Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-025-55142

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 07/28/2025

Additional Operator Remarks

Location of Well

0. SHL: NWNE / 270 FNL / 2180 FEL / TWSP: 26S / RANGE: 33E / SECTION: 30 / LAT: 32.021013 / LONG: -103.609832 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 100 FNL / 2475 FEL / TWSP: 26S / RANGE: 33E / SECTION: 30 / LAT: 32.021481 / LONG: -103.610792 (TVD: 12027 feet, MD: 12086 feet)

BHL: LOT 4 / 50 FSL / 2475 FEL / TWSP: 26S / RANGE: 33E / SECTION: 31 / LAT: 32.000378 / LONG: -103.610759 (TVD: 12150 feet, MD: 19684 feet)

BLM Point of Contact

Name: JANET D ESTES
Title: ADJUDICATOR
Phone: (575) 234-6233
Email: JESTES@BLM.GOV

C-102	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024
Submit Electronically Via OCD Permitting		Submittal Type: ☑ Initial Submittal ☐ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-55142	98097	Sanders Tank; Upper Wolfcamp
Property Code	**Property Name**	**Well Number**
337730	**LIL JOHN FED COM**	**705H**
OGRID No.	**Operator Name**	**Ground Level Elevation**
217817	**CONOCOPHILLIPS COMPANY**	**3,170.19'**

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal | Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	**30**	**26S**	**33E**		**270' FNL**	**2,180' FEL**	**32.021013°**	**-103.609832°**	**LEA**

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
LOT 4	**31**	**26S**	**33E**		**50' FSL**	**2,475' FEL**	**32.000378°**	**-103.610759°**	**LEA**

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
942.88	Defining	705H		Com

Order Numbers. | Well setbacks are under Common Ownership: ☒Yes ☐No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	**30**	**26S**	**33E**		**270' FNL**	**2,180' FEL**	**32.021013°**	**-103.609832°**	**LEA**

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	**30**	**26S**	**33E**		**100' FNL**	**2,475' FEL**	**32.021481°**	**-103.610792°**	**LEA**

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
LOT 4	**31**	**26S**	**33E**		**100' FSL**	**2,475' FEL**	**32.000515°**	**-103.610759°**	**LEA**

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation:

OPERATOR CERTIFICATIONS

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.

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.

Stan Wagner 2/17/2025

Signature Date

Stan Wagner

Printed Name

Email Address

SURVEYOR CERTIFICATIONS

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.

MARK J. MURRAY NEW MEXICO 12177 REGISTERED PROFESSIONAL SURVEYOR

Date: 1/14/2025

Signature and Seal of Professional Surveyor

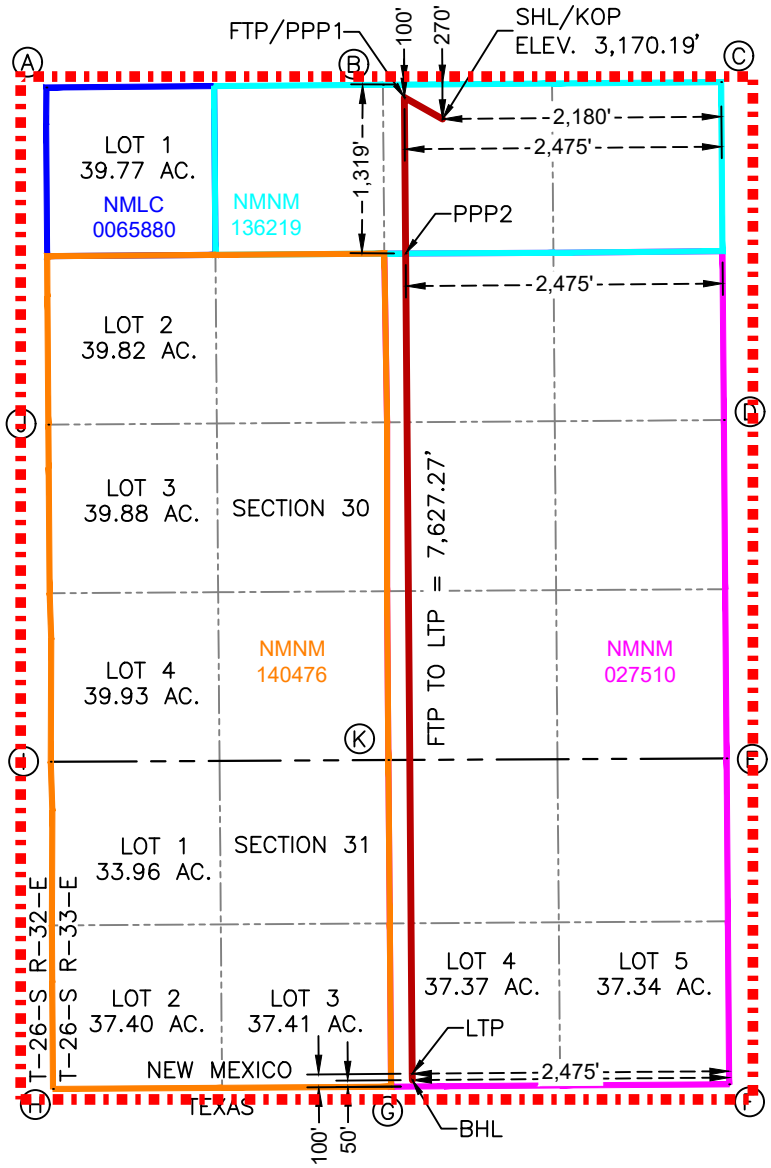
Certificate Number	Date of Survey
12177	1/14/2025

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

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.



SURFACE HOLE LOCATION
& KICK-OFF POINT
270' FNL & 2,180' FEL
ELEV.=3,170.19'

NAD 83 X = 765,565.82'
NAD 83 Y = 372,134.03'
NAD 83 LAT = 32.021013°
NAD 83 LONG = -103.609832°

FIRST TAKE POINT &
PENETRATION POINT 1
100' FNL & 2,475' FEL

NAD 83 X = 765,266.94'
NAD 83 Y = 372,302.40'
NAD 83 LAT = 32.021481°
NAD 83 LONG = -103.610792°

PENETRATION POINT 2
1,319' FNL & 2,475' FEL

NAD 83 X = 765,276.77'
NAD 83 Y = 371,083.68'
NAD 83 LAT = 32.018131°
NAD 83 LONG = -103.610787°

LAST TAKE POINT
100' FSL & 2,475' FEL

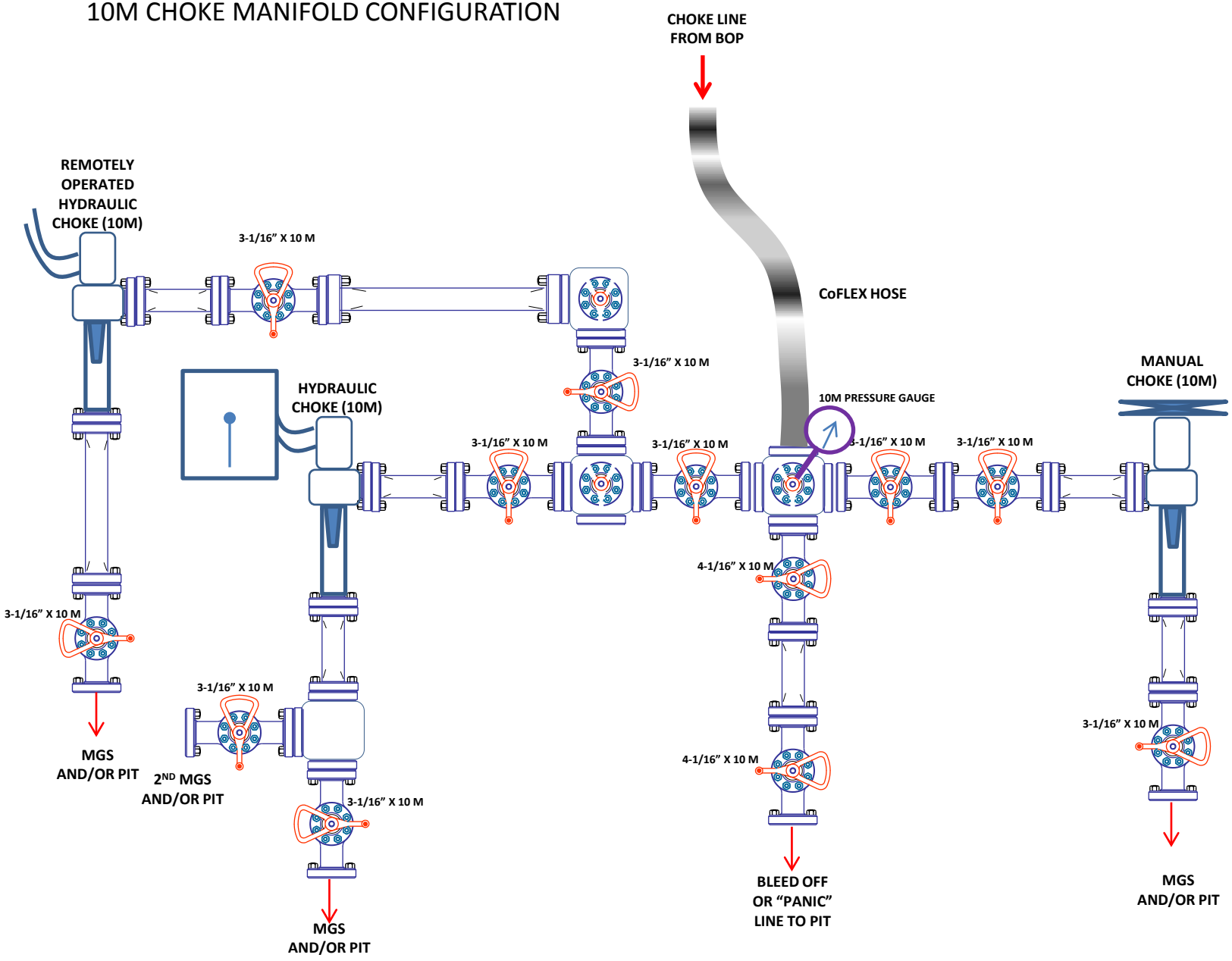
NAD 83 X = 765,328.29'
NAD 83 Y = 364,675.38'
NAD 83 LAT = 32.000515°
NAD 83 LONG = -103.610759°

BOTTOM HOLE LOCATION
50' FSL & 2,475' FEL

NAD 83 X = 765,328.69'
NAD 83 Y = 364,625.38'
NAD 83 LAT = 32.000378°
NAD 83 LONG = -103.610759°

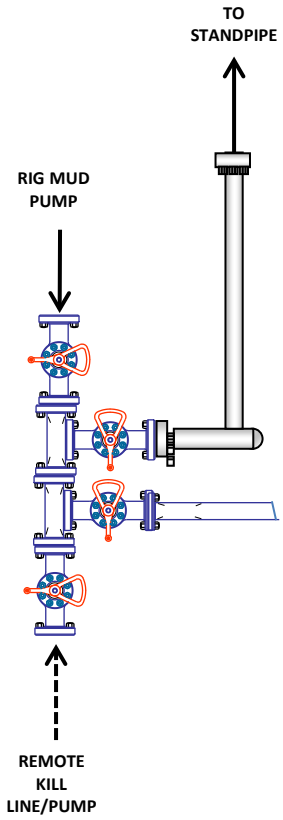
CORNER COORDINATES NEW MEXICO EAST - NAD 83					
A	IRON PIPE W/BRASS CAP N:372,380.20' E:762,470.65'	E	IRON PIPE W/BRASS CAP N:367,139.19' E:767,783.76'	I	IRON PIPE W/BRASS CAP N:367,112.42' E:762,504.77'
B	IRON PIPE W/BRASS CAP N:372,401.32' E:765,099.31'	F	CALCULATED CORNER N:364,592.46' E:767,804.03'	J	CALCULATED CORNER N:369,745.90' E:762,486.18'
C	IRON PIPE W/BRASS CAP N:372,422.04' E:767,741.09'	G	CALCULATED CORNER N:364,574.24' E:765,163.03'	K	CALCULATED CORNER N:367,125.78' E:765,142.08'
D	IRON PIPE W/BRASS CAP N:369,782.18' E:767,762.94'	H	IRON PIPE W/BRASS CAP N:364,556.12' E:762,522.14'		

10M CHOKE MANIFOLD CONFIGURATION

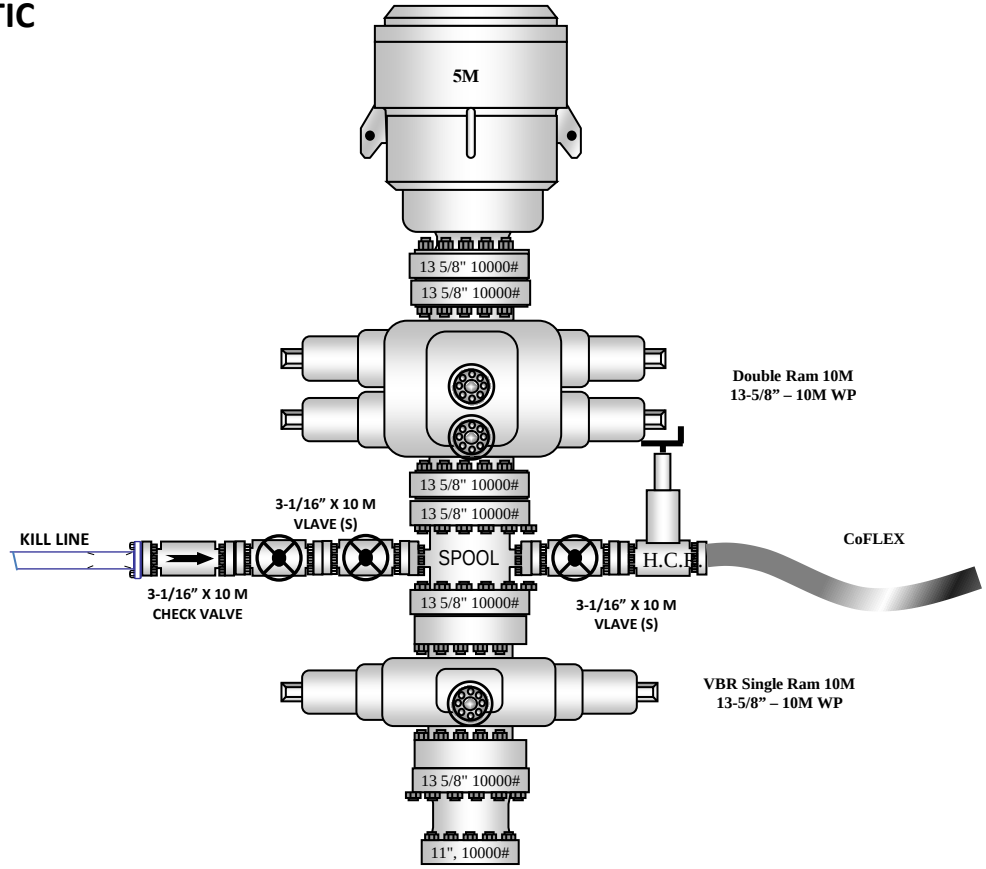


10M BOP Stack

10M REMOTE KILL SCHEMATIC



10M BOP Stack
(5M Annular)



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1. Geologic Formations

TVD of target	12,150' EOL	Pilot hole depth:	N/A
MD at TD:	19,685'	Deepest expected fresh water:	220'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	512	Water	
Top of Salt	902	Salt	
Base of Salt	4267	Salt	
Lamar	4516	Salt Water	
Bell Canyon	4613	Salt Water	
Cherry Canyon	5779	Oil/Gas	
Brushy Canyon	7511	Oil/Gas	
Bone Spring	8878	Oil/Gas	
1st Bone Spring Sand	9851	Oil/Gas	
2nd Bone Spring Sand	10490	Oil/Gas	
3rd Bone Spring Sand	11579	Oil/Gas	
Wolfcamp Sand	12023	Target Oil/Gas	
Wolfcamp A	12216	Not Penetrated	
Wolfcamp B	12563	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
14.75"	0	760	10.75"	45.5	J55	BTC	6.01	7.72	20.68	23.02
9.875"	0	8200	7.625"	29.7	L80-ICY	BTC	3.84	2.28	2.98	3.01
8.750"	8200	11586	7.625"	29.7	P110-ICY	W513	3.25	1.51	3.10	1.86
6.75"	0	11386	5.5"	23	P110-CY	BTC	3.36	1.99	2.78	2.78
6.75"	11386	19,685	5.5"	23	P110-CY	W441	3.24	1.99	2.61	2.37
				COP Minimum Safety Factor			1.05	1.15	1.4	1.4

2b. Contingtency Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
17.50"	0	760	13.375"	54.5	J55	BTC	3.25	5.88	20.59	21.95
12.25"	0	4420	9.625"	40	L80-IC	BTC	1.88	1.18	5.18	5.36
8.75"	4220	11586	7.625"	29.7	P110-ICY	W513	2.61	1.51	3.10	1.86
6.75"	0	11386	5.5"	23	P110-CY	BTC	3.36	1.99	2.78	2.78
6.75"	11386	19,685	5.5"	23	P110-CY	W441	3.24	1.99	2.61	2.37
				COP Minimum Safety Factor			1.05	1.15	1.4	1.4

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

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

The 5 1/2" 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.

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

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3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hrs)	Slurry Description
Surf.	220	12.8	1.75	9	12	Lead: Class C
	190	14.8	1.34	6.34	8	Tail: Class C
Inter. Stage 1	890	10.3	3.3	22	24	Halliburton tuned light
	120	14.8	1.35	6.6	8	Tail: Class H
Prod	720	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	630	13.2	1.34	5.7	19	Tail: 50:50:2 Class H Blend

If losses are encountered in the intermediate section a DV/ECP tool will be run ~50' above the Lamar Lime top, cement will be adjusted accordingly if this contingency is necessary.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results
Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0’	50% OH
1st Intermediate	0’	50% OH
Production	11,086'	20% OH in Lateral (KOP to EOL)

3b. Contingency Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hrs)	Slurry Description
Surf.	280	13.5	1.75	9	12	Lead: Class C
	240	14.8	1.34	6.34	8	Tail: Class C
Int. #1	960	12.8	1.75	9.21	12	Lead: Class C
	310	14.8	1.35	6.6	8	Tail: Class C
Inter. #2 (Liner)	300	10.5	3.3	22	24	Lead: Class C
	120	14.8	1.35	6.6	8	Tail: Class H
Prod	820	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	630	13.2	1.34	5.7	19	Tail: 50:50:2 Class H Blend

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

Casing String	TOC	% Excess
Surface	0’	50% in OH
1st Intermediate	0’	50% in OH
2nd Intermediate	4,220'	50% in OH
Production	11,086'	20% OH in Lateral (KOP to EOL)

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4. Pressure Control Equipment

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

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4" or 9-7/8”	13-5/8”	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4”	13-5/8”	10M	5M Annular	x	5000psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 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.

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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 - 10	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 13.5	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

5b. Contingency Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Brine	8.4 - 10	28-34	N/C
9-5/8" Int shoe	7-5/8" Int shoe	Brine	8.4 - 10	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	9.6 - 13.5	35-45	<20

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	

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7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8530 psi at 12150' TVD
Abnormal Temperature	NO 175 Deg. F.

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

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

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 43 CFR Part 3170 Subpart 3176. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

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

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

COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

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

a. The hazards and characteristics of hydrogen sulfide (H_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
d. The proper techniques for first aid and rescue procedures.

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

a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
c. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

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

2. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S equipment.

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

b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.

f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

g. Communication:
Company vehicles equipped with cellular telephone.

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

W A R N I N G

YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

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

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

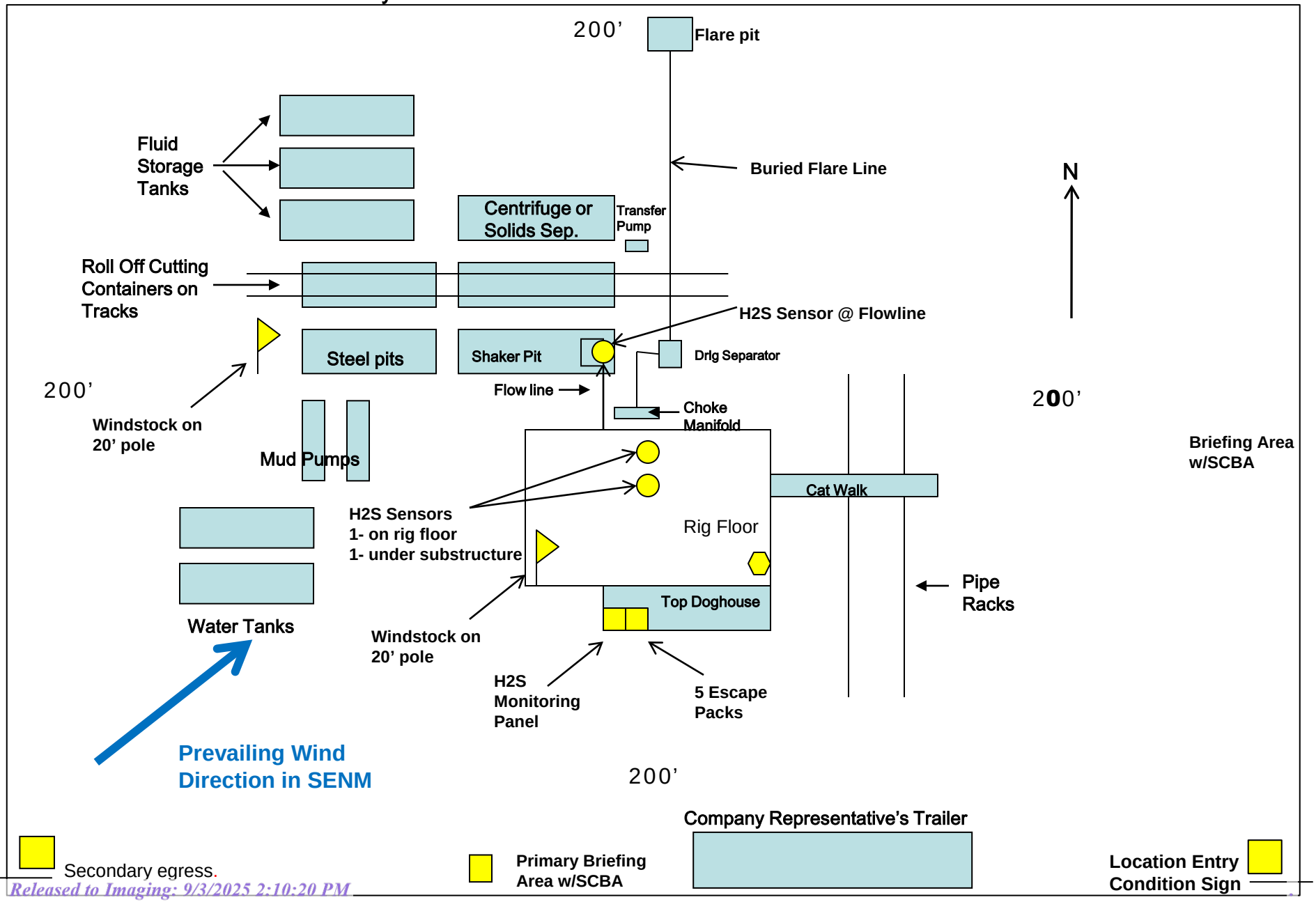
	OFFICE	MOBILE
COG OPERATING LLC OFFICE	575-748-6940	
Dallas Daley	432-818-2329	432-631-6977

EMERGENCY RESPONSE NUMBERS

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

COG Operating LLC
H_2S Equipment Schematic
Terrain: Shinnery sand hills.

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



DELAWARE BASIN EAST

ZIA HILLS UNIT AREA
LIL JOHN FEDERAL PROJECT
_LIL JOHN FED COM 705H

OWB
PWP0

Anticollision Report

12 February, 2025

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Reference	PWP0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.0usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Max. Cent. Dist. of 1,000.0usft or Max. SF of 3	**Error Surface:**	Combined Pedal Curve
Warning Levels Evaluated at:	2.79 **Sigma**	**Casing Method:**	Added to Error Values

Survey Tool Program **Date** 2/12/2025

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	19,684.9	PWP0 (OWB)	r.5 MWD+IFR1	OWSG MWD + IFR1 rev.5

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
LIL JOHN FEDERAL OFFSETS						
SALADO DRAW 19 26 33 FEDERAL 3H - OWB - AWP					Out of range	
SALADO DRAW 19 26 33 FEDERAL 4H - OWB - AWP	9,143.9	13,976.0	634.4	530.8	6.124	CC, ES, SF
SALADO DRAW 19 26 33 FEDERAL COM 2H - OWB - A					Out of range	
SD EA 19 FEDERAL P6 5H - OWB - AWP	9,100.0	13,928.0	299.1	222.0	3.884	SF
SD EA 19 FEDERAL P6 5H - OWB - AWP	9,141.4	13,928.0	296.2	220.5	3.915	CC, ES
SD EA 19 FEDERAL P6 6H - OWB - AWP	9,113.9	13,742.0	848.5	732.8	7.336	CC, ES, SF
LIL JOHN FEDERAL PROJECT						
_LIL JOHN FED COM 701H - OWB - PWP0	1,200.0	1,201.2	120.0	110.3	12.308	CC, ES
_LIL JOHN FED COM 701H - OWB - PWP0	1,400.0	1,401.0	125.7	115.1	11.917	SF
_LIL JOHN FED COM 702H - OWB - PWP0	1,200.0	1,209.8	150.0	141.3	17.145	CC, ES
_LIL JOHN FED COM 702H - OWB - PWP0	1,500.0	1,508.9	161.8	151.8	16.130	SF
_LIL JOHN FED COM 703H - OWB - PWP0	1,200.0	1,200.4	60.0	51.3	6.857	CC, ES
_LIL JOHN FED COM 703H - OWB - PWP0	19,684.9	19,708.9	825.0	674.2	5.470	SF
_LIL JOHN FED COM 704H - OWB - PWP0	1,200.0	1,209.8	90.0	81.3	10.293	CC, ES
_LIL JOHN FED COM 704H - OWB - PWP0	1,400.0	1,409.6	95.7	86.1	9.938	SF
_LIL JOHN FED COM 706H - OWB - PWP0	1,200.0	1,200.2	30.0	21.3	3.429	CC, ES
_LIL JOHN FED COM 706H - OWB - PWP0	19,684.9	19,904.3	467.8	318.2	3.125	SF
_LIL JOHN FED COM 707H - OWB - PWP0	11,685.9	11,710.8	816.5	772.6	18.618	CC
_LIL JOHN FED COM 707H - OWB - PWP0	19,684.9	19,741.1	827.4	676.3	5.476	ES, SF
_LIL JOHN FED COM 708H - OWB - PWP0	11,685.9	11,787.7	403.5	356.4	8.567	CC
_LIL JOHN FED COM 708H - OWB - PWP0	19,684.9	20,028.2	479.5	329.0	3.186	ES, SF
_LIL JOHN FED COM 709H - OWB - PWP0					Out of range	
_LIL JOHN FED COM 710H - OWB - PWP0					Out of range	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
STATE LINE OFFSETS						
EXCELSIOR 12 - OWB - AWP						Out of range
EXCELSIOR 7 10H - OWB - AWP	19,684.9	17,177.0	252.0	155.1	2.602	Normal Operations, CC, ES, SF
EXCELSIOR 7 11H - OWB - AWP	19,684.9	17,075.0	328.5	186.4	2.312	Caution - Monitor Closely, CC, ES, SF
EXCELSIOR 7 12H - OWB - AWP	19,684.9	17,210.0	778.0	623.2	5.025	CC, ES, SF
EXCELSIOR 7 7H - OWB - AWP						Out of range
EXCELSIOR 7 8H - OWB - AWP	19,684.9	17,419.0	970.2	830.1	6.924	CC, ES, SF
EXCELSIOR 7 9H - OWB - AWP	19,684.9	16,750.0	754.3	627.7	5.960	CC, ES, SF
PATHFINDER STATE 12H - OWB - AWP						Out of range
PATHFINDER STATE 1H - OWB - AWP						Out of range
PATHFINDER STATE 2H - OWB - AWP						Out of range
PATHFINDER STATE 3H - OWB - AWP						Out of range
PATHFINDER STATE 4H - OWB - AWP						Out of range
PATHFINDER STATE 7 16H - OWB - AWP						Out of range
PATHFINDER STATE 7 19H - OWB - AWP						Out of range
PATHFINDER STATE 7 20H - OWB - AWP						Out of range

Offset Design: LIL JOHN FEDERAL OFFSETS - SALADO DRAW 19 26 33 FEDERAL 4H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 153-r.5 MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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)	Rule Assigned: Distance Between Centres (usft)	Distance Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning
8,400.0	8,386.6	13,976.0	9,146.3	22.7	83.6	-59.07	543.8	-843.4	977.7	893.0	84.72	11.540	
8,500.0	8,486.6	13,976.0	9,146.3	22.7	83.6	-59.07	543.8	-843.4	903.9	816.5	87.47	10.334	
8,600.0	8,586.6	13,976.0	9,146.3	22.8	83.6	-59.07	543.8	-843.4	835.7	745.1	90.54	9.230	
8,700.0	8,686.6	13,976.0	9,146.3	22.8	83.6	-59.07	543.8	-843.4	774.3	680.5	93.84	8.252	
8,800.0	8,786.6	13,976.0	9,146.3	22.9	83.6	-59.07	543.8	-843.4	721.6	624.5	97.17	7.427	
8,900.0	8,886.6	13,976.0	9,146.3	22.9	83.6	-59.07	543.8	-843.4	679.7	579.5	100.20	6.783	
9,000.0	8,986.6	13,976.0	9,146.3	23.0	83.6	-59.07	543.8	-843.4	650.5	548.0	102.49	6.347	
9,100.0	9,086.6	13,976.0	9,146.3	23.0	83.6	-59.07	543.8	-843.4	635.9	532.3	103.58	6.140	
9,143.9	9,130.5	13,976.0	9,146.3	23.1	83.6	-59.07	543.8	-843.4	634.4	530.8	103.59	6.124	CC, ES, SF
9,200.0	9,186.6	13,976.0	9,146.3	23.1	83.6	-59.07	543.8	-843.4	636.9	533.7	103.19	6.172	
9,300.0	9,286.6	13,976.0	9,146.3	23.1	83.6	-59.07	543.8	-843.4	653.3	551.9	101.38	6.444	
9,400.0	9,386.6	13,976.0	9,146.3	23.2	83.6	-59.07	543.8	-843.4	684.1	585.6	98.54	6.943	
9,500.0	9,486.6	13,976.0	9,146.3	23.2	83.6	-59.07	543.8	-843.4	727.5	632.3	95.17	7.644	
9,600.0	9,586.6	13,976.0	9,146.3	23.3	83.6	-59.07	543.8	-843.4	781.3	689.6	91.70	8.520	
9,700.0	9,686.6	13,976.0	9,146.3	23.3	83.6	-59.07	543.8	-843.4	843.6	755.2	88.45	9.538	
9,800.0	9,786.6	13,976.0	9,146.3	23.4	83.6	-59.07	543.8	-843.4	912.6	827.1	85.55	10.668	
9,900.0	9,886.6	13,976.0	9,146.3	23.4	83.6	-59.07	543.8	-843.4	987.0	903.9	83.05	11.884	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL OFFSETS - SD EA 19 FEDERAL P6 5H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 182-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
8,200.0	8,186.6	13,928.0	9,159.8	22.6	87.0	38.95	448.0	-113.0	986.9	917.5	69.44	14.213	
8,300.0	8,286.6	13,928.0	9,159.8	22.6	87.0	38.95	448.0	-113.0	892.0	822.0	70.08	12.729	
8,400.0	8,386.6	13,928.0	9,159.8	22.7	87.0	38.95	448.0	-113.0	798.4	727.6	70.84	11.271	
8,500.0	8,486.6	13,928.0	9,159.8	22.7	87.0	38.95	448.0	-113.0	706.5	634.7	71.76	9.846	
8,600.0	8,586.6	13,928.0	9,159.8	22.8	87.0	38.95	448.0	-113.0	617.1	544.3	72.87	8.469	
8,700.0	8,686.6	13,928.0	9,159.8	22.8	87.0	38.95	448.0	-113.0	531.6	457.3	74.23	7.161	
8,800.0	8,786.6	13,928.0	9,159.8	22.9	87.0	38.95	448.0	-113.0	452.0	376.2	75.81	5.962	
8,900.0	8,886.6	13,928.0	9,159.8	22.9	87.0	38.95	448.0	-113.0	382.1	304.7	77.40	4.937	
9,000.0	8,986.6	13,928.0	9,159.8	23.0	87.0	38.95	448.0	-113.0	328.2	249.9	78.26	4.194	
9,100.0	9,086.6	13,928.0	9,159.8	23.0	87.0	38.95	448.0	-113.0	299.1	222.0	77.01	3.884 SF	
9,141.4	9,128.0	13,928.0	9,159.8	23.0	87.0	38.95	448.0	-113.0	296.2	220.5	75.65	3.915 CC, ES	
9,200.0	9,186.6	13,928.0	9,159.8	23.1	87.0	38.95	448.0	-113.0	301.9	228.8	73.13	4.128	
9,300.0	9,286.6	13,928.0	9,159.8	23.1	87.0	38.95	448.0	-113.0	336.0	267.3	68.67	4.892	
9,400.0	9,386.6	13,928.0	9,159.8	23.2	87.0	38.95	448.0	-113.0	393.2	327.5	65.63	5.991	
9,500.0	9,486.6	13,928.0	9,159.8	23.2	87.0	38.95	448.0	-113.0	465.1	400.9	64.12	7.253	
9,600.0	9,586.6	13,928.0	9,159.8	23.3	87.0	38.95	448.0	-113.0	545.9	482.3	63.57	8.587	
9,700.0	9,686.6	13,928.0	9,159.8	23.3	87.0	38.95	448.0	-113.0	632.2	568.7	63.50	9.956	
9,800.0	9,786.6	13,928.0	9,159.8	23.4	87.0	38.95	448.0	-113.0	722.1	658.4	63.67	11.342	
9,900.0	9,886.6	13,928.0	9,159.8	23.4	87.0	38.95	448.0	-113.0	814.3	750.4	63.94	12.737	
10,000.0	9,986.6	13,928.0	9,159.8	23.5	87.0	38.95	448.0	-113.0	908.2	844.0	64.25	14.135	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL OFFSETS - SD EA 19 FEDERAL P6 6H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 182-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
8,600.0	8,586.6	13,742.0	9,132.2	22.8	83.4	73.95	452.2	516.2	991.9	888.6	103.33	9.600	
8,700.0	8,686.6	13,742.0	9,132.2	22.8	83.4	73.95	452.2	516.2	944.0	837.1	106.85	8.835	
8,800.0	8,786.6	13,742.0	9,132.2	22.9	83.4	73.95	452.2	516.2	904.6	794.5	110.10	8.216	
8,900.0	8,886.6	13,742.0	9,132.2	22.9	83.4	73.95	452.2	516.2	875.0	762.2	112.81	7.756	
9,000.0	8,986.6	13,742.0	9,132.2	23.0	83.4	73.95	452.2	516.2	856.1	741.3	114.72	7.462	
9,100.0	9,086.6	13,742.0	9,132.2	23.0	83.4	73.95	452.2	516.2	848.6	733.0	115.62	7.339	
9,113.9	9,100.5	13,742.0	9,132.2	23.0	83.4	73.95	452.2	516.2	848.5	732.8	115.66	7.336	CC, ES, SF
9,200.0	9,186.6	13,742.0	9,132.2	23.1	83.4	73.95	452.2	516.2	852.8	737.4	115.41	7.390	
9,300.0	9,286.6	13,742.0	9,132.2	23.1	83.4	73.95	452.2	516.2	868.7	754.5	114.14	7.610	
9,400.0	9,386.6	13,742.0	9,132.2	23.2	83.4	73.95	452.2	516.2	895.4	783.4	111.99	7.996	
9,500.0	9,486.6	13,742.0	9,132.2	23.2	83.4	73.95	452.2	516.2	932.2	823.0	109.21	8.536	
9,600.0	9,586.6	13,742.0	9,132.2	23.3	83.4	73.95	452.2	516.2	977.9	871.8	106.07	9.219	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 701H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
0.0	0.0	1.2	1.2	0.0	3.0	89.54	1.0	120.0	120.0				
100.0	100.0	101.2	101.2	0.8	3.1	89.54	1.0	120.0	120.0	115.1	4.95	24.248	
200.0	200.0	201.2	201.2	1.4	3.3	89.54	1.0	120.0	120.0	114.5	5.55	21.619	
300.0	300.0	301.2	301.2	1.9	3.6	89.54	1.0	120.0	120.0	113.9	6.09	19.696	
400.0	400.0	401.2	401.2	2.3	3.8	89.54	1.0	120.0	120.0	113.4	6.59	18.207	
500.0	500.0	501.2	501.2	2.6	4.0	89.54	1.0	120.0	120.0	112.9	7.06	17.008	
600.0	600.0	601.2	601.2	2.9	4.1	89.54	1.0	120.0	120.0	112.5	7.49	16.015	
700.0	700.0	701.2	701.2	3.1	4.3	89.54	1.0	120.0	120.0	112.1	7.91	15.175	
800.0	800.0	801.2	801.2	3.4	4.5	89.54	1.0	120.0	120.0	111.7	8.30	14.450	
900.0	900.0	901.2	901.2	3.6	4.7	89.54	1.0	120.0	120.0	111.3	8.69	13.817	
1,000.0	1,000.0	1,001.2	1,001.2	3.8	4.8	89.54	1.0	120.0	120.0	111.0	9.05	13.257	
1,100.0	1,100.0	1,101.2	1,101.2	4.0	5.0	89.54	1.0	120.0	120.0	110.6	9.41	12.758	
1,200.0	1,200.0	1,201.2	1,201.2	4.2	5.2	89.54	1.0	120.0	120.0	110.3	9.75	12.308	CC, ES
1,300.0	1,300.0	1,301.2	1,301.2	4.5	5.3	143.97	1.0	120.0	121.4	111.3	10.15	11.964	
1,400.0	1,399.8	1,401.0	1,401.0	4.8	5.5	145.33	1.0	120.0	125.7	115.1	10.55	11.917	SF
1,412.4	1,412.2	1,413.4	1,413.4	4.8	5.5	145.55	1.0	120.0	126.4	115.8	10.57	11.955	
1,500.0	1,499.6	1,500.8	1,500.8	5.0	5.6	147.14	1.0	120.0	131.8	120.9	10.90	12.088	
1,600.0	1,599.3	1,600.5	1,600.5	5.2	5.8	148.81	1.0	120.0	138.1	126.9	11.26	12.267	
1,700.0	1,699.0	1,700.2	1,700.2	5.5	5.9	150.33	1.0	120.0	144.5	132.9	11.62	12.432	
1,800.0	1,798.7	1,799.9	1,799.9	5.7	6.0	151.72	1.0	120.0	151.0	139.0	12.00	12.584	
1,900.0	1,898.5	1,899.7	1,899.7	6.0	6.2	153.00	1.0	120.0	157.6	145.2	12.38	12.722	
2,000.0	1,998.2	1,999.4	1,999.4	6.3	6.3	154.17	1.0	120.0	164.2	151.4	12.78	12.848	
2,100.0	2,097.9	2,093.9	2,093.9	6.6	6.5	155.01	1.2	121.5	172.4	159.2	13.22	13.038	
2,200.0	2,197.6	2,187.8	2,187.7	6.9	6.7	155.39	2.1	126.1	183.7	170.0	13.66	13.450	
2,300.0	2,297.4	2,281.1	2,280.6	7.2	6.9	155.39	3.5	133.5	198.0	183.9	14.09	14.049	
2,400.0	2,397.1	2,373.4	2,372.3	7.5	7.1	155.09	5.4	143.9	215.2	200.7	14.53	14.815	
2,500.0	2,496.8	2,464.6	2,462.6	7.8	7.4	154.56	7.9	157.0	235.4	220.4	14.97	15.728	
2,600.0	2,596.5	2,554.6	2,551.2	8.1	7.6	153.89	10.8	172.6	258.5	243.1	15.41	16.777	
2,700.0	2,696.3	2,643.9	2,638.5	8.5	7.8	153.12	14.2	190.8	284.4	268.6	15.80	17.996	
2,800.0	2,796.0	2,740.0	2,732.2	8.8	8.0	152.35	18.1	211.7	311.6	295.3	16.28	19.139	
2,900.0	2,895.7	2,836.2	2,826.0	9.1	8.3	151.71	22.0	232.5	338.9	322.1	16.80	20.168	
3,000.0	2,995.4	2,932.3	2,919.8	9.5	8.6	151.15	25.8	253.3	366.2	348.8	17.34	21.113	
3,100.0	3,095.2	3,028.5	3,013.6	9.8	8.9	150.68	29.7	274.2	393.5	375.6	17.90	21.982	
3,200.0	3,194.9	3,124.6	3,107.4	10.1	9.2	150.27	33.6	295.0	420.8	402.3	18.47	22.780	
3,300.0	3,294.6	3,220.8	3,201.2	10.5	9.5	149.90	37.5	315.8	448.2	429.1	19.06	23.512	
3,400.0	3,394.3	3,316.9	3,294.9	10.8	9.8	149.58	41.4	336.7	475.5	455.9	19.66	24.186	
3,500.0	3,494.1	3,413.1	3,388.7	11.2	10.1	149.30	45.3	357.5	502.9	482.6	20.27	24.806	
3,600.0	3,593.8	3,509.2	3,482.5	11.5	10.5	149.04	49.2	378.3	530.3	509.4	20.90	25.376	
3,700.0	3,693.5	3,605.4	3,576.3	11.9	10.9	148.81	53.1	399.2	557.7	536.2	21.53	25.902	
3,800.0	3,793.2	3,701.5	3,670.1	12.2	11.2	148.60	57.0	420.0	585.1	562.9	22.17	26.388	
3,900.0	3,893.0	3,797.7	3,763.9	12.6	11.6	148.41	60.9	440.9	612.5	589.7	22.82	26.836	
4,000.0	3,992.7	3,893.8	3,857.7	12.9	12.0	148.23	64.7	461.7	639.9	616.5	23.48	27.251	
4,100.0	4,092.4	3,990.0	3,951.4	13.3	12.4	148.07	68.6	482.5	667.4	643.2	24.15	27.636	
4,200.0	4,192.1	4,086.1	4,045.2	13.6	12.7	147.93	72.5	503.4	694.8	670.0	24.82	27.993	
4,300.0	4,291.9	4,182.3	4,139.0	14.0	13.1	147.79	76.4	524.2	722.2	696.7	25.50	28.325	
4,400.0	4,391.6	4,278.4	4,232.8	14.3	13.5	147.66	80.3	545.0	749.7	723.5	26.18	28.634	
4,500.0	4,491.3	4,374.6	4,326.6	14.7	13.9	147.55	84.2	565.9	777.1	750.2	26.87	28.922	
4,600.0	4,591.0	4,470.7	4,420.4	15.1	14.3	147.44	88.1	586.7	804.5	777.0	27.56	29.191	
4,700.0	4,690.8	4,566.9	4,514.1	15.4	14.8	147.33	92.0	607.5	832.0	803.7	28.26	29.443	
4,800.0	4,790.5	4,663.0	4,607.9	15.8	15.2	147.24	95.9	628.4	859.4	830.5	28.96	29.678	
4,900.0	4,890.2	4,759.2	4,701.7	16.1	15.6	147.15	99.8	649.2	886.9	857.2	29.66	29.898	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 701H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,000.0	4,989.9	4,855.3	4,795.5	16.5	16.0	147.06	103.6	670.1	914.3	884.0	30.37	30.105	
5,100.0	5,089.7	4,951.5	4,889.3	16.9	16.4	146.98	107.5	690.9	941.8	910.7	31.08	30.300	
5,200.0	5,189.4	5,047.6	4,983.1	17.2	16.8	146.91	111.4	711.7	969.2	937.4	31.80	30.482	
5,300.0	5,289.1	5,143.8	5,076.9	17.6	17.3	146.84	115.3	732.6	996.7	964.2	32.51	30.655	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 702H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
0.0	0.0	9.8	9.8	0.0	0.1	89.54	1.2	150.0	150.0				
100.0	100.0	109.8	109.8	0.8	0.8	89.54	1.2	150.0	150.0	148.0	2.01	74.478	
200.0	200.0	209.8	209.8	1.4	1.4	89.54	1.2	150.0	150.0	146.7	3.33	45.010	
300.0	300.0	309.8	309.8	1.9	1.9	89.54	1.2	150.0	150.0	145.8	4.21	35.602	
400.0	400.0	409.8	409.8	2.3	2.3	89.54	1.2	150.0	150.0	145.1	4.93	30.439	
500.0	500.0	509.8	509.8	2.6	2.6	89.54	1.2	150.0	150.0	144.5	5.55	27.040	
600.0	600.0	609.8	609.8	2.9	2.9	89.54	1.2	150.0	150.0	143.9	6.10	24.576	
700.0	700.0	709.8	709.8	3.1	3.1	89.54	1.2	150.0	150.0	143.4	6.61	22.681	
800.0	800.0	809.8	809.8	3.4	3.3	89.54	1.2	150.0	150.0	142.9	7.09	21.162	
900.0	900.0	909.8	909.8	3.6	3.6	89.54	1.2	150.0	150.0	142.5	7.53	19.908	
1,000.0	1,000.0	1,009.8	1,009.8	3.8	3.8	89.54	1.2	150.0	150.0	142.0	7.96	18.849	
1,100.0	1,100.0	1,109.8	1,109.8	4.0	4.0	89.54	1.2	150.0	150.0	141.6	8.36	17.939	
1,200.0	1,200.0	1,209.8	1,209.8	4.2	4.2	89.54	1.2	150.0	150.0	141.3	8.75	17.145 CC, ES	
1,300.0	1,300.0	1,309.8	1,309.8	4.5	4.4	143.88	1.2	150.0	151.4	142.2	9.19	16.470	
1,400.0	1,399.8	1,409.6	1,409.6	4.8	4.6	144.96	1.2	150.0	155.7	146.0	9.63	16.162	
1,412.4	1,412.2	1,422.0	1,422.0	4.8	4.6	145.14	1.2	150.0	156.4	146.7	9.66	16.187	
1,500.0	1,499.6	1,508.9	1,508.9	5.0	4.7	146.45	1.2	150.0	161.8	151.8	10.03	16.130 SF	
1,600.0	1,599.3	1,603.1	1,603.1	5.2	5.0	147.64	1.5	151.8	169.9	159.4	10.48	16.213	
1,700.0	1,699.0	1,696.8	1,696.7	5.5	5.2	148.50	2.2	156.7	181.3	170.4	10.93	16.592	
1,800.0	1,798.7	1,789.8	1,789.3	5.7	5.5	149.04	3.3	164.5	195.9	184.5	11.39	17.204	
1,900.0	1,898.5	1,881.8	1,880.7	6.0	5.8	149.31	4.8	175.1	213.6	201.7	11.85	18.017	
2,000.0	1,998.2	1,972.8	1,970.6	6.3	6.1	149.37	6.8	188.5	234.3	221.9	12.33	18.999	
2,100.0	2,097.9	2,062.4	2,058.8	6.6	6.4	149.26	9.1	204.5	258.0	245.2	12.82	20.128	
2,200.0	2,197.6	2,150.7	2,145.1	6.9	6.7	149.03	11.7	222.8	284.6	271.3	13.31	21.382	
2,300.0	2,297.4	2,237.4	2,229.3	7.2	7.0	148.73	14.7	243.4	314.1	300.3	13.79	22.779	
2,400.0	2,397.1	2,327.2	2,315.8	7.5	7.2	148.37	18.1	267.0	346.1	331.8	14.28	24.228	
2,500.0	2,496.8	2,421.8	2,406.9	7.8	7.6	148.03	21.7	292.3	378.5	363.6	14.87	25.445	
2,600.0	2,596.5	2,516.4	2,498.0	8.1	7.9	147.76	25.4	317.6	410.8	395.4	15.46	26.566	
2,700.0	2,696.3	2,611.0	2,589.1	8.5	8.2	147.52	29.0	342.8	443.2	427.2	16.07	27.574	
2,800.0	2,796.0	2,705.5	2,680.2	8.8	8.6	147.31	32.7	368.1	475.6	458.9	16.70	28.482	
2,900.0	2,895.7	2,800.1	2,771.2	9.1	9.0	147.14	36.3	393.4	508.0	490.7	17.34	29.300	
3,000.0	2,995.4	2,894.7	2,862.3	9.5	9.3	146.98	40.0	418.6	540.4	522.5	17.99	30.038	
3,100.0	3,095.2	2,989.3	2,953.4	9.8	9.7	146.84	43.6	443.9	572.9	554.2	18.66	30.706	
3,200.0	3,194.9	3,083.9	3,044.5	10.1	10.1	146.71	47.3	469.2	605.3	585.9	19.33	31.312	
3,300.0	3,294.6	3,178.5	3,135.6	10.5	10.5	146.60	50.9	494.4	637.7	617.7	20.01	31.863	
3,400.0	3,394.3	3,273.1	3,226.7	10.8	10.9	146.50	54.5	519.7	670.1	649.4	20.70	32.365	
3,500.0	3,494.1	3,367.7	3,317.7	11.2	11.3	146.41	58.2	545.0	702.5	681.1	21.40	32.823	
3,600.0	3,593.8	3,462.3	3,408.8	11.5	11.7	146.32	61.8	570.2	735.0	712.8	22.11	33.242	
3,700.0	3,693.5	3,556.9	3,499.9	11.9	12.2	146.25	65.5	595.5	767.4	744.6	22.82	33.627	
3,800.0	3,793.2	3,651.5	3,591.0	12.2	12.6	146.18	69.1	620.8	799.8	776.3	23.54	33.980	
3,900.0	3,893.0	3,746.1	3,682.1	12.6	13.0	146.11	72.8	646.0	832.2	808.0	24.26	34.306	
4,000.0	3,992.7	3,840.7	3,773.2	12.9	13.4	146.05	76.4	671.3	864.7	839.7	24.99	34.606	
4,100.0	4,092.4	3,935.3	3,864.2	13.3	13.9	146.00	80.1	696.6	897.1	871.4	25.72	34.884	
4,200.0	4,192.1	4,029.8	3,955.3	13.6	14.3	145.94	83.7	721.8	929.5	903.1	26.45	35.141	
4,300.0	4,291.9	4,124.4	4,046.4	14.0	14.7	145.90	87.4	747.1	961.9	934.7	27.19	35.380	
4,400.0	4,391.6	4,219.0	4,137.5	14.3	15.2	145.85	91.0	772.4	994.4	966.4	27.93	35.602	

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Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 703H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
0.0	0.0	0.4	0.4	0.0	0.0	89.54	0.5	60.0	60.0				
100.0	100.0	100.4	100.4	0.8	0.8	89.54	0.5	60.0	60.0	58.0	2.04	29.349	
200.0	200.0	200.4	200.4	1.4	1.5	89.54	0.5	60.0	60.0	56.7	3.34	17.960	
300.0	300.0	300.4	300.4	1.9	1.9	89.54	0.5	60.0	60.0	55.8	4.22	14.225	
400.0	400.0	400.4	400.4	2.3	2.3	89.54	0.5	60.0	60.0	55.1	4.93	12.168	
500.0	500.0	500.4	500.4	2.6	2.6	89.54	0.5	60.0	60.0	54.5	5.55	10.811	
600.0	600.0	600.4	600.4	2.9	2.9	89.54	0.5	60.0	60.0	53.9	6.11	9.827	
700.0	700.0	700.4	700.4	3.1	3.1	89.54	0.5	60.0	60.0	53.4	6.62	9.070	
800.0	800.0	800.4	800.4	3.4	3.4	89.54	0.5	60.0	60.0	52.9	7.09	8.463	
900.0	900.0	900.4	900.4	3.6	3.6	89.54	0.5	60.0	60.0	52.5	7.54	7.962	
1,000.0	1,000.0	1,000.4	1,000.4	3.8	3.8	89.54	0.5	60.0	60.0	52.0	7.96	7.539	
1,100.0	1,100.0	1,100.4	1,100.4	4.0	4.0	89.54	0.5	60.0	60.0	51.6	8.36	7.175	
1,200.0	1,200.0	1,200.4	1,200.4	4.2	4.2	89.54	0.5	60.0	60.0	51.3	8.75	6.857	CC, ES
1,300.0	1,300.0	1,300.4	1,300.4	4.5	4.4	144.45	0.5	60.0	61.4	52.2	9.19	6.679	
1,400.0	1,399.8	1,400.2	1,400.2	4.8	4.6	147.06	0.5	60.0	65.7	56.1	9.64	6.820	
1,412.4	1,412.2	1,412.6	1,412.6	4.8	4.6	147.47	0.5	60.0	66.5	56.8	9.67	6.875	
1,500.0	1,499.6	1,500.0	1,500.0	5.0	4.7	150.24	0.5	60.0	72.1	62.0	10.04	7.177	
1,600.0	1,599.3	1,599.7	1,599.7	5.2	4.9	152.92	0.5	60.0	78.6	68.1	10.43	7.532	
1,700.0	1,699.0	1,699.4	1,699.4	5.5	5.1	155.19	0.5	60.0	85.2	74.4	10.83	7.867	
1,800.0	1,798.7	1,799.1	1,799.1	5.7	5.2	157.12	0.5	60.0	92.0	80.8	11.25	8.181	
1,900.0	1,898.5	1,898.9	1,898.9	6.0	5.4	158.79	0.5	60.0	98.9	87.2	11.67	8.473	
2,000.0	1,998.2	1,998.6	1,998.6	6.3	5.6	160.24	0.5	60.0	105.8	93.7	12.10	8.745	
2,100.0	2,097.9	2,095.5	2,095.5	6.6	5.8	160.93	1.2	61.4	114.0	101.5	12.56	9.077	
2,200.0	2,197.6	2,192.0	2,191.9	6.9	6.0	160.49	3.3	65.8	124.7	111.7	13.01	9.585	
2,300.0	2,297.4	2,287.8	2,287.3	7.2	6.3	159.22	6.7	73.0	137.9	124.4	13.46	10.249	
2,400.0	2,397.1	2,382.7	2,381.6	7.5	6.5	157.41	11.5	83.0	153.7	139.8	13.90	11.059	
2,500.0	2,496.8	2,478.4	2,476.2	7.8	6.7	155.31	17.6	95.7	172.0	157.7	14.27	12.049	
2,600.0	2,596.5	2,576.4	2,573.0	8.1	6.9	153.46	24.1	109.2	191.0	176.3	14.72	12.974	
2,700.0	2,696.3	2,674.4	2,669.9	8.5	7.1	151.95	30.6	122.7	210.1	194.9	15.19	13.829	
2,800.0	2,796.0	2,772.4	2,766.8	8.8	7.4	150.69	37.1	136.3	229.4	213.7	15.68	14.625	
2,900.0	2,895.7	2,870.4	2,863.6	9.1	7.7	149.62	43.6	149.8	248.7	232.5	16.19	15.364	
3,000.0	2,995.4	2,968.4	2,960.5	9.5	8.0	148.71	50.1	163.3	268.2	251.5	16.71	16.049	
3,100.0	3,095.2	3,066.4	3,057.3	9.8	8.3	147.92	56.6	176.8	287.6	270.4	17.24	16.684	
3,200.0	3,194.9	3,164.5	3,154.2	10.1	8.6	147.23	63.1	190.3	307.2	289.4	17.78	17.272	
3,300.0	3,294.6	3,262.5	3,251.0	10.5	8.9	146.63	69.6	203.9	326.7	308.4	18.34	17.817	
3,400.0	3,394.3	3,360.5	3,347.9	10.8	9.3	146.09	76.1	217.4	346.3	327.4	18.90	18.322	
3,500.0	3,494.1	3,458.5	3,444.8	11.2	9.6	145.61	82.6	230.9	365.9	346.5	19.47	18.791	
3,600.0	3,593.8	3,556.5	3,541.6	11.5	10.0	145.18	89.1	244.4	385.6	365.5	20.06	19.226	
3,700.0	3,693.5	3,654.5	3,638.5	11.9	10.3	144.79	95.6	258.0	405.2	384.6	20.64	19.631	
3,800.0	3,793.2	3,752.5	3,735.3	12.2	10.7	144.44	102.1	271.5	424.9	403.7	21.24	20.007	
3,900.0	3,893.0	3,850.5	3,832.2	12.6	11.1	144.12	108.6	285.0	444.6	422.8	21.84	20.358	
4,000.0	3,992.7	3,948.6	3,929.0	12.9	11.4	143.82	115.1	298.5	464.3	441.9	22.45	20.685	
4,100.0	4,092.4	4,046.6	4,025.9	13.3	11.8	143.55	121.6	312.0	484.0	461.0	23.06	20.990	
4,200.0	4,192.1	4,144.6	4,122.8	13.6	12.2	143.30	128.1	325.6	503.8	480.1	23.68	21.276	
4,300.0	4,291.9	4,242.6	4,219.6	14.0	12.6	143.07	134.6	339.1	523.5	499.2	24.30	21.543	
4,400.0	4,391.6	4,340.6	4,316.5	14.3	13.0	142.86	141.1	352.6	543.2	518.3	24.93	21.794	
4,500.0	4,491.3	4,438.6	4,413.3	14.7	13.3	142.66	147.6	366.1	563.0	537.4	25.56	22.029	
4,600.0	4,591.0	4,536.6	4,510.2	15.1	13.7	142.47	154.1	379.7	582.7	556.6	26.19	22.250	
4,700.0	4,690.8	4,634.6	4,607.0	15.4	14.1	142.30	160.6	393.2	602.5	575.7	26.83	22.459	
4,800.0	4,790.5	4,732.7	4,703.9	15.8	14.5	142.14	167.1	406.7	622.3	594.8	27.47	22.655	
4,900.0	4,890.2	4,830.7	4,800.8	16.1	14.9	141.98	173.6	420.2	642.0	613.9	28.11	22.840	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 703H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,000.0	4,989.9	4,928.7	4,897.6	16.5	15.3	141.84	180.1	433.7	661.8	633.1	28.76	23.014	
5,100.0	5,089.7	5,026.7	4,994.5	16.9	15.7	141.70	186.6	447.3	681.6	652.2	29.40	23.179	
5,200.0	5,189.4	5,124.7	5,091.3	17.2	16.1	141.58	193.1	460.8	701.4	671.3	30.05	23.341	
5,300.0	5,289.1	5,231.3	5,196.8	17.6	16.6	141.46	200.0	475.1	720.8	690.0	30.74	23.449	
5,400.0	5,388.8	5,342.8	5,307.3	18.0	17.0	141.41	206.3	488.2	738.5	707.0	31.46	23.470	
5,500.0	5,488.6	5,454.9	5,418.7	18.3	17.4	141.43	211.7	499.4	754.5	722.3	32.18	23.446	
5,600.0	5,588.3	5,567.6	5,531.0	18.7	17.9	141.51	216.1	508.7	768.6	735.8	32.87	23.382	
5,700.0	5,688.0	5,680.9	5,643.9	19.1	18.3	141.66	219.7	516.1	781.0	747.5	33.55	23.282	
5,800.0	5,787.8	5,794.6	5,757.5	19.4	18.7	141.87	222.3	521.4	791.6	757.5	34.19	23.152	
5,900.0	5,887.5	5,908.7	5,871.5	19.8	19.0	142.14	223.9	524.8	800.4	765.6	34.80	23.002	
6,000.0	5,987.2	6,023.0	5,985.8	20.2	19.3	142.47	224.5	526.0	807.5	772.1	35.32	22.860	
6,088.6	6,075.6	6,113.2	6,076.0	20.5	19.3	142.75	224.5	526.1	812.7	777.1	35.62	22.813	
6,100.0	6,086.9	6,124.5	6,087.3	20.5	19.3	142.79	224.5	526.1	813.3	777.7	35.66	22.808	
6,200.0	6,186.7	6,224.3	6,187.1	20.9	19.4	143.09	224.5	526.1	818.4	782.4	36.03	22.716	
6,300.0	6,286.6	6,324.2	6,287.0	21.2	19.4	143.31	224.5	526.1	822.1	785.7	36.36	22.611	
6,400.0	6,386.6	6,424.2	6,387.0	21.5	19.5	143.44	224.5	526.1	824.4	787.7	36.66	22.487	
6,500.0	6,486.6	6,524.2	6,487.0	21.7	19.5	143.49	224.5	526.1	825.3	788.4	36.91	22.360	
6,513.4	6,500.0	6,537.6	6,500.4	21.7	19.5	89.53	224.5	526.1	825.3	788.4	36.93	22.350	
6,600.0	6,586.6	6,624.2	6,587.0	21.8	19.6	89.53	224.5	526.1	825.3	788.3	37.02	22.290	
6,700.0	6,686.6	6,724.2	6,687.0	21.8	19.6	89.53	224.5	526.1	825.3	788.2	37.13	22.226	
6,800.0	6,786.6	6,824.2	6,787.0	21.9	19.7	89.53	224.5	526.1	825.3	788.0	37.24	22.161	
6,900.0	6,886.6	6,924.2	6,887.0	21.9	19.7	89.53	224.5	526.1	825.3	787.9	37.35	22.097	
7,000.0	6,986.6	7,024.2	6,987.0	22.0	19.8	89.53	224.5	526.1	825.3	787.8	37.46	22.033	
7,100.0	7,086.6	7,124.2	7,087.0	22.0	19.8	89.53	224.5	526.1	825.3	787.7	37.57	21.969	
7,200.0	7,186.6	7,224.2	7,187.0	22.1	19.9	89.53	224.5	526.1	825.3	787.6	37.67	21.905	
7,300.0	7,286.6	7,324.2	7,287.0	22.1	19.9	89.53	224.5	526.1	825.3	787.5	37.78	21.842	
7,400.0	7,386.6	7,424.2	7,387.0	22.2	20.0	89.53	224.5	526.1	825.3	787.4	37.89	21.778	
7,500.0	7,486.6	7,524.2	7,487.0	22.2	20.0	89.53	224.5	526.1	825.3	787.3	38.01	21.715	
7,600.0	7,586.6	7,624.2	7,587.0	22.3	20.1	89.53	224.5	526.1	825.3	787.2	38.12	21.652	
7,700.0	7,686.6	7,724.2	7,687.0	22.3	20.1	89.53	224.5	526.1	825.3	787.1	38.23	21.589	
7,800.0	7,786.6	7,824.2	7,787.0	22.4	20.2	89.53	224.5	526.1	825.3	786.9	38.34	21.526	
7,900.0	7,886.6	7,924.2	7,887.0	22.4	20.3	89.53	224.5	526.1	825.3	786.8	38.45	21.464	
8,000.0	7,986.6	8,024.2	7,987.0	22.5	20.3	89.53	224.5	526.1	825.3	786.7	38.56	21.401	
8,100.0	8,086.6	8,124.2	8,087.0	22.5	20.4	89.53	224.5	526.1	825.3	786.6	38.68	21.339	
8,200.0	8,186.6	8,224.2	8,187.0	22.6	20.4	89.53	224.5	526.1	825.3	786.5	38.79	21.277	
8,300.0	8,286.6	8,324.2	8,287.0	22.6	20.5	89.53	224.5	526.1	825.3	786.4	38.90	21.215	
8,400.0	8,386.6	8,424.2	8,387.0	22.7	20.5	89.53	224.5	526.1	825.3	786.3	39.01	21.153	
8,500.0	8,486.6	8,524.2	8,487.0	22.7	20.6	89.53	224.5	526.1	825.3	786.2	39.13	21.091	
8,600.0	8,586.6	8,624.2	8,587.0	22.8	20.6	89.53	224.5	526.1	825.3	786.0	39.24	21.030	
8,700.0	8,686.6	8,724.2	8,687.0	22.8	20.7	89.53	224.5	526.1	825.3	785.9	39.36	20.969	
8,800.0	8,786.6	8,824.2	8,787.0	22.9	20.8	89.53	224.5	526.1	825.3	785.8	39.47	20.908	
8,900.0	8,886.6	8,924.2	8,887.0	22.9	20.8	89.53	224.5	526.1	825.3	785.7	39.59	20.847	
9,000.0	8,986.6	9,024.2	8,987.0	23.0	20.9	89.53	224.5	526.1	825.3	785.6	39.70	20.786	
9,100.0	9,086.6	9,124.2	9,087.0	23.0	20.9	89.53	224.5	526.1	825.3	785.5	39.82	20.726	
9,200.0	9,186.6	9,224.2	9,187.0	23.1	21.0	89.53	224.5	526.1	825.3	785.3	39.94	20.665	
9,300.0	9,286.6	9,324.2	9,287.0	23.1	21.0	89.53	224.5	526.1	825.3	785.2	40.05	20.605	
9,400.0	9,386.6	9,424.2	9,387.0	23.2	21.1	89.53	224.5	526.1	825.3	785.1	40.17	20.545	
9,500.0	9,486.6	9,524.2	9,487.0	23.2	21.2	89.53	224.5	526.1	825.3	785.0	40.29	20.486	
9,600.0	9,586.6	9,624.2	9,587.0	23.3	21.2	89.53	224.5	526.1	825.3	784.9	40.40	20.426	
9,700.0	9,686.6	9,724.2	9,687.0	23.3	21.3	89.53	224.5	526.1	825.3	784.8	40.52	20.367	
9,800.0	9,786.6	9,824.2	9,787.0	23.4	21.3	89.53	224.5	526.1	825.3	784.6	40.64	20.308	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 703H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
9,900.0	9,886.6	9,924.2	9,887.0	23.4	21.4	89.53	224.5	526.1	825.3	784.5	40.76	20.249	
10,000.0	9,986.6	10,024.2	9,987.0	23.5	21.4	89.53	224.5	526.1	825.3	784.4	40.88	20.190	
10,100.0	10,086.6	10,124.2	10,087.0	23.6	21.5	89.53	224.5	526.1	825.3	784.3	41.00	20.131	
10,200.0	10,186.6	10,224.2	10,187.0	23.6	21.6	89.53	224.5	526.1	825.3	784.2	41.11	20.073	
10,300.0	10,286.6	10,324.2	10,287.0	23.7	21.6	89.53	224.5	526.1	825.3	784.1	41.23	20.015	
10,400.0	10,386.6	10,424.2	10,387.0	23.7	21.7	89.53	224.5	526.1	825.3	783.9	41.35	19.957	
10,500.0	10,486.6	10,524.2	10,487.0	23.8	21.7	89.53	224.5	526.1	825.3	783.8	41.47	19.899	
10,600.0	10,586.6	10,624.2	10,587.0	23.8	21.8	89.53	224.5	526.1	825.3	783.7	41.59	19.841	
10,700.0	10,686.6	10,724.2	10,687.0	23.9	21.8	89.53	224.5	526.1	825.3	783.6	41.71	19.784	
10,800.0	10,786.6	10,824.2	10,787.0	23.9	21.9	89.53	224.5	526.1	825.3	783.4	41.84	19.727	
10,900.0	10,886.6	10,924.2	10,887.0	24.0	22.0	89.53	224.5	526.1	825.3	783.3	41.96	19.670	
11,000.0	10,986.6	11,024.2	10,987.0	24.0	22.0	89.53	224.5	526.1	825.3	783.2	42.08	19.613	
11,100.0	11,086.6	11,124.2	11,087.0	24.1	22.1	89.53	224.5	526.1	825.3	783.1	42.20	19.557	
11,200.0	11,186.6	11,224.2	11,187.0	24.1	22.1	89.53	224.5	526.1	825.3	783.0	42.32	19.500	
11,300.0	11,286.6	11,324.2	11,287.0	24.2	22.2	89.53	224.5	526.1	825.3	782.8	42.44	19.444	
11,400.0	11,386.6	11,424.2	11,387.0	24.3	22.3	89.53	224.5	526.1	825.3	782.7	42.57	19.388	
11,500.0	11,486.6	11,524.2	11,487.0	24.3	22.3	89.53	224.5	526.1	825.3	782.6	42.69	19.332	
11,600.0	11,586.6	11,624.2	11,587.0	24.4	22.4	89.53	224.5	526.1	825.3	782.5	42.81	19.276	
11,685.9	11,672.5	11,710.1	11,672.9	24.4	22.4	89.53	224.5	526.1	825.3	782.4	42.92	19.229	
11,700.0	11,686.6	11,724.2	11,687.0	24.4	22.4	-90.01	224.3	526.1	825.3	782.4	42.92	19.229	
11,725.0	11,711.5	11,749.2	11,711.9	24.4	22.4	-90.01	222.8	526.1	825.3	782.4	42.91	19.234	
11,750.0	11,736.4	11,774.2	11,736.8	24.3	22.4	-90.01	220.1	526.1	825.3	782.4	42.89	19.240	
11,775.0	11,761.1	11,799.2	11,761.5	24.3	22.3	-90.01	216.1	526.1	825.3	782.4	42.88	19.247	
11,800.0	11,785.5	11,824.2	11,785.9	24.2	22.3	-90.01	210.8	526.2	825.3	782.4	42.86	19.255	
11,825.0	11,809.6	11,849.2	11,810.0	24.1	22.2	-90.00	204.2	526.2	825.3	782.4	42.84	19.263	
11,850.0	11,833.4	11,874.2	11,833.8	24.1	22.2	-90.00	196.4	526.3	825.3	782.5	42.82	19.272	
11,875.0	11,856.7	11,899.2	11,857.1	24.0	22.2	-90.00	187.4	526.4	825.3	782.5	42.80	19.281	
11,900.0	11,879.5	11,924.2	11,879.9	24.0	22.1	-90.00	177.1	526.4	825.3	782.5	42.78	19.290	
11,925.0	11,901.7	11,949.2	11,902.1	23.9	22.1	-90.00	165.7	526.5	825.3	782.5	42.76	19.299	
11,950.0	11,923.3	11,974.2	11,923.7	23.8	22.0	-90.00	153.1	526.6	825.3	782.5	42.74	19.308	
11,975.0	11,944.2	11,999.2	11,944.6	23.8	22.0	-89.99	139.4	526.7	825.3	782.6	42.72	19.317	
12,000.0	11,964.4	12,024.2	11,964.8	23.7	22.0	-89.99	124.6	526.9	825.3	782.6	42.70	19.325	
12,025.0	11,983.8	12,049.2	11,984.1	23.7	21.9	-89.99	108.8	527.0	825.3	782.6	42.69	19.333	
12,050.0	12,002.3	12,074.2	12,002.6	23.6	21.9	-89.99	92.0	527.1	825.3	782.6	42.67	19.339	
12,075.0	12,019.9	12,099.2	12,020.2	23.6	21.9	-89.99	74.2	527.3	825.3	782.6	42.66	19.344	
12,100.0	12,036.6	12,124.2	12,036.9	23.5	21.8	-89.99	55.6	527.4	825.3	782.6	42.65	19.348	
12,125.0	12,052.3	12,149.2	12,052.5	23.5	21.8	-89.99	36.1	527.6	825.3	782.6	42.65	19.350	
12,150.0	12,066.9	12,174.2	12,067.1	23.5	21.8	-89.98	15.8	527.7	825.3	782.6	42.65	19.351	
12,175.0	12,080.4	12,199.2	12,080.6	23.4	21.8	-89.98	-5.2	527.9	825.3	782.6	42.65	19.349	
12,200.0	12,092.9	12,224.2	12,093.0	23.4	21.8	-89.98	-26.9	528.1	825.3	782.6	42.66	19.345	
12,225.0	12,104.1	12,249.1	12,104.3	23.4	21.7	-89.98	-49.2	528.2	825.3	782.6	42.67	19.339	
12,250.0	12,114.2	12,274.1	12,114.4	23.4	21.7	-89.98	-72.0	528.4	825.3	782.6	42.69	19.330	
12,275.0	12,123.1	12,299.1	12,123.2	23.4	21.7	-89.98	-95.4	528.6	825.3	782.6	42.72	19.319	
12,300.0	12,130.7	12,324.1	12,130.8	23.4	21.8	-89.98	-119.2	528.8	825.3	782.5	42.75	19.305	
12,325.0	12,137.1	12,349.1	12,137.2	23.4	21.8	-89.98	-143.3	529.0	825.3	782.5	42.79	19.288	
12,350.0	12,142.3	12,374.1	12,142.3	23.4	21.8	-89.97	-167.8	529.2	825.3	782.4	42.83	19.269	
12,375.0	12,146.1	12,399.0	12,146.1	23.4	21.8	-89.97	-192.5	529.4	825.3	782.4	42.88	19.247	
12,400.0	12,148.6	12,424.0	12,148.6	23.4	21.8	-89.97	-217.3	529.6	825.3	782.3	42.93	19.222	
12,425.0	12,149.8	12,449.0	12,149.8	23.4	21.9	-89.97	-242.3	529.8	825.3	782.3	42.99	19.195	
12,435.9	12,150.0	12,459.9	12,150.0	23.4	21.9	-89.97	-253.2	529.9	825.3	782.2	43.02	19.183	
12,500.0	12,150.0	12,524.0	12,150.0	23.5	22.0	-89.97	-317.3	530.4	825.3	782.0	43.22	19.095	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 703H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
12,600.0	12,150.0	12,624.0	12,150.0	23.7	22.2	-89.97	-417.3	531.2	825.3	781.7	43.60	18.926	
12,700.0	12,150.0	12,724.0	12,150.0	23.9	22.4	-89.97	-517.2	532.0	825.3	781.2	44.07	18.727	
12,800.0	12,150.0	12,824.0	12,150.0	24.1	22.7	-89.97	-617.2	532.8	825.3	780.6	44.61	18.499	
12,900.0	12,150.0	12,924.0	12,150.0	24.3	23.0	-89.97	-717.2	533.5	825.2	780.0	45.23	18.247	
13,000.0	12,150.0	13,024.0	12,150.0	24.6	23.3	-89.97	-817.2	534.3	825.2	779.3	45.91	17.974	
13,100.0	12,150.0	13,124.0	12,150.0	24.9	23.7	-89.97	-917.2	535.1	825.2	778.6	46.67	17.683	
13,200.0	12,150.0	13,224.0	12,150.0	25.3	24.1	-89.97	-1,017.2	535.9	825.2	777.7	47.49	17.378	
13,300.0	12,150.0	13,324.0	12,150.0	25.6	24.5	-89.97	-1,117.2	536.7	825.2	776.9	48.37	17.061	
13,400.0	12,150.0	13,424.0	12,150.0	26.1	25.0	-89.97	-1,217.2	537.5	825.2	775.9	49.31	16.736	
13,500.0	12,150.0	13,524.0	12,150.0	26.5	25.4	-89.97	-1,317.2	538.3	825.2	774.9	50.30	16.405	
13,600.0	12,150.0	13,624.0	12,150.0	26.9	26.0	-89.97	-1,417.2	539.1	825.2	773.9	51.35	16.070	
13,700.0	12,150.0	13,724.0	12,150.0	27.4	26.5	-89.97	-1,517.2	539.9	825.2	772.8	52.45	15.735	
13,800.0	12,150.0	13,824.0	12,150.0	27.9	27.1	-89.97	-1,617.2	540.7	825.2	771.6	53.59	15.400	
13,900.0	12,150.0	13,924.0	12,150.0	28.5	27.6	-89.97	-1,717.2	541.5	825.2	770.4	54.77	15.067	
14,000.0	12,150.0	14,024.0	12,150.0	29.1	28.2	-89.97	-1,817.2	542.3	825.2	769.2	55.99	14.738	
14,100.0	12,150.0	14,124.0	12,150.0	29.6	28.9	-89.97	-1,917.2	543.1	825.2	768.0	57.25	14.413	
14,200.0	12,150.0	14,224.0	12,150.0	30.2	29.5	-89.97	-2,017.2	543.9	825.2	766.7	58.55	14.094	
14,300.0	12,150.0	14,324.0	12,150.0	30.9	30.2	-89.97	-2,117.2	544.7	825.2	765.3	59.88	13.782	
14,400.0	12,150.0	14,424.0	12,150.0	31.5	30.9	-89.97	-2,217.2	545.5	825.2	764.0	61.23	13.476	
14,500.0	12,150.0	14,524.0	12,150.0	32.2	31.5	-89.97	-2,317.2	546.3	825.2	762.6	62.62	13.177	
14,600.0	12,150.0	14,624.0	12,150.0	32.9	32.3	-89.97	-2,417.2	547.1	825.2	761.1	64.03	12.887	
14,700.0	12,150.0	14,724.0	12,150.0	33.6	33.0	-89.97	-2,517.2	547.9	825.2	759.7	65.47	12.603	
14,800.0	12,150.0	14,824.0	12,150.0	34.3	33.7	-89.97	-2,617.2	548.7	825.2	758.2	66.93	12.328	
14,900.0	12,150.0	14,924.0	12,150.0	35.0	34.5	-89.97	-2,717.2	549.5	825.2	756.8	68.42	12.061	
15,000.0	12,150.0	15,024.0	12,150.0	35.7	35.2	-89.97	-2,817.2	550.2	825.2	755.2	69.92	11.801	
15,100.0	12,150.0	15,124.0	12,150.0	36.5	36.0	-89.97	-2,917.2	551.0	825.2	753.7	71.44	11.550	
15,200.0	12,150.0	15,224.0	12,150.0	37.2	36.8	-89.97	-3,017.2	551.8	825.2	752.2	72.99	11.306	
15,300.0	12,150.0	15,324.0	12,150.0	38.0	37.5	-89.97	-3,117.2	552.6	825.2	750.6	74.54	11.069	
15,400.0	12,150.0	15,424.0	12,150.0	38.8	38.3	-89.97	-3,217.2	553.4	825.2	749.0	76.12	10.841	
15,500.0	12,150.0	15,524.0	12,150.0	39.6	39.1	-89.97	-3,317.2	554.2	825.1	747.4	77.70	10.619	
15,600.0	12,150.0	15,624.0	12,150.0	40.4	39.9	-89.97	-3,417.2	555.0	825.1	745.8	79.31	10.404	
15,700.0	12,150.0	15,724.0	12,150.0	41.2	40.7	-89.97	-3,517.2	555.8	825.1	744.2	80.92	10.197	
15,800.0	12,150.0	15,824.0	12,150.0	42.0	41.6	-89.97	-3,617.2	556.6	825.1	742.6	82.55	9.996	
15,900.0	12,150.0	15,924.0	12,150.0	42.8	42.4	-89.97	-3,717.1	557.4	825.1	740.9	84.19	9.801	
16,000.0	12,150.0	16,024.0	12,150.0	43.6	43.2	-89.97	-3,817.1	558.2	825.1	739.3	85.84	9.613	
16,100.0	12,150.0	16,124.0	12,150.0	44.5	44.1	-89.97	-3,917.1	559.0	825.1	737.6	87.50	9.430	
16,200.0	12,150.0	16,224.0	12,150.0	45.3	44.9	-89.97	-4,017.1	559.8	825.1	736.0	89.17	9.254	
16,300.0	12,150.0	16,324.0	12,150.0	46.1	45.8	-89.97	-4,117.1	560.6	825.1	734.3	90.85	9.083	
16,400.0	12,150.0	16,424.0	12,150.0	47.0	46.6	-89.97	-4,217.1	561.4	825.1	732.6	92.53	8.917	
16,500.0	12,150.0	16,524.0	12,150.0	47.8	47.5	-89.97	-4,317.1	562.2	825.1	730.9	94.23	8.756	
16,600.0	12,150.0	16,624.0	12,150.0	48.7	48.3	-89.97	-4,417.1	563.0	825.1	729.2	95.93	8.601	
16,700.0	12,150.0	16,724.0	12,150.0	49.5	49.2	-89.97	-4,517.1	563.8	825.1	727.5	97.64	8.450	
16,800.0	12,150.0	16,824.0	12,150.0	50.4	50.1	-89.97	-4,617.1	564.6	825.1	725.7	99.36	8.304	
16,900.0	12,150.0	16,924.0	12,150.0	51.3	50.9	-89.97	-4,717.1	565.4	825.1	724.0	101.09	8.162	
17,000.0	12,150.0	17,024.0	12,150.0	52.1	51.8	-89.97	-4,817.1	566.1	825.1	722.3	102.82	8.025	
17,100.0	12,150.0	17,124.0	12,150.0	53.0	52.7	-89.97	-4,917.1	566.9	825.1	720.5	104.55	7.892	
17,200.0	12,150.0	17,224.0	12,150.0	53.9	53.6	-89.97	-5,017.1	567.7	825.1	718.8	106.30	7.762	
17,300.0	12,150.0	17,324.0	12,150.0	54.8	54.5	-89.97	-5,117.1	568.5	825.1	717.0	108.04	7.637	
17,400.0	12,150.0	17,424.0	12,150.0	55.7	55.3	-89.97	-5,217.1	569.3	825.1	715.3	109.80	7.515	
17,500.0	12,150.0	17,524.0	12,150.0	56.5	56.2	-89.97	-5,317.1	570.1	825.1	713.5	111.55	7.396	
17,600.0	12,150.0	17,624.0	12,150.0	57.4	57.1	-89.97	-5,417.1	570.9	825.1	711.8	113.32	7.281	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 703H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
17,700.0	12,150.0	17,724.0	12,150.0	58.3	58.0	-89.97	-5,517.1	571.7	825.1	710.0	115.08	7.169	
17,800.0	12,150.0	17,824.0	12,150.0	59.2	58.9	-89.97	-5,617.1	572.5	825.1	708.2	116.85	7.061	
17,900.0	12,150.0	17,924.0	12,150.0	60.1	59.8	-89.97	-5,717.1	573.3	825.1	706.4	118.63	6.955	
18,000.0	12,150.0	18,024.0	12,150.0	61.0	60.7	-89.97	-5,817.1	574.1	825.1	704.6	120.41	6.852	
18,100.0	12,150.0	18,124.0	12,150.0	61.9	61.6	-89.97	-5,917.1	574.9	825.0	702.9	122.19	6.752	
18,200.0	12,150.0	18,224.0	12,150.0	62.8	62.5	-89.97	-6,017.1	575.7	825.0	701.1	123.98	6.655	
18,300.0	12,150.0	18,324.0	12,150.0	63.7	63.4	-89.97	-6,117.1	576.5	825.0	699.3	125.77	6.560	
18,400.0	12,150.0	18,424.0	12,150.0	64.6	64.3	-89.97	-6,217.1	577.3	825.0	697.5	127.56	6.468	
18,500.0	12,150.0	18,524.0	12,150.0	65.5	65.2	-89.97	-6,317.1	578.1	825.0	695.7	129.36	6.378	
18,600.0	12,150.0	18,624.0	12,150.0	66.4	66.2	-89.97	-6,417.1	578.9	825.0	693.9	131.16	6.290	
18,700.0	12,150.0	18,724.0	12,150.0	67.3	67.1	-89.97	-6,517.1	579.7	825.0	692.1	132.96	6.205	
18,800.0	12,150.0	18,824.0	12,150.0	68.3	68.0	-89.97	-6,617.1	580.5	825.0	690.3	134.76	6.122	
18,900.0	12,150.0	18,924.0	12,150.0	69.2	68.9	-89.97	-6,717.1	581.3	825.0	688.5	136.57	6.041	
19,000.0	12,150.0	19,024.0	12,150.0	70.1	69.8	-89.97	-6,817.0	582.0	825.0	686.6	138.38	5.962	
19,100.0	12,150.0	19,124.0	12,150.0	71.0	70.7	-89.97	-6,917.0	582.8	825.0	684.8	140.19	5.885	
19,200.0	12,150.0	19,224.0	12,150.0	71.9	71.7	-89.97	-7,017.0	583.6	825.0	683.0	142.01	5.810	
19,300.0	12,150.0	19,324.0	12,150.0	72.8	72.6	-89.97	-7,117.0	584.4	825.0	681.2	143.82	5.736	
19,400.0	12,150.0	19,424.0	12,150.0	73.8	73.5	-89.97	-7,217.0	585.2	825.0	679.4	145.64	5.665	
19,500.0	12,150.0	19,524.0	12,150.0	74.7	74.4	-89.97	-7,317.0	586.0	825.0	677.5	147.46	5.595	
19,600.0	12,150.0	19,624.0	12,150.0	75.6	75.3	-89.97	-7,417.0	586.8	825.0	675.7	149.29	5.526	
19,684.9	12,150.0	19,708.9	12,150.0	76.4	76.1	-89.97	-7,501.9	587.5	825.0	674.2	150.83	5.470 SF	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 704H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
0.0	0.0	9.8	9.8	0.0	0.1	89.54	0.7	90.0	90.0				
100.0	100.0	109.8	109.8	0.8	0.7	89.54	0.7	90.0	90.0	88.0	1.98	45.344	
200.0	200.0	209.8	209.8	1.4	1.4	89.54	0.7	90.0	90.0	86.7	3.32	27.129	
300.0	300.0	309.8	309.8	1.9	1.9	89.54	0.7	90.0	90.0	85.8	4.20	21.420	
400.0	400.0	409.8	409.8	2.3	2.2	89.54	0.7	90.0	90.0	85.1	4.92	18.300	
500.0	500.0	509.8	509.8	2.6	2.6	89.54	0.7	90.0	90.0	84.5	5.54	16.249	
600.0	600.0	609.8	609.8	2.9	2.8	89.54	0.7	90.0	90.0	83.9	6.10	14.765	
700.0	700.0	709.8	709.8	3.1	3.1	89.54	0.7	90.0	90.0	83.4	6.61	13.623	
800.0	800.0	809.8	809.8	3.4	3.3	89.54	0.7	90.0	90.0	82.9	7.08	12.709	
900.0	900.0	909.8	909.8	3.6	3.6	89.54	0.7	90.0	90.0	82.5	7.53	11.955	
1,000.0	1,000.0	1,009.8	1,009.8	3.8	3.8	89.54	0.7	90.0	90.0	82.1	7.95	11.318	
1,100.0	1,100.0	1,109.8	1,109.8	4.0	4.0	89.54	0.7	90.0	90.0	81.6	8.36	10.771	
1,200.0	1,200.0	1,209.8	1,209.8	4.2	4.2	89.54	0.7	90.0	90.0	81.3	8.74	10.293	CC, ES
1,300.0	1,300.0	1,309.8	1,309.8	4.5	4.4	144.14	0.7	90.0	91.4	82.2	9.19	9.949	
1,400.0	1,399.8	1,409.6	1,409.6	4.8	4.6	145.92	0.7	90.0	95.7	86.1	9.63	9.938	SF
1,412.4	1,412.2	1,422.0	1,422.0	4.8	4.6	146.21	0.7	90.0	96.4	86.8	9.66	9.982	
1,500.0	1,499.6	1,509.4	1,509.4	5.0	4.7	148.24	0.7	90.0	101.9	91.9	10.03	10.164	
1,600.0	1,599.3	1,609.1	1,609.1	5.2	4.9	150.30	0.7	90.0	108.3	97.9	10.41	10.397	
1,700.0	1,699.0	1,708.8	1,708.8	5.5	5.1	152.13	0.7	90.0	114.8	104.0	10.81	10.616	
1,800.0	1,798.7	1,808.5	1,808.5	5.7	5.2	153.77	0.7	90.0	121.4	110.2	11.22	10.818	
1,900.0	1,898.5	1,908.3	1,908.3	6.0	5.4	155.23	0.7	90.0	128.1	116.4	11.64	11.005	
2,000.0	1,998.2	2,007.7	2,007.7	6.3	5.6	156.54	0.7	90.0	134.8	122.8	12.07	11.173	
2,100.0	2,097.9	2,103.2	2,103.2	6.6	5.8	157.33	1.2	91.8	143.4	130.8	12.54	11.435	
2,200.0	2,197.6	2,200.0	2,199.8	6.9	6.0	157.45	2.5	96.7	154.8	141.8	13.01	11.904	
2,300.0	2,297.4	2,292.5	2,292.0	7.2	6.2	157.05	4.6	104.4	169.1	155.7	13.45	12.574	
2,400.0	2,397.1	2,385.8	2,384.7	7.5	6.5	156.26	7.4	115.1	186.3	172.4	13.91	13.397	
2,500.0	2,496.8	2,478.1	2,475.9	7.8	6.7	155.23	11.0	128.4	206.4	192.1	14.37	14.367	
2,600.0	2,596.5	2,569.1	2,565.3	8.1	7.0	154.06	15.3	144.4	229.4	214.6	14.84	15.454	
2,700.0	2,696.3	2,662.8	2,657.0	8.5	7.3	152.83	20.3	163.2	254.8	239.5	15.33	16.624	
2,800.0	2,796.0	2,759.3	2,751.4	8.8	7.6	151.77	25.5	182.8	280.5	264.7	15.83	17.717	
2,900.0	2,895.7	2,855.9	2,845.8	9.1	7.8	150.88	30.8	202.4	306.3	289.9	16.36	18.721	
3,000.0	2,995.4	2,952.4	2,940.1	9.5	8.1	150.14	36.0	222.1	332.2	315.3	16.91	19.644	
3,100.0	3,095.2	3,048.9	3,034.5	9.8	8.5	149.50	41.2	241.7	358.1	340.6	17.47	20.494	
3,200.0	3,194.9	3,145.4	3,128.8	10.1	8.8	148.95	46.5	261.3	384.0	366.0	18.05	21.275	
3,300.0	3,294.6	3,241.9	3,223.2	10.5	9.1	148.46	51.7	280.9	410.0	391.3	18.64	21.994	
3,400.0	3,394.3	3,338.4	3,317.6	10.8	9.5	148.04	56.9	300.5	436.0	416.7	19.24	22.656	
3,500.0	3,494.1	3,435.0	3,411.9	11.2	9.8	147.66	62.2	320.1	462.0	442.1	19.86	23.265	
3,600.0	3,593.8	3,531.5	3,506.3	11.5	10.2	147.33	67.4	339.7	488.0	467.5	20.48	23.828	
3,700.0	3,693.5	3,628.0	3,600.6	11.9	10.5	147.02	72.7	359.3	514.0	492.9	21.11	24.347	
3,800.0	3,793.2	3,724.5	3,695.0	12.2	10.9	146.75	77.9	378.9	540.1	518.3	21.75	24.827	
3,900.0	3,893.0	3,821.0	3,789.3	12.6	11.3	146.50	83.1	398.5	566.2	543.8	22.40	25.272	
4,000.0	3,992.7	3,917.5	3,883.7	12.9	11.7	146.27	88.4	418.1	592.2	569.2	23.06	25.685	
4,100.0	4,092.4	4,014.0	3,978.1	13.3	12.1	146.07	93.6	437.7	618.3	594.6	23.72	26.068	
4,200.0	4,192.1	4,110.6	4,072.4	13.6	12.5	145.87	98.8	457.3	644.4	620.0	24.39	26.424	
4,300.0	4,291.9	4,207.1	4,166.8	14.0	12.9	145.70	104.1	476.9	670.5	645.4	25.06	26.756	
4,400.0	4,391.6	4,303.6	4,261.1	14.3	13.3	145.54	109.3	496.5	696.6	670.9	25.74	27.066	
4,500.0	4,491.3	4,400.1	4,355.5	14.7	13.7	145.38	114.6	516.1	722.7	696.3	26.42	27.355	
4,600.0	4,591.0	4,496.6	4,449.9	15.1	14.1	145.24	119.8	535.7	748.8	721.7	27.11	27.626	
4,700.0	4,690.8	4,593.1	4,544.2	15.4	14.5	145.11	125.0	555.4	774.9	747.1	27.80	27.879	
4,800.0	4,790.5	4,689.7	4,638.6	15.8	15.0	144.99	130.3	575.0	801.0	772.6	28.49	28.117	
4,900.0	4,890.2	4,786.2	4,732.9	16.1	15.4	144.88	135.5	594.6	827.2	798.0	29.19	28.340	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 704H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,000.0	4,989.9	4,882.7	4,827.3	16.5	15.8	144.77	140.7	614.2	853.3	823.4	29.89	28.550	
5,100.0	5,089.7	4,979.2	4,921.6	16.9	16.2	144.67	146.0	633.8	879.4	848.8	30.59	28.748	
5,200.0	5,189.4	5,075.7	5,016.0	17.2	16.6	144.57	151.2	653.4	905.5	874.2	31.30	28.934	
5,300.0	5,289.1	5,172.2	5,110.4	17.6	17.1	144.48	156.4	673.0	931.7	899.7	32.00	29.110	
5,400.0	5,388.8	5,268.8	5,204.7	18.0	17.5	144.40	161.7	692.6	957.8	925.1	32.72	29.277	
5,500.0	5,488.6	5,365.3	5,299.1	18.3	17.9	144.32	166.9	712.2	983.9	950.5	33.43	29.434	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 706H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
0.0	0.0	0.2	0.2	0.0	0.0	89.54	0.2	30.0	30.0				
100.0	100.0	100.2	100.2	0.8	0.8	89.54	0.2	30.0	30.0	28.0	2.04	14.684	
200.0	200.0	200.2	200.2	1.4	1.5	89.54	0.2	30.0	30.0	26.7	3.34	8.983	
300.0	300.0	300.2	300.2	1.9	1.9	89.54	0.2	30.0	30.0	25.8	4.22	7.114	
400.0	400.0	400.2	400.2	2.3	2.3	89.54	0.2	30.0	30.0	25.1	4.93	6.085	
500.0	500.0	500.2	500.2	2.6	2.6	89.54	0.2	30.0	30.0	24.5	5.55	5.406	
600.0	600.0	600.2	600.2	2.9	2.9	89.54	0.2	30.0	30.0	23.9	6.11	4.914	
700.0	700.0	700.2	700.2	3.1	3.1	89.54	0.2	30.0	30.0	23.4	6.61	4.535	
800.0	800.0	800.2	800.2	3.4	3.4	89.54	0.2	30.0	30.0	22.9	7.09	4.232	
900.0	900.0	900.2	900.2	3.6	3.6	89.54	0.2	30.0	30.0	22.5	7.54	3.981	
1,000.0	1,000.0	1,000.2	1,000.2	3.8	3.8	89.54	0.2	30.0	30.0	22.0	7.96	3.769	
1,100.0	1,100.0	1,100.2	1,100.2	4.0	4.0	89.54	0.2	30.0	30.0	21.6	8.36	3.587	
1,200.0	1,200.0	1,200.2	1,200.2	4.2	4.2	89.54	0.2	30.0	30.0	21.3	8.75	3.429	CC, ES
1,300.0	1,300.0	1,300.2	1,300.2	4.5	4.4	145.38	0.2	30.0	31.4	22.2	9.20	3.417	
1,400.0	1,399.8	1,400.0	1,400.0	4.8	4.6	150.09	0.2	30.0	35.9	26.2	9.65	3.715	
1,412.4	1,412.2	1,412.4	1,412.4	4.8	4.6	150.78	0.2	30.0	36.6	26.9	9.68	3.782	
1,500.0	1,499.6	1,499.8	1,499.8	5.0	4.7	155.06	0.2	30.0	42.4	32.4	10.06	4.217	
1,600.0	1,599.3	1,599.3	1,599.3	5.2	5.0	156.70	1.8	30.6	49.4	39.0	10.45	4.732	
1,700.0	1,699.0	1,698.7	1,698.5	5.5	5.3	154.48	6.7	32.5	57.0	46.2	10.83	5.264	
1,800.0	1,798.7	1,797.7	1,797.2	5.7	5.6	149.83	14.7	35.5	65.5	54.3	11.20	5.843	
1,900.0	1,898.5	1,896.8	1,895.6	6.0	5.7	144.21	25.3	39.5	75.2	63.7	11.49	6.541	
2,000.0	1,998.2	1,996.0	1,994.1	6.3	6.0	139.72	36.2	43.7	85.6	73.7	11.86	7.215	
2,100.0	2,097.9	2,095.3	2,092.7	6.6	6.2	136.21	47.2	47.9	96.4	84.2	12.24	7.876	
2,200.0	2,197.6	2,194.5	2,191.3	6.9	6.5	133.42	58.1	52.0	107.5	94.9	12.62	8.514	
2,300.0	2,297.4	2,293.8	2,289.8	7.2	6.8	131.15	69.0	56.2	118.8	105.8	13.02	9.124	
2,400.0	2,397.1	2,393.0	2,388.4	7.5	7.1	129.28	79.9	60.3	130.2	116.8	13.42	9.703	
2,500.0	2,496.8	2,492.3	2,487.0	7.8	7.4	127.71	90.9	64.5	141.8	128.0	13.83	10.251	
2,600.0	2,596.5	2,591.6	2,585.5	8.1	7.7	126.38	101.8	68.7	153.5	139.2	14.25	10.767	
2,700.0	2,696.3	2,690.8	2,684.1	8.5	8.1	125.23	112.7	72.8	165.2	150.5	14.68	11.253	
2,800.0	2,796.0	2,790.1	2,782.7	8.8	8.4	124.24	123.6	77.0	177.0	161.9	15.11	11.711	
2,900.0	2,895.7	2,889.3	2,881.2	9.1	8.8	123.38	134.6	81.1	188.8	173.3	15.55	12.141	
3,000.0	2,995.4	2,988.6	2,979.8	9.5	9.1	122.61	145.5	85.3	200.7	184.7	16.00	12.546	
3,100.0	3,095.2	3,087.9	3,078.4	9.8	9.5	121.93	156.4	89.5	212.6	196.1	16.44	12.926	
3,200.0	3,194.9	3,187.1	3,177.0	10.1	9.8	121.32	167.3	93.6	224.5	207.6	16.90	13.284	
3,300.0	3,294.6	3,286.4	3,275.5	10.5	10.2	120.78	178.3	97.8	236.4	219.1	17.36	13.622	
3,400.0	3,394.3	3,387.2	3,375.6	10.8	10.5	120.31	189.2	101.9	248.3	230.5	17.79	13.957	
3,500.0	3,494.1	3,489.8	3,477.7	11.2	10.9	120.14	198.7	105.6	259.0	240.7	18.26	14.186	
3,600.0	3,593.8	3,592.6	3,580.2	11.5	11.2	120.26	206.7	108.6	268.5	249.8	18.72	14.340	
3,700.0	3,693.5	3,695.7	3,683.1	11.9	11.6	120.65	212.8	111.0	276.7	257.6	19.17	14.432	
3,800.0	3,793.2	3,798.9	3,786.2	12.2	11.9	121.28	217.3	112.7	283.7	264.1	19.61	14.468	
3,900.0	3,893.0	3,902.2	3,889.4	12.6	12.2	122.16	220.0	113.7	289.6	269.6	20.03	14.458	
4,000.0	3,992.7	4,005.4	3,992.6	12.9	12.5	123.27	221.0	114.1	294.3	273.9	20.41	14.419	
4,100.0	4,092.4	4,105.4	4,092.6	13.3	12.6	124.46	221.0	114.1	298.4	277.7	20.73	14.395	
4,200.0	4,192.1	4,205.1	4,192.3	13.6	12.6	125.61	221.0	114.1	302.7	281.6	21.06	14.375	
4,300.0	4,291.9	4,304.9	4,292.1	14.0	12.7	126.73	221.0	114.1	307.1	285.7	21.40	14.351	
4,400.0	4,391.6	4,404.6	4,391.8	14.3	12.8	127.82	221.0	114.1	311.6	289.8	21.75	14.323	
4,500.0	4,491.3	4,504.3	4,491.5	14.7	12.9	128.88	221.0	114.1	316.2	294.0	22.12	14.292	
4,600.0	4,591.0	4,604.0	4,591.2	15.1	12.9	129.91	221.0	114.1	320.9	298.4	22.50	14.258	
4,700.0	4,690.8	4,703.8	4,691.0	15.4	13.0	130.91	221.0	114.1	325.7	302.8	22.90	14.222	
4,800.0	4,790.5	4,803.5	4,790.7	15.8	13.1	131.88	221.0	114.1	330.6	307.3	23.31	14.184	
4,900.0	4,890.2	4,903.2	4,890.4	16.1	13.2	132.82	221.0	114.1	335.6	311.9	23.73	14.144	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 706H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
5,000.0	4,989.9	5,002.9	4,990.1	16.5	13.3	133.73	221.0	114.1	340.7	316.5	24.15	14.103	
5,100.0	5,089.7	5,102.7	5,089.9	16.9	13.3	134.61	221.0	114.1	345.8	321.2	24.59	14.062	
5,200.0	5,189.4	5,202.4	5,189.6	17.2	13.4	135.47	221.0	114.1	351.1	326.0	25.04	14.020	
5,300.0	5,289.1	5,302.1	5,289.3	17.6	13.5	136.31	221.0	114.1	356.4	330.9	25.50	13.978	
5,400.0	5,388.8	5,401.8	5,389.0	18.0	13.6	137.12	221.0	114.1	361.8	335.8	25.96	13.936	
5,500.0	5,488.6	5,501.6	5,488.8	18.3	13.7	137.90	221.0	114.1	367.3	340.8	26.43	13.894	
5,600.0	5,588.3	5,601.3	5,588.5	18.7	13.7	138.66	221.0	114.1	372.8	345.9	26.91	13.852	
5,700.0	5,688.0	5,701.0	5,688.2	19.1	13.8	139.40	221.0	114.1	378.4	351.0	27.40	13.811	
5,800.0	5,787.8	5,800.7	5,788.0	19.4	13.9	140.12	221.0	114.1	384.1	356.2	27.89	13.771	
5,900.0	5,887.5	5,900.5	5,887.7	19.8	14.0	140.82	221.0	114.1	389.8	361.4	28.39	13.732	
6,000.0	5,987.2	6,000.2	5,987.4	20.2	14.0	141.50	221.0	114.1	395.6	366.7	28.89	13.694	
6,088.6	6,075.6	6,088.5	6,075.8	20.5	14.1	142.08	221.0	114.1	400.7	371.4	29.33	13.664	
6,100.0	6,086.9	6,099.9	6,087.1	20.5	14.1	142.16	221.0	114.1	401.4	372.0	29.38	13.662	
6,200.0	6,186.7	6,199.7	6,186.9	20.9	14.2	142.74	221.0	114.1	406.4	376.5	29.89	13.596	
6,300.0	6,286.6	6,299.6	6,286.8	21.2	14.3	143.15	221.0	114.1	410.1	379.8	30.34	13.517	
6,400.0	6,386.6	6,399.6	6,386.8	21.5	14.4	143.40	221.0	114.1	412.4	381.6	30.73	13.417	
6,500.0	6,486.6	6,499.5	6,486.8	21.7	14.4	143.50	221.0	114.1	413.3	382.2	31.05	13.309	
6,513.4	6,500.0	6,513.0	6,500.2	21.7	14.5	89.54	221.0	114.1	413.3	382.2	31.07	13.301	
6,600.0	6,586.6	6,599.5	6,586.8	21.8	14.5	89.54	221.0	114.1	413.3	382.1	31.20	13.248	
6,700.0	6,686.6	6,699.5	6,686.8	21.8	14.6	89.54	221.0	114.1	413.3	381.9	31.33	13.190	
6,800.0	6,786.6	6,799.5	6,786.8	21.9	14.7	89.54	221.0	114.1	413.3	381.8	31.47	13.133	
6,900.0	6,886.6	6,899.5	6,886.8	21.9	14.8	89.54	221.0	114.1	413.3	381.7	31.60	13.077	
7,000.0	6,986.6	6,999.5	6,986.8	22.0	14.8	89.54	221.0	114.1	413.3	381.5	31.74	13.020	
7,100.0	7,086.6	7,099.5	7,086.8	22.0	14.9	89.54	221.0	114.1	413.3	381.4	31.88	12.965	
7,200.0	7,186.6	7,199.5	7,186.8	22.1	15.0	89.54	221.0	114.1	413.3	381.3	32.01	12.909	
7,300.0	7,286.6	7,299.5	7,286.8	22.1	15.1	89.54	221.0	114.1	413.3	381.1	32.15	12.854	
7,400.0	7,386.6	7,399.5	7,386.8	22.2	15.2	89.54	221.0	114.1	413.3	381.0	32.29	12.800	
7,500.0	7,486.6	7,499.5	7,486.8	22.2	15.2	89.54	221.0	114.1	413.3	380.9	32.43	12.745	
7,600.0	7,586.6	7,599.5	7,586.8	22.3	15.3	89.54	221.0	114.1	413.3	380.7	32.56	12.691	
7,700.0	7,686.6	7,699.5	7,686.8	22.3	15.4	89.54	221.0	114.1	413.3	380.6	32.70	12.638	
7,800.0	7,786.6	7,799.5	7,786.8	22.4	15.5	89.54	221.0	114.1	413.3	380.4	32.84	12.585	
7,900.0	7,886.6	7,899.5	7,886.8	22.4	15.6	89.54	221.0	114.1	413.3	380.3	32.98	12.532	
8,000.0	7,986.6	7,999.5	7,986.8	22.5	15.6	89.54	221.0	114.1	413.3	380.2	33.12	12.479	
8,100.0	8,086.6	8,099.5	8,086.8	22.5	15.7	89.54	221.0	114.1	413.3	380.0	33.26	12.427	
8,200.0	8,186.6	8,199.5	8,186.8	22.6	15.8	89.54	221.0	114.1	413.3	379.9	33.40	12.376	
8,300.0	8,286.6	8,299.5	8,286.8	22.6	15.9	89.54	221.0	114.1	413.3	379.7	33.53	12.324	
8,400.0	8,386.6	8,399.5	8,386.8	22.7	16.0	89.54	221.0	114.1	413.3	379.6	33.67	12.273	
8,500.0	8,486.6	8,499.5	8,486.8	22.7	16.0	89.54	221.0	114.1	413.3	379.5	33.81	12.222	
8,600.0	8,586.6	8,599.5	8,586.8	22.8	16.1	89.54	221.0	114.1	413.3	379.3	33.95	12.172	
8,700.0	8,686.6	8,699.5	8,686.8	22.8	16.2	89.54	221.0	114.1	413.3	379.2	34.09	12.122	
8,800.0	8,786.6	8,799.5	8,786.8	22.9	16.3	89.54	221.0	114.1	413.3	379.0	34.23	12.073	
8,900.0	8,886.6	8,899.5	8,886.8	22.9	16.4	89.54	221.0	114.1	413.3	378.9	34.37	12.023	
9,000.0	8,986.6	8,999.5	8,986.8	23.0	16.4	89.54	221.0	114.1	413.3	378.8	34.51	11.974	
9,100.0	9,086.6	9,099.5	9,086.8	23.0	16.5	89.54	221.0	114.1	413.3	378.6	34.65	11.926	
9,200.0	9,186.6	9,199.5	9,186.8	23.1	16.6	89.54	221.0	114.1	413.3	378.5	34.80	11.877	
9,300.0	9,286.6	9,299.5	9,286.8	23.1	16.7	89.54	221.0	114.1	413.3	378.3	34.94	11.829	
9,400.0	9,386.6	9,399.5	9,386.8	23.2	16.8	89.54	221.0	114.1	413.3	378.2	35.08	11.782	
9,500.0	9,486.6	9,499.5	9,486.8	23.2	16.8	89.54	221.0	114.1	413.3	378.1	35.22	11.734	
9,600.0	9,586.6	9,599.5	9,586.8	23.3	16.9	89.54	221.0	114.1	413.3	377.9	35.36	11.687	
9,700.0	9,686.6	9,699.5	9,686.8	23.3	17.0	89.54	221.0	114.1	413.3	377.8	35.50	11.641	
9,800.0	9,786.6	9,799.5	9,786.8	23.4	17.1	89.54	221.0	114.1	413.3	377.6	35.64	11.594	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 706H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
9,900.0	9,886.6	9,899.5	9,886.8	23.4	17.2	89.54	221.0	114.1	413.3	377.5	35.79	11.548	
10,000.0	9,986.6	9,999.5	9,986.8	23.5	17.2	89.54	221.0	114.1	413.3	377.4	35.93	11.503	
10,100.0	10,086.6	10,099.5	10,086.8	23.6	17.3	89.54	221.0	114.1	413.3	377.2	36.07	11.457	
10,200.0	10,186.6	10,199.5	10,186.8	23.6	17.4	89.54	221.0	114.1	413.3	377.1	36.21	11.412	
10,300.0	10,286.6	10,299.5	10,286.8	23.7	17.5	89.54	221.0	114.1	413.3	376.9	36.36	11.367	
10,400.0	10,386.6	10,399.5	10,386.8	23.7	17.6	89.54	221.0	114.1	413.3	376.8	36.50	11.323	
10,500.0	10,486.6	10,499.5	10,486.8	23.8	17.6	89.54	221.0	114.1	413.3	376.6	36.64	11.279	
10,600.0	10,586.6	10,599.5	10,586.8	23.8	17.7	89.54	221.0	114.1	413.3	376.5	36.79	11.235	
10,700.0	10,686.6	10,699.5	10,686.8	23.9	17.8	89.54	221.0	114.1	413.3	376.4	36.93	11.191	
10,800.0	10,786.6	10,799.5	10,786.8	23.9	17.9	89.54	221.0	114.1	413.3	376.2	37.07	11.148	
10,900.0	10,886.6	10,899.5	10,886.8	24.0	18.0	89.54	221.0	114.1	413.3	376.1	37.22	11.105	
11,000.0	10,986.6	10,999.5	10,986.8	24.0	18.0	89.54	221.0	114.1	413.3	375.9	37.36	11.062	
11,100.0	11,086.6	11,099.5	11,086.8	24.1	18.1	89.54	221.0	114.1	413.3	375.8	37.50	11.020	
11,200.0	11,186.6	11,199.5	11,186.8	24.1	18.2	89.54	221.0	114.1	413.3	375.6	37.65	10.978	
11,300.0	11,286.6	11,299.5	11,286.8	24.2	18.3	89.54	221.0	114.1	413.3	375.5	37.79	10.936	
11,400.0	11,386.6	11,399.5	11,386.8	24.3	18.4	89.54	221.0	114.1	413.3	375.3	37.94	10.894	
11,500.0	11,486.6	11,499.5	11,486.8	24.3	18.4	89.54	221.0	114.1	413.3	375.2	38.08	10.853	
11,600.0	11,586.6	11,599.5	11,586.8	24.4	18.5	89.54	221.0	114.1	413.3	375.1	38.23	10.812	
11,685.9	11,672.5	11,685.5	11,672.7	24.4	18.6	89.54	221.0	114.1	413.3	374.9	38.34	10.778	
11,686.6	11,673.1	11,686.1	11,673.3	24.4	18.6	-90.01	221.0	114.1	413.3	374.9	38.34	10.778	
11,700.0	11,686.6	11,699.5	11,686.8	24.4	18.6	-90.03	221.0	114.1	413.3	374.9	38.35	10.776	
11,725.0	11,711.5	11,724.5	11,711.7	24.4	18.6	-90.23	221.0	114.1	413.3	374.9	38.34	10.779	
11,750.0	11,736.4	11,749.4	11,736.6	24.3	18.6	-90.59	221.0	114.1	413.3	375.0	38.31	10.789	
11,775.0	11,761.1	11,774.0	11,761.3	24.3	18.7	-91.13	221.0	114.1	413.4	375.1	38.25	10.806	
11,800.0	11,785.5	11,798.5	11,785.7	24.2	18.7	-91.83	221.0	114.1	413.5	375.3	38.18	10.831	
11,825.0	11,809.6	11,822.6	11,809.8	24.1	18.7	-92.67	221.0	114.1	413.8	375.7	38.08	10.865	
11,850.0	11,833.4	11,846.3	11,833.6	24.1	18.7	-93.64	221.0	114.1	414.2	376.3	37.97	10.909	
11,875.0	11,856.7	11,869.6	11,856.9	24.0	18.7	-94.72	221.0	114.1	414.9	377.1	37.84	10.964	
11,900.0	11,879.5	11,892.4	11,879.7	24.0	18.8	-95.88	221.0	114.1	416.0	378.3	37.70	11.033	
11,925.0	11,901.7	11,916.0	11,903.2	23.9	18.8	-97.17	220.9	114.1	417.4	379.9	37.54	11.119	
11,950.0	11,923.3	11,941.7	11,928.8	23.8	18.7	-98.56	219.7	114.1	419.2	381.8	37.37	11.216	
11,975.0	11,944.2	11,968.1	11,955.1	23.8	18.7	-99.95	216.9	114.1	421.2	384.0	37.22	11.318	
12,000.0	11,964.4	11,995.3	11,982.0	23.7	18.6	-101.33	212.6	114.1	423.6	386.5	37.09	11.421	
12,025.0	11,983.8	12,023.5	12,009.5	23.7	18.6	-102.70	206.5	114.2	426.2	389.2	36.98	11.523	
12,050.0	12,002.3	12,052.6	12,037.5	23.6	18.5	-104.06	198.5	114.3	429.0	392.1	36.92	11.621	
12,075.0	12,019.9	12,082.7	12,065.9	23.6	18.4	-105.40	188.5	114.3	432.1	395.2	36.90	11.709	
12,100.0	12,036.6	12,114.0	12,094.6	23.5	18.4	-106.72	176.2	114.4	435.3	398.3	36.94	11.783	
12,125.0	12,052.3	12,146.4	12,123.5	23.5	18.3	-108.01	161.4	114.5	438.6	401.5	37.05	11.839	
12,150.0	12,066.9	12,180.1	12,152.4	23.5	18.2	-109.28	144.1	114.7	442.0	404.8	37.23	11.873	
12,175.0	12,080.4	12,215.1	12,181.0	23.4	18.2	-110.50	124.0	114.8	445.4	407.9	37.49	11.881	
12,200.0	12,092.9	12,251.4	12,209.1	23.4	18.1	-111.68	101.0	115.0	448.8	411.0	37.84	11.861	
12,225.0	12,104.1	12,289.2	12,236.3	23.4	18.0	-112.80	74.9	115.2	452.1	413.8	38.27	11.813	
12,250.0	12,114.2	12,328.3	12,262.3	23.4	18.0	-113.85	45.6	115.5	455.3	416.5	38.78	11.738	
12,275.0	12,123.1	12,368.9	12,286.6	23.4	17.9	-114.81	13.1	115.7	458.2	418.8	39.37	11.638	
12,300.0	12,130.7	12,410.7	12,308.7	23.4	17.9	-115.67	-22.4	116.0	460.8	420.8	40.01	11.519	
12,325.0	12,137.1	12,453.9	12,328.1	23.4	17.8	-116.42	-60.9	116.3	463.2	422.5	40.68	11.386	
12,350.0	12,142.3	12,498.1	12,344.3	23.4	17.8	-117.04	-102.0	116.6	465.1	423.7	41.35	11.246	
12,375.0	12,146.1	12,543.2	12,356.9	23.4	17.8	-117.52	-145.3	117.0	466.6	424.5	42.01	11.106	
12,400.0	12,148.6	12,588.9	12,365.4	23.4	17.8	-117.83	-190.3	117.3	467.5	424.9	42.62	10.970	
12,425.0	12,149.8	12,635.1	12,369.5	23.4	17.8	-117.99	-236.3	117.7	468.0	424.9	43.16	10.845	
12,435.9	12,150.0	12,655.4	12,370.0	23.4	17.8	-118.01	-256.5	117.9	468.1	424.7	43.36	10.794	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 706H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
12,500.0	12,150.0	12,719.4	12,370.0	23.5	17.9	-118.01	-320.5	118.4	468.1	424.4	43.66	10.720	
12,600.0	12,150.0	12,819.4	12,370.0	23.7	17.9	-118.01	-420.5	119.2	468.1	423.9	44.20	10.589	
12,700.0	12,150.0	12,919.4	12,370.0	23.9	18.0	-118.01	-520.5	120.0	468.1	423.3	44.81	10.445	
12,800.0	12,150.0	13,019.4	12,370.0	24.1	18.2	-118.01	-620.5	120.8	468.1	422.6	45.49	10.290	
12,900.0	12,150.0	13,119.4	12,370.0	24.3	18.4	-118.01	-720.5	121.6	468.1	421.8	46.23	10.125	
13,000.0	12,150.0	13,219.4	12,370.0	24.6	18.8	-118.01	-820.5	122.4	468.1	421.0	47.03	9.953	
13,100.0	12,150.0	13,319.4	12,370.0	24.9	19.1	-118.01	-920.5	123.2	468.1	420.2	47.88	9.775	
13,200.0	12,150.0	13,419.4	12,370.0	25.3	19.6	-118.01	-1,020.5	123.9	468.1	419.3	48.79	9.593	
13,300.0	12,150.0	13,519.4	12,370.0	25.6	20.1	-118.01	-1,120.5	124.7	468.1	418.3	49.75	9.407	
13,400.0	12,150.0	13,619.4	12,370.0	26.1	20.6	-118.01	-1,220.5	125.5	468.0	417.3	50.76	9.220	
13,500.0	12,150.0	13,719.4	12,370.0	26.5	21.2	-118.01	-1,320.5	126.3	468.0	416.2	51.82	9.033	
13,600.0	12,150.0	13,819.4	12,370.0	26.9	21.8	-118.01	-1,420.5	127.1	468.0	415.1	52.91	8.845	
13,700.0	12,150.0	13,919.4	12,370.0	27.4	22.5	-118.01	-1,520.5	127.9	468.0	414.0	54.05	8.659	
13,800.0	12,150.0	14,019.4	12,370.0	27.9	23.2	-118.01	-1,620.5	128.7	468.0	412.8	55.23	8.475	
13,900.0	12,150.0	14,119.4	12,370.0	28.5	23.8	-118.01	-1,720.5	129.5	468.0	411.6	56.44	8.293	
14,000.0	12,150.0	14,219.4	12,370.0	29.1	24.6	-118.01	-1,820.5	130.3	468.0	410.4	57.68	8.114	
14,100.0	12,150.0	14,319.4	12,370.0	29.6	25.3	-118.01	-1,920.5	131.1	468.0	409.1	58.95	7.939	
14,200.0	12,150.0	14,419.4	12,370.0	30.2	26.0	-118.01	-2,020.5	131.9	468.0	407.8	60.25	7.767	
14,300.0	12,150.0	14,519.4	12,370.0	30.9	26.8	-118.01	-2,120.5	132.7	468.0	406.4	61.58	7.600	
14,400.0	12,150.0	14,619.4	12,370.0	31.5	27.5	-118.01	-2,220.5	133.5	468.0	405.1	62.94	7.436	
14,500.0	12,150.0	14,719.4	12,370.0	32.2	28.3	-118.01	-2,320.5	134.3	468.0	403.7	64.32	7.277	
14,600.0	12,150.0	14,819.4	12,370.0	32.9	29.1	-118.01	-2,420.5	135.1	468.0	402.3	65.72	7.122	
14,700.0	12,150.0	14,919.4	12,370.0	33.6	29.9	-118.01	-2,520.5	135.9	468.0	400.9	67.14	6.971	
14,800.0	12,150.0	15,019.4	12,370.0	34.3	30.7	-118.01	-2,620.5	136.7	468.0	399.4	68.58	6.824	
14,900.0	12,150.0	15,119.4	12,370.0	35.0	31.6	-118.01	-2,720.5	137.5	468.0	398.0	70.04	6.682	
15,000.0	12,150.0	15,219.4	12,370.0	35.7	32.4	-118.01	-2,820.4	138.3	468.0	396.5	71.51	6.544	
15,100.0	12,150.0	15,319.4	12,370.0	36.5	33.2	-118.01	-2,920.4	139.1	468.0	395.0	73.00	6.410	
15,200.0	12,150.0	15,419.4	12,370.0	37.2	34.1	-118.01	-3,020.4	139.9	468.0	393.5	74.51	6.281	
15,300.0	12,150.0	15,519.4	12,370.0	38.0	34.9	-118.01	-3,120.4	140.6	468.0	392.0	76.03	6.155	
15,400.0	12,150.0	15,619.4	12,370.0	38.8	35.8	-118.01	-3,220.4	141.4	468.0	390.4	77.57	6.033	
15,500.0	12,150.0	15,719.4	12,370.0	39.6	36.6	-118.01	-3,320.4	142.2	468.0	388.9	79.12	5.915	
15,600.0	12,150.0	15,819.4	12,370.0	40.4	37.5	-118.01	-3,420.4	143.0	468.0	387.3	80.67	5.801	
15,700.0	12,150.0	15,919.4	12,370.0	41.2	38.4	-118.01	-3,520.4	143.8	468.0	385.7	82.24	5.690	
15,800.0	12,150.0	16,019.4	12,370.0	42.0	39.2	-118.01	-3,620.4	144.6	468.0	384.1	83.83	5.583	
15,900.0	12,150.0	16,119.4	12,370.0	42.8	40.1	-118.01	-3,720.4	145.4	468.0	382.6	85.42	5.479	
16,000.0	12,150.0	16,219.4	12,370.0	43.6	41.0	-118.01	-3,820.4	146.2	468.0	380.9	87.02	5.378	
16,100.0	12,150.0	16,319.4	12,370.0	44.5	41.9	-118.01	-3,920.4	147.0	468.0	379.3	88.63	5.280	
16,200.0	12,150.0	16,419.4	12,370.0	45.3	42.8	-118.01	-4,020.4	147.8	468.0	377.7	90.24	5.186	
16,300.0	12,150.0	16,519.4	12,370.0	46.1	43.7	-118.01	-4,120.4	148.6	468.0	376.1	91.87	5.094	
16,400.0	12,150.0	16,619.4	12,370.0	47.0	44.6	-118.02	-4,220.4	149.4	468.0	374.5	93.50	5.005	
16,500.0	12,150.0	16,719.4	12,370.0	47.8	45.5	-118.02	-4,320.4	150.2	467.9	372.8	95.14	4.918	
16,600.0	12,150.0	16,819.4	12,370.0	48.7	46.4	-118.02	-4,420.4	151.0	467.9	371.2	96.79	4.835	
16,700.0	12,150.0	16,919.4	12,370.0	49.5	47.3	-118.02	-4,520.4	151.8	467.9	369.5	98.44	4.754	
16,800.0	12,150.0	17,019.4	12,370.0	50.4	48.2	-118.02	-4,620.4	152.6	467.9	367.8	100.10	4.675	
16,900.0	12,150.0	17,119.4	12,370.0	51.3	49.1	-118.02	-4,720.4	153.4	467.9	366.2	101.77	4.598	
17,000.0	12,150.0	17,219.4	12,370.0	52.1	50.0	-118.02	-4,820.4	154.2	467.9	364.5	103.44	4.524	
17,100.0	12,150.0	17,319.4	12,370.0	53.0	50.9	-118.02	-4,920.4	155.0	467.9	362.8	105.11	4.452	
17,200.0	12,150.0	17,419.4	12,370.0	53.9	51.8	-118.02	-5,020.4	155.8	467.9	361.1	106.79	4.382	
17,300.0	12,150.0	17,519.4	12,370.0	54.8	52.8	-118.02	-5,120.4	156.6	467.9	359.4	108.48	4.313	
17,400.0	12,150.0	17,619.4	12,370.0	55.7	53.7	-118.02	-5,220.4	157.3	467.9	357.7	110.17	4.247	
17,500.0	12,150.0	17,719.4	12,370.0	56.5	54.6	-118.02	-5,320.4	158.1	467.9	356.1	111.87	4.183	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 706H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
17,600.0	12,150.0	17,819.4	12,370.0	57.4	55.5	-118.02	-5,420.4	158.9	467.9	354.3	113.56	4.120	
17,700.0	12,150.0	17,919.4	12,370.0	58.3	56.4	-118.02	-5,520.4	159.7	467.9	352.6	115.27	4.059	
17,800.0	12,150.0	18,019.4	12,370.0	59.2	57.4	-118.02	-5,620.4	160.5	467.9	350.9	116.97	4.000	
17,900.0	12,150.0	18,119.4	12,370.0	60.1	58.3	-118.02	-5,720.4	161.3	467.9	349.2	118.69	3.942	
18,000.0	12,150.0	18,219.4	12,370.0	61.0	59.2	-118.02	-5,820.4	162.1	467.9	347.5	120.40	3.886	
18,100.0	12,150.0	18,319.4	12,370.0	61.9	60.1	-118.02	-5,920.4	162.9	467.9	345.8	122.12	3.832	
18,200.0	12,150.0	18,419.4	12,370.0	62.8	61.1	-118.02	-6,020.3	163.7	467.9	344.1	123.84	3.778	
18,300.0	12,150.0	18,519.4	12,370.0	63.7	62.0	-118.02	-6,120.3	164.5	467.9	342.3	125.56	3.726	
18,400.0	12,150.0	18,619.4	12,370.0	64.6	62.9	-118.02	-6,220.3	165.3	467.9	340.6	127.29	3.676	
18,500.0	12,150.0	18,719.4	12,370.0	65.5	63.9	-118.02	-6,320.3	166.1	467.9	338.9	129.02	3.627	
18,600.0	12,150.0	18,819.4	12,370.0	66.4	64.8	-118.02	-6,420.3	166.9	467.9	337.1	130.75	3.578	
18,700.0	12,150.0	18,919.4	12,370.0	67.3	65.7	-118.02	-6,520.3	167.7	467.9	335.4	132.48	3.532	
18,800.0	12,150.0	19,019.4	12,370.0	68.3	66.7	-118.02	-6,620.3	168.5	467.9	333.7	134.22	3.486	
18,900.0	12,150.0	19,119.4	12,370.0	69.2	67.6	-118.02	-6,720.3	169.3	467.9	331.9	135.96	3.441	
19,000.0	12,150.0	19,219.4	12,370.0	70.1	68.5	-118.02	-6,820.3	170.1	467.9	330.2	137.70	3.398	
19,100.0	12,150.0	19,319.4	12,370.0	71.0	69.5	-118.02	-6,920.3	170.9	467.9	328.4	139.45	3.355	
19,200.0	12,150.0	19,419.4	12,370.0	71.9	70.4	-118.02	-7,020.3	171.7	467.9	326.7	141.19	3.314	
19,300.0	12,150.0	19,519.4	12,370.0	72.8	71.3	-118.02	-7,120.3	172.5	467.9	324.9	142.94	3.273	
19,400.0	12,150.0	19,619.4	12,370.0	73.8	72.3	-118.02	-7,220.3	173.3	467.9	323.2	144.69	3.233	
19,500.0	12,150.0	19,719.4	12,370.0	74.7	73.2	-118.02	-7,320.3	174.0	467.9	321.4	146.44	3.195	
19,600.0	12,150.0	19,819.4	12,370.0	75.6	74.2	-118.02	-7,420.3	174.8	467.8	319.7	148.20	3.157	
19,684.9	12,150.0	19,904.3	12,370.0	76.4	75.0	-118.02	-7,505.2	175.5	467.8	318.2	149.69	3.125 SF	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 707H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
4,900.0	4,890.2	5,079.4	5,023.6	16.1	16.6	-34.48	191.1	-1,193.8	991.4	961.2	30.18	32.848	
5,000.0	4,989.9	5,163.8	5,106.9	16.5	17.0	-34.37	196.1	-1,181.0	970.4	939.5	30.83	31.472	
5,100.0	5,089.7	5,248.7	5,190.9	16.9	17.3	-34.28	200.7	-1,169.2	950.7	919.2	31.48	30.202	
5,200.0	5,189.4	5,334.1	5,275.5	17.2	17.7	-34.22	204.8	-1,158.5	932.3	900.2	32.11	29.033	
5,300.0	5,289.1	5,419.9	5,360.8	17.6	18.0	-34.19	208.5	-1,149.0	915.3	882.5	32.74	27.960	
5,400.0	5,388.8	5,500.0	5,440.4	18.0	18.3	-34.19	211.5	-1,141.2	899.6	866.3	33.33	26.993	
5,500.0	5,488.6	5,592.7	5,532.7	18.3	18.7	-34.23	214.5	-1,133.5	885.3	851.4	33.95	26.081	
5,600.0	5,588.3	5,679.6	5,619.4	18.7	19.0	-34.30	216.9	-1,127.5	872.4	837.9	34.53	25.268	
5,700.0	5,688.0	5,766.8	5,706.4	19.1	19.3	-34.41	218.7	-1,122.7	860.9	825.8	35.09	24.535	
5,800.0	5,787.8	5,854.3	5,793.8	19.4	19.6	-34.56	220.1	-1,119.1	850.8	815.1	35.63	23.881	
5,900.0	5,887.5	5,941.9	5,881.4	19.8	19.8	-34.75	221.0	-1,116.8	842.1	805.9	36.13	23.304	
6,000.0	5,987.2	6,029.7	5,969.2	20.2	20.0	-34.97	221.4	-1,115.7	834.8	798.2	36.58	22.823	
6,088.6	6,075.6	6,113.9	6,053.4	20.5	20.1	-35.22	221.4	-1,115.7	829.3	792.4	36.86	22.498	
6,100.0	6,086.9	6,125.3	6,064.7	20.5	20.1	-35.24	221.4	-1,115.7	828.6	791.7	36.89	22.460	
6,200.0	6,186.7	6,225.1	6,164.5	20.9	20.1	-35.47	221.4	-1,115.7	823.5	786.2	37.23	22.116	
6,300.0	6,286.6	6,324.9	6,264.4	21.2	20.2	-35.63	221.4	-1,115.7	819.7	782.2	37.54	21.838	
6,400.0	6,386.6	6,424.9	6,364.4	21.5	20.2	-35.74	221.4	-1,115.7	817.4	779.6	37.82	21.614	
6,500.0	6,486.6	6,524.9	6,464.4	21.7	20.3	-35.78	221.4	-1,115.7	816.5	778.4	38.06	21.455	
6,513.4	6,500.0	6,538.3	6,477.8	21.7	20.3	-89.74	221.4	-1,115.7	816.5	778.4	38.07	21.446	
6,600.0	6,586.6	6,624.9	6,564.4	21.8	20.3	-89.74	221.4	-1,115.7	816.5	778.3	38.17	21.393	
6,700.0	6,686.6	6,724.9	6,664.4	21.8	20.4	-89.74	221.4	-1,115.7	816.5	778.2	38.27	21.335	
6,800.0	6,786.6	6,824.9	6,764.4	21.9	20.4	-89.74	221.4	-1,115.7	816.5	778.1	38.37	21.277	
6,900.0	6,886.6	6,924.9	6,864.4	21.9	20.5	-89.74	221.4	-1,115.7	816.5	778.0	38.48	21.220	
7,000.0	6,986.6	7,024.9	6,964.4	22.0	20.5	-89.74	221.4	-1,115.7	816.5	777.9	38.58	21.162	
7,100.0	7,086.6	7,124.9	7,064.4	22.0	20.6	-89.74	221.4	-1,115.7	816.5	777.8	38.69	21.105	
7,200.0	7,186.6	7,224.9	7,164.4	22.1	20.6	-89.74	221.4	-1,115.7	816.5	777.7	38.79	21.048	
7,300.0	7,286.6	7,324.9	7,264.4	22.1	20.7	-89.74	221.4	-1,115.7	816.5	777.6	38.90	20.991	
7,400.0	7,386.6	7,424.9	7,364.4	22.2	20.7	-89.74	221.4	-1,115.7	816.5	777.5	39.00	20.934	
7,500.0	7,486.6	7,524.9	7,464.4	22.2	20.8	-89.74	221.4	-1,115.7	816.5	777.4	39.11	20.877	
7,600.0	7,586.6	7,624.9	7,564.4	22.3	20.8	-89.74	221.4	-1,115.7	816.5	777.3	39.22	20.820	
7,700.0	7,686.6	7,724.9	7,664.4	22.3	20.9	-89.74	221.4	-1,115.7	816.5	777.2	39.32	20.763	
7,800.0	7,786.6	7,824.9	7,764.4	22.4	20.9	-89.74	221.4	-1,115.7	816.5	777.1	39.43	20.707	
7,900.0	7,886.6	7,924.9	7,864.4	22.4	21.0	-89.74	221.4	-1,115.7	816.5	776.9	39.54	20.650	
8,000.0	7,986.6	8,024.9	7,964.4	22.5	21.0	-89.74	221.4	-1,115.7	816.5	776.8	39.65	20.594	
8,100.0	8,086.6	8,124.9	8,064.4	22.5	21.1	-89.74	221.4	-1,115.7	816.5	776.7	39.76	20.538	
8,200.0	8,186.6	8,224.9	8,164.4	22.6	21.1	-89.74	221.4	-1,115.7	816.5	776.6	39.86	20.482	
8,300.0	8,286.6	8,324.9	8,264.4	22.6	21.2	-89.74	221.4	-1,115.7	816.5	776.5	39.97	20.426	
8,400.0	8,386.6	8,424.9	8,364.4	22.7	21.2	-89.74	221.4	-1,115.7	816.5	776.4	40.08	20.370	
8,500.0	8,486.6	8,524.9	8,464.4	22.7	21.3	-89.74	221.4	-1,115.7	816.5	776.3	40.19	20.314	
8,600.0	8,586.6	8,624.9	8,564.4	22.8	21.3	-89.74	221.4	-1,115.7	816.5	776.2	40.30	20.258	
8,700.0	8,686.6	8,724.9	8,664.4	22.8	21.4	-89.74	221.4	-1,115.7	816.5	776.1	40.41	20.203	
8,800.0	8,786.6	8,824.9	8,764.4	22.9	21.4	-89.74	221.4	-1,115.7	816.5	776.0	40.53	20.148	
8,900.0	8,886.6	8,924.9	8,864.4	22.9	21.5	-89.74	221.4	-1,115.7	816.5	775.8	40.64	20.092	
9,000.0	8,986.6	9,024.9	8,964.4	23.0	21.5	-89.74	221.4	-1,115.7	816.5	775.7	40.75	20.037	
9,100.0	9,086.6	9,124.9	9,064.4	23.0	21.6	-89.74	221.4	-1,115.7	816.5	775.6	40.86	19.982	
9,200.0	9,186.6	9,224.9	9,164.4	23.1	21.7	-89.74	221.4	-1,115.7	816.5	775.5	40.97	19.928	
9,300.0	9,286.6	9,324.9	9,264.4	23.1	21.7	-89.74	221.4	-1,115.7	816.5	775.4	41.09	19.873	
9,400.0	9,386.6	9,424.9	9,364.4	23.2	21.8	-89.74	221.4	-1,115.7	816.5	775.3	41.20	19.818	
9,500.0	9,486.6	9,524.9	9,464.4	23.2	21.8	-89.74	221.4	-1,115.7	816.5	775.2	41.31	19.764	
9,600.0	9,586.6	9,624.9	9,564.4	23.3	21.9	-89.74	221.4	-1,115.7	816.5	775.1	41.43	19.710	
9,700.0	9,686.6	9,724.9	9,664.4	23.3	21.9	-89.74	221.4	-1,115.7	816.5	774.9	41.54	19.656	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 707H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
9,800.0	9,786.6	9,824.9	9,764.4	23.4	22.0	-89.74	221.4	-1,115.7	816.5	774.8	41.65	19.602	
9,900.0	9,886.6	9,924.9	9,864.4	23.4	22.0	-89.74	221.4	-1,115.7	816.5	774.7	41.77	19.548	
10,000.0	9,986.6	10,024.9	9,964.4	23.5	22.1	-89.74	221.4	-1,115.7	816.5	774.6	41.88	19.495	
10,100.0	10,086.6	10,124.9	10,064.4	23.6	22.1	-89.74	221.4	-1,115.7	816.5	774.5	42.00	19.441	
10,200.0	10,186.6	10,224.9	10,164.4	23.6	22.2	-89.74	221.4	-1,115.7	816.5	774.4	42.11	19.388	
10,300.0	10,286.6	10,324.9	10,264.4	23.7	22.3	-89.74	221.4	-1,115.7	816.5	774.3	42.23	19.335	
10,400.0	10,386.6	10,424.9	10,364.4	23.7	22.3	-89.74	221.4	-1,115.7	816.5	774.1	42.35	19.282	
10,500.0	10,486.6	10,524.9	10,464.4	23.8	22.4	-89.74	221.4	-1,115.7	816.5	774.0	42.46	19.229	
10,600.0	10,586.6	10,624.9	10,564.4	23.8	22.4	-89.74	221.4	-1,115.7	816.5	773.9	42.58	19.176	
10,700.0	10,686.6	10,724.9	10,664.4	23.9	22.5	-89.74	221.4	-1,115.7	816.5	773.8	42.70	19.124	
10,800.0	10,786.6	10,824.9	10,764.4	23.9	22.5	-89.74	221.4	-1,115.7	816.5	773.7	42.81	19.071	
10,900.0	10,886.6	10,924.9	10,864.4	24.0	22.6	-89.74	221.4	-1,115.7	816.5	773.6	42.93	19.019	
11,000.0	10,986.6	11,024.9	10,964.4	24.0	22.7	-89.74	221.4	-1,115.7	816.5	773.4	43.05	18.967	
11,100.0	11,086.6	11,124.9	11,064.4	24.1	22.7	-89.74	221.4	-1,115.7	816.5	773.3	43.17	18.915	
11,200.0	11,186.6	11,224.9	11,164.4	24.1	22.8	-89.74	221.4	-1,115.7	816.5	773.2	43.28	18.863	
11,300.0	11,286.6	11,324.9	11,264.4	24.2	22.8	-89.74	221.4	-1,115.7	816.5	773.1	43.40	18.812	
11,400.0	11,386.6	11,424.9	11,364.4	24.3	22.9	-89.74	221.4	-1,115.7	816.5	773.0	43.52	18.760	
11,500.0	11,486.6	11,524.9	11,464.4	24.3	22.9	-89.74	221.4	-1,115.7	816.5	772.8	43.64	18.709	
11,600.0	11,586.6	11,624.9	11,564.4	24.4	23.0	-89.74	221.4	-1,115.7	816.5	772.7	43.76	18.658	
11,685.9	11,672.5	11,710.8	11,650.3	24.4	23.0	-89.74	221.4	-1,115.7	816.5	772.6	43.86	18.618 CC	
11,700.0	11,686.6	11,724.9	11,664.4	24.4	23.0	90.74	221.4	-1,115.7	816.5	772.6	43.86	18.615	
11,725.0	11,711.5	11,750.2	11,689.7	24.4	23.0	90.81	221.1	-1,115.7	816.5	772.6	43.86	18.614	
11,750.0	11,736.4	11,775.8	11,715.2	24.3	23.0	90.89	219.5	-1,115.7	816.5	772.7	43.86	18.618	
11,775.0	11,761.1	11,801.4	11,740.7	24.3	23.0	90.97	216.6	-1,115.6	816.5	772.7	43.85	18.623	
11,800.0	11,785.5	11,827.1	11,766.0	24.2	22.9	91.04	212.2	-1,115.6	816.6	772.7	43.83	18.629	
11,825.0	11,809.6	11,852.9	11,791.1	24.1	22.9	91.11	206.5	-1,115.6	816.6	772.8	43.82	18.635	
11,850.0	11,833.4	11,878.7	11,815.9	24.1	22.9	91.18	199.4	-1,115.5	816.6	772.8	43.81	18.642	
11,875.0	11,856.7	11,904.5	11,840.3	24.0	22.8	91.24	191.0	-1,115.5	816.7	772.9	43.79	18.650	
11,900.0	11,879.5	11,930.4	11,864.3	24.0	22.8	91.30	181.2	-1,115.4	816.7	772.9	43.77	18.658	
11,925.0	11,901.7	11,956.4	11,887.8	23.9	22.8	91.36	170.1	-1,115.3	816.7	773.0	43.75	18.666	
11,950.0	11,923.3	11,982.4	11,910.7	23.8	22.7	91.42	157.8	-1,115.3	816.8	773.0	43.74	18.675	
11,975.0	11,944.2	12,008.5	11,932.9	23.8	22.7	91.47	144.2	-1,115.2	816.8	773.1	43.72	18.684	
12,000.0	11,964.4	12,034.6	11,954.4	23.7	22.6	91.51	129.4	-1,115.1	816.8	773.1	43.70	18.692	
12,025.0	11,983.8	12,060.7	11,975.1	23.7	22.6	91.55	113.3	-1,115.0	816.9	773.2	43.68	18.700	
12,050.0	12,002.3	12,086.9	11,994.8	23.6	22.6	91.59	96.2	-1,114.8	816.9	773.2	43.67	18.707	
12,075.0	12,019.9	12,113.1	12,013.7	23.6	22.5	91.62	78.0	-1,114.7	816.9	773.3	43.66	18.713	
12,100.0	12,036.6	12,139.3	12,031.5	23.5	22.5	91.65	58.8	-1,114.6	817.0	773.3	43.65	18.718	
12,125.0	12,052.3	12,165.6	12,048.3	23.5	22.5	91.67	38.5	-1,114.5	817.0	773.4	43.64	18.722	
12,150.0	12,066.9	12,191.9	12,063.9	23.5	22.5	91.69	17.4	-1,114.3	817.1	773.4	43.64	18.724	
12,175.0	12,080.4	12,218.2	12,078.4	23.4	22.5	91.70	-4.5	-1,114.2	817.1	773.5	43.64	18.725	
12,200.0	12,092.9	12,244.5	12,091.6	23.4	22.5	91.71	-27.3	-1,114.0	817.1	773.5	43.64	18.724	
12,225.0	12,104.1	12,270.8	12,103.6	23.4	22.5	91.72	-50.7	-1,113.9	817.2	773.5	43.65	18.720	
12,250.0	12,114.2	12,297.1	12,114.2	23.4	22.5	91.71	-74.8	-1,113.7	817.2	773.5	43.67	18.714	
12,275.0	12,123.1	12,323.5	12,123.5	23.4	22.5	91.71	-99.4	-1,113.6	817.2	773.5	43.69	18.706	
12,300.0	12,130.7	12,349.8	12,131.5	23.4	22.5	91.70	-124.5	-1,113.4	817.3	773.5	43.71	18.696	
12,325.0	12,137.1	12,376.1	12,138.0	23.4	22.5	91.68	-150.0	-1,113.2	817.3	773.5	43.75	18.682	
12,350.0	12,142.3	12,402.4	12,143.2	23.4	22.5	91.66	-175.7	-1,113.0	817.3	773.5	43.78	18.667	
12,375.0	12,146.1	12,428.7	12,146.9	23.4	22.5	91.63	-201.8	-1,112.9	817.3	773.5	43.83	18.648	
12,400.0	12,148.6	12,454.9	12,149.1	23.4	22.6	91.60	-227.9	-1,112.7	817.4	773.5	43.88	18.628	
12,425.0	12,149.8	12,481.2	12,150.0	23.4	22.6	91.57	-254.1	-1,112.5	817.4	773.4	43.93	18.605	
12,435.9	12,150.0	12,492.2	12,150.0	23.4	22.6	91.56	-265.2	-1,112.5	817.4	773.4	43.96	18.593	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 707H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
12,500.0	12,150.0	12,556.2	12,150.0	23.5	22.7	91.56	-329.2	-1,112.0	817.5	773.3	44.16	18.512	
12,600.0	12,150.0	12,656.2	12,150.0	23.7	22.9	91.56	-429.2	-1,111.4	817.6	773.1	44.54	18.358	
12,700.0	12,150.0	12,756.2	12,150.0	23.9	23.1	91.56	-529.2	-1,110.7	817.8	772.8	44.99	18.175	
12,800.0	12,150.0	12,856.2	12,150.0	24.1	23.4	91.56	-629.2	-1,110.0	817.9	772.4	45.53	17.965	
12,900.0	12,150.0	12,956.2	12,150.0	24.3	23.7	91.56	-729.2	-1,109.4	818.0	771.9	46.13	17.733	
13,000.0	12,150.0	13,056.2	12,150.0	24.6	24.0	91.55	-829.2	-1,108.7	818.2	771.4	46.81	17.480	
13,100.0	12,150.0	13,156.2	12,150.0	24.9	24.4	91.55	-929.2	-1,108.1	818.3	770.8	47.55	17.210	
13,200.0	12,150.0	13,256.2	12,150.0	25.3	24.8	91.55	-1,029.2	-1,107.4	818.4	770.1	48.35	16.926	
13,300.0	12,150.0	13,356.2	12,150.0	25.6	25.2	91.55	-1,129.2	-1,106.7	818.6	769.4	49.22	16.631	
13,400.0	12,150.0	13,456.2	12,150.0	26.1	25.7	91.55	-1,229.2	-1,106.1	818.7	768.6	50.14	16.327	
13,500.0	12,150.0	13,556.2	12,150.0	26.5	26.2	91.55	-1,329.2	-1,105.4	818.9	767.7	51.12	16.017	
13,600.0	12,150.0	13,656.2	12,150.0	26.9	26.7	91.55	-1,429.2	-1,104.8	819.0	766.8	52.15	15.703	
13,700.0	12,150.0	13,756.2	12,150.0	27.4	27.2	91.55	-1,529.2	-1,104.1	819.1	765.9	53.23	15.388	
13,800.0	12,150.0	13,856.2	12,150.0	27.9	27.8	91.55	-1,629.2	-1,103.4	819.3	764.9	54.36	15.072	
13,900.0	12,150.0	13,956.2	12,150.0	28.5	28.3	91.55	-1,729.2	-1,102.8	819.4	763.9	55.52	14.758	
14,000.0	12,150.0	14,056.2	12,150.0	29.1	28.9	91.55	-1,829.2	-1,102.1	819.5	762.8	56.73	14.446	
14,100.0	12,150.0	14,156.2	12,150.0	29.6	29.5	91.55	-1,929.2	-1,101.5	819.7	761.7	57.98	14.138	
14,200.0	12,150.0	14,256.2	12,150.0	30.2	30.2	91.55	-2,029.2	-1,100.8	819.8	760.6	59.25	13.835	
14,300.0	12,150.0	14,356.2	12,150.0	30.9	30.8	91.55	-2,129.2	-1,100.1	820.0	759.4	60.57	13.538	
14,400.0	12,150.0	14,456.2	12,150.0	31.5	31.5	91.55	-2,229.2	-1,099.5	820.1	758.2	61.91	13.246	
14,500.0	12,150.0	14,556.2	12,150.0	32.2	32.2	91.55	-2,329.2	-1,098.8	820.2	757.0	63.28	12.961	
14,600.0	12,150.0	14,656.2	12,150.0	32.9	32.9	91.55	-2,429.2	-1,098.1	820.4	755.7	64.68	12.683	
14,700.0	12,150.0	14,756.2	12,150.0	33.6	33.6	91.55	-2,529.2	-1,097.5	820.5	754.4	66.11	12.412	
14,800.0	12,150.0	14,856.2	12,150.0	34.3	34.3	91.55	-2,629.2	-1,096.8	820.6	753.1	67.55	12.148	
14,900.0	12,150.0	14,956.2	12,150.0	35.0	35.0	91.55	-2,729.2	-1,096.2	820.8	751.8	69.02	11.891	
15,000.0	12,150.0	15,056.2	12,150.0	35.7	35.8	91.55	-2,829.2	-1,095.5	820.9	750.4	70.51	11.642	
15,100.0	12,150.0	15,156.2	12,150.0	36.5	36.5	91.55	-2,929.2	-1,094.8	821.1	749.0	72.03	11.400	
15,200.0	12,150.0	15,256.2	12,150.0	37.2	37.3	91.55	-3,029.2	-1,094.2	821.2	747.6	73.55	11.165	
15,300.0	12,150.0	15,356.2	12,150.0	38.0	38.1	91.55	-3,129.2	-1,093.5	821.3	746.2	75.10	10.937	
15,400.0	12,150.0	15,456.2	12,150.0	38.8	38.8	91.55	-3,229.2	-1,092.9	821.5	744.8	76.66	10.716	
15,500.0	12,150.0	15,556.2	12,150.0	39.6	39.6	91.55	-3,329.2	-1,092.2	821.6	743.4	78.24	10.501	
15,600.0	12,150.0	15,656.2	12,150.0	40.4	40.4	91.55	-3,429.1	-1,091.5	821.7	741.9	79.83	10.294	
15,700.0	12,150.0	15,756.2	12,150.0	41.2	41.2	91.55	-3,529.1	-1,090.9	821.9	740.5	81.43	10.093	
15,800.0	12,150.0	15,856.2	12,150.0	42.0	42.1	91.55	-3,629.1	-1,090.2	822.0	739.0	83.05	9.898	
15,900.0	12,150.0	15,956.2	12,150.0	42.8	42.9	91.55	-3,729.1	-1,089.5	822.2	737.5	84.68	9.709	
16,000.0	12,150.0	16,056.2	12,150.0	43.6	43.7	91.55	-3,829.1	-1,088.9	822.3	736.0	86.32	9.526	
16,100.0	12,150.0	16,156.2	12,150.0	44.5	44.5	91.55	-3,929.1	-1,088.2	822.4	734.5	87.97	9.349	
16,200.0	12,150.0	16,256.2	12,150.0	45.3	45.4	91.55	-4,029.1	-1,087.6	822.6	732.9	89.63	9.177	
16,300.0	12,150.0	16,356.2	12,150.0	46.1	46.2	91.55	-4,129.1	-1,086.9	822.7	731.4	91.30	9.011	
16,400.0	12,150.0	16,456.2	12,150.0	47.0	47.0	91.55	-4,229.1	-1,086.2	822.8	729.9	92.98	8.850	
16,500.0	12,150.0	16,556.2	12,150.0	47.8	47.9	91.55	-4,329.1	-1,085.6	823.0	728.3	94.67	8.694	
16,600.0	12,150.0	16,656.2	12,150.0	48.7	48.7	91.55	-4,429.1	-1,084.9	823.1	726.8	96.36	8.542	
16,700.0	12,150.0	16,756.2	12,150.0	49.5	49.6	91.55	-4,529.1	-1,084.3	823.3	725.2	98.06	8.395	
16,800.0	12,150.0	16,856.2	12,150.0	50.4	50.5	91.54	-4,629.1	-1,083.6	823.4	723.6	99.77	8.253	
16,900.0	12,150.0	16,956.2	12,150.0	51.3	51.3	91.54	-4,729.1	-1,082.9	823.5	722.0	101.49	8.114	
17,000.0	12,150.0	17,056.2	12,150.0	52.1	52.2	91.54	-4,829.1	-1,082.3	823.7	720.5	103.21	7.980	
17,100.0	12,150.0	17,156.2	12,150.0	53.0	53.1	91.54	-4,929.1	-1,081.6	823.8	718.9	104.94	7.850	
17,200.0	12,150.0	17,256.2	12,150.0	53.9	53.9	91.54	-5,029.1	-1,081.0	823.9	717.3	106.68	7.724	
17,300.0	12,150.0	17,356.2	12,150.0	54.8	54.8	91.54	-5,129.1	-1,080.3	824.1	715.7	108.42	7.601	
17,400.0	12,150.0	17,456.2	12,150.0	55.7	55.7	91.54	-5,229.1	-1,079.6	824.2	714.1	110.17	7.482	
17,500.0	12,150.0	17,556.2	12,150.0	56.5	56.6	91.54	-5,329.1	-1,079.0	824.4	712.4	111.92	7.366	

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 707H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
17,600.0	12,150.0	17,656.2	12,150.0	57.4	57.5	91.54	-5,429.1	-1,078.3	824.5	710.8	113.67	7.253	
17,700.0	12,150.0	17,756.2	12,150.0	58.3	58.4	91.54	-5,529.1	-1,077.6	824.6	709.2	115.43	7.144	
17,800.0	12,150.0	17,856.2	12,150.0	59.2	59.3	91.54	-5,629.1	-1,077.0	824.8	707.6	117.20	7.037	
17,900.0	12,150.0	17,956.2	12,150.0	60.1	60.1	91.54	-5,729.1	-1,076.3	824.9	705.9	118.97	6.934	
18,000.0	12,150.0	18,056.2	12,150.0	61.0	61.0	91.54	-5,829.1	-1,075.7	825.0	704.3	120.74	6.833	
18,100.0	12,150.0	18,156.2	12,150.0	61.9	61.9	91.54	-5,929.1	-1,075.0	825.2	702.7	122.52	6.735	
18,200.0	12,150.0	18,256.2	12,150.0	62.8	62.8	91.54	-6,029.1	-1,074.3	825.3	701.0	124.30	6.640	
18,300.0	12,150.0	18,356.2	12,150.0	63.7	63.7	91.54	-6,129.1	-1,073.7	825.5	699.4	126.08	6.547	
18,400.0	12,150.0	18,456.2	12,150.0	64.6	64.6	91.54	-6,229.1	-1,073.0	825.6	697.7	127.87	6.456	
18,500.0	12,150.0	18,556.2	12,150.0	65.5	65.5	91.54	-6,329.1	-1,072.4	825.7	696.1	129.66	6.368	
18,600.0	12,150.0	18,656.2	12,150.0	66.4	66.5	91.54	-6,429.1	-1,071.7	825.9	694.4	131.46	6.282	
18,700.0	12,150.0	18,756.2	12,150.0	67.3	67.4	91.54	-6,529.1	-1,071.0	826.0	692.8	133.25	6.199	
18,800.0	12,150.0	18,856.2	12,150.0	68.3	68.3	91.54	-6,629.1	-1,070.4	826.2	691.1	135.05	6.117	
18,900.0	12,150.0	18,956.2	12,150.0	69.2	69.2	91.54	-6,729.1	-1,069.7	826.3	689.4	136.86	6.038	
19,000.0	12,150.0	19,056.2	12,150.0	70.1	70.1	91.54	-6,829.1	-1,069.1	826.4	687.8	138.66	5.960	
19,100.0	12,150.0	19,156.2	12,150.0	71.0	71.0	91.54	-6,929.1	-1,068.4	826.6	686.1	140.47	5.884	
19,200.0	12,150.0	19,256.2	12,150.0	71.9	71.9	91.54	-7,029.1	-1,067.7	826.7	684.4	142.28	5.810	
19,300.0	12,150.0	19,356.2	12,150.0	72.8	72.8	91.54	-7,129.1	-1,067.1	826.8	682.7	144.09	5.738	
19,400.0	12,150.0	19,456.2	12,150.0	73.8	73.8	91.54	-7,229.1	-1,066.4	827.0	681.1	145.91	5.668	
19,500.0	12,150.0	19,556.2	12,150.0	74.7	74.7	91.54	-7,329.1	-1,065.7	827.1	679.4	147.72	5.599	
19,600.0	12,150.0	19,656.2	12,150.0	75.6	75.6	91.54	-7,429.1	-1,065.1	827.3	677.7	149.54	5.532	
19,684.9	12,150.0	19,741.1	12,150.0	76.4	76.4	91.54	-7,513.9	-1,064.5	827.4	676.3	151.09	5.476 ES, SF	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 708H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
4,100.0	4,092.4	4,448.8	4,359.8	13.3	14.5	-36.71	125.1	-1,091.7	968.5	942.4	26.11	37.101	
4,200.0	4,192.1	4,542.2	4,448.7	13.6	14.9	-36.56	131.5	-1,063.8	933.0	906.2	26.84	34.765	
4,300.0	4,291.9	4,635.7	4,537.7	14.0	15.3	-36.41	137.9	-1,035.9	897.5	869.9	27.57	32.548	
4,400.0	4,391.6	4,729.1	4,626.7	14.3	15.8	-36.24	144.3	-1,008.1	862.0	833.7	28.32	30.442	
4,500.0	4,491.3	4,822.6	4,715.7	14.7	16.2	-36.06	150.7	-980.2	826.5	797.5	29.06	28.445	
4,600.0	4,591.0	4,908.9	4,797.9	15.1	16.6	-35.88	156.6	-954.7	791.3	761.5	29.78	26.574	
4,700.0	4,690.8	4,992.0	4,877.4	15.4	17.0	-35.71	162.0	-931.2	757.3	726.8	30.52	24.817	
4,800.0	4,790.5	5,075.9	4,958.1	15.8	17.4	-35.56	167.2	-908.6	724.7	693.5	31.25	23.188	
4,900.0	4,890.2	5,160.7	5,039.9	16.1	17.8	-35.41	172.2	-887.0	693.5	661.5	31.99	21.679	
5,000.0	4,989.9	5,246.3	5,122.8	16.5	18.2	-35.28	177.0	-866.3	663.6	630.9	32.72	20.282	
5,100.0	5,089.7	5,332.6	5,206.8	16.9	18.6	-35.17	181.5	-846.7	635.1	601.6	33.44	18.990	
5,200.0	5,189.4	5,419.7	5,291.8	17.2	19.0	-35.08	185.8	-828.2	608.0	573.8	34.16	17.799	
5,300.0	5,289.1	5,507.5	5,377.8	17.6	19.3	-35.01	189.8	-810.8	582.4	547.5	34.87	16.701	
5,400.0	5,388.8	5,600.0	5,468.6	18.0	19.8	-34.97	193.7	-793.9	558.2	522.6	35.58	15.687	
5,500.0	5,488.6	5,685.2	5,552.5	18.3	20.1	-34.97	197.0	-779.5	535.4	499.2	36.26	14.766	
5,600.0	5,588.3	5,774.9	5,641.1	18.7	20.5	-35.01	200.2	-765.7	514.2	477.2	36.94	13.920	
5,700.0	5,688.0	5,865.2	5,730.5	19.1	20.9	-35.09	203.0	-753.2	494.4	456.8	37.60	13.150	
5,800.0	5,787.8	5,956.1	5,820.6	19.4	21.3	-35.22	205.6	-742.0	476.1	437.9	38.24	12.451	
5,900.0	5,887.5	6,047.4	5,911.4	19.8	21.6	-35.40	207.9	-732.2	459.4	420.5	38.87	11.820	
6,000.0	5,987.2	6,139.2	6,002.8	20.2	22.0	-35.64	209.8	-723.7	444.2	404.7	39.47	11.254	
6,088.6	6,075.6	6,220.9	6,084.2	20.5	22.3	-35.91	211.3	-717.4	432.0	392.0	39.98	10.806	
6,100.0	6,086.9	6,231.4	6,094.7	20.5	22.3	-35.94	211.5	-716.6	430.5	390.5	40.04	10.753	
6,200.0	6,186.7	6,324.1	6,187.1	20.9	22.7	-36.16	212.8	-711.0	419.3	378.7	40.60	10.328	
6,300.0	6,286.6	6,417.1	6,280.1	21.2	23.0	-36.33	213.7	-706.8	411.1	370.0	41.10	10.001	
6,400.0	6,386.6	6,510.5	6,373.4	21.5	23.2	-36.44	214.4	-704.0	405.8	364.3	41.55	9.767	
6,500.0	6,486.6	6,604.0	6,466.9	21.7	23.5	-36.47	214.7	-702.7	403.6	361.7	41.90	9.631	
6,513.4	6,500.0	6,616.6	6,479.5	21.7	23.5	-90.43	214.7	-702.7	403.5	361.6	41.92	9.626	
6,552.1	6,538.6	6,653.8	6,516.7	21.8	23.5	-90.43	214.7	-702.6	403.5	361.5	41.95	9.617	
6,600.0	6,586.6	6,701.8	6,564.7	21.8	23.5	-90.43	214.7	-702.6	403.5	361.5	41.99	9.608	
6,700.0	6,686.6	6,801.8	6,664.7	21.8	23.6	-90.43	214.7	-702.6	403.5	361.4	42.08	9.587	
6,800.0	6,786.6	6,901.8	6,764.7	21.9	23.6	-90.43	214.7	-702.6	403.5	361.3	42.17	9.566	
6,900.0	6,886.6	7,001.8	6,864.7	21.9	23.6	-90.43	214.7	-702.6	403.5	361.2	42.27	9.546	
7,000.0	6,986.6	7,101.8	6,964.7	22.0	23.7	-90.43	214.7	-702.6	403.5	361.1	42.36	9.525	
7,100.0	7,086.6	7,201.8	7,064.7	22.0	23.7	-90.43	214.7	-702.6	403.5	361.0	42.45	9.504	
7,200.0	7,186.6	7,301.8	7,164.7	22.1	23.8	-90.43	214.7	-702.6	403.5	360.9	42.54	9.483	
7,300.0	7,286.6	7,401.8	7,264.7	22.1	23.8	-90.43	214.7	-702.6	403.5	360.8	42.64	9.462	
7,400.0	7,386.6	7,501.8	7,364.7	22.2	23.8	-90.43	214.7	-702.6	403.5	360.7	42.73	9.442	
7,500.0	7,486.6	7,601.8	7,464.7	22.2	23.9	-90.43	214.7	-702.6	403.5	360.6	42.83	9.421	
7,600.0	7,586.6	7,701.8	7,564.7	22.3	23.9	-90.43	214.7	-702.6	403.5	360.5	42.92	9.400	
7,700.0	7,686.6	7,801.8	7,664.7	22.3	24.0	-90.43	214.7	-702.6	403.5	360.4	43.02	9.379	
7,800.0	7,786.6	7,901.8	7,764.7	22.4	24.0	-90.43	214.7	-702.6	403.5	360.3	43.11	9.359	
7,900.0	7,886.6	8,001.8	7,864.7	22.4	24.1	-90.43	214.7	-702.6	403.5	360.3	43.21	9.338	
8,000.0	7,986.6	8,101.8	7,964.7	22.5	24.1	-90.43	214.7	-702.6	403.5	360.2	43.30	9.317	
8,100.0	8,086.6	8,201.8	8,064.7	22.5	24.1	-90.43	214.7	-702.6	403.5	360.1	43.40	9.296	
8,200.0	8,186.6	8,301.8	8,164.7	22.6	24.2	-90.43	214.7	-702.6	403.5	360.0	43.50	9.276	
8,300.0	8,286.6	8,401.8	8,264.7	22.6	24.2	-90.43	214.7	-702.6	403.5	359.9	43.59	9.255	
8,400.0	8,386.6	8,501.8	8,364.7	22.7	24.3	-90.43	214.7	-702.6	403.5	359.8	43.69	9.234	
8,500.0	8,486.6	8,601.8	8,464.7	22.7	24.3	-90.43	214.7	-702.6	403.5	359.7	43.79	9.213	
8,600.0	8,586.6	8,701.8	8,564.7	22.8	24.4	-90.43	214.7	-702.6	403.5	359.6	43.89	9.193	
8,700.0	8,686.6	8,801.8	8,664.7	22.8	24.4	-90.43	214.7	-702.6	403.5	359.5	43.99	9.172	
8,800.0	8,786.6	8,901.8	8,764.7	22.9	24.4	-90.43	214.7	-702.6	403.5	359.4	44.09	9.151	

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

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Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 708H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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)	Rule Assigned: No-Go Distance (usft)	Separation Factor	Warning
8,900.0	8,886.6	9,001.8	8,864.7	22.9	24.5	-90.43	214.7	-702.6	403.5	359.3	44.19	9.131	
9,000.0	8,986.6	9,101.8	8,964.7	23.0	24.5	-90.43	214.7	-702.6	403.5	359.2	44.29	9.110	
9,100.0	9,086.6	9,201.8	9,064.7	23.0	24.6	-90.43	214.7	-702.6	403.5	359.1	44.39	9.089	
9,200.0	9,186.6	9,301.8	9,164.7	23.1	24.6	-90.43	214.7	-702.6	403.5	359.0	44.49	9.069	
9,300.0	9,286.6	9,401.8	9,264.7	23.1	24.7	-90.43	214.7	-702.6	403.5	358.9	44.59	9.048	
9,400.0	9,386.6	9,501.8	9,364.7	23.2	24.7	-90.43	214.7	-702.6	403.5	358.8	44.69	9.028	
9,500.0	9,486.6	9,601.8	9,464.7	23.2	24.8	-90.43	214.7	-702.6	403.5	358.7	44.79	9.007	
9,600.0	9,586.6	9,701.8	9,564.7	23.3	24.8	-90.43	214.7	-702.6	403.5	358.6	44.89	8.987	
9,700.0	9,686.6	9,801.8	9,664.7	23.3	24.8	-90.43	214.7	-702.6	403.5	358.5	45.00	8.966	
9,800.0	9,786.6	9,901.8	9,764.7	23.4	24.9	-90.43	214.7	-702.6	403.5	358.4	45.10	8.946	
9,900.0	9,886.6	10,001.8	9,864.7	23.4	24.9	-90.43	214.7	-702.6	403.5	358.3	45.20	8.925	
10,000.0	9,986.6	10,101.8	9,964.7	23.5	25.0	-90.43	214.7	-702.6	403.5	358.2	45.31	8.905	
10,100.0	10,086.6	10,201.8	10,064.7	23.6	25.0	-90.43	214.7	-702.6	403.5	358.0	45.41	8.885	
10,200.0	10,186.6	10,301.8	10,164.7	23.6	25.1	-90.43	214.7	-702.6	403.5	357.9	45.52	8.864	
10,300.0	10,286.6	10,401.8	10,264.7	23.7	25.1	-90.43	214.7	-702.6	403.5	357.8	45.62	8.844	
10,400.0	10,386.6	10,501.8	10,364.7	23.7	25.2	-90.43	214.7	-702.6	403.5	357.7	45.72	8.824	
10,500.0	10,486.6	10,601.8	10,464.7	23.8	25.2	-90.43	214.7	-702.6	403.5	357.6	45.83	8.803	
10,600.0	10,586.6	10,701.8	10,564.7	23.8	25.3	-90.43	214.7	-702.6	403.5	357.5	45.94	8.783	
10,700.0	10,686.6	10,801.8	10,664.7	23.9	25.3	-90.43	214.7	-702.6	403.5	357.4	46.04	8.763	
10,800.0	10,786.6	10,901.8	10,764.7	23.9	25.4	-90.43	214.7	-702.6	403.5	357.3	46.15	8.743	
10,900.0	10,886.6	11,001.8	10,864.7	24.0	25.4	-90.43	214.7	-702.6	403.5	357.2	46.25	8.723	
11,000.0	10,986.6	11,101.8	10,964.7	24.0	25.5	-90.43	214.7	-702.6	403.5	357.1	46.36	8.703	
11,100.0	11,086.6	11,201.8	11,064.7	24.1	25.5	-90.43	214.7	-702.6	403.5	357.0	46.47	8.683	
11,200.0	11,186.6	11,301.8	11,164.7	24.1	25.6	-90.43	214.7	-702.6	403.5	356.9	46.58	8.663	
11,300.0	11,286.6	11,401.8	11,264.7	24.2	25.6	-90.43	214.7	-702.6	403.5	356.8	46.68	8.643	
11,400.0	11,386.6	11,501.8	11,364.7	24.3	25.7	-90.43	214.7	-702.6	403.5	356.7	46.79	8.623	
11,500.0	11,486.6	11,601.8	11,464.7	24.3	25.7	-90.43	214.7	-702.6	403.5	356.6	46.90	8.603	
11,600.0	11,586.6	11,701.8	11,564.7	24.4	25.8	-90.43	214.7	-702.6	403.5	356.5	47.01	8.583	
11,685.9	11,672.5	11,787.7	11,650.6	24.4	25.8	-90.43	214.7	-702.6	403.5	356.4	47.10	8.567 CC	
11,700.0	11,686.6	11,801.8	11,664.7	24.4	25.8	90.06	214.7	-702.6	403.5	356.4	47.11	8.565	
11,725.0	11,711.5	11,826.7	11,689.6	24.4	25.8	90.26	214.7	-702.6	403.5	356.3	47.13	8.561	
11,750.0	11,736.4	11,851.6	11,714.5	24.3	25.8	90.63	214.7	-702.6	403.5	356.3	47.16	8.556	
11,775.0	11,761.1	11,876.2	11,739.2	24.3	25.8	91.19	214.7	-702.6	403.6	356.4	47.19	8.551	
11,800.0	11,785.5	11,900.7	11,763.6	24.2	25.8	91.90	214.7	-702.6	403.7	356.5	47.24	8.546	
11,825.0	11,809.6	11,924.8	11,787.7	24.1	25.9	92.76	214.7	-702.6	404.0	356.7	47.28	8.544	
11,850.0	11,833.4	11,948.5	11,811.5	24.1	25.9	93.76	214.7	-702.6	404.4	357.1	47.33	8.546	
11,875.0	11,856.7	11,971.8	11,834.8	24.0	25.9	94.86	214.7	-702.6	405.2	357.8	47.37	8.554	
11,900.0	11,879.5	11,994.7	11,857.6	24.0	25.9	96.04	214.7	-702.6	406.2	358.8	47.40	8.571	
11,925.0	11,901.7	12,016.9	11,879.8	23.9	25.9	97.29	214.7	-702.6	407.7	360.3	47.41	8.600	
11,950.0	11,923.3	12,040.0	11,903.0	23.8	25.9	98.66	214.6	-702.6	409.7	362.3	47.41	8.642	
11,975.0	11,944.2	12,065.8	11,928.6	23.8	25.9	100.18	213.3	-702.6	412.1	364.7	47.41	8.692	
12,000.0	11,964.4	12,092.4	11,955.1	23.7	25.9	101.68	210.6	-702.6	414.9	367.5	47.40	8.752	
12,025.0	11,983.8	12,119.9	11,982.3	23.7	25.8	103.19	206.2	-702.6	417.9	370.6	47.39	8.819	
12,050.0	12,002.3	12,148.5	12,010.2	23.6	25.8	104.68	200.0	-702.5	421.3	374.0	47.38	8.893	
12,075.0	12,019.9	12,178.3	12,038.8	23.6	25.8	106.16	191.7	-702.5	425.0	377.6	47.38	8.971	
12,100.0	12,036.6	12,209.3	12,068.0	23.5	25.7	107.63	181.3	-702.4	428.9	381.5	47.39	9.050	
12,125.0	12,052.3	12,241.6	12,097.6	23.5	25.7	109.08	168.4	-702.3	433.0	385.6	47.43	9.129	
12,150.0	12,066.9	12,275.4	12,127.6	23.5	25.7	110.51	152.8	-702.2	437.2	389.7	47.51	9.204	
12,175.0	12,080.4	12,310.8	12,157.8	23.4	25.6	111.90	134.2	-702.1	441.5	393.9	47.62	9.271	
12,200.0	12,092.9	12,347.9	12,187.8	23.4	25.6	113.26	112.5	-702.0	445.8	398.0	47.79	9.329	
12,225.0	12,104.1	12,386.7	12,217.3	23.4	25.6	114.57	87.2	-701.8	450.0	402.0	48.01	9.373	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 708H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
12,250.0	12,114.2	12,427.4	12,245.8	23.4	25.6	115.81	58.4	-701.6	454.0	405.7	48.29	9.403	
12,275.0	12,123.1	12,469.8	12,273.0	23.4	25.5	116.96	25.7	-701.4	457.8	409.2	48.62	9.417	
12,300.0	12,130.7	12,514.1	12,298.0	23.4	25.5	118.01	-10.8	-701.2	461.3	412.3	48.99	9.416	
12,325.0	12,137.1	12,560.1	12,320.4	23.4	25.5	118.93	-50.9	-700.9	464.3	414.9	49.39	9.401	
12,350.0	12,142.3	12,607.6	12,339.3	23.4	25.5	119.69	-94.5	-700.6	466.9	417.1	49.80	9.375	
12,375.0	12,146.1	12,656.5	12,354.2	23.4	25.5	120.29	-141.0	-700.3	468.8	418.7	50.18	9.343	
12,400.0	12,148.6	12,706.3	12,364.4	23.4	25.6	120.69	-189.8	-700.0	470.2	419.7	50.51	9.308	
12,425.0	12,149.8	12,756.7	12,369.4	23.4	25.6	120.88	-239.9	-699.6	470.9	420.1	50.77	9.275	
12,435.9	12,150.0	12,778.9	12,370.0	23.4	25.7	120.90	-262.1	-699.5	471.0	420.1	50.85	9.262	
12,500.0	12,150.0	12,843.3	12,370.0	23.5	25.8	120.90	-326.5	-699.1	471.1	420.0	51.09	9.221	
12,600.0	12,150.0	12,943.3	12,370.0	23.7	25.9	120.89	-426.5	-698.4	471.2	419.7	51.51	9.146	
12,700.0	12,150.0	13,043.3	12,370.0	23.9	26.1	120.88	-526.5	-697.7	471.3	419.3	52.00	9.063	
12,800.0	12,150.0	13,143.3	12,370.0	24.1	26.4	120.87	-626.5	-697.1	471.4	418.9	52.55	8.971	
12,900.0	12,150.0	13,243.3	12,370.0	24.3	26.7	120.87	-726.5	-696.4	471.5	418.4	53.15	8.871	
13,000.0	12,150.0	13,343.3	12,370.0	24.6	27.0	120.86	-826.5	-695.7	471.6	417.8	53.81	8.765	
13,100.0	12,150.0	13,443.3	12,370.0	24.9	27.3	120.85	-926.5	-695.1	471.8	417.2	54.52	8.653	
13,200.0	12,150.0	13,543.3	12,370.0	25.3	27.7	120.84	-1,026.5	-694.4	471.9	416.6	55.28	8.536	
13,300.0	12,150.0	13,643.3	12,370.0	25.6	28.1	120.83	-1,126.5	-693.8	472.0	415.9	56.09	8.414	
13,400.0	12,150.0	13,743.3	12,370.0	26.1	28.5	120.82	-1,226.5	-693.1	472.1	415.2	56.95	8.289	
13,500.0	12,150.0	13,843.3	12,370.0	26.5	28.9	120.81	-1,326.5	-692.4	472.2	414.4	57.86	8.162	
13,600.0	12,150.0	13,943.3	12,370.0	26.9	29.4	120.81	-1,426.5	-691.8	472.3	413.5	58.80	8.033	
13,700.0	12,150.0	14,043.3	12,370.0	27.4	29.9	120.80	-1,526.5	-691.1	472.5	412.7	59.79	7.903	
13,800.0	12,150.0	14,143.3	12,370.0	27.9	30.4	120.79	-1,626.5	-690.4	472.6	411.8	60.81	7.771	
13,900.0	12,150.0	14,243.3	12,370.0	28.5	30.9	120.78	-1,726.5	-689.8	472.7	410.8	61.87	7.640	
14,000.0	12,150.0	14,343.3	12,370.0	29.1	31.5	120.77	-1,826.5	-689.1	472.8	409.8	62.97	7.509	
14,100.0	12,150.0	14,443.3	12,370.0	29.6	32.0	120.76	-1,926.5	-688.5	472.9	408.8	64.10	7.378	
14,200.0	12,150.0	14,543.3	12,370.0	30.2	32.6	120.75	-2,026.5	-687.8	473.0	407.8	65.26	7.249	
14,300.0	12,150.0	14,643.3	12,370.0	30.9	33.2	120.75	-2,126.5	-687.1	473.2	406.7	66.45	7.121	
14,400.0	12,150.0	14,743.3	12,370.0	31.5	33.9	120.74	-2,226.4	-686.5	473.3	405.6	67.66	6.995	
14,500.0	12,150.0	14,843.3	12,370.0	32.2	34.5	120.73	-2,326.4	-685.8	473.4	404.5	68.91	6.870	
14,600.0	12,150.0	14,943.3	12,370.0	32.9	35.2	120.72	-2,426.4	-685.2	473.5	403.3	70.18	6.747	
14,700.0	12,150.0	15,043.3	12,370.0	33.6	35.8	120.71	-2,526.4	-684.5	473.6	402.2	71.47	6.627	
14,800.0	12,150.0	15,143.3	12,370.0	34.3	36.5	120.70	-2,626.4	-683.8	473.8	401.0	72.79	6.509	
14,900.0	12,150.0	15,243.3	12,370.0	35.0	37.2	120.70	-2,726.4	-683.2	473.9	399.7	74.13	6.393	
15,000.0	12,150.0	15,343.3	12,370.0	35.7	37.9	120.69	-2,826.4	-682.5	474.0	398.5	75.48	6.279	
15,100.0	12,150.0	15,443.3	12,370.0	36.5	38.6	120.68	-2,926.4	-681.8	474.1	397.2	76.86	6.168	
15,200.0	12,150.0	15,543.3	12,370.0	37.2	39.3	120.67	-3,026.4	-681.2	474.2	396.0	78.26	6.060	
15,300.0	12,150.0	15,643.3	12,370.0	38.0	40.1	120.66	-3,126.4	-680.5	474.3	394.7	79.67	5.954	
15,400.0	12,150.0	15,743.3	12,370.0	38.8	40.8	120.65	-3,226.4	-679.9	474.5	393.4	81.10	5.851	
15,500.0	12,150.0	15,843.3	12,370.0	39.6	41.6	120.65	-3,326.4	-679.2	474.6	392.0	82.54	5.750	
15,600.0	12,150.0	15,943.3	12,370.0	40.4	42.3	120.64	-3,426.4	-678.5	474.7	390.7	84.00	5.651	
15,700.0	12,150.0	16,043.3	12,370.0	41.2	43.1	120.63	-3,526.4	-677.9	474.8	389.3	85.47	5.555	
15,800.0	12,150.0	16,143.3	12,370.0	42.0	43.9	120.62	-3,626.4	-677.2	474.9	388.0	86.96	5.462	
15,900.0	12,150.0	16,243.3	12,370.0	42.8	44.7	120.61	-3,726.4	-676.5	475.0	386.6	88.45	5.371	
16,000.0	12,150.0	16,343.3	12,370.0	43.6	45.4	120.60	-3,826.4	-675.9	475.2	385.2	89.96	5.282	
16,100.0	12,150.0	16,443.3	12,370.0	44.5	46.2	120.59	-3,926.4	-675.2	475.3	383.8	91.49	5.195	
16,200.0	12,150.0	16,543.3	12,370.0	45.3	47.0	120.59	-4,026.4	-674.6	475.4	382.4	93.02	5.111	
16,300.0	12,150.0	16,643.3	12,370.0	46.1	47.9	120.58	-4,126.4	-673.9	475.5	381.0	94.56	5.029	
16,400.0	12,150.0	16,743.3	12,370.0	47.0	48.7	120.57	-4,226.4	-673.2	475.6	379.5	96.11	4.949	
16,500.0	12,150.0	16,843.3	12,370.0	47.8	49.5	120.56	-4,326.4	-672.6	475.8	378.1	97.67	4.871	
16,600.0	12,150.0	16,943.3	12,370.0	48.7	50.3	120.55	-4,426.4	-671.9	475.9	376.6	99.24	4.795	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: LIL JOHN FEDERAL PROJECT - _LIL JOHN FED COM 708H - OWB - PWP0

Offset Site Error: 0.0 usft

Survey Program: 0-r.5 MWD+IFR1 **Rule Assigned:** **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
16,700.0	12,150.0	17,043.3	12,370.0	49.5	51.1	120.54	-4,526.4	-671.2	476.0	375.2	100.82	4.721	
16,800.0	12,150.0	17,143.3	12,370.0	50.4	52.0	120.54	-4,626.4	-670.6	476.1	373.7	102.41	4.649	
16,900.0	12,150.0	17,243.3	12,370.0	51.3	52.8	120.53	-4,726.4	-669.9	476.2	372.2	104.00	4.579	
17,000.0	12,150.0	17,343.3	12,370.0	52.1	53.7	120.52	-4,826.4	-669.3	476.3	370.7	105.61	4.511	
17,100.0	12,150.0	17,443.3	12,370.0	53.0	54.5	120.51	-4,926.4	-668.6	476.5	369.2	107.22	4.444	
17,200.0	12,150.0	17,543.3	12,370.0	53.9	55.4	120.50	-5,026.4	-667.9	476.6	367.7	108.83	4.379	
17,300.0	12,150.0	17,643.3	12,370.0	54.8	56.2	120.49	-5,126.4	-667.3	476.7	366.2	110.45	4.316	
17,400.0	12,150.0	17,743.3	12,370.0	55.7	57.1	120.49	-5,226.4	-666.6	476.8	364.7	112.08	4.254	
17,500.0	12,150.0	17,843.3	12,370.0	56.5	57.9	120.48	-5,326.4	-665.9	476.9	363.2	113.72	4.194	
17,600.0	12,150.0	17,943.3	12,370.0	57.4	58.8	120.47	-5,426.4	-665.3	477.0	361.7	115.35	4.135	
17,700.0	12,150.0	18,043.3	12,370.0	58.3	59.7	120.46	-5,526.4	-664.6	477.2	360.2	117.00	4.078	
17,800.0	12,150.0	18,143.3	12,370.0	59.2	60.5	120.45	-5,626.4	-664.0	477.3	358.6	118.65	4.023	
17,900.0	12,150.0	18,243.3	12,370.0	60.1	61.4	120.44	-5,726.4	-663.3	477.4	357.1	120.31	3.968	
18,000.0	12,150.0	18,343.3	12,370.0	61.0	62.3	120.44	-5,826.4	-662.6	477.5	355.6	121.97	3.915	
18,100.0	12,150.0	18,443.3	12,370.0	61.9	63.2	120.43	-5,926.4	-662.0	477.6	354.0	123.63	3.863	
18,200.0	12,150.0	18,543.3	12,370.0	62.8	64.0	120.42	-6,026.4	-661.3	477.8	352.5	125.30	3.813	
18,300.0	12,150.0	18,643.3	12,370.0	63.7	64.9	120.41	-6,126.4	-660.6	477.9	350.9	126.97	3.764	
18,400.0	12,150.0	18,743.3	12,370.0	64.6	65.8	120.40	-6,226.4	-660.0	478.0	349.3	128.65	3.715	
18,500.0	12,150.0	18,843.3	12,370.0	65.5	66.7	120.39	-6,326.4	-659.3	478.1	347.8	130.33	3.668	
18,600.0	12,150.0	18,943.3	12,370.0	66.4	67.6	120.39	-6,426.4	-658.7	478.2	346.2	132.02	3.622	
18,700.0	12,150.0	19,043.3	12,370.0	67.3	68.5	120.38	-6,526.3	-658.0	478.3	344.6	133.70	3.578	
18,800.0	12,150.0	19,143.3	12,370.0	68.3	69.4	120.37	-6,626.3	-657.3	478.5	343.1	135.40	3.534	
18,900.0	12,150.0	19,243.3	12,370.0	69.2	70.3	120.36	-6,726.3	-656.7	478.6	341.5	137.09	3.491	
19,000.0	12,150.0	19,343.3	12,370.0	70.1	71.2	120.35	-6,826.3	-656.0	478.7	339.9	138.79	3.449	
19,100.0	12,150.0	19,443.3	12,370.0	71.0	72.1	120.35	-6,926.3	-655.3	478.8	338.3	140.49	3.408	
19,200.0	12,150.0	19,543.3	12,370.0	71.9	73.0	120.34	-7,026.3	-654.7	478.9	336.7	142.20	3.368	
19,300.0	12,150.0	19,643.3	12,370.0	72.8	73.9	120.33	-7,126.3	-654.0	479.0	335.1	143.90	3.329	
19,400.0	12,150.0	19,743.3	12,370.0	73.8	74.8	120.32	-7,226.3	-653.4	479.2	333.6	145.61	3.291	
19,500.0	12,150.0	19,843.3	12,370.0	74.7	75.7	120.31	-7,326.3	-652.7	479.3	332.0	147.33	3.253	
19,600.0	12,150.0	19,943.3	12,370.0	75.6	76.6	120.30	-7,426.3	-652.0	479.4	330.4	149.04	3.217	
19,684.9	12,150.0	20,028.2	12,370.0	76.4	77.3	120.30	-7,511.2	-651.5	479.5	329.0	150.50	3.186 ES, SF	

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: STATE LINE OFFSETS - EXCELSIOR 7 10H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 91-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
18,900.0	12,150.0	17,177.0	12,198.2	69.2	82.3	145.90	-7,677.4	-341.4	971.3	915.2	56.06	17.327	
19,000.0	12,150.0	17,177.0	12,198.2	70.1	82.3	145.90	-7,677.4	-341.4	873.4	816.6	56.83	15.368	
19,100.0	12,150.0	17,177.0	12,198.2	71.0	82.3	145.90	-7,677.4	-341.4	776.0	718.1	57.91	13.400	
19,200.0	12,150.0	17,177.0	12,198.2	71.9	82.3	145.90	-7,677.4	-341.4	679.4	619.9	59.48	11.422	
19,300.0	12,150.0	17,177.0	12,198.2	72.8	82.3	145.90	-7,677.4	-341.4	584.0	522.1	61.85	9.441	
19,400.0	12,150.0	17,177.0	12,198.2	73.8	82.3	145.90	-7,677.4	-341.4	490.3	424.7	65.61	7.474	
19,500.0	12,150.0	17,177.0	12,198.2	74.7	82.3	145.90	-7,677.4	-341.4	399.8	328.0	71.83	5.566	
19,600.0	12,150.0	17,177.0	12,198.2	75.6	82.3	145.90	-7,677.4	-341.4	315.0	232.6	82.46	3.820	
19,684.9	12,150.0	17,177.0	12,198.2	76.4	82.3	145.90	-7,677.4	-341.4	252.0	155.1	96.83	2.602	Normal Operations, CC, ES, SF

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: STATE LINE OFFSETS - EXCELSIOR 7 11H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 193-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
18,900.0	12,150.0	17,075.0	12,113.4	69.2	80.5	-103.38	-7,664.9	43.6	986.4	909.4	77.08	12.798	
19,000.0	12,150.0	17,075.0	12,113.4	70.1	80.5	-103.38	-7,664.9	43.6	891.3	811.5	79.79	11.170	
19,100.0	12,150.0	17,075.0	12,113.4	71.0	80.5	-103.38	-7,664.9	43.6	797.3	714.0	83.29	9.573	
19,200.0	12,150.0	17,075.0	12,113.4	71.9	80.5	-103.38	-7,664.9	43.6	704.9	617.1	87.88	8.021	
19,300.0	12,150.0	17,075.0	12,113.4	72.8	80.5	-103.38	-7,664.9	43.6	615.0	521.0	94.03	6.540	
19,400.0	12,150.0	17,075.0	12,113.4	73.8	80.5	-103.38	-7,664.9	43.6	528.7	426.3	102.36	5.165	
19,500.0	12,150.0	17,075.0	12,113.4	74.7	80.5	-103.38	-7,664.9	43.6	448.1	334.5	113.61	3.944	
19,600.0	12,150.0	17,075.0	12,113.4	75.6	80.5	-103.38	-7,664.9	43.6	376.9	248.7	128.19	2.940	Normal Operations
19,684.9	12,150.0	17,075.0	12,113.4	76.4	80.5	-103.38	-7,664.9	43.6	328.5	186.4	142.12	2.312	Caution - Monitor Closely, CC, ES, SF

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: STATE LINE OFFSETS - EXCELSIOR 7 12H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 112-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
19,300.0	12,150.0	17,210.0	12,190.1	72.8	81.6	-100.86	-7,668.1	510.4	938.6	803.5	135.12	6.947	
19,400.0	12,150.0	17,210.0	12,190.1	73.8	81.6	-100.86	-7,668.1	510.4	883.7	742.5	141.19	6.259	
19,500.0	12,150.0	17,210.0	12,190.1	74.7	81.6	-100.86	-7,668.1	510.4	837.1	690.2	146.92	5.698	
19,600.0	12,150.0	17,210.0	12,190.1	75.6	81.6	-100.86	-7,668.1	510.4	800.4	648.6	151.80	5.273	
19,684.9	12,150.0	17,210.0	12,190.1	76.4	81.6	-100.86	-7,668.1	510.4	778.0	623.2	154.84	5.025	CC, ES, SF

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: STATE LINE OFFSETS - EXCELSIOR 7 8H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 125-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
19,600.0	12,150.0	17,419.0	12,555.7	75.6	88.4	122.47	-7,683.5	-1,042.2	988.5	851.2	137.25	7.202	
19,684.9	12,150.0	17,419.0	12,555.7	76.4	88.4	122.47	-7,683.5	-1,042.2	970.2	830.1	140.12	6.924	CC, ES, SF

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Offset Design: STATE LINE OFFSETS - EXCELSIOR 7 9H - OWB - AWP

Offset Site Error: 0.0 usft

Survey Program: 172-r.5 MWD

Rule Assigned:

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset 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
19,400.0	12,150.0	16,750.0	12,090.5	73.8	78.6	94.54	-7,967.0	-834.5	953.2	848.2	105.06	9.073	
19,500.0	12,150.0	16,750.0	12,090.5	74.7	78.6	94.54	-7,967.0	-834.5	878.0	766.2	111.86	7.849	
19,600.0	12,150.0	16,750.0	12,090.5	75.6	78.6	94.54	-7,967.0	-834.5	808.2	688.7	119.52	6.762	
19,684.9	12,150.0	16,750.0	12,090.5	76.4	78.6	94.54	-7,967.0	-834.5	754.3	627.7	126.57	5.960	CC, ES, SF

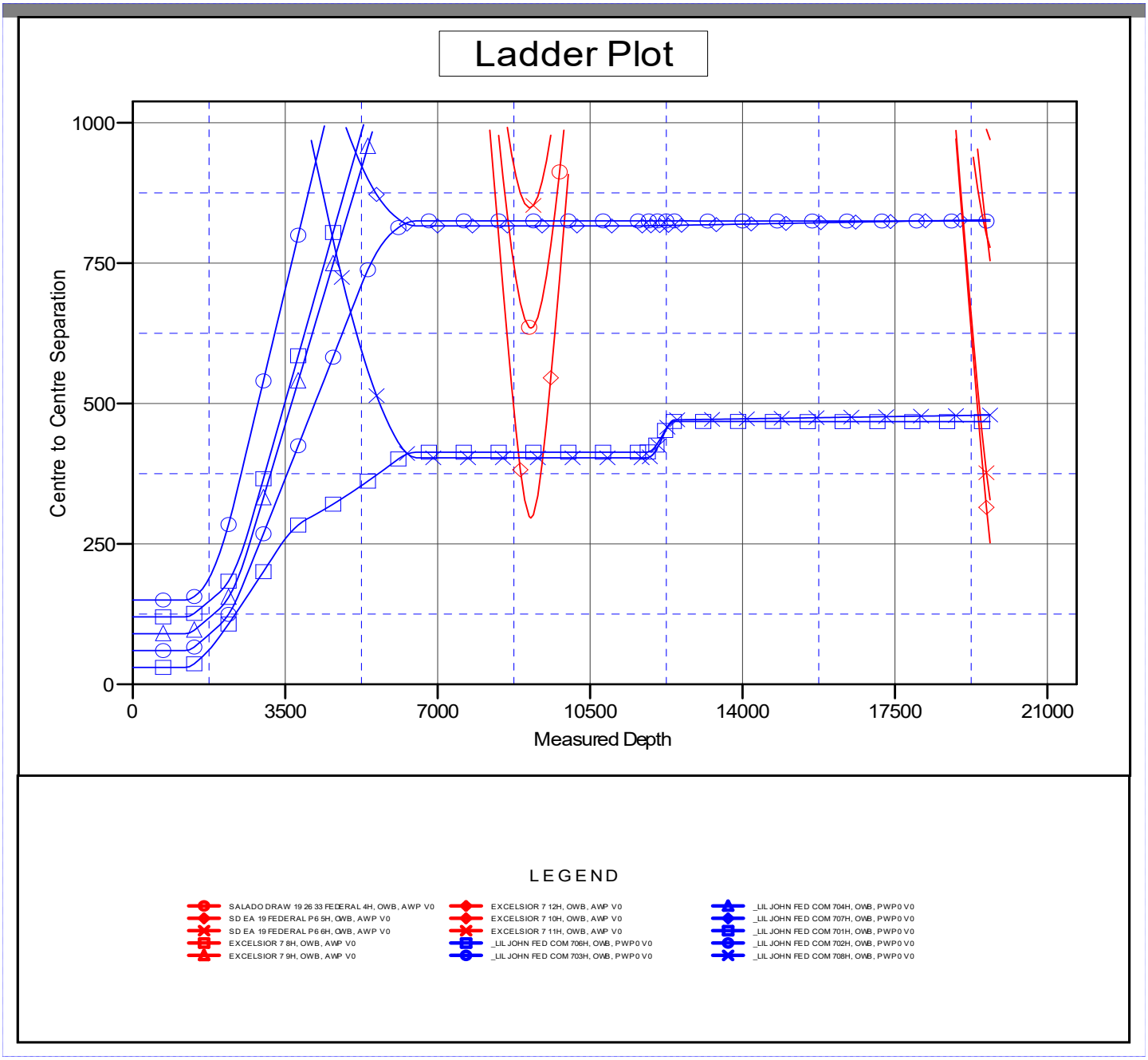
ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 3200.2usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: _LIL JOHN FED COM 705H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.38°



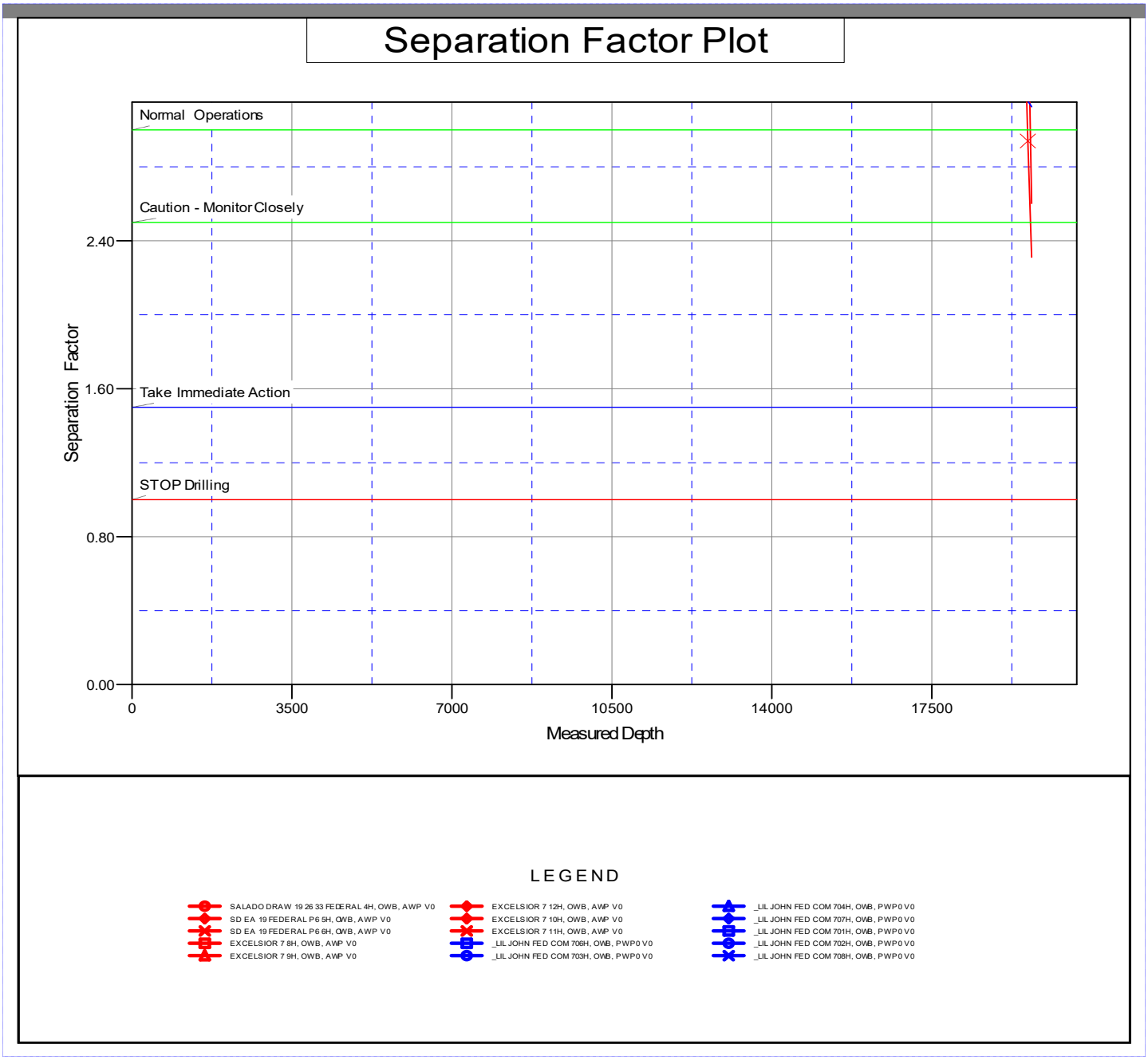
ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Project:	ZIA HILLS UNIT AREA	**TVD Reference:**	KB @ 3200.2usft
Reference Site:	LIL JOHN FEDERAL PROJECT	**MD Reference:**	KB @ 3200.2usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDT 17 Permian Prod
Reference Design:	PWP0	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 3200.2usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: _LIL JOHN FED COM 705H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.38°



DELAWARE BASIN EAST

ZIA HILLS UNIT AREA
LIL JOHN FEDERAL PROJECT
_LIL JOHN FED COM 705H

OWB

Plan: PWP0

Standard Planning Report

12 February, 2025

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB @ 3200.2usft
Project:	ZIA HILLS UNIT AREA	**MD Reference:**	KB @ 3200.2usft
Site:	LIL JOHN FEDERAL PROJECT	**North Reference:**	Grid
Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Project ZIA HILLS UNIT AREA

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site LIL JOHN FEDERAL PROJECT

Site Position:		**Northing:**	368,434.81 usft	**Latitude:**	32° 0' 39.181 N
From:	Map	**Easting:**	723,945.72 usft	**Longitude:**	103° 36' 39.019 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well _LIL JOHN FED COM 705H

Well Position	**+N/-S**	0.0 usft	**Northing:**	372,077.04 usft	**Latitude:**	32° 1' 15.195 N
	+E/-W	0.0 usft	**Easting:**	724,378.21 usft	**Longitude:**	103° 36' 33.712 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,170.2 usft
Grid Convergence:		0.38 °				

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2024	10/17/2024	6.25	59.52	47,131.71040042

Design PWP0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	181.81

Plan Survey Tool Program **Date** 2/12/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,684.9	PWP0 (OWB)	r.5 MWD+IFR1 OWSG MWD + IFR1 rev.5	

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,412.4	4.25	306.04	1,412.2	4.6	-6.4	2.00	2.00	0.00	306.04	
6,088.6	4.25	306.04	6,075.6	208.4	-286.5	0.00	0.00	0.00	0.00	
6,513.4	0.00	0.00	6,500.0	217.7	-299.2	1.00	-1.00	0.00	180.00	
11,685.9	0.00	0.00	11,672.5	217.7	-299.2	0.00	0.00	0.00	0.00	
12,435.9	90.00	179.54	12,150.0	-259.7	-295.4	12.00	12.00	23.94	179.54	
19,684.9	90.00	179.54	12,150.0	-7,508.5	-237.5	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB @ 3200.2usft
Project:	ZIA HILLS UNIT AREA	**MD Reference:**	KB @ 3200.2usft
Site:	LIL JOHN FEDERAL PROJECT	**North Reference:**	Grid
Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	306.04	1,300.0	1.0	-1.4	-1.0	2.00	2.00	0.00
1,400.0	4.00	306.04	1,399.8	4.1	-5.6	-3.9	2.00	2.00	0.00
1,412.4	4.25	306.04	1,412.2	4.6	-6.4	-4.4	2.00	2.00	0.00
1,500.0	4.25	306.04	1,499.6	8.4	-11.6	-8.1	0.00	0.00	0.00
1,600.0	4.25	306.04	1,599.3	12.8	-17.6	-12.2	0.00	0.00	0.00
1,700.0	4.25	306.04	1,699.0	17.2	-23.6	-16.4	0.00	0.00	0.00
1,800.0	4.25	306.04	1,798.7	21.5	-29.6	-20.6	0.00	0.00	0.00
1,900.0	4.25	306.04	1,898.5	25.9	-35.6	-24.7	0.00	0.00	0.00
2,000.0	4.25	306.04	1,998.2	30.2	-41.6	-28.9	0.00	0.00	0.00
2,100.0	4.25	306.04	2,097.9	34.6	-47.6	-33.1	0.00	0.00	0.00
2,200.0	4.25	306.04	2,197.6	39.0	-53.5	-37.2	0.00	0.00	0.00
2,300.0	4.25	306.04	2,297.4	43.3	-59.5	-41.4	0.00	0.00	0.00
2,400.0	4.25	306.04	2,397.1	47.7	-65.5	-45.6	0.00	0.00	0.00
2,500.0	4.25	306.04	2,496.8	52.0	-71.5	-49.7	0.00	0.00	0.00
2,600.0	4.25	306.04	2,596.5	56.4	-77.5	-53.9	0.00	0.00	0.00
2,700.0	4.25	306.04	2,696.3	60.7	-83.5	-58.1	0.00	0.00	0.00
2,800.0	4.25	306.04	2,796.0	65.1	-89.5	-62.2	0.00	0.00	0.00
2,900.0	4.25	306.04	2,895.7	69.5	-95.5	-66.4	0.00	0.00	0.00
3,000.0	4.25	306.04	2,995.4	73.8	-101.5	-70.6	0.00	0.00	0.00
3,100.0	4.25	306.04	3,095.2	78.2	-107.4	-74.7	0.00	0.00	0.00
3,200.0	4.25	306.04	3,194.9	82.5	-113.4	-78.9	0.00	0.00	0.00
3,300.0	4.25	306.04	3,294.6	86.9	-119.4	-83.1	0.00	0.00	0.00
3,400.0	4.25	306.04	3,394.3	91.3	-125.4	-87.2	0.00	0.00	0.00
3,500.0	4.25	306.04	3,494.1	95.6	-131.4	-91.4	0.00	0.00	0.00
3,600.0	4.25	306.04	3,593.8	100.0	-137.4	-95.6	0.00	0.00	0.00
3,700.0	4.25	306.04	3,693.5	104.3	-143.4	-99.7	0.00	0.00	0.00
3,800.0	4.25	306.04	3,793.2	108.7	-149.4	-103.9	0.00	0.00	0.00
3,900.0	4.25	306.04	3,893.0	113.0	-155.4	-108.1	0.00	0.00	0.00
4,000.0	4.25	306.04	3,992.7	117.4	-161.4	-112.2	0.00	0.00	0.00
4,100.0	4.25	306.04	4,092.4	121.8	-167.3	-116.4	0.00	0.00	0.00
4,200.0	4.25	306.04	4,192.1	126.1	-173.3	-120.6	0.00	0.00	0.00
4,300.0	4.25	306.04	4,291.9	130.5	-179.3	-124.7	0.00	0.00	0.00
4,400.0	4.25	306.04	4,391.6	134.8	-185.3	-128.9	0.00	0.00	0.00
4,500.0	4.25	306.04	4,491.3	139.2	-191.3	-133.1	0.00	0.00	0.00
4,600.0	4.25	306.04	4,591.0	143.6	-197.3	-137.3	0.00	0.00	0.00
4,700.0	4.25	306.04	4,690.8	147.9	-203.3	-141.4	0.00	0.00	0.00
4,800.0	4.25	306.04	4,790.5	152.3	-209.3	-145.6	0.00	0.00	0.00
4,900.0	4.25	306.04	4,890.2	156.6	-215.3	-149.8	0.00	0.00	0.00
5,000.0	4.25	306.04	4,989.9	161.0	-221.3	-153.9	0.00	0.00	0.00
5,100.0	4.25	306.04	5,089.7	165.4	-227.2	-158.1	0.00	0.00	0.00
5,200.0	4.25	306.04	5,189.4	169.7	-233.2	-162.3	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB @ 3200.2usft
Project:	ZIA HILLS UNIT AREA	**MD Reference:**	KB @ 3200.2usft
Site:	LIL JOHN FEDERAL PROJECT	**North Reference:**	Grid
Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	4.25	306.04	5,289.1	174.1	-239.2	-166.4	0.00	0.00	0.00
5,400.0	4.25	306.04	5,388.8	178.4	-245.2	-170.6	0.00	0.00	0.00
5,500.0	4.25	306.04	5,488.6	182.8	-251.2	-174.8	0.00	0.00	0.00
5,600.0	4.25	306.04	5,588.3	187.1	-257.2	-178.9	0.00	0.00	0.00
5,700.0	4.25	306.04	5,688.0	191.5	-263.2	-183.1	0.00	0.00	0.00
5,800.0	4.25	306.04	5,787.8	195.9	-269.2	-187.3	0.00	0.00	0.00
5,900.0	4.25	306.04	5,887.5	200.2	-275.2	-191.4	0.00	0.00	0.00
6,000.0	4.25	306.04	5,987.2	204.6	-281.2	-195.6	0.00	0.00	0.00
6,088.6	4.25	306.04	6,075.6	208.4	-286.5	-199.3	0.00	0.00	0.00
6,100.0	4.13	306.04	6,086.9	208.9	-287.1	-199.7	1.00	-1.00	0.00
6,200.0	3.13	306.04	6,186.7	212.7	-292.3	-203.3	1.00	-1.00	0.00
6,300.0	2.13	306.04	6,286.6	215.4	-296.0	-205.9	1.00	-1.00	0.00
6,400.0	1.13	306.04	6,386.6	217.0	-298.3	-207.5	1.00	-1.00	0.00
6,500.0	0.13	306.04	6,486.6	217.7	-299.2	-208.1	1.00	-1.00	0.00
6,513.4	0.00	0.00	6,500.0	217.7	-299.2	-208.1	1.00	-1.00	0.00
6,600.0	0.00	0.00	6,586.6	217.7	-299.2	-208.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,686.6	217.7	-299.2	-208.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,786.6	217.7	-299.2	-208.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,886.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,986.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,100.0	0.00	0.00	7,086.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,186.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,286.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,386.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,486.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,586.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,686.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,786.6	217.7	-299.2	-208.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,886.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,986.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,086.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,200.0	0.00	0.00	8,186.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,300.0	0.00	0.00	8,286.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,400.0	0.00	0.00	8,386.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,500.0	0.00	0.00	8,486.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,600.0	0.00	0.00	8,586.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,686.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,800.0	0.00	0.00	8,786.6	217.7	-299.2	-208.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,886.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,000.0	0.00	0.00	8,986.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,100.0	0.00	0.00	9,086.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,200.0	0.00	0.00	9,186.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,300.0	0.00	0.00	9,286.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,386.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,486.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,600.0	0.00	0.00	9,586.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,686.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,800.0	0.00	0.00	9,786.6	217.7	-299.2	-208.1	0.00	0.00	0.00
9,900.0	0.00	0.00	9,886.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,000.0	0.00	0.00	9,986.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,100.0	0.00	0.00	10,086.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,200.0	0.00	0.00	10,186.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,300.0	0.00	0.00	10,286.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,400.0	0.00	0.00	10,386.6	217.7	-299.2	-208.1	0.00	0.00	0.00

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Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB @ 3200.2usft
Project:	ZIA HILLS UNIT AREA	**MD Reference:**	KB @ 3200.2usft
Site:	LIL JOHN FEDERAL PROJECT	**North Reference:**	Grid
Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	0.00	0.00	10,486.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,600.0	0.00	0.00	10,586.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,700.0	0.00	0.00	10,686.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,800.0	0.00	0.00	10,786.6	217.7	-299.2	-208.1	0.00	0.00	0.00
10,900.0	0.00	0.00	10,886.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,000.0	0.00	0.00	10,986.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,100.0	0.00	0.00	11,086.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,200.0	0.00	0.00	11,186.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,300.0	0.00	0.00	11,286.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,400.0	0.00	0.00	11,386.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,500.0	0.00	0.00	11,486.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,600.0	0.00	0.00	11,586.6	217.7	-299.2	-208.1	0.00	0.00	0.00
11,685.9	0.00	0.00	11,672.5	217.7	-299.2	-208.1	0.00	0.00	0.00
11,700.0	1.69	179.54	11,686.6	217.5	-299.2	-207.9	12.00	12.00	0.00
11,725.0	4.69	179.54	11,711.5	216.1	-299.2	-206.5	12.00	12.00	0.00
11,750.0	7.69	179.54	11,736.4	213.4	-299.2	-203.8	12.00	12.00	0.00
11,775.0	10.69	179.54	11,761.1	209.4	-299.1	-199.9	12.00	12.00	0.00
11,800.0	13.69	179.54	11,785.5	204.1	-299.1	-194.6	12.00	12.00	0.00
11,825.0	16.69	179.54	11,809.6	197.6	-299.0	-188.0	12.00	12.00	0.00
11,850.0	19.69	179.54	11,833.4	189.8	-299.0	-180.2	12.00	12.00	0.00
11,875.0	22.69	179.54	11,856.7	180.8	-298.9	-171.2	12.00	12.00	0.00
11,900.0	25.69	179.54	11,879.5	170.5	-298.8	-161.0	12.00	12.00	0.00
11,925.0	28.69	179.54	11,901.7	159.1	-298.7	-149.6	12.00	12.00	0.00
11,950.0	31.69	179.54	11,923.3	146.5	-298.6	-137.0	12.00	12.00	0.00
11,975.0	34.69	179.54	11,944.2	132.8	-298.5	-123.3	12.00	12.00	0.00
12,000.0	37.69	179.54	11,964.4	118.1	-298.4	-108.6	12.00	12.00	0.00
12,025.0	40.69	179.54	11,983.8	102.3	-298.3	-92.8	12.00	12.00	0.00
12,050.0	43.69	179.54	12,002.3	85.5	-298.1	-76.0	12.00	12.00	0.00
12,075.0	46.69	179.54	12,019.9	67.8	-298.0	-58.3	12.00	12.00	0.00
12,100.0	49.69	179.54	12,036.6	49.1	-297.8	-39.7	12.00	12.00	0.00
12,125.0	52.69	179.54	12,052.3	29.7	-297.7	-20.2	12.00	12.00	0.00
12,150.0	55.69	179.54	12,066.9	9.4	-297.5	0.0	12.00	12.00	0.00
12,175.0	58.69	179.54	12,080.4	-11.6	-297.4	21.0	12.00	12.00	0.00
12,200.0	61.69	179.54	12,092.9	-33.3	-297.2	42.7	12.00	12.00	0.00
12,225.0	64.69	179.54	12,104.1	-55.6	-297.0	65.0	12.00	12.00	0.00
12,250.0	67.69	179.54	12,114.2	-78.5	-296.8	87.8	12.00	12.00	0.00
12,275.0	70.69	179.54	12,123.1	-101.9	-296.6	111.2	12.00	12.00	0.00
12,300.0	73.69	179.54	12,130.7	-125.7	-296.5	135.0	12.00	12.00	0.00
12,325.0	76.69	179.54	12,137.1	-149.8	-296.3	159.1	12.00	12.00	0.00
12,350.0	79.69	179.54	12,142.3	-174.3	-296.1	183.6	12.00	12.00	0.00
12,375.0	82.69	179.54	12,146.1	-199.0	-295.9	208.2	12.00	12.00	0.00
12,400.0	85.69	179.54	12,148.6	-223.9	-295.7	233.1	12.00	12.00	0.00
12,425.0	88.69	179.54	12,149.8	-248.8	-295.5	258.0	12.00	12.00	0.00
12,435.9	90.00	179.54	12,150.0	-259.7	-295.4	269.0	12.00	12.00	0.00
12,500.0	90.00	179.54	12,150.0	-323.8	-294.9	333.0	0.00	0.00	0.00
12,600.0	90.00	179.54	12,150.0	-423.8	-294.1	432.9	0.00	0.00	0.00
12,700.0	90.00	179.54	12,150.0	-523.8	-293.3	532.8	0.00	0.00	0.00
12,800.0	90.00	179.54	12,150.0	-623.8	-292.5	632.7	0.00	0.00	0.00
12,900.0	90.00	179.54	12,150.0	-723.8	-291.7	732.7	0.00	0.00	0.00
13,000.0	90.00	179.54	12,150.0	-823.8	-290.9	832.6	0.00	0.00	0.00
13,100.0	90.00	179.54	12,150.0	-923.8	-290.1	932.5	0.00	0.00	0.00
13,200.0	90.00	179.54	12,150.0	-1,023.8	-289.3	1,032.4	0.00	0.00	0.00
13,300.0	90.00	179.54	12,150.0	-1,123.8	-288.5	1,132.3	0.00	0.00	0.00
13,400.0	90.00	179.54	12,150.0	-1,223.8	-287.7	1,232.3	0.00	0.00	0.00

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Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB @ 3200.2usft
Project:	ZIA HILLS UNIT AREA	**MD Reference:**	KB @ 3200.2usft
Site:	LIL JOHN FEDERAL PROJECT	**North Reference:**	Grid
Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,500.0	90.00	179.54	12,150.0	-1,323.8	-286.9	1,332.2	0.00	0.00	0.00
13,600.0	90.00	179.54	12,150.0	-1,423.8	-286.1	1,432.1	0.00	0.00	0.00
13,700.0	90.00	179.54	12,150.0	-1,523.8	-285.3	1,532.0	0.00	0.00	0.00
13,800.0	90.00	179.54	12,150.0	-1,623.8	-284.5	1,632.0	0.00	0.00	0.00
13,900.0	90.00	179.54	12,150.0	-1,723.8	-283.7	1,731.9	0.00	0.00	0.00
14,000.0	90.00	179.54	12,150.0	-1,823.8	-282.9	1,831.8	0.00	0.00	0.00
14,100.0	90.00	179.54	12,150.0	-1,923.8	-282.1	1,931.7	0.00	0.00	0.00
14,200.0	90.00	179.54	12,150.0	-2,023.8	-281.3	2,031.6	0.00	0.00	0.00
14,300.0	90.00	179.54	12,150.0	-2,123.8	-280.5	2,131.6	0.00	0.00	0.00
14,400.0	90.00	179.54	12,150.0	-2,223.8	-279.7	2,231.5	0.00	0.00	0.00
14,500.0	90.00	179.54	12,150.0	-2,323.8	-278.9	2,331.4	0.00	0.00	0.00
14,600.0	90.00	179.54	12,150.0	-2,423.7	-278.1	2,431.3	0.00	0.00	0.00
14,700.0	90.00	179.54	12,150.0	-2,523.7	-277.3	2,531.2	0.00	0.00	0.00
14,800.0	90.00	179.54	12,150.0	-2,623.7	-276.5	2,631.2	0.00	0.00	0.00
14,900.0	90.00	179.54	12,150.0	-2,723.7	-275.7	2,731.1	0.00	0.00	0.00
15,000.0	90.00	179.54	12,150.0	-2,823.7	-274.9	2,831.0	0.00	0.00	0.00
15,100.0	90.00	179.54	12,150.0	-2,923.7	-274.1	2,930.9	0.00	0.00	0.00
15,200.0	90.00	179.54	12,150.0	-3,023.7	-273.3	3,030.9	0.00	0.00	0.00
15,300.0	90.00	179.54	12,150.0	-3,123.7	-272.5	3,130.8	0.00	0.00	0.00
15,400.0	90.00	179.54	12,150.0	-3,223.7	-271.7	3,230.7	0.00	0.00	0.00
15,500.0	90.00	179.54	12,150.0	-3,323.7	-270.9	3,330.6	0.00	0.00	0.00
15,600.0	90.00	179.54	12,150.0	-3,423.7	-270.1	3,430.5	0.00	0.00	0.00
15,700.0	90.00	179.54	12,150.0	-3,523.7	-269.3	3,530.5	0.00	0.00	0.00
15,800.0	90.00	179.54	12,150.0	-3,623.7	-268.5	3,630.4	0.00	0.00	0.00
15,900.0	90.00	179.54	12,150.0	-3,723.7	-267.7	3,730.3	0.00	0.00	0.00
16,000.0	90.00	179.54	12,150.0	-3,823.7	-266.9	3,830.2	0.00	0.00	0.00
16,100.0	90.00	179.54	12,150.0	-3,923.7	-266.1	3,930.2	0.00	0.00	0.00
16,200.0	90.00	179.54	12,150.0	-4,023.7	-265.3	4,030.1	0.00	0.00	0.00
16,300.0	90.00	179.54	12,150.0	-4,123.7	-264.5	4,130.0	0.00	0.00	0.00
16,400.0	90.00	179.54	12,150.0	-4,223.7	-263.7	4,229.9	0.00	0.00	0.00
16,500.0	90.00	179.54	12,150.0	-4,323.7	-262.9	4,329.8	0.00	0.00	0.00
16,600.0	90.00	179.54	12,150.0	-4,423.7	-262.1	4,429.8	0.00	0.00	0.00
16,700.0	90.00	179.54	12,150.0	-4,523.7	-261.3	4,529.7	0.00	0.00	0.00
16,800.0	90.00	179.54	12,150.0	-4,623.7	-260.5	4,629.6	0.00	0.00	0.00
16,900.0	90.00	179.54	12,150.0	-4,723.7	-259.7	4,729.5	0.00	0.00	0.00
17,000.0	90.00	179.54	12,150.0	-4,823.7	-258.9	4,829.4	0.00	0.00	0.00
17,100.0	90.00	179.54	12,150.0	-4,923.7	-258.1	4,929.4	0.00	0.00	0.00
17,200.0	90.00	179.54	12,150.0	-5,023.7	-257.3	5,029.3	0.00	0.00	0.00
17,300.0	90.00	179.54	12,150.0	-5,123.7	-256.5	5,129.2	0.00	0.00	0.00
17,400.0	90.00	179.54	12,150.0	-5,223.7	-255.7	5,229.1	0.00	0.00	0.00
17,500.0	90.00	179.54	12,150.0	-5,323.7	-254.9	5,329.1	0.00	0.00	0.00
17,600.0	90.00	179.54	12,150.0	-5,423.7	-254.1	5,429.0	0.00	0.00	0.00
17,700.0	90.00	179.54	12,150.0	-5,523.6	-253.3	5,528.9	0.00	0.00	0.00
17,800.0	90.00	179.54	12,150.0	-5,623.6	-252.5	5,628.8	0.00	0.00	0.00
17,900.0	90.00	179.54	12,150.0	-5,723.6	-251.7	5,728.7	0.00	0.00	0.00
18,000.0	90.00	179.54	12,150.0	-5,823.6	-250.9	5,828.7	0.00	0.00	0.00
18,100.0	90.00	179.54	12,150.0	-5,923.6	-250.1	5,928.6	0.00	0.00	0.00
18,200.0	90.00	179.54	12,150.0	-6,023.6	-249.3	6,028.5	0.00	0.00	0.00
18,300.0	90.00	179.54	12,150.0	-6,123.6	-248.5	6,128.4	0.00	0.00	0.00
18,400.0	90.00	179.54	12,150.0	-6,223.6	-247.7	6,228.3	0.00	0.00	0.00
18,500.0	90.00	179.54	12,150.0	-6,323.6	-246.9	6,328.3	0.00	0.00	0.00
18,600.0	90.00	179.54	12,150.0	-6,423.6	-246.1	6,428.2	0.00	0.00	0.00
18,700.0	90.00	179.54	12,150.0	-6,523.6	-245.3	6,528.1	0.00	0.00	0.00
18,800.0	90.00	179.54	12,150.0	-6,623.6	-244.5	6,628.0	0.00	0.00	0.00

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	**Local Co-ordinate Reference:**	Well _LIL JOHN FED COM 705H
Company:	DELAWARE BASIN EAST	**TVD Reference:**	KB @ 3200.2usft
Project:	ZIA HILLS UNIT AREA	**MD Reference:**	KB @ 3200.2usft
Site:	LIL JOHN FEDERAL PROJECT	**North Reference:**	Grid
Well:	_LIL JOHN FED COM 705H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	PWP0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,900.0	90.00	179.54	12,150.0	-6,723.6	-243.7	6,728.0	0.00	0.00	0.00
19,000.0	90.00	179.54	12,150.0	-6,823.6	-242.9	6,827.9	0.00	0.00	0.00
19,100.0	90.00	179.54	12,150.0	-6,923.6	-242.1	6,927.8	0.00	0.00	0.00
19,200.0	90.00	179.54	12,150.0	-7,023.6	-241.3	7,027.7	0.00	0.00	0.00
19,300.0	90.00	179.54	12,150.0	-7,123.6	-240.5	7,127.6	0.00	0.00	0.00
19,400.0	90.00	179.54	12,150.0	-7,223.6	-239.7	7,227.6	0.00	0.00	0.00
19,500.0	90.00	179.54	12,150.0	-7,323.6	-238.9	7,327.5	0.00	0.00	0.00
19,600.0	90.00	179.54	12,150.0	-7,423.6	-238.1	7,427.4	0.00	0.00	0.00
19,684.9	90.00	179.54	12,150.0	-7,508.5	-237.5	7,512.2	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP_LIL JOHN FEDERA	0.00	0.00	12,150.0	-7,458.5	-237.9	364,618.57	724,140.35	32° 0' 1.403 N	103° 36' 37.055 W
- plan misses target center by 34.9usft at 19600.0usft MD (12150.0 TVD, -7423.6 N, -238.1 E)									
- Point									
PBHL_LIL JOHN FEDEI	0.00	359.62	12,150.0	-7,508.5	-237.5	364,568.58	724,140.74	32° 0' 0.908 N	103° 36' 37.054 W
- plan hits target center									
- Rectangle (sides W100.0 H7,672.4 D20.0)									
FTP_LIL JOHN FEDERA	0.00	0.00	12,150.0	168.4	-298.9	372,245.40	724,079.35	32° 1' 16.881 N	103° 36' 37.171 W
- plan misses target center by 163.9usft at 12086.7usft MD (12027.9 TVD, 59.1 N, -297.9 E)									
- Circle (radius 50.0)									

Casing Points

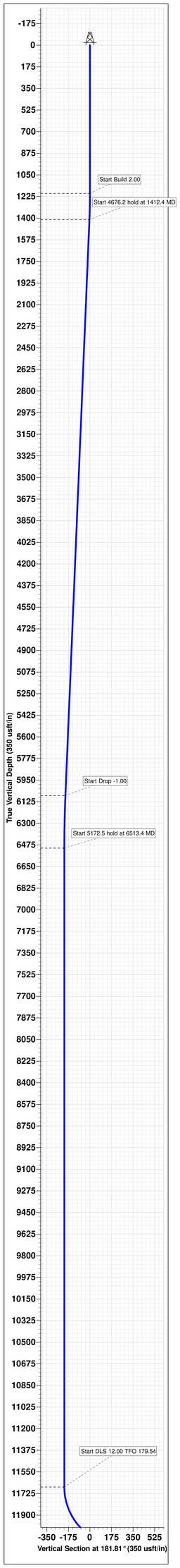
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
19,684.9	12,150.0	5-1/2" Production Casing	5-1/2	6

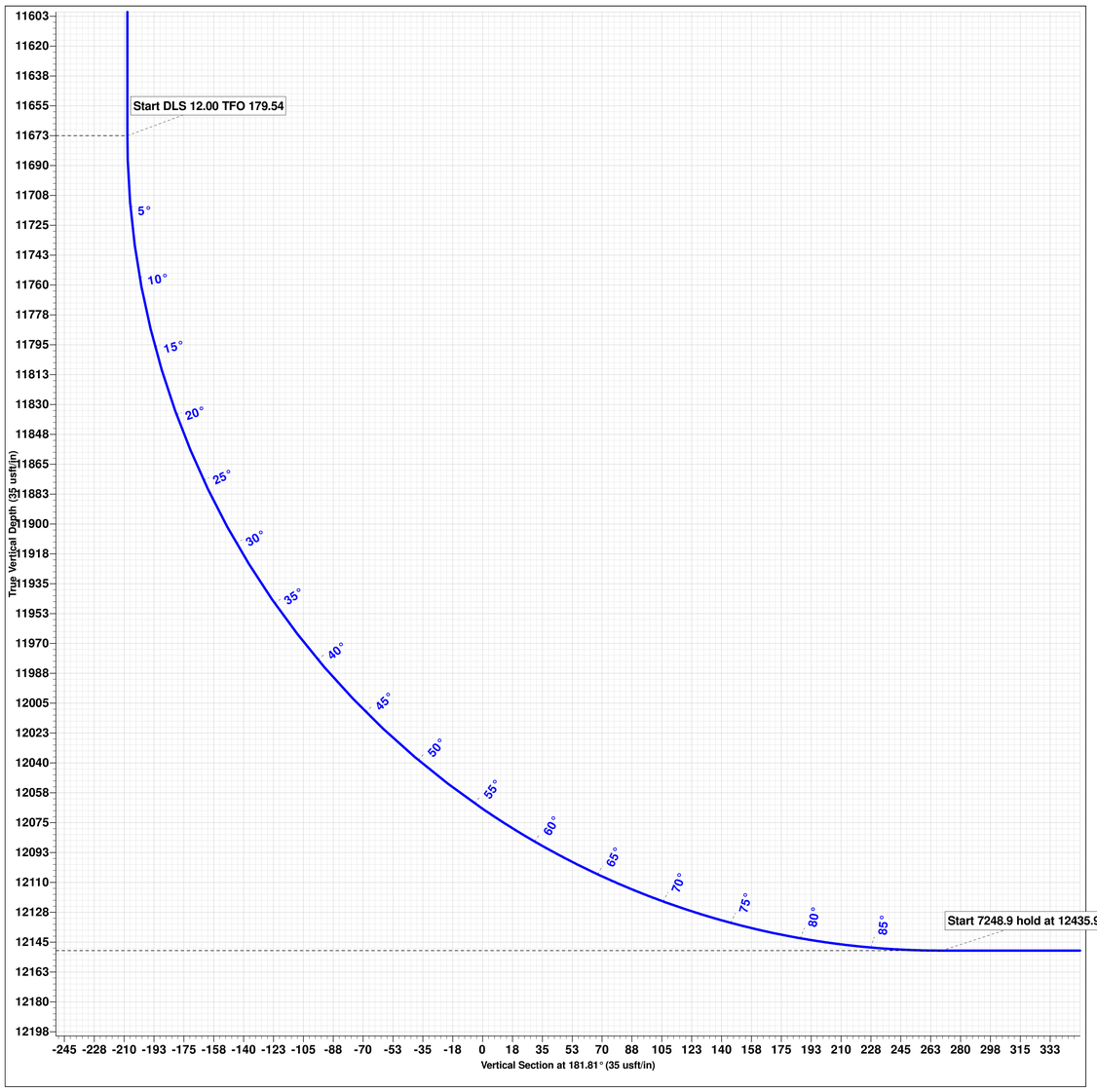
ConocoPhillips

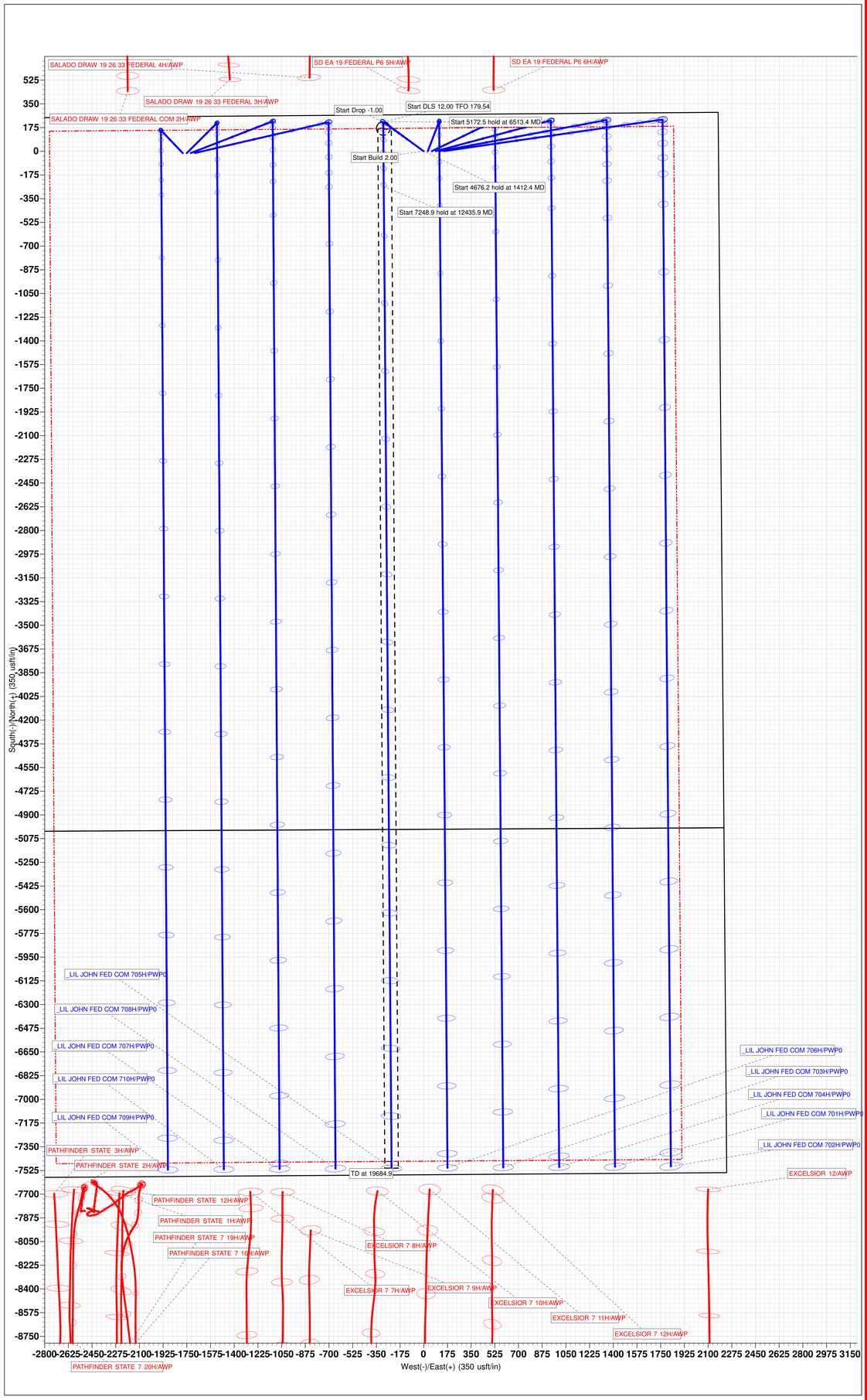
Project:	ZIA HILLS UNIT AREA
Site:	LIL JOHN FEDERAL PROJECT
Well:	_LIL JOHN FED COM 705H
Wellbore:	OWB
Design:	PWP0

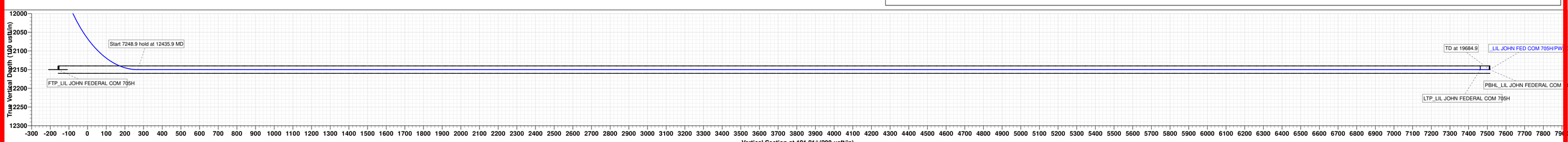
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0
1412.4	4.25	306.04	1412.2	4.6	-6.4	2.00	306.04	-4.4
6088.6	4.25	306.04	6075.6	208.4	-286.5	0.00	0.00	-199.3
6513.4	0.00	0.00	6500.0	217.7	-299.2	1.00	180.00	-208.1
11685.9	0.00	0.00	11672.5	217.7	-299.2	0.00	0.00	-208.1
12435.9	90.00	179.54	12150.0	-259.7	-295.4	12.00	179.54	269.0
19684.9	90.00	179.54	12150.0	-7508.5	-237.5	0.00	0.00	7512.2









COG Operating LLC

Rig Plat & Closed Loop Equipment Diagram

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

Flare Lines will be from both Choke Manifold & Separator to edge of location.

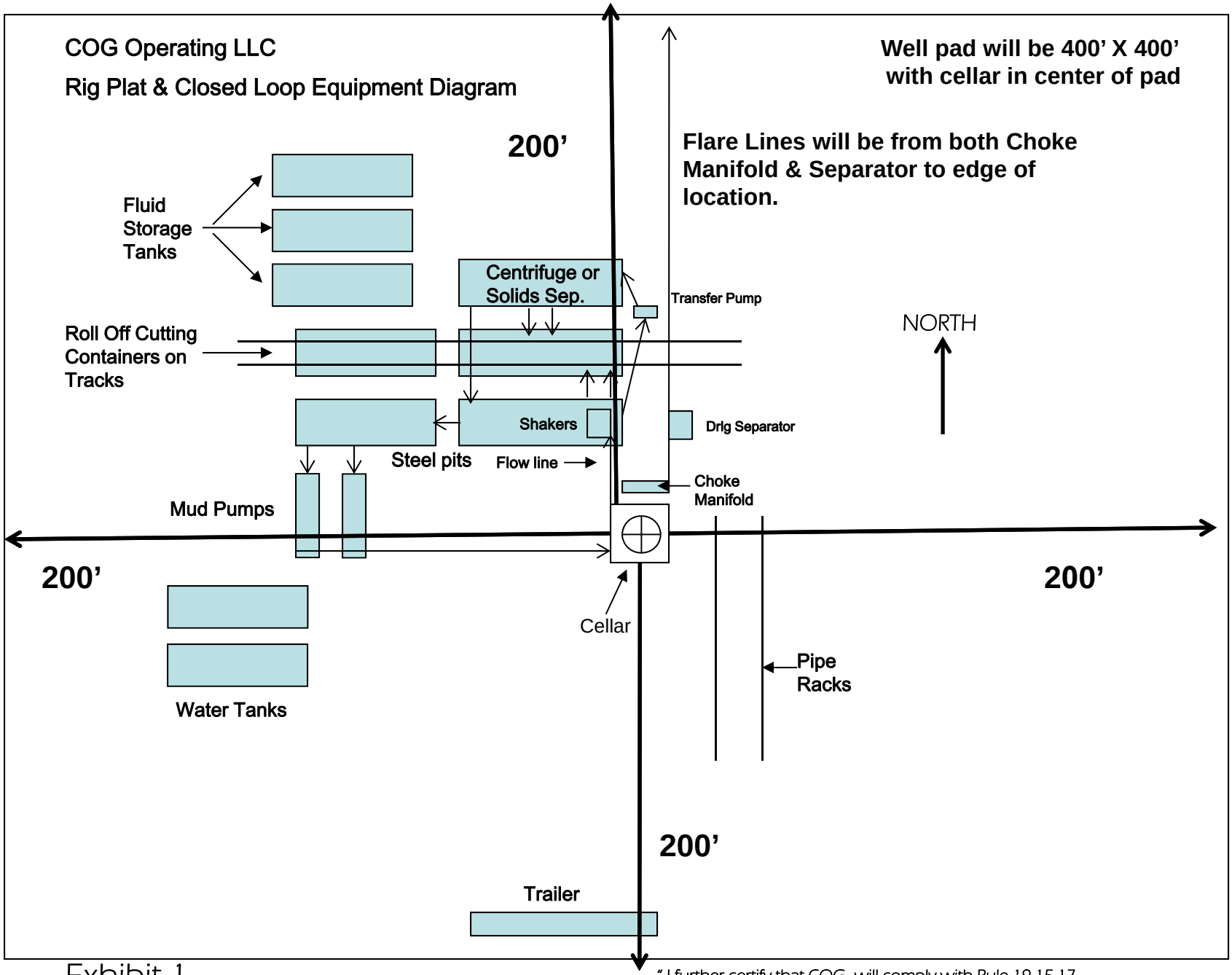


Exhibit 1

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: ConocoPhillips Company **OGRID: 217817** **Date: 03/25/2025**

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Lil John Federal Com 701H	30-025-	B-30-26S-33E	270 FNL & 2060 FEL	± 765	± 2001	± 1760
Lil John Federal Com 702H	30-025-	B-30-26S-33E	270 FNL & 2030 FEL	± 765	± 2001	± 1760
Lil John Federal Com 703H	30-025-	B-30-26S-33E	270 FNL & 2120 FEL	± 765	± 2001	± 1760
Lil John Federal Com 704H	30-025-	B-30-26S-33E	270 FNL & 2090 FEL	± 765	± 2001	± 1760
Lil John Federal Com 705H	30-025-	B-30-26S-33E	270 FNL & 2180 FEL	± 765	± 2001	± 1760
Lil John Federal Com 706H	30-025-	B-30-26S-33E	270 FNL & 2150 FEL	± 765	± 2001	± 1760

IV. Central Delivery Point Name: Lil John Federal Com CTB NENW 920' FNL & 1348' FWL 30-26S-33E [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Lil John Federal Com	Pending	± 5/1/2026	± 25 days from spud	TBD	TBD	TBD
701H, 702H, 703H, 704H, 705H, 706H						

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: Stan Wagner
Printed Name: Stan Wagner
Title: Regulatory Advisor
E-mail Address: stan.s.wagner@conocophillips.com
Date: 03/25/2025
Phone: 432-253-9685

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment

How Operator will size separation equipment to optimize gas capture:

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

VII. Operational Practices

Actions Operator will take to comply with the requirements below:

B. Drilling Operations

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

C. Completion Operations

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

D. Venting and flaring during production operations

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

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

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

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

F. Measurement of vented and flared natural gas.

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

VIII. Best Management Practices

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

Waste Minimization Plan

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

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

   a. See attached Anticipated Production & Decline Curve

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

   a. See attached Anticipated Production & Decline Curve

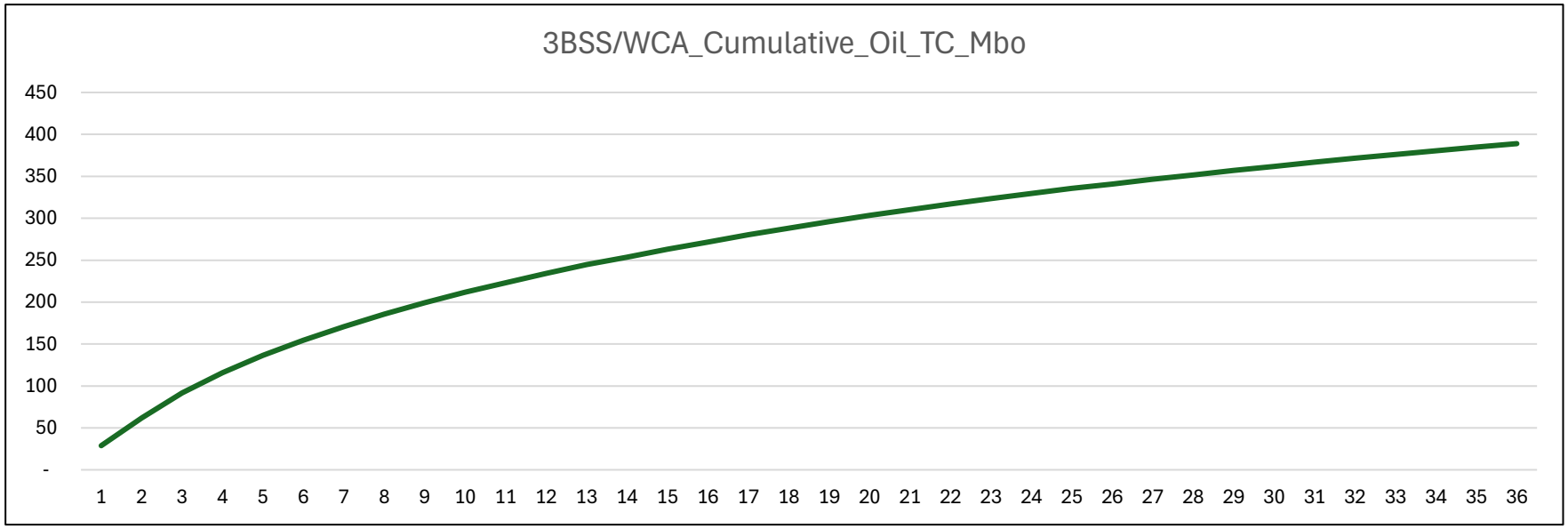
(3) Certification that the operator has a valid, executed gas sales contract to sell to a purchaser 100 percent of the produced oil-well gas, less gas anticipated for use on-lease pursuant to 43 CFR subpart 3178.

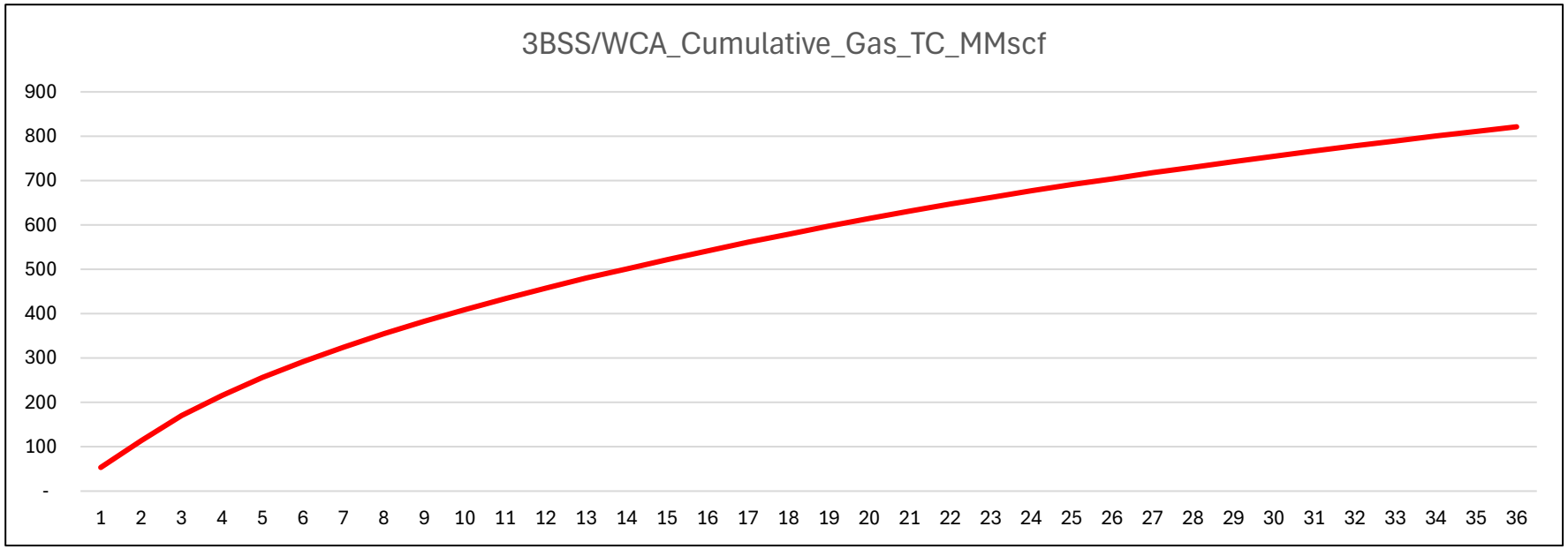
   a. See attached NMOCD – Natural Gas Management Plan

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

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

Anticipated Production Decline Curve





PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CONOCOPHILLIPS COMPANY
WELL NAME & NO.:	LIL JOHN FED COM 705H
LOCATION:	Section 30, T.26 S., R.33 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	( ) Low	(•) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[x] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[ ] EchoMeter	[ ] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[x] Break Testing	[ ] Offline Cementing	[x] 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 **975 feet per BLM Geologist** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

Approval Date: 07/28/2025

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.

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.

2. **Keep casing full during run for collapse safety factor.** The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- **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.**

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Contingency Casing Design:

4. The **13-3/8** inch surface casing shall be set at approximately **975 feet per BLM Geologist** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

e. 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.

f. 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)
g. 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.
h. If cement falls back, remedial cementing will be done prior to drilling out that string.

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.

5. **Keep casing full during run for collapse safety factor.** The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

   ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

6. **Keep casing full during run for collapse safety factor**. The minimum required fill of cement behind the **7-5/8** inch intermediate liner is:

   - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

7. 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.
   - **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

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.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)
BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.

Approval Date: 07/28/2025

- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

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
(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 2nd 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 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. 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 6/10/2025

Approval Date: 07/28/2025

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

General Information
Phone: (505) 629-6116

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

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

ACKNOWLEDGMENTS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 490116
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☐	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.

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Phone: (505) 476-3441

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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

Operator:	OGRID:
CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	217817
	Action Number: 490116
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
stanwagner	Cement is required to circulate on both surface and intermediate1 strings of casing.	7/30/2025
stanwagner	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	7/30/2025
jeffrey.harrison	Any string of casing or liner that is not circulated to surface must have a minimum of 200' of cement tie-back into the previous string of casing.	9/3/2025
jeffrey.harrison	Administrative order required for non-standard spacing unit prior to production.	9/3/2025
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.	9/3/2025
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.	9/3/2025
jeffrey.harrison	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	9/3/2025
jeffrey.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	9/3/2025
jeffrey.harrison	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	9/3/2025