

Well Name: AKUBRA FEDERAL COM	Well Location: T26S / R35E / SEC 4 / NWNE / 32.078814 / -103.368314	County or Parish/State: LEA / NM
Well Number: 703H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM112943	Unit or CA Name: TALCO 9 26 35 FED COM 3H	Unit or CA Number: NMNM136909
US Well Number:	Operator: COG OPERATING LLC	

Notice of Intent

Sundry ID: 2788508

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 05/06/2024	Time Sundry Submitted: 09:57
Date proposed operation will begin: 05/06/2024	

Procedure Description: COG Operating requests a change to our approved APD for this well to reflect a change in surface casing and BHL. Additionally, we request the addition of a contingency 4-string casing design be added to the drill plan in the event water flows are encountered during drilling. Change BHL FROM: 50' FNL & 1649' FEL Change BHL TO: 50' FNL & 1060' FEL NENE 28-25S-35E Lea Co, NM Change surface casing FROM: 14.75 inch hole, 10.75 inch, 45.5#, J55, BTC Change surface casing TO: 17.50 inch hole, 13.375 inch, 54.5#, J55, BTC, 0 – 1220' ft. Also, COG Operating requests a variance to allow for break testing as attached. Detailed contingency casing plan and procedure attached API Number is 30-025-52893

NOI Attachments

Procedure Description

- AKUBRA_FED_COM_703H_C102_NAD83_Signed_5_06_24_20240506095718.pdf
- Akubra_Fed_Com_703H_BHL_and_Casing_Sundry_Contingent_Plan_20240506095718.pdf
- AKUBRA_FED_COM_703H_PWP2_DIR_RPT_20240506095718.pdf
- AKUBRA_FED_COM__703H_PWP2_PRMT_PLOT_20240506095718.pdf
- AKUBRA_FED_COM_703H_PWP2_AC_RPT_20240506095718.pdf
- COP_BOP_Break_Testing_Documentation_6_07_23_20240506095718.pdf

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Conditions of Approval

Additional

AKUBRA_FED_COM_703H__SUNDRY_COA_20240625104318.pdf

Operator

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

Operator Electronic Signature: STAN WAGNER	Signed on: MAY 06, 2024 09:57 AM
Name: COG OPERATING LLC	
Title: Regulatory Advisor	
Street Address: 600 WEST ILLINOIS AVE	
City: MIDLAND	State: TX
Phone: (432) 253-9685	
Email address: STAN.S.WAGNER@CONOCOPHILLIPS.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: KEITH P IMMATTY	BLM POC Title: ENGINEER
BLM POC Phone: 5759884722	BLM POC Email Address: KIMMATTY@BLM.GOV
Disposition: Approved	Disposition Date: 06/25/2024
Signature: Keith Immatty	

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No.	
10. Field and Pool or Exploratory Area	11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title
Signature	Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice 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.	Office	

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.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NWNW / 280 FNL / 1360 FEL / TWSP: 26S / RANGE: 35E / SECTION: 4 / LAT: 32.078814 / LONG: -103.368314 (TVD: 0 feet, MD: 0 feet)
PPP: NWNW / 1319 FNL / 1650 FEL / TWSP: 25S / RANGE: 35E / SECTION: 33 / LAT: 32.090464 / LONG: -103.369257 (TVD: 12600 feet, MD: 16758 feet)
PPP: SWSE / 100 FSL / 1649 FEL / TWSP: 25S / RANGE: 35E / SECTION: 33 / LAT: 32.079859 / LONG: -103.369248 (TVD: 12600 feet, MD: 12897 feet)
PPP: SWNE / 2639 FNL / 1649 FEL / TWSP: 25S / RANGE: 35E / SECTION: 33 / LAT: 32.086839 / LONG: -103.369254 (TVD: 12600 feet, MD: 15438 feet)
BHL: NWNW / 50 FNL / 1649 FEL / TWSP: 25S / RANGE: 35E / SECTION: 28 / LAT: 32.108485 / LONG: -103.369274 (TVD: 12600 feet, MD: 23311 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG PRODUCTION LLC
WELL NAME & NO.:	AKUBRA FED COM 703H
SURFACE HOLE FOOTAGE:	280'/N & 1360'/E
BOTTOM HOLE FOOTAGE	50'/N & 1060'/E
LOCATION:	Section 4, T.26 S., R.35 E.
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	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency Cement Squeeze	☐ EchoMeter	☐ Primary Cement Squeeze
Special Requirements	☐ Water Disposal	☒ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☒ Break Testing	☐ Offline Cementing	☒ Casing Clearance

Drill plan change addressed in this COA. All previous COAs still apply

A. CASING

Primary Casing Design:

1. The 13-3/8 inch surface casing shall be set at approximately **1220** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. **Cement volume not listed for surface lead. Please review and ensure cement to surface.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The 7-5/8 inch intermediate casing shall be set at approximately **12,000** feet. **Cement volume excess less than 25% CFO requirement. Please review.** The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2:

Operator has proposed a DV tool ~50' above the Lamar Lime top. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
3. The 5-1/2 inch production casing shall be set at approximately **23,281** feet. The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Alternate Casing Design(Contingency:)

1. The 13-3/8 inch surface casing shall be set at approximately **1220** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **9-5/8** inch intermediate casing shall be set at approximately **5,200** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The **7-5/8** inch intermediate liner shall be set at approximately **12,000** feet tying back in a minimum of 200' into the 9-5/8" casing. The minimum required fill of cement behind the **7-5/8** inch intermediate liner top is:

Option 1 (Single Stage):

- Cement to liner top. Verify excess circulated to surface.
4. The **5-1/2** inch production casing shall be set at approximately **23,281** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Casing Clearance:

THE 5.5" W441 CASING NEEDS TO TIE BACK A MINIMUM OF 200' INTO THE 7.625" W513 TO MEET BLM CLEARANCE REQUIREMENT

Break Testing:

Approved for the intermediate interval. Procedure attached in sundry.

(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.
- 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.

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)
 - If well located in 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
 - If well located in Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the

casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

KPI 6/24/2024

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 746-1283 Fax: (575) 746-9720

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-	Pool Code 98117	Pool Name WC-025 G-09 S263504N; Wolfcamp
Property Code	Property Name AKUBRA FEDERAL COM	Well Number 703H
OGRID No. 229137	Operator Name COG OPERATING LLC	Elevation 3192.9'

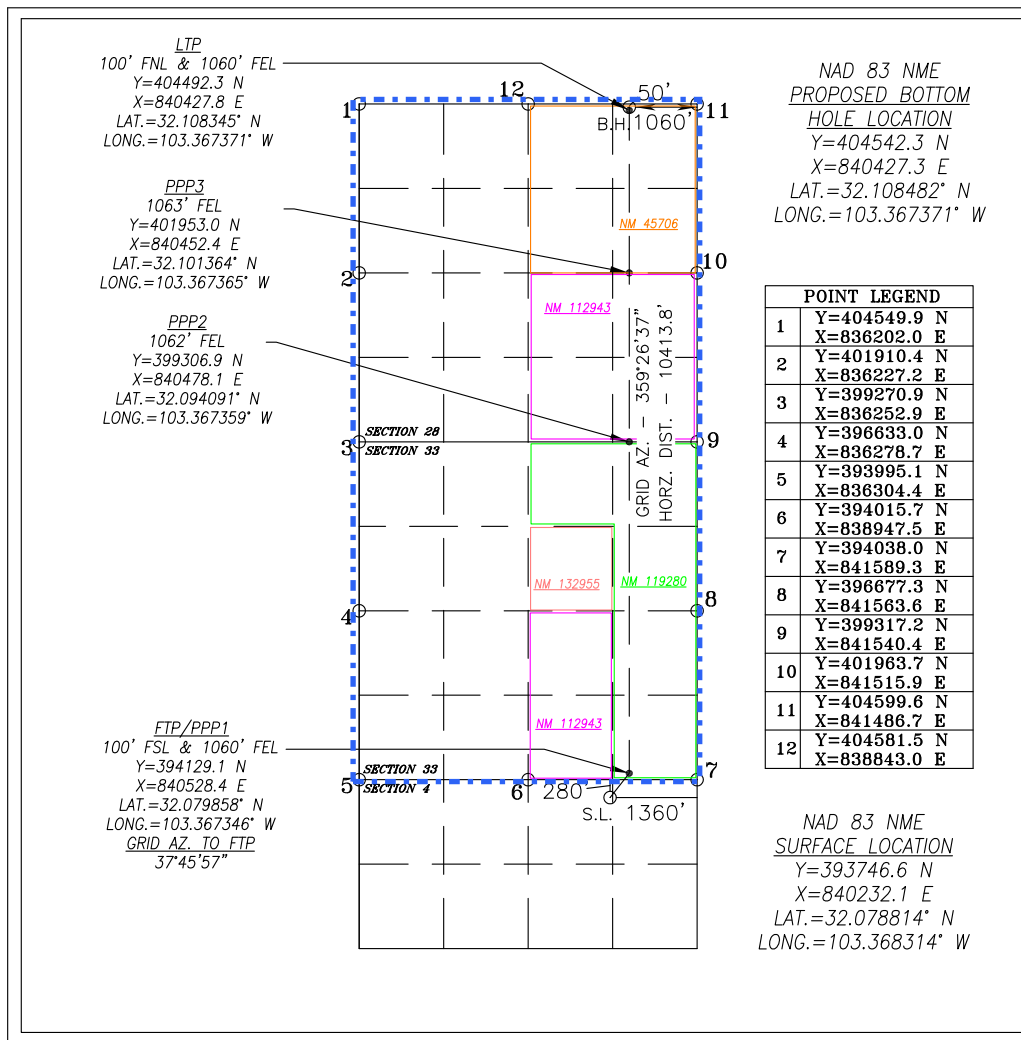
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	4	26-S	35-E		280	NORTH	1360	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	25-S	35-E		50	NORTH	1060	EAST	LEA
Dedicated Acres 1280	Joint or Infill	Consolidation Code Com	Order No.						

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stan Wagner 5/06/2024
Signature Date

Stan Wagner
Printed Name

Printed Name

E-mail Address

SURVEYOR CERTIFICATION

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

JUNE 6, 2023

Date of Survey

Signature & Seal of Professional Surveyor



Chad Hargrow 11/6/23
Certificate No. CHAD HARGROW 17777
W.O. #23-891 DRAWN BY: WN

COG Operating, LLC - Akubra Fed Com #703H

1. Geologic Formations

TVD of target	12,607' EOL	Pilot hole depth	NA
MD at TD:	23,281'	Deepest expected fresh water:	118'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1037	Water	
Top of Salt	1369	Salt	
Base of Salt	4928	Salt	
Lamar	5299	Salt Water	
Bell Canyon	5311	Salt Water	
Cherry Canyon	6250	Oil/Gas	
Brushy Canyon	7839	Oil/Gas	
Bone Spring	9171	Oil/Gas	
Bone Spring 1st Sand - BS1S	10413	Oil/Gas	
Bone Spring Shale - BS1SH	10564	Oil/Gas	
Bone Spring 2nd Sand - BS2S	10922	Oil/Gas	
Bone Spring 3rd Carb - BS3C	11421	Oil/Gas	
Bone Spring 3rd Sand - BS3S	12022	Oil/Gas	
Wolfcamp A	12551	Oil/Gas	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
17.50"	0	1220	13.375"	54.5	J55	BTC	2.02	1.25	12.83	13.67
9.875"	0	8000	7.625"	29.7	L80-ICY	BTC	1.42	1.05	3.06	3.09
8.750"	8000	12000	7.625"	29.7	P110-ICY	W513	1.18	1.46	3.00	1.80
6.75"	0	11800	5.5"	23	P110-CY	BTC	1.76	2.05	2.69	2.69
6.75"	11800	23,281	5.5"	23	P110-CY	W441	1.64	1.91	2.51	2.28
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

2b. Contingency Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
17.50"	0	1220	13.375"	54.5	J55	BTC	2.02	1.25	12.83	13.67
12.25"	0	5200	9.625"	40	L80-IC	BTC	1.43	1.22	4.40	4.55
8.75"	5000	12000	7.625"	29.7	P110-ICY	W513	1.18	1.46	3.00	1.80
6.75"	0	11800	5.5"	23	P110-CY	BTC	1.76	2.05	2.69	2.69
6.75"	11800	23,281	5.5"	23	P110-CY	W441	1.64	1.91	2.51	2.28
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and

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

Contingency program will be run if large water flows or losses 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.

May 2, 2024

1

COG Operating, LLC - Akubra Fed Com #703H

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

COG Operating, LLC - Akubra Fed Com #703H

3. Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	#VALUE!	12.8	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Inter. Stage 1	830	10.3	3.3	22	24	Halliburton tuned light
	250	14.8	1.35	6.6	8	Tail: Class H
Prod	750	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	860	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%
1 st Intermediate	0'	50%
Production	11,500'	20% OH in Lateral (KOP to EOL)

3b. Contingency Cementing Program

Casing	# Sk	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	730	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Int. #1	800	12.8	1.75	9.21	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	390	14.8	1.35	6.6	8	Tail: Class C + 2% CaCl ₂
Inter. #2 (Liner)	200	10.5	3.3	22	24	Tuned light
	90	14.8	1.35	6.6	8	Tail: Class H
Prod	960	12.5	1.48	10.7	72	Lead: 50:50:10 H Blend
	860	13.2	1.34	5.7	19	Tail: 50:50:2 Class H Blend

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

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
2 nd Intermediate	5,000'	20%
Production	11,750'	20% OH in Lateral (KOP to EOL)

COG Operating, LLC - Akubra Fed Com #703H

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.

COG Operating, LLC - Akubra Fed Com #703H

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
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

COG Operating, LLC - Akubra Fed Com #703H**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	8855 psi at 12607' TVD
Abnormal Temperature	NO 180 Deg. F.

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

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

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of 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	H ₂ S Plan.
x	BOP & Choke Schematics.
x	Directional Plan

DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST

AKUBRA PROJECT

AKUBRA FED COM 703H

OWB

Plan: PWP2

Standard Planning Report

11 April, 2024

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

Project	LEA COUNTY SOUTHEAST		
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		AKUBRA PROJECT				
Site Position:		Northing:	399,228.16	usft	Latitude:	32° 5' 38.189 N
From:	Map	Easting:	797,901.87	usft	Longitude:	103° 22' 16.971 W
Position Uncertainty:		0.0	usft	Slot Radius:	13-3/16	"

Well	AKUBRA FED COM 703H					
Well Position	+N/-S	0.0 usft	Northing:	393,688.80 usft	Latitude:	32° 4' 43.275 N
	+E/-W	0.0 usft	Easting:	799,044.50 usft	Longitude:	103° 22' 4.266 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,192.9 usft
Grid Convergence:		0.51 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2023	11/1/2024	6.04	59.58	47,173.55842092

Design	PWP2				
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	1.04	

Plan Survey Tool Program		Date	4/11/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	1,205.0 PWP2 (OWB)	r.5 SDI_KPR_WL_NS-CT SDI Keeper Wireline Gyrocomp		
2	1,205.0	12,147.7 PWP2 (OWB)	r.5 MWD+IFR1+MS OWSG MWD + IFR1 + Multi-St		
3	12,147.7	23,281.4 PWP2 (OWB)	r.5 MWD+IFR1+MS OWSG MWD + IFR1 + Multi-St		

ConocoPhillips
Planning Report

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Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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	
1,205.0	0.00	0.00	1,205.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,455.0	5.00	130.00	1,454.7	-7.0	8.4	2.00	2.00	0.00	130.00	
1,750.7	8.00	100.00	1,748.6	-18.9	38.5	1.50	1.01	-10.14	-64.12	
2,863.0	8.00	100.00	2,850.0	-45.8	191.0	0.00	0.00	0.00	0.00	
4,463.0	0.00	0.00	4,444.8	-65.1	300.8	0.50	-0.50	0.00	180.00	
12,147.7	0.00	0.00	12,129.5	-65.1	300.8	0.00	0.00	0.00	0.00	
12,897.7	90.00	359.45	12,607.0	412.3	296.2	12.00	12.00	-0.07	359.45	
23,231.4	90.00	359.45	12,607.0	10,745.5	196.2	0.00	0.00	0.00	0.00	
23,281.4	90.00	359.45	12,607.0	10,795.5	195.7	0.00	0.00	0.00	0.00	

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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
1,205.0	0.00	0.00	1,205.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
1,300.0	1.90	130.00	1,300.0	-1.0	1.2	-1.0	2.00	2.00	0.00
1,400.0	3.90	130.00	1,399.8	-4.3	5.1	-4.2	2.00	2.00	0.00
1,455.0	5.00	130.00	1,454.7	-7.0	8.4	-6.9	2.00	2.00	0.00
Start DLS 1.50 TFO -64.12									
1,500.0	5.33	123.45	1,499.5	-9.4	11.6	-9.2	1.50	0.73	-14.56
1,600.0	6.26	111.76	1,599.0	-14.0	20.5	-13.6	1.50	0.93	-11.69
1,700.0	7.38	103.34	1,698.3	-17.5	31.9	-16.9	1.50	1.12	-8.42
1,750.7	8.00	100.00	1,748.6	-18.9	38.5	-18.2	1.50	1.21	-6.58
Start 1112.3 hold at 1750.7 MD									
1,800.0	8.00	100.00	1,797.3	-20.1	45.3	-19.2	0.00	0.00	0.00
1,900.0	8.00	100.00	1,896.4	-22.5	59.0	-21.4	0.00	0.00	0.00
2,000.0	8.00	100.00	1,995.4	-24.9	72.7	-23.6	0.00	0.00	0.00
2,100.0	8.00	100.00	2,094.4	-27.3	86.4	-25.7	0.00	0.00	0.00
2,200.0	8.00	100.00	2,193.5	-29.7	100.1	-27.9	0.00	0.00	0.00
2,300.0	8.00	100.00	2,292.5	-32.1	113.8	-30.1	0.00	0.00	0.00
2,400.0	8.00	100.00	2,391.5	-34.6	127.5	-32.2	0.00	0.00	0.00
2,500.0	8.00	100.00	2,490.5	-37.0	141.2	-34.4	0.00	0.00	0.00
2,600.0	8.00	100.00	2,589.6	-39.4	154.9	-36.6	0.00	0.00	0.00
2,700.0	8.00	100.00	2,688.6	-41.8	168.6	-38.7	0.00	0.00	0.00
2,800.0	8.00	100.00	2,787.6	-44.2	182.3	-40.9	0.00	0.00	0.00
2,863.0	8.00	100.00	2,850.0	-45.8	191.0	-42.3	0.00	0.00	0.00
Start Drop -0.50									
2,900.0	7.81	100.00	2,886.7	-46.6	196.0	-43.1	0.50	-0.50	0.00
3,000.0	7.31	100.00	2,985.8	-48.9	208.9	-45.1	0.50	-0.50	0.00
3,100.0	6.81	100.00	3,085.0	-51.1	221.0	-47.0	0.50	-0.50	0.00
3,200.0	6.31	100.00	3,184.4	-53.0	232.3	-48.8	0.50	-0.50	0.00
3,300.0	5.81	100.00	3,283.8	-54.9	242.7	-50.5	0.50	-0.50	0.00
3,400.0	5.31	100.00	3,383.3	-56.6	252.3	-52.0	0.50	-0.50	0.00
3,500.0	4.81	100.00	3,482.9	-58.1	261.0	-53.4	0.50	-0.50	0.00
3,600.0	4.31	100.00	3,582.6	-59.5	268.8	-54.6	0.50	-0.50	0.00
3,700.0	3.81	100.00	3,682.4	-60.7	275.8	-55.7	0.50	-0.50	0.00
3,800.0	3.31	100.00	3,782.2	-61.8	281.9	-56.7	0.50	-0.50	0.00
3,900.0	2.81	100.00	3,882.0	-62.7	287.2	-57.5	0.50	-0.50	0.00
4,000.0	2.31	100.00	3,981.9	-63.5	291.6	-58.2	0.50	-0.50	0.00
4,100.0	1.81	100.00	4,081.9	-64.1	295.1	-58.8	0.50	-0.50	0.00
4,200.0	1.31	100.00	4,181.8	-64.6	297.8	-59.2	0.50	-0.50	0.00
4,300.0	0.81	100.00	4,281.8	-64.9	299.6	-59.5	0.50	-0.50	0.00
4,400.0	0.31	100.00	4,381.8	-65.1	300.6	-59.6	0.50	-0.50	0.00
4,463.0	0.00	0.00	4,444.8	-65.1	300.8	-59.7	0.50	-0.50	0.00
Start 7684.7 hold at 4463.0 MD									

ConocoPhillips
Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.0	0.00	0.00	4,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
4,600.0	0.00	0.00	4,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
4,700.0	0.00	0.00	4,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
4,800.0	0.00	0.00	4,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,000.0	0.00	0.00	4,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,100.0	0.00	0.00	5,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,100.0	0.00	0.00	7,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,300.0	0.00	0.00	7,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,900.0	0.00	0.00	9,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,000.0	0.00	0.00	9,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,100.0	0.00	0.00	10,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,300.0	0.00	0.00	10,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,600.0	0.00	0.00	10,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,700.0	0.00	0.00	10,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
10,900.0	0.00	0.00	10,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,000.0	0.00	0.00	10,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,100.0	0.00	0.00	11,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,200.0	0.00	0.00	11,181.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,300.0	0.00	0.00	11,281.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,400.0	0.00	0.00	11,381.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,500.0	0.00	0.00	11,481.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,600.0	0.00	0.00	11,581.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,700.0	0.00	0.00	11,681.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,800.0	0.00	0.00	11,781.8	-65.1	300.8	-59.7	0.00	0.00	0.00
11,900.0	0.00	0.00	11,881.8	-65.1	300.8	-59.7	0.00	0.00	0.00
12,000.0	0.00	0.00	11,981.8	-65.1	300.8	-59.7	0.00	0.00	0.00
12,100.0	0.00	0.00	12,081.8	-65.1	300.8	-59.7	0.00	0.00	0.00
12,147.7	0.00	0.00	12,129.5	-65.1	300.8	-59.7	0.00	0.00	0.00
Start DLS 12.00 TFO 359.45									
12,150.0	0.27	359.45	12,131.8	-65.1	300.8	-59.6	12.00	12.00	0.00
12,175.0	3.27	359.45	12,156.8	-64.3	300.8	-58.9	12.00	12.00	0.00
12,200.0	6.27	359.45	12,181.7	-62.3	300.7	-56.8	12.00	12.00	0.00
12,225.0	9.27	359.45	12,206.5	-58.9	300.7	-53.4	12.00	12.00	0.00
12,250.0	12.27	359.45	12,231.0	-54.2	300.7	-48.7	12.00	12.00	0.00
12,275.0	15.27	359.45	12,255.3	-48.3	300.6	-42.8	12.00	12.00	0.00
12,300.0	18.27	359.45	12,279.2	-41.0	300.5	-35.6	12.00	12.00	0.00
12,325.0	21.27	359.45	12,302.8	-32.6	300.5	-27.1	12.00	12.00	0.00
12,350.0	24.27	359.45	12,325.8	-22.9	300.4	-17.5	12.00	12.00	0.00
12,375.0	27.27	359.45	12,348.3	-12.0	300.3	-6.6	12.00	12.00	0.00
12,400.0	30.27	359.45	12,370.2	0.0	300.1	5.4	12.00	12.00	0.00
12,425.0	33.27	359.45	12,391.5	13.2	300.0	18.6	12.00	12.00	0.00
12,450.0	36.27	359.45	12,412.0	27.4	299.9	32.8	12.00	12.00	0.00
12,475.0	39.27	359.45	12,431.8	42.7	299.7	48.1	12.00	12.00	0.00
12,500.0	42.27	359.45	12,450.7	59.0	299.6	64.5	12.00	12.00	0.00
12,525.0	45.27	359.45	12,468.8	76.3	299.4	81.8	12.00	12.00	0.00
12,550.0	48.27	359.45	12,485.9	94.5	299.2	100.0	12.00	12.00	0.00
12,575.0	51.27	359.45	12,502.0	113.6	299.0	119.0	12.00	12.00	0.00
12,600.0	54.27	359.45	12,517.1	133.5	298.9	138.9	12.00	12.00	0.00
12,625.0	57.27	359.45	12,531.2	154.2	298.7	159.6	12.00	12.00	0.00
12,650.0	60.27	359.45	12,544.2	175.6	298.4	181.0	12.00	12.00	0.00
12,675.0	63.27	359.45	12,556.0	197.6	298.2	203.0	12.00	12.00	0.00
12,700.0	66.27	359.45	12,566.6	220.2	298.0	225.6	12.00	12.00	0.00
12,725.0	69.27	359.45	12,576.1	243.4	297.8	248.7	12.00	12.00	0.00
12,750.0	72.27	359.45	12,584.3	267.0	297.6	272.3	12.00	12.00	0.00
12,775.0	75.27	359.45	12,591.3	291.0	297.3	296.3	12.00	12.00	0.00
12,800.0	78.27	359.45	12,597.0	315.3	297.1	320.6	12.00	12.00	0.00
12,825.0	81.27	359.45	12,601.5	339.9	296.9	345.2	12.00	12.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,850.0	84.27	359.45	12,604.6	364.7	296.6	370.0	12.00	12.00	0.00
12,875.0	87.27	359.45	12,606.5	389.6	296.4	394.9	12.00	12.00	0.00
12,897.7	90.00	359.45	12,607.0	412.3	296.2	417.6	12.00	12.00	0.00
Start 10333.7 hold at 12897.7 MD									
12,900.0	90.00	359.45	12,607.0	414.6	296.1	419.9	0.00	0.00	0.00
13,000.0	90.00	359.45	12,607.0	514.6	295.2	519.9	0.00	0.00	0.00
13,100.0	90.00	359.45	12,607.0	614.6	294.2	619.8	0.00	0.00	0.00
13,200.0	90.00	359.45	12,607.0	714.6	293.2	719.8	0.00	0.00	0.00
13,300.0	90.00	359.45	12,607.0	814.6	292.3	819.7	0.00	0.00	0.00
13,400.0	90.00	359.45	12,607.0	914.6	291.3	919.7	0.00	0.00	0.00
13,500.0	90.00	359.45	12,607.0	1,014.6	290.3	1,019.7	0.00	0.00	0.00
13,600.0	90.00	359.45	12,607.0	1,114.6	289.4	1,119.6	0.00	0.00	0.00
13,700.0	90.00	359.45	12,607.0	1,214.6	288.4	1,219.6	0.00	0.00	0.00
13,800.0	90.00	359.45	12,607.0	1,314.6	287.4	1,319.6	0.00	0.00	0.00
13,900.0	90.00	359.45	12,607.0	1,414.6	286.5	1,419.5	0.00	0.00	0.00
14,000.0	90.00	359.45	12,607.0	1,514.5	285.5	1,519.5	0.00	0.00	0.00
14,100.0	90.00	359.45	12,607.0	1,614.5	284.5	1,619.4	0.00	0.00	0.00
14,200.0	90.00	359.45	12,607.0	1,714.5	283.6	1,719.4	0.00	0.00	0.00
14,300.0	90.00	359.45	12,607.0	1,814.5	282.6	1,819.4	0.00	0.00	0.00
14,400.0	90.00	359.45	12,607.0	1,914.5	281.6	1,919.3	0.00	0.00	0.00
14,500.0	90.00	359.45	12,607.0	2,014.5	280.7	2,019.3	0.00	0.00	0.00
14,600.0	90.00	359.45	12,607.0	2,114.5	279.7	2,119.2	0.00	0.00	0.00
14,700.0	90.00	359.45	12,607.0	2,214.5	278.7	2,219.2	0.00	0.00	0.00
14,800.0	90.00	359.45	12,607.0	2,314.5	277.8	2,319.2	0.00	0.00	0.00
14,900.0	90.00	359.45	12,607.0	2,414.5	276.8	2,419.1	0.00	0.00	0.00
15,000.0	90.00	359.45	12,607.0	2,514.5	275.8	2,519.1	0.00	0.00	0.00
15,100.0	90.00	359.45	12,607.0	2,614.5	274.9	2,619.1	0.00	0.00	0.00
15,200.0	90.00	359.45	12,607.0	2,714.5	273.9	2,719.0	0.00	0.00	0.00
15,300.0	90.00	359.45	12,607.0	2,814.5	272.9	2,819.0	0.00	0.00	0.00
15,400.0	90.00	359.45	12,607.0	2,914.5	272.0	2,918.9	0.00	0.00	0.00
15,500.0	90.00	359.45	12,607.0	3,014.5	271.0	3,018.9	0.00	0.00	0.00
15,600.0	90.00	359.45	12,607.0	3,114.5	270.0	3,118.9	0.00	0.00	0.00
15,700.0	90.00	359.45	12,607.0	3,214.5	269.1	3,218.8	0.00	0.00	0.00
15,800.0	90.00	359.45	12,607.0	3,314.5	268.1	3,318.8	0.00	0.00	0.00
15,900.0	90.00	359.45	12,607.0	3,414.5	267.1	3,418.7	0.00	0.00	0.00
16,000.0	90.00	359.45	12,607.0	3,514.5	266.1	3,518.7	0.00	0.00	0.00
16,100.0	90.00	359.45	12,607.0	3,614.5	265.2	3,618.7	0.00	0.00	0.00
16,200.0	90.00	359.45	12,607.0	3,714.4	264.2	3,718.6	0.00	0.00	0.00
16,300.0	90.00	359.45	12,607.0	3,814.4	263.2	3,818.6	0.00	0.00	0.00
16,400.0	90.00	359.45	12,607.0	3,914.4	262.3	3,918.5	0.00	0.00	0.00
16,500.0	90.00	359.45	12,607.0	4,014.4	261.3	4,018.5	0.00	0.00	0.00
16,600.0	90.00	359.45	12,607.0	4,114.4	260.3	4,118.5	0.00	0.00	0.00
16,700.0	90.00	359.45	12,607.0	4,214.4	259.4	4,218.4	0.00	0.00	0.00
16,800.0	90.00	359.45	12,607.0	4,314.4	258.4	4,318.4	0.00	0.00	0.00
16,900.0	90.00	359.45	12,607.0	4,414.4	257.4	4,418.4	0.00	0.00	0.00
17,000.0	90.00	359.45	12,607.0	4,514.4	256.5	4,518.3	0.00	0.00	0.00
17,100.0	90.00	359.45	12,607.0	4,614.4	255.5	4,618.3	0.00	0.00	0.00
17,200.0	90.00	359.45	12,607.0	4,714.4	254.5	4,718.2	0.00	0.00	0.00
17,300.0	90.00	359.45	12,607.0	4,814.4	253.6	4,818.2	0.00	0.00	0.00
17,400.0	90.00	359.45	12,607.0	4,914.4	252.6	4,918.2	0.00	0.00	0.00
17,500.0	90.00	359.45	12,607.0	5,014.4	251.6	5,018.1	0.00	0.00	0.00
17,600.0	90.00	359.45	12,607.0	5,114.4	250.7	5,118.1	0.00	0.00	0.00
17,700.0	90.00	359.45	12,607.0	5,214.4	249.7	5,218.0	0.00	0.00	0.00
17,800.0	90.00	359.45	12,607.0	5,314.4	248.7	5,318.0	0.00	0.00	0.00

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Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,900.0	90.00	359.45	12,607.0	5,414.4	247.8	5,418.0	0.00	0.00	0.00
18,000.0	90.00	359.45	12,607.0	5,514.4	246.8	5,517.9	0.00	0.00	0.00
18,100.0	90.00	359.45	12,607.0	5,614.4	245.8	5,617.9	0.00	0.00	0.00
18,200.0	90.00	359.45	12,607.0	5,714.4	244.9	5,717.9	0.00	0.00	0.00
18,300.0	90.00	359.45	12,607.0	5,814.3	243.9	5,817.8	0.00	0.00	0.00
18,400.0	90.00	359.45	12,607.0	5,914.3	242.9	5,917.8	0.00	0.00	0.00
18,500.0	90.00	359.45	12,607.0	6,014.3	242.0	6,017.7	0.00	0.00	0.00
18,600.0	90.00	359.45	12,607.0	6,114.3	241.0	6,117.7	0.00	0.00	0.00
18,700.0	90.00	359.45	12,607.0	6,214.3	240.0	6,217.7	0.00	0.00	0.00
18,800.0	90.00	359.45	12,607.0	6,314.3	239.1	6,317.6	0.00	0.00	0.00
18,900.0	90.00	359.45	12,607.0	6,414.3	238.1	6,417.6	0.00	0.00	0.00
19,000.0	90.00	359.45	12,607.0	6,514.3	237.1	6,517.5	0.00	0.00	0.00
19,100.0	90.00	359.45	12,607.0	6,614.3	236.2	6,617.5	0.00	0.00	0.00
19,200.0	90.00	359.45	12,607.0	6,714.3	235.2	6,717.5	0.00	0.00	0.00
19,300.0	90.00	359.45	12,607.0	6,814.3	234.2	6,817.4	0.00	0.00	0.00
19,400.0	90.00	359.45	12,607.0	6,914.3	233.3	6,917.4	0.00	0.00	0.00
19,500.0	90.00	359.45	12,607.0	7,014.3	232.3	7,017.4	0.00	0.00	0.00
19,600.0	90.00	359.45	12,607.0	7,114.3	231.3	7,117.3	0.00	0.00	0.00
19,700.0	90.00	359.45	12,607.0	7,214.3	230.4	7,217.3	0.00	0.00	0.00
19,800.0	90.00	359.45	12,607.0	7,314.3	229.4	7,317.2	0.00	0.00	0.00
19,900.0	90.00	359.45	12,607.0	7,414.3	228.4	7,417.2	0.00	0.00	0.00
20,000.0	90.00	359.45	12,607.0	7,514.3	227.5	7,517.2	0.00	0.00	0.00
20,100.0	90.00	359.45	12,607.0	7,614.3	226.5	7,617.1	0.00	0.00	0.00
20,200.0	90.00	359.45	12,607.0	7,714.3	225.5	7,717.1	0.00	0.00	0.00
20,300.0	90.00	359.45	12,607.0	7,814.3	224.6	7,817.0	0.00	0.00	0.00
20,400.0	90.00	359.45	12,607.0	7,914.3	223.6	7,917.0	0.00	0.00	0.00
20,500.0	90.00	359.45	12,607.0	8,014.2	222.6	8,017.0	0.00	0.00	0.00
20,600.0	90.00	359.45	12,607.0	8,114.2	221.7	8,116.9	0.00	0.00	0.00
20,700.0	90.00	359.45	12,607.0	8,214.2	220.7	8,216.9	0.00	0.00	0.00
20,800.0	90.00	359.45	12,607.0	8,314.2	219.7	8,316.8	0.00	0.00	0.00
20,900.0	90.00	359.45	12,607.0	8,414.2	218.8	8,416.8	0.00	0.00	0.00
21,000.0	90.00	359.45	12,607.0	8,514.2	217.8	8,516.8	0.00	0.00	0.00
21,100.0	90.00	359.45	12,607.0	8,614.2	216.8	8,616.7	0.00	0.00	0.00
21,200.0	90.00	359.45	12,607.0	8,714.2	215.8	8,716.7	0.00	0.00	0.00
21,300.0	90.00	359.45	12,607.0	8,814.2	214.9	8,816.7	0.00	0.00	0.00
21,400.0	90.00	359.45	12,607.0	8,914.2	213.9	8,916.6	0.00	0.00	0.00
21,500.0	90.00	359.45	12,607.0	9,014.2	212.9	9,016.6	0.00	0.00	0.00
21,600.0	90.00	359.45	12,607.0	9,114.2	212.0	9,116.5	0.00	0.00	0.00
21,700.0	90.00	359.45	12,607.0	9,214.2	211.0	9,216.5	0.00	0.00	0.00
21,800.0	90.00	359.45	12,607.0	9,314.2	210.0	9,316.5	0.00	0.00	0.00
21,900.0	90.00	359.45	12,607.0	9,414.2	209.1	9,416.4	0.00	0.00	0.00
22,000.0	90.00	359.45	12,607.0	9,514.2	208.1	9,516.4	0.00	0.00	0.00
22,100.0	90.00	359.45	12,607.0	9,614.2	207.1	9,616.3	0.00	0.00	0.00
22,200.0	90.00	359.45	12,607.0	9,714.2	206.2	9,716.3	0.00	0.00	0.00
22,300.0	90.00	359.45	12,607.0	9,814.2	205.2	9,816.3	0.00	0.00	0.00
22,400.0	90.00	359.45	12,607.0	9,914.2	204.2	9,916.2	0.00	0.00	0.00
22,500.0	90.00	359.45	12,607.0	10,014.2	203.3	10,016.2	0.00	0.00	0.00
22,600.0	90.00	359.45	12,607.0	10,114.1	202.3	10,116.2	0.00	0.00	0.00
22,700.0	90.00	359.45	12,607.0	10,214.1	201.3	10,216.1	0.00	0.00	0.00
22,800.0	90.00	359.45	12,607.0	10,314.1	200.4	10,316.1	0.00	0.00	0.00
22,900.0	90.00	359.45	12,607.0	10,414.1	199.4	10,416.0	0.00	0.00	0.00
23,000.0	90.00	359.45	12,607.0	10,514.1	198.4	10,516.0	0.00	0.00	0.00
23,100.0	90.00	359.45	12,607.0	10,614.1	197.5	10,616.0	0.00	0.00	0.00
23,200.0	90.00	359.45	12,607.0	10,714.1	196.5	10,715.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 17 Permian Prod	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Company:	DELAWARE BASIN EAST	TVD Reference:	RKB=32ft @ 3224.9usft
Project:	LEA COUNTY SOUTHEAST	MD Reference:	RKB=32ft @ 3224.9usft
Site:	AKUBRA PROJECT	North Reference:	Grid
Well:	AKUBRA FED COM 703H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP2		

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)	
23,231.4	90.00	359.45	12,607.0	10,745.5	196.2	10,747.3	0.00	0.00	0.00	
Start 50.0 hold at 23231.4 MD										
23,281.4	90.00	359.45	12,607.0	10,795.5	195.7	10,797.3	0.00	0.00	0.00	
TD at 23281.4										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		
- hit/miss target										
- Shape								Longitude		
PBHL (AKUBRA FED COI - plan hits target center - Rectangle (sides W100.0 H10,414.4 D20.0)	0.00	179.45	12,607.0	10,795.5	195.7	404,484.30	799,240.20	32° 6' 30.081 N 103° 22' 0.868 W		
LTP (AKUBRA FED COI - plan hits target center - Circle (radius 50.0)	90.00	359.45	12,607.0	10,745.5	196.2	404,434.30	799,240.70	32° 6' 29.586 N 103° 22' 0.867 W		
FTP (AKUBRA FED COI - plan misses target center by 0.9usft at 12867.9usft MD (12606.1 TVD, 382.6 N, 296.4 E) - Circle (radius 50.0)	0.00	0.00	12,607.0	382.5	296.4	394,071.30	799,340.90	32° 4' 47.034 N 103° 22' 0.782 W		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,205.0	1,205.0	0.0	0.0	Start Build 2.00	
1,455.0	1,454.7	-7.0	8.4	Start DLS 1.50 TFO -64.12	
1,750.7	1,748.6	-18.9	38.5	Start 1112.3 hold at 1750.7 MD	
2,863.0	2,850.0	-45.8	191.0	Start Drop -0.50	
4,463.0	4,444.8	-65.1	300.8	Start 7684.7 hold at 4463.0 MD	
12,147.7	12,129.5	-65.1	300.8	Start DLS 12.00 TFO 359.45	
12,897.7	12,607.0	412.3	296.2	Start 10333.7 hold at 12897.7 MD	
23,231.4	12,607.0	10,745.5	196.2	Start 50.0 hold at 23231.4 MD	
23,281.4	12,607.0	10,795.5	195.7	TD at 23281.4	

Project: LEA COUNTY SOUTHEAST
Site: AKUBRA PROJECT
Well: AKUBRA FED COM 703H
Wellbore: OWB
Design: PWP2
GL: 3192.9
RKB=32ft @ 3224.9usft

WELL DETAILS: AKUBRA FED COM 703H

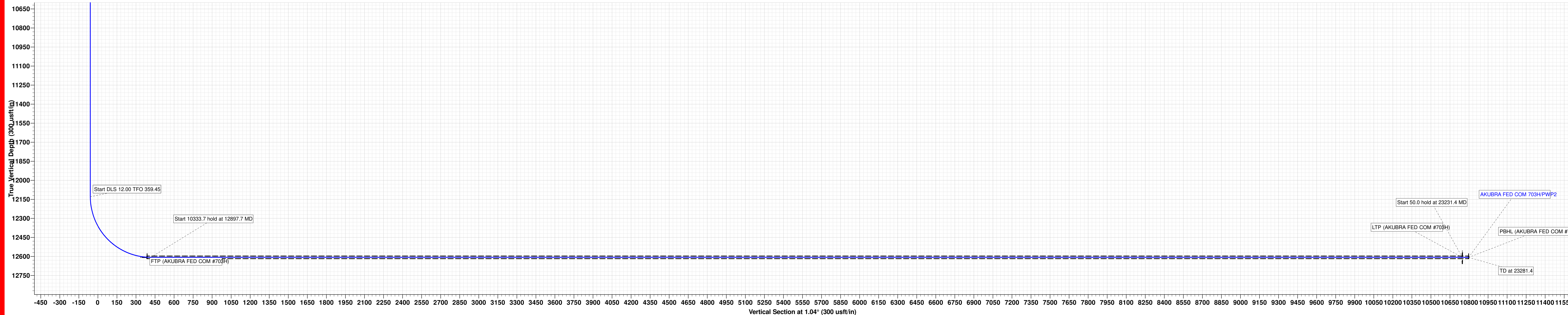
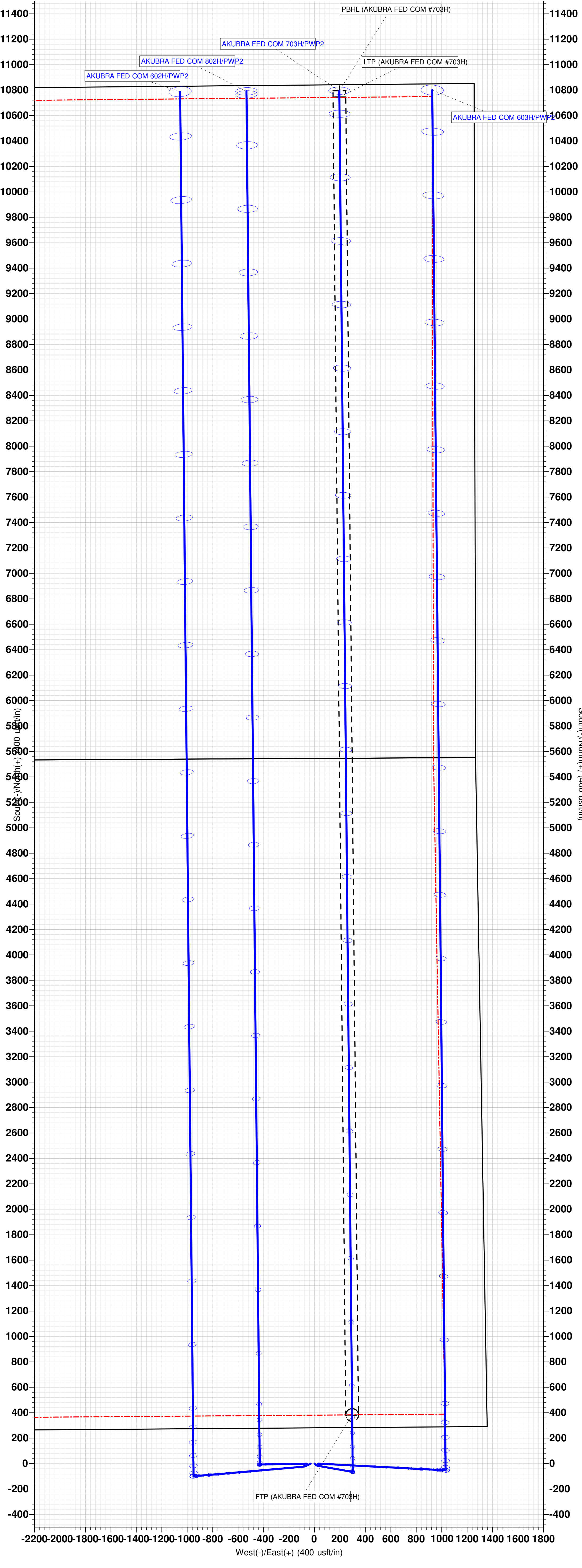
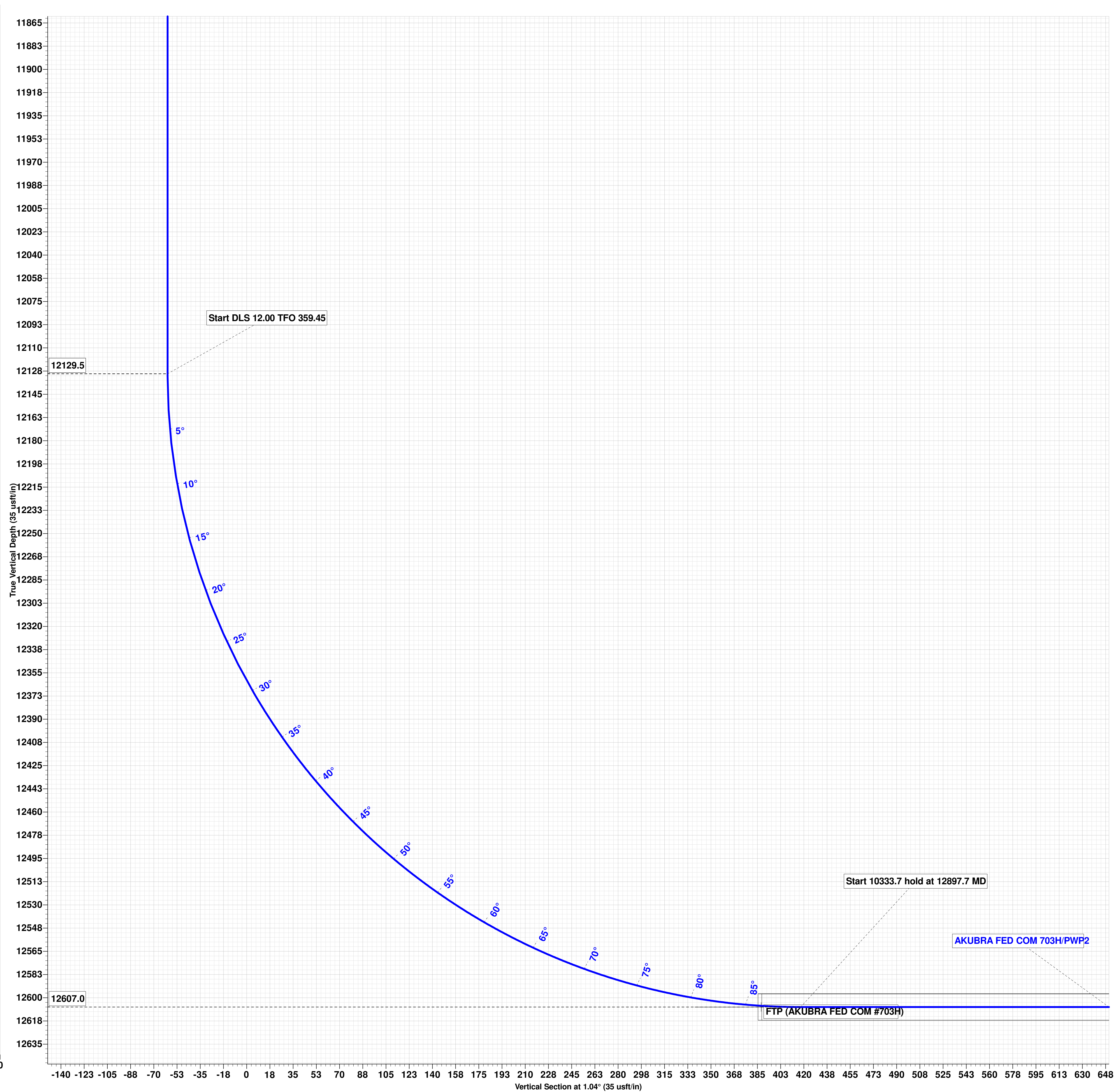
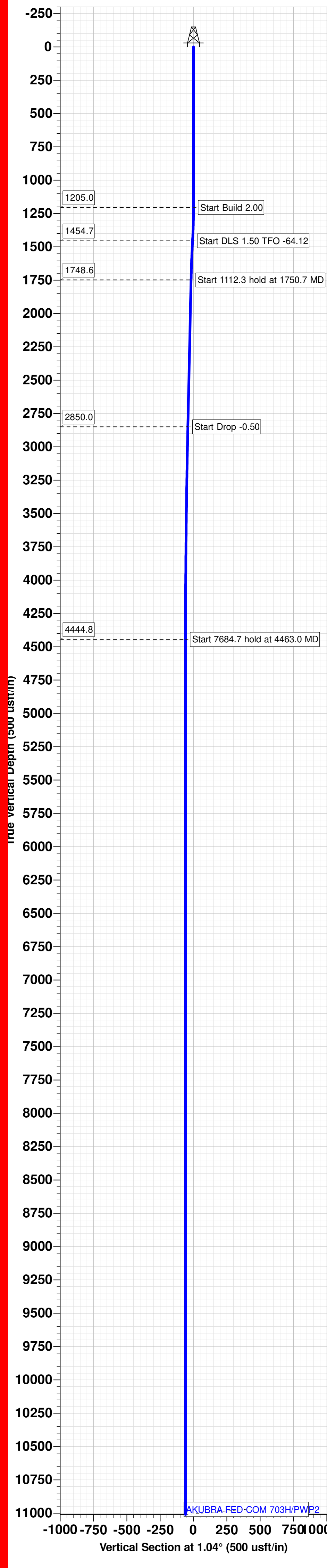
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	393688.80	799044.50	32° 4' 43.275 N	103° 22' 4.266 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP (AKUBRA FED COM #703H)	12607.0	382.5	296.4	394071.30	799340.90
LTP (AKUBRA FED COM #703H)	12607.0	10745.5	196.2	404434.30	799240.70
PBHL (AKUBRA FED COM #703H)	12607.0	10795.5	195.7	404484.30	799240.20

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
1205.0	0.00	0.00	1205.0	0.0	0.0	0.00	0.00	0.0
1455.0	5.00	130.00	1454.7	-7.0	8.4	2.00	130.00	-6.9
1750.7	8.00	100.00	1748.6	-18.9	38.5	1.50	-64.12	-18.2
2850.0	8.00	100.00	2850.0	-45.8	191.0	0.00	0.00	-42.3
4463.0	0.00	0.00	4444.8	-65.1	300.8	0.50	180.00	-59.7
12147.7	0.00	0.00	12129.5	-65.1	300.8	0.00	0.00	-59.7
12897.7	90.00	359.45	12607.0	412.3	296.2	12.00	359.45	417.6
23231.4	90.00	359.45	12607.0	10745.5	196.2	0.00	0.00	10747.3
23281.4	90.00	359.45	12607.0	10795.5	195.7	0.00	0.00	10797.3



DELAWARE BASIN EAST

LEA COUNTY SOUTHEAST

AKUBRA PROJECT

AKUBRA FED COM 703H

OWB

PWP2

Anticollision Report

11 April, 2024

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Reference	PWP2		
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:	Maximum centre distance of 1,000.0usft	Error Surface:	Combined Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Added to Error Values

Survey Tool Program		Date	4/11/2024		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	1,205.0	PWP2 (OWB)	r.5 SDI_KPR_WL_NS-CT	SDI Keeper Wireline Gyrocomp-Initilzd Cont. rev.5	
1,205.0	12,147.7	PWP2 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction rev.5	
12,147.7	23,281.4	PWP2 (OWB)	r.5 MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction rev.5	

Summary						
Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured	Measured	Between	Between		
	Depth	Depth	Centres	Ellipses		
(usft) (usft) (usft) (usft)						
AKUBRA PROJECT						
AKUBRA FED COM 602H - OWB - PWP2	1,201.0	1,201.3	30.0	23.5	4.645	CC
AKUBRA FED COM 602H - OWB - PWP2	1,205.0	1,205.0	30.0	23.5	4.633	ES, SF
AKUBRA FED COM 603H - OWB - PWP2	1,309.6	1,308.2	30.0	23.3	4.460	CC
AKUBRA FED COM 603H - OWB - PWP2	1,400.0	1,397.8	30.1	22.9	4.149	ES
AKUBRA FED COM 603H - OWB - PWP2	1,800.0	1,794.6	35.3	26.1	3.847	SF
AKUBRA FED COM 802H - OWB - PWP2	1,201.0	1,201.7	60.0	53.5	9.288	CC
AKUBRA FED COM 802H - OWB - PWP2	1,205.0	1,205.0	60.0	53.5	9.267	ES
AKUBRA FED COM 802H - OWB - PWP2	23,281.4	23,721.7	884.4	713.2	5.164	SF

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

TD Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
AKUBRA PROJECT						
AKUBRA FED COM 602H - OWB - PWP2	23,281.4	23,047.6				Out of Range @TD
AKUBRA FED COM 603H - OWB - PWP2	23,281.4	23,027.5	793.7	620.3	4.579	
AKUBRA FED COM 802H - OWB - PWP2	23,281.4	23,721.7	884.4	713.2	5.164	SF

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 602H - OWB - PWP2													Offset Site Error:	0.0 usft
Survey Program:		0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11892-r.5 MWD+IFR1+MS							Rule Assigned:				Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance				Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.3	0.3	0.0	0.0	-90.38	-0.2	-30.0	30.0					
100.0	100.0	100.3	100.3	0.5	0.5	-90.38	-0.2	-30.0	30.0	28.5	1.52	19.770		
200.0	200.0	200.3	200.3	1.0	1.0	-90.38	-0.2	-30.0	30.0	27.5	2.50	12.000		
300.0	300.0	300.3	300.3	1.4	1.4	-90.38	-0.2	-30.0	30.0	26.9	3.14	9.562		
400.0	400.0	400.3	400.3	1.6	1.6	-90.38	-0.2	-30.0	30.0	26.4	3.65	8.224		
500.0	500.0	500.3	500.3	1.9	1.9	-90.38	-0.2	-30.0	30.0	25.9	4.09	7.341		
600.0	600.0	600.3	600.3	2.1	2.1	-90.38	-0.2	-30.0	30.0	25.5	4.48	6.701		
700.0	700.0	700.3	700.3	2.3	2.3	-90.38	-0.2	-30.0	30.0	25.2	4.83	6.209		
800.0	800.0	800.3	800.3	2.5	2.5	-90.38	-0.2	-30.0	30.0	24.8	5.16	5.814		
900.0	900.0	900.3	900.3	2.7	2.7	-90.38	-0.2	-30.0	30.0	24.5	5.47	5.488		
1,000.0	1,000.0	1,000.3	1,000.3	2.9	2.9	-90.38	-0.2	-30.0	30.0	24.2	5.75	5.213		
1,100.0	1,100.0	1,100.3	1,100.3	3.0	3.0	-90.38	-0.2	-30.0	30.0	24.0	6.03	4.976		
1,200.0	1,200.0	1,200.3	1,200.3	3.2	3.3	-90.38	-0.2	-30.0	30.0	23.5	6.45	4.648		
1,201.0	1,201.0	1,201.3	1,201.3	3.2	3.3	-90.38	-0.2	-30.0	30.0	23.5	6.46	4.645 CC		
1,205.0	1,205.0	1,205.0	1,205.0	3.2	3.3	-90.38	-0.2	-30.0	30.0	23.5	6.48	4.633 ES, SF		
1,300.0	1,300.0	1,299.6	1,299.6	3.4	3.5	140.52	-0.7	-31.1	32.3	25.4	6.90	4.678		
1,400.0	1,399.8	1,398.5	1,398.4	3.7	3.8	142.72	-2.3	-34.4	39.6	32.1	7.50	5.280		
1,455.0	1,454.7	1,452.6	1,452.4	3.8	3.9	144.01	-3.6	-37.3	45.8	38.1	7.74	5.918		
1,500.0	1,499.5	1,496.6	1,496.4	3.9	4.0	151.27	-4.9	-40.1	52.0	44.1	7.93	6.557		
1,600.0	1,599.0	1,593.9	1,593.2	4.2	4.3	162.52	-8.6	-47.9	68.9	60.5	8.48	8.132		
1,700.0	1,698.3	1,689.7	1,688.4	4.5	4.6	169.18	-13.2	-57.8	90.4	81.3	9.06	9.973		
1,750.7	1,748.6	1,737.8	1,736.0	4.6	4.7	171.45	-15.9	-63.6	103.0	93.7	9.27	11.110		
1,800.0	1,797.3	1,784.3	1,782.1	4.7	4.8	170.55	-18.4	-69.7	116.0	106.5	9.48	12.235		
1,900.0	1,896.4	1,877.9	1,874.7	5.0	5.1	169.72	-22.4	-83.2	143.8	133.7	10.09	14.260		
2,000.0	1,995.4	1,970.7	1,966.1	5.3	5.4	169.69	-24.8	-98.2	173.4	162.7	10.70	16.197		
2,100.0	2,094.4	2,065.4	2,059.5	5.7	5.8	169.97	-26.2	-114.5	204.0	192.6	11.40	17.898		
2,200.0	2,193.5	2,160.6	2,153.2	6.1	6.1	170.18	-27.7	-131.0	234.6	222.5	12.12	19.353		

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 602H - OWB - PWP2												Offset Site Error: 0.0 usft			
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11892-r.5 MWD+IFR1+MS												Offset Well Error: 0.0 usft			
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance			Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
2,300.0	2,292.5	2,255.8	2,246.9	6.4	6.5	170.34	-29.1	-147.5	265.3	252.4	12.85	20.640			
2,400.0	2,391.5	2,351.0	2,340.7	6.8	6.9	170.47	-30.5	-163.9	295.9	282.3	13.59	21.767			
2,500.0	2,490.5	2,446.2	2,434.4	7.2	7.2	170.57	-32.0	-180.4	326.5	312.2	14.35	22.760			
2,600.0	2,589.6	2,541.3	2,528.2	7.6	7.6	170.65	-33.4	-196.9	357.2	342.1	15.11	23.638			
2,700.0	2,688.6	2,636.5	2,621.9	8.0	8.0	170.73	-34.9	-213.3	387.8	371.9	15.88	24.419			
2,800.0	2,787.6	2,731.7	2,715.6	8.4	8.4	170.79	-36.3	-229.8	418.5	401.8	16.66	25.118			
2,863.0	2,850.0	2,791.7	2,774.7	8.7	8.6	170.82	-37.2	-240.2	437.8	420.6	17.13	25.554			
2,900.0	2,886.7	2,826.9	2,809.4	8.8	8.8	170.85	-37.8	-246.3	449.1	431.7	17.40	25.804			
3,000.0	2,985.8	2,922.3	2,903.4	9.2	9.2	170.91	-39.2	-262.8	479.0	460.8	18.19	26.331			
3,100.0	3,085.0	3,018.0	2,997.6	9.6	9.6	170.94	-40.6	-279.3	508.1	489.1	18.98	26.769			
3,200.0	3,184.4	3,113.9	3,092.1	10.0	10.0	170.96	-42.1	-295.9	536.4	516.6	19.77	27.130			
3,300.0	3,283.8	3,210.1	3,186.7	10.4	10.4	170.96	-43.6	-312.5	563.8	543.3	20.56	27.424			
3,400.0	3,383.3	3,306.5	3,281.7	10.8	10.8	170.95	-45.0	-329.2	590.5	569.1	21.35	27.659			
3,500.0	3,482.9	3,403.1	3,376.8	11.2	11.3	170.93	-46.5	-345.9	616.3	594.1	22.13	27.843			
3,600.0	3,582.6	3,499.9	3,472.2	11.5	11.7	170.90	-47.9	-362.7	641.2	618.3	22.91	27.983			
3,700.0	3,682.4	3,597.0	3,567.8	11.9	12.1	170.86	-49.4	-379.5	665.3	641.6	23.69	28.084			
3,800.0	3,782.2	3,694.2	3,663.5	12.3	12.5	170.81	-50.9	-396.3	688.6	664.2	24.46	28.151			
3,900.0	3,882.0	3,791.7	3,759.5	12.6	13.0	170.76	-52.4	-413.1	711.1	685.9	25.23	28.189			
4,000.0	3,981.9	3,889.3	3,855.6	13.0	13.4	170.69	-53.8	-430.0	732.7	706.7	25.98	28.201			
4,100.0	4,081.9	3,987.1	3,952.0	13.3	13.8	170.62	-55.3	-447.0	753.5	726.7	26.73	28.193			
4,200.0	4,181.8	4,085.1	4,048.5	13.6	14.3	170.55	-56.8	-463.9	773.4	745.9	27.46	28.168			
4,300.0	4,281.8	4,183.2	4,145.1	13.9	14.7	170.46	-58.3	-480.9	792.5	764.3	28.17	28.133			
4,400.0	4,381.8	4,281.5	4,241.9	14.1	15.1	170.37	-59.8	-497.9	810.7	781.9	28.85	28.098			
4,463.0	4,444.8	4,343.6	4,303.0	14.2	15.4	-89.69	-60.7	-508.6	821.8	792.6	29.21	28.134			
4,500.0	4,481.8	4,380.0	4,338.9	14.2	15.6	-89.73	-61.3	-514.9	828.2	798.8	29.39	28.182			
4,600.0	4,581.8	4,478.5	4,435.9	14.2	16.0	-89.84	-62.7	-532.0	845.5	815.6	29.90	28.272			
4,700.0	4,681.8	4,577.0	4,532.9	14.3	16.4	-89.94	-64.2	-549.0	862.8	832.4	30.43	28.355			
4,800.0	4,781.8	4,675.4	4,629.8	14.3	16.9	-90.04	-65.7	-566.0	880.1	849.1	30.96	28.431			
4,900.0	4,881.8	4,773.9	4,726.8	14.4	17.3	-90.14	-67.2	-583.1	897.4	865.9	31.49	28.500			
5,000.0	4,981.8	4,872.4	4,823.8	14.4	17.8	-90.23	-68.7	-600.1	914.7	882.7	32.02	28.563			
5,100.0	5,081.8	4,970.9	4,920.8	14.5	18.2	-90.32	-70.2	-617.1	932.0	899.4	32.57	28.620			
5,200.0	5,181.8	5,069.4	5,017.8	14.5	18.6	-90.40	-71.7	-634.2	949.3	916.2	33.11	28.671			
5,300.0	5,281.8	5,167.8	5,114.8	14.6	19.1	-90.49	-73.2	-651.2	966.6	933.0	33.66	28.718			
5,400.0	5,381.8	5,266.3	5,211.7	14.6	19.5	-90.57	-74.7	-668.2	983.9	949.7	34.21	28.760			

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 603H - OWB - PWP2													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11902-r.5 MWD+IFR1+MS													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	89.62	0.2	30.0	30.0					
100.0	100.0	99.4	99.4	0.5	0.5	89.62	0.2	30.0	30.0	28.5	1.51	19.828		
200.0	200.0	199.4	199.4	1.0	1.0	89.62	0.2	30.0	30.0	27.5	2.50	12.019		
300.0	300.0	299.4	299.4	1.4	1.4	89.62	0.2	30.0	30.0	26.9	3.13	9.570		
400.0	400.0	399.4	399.4	1.6	1.6	89.62	0.2	30.0	30.0	26.4	3.65	8.229		
500.0	500.0	499.4	499.4	1.9	1.9	89.62	0.2	30.0	30.0	25.9	4.08	7.345		
600.0	600.0	599.4	599.4	2.1	2.1	89.62	0.2	30.0	30.0	25.5	4.48	6.704		
700.0	700.0	699.4	699.4	2.3	2.3	89.62	0.2	30.0	30.0	25.2	4.83	6.211		
800.0	800.0	799.4	799.4	2.5	2.5	89.62	0.2	30.0	30.0	24.8	5.16	5.816		
900.0	900.0	899.4	899.4	2.7	2.7	89.62	0.2	30.0	30.0	24.5	5.47	5.490		
1,000.0	1,000.0	999.4	999.4	2.9	2.9	89.62	0.2	30.0	30.0	24.2	5.75	5.214		
1,100.0	1,100.0	1,099.4	1,099.4	3.0	3.0	89.62	0.2	30.0	30.0	24.0	6.03	4.978		
1,200.0	1,200.0	1,199.4	1,199.4	3.2	3.2	89.62	0.2	30.0	30.0	23.7	6.31	4.752		
1,205.0	1,205.0	1,204.4	1,204.4	3.2	3.2	89.62	0.2	30.0	30.0	23.7	6.33	4.741		
1,300.0	1,300.0	1,298.7	1,298.7	3.4	3.3	-42.19	0.1	31.1	30.0	23.3	6.66	4.499		
1,309.6	1,309.6	1,308.2	1,308.2	3.4	3.4	-42.57	0.1	31.4	30.0	23.3	6.72	4.460 CC		
1,400.0	1,399.8	1,397.8	1,397.8	3.7	3.6	-47.97	-0.1	34.9	30.1	22.9	7.26	4.149 ES		
1,455.0	1,454.7	1,452.4	1,452.2	3.8	3.7	-52.75	-0.2	38.0	30.5	23.0	7.48	4.072		
1,500.0	1,499.5	1,497.0	1,496.7	3.9	3.8	-50.28	-0.4	41.1	31.0	23.3	7.66	4.045		
1,600.0	1,599.0	1,596.1	1,595.4	4.2	4.1	-45.59	-0.8	50.0	32.4	24.2	8.19	3.954		
1,700.0	1,698.3	1,695.3	1,694.0	4.5	4.4	-41.58	-1.4	61.4	33.8	25.1	8.72	3.877		
1,750.7	1,748.6	1,745.7	1,743.9	4.6	4.6	-39.60	-1.8	68.1	34.5	25.5	8.95	3.850		
1,800.0	1,797.3	1,794.6	1,792.2	4.7	4.8	-40.33	-2.2	75.3	35.3	26.1	9.18	3.847 SF		
1,900.0	1,896.4	1,893.7	1,890.0	5.0	5.2	-40.09	-3.0	91.8	38.6	28.8	9.79	3.946		
2,000.0	1,995.4	1,993.5	1,988.1	5.3	5.5	-38.75	-4.0	110.0	43.3	32.9	10.42	4.155		
2,100.0	2,094.4	2,093.4	2,086.3	5.7	5.9	-37.66	-4.9	128.2	48.0	36.9	11.08	4.330		
2,200.0	2,193.5	2,193.3	2,184.5	6.1	6.3	-36.76	-5.9	146.3	52.7	40.9	11.77	4.477		
2,300.0	2,292.5	2,293.2	2,282.7	6.4	6.7	-36.01	-6.8	164.5	57.4	44.9	12.47	4.603		
2,400.0	2,391.5	2,393.0	2,381.0	6.8	7.1	-35.38	-7.8	182.7	62.1	49.0	13.19	4.711		
2,500.0	2,490.5	2,492.9	2,479.2	7.2	7.5	-34.83	-8.8	200.9	66.9	53.0	13.92	4.803		
2,600.0	2,589.6	2,592.8	2,577.4	7.6	7.9	-34.36	-9.7	219.0	71.6	57.0	14.67	4.884		
2,700.0	2,688.6	2,692.7	2,675.6	8.0	8.3	-33.94	-10.7	237.2	76.4	60.9	15.42	4.954		
2,800.0	2,787.6	2,792.6	2,773.8	8.4	8.8	-33.58	-11.6	255.4	81.1	64.9	16.18	5.015		
2,863.0	2,850.0	2,855.5	2,835.7	8.7	9.0	-33.37	-12.2	266.9	84.1	67.5	16.63	5.057		
2,900.0	2,886.7	2,892.5	2,872.0	8.8	9.2	-33.24	-12.6	273.6	85.9	69.0	16.89	5.085		
3,000.0	2,985.8	2,992.3	2,970.2	9.2	9.6	-32.70	-13.5	291.7	91.3	73.6	17.69	5.163		
3,100.0	3,085.0	3,092.1	3,068.3	9.6	10.1	-31.95	-14.5	309.9	97.4	78.9	18.50	5.267		
3,200.0	3,184.4	3,191.9	3,166.4	10.0	10.5	-31.05	-15.4	328.1	104.3	85.0	19.34	5.395		
3,300.0	3,283.8	3,291.6	3,264.4	10.4	10.9	-30.04	-16.4	346.2	112.0	91.8	20.19	5.547		
3,400.0	3,383.3	3,391.2	3,362.4	10.8	11.4	-28.96	-17.3	364.3	120.5	99.4	21.06	5.721		
3,500.0	3,482.9	3,490.7	3,460.2	11.2	11.8	-27.84	-18.3	382.4	129.8	107.8	21.93	5.917		
3,600.0	3,582.6	3,590.2	3,558.0	11.5	12.3	-26.72	-19.2	400.5	139.8	117.0	22.81	6.132		
3,700.0	3,682.4	3,689.5	3,655.7	11.9	12.7	-25.60	-20.2	418.6	150.8	127.1	23.68	6.367		
3,800.0	3,782.2	3,788.8	3,753.3	12.3	13.1	-24.51	-21.1	436.7	162.5	138.0	24.55	6.621		
3,900.0	3,882.0	3,887.9	3,850.8	12.6	13.6	-23.46	-22.1	454.7	175.1	149.7	25.41	6.893		
4,000.0	3,981.9	3,987.0	3,948.2	13.0	14.0	-22.45	-23.0	472.8	188.6	162.3	26.26	7.183		
4,100.0	4,081.9	4,085.9	4,045.4	13.3	14.5	-21.49	-23.9	490.8	202.9	175.8	27.09	7.490		
4,200.0	4,181.8	4,184.7	4,142.6	13.6	14.9	-20.58	-24.9	508.7	218.1	190.2	27.91	7.815		
4,300.0	4,281.8	4,283.3	4,239.6	13.9	15.4	-19.72	-25.8	526.7	234.1	205.4	28.70	8.158		
4,400.0	4,381.8	4,381.8	4,336.4	14.1	15.8	-18.91	-26.8	544.6	251.0	221.6	29.46	8.521		
4,463.0	4,444.8	4,443.8	4,397.4	14.2	16.1	81.58	-27.4	555.9	262.1	232.3	29.86	8.777		
4,500.0	4,481.8	4,480.2	4,433.1	14.2	16.2	81.87	-27.7	562.5	268.7	238.7	30.07	8.937		

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 603H - OWB - PWP2												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11902-r.5 MWD+IFR1+MS												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,600.0	4,581.8	4,578.5	4,529.8	14.2	16.7	82.57	-28.6	580.4	286.6	256.0	30.66	9.351	
4,700.0	4,681.8	4,676.8	4,626.5	14.3	17.1	83.19	-29.6	598.3	304.6	273.4	31.24	9.752	
4,800.0	4,781.8	4,775.1	4,723.2	14.3	17.6	83.74	-30.5	616.2	322.6	290.8	31.81	10.140	
4,900.0	4,881.8	4,873.5	4,819.8	14.4	18.0	84.23	-31.5	634.1	340.6	308.2	32.39	10.515	
5,000.0	4,981.8	4,971.8	4,916.5	14.4	18.5	84.68	-32.4	652.0	358.6	325.6	32.97	10.878	
5,100.0	5,081.8	5,070.1	5,013.2	14.5	18.9	85.08	-33.3	669.9	376.7	343.1	33.54	11.229	
5,200.0	5,181.8	5,168.4	5,109.9	14.5	19.4	85.44	-34.3	687.8	394.7	360.6	34.12	11.569	
5,300.0	5,281.8	5,266.8	5,206.6	14.6	19.8	85.78	-35.2	705.7	412.8	378.1	34.70	11.897	
5,400.0	5,381.8	5,365.1	5,303.2	14.6	20.3	86.08	-36.1	723.6	430.9	395.6	35.28	12.215	
5,500.0	5,481.8	5,463.4	5,399.9	14.7	20.7	86.36	-37.1	741.5	449.0	413.1	35.86	12.522	
5,600.0	5,581.8	5,561.7	5,496.6	14.7	21.1	86.62	-38.0	759.3	467.1	430.7	36.44	12.820	
5,700.0	5,681.8	5,660.1	5,593.3	14.8	21.6	86.86	-39.0	777.2	485.2	448.2	37.02	13.107	
5,800.0	5,781.8	5,758.4	5,690.0	14.8	22.0	87.08	-39.9	795.1	503.3	465.7	37.60	13.386	
5,900.0	5,881.8	5,856.7	5,786.6	14.9	22.5	87.29	-40.8	813.0	521.5	483.3	38.19	13.656	
6,000.0	5,981.8	5,955.0	5,883.3	14.9	22.9	87.48	-41.8	830.9	539.6	500.8	38.77	13.917	
6,100.0	6,081.8	6,056.1	5,982.7	15.0	23.4	87.66	-42.7	849.2	557.6	518.2	39.38	14.160	
6,200.0	6,181.8	6,159.7	6,084.7	15.1	23.9	87.83	-43.7	867.1	574.9	534.9	39.99	14.373	
6,300.0	6,281.8	6,263.6	6,187.3	15.1	24.3	87.98	-44.6	884.1	591.2	550.6	40.60	14.560	
6,400.0	6,381.8	6,367.8	6,290.2	15.2	24.8	88.12	-45.4	900.2	606.6	565.4	41.20	14.723	
6,500.0	6,481.8	6,472.3	6,393.6	15.2	25.3	88.24	-46.2	915.5	621.2	579.4	41.80	14.863	
6,600.0	6,581.8	6,577.1	6,497.4	15.3	25.7	88.35	-47.0	929.8	634.8	592.5	42.38	14.980	
6,700.0	6,681.8	6,682.2	6,601.6	15.3	26.2	88.44	-47.7	943.2	647.6	604.6	42.95	15.077	
6,800.0	6,781.8	6,787.4	6,706.1	15.4	26.6	88.53	-48.3	955.7	659.4	615.9	43.52	15.153	
6,900.0	6,881.8	6,892.9	6,811.0	15.4	27.0	88.61	-48.9	967.3	670.4	626.3	44.07	15.211	
7,000.0	6,981.8	6,998.6	6,916.1	15.5	27.4	88.68	-49.5	977.9	680.4	635.8	44.61	15.251	
7,100.0	7,081.8	7,104.5	7,021.6	15.5	27.9	88.74	-50.0	987.5	689.5	644.4	45.14	15.275	
7,200.0	7,181.8	7,210.6	7,127.3	15.6	28.3	88.79	-50.4	996.2	697.7	652.0	45.65	15.282	
7,300.0	7,281.8	7,316.8	7,233.2	15.7	28.7	88.84	-50.8	1,004.0	705.0	658.8	46.15	15.274	
7,400.0	7,381.8	7,423.2	7,339.4	15.7	29.1	88.88	-51.2	1,010.7	711.3	664.7	46.63	15.253	
7,500.0	7,481.8	7,529.6	7,445.7	15.8	29.4	88.91	-51.5	1,016.5	716.7	669.6	47.10	15.218	
7,600.0	7,581.8	7,636.2	7,552.1	15.8	29.8	88.94	-51.8	1,021.3	721.2	673.7	47.54	15.172	
7,700.0	7,681.8	7,742.9	7,658.7	15.9	30.1	88.96	-52.0	1,025.1	724.8	676.8	47.95	15.115	
7,800.0	7,781.8	7,849.6	7,765.4	15.9	30.4	88.97	-52.1	1,027.9	727.4	679.1	48.34	15.049	
7,900.0	7,881.8	7,956.3	7,872.1	16.0	30.7	88.98	-52.2	1,029.7	729.1	680.5	48.68	14.978	
8,000.0	7,981.8	8,063.1	7,978.9	16.0	30.9	88.99	-52.2	1,030.6	729.9	681.0	48.91	14.925	
8,100.0	8,081.8	8,165.4	8,081.2	16.1	31.0	88.99	-52.2	1,030.6	730.0	681.0	49.00	14.897	
8,200.0	8,181.8	8,265.4	8,181.2	16.2	31.0	88.99	-52.2	1,030.6	730.0	680.9	49.07	14.876	
8,300.0	8,281.8	8,365.4	8,281.2	16.2	31.0	88.99	-52.2	1,030.6	730.0	680.8	49.14	14.856	
8,400.0	8,381.8	8,465.4	8,381.2	16.3	31.0	88.99	-52.2	1,030.6	730.0	680.8	49.20	14.836	
8,500.0	8,481.8	8,565.4	8,481.2	16.3	31.1	88.99	-52.2	1,030.6	730.0	680.7	49.27	14.816	
8,600.0	8,581.8	8,665.4	8,581.2	16.4	31.1	88.99	-52.2	1,030.6	730.0	680.6	49.34	14.796	
8,700.0	8,681.8	8,765.4	8,681.2	16.5	31.1	88.99	-52.2	1,030.6	730.0	680.6	49.41	14.775	
8,800.0	8,781.8	8,865.4	8,781.2	16.5	31.1	88.99	-52.2	1,030.6	730.0	680.5	49.47	14.755	
8,900.0	8,881.8	8,965.4	8,881.2	16.6	31.2	88.99	-52.2	1,030.6	730.0	680.4	49.54	14.734	
9,000.0	8,981.8	9,065.4	8,981.2	16.6	31.2	88.99	-52.2	1,030.6	730.0	680.4	49.61	14.713	
9,100.0	9,081.8	9,165.4	9,081.2	16.7	31.2	88.99	-52.2	1,030.6	730.0	680.3	49.68	14.693	
9,200.0	9,181.8	9,265.4	9,181.2	16.7	31.2	88.99	-52.2	1,030.6	730.0	680.2	49.75	14.672	
9,300.0	9,281.8	9,365.4	9,281.2	16.8	31.3	88.99	-52.2	1,030.6	730.0	680.1	49.82	14.651	
9,400.0	9,381.8	9,465.4	9,381.2	16.9	31.3	88.99	-52.2	1,030.6	730.0	680.1	49.89	14.630	
9,500.0	9,481.8	9,565.4	9,481.2	16.9	31.3	88.99	-52.2	1,030.6	730.0	680.0	49.97	14.609	
9,600.0	9,581.8	9,665.4	9,581.2	17.0	31.3	88.99	-52.2	1,030.6	730.0	679.9	50.04	14.588	
9,700.0	9,681.8	9,765.4	9,681.2	17.0	31.4	88.99	-52.2	1,030.6	730.0	679.9	50.11	14.567	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 603H - OWB - PWP2												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11902-r.5 MWD+IFR1+MS												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.0	9,781.8	9,865.4	9,781.2	17.1	31.4	88.99	-52.2	1,030.6	730.0	679.8	50.18	14.546	
9,900.0	9,881.8	9,965.4	9,881.2	17.2	31.4	88.99	-52.2	1,030.6	730.0	679.7	50.26	14.525	
10,000.0	9,981.8	10,065.4	9,981.2	17.2	31.4	88.99	-52.2	1,030.6	730.0	679.6	50.33	14.504	
10,100.0	10,081.8	10,165.4	10,081.2	17.3	31.5	88.99	-52.2	1,030.6	730.0	679.6	50.40	14.482	
10,200.0	10,181.8	10,265.4	10,181.2	17.4	31.5	88.99	-52.2	1,030.6	730.0	679.5	50.48	14.461	
10,300.0	10,281.8	10,365.4	10,281.2	17.4	31.5	88.99	-52.2	1,030.6	730.0	679.4	50.55	14.439	
10,400.0	10,381.8	10,465.4	10,381.2	17.5	31.6	88.99	-52.2	1,030.6	730.0	679.3	50.63	14.418	
10,500.0	10,481.8	10,565.4	10,481.2	17.5	31.6	88.99	-52.2	1,030.6	730.0	679.3	50.70	14.396	
10,600.0	10,581.8	10,665.4	10,581.2	17.6	31.6	88.99	-52.2	1,030.6	730.0	679.2	50.78	14.375	
10,700.0	10,681.8	10,765.4	10,681.2	17.7	31.6	88.99	-52.2	1,030.6	730.0	679.1	50.86	14.353	
10,800.0	10,781.8	10,865.4	10,781.2	17.7	31.7	88.99	-52.2	1,030.6	730.0	679.0	50.93	14.332	
10,900.0	10,881.8	10,965.4	10,881.2	17.8	31.7	88.99	-52.2	1,030.6	730.0	679.0	51.01	14.310	
11,000.0	10,981.8	11,065.4	10,981.2	17.9	31.7	88.99	-52.2	1,030.6	730.0	678.9	51.09	14.288	
11,100.0	11,081.8	11,165.4	11,081.2	17.9	31.8	88.99	-52.2	1,030.6	730.0	678.8	51.17	14.266	
11,200.0	11,181.8	11,265.4	11,181.2	18.0	31.8	88.99	-52.2	1,030.6	730.0	678.7	51.25	14.244	
11,300.0	11,281.8	11,365.4	11,281.2	18.0	31.8	88.99	-52.2	1,030.6	730.0	678.6	51.32	14.222	
11,400.0	11,381.8	11,465.4	11,381.2	18.1	31.8	88.99	-52.2	1,030.6	730.0	678.6	51.40	14.201	
11,500.0	11,481.8	11,565.4	11,481.2	18.2	31.9	88.99	-52.2	1,030.6	730.0	678.5	51.48	14.179	
11,600.0	11,581.8	11,665.4	11,581.2	18.2	31.9	88.99	-52.2	1,030.6	730.0	678.4	51.56	14.157	
11,700.0	11,681.8	11,765.4	11,681.2	18.3	31.9	88.99	-52.2	1,030.6	730.0	678.3	51.64	14.135	
11,800.0	11,781.8	11,865.4	11,781.2	18.4	32.0	88.99	-52.2	1,030.6	730.0	678.2	51.73	14.112	
11,810.0	11,791.8	11,875.4	11,791.2	18.4	32.0	88.99	-52.2	1,030.6	730.0	678.2	51.73	14.110	
11,900.0	11,881.8	11,964.3	11,879.9	18.4	32.0	88.67	-48.2	1,030.6	730.0	678.2	51.78	14.098	
12,000.0	11,981.8	12,057.7	11,970.7	18.5	32.0	87.01	-27.0	1,030.4	730.7	678.9	51.79	14.109	
12,100.0	12,081.8	12,140.2	12,046.2	18.6	32.0	84.42	6.1	1,030.1	733.6	681.8	51.78	14.168	
12,147.7	12,129.5	12,175.0	12,076.1	18.6	32.0	83.04	23.8	1,029.9	736.4	684.6	51.78	14.223	
12,150.0	12,131.8	12,175.0	12,076.1	18.6	32.0	83.58	23.8	1,029.9	736.6	684.8	51.79	14.222	
12,175.0	12,156.8	12,193.9	12,091.8	18.6	32.0	82.57	34.4	1,029.8	738.5	686.7	51.78	14.263	
12,200.0	12,181.7	12,211.1	12,105.7	18.6	32.0	81.63	44.5	1,029.7	740.6	688.8	51.78	14.302	
12,225.0	12,206.5	12,228.0	12,119.0	18.6	32.0	80.71	54.9	1,029.6	742.8	691.0	51.79	14.342	
12,250.0	12,231.0	12,244.7	12,131.8	18.6	32.0	79.81	65.7	1,029.5	745.2	693.4	51.81	14.382	
12,275.0	12,255.3	12,261.3	12,144.1	18.6	32.0	78.91	76.9	1,029.4	747.7	695.8	51.85	14.421	
12,300.0	12,279.2	12,275.0	12,153.9	18.6	32.0	78.13	86.4	1,029.3	750.2	698.3	51.92	14.449	
12,325.0	12,302.8	12,294.0	12,167.2	18.6	32.0	77.19	100.0	1,029.2	752.9	700.9	51.94	14.494	
12,350.0	12,325.8	12,310.2	12,178.0	18.6	32.0	76.36	112.1	1,029.0	755.6	703.6	52.01	14.528	
12,375.0	12,348.3	12,325.0	12,187.5	18.6	32.0	75.59	123.4	1,028.9	758.3	706.2	52.10	14.554	
12,400.0	12,370.2	12,342.2	12,198.1	18.6	32.0	74.78	136.9	1,028.8	761.0	708.8	52.17	14.587	
12,425.0	12,391.5	12,358.1	12,207.5	18.6	32.0	74.03	149.7	1,028.7	763.7	711.4	52.26	14.612	
12,450.0	12,412.0	12,375.0	12,217.0	18.6	32.0	73.28	163.7	1,028.5	766.4	714.0	52.35	14.639	
12,475.0	12,431.8	12,389.6	12,224.8	18.6	32.0	72.63	176.0	1,028.4	769.0	716.5	52.48	14.653	
12,500.0	12,450.7	12,405.2	12,232.8	18.6	32.0	71.98	189.5	1,028.3	771.6	719.0	52.60	14.669	
12,525.0	12,468.8	12,425.0	12,242.2	18.6	32.0	71.27	206.9	1,028.1	774.0	721.4	52.67	14.696	
12,550.0	12,485.9	12,436.3	12,247.2	18.7	32.1	70.78	217.0	1,028.0	776.4	723.6	52.85	14.690	
12,575.0	12,502.0	12,450.0	12,253.0	18.7	32.1	70.27	229.4	1,027.9	778.7	725.7	53.01	14.691	
12,600.0	12,517.1	12,467.1	12,259.7	18.7	32.1	69.73	245.2	1,027.8	780.8	727.7	53.12	14.699	
12,625.0	12,531.2	12,482.5	12,265.3	18.7	32.1	69.27	259.5	1,027.6	782.8	729.6	53.26	14.699	
12,650.0	12,544.2	12,500.0	12,271.1	18.7	32.1	68.81	276.0	1,027.5	784.7	731.3	53.37	14.703	
12,675.0	12,556.0	12,513.1	12,275.0	18.7	32.1	68.46	288.5	1,027.3	786.4	732.9	53.53	14.690	
12,700.0	12,566.6	12,525.0	12,278.3	18.7	32.1	68.15	299.9	1,027.2	788.0	734.3	53.70	14.674	
12,725.0	12,576.1	12,543.5	12,282.8	18.8	32.1	67.82	317.9	1,027.1	789.3	735.5	53.80	14.672	
12,750.0	12,584.3	12,558.7	12,286.0	18.8	32.1	67.56	332.8	1,026.9	790.5	736.6	53.93	14.659	
12,775.0	12,591.3	12,575.0	12,288.8	18.8	32.1	67.33	348.8	1,026.8	791.5	737.5	54.04	14.646	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 603H - OWB - PWP2													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11902-r.5 MWD+IFR1+MS													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,800.0	12,597.0	12,589.1	12,290.9	18.8	32.1	67.17	362.7	1,026.6	792.3	738.2	54.17	14.627		
12,825.0	12,601.5	12,600.0	12,292.2	18.9	32.1	67.05	373.6	1,026.5	793.0	738.7	54.31	14.602		
12,850.0	12,604.6	12,619.3	12,293.9	18.9	32.2	66.95	392.8	1,026.3	793.4	739.0	54.38	14.588		
12,875.0	12,606.5	12,634.5	12,294.7	18.9	32.2	66.90	407.9	1,026.2	793.6	739.1	54.48	14.566		
12,897.7	12,607.0	12,651.7	12,295.0	19.0	32.2	66.90	425.2	1,026.0	793.6	739.1	54.55	14.549		
12,900.0	12,607.0	12,651.7	12,295.0	19.0	32.2	66.90	425.2	1,026.0	793.6	739.0	54.56	14.546		
12,904.4	12,607.0	12,652.6	12,295.0	19.0	32.2	66.90	426.1	1,026.0	793.6	739.0	54.58	14.539		
13,000.0	12,607.0	12,748.2	12,295.0	19.1	32.3	66.90	521.7	1,025.1	793.6	738.8	54.79	14.483		
13,100.0	12,607.0	12,848.2	12,295.0	19.3	32.4	66.90	621.6	1,024.1	793.6	738.5	55.06	14.414		
13,200.0	12,607.0	12,948.2	12,295.0	19.5	32.5	66.90	721.6	1,023.2	793.6	738.2	55.36	14.335		
13,300.0	12,607.0	13,048.2	12,295.0	19.8	32.7	66.90	821.6	1,022.2	793.6	737.9	55.70	14.247		
13,400.0	12,607.0	13,148.2	12,295.0	20.0	32.9	66.90	921.6	1,021.2	793.6	737.5	56.09	14.150		
13,500.0	12,607.0	13,248.2	12,295.0	20.3	33.1	66.90	1,021.6	1,020.3	793.6	737.1	56.51	14.044		
13,600.0	12,607.0	13,348.2	12,295.0	20.6	33.3	66.90	1,121.6	1,019.3	793.6	736.6	56.96	13.931		
13,700.0	12,607.0	13,448.2	12,295.0	21.0	33.5	66.90	1,221.6	1,018.3	793.6	736.1	57.46	13.811		
13,800.0	12,607.0	13,548.2	12,295.0	21.3	33.7	66.90	1,321.6	1,017.4	793.6	735.6	57.99	13.685		
13,900.0	12,607.0	13,648.2	12,295.0	21.7	34.0	66.90	1,421.6	1,016.4	793.6	735.0	58.56	13.553		
14,000.0	12,607.0	13,748.2	12,295.0	22.1	34.2	66.90	1,521.6	1,015.4	793.6	734.4	59.15	13.416		
14,100.0	12,607.0	13,848.2	12,295.0	22.5	34.5	66.90	1,621.6	1,014.5	793.6	733.8	59.79	13.274		
14,200.0	12,607.0	13,948.2	12,295.0	23.0	34.8	66.90	1,721.6	1,013.5	793.6	733.2	60.45	13.129		
14,300.0	12,607.0	14,048.2	12,295.0	23.4	35.1	66.90	1,821.6	1,012.5	793.6	732.5	61.14	12.980		
14,400.0	12,607.0	14,148.2	12,295.0	23.9	35.4	66.90	1,921.6	1,011.6	793.6	731.7	61.87	12.828		
14,500.0	12,607.0	14,248.2	12,295.0	24.4	35.8	66.90	2,021.6	1,010.6	793.6	731.0	62.62	12.674		
14,600.0	12,607.0	14,348.2	12,295.0	24.9	36.1	66.90	2,121.6	1,009.6	793.6	730.2	63.40	12.518		
14,700.0	12,607.0	14,448.2	12,295.0	25.4	36.5	66.90	2,221.6	1,008.7	793.6	729.4	64.20	12.361		
14,800.0	12,607.0	14,548.2	12,295.0	25.9	36.9	66.90	2,321.6	1,007.7	793.6	728.6	65.03	12.203		
14,900.0	12,607.0	14,648.2	12,295.0	26.5	37.3	66.90	2,421.6	1,006.7	793.6	727.7	65.89	12.045		
15,000.0	12,607.0	14,748.2	12,295.0	27.0	37.7	66.90	2,521.6	1,005.8	793.6	726.8	66.77	11.886		
15,100.0	12,607.0	14,848.2	12,295.0	27.6	38.1	66.90	2,621.6	1,004.8	793.6	725.9	67.67	11.728		
15,200.0	12,607.0	14,948.2	12,295.0	28.1	38.5	66.90	2,721.5	1,003.8	793.6	725.0	68.59	11.570		
15,300.0	12,607.0	15,048.2	12,295.0	28.7	38.9	66.90	2,821.5	1,002.9	793.6	724.1	69.54	11.413		
15,400.0	12,607.0	15,148.2	12,295.0	29.3	39.4	66.90	2,921.5	1,001.9	793.6	723.1	70.50	11.257		
15,500.0	12,607.0	15,248.2	12,295.0	29.9	39.8	66.90	3,021.5	1,000.9	793.6	722.1	71.48	11.102		
15,600.0	12,607.0	15,348.2	12,295.0	30.5	40.3	66.90	3,121.5	1,000.0	793.6	721.1	72.49	10.948		
15,700.0	12,607.0	15,448.2	12,295.0	31.1	40.7	66.90	3,221.5	999.0	793.6	720.1	73.51	10.797		
15,800.0	12,607.0	15,548.2	12,295.0	31.7	41.2	66.90	3,321.5	998.0	793.6	719.1	74.54	10.647		
15,900.0	12,607.0	15,648.2	12,295.0	32.4	41.7	66.90	3,421.5	997.1	793.6	718.0	75.59	10.498		
16,000.0	12,607.0	15,748.2	12,295.0	33.0	42.2	66.90	3,521.5	996.1	793.6	717.0	76.66	10.352		
16,100.0	12,607.0	15,848.2	12,295.0	33.6	42.7	66.90	3,621.5	995.1	793.6	715.9	77.75	10.208		
16,200.0	12,607.0	15,948.2	12,295.0	34.3	43.2	66.90	3,721.5	994.2	793.6	714.8	78.84	10.066		
16,300.0	12,607.0	16,048.2	12,295.0	34.9	43.7	66.90	3,821.5	993.2	793.6	713.7	79.96	9.926		
16,400.0	12,607.0	16,148.2	12,295.0	35.5	44.2	66.90	3,921.5	992.2	793.6	712.5	81.08	9.788		
16,500.0	12,607.0	16,248.2	12,295.0	36.2	44.8	66.90	4,021.5	991.3	793.6	711.4	82.22	9.653		
16,600.0	12,607.0	16,348.2	12,295.0	36.9	45.3	66.90	4,121.5	990.3	793.6	710.3	83.37	9.520		
16,700.0	12,607.0	16,448.2	12,295.0	37.5	45.8	66.90	4,221.5	989.3	793.6	709.1	84.53	9.389		
16,800.0	12,607.0	16,548.2	12,295.0	38.2	46.4	66.90	4,321.5	988.4	793.6	707.9	85.70	9.261		
16,900.0	12,607.0	16,648.2	12,295.0	38.9	46.9	66.90	4,421.5	987.4	793.6	706.7	86.88	9.135		
17,000.0	12,607.0	16,748.2	12,295.0	39.5	47.5	66.90	4,521.5	986.4	793.6	705.5	88.07	9.011		
17,100.0	12,607.0	16,848.2	12,295.0	40.2	48.1	66.90	4,621.5	985.5	793.6	704.3	89.27	8.890		
17,200.0	12,607.0	16,948.2	12,295.0	40.9	48.6	66.90	4,721.5	984.5	793.6	703.1	90.49	8.771		
17,300.0	12,607.0	17,048.2	12,295.0	41.6	49.2	66.90	4,821.5	983.5	793.6	701.9	91.71	8.654		
17,400.0	12,607.0	17,148.2	12,295.0	42.2	49.8	66.90	4,921.4	982.6	793.6	700.7	92.94	8.539		

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 603H - OWB - PWP2												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11902-r.5 MWD+IFR1+MS												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
17,500.0	12,607.0	17,248.2	12,295.0	42.9	50.4	66.90	5,021.4	981.6	793.6	699.4	94.17	8.427	
17,600.0	12,607.0	17,348.2	12,295.0	43.6	51.0	66.90	5,121.4	980.6	793.6	698.2	95.42	8.317	
17,700.0	12,607.0	17,448.2	12,295.0	44.3	51.6	66.90	5,221.4	979.7	793.6	697.0	96.67	8.209	
17,800.0	12,607.0	17,548.2	12,295.0	45.0	52.2	66.90	5,321.4	978.7	793.6	695.7	97.93	8.104	
17,900.0	12,607.0	17,648.2	12,295.0	45.7	52.8	66.90	5,421.4	977.7	793.6	694.4	99.20	8.000	
18,000.0	12,607.0	17,748.2	12,295.0	46.4	53.4	66.90	5,521.4	976.8	793.6	693.1	100.48	7.899	
18,100.0	12,607.0	17,848.2	12,295.0	47.1	54.0	66.90	5,621.4	975.8	793.6	691.9	101.76	7.799	
18,200.0	12,607.0	17,948.2	12,295.0	47.8	54.6	66.90	5,721.4	974.8	793.6	690.6	103.05	7.702	
18,300.0	12,607.0	18,048.2	12,295.0	48.5	55.2	66.90	5,821.4	973.9	793.6	689.3	104.34	7.606	
18,400.0	12,607.0	18,148.2	12,295.0	49.2	55.8	66.90	5,921.4	972.9	793.6	688.0	105.64	7.513	
18,500.0	12,607.0	18,248.2	12,295.0	49.9	56.5	66.90	6,021.4	971.9	793.6	686.7	106.95	7.421	
18,600.0	12,607.0	18,348.2	12,295.0	50.6	57.1	66.90	6,121.4	971.0	793.6	685.4	108.26	7.331	
18,700.0	12,607.0	18,448.2	12,295.0	51.4	57.7	66.90	6,221.4	970.0	793.6	684.1	109.57	7.243	
18,800.0	12,607.0	18,548.2	12,295.0	52.1	58.4	66.90	6,321.4	969.0	793.6	682.7	110.89	7.157	
18,900.0	12,607.0	18,648.2	12,295.0	52.8	59.0	66.90	6,421.4	968.1	793.6	681.4	112.22	7.072	
19,000.0	12,607.0	18,748.2	12,295.0	53.5	59.7	66.90	6,521.4	967.1	793.6	680.1	113.55	6.989	
19,100.0	12,607.0	18,848.2	12,295.0	54.2	60.3	66.90	6,621.4	966.1	793.6	678.7	114.89	6.908	
19,200.0	12,607.0	18,948.2	12,295.0	54.9	60.9	66.90	6,721.4	965.2	793.6	677.4	116.23	6.828	
19,300.0	12,607.0	19,048.2	12,295.0	55.7	61.6	66.90	6,821.4	964.2	793.6	676.1	117.57	6.750	
19,400.0	12,607.0	19,148.2	12,295.0	56.4	62.2	66.90	6,921.4	963.2	793.6	674.7	118.92	6.674	
19,500.0	12,607.0	19,248.2	12,295.0	57.1	62.9	66.90	7,021.3	962.3	793.6	673.4	120.27	6.599	
19,600.0	12,607.0	19,348.2	12,295.0	57.8	63.6	66.90	7,121.3	961.3	793.6	672.0	121.63	6.525	
19,700.0	12,607.0	19,448.2	12,295.0	58.5	64.2	66.90	7,221.3	960.3	793.6	670.6	122.99	6.453	
19,800.0	12,607.0	19,548.2	12,295.0	59.3	64.9	66.90	7,321.3	959.4	793.6	669.3	124.35	6.382	
19,900.0	12,607.0	19,648.2	12,295.0	60.0	65.5	66.90	7,421.3	958.4	793.6	667.9	125.72	6.313	
20,000.0	12,607.0	19,748.2	12,295.0	60.7	66.2	66.90	7,521.3	957.4	793.6	666.6	127.09	6.245	
20,100.0	12,607.0	19,848.2	12,295.0	61.5	66.9	66.90	7,621.3	956.5	793.6	665.2	128.46	6.178	
20,200.0	12,607.0	19,948.2	12,295.0	62.2	67.6	66.90	7,721.3	955.5	793.6	663.8	129.84	6.113	
20,300.0	12,607.0	20,048.2	12,295.0	62.9	68.2	66.90	7,821.3	954.5	793.6	662.4	131.22	6.048	
20,400.0	12,607.0	20,148.2	12,295.0	63.6	68.9	66.90	7,921.3	953.6	793.6	661.0	132.60	5.985	
20,500.0	12,607.0	20,248.2	12,295.0	64.4	69.6	66.90	8,021.3	952.6	793.6	659.7	133.98	5.923	
20,600.0	12,607.0	20,348.2	12,295.0	65.1	70.3	66.90	8,121.3	951.6	793.6	658.3	135.37	5.863	
20,700.0	12,607.0	20,448.2	12,295.0	65.8	70.9	66.90	8,221.3	950.7	793.6	656.9	136.76	5.803	
20,800.0	12,607.0	20,548.2	12,295.0	66.6	71.6	66.90	8,321.3	949.7	793.6	655.5	138.16	5.745	
20,900.0	12,607.0	20,648.2	12,295.0	67.3	72.3	66.90	8,421.3	948.7	793.6	654.1	139.55	5.687	
21,000.0	12,607.0	20,748.2	12,295.0	68.0	73.0	66.90	8,521.3	947.8	793.6	652.7	140.95	5.631	
21,100.0	12,607.0	20,848.2	12,295.0	68.8	73.7	66.90	8,621.3	946.8	793.6	651.3	142.35	5.575	
21,200.0	12,607.0	20,948.2	12,295.0	69.5	74.4	66.90	8,721.3	945.8	793.6	649.9	143.75	5.521	
21,300.0	12,607.0	21,048.2	12,295.0	70.2	75.0	66.90	8,821.3	944.9	793.6	648.5	145.16	5.467	
21,400.0	12,607.0	21,148.2	12,295.0	71.0	75.7	66.90	8,921.3	943.9	793.6	647.1	146.57	5.415	
21,500.0	12,607.0	21,248.2	12,295.0	71.7	76.4	66.90	9,021.3	942.9	793.6	645.7	147.98	5.363	
21,600.0	12,607.0	21,348.2	12,295.0	72.5	77.1	66.90	9,121.3	942.0	793.6	644.3	149.39	5.313	
21,700.0	12,607.0	21,448.2	12,295.0	73.2	77.8	66.90	9,221.2	941.0	793.6	642.8	150.80	5.263	
21,800.0	12,607.0	21,548.2	12,295.0	73.9	78.5	66.90	9,321.2	940.0	793.6	641.4	152.22	5.214	
21,900.0	12,607.0	21,648.2	12,295.0	74.7	79.2	66.90	9,421.2	939.1	793.6	640.0	153.63	5.166	
22,000.0	12,607.0	21,748.2	12,295.0	75.4	79.9	66.90	9,521.2	938.1	793.6	638.6	155.05	5.119	
22,100.0	12,607.0	21,848.2	12,295.0	76.2	80.6	66.90	9,621.2	937.1	793.6	637.2	156.47	5.072	
22,200.0	12,607.0	21,948.2	12,295.0	76.9	81.3	66.90	9,721.2	936.2	793.7	635.8	157.90	5.026	
22,300.0	12,607.0	22,048.2	12,295.0	77.6	82.0	66.90	9,821.2	935.2	793.7	634.3	159.32	4.981	
22,400.0	12,607.0	22,148.2	12,295.0	78.4	82.7	66.90	9,921.2	934.2	793.7	632.9	160.75	4.937	
22,500.0	12,607.0	22,248.2	12,295.0	79.1	83.4	66.90	10,021.2	933.3	793.7	631.5	162.18	4.894	
22,600.0	12,607.0	22,348.2	12,295.0	79.9	84.1	66.90	10,121.2	932.3	793.7	630.0	163.61	4.851	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 603H - OWB - PWP2												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 11902-r.5 MWD+IFR1+MS												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
22,700.0	12,607.0	22,448.2	12,295.0	80.6	84.8	66.90	10,221.2	931.3	793.7	628.6	165.04	4.809	
22,800.0	12,607.0	22,548.2	12,295.0	81.4	85.5	66.90	10,321.2	930.4	793.7	627.2	166.47	4.768	
22,900.0	12,607.0	22,648.2	12,295.0	82.1	86.2	66.90	10,421.2	929.4	793.7	625.8	167.90	4.727	
23,000.0	12,607.0	22,748.2	12,295.0	82.8	86.9	66.90	10,521.2	928.4	793.7	624.3	169.34	4.687	
23,100.0	12,607.0	22,848.2	12,295.0	83.6	87.7	66.90	10,621.2	927.5	793.7	622.9	170.77	4.647	
23,200.0	12,607.0	22,948.2	12,295.0	84.3	88.4	66.90	10,721.2	926.5	793.7	621.4	172.21	4.609	
23,231.4	12,607.0	22,979.6	12,295.0	84.6	88.6	66.90	10,752.6	926.2	793.7	621.0	172.66	4.597	
23,236.2	12,607.0	22,984.4	12,295.0	84.6	88.6	66.90	10,757.4	926.1	793.7	620.9	172.73	4.595	
23,281.4	12,607.0	23,027.5	12,295.0	84.9	88.9	66.90	10,800.5	925.7	793.7	620.3	173.33	4.579	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 802H - OWB - PWP2												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 12653-r.5 MWD+IFR1+MS												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.7	0.7	0.0	0.0	-90.48	-0.5	-60.0	60.0				
100.0	100.0	100.7	100.7	0.5	0.5	-90.48	-0.5	-60.0	60.0	58.5	1.52	39.488	
200.0	200.0	200.7	200.7	1.0	1.0	-90.48	-0.5	-60.0	60.0	57.5	2.50	23.989	
300.0	300.0	300.7	300.7	1.4	1.4	-90.48	-0.5	-60.0	60.0	56.9	3.14	19.118	
400.0	400.0	400.7	400.7	1.6	1.6	-90.48	-0.5	-60.0	60.0	56.4	3.65	16.443	
500.0	500.0	500.7	500.7	1.9	1.9	-90.48	-0.5	-60.0	60.0	55.9	4.09	14.680	
600.0	600.0	600.7	600.7	2.1	2.1	-90.48	-0.5	-60.0	60.0	55.5	4.48	13.401	
700.0	700.0	700.7	700.7	2.3	2.3	-90.48	-0.5	-60.0	60.0	55.2	4.83	12.416	
800.0	800.0	800.7	800.7	2.5	2.5	-90.48	-0.5	-60.0	60.0	54.8	5.16	11.627	
900.0	900.0	900.7	900.7	2.7	2.7	-90.48	-0.5	-60.0	60.0	54.5	5.47	10.975	
1,000.0	1,000.0	1,000.7	1,000.7	2.9	2.9	-90.48	-0.5	-60.0	60.0	54.2	5.76	10.425	
1,100.0	1,100.0	1,100.7	1,100.7	3.0	3.0	-90.48	-0.5	-60.0	60.0	54.0	6.03	9.951	
1,200.0	1,200.0	1,200.7	1,200.7	3.2	3.3	-90.48	-0.5	-60.0	60.0	53.5	6.46	9.294	
1,201.0	1,201.0	1,201.7	1,201.7	3.2	3.3	-90.48	-0.5	-60.0	60.0	53.5	6.46	9.288 CC	
1,205.0	1,205.0	1,205.0	1,205.0	3.2	3.3	-90.48	-0.5	-60.0	60.0	53.5	6.48	9.267 ES	
1,300.0	1,300.0	1,299.2	1,299.1	3.4	3.5	140.41	-0.5	-61.2	62.4	55.5	6.91	9.031	
1,400.0	1,399.8	1,397.1	1,397.0	3.7	3.7	142.83	-0.6	-64.8	70.1	62.6	7.53	9.313	
1,455.0	1,454.7	1,450.6	1,450.5	3.8	3.8	144.49	-0.6	-67.9	76.7	68.9	7.78	9.852	
1,500.0	1,499.5	1,494.2	1,494.0	3.9	3.9	152.30	-0.7	-70.9	83.2	75.3	7.98	10.428	
1,600.0	1,599.0	1,590.3	1,589.6	4.2	4.2	165.51	-0.8	-79.4	101.3	92.7	8.56	11.830	
1,700.0	1,698.3	1,684.9	1,683.6	4.5	4.6	174.22	-1.0	-90.1	124.0	114.8	9.17	13.519	
1,750.7	1,748.6	1,732.2	1,730.6	4.6	4.7	177.42	-1.1	-96.3	137.3	127.9	9.40	14.605	
1,800.0	1,797.3	1,779.4	1,777.3	4.7	4.8	177.15	-1.2	-102.9	150.8	141.1	9.63	15.662	
1,900.0	1,896.4	1,875.6	1,872.5	5.0	5.1	176.74	-1.5	-116.3	178.2	167.9	10.26	17.367	
2,000.0	1,995.4	1,971.7	1,967.7	5.3	5.4	176.43	-1.7	-129.6	205.6	194.7	10.93	18.804	
2,100.0	2,094.4	2,067.9	2,063.0	5.7	5.8	176.20	-1.9	-143.0	233.0	221.4	11.63	20.038	
2,200.0	2,193.5	2,164.1	2,158.2	6.1	6.1	176.01	-2.2	-156.4	260.5	248.1	12.34	21.103	
2,300.0	2,292.5	2,260.2	2,253.4	6.4	6.5	175.86	-2.4	-169.8	287.9	274.8	13.07	22.029	
2,400.0	2,391.5	2,356.4	2,348.6	6.8	6.9	175.74	-2.6	-183.2	315.3	301.5	13.81	22.837	
2,500.0	2,490.5	2,452.5	2,443.9	7.2	7.2	175.64	-2.9	-196.6	342.8	328.2	14.56	23.547	
2,600.0	2,589.6	2,548.7	2,539.1	7.6	7.6	175.55	-3.1	-209.9	370.2	354.9	15.31	24.174	
2,700.0	2,688.6	2,644.9	2,634.3	8.0	8.0	175.47	-3.4	-223.3	397.6	381.5	16.08	24.731	
2,800.0	2,787.6	2,741.0	2,729.5	8.4	8.4	175.41	-3.6	-236.7	425.1	408.2	16.85	25.228	
2,863.0	2,850.0	2,801.6	2,789.5	8.7	8.6	175.37	-3.7	-245.1	442.3	425.0	17.31	25.548	
2,900.0	2,886.7	2,837.2	2,824.8	8.8	8.8	175.35	-3.8	-250.1	452.4	434.9	17.58	25.732	
3,000.0	2,985.8	2,933.6	2,920.2	9.2	9.1	175.30	-4.1	-263.5	479.1	460.8	18.36	26.095	
3,100.0	3,085.0	3,030.2	3,015.9	9.6	9.5	175.25	-4.3	-276.9	505.0	485.9	19.14	26.383	
3,200.0	3,184.4	3,127.0	3,111.7	10.0	9.9	175.20	-4.5	-290.4	530.0	510.1	19.92	26.608	
3,300.0	3,283.8	3,224.0	3,207.8	10.4	10.3	175.15	-4.8	-303.9	554.2	533.5	20.70	26.777	
3,400.0	3,383.3	3,321.2	3,304.1	10.8	10.7	175.09	-5.0	-317.4	577.6	556.1	21.47	26.898	
3,500.0	3,482.9	3,418.7	3,400.6	11.2	11.1	175.03	-5.2	-331.0	600.1	577.8	22.24	26.976	
3,600.0	3,582.6	3,516.3	3,497.3	11.5	11.6	174.97	-5.5	-344.6	621.7	598.7	23.01	27.017	
3,700.0	3,682.4	3,614.1	3,594.1	11.9	12.0	174.90	-5.7	-358.2	642.5	618.7	23.77	27.027	
3,800.0	3,782.2	3,712.1	3,691.2	12.3	12.4	174.83	-5.9	-371.8	662.5	638.0	24.52	27.014	
3,900.0	3,882.0	3,821.1	3,799.2	12.6	12.8	174.76	-6.2	-386.3	680.9	655.6	25.33	26.884	
4,000.0	3,981.9	3,933.3	3,910.7	13.0	13.2	174.70	-6.4	-399.0	696.6	670.5	26.15	26.643	
4,100.0	4,081.9	4,046.3	4,023.1	13.3	13.7	174.65	-6.6	-409.6	709.6	682.6	26.93	26.347	
4,200.0	4,181.8	4,159.9	4,136.4	13.6	14.1	174.61	-6.7	-418.0	719.7	692.0	27.67	26.006	
4,300.0	4,281.8	4,273.9	4,250.3	13.9	14.5	174.58	-6.9	-424.3	726.9	698.6	28.36	25.632	
4,400.0	4,381.8	4,388.3	4,364.6	14.1	14.9	174.56	-6.9	-428.2	731.4	702.4	28.97	25.244	
4,463.0	4,444.8	4,460.5	4,436.8	14.2	15.1	-85.45	-7.0	-429.5	732.7	703.4	29.23	25.063	
4,500.0	4,481.8	4,502.9	4,479.2	14.2	15.2	-85.45	-7.0	-429.9	733.0	703.6	29.34	24.981	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 802H - OWB - PWP2												Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 12653-r.5 MWD+IFR1+MS												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,600.0	4,581.8	4,606.2	4,582.5	14.2	15.2	-85.45	-7.0	-429.9	733.0	703.6	29.44	24.901	
4,700.0	4,681.8	4,706.2	4,682.5	14.3	15.3	-85.45	-7.0	-429.9	733.0	703.5	29.53	24.820	
4,800.0	4,781.8	4,806.2	4,782.5	14.3	15.3	-85.45	-7.0	-429.9	733.0	703.4	29.63	24.738	
4,900.0	4,881.8	4,906.2	4,882.5	14.4	15.4	-85.45	-7.0	-429.9	733.0	703.3	29.73	24.657	
5,000.0	4,981.8	5,006.2	4,982.5	14.4	15.4	-85.45	-7.0	-429.9	733.0	703.2	29.83	24.575	
5,100.0	5,081.8	5,106.2	5,082.5	14.5	15.5	-85.45	-7.0	-429.9	733.0	703.1	29.93	24.494	
5,200.0	5,181.8	5,206.2	5,182.5	14.5	15.5	-85.45	-7.0	-429.9	733.0	703.0	30.03	24.413	
5,300.0	5,281.8	5,306.2	5,282.5	14.6	15.6	-85.45	-7.0	-429.9	733.0	702.9	30.13	24.332	
5,400.0	5,381.8	5,406.2	5,382.5	14.6	15.6	-85.45	-7.0	-429.9	733.0	702.8	30.23	24.251	
5,500.0	5,481.8	5,506.2	5,482.5	14.7	15.7	-85.45	-7.0	-429.9	733.0	702.7	30.33	24.170	
5,600.0	5,581.8	5,606.2	5,582.5	14.7	15.7	-85.45	-7.0	-429.9	733.0	702.6	30.43	24.089	
5,700.0	5,681.8	5,706.2	5,682.5	14.8	15.8	-85.45	-7.0	-429.9	733.0	702.5	30.53	24.009	
5,800.0	5,781.8	5,806.2	5,782.5	14.8	15.8	-85.45	-7.0	-429.9	733.0	702.4	30.63	23.928	
5,900.0	5,881.8	5,906.2	5,882.5	14.9	15.9	-85.45	-7.0	-429.9	733.0	702.3	30.74	23.848	
6,000.0	5,981.8	6,006.2	5,982.5	14.9	15.9	-85.45	-7.0	-429.9	733.0	702.2	30.84	23.768	
6,100.0	6,081.8	6,106.2	6,082.5	15.0	16.0	-85.45	-7.0	-429.9	733.0	702.1	30.95	23.688	
6,200.0	6,181.8	6,206.2	6,182.5	15.1	16.0	-85.45	-7.0	-429.9	733.0	702.0	31.05	23.608	
6,300.0	6,281.8	6,306.2	6,282.5	15.1	16.1	-85.45	-7.0	-429.9	733.0	701.9	31.15	23.528	
6,400.0	6,381.8	6,406.2	6,382.5	15.2	16.1	-85.45	-7.0	-429.9	733.0	701.8	31.26	23.449	
6,500.0	6,481.8	6,506.2	6,482.5	15.2	16.2	-85.45	-7.0	-429.9	733.0	701.7	31.37	23.370	
6,600.0	6,581.8	6,606.2	6,582.5	15.3	16.2	-85.45	-7.0	-429.9	733.0	701.6	31.47	23.290	
6,700.0	6,681.8	6,706.2	6,682.5	15.3	16.3	-85.45	-7.0	-429.9	733.0	701.4	31.58	23.211	
6,800.0	6,781.8	6,806.2	6,782.5	15.4	16.3	-85.45	-7.0	-429.9	733.0	701.3	31.69	23.133	
6,900.0	6,881.8	6,906.2	6,882.5	15.4	16.4	-85.45	-7.0	-429.9	733.0	701.2	31.80	23.054	
7,000.0	6,981.8	7,006.2	6,982.5	15.5	16.5	-85.45	-7.0	-429.9	733.0	701.1	31.90	22.976	
7,100.0	7,081.8	7,106.2	7,082.5	15.5	16.5	-85.45	-7.0	-429.9	733.0	701.0	32.01	22.898	
7,200.0	7,181.8	7,206.2	7,182.5	15.6	16.6	-85.45	-7.0	-429.9	733.0	700.9	32.12	22.820	
7,300.0	7,281.8	7,306.2	7,282.5	15.7	16.6	-85.45	-7.0	-429.9	733.0	700.8	32.23	22.742	
7,400.0	7,381.8	7,406.2	7,382.5	15.7	16.7	-85.45	-7.0	-429.9	733.0	700.7	32.34	22.665	
7,500.0	7,481.8	7,506.2	7,482.5	15.8	16.7	-85.45	-7.0	-429.9	733.0	700.6	32.45	22.587	
7,600.0	7,581.8	7,606.2	7,582.5	15.8	16.8	-85.45	-7.0	-429.9	733.0	700.5	32.56	22.510	
7,700.0	7,681.8	7,706.2	7,682.5	15.9	16.8	-85.45	-7.0	-429.9	733.0	700.3	32.68	22.433	
7,800.0	7,781.8	7,806.2	7,782.5	15.9	16.9	-85.45	-7.0	-429.9	733.0	700.2	32.79	22.357	
7,900.0	7,881.8	7,906.2	7,882.5	16.0	17.0	-85.45	-7.0	-429.9	733.0	700.1	32.90	22.281	
8,000.0	7,981.8	8,006.2	7,982.5	16.0	17.0	-85.45	-7.0	-429.9	733.0	700.0	33.01	22.205	
8,100.0	8,081.8	8,106.2	8,082.5	16.1	17.1	-85.45	-7.0	-429.9	733.0	699.9	33.13	22.129	
8,200.0	8,181.8	8,206.2	8,182.5	16.2	17.1	-85.45	-7.0	-429.9	733.0	699.8	33.24	22.053	
8,300.0	8,281.8	8,306.2	8,282.5	16.2	17.2	-85.45	-7.0	-429.9	733.0	699.7	33.35	21.978	
8,400.0	8,381.8	8,406.2	8,382.5	16.3	17.2	-85.45	-7.0	-429.9	733.0	699.6	33.47	21.903	
8,500.0	8,481.8	8,506.2	8,482.5	16.3	17.3	-85.45	-7.0	-429.9	733.0	699.4	33.58	21.828	
8,600.0	8,581.8	8,606.2	8,582.5	16.4	17.4	-85.45	-7.0	-429.9	733.0	699.3	33.70	21.753	
8,700.0	8,681.8	8,706.2	8,682.5	16.5	17.4	-85.45	-7.0	-429.9	733.0	699.2	33.81	21.679	
8,800.0	8,781.8	8,806.2	8,782.5	16.5	17.5	-85.45	-7.0	-429.9	733.0	699.1	33.93	21.605	
8,900.0	8,881.8	8,906.2	8,882.5	16.6	17.5	-85.45	-7.0	-429.9	733.0	699.0	34.04	21.531	
9,000.0	8,981.8	9,006.2	8,982.5	16.6	17.6	-85.45	-7.0	-429.9	733.0	698.9	34.16	21.458	
9,100.0	9,081.8	9,106.2	9,082.5	16.7	17.7	-85.45	-7.0	-429.9	733.0	698.7	34.28	21.385	
9,200.0	9,181.8	9,206.2	9,182.5	16.7	17.7	-85.45	-7.0	-429.9	733.0	698.6	34.40	21.312	
9,300.0	9,281.8	9,306.2	9,282.5	16.8	17.8	-85.45	-7.0	-429.9	733.0	698.5	34.51	21.239	
9,400.0	9,381.8	9,406.2	9,382.5	16.9	17.8	-85.45	-7.0	-429.9	733.0	698.4	34.63	21.167	
9,500.0	9,481.8	9,506.2	9,482.5	16.9	17.9	-85.45	-7.0	-429.9	733.0	698.3	34.75	21.095	
9,600.0	9,581.8	9,606.2	9,582.5	17.0	17.9	-85.45	-7.0	-429.9	733.0	698.2	34.87	21.023	
9,700.0	9,681.8	9,706.2	9,682.5	17.0	18.0	-85.45	-7.0	-429.9	733.0	698.0	34.99	20.951	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 802H - OWB - PWP2													Offset Site Error: 0.0 usft	
Survey Program:		0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 12653-r.5 MWD+IFR1+MS										Offset Well Error: 0.0 usft		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,800.0	9,781.8	9,806.2	9,782.5	17.1	18.1	-85.45	-7.0	-429.9	733.0	697.9	35.11	20.880		
9,900.0	9,881.8	9,906.2	9,882.5	17.2	18.1	-85.45	-7.0	-429.9	733.0	697.8	35.23	20.809		
10,000.0	9,981.8	10,006.2	9,982.5	17.2	18.2	-85.45	-7.0	-429.9	733.0	697.7	35.35	20.738		
10,100.0	10,081.8	10,106.2	10,082.5	17.3	18.3	-85.45	-7.0	-429.9	733.0	697.6	35.47	20.668		
10,200.0	10,181.8	10,206.2	10,182.5	17.4	18.3	-85.45	-7.0	-429.9	733.0	697.4	35.59	20.598		
10,300.0	10,281.8	10,306.2	10,282.5	17.4	18.4	-85.45	-7.0	-429.9	733.0	697.3	35.71	20.528		
10,400.0	10,381.8	10,406.2	10,382.5	17.5	18.4	-85.45	-7.0	-429.9	733.0	697.2	35.83	20.459		
10,500.0	10,481.8	10,506.2	10,482.5	17.5	18.5	-85.45	-7.0	-429.9	733.0	697.1	35.95	20.389		
10,600.0	10,581.8	10,606.2	10,582.5	17.6	18.6	-85.45	-7.0	-429.9	733.0	697.0	36.07	20.320		
10,700.0	10,681.8	10,706.2	10,682.5	17.7	18.6	-85.45	-7.0	-429.9	733.0	696.8	36.20	20.252		
10,800.0	10,781.8	10,806.2	10,782.5	17.7	18.7	-85.45	-7.0	-429.9	733.0	696.7	36.32	20.183		
10,900.0	10,881.8	10,906.2	10,882.5	17.8	18.7	-85.45	-7.0	-429.9	733.0	696.6	36.44	20.115		
11,000.0	10,981.8	11,006.2	10,982.5	17.9	18.8	-85.45	-7.0	-429.9	733.0	696.5	36.56	20.048		
11,100.0	11,081.8	11,106.2	11,082.5	17.9	18.9	-85.45	-7.0	-429.9	733.0	696.3	36.69	19.980		
11,200.0	11,181.8	11,206.2	11,182.5	18.0	18.9	-85.45	-7.0	-429.9	733.0	696.2	36.81	19.913		
11,300.0	11,281.8	11,306.2	11,282.5	18.0	19.0	-85.45	-7.0	-429.9	733.0	696.1	36.94	19.846		
11,400.0	11,381.8	11,406.2	11,382.5	18.1	19.1	-85.45	-7.0	-429.9	733.0	696.0	37.06	19.779		
11,500.0	11,481.8	11,506.2	11,482.5	18.2	19.1	-85.45	-7.0	-429.9	733.0	695.8	37.18	19.713		
11,600.0	11,581.8	11,606.2	11,582.5	18.2	19.2	-85.45	-7.0	-429.9	733.0	695.7	37.31	19.647		
11,700.0	11,681.8	11,706.2	11,682.5	18.3	19.2	-85.45	-7.0	-429.9	733.0	695.6	37.43	19.581		
11,800.0	11,781.8	11,806.2	11,782.5	18.4	19.3	-85.45	-7.0	-429.9	733.0	695.5	37.56	19.516		
11,900.0	11,881.8	11,906.2	11,882.5	18.4	19.4	-85.45	-7.0	-429.9	733.0	695.3	37.69	19.451		
12,000.0	11,981.8	12,006.2	11,982.5	18.5	19.4	-85.45	-7.0	-429.9	733.0	695.2	37.81	19.386		
12,100.0	12,081.8	12,106.2	12,082.5	18.6	19.5	-85.45	-7.0	-429.9	733.0	695.1	37.94	19.321		
12,147.7	12,129.5	12,153.9	12,130.2	18.6	19.5	-85.45	-7.0	-429.9	733.0	695.0	37.98	19.299		
12,150.0	12,131.8	12,156.2	12,132.5	18.6	19.5	-84.90	-7.0	-429.9	733.0	695.0	37.98	19.299		
12,175.0	12,156.8	12,181.2	12,157.5	18.6	19.5	-84.96	-7.0	-429.9	733.0	694.9	38.01	19.284		
12,200.0	12,181.7	12,206.1	12,182.4	18.6	19.6	-85.15	-7.0	-429.9	732.8	694.7	38.03	19.270		
12,225.0	12,206.5	12,230.9	12,207.2	18.6	19.6	-85.44	-7.0	-429.9	732.5	694.5	38.04	19.255		
12,250.0	12,231.0	12,255.4	12,231.7	18.6	19.6	-85.84	-7.0	-429.9	732.1	694.1	38.06	19.237		
12,275.0	12,255.3	12,279.7	12,256.0	18.6	19.6	-86.34	-7.0	-429.9	731.7	693.6	38.07	19.220		
12,300.0	12,279.2	12,303.6	12,279.9	18.6	19.6	-86.94	-7.0	-429.9	731.3	693.2	38.08	19.203		
12,325.0	12,302.8	12,327.2	12,303.5	18.6	19.6	-87.61	-7.0	-429.9	730.8	692.8	38.09	19.188		
12,350.0	12,325.8	12,350.2	12,326.5	18.6	19.7	-88.35	-7.0	-429.9	730.5	692.4	38.09	19.177		
12,375.0	12,348.3	12,372.7	12,349.0	18.6	19.7	-89.15	-7.0	-429.9	730.2	692.1	38.09	19.171		
12,400.0	12,370.2	12,394.6	12,370.9	18.6	19.7	-89.99	-7.0	-429.9	730.1	692.0	38.08	19.172		
12,401.1	12,371.2	12,395.6	12,371.9	18.6	19.7	-90.03	-7.0	-429.9	730.1	692.0	38.08	19.172		
12,425.0	12,391.5	12,415.9	12,392.2	18.6	19.7	-90.86	-7.0	-429.9	730.2	692.2	38.07	19.182		
12,450.0	12,412.0	12,436.4	12,412.7	18.6	19.7	-91.73	-7.0	-429.9	730.6	692.6	38.05	19.203		
12,475.0	12,431.8	12,456.2	12,432.5	18.6	19.7	-92.59	-7.0	-429.9	731.4	693.3	38.02	19.237		
12,500.0	12,450.7	12,475.1	12,451.4	18.6	19.7	-93.42	-7.0	-429.9	732.5	694.5	37.98	19.287		
12,525.0	12,468.8	12,493.2	12,469.5	18.6	19.7	-94.20	-7.0	-429.9	734.1	696.2	37.93	19.354		
12,550.0	12,485.9	12,510.3	12,486.6	18.7	19.8	-94.92	-7.0	-429.9	736.2	698.3	37.87	19.440		
12,575.0	12,502.0	12,526.4	12,502.7	18.7	19.8	-95.56	-7.0	-429.9	738.9	701.1	37.80	19.548		
12,600.0	12,517.1	12,541.5	12,517.8	18.7	19.8	-96.09	-7.0	-429.9	742.2	704.5	37.72	19.678		
12,625.0	12,531.2	12,555.6	12,531.9	18.7	19.8	-96.51	-7.0	-429.9	746.2	708.6	37.63	19.832		
12,650.0	12,544.2	12,568.6	12,544.9	18.7	19.8	-96.80	-7.0	-429.9	750.9	713.4	37.52	20.012		
12,675.0	12,556.0	12,580.4	12,556.7	18.7	19.8	-96.94	-7.0	-429.9	756.4	719.0	37.41	20.218		
12,700.0	12,566.6	12,591.0	12,567.3	18.7	19.8	-96.92	-7.0	-429.9	762.6	725.3	37.29	20.451		
12,725.0	12,576.1	12,600.5	12,576.8	18.8	19.8	-96.73	-7.0	-429.9	769.6	732.4	37.16	20.712		
12,750.0	12,584.3	12,608.7	12,585.0	18.8	19.8	-96.35	-7.0	-429.9	777.4	740.3	37.01	21.002		
12,775.0	12,591.3	12,615.7	12,592.0	18.8	19.8	-95.78	-7.0	-429.9	785.9	749.1	36.87	21.319		

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 802H - OWB - PWP2													Offset Site Error: 0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 12653-r.5 MWD+IFR1+MS													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,800.0	12,597.0	12,621.4	12,597.7	18.8	19.8	-95.01	-7.0	-429.9	795.2	758.5	36.71	21.662	
12,825.0	12,601.5	12,625.9	12,602.2	18.9	19.8	-94.04	-7.0	-429.9	805.3	768.8	36.55	22.030	
12,850.0	12,604.6	12,629.0	12,605.3	18.9	19.8	-92.85	-7.0	-429.9	816.1	779.7	36.40	22.423	
12,875.0	12,606.5	12,630.9	12,607.2	18.9	19.8	-91.45	-7.0	-429.9	827.5	791.3	36.23	22.838	
12,897.7	12,607.0	12,631.4	12,607.7	19.0	19.8	-90.00	-7.0	-429.9	838.5	802.4	36.09	23.234	
12,900.0	12,607.0	12,631.4	12,607.7	19.0	19.8	-90.00	-7.0	-429.9	839.6	803.5	36.07	23.274	
13,000.0	12,607.0	13,440.3	13,107.0	19.1	20.2	-124.37	507.5	-434.9	884.5	838.5	46.01	19.225	
13,100.0	12,607.0	13,540.3	13,107.0	19.3	20.4	-124.37	607.5	-435.9	884.5	838.2	46.31	19.098	
13,200.0	12,607.0	13,640.3	13,107.0	19.5	20.6	-124.37	707.5	-436.8	884.5	837.8	46.67	18.954	
13,300.0	12,607.0	13,740.3	13,107.0	19.8	20.8	-124.37	807.5	-437.8	884.5	837.4	47.07	18.792	
13,400.0	12,607.0	13,840.3	13,107.0	20.0	21.1	-124.37	907.5	-438.8	884.5	837.0	47.51	18.616	
13,500.0	12,607.0	13,940.3	13,107.0	20.3	21.4	-124.37	1,007.5	-439.7	884.5	836.5	48.00	18.426	
13,600.0	12,607.0	14,040.3	13,107.0	20.6	21.7	-124.37	1,107.5	-440.7	884.5	836.0	48.54	18.223	
13,700.0	12,607.0	14,140.3	13,107.0	21.0	22.0	-124.37	1,207.5	-441.7	884.5	835.4	49.11	18.009	
13,800.0	12,607.0	14,240.3	13,107.0	21.3	22.3	-124.37	1,307.5	-442.6	884.5	834.8	49.73	17.786	
13,900.0	12,607.0	14,340.3	13,107.0	21.7	22.7	-124.37	1,407.5	-443.6	884.5	834.1	50.38	17.555	
14,000.0	12,607.0	14,440.3	13,107.0	22.1	23.1	-124.37	1,507.5	-444.6	884.5	833.4	51.08	17.317	
14,100.0	12,607.0	14,540.3	13,107.0	22.5	23.5	-124.37	1,607.5	-445.5	884.5	832.7	51.80	17.074	
14,200.0	12,607.0	14,640.3	13,107.0	23.0	23.9	-124.37	1,707.5	-446.5	884.5	831.9	52.57	16.827	
14,300.0	12,607.0	14,740.3	13,107.0	23.4	24.3	-124.37	1,807.5	-447.5	884.5	831.1	53.36	16.576	
14,400.0	12,607.0	14,840.3	13,107.0	23.9	24.8	-124.37	1,907.5	-448.4	884.5	830.3	54.19	16.323	
14,500.0	12,607.0	14,940.3	13,107.0	24.4	25.3	-124.37	2,007.5	-449.4	884.5	829.5	55.04	16.069	
14,600.0	12,607.0	15,040.3	13,107.0	24.9	25.7	-124.37	2,107.5	-450.4	884.5	828.6	55.93	15.815	
14,700.0	12,607.0	15,140.3	13,107.0	25.4	26.2	-124.37	2,207.5	-451.3	884.5	827.7	56.84	15.561	
14,800.0	12,607.0	15,240.3	13,107.0	25.9	26.7	-124.37	2,307.5	-452.3	884.5	826.7	57.78	15.309	
14,900.0	12,607.0	15,340.3	13,107.0	26.5	27.3	-124.37	2,407.5	-453.3	884.5	825.8	58.74	15.058	
15,000.0	12,607.0	15,440.3	13,107.0	27.0	27.8	-124.37	2,507.4	-454.2	884.5	824.8	59.73	14.809	
15,100.0	12,607.0	15,540.3	13,107.0	27.6	28.3	-124.37	2,607.4	-455.2	884.5	823.8	60.73	14.563	
15,200.0	12,607.0	15,640.3	13,107.0	28.1	28.9	-124.37	2,707.4	-456.2	884.5	822.7	61.76	14.321	
15,300.0	12,607.0	15,740.3	13,107.0	28.7	29.4	-124.37	2,807.4	-457.1	884.5	821.7	62.81	14.081	
15,400.0	12,607.0	15,840.3	13,107.0	29.3	30.0	-124.37	2,907.4	-458.1	884.5	820.6	63.88	13.846	
15,500.0	12,607.0	15,940.3	13,107.0	29.9	30.6	-124.37	3,007.4	-459.1	884.5	819.5	64.97	13.614	
15,600.0	12,607.0	16,040.3	13,107.0	30.5	31.2	-124.37	3,107.4	-460.0	884.5	818.4	66.07	13.387	
15,700.0	12,607.0	16,140.3	13,107.0	31.1	31.8	-124.37	3,207.4	-461.0	884.5	817.3	67.19	13.163	
15,800.0	12,607.0	16,240.3	13,107.0	31.7	32.4	-124.37	3,307.4	-462.0	884.5	816.2	68.33	12.944	
15,900.0	12,607.0	16,340.3	13,107.0	32.4	33.0	-124.37	3,407.4	-462.9	884.5	815.0	69.48	12.730	
16,000.0	12,607.0	16,440.3	13,107.0	33.0	33.6	-124.37	3,507.4	-463.9	884.5	813.8	70.65	12.520	
16,100.0	12,607.0	16,540.3	13,107.0	33.6	34.2	-124.37	3,607.4	-464.9	884.5	812.7	71.82	12.315	
16,200.0	12,607.0	16,640.3	13,107.0	34.3	34.8	-124.37	3,707.4	-465.8	884.5	811.5	73.02	12.114	
16,300.0	12,607.0	16,740.3	13,107.0	34.9	35.5	-124.37	3,807.4	-466.8	884.5	810.3	74.22	11.917	
16,400.0	12,607.0	16,840.3	13,107.0	35.5	36.1	-124.37	3,907.4	-467.8	884.5	809.1	75.43	11.725	
16,500.0	12,607.0	16,940.3	13,107.0	36.2	36.7	-124.37	4,007.4	-468.7	884.5	807.8	76.66	11.538	
16,600.0	12,607.0	17,040.3	13,107.0	36.9	37.4	-124.37	4,107.4	-469.7	884.5	806.6	77.90	11.354	
16,700.0	12,607.0	17,140.3	13,107.0	37.5	38.0	-124.37	4,207.4	-470.7	884.5	805.3	79.14	11.176	
16,800.0	12,607.0	17,240.3	13,107.0	38.2	38.7	-124.37	4,307.4	-471.6	884.5	804.1	80.40	11.001	
16,900.0	12,607.0	17,340.3	13,107.0	38.9	39.3	-124.37	4,407.4	-472.6	884.5	802.8	81.67	10.831	
17,000.0	12,607.0	17,440.3	13,107.0	39.5	40.0	-124.37	4,507.4	-473.6	884.5	801.5	82.94	10.664	
17,100.0	12,607.0	17,540.3	13,107.0	40.2	40.7	-124.37	4,607.3	-474.5	884.5	800.3	84.22	10.502	
17,200.0	12,607.0	17,640.3	13,107.0	40.9	41.3	-124.37	4,707.3	-475.5	884.5	799.0	85.51	10.343	
17,300.0	12,607.0	17,740.3	13,107.0	41.6	42.0	-124.37	4,807.3	-476.5	884.5	797.7	86.81	10.189	
17,400.0	12,607.0	17,840.3	13,107.0	42.2	42.7	-124.37	4,907.3	-477.4	884.5	796.4	88.11	10.038	
17,500.0	12,607.0	17,940.3	13,107.0	42.9	43.4	-124.37	5,007.3	-478.4	884.5	795.1	89.42	9.891	

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

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 802H - OWB - PWP2													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 12653-r.5 MWD+IFR1+MS													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,600.0	12,607.0	18,040.3	13,107.0	43.6	44.0	-124.37	5,107.3	-479.4	884.5	793.7	90.74	9.747		
17,700.0	12,607.0	18,140.3	13,107.0	44.3	44.7	-124.37	5,207.3	-480.3	884.5	792.4	92.07	9.607		
17,800.0	12,607.0	18,240.3	13,107.0	45.0	45.4	-124.37	5,307.3	-481.3	884.5	791.1	93.40	9.470		
17,900.0	12,607.0	18,340.3	13,107.0	45.7	46.1	-124.37	5,407.3	-482.3	884.5	789.7	94.73	9.336		
18,000.0	12,607.0	18,440.3	13,107.0	46.4	46.8	-124.37	5,507.3	-483.2	884.5	788.4	96.08	9.206		
18,100.0	12,607.0	18,540.3	13,107.0	47.1	47.5	-124.37	5,607.3	-484.2	884.5	787.1	97.42	9.079		
18,200.0	12,607.0	18,640.3	13,107.0	47.8	48.2	-124.37	5,707.3	-485.2	884.5	785.7	98.78	8.954		
18,300.0	12,607.0	18,740.3	13,107.0	48.5	48.9	-124.37	5,807.3	-486.1	884.5	784.3	100.13	8.833		
18,400.0	12,607.0	18,840.3	13,107.0	49.2	49.6	-124.37	5,907.3	-487.1	884.5	783.0	101.49	8.714		
18,500.0	12,607.0	18,940.3	13,107.0	49.9	50.3	-124.37	6,007.3	-488.1	884.5	781.6	102.86	8.599		
18,600.0	12,607.0	19,040.3	13,107.0	50.6	51.0	-124.37	6,107.3	-489.0	884.5	780.2	104.23	8.486		
18,700.0	12,607.0	19,140.3	13,107.0	51.4	51.7	-124.37	6,207.3	-490.0	884.5	778.9	105.61	8.375		
18,800.0	12,607.0	19,240.3	13,107.0	52.1	52.4	-124.37	6,307.3	-491.0	884.5	777.5	106.98	8.267		
18,900.0	12,607.0	19,340.3	13,107.0	52.8	53.1	-124.37	6,407.3	-491.9	884.5	776.1	108.37	8.162		
19,000.0	12,607.0	19,440.3	13,107.0	53.5	53.8	-124.37	6,507.3	-492.9	884.5	774.7	109.75	8.059		
19,100.0	12,607.0	19,540.3	13,107.0	54.2	54.5	-124.37	6,607.3	-493.9	884.5	773.3	111.14	7.958		
19,200.0	12,607.0	19,640.3	13,107.0	54.9	55.2	-124.37	6,707.3	-494.8	884.5	771.9	112.54	7.859		
19,300.0	12,607.0	19,740.3	13,107.0	55.7	55.9	-124.37	6,807.2	-495.8	884.5	770.5	113.93	7.763		
19,400.0	12,607.0	19,840.3	13,107.0	56.4	56.6	-124.37	6,907.2	-496.8	884.5	769.1	115.33	7.669		
19,500.0	12,607.0	19,940.3	13,107.0	57.1	57.4	-124.37	7,007.2	-497.7	884.5	767.7	116.74	7.577		
19,600.0	12,607.0	20,040.3	13,107.0	57.8	58.1	-124.37	7,107.2	-498.7	884.5	766.3	118.14	7.486		
19,700.0	12,607.0	20,140.3	13,107.0	58.5	58.8	-124.37	7,207.2	-499.7	884.5	764.9	119.55	7.398		
19,800.0	12,607.0	20,240.3	13,107.0	59.3	59.5	-124.37	7,307.2	-500.6	884.5	763.5	120.96	7.312		
19,900.0	12,607.0	20,340.3	13,107.0	60.0	60.2	-124.37	7,407.2	-501.6	884.5	762.1	122.38	7.227		
20,000.0	12,607.0	20,440.3	13,107.0	60.7	61.0	-124.37	7,507.2	-502.6	884.5	760.7	123.79	7.145		
20,100.0	12,607.0	20,540.3	13,107.0	61.5	61.7	-124.37	7,607.2	-503.5	884.5	759.2	125.21	7.064		
20,200.0	12,607.0	20,640.3	13,107.0	62.2	62.4	-124.37	7,707.2	-504.5	884.5	757.8	126.63	6.984		
20,300.0	12,607.0	20,740.3	13,107.0	62.9	63.1	-124.37	7,807.2	-505.5	884.5	756.4	128.06	6.907		
20,400.0	12,607.0	20,840.3	13,107.0	63.6	63.9	-124.37	7,907.2	-506.4	884.5	755.0	129.48	6.831		
20,500.0	12,607.0	20,940.3	13,107.0	64.4	64.6	-124.37	8,007.2	-507.4	884.5	753.5	130.91	6.756		
20,600.0	12,607.0	21,040.3	13,107.0	65.1	65.3	-124.37	8,107.2	-508.4	884.5	752.1	132.34	6.683		
20,700.0	12,607.0	21,140.3	13,107.0	65.8	66.0	-124.37	8,207.2	-509.3	884.5	750.7	133.77	6.612		
20,800.0	12,607.0	21,240.3	13,107.0	66.6	66.8	-124.37	8,307.2	-510.3	884.5	749.2	135.21	6.542		
20,900.0	12,607.0	21,340.3	13,107.0	67.3	67.5	-124.37	8,407.2	-511.3	884.5	747.8	136.64	6.473		
21,000.0	12,607.0	21,440.3	13,107.0	68.0	68.2	-124.37	8,507.2	-512.2	884.5	746.4	138.08	6.405		
21,100.0	12,607.0	21,540.3	13,107.0	68.8	69.0	-124.37	8,607.2	-513.2	884.4	744.9	139.52	6.339		
21,200.0	12,607.0	21,640.3	13,107.0	69.5	69.7	-124.37	8,707.2	-514.2	884.4	743.5	140.96	6.274		
21,300.0	12,607.0	21,740.3	13,107.0	70.2	70.4	-124.37	8,807.2	-515.1	884.4	742.0	142.40	6.211		
21,400.0	12,607.0	21,840.3	13,107.0	71.0	71.2	-124.37	8,907.1	-516.1	884.4	740.6	143.85	6.148		
21,500.0	12,607.0	21,940.3	13,107.0	71.7	71.9	-124.37	9,007.1	-517.0	884.4	739.2	145.29	6.087		
21,600.0	12,607.0	22,040.3	13,107.0	72.5	72.6	-124.37	9,107.1	-518.0	884.4	737.7	146.74	6.027		
21,700.0	12,607.0	22,140.3	13,107.0	73.2	73.4	-124.37	9,207.1	-519.0	884.4	736.3	148.19	5.968		
21,800.0	12,607.0	22,240.3	13,107.0	73.9	74.1	-124.37	9,307.1	-519.9	884.4	734.8	149.64	5.910		
21,900.0	12,607.0	22,340.3	13,107.0	74.7	74.8	-124.37	9,407.1	-520.9	884.4	733.3	151.09	5.854		
22,000.0	12,607.0	22,440.3	13,107.0	75.4	75.6	-124.37	9,507.1	-521.9	884.4	731.9	152.55	5.798		
22,100.0	12,607.0	22,540.3	13,107.0	76.2	76.3	-124.37	9,607.1	-522.8	884.4	730.4	154.00	5.743		
22,200.0	12,607.0	22,640.3	13,107.0	76.9	77.0	-124.37	9,707.1	-523.8	884.4	729.0	155.46	5.689		
22,300.0	12,607.0	22,740.3	13,107.0	77.6	77.8	-124.37	9,807.1	-524.8	884.4	727.5	156.92	5.636		
22,400.0	12,607.0	22,840.3	13,107.0	78.4	78.5	-124.37	9,907.1	-525.7	884.4	726.1	158.37	5.585		
22,500.0	12,607.0	22,940.3	13,107.0	79.1	79.3	-124.37	10,007.1	-526.7	884.4	724.6	159.83	5.534		
22,600.0	12,607.0	23,040.3	13,107.0	79.9	80.0	-124.37	10,107.1	-527.7	884.4	723.1	161.29	5.483		
22,700.0	12,607.0	23,140.3	13,107.0	80.6	80.7	-124.37	10,207.1	-528.6	884.4	721.7	162.76	5.434		

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

ConocoPhillips

Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Offset Design: AKUBRA PROJECT - AKUBRA FED COM 802H - OWB - PWP2													Offset Site Error:	0.0 usft
Survey Program: 0-r.5 SDI_KPR_WL_NS-CT, 1205-r.5 MWD+IFR1+MS, 12653-r.5 MWD+IFR1+MS													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
22,800.0	12,607.0	23,240.3	13,107.0	81.4	81.5	-124.37	10,307.1	-529.6	884.4	720.2	164.22	5.386		
22,900.0	12,607.0	23,340.3	13,107.0	82.1	82.2	-124.37	10,407.1	-530.6	884.4	718.8	165.68	5.338		
23,000.0	12,607.0	23,440.3	13,107.0	82.8	83.0	-124.37	10,507.1	-531.5	884.4	717.3	167.15	5.291		
23,100.0	12,607.0	23,540.3	13,107.0	83.6	83.7	-124.37	10,607.1	-532.5	884.4	715.8	168.61	5.245		
23,200.0	12,607.0	23,640.3	13,107.0	84.3	84.4	-124.37	10,707.1	-533.5	884.4	714.4	170.08	5.200		
23,231.4	12,607.0	23,671.7	13,107.0	84.6	84.7	-124.37	10,738.4	-533.8	884.4	713.9	170.54	5.186		
23,281.4	12,607.0	23,721.7	13,107.0	84.9	85.0	-124.37	10,788.4	-534.3	884.4	713.2	171.27	5.164 SF		

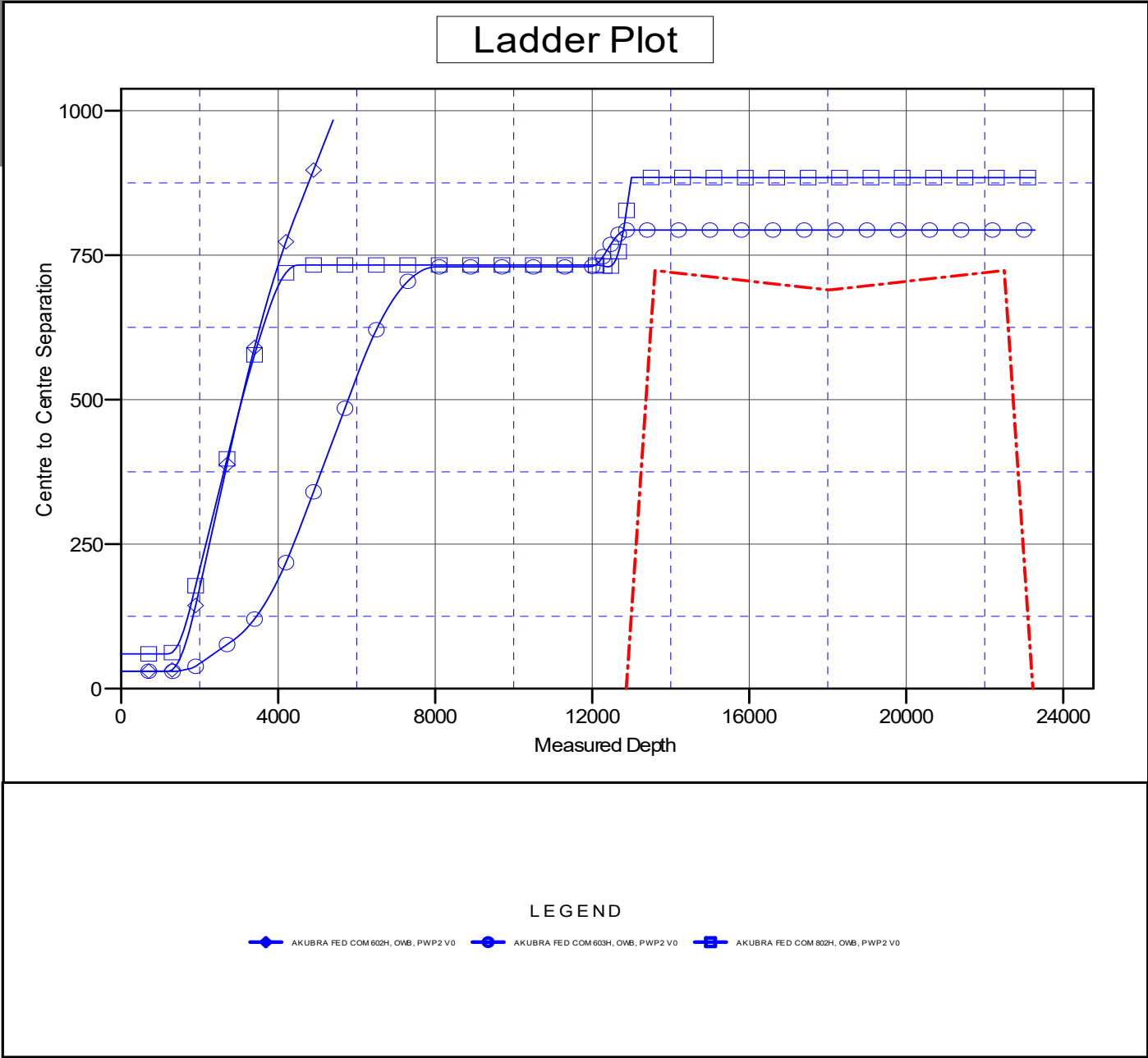
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=32ft @ 3224.9usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AKUBRA FED COM 703H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.51°

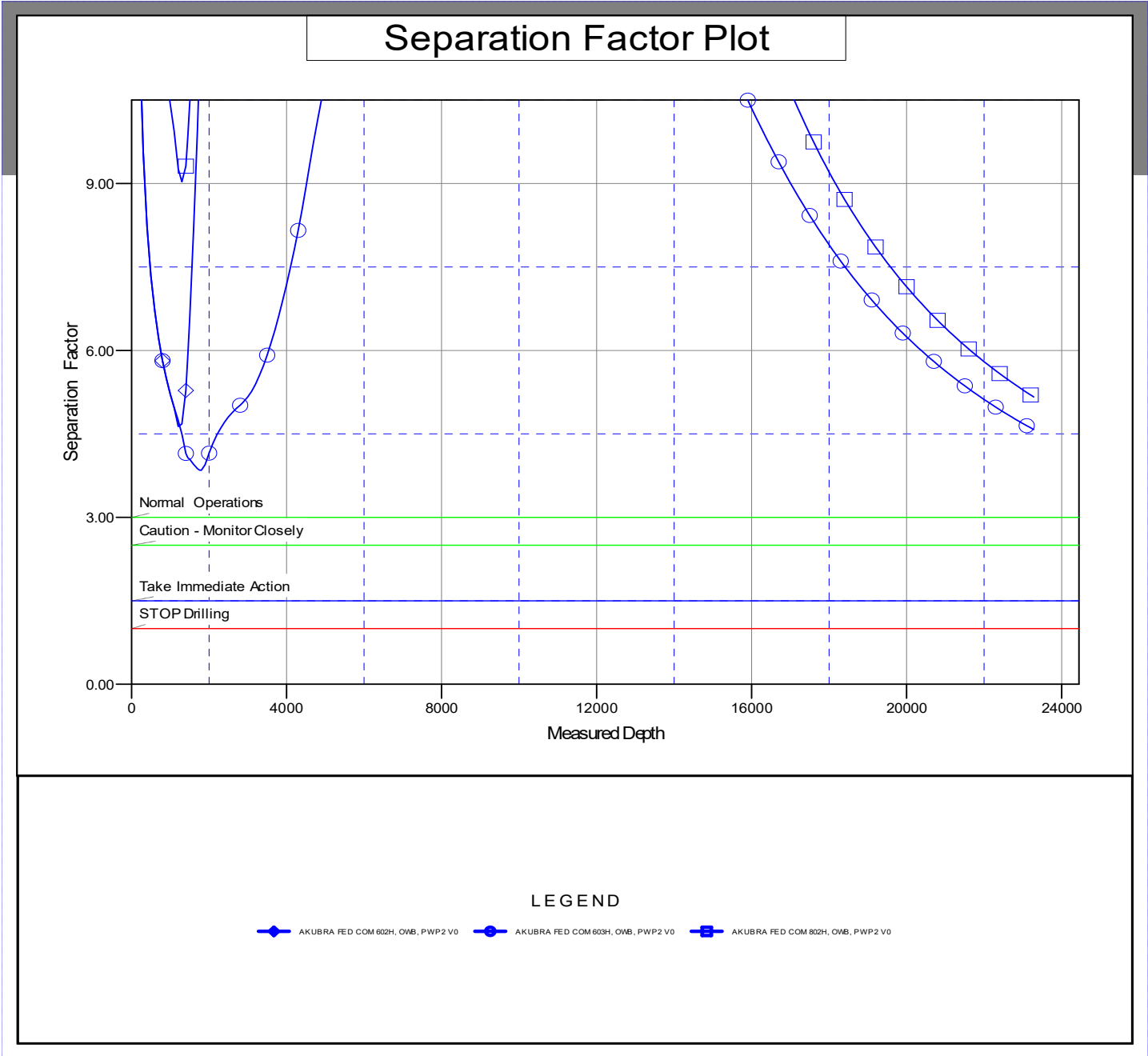


ConocoPhillips
Anticollision Report

Company:	DELAWARE BASIN EAST	Local Co-ordinate Reference:	Well AKUBRA FED COM 703H
Project:	LEA COUNTY SOUTHEAST	TVD Reference:	RKB=32ft @ 3224.9usft
Reference Site:	AKUBRA PROJECT	MD Reference:	RKB=32ft @ 3224.9usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	AKUBRA FED COM 703H	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:	PWP2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=32ft @ 3224.9usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AKUBRA FED COM 703H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.51°



BOPE Break Testing Variance

Initial and 21 Day Testing of 10K BOP's:

Component	High Test Pressure	Low Test Pressure	Duration
Annular Preventer	5,000 psig	250 psig	10 min
Rams	5,000 psig	250 psig	10 min
Manifold	5,000 psig	250 psig	10 min
Wellhead	1,500 psig	-	10 min
Upper / Lower / Kelly Valves	5,000 psig	250 psig	10 min
TIW safety valves / Dart	5,000 psig	250 psig	10 min
Standpipe and mud line to pumps	5,000 psig	250 psig	10 min
Surface Casing (with 8.4 ppg fluid)	1,500 psig	-	30 min

*Equipment satisfies 10M BOPE but break test variance applies to 5M system

COG Production LLC formally requests variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow break/shell testing of blowout preventor (BOP) and blowout prevention equipment (BOPE) during batch drilling operations of the intermediate hole section. This variance only applies to 5M BOPE or less formation.

Initial testing of the BOP will be conducted, verifying all components of BOP, BOPE, and choke manifold meet the minimum and maximum anticipated surface pressure (MASP) in accordance with API RP 53 and Onshore Order No. 2, reference table above. Once initial test pressures are achieved, shell testing of the BOP and choke manifold would be conducted within the time limit from initial test to the congruent 21-day test. A complete pressure test of the BOPE components will be completed no later than 21 days following the completion of the initial pressure test or latest complete BOP pressure test date succeeding the initial test, per API RP 53 (6.5.3.4.1 (d)).

BOP and BOPE Testing

- Minimum of Class 3 stack arrangement with one set of blind/blind shear rams and pipe rams shall be installed for a 5K pressure rated system per API RP 53 (6.1.2.9)
 - Classification - COP minimum of Class 3 arrangement apply for all Delaware Basin area wells.
 - Arrangement - Annular preventer, upper pipe rams, blind rams, mud cross, lower pipe rams
- Complete BOP and BOPE test performed at initial installation on well pad.
 - Initial test performed on well with deepest planned intermediate hole section (allowable 200' TVD variance between intermediate hole sections)
 - Annular preventer tested to 100 percent of MASP, or 70 percent of rated working pressure (RWP), whichever is greater.
 - Notify BLM 4 Hrs. prior to testing
- Complete BOP and BOPE test every 21 days in accordance with API RP 53 (6.5.3.4.1 (d)).
- BOP/BOPE shell test (inclusive of manifold shell test) performed during batch drilling operations during rig transition between wells (within the 21-day time limit per API RP 53).
- Function test BOP elements per API RP 53 (6.5.3.1).
 - Required on (1) initial installation of stack, (2) every 7 days, (3) after repair/replacement of any control components
 - Alternate between drillers panel and remote panel

Securing the Wellhead

- Prior to moving rig off check for flow
 - Ensure floats are holding, casing is full of kill mud and backside is static.
- Secure the well with sleeve/plug with BPV
- Disconnect BOP from the wellhead and walk with the rig to another well on the pad.
 - Utilizing BOP wrangler/cradle, maintaining control and upright position of the BOP during movement
- Once BOP is separated from wellhead the Temporary Abandonment (TA) cap will be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- Test TA cap to 5,000 psi for 10 min.

COG Production LLC believes that the combination of drilling fluid inside the casing, abandonment plug with BPV, casing and annular valves and the TA cap provide multiple barriers to ensure complete closure of the wellbore prior to skidding/walking the rig.

Break Testing

- Skid rig over the next well on pad and center over wellhead, N/U BOP with the use of the BOP quick connect.
- Shell test the BOP and choke manifold to 5,000 psig and 250 psig. Hold each test for 10 minutes.
 - In accordance with API RP 53 (6.5.3.4.1(b)) BOP shell test will satisfy pressure test of quick connect seals
 - Notify BLM 4 hours prior to testing
- RWP of BOP quick connect is 10K (Certificate of Conformance attached)

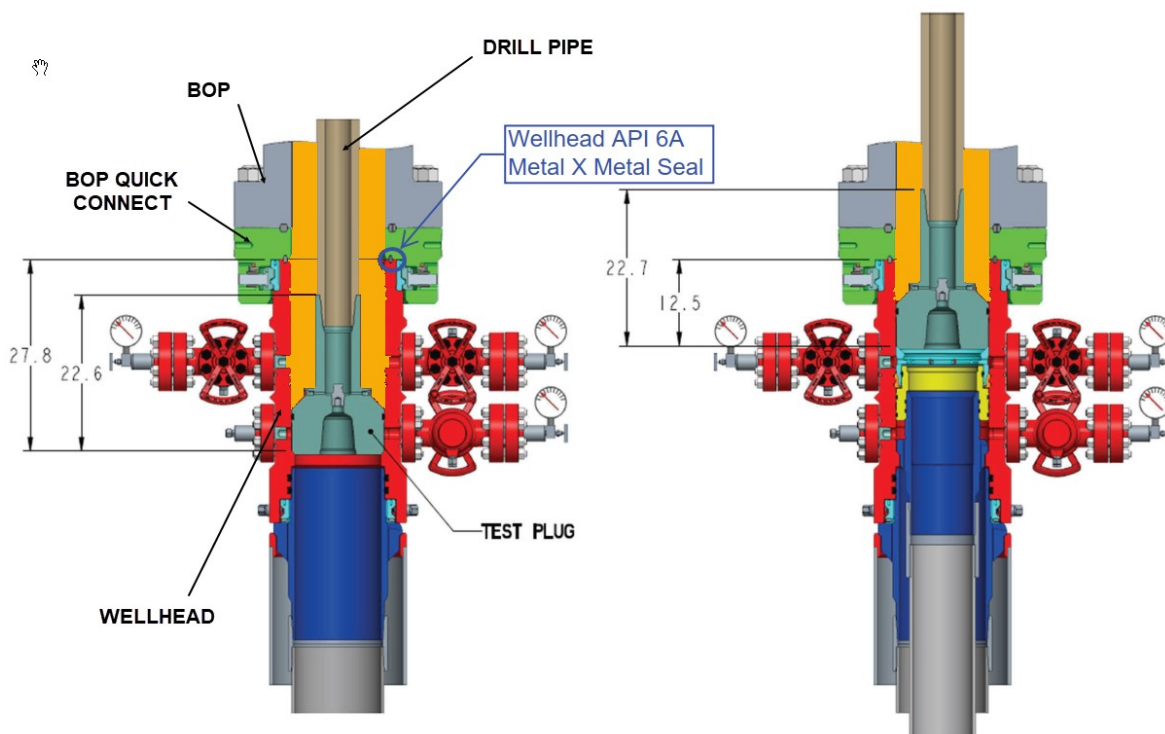


Figure 1: Test plug installed (The orange sections above indicate the areas exposed to the pressure test)

Example Well Control Plan Content

A. Well Control Component Table

This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nipped up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2" 1502 Lo-Torque Valves	10M

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating.

General Procedure

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut in.
5. Notify tool pusher/company representative.
6. Read and record the following:
 - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
 - b. Pit gain
 - c. Time
 - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 360560

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 360560
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	ALL PREVIOUS COA's APPLY.	8/24/2024