	60.87	641.1	1,723.6	927.6	824.7	102.87	9.017		
9,700.0	9,598.1	14,280.0	9,850.1	16.5	83.9	60.87	641.1	1,723.6	894.7	789.2	105.47	8.483		
9,800.0	9,698.1	14,280.0	9,850.1	16.5	83.9	60.87	641.1	1,723.6	872.0	764.6	107.43	8.117		
9,900.0	9,798.1	14,280.0	9,850.1	16.6	83.9	60.87	641.1	1,723.6	860.5	751.9	108.54	7.928		
9,950.0	9,848.1	14,280.0	9,850.1	16.6	83.9	60.87	641.1	1,723.6	859.0	750.3	108.74	7.900 CC, ES, SF		
10,000.0	9,898.1	14,280.0	9,850.1	16.6	83.9	60.87	641.1	1,723.6	860.5	751.8	108.70	7.916		
10,100.0	9,998.1	14,280.0	9,850.1	16.7	83.9	60.87	641.1	1,723.6	872.0	764.2	107.88	8.083		
10,200.0	10,098.1	14,280.0	9,850.1	16.8	83.9	60.87	641.1	1,723.6	894.7	788.4	106.23	8.422		
10,300.0	10,198.1	14,280.0	9,850.1	16.8	83.9	60.87	641.1	1,723.6	927.6	823.7	103.94	8.925		
10,400.0	10,298.1	14,280.0	9,850.1	16.9	83.9	60.87	641.1	1,723.6	969.8	868.5	101.25	9.578		

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



### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - DIAMONDTAIL 23 FEDERAL 1H - OWB - AWP														Offset Site Error:	0.0 usft
Survey Program: 128-MWD - OWSG R1												Rule Assigned:		Offset Well Error:	3.0 usft
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Offset Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning		
6,200.0	6,101.2	6,085.9	6,085.3	13.5	21.3	27.31	-34.4	1,872.7	990.9	955.5	35.31	28.058			
6,300.0	6,200.2	6,183.0	6,182.4	13.7	21.6	27.65	-35.3	1,874.2	980.3	944.5	35.83	27.359			
6,400.0	6,299.5	6,280.6	6,280.0	13.9	21.9	27.98	-36.6	1,875.9	971.6	935.2	36.35	26.730			
6,500.0	6,399.0	6,381.9	6,381.3	14.1	22.3	28.29	-37.9	1,877.7	964.4	927.6	36.87	26.155			
6,600.0	6,498.6	6,479.7	6,479.1	14.3	22.6	28.55	-39.2	1,879.4	958.8	921.5	37.39	25.648			
6,700.0	6,598.3	6,582.7	6,582.0	14.4	23.0	28.78	-40.5	1,881.2	954.8	916.8	37.91	25.184			
6,800.0	6,698.2	6,684.1	6,683.4	14.6	23.3	28.96	-41.5	1,882.7	951.9	913.5	38.43	24.773			
6,900.0	6,798.2	6,782.4	6,781.7	14.8	23.6	29.09	-42.6	1,884.2	950.7	911.8	38.93	24.423			
6,926.7	6,824.9	6,809.2	6,808.5	14.8	23.7	29.11	-42.9	1,884.6	950.6	911.6	39.06	24.339 CC, ES			
7,000.0	6,898.1	6,882.9	6,882.1	14.9	24.0	29.17	-43.7	1,885.8	951.0	911.6	39.42	24.123			
7,046.9	6,945.0	6,930.6	6,929.9	14.9	24.2	106.30	-44.2	1,886.5	951.7	912.1	39.64	24.010			
7,100.0	6,998.1	6,984.2	6,983.4	14.9	24.3	106.32	-44.8	1,887.3	952.6	912.7	39.87	23.893			
7,200.0	7,098.1	7,083.1	7,082.3	15.0	24.7	106.36	-45.8	1,888.7	954.2	913.9	40.32	23.670			
7,300.0	7,198.1	7,181.2	7,180.4	15.1	25.0	106.39	-46.9	1,890.3	956.1	915.4	40.76	23.457			
7,400.0	7,298.1	7,282.7	7,281.9	15.1	25.4	106.44	-48.1	1,892.0	958.1	916.8	41.22	23.242			
7,500.0	7,398.1	7,384.6	7,383.7	15.2	25.7	106.49	-49.4	1,893.3	959.7	918.0	41.68	23.023			
7,600.0	7,498.1	7,485.4	7,484.6	15.2	26.1	106.54	-50.8	1,894.6	961.3	919.2	42.15	22.809			
7,700.0	7,598.1	7,587.7	7,586.9	15.3	26.4	106.61	-52.3	1,895.7	962.7	920.1	42.61	22.591			
7,800.0	7,698.1	7,687.8	7,686.9	15.3	26.8	106.67	-53.6	1,896.5	963.9	920.9	43.08	22.378			
7,900.0	7,798.1	7,786.3	7,785.4	15.4	27.1	106.75	-55.3	1,897.4	965.3	921.7	43.53	22.174			
8,000.0	7,898.1	7,883.8	7,882.9	15.4	27.4	106.82	-56.9	1,898.5	966.8	922.8	43.98	21.981			
8,100.0	7,998.1	7,985.4	7,984.5	15.5	27.8	106.91	-58.8	1,899.7	968.5	924.0	44.46	21.785			
8,200.0	8,098.1	8,088.2	8,087.3	15.6	28.1	107.00	-60.6	1,900.6	969.8	924.9	44.93	21.584			
8,300.0	8,198.1	8,190.0	8,189.0	15.6	28.5	107.10	-62.5	1,901.2	971.0	925.5	45.41	21.384			
8,400.0	8,298.1	8,287.0	8,286.0	15.7	28.8	107.20	-64.5	1,901.8	972.1	926.3	45.86	21.197			
8,500.0	8,398.1	8,388.8	8,387.8	15.7	29.2	107.31	-66.7	1,902.5	973.4	927.1	46.34	21.006			
8,600.0	8,498.1	8,487.7	8,486.7	15.8	29.5	107.43	-69.0	1,903.0	974.6	927.8	46.80	20.824			
8,700.0	8,598.1	8,589.0	8,587.9	15.9	29.9	107.55	-71.3	1,903.6	975.9	928.6	47.28	20.640			
8,800.0	8,698.1	8,692.8	8,691.7	15.9	30.3	107.67	-73.5	1,903.9	976.8	929.1	47.77	20.449			
8,900.0	8,798.1	8,796.7	8,795.5	16.0	30.6	107.78	-75.5	1,903.9	977.4	929.1	48.26	20.253			
9,000.0	8,898.1	8,901.6	8,900.5	16.0	31.0	107.87	-77.1	1,903.6	977.5	928.8	48.75	20.050			
9,100.0	8,998.1	9,004.9	9,003.8	16.1	31.4	107.96	-78.4	1,902.7	977.2	927.9	49.24	19.844			
9,200.0	9,098.1	9,103.3	9,102.2	16.2	31.7	108.03	-79.4	1,901.9	976.7	927.0	49.71	19.646			
9,275.7	9,173.8	9,176.0	9,174.8	16.2	32.0	108.08	-80.2	1,901.5	976.6	926.5	50.06	19.506			
9,300.0	9,198.1	9,176.0	9,174.8	16.2	32.0	108.08	-80.2	1,901.5	976.9	926.8	50.07	19.509			
9,400.0	9,298.1	9,239.0	9,237.6	16.3	32.2	108.35	-85.1	1,901.7	980.2	929.8	50.35	19.467 SF			
9,500.0	9,398.1	9,293.0	9,290.7	16.3	32.4	108.87	-94.8	1,902.8	988.4	937.9	50.52	19.563			

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: AVION FEDERAL COM PROJECT - GRUMPY CAT 15 FEDERAL 214H - OWB - AWP													Offset Site Error:	0.0 usft
Survey Program: 72-MWD - OWSG R1											Rule Assigned:		Offset Well Error:	3.0 usft
Measured Reference Depth (usft)	Vertical Depth (usft)	Measured Offset Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
9,900.0	9,798.1	15,725.0	10,699.2	16.6	92.8	-23.56	363.3	912.0	907.3	838.5	68.77	13.193		
10,000.0	9,898.1	15,725.0	10,699.2	16.6	92.8	-23.56	363.3	912.0	808.9	740.0	68.90	11.740		
10,100.0	9,998.1	15,725.0	10,699.2	16.7	92.8	-23.56	363.3	912.0	711.0	641.9	69.02	10.300		
10,200.0	10,098.1	15,725.0	10,699.2	16.8	92.8	-23.56	363.3	912.0	613.7	544.5	69.13	8.877		
10,300.0	10,198.1	15,725.0	10,699.2	16.8	92.8	-23.56	363.3	912.0	517.4	448.2	69.22	7.475		
10,400.0	10,298.1	15,725.0	10,699.2	16.9	92.8	-23.56	363.3	912.0	423.0	353.7	69.28	6.106		
10,500.0	10,398.1	15,725.0	10,699.2	16.9	92.8	-23.56	363.3	912.0	331.7	262.5	69.25	4.790		
10,600.0	10,498.1	15,725.0	10,699.2	17.0	92.8	-23.56	363.3	912.0	247.4	178.3	69.10	3.580		
10,700.0	10,598.1	15,725.0	10,699.2	17.1	92.8	-23.56	363.3	912.0	179.9	111.1	68.81	2.614	Normal Operations	
10,794.2	10,692.4	15,725.0	10,699.2	17.1	92.8	-23.56	363.3	912.0	153.2	84.1	69.07	2.218	Caution - Monitor Closely, CC, ES	
10,800.0	10,698.1	15,725.0	10,699.2	17.1	92.8	-23.56	363.3	912.0	153.3	84.2	69.13	2.218	Caution - Monitor Closely, SF	
10,900.0	10,798.1	15,725.0	10,699.2	17.2	92.8	-23.56	363.3	912.0	186.1	115.9	70.29	2.648	Normal Operations	
11,000.0	10,898.1	15,725.0	10,699.2	17.3	92.8	-23.56	363.3	912.0	256.5	185.5	70.99	3.614		
11,100.0	10,998.1	15,725.0	10,699.2	17.3	92.8	-23.56	363.3	912.0	342.0	270.6	71.34	4.794		
11,200.0	11,098.1	15,725.0	10,699.2	17.4	92.8	-23.56	363.3	912.0	433.7	362.1	71.59	6.058		
11,300.0	11,198.1	15,725.0	10,699.2	17.4	92.8	-23.56	363.3	912.0	528.4	456.6	71.81	7.359		
11,400.0	11,298.1	15,725.0	10,699.2	17.5	92.8	-23.56	363.3	912.0	624.8	552.8	72.02	8.676		
11,500.0	11,398.1	15,725.0	10,699.2	17.6	92.8	-23.56	363.3	912.0	722.2	650.0	72.23	9.998		
11,600.0	11,498.1	15,725.0	10,699.2	17.6	92.8	-23.56	363.3	912.0	820.2	747.7	72.45	11.320		
11,700.0	11,598.1	15,725.0	10,699.2	17.7	92.8	-23.56	363.3	912.0	918.6	845.9	72.68	12.640		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 701H - ST01 - ST01														Offset Site Error: 3.0 usft
Survey Program: 100-Standard Keeper 104, 11808-MWD+IFR1+FDIR										Rule Assigned:				Offset Well Error: 3.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	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	
16,900.0	12,404.0	22,687.0	12,381.3	43.3	90.6	-93.98	-5,051.3	1,736.4	998.0	892.2	105.78	9.435		
17,000.0	12,404.0	22,687.0	12,381.3	44.1	90.6	-93.98	-5,051.3	1,736.4	932.8	820.4	112.38	8.300		
17,100.0	12,404.0	22,687.0	12,381.3	44.9	90.6	-93.98	-5,051.3	1,736.4	874.1	754.8	119.33	7.325		
17,200.0	12,404.0	22,687.0	12,381.3	45.7	90.6	-93.98	-5,051.3	1,736.4	823.4	697.1	126.31	6.519		
17,300.0	12,404.0	22,687.0	12,381.3	46.5	90.6	-93.98	-5,051.3	1,736.4	782.3	649.5	132.86	5.889		
17,400.0	12,404.0	22,687.0	12,381.3	47.3	90.6	-93.98	-5,051.3	1,736.4	752.4	614.0	138.37	5.437		
17,500.0	12,404.0	22,687.0	12,381.3	48.0	90.6	-93.98	-5,051.3	1,736.4	734.9	592.7	142.22	5.168		
17,531.3	12,404.0	22,687.0	12,381.3	48.3	90.6	-93.98	-5,051.3	1,736.4	732.2	589.2	142.99	5.120		
17,580.0	12,404.0	22,687.0	12,381.3	48.7	90.6	-93.98	-5,051.3	1,736.4	730.5	586.8	143.74	5.082		
17,600.0	12,404.0	22,674.0	12,381.3	48.8	90.5	-93.99	-5,064.3	1,736.6	730.7	587.0	143.74	5.084		
17,700.0	12,404.0	22,574.0	12,381.5	49.6	89.6	-93.99	-5,164.3	1,738.3	731.8	588.5	143.23	5.109		
17,800.0	12,404.0	22,438.2	12,382.5	50.4	88.5	-94.08	-5,300.0	1,738.2	731.4	589.3	142.12	5.146		
17,900.0	12,404.0	22,292.6	12,384.6	51.3	87.2	-94.31	-5,445.2	1,727.1	722.7	582.3	140.41	5.147		
18,000.0	12,404.0	22,224.0	12,384.9	52.1	86.7	-94.38	-5,513.5	1,721.4	714.1	573.3	140.88	5.069		
18,100.0	12,404.0	22,152.0	12,384.3	52.9	86.1	-94.35	-5,585.4	1,718.5	709.6	568.6	141.07	5.030		
18,200.0	12,404.0	22,047.5	12,384.9	53.7	85.2	-94.41	-5,690.0	1,717.8	708.3	567.8	140.57	5.039		
18,300.0	12,404.0	21,952.5	12,389.5	54.5	84.4	-94.79	-5,784.7	1,715.6	705.9	565.6	140.26	5.033		
18,400.0	12,404.0	21,854.1	12,393.2	55.3	83.5	-95.11	-5,883.1	1,714.2	704.1	564.2	139.90	5.033		
18,500.0	12,404.0	21,732.2	12,391.1	56.1	82.5	-94.96	-6,004.9	1,711.0	700.6	561.5	139.10	5.037		
18,600.0	12,404.0	21,631.8	12,389.8	56.9	81.7	-94.90	-6,105.2	1,706.8	695.7	556.9	138.77	5.013		
18,700.0	12,404.0	21,531.1	12,389.0	57.8	80.8	-94.86	-6,205.9	1,702.8	691.0	552.6	138.45	4.991		
18,800.0	12,404.0	21,428.7	12,387.7	58.6	80.0	-94.79	-6,308.1	1,697.8	685.4	547.3	138.11	4.963		
18,900.0	12,404.0	21,343.1	12,388.5	59.4	79.2	-94.88	-6,393.6	1,694.6	681.1	542.9	138.17	4.929		
19,000.0	12,404.0	21,256.3	12,388.8	60.2	78.5	-94.93	-6,480.4	1,693.3	679.0	540.8	138.17	4.914		
19,100.0	12,404.0	21,162.8	12,388.7	61.0	77.7	-94.93	-6,573.9	1,692.9	677.9	539.9	138.05	4.911		
19,111.0	12,404.0	21,154.1	12,388.7	61.1	77.6	-94.93	-6,582.6	1,693.0	677.9	539.8	138.06	4.910 CC, ES		
19,200.0	12,404.0	21,082.6	12,389.2	61.9	77.0	-94.96	-6,654.0	1,694.4	679.1	541.0	138.10	4.917		
19,300.0	12,404.0	20,993.0	12,390.5	62.7	76.3	-95.05	-6,743.6	1,697.4	682.0	544.0	138.00	4.942		
19,400.0	12,404.0	20,910.5	12,392.8	63.5	75.6	-95.22	-6,825.9	1,701.7	686.9	549.0	137.91	4.981		
19,500.0	12,404.0	20,790.0	12,397.7	64.3	74.5	-95.57	-6,946.2	1,708.6	692.4	554.8	137.60	5.032		
19,600.0	12,404.0	20,678.5	12,402.2	65.2	73.6	-95.92	-7,057.5	1,712.3	695.5	558.2	137.32	5.065		
19,700.0	12,404.0	20,555.6	12,404.7	66.0	72.5	-96.12	-7,180.3	1,713.1	695.7	558.8	136.87	5.083		
19,800.0	12,404.0	20,458.0	12,403.4	66.8	71.7	-96.03	-7,278.0	1,712.4	694.1	557.3	136.83	5.073		
19,900.0	12,404.0	20,361.3	12,400.2	67.7	70.9	-95.76	-7,374.6	1,712.9	693.7	556.8	136.84	5.069		
19,937.4	12,404.0	20,327.0	12,398.9	68.0	70.6	-95.66	-7,408.9	1,713.1	693.5	556.6	136.88	5.067		
20,000.0	12,404.0	20,281.1	12,396.5	68.5	70.2	-95.45	-7,454.7	1,714.1	694.1	557.0	137.08	5.064		
20,100.0	12,404.0	20,205.7	12,389.4	69.3	69.6	-94.85	-7,529.7	1,718.7	698.7	561.4	137.28	5.089		
20,200.0	12,404.0	20,104.6	12,380.6	70.2	68.8	-94.08	-7,630.1	1,726.4	705.0	567.7	137.33	5.134		
20,300.0	12,404.0	19,968.6	12,373.5	71.0	67.6	-93.47	-7,765.6	1,732.8	708.9	571.8	137.08	5.171		
20,400.0	12,404.0	19,868.3	12,374.2	71.8	66.8	-93.54	-7,865.9	1,733.8	709.2	572.1	137.12	5.172		
20,500.0	12,404.0	19,741.7	12,374.1	72.7	65.7	-93.53	-7,992.5	1,733.2	708.0	571.3	136.76	5.177		
20,600.0	12,404.0	19,639.2	12,372.6	73.5	64.9	-93.43	-8,094.9	1,731.0	705.2	568.4	136.81	5.155		
20,700.0	12,404.0	19,523.2	12,373.5	74.3	63.9	-93.53	-8,210.8	1,726.0	700.2	563.7	136.57	5.127		
20,800.0	12,404.0	19,434.6	12,373.8	75.2	63.2	-93.57	-8,299.4	1,721.9	695.0	558.1	136.95	5.075		
20,900.0	12,404.0	19,348.4	12,375.0	76.0	62.4	-93.69	-8,385.5	1,720.2	692.4	555.1	137.36	5.041		
21,000.0	12,404.0	19,248.0	12,377.5	76.8	61.6	-93.91	-8,485.9	1,718.4	690.2	552.7	137.50	5.019		
21,100.0	12,404.0	19,159.2	12,380.1	77.7	60.9	-94.13	-8,574.6	1,717.4	688.7	550.8	137.86	4.996		
21,116.6	12,404.0	19,145.7	12,380.6	77.8	60.7	-94.17	-8,588.2	1,717.5	688.6	550.7	137.93	4.993		
21,200.0	12,404.0	19,070.6	12,384.2	78.5	60.1	-94.47	-8,663.1	1,718.5	689.4	551.3	138.18	4.989		
21,300.0	12,404.0	18,971.9	12,388.0	79.4	59.3	-94.78	-8,761.7	1,719.6	690.2	551.8	138.40	4.987		
21,400.0	12,404.0	18,886.8	12,390.7	80.2	58.6	-94.98	-8,846.8	1,722.3	693.0	554.3	138.75	4.995		

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design: BEDLINGTON FEDERAL PROJECT (BULLDOG 2332) - BEDLINGTON FED COM 701H - ST01 - ST01													Offset Site Error: 3.0 usft
Survey Program: 100-Standard Keeper 104, 11808-MWD+IFR1+FDIR													Offset Well Error: 3.0 usft
Reference: 100-Standard Keeper 104, 11808-MWD+IFR1+FDIR													
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Separation Factor	Warning
				Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)		
21,500.0	12,404.0	18,783.5	12,392.3	81.0	57.7	-95.09	-8,950.0	1,726.2	696.3	557.3	138.98	5.010	
21,600.0	12,404.0	18,648.1	12,391.5	81.9	56.6	-95.01	-9,085.3	1,729.6	698.5	559.7	138.85	5.031	
21,700.0	12,404.0	18,547.5	12,392.1	82.7	55.7	-95.08	-9,185.9	1,727.3	695.6	556.5	139.15	4.999	
21,800.0	12,404.0	18,451.9	12,392.6	83.6	54.9	-95.14	-9,281.4	1,726.0	693.7	554.1	139.54	4.971	
21,900.0	12,404.0	18,324.7	12,392.4	84.4	53.9	-95.15	-9,408.6	1,721.9	689.7	550.3	139.38	4.948	
22,000.0	12,404.0	18,238.7	12,390.9	85.3	53.2	-95.06	-9,494.6	1,718.9	685.4	545.3	140.06	4.893	
22,100.0	12,404.0	18,153.0	12,386.3	86.1	52.5	-94.69	-9,580.1	1,717.6	682.8	542.0	140.73	4.852	
22,140.6	12,404.0	18,120.9	12,383.9	86.4	52.2	-94.49	-9,612.1	1,717.7	682.4	541.4	141.03	4.839	
22,200.0	12,404.0	18,078.2	12,381.1	86.9	51.9	-94.25	-9,654.6	1,718.7	683.2	541.7	141.48	4.829 SF	
22,300.0	12,404.0	18,004.1	12,377.2	87.8	51.3	-93.90	-9,728.6	1,722.7	687.6	545.5	142.05	4.840	
22,400.0	12,404.0	17,914.9	12,376.1	88.6	50.5	-93.78	-9,817.4	1,730.2	695.1	552.6	142.50	4.878	
22,500.0	12,404.0	17,813.4	12,377.2	89.5	49.7	-93.82	-9,918.6	1,738.4	702.6	559.7	142.95	4.915	
22,600.0	12,404.0	17,640.9	12,383.2	90.3	48.3	-94.29	-10,090.6	1,742.9	704.7	561.9	142.84	4.934	
22,700.0	12,404.0	17,546.9	12,385.9	91.2	47.5	-94.52	-10,184.5	1,741.4	702.6	559.2	143.41	4.899	
22,712.9	12,404.0	17,533.9	12,385.8	91.3	47.4	-94.52	-10,197.6	1,741.2	702.4	558.9	143.48	4.895	
22,762.9	12,404.0	17,483.2	12,384.6	91.7	47.0	-94.43	-10,248.3	1,740.7	701.4	557.6	143.74	4.880	
22,763.3	12,404.0	17,482.7	12,384.6	91.7	47.0	-94.42	-10,248.7	1,740.7	701.4	557.6	143.73	4.880	

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

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design:</b> REDTAIL FED COM PROJECT - CUERVO FEDERAL 23H - OWB - AWP													<b>Offset Site Error:</b> 3.0 usft
<b>Survey Program:</b> 139-r.5 MWD											<b>Offset Well Error:</b> 0.0 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)			
9,500.0	9,398.1	14,280.0	9,850.1	16.3	77.2	60.87	641.1	1,723.6	969.7	879.2	90.50	10.715	
9,600.0	9,498.1	14,280.0	9,850.1	16.4	77.2	60.87	641.1	1,723.6	927.6	834.5	93.12	9.961	
9,700.0	9,598.1	14,280.0	9,850.1	16.5	77.2	60.87	641.1	1,723.6	894.7	799.2	95.46	9.372	
9,800.0	9,698.1	14,280.0	9,850.1	16.5	77.2	60.87	641.1	1,723.6	872.0	774.7	97.35	8.958	
9,900.0	9,798.1	14,280.0	9,850.1	16.6	77.2	60.87	641.1	1,723.6	860.5	761.9	98.59	8.728	
9,950.0	9,848.1	14,280.0	9,850.1	16.6	77.2	60.87	641.1	1,723.6	859.0	760.1	98.93	8.683	CC, ES, SF
10,000.0	9,898.1	14,280.0	9,850.1	16.6	77.2	60.87	641.1	1,723.6	860.5	761.4	99.08	8.685	
10,100.0	9,998.1	14,280.0	9,850.1	16.7	77.2	60.87	641.1	1,723.6	872.0	773.2	98.78	8.828	
10,200.0	10,098.1	14,280.0	9,850.1	16.8	77.2	60.87	641.1	1,723.6	894.7	796.9	97.80	9.148	
10,300.0	10,198.1	14,280.0	9,850.1	16.8	77.2	60.87	641.1	1,723.6	927.6	831.3	96.28	9.635	
10,400.0	10,298.1	14,280.0	9,850.1	16.9	77.2	60.87	641.1	1,723.6	969.8	875.4	94.40	10.273	

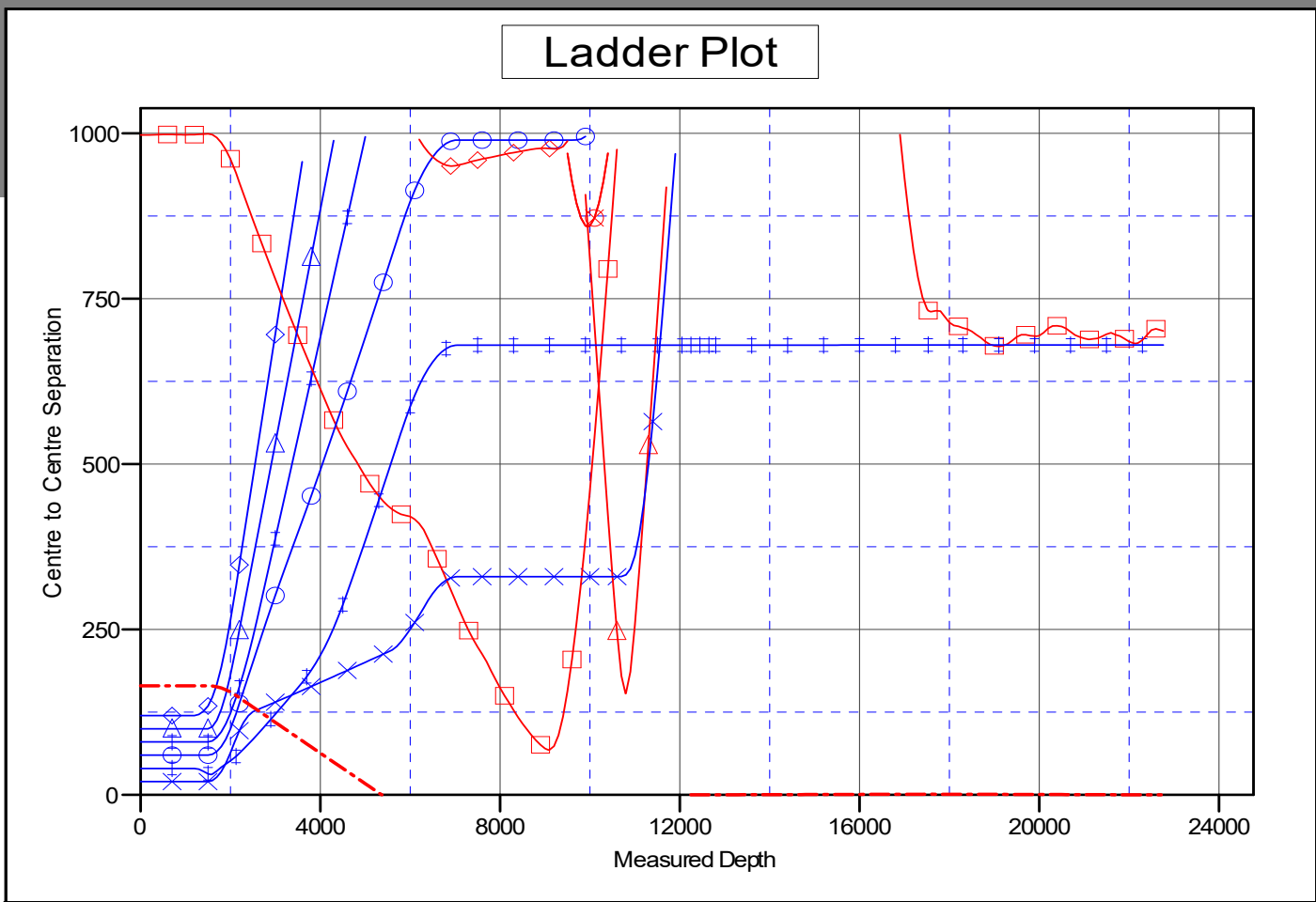
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB=27ft @ 3729.0usft  
 Offset Depths are relative to Offset Datum  
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AVION FEDERAL COM 701H  
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30  
 Grid Convergence at Surface is: 0.36°



**LEGEND**

- CUERVO FEDERAL 23H, OWB, AWP V0
- ▲ GRUMPY CAT 15 FEDERAL 21H, OWB, AWP V0
- ◆ DIAMONDTAIL 23 FEDERAL 1H OWB, AWP V0
- BEDLINGTON FED COM 701H, S701, S701 V0
- ▲ AVION FEDERAL COM 703H, OWB, PWP1 V0
- AVION FEDERAL COM 501H, OWB, PWP1 V0
- ▲ AVION FEDERAL COM 704H, OWB, PWP1 V0
- AVION FEDERAL COM 301H, OWB, AWP V0
- AVION FEDERAL COM 503H, OWB, PWP1 V0
- ▲ CUERVO FEDERAL 23H, OWB, AWP V0
- AVION FEDERAL COM 502H, OWB, PWP1 V0
- AVION FEDERAL COM 702H, OWB, PWP1 V0

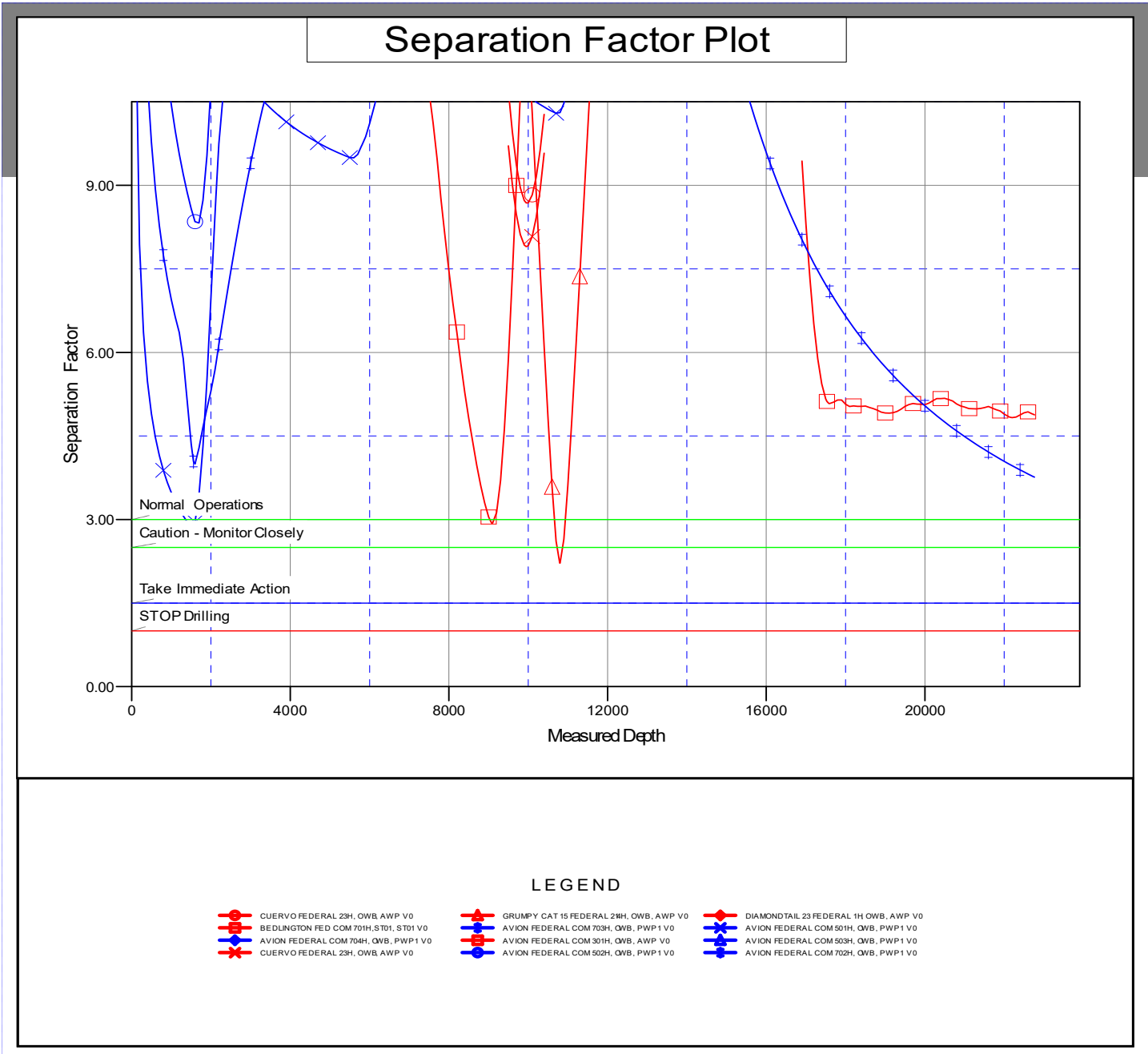
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

### ConocoPhillips Anticollision Report

<b>Company:</b>	DELAWARE BASIN EAST	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Reference Site:</b>	AVION FEDERAL COM PROJECT	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OWB	<b>Database:</b>	EDT 17 Permian Prod
<b>Reference Design:</b>	PWP1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB=27ft @ 3729.0usft  
 Offset Depths are relative to Offset Datum  
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AVION FEDERAL COM 701H  
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30  
 Grid Convergence at Surface is: 0.36°



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

# **DELAWARE BASIN EAST**

**LEA COUNTY SOUTHEAST  
AVION FEDERAL COM PROJECT  
AVION FEDERAL COM 701H**

**OWB**

**Plan: PWP1**

## **Standard Planning Report**

**12 January, 2025**



### ConocoPhillips Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

<b>Project</b> LEA COUNTY SOUTHEAST			
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

<b>Site</b> AVION FEDERAL COM PROJECT			
<b>Site Position:</b>		<b>Northing:</b>	467,238.17 usft
<b>From:</b>	Map	<b>Easting:</b>	708,776.75 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 16' 57.890 N
		<b>Longitude:</b>	103° 39' 27.986 W

<b>Well</b> AVION FEDERAL COM 701H			
<b>Well Position</b>	+N/-S	0.0 usft	<b>Northing:</b> 472,260.60 usft
	+E/-W	0.0 usft	<b>Easting:</b> 708,767.20 usft
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b> usft
<b>Grid Convergence:</b>		0.36 °	<b>Ground Level:</b> 3,702.0 usft

<b>Wellbore</b> OWB					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	7/1/2025	6.28	59.87	47,291.70750929

<b>Design</b> PWP1				
<b>Audit Notes:</b>				
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b> 0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	174.19

<b>Plan Survey Tool Program</b>		<b>Date</b> 1/12/2025		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	1,500.0 PWP1 (OWB)	r.5 SDI_KPR_WL_NS-CT SDI Keeper Wireline Gyrocomp	
2	1,500.0	12,028.4 PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG	
3	12,028.4	22,762.9 PWP1 (OWB)	r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG	

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<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,125.0	12.50	77.10	2,120.0	15.2	66.2	2.00	2.00	0.00	77.10	
5,797.0	12.50	77.10	5,705.0	192.6	840.8	0.00	0.00	0.00	0.00	
7,046.9	0.00	0.00	6,945.0	222.9	973.2	1.00	-1.00	0.00	180.00	
12,028.4	0.00	0.00	11,926.5	222.9	973.2	0.00	0.00	0.00	0.00	
12,778.4	90.00	179.63	12,404.0	-254.6	976.3	12.00	12.00	23.95	179.63	
17,531.3	90.00	179.63	12,404.0	-5,007.4	1,007.3	0.00	0.00	0.00	0.00	
22,712.9	90.00	179.63	12,404.0	-10,188.8	1,041.1	0.00	0.00	0.00	0.00	
22,762.9	90.00	179.63	12,404.0	-10,238.8	1,041.4	0.00	0.00	0.00	0.00	

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<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	2.00	77.10	1,600.0	0.4	1.7	-0.2	2.00	2.00	0.00
1,700.0	4.00	77.10	1,699.8	1.6	6.8	-0.9	2.00	2.00	0.00
1,800.0	6.00	77.10	1,799.5	3.5	15.3	-1.9	2.00	2.00	0.00
1,900.0	8.00	77.10	1,898.7	6.2	27.2	-3.4	2.00	2.00	0.00
2,000.0	10.00	77.10	1,997.5	9.7	42.4	-5.4	2.00	2.00	0.00
2,100.0	12.00	77.10	2,095.6	14.0	61.0	-7.7	2.00	2.00	0.00
2,125.0	12.50	77.10	2,120.0	15.2	66.2	-8.4	2.00	2.00	0.00
2,200.0	12.50	77.10	2,193.3	18.8	82.0	-10.4	0.00	0.00	0.00
2,300.0	12.50	77.10	2,290.9	23.6	103.1	-13.1	0.00	0.00	0.00
2,400.0	12.50	77.10	2,388.5	28.4	124.2	-15.7	0.00	0.00	0.00
2,500.0	12.50	77.10	2,486.2	33.3	145.3	-18.4	0.00	0.00	0.00
2,600.0	12.50	77.10	2,583.8	38.1	166.4	-21.1	0.00	0.00	0.00
2,700.0	12.50	77.10	2,681.4	42.9	187.5	-23.8	0.00	0.00	0.00
2,800.0	12.50	77.10	2,779.1	47.8	208.6	-26.4	0.00	0.00	0.00
2,900.0	12.50	77.10	2,876.7	52.6	229.7	-29.1	0.00	0.00	0.00
3,000.0	12.50	77.10	2,974.3	57.4	250.8	-31.8	0.00	0.00	0.00
3,100.0	12.50	77.10	3,071.9	62.3	271.9	-34.4	0.00	0.00	0.00
3,200.0	12.50	77.10	3,169.6	67.1	293.0	-37.1	0.00	0.00	0.00
3,300.0	12.50	77.10	3,267.2	71.9	314.1	-39.8	0.00	0.00	0.00
3,400.0	12.50	77.10	3,364.8	76.8	335.2	-42.5	0.00	0.00	0.00
3,500.0	12.50	77.10	3,462.5	81.6	356.3	-45.1	0.00	0.00	0.00
3,600.0	12.50	77.10	3,560.1	86.4	377.4	-47.8	0.00	0.00	0.00
3,700.0	12.50	77.10	3,657.7	91.3	398.5	-50.5	0.00	0.00	0.00
3,800.0	12.50	77.10	3,755.4	96.1	419.6	-53.1	0.00	0.00	0.00
3,900.0	12.50	77.10	3,853.0	100.9	440.6	-55.8	0.00	0.00	0.00
4,000.0	12.50	77.10	3,950.6	105.8	461.7	-58.5	0.00	0.00	0.00
4,100.0	12.50	77.10	4,048.2	110.6	482.8	-61.2	0.00	0.00	0.00
4,200.0	12.50	77.10	4,145.9	115.4	503.9	-63.8	0.00	0.00	0.00
4,300.0	12.50	77.10	4,243.5	120.3	525.0	-66.5	0.00	0.00	0.00
4,400.0	12.50	77.10	4,341.1	125.1	546.1	-69.2	0.00	0.00	0.00
4,500.0	12.50	77.10	4,438.8	129.9	567.2	-71.9	0.00	0.00	0.00
4,600.0	12.50	77.10	4,536.4	134.7	588.3	-74.5	0.00	0.00	0.00
4,700.0	12.50	77.10	4,634.0	139.6	609.4	-77.2	0.00	0.00	0.00
4,800.0	12.50	77.10	4,731.7	144.4	630.5	-79.9	0.00	0.00	0.00
4,900.0	12.50	77.10	4,829.3	149.2	651.6	-82.5	0.00	0.00	0.00
5,000.0	12.50	77.10	4,926.9	154.1	672.7	-85.2	0.00	0.00	0.00
5,100.0	12.50	77.10	5,024.5	158.9	693.8	-87.9	0.00	0.00	0.00
5,200.0	12.50	77.10	5,122.2	163.7	714.9	-90.6	0.00	0.00	0.00

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<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

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)	
5,300.0	12.50	77.10	5,219.8	168.6	736.0	-93.2	0.00	0.00	0.00	
5,400.0	12.50	77.10	5,317.4	173.4	757.1	-95.9	0.00	0.00	0.00	
5,500.0	12.50	77.10	5,415.1	178.2	778.2	-98.6	0.00	0.00	0.00	
5,600.0	12.50	77.10	5,512.7	183.1	799.3	-101.2	0.00	0.00	0.00	
5,700.0	12.50	77.10	5,610.3	187.9	820.4	-103.9	0.00	0.00	0.00	
5,797.0	12.50	77.10	5,705.0	192.6	840.8	-106.5	0.00	0.00	0.00	
5,800.0	12.47	77.10	5,708.0	192.7	841.5	-106.6	1.00	-1.00	0.00	
5,900.0	11.47	77.10	5,805.8	197.4	861.7	-109.2	1.00	-1.00	0.00	
6,000.0	10.47	77.10	5,904.0	201.6	880.2	-111.5	1.00	-1.00	0.00	
6,100.0	9.47	77.10	6,002.4	205.5	897.1	-113.6	1.00	-1.00	0.00	
6,200.0	8.47	77.10	6,101.2	209.0	912.3	-115.6	1.00	-1.00	0.00	
6,300.0	7.47	77.10	6,200.2	212.0	925.8	-117.3	1.00	-1.00	0.00	
6,400.0	6.47	77.10	6,299.5	214.8	937.6	-118.8	1.00	-1.00	0.00	
6,500.0	5.47	77.10	6,399.0	217.1	947.8	-120.1	1.00	-1.00	0.00	
6,600.0	4.47	77.10	6,498.6	219.0	956.2	-121.1	1.00	-1.00	0.00	
6,700.0	3.47	77.10	6,598.3	220.6	963.0	-122.0	1.00	-1.00	0.00	
6,800.0	2.47	77.10	6,698.2	221.7	968.0	-122.6	1.00	-1.00	0.00	
6,900.0	1.47	77.10	6,798.2	222.5	971.4	-123.0	1.00	-1.00	0.00	
7,000.0	0.47	77.10	6,898.1	222.9	973.0	-123.3	1.00	-1.00	0.00	
7,046.9	0.00	0.00	6,945.0	222.9	973.2	-123.3	1.00	-1.00	0.00	
7,100.0	0.00	0.00	6,998.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,098.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,198.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,298.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,398.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,498.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,598.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,698.1	222.9	973.2	-123.3	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,798.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,898.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,998.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,098.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,198.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,298.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,398.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,498.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,598.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,698.1	222.9	973.2	-123.3	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,798.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,898.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,998.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,098.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,198.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,298.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,398.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,498.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,598.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,698.1	222.9	973.2	-123.3	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,798.1	222.9	973.2	-123.3	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,898.1	222.9	973.2	-123.3	0.00	0.00	0.00	
10,100.0	0.00	0.00	9,998.1	222.9	973.2	-123.3	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,098.1	222.9	973.2	-123.3	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,198.1	222.9	973.2	-123.3	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,298.1	222.9	973.2	-123.3	0.00	0.00	0.00	

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<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

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)
10,500.0	0.00	0.00	10,398.1	222.9	973.2	-123.3	0.00	0.00	0.00
10,600.0	0.00	0.00	10,498.1	222.9	973.2	-123.3	0.00	0.00	0.00
10,700.0	0.00	0.00	10,598.1	222.9	973.2	-123.3	0.00	0.00	0.00
10,800.0	0.00	0.00	10,698.1	222.9	973.2	-123.3	0.00	0.00	0.00
10,900.0	0.00	0.00	10,798.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,000.0	0.00	0.00	10,898.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,100.0	0.00	0.00	10,998.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,200.0	0.00	0.00	11,098.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,300.0	0.00	0.00	11,198.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,400.0	0.00	0.00	11,298.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,500.0	0.00	0.00	11,398.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,600.0	0.00	0.00	11,498.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,700.0	0.00	0.00	11,598.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,800.0	0.00	0.00	11,698.1	222.9	973.2	-123.3	0.00	0.00	0.00
11,900.0	0.00	0.00	11,798.1	222.9	973.2	-123.3	0.00	0.00	0.00
12,000.0	0.00	0.00	11,898.1	222.9	973.2	-123.3	0.00	0.00	0.00
12,028.4	0.00	0.00	11,926.5	222.9	973.2	-123.3	0.00	0.00	0.00
12,050.0	2.59	179.63	11,948.1	222.4	973.2	-122.8	12.00	12.00	0.00
12,075.0	5.59	179.63	11,973.1	220.6	973.2	-121.0	12.00	12.00	0.00
12,100.0	8.59	179.63	11,997.9	217.5	973.2	-117.9	12.00	12.00	0.00
12,125.0	11.59	179.63	12,022.5	213.2	973.3	-113.6	12.00	12.00	0.00
12,150.0	14.59	179.63	12,046.8	207.5	973.3	-107.9	12.00	12.00	0.00
12,175.0	17.59	179.63	12,070.8	200.6	973.3	-101.0	12.00	12.00	0.00
12,200.0	20.59	179.63	12,094.5	192.4	973.4	-92.9	12.00	12.00	0.00
12,225.0	23.59	179.63	12,117.6	183.0	973.5	-83.6	12.00	12.00	0.00
12,250.0	26.59	179.63	12,140.3	172.4	973.5	-73.0	12.00	12.00	0.00
12,275.0	29.59	179.63	12,162.3	160.6	973.6	-61.3	12.00	12.00	0.00
12,300.0	32.59	179.63	12,183.7	147.7	973.7	-48.4	12.00	12.00	0.00
12,325.0	35.59	179.63	12,204.4	133.7	973.8	-34.5	12.00	12.00	0.00
12,350.0	38.59	179.63	12,224.4	118.6	973.9	-19.5	12.00	12.00	0.00
12,375.0	41.59	179.63	12,243.5	102.5	974.0	-3.4	12.00	12.00	0.00
12,400.0	44.59	179.63	12,261.7	85.5	974.1	13.6	12.00	12.00	0.00
12,425.0	47.59	179.63	12,279.1	67.4	974.2	31.5	12.00	12.00	0.00
12,450.0	50.59	179.63	12,295.4	48.6	974.3	50.3	12.00	12.00	0.00
12,475.0	53.59	179.63	12,310.8	28.8	974.5	69.9	12.00	12.00	0.00
12,500.0	56.59	179.63	12,325.1	8.3	974.6	90.3	12.00	12.00	0.00
12,525.0	59.59	179.63	12,338.3	-12.9	974.7	111.5	12.00	12.00	0.00
12,550.0	62.59	179.63	12,350.4	-34.8	974.9	133.2	12.00	12.00	0.00
12,575.0	65.59	179.63	12,361.3	-57.3	975.0	155.6	12.00	12.00	0.00
12,600.0	68.59	179.63	12,371.1	-80.3	975.2	178.5	12.00	12.00	0.00
12,625.0	71.59	179.63	12,379.6	-103.8	975.3	201.9	12.00	12.00	0.00
12,650.0	74.59	179.63	12,386.8	-127.7	975.5	225.8	12.00	12.00	0.00
12,675.0	77.59	179.63	12,392.8	-152.0	975.6	249.9	12.00	12.00	0.00
12,700.0	80.59	179.63	12,397.6	-176.5	975.8	274.3	12.00	12.00	0.00
12,725.0	83.59	179.63	12,401.0	-201.3	976.0	299.0	12.00	12.00	0.00
12,750.0	86.59	179.63	12,403.2	-226.2	976.1	323.8	12.00	12.00	0.00
12,775.0	89.59	179.63	12,404.0	-251.2	976.3	348.7	12.00	12.00	0.00
12,778.4	90.00	179.63	12,404.0	-254.6	976.3	352.0	12.00	12.00	0.00
12,800.0	90.00	179.63	12,404.0	-276.2	976.5	373.5	0.00	0.00	0.00
12,900.0	90.00	179.63	12,404.0	-376.2	977.1	473.1	0.00	0.00	0.00
13,000.0	90.00	179.63	12,404.0	-476.2	977.8	572.6	0.00	0.00	0.00
13,100.0	90.00	179.63	12,404.0	-576.1	978.4	672.2	0.00	0.00	0.00
13,200.0	90.00	179.63	12,404.0	-676.1	979.1	771.7	0.00	0.00	0.00
13,300.0	90.00	179.63	12,404.0	-776.1	979.7	871.3	0.00	0.00	0.00

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

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)	
13,400.0	90.00	179.63	12,404.0	-876.1	980.4	970.8	0.00	0.00	0.00	
13,500.0	90.00	179.63	12,404.0	-976.1	981.0	1,070.4	0.00	0.00	0.00	
13,600.0	90.00	179.63	12,404.0	-1,076.1	981.7	1,169.9	0.00	0.00	0.00	
13,700.0	90.00	179.63	12,404.0	-1,176.1	982.3	1,269.5	0.00	0.00	0.00	
13,800.0	90.00	179.63	12,404.0	-1,276.1	983.0	1,369.1	0.00	0.00	0.00	
13,900.0	90.00	179.63	12,404.0	-1,376.1	983.6	1,468.6	0.00	0.00	0.00	
14,000.0	90.00	179.63	12,404.0	-1,476.1	984.3	1,568.2	0.00	0.00	0.00	
14,100.0	90.00	179.63	12,404.0	-1,576.1	984.9	1,667.7	0.00	0.00	0.00	
14,200.0	90.00	179.63	12,404.0	-1,676.1	985.6	1,767.3	0.00	0.00	0.00	
14,300.0	90.00	179.63	12,404.0	-1,776.1	986.2	1,866.8	0.00	0.00	0.00	
14,400.0	90.00	179.63	12,404.0	-1,876.1	986.9	1,966.4	0.00	0.00	0.00	
14,500.0	90.00	179.63	12,404.0	-1,976.1	987.5	2,065.9	0.00	0.00	0.00	
14,600.0	90.00	179.63	12,404.0	-2,076.1	988.2	2,165.5	0.00	0.00	0.00	
14,700.0	90.00	179.63	12,404.0	-2,176.1	988.8	2,265.0	0.00	0.00	0.00	
14,800.0	90.00	179.63	12,404.0	-2,276.1	989.5	2,364.6	0.00	0.00	0.00	
14,900.0	90.00	179.63	12,404.0	-2,376.1	990.1	2,464.1	0.00	0.00	0.00	
15,000.0	90.00	179.63	12,404.0	-2,476.1	990.8	2,563.7	0.00	0.00	0.00	
15,100.0	90.00	179.63	12,404.0	-2,576.1	991.4	2,663.2	0.00	0.00	0.00	
15,200.0	90.00	179.63	12,404.0	-2,676.1	992.1	2,762.8	0.00	0.00	0.00	
15,300.0	90.00	179.63	12,404.0	-2,776.1	992.8	2,862.3	0.00	0.00	0.00	
15,400.0	90.00	179.63	12,404.0	-2,876.1	993.4	2,961.9	0.00	0.00	0.00	
15,500.0	90.00	179.63	12,404.0	-2,976.1	994.1	3,061.4	0.00	0.00	0.00	
15,600.0	90.00	179.63	12,404.0	-3,076.1	994.7	3,161.0	0.00	0.00	0.00	
15,700.0	90.00	179.63	12,404.0	-3,176.1	995.4	3,260.5	0.00	0.00	0.00	
15,800.0	90.00	179.63	12,404.0	-3,276.1	996.0	3,360.1	0.00	0.00	0.00	
15,900.0	90.00	179.63	12,404.0	-3,376.1	996.7	3,459.6	0.00	0.00	0.00	
16,000.0	90.00	179.63	12,404.0	-3,476.1	997.3	3,559.2	0.00	0.00	0.00	
16,100.0	90.00	179.63	12,404.0	-3,576.1	998.0	3,658.7	0.00	0.00	0.00	
16,200.0	90.00	179.63	12,404.0	-3,676.1	998.6	3,758.3	0.00	0.00	0.00	
16,300.0	90.00	179.63	12,404.0	-3,776.1	999.3	3,857.8	0.00	0.00	0.00	
16,400.0	90.00	179.63	12,404.0	-3,876.1	999.9	3,957.4	0.00	0.00	0.00	
16,500.0	90.00	179.63	12,404.0	-3,976.1	1,000.6	4,056.9	0.00	0.00	0.00	
16,600.0	90.00	179.63	12,404.0	-4,076.1	1,001.2	4,156.5	0.00	0.00	0.00	
16,700.0	90.00	179.63	12,404.0	-4,176.1	1,001.9	4,256.0	0.00	0.00	0.00	
16,800.0	90.00	179.63	12,404.0	-4,276.1	1,002.5	4,355.6	0.00	0.00	0.00	
16,900.0	90.00	179.63	12,404.0	-4,376.1	1,003.2	4,455.1	0.00	0.00	0.00	
17,000.0	90.00	179.63	12,404.0	-4,476.1	1,003.8	4,554.7	0.00	0.00	0.00	
17,100.0	90.00	179.63	12,404.0	-4,576.1	1,004.5	4,654.2	0.00	0.00	0.00	
17,200.0	90.00	179.63	12,404.0	-4,676.1	1,005.1	4,753.8	0.00	0.00	0.00	
17,300.0	90.00	179.63	12,404.0	-4,776.1	1,005.8	4,853.3	0.00	0.00	0.00	
17,400.0	90.00	179.63	12,404.0	-4,876.1	1,006.4	4,952.9	0.00	0.00	0.00	
17,500.0	90.00	179.63	12,404.0	-4,976.1	1,007.1	5,052.4	0.00	0.00	0.00	
17,531.3	90.00	179.63	12,404.0	-5,007.4	1,007.3	5,083.6	0.00	0.00	0.00	
17,600.0	90.00	179.63	12,404.0	-5,076.1	1,007.7	5,152.0	0.00	0.00	0.00	
17,700.0	90.00	179.63	12,404.0	-5,176.1	1,008.4	5,251.5	0.00	0.00	0.00	
17,800.0	90.00	179.63	12,404.0	-5,276.0	1,009.1	5,351.1	0.00	0.00	0.00	
17,900.0	90.00	179.63	12,404.0	-5,376.0	1,009.7	5,450.6	0.00	0.00	0.00	
18,000.0	90.00	179.63	12,404.0	-5,476.0	1,010.4	5,550.2	0.00	0.00	0.00	
18,100.0	90.00	179.63	12,404.0	-5,576.0	1,011.0	5,649.7	0.00	0.00	0.00	
18,200.0	90.00	179.63	12,404.0	-5,676.0	1,011.7	5,749.3	0.00	0.00	0.00	
18,300.0	90.00	179.63	12,404.0	-5,776.0	1,012.3	5,848.8	0.00	0.00	0.00	
18,400.0	90.00	179.63	12,404.0	-5,876.0	1,013.0	5,948.4	0.00	0.00	0.00	
18,500.0	90.00	179.63	12,404.0	-5,976.0	1,013.6	6,047.9	0.00	0.00	0.00	
18,600.0	90.00	179.63	12,404.0	-6,076.0	1,014.3	6,147.5	0.00	0.00	0.00	

### ConocoPhillips

#### Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

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)	
18,700.0	90.00	179.63	12,404.0	-6,176.0	1,014.9	6,247.0	0.00	0.00	0.00	
18,800.0	90.00	179.63	12,404.0	-6,276.0	1,015.6	6,346.6	0.00	0.00	0.00	
18,900.0	90.00	179.63	12,404.0	-6,376.0	1,016.2	6,446.1	0.00	0.00	0.00	
19,000.0	90.00	179.63	12,404.0	-6,476.0	1,016.9	6,545.7	0.00	0.00	0.00	
19,100.0	90.00	179.63	12,404.0	-6,576.0	1,017.5	6,645.2	0.00	0.00	0.00	
19,200.0	90.00	179.63	12,404.0	-6,676.0	1,018.2	6,744.8	0.00	0.00	0.00	
19,300.0	90.00	179.63	12,404.0	-6,776.0	1,018.8	6,844.3	0.00	0.00	0.00	
19,400.0	90.00	179.63	12,404.0	-6,876.0	1,019.5	6,943.9	0.00	0.00	0.00	
19,500.0	90.00	179.63	12,404.0	-6,976.0	1,020.1	7,043.4	0.00	0.00	0.00	
19,600.0	90.00	179.63	12,404.0	-7,076.0	1,020.8	7,143.0	0.00	0.00	0.00	
19,700.0	90.00	179.63	12,404.0	-7,176.0	1,021.4	7,242.5	0.00	0.00	0.00	
19,800.0	90.00	179.63	12,404.0	-7,276.0	1,022.1	7,342.1	0.00	0.00	0.00	
19,900.0	90.00	179.63	12,404.0	-7,376.0	1,022.7	7,441.6	0.00	0.00	0.00	
20,000.0	90.00	179.63	12,404.0	-7,476.0	1,023.4	7,541.2	0.00	0.00	0.00	
20,100.0	90.00	179.63	12,404.0	-7,576.0	1,024.0	7,640.7	0.00	0.00	0.00	
20,200.0	90.00	179.63	12,404.0	-7,676.0	1,024.7	7,740.3	0.00	0.00	0.00	
20,300.0	90.00	179.63	12,404.0	-7,776.0	1,025.4	7,839.8	0.00	0.00	0.00	
20,400.0	90.00	179.63	12,404.0	-7,876.0	1,026.0	7,939.4	0.00	0.00	0.00	
20,500.0	90.00	179.63	12,404.0	-7,976.0	1,026.7	8,038.9	0.00	0.00	0.00	
20,600.0	90.00	179.63	12,404.0	-8,076.0	1,027.3	8,138.5	0.00	0.00	0.00	
20,700.0	90.00	179.63	12,404.0	-8,176.0	1,028.0	8,238.0	0.00	0.00	0.00	
20,800.0	90.00	179.63	12,404.0	-8,276.0	1,028.6	8,337.6	0.00	0.00	0.00	
20,900.0	90.00	179.63	12,404.0	-8,376.0	1,029.3	8,437.1	0.00	0.00	0.00	
21,000.0	90.00	179.63	12,404.0	-8,476.0	1,029.9	8,536.7	0.00	0.00	0.00	
21,100.0	90.00	179.63	12,404.0	-8,576.0	1,030.6	8,636.2	0.00	0.00	0.00	
21,200.0	90.00	179.63	12,404.0	-8,676.0	1,031.2	8,735.8	0.00	0.00	0.00	
21,300.0	90.00	179.63	12,404.0	-8,776.0	1,031.9	8,835.3	0.00	0.00	0.00	
21,400.0	90.00	179.63	12,404.0	-8,876.0	1,032.5	8,934.9	0.00	0.00	0.00	
21,500.0	90.00	179.63	12,404.0	-8,976.0	1,033.2	9,034.4	0.00	0.00	0.00	
21,600.0	90.00	179.63	12,404.0	-9,076.0	1,033.8	9,134.0	0.00	0.00	0.00	
21,700.0	90.00	179.63	12,404.0	-9,176.0	1,034.5	9,233.5	0.00	0.00	0.00	
21,800.0	90.00	179.63	12,404.0	-9,276.0	1,035.1	9,333.1	0.00	0.00	0.00	
21,900.0	90.00	179.63	12,404.0	-9,376.0	1,035.8	9,432.6	0.00	0.00	0.00	
22,000.0	90.00	179.63	12,404.0	-9,476.0	1,036.4	9,532.2	0.00	0.00	0.00	
22,100.0	90.00	179.63	12,404.0	-9,576.0	1,037.1	9,631.7	0.00	0.00	0.00	
22,200.0	90.00	179.63	12,404.0	-9,676.0	1,037.7	9,731.3	0.00	0.00	0.00	
22,300.0	90.00	179.63	12,404.0	-9,776.0	1,038.4	9,830.8	0.00	0.00	0.00	
22,400.0	90.00	179.63	12,404.0	-9,876.0	1,039.0	9,930.4	0.00	0.00	0.00	
22,500.0	90.00	179.63	12,404.0	-9,975.9	1,039.7	10,030.0	0.00	0.00	0.00	
22,600.0	90.00	179.63	12,404.0	-10,075.9	1,040.3	10,129.5	0.00	0.00	0.00	
22,700.0	90.00	179.63	12,404.0	-10,175.9	1,041.0	10,229.1	0.00	0.00	0.00	
22,712.9	90.00	179.63	12,404.0	-10,188.8	1,041.1	10,241.9	0.00	0.00	0.00	
22,762.9	90.00	179.63	12,404.0	-10,238.8	1,041.4	10,291.6	0.00	0.00	0.00	

### ConocoPhillips Planning Report

<b>Database:</b>	EDT 17 Permian Prod	<b>Local Co-ordinate Reference:</b>	Well AVION FEDERAL COM 701H
<b>Company:</b>	DELAWARE BASIN EAST	<b>TVD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Project:</b>	LEA COUNTY SOUTHEAST	<b>MD Reference:</b>	RKB=27ft @ 3729.0usft
<b>Site:</b>	AVION FEDERAL COM PROJECT	<b>North Reference:</b>	Grid
<b>Well:</b>	AVION FEDERAL COM 701H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PWP1		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
- Shape										
TNGT WNDW_100'A x C - plan hits target center - Rectangle (sides W70.0 H100.0 D3,672.0)	12.50	257.10	5,705.0	192.6	840.8	472,453.18	709,608.03	32° 17' 49.444 N	103° 39' 17.919 W	
KOP BOX_0'N x 100'S x - plan hits target center - Rectangle (sides W100.0 H100.0 D4,981.5)	0.00	359.63	11,926.5	222.9	973.2	472,483.50	709,740.40	32° 17' 49.736 N	103° 39' 16.375 W	
PBHL (AVION FEDERAL - plan hits target center - Rectangle (sides W100.0 H10,412.8 D20.0)	0.00	359.63	12,404.0	-10,238.8	1,041.4	462,021.80	709,808.60	32° 16' 6.207 N	103° 39' 16.351 W	
FTP (AVION FEDERAL - plan misses target center by 164.0usft at 12426.5usft MD (12280.1 TVD, 66.3 N, 974.2 E) - Circle (radius 50.0)	0.00	0.00	12,404.0	173.7	973.6	472,434.30	709,740.80	32° 17' 49.249 N	103° 39' 16.374 W	
PPP2 (AVION FEDERAL - plan hits target center - Point	0.00	0.00	12,404.0	-5,007.4	1,007.3	467,253.20	709,774.50	32° 16' 57.977 N	103° 39' 16.363 W	
LTP (AVION FEDERAL - plan hits target center - Point	0.00	0.00	12,404.0	-10,188.8	1,041.1	462,071.80	709,808.30	32° 16' 6.701 N	103° 39' 16.351 W	

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
		(usft)	(usft)		
0.0	0.0	0.0	0.0	HOLD TO NUDGE KOP	
1,500.0	1,500.0	0.0	0.0	NUDGE @ DLS 2.00	
2,125.0	2,120.1	15.2	66.2	HOLD TANGENT	
5,797.0	5,705.0	192.6	840.8	END NUDGE	
7,046.9	6,945.0	222.9	973.2	HOLD TO CURVE KOP	
12,028.4	11,926.5	222.9	973.2	KOP-START DLS 12.00 TFO 179.63	
12,778.4	12,404.0	-254.6	976.3	EOC-HOLD	
17,531.3	12,404.0	-5,007.4	1,007.3	POI-HOLD	
22,712.9	12,404.0	-10,188.8	1,041.1	LTP-HOLD	
22,762.9	12,404.0	-10,238.8	1,041.4	TD @ 22762.9 MD / 10291.6 VS	





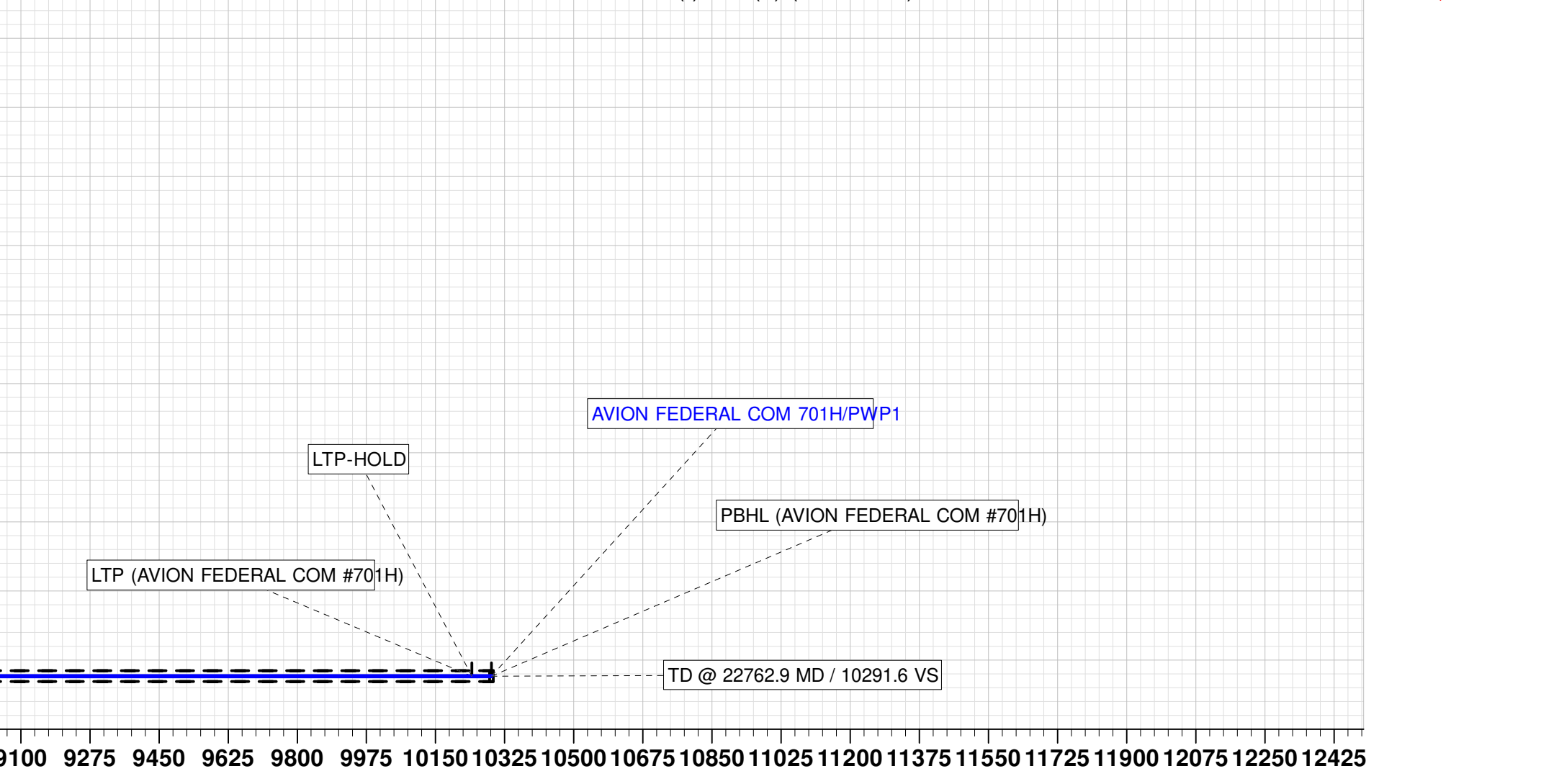
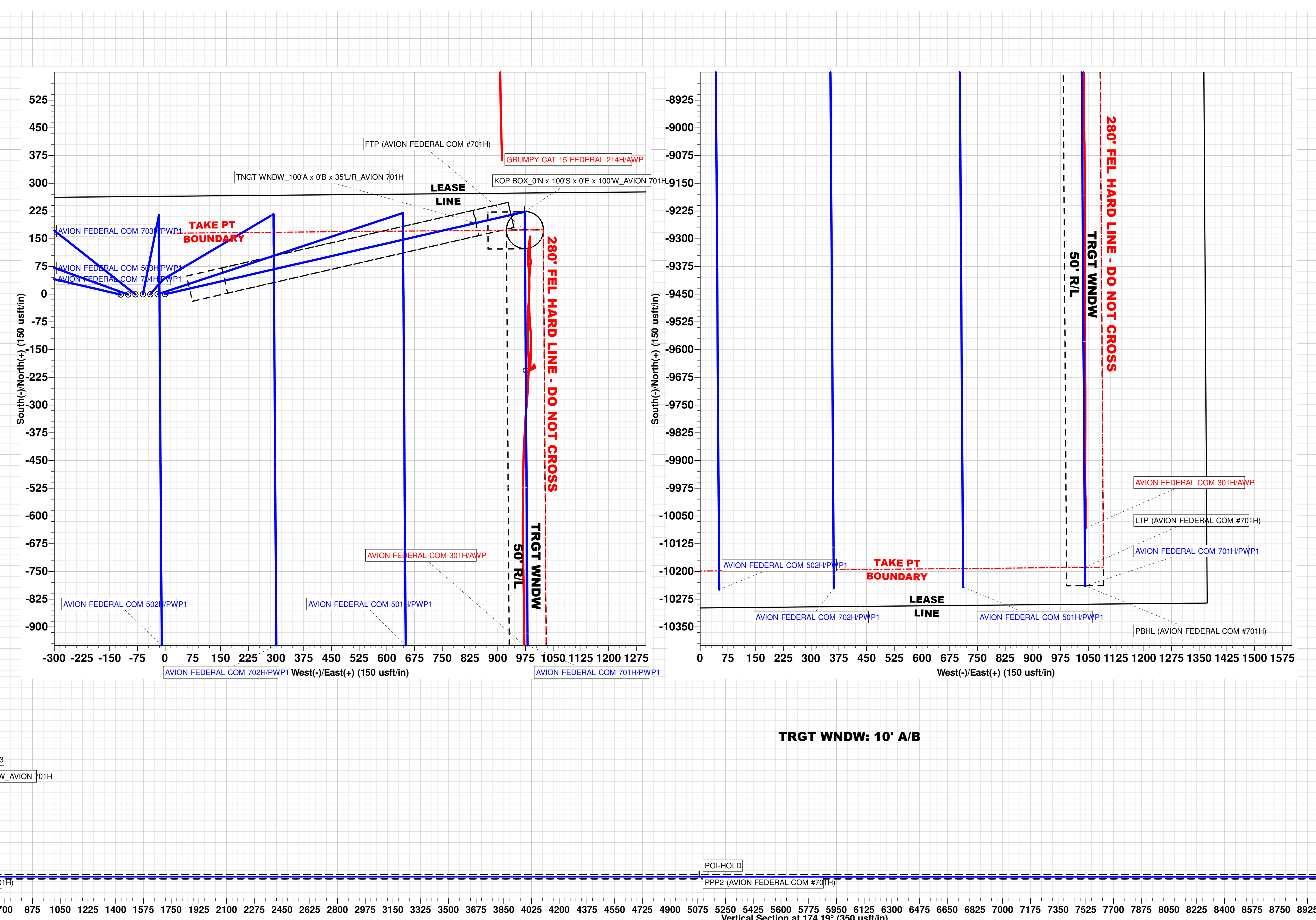
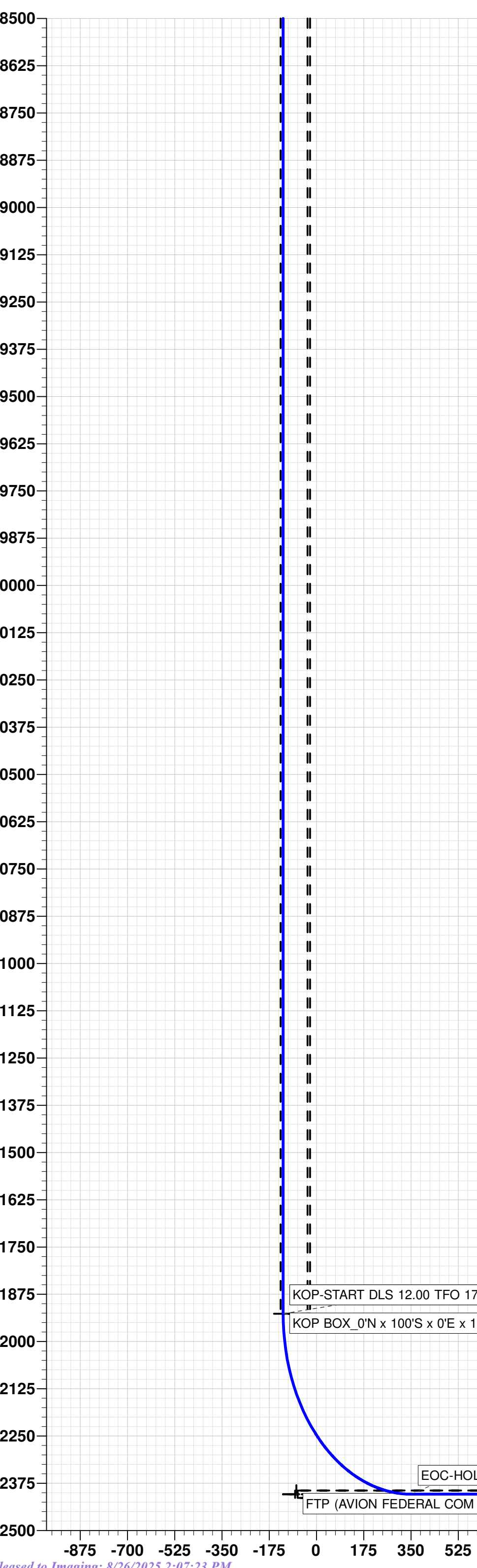
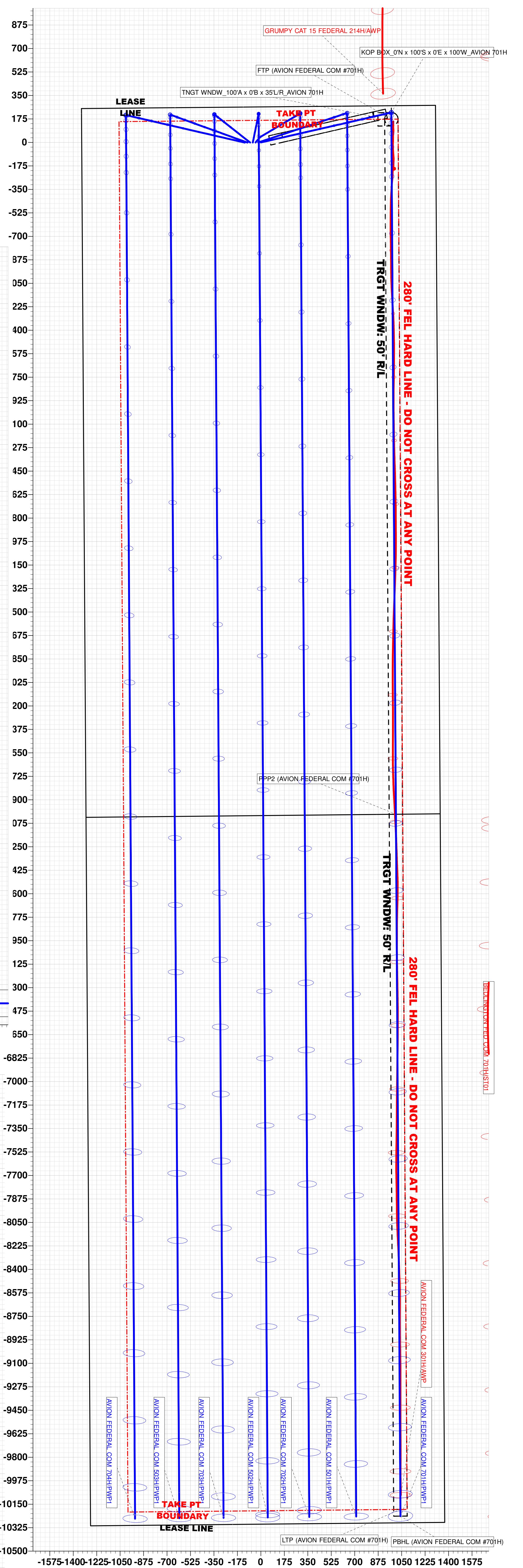
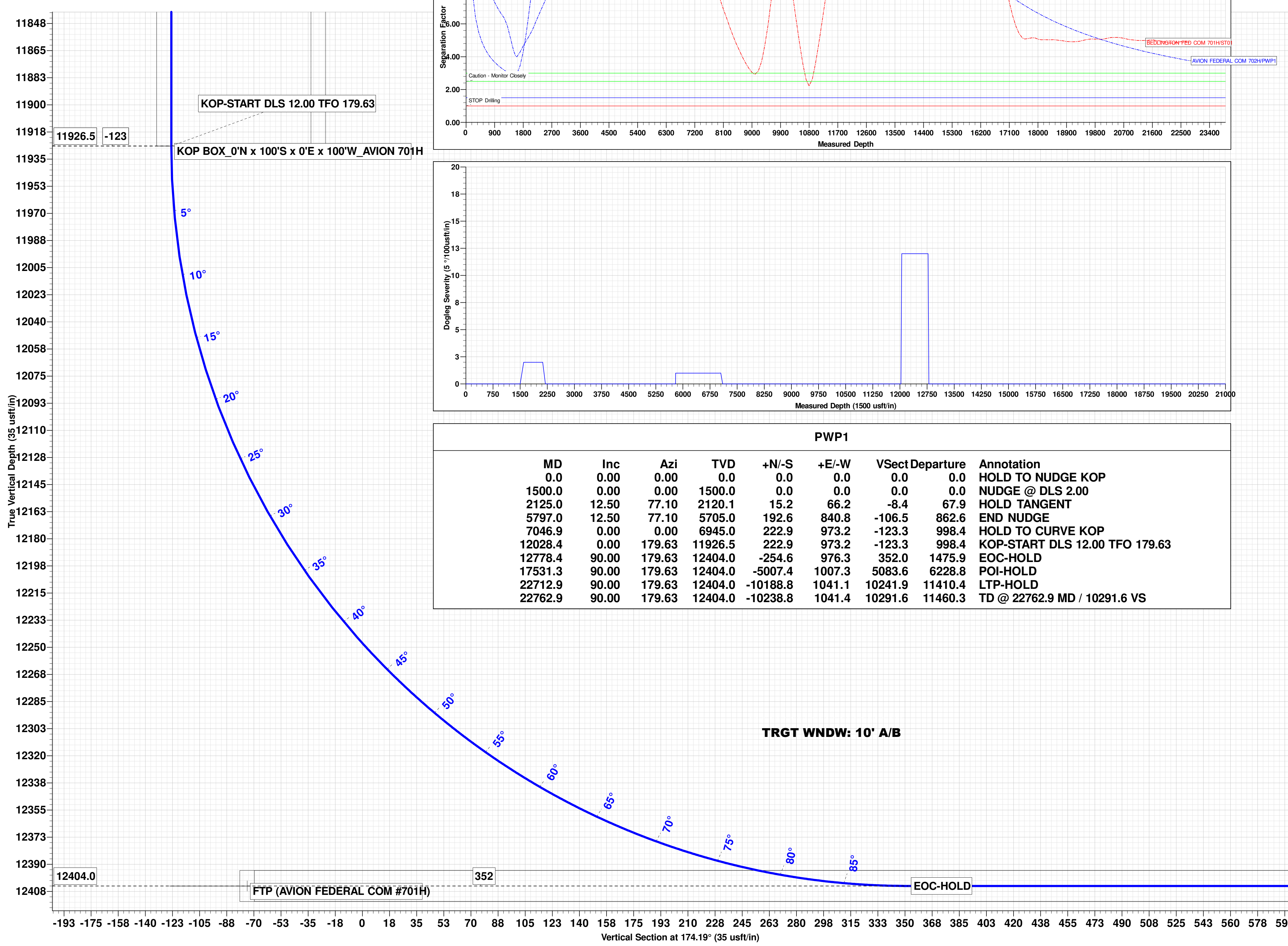
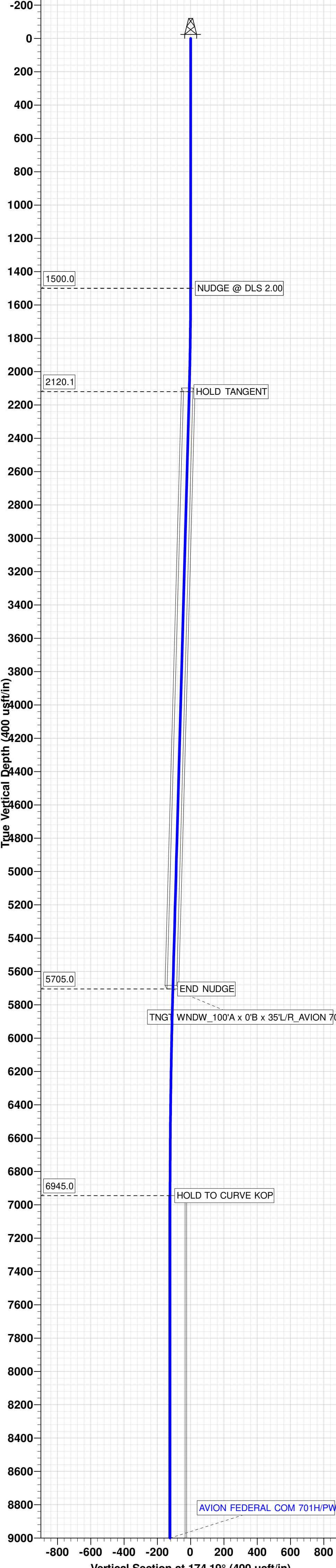
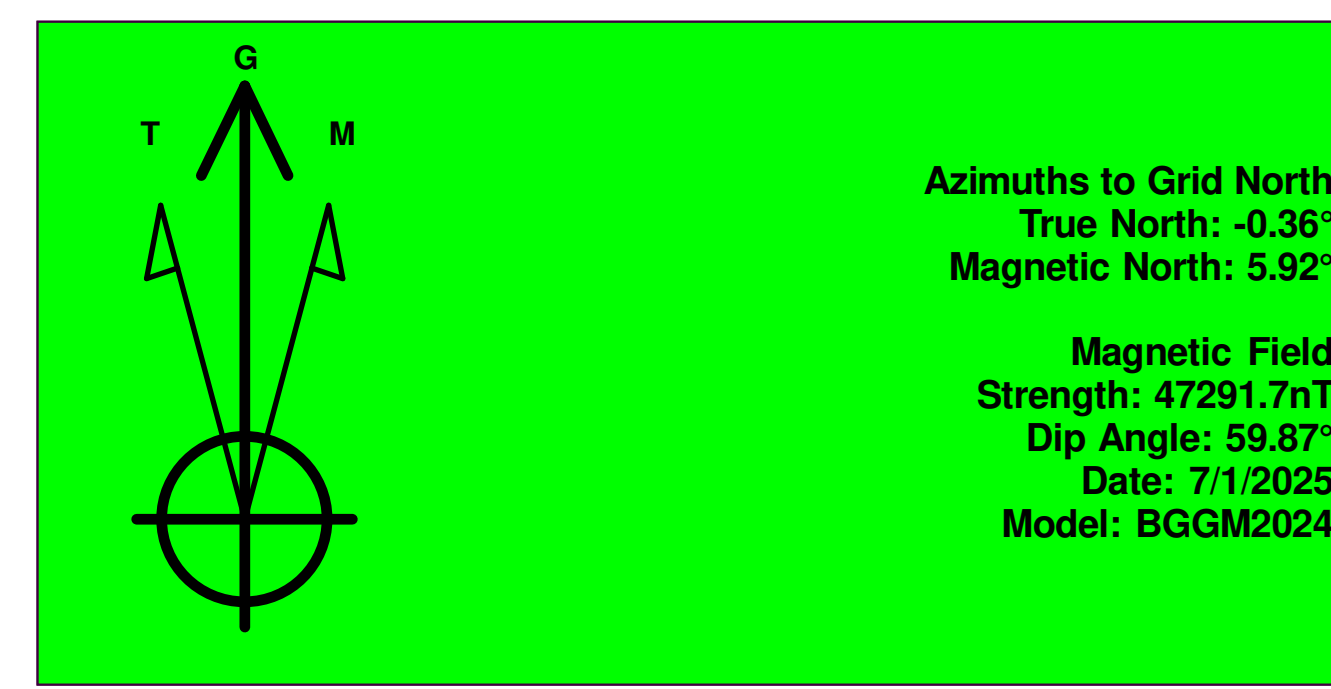
Project: LEA COUNTY SOUTHEAST  
 Site: AVION FEDERAL COM PROJECT  
 Well: AVION FEDERAL COM 701H  
 Wellbore: OWB  
 Design: PWP1  
 GL: 3702.0  
 RKB=27ft @ 3729.0ustf

WELL DETAILS: AVION FEDERAL COM 701H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	472260.60	708767.20	32° 17' 47.591 N	103° 39' 27.729 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
TNGT WNDW_100'A x 0'B x 35'L_R_AVION 701H	5705.0	192.6	840.8	472453.18	709608.03	Rectangle (Sides: L100.0 W70.0)
KOP BOX_0'N x 100'S x 0'E x 100'W_AVION 701H	1926.5	222.9	973.2	472453.50	709740.40	Rectangle (Sides: L100.0 W100.0)
FTP (AVION FEDERAL COM #701H)	12404.0	173.7	973.6	472434.30	709740.80	Circle (Radius: 50.0)
LTP (AVION FEDERAL COM #701H)	12404.0	-10188.8	1041.1	462071.80	709808.30	Point
PBHL (AVION FEDERAL COM #701H)	12404.0	-10238.8	1041.4	462021.80	709808.60	Rectangle (Sides: L10412.8 W100.0)
PPP2 (AVION FEDERAL COM #701H)	12404.0	-5007.4	1007.3	467253.20	709774.50	Point





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

<b>Well Name:</b> AVION FEDERAL COM	<b>Well Location:</b> T23S / R32E / SEC 22 / NWNE / 32.296511 / -103.658381	<b>County or Parish/State:</b> LEA / NM
<b>Well Number:</b> 701H	<b>Type of Well:</b> OIL WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM88163	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3002553594	<b>Operator:</b> COG OPERATING LLC	

**Notice of Intent**

**Sundry ID:** 2833101

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 01/21/2025

**Time Sundry Submitted:** 02:31

**Date proposed operation will begin:** 01/21/2025

**Procedure Description:** COG Operating LLC, respectfully requests approval for the following changes to the original approved APD. SHL Change: Due to another company pipelines being in the way of the original SHL. From: 325' FNL & 1365' FEL Section 22. T23S. R32E. To: 265' FNL & 1305' FEL Section 22. T23S. R32E. C102 Attached. Drilling: Drilling Program, Directional Program, AC Report and Specs Attached.

**NOI Attachments**

**Procedure Description**

- AVION\_FEDERAL\_COM\_701H\_Updated\_New\_C102\_20250121142646.pdf
- AVION\_FEDERAL\_COM\_701H\_PWP1\_DIR\_RPT\_20250121142643.pdf
- Avion\_Fed\_Com\_701H\_Updated\_Drilling\_Program\_for\_Sundry\_20250121142643.pdf
- AVION\_FEDERAL\_COM\_701H\_PWP1\_AC\_RPT\_20250121142643.pdf
- AVION\_FEDERAL\_COM\_701H\_PWP1\_WPLOT\_20250121142643.pdf
- 5.500\_23\_P110\_CY\_WEDGE\_441\_08192024\_20250121142643.pdf
- 5.500\_23\_P110\_CY\_TXP\_BTC\_08192024\_20250121142640.pdf

Well Name: AVION FEDERAL COM

Well Location: T23S / R32E / SEC 22 / NWNE / 32.296511 / -103.658381

County or Parish/State: LEA / NM

Well Number: 701H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM88163

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002553594

Operator: COG OPERATING LLC

### Conditions of Approval

#### Additional

SEC22\_T23S\_R32E\_AVION\_FED\_COM\_Lea\_\_CONOCOPHILLIPS\_COMPANY\_45567\_JS\_20250129105417.pdf

AVION\_FED\_COM\_701H\_COAs\_20250129105417.pdf

### Operator

*I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a*

Operator Electronic Signature: MAYTE REYES

Signed on: JAN 21, 2025 02:45 PM

Name: COG OPERATING LLC

Title: Regulatory Analyst

Street Address: 925 N ELDRIDGE PARKWAY

City: HOUSTON

State: TX

Phone: (281) 293-1000

Email address: MAYTE.X.REYES@CONOCOPHILLIPS.COM

### Field

Representative Name: Gerald Herrera

Street Address: 2208 West Main Street

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-6940

Email address: gerald.a.herrera@conocophillips.com

### BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 01/29/2025

Signature: Chris Walls



# TXP<sup>®</sup> BTC



Coupling	Pipe Body
Grade: P110-CY	Grade: P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.415 in.	Grade	P110-CY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

### Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	Wall Thickness	0.415 in.	Body Yield Strength	729 x1000 lb
Nominal Weight	23.00 lb/ft	Plain End Weight	22.56 lb/ft	Min. Internal Yield Pressure	14,530 psi
Drift	4.545 in.	OD Tolerance	API	SMYS	110,000 psi
Nominal ID	4.670 in.			Collapse Pressure	14,540 psi

### Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	6.200 in.	Tension Efficiency	100 %	Minimum	12,980 ft-lb
Coupling Length	9.450 in.	Joint Yield Strength	729 x1000 lb	Optimum	14,420 ft-lb
Connection ID	4.658 in.	Internal Pressure Capacity	14,530 psi	Maximum	15,860 ft-lb
Make-up Loss	4.204 in.	Compression Efficiency	100 %		
Threads per inch	5	Compression Strength	729 x1000 lb	Operation Limit Torques	
Connection OD Option	Regular	Max. Allowable Bending	92 °/100 ft	Operating Torque	24,200 ft-lb
		External Pressure Capacity	14,540 psi	Yield Torque	26,900 ft-lb
		Coupling Face Load	302,000 lb		

### Notes

This connection is fully interchangeable with:  
 TXP<sup>®</sup> BTC - 5.5 in. - 0.275 (15.50) / 0.304 (17.00) / 0.361 (20.00) / 0.476 (26.00) in. (lb/ft)  
 Connections with Dopeless<sup>®</sup> Technology are fully compatible with the same connection in its doped version  
 Datasheet is also valid for Special Bevel option when applicable - except for Coupling Face Load, which will be reduced. Please contact a local Tenaris technical sales representative.  
 Standard coupling design comes with optimized 20° bevel.

For the latest performance data, always visit our website: [www.tenaris.com](http://www.tenaris.com)  
 For further information on concepts indicated in this datasheet, download the Datasheet Manual from [www.tenaris.com](http://www.tenaris.com)

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# TenarisHydril Wedge 441®



Coupling	Pipe Body
Grade: P110-CY	Grade: P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.415 in.	Grade	P110-CY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

### Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	Wall Thickness	0.415 in.	Body Yield Strength	729 x1000 lb
Nominal Weight	23.00 lb/ft	Plain End Weight	22.56 lb/ft	Min. Internal Yield Pressure	14,530 psi
Drift	4.545 in.	OD Tolerance	API	SMYS	110,000 psi
Nominal ID	4.670 in.			Collapse Pressure	14,540 psi

### Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.900 in.	Tension Efficiency	90.80 %	Minimum	15,000 ft-lb
Coupling Length	8.714 in.	Joint Yield Strength	662 x1000 lb	Optimum	16,000 ft-lb
Connection ID	4.670 in.	Internal Pressure Capacity	14,530 psi	Maximum	19,200 ft-lb
Make-up Loss	3.780 in.	Compression Efficiency	90.80 %		
Threads per inch	3.40	Compression Strength	662 x1000 lb	Operation Limit Torques	
Connection OD Option	Regular	Max. Allowable Bending	83.54 °/100 ft	Operating Torque	33,000 ft-lb
		External Pressure Capacity	14,540 psi	Yield Torque	39,000 ft-lb
		Coupling Face Load	172,000 lb	Buck-On	
				Minimum	19,200 ft-lb
				Maximum	20,700 ft-lb

### Notes

This connection is fully interchangeable with:  
 Wedge 441® - 5.5 in. - 0.476 (26.00) in. (lb/ft)  
 Connections with Dopeless® Technology are fully compatible with the same connection in its doped version

For the latest performance data, always visit our website: [www.tenaris.com](http://www.tenaris.com)  
 For further information on concepts indicated in this datasheet, download the Datasheet Manual from [www.tenaris.com](http://www.tenaris.com)

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## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC
WELL NAME & NO.:	AVION FED COM 701H
LOCATION:	Section 22, T.23 S., R.32 E.
COUNTY:	Lea County, New Mexico

COA

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Wellhead Variance	<input type="radio"/> Diverter		
Other	<input type="checkbox"/> 4 String	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input checked="" type="checkbox"/> Contingency Cement Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> Primary Cement Squeeze
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements	<input type="checkbox"/> Batch Sundry		
Special Requirements Variance	<input type="checkbox"/> Break Testing	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Casing Clearance

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### B. CASING

#### Primary Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **1350 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **14 3/4 inch** in diameter.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall

be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.**

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

**Operator has proposed** a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
  - b. Second stage above DV tool:
    - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**
3. **The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.** The minimum required fill of cement behind the **5-1/2** inch production casing is:
    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

### **Contingency Bradenhead Squeeze**

**Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

### **C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) psi.**
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.



**D. SPECIAL REQUIREMENT (S)****Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

**Offline Cementing**

Contact the BLM prior to the commencement of any offline cementing procedure.

**Casing Clearance:**

- **The W441 connection should tie back 500'+ into the W513 intermediate casing for clearance overlap.**

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

**GENERAL REQUIREMENTS**

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

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

Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**[BLM\\_NM\\_CFO\\_DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV)**

(575) 361-2822

Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line

must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement

- reaches 500 psi compressive strength (including lead when specified).
- ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
  - viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

**C. DRILLING MUD**

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

**D. WASTE MATERIAL AND FLUIDS**

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

JS 1/29/2025

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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**

CONDITIONS

Action 427004

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 427004
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
matthew.gomez	The C-103 NOI was not approved or rejected; however, the work requested in the C-103 NOI was performed and completed without NMOCD approval. This action will result in review for potential compliance actions.	8/26/2025