# Sundry Print Report

County or Parish/State: LEA /

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

COM

Well Name: MEAT LOVER FEDERAL Well Location: T23S / R33E / SEC 18 /

NENW / 32.311295 / -103.615336

Well Number: 605H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMLC0068848 Unit or CA Name: Unit or CA Number:

#### **Notice of Intent**

**Sundry ID: 2801793** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 07/18/2024 Time Sundry Submitted: 01:04

Date proposed operation will begin: 07/18/2024

**Procedure Description:** COG Operating requests a change to our approved APD for this well to reflect a change in Pool and BHL. Change BHL FROM: 50' FSL & 2592' FEL 30-23S-33E Change BHL TO: 50' FSL & 1980' FWL SESW 19-23S-33E Lea Co., NM Change Pool FROM: 98177 WC-025 G-09 S223332A; UPR WOLFCAMP TO: 17644 Diamondtail; Bone Spring COG Operating requests a variance to allow for break testing as attached. COG Operating requests permission to perform bradenhead cementing on the intermediate casing as attached

# **NOI Attachments**

# **Procedure Description**

MEAT LOVER FED COM 605H C102 NAD83 signed 7 18 24 20240718130340.pdf

COP\_Offline\_Bradenhead\_Intermediate\_Documentation\_3\_11\_23\_\_Rev2\_20240718130335.pdf

MEAT\_LOVER\_FED\_COM\_605H\_PWP2\_WP\_20240718130335.pdf

COP\_BOP\_Break\_Testing\_Documentation\_6\_07\_23\_20240718130335.pdf

MEAT\_LOVER\_FED\_COM\_605H\_PWP2\_PLAN\_RPT\_20240718130335.pdf

MEAT\_LOVER\_FED\_COM\_605H\_PWP2\_AC\_RPT\_20240718130335.pdf

MEAT\_LOVER\_FED\_COM\_605H\_revised\_drill\_plan\_7\_18\_24\_20240718130335.pdf

eived by OCD: 8/20/2024,1:37:14 PM Well Name: MEAT LOVER FEDERAL

COM

Well Location: T23S / R33E / SEC 18 / NENW / 32.311295 / -103.615336

County or Parish/State: LEA/ 2 of

NM

Well Number: 605H

Type of Well: OIL WELL

**Allottee or Tribe Name:** 

Lease Number: NMLC0068848

**Unit or CA Name:** 

**Unit or CA Number:** 

**US Well Number:** 3002550282

**Operator: COG OPERATING LLC** 

# **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

Signed on: JUL 18, 2024 01:03 PM **Operator Electronic Signature: STAN WAGNER** 

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 PIMMATTY BLM POC Title: ENGINEER** 

**BLM POC Phone:** 5759884722 BLM POC Email Address: KIMMATTY@BLM.GOV

**Disposition:** Approved Disposition Date: 08/13/2024

Signature: KEITH IMMATTY

Page 2 of 2

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR

OMB 1	I APPROVED No. 1004-0137 October 31, 202

	5.	Lease	Serial	No
--	----	-------	--------	----

BURE	EAU OF LAND MANAGEMENT	5. Ecuse Beriai 140.			
Do not use this fo	OTICES AND REPORTS ON Worm for proposals to drill or to lse Form 3160-3 (APD) for suc	6. If Indian, Allottee or Tribe Name			
abandoned well. C	Se I omi 3100-3 (Al D) for suc	п ргорозаіз.	7 1011 : 004/4	( ) Y	
	RIPLICATE - Other instructions on page	7. If Unit of CA/Agree	ment, Name and/or No.		
1. Type of Well  Oil Well  Gas W	ell Other	8. Well Name and No.			
2. Name of Operator	оп		9. API Well No.		
3a. Address	3b. Phone No. (	(include area code)	10. Field and Pool or E	exploratory Area	
4. Location of Well (Footage, Sec., T.,R.	,M., or Survey Description)		11. Country or Parish,	State	
12. CHEC	CK THE APPROPRIATE BOX(ES) TO INC	OICATE NATURE OF NOT	ICE, REPORT OR OTH	ER DATA	
TYPE OF SUBMISSION		TYPE OF AC	TION		
Notice of Intent	Acidize Deepe	en Prod	luction (Start/Resume)	Water Shut-Off	
	Alter Casing Hydra	nulic Fracturing Recl	lamation	Well Integrity	
Subsequent Report			omplete	Other	
Final Abandonment Notice	Change Plans Plug a Convert to Injection Plug a		porarily Abandon er Disposal		
the proposal is to deepen directional the Bond under which the work will completion of the involved operation completed. Final Abandonment Notics ready for final inspection.)	peration: Clearly state all pertinent details, in ly or recomplete horizontally, give subsurfabe perfonned or provide the Bond No. on fins. If the operation results in a multiple comices must be filed only after all requirements	ce locations and measured a le with BLM/BIA. Required pletion or recompletion in a	nd true vertical depths of I subsequent reports mus new interval, a Form 31	f all pertinent markers and zones. Attach to be filed within 30 days following 60-4 must be filed once testing has been	
4. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)	Title			
		Title			
Signature		Date			
	THE SPACE FOR FEDE	RAL OR STATE OF	FICE USE		
Approved by					
11		Title	l.	Date Control of the C	
	ed. Approval of this notice does not warrant quitable title to those rights in the subject leaduct operations thereon.	or	,-		
	U.S.C Section 1212, make it a crime for an		Ifully to make to any dep	partment or agency of the United States	

(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

(Form 3160-5, page 2)

# **Additional Information**

#### **Location of Well**

0. SHL: NENW / 270 FNL / 1370 FWL / TWSP: 23S / RANGE: 33E / SECTION: 18 / LAT: 32.311295 / LONG: -103.615336 ( TVD: 0 feet, MD: 0 feet )
PPP: NENW / 100 FNL / 2310 FWL / TWSP: 23S / RANGE: 33E / SECTION: 18 / LAT: 32.311759 / LONG: -103.612293 ( TVD: 12305 feet, MD: 12400 feet )
PPP: NENW / 1 FNL / 2310 FWL / TWSP: 23S / RANGE: 33E / SECTION: 19 / LAT: 32.2977519 / LONG: -103.612288 ( TVD: 12490 feet, MD: 17600 feet )
BHL: SESW / 50 FSL / 2310 FWL / TWSP: 23S / RANGE: 33E / SECTION: 30 / LAT: 32.268625 / LONG: -103.612276 ( TVD: 12545 feet, MD: 27978 feet )



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

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

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

Property Code 332964

OGRID No.

API Number 30-025-50282 Elevation

 WELL LOCATION	AND .	ACREAGE	DEDICATION	PLAT	
Pool Code				Pool Name	
14865			CRUZ;BONE	SPRING	
	Well Number				
MEAT 1	LOVER	R FEDERA	L COM		605H

229137 COG OPERATING LI

J UPERATING LLC	3/18.1
Surface Location	

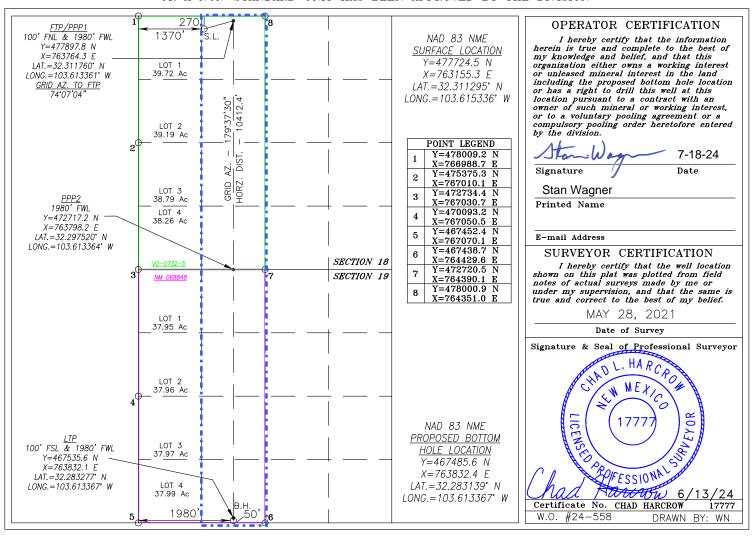
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	18	23-S	33-E		270	NORTH	1370	WEST	LEA

Operator Name

#### Bottom Hole Location If Different From Surface

UL or lot No		Section	Townsh	ip	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N		19	23-	-S	33-E		50	SOUTH	1980	WEST	LEA
Dedicated Acres   Joint or Infill   Consolidation Code		Code 0	rder No.								
320					Com						

# 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



# **Casing Program:**

		Wt.	Yld	Slurry Description
Depth	No. Sacks	ppg	Ft3/sk	Sidily Description
and a	465	15.6	1.196	1st Stage: Halliburton Halcem (TOC @ Brushy Canyon)
11,945				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1000	14.8	1.519	2nd Stage (Bradenhead squeeze): Halliburton Thixotropic Halcem + 5% Cal-Seal 60, .6% HR-800 + 10% Salt + 3% Microbond
9-7/8"				
	400	14.8	1.332	Top out Slurry: Halliburton Halcem (TOC @ surface)

COG Production LLC requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. After the bradenhead squeeze, 50 sacks of the 14.8 ppg top out slurry will be pumped followed by shutting down and waiting on cement (WOC) 2 hours. After 2 hours, if necessary, a top out consisting of 350 sacks of Halliburton's Halcem at 14.8 ppg (1.332 yld) will be executed as a contingency. When washing valves, 2 bbls of water will be utilized. If the valves still contain cement, washing will occur in 1 bbl increments up to a maximum of 5 bbls.

COG Production will run a cement bond log (CBL) after the cement job is performed to evaluate the quality of the cement job.

#### **Wellhead & Offline Cementing:**

COG Production LLC respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also 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.
- See attached "Offline Cement Intermediate Operational Procedure"

COG Production LLC believes that the combination of drilling fluid inside the casing, the 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.

#### **Bradenhead Cementing Procedure for Intermediate Casing**

- 1. R/U cement head and test lines
- 2. Pump first stage conventionally down the 7-5/8" intermediate casing
  - a. 15.6 ppg slurry with TOC @ the Brushy Canyon
- 3. Displace with drilling fluid and bump plug
- 4. Bump at 500 psi over FCP, hold 5 mins.
- 5. Bleed back to cement truck to check floats
- 6. Rig up on 10-3/4" x 7-5/8" annulus by lining up to pump down both valves.
- 7. Establish injection rate and displace annulus with FW
- 8. Pump bradenhead squeeze with 14.8 ppg thixotropic slurry
  - a. Limit pressure to 1500 psi (10-3/4" surf csg test)
- 9. After pumping 14.8 ppg thixotropic slurry, pump 50 sacks of 14.8 ppg top out slurry to flush valves of thixotropic cement.
- 10. WOC 2 hours
- 11. Top out with 350 sacks of 14.8 ppg top out slurry. If more cement is necessary, note in report and notify BLM.
- 12. Displace cement with fresh water and clear valves. Start with 2 bbls of fresh water. If more water is necessary, 1 bbl increments will be used to a maximum of 5 bbls.
- 13. Shut down and monitor the shut-in pressure on the 10-3/4" x 7-5/8" annulus.

# **Summarized Operational Procedure for Intermediate Casing**

- 1. Run casing as per normal operations.
  - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
- 2. Land intermediate casing on mandrel hanger through BOP.
  - a. If casing is unable to be landed with a mandrel hanger, then the casing will be cemented online.
  - b. If time from landing mandrel hanger to skidding/walking rig off well exceeds 8 hours, BLM will be notified.
- 3. Break circulation and confirm no restrictions.
  - a. Ensure no blockage of float equipment and appropriate annular returns.
  - b. Perform flow check to confirm well is static.
- 4. Set pack-off
  - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by ensuring pipe is full of drilling fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
  - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by ensuring pipe is full of drilling fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
- 5. After confirmation of both annular barriers and the two casing barriers, install TA plug/BPV and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.

- a. Minimum 4 hrs notice.
- 6. With the well secured and BLM notified, nipple down BOP and secure on BOP handler.
  - a. Note, if any of the barriers fail to test, the BOP stack will not be nippled down until after the cement job has concluded and tail cement has reached 500 psi
- 7. Skid/Walk rig off current well.
- 8. Confirm well is static before removing TA Plug.
  - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
  - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing, if needed.
  - c. Well control plan can be seen in Section B, Well Control Procedures.
  - d. If need be, rig can be moved back over well and BOP nippled back up for any further remediation.
- 9. Rig up return lines to take returns from wellhead to pits and rig choke.
  - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
  - b. If either test fails, perform corrections and retest before proceeding.
  - c. Return line schematics can be seen in Figure 2.
- 10. Remove TA Plug/BPV from the casing.
- 11. Install offline cement tool.
  - a. Current offline cement tool schematics can be seen in Figure 1 (Streamflo)
- 12. Rig up cement head and cementing lines.
  - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
- 13. Break circulation on well to confirm no restrictions.
  - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
  - b. Max anticipated time before circulating with cement truck is 6 hrs.
- 14. Pump cement job as per plan.
  - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
  - b. If plug does not bump on calculated displacement, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
- 15. Confirm well is static and floats are holding after cement job.
  - a. With floats holding and backside static:
    - i. Remove cement head.
  - b. If floats are leaking:
    - Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
  - c. If there is flow on the backside:
    - Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
- 16. Remove offline cement tool.
- 17. Install night cap with pressure gauge for monitoring.
- 18. Test night cap to 5,000 psi for 10 min.

#### **Example Well Control Plan Content**

#### A. Well Control Component Table

The table below, which covers the cementing of the <u>5M MASP (Maximum Allowable Surface Pressure)</u> <u>portion of the well</u>, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled 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 and cementing through the Offline Cement Adapter.

#### **General Procedure While Circulating**

- 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.

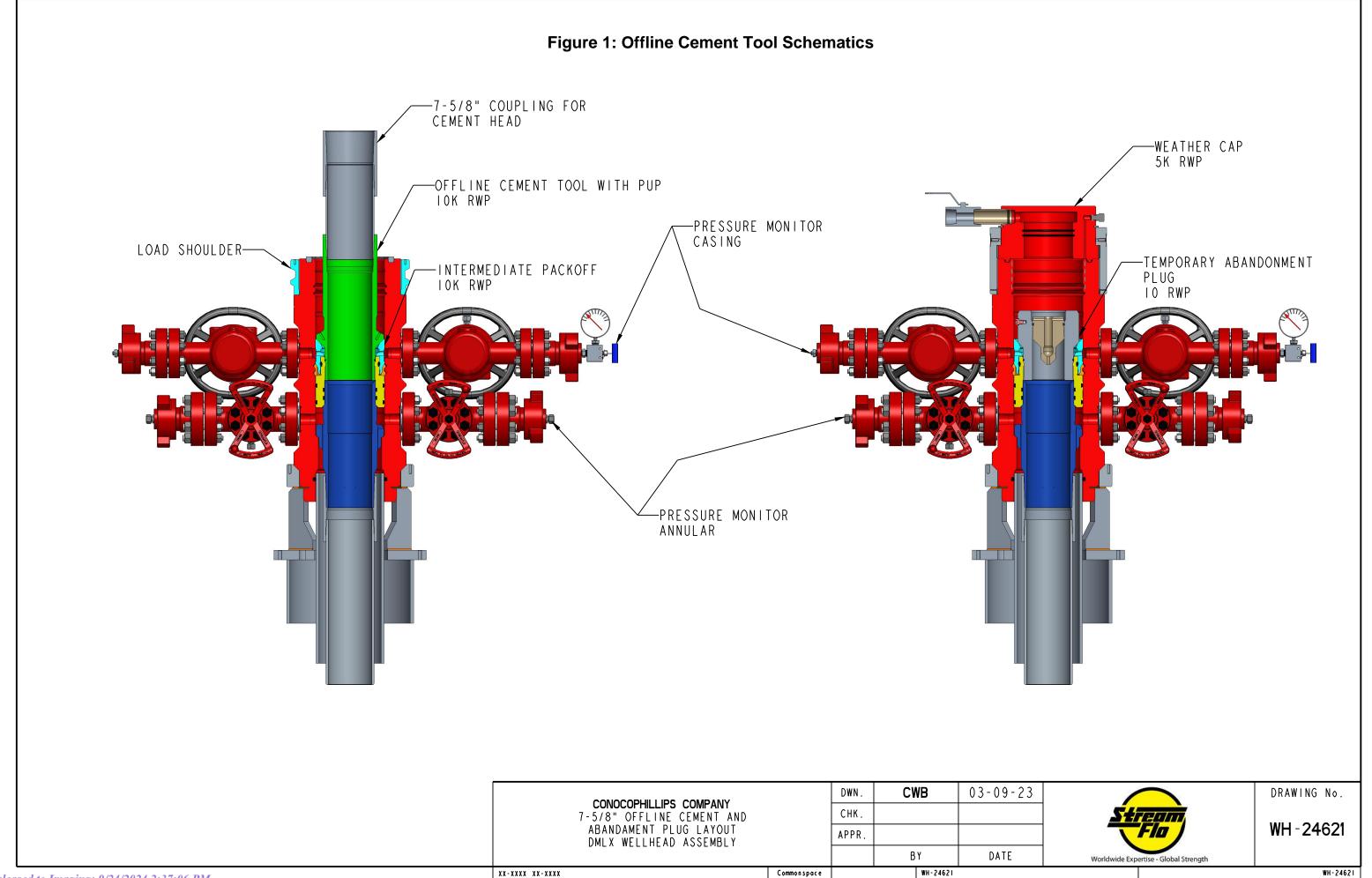
#### General Procedure While Cementing

- 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. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.

- 7. Continue to place cement until plug bumps.
- 8. At plug bump close rig choke and cement head.
- 9. Read and record the following
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead

# **General Procedure After Cementing**

- 1. Sound alarm (alert crew).
- 2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 3. Confirm shut-in.
- 4. Notify tool pusher/company representative.
- 5. Read and record the following:
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead



Pits Gas Shakers **Buster** Cement return line Rig Choke Cement head Choke Manifold Cement Truck

Figure 2: Back Yard Rig Up

<sup>\*</sup>All lines rated to 10M working pressure

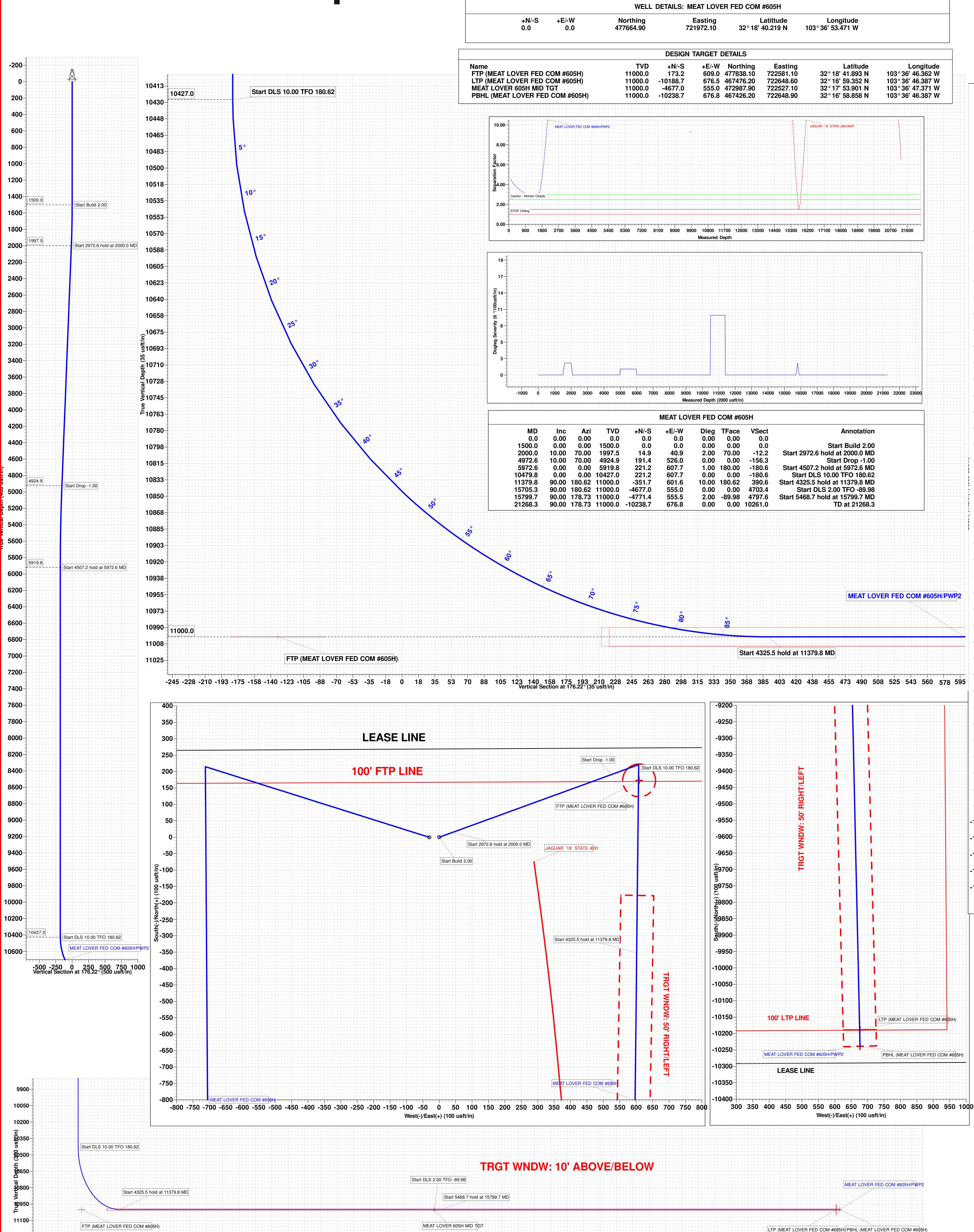
<sup>\*\*</sup>Cement head rated to 7.5M working pressure

Received by OCD: 8/20/2024 1:37:14 PM

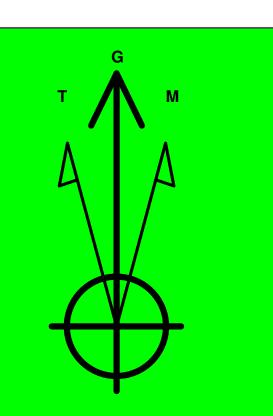
11250-

ConocoPhillips

Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H
Wellbore: OWB
Design: PWP2
GL: 3716.0
KB=27 @ 3743.0usft

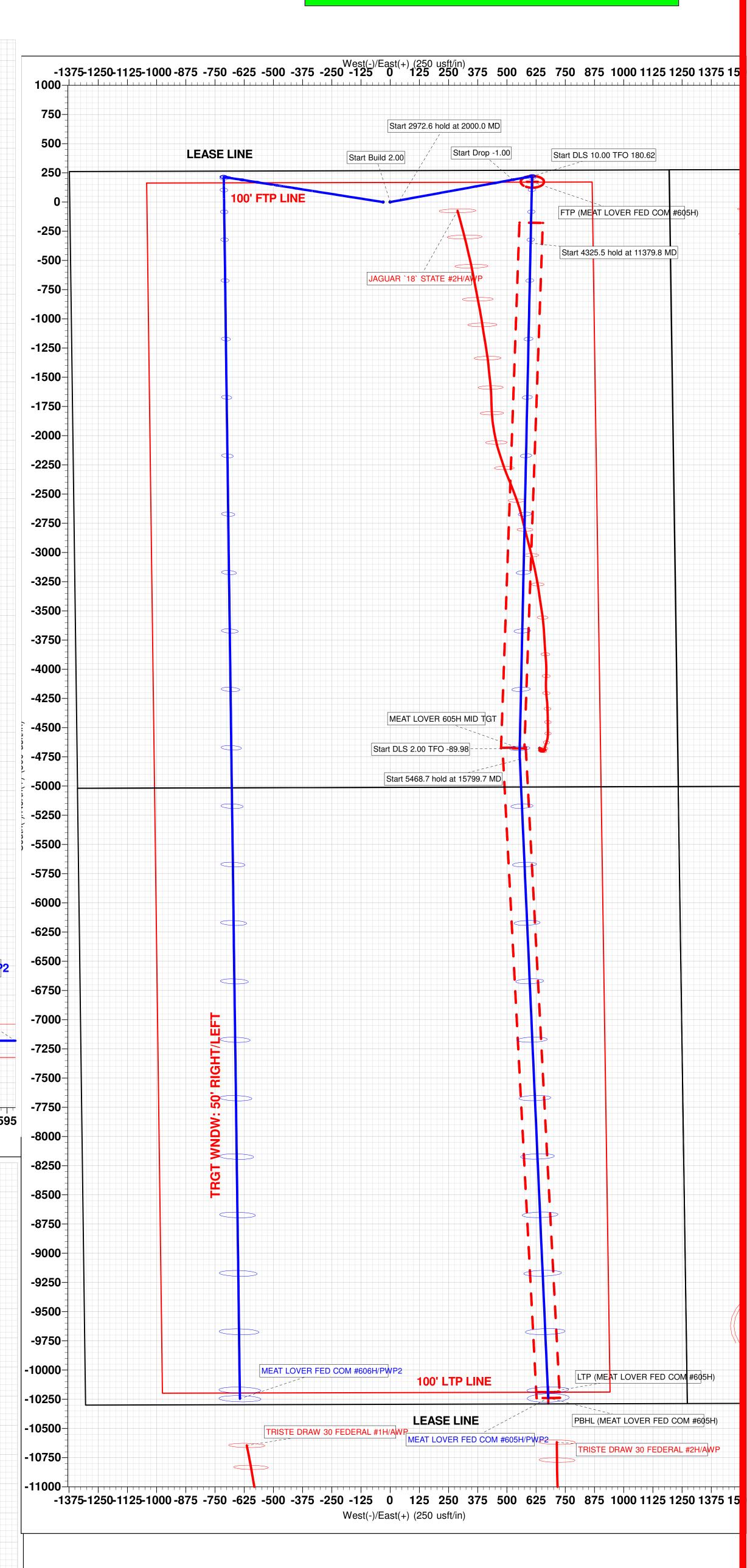


225 450 675 900 1125 1350 1575 1800 2025 2250 2475 2700 2925 3150 3375 3600 3825 4050 4725 4500 4725 4500 6525 5850 6075 6300 6525 6750 6975 7200 7425 7650 7875 8100 8325 8550 8775 9000 9225 9450 9675 9900 10125 10350 10575 10800 11025 11250



Azimuths to Grid North
True North: -0.38°
Magnetic North: 5.92°

Magnetic Field Strength: 47394.2nT Dip Angle: 59.91° Date: 9/18/2024 Model: BGGM2024



# **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

<sup>\*</sup>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)

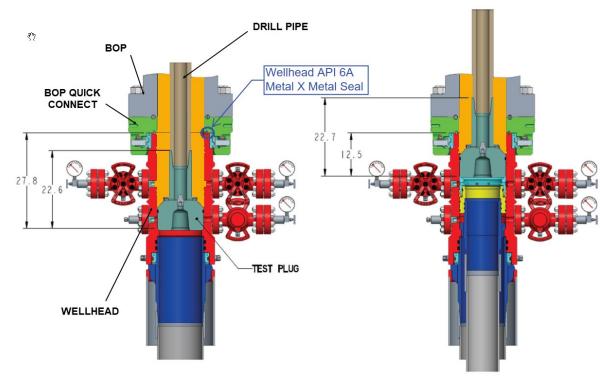


Figure 1: Test plug installed (The orange sections above indicate the areas exposed to the pressure test)

#### **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 nippled 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.

# **DELAWARE BASIN EAST**

LEA COUNTY SOUTHEAST
MEAT LOVER FED COM PROJECT
MEAT LOVER FED COM #605H
300255028200
OWB

Plan: PWP2

# **Standard Planning Report**

08 July, 2024

#### **Planning Report**

TVD Reference:

**Local Co-ordinate Reference:** 

EDT 17 Permian Prod Database: Company: **DELAWARE BASIN EAST** Project: LEA COUNTY SOUTHEAST MEAT LOVER FED COM PROJECT Site: Well:

MEAT LOVER FED COM #605H **OWB** 

MD Reference: North Reference: **Survey Calculation Method:**  Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

Grid

Minimum Curvature

Project LEA COUNTY SOUTHEAST

PWP2

Wellbore:

Design:

US State Plane 1927 (Exact solution) Map System: NAD 1927 (NADCON CONUS) Geo Datum:

New Mexico East 3001 Map Zone:

System Datum: Mean Sea Level

MEAT LOVER FED COM PROJECT Site

Northing: 477,926.73 usft Site Position: Latitude: 32° 18' 42.901 N From: Мар Easting: 720,599.28 usft Longitude: 103° 37' 9.447 W

**Position Uncertainty:** 0.0 usft Slot Radius: 13-3/16 "

Well MEAT LOVER FED COM #605H **Well Position** +N/-S 0.0 usft Northing: 477,664.90 usft Latitude: 32° 18' 40.219 N +E/-W 0.0 usft Easting: 721,972.10 usft Longitude: 103° 36' 53.471 W **Position Uncertainty** 3.0 usft Wellhead Elevation: usft **Ground Level:** 3,716.0 usft

0.38 **Grid Convergence:** 

OWB Wellbore Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) BGGM2024 47,394.17971051 9/18/2024 6.31 59.91

PWP2 Design **Audit Notes:** PLAN Tie On Depth: 0.0 Version: Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 176.22 0.0 0.0 0.0

Plan Survey Tool Program Date 7/8/2024 **Depth From** Depth To (usft) (usft) Survey (Wellbore) **Tool Name** Remarks 21,268.0 0.0 PWP2 (OWB) r.5 MWD+IFR1+SAG+FDIR ISCWSA MWD + IFR1 + SAG ·

# Planning Report

Database: EDT 17 Permian Prod
Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H

Wellbore: OWB
Design: PWP2

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

Grid

lan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	10.00	70.00	1,997.5	14.9	40.9	2.00	2.00	0.00	70.00	
4,972.6	10.00	70.00	4,924.9	191.4	526.0	0.00	0.00	0.00	0.00	
5,972.6	0.00	0.00	5,919.8	221.2	607.7	1.00	-1.00	0.00	180.00	
10,479.8	0.00	0.00	10,427.0	221.2	607.7	0.00	0.00	0.00	0.00	
11,379.8	90.00	180.62	11,000.0	-351.7	601.6	10.00	10.00	-19.93	180.62	
15,705.3	90.00	180.62	11,000.0	-4,677.0	555.0	0.00	0.00	0.00	0.00	
15,799.7	90.00	178.73	11,000.0	-4,771.4	555.5	2.00	0.00	-2.00	-89.98	
21,268.3	90.00	178.73	11,000.0	-10,238.7	676.8	0.00	0.00	0.00	0.00	

# Planning Report

Database: EDT 17 Permian Prod
Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H

Wellbore: OWB
Design: PWP2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

Grid

Planned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
(uoit)	()	()	(uoit)	(usit)	(usit)	(uoit)	( / 10000011)	( / 1000011)	( / 1000011)
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
+00.0	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
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.			,			2.3			
		70.00	1 000 0	0.0	4.0	0.5	0.00	0.00	0.00
1,600.0	2.00	70.00	1,600.0	0.6	1.6	-0.5	2.00	2.00	0.00
1,700.0	4.00	70.00	1,699.8	2.4	6.6	-1.9	2.00	2.00	0.00
1,800.0	6.00	70.00	1,799.5	5.4	14.7	-4.4	2.00	2.00	0.00
1,900.0	8.00	70.00	1,898.7	9.5	26.2	-7.8	2.00	2.00	0.00
2 000 0	40.00	70.00	4 007 5	44.0	40.0	40.0	2.00	0.00	0.00
2,000.0	10.00	70.00	1,997.5	14.9	40.9	-12.2	2.00	2.00	0.00
Start 2972.6	hold at 2000.0 N	ID							
2,100.0	10.00	70.00	2,095.9	20.8	57.2	-17.0	0.00	0.00	0.00
2,200.0	10.00	70.00	2,194.4	26.8	73.5	-21.9	0.00	0.00	0.00
2,300.0	10.00	70.00	2,292.9	32.7	89.9	-26.7	0.00	0.00	0.00
2,400.0	10.00	70.00	2,391.4	38.6	106.2	-31.6	0.00	0.00	0.00
2,400.0	10.00	70.00	2,001.4	00.0	100.2	-01.0	0.00	0.00	0.00
2,500.0	10.00	70.00	2,489.9	44.6	122.5	-36.4	0.00	0.00	0.00
2,600.0	10.00	70.00	2,588.3	50.5	138.8	-41.3	0.00	0.00	0.00
2,700.0	10.00	70.00	2,686.8	56.5	155.1	-46.1	0.00	0.00	0.00
2,800.0	10.00	70.00	2,785.3	62.4	171.4	-51.0	0.00	0.00	0.00
2,900.0	10.00	70.00	2,883.8	68.3	187.8	-55.8	0.00	0.00	0.00
2,300.0	10.00	70.00	2,000.0	00.5	107.0	-33.0	0.00	0.00	0.00
3,000.0	10.00	70.00	2,982.3	74.3	204.1	-60.7	0.00	0.00	0.00
3,100.0	10.00	70.00	3,080.8	80.2	220.4	-65.5	0.00	0.00	0.00
3,200.0	10.00	70.00	3,179.2	86.2	236.7	-70.4	0.00	0.00	0.00
3,300.0	10.00	70.00	3,277.7	92.1	253.0	-75.2	0.00	0.00	0.00
3,400.0	10.00	70.00	3,376.2	98.0	269.3	-80.1	0.00	0.00	0.00
	10.00	70.00	5,570.2	30.0	203.3	-00.1	0.00	0.00	0.00
3,500.0	10.00	70.00	3,474.7	104.0	285.7	-84.9	0.00	0.00	0.00
3,600.0	10.00	70.00	3,573.2	109.9	302.0	-89.8	0.00	0.00	0.00
3,700.0	10.00	70.00	3,671.6	115.9	318.3	-94.6	0.00	0.00	0.00
3,800.0	10.00	70.00	3,770.1	121.8	334.6	-99.5	0.00	0.00	0.00
3,900.0									
3,900.0	10.00	70.00	3,868.6	127.7	350.9	-104.3	0.00	0.00	0.00
4,000.0	10.00	70.00	3,967.1	133.7	367.2	-109.2	0.00	0.00	0.00
4,100.0	10.00	70.00	4,065.6	139.6	383.6	-114.0	0.00	0.00	0.00
4,200.0	10.00	70.00	4,164.0	145.5	399.9	-118.9	0.00	0.00	0.00
4,300.0	10.00	70.00	4,164.0	151.5	416.2	-110.9	0.00	0.00	0.00
			,						
4,400.0	10.00	70.00	4,361.0	157.4	432.5	-128.6	0.00	0.00	0.00
4.500.0	10.00	70.00	4,459.5	163.4	448.8	-133.4	0.00	0.00	0.00
4,600.0	10.00	70.00	4,558.0	169.3	465.2	-138.3	0.00	0.00	0.00
4,700.0	10.00	70.00	4,656.4	175.2	481.5	-143.1	0.00	0.00	0.00
// 2/11/1/	10.00	70.00	4,754.9	181.2	497.8	-148.0	0.00	0.00	0.00
4,800.0									
4,800.0	10.00	70.00	4,853.4	187.1	514.1	-152.8	0.00	0.00	0.00

#### **Planning Report**

Database: EDT 17 Permian Prod
Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H

Wellbore: OWB
Design: PWP2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

Grid

sign:	PWP2	PWP2								
anned 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)	
Start Drop	-1.00									
5,000.0	9.73	70.00	4,951.9	193.0	530.4	-157.6	1.00	-1.00	0.00	
5,100.0	8.73	70.00	5,050.6	198.5	545.4	-162.1	1.00	-1.00	0.00	
5,200.0	7.73	70.00	5,149.6	203.4	558.9	-166.1	1.00	-1.00	0.00	
5,300.0	6.73	70.00	5,248.8	207.7	570.7	-169.6	1.00	-1.00	0.00	
5,400.0	5.73	70.00	5.348.2	211.4	580.9	-172.7	1.00	-1.00	0.00	
5,500.0	4.73	70.00	5,447.8	214.5	589.4	-175.2	1.00	-1.00	0.00	
5,600.0	3.73	70.00	5,547.5	217.1	596.4	-177.3	1.00	-1.00	0.00	
5,700.0	2.73	70.00	5,647.3	219.0	601.7	-178.8	1.00	-1.00	0.00	
5,800.0	1.73	70.00	5,747.3	220.3	605.3	-179.9	1.00	-1.00	0.00	
	0.70	70.00								
5,900.0 5,972.6	0.73 0.00	70.00 0.00	5,847.2 5,919.8	221.0 221.2	607.3 607.7	-180.5 -180.6	1.00 1.00	-1.00 -1.00	0.00 0.00	
			5,919.6	221.2	007.7	-100.0	1.00	-1.00	0.00	
	2 hold at 5972.6 N		E 047.2	224.2	607.7	100.6	0.00	0.00	0.00	
6,000.0 6,100.0	0.00 0.00	0.00 0.00	5,947.2 6,047.2	221.2 221.2	607.7 607.7	-180.6 -180.6	0.00 0.00	0.00 0.00	0.00 0.00	
6,200.0	0.00	0.00	6,047.2 6,147.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,247.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,347.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,447.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,547.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,647.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,747.2	221.2	607.7	-180.6	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,847.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,947.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,047.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,147.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,247.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,347.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,447.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,547.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,647.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,747.2	221.2	607.7	-180.6	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,847.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,947.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,047.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,147.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,247.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,347.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,447.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,547.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,647.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,747.2	221.2	607.7	-180.6	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,847.2	221.2	607.7	-180.6	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,947.2	221.2	607.7	-180.6	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,047.2	221.2	607.7	-180.6	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,147.2	221.2	607.7	-180.6	0.00	0.00	0.00	
				221.2	607.7				0.00	
9,300.0 9,400.0	0.00 0.00	0.00 0.00	9,247.2 9,347.2	221.2	607.7 607.7	-180.6 -180.6	0.00 0.00	0.00 0.00	0.00	
9,400.0	0.00	0.00	9,347.2 9,447.2	221.2 221.2	607.7	-180.6 -180.6	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,547.2	221.2	607.7	-180.6	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,647.2	221.2	607.7	-180.6	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,747.2	221.2	607.7	-180.6	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,847.2	221.2	607.7	-180.6	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,947.2	221.2	607.7	-180.6	0.00	0.00	0.00	

# Planning Report

Database: EDT 17 Permian Prod
Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H

Wellbore: OWB
Design: PWP2

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

Grid

lanned Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
()	()	( )	(3.3.4)	(usit)	(usit)	(,	( ,	(	(**************************************
10,100.		0.00	10,047.2	221.2	607.7	-180.6	0.00	0.00	0.00
10,200.	0.00	0.00	10,147.2	221.2	607.7	-180.6	0.00	0.00	0.00
10,300.	0.00	0.00	10,247.2	221.2	607.7	-180.6	0.00	0.00	0.00
10,400.		0.00	10,347.2	221.2	607.7	-180.6	0.00	0.00	0.00
10,479.		0.00	10,427.0	221.2	607.7	-180.6	0.00	0.00	0.00
	10.00 TFO 180.54	0.00	10,427.0	221.2	007.1	-100.0	0.00	0.00	0.00
		400.00	40 447 0	220.0	007.7	400.0	40.00	40.00	0.00
10,500.		180.62	10,447.2	220.8	607.7	-180.3	10.00	10.00	0.00
10,600.	0 12.02	180.62	10,546.4	208.6	607.6	-168.1	10.00	10.00	0.00
10,700.	0 22.02	180.62	10,641.9	179.4	607.3	-138.9	10.00	10.00	0.00
10,800.	0 32.02	180.62	10,730.8	134.0	606.8	-93.7	10.00	10.00	0.00
10,900.	0 42.02	180.62	10,810.6	73.9	606.2	-33.7	10.00	10.00	0.00
10,956.		180.62	10,850.6	34.0	605.7	6.0	10.00	10.00	0.00
	T LOVER FED COI		,						
11,000.		180.62	10,878.6	0.8	605.4	39.1	10.00	10.00	0.00
,									
11,100.		180.62	10,933.0	-83.0	604.5	122.6	10.00	10.00	0.00
11,200.	0 72.02	180.62	10,972.0	-174.9	603.5	214.3	10.00	10.00	0.00
11,300.	0 82.02	180.62	10,994.4	-272.2	602.4	311.4	10.00	10.00	0.00
11,379.	8 90.00	180.62	11,000.0	-351.7	601.6	390.6	10.00	10.00	0.00
Start 4325	5.5 hold at 11379.8	MD							
11,400.	0 90.00	180.62	11,000.0	-372.0	601.4	410.8	0.00	0.00	0.00
		400.00					0.00		0.00
11,500.		180.62	11,000.0	-472.0	600.3	510.5	0.00	0.00	0.00
11,600.		180.62	11,000.0	-571.9	599.2	610.2	0.00	0.00	0.00
11,700.		180.62	11,000.0	-671.9	598.1	709.9	0.00	0.00	0.00
11,800.		180.62	11,000.0	-771.9	597.1	809.6	0.00	0.00	0.00
11,900.	0 90.00	180.62	11,000.0	-871.9	596.0	909.3	0.00	0.00	0.00
12,000.	0 90.00	180.62	11,000.0	-971.9	594.9	1,009.0	0.00	0.00	0.00
12,100.0		180.62	11,000.0	-1,071.9	593.8	1,108.7	0.00	0.00	0.00
12,200.		180.62	11,000.0	-1,171.9	592.7	1,208.5	0.00	0.00	0.00
12,300.		180.62	11,000.0	-1,271.9	591.7	1,308.2	0.00	0.00	0.00
12,400.		180.62	11,000.0	-1,371.9	590.6	1,407.9	0.00	0.00	0.00
12,400.	0 30.00	100.02	11,000.0	-1,57 1.5	330.0	1,407.3	0.00	0.00	0.00
12,500.	0 90.00	180.62	11,000.0	-1,471.9	589.5	1,507.6	0.00	0.00	0.00
12,600.	0 90.00	180.62	11,000.0	-1,571.9	588.4	1,607.3	0.00	0.00	0.00
12,700.	0 90.00	180.62	11,000.0	-1,671.9	587.4	1,707.0	0.00	0.00	0.00
12,800.	0 90.00	180.62	11,000.0	-1,771.9	586.3	1,806.7	0.00	0.00	0.00
12,900.	0 90.00	180.62	11,000.0	-1,871.9	585.2	1,906.4	0.00	0.00	0.00
12 000	00.00	100.60	11.000.0	1 074 0	E01 4	2.006.4	0.00	0.00	0.00
13,000.		180.62	,	-1,971.9	584.1	2,006.1	0.00	0.00	0.00
13,100.		180.62	11,000.0	-2,071.9	583.1	2,105.8	0.00	0.00	0.00
13,200.		180.62	11,000.0	-2,171.9	582.0	2,205.5	0.00	0.00	0.00
13,300.		180.62	11,000.0	-2,271.8	580.9	2,305.2	0.00	0.00	0.00
13,400.	0 90.00	180.62	11,000.0	-2,371.8	579.8	2,404.9	0.00	0.00	0.00
13,500.	0 90.00	180.62	11,000.0	-2,471.8	578.7	2,504.6	0.00	0.00	0.00
13,600.		180.62	11,000.0	-2,571.8	577.7	2,604.3	0.00	0.00	0.00
13,700.		180.62	11,000.0	-2,671.8	576.6	2,704.0	0.00	0.00	0.00
13,800.		180.62	11,000.0	-2,771.8	575.5	2,803.7	0.00	0.00	0.00
13,900.		180.62	11,000.0	-2,871.8	574.4	2,903.4	0.00	0.00	0.00
14,000.		180.62	11,000.0	-2,971.8	573.4	3,003.2	0.00	0.00	0.00
14,100.		180.62	11,000.0	-3,071.8	572.3	3,102.9	0.00	0.00	0.00
14,200.		180.62	11,000.0	-3,171.8	571.2	3,202.6	0.00	0.00	0.00
14,300.		180.62	11,000.0	-3,271.8	570.1	3,302.3	0.00	0.00	0.00
14,400.	0 90.00	180.62	11,000.0	-3,371.8	569.1	3,402.0	0.00	0.00	0.00
14,500.	0 90.00	180.62	11,000.0	-3,471.8	568.0	3.501.7	0.00	0.00	0.00
14,600.		180.62	11,000.0			-,		0.00	0.00
14,700.									
,		180.62 180.62	11,000.0	-3,571.8 -3,671.8	566.9 565.8	3,601.4 3,701.1	0.00 0.00	0.00	0.00

#### **Planning Report**

TVD Reference:

Local Co-ordinate Reference:

Database: EDT 17 Permian Prod
Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H
Wellbore: OWB

LEA COUNTY SOUTHEAST
MEAT LOVER FED COM PROJECT
MEAT LOVER FED COM #605H
OWB

MD Reference:
North Reference:
Survey Calculation Method:

Well MEAT LOVER FED COM #605H KB=27 @ 3743.0usft

KB=27 @ 3743.0usft Grid

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)
14,800.0 14,900.0	90.00 90.00	180.62 180.62	11,000.0 11,000.0	-3,771.8 -3,871.8	564.7 563.7	3,800.8 3,900.5	0.00 0.00	0.00 0.00	0.00 0.00
15,000.0	90.00	180.62	11,000.0	-3,971.7	562.6	4,000.2	0.00	0.00	0.00
15,100.0	90.00	180.62	11,000.0	-4,071.7	561.5	4,099.9	0.00	0.00	0.00
15,200.0	90.00	180.62	11,000.0	-4,171.7	560.4	4,199.6	0.00	0.00	0.00
15,300.0	90.00	180.62	11,000.0	-4,271.7	559.4	4,299.3	0.00	0.00	0.00
15,400.0	90.00	180.62	11,000.0	-4,371.7	558.3	4,399.0	0.00	0.00	0.00
15,500.0	90.00	180.62	11,000.0	-4,471.7	557.2	4,498.7	0.00	0.00	0.00
15,600.0	90.00	180.62	11,000.0	-4,571.7	556.1	4,598.4	0.00	0.00	0.00
15,700.0	90.00	180.62	11,000.0	-4,671.7	555.1	4,698.1	0.00	0.00	0.00
15,705.2	90.00	180.62	11,000.0	-4,676.9	555.0	4,703.4	0.00	0.00	0.00
Start DLS 2.0	0 TFO -89.98								
15,705.3	90.00	180.62	11,000.0	-4,677.0	555.0	4,703.4	0.00	0.00	0.00
MEAT LOVE	R 605H MID TGT	-							
15,791.8	90.00	178.89	11,000.0	-4,763.5	555.4	4,789.7	2.00	0.00	-2.00
Start 5476.3	hold at 15791.8	MD							
15,799.7	90.00	178.73	11,000.0	-4,771.4	555.5	4,797.6	2.00	0.00	-2.00
15,800.0	90.00	178.73	11,000.0	-4,771.7	555.5	4,798.0	0.00	0.00	0.00
15,900.0	90.00	178.73	11,000.0	-4,871.7	557.8	4,897.9	0.00	0.00	0.00
16,000.0	90.00	178.73	11,000.0	-4,971.7	560.0	4,997.8	0.00	0.00	0.00
16,100.0	90.00	178.73	11,000.0	-5,071.6	562.2	5,097.7	0.00	0.00	0.00
16,200.0	90.00	178.73	11,000.0	-5,171.6	564.4	5,197.6	0.00	0.00	0.00
16,300.0	90.00	178.73	11,000.0	-5,271.6	566.6	5,297.5	0.00	0.00	0.00
16,400.0	90.00	178.73	11,000.0	-5,371.6	568.8	5,397.4	0.00	0.00	0.00
16,500.0	90.00	178.73	11,000.0	-5,471.5	571.1	5,497.3	0.00	0.00	0.00
16,600.0	90.00	178.73	11,000.0	-5,571.5	573.3	5,597.2	0.00	0.00	0.00
16,700.0	90.00	178.73	11,000.0	-5,671.5	575.5	5,697.1	0.00	0.00	0.00
16,800.0	90.00	178.73	11,000.0	-5,771.5	577.7	5,797.0	0.00	0.00	0.00
16,900.0	90.00	178.73	11,000.0	-5,871.4	579.9	5,896.9	0.00	0.00	0.00
17,000.0	90.00	178.73	11,000.0	-5,971.4	582.2	5,996.8	0.00	0.00	0.00
17,100.0	90.00	178.73	11,000.0	-6,071.4	584.4	6,096.7	0.00	0.00	0.00
17,200.0	90.00	178.73	11,000.0	-6,171.4	586.6	6,196.6	0.00	0.00	0.00
17,300.0	90.00	178.73	11,000.0	-6,271.3	588.8	6,296.5	0.00	0.00	0.00
17,400.0	90.00	178.73	11,000.0	-6,371.3	591.0	6,396.4	0.00	0.00	0.00
17,500.0	90.00	178.73	11,000.0	-6,471.3	593.2	6,496.3	0.00	0.00	0.00
17,600.0	90.00	178.73	11,000.0	-6,571.3	595.5	6,596.2	0.00	0.00	0.00
17,700.0	90.00	178.73	11,000.0	-6,671.2	597.7	6,696.1	0.00	0.00	0.00
17,800.0	90.00	178.73	11,000.0	-6,771.2	599.9	6,796.0	0.00	0.00	0.00
17,900.0	90.00	178.73	11,000.0	-6,871.2	602.1	6,895.9	0.00	0.00	0.00
18,000.0	90.00	178.73	11,000.0	-6,971.2	604.3	6,995.8	0.00	0.00	0.00
18,100.0	90.00	178.73	11,000.0	-7,071.1	606.5	7,095.7	0.00	0.00	0.00
18,200.0	90.00	178.73	11,000.0	-7,171.1	608.8	7,195.6	0.00	0.00	0.00
18,300.0	90.00	178.73	11,000.0	-7,271.1	611.0	7,295.6	0.00	0.00	0.00
18,400.0	90.00	178.73	11,000.0	-7,371.1 7,471.0	613.2	7,395.5	0.00	0.00	0.00
18,500.0	90.00	178.73	11,000.0	-7,471.0	615.4	7,495.4	0.00	0.00	0.00
18,600.0	90.00	178.73	11,000.0	-7,571.0	617.6	7,595.3	0.00	0.00	0.00
18,700.0	90.00	178.73	11,000.0	-7,671.0	619.8	7,695.2	0.00	0.00	0.00
18,800.0	90.00	178.73	11,000.0	-7,771.0	622.1	7,795.1	0.00	0.00	0.00
18,900.0	90.00	178.73	11,000.0	-7,870.9	624.3	7,895.0	0.00	0.00	0.00
19,000.0	90.00	178.73	11,000.0	-7,970.9	626.5	7,994.9	0.00	0.00	0.00
19,100.0	90.00	178.73	11,000.0	-8,070.9	628.7	8,094.8	0.00	0.00	0.00
19,200.0	90.00	178.73	11,000.0	-8,170.9	630.9	8,194.7	0.00	0.00	0.00
19,300.0	90.00	178.73	11,000.0	-8,270.8	633.2	8,294.6	0.00	0.00	0.00

Design:

# **ConocoPhillips**

# Planning Report

EDT 17 Permian Prod Database: Company: DELAWARE BASIN EAST Project: LEA COUNTY SOUTHEAST MEAT LOVER FED COM PROJECT Site: Well: Wellbore:

MEAT LOVER FED COM #605H OWB PWP2

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well MEAT LOVER FED COM #605H KB=27 @ 3743.0usft

KB=27 @ 3743.0usft Grid

									_
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,400.0	90.00	178.73	11,000.0	-8,370.8	635.4	8,394.5	0.00	0.00	0.00
19,500.0	90.00	178.73	11,000.0	-8,470.8	637.6	8,494.4	0.00	0.00	0.00
19,600.0	90.00	178.73	11,000.0	-8,570.8	639.8	8,594.3	0.00	0.00	0.00
19,700.0	90.00	178.73	11,000.0	-8,670.7	642.0	8,694.2	0.00	0.00	0.00
19,800.0	90.00	178.73	11,000.0	-8,770.7	644.2	8,794.1	0.00	0.00	0.00
19,900.0	90.00	178.73	11,000.0	-8,870.7	646.5	8,894.0	0.00	0.00	0.00
20,000.0	90.00	178.73	11,000.0	-8,970.7	648.7	8,993.9	0.00	0.00	0.00
20,100.0	90.00	178.73	11,000.0	-9,070.6	650.9	9,093.8	0.00	0.00	0.00
20,200.0	90.00	178.73	11,000.0	-9,170.6	653.1	9,193.7	0.00	0.00	0.00
20,300.0	90.00	178.73	11,000.0	-9,270.6	655.3	9,293.6	0.00	0.00	0.00
20,400.0	90.00	178.73	11,000.0	-9,370.6	657.5	9,393.5	0.00	0.00	0.00
20,500.0	90.00	178.73	11,000.0	-9,470.5	659.8	9,493.4	0.00	0.00	0.00
20,600.0	90.00	178.73	11,000.0	-9,570.5	662.0	9,593.3	0.00	0.00	0.00
20,700.0	90.00	178.73	11,000.0	-9,670.5	664.2	9,693.2	0.00	0.00	0.00
20,800.0	90.00	178.73	11,000.0	-9,770.5	666.4	9,793.2	0.00	0.00	0.00
20,900.0	90.00	178.73	11,000.0	-9,870.4	668.6	9,893.1	0.00	0.00	0.00
21,000.0	90.00	178.73	11,000.0	-9,970.4	670.8	9,993.0	0.00	0.00	0.00
21,100.0	90.00	178.73	11,000.0	-10,070.4	673.1	10,092.9	0.00	0.00	0.00
21,200.0	90.00	178.73	11,000.0	-10,170.4	675.3	10,192.8	0.00	0.00	0.00
21,218.3	90.00	178.73	11,000.0	-10,188.7	675.7	10,211.1	0.00	0.00	0.00
•	OVER FED COM		44.000.0	40.000.5	070.0	40.000.0	0.00	0.00	0.00
21,268.1 TD at 21268.1 21,268.3	90.00 I 90.00	178.73 178.73	11,000.0	-10,238.5 -10,238.7	676.8 676.8	10,260.8	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (MEAT LOVER FEI - plan misses target - Circle (radius 50.0	center by 204	0.00 .2usft at 109	11,000.0 56.5usft MD	173.2 (10850.6 TVE	609.0 O, 34.0 N, 605.	477,838.10 7 E)	722,581.10	32° 18' 41.893 N	103° 36' 46.362 W
LTP (MEAT LOVER FED - plan misses target - Circle (radius 50.0	center by 0.8	179.58 usft at 21218	11,000.0 .3usft MD (1	-10,188.7 1000.0 TVD, -	676.5 10188.7 N, 67	467,476.20 5.7 E)	722,648.60	32° 16' 59.352 N	103° 36' 46.387 W
PBHL (MEAT LOVER FI - plan hits target cer - Rectangle (sides V	nter	359.57 0.0 D20.0)	11,000.0	-10,238.7	676.8	467,426.20	722,648.90	32° 16' 58.858 N	103° 36' 46.387 W
MEAT LOVER 605H MII - plan hits target cer - Rectangle (sides V	nter	359.57 0.0 D20.0)	11,000.0	-4,677.0	555.0	472,987.90	722,527.10	32° 17' 53.901 N	103° 36' 47.371 W

Casing Points					
	Measured Depth	Vertical Depth			Casing Hole Diameter Diameter
	(usft)	(usft)		Name	(") (")
	21,268.4	11,000.0	5-1/2" Production Casing		5-1/2 6-3/4

# Planning Report

Database: EDT 17 Permian Prod
Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Site: MEAT LOVER FED COM PROJECT
Well: MEAT LOVER FED COM #605H

Wellbore: OWB
Design: PWP2

Local Co-ordinate Reference: TVD Reference: MD Reference:

Survey Calculation Method:

North Reference:

Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

Grid

Plan Annotations					
Measured	Vertical	Local Coor	dinates		
Depth	Depth	+N/-S	+E/-W		
(usft)	(usft)	(usft)	(usft)	Comment	
1,500.0	1,500.0	0.0	0.0	Start Build 2.00	
2,000.0	1,997.5	14.9	40.9	Start 2972.6 hold at 2000.0 MD	
4,972.6	4,924.9	191.4	526.0	Start Drop -1.00	
5,972.6	5,919.8	221.2	607.7	Start 4507.2 hold at 5972.6 MD	
10,479.8	10,427.0	221.2	607.7	Start DLS 10.00 TFO 180.54	
11,379.8	11,000.0	-351.7	602.4	Start 4325.5 hold at 11379.8 MD	
15,705.2	11,000.0	-4,677.0	562.0	Start DLS 2.00 TFO -89.98	
15,791.8	11,000.0	-4,763.5	562.5	Start 5476.3 hold at 15791.8 MD	
21,268.1	11,000.0	-10,238.7	676.8	TD at 21268.1	

# **DELAWARE BASIN EAST**

LEA COUNTY SOUTHEAST
MEAT LOVER FED COM PROJECT
MEAT LOVER FED COM #605H
300255028200
OWB
PWP2

# **Anticollision Report**

08 July, 2024

#### Anticollision Report

MD Reference:

Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Reference Site: MEAT LOVER FED COM PROJECT

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft
Reference Wellbore OWB
Reference Design: PWP2

Local Co-ordinate Reference:
TVD Reference:

Well MEAT LOVER FED COM #605H

KB=27 @ 3743.0usft KB=27 @ 3743.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma

Database: EDT 17 Permian Prod

Offset TVD Reference: Offset Datum

Reference PWP2

Filter type: NO GLOBAL FILTER: Using user defined selection & filtering criteria

Interpolation Method: Stations 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

 From (usft)
 To (usft)
 Survey (Wellbore)
 Tool Name
 Description

 0.0
 21,268.0
 PWP2 (OWB)
 r.5 MWD+IFR1+SAG+FDIR
 ISCWSA MWD + IFR1 + SAG + FDIR Correction

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Dista Between Centres (usft)	nce Between Ellipses (usft)	Separation Factor	Warning
CALZONE FEDERAL PROJECT						
BRINNINSTOOL #3 (TA) - OWB - AWP					Out	of range
MEAT LOVER FED COM PROJECT						
JAGUAR `18` STATE #2H - OWB - AWP JAGUAR `18` STATE #3H - OWB - AWP MEAT LOVER FED COM #601H - OWB - PWP2 MEAT LOVER FED COM #602H - OWB - PWP2	15,725.4 9,831.8	10,982.0 14,158.0	98.6 997.6	34.4 890.4	9.308 CC, Out	tion - Monitor Closely, CC, ES, SF ES, SF of range of range
MEAT LOVER FED COM #606H - OWB - PWP2 TRISTE DRAW 30 FEDERAL #1H - OWB - AWP	1,500.0	1,500.0	30.0	18.4		nal Operations, CC, ES, SF of range
TRISTE DRAW 30 FEDERAL #2H - OWB - AWP TRISTE DRAW 30 FEDERAL #3H - OWB - AWP	21,268.3	15,562.0	394.1	333.5	,	ES, SF of range
QUESO FEDERAL COM PROJECT						
QUESO FEDERAL COM #601H - OWB - AWP					Out	of range
QUESO FEDERAL COM #601H - OWB - PWP6					Out	of range
TRISTE DRAW 25 FEDERAL #1H - OWB - AWP						of range
TRISTE DRAW 25 FEDERAL #5H - OWB - AWP						of range
WILD SALSA FEDERAL COM #226H - OWB - AWP						of range
WILD SALSA FEDERAL COM #406H - OWB - AWP						of range
WILD SALSA FEDERAL COM #96H - OWB - AWP					Out	of range

Offset Des	ian. ME	AT LOVER	R FED COI	M PROJEC	T - JAGU	AR `18` ST	ATE #2H - OW	B - AWP						
0.11001.200	,.g												Offset Site Error:	0.0 usft
Survey Progr		8-r.5 MWD								Rule Assig	gned:		Offset Well Error:	3.0 usft
Refer Measured	ence Vertical	Off Measured	set Vertical	Reference	Major Axis Offset	Highside	Offset Wellb	ore Centre	Between	tance Between	No-Go	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Distance	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
14,800.0	11,000.0	10,985.5	10,985.1	36.6	14.0	-91.20	-4,697.5	653.5	929.9	898.3	31.61	29.418		
14,900.0	11,000.0	10,985.1	10,984.7	37.4	14.0	-90.98	-4,697.5	653.5	830.6	798.9	31.71	26.193		
15,000.0	11,000.0	10,984.7	10,984.3	38.1	14.0	-90.77	-4,697.5	653.5	731.4	699.6	31.83	22.975		
15,100.0	11,000.0	10,984.3	10,983.9	38.9	14.0	-90.55	-4,697.5	653.5	632.4	600.4	32.00	19.762		
15,200.0	11,000.0	10,984.0	10,983.6	39.7	14.0	-90.33	-4,697.5	653.5	533.9	501.6	32.27	16.546		
15,300.0	11,000.0	10,983.6	10,983.2	40.5	14.0	-90.12	-4,697.5	653.5	436.0	403.3	32.74	13.316		

# Anticollision Report

Company: DELAWARE BASIN EAST Project: LEA COUNTY SOUTHEAST

MEAT LOVER FED COM PROJECT Reference Site:

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft OWB Reference Wellbore Reference Design: PWP2

Local Co-ordinate Reference:

Well MEAT LOVER FED COM #605H TVD Reference: KB=27 @ 3743.0usft MD Reference: KB=27 @ 3743.0usft

Grid North Reference:

**Survey Calculation Method:** Minimum Curvature Output errors are at 2.00 sigma

EDT 17 Permian Prod Database:

Offset TVD Reference: Offset Datum

offset Des	sign: IVIE	AI LOVER	( FED COI	VI PROJEC	i - JAGU	AK 10 51A	TE #2H - OW	D - AVVP					Offset Site Error:	0.0 usf
urvey Progr Refe		8-r.5 MWD Offs	set	Semi I	Major Axis		Offset Wellb	ore Centre	Dist	Rule Assig	ıned:		Offset Well Error:	3.0 usf
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	No-Go Distance (usft)	Separation Factor	Warning	
15,400.0	11.000.0	10.983.2	10.982.8	41.3	14.0	-89.90	-4.697.5	653.4	339.4	305.6	33.75	10.056		
15,500.0	11,000.0	10,982.8	10,982.4	42.0	14.0	-89.68	-4,697.5	653.4	245.4	209.1	36.26	6.768		
15.600.0	11.000.0	10.982.5	10.982.1	42.8	14.0	-89.45	-4.697.5	653.4	159.0	115.3	43.71	3.638		
15,705.3	11,000.0	10,982.1	10,981.7	43.7	14.0	-89.22	-4,697.5	653.4	100.5	38.4	62.19	1.617 Cauti	on - Monitor Closely	
15,725.4	11,000.0	10,982.0	10,981.6	43.8	14.0	-89.18	-4,697.5	653.4	98.6	34.4	64.20	1.536 Cauti	on - Monitor Closely, C	C, ES, SF
15,799.7	11,000.0	10,981.7	10,981.3	44.4	14.0	-89.03	-4,697.5	653.4	122.7	64.8	57.85	2.120 Cauti	on - Monitor Closely	
15,900.0	11,000.0	10,981.4	10,981.0	45.3	14.0	-88.84	-4,697.5	653.4	198.7	153.0	45.74	4.345		
16,000.0	11,000.0	10,981.0	10,980.6	46.1	14.0	-88.64	-4,697.5	653.4	289.7	249.2	40.48	7.157		
16,100.0	11,000.0	10,980.7	10,980.3	46.9	14.0	-88.44	-4,697.5	653.4	385.1	347.0	38.11	10.105		
16,200.0	11,000.0	10,980.3	10,980.0	47.7	14.0	-88.25	-4,697.5	653.4	482.4	445.5	36.91	13.070		
16,300.0	11,000.0	10,980.0	10,979.6	48.5	14.0	-88.05	-4,697.5	653.4	580.6	544.4	36.25	16.019		
16,400.0	11,000.0	10,979.7	10,979.3	49.3	14.0	-87.85	-4,697.5	653.4	679.4	643.5	35.86	18.942		
16,500.0	11,000.0	10,979.3	10,978.9	50.1	14.0	-87.65	-4,697.5	653.4	778.4	742.8	35.64	21.839		
16,600.0	11,000.0	10,979.0	10,978.6	50.9	14.0	-87.45	-4,697.5	653.4	877.7	842.2	35.52	24.709		
16,700.0	11,000.0	10,978.6	10,978.2	51.8	14.0	-87.24	-4,697.5	653.4	977.1	941.6	35.47	27.551		

# Anticollision Report

Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST

Reference Site: MEAT LOVER FED COM PROJECT

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft
Reference Wellbore OWB
Reference Design: PWP2

Local Co-ordinate Reference:

 TVD Reference:
 KB=27 @ 3743.0usft

 MD Reference:
 KB=27 @ 3743.0usft

Well MEAT LOVER FED COM #605H

North Reference: Grid

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDT 17 Permian Prod

Database: EDT 17 Permi
Offset TVD Reference: Offset Datum

Offset Des	ign: M	EAT LOVER	R FED CO	M PROJEC	TE #3H - OW	B - AWP					Offset Site Error:	0.0 usft		
Survey Progra Refer Measured Depth (usft)		112-r.5 MWD Off Measured Depth (usft)	set Vertical Depth (usft)	Semi I Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellb +N/-S (usft)	ore Centre +E/-W (usft)	Dis Between Centres (usft)	Rule Assignance Between Ellipses (usft)	ned: No-Go Distance (usft)	Separation Factor	Offset Well Error: Warning	3.0 usft
9,800.0 9,831.8 9,900.0	9,747.2 9,779.0 9,847.2	14,158.0 14,158.0 14,158.0	9,775.0 9,775.0 9,775.0	16.0 16.0 16.1	77.2 77.2 77.2	106.48 106.48 106.48	-61.8 -61.8 -61.8	1,564.4 1,564.4 1,564.4	998.1 997.6 999.9	890.9 890.4 893.1	107.21 107.17 106.86	9.310 9.308 CC, E 9.357	S, SF	

# Anticollision Report

Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAS

Project: LEA COUNTY SOUTHEAST
Reference Site: MEAT LOVER FED COM PROJECT

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft
Reference Wellbore OWB
Reference Design: PWP2

Local Co-ordinate Reference:

 TVD Reference:
 KB=27 @ 3743.0usft

 MD Reference:
 KB=27 @ 3743.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma

Database: EDT 17 Permian Prod

Well MEAT LOVER FED COM #605H

Offset TVD Reference: Offset Datum

ey Progr		.5 MWD+IFR1								Rule Assig	gned:		Offset Well Error:	3.0 (
asured epth	rence Vertical Depth	Off Measured Depth	Vertical Depth	Reference	Major Axis Offset	Highside Toolface	Offset Wellb	+E/-W	Between Centres	tance Between Ellipses	No-Go Distance	Separation Factor	Warning	
usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
0.0	0.0	0.0	0.0	3.0	3.0	-90.38	-0.2	-30.0	30.0					
100.0	100.0	100.0	100.0	3.1	3.1	-90.38	-0.2	-30.0	30.0	23.3	6.65	4.510		
200.0	200.0	200.0	200.0	3.3	3.3	-90.38	-0.2	-30.0	30.0	22.9	7.10	4.224		
300.0	300.0	300.0	300.0	3.6	3.6	-90.38	-0.2	-30.0	30.0	22.5	7.53	3.985		
400.0	400.0	400.0	400.0	3.8	3.8	-90.38	-0.2	-30.0	30.0	22.1	7.93	3.782		
500.0	500.0	500.0	500.0	4.0	4.0	-90.38	-0.2	-30.0	30.0	21.7	8.32	3.606		
600.0	600.0	600.0	600.0	4.1	4.1	-90.38	-0.2	-30.0	30.0	21.3	8.69	3.452		
700.0	700.0	700.0	700.0	4.3	4.3	-90.38	-0.2	-30.0	30.0	21.0	9.05	3.315		
800.0	800.0	800.0	800.0	4.5	4.5	-90.38	-0.2	-30.0	30.0	20.6	9.40	3.193		
900.0	900.0	900.0	900.0	4.7	4.7	-90.38	-0.2	-30.0		20.3	9.73	3.082		
									30.0				! 0	
1,000.0	1,000.0	1,000.0	1,000.0	4.8	4.8	-90.38	-0.2	-30.0	30.0	19.9	10.06	2.982 NOT	nal Operations	
1,100.0	1,100.0	1,100.0	1,100.0	5.0	5.0	-90.38	-0.2	-30.0	30.0	19.6	10.38	2.890 Norn	nal Operations	
,200.0	1,200.0	1,200.0	1,200.0	5.2	5.2	-90.38	-0.2	-30.0	30.0	19.3	10.69	2.806 Norn	nal Operations	
1,300.0	1,300.0	1,300.0	1,300.0	5.3	5.3	-90.38	-0.2	-30.0	30.0	19.0	11.00	2.728 Norn	nal Operations	
,400.0	1,400.0	1,400.0	1,400.0	5.5	5.5	-90.38	-0.2	-30.0	30.0	18.7	11.30	2.656 Norn	nal Operations	
1,500.0	1,500.0	1,500.0	1,500.0	5.6	5.6	-90.38	-0.2	-30.0	30.0	18.4	11.59	2.588 Norn	nal Operations, CC, ES,	SF
1,600.0	1,600.0	1,598.9	1,598.9	5.8	5.8	-160.46	0.3	-31.6	33.3	21.3	12.01	2 771 Norn	nal Operations	
1,700.0	1,699.8	1,697.2	1,697.0	6.1	6.1	-160.40	1.8	-36.5	43.1	30.7	12.40	3.476	nai Operations	
,800.0	1,799.5	1,794.2	1,793.7	6.3	6.3	-160.71	4.3	-44.4	59.4	46.7	12.78	4.652		
,900.0	1,898.7	1,889.4	1,888.2	6.5	6.5	-160.75	7.7	-55.2	82.1	69.0	13.13	6.252		
2,000.0	1,997.5	1,982.1	1,979.9	6.7	6.7	-160.72	12.0	-68.6	110.9	97.5	13.47	8.239		
2,100.0	2,095.9	2,076.1	2,072.4	6.8	6.8	-160.79	16.9	-84.1	143.3	129.6	13.72	10.444		
2,200.0	2,194.4	2,170.7	2,165.5	7.0	6.9	-160.83	21.8	-99.8	175.8	161.8	13.98	12.572		
2,300.0	2,292.9	2,265.3	2,258.7	7.1	7.1	-160.85	26.7	-115.4	208.2	194.0	14.24	14.617		
2,400.0	2,391.4	2,359.9	2,351.9	7.3	7.2	-160.87	31.7	-131.1	240.6	226.1	14.51	16.581		
2,500.0	2,489.9	2,454.5	2,445.0	7.4	7.3	-160.88	36.6	-146.8	273.1	258.3	14.79	18.469		
2 600 0	0.500.0	2.540.0	0.530.0	7.6	7.5	160.00	41.6	160.4	205 5	200 5	15.00	20.204		
2,600.0	2,588.3	2,549.0	2,538.2	7.6	7.5	-160.89	41.6	-162.4	305.5	290.5	15.06	20.281		
2,700.0	2,686.8	2,643.6	2,631.3	7.7	7.6	-160.90	46.5	-178.1	338.0	322.6	15.35	22.021		
2,800.0	2,785.3	2,738.2	2,724.5	7.9	7.8	-160.91	51.4	-193.8	370.4	354.8	15.63	23.692		
2,900.0	2,883.8	2,832.8	2,817.6	8.0	7.9	-160.91	56.4	-209.4	402.8	386.9	15.93	25.296		
3,000.0	2,982.3	2,927.4	2,910.8	8.2	8.1	-160.92	61.3	-225.1	435.3	419.1	16.22	26.836		
,100.0	3,080.8	3,022.0	3,003.9	8.3	8.2	-160.92	66.3	-240.8	467.7	451.2	16.52	28.315		
3,200.0	3,179.2	3,116.6	3,097.1	8.5	8.4	-160.93	71.2	-256.4	500.2	483.3	16.82	29.736		
3,300.0	3,277.7	3,211.2	3,190.3	8.7	8.5	-160.93	76.1	-272.1	532.6	515.5	17.12	31.101		
3,400.0	3,376.2	3,305.8	3,283.4	8.8	8.7	-160.93	81.1	-287.8	565.0	547.6	17.43	32.412		
3,500.0	3,474.7	3,400.4	3,376.6	9.0	8.8	-160.94	86.0	-303.4	597.5	579.7	17.74	33.672		
	0.570.5	0.405.5	0.400 =		0.5	100.01	04.5	040 :	200 -	044.5	40.05	04.000		
,600.0	3,573.2	3,495.0	3,469.7	9.2	9.0	-160.94	91.0	-319.1	629.9	611.9	18.06	34.883		
3,700.0	3,671.6	3,589.6	3,562.9	9.3	9.1	-160.94	95.9	-334.8	662.3	644.0	18.37	36.048		
3,800.0	3,770.1	3,684.2	3,656.0	9.5	9.3	-160.94	100.8	-350.4	694.8	676.1	18.69	37.168		
3,900.0	3,868.6	3,778.7	3,749.2	9.7	9.5	-160.94	105.8	-366.1	727.2	708.2	19.01	38.246		
1,000.0	3,967.1	3,873.3	3,842.3	9.9	9.6	-160.95	110.7	-381.8	759.7	740.3	19.34	39.284		
,100.0	4,065.6	3,967.9	3,935.5	10.1	9.8	-160.95	115.6	-397.4	792.1	772.4	19.66	40.283		
,200.0	4,164.0	4,062.5	4,028.7	10.2	10.0	-160.95	120.6	-413.1	824.5	804.6	19.99	41.245		
,300.0	4,262.5	4,157.1	4,121.8	10.4	10.1	-160.95	125.5	-428.8	857.0	836.7	20.32	42.172		
,400.0	4,361.0	4,251.7	4,215.0	10.4	10.1	-160.95	130.5	-444.4	889.4	868.8	20.65	43.065		
,500.0	4,459.5	4,231.7	4,308.1	10.8	10.5	-160.95	135.4	-460.1	921.9	900.9	20.03	43.926		
	,	,	,,											
4,600.0	4,558.0	4,440.9	4,401.3	11.0	10.7	-160.95	140.3	-475.7	954.3	933.0	21.32	44.757		
1,700.0	4,656.4	4,535.5	4,494.4	11.1	10.8	-160.95	145.3	-491.4	986.7	965.1	21.66	45.558		

# Anticollision Report

Company: DELAWARE BASIN EAST Project: LEA COUNTY SOUTHEAST

MEAT LOVER FED COM PROJECT Reference Site:

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft OWB Reference Wellbore Reference Design: PWP2

Local Co-ordinate Reference:

Well MEAT LOVER FED COM #605H TVD Reference: KB=27 @ 3743.0usft MD Reference: KB=27 @ 3743.0usft

Grid North Reference:

**Survey Calculation Method:** Minimum Curvature

Output errors are at 2.00 sigma

EDT 17 Permian Prod Database:

Offset TVD Reference: Offset Datum

Offset Des	sign: ME	MEAT LOVER FED COM PROJECT - TRISTE DRAW 30 FEDERAL #2H - OWB - AWP									Offset Site Error:	0.0 usft		
_		14 5 MM/D												
Survey Progr Refer		11-r.5 MWD Offs	set	Semi I	Major Axis		Offset Wellb	ore Centre	Dis	Rule Assig	gned:	(	Offset Well Error:	3.0 usft
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	+N/-S	+E/-W	Between	Between	No-Go	Separation	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	Toolface (°)	(usft)	(usft)	Centres (usft)	Ellipses (usft)	Distance (usft)	Factor		
20,700.0	11,000.0	15,562.0	11,076.5	85.3	79.7	-164.63	-10,617.2	713.7	953.6	906.6	46.99	20.294		
20,800.0	11,000.0	15,562.0	11,076.5	86.1	79.7	-164.63	-10,617.2	713.7	854.3	8.608	47.50	17.988		
20,900.0	11,000.0	15,562.0	11,076.5	87.0	79.7	-164.63	-10,617.2	713.7	755.2	707.1	48.13	15.692		
21,000.0	11,000.0	15,562.0	11,076.5	87.8	79.7	-164.63	-10,617.2	713.7	656.4	607.4	48.97	13.405		
21,100.0	11,000.0	15,562.0	11,076.5	88.6	79.7	-164.63	-10,617.2	713.7	558.0	507.8	50.15	11.127		
21,200.0	11,000.0	15,562.0	11,076.5	89.5	79.7	-164.63	-10,617.2	713.7	460.3	408.3	51.96	8.858		
21,268.3	11,000.0	15,562.0	11,076.5	89.9	79.7	-164.63	-10,617.2	713.7	394.1	333.5	60.60	6.504 CC, ES,	SF	

#### Anticollision Report

Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Reference Site: MEAT LOVER FED COM PROJECT

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft
Reference Wellbore OWB
Reference Design: PWP2

Local Co-ordinate Reference: Well MEAT LOVER FED COM #605H

 TVD Reference:
 KB=27 @ 3743.0usft

 MD Reference:
 KB=27 @ 3743.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma

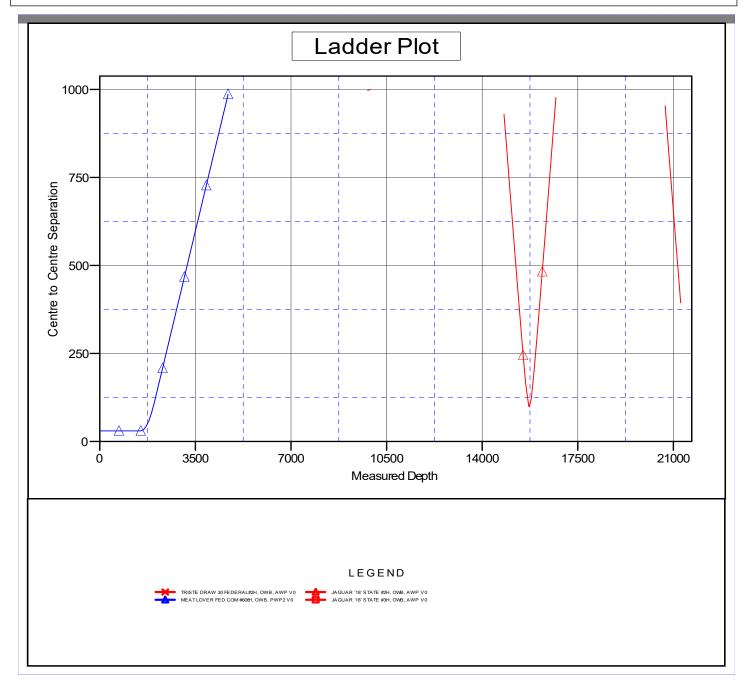
Database: EDT 17 Permian Prod
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB=27 @ 3743.0usft

Offset Depths are relative to Offset Datum Central Meridian is 104° 20' 0.000 W Coordinates are relative to: MEAT LOVER FED COM #605H

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

Grid Convergence at Surface is: 0.38°



#### Anticollision Report

Company: DELAWARE BASIN EAST
Project: LEA COUNTY SOUTHEAST
Reference Site: MEAT LOVER FED COM PROJECT

Site Error: 0.0 usft

Reference Well: MEAT LOVER FED COM #605H

Well Error: 3.0 usft
Reference Wellbore OWB
Reference Design: PWP2

Local Co-ordinate Reference: Well MEAT LOVER FED COM #605H

 TVD Reference:
 KB=27 @ 3743.0usft

 MD Reference:
 KB=27 @ 3743.0usft

North Reference: Grid

Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma

Database: EDT 17 Permian Prod

Offset TVD Reference: Offset Datum

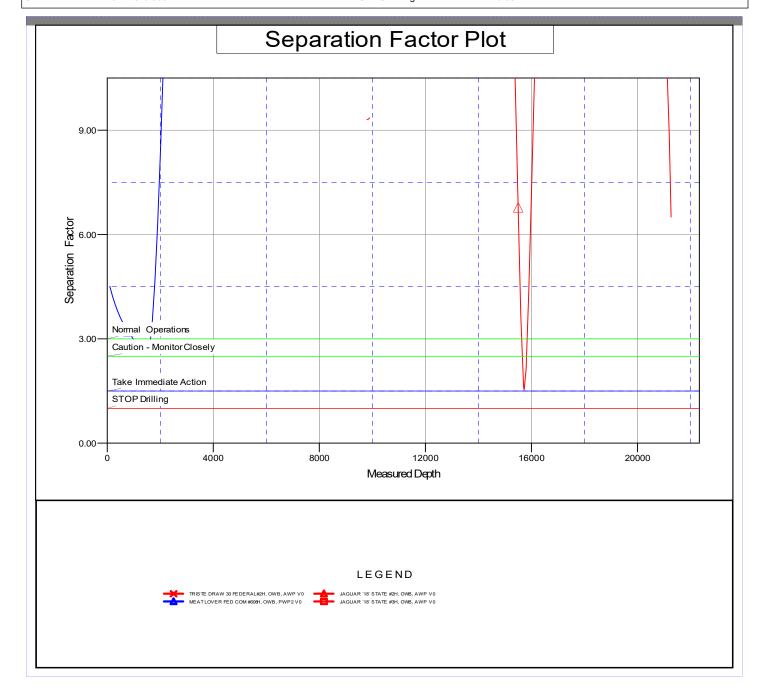
Reference Depths are relative to KB=27 @ 3743.0usft
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: MEAT LOVER FED COM #605H

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

Grid Convergence at Surface is: 0.38°



# 1. Geologic Formations

TVD of target	11,000' EOL	Pilot hole depth	NA
MD at TD:	21,268'	Deepest expected fresh water:	345'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1297	Water	
Top of Salt	1793	Salt	
Base of Salt	4762	Salt	
Lamar	5020	Salt Water	
Bell Canyon	5081	Salt Water	
Cherry Canyon	5858	Oil/Gas	
Brushy Canyon	7286	Oil/Gas	
Bone Spring	8844	Oil/Gas	
1st Bone Spring Sand	10077	Oil/Gas	
2nd Bone Spring Sand	10688	Target	
3rd Bone Spring Sand	0	Not Penetrated	

# 2. Casing Program

Hole Size	Casing	Interval	Csg. Size	Weight	Grade	Conn.	SF	SF Burst	SF	SF
Tiole Size	From	То	Osg. Size	(lbs)	Orace	COIIII.	Collapse	Of Burst	Body	Joint
14.75"	0	1643	10.75"	45.5	J55	BTC	2.78	1.14	9.56	10.65
9.875"	0	8500	7.625"	29.7	L80-ICY	BTC	1.48	1.27	2.88	2.90
8.750"	8500	10480	7.625"	29.7	P110-ICY	W513	1.50	1.92	3.43	2.06
6.75"	0	10280	5.5"	23	P110-CY	BTC	2.27	2.70	3.08	3.08
6.75"	10280	21,268	5.5"	23	P110-CY	W441	2.12	2.52	2.88	2.62
			B		BLM Minimum Safety Facto		1.125	1	1.6 Dry	1.6 Dry
				DLIVI	viii iii iiii iii oa	iety i actor	1.125	'	1.8 Wet	1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5 1/2" talon 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.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Υ
Does casing meet API specifications? If no, attach casing specification sheet.	Υ
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Υ
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 <sup>rd</sup> 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?	11
Is 2 <sup>nd</sup> 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?	

# 3. Cementing Program

Casing	# Sks	Wt. lb/	Yld ft3/	H₂0 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	784	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
Suri.	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	261	15.6	1.2	5.28	6	Stage 1 Lead: Class H
Bradenh	98	16.2	1.123	4.6	11	Stage 1 Tail: Class H
ead	2500	14.8	1.52	7.2	4	Bradenhead: Thixotropic Class C
eau	400	14.8	1.33	6.4	5	Top Out: Class C
Prod	568	12.7	1.68	9.09	72	Lead: 50:50:10 H Blend
Fiou	1050	14.5	1.18	5.26	19	Tail: 50:50:2 Class H Blend

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 <sup>st</sup> Intermediate	0'	50%
Production	9,980'	35% OH in Lateral (KOP to EOL)

# **4. Pressure Control Equipment**

I 1XI	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
	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	Туре		x	Tested to:
			Ann	ular	Х	2500psi
9-7/8"	13-5/8"	5M	Blind Ram		Х	
			Pipe	Ram	Х	5000psi
			Double Ram		Х	Socopsi
			Other*			
			5M Ar	nnular	Х	5000psi
			Blind Ram		Х	10000psi
6-3/4"	13-5/8"	10M	Pipe Ram		Х	
			Double Ram		Х	
			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.

	Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.
Y	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per 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.

# 5. Mud Program

	Depth	Tyrno	Weight	Viscosity	Water Loss	
From	То	Type	(ppg)	Viscosity		
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C	
Surf csg	7-5/8" Int shoe	Brine Diesel Emulsion	8.4 - 9	28-34	N/C	
7-5/8" Int shoe	Lateral TD	OBM	9 - 12	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?	IPVT/Pason/Visual Monitoring
Titlat till be acca to memor the lees of gain of hala.	i viii accii, vicaai iviciiiig

# 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.

Add	itional 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)
Υ	Mud log	Intermediate shoe to TD
N	PEX	

# 7. Drilling Conditions

Condition	Specify what type and where?	
BH Pressure at deepest TVD	6865 psi at 11000' TVD	
Abnormal Temperature	NO 165 Deg. F.	

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

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

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

N	H2S is present
Y	H2S Plan attached

# 8. Other Facets of Operation

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

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

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

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 375689

#### **CONDITIONS**

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	375689
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By	Condition	Condition Date
pkautz	WHEN PERFORMING A BRADENHEAD CEMENT JOB MUST RUN CBL.	9/24/2024