

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

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☐ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		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
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ 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)

CONDITIONS OF APPROVAL FOR APD EXTENSION

The Approved Application for Permit to Drill (AAPD) expires if only conductor or surface casing has been set, and the well is not being diligently drilled at the expiration date of the extension.

The APD extension is granted for a 2-year period, not exceed 4 years from the approval of the APD.

Additional Information

Batch Well Data

JUNIOR MINT FED 111H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 112H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 121H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 122H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 131H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 132H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 135H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 137H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 151H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 152H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 211H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 212H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 215H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 217H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,

Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 221H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 222H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 113H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 133H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 213H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 117H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 118H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 123H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 124H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 134H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 138H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 156H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 158H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 214H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 216H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 218H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 223H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

JUNIOR MINT FED 224H, US Well Number: null, Case Number: NMNM101609, Lease Number: NMNM101609,
Operator:CIVITAS PERMIAN OPERATING LLC

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED OMB
No. 1004-0137 Expires:
December 31, 2024**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.**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator CIVITAS PERMIAN OPERATING, LLC (OGRID: 332195)

3a. Address 555 17th Street, Suite 3700, Denver, CO 80202

3b. Phone No. (include area code)
(303) 293-9100

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Multiple - See Attached

5. Lease Serial No. NMNM101609

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Multiple - See Attached

9. API Well No.

10. Field and Pool or Exploratory Area
WC-02 H-08 S253534O/BONE SPRING

11. Country or Parish, State

LEA COUNTY, NM

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	

SUCCESSOR OPERATOR

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 recomplate 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 performed 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.)

This is notification that CIVITAS PERMIAN OPERATING, LLC is taking over operations of the wells referenced in Appendix A (Lea County, NM).

CIVITAS PERMIAN OPERATING, LLC, as new operator, accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portions thereof as described below:

Bond Coverage: BLM Bond Number: NMB106332702

Change of Operator Effective: 01/30/2025

Former Operator: Tap Rock Operating, LLC (OGRID: 372043)

See Conditions of Approval
Connor Wood, EVP
Tap Rock Operating, LLC

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

Nathan S. Bennett

Director, Permitting & Compliance

Title

Signature

Date

02/26/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USEApproved by JENNIFER
SANCHEZDigitally signed by JENNIFER
SANCHEZ
Date: 2025.03.03 05:39:54 -07'00'

Title Petroleum Engineer

Date 03/03/2025

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 RFO

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)

APPENDIX A						
Lease Number	Legal Description	API Number	Well Name	Producing Reservoir	County	State
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 111H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 112H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 113H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 117H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 118H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 121H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 122H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 123H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 124H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 131H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 132H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 133H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 134H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 135H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 137H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 138H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 151H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 152H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 156H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 158H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 211H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 212H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 213H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 214H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 215H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 216H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 217H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 218H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 221H	AAPD	LEA	NM
NMNM101609	T25S R35 SEC 15: NENW	Not Issued	JUNIOR MINT FED 222H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 223H	AAPD	LEA	NM
NMNM101609	T25S R35E SEC 10: SWSE	Not Issued	JUNIOR MINT FED 224H	AAPD	LEA	NM

Change of Operator Conditions of Approval

1. Tank battery must be bermed/diked (must be able to contain 1 1/2 times the volume of the largest tank) within 90 days.
2. Submit for approval of water disposal method within 60 days, if changes have been made from previously approved disposal method.
3. Review facility diagram on file, and submit updated facility diagrams, as per Onshore Order #3 within 60 day.
4. This agency shall be notified of any spill or discharge as required by NTL-3A.
5. All outstanding environmental issue must be addressed within 90 days. Contact Jim Amos for inspection and to resolve environmental issues. 575-234-5909
6. Install legible well sign on location with operator name, well name and number, lease number, unit number, 1/4 1/4, section, township, and range. NMOCD requires the API number on well signs.
7. Subject to like approval by NMOCD.
8. All Reporting to ONRR (OGOR Reports) must be brought current within 30 days of this approval including any past history.
9. If this well is incapable of producing in paying quantities submit NOI to plug and abandon this well or obtain approval to do otherwise within 90 days.
10. Submit plan for approval of well operations for all TA/SI wells within 30 days of this approval to change operator.
11. If not in place acquire operating rights on this lease within 30 days with BLM office in Santa Fe, NM.

JAM

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER 1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☒ Single Zone ☐ Multiple Zone		5. Lease Serial No. NMNM101609 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. JUNIOR MINT FED 156H
2. Name of Operator TAP ROCK OPERATING LLC		9. API Well No. 30-025-55621
3a. Address 602 PARK POINT DRIVE SUITE 200, GOLDEN, CO 8040	3b. Phone No. (include area code) (720) 460-3316	10. Field and Pool, or Exploratory WC-025 H-08 S2535340/BONE SPRING
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE / 350 FSL / 1663 FEL / LAT 32.1385848 / LONG -103.3522363 At proposed prod. zone SWSE / 5 FSL / 1815 FEL / LAT 32.1086207 / LONG -103.352726		11. Sec., T. R. M. or Blk. and Survey or Area SEC 10/T25S/R35E/NMP
14. Distance in miles and direction from nearest town or post office* 9 miles		12. County or Parish LEA
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 350 feet	16. No of acres in lease 	17. Spacing Unit dedicated to this well 1280.0
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 25 feet	19. Proposed Depth 11656 feet / 21886 feet	20. BLM/BIA Bond No. in file FED:
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3222 feet	22. Approximate date work will start* 10/01/2022	23. Estimated duration 90 days
24. Attachments		

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

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

25. Signature (Electronic Submission) Title Permitting Agent	Name (Printed/Typed) BRIAN WOOD / Ph: (720) 460-3316	Date 07/06/2022
Approved by (Signature) (Electronic Submission) Title Assistant Field Manager Lands & Minerals	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 02/08/2023
Office Carlsbad Field Office		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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

(Continued on page 2)

*(Instructions on page 2)



Approval Date: 02/08/2023

Well Name: JUNIOR MINT FED	Well Location: T25S / R35E / SEC 10 / SWSE / 32.1385848 / -103.3522363	County or Parish/State: LEA / NM
Well Number: 156H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM101609	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: CIVITAS PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2874480

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 09/19/2025	Time Sundry Submitted: 11:11
Date proposed operation will begin: 10/15/2025	

Procedure Description: Civitas Permian Operating, LLC would like to request the following changes to the previously approved surface hole location (SHL) and drill plan. Change SHL from 350' FSL & 1663' FEL, SWSE, Sec. 10, T.25S, R.35E to 513' FSL & 1485' FEL, SWSE, Sec. 10, T.25S, R.35E. Changes to the drill plan and other variance requests are detailed in the attached revised drill plan. Also please see the attached revised C102 plat, directional plan, anticollision report, production casing spec sheets, offline cementing procedure and wellhead diagram for additional information. APD ID No. 10400086507.

NOI Attachments

Procedure Description

JM_156H_Sundry_Attachment_091825_20250919111044.pdf

Well Name: JUNIOR MINT FED	Well Location: T25S / R35E / SEC 10 / SWSE / 32.1385848 / -103.3522363	County or Parish/State: LEA / NM
Well Number: 156H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM101609	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: CIVITAS PERMIAN OPERATING LLC	

Conditions of Approval

Additional

Sec_10_25S_35E_NMP_Sundry_2874480_Junior_Mint_Fed_156H_COAs_20251029132154.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: CORY WALK	Signed on: SEP 25, 2025 03:15 PM
Name: CIVITAS PERMIAN OPERATING LLC	
Title: Permitting Agent	
Street Address: 5 CALIENTE ROAD SUITE 3A	
City: SANTA FE	State: NM
Phone: (505) 466-8120	
Email address: AFMSS@PERMITSWEST.COM	

Field

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

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: CWALLS@BLM.GOV
Disposition: Approved	Disposition Date: 11/13/2025
Signature: Chris Walls	

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

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. NMNM101609

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
CIVITAS PERMIAN OPERATING LLC

3a. Address 555 17TH STREET SUITE 3700, DENVER, CO 80202

3b. Phone No. (include area code)
(303) 293-1000

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)
SEC 10/T25S/R35E/NMP

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

8. Well Name and No.
JUNIOR MINT FED/156H

9. API Well No.

10. Field and Pool or Exploratory Area
WC-025 H-08 S2535340/BONE SPRING

11. Country or Parish, State
LEA/NM

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

TYPE OF SUBMISSION	TYPE OF ACTION				
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☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
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14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
CORY WALK / Ph: (505) 466-8120

(Electronic Submission)

Signature

Title Permitting Agent

Date 09/25/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

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.

Petroleum Engineer

Date 11/13/2025

Office CARLSBAD

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: SWSE / 350 FSL / 1663 FEL / TWSP: 25S / RANGE: 35E / SECTION: 10 / LAT: 32.1385848 / LONG: -103.3522363 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 101 FNL / 1776 FEL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1373499 / LONG: -103.3526012 (TVD: 11265 feet, MD: 11297 feet)

BHL: SWSE / 5 FSL / 1815 FEL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.1086207 / LONG: -103.352726 (TVD: 11656 feet, MD: 21886 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Civitas Permian Operating LLC
WELL NAME & NO.:	Junior Mint Fed 156H
LOCATION:	Sec 10-25S-35E-NMP
COUNTY:	Lea County, New Mexico

*Changes approved through engineering via **Sundry 2874480** on 10/29/2025. Any previous COAs not addressed within the updated COAs still apply.*

Create COAs

H₂S Not Reported	Cave / Karst Low	Waste Prevention Rule APD Submitted Prior to 06/10/24
Potash None	R-111-Q Design 	
Wellhead Multibowl	Casing 3-String Well	
☒ Flex Hose ☒ Break Testing	☐ Liner ☒ Fluid Filled ☒ Casing Clearance	
	Cementing	
	☐ DV Tool ☐ Bradenhead ☐ Echometer	
	☒ Offline Cement ☐ Open Annulus ☐ Pilot Hole	
Special Requirements		
☐ Capitan Reef ☐ Water Disposal ☐ COM ☐ Unit		

THIS WELL HAS INTERVALS WITH A MASP OVER 5000 PSI. BREAK TESTING IS ONLY ALLOWED ON THOSE INTERVALS WHOSE MASP IS EXPECTED TO BE UNDER 5M PSI.

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **11-3/4** inch surface casing shall be set between **990' to 1050'** feet (a minimum of **70'** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. **Set depth adjusted per BLM geologist.**
 - 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 (including lead cement.)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is **cement to surface**. If cement does not circulate, see B.1.a, c-d above.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is at least **300 feet** into previous casing string. Operator shall provide method of verification.
 - If cement does not circulate to surface on the previous casing, this string must come to surface.
 - String does not meet clearance requirement per 43 CFR 4172. Tieback increased by 100' and additional cement may be needed.

C. PRESSURE CONTROL

1. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M) psi**.
Variance is approved to use a 5000 (5M) annular which shall be tested to 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.
- 2. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
- 3. Break testing has been approved for this well ONLY on those intervals utilizing a 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.)** If in the event break testing is not utilized, then a full BOPE test would be conducted.
 - a. Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation. **BOPE Break Testing is NOT permitted to drill the production hole section.**
 - b. While in transfer between wells, BOPE shall be secured by the hydraulic carrier or cradle.
 - c. 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).
 - d. As a minimum, a full BOPE test shall be performed at 21-day intervals.
 - e. In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**. 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.

D. SPECIAL REQUIREMENT(S)

Offline Cementing

Offline cementing has been approved for **all hole sections, excluding production**. Contact the BLM prior to the commencement of any offline cementing procedure.

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)

Contact Lea County Petroleum Engineering Inspection Staff:

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

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

A. CASING

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

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

B. PRESSURE CONTROL

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

- matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the

pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 55621	Pool Code 98185	Pool Name WC-025 G-09 S253502B; LWR BONE SPRING
Property Code 337333	Property Name JUNIOR MINT FED	Well Number 156H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3221'
Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	10	25-S	35-E	-	513' S	1485' E	N 32.1390341	W 103.3516657	LEA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	22	25-S	35-E	-	5' S	1815' E	N 32.1086207	W 103.3527260	LEA

Dedicated Acres 1280.00	Infill or Defining Well Infill	Defining Well API 30-025-54739 (131H)	Overlapping Spacing Unit (Y/N) N	Consolidated Code N/A
Order Numbers pending (NSP)			Well Setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
B	15	25-S	35-E	-	100' N	1815' E	N 32.1373499	W 103.3527229	LEA

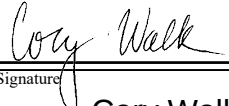
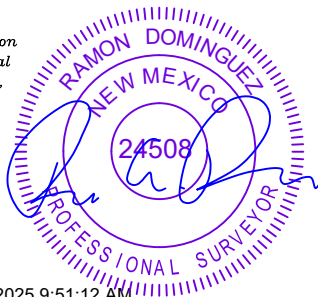
First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
B	15	25-S	35-E	-	100' N	1815' E	N 32.1373499	W 103.3527229	LEA

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	22	25-S	35-E	-	100' S	1815' E	N 32.1088819	W 103.3527259	LEA

Unitized Area or Area of Uniform Interest N/A	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3221'
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OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  9-16-25		SURVEYORS CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>  8/11/2025 9:51:12 AM	
Signature Cory Walk		Signature and Seal of Professional Surveyor	
Date 9-16-25		Date	
Print Name cory@permitswest.com		Certificate Number	Date of Survey 8/8/2025
E-mail Address			

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024	
			Submittal Type:	☐ Initial Submittal ☒ Amended Report ☐ As Drilled
Property Name and Well Number JUNIOR MINT FED 156H				

SURFACE LOCATION (SHL)

NEW MEXICO EAST
 NAD 1983
 X=845189 Y=415701
 LAT.: N 32.1390341
 LONG.: W 103.3516657
 NAD 1927
 X=804002 Y=415643
 LAT.: N 32.1389077
 LONG.: W 103.3512008
 513' FSL 1485' FEL

KICK OFF POINT (KOP)
FIRST TAKE POINT (FTP)

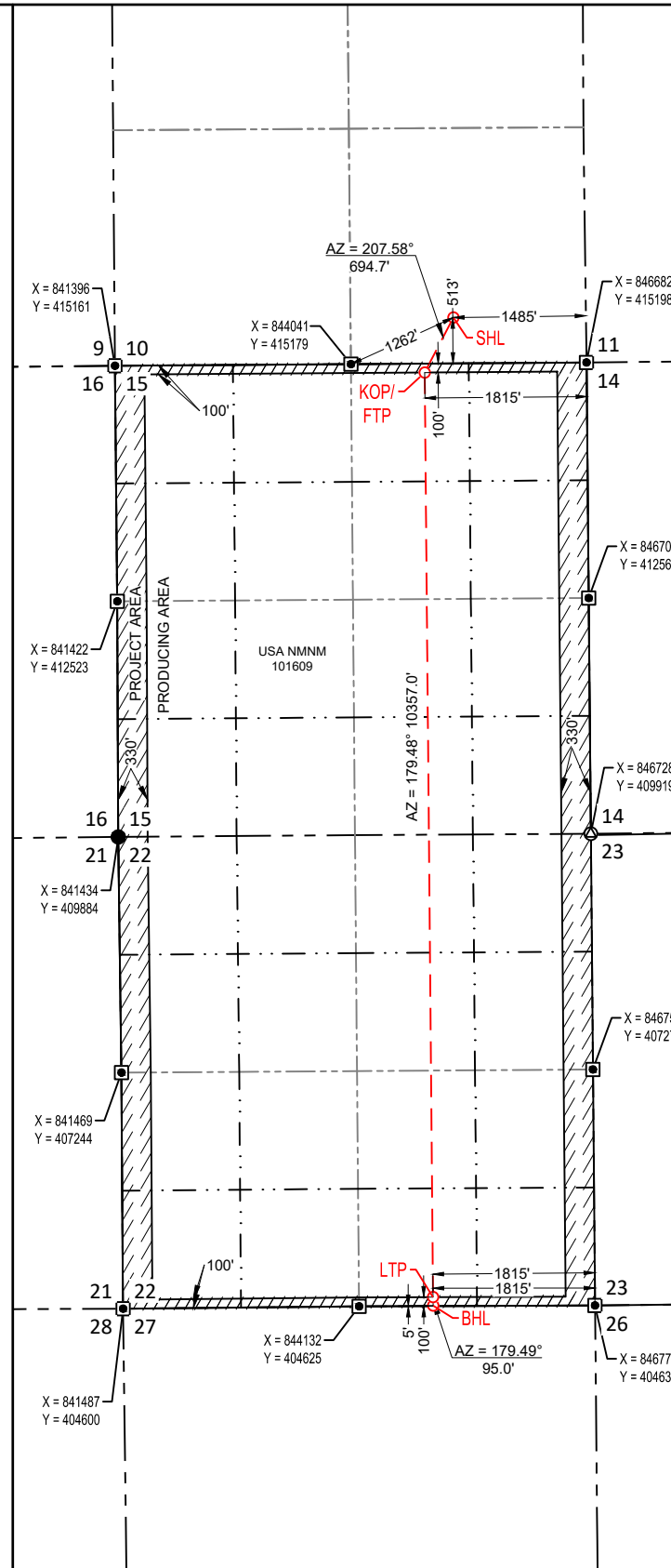
NEW MEXICO EAST
 NAD 1983
 X=844867 Y=415085
 LAT.: N 32.1373499
 LONG.: W 103.3527229
 NAD 1927
 X=803681 Y=415027
 LAT.: N 32.1372235
 LONG.: W 103.3522581
 100' FNL 1815' FEL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
 NAD 1983
 X=844961 Y=404729
 LAT.: N 32.1088819
 LONG.: W 103.3527259
 NAD 1927
 X=803774 Y=404671
 LAT.: N 32.1087554
 LONG.: W 103.3522626
 100' FSL 1815' FEL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
 NAD 1983
 X=844962 Y=404634
 LAT.: N 32.1086207
 LONG.: W 103.3527260
 NAD 1927
 X=803775 Y=404576
 LAT.: N 32.1084942
 LONG.: W 103.3522627
 5' FSL 1815' FEL

**SURVEYORS 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.
 8/8/2025

Date of Survey
 Signature and Seal of Professional Surveyor:



8/11/2025 9:51:15 AM

DRILLING AND OPERATIONS PLAN

Civitas Permian Operating LLC

Section 1:**Well Information**

Well Name and Number:

Junior Mint Fed 156

Proposed TD (ft MD): 21919

Proposed TD (ft TVD): 11656

Section 2:**Casing Design**

String Type	Hole Size	Casing Size	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Weight (lbs/ft)	Grade	Joint Type	Pressure Test (psi)	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
Surface	14.75	11.75	surface	1,073	surface	1,075	42	J55	BTC		1.13	1.15	BUOY	1.80	BUOY	1.80
Intermediate	10.625	8.625	surface	5,270	surface	5,210	32	HCL80	BTC		1.13	1.15	BUOY	1.80	BUOY	1.80
Production	7.875	5.5	surface	21,919	surface	11,656	20	P110RY	GBCD		1.13	1.15	BUOY	1.80	BUOY	1.80

Safety Factors will Meet or Exceed

Centralization Plan:

Surface casing: centralizers run on bottom 3 joints. On subsequent strings of casing centralizers will be run as needed to ensure effective cement placement and zonal isolation.

NMOCD Casing Information:

Is casing new? If used, attach certification as required in 43 CFR 3172.	
Does casing meet API specifications? If no, attach casing specification sheet.	
Is premium or uncommon casing planned? If yes attach casing specification sheet.	
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	
Will intermediate pipe be kept at least 1/3 fluid filled until cement tops are verified? (collapse safety requirement)	
Capitan Reef:	
Is well located within Capitan Reef?	
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is proposed well within the designated four string boundary?	
R-111-Q and SOPA	
Is well located in R-111-Q and SOPA?	
Is the second string set 100' to 600' below the base of salt?	
SOPA but not R-111-Q	
Is well located in SOPA but not in R-111-Q?	
If yes, are the first 2 strings cemented to surface and third string cement tied back 500' into previous casing?	
High Cave / Karst	
Is well located in high Cave/Karst?	
If yes, are there two strings cemented to surface?	
If yes, is there a contingency casing if lost circulation occurs?	
Critical Cave / Karst	
Is well located in critical Cave/Karst?	
If yes, are there three strings cemented to surface?	

Section 3:**Cement Program**

String Type	Lead/Tail	Top MD	Density (ppg)	Quantity (sks)	Yield (ft³/sks)	Excess (%)	Cement Type	Additives
Surface	Lead	0	13.5	390	1.72	100	Class C	Additives + LCM
Surface	Tail	773	14.8	196	1.33	100	Class C	Additives + LCM
Intermediate	Lead	0	10.5	307	3.98	25	Class C	Additives + LCM
Intermediate	Tail	4270	13.2	226	1.61	25	Class C	Additives + LCM
Production	Lead	na	10.5	na	3.93	na	Class H	Additives + LCM
Production	Tail	10590	13.2	1636	1.44	20	Class H	Fluid Loss + Dispersant + Retarder + LCM

Cementing Procedure

Spacers will be used ahead of cement to ensure mud removal. Slurries will be designed to provide adequate compressive strength, fluid loss control, and bonding. Offline cementing may be performed on surface and intermediate casing strings when set above the Wolfcamp formation (variance request). BOPE will be installed and tested prior to drilling out the shoe, and cement job quality will be verified before resuming operations. This variance improves operational efficiency while maintaining full compliance with 43 CFR 3172 and BLM conditions of approval. If required to achieve top of cement on the intermediate casing, a second-stage cement job may be performed by bradenhead squeeze (variance request). This method will only be used as necessary to ensure zonal isolation and full compliance with 43 CFR 3172 and BLM conditions of approval. All WOC times will be 8 hours on surface and intermediate casing or until cement has reached 500 psi compressive strength, prior to resuming drilling or completion operations on the well.

Section 4: Mud Program

Mud System Type: Closed Loop

Will an air or gas system be used? No

Describe what will be on location to control well or mitigate other conditions:

The necessary mud products for additional weight and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized:

Losses or gains in the mud system will be monitored visually/manually as well as with an electronic PVT.

Circulating Medium Table:

Top Depth	Bottom Depth	Mud Type	Min. Weight	Max Weight
0	1073	Water Based Mud	8.4	8.8
1073	5270	Brine or Oil Based Mud	9.2	10.0
5270	21919	Brine or Oil Based Mud	9.5	11.0

Section 5: BOPE & Wellhead

Hole Section	Hole Size	Casing Size	Stack Size	MAASP (psi)	Min. Required WP	BOPE Type & Components	Test Pressures (psi)	Notes / Variance Reference
Int 1	10 5/8	8 5/8	13-5/8", 10M	479	5M	Annular, Blind Ram, Double Pipe Ram	250 / 5,000	Variance – 10M stack tested to 5M for this section; Variance – 5M Annular tested to 70% WP (3,500 psi)
Production	7 7/8	5 1/2	13-5/8", 10M	2624	10M	Annular, Blind Ram, Double Pipe Ram	250 / 10,000	Variance – 5M Annular tested to 70% WP (3,500 psi)

Testing Procedure:

The BOPE will be installed and tested on the surface casing and prior to drilling out each casing shoe. Tests will include a 250 psi low-pressure test and a high-pressure test to the required working pressure for each hole section. Due to MASP values lower than 5M, a variance is requested to test the installed 10M BOPE stack to 250 psi low and 5,000 psi high. For the production section the installed 10M BOP stack will be tested to 250 psi low and 10,000 psi high. A variance is also requested to utilize a 5M annular preventer and test to 70% of rated working pressure for both 5M and 10M sections which is consistent with guidance from the API (variance request). A variance is requested for break testing of BOPE on the intermediate section only. A variance is requested to utilize a coflexchoke line in place of a steel line. A variance is requested to utilize a multibowl wellhead system. The accumulator system will be sized to close the largest ram and annular preventers with 200 psi remaining. BOPE will be re-tested every 21 days as required by 43 CFR 3172. The remote kill line and 3rd choke (with remote control) will be installed as required.

Wellhead Information:

Manufacturer / Type	Multibowl
Pressure Rating	10M
Installation / Testing	Wellhead will be installed and tested by manufacturer's representative. Manufacturer representative shall install the test plug for the initial BOP test. For contingency top out cementing, wellhead has slot that will allow 1" string access to surface annulus.

Section 8: Geological Prognosis

Estimated Tops of Important Geological Markers:

Formation	TVD (ft)	Lithologies	Mineral Resources	Producing Formation?
Rustler	660	Salt	Salt	No
Top Salt	1100	Salt	Salt	No
Base Salt	4920	Salt	Salt	No
DMG	5160	Sandstone	None	No
Lamar	5165	Sandstone	Hydrocarbon	No
Bell Canyon	5185	Sandstone	Hydrocarbon	No
Ramsey Sand	5205	Sandstone	Hydrocarbon	Yes
Cherry Canyon	6150	Limestone	Hydrocarbon	Yes
Brushy Canyon	7620	Sandstone	Hydrocarbon	Yes
Bone Spring Lime	8930	Carbonate	Hydrocarbon	Yes
Upper Avalon	8955	Carbonate	Hydrocarbon	Yes
Middle Avalon	9185	Carbonate	Hydrocarbon	Yes
1st BS Sand	10165	Sandstone	Hydrocarbon	Yes
2nd BS Carb	10330	Carbonate	Hydrocarbon	Yes
2nd BS Sand	10715	Sandstone	Hydrocarbon	Yes
3rd BS Carb	11265	Carbonate	Hydrocarbon	Yes
3rd BS Sand	11895	Sandstone	Hydrocarbon	Yes
Wolfcamp A	12210	Sandstone	Hydrocarbon	Yes
Wolfcamp B	12635	Sandstone	Hydrocarbon	Yes

Anticipated Bottom Hole Pressure:
 Anticipated Static Bottom Hole Temperature:
 Anticipated Abnormal Pressure?
 Potential Hazards:

6667	PSI
186	°F
No	
None	

Section 9:**H2S**

Anticipated concentration :

0

ppm

Depth of first occurrence

na

ft TVD

Additional Comments:

H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. If Hydrogen Sulfide is encountered, measured amounts and formations will be reported to the BLM. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. See attached H2S Contingency Plan.

Section 10:**Drilling Operations**

Batch drilling may be conducted on this pad to improve operational efficiency. Surface and/or intermediate hole sections may be drilled and cased on multiple wells prior to proceeding with deeper drilling operations. Each casing string will be cemented and BOPE installed and tested on each well before drilling ahead. All wells will maintain full compliance with 43 CFR 3172 and applicable COAs. Surface and intermediate casing will be cemented to surface, with offline cementing utilized on approved strings set above the Wolfcamp formation (variance). If required to achieve TOC, a second-stage cement job on the intermediate string may be performed by braidenhead squeeze through the casing (variance). Mud programs will be adjusted per hole section to maintain well control and borehole stability.

Section 11:**Testing, Logging, Coring**

All casing strings will be tested in accordance with 43 CFR 3172.
Casing strings will be pressure tested after cementing per 43 CFR 3172 and NMOCD requirements.
FIT/LOT will be performed at the surface and intermediate casing shoes to confirm integrity prior to drilling ahead.
GR will be run from surface to TD.
No cores or additional testing / logging planned.

Section 12:**Variance Requests**

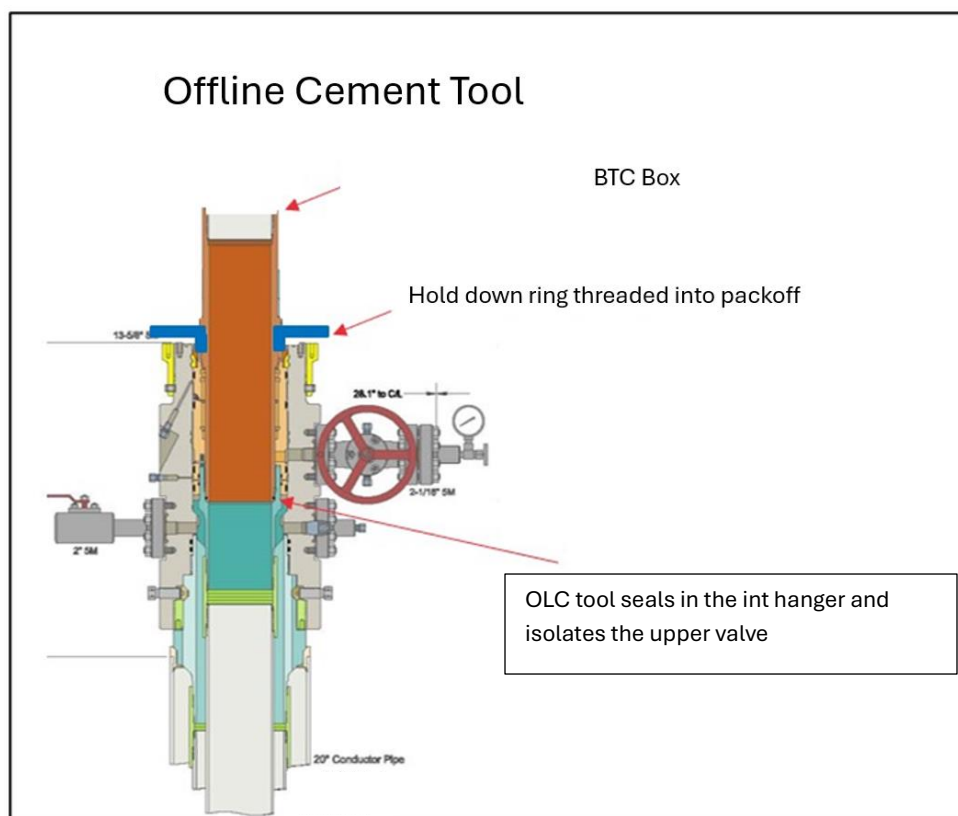
Var #	Type	Description of Request
1	Offline Cementing	Request to perform offline cementing of surface and intermediate casing when strings are set above the Wolfcamp formation. This allows rig operations to continue while cement sets. (see attached plan).
2	Intermediate Second-Stage Bullheading	Request to perform a second-stage cement job on intermediate casing by bullheading through the casing rather than circulating through drill pipe, if needed to achieve planned TOC.
3	Coflex Choke Line	Request to use a flexible choke line from the BOP to the choke manifold in place of rigid steel line, per manufacturer specifications.
4	Break Testing	Request to perform break testing of BOPE components on the intermediate hole section only, rather than full pressure tests, to verify integrity without over-testing.
5	5M Test on 10M BOPE	Request to test a 10,000 psi BOPE system to 5,000 psi for the intermediate hole section (MASP ~500 psi) rather than to full rating. Production section will be tested to 10,000 psi.
6	Annular Test Pressure	Request to test annular preventer to 70% of rated working pressure instead of full working pressure, consistent with API guidance.
7	Multibowl Wellhead	Request to utilize a multibowl wellhead system in lieu of a conventional wellhead.
8		
9		
10		

Section 13:**List of Attachments**

- 1 Directional Plan
- 2 Offline Cementing and Well control attachment
- 3 H2S Contingency Plan

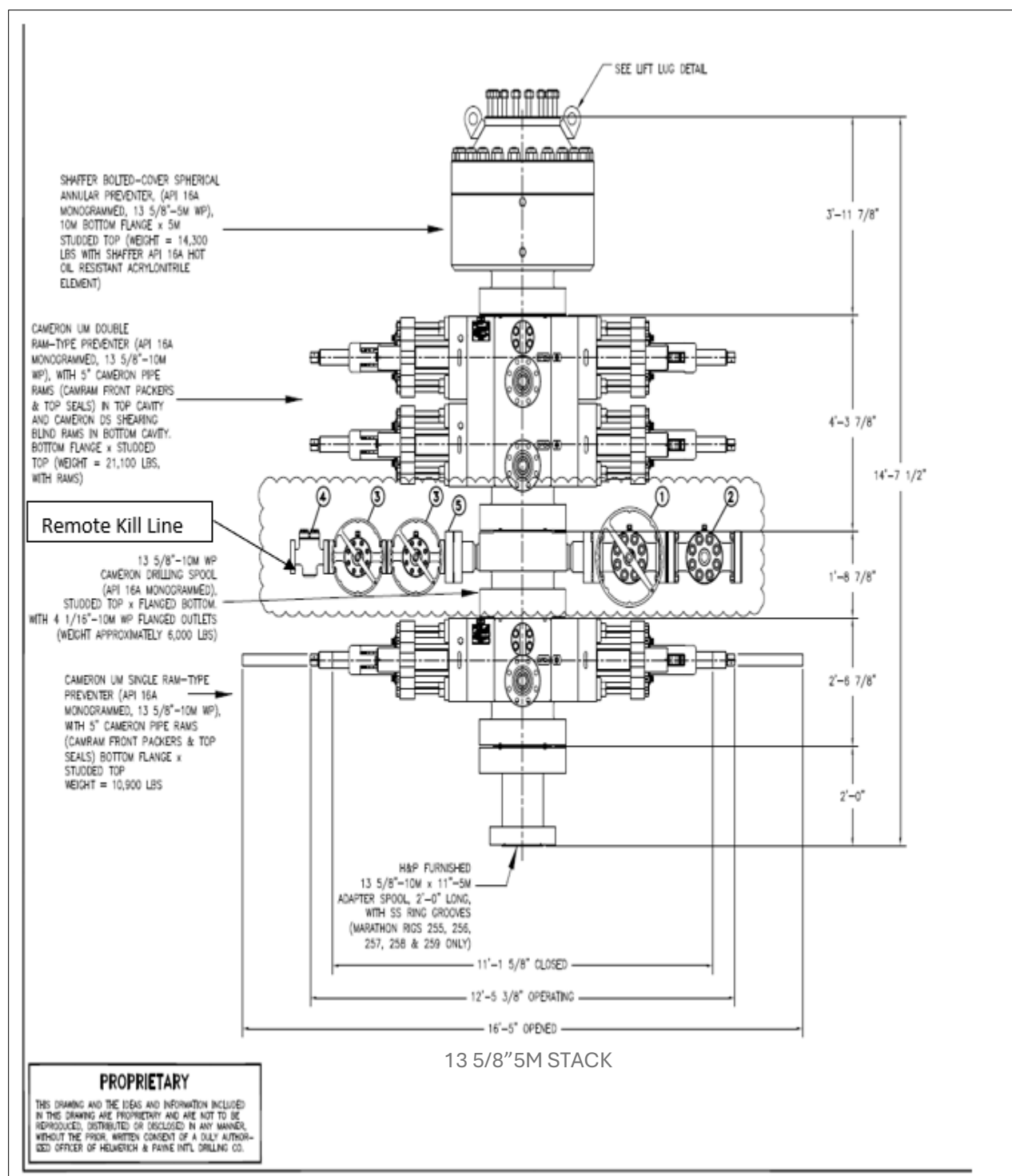
Offline Cementing: Civitas requests a variance for the option to offline cement surface and intermediate casing strings set higher than Wolfcamp formations. To execute offline cement jobs safely, the following precautions and equipment are detailed below:

- For surface casing, no change to cement procedures to offline cement surface casing is anticipated.
- For intermediate casing, during the drilling of the intermediate hole section (all intermediate strings will be TD'd above the WCA top), hole conditions will be monitored and addressed to ensure for a successful casing run. In the event hole conditions change after running casing and/or the well is not in a static state, Civitas Resources can elect to pump the cement job online.
- Equipment for the offline cement job will include a tested/charted 5M working pressure dual manifold cement head system will be used with a standard offline cement tool that is packed off and tested through a port between the upper valve and packoff assembly (diagram below). Returns from the manifold will be taken to an auxiliary mud-gas separator during cement job. The operational scope is described in the following steps: the casing will be landed on the mandrel, pull tested, packoff installed and tested to 80% of collapse of casing on the top and bottom seals, nipple down BOP and install offline cement tool/screw into the top of the packoff assembly. The offline cement tool screws into the top of the packoff assembly. During the cement job, all returns will be taken through the A-Section valve (flanged). An example diagram of the tool is shown below:



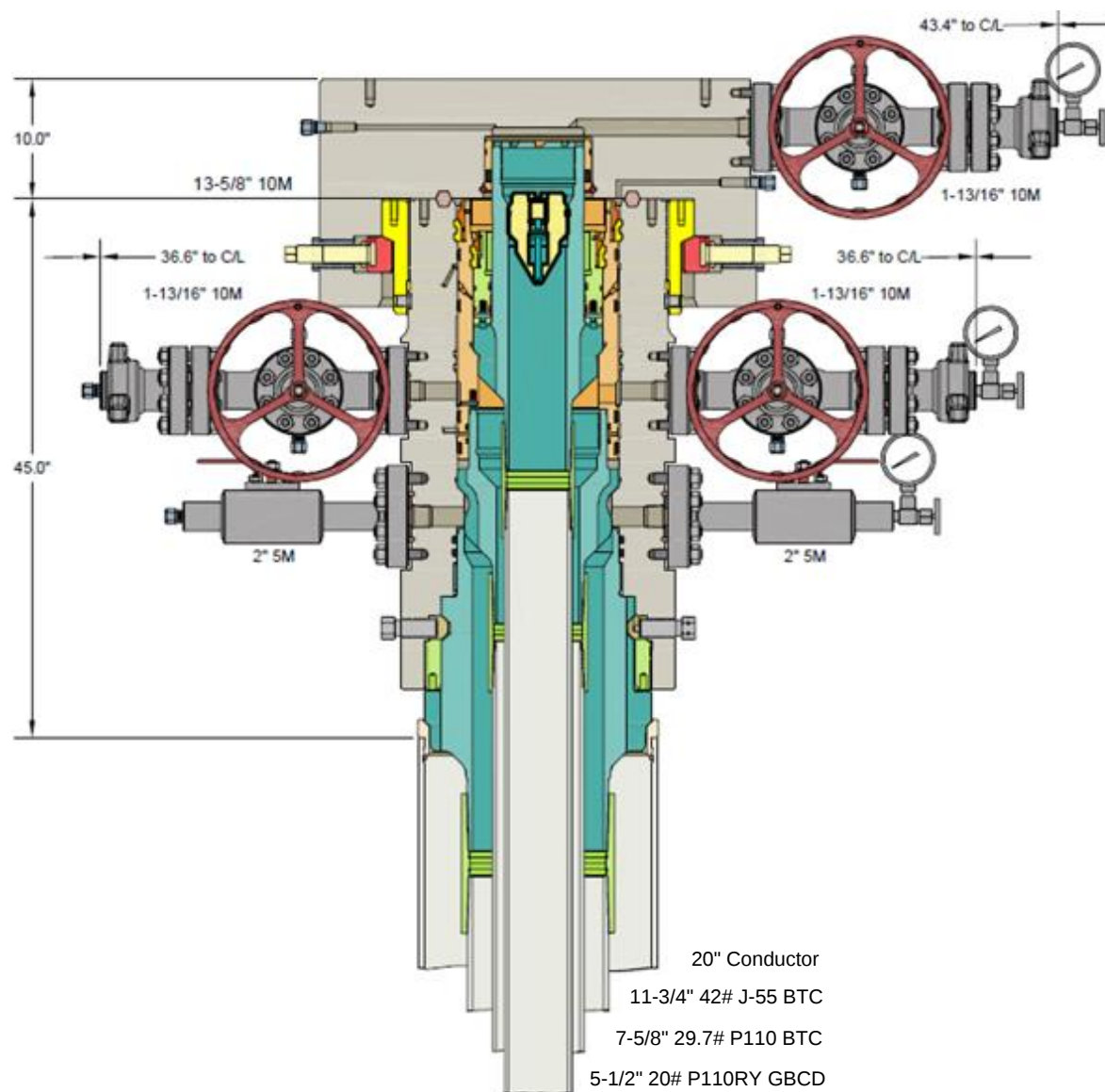
[illegible]

10M BOP Stack



[illegible]

Multi-bowl Wellhead Design





GB Connection Performance Properties Sheet

Rev. 0 (04/29/2025)

ENGINEERING THE RIGHT CONNECTIONS™

Casing: 5.5 OD, 20 ppf
Casing Grade: Benteler P110 RY (95% RBW)

Connection: GB CD Butt 6.300
Coupling Grade: API P-110

PIPE BODY GEOMETRY					
Nominal OD (in.)	5 1/2	Wall Thickness (in.)	0.361	Drift Diameter (in.)	4.653
Nominal Weight (ppf)	20.00	Nominal ID (in.)	4.778	API Alternate Drift Dia. (in.)	N/A
Plain End Weight (ppf)	19.83	Plain End Area (in. ²)	5.828		

PIPE BODY PERFORMANCE**					
Material Specification	Benteler P110 RY (95% RBW)	Min. Yield Str. (psi)	110,000	Min. Ultimate Str. (psi)	125,000
Collapse		Tension		Pressure	
API (psi)	11,106	Pl. End Yield Str. (kips)	641	Min. Int. Yield Press. (psi)	13,720
High Collapse (psi)	-	Torque		Bending	
		Yield Torque (ft-lbs)	74,420	Build Rate to Yield (°/100 ft)	91.7

GB CD Butt 6.300 COUPLING GEOMETRY			
Coupling OD (in.)	6.300	Makeup Loss (in.)	4.2500
Coupling Length (in.)	8.500	Critical Cross-Sect. (in. ²)	8.527

GB CD Butt 6.300 CONNECTION PERFORMANCE RATINGS/EFFICIENCIES					
Material Specification	API P-110	Min. Yield Str. (psi)	110,000	Min. Ultimate Str. (psi)	125,000
Tension		Efficiency		Bending	
Thread Str. (kips)	667	Internal Pressure (%)	100%	Build Rate to Yield (°/100 ft)	80.0
Min. Tension Yield (kips)	891	External Pressure (%)	100%	Yield Torque	
Min. Tension Ult. (kips)	1,013	Tension (%)	100%	Yield Torque (ft-lbs)	31,180
Joint Str. (kips)	667	Compression (%)	100%		
		Ratio of Areas (Cplg/Pipe)	1.46		

MAKEUP TORQUE					
Min. MU Tq. (ft-lbs)	10,000	Max. MU Tq. (ft-lbs)	20,000	Running Tq. (ft-lbs)	See GBC RP
				Max. Operating Tq. (ft-lbs)*	29,620

Units: US Customary (lbm, in., °F, lbf)

1 kip = 1,000 lbs

* See Running Procedure for description and limitations.

See attached: Notes for GB Connection Performance Properties.

GBC Running Procedure (GBC RP): www.gbconnections.com/resources/running-procedures/Blanking Dimensions: www.gbconnections.com/resources/documentation/#blanking-dimensions

Connection yield torque rating based on physical testing or extrapolation therefrom

** Casing properties applicable to Benteler P110 RY (95% RBW) grade with min. yield 110 ksi.

Project: Lea County, NM (NAD 83)
Site: Junior Mint Fed Pad
Well: Junior Mint Fed 156H
Wellbore: OH
Design: Plan #2
Rig: KB 26'



Azimuths to Grid North
True North: -0.52°
Magnetic North: 5.53°

Magnetic Field
Strength: 47061.9nT
Dip Angle: 59.57°
Date: 8/18/2025
Model: HDGM2025

Total Magnetic Correction: 5.53°

PROJECT DETAILS: Lea County, NM (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

Reference Datum: GE 3221' + KB 26' @ 3247.00usft (KB 26')

SHL

RKB Elevation: GE 3221' + KB 26' @ 3247.00usft (KB 26')

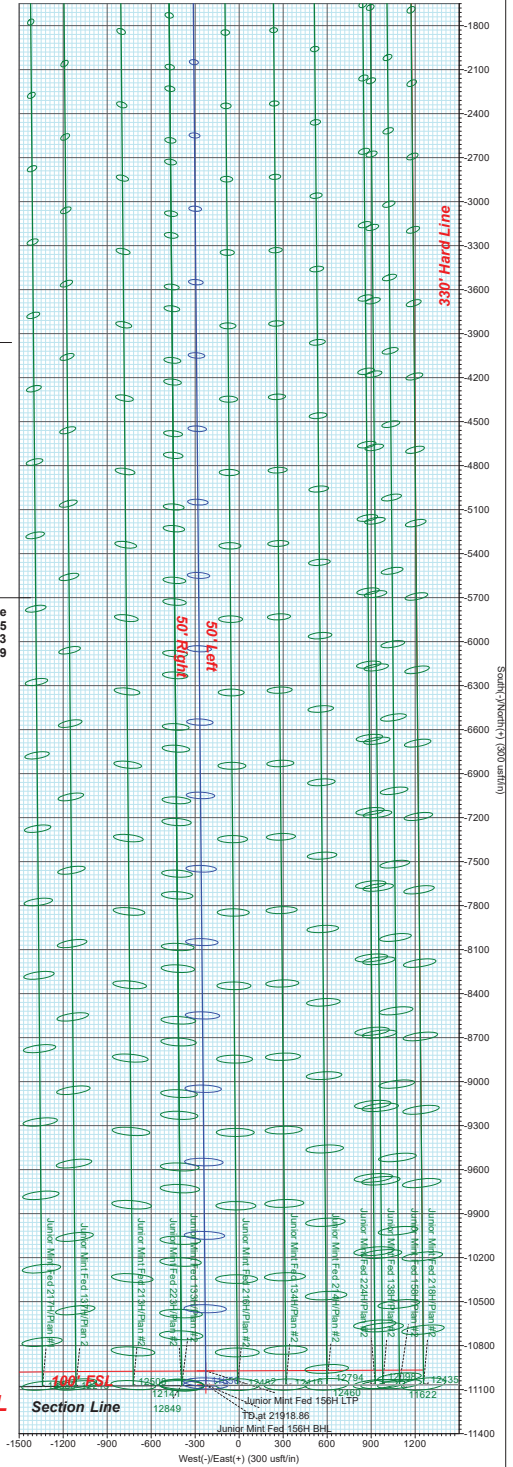
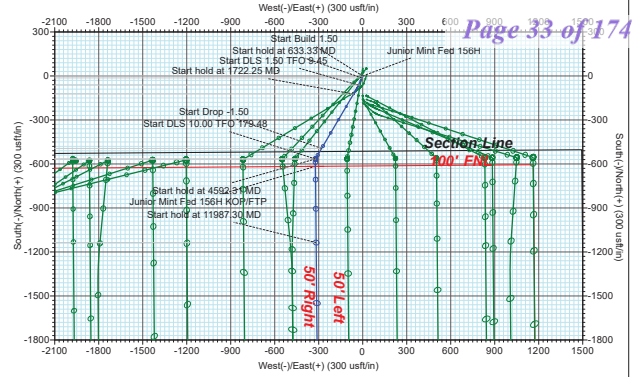
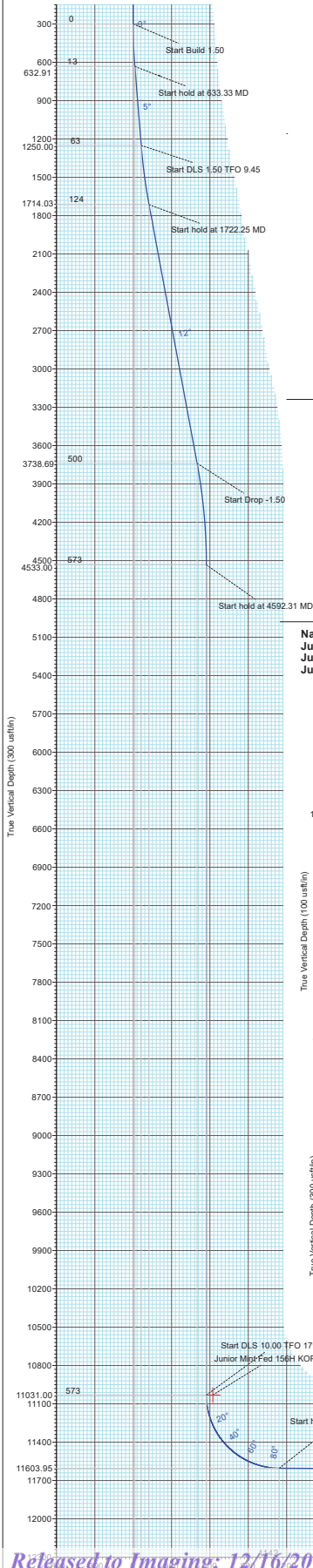
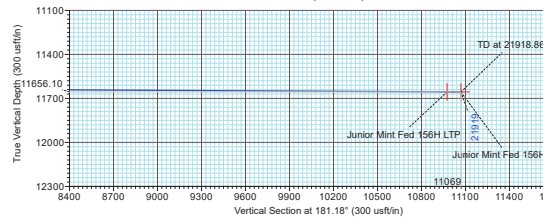
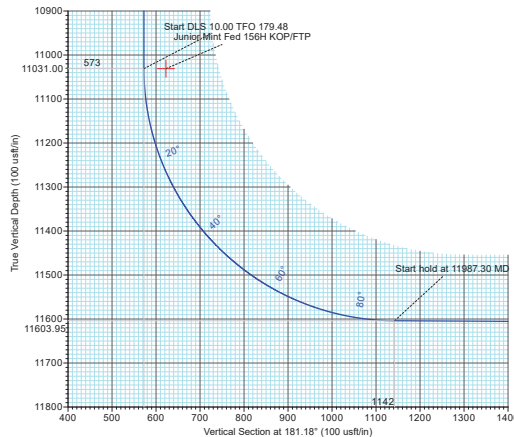
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	415701.00	845189.00	32.1390339	-103.3516662	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
633.33	5.00	204.87	632.91	-13.19	-6.11	1.50	204.87	13.31	
1252.78	5.00	204.87	1250.00	-62.17	-28.82	0.00	0.00	62.75	
1722.25	12.00	210.43	1714.03	-122.30	-62.18	1.50	9.45	124.15	
3792.16	12.00	210.43	3738.69	-494.06	-280.16	0.00	0.00	499.72	
4592.31	0.00	0.00	4533.00	-566.06	-322.45	1.50	180.00	572.58	
11090.31	0.00	0.00	11031.00	-566.06	-322.45	0.00	0.00	572.58	
11987.30	89.70	179.48	11603.95	-1135.99	-317.27	10.00	179.48	1142.28	
21918.86	89.70	179.48	11656.10	-11067.00	-227.00	0.00	0.00	11069.33	

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Junior Mint Fed 156H KOP/FTP	11031.00	-616.00	-322.00	415085.00	844867.00	32.1373489	-103.3527245
Junior Mint Fed 156H LTP	11655.70	-10972.00	-228.00	404729.00	844961.00	32.1088826	-103.3527253
Junior Mint Fed 156H BHL	11656.10	-11067.00	-227.00	404634.00	844962.00	32.1086214	-103.3527249



Do Not Cross SL

Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 156H

OH

Plan: Plan #2



Standard Plan Report

18 August, 2025

Total Report Version 1.80

COMPASS 5000.16 Build 97

ATTENTION

All annotation callouts related to distances are uncertified and are approximated footages using available software and measurement tools. They should not be mistaken as an official record, which can only be obtained via a certified land surveyor.

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Project	Lea County, NM (NAD 83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Junior Mint Fed Pad				
Site Position:		Northing:	414,635.00 usft	Latitude:	32.1361627
From:	Map	Easting:	842,835.00 usft	Longitude:	-103.3593016
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Junior Mint Fed 156H					
Well Position	+N/-S	0.00 usft	Northing:	415,701.00 usft	Latitude:	32.1390339
	+E/-W	0.00 usft	Easting:	845,189.00 usft	Longitude:	-103.3516662
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,221.00 usft
Grid Convergence:		0.52 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2025	8/18/2025	6.05	59.57	47,061.90000000

Design	Plan #2				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:		Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
		0.00	0.00	0.00	181.18

Survey Tool Program	Date	8/12/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	21,918.71	Plan #2 (OH)	MWD+HRGM+SAG+FDIF OWSG	MWD + HRGM + SAG + FDIR Correction	

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
633.33	5.00	204.87	632.91	-13.19	-6.11	1.50	1.50	0.00	204.87	
1,252.78	5.00	204.87	1,250.00	-62.17	-28.82	0.00	0.00	0.00	0.00	
1,722.25	12.00	210.43	1,714.03	-122.90	-62.18	1.50	1.49	1.18	9.45	
3,792.16	12.00	210.43	3,738.69	-494.06	-280.16	0.00	0.00	0.00	0.00	
4,592.31	0.00	0.00	4,533.00	-566.06	-322.45	1.50	-1.50	0.00	180.00	
11,090.31	0.00	0.00	11,031.00	-566.06	-322.45	0.00	0.00	0.00	0.00	
11,987.30	89.70	179.48	11,603.95	-1,135.99	-317.27	10.00	10.00	20.01	179.48	
21,918.86	89.70	179.48	11,656.10	-11,067.00	-227.00	0.00	0.00	0.00	0.00	

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
				+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longitude (°)				
0.00	0.00	0.00	0.00	0.00	0.00	415,701.00	845,189.00	32.1390339	-103.3516662	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	415,701.00	845,189.00	32.1390339	-103.3516662	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	415,701.00	845,189.00	32.1390339	-103.3516662	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	415,701.00	845,189.00	32.1390339	-103.3516662	0.00	0.00	0.00	0.00
400.00	1.50	204.87	399.99	-1.19	-0.55	415,699.81	845,188.45	32.1390307	-103.3516680	1.20	1.50	1.50	0.00
500.00	3.00	204.87	499.91	-4.75	-2.20	415,696.25	845,186.80	32.1390209	-103.3516735	4.79	1.50	1.50	0.00
600.00	4.50	204.87	599.69	-10.68	-4.95	415,690.32	845,184.05	32.1390047	-103.3516825	10.78	1.50	1.50	0.00
633.33	5.00	204.87	632.91	-13.19	-6.11	415,687.81	845,182.89	32.1389979	-103.3516864	13.31	1.50	1.50	0.00
700.00	5.00	204.87	699.32	-18.46	-8.56	415,682.54	845,180.44	32.1389834	-103.3516944	18.63	0.00	0.00	0.00
800.00	5.00	204.87	798.94	-26.37	-12.22	415,674.63	845,176.78	32.1389618	-103.3517065	26.61	0.00	0.00	0.00
900.00	5.00	204.87	898.56	-34.27	-15.89	415,666.73	845,173.11	32.1389401	-103.3517186	34.59	0.00	0.00	0.00
1,000.00	5.00	204.87	998.18	-42.18	-19.55	415,658.82	845,169.45	32.1389185	-103.3517306	42.57	0.00	0.00	0.00
1,100.00	5.00	204.87	1,097.80	-50.09	-23.22	415,650.91	845,165.78	32.1388969	-103.3517427	50.56	0.00	0.00	0.00
1,200.00	5.00	204.87	1,197.42	-58.00	-26.88	415,643.00	845,162.12	32.1388752	-103.3517548	58.54	0.00	0.00	0.00
1,252.78	5.00	204.87	1,250.00	-62.17	-28.82	415,638.83	845,160.18	32.1388638	-103.3517611	62.75	0.00	0.00	0.00
1,300.00	5.70	206.04	1,297.01	-66.14	-30.71	415,634.86	845,158.29	32.1388529	-103.3517674	66.76	1.50	1.48	2.48
1,400.00	7.19	207.77	1,396.38	-76.14	-35.81	415,624.86	845,153.19	32.1388256	-103.3517841	76.86	1.50	1.49	1.73
1,500.00	8.68	208.91	1,495.42	-88.28	-42.37	415,612.72	845,146.63	32.1387924	-103.3518057	89.14	1.50	1.49	1.14
1,600.00	10.17	209.71	1,594.07	-102.56	-50.39	415,598.44	845,138.61	32.1387533	-103.3518320	103.57	1.50	1.49	0.81
1,700.00	11.67	210.31	1,692.25	-118.96	-59.88	415,582.04	845,129.12	32.1387085	-103.3518631	120.17	1.50	1.50	0.60
1,722.25	12.00	210.43	1,714.03	-122.90	-62.18	415,578.10	845,126.82	32.1386977	-103.3518707	124.15	1.50	1.50	0.51
1,800.00	12.00	210.43	1,790.08	-136.84	-70.37	415,564.16	845,118.63	32.1386596	-103.3518976	138.26	0.00	0.00	0.00
1,900.00	12.00	210.43	1,887.89	-154.77	-80.90	415,546.23	845,108.10	32.1386106	-103.3519321	156.40	0.00	0.00	0.00
2,000.00	12.00	210.43	1,985.71	-172.70	-91.43	415,528.30	845,097.57	32.1385616	-103.3519667	174.55	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,100.00	12.00	210.43	2,083.52	-190.63	-101.96	415,510.37	845,087.04	32.1385125	-103.3520012	192.69	0.00	0.00	0.00
2,200.00	12.00	210.43	2,181.34	-208.56	-112.50	415,492.44	845,076.50	32.1384635	-103.3520358	210.84	0.00	0.00	0.00
2,300.00	12.00	210.43	2,279.15	-226.50	-123.03	415,474.50	845,065.97	32.1384145	-103.3520703	228.98	0.00	0.00	0.00
2,400.00	12.00	210.43	2,376.96	-244.43	-133.56	415,456.57	845,055.44	32.1383655	-103.3521048	247.13	0.00	0.00	0.00
2,500.00	12.00	210.43	2,474.78	-262.36	-144.09	415,438.64	845,044.91	32.1383165	-103.3521394	265.27	0.00	0.00	0.00
2,600.00	12.00	210.43	2,572.59	-280.29	-154.62	415,420.71	845,034.38	32.1382674	-103.3521739	283.41	0.00	0.00	0.00
2,700.00	12.00	210.43	2,670.41	-298.22	-165.15	415,402.78	845,023.85	32.1382184	-103.3522085	301.56	0.00	0.00	0.00
2,800.00	12.00	210.43	2,768.22	-316.15	-175.68	415,384.85	845,013.32	32.1381694	-103.3522430	319.70	0.00	0.00	0.00
2,900.00	12.00	210.43	2,866.03	-334.08	-186.21	415,366.92	845,002.79	32.1381204	-103.3522776	337.85	0.00	0.00	0.00
3,000.00	12.00	210.43	2,963.85	-352.01	-196.74	415,348.99	844,992.26	32.1380714	-103.3523121	355.99	0.00	0.00	0.00
3,100.00	12.00	210.43	3,061.66	-369.95	-207.27	415,331.05	844,981.73	32.1380223	-103.3523467	374.14	0.00	0.00	0.00
3,200.00	12.00	210.43	3,159.48	-387.88	-217.80	415,313.12	844,971.20	32.1379733	-103.3523812	392.28	0.00	0.00	0.00
3,300.00	12.00	210.43	3,257.29	-405.81	-228.33	415,295.19	844,960.67	32.1379243	-103.3524158	410.42	0.00	0.00	0.00
3,400.00	12.00	210.43	3,355.10	-423.74	-238.87	415,277.26	844,950.13	32.1378753	-103.3524503	428.57	0.00	0.00	0.00
3,500.00	12.00	210.43	3,452.92	-441.67	-249.40	415,259.33	844,939.60	32.1378262	-103.3524849	446.71	0.00	0.00	0.00
3,600.00	12.00	210.43	3,550.73	-459.60	-259.93	415,241.40	844,929.07	32.1377772	-103.3525194	464.86	0.00	0.00	0.00
3,700.00	12.00	210.43	3,648.55	-477.53	-270.46	415,223.47	844,918.54	32.1377282	-103.3525539	483.00	0.00	0.00	0.00
3,792.16	12.00	210.43	3,738.69	-494.06	-280.16	415,206.94	844,908.84	32.1376830	-103.3525885	499.72	0.00	0.00	0.00
3,800.00	11.88	210.43	3,746.36	-495.46	-280.99	415,205.54	844,908.01	32.1376792	-103.3525885	501.14	1.50	-1.50	0.00
3,900.00	10.38	210.43	3,844.48	-512.11	-290.76	415,188.89	844,898.24	32.1376337	-103.3526206	517.99	1.50	-1.50	0.00
4,000.00	8.88	210.43	3,943.06	-526.54	-299.24	415,174.46	844,889.76	32.1375942	-103.3526484	532.59	1.50	-1.50	0.00
4,100.00	7.38	210.43	4,042.05	-538.74	-306.41	415,162.26	844,882.59	32.1375609	-103.3526719	544.94	1.50	-1.50	0.00
4,200.00	5.88	210.43	4,141.38	-548.70	-312.26	415,152.30	844,876.74	32.1375336	-103.3526911	555.02	1.50	-1.50	0.00
4,300.00	4.38	210.43	4,240.98	-556.42	-316.79	415,144.58	844,872.21	32.1375125	-103.3527059	562.83	1.50	-1.50	0.00
4,400.00	2.88	210.43	4,340.77	-561.89	-320.00	415,139.11	844,869.00	32.1374976	-103.3527165	568.36	1.50	-1.50	0.00
4,500.00	1.38	210.43	4,440.70	-565.10	-321.89	415,135.90	844,867.11	32.1374888	-103.3527226	571.61	1.50	-1.50	0.00
4,592.31	0.00	0.00	4,533.00	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	1.50	-1.50	0.00
4,600.00	0.00	0.00	4,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
4,700.00	0.00	0.00	4,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
4,800.00	0.00	0.00	4,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
4,900.00	0.00	0.00	4,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,000.00	0.00	0.00	4,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,100.00	0.00	0.00	5,040.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,200.00	0.00	0.00	5,140.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,300.00	0.00	0.00	5,240.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,400.00	0.00	0.00	5,340.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,500.00	0.00	0.00	5,440.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Dogleg Section (usft)	Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,600.00	0.00	0.00	5,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,700.00	0.00	0.00	5,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,800.00	0.00	0.00	5,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
5,900.00	0.00	0.00	5,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,000.00	0.00	0.00	5,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,100.00	0.00	0.00	6,040.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,200.00	0.00	0.00	6,140.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,300.00	0.00	0.00	6,240.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,400.00	0.00	0.00	6,340.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,500.00	0.00	0.00	6,440.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,600.00	0.00	0.00	6,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,700.00	0.00	0.00	6,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,800.00	0.00	0.00	6,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
6,900.00	0.00	0.00	6,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,000.00	0.00	0.00	6,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,100.00	0.00	0.00	7,040.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,200.00	0.00	0.00	7,140.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,300.00	0.00	0.00	7,240.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,400.00	0.00	0.00	7,340.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,500.00	0.00	0.00	7,440.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,600.00	0.00	0.00	7,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,700.00	0.00	0.00	7,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,800.00	0.00	0.00	7,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
7,900.00	0.00	0.00	7,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,000.00	0.00	0.00	7,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,100.00	0.00	0.00	8,040.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,200.00	0.00	0.00	8,140.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,300.00	0.00	0.00	8,240.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,400.00	0.00	0.00	8,340.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,500.00	0.00	0.00	8,440.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,600.00	0.00	0.00	8,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,700.00	0.00	0.00	8,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,800.00	0.00	0.00	8,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
8,900.00	0.00	0.00	8,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,000.00	0.00	0.00	8,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,100.00	0.00	0.00	9,040.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,200.00	0.00	0.00	9,140.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,300.00	0.00	0.00	9,240.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,400.00	0.00	0.00	9,340.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,500.00	0.00	0.00	9,440.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,600.00	0.00	0.00	9,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,700.00	0.00	0.00	9,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,800.00	0.00	0.00	9,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
9,900.00	0.00	0.00	9,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,000.00	0.00	0.00	9,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,100.00	0.00	0.00	10,040.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,200.00	0.00	0.00	10,140.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,300.00	0.00	0.00	10,240.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,400.00	0.00	0.00	10,340.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,500.00	0.00	0.00	10,440.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,600.00	0.00	0.00	10,540.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,700.00	0.00	0.00	10,640.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,800.00	0.00	0.00	10,740.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
10,900.00	0.00	0.00	10,840.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
11,000.00	0.00	0.00	10,940.69	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
11,090.31	0.00	0.00	11,031.00	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	0.00	0.00	0.00
11,090.73	0.04	179.48	11,031.42	-566.06	-322.45	415,134.94	844,866.55	32.1374862	-103.3527245	572.58	10.00	10.00	0.00
Junior Mint Fed 156H KOP/FTP													
11,100.00	0.97	179.48	11,040.69	-566.14	-322.45	415,134.86	844,866.55	32.1374860	-103.3527245	572.66	10.00	10.00	0.00
11,150.00	5.97	179.48	11,090.58	-569.17	-322.42	415,131.83	844,866.58	32.1374776	-103.3527245	575.69	10.00	10.00	0.00
11,200.00	10.97	179.48	11,140.02	-576.53	-322.35	415,124.47	844,866.65	32.1374574	-103.3527245	583.04	10.00	10.00	0.00
11,250.00	15.97	179.48	11,188.63	-588.17	-322.25	415,112.83	844,866.75	32.1374254	-103.3527245	594.68	10.00	10.00	0.00
11,300.00	20.97	179.48	11,236.04	-604.00	-322.11	415,097.00	844,866.89	32.1373819	-103.3527245	610.51	10.00	10.00	0.00
11,350.00	25.97	179.48	11,281.89	-623.91	-321.92	415,077.09	844,867.08	32.1373272	-103.3527245	630.41	10.00	10.00	0.00
11,400.00	30.97	179.48	11,325.83	-647.73	-321.71	415,053.27	844,867.29	32.1372617	-103.3527245	654.22	10.00	10.00	0.00
11,450.00	35.97	179.48	11,367.53	-675.30	-321.46	415,025.70	844,867.54	32.1371859	-103.3527245	681.78	10.00	10.00	0.00
11,500.00	40.97	179.48	11,406.66	-706.39	-321.17	414,994.61	844,867.83	32.1371004	-103.3527245	712.86	10.00	10.00	0.00
11,550.00	45.97	179.48	11,442.94	-740.78	-320.86	414,960.22	844,868.14	32.1370059	-103.3527245	747.23	10.00	10.00	0.00
11,600.00	50.97	179.48	11,476.08	-778.20	-320.52	414,922.80	844,868.48	32.1369031	-103.3527245	784.63	10.00	10.00	0.00
11,650.00	55.97	179.48	11,505.83	-818.36	-320.16	414,882.64	844,868.84	32.1367927	-103.3527245	824.78	10.00	10.00	0.00
11,700.00	60.97	179.48	11,531.97	-860.96	-319.77	414,840.04	844,869.23	32.1366756	-103.3527245	867.36	10.00	10.00	0.00
11,750.00	65.97	179.48	11,554.30	-905.68	-319.36	414,795.32	844,869.64	32.1365526	-103.3527245	912.06	10.00	10.00	0.00
11,800.00	70.97	179.48	11,572.64	-952.17	-318.94	414,748.83	844,870.06	32.1364248	-103.3527245	958.54	10.00	10.00	0.00
11,850.00	75.97	179.48	11,586.86	-1,000.09	-318.50	414,700.91	844,870.50	32.1362931	-103.3527245	1,006.44	10.00	10.00	0.00
11,900.00	80.97	179.48	11,596.86	-1,049.06	-318.06	414,651.94	844,870.94	32.1361585	-103.3527245	1,055.39	10.00	10.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,950.00	85.97	179.48	11,602.54	-1,098.72	-317.61	414,602.28	844,871.39	32.1360220	-103.3527245	1,105.03	10.00	10.00	0.00
11,987.30	89.70	179.48	11,603.95	-1,135.99	-317.27	414,565.01	844,871.73	32.1359196	-103.3527245	1,142.28	10.00	10.00	0.00
12,000.00	89.70	179.48	11,604.02	-1,148.68	-317.15	414,552.32	844,871.85	32.1358847	-103.3527245	1,154.97	0.00	0.00	0.00
12,100.00	89.70	179.48	11,604.54	-1,248.68	-316.25	414,452.32	844,872.75	32.1356098	-103.3527245	1,254.93	0.00	0.00	0.00
12,200.00	89.70	179.48	11,605.07	-1,348.67	-315.34	414,352.33	844,873.66	32.1353350	-103.3527245	1,354.88	0.00	0.00	0.00
12,300.00	89.70	179.48	11,605.59	-1,448.67	-314.43	414,252.33	844,874.57	32.1350601	-103.3527245	1,454.84	0.00	0.00	0.00
12,400.00	89.70	179.48	11,606.12	-1,548.66	-313.52	414,152.34	844,875.48	32.1347852	-103.3527245	1,554.79	0.00	0.00	0.00
12,500.00	89.70	179.48	11,606.64	-1,648.66	-312.61	414,052.34	844,876.39	32.1345104	-103.3527245	1,654.75	0.00	0.00	0.00
12,600.00	89.70	179.48	11,607.17	-1,748.65	-311.70	413,952.35	844,877.30	32.1342355	-103.3527246	1,754.70	0.00	0.00	0.00
12,700.00	89.70	179.48	11,607.69	-1,848.65	-310.79	413,852.35	844,878.21	32.1339606	-103.3527246	1,854.65	0.00	0.00	0.00
12,800.00	89.70	179.48	11,608.22	-1,948.64	-309.88	413,752.36	844,879.12	32.1336858	-103.3527246	1,954.61	0.00	0.00	0.00
12,900.00	89.70	179.48	11,608.74	-2,048.64	-308.97	413,652.36	844,880.03	32.1334109	-103.3527246	2,054.56	0.00	0.00	0.00
13,000.00	89.70	179.48	11,609.27	-2,148.63	-308.06	413,552.37	844,880.94	32.1331361	-103.3527246	2,154.52	0.00	0.00	0.00
13,100.00	89.70	179.48	11,609.79	-2,248.62	-307.16	413,452.38	844,881.84	32.1328612	-103.3527246	2,254.47	0.00	0.00	0.00
13,200.00	89.70	179.48	11,610.32	-2,348.62	-306.25	413,352.38	844,882.75	32.1325863	-103.3527246	2,354.43	0.00	0.00	0.00
13,300.00	89.70	179.48	11,610.84	-2,448.61	-305.34	413,252.39	844,883.66	32.1323115	-103.3527246	2,454.38	0.00	0.00	0.00
13,400.00	89.70	179.48	11,611.37	-2,548.61	-304.43	413,152.39	844,884.57	32.1320366	-103.3527246	2,554.34	0.00	0.00	0.00
13,500.00	89.70	179.48	11,611.89	-2,648.60	-303.52	413,052.40	844,885.48	32.1317618	-103.3527246	2,654.29	0.00	0.00	0.00
13,600.00	89.70	179.48	11,612.42	-2,748.60	-302.61	412,952.40	844,886.39	32.1314869	-103.3527246	2,754.25	0.00	0.00	0.00
13,700.00	89.70	179.48	11,612.94	-2,848.59	-301.70	412,852.41	844,887.30	32.1312120	-103.3527246	2,854.20	0.00	0.00	0.00
13,800.00	89.70	179.48	11,613.47	-2,948.59	-300.79	412,752.41	844,888.21	32.1309372	-103.3527246	2,954.15	0.00	0.00	0.00
13,900.00	89.70	179.48	11,613.99	-3,048.58	-299.88	412,652.42	844,889.12	32.1306623	-103.3527246	3,054.11	0.00	0.00	0.00
14,000.00	89.70	179.48	11,614.52	-3,148.57	-298.98	412,552.43	844,890.02	32.1303874	-103.3527246	3,154.06	0.00	0.00	0.00
14,100.00	89.70	179.48	11,615.04	-3,248.57	-298.07	412,452.43	844,890.93	32.1301126	-103.3527246	3,254.02	0.00	0.00	0.00
14,200.00	89.70	179.48	11,615.57	-3,348.56	-297.16	412,352.44	844,891.84	32.1298377	-103.3527246	3,353.97	0.00	0.00	0.00
14,300.00	89.70	179.48	11,616.09	-3,448.56	-296.25	412,252.44	844,892.75	32.1295629	-103.3527246	3,453.93	0.00	0.00	0.00
14,400.00	89.70	179.48	11,616.62	-3,548.55	-295.34	412,152.45	844,893.66	32.1292880	-103.3527246	3,553.88	0.00	0.00	0.00
14,500.00	89.70	179.48	11,617.14	-3,648.55	-294.43	412,052.45	844,894.57	32.1290131	-103.3527246	3,653.84	0.00	0.00	0.00
14,600.00	89.70	179.48	11,617.67	-3,748.54	-293.52	411,952.46	844,895.48	32.1287383	-103.3527246	3,753.79	0.00	0.00	0.00
14,700.00	89.70	179.48	11,618.19	-3,848.54	-292.61	411,852.46	844,896.39	32.1284634	-103.3527246	3,853.75	0.00	0.00	0.00
14,800.00	89.70	179.48	11,618.72	-3,948.53	-291.70	411,752.47	844,897.30	32.1281885	-103.3527246	3,953.70	0.00	0.00	0.00
14,900.00	89.70	179.48	11,619.24	-4,048.53	-290.80	411,652.47	844,898.20	32.1279137	-103.3527247	4,053.66	0.00	0.00	0.00
15,000.00	89.70	179.48	11,619.77	-4,148.52	-289.89	411,552.48	844,899.11	32.1276388	-103.3527247	4,153.61	0.00	0.00	0.00
15,100.00	89.70	179.48	11,620.29	-4,248.51	-288.98	411,452.49	844,900.02	32.1273640	-103.3527247	4,253.56	0.00	0.00	0.00
15,200.00	89.70	179.48	11,620.82	-4,348.51	-288.07	411,352.49	844,900.93	32.1270891	-103.3527247	4,353.52	0.00	0.00	0.00
15,300.00	89.70	179.48	11,621.34	-4,448.50	-287.16	411,252.50	844,901.84	32.1268142	-103.3527247	4,453.47	0.00	0.00	0.00
15,400.00	89.70	179.48	11,621.87	-4,548.50	-286.25	411,152.50	844,902.75	32.1265394	-103.3527247	4,553.43	0.00	0.00	0.00
15,500.00	89.70	179.48	11,622.40	-4,648.49	-285.34	411,052.51	844,903.66	32.1262645	-103.3527247	4,653.38	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,600.00	89.70	179.48	11,622.92	-4,748.49	-284.43	410,952.51	844,904.57	32.1259897	-103.3527247	4,753.34	0.00	0.00	0.00
15,700.00	89.70	179.48	11,623.45	-4,848.48	-283.52	410,852.52	844,905.48	32.1257148	-103.3527247	4,853.29	0.00	0.00	0.00
15,800.00	89.70	179.48	11,623.97	-4,948.48	-282.62	410,752.52	844,906.38	32.1254399	-103.3527247	4,953.25	0.00	0.00	0.00
15,900.00	89.70	179.48	11,624.50	-5,048.47	-281.71	410,652.53	844,907.29	32.1251651	-103.3527247	5,053.20	0.00	0.00	0.00
16,000.00	89.70	179.48	11,625.02	-5,148.46	-280.80	410,552.54	844,908.20	32.1248902	-103.3527247	5,153.16	0.00	0.00	0.00
16,100.00	89.70	179.48	11,625.55	-5,248.46	-279.89	410,452.54	844,909.11	32.1246153	-103.3527247	5,253.11	0.00	0.00	0.00
16,200.00	89.70	179.48	11,626.07	-5,348.45	-278.98	410,352.55	844,910.02	32.1243405	-103.3527247	5,353.06	0.00	0.00	0.00
16,300.00	89.70	179.48	11,626.60	-5,448.45	-278.07	410,252.55	844,910.93	32.1240656	-103.3527247	5,453.02	0.00	0.00	0.00
16,400.00	89.70	179.48	11,627.12	-5,548.44	-277.16	410,152.56	844,911.84	32.1237908	-103.3527247	5,552.97	0.00	0.00	0.00
16,500.00	89.70	179.48	11,627.65	-5,648.44	-276.25	410,052.56	844,912.75	32.1235159	-103.3527247	5,652.93	0.00	0.00	0.00
16,600.00	89.70	179.48	11,628.17	-5,748.43	-275.34	409,952.57	844,913.66	32.1232410	-103.3527247	5,752.88	0.00	0.00	0.00
16,700.00	89.70	179.48	11,628.70	-5,848.43	-274.44	409,852.57	844,914.56	32.1229662	-103.3527247	5,852.84	0.00	0.00	0.00
16,800.00	89.70	179.48	11,629.22	-5,948.42	-273.53	409,752.58	844,915.47	32.1226913	-103.3527247	5,952.79	0.00	0.00	0.00
16,900.00	89.70	179.48	11,629.75	-6,048.42	-272.62	409,652.58	844,916.38	32.1224164	-103.3527247	6,052.75	0.00	0.00	0.00
17,000.00	89.70	179.48	11,630.27	-6,148.41	-271.71	409,552.59	844,917.29	32.1221416	-103.3527247	6,152.70	0.00	0.00	0.00
17,100.00	89.70	179.48	11,630.80	-6,248.40	-270.80	409,452.60	844,918.20	32.1218667	-103.3527247	6,252.66	0.00	0.00	0.00
17,200.00	89.70	179.48	11,631.32	-6,348.40	-269.89	409,352.60	844,919.11	32.1215919	-103.3527247	6,352.61	0.00	0.00	0.00
17,300.00	89.70	179.48	11,631.85	-6,448.39	-268.98	409,252.61	844,920.02	32.1213170	-103.3527247	6,452.56	0.00	0.00	0.00
17,400.00	89.70	179.48	11,632.37	-6,548.39	-268.07	409,152.61	844,920.93	32.1210421	-103.3527248	6,552.52	0.00	0.00	0.00
17,500.00	89.70	179.48	11,632.90	-6,648.38	-267.16	409,052.62	844,921.84	32.1207673	-103.3527248	6,652.47	0.00	0.00	0.00
17,600.00	89.70	179.48	11,633.42	-6,748.38	-266.25	408,952.62	844,922.75	32.1204924	-103.3527248	6,752.43	0.00	0.00	0.00
17,700.00	89.70	179.48	11,633.95	-6,848.37	-265.35	408,852.63	844,923.65	32.1202175	-103.3527248	6,852.38	0.00	0.00	0.00
17,800.00	89.70	179.48	11,634.47	-6,948.37	-264.44	408,752.63	844,924.56	32.1199427	-103.3527248	6,952.34	0.00	0.00	0.00
17,900.00	89.70	179.48	11,635.00	-7,048.36	-263.53	408,652.64	844,925.47	32.1196678	-103.3527248	7,052.29	0.00	0.00	0.00
18,000.00	89.70	179.48	11,635.52	-7,148.35	-262.62	408,552.65	844,926.38	32.1193930	-103.3527248	7,152.25	0.00	0.00	0.00
18,100.00	89.70	179.48	11,636.05	-7,248.35	-261.71	408,452.65	844,927.29	32.1191181	-103.3527248	7,252.20	0.00	0.00	0.00
18,200.00	89.70	179.48	11,636.57	-7,348.34	-260.80	408,352.66	844,928.20	32.1188432	-103.3527248	7,352.16	0.00	0.00	0.00
18,300.00	89.70	179.48	11,637.10	-7,448.34	-259.89	408,252.66	844,929.11	32.1185684	-103.3527248	7,452.11	0.00	0.00	0.00
18,400.00	89.70	179.48	11,637.62	-7,548.33	-258.98	408,152.67	844,930.02	32.1182935	-103.3527248	7,552.07	0.00	0.00	0.00
18,500.00	89.70	179.48	11,638.15	-7,648.33	-258.07	408,052.67	844,930.93	32.1180186	-103.3527248	7,652.02	0.00	0.00	0.00
18,600.00	89.70	179.48	11,638.67	-7,748.32	-257.17	407,952.68	844,931.83	32.1177438	-103.3527248	7,751.97	0.00	0.00	0.00
18,700.00	89.70	179.48	11,639.20	-7,848.32	-256.26	407,852.68	844,932.74	32.1174689	-103.3527248	7,851.93	0.00	0.00	0.00
18,800.00	89.70	179.48	11,639.72	-7,948.31	-255.35	407,752.69	844,933.65	32.1171941	-103.3527248	7,951.88	0.00	0.00	0.00
18,900.00	89.70	179.48	11,640.25	-8,048.31	-254.44	407,652.70	844,934.56	32.1169192	-103.3527248	8,051.84	0.00	0.00	0.00
19,000.00	89.70	179.48	11,640.77	-8,148.30	-253.53	407,552.70	844,935.47	32.1166443	-103.3527248	8,151.79	0.00	0.00	0.00
19,100.00	89.70	179.48	11,641.30	-8,248.29	-252.62	407,452.71	844,936.38	32.1163695	-103.3527248	8,251.75	0.00	0.00	0.00
19,200.00	89.70	179.48	11,641.82	-8,348.29	-251.71	407,352.71	844,937.29	32.1160946	-103.3527248	8,351.70	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,300.00	89.70	179.48	11,642.35	-8,448.28	-250.80	407,252.72	844,938.20	32.1158197	-103.3527248	8,451.66	0.00	0.00	0.00
19,400.00	89.70	179.48	11,642.87	-8,548.28	-249.89	407,152.72	844,939.11	32.1155449	-103.3527248	8,551.61	0.00	0.00	0.00
19,500.00	89.70	179.48	11,643.40	-8,648.27	-248.99	407,052.73	844,940.01	32.1152700	-103.3527248	8,651.57	0.00	0.00	0.00
19,600.00	89.70	179.48	11,643.92	-8,748.27	-248.08	406,952.73	844,940.92	32.1149952	-103.3527248	8,751.52	0.00	0.00	0.00
19,700.00	89.70	179.48	11,644.45	-8,848.26	-247.17	406,852.74	844,941.83	32.1147203	-103.3527248	8,851.47	0.00	0.00	0.00
19,800.00	89.70	179.48	11,644.97	-8,948.26	-246.26	406,752.74	844,942.74	32.1144454	-103.3527248	8,951.43	0.00	0.00	0.00
19,900.00	89.70	179.48	11,645.50	-9,048.25	-245.35	406,652.75	844,943.65	32.1141706	-103.3527248	9,051.38	0.00	0.00	0.00
20,000.00	89.70	179.48	11,646.02	-9,148.24	-244.44	406,552.76	844,944.56	32.1138957	-103.3527248	9,151.34	0.00	0.00	0.00
20,100.00	89.70	179.48	11,646.55	-9,248.24	-243.53	406,452.76	844,945.47	32.1136208	-103.3527248	9,251.29	0.00	0.00	0.00
20,200.00	89.70	179.48	11,647.07	-9,348.23	-242.62	406,352.77	844,946.38	32.1133460	-103.3527248	9,351.25	0.00	0.00	0.00
20,300.00	89.70	179.48	11,647.60	-9,448.23	-241.71	406,252.77	844,947.29	32.1130711	-103.3527248	9,451.20	0.00	0.00	0.00
20,400.00	89.70	179.48	11,648.12	-9,548.22	-240.81	406,152.78	844,948.19	32.1127963	-103.3527249	9,551.16	0.00	0.00	0.00
20,500.00	89.70	179.48	11,648.65	-9,648.22	-239.90	406,052.78	844,949.10	32.1125214	-103.3527249	9,651.11	0.00	0.00	0.00
20,600.00	89.70	179.48	11,649.17	-9,748.21	-238.99	405,952.79	844,950.01	32.1122465	-103.3527249	9,751.07	0.00	0.00	0.00
20,700.00	89.70	179.48	11,649.70	-9,848.21	-238.08	405,852.79	844,950.92	32.1119717	-103.3527249	9,851.02	0.00	0.00	0.00
20,800.00	89.70	179.48	11,650.23	-9,948.20	-237.17	405,752.80	844,951.83	32.1116968	-103.3527249	9,950.97	0.00	0.00	0.00
20,900.00	89.70	179.48	11,650.75	-10,048.19	-236.26	405,652.81	844,952.74	32.1114219	-103.3527249	10,050.93	0.00	0.00	0.00
21,000.00	89.70	179.48	11,651.28	-10,148.19	-235.35	405,552.81	844,953.65	32.1111471	-103.3527249	10,150.88	0.00	0.00	0.00
21,100.00	89.70	179.48	11,651.80	-10,248.18	-234.44	405,452.82	844,954.56	32.1108722	-103.3527249	10,250.84	0.00	0.00	0.00
21,200.00	89.70	179.48	11,652.33	-10,348.18	-233.53	405,352.82	844,955.47	32.1105974	-103.3527249	10,350.79	0.00	0.00	0.00
21,300.00	89.70	179.48	11,652.85	-10,448.17	-232.62	405,252.83	844,956.38	32.1103225	-103.3527249	10,450.75	0.00	0.00	0.00
21,400.00	89.70	179.48	11,653.38	-10,548.17	-231.72	405,152.83	844,957.28	32.1100476	-103.3527249	10,550.70	0.00	0.00	0.00
21,500.00	89.70	179.48	11,653.90	-10,648.16	-230.81	405,052.84	844,958.19	32.1097728	-103.3527249	10,650.66	0.00	0.00	0.00
21,600.00	89.70	179.48	11,654.43	-10,748.16	-229.90	404,952.84	844,959.10	32.1094979	-103.3527249	10,750.61	0.00	0.00	0.00
21,700.00	89.70	179.48	11,654.95	-10,848.15	-228.99	404,852.85	844,960.01	32.1092230	-103.3527249	10,850.57	0.00	0.00	0.00
21,800.00	89.70	179.48	11,655.48	-10,948.15	-228.08	404,752.85	844,960.92	32.1089482	-103.3527249	10,950.52	0.00	0.00	0.00
21,823.86	89.70	179.48	11,655.60	-10,972.00	-227.86	404,729.00	844,961.14	32.1088826	-103.3527249	10,974.37	0.00	0.00	0.00
Junior Mint Fed 156H LTP													
21,900.00	89.70	179.48	11,656.00	-11,048.14	-227.17	404,652.86	844,961.83	32.1086733	-103.3527249	11,050.48	0.00	0.00	0.00
21,918.86	89.70	179.48	11,656.10	-11,067.00	-227.00	404,634.00	844,962.00	32.1086215	-103.3527249	11,069.33	0.00	0.00	0.00
Junior Mint Fed 156H BHL													

Total Directional
Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Well:	Junior Mint Fed 156H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
Junior Mint Fed 156H	0.00	0.00	11,031.00	-616.00	-322.00	415,085.00	844,867.00	32.1373489	-103.3527245
- plan misses target center by 49.94usft at 11090.33usft MD (11031.02 TVD, -566.06 N, -322.45 E)									
- Point									
Junior Mint Fed 156H	0.00	0.00	11,655.70	-10,972.00	-228.00	404,729.00	844,961.00	32.1088826	-103.3527253
- plan misses target center by 0.17usft at 21823.86usft MD (11655.60 TVD, -10972.00 N, -227.86 E)									
- Point									
Junior Mint Fed 156H	0.00	0.00	11,656.10	-11,067.00	-227.00	404,634.00	844,962.00	32.1086215	-103.3527249
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____

Civitas Resources

Lea County, NM (NAD 83)

Junior Mint Fed Pad

Junior Mint Fed 156H

OH

Plan #2



Anticollision Report

Minimum Magnetic Interference Warning level is 20' center to center

18 August, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

[Click here for our anticollision policy](#)

ATTENTION

All offset data provided was gathered using available software and resources . Total Directional Services cannot guarantee the accuracy of all offset data , which should be verified for accuracy by the Operator.

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,433.18usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Well	Junior Mint Fed 156H					
Well Position	+N/-S	0.00 usft	Northing:	415,701.00 usft	Latitude:	32.1390339
	+E/-W	0.00 usft	Easting:	845,189.00 usft	Longitude:	-103.3516662
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,221.00 usft
Grid Convergence:		0.52 °				

Survey Tool Program	Date	8/12/2025					
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description			
0.00	21,918.71	Plan #2 (OH)	MWD+HRGM+SAG+FDIR (n	OWSG MWD + HRGM + SAG + FDIR Correction			

Experimental: Summary Highlights: Junior Mint Fed 156H

Offset Listing								
Offset Customer - Project - Site Name			Map Coordinates		Geographical Coordinates		Surface Uncertainty	
Offset Well	Ground Level	KB Height	Northing	Easting	Latitude	Longitude	Site	Well
- - Junior Mint Fed Pad								
Junior Mint Fed 131H -	3,221.00	3,247.00	414,635.00	842,835.00	32.1361627	-103.3593016	0.00	0.50
Junior Mint Fed 132H -	3,220.00	3,246.00	414,820.00	842,835.00	32.1366712	-103.3592962	0.00	0.50
Junior Mint Fed 133H -	3,221.00	3,247.00	415,726.00	845,189.00	32.1391027	-103.3516655	0.00	0.50
Junior Mint Fed 134H -	3,220.00	3,247.00	415,566.00	845,189.00	32.1386629	-103.3516702	0.00	0.50
Junior Mint Fed 135H -	3,220.00	3,246.00	414,660.00	842,835.00	32.1362315	-103.3593009	0.00	0.50
Junior Mint Fed 137H -	3,220.00	3,246.00	414,845.00	842,835.00	32.1367399	-103.3592955	0.00	0.50
Junior Mint Fed 138H -	3,220.00	3,246.00	415,541.00	845,189.00	32.1385942	-103.3516709	0.00	0.50
Junior Mint Fed 151H -	3,221.00	3,247.00	414,685.00	842,835.00	32.1363002	-103.3593001	0.00	0.50
Junior Mint Fed 152H -	3,220.00	3,246.00	414,870.00	842,835.00	32.1368087	-103.3592947	0.00	0.50
Junior Mint Fed 158H -	3,220.00	3,246.00	415,516.00	845,189.00	32.1385255	-103.3516717	0.00	0.50
Junior Mint Fed 211H -	3,221.00	3,247.00	414,660.00	842,810.00	32.1362321	-103.3593816	0.00	0.50
Junior Mint Fed 212H -	3,220.00	3,246.00	414,845.00	842,810.00	32.1367406	-103.3593762	0.00	0.50
Junior Mint Fed 213H -	3,221.00	3,247.00	415,701.00	845,214.00	32.1390333	-103.3515855	0.00	0.50
Junior Mint Fed 214H -	3,220.00	3,246.00	415,541.00	845,214.00	32.1385936	-103.3515902	0.00	0.50
Junior Mint Fed 215H -	3,220.00	3,246.00	414,685.00	842,810.00	32.1363008	-103.3593809	0.00	0.50
Junior Mint Fed 216H -	3,222.00	3,248.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.50
Junior Mint Fed 217H -	3,221.00	3,247.00	414,870.00	842,810.00	32.1368093	-103.3593755	0.00	0.50
Junior Mint Fed 218H -	3,220.00	3,246.00	415,516.00	845,214.00	32.1385248	-103.3515909	0.00	0.50
Junior Mint Fed 221H -	3,221.00	3,247.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.50

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Listing

Offset Customer - Project - Site Name Offset Well	Ground Level	KB Height	Map Coordinates		Geographical Coordinates		Surface Uncertainty	
			Northing	Easting	Latitude	Longitude	Site	Well
- - Junior Mint Fed Pad								
Junior Mint Fed 222H -	3,220.00	3,246.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.50
Junior Mint Fed 223H -	3,222.00	3,248.00	415,751.00	845,214.00	32.1391707	-103.3515840	0.00	0.50
Junior Mint Fed 224H -	3,222.00	3,248.00	415,566.00	845,214.00	32.1386623	-103.3515894	0.00	0.50

Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
Junior Mint Fed Pad						
Junior Mint Fed 131H - OH - Plan 1	3,031.17	2,642.10	2,386.47	2,371.28	157.12	CC, ES
Junior Mint Fed 131H - OH - Plan 1	4,100.00	3,637.73	2,426.24	2,406.29	121.62	SF
Junior Mint Fed 132H - OH - Plan 2	11,000.00	10,982.94	1,541.01	1,509.69	49.20	CC
Junior Mint Fed 132H - OH - Plan 2	21,918.86	22,422.64	1,643.45	1,365.22	5.91	ES, SF
Junior Mint Fed 133H - OH - Plan #2	300.00	300.00	25.00	21.04	6.31	CC, ES
Junior Mint Fed 133H - OH - Plan #2	21,918.86	22,383.76	512.48	370.87	3.62	SF
Junior Mint Fed 134H - OH - Plan #2	1,568.84	1,561.10	64.26	54.63	6.67	CC, ES
Junior Mint Fed 134H - OH - Plan #2	21,918.86	22,328.62	714.11	472.73	2.96	SF
Junior Mint Fed 135H - OH - Plan 1	4,323.12	4,202.84	2,176.64	2,155.10	101.03	CC
Junior Mint Fed 135H - OH - Plan 1	21,918.86	22,408.77	2,274.90	1,992.04	8.04	ES, SF
Junior Mint Fed 137H - OH - Plan 2	11,000.00	11,072.11	881.00	846.60	25.61	CC
Junior Mint Fed 137H - OH - Plan 2	21,918.86	22,511.61	1,047.29	790.70	4.08	ES, SF
Junior Mint Fed 138H - OH - Plan #2	989.29	977.88	131.48	123.97	17.52	CC
Junior Mint Fed 138H - OH - Plan #2	1,000.00	988.38	131.49	123.95	17.44	ES
Junior Mint Fed 138H - OH - Plan #2	21,918.86	22,377.73	1,284.53	999.27	4.50	SF
Junior Mint Fed 151H - OH - Plan 1						Out of range
Junior Mint Fed 152H - OH - Plan #3	8,871.78	8,843.43	1,628.66	1,600.38	57.61	CC
Junior Mint Fed 152H - OH - Plan #3	21,918.86	22,079.41	1,670.83	1,378.80	5.72	ES, SF
Junior Mint Fed 158H - OH - Plan #2	700.00	685.50	181.07	174.67	28.30	CC, ES
Junior Mint Fed 158H - OH - Plan #2	21,918.86	21,938.64	1,320.43	1,018.93	4.38	SF
Junior Mint Fed 211H - OH - Plan 1						Out of range
Junior Mint Fed 212H - OH - Plan #1	11,000.00	10,963.43	1,820.01	1,788.94	58.57	CC
Junior Mint Fed 212H - OH - Plan #1	21,918.86	22,632.94	1,973.70	1,699.66	7.20	ES, SF
Junior Mint Fed 213H - OH - Plan #2	300.00	300.00	25.00	21.04	6.31	CC
Junior Mint Fed 213H - OH - Plan #2	400.00	399.99	25.58	20.91	5.48	ES
Junior Mint Fed 213H - OH - Plan #2	1,900.00	1,906.45	42.21	30.62	3.64	SF
Junior Mint Fed 214H - OH - Plan #2	1,139.55	1,130.79	147.44	139.16	17.81	CC
Junior Mint Fed 214H - OH - Plan #2	1,200.00	1,190.91	147.57	139.04	17.30	ES
Junior Mint Fed 214H - OH - Plan #2	21,918.86	22,696.53	1,151.94	923.29	5.04	SF
Junior Mint Fed 215H - OH - Plan 1	3,991.21	3,751.03	2,378.33	2,357.55	114.45	CC
Junior Mint Fed 215H - OH - Plan 1	4,000.00	3,759.55	2,378.33	2,357.51	114.23	ES
Junior Mint Fed 215H - OH - Plan 1	11,400.00	11,363.68	2,430.59	2,397.67	73.83	SF
Junior Mint Fed 216H - OH - Plan #2	300.00	301.00	50.00	46.03	12.61	CC, ES
Junior Mint Fed 216H - OH - Plan #2	21,918.86	22,714.49	853.76	721.39	6.45	SF
Junior Mint Fed 217H - OH - Plan #1	11,000.00	11,052.11	1,109.00	1,076.08	33.69	CC
Junior Mint Fed 217H - OH - Plan #1	11,200.00	11,251.44	1,109.07	1,075.89	33.42	ES
Junior Mint Fed 217H - OH - Plan #1	21,918.86	22,698.03	1,331.23	1,077.15	5.24	SF
Junior Mint Fed 218H - OH - Plan #2	730.51	718.07	180.35	173.88	27.85	CC, ES
Junior Mint Fed 218H - OH - Plan #2	21,918.86	22,757.90	1,676.05	1,405.10	6.19	SF
Junior Mint Fed 221H - OH - Plan 1	3,112.19	2,734.33	2,400.81	2,384.98	151.70	CC

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

8/18/2025 3:45:16PM

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Junior Mint Fed Pad						
Junior Mint Fed 221H - OH - Plan 1	3,200.00	2,818.21	2,400.95	2,384.72	147.91	ES
Junior Mint Fed 221H - OH - Plan 1	4,100.00	3,680.20	2,426.17	2,405.70	118.57	SF
Junior Mint Fed 222H - OH - Plan #1	11,000.00	11,006.67	1,415.02	1,383.00	44.20	CC
Junior Mint Fed 222H - OH - Plan #1	11,200.00	11,206.00	1,415.08	1,382.78	43.82	ES
Junior Mint Fed 222H - OH - Plan #1	21,918.86	23,175.46	1,974.04	1,740.03	8.44	SF
Junior Mint Fed 223H - OH - Plan #2	300.00	301.00	55.90	51.94	14.10	CC, ES
Junior Mint Fed 223H - OH - Plan #2	5,800.00	5,808.74	166.70	140.34	6.32	SF
Junior Mint Fed 224H - OH - Plan #2	1,549.13	1,544.94	81.59	71.93	8.44	CC, ES
Junior Mint Fed 224H - OH - Plan #2	21,918.86	23,094.29	1,621.47	1,393.41	7.11	SF

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 131H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Site Error:	0.00 usft
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,200.00	2,181.34	2,015.96	2,014.77	6.54	5.62	39.35	-1,049.43	-2,382.63	2,426.58	2,414.49	12.09	200.647		
2,300.00	2,279.15	2,100.00	2,098.26	6.76	5.76	39.78	-1,044.60	-2,390.96	2,417.76	2,405.29	12.47	193.914		
2,400.00	2,376.96	2,168.54	2,166.24	6.99	5.88	40.16	-1,040.21	-2,398.54	2,409.95	2,397.13	12.82	187.994		
2,500.00	2,474.78	2,244.45	2,241.39	7.27	6.01	40.59	-1,034.88	-2,407.76	2,403.22	2,390.03	13.19	182.249		
2,600.00	2,572.59	2,320.05	2,316.10	7.54	6.14	41.04	-1,029.07	-2,417.79	2,397.59	2,384.03	13.56	176.863		
2,700.00	2,670.41	2,400.00	2,394.93	7.82	6.27	41.54	-1,022.39	-2,429.33	2,393.08	2,379.14	13.94	171.695		
2,800.00	2,768.22	2,470.29	2,464.07	8.11	6.40	42.00	-1,016.06	-2,440.26	2,389.71	2,375.40	14.31	167.047		
2,900.00	2,866.03	2,544.87	2,537.26	8.39	6.53	42.49	-1,008.88	-2,452.66	2,387.52	2,372.83	14.69	162.576		
3,000.00	2,963.85	2,619.06	2,609.88	8.67	6.67	43.01	-1,001.27	-2,465.81	2,386.53	2,371.46	15.07	158.378		
3,031.17	2,994.34	2,642.10	2,632.40	8.76	6.71	43.17	-998.81	-2,470.06	2,386.47	2,371.28	15.19	157.116	CC, ES	
3,100.00	3,061.66	2,700.00	2,688.87	8.96	6.82	43.58	-992.43	-2,481.09	2,386.78	2,371.30	15.47	154.269		
3,200.00	3,159.48	2,778.41	2,765.21	9.24	6.95	44.16	-983.45	-2,496.60	2,388.11	2,372.27	15.84	150.808		
3,300.00	3,257.29	2,873.65	2,857.91	9.53	7.14	44.85	-972.51	-2,515.50	2,389.93	2,373.65	16.28	146.835		
3,400.00	3,355.10	2,968.89	2,950.61	9.81	7.36	45.55	-961.57	-2,534.40	2,392.14	2,375.41	16.73	142.969		
3,500.00	3,452.92	3,064.12	3,043.31	10.10	7.58	46.24	-950.63	-2,553.29	2,394.74	2,377.54	17.19	139.298		
3,600.00	3,550.73	3,159.36	3,136.01	10.39	7.80	46.93	-939.69	-2,572.19	2,397.72	2,380.06	17.65	135.810		
3,700.00	3,648.55	3,254.60	3,228.71	10.68	8.03	47.62	-928.75	-2,591.09	2,401.08	2,382.96	18.12	132.496		
3,800.00	3,746.36	3,349.84	3,321.42	10.95	8.27	48.31	-917.81	-2,609.99	2,404.83	2,386.25	18.58	129.429		
3,900.00	3,844.48	3,445.37	3,414.40	11.23	8.51	49.03	-906.84	-2,628.94	2,409.95	2,390.90	19.05	126.489		
4,000.00	3,943.06	3,541.35	3,507.83	11.48	8.76	49.74	-895.81	-2,647.99	2,417.11	2,397.60	19.51	123.892		
4,100.00	4,042.05	3,637.73	3,601.63	11.70	9.01	50.42	-884.74	-2,667.11	2,426.24	2,406.29	19.95	121.616	SF	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 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	
1,300.00	1,297.01	1,573.12	1,572.12	4.50	4.83	45.33	-862.60	-2,313.14	2,433.00	2,423.84	9.16	265.661	
1,400.00	1,396.38	1,670.89	1,669.26	4.76	5.01	43.99	-858.45	-2,302.87	2,413.73	2,404.15	9.57	252.107	
1,500.00	1,495.42	1,768.09	1,765.84	5.02	5.18	43.30	-854.33	-2,292.67	2,392.45	2,382.46	9.99	239.445	
1,600.00	1,594.07	1,864.65	1,861.78	5.27	5.36	43.01	-850.24	-2,282.54	2,369.21	2,358.80	10.41	227.605	
1,700.00	1,692.25	1,960.52	1,957.03	5.52	5.53	43.00	-846.17	-2,272.48	2,344.04	2,333.21	10.83	216.463	
1,800.00	1,790.08	2,055.86	2,051.75	5.69	5.70	43.31	-842.13	-2,262.47	2,317.58	2,306.40	11.18	207.265	
1,900.00	1,887.89	2,151.18	2,146.46	5.90	5.88	43.68	-838.09	-2,252.46	2,291.17	2,279.58	11.59	197.653	
2,000.00	1,985.71	2,264.59	2,259.11	6.11	6.09	44.15	-833.03	-2,240.39	2,264.69	2,252.66	12.02	188.345	
2,100.00	2,083.52	2,401.02	2,394.35	6.33	6.34	44.76	-824.76	-2,224.39	2,236.83	2,224.35	12.49	179.161	
2,200.00	2,181.34	2,535.21	2,526.96	6.54	6.59	45.45	-814.02	-2,206.89	2,207.38	2,194.43	12.95	170.494	
2,300.00	2,279.15	2,647.50	2,637.59	6.76	6.80	46.07	-803.22	-2,191.02	2,176.62	2,163.24	13.38	162.631	
2,400.00	2,376.96	2,740.54	2,729.21	6.99	6.98	46.62	-794.02	-2,177.71	2,145.85	2,132.05	13.80	155.481	
2,500.00	2,474.78	2,833.58	2,820.84	7.27	7.15	47.17	-784.82	-2,164.39	2,115.27	2,101.04	14.22	148.729	
2,600.00	2,572.59	2,926.63	2,912.46	7.54	7.33	47.75	-775.62	-2,151.08	2,084.88	2,070.23	14.65	142.344	
2,700.00	2,670.41	3,019.67	3,004.09	7.82	7.51	48.34	-766.42	-2,137.76	2,054.69	2,039.61	15.07	136.303	
2,800.00	2,768.22	3,112.71	3,095.71	8.11	7.68	48.94	-757.22	-2,124.44	2,024.72	2,009.21	15.51	130.580	
2,900.00	2,866.03	3,205.76	3,187.34	8.39	7.86	49.56	-748.02	-2,111.13	1,994.97	1,979.03	15.94	125.154	
3,000.00	2,963.85	3,298.80	3,278.96	8.67	8.04	50.20	-738.82	-2,097.81	1,965.45	1,949.07	16.38	120.006	
3,100.00	3,061.66	3,391.84	3,370.58	8.96	8.22	50.86	-729.62	-2,084.50	1,936.18	1,919.36	16.82	115.117	
3,200.00	3,159.48	3,484.88	3,462.21	9.24	8.40	51.54	-720.42	-2,071.18	1,907.16	1,889.89	17.26	110.471	
3,300.00	3,257.29	3,577.93	3,553.83	9.53	8.58	52.24	-711.22	-2,057.87	1,878.41	1,860.69	17.71	106.054	
3,400.00	3,355.10	3,670.97	3,645.46	9.81	8.78	52.96	-702.02	-2,044.55	1,849.93	1,831.77	18.16	101.846	
3,500.00	3,452.92	3,764.01	3,737.08	10.10	8.98	53.70	-692.82	-2,031.24	1,821.75	1,803.13	18.62	97.846	
3,600.00	3,550.73	3,857.05	3,828.71	10.39	9.18	54.46	-683.62	-2,017.92	1,793.88	1,774.80	19.08	94.033	
3,700.00	3,648.55	3,950.10	3,920.33	10.68	9.39	55.24	-674.42	-2,004.61	1,766.32	1,746.79	19.54	90.398	
3,800.00	3,746.36	4,043.14	4,011.96	10.95	9.59	56.02	-665.22	-1,991.29	1,739.11	1,719.12	19.99	86.982	
3,900.00	3,844.48	4,136.72	4,104.10	11.23	9.80	56.47	-655.97	-1,977.90	1,713.05	1,692.59	20.46	83.735	
4,000.00	3,943.06	4,231.16	4,197.11	11.48	10.01	56.90	-646.63	-1,964.38	1,688.69	1,667.78	20.91	80.776	
4,100.00	4,042.05	4,326.41	4,290.91	11.70	10.22	57.31	-637.21	-1,950.75	1,665.98	1,644.65	21.34	78.082	
4,200.00	4,141.38	4,422.40	4,385.43	11.90	10.42	57.67	-627.72	-1,937.02	1,644.89	1,623.15	21.74	75.673	
4,300.00	4,240.98	4,500.00	4,461.91	12.08	10.57	57.89	-620.26	-1,926.21	1,625.77	1,603.69	22.09	73.614	
4,400.00	4,340.77	4,581.54	4,542.46	12.22	10.74	58.08	-613.04	-1,915.77	1,609.28	1,586.85	22.43	71.731	
4,500.00	4,440.70	4,661.23	4,621.34	12.34	10.90	58.22	-606.62	-1,906.48	1,595.40	1,572.64	22.75	70.117	
4,600.00	4,540.69	4,741.58	4,701.03	12.41	11.05	58.26	-600.78	-1,898.02	1,584.09	1,561.10	22.99	68.893	
4,700.00	4,640.69	4,822.33	4,781.25	12.44	11.19	58.18	-595.55	-1,890.45	1,574.57	1,551.37	23.20	67.870	
4,800.00	4,740.69	4,900.00	4,858.54	12.48	11.32	58.02	-591.12	-1,884.05	1,566.24	1,542.85	23.40	66.947	
4,900.00	4,840.69	4,984.52	4,942.74	12.52	11.45	57.77	-586.99	-1,878.06	1,559.10	1,535.51	23.59	66.093	
5,000.00	4,940.69	5,065.91	5,023.92	12.56	11.57	57.45	-583.67	-1,873.26	1,553.15	1,529.37	23.77	65.334	
5,100.00	5,040.69	5,147.45	5,105.33	12.60	11.68	57.00	-581.01	-1,869.41	1,548.38	1,524.43	23.95	64.659	
5,200.00	5,140.69	5,229.11	5,186.90	12.64	11.78	56.45	-579.00	-1,866.50	1,544.80	1,520.68	24.11	64.066	
5,300.00	5,240.69	5,310.85	5,268.61	12.68	11.88	55.80	-577.65	-1,864.55	1,542.40	1,518.13	24.27	63.555	
5,400.00	5,340.69	5,400.00	5,357.75	12.72	11.98	55.05	-576.94	-1,863.51	1,541.20	1,516.78	24.42	63.107	
5,450.65	5,391.34	5,436.25	5,394.00	12.74	12.00	54.20	-576.87	-1,863.42	1,541.01	1,516.55	24.46	63.003	
5,500.00	5,440.69	5,482.94	5,440.69	12.76	12.02	53.35	-576.87	-1,863.42	1,541.01	1,516.51	24.50	62.900	
5,600.00	5,540.69	5,582.94	5,540.69	12.81	12.09	52.50	-576.87	-1,863.42	1,541.01	1,516.40	24.61	62.624	
5,700.00	5,640.69	5,682.94	5,640.69	12.85	12.17	51.65	-576.87	-1,863.42	1,541.01	1,516.29	24.72	62.338	
5,800.00	5,740.69	5,782.94	5,740.69	12.89	12.24	50.80	-576.87	-1,863.42	1,541.01	1,516.17	24.83	62.053	
5,900.00	5,840.69	5,882.94	5,840.69	12.93	12.32	50.00	-576.87	-1,863.42	1,541.01	1,516.06	24.95	61.769	
6,000.00	5,940.69	5,982.94	5,940.69	12.98	12.40	49.20	-576.87	-1,863.42	1,541.01	1,515.95	25.06	61.487	
6,100.00	6,040.69	6,082.94	6,040.69	13.02	12.47	48.40	-576.87	-1,863.42	1,541.01	1,515.83	25.18	61.206	
6,200.00	6,140.69	6,182.94	6,140.69	13.06	12.55	47.60	-576.87	-1,863.42	1,541.01	1,515.71	25.29	60.926	
6,300.00	6,240.69	6,282.94	6,240.69	13.11	12.62	46.80	-576.87	-1,863.42	1,541.01	1,515.60	25.41	60.648	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2

Survey Program: Reference		204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
6,400.00	6,340.69	6,382.94	6,340.69	13.15	12.70	-90.40	-576.87	-1,863.42	1,541.01	1,515.48	25.53	60.371		
6,500.00	6,440.69	6,482.94	6,440.69	13.20	12.78	-90.40	-576.87	-1,863.42	1,541.01	1,515.37	25.64	60.095		
6,600.00	6,540.69	6,582.94	6,540.69	13.24	12.85	-90.40	-576.87	-1,863.42	1,541.01	1,515.25	25.76	59.821		
6,700.00	6,640.69	6,682.94	6,640.69	13.29	12.93	-90.40	-576.87	-1,863.42	1,541.01	1,515.13	25.88	59.549		
6,800.00	6,740.69	6,782.94	6,740.69	13.34	13.01	-90.40	-576.87	-1,863.42	1,541.01	1,515.01	26.00	59.277		
6,900.00	6,840.69	6,882.94	6,840.69	13.38	13.08	-90.40	-576.87	-1,863.42	1,541.01	1,514.89	26.12	59.008		
7,000.00	6,940.69	6,982.94	6,940.69	13.43	13.16	-90.40	-576.87	-1,863.42	1,541.01	1,514.77	26.23	58.739		
7,100.00	7,040.69	7,082.94	7,040.69	13.48	13.24	-90.40	-576.87	-1,863.42	1,541.01	1,514.65	26.35	58.472		
7,200.00	7,140.69	7,182.94	7,140.69	13.52	13.32	-90.40	-576.87	-1,863.42	1,541.01	1,514.53	26.47	58.207		
7,300.00	7,240.69	7,282.94	7,240.69	13.57	13.39	-90.40	-576.87	-1,863.42	1,541.01	1,514.41	26.60	57.943		
7,400.00	7,340.69	7,382.94	7,340.69	13.62	13.47	-90.40	-576.87	-1,863.42	1,541.01	1,514.29	26.72	57.680		
7,500.00	7,440.69	7,482.94	7,440.69	13.67	13.55	-90.40	-576.87	-1,863.42	1,541.01	1,514.17	26.84	57.419		
7,600.00	7,540.69	7,582.94	7,540.69	13.72	13.62	-90.40	-576.87	-1,863.42	1,541.01	1,514.05	26.96	57.160		
7,700.00	7,640.69	7,682.94	7,640.69	13.77	13.70	-90.40	-576.87	-1,863.42	1,541.01	1,513.93	27.08	56.902		
7,800.00	7,740.69	7,782.94	7,740.69	13.82	13.78	-90.40	-576.87	-1,863.42	1,541.01	1,513.80	27.20	56.645		
7,900.00	7,840.69	7,882.94	7,840.69	13.87	13.86	-90.40	-576.87	-1,863.42	1,541.01	1,513.68	27.33	56.390		
8,000.00	7,940.69	7,982.94	7,940.69	13.92	13.93	-90.40	-576.87	-1,863.42	1,541.01	1,513.56	27.45	56.136		
8,100.00	8,040.69	8,082.94	8,040.69	13.97	14.01	-90.40	-576.87	-1,863.42	1,541.01	1,513.43	27.58	55.884		
8,200.00	8,140.69	8,182.94	8,140.69	14.02	14.09	-90.40	-576.87	-1,863.42	1,541.01	1,513.31	27.70	55.634		
8,300.00	8,240.69	8,282.94	8,240.69	14.07	14.17	-90.40	-576.87	-1,863.42	1,541.01	1,513.18	27.82	55.384		
8,400.00	8,340.69	8,382.94	8,340.69	14.12	14.24	-90.40	-576.87	-1,863.42	1,541.01	1,513.06	27.95	55.137		
8,500.00	8,440.69	8,482.94	8,440.69	14.17	14.32	-90.40	-576.87	-1,863.42	1,541.01	1,512.93	28.07	54.890		
8,600.00	8,540.69	8,582.94	8,540.69	14.23	14.40	-90.40	-576.87	-1,863.42	1,541.01	1,512.81	28.20	54.645		
8,700.00	8,640.69	8,682.94	8,640.69	14.28	14.48	-90.40	-576.87	-1,863.42	1,541.01	1,512.68	28.33	54.402		
8,800.00	8,740.69	8,782.94	8,740.69	14.33	14.56	-90.40	-576.87	-1,863.42	1,541.01	1,512.56	28.45	54.160		
8,900.00	8,840.69	8,882.94	8,840.69	14.38	14.63	-90.40	-576.87	-1,863.42	1,541.01	1,512.43	28.58	53.920		
9,000.00	8,940.69	8,982.94	8,940.69	14.44	14.71	-90.40	-576.87	-1,863.42	1,541.01	1,512.30	28.71	53.681		
9,100.00	9,040.69	9,082.94	9,040.69	14.49	14.79	-90.40	-576.87	-1,863.42	1,541.01	1,512.17	28.83	53.444		
9,200.00	9,140.69	9,182.94	9,140.69	14.54	14.87	-90.40	-576.87	-1,863.42	1,541.01	1,512.05	28.96	53.208		
9,300.00	9,240.69	9,282.94	9,240.69	14.60	14.95	-90.40	-576.87	-1,863.42	1,541.01	1,511.92	29.09	52.973		
9,400.00	9,340.69	9,382.94	9,340.69	14.65	15.02	-90.40	-576.87	-1,863.42	1,541.01	1,511.79	29.22	52.740		
9,500.00	9,440.69	9,482.94	9,440.69	14.71	15.10	-90.40	-576.87	-1,863.42	1,541.01	1,511.66	29.35	52.508		
9,600.00	9,540.69	9,582.94	9,540.69	14.76	15.18	-90.40	-576.87	-1,863.42	1,541.01	1,511.53	29.48	52.278		
9,700.00	9,640.69	9,682.94	9,640.69	14.82	15.26	-90.40	-576.87	-1,863.42	1,541.01	1,511.40	29.61	52.049		
9,800.00	9,740.69	9,782.94	9,740.69	14.87	15.34	-90.40	-576.87	-1,863.42	1,541.01	1,511.27	29.74	51.822		
9,900.00	9,840.69	9,882.94	9,840.69	14.93	15.41	-90.40	-576.87	-1,863.42	1,541.01	1,511.14	29.87	51.596		
10,000.00	9,940.69	9,982.94	9,940.69	14.98	15.49	-90.40	-576.87	-1,863.42	1,541.01	1,511.01	30.00	51.372		
10,100.00	10,040.69	10,082.94	10,040.69	15.04	15.57	-90.40	-576.87	-1,863.42	1,541.01	1,510.88	30.13	51.149		
10,200.00	10,140.69	10,182.94	10,140.69	15.10	15.65	-90.40	-576.87	-1,863.42	1,541.01	1,510.75	30.26	50.927		
10,300.00	10,240.69	10,282.94	10,240.69	15.15	15.73	-90.40	-576.87	-1,863.42	1,541.01	1,510.62	30.39	50.707		
10,400.00	10,340.69	10,382.94	10,340.69	15.21	15.81	-90.40	-576.87	-1,863.42	1,541.01	1,510.49	30.52	50.488		
10,500.00	10,440.69	10,482.94	10,440.69	15.27	15.89	-90.40	-576.87	-1,863.42	1,541.01	1,510.35	30.65	50.271		
10,600.00	10,540.69	10,582.94	10,540.69	15.33	15.96	-90.40	-576.87	-1,863.42	1,541.01	1,510.22	30.79	50.055		
10,700.00	10,640.69	10,682.94	10,640.69	15.38	16.04	-90.40	-576.87	-1,863.42	1,541.01	1,510.09	30.92	49.840		
10,800.00	10,740.69	10,782.94	10,740.69	15.44	16.12	-90.40	-576.87	-1,863.42	1,541.01	1,509.96	31.05	49.627		
10,900.00	10,840.69	10,882.94	10,840.69	15.50	16.20	-90.40	-576.87	-1,863.42	1,541.01	1,509.82	31.18	49.415		
11,000.00	10,940.69	10,982.94	10,940.69	15.56	16.28	-90.40	-576.87	-1,863.42	1,541.01	1,509.69	31.32	49.205	CC	
11,007.59	10,948.28	10,990.53	10,948.28	15.56	16.28	90.12	-576.87	-1,863.42	1,541.01	1,509.68	31.33	49.190		
11,100.00	11,040.69	11,082.94	11,040.69	15.61	16.36	90.12	-576.87	-1,863.42	1,541.01	1,509.57	31.44	49.012		
11,200.00	11,140.02	11,182.27	11,140.02	15.75	16.43	90.50	-576.87	-1,863.42	1,541.07	1,509.47	31.59	48.777		
11,300.00	11,236.04	11,278.29	11,236.04	15.99	16.51	91.43	-576.87	-1,863.42	1,541.55	1,509.69	31.86	48.379		
11,400.00	11,325.83	11,368.08	11,325.83	16.30	16.58	92.70	-576.87	-1,863.42	1,543.34	1,511.08	32.26	47.837		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 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	
11,500.00	11,406.66	11,448.91	11,406.66	16.71	16.64	94.02	-576.87	-1,863.42	1,547.67	1,514.88	32.80	47.186	
11,600.00	11,476.08	11,518.32	11,476.08	17.25	16.70	95.03	-576.87	-1,863.42	1,555.98	1,522.50	33.48	46.475	
11,700.00	11,531.97	11,574.22	11,531.97	17.94	16.74	95.36	-576.87	-1,863.42	1,569.57	1,535.28	34.29	45.769	
11,800.00	11,572.64	11,653.98	11,611.64	18.75	16.80	96.03	-579.78	-1,863.40	1,589.19	1,554.01	35.18	45.171	
11,900.00	11,596.86	11,857.25	11,806.07	19.67	16.94	100.07	-635.30	-1,862.92	1,612.93	1,576.80	36.14	44.633	
12,000.00	11,604.02	12,503.84	12,127.05	20.67	17.94	108.75	-1,157.40	-1,858.42	1,627.62	1,588.95	38.67	42.095	
12,100.00	11,604.54	12,603.84	12,127.92	21.72	18.31	108.76	-1,257.39	-1,857.56	1,627.77	1,587.81	39.96	40.732	
12,200.00	11,605.07	12,703.84	12,128.79	22.80	18.75	108.77	-1,357.38	-1,856.70	1,627.93	1,586.55	41.38	39.339	
12,300.00	11,605.59	12,803.84	12,129.66	23.92	19.27	108.78	-1,457.37	-1,855.84	1,628.09	1,585.18	42.91	37.941	
12,400.00	11,606.12	12,903.84	12,130.53	25.06	19.87	108.79	-1,557.37	-1,854.98	1,628.25	1,583.70	44.54	36.556	
12,500.00	11,606.64	13,003.84	12,131.40	26.22	20.54	108.80	-1,657.36	-1,854.12	1,628.40	1,582.14	46.26	35.200	
12,600.00	11,607.17	13,103.84	12,132.27	27.40	21.28	108.81	-1,757.35	-1,853.26	1,628.56	1,580.50	48.06	33.884	
12,700.00	11,607.69	13,203.84	12,133.15	28.59	22.08	108.82	-1,857.34	-1,852.39	1,628.72	1,578.78	49.94	32.615	
12,800.00	11,608.22	13,303.83	12,134.02	29.80	22.93	108.83	-1,957.33	-1,851.53	1,628.87	1,577.00	51.88	31.399	
12,900.00	11,608.74	13,403.83	12,134.89	31.03	23.84	108.84	-2,057.33	-1,850.67	1,629.03	1,575.16	53.87	30.238	
13,000.00	11,609.27	13,503.83	12,135.76	32.26	24.79	108.86	-2,157.32	-1,849.81	1,629.19	1,573.26	55.92	29.133	
13,100.00	11,609.79	13,603.83	12,136.63	33.51	25.78	108.87	-2,257.31	-1,848.95	1,629.34	1,571.33	58.02	28.083	
13,200.00	11,610.32	13,703.83	12,137.50	34.76	26.80	108.88	-2,357.30	-1,848.09	1,629.50	1,569.35	60.15	27.089	
13,300.00	11,610.84	13,803.83	12,138.37	36.03	27.85	108.89	-2,457.29	-1,847.23	1,629.66	1,567.33	62.33	26.146	
13,400.00	11,611.37	13,903.83	12,139.25	37.30	28.94	108.90	-2,557.28	-1,846.37	1,629.82	1,565.28	64.53	25.255	
13,500.00	11,611.89	14,003.83	12,140.12	38.57	30.04	108.91	-2,657.28	-1,845.51	1,629.97	1,563.20	66.77	24.411	
13,600.00	11,612.42	14,103.83	12,140.99	39.86	31.17	108.92	-2,757.27	-1,844.65	1,630.13	1,561.10	69.03	23.613	
13,700.00	11,612.94	14,203.83	12,141.86	41.14	32.32	108.93	-2,857.26	-1,843.78	1,630.29	1,558.97	71.32	22.858	
13,800.00	11,613.47	14,303.83	12,142.73	42.44	33.48	108.94	-2,957.25	-1,842.92	1,630.45	1,556.82	73.63	22.144	
13,900.00	11,613.99	14,403.83	12,143.60	43.74	34.66	108.95	-3,057.24	-1,842.06	1,630.61	1,554.65	75.96	21.467	
14,000.00	11,614.52	14,503.83	12,144.47	45.04	35.86	108.96	-3,157.24	-1,841.20	1,630.76	1,552.46	78.31	20.826	
14,100.00	11,615.04	14,603.83	12,145.35	46.34	37.06	108.98	-3,257.23	-1,840.34	1,630.92	1,550.25	80.67	20.218	
14,200.00	11,615.57	14,703.83	12,146.22	47.65	38.28	108.99	-3,357.22	-1,839.48	1,631.08	1,548.03	83.04	19.641	
14,300.00	11,616.09	14,803.83	12,147.09	48.97	39.51	109.00	-3,457.21	-1,838.62	1,631.24	1,545.80	85.43	19.093	
14,400.00	11,616.62	14,903.82	12,147.96	50.28	40.74	109.01	-3,557.20	-1,837.76	1,631.40	1,543.56	87.84	18.573	
14,500.00	11,617.14	15,003.82	12,148.83	51.60	41.99	109.02	-3,657.20	-1,836.90	1,631.55	1,541.30	90.25	18.078	
14,600.00	11,617.67	15,103.82	12,149.70	52.92	43.24	109.03	-3,757.19	-1,836.04	1,631.71	1,539.04	92.68	17.607	
14,700.00	11,618.19	15,203.82	12,150.57	54.25	44.50	109.04	-3,857.18	-1,835.17	1,631.87	1,536.76	95.11	17.158	
14,800.00	11,618.72	15,303.82	12,151.44	55.57	45.77	109.05	-3,957.17	-1,834.31	1,632.03	1,534.48	97.55	16.730	
14,900.00	11,619.24	15,403.82	12,152.32	56.90	47.04	109.06	-4,057.16	-1,833.45	1,632.19	1,532.18	100.00	16.321	
15,000.00	11,619.77	15,503.82	12,153.19	58.23	48.32	109.07	-4,157.15	-1,832.59	1,632.34	1,529.88	102.46	15.932	
15,100.00	11,620.29	15,603.82	12,154.06	59.56	49.60	109.09	-4,257.15	-1,831.73	1,632.50	1,527.58	104.92	15.559	
15,200.00	11,620.82	15,703.82	12,154.93	60.89	50.89	109.10	-4,357.14	-1,830.87	1,632.66	1,525.27	107.40	15.202	
15,300.00	11,621.34	15,803.82	12,155.80	62.23	52.18	109.11	-4,457.13	-1,830.01	1,632.82	1,522.95	109.87	14.861	
15,400.00	11,621.87	15,903.82	12,156.67	63.56	53.47	109.12	-4,557.12	-1,829.15	1,632.98	1,520.62	112.35	14.534	
15,500.00	11,622.40	16,003.82	12,157.54	64.90	54.77	109.13	-4,657.11	-1,828.29	1,633.14	1,518.30	114.84	14.221	
15,600.00	11,622.92	16,103.82	12,158.42	66.24	56.08	109.14	-4,757.11	-1,827.43	1,633.30	1,515.96	117.33	13.920	
15,700.00	11,623.45	16,203.82	12,159.29	67.58	57.38	109.15	-4,857.10	-1,826.57	1,633.46	1,513.63	119.83	13.631	
15,800.00	11,623.97	16,303.82	12,160.16	68.92	58.69	109.16	-4,957.09	-1,825.70	1,633.61	1,511.28	122.33	13.354	
15,900.00	11,624.50	16,403.82	12,161.03	70.26	60.00	109.17	-5,057.08	-1,824.84	1,633.77	1,508.94	124.84	13.087	
16,000.00	11,625.02	16,503.82	12,161.90	71.61	61.32	109.18	-5,157.07	-1,823.98	1,633.93	1,506.59	127.34	12.831	
16,100.00	11,625.55	16,603.81	12,162.77	72.95	62.63	109.19	-5,257.07	-1,823.12	1,634.09	1,504.24	129.85	12.584	
16,200.00	11,626.07	16,703.81	12,163.64	74.30	63.95	109.21	-5,357.06	-1,822.26	1,634.25	1,501.88	132.37	12.346	
16,300.00	11,626.60	16,803.81	12,164.52	75.64	65.27	109.22	-5,457.05	-1,821.40	1,634.41	1,499.52	134.89	12.117	
16,400.00	11,627.12	16,903.81	12,165.39	76.99	66.60	109.23	-5,557.04	-1,820.54	1,634.57	1,497.16	137.41	11.896	
16,500.00	11,627.65	17,003.81	12,166.26	78.34	67.92	109.24	-5,657.03	-1,819.68	1,634.73	1,494.80	139.93	11.683	
16,600.00	11,628.17	17,103.81	12,167.13	79.68	69.25	109.25	-5,757.02	-1,818.82	1,634.89	1,492.43	142.45	11.477	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1043-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Well Error:		0.50 usft	
Reference				Offset		Semi Major Axis				Offset Wellbore Centre		Distance		Warning	
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside				Between	Between	Minimum	Separation		
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W		Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)		(usft)	(usft)	(usft)			
21,900.00	11,656.00	22,403.78	12,213.31	151.69	140.75	109.82	-11,056.59	-1,773.18		1,643.42	1,365.67	277.74	5.917		
21,918.86	11,656.10	22,422.64	12,213.48	151.95	141.01	109.83	-11,075.45	-1,773.02		1,643.45	1,365.22	278.23	5.907	ES, SF	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.50	0.50	0.00	25.00	0.00	25.00				
100.00	100.00	100.00	100.00	0.98	0.98	0.00	25.00	0.00	25.00	23.04	1.96	12.741	
200.00	200.00	200.00	200.00	1.56	1.56	0.00	25.00	0.00	25.00	21.88	3.12	8.007	
300.00	300.00	300.00	300.00	1.98	1.98	0.00	25.00	0.00	25.00	21.04	3.96	6.309	CC, ES
400.00	399.99	399.99	399.99	2.41	2.33	156.33	25.00	0.00	26.19	21.47	4.72	5.547	
500.00	499.91	499.91	499.91	2.77	2.63	159.34	25.00	0.00	29.83	24.45	5.38	5.541	
600.00	599.69	599.69	599.69	3.10	2.91	162.98	25.00	0.00	36.02	30.04	5.99	6.017	
700.00	699.32	699.32	699.32	3.23	3.16	166.22	25.00	0.00	44.29	37.92	6.38	6.946	
800.00	798.94	800.21	800.20	3.47	3.45	167.98	23.91	-0.74	51.59	44.69	6.90	7.478	
900.00	898.56	901.43	901.34	3.70	3.71	168.37	20.61	-2.99	56.45	49.06	7.38	7.646	
1,000.00	998.18	1,002.83	1,002.52	3.93	3.95	167.77	15.08	-6.75	58.83	50.99	7.84	7.502	
1,100.00	1,097.80	1,103.26	1,102.57	4.16	4.05	166.50	7.94	-11.60	59.37	51.21	8.16	7.275	
1,200.00	1,197.42	1,203.25	1,202.18	4.38	4.24	165.21	0.73	-16.50	59.83	51.26	8.57	6.985	
1,300.00	1,297.01	1,303.93	1,302.45	4.50	4.34	162.69	-6.79	-21.68	60.28	51.50	8.78	6.866	
1,400.00	1,396.38	1,405.23	1,403.09	4.76	4.58	159.31	-16.09	-28.49	60.86	51.61	9.25	6.579	
1,500.00	1,495.42	1,506.52	1,503.37	5.02	4.82	156.24	-27.35	-37.11	61.67	51.97	9.70	6.357	
1,600.00	1,594.07	1,607.07	1,602.59	5.27	4.94	153.49	-40.18	-47.19	63.04	52.99	10.05	6.271	
1,700.00	1,692.25	1,707.01	1,701.16	5.52	5.13	152.09	-53.13	-57.40	66.47	55.97	10.50	6.330	
1,800.00	1,790.08	1,806.88	1,799.66	5.69	5.33	152.06	-66.08	-67.60	71.46	60.59	10.88	6.569	
1,900.00	1,887.89	1,906.76	1,898.17	5.90	5.52	152.16	-79.02	-77.80	76.51	65.20	11.31	6.764	
2,000.00	1,985.71	2,006.63	1,996.67	6.11	5.72	152.25	-91.96	-88.00	81.55	69.81	11.74	6.944	
2,100.00	2,083.52	2,106.50	2,095.18	6.33	5.92	152.33	-104.90	-98.20	86.60	74.42	12.18	7.110	
2,200.00	2,181.34	2,206.37	2,193.68	6.54	6.11	152.40	-117.85	-108.40	91.65	79.03	12.62	7.264	
2,300.00	2,279.15	2,306.25	2,292.18	6.76	6.31	152.46	-130.79	-118.60	96.69	83.64	13.05	7.408	
2,400.00	2,376.96	2,406.12	2,390.69	6.99	6.51	152.52	-143.73	-128.80	101.74	88.25	13.49	7.541	
2,500.00	2,474.78	2,505.99	2,489.19	7.27	6.71	152.57	-156.67	-139.00	106.78	92.86	13.93	7.666	
2,600.00	2,572.59	2,605.86	2,587.69	7.54	6.90	152.61	-169.61	-149.20	111.83	97.46	14.37	7.783	
2,700.00	2,670.41	2,705.74	2,686.20	7.82	7.11	152.66	-182.56	-159.40	116.88	102.07	14.81	7.892	
2,800.00	2,768.22	2,805.61	2,784.70	8.11	7.34	152.69	-195.50	-169.60	121.92	106.67	15.25	7.995	
2,900.00	2,866.03	2,905.48	2,883.21	8.39	7.57	152.73	-208.44	-179.80	126.97	111.28	15.69	8.092	
3,000.00	2,963.85	3,005.35	2,981.71	8.67	7.80	152.76	-221.38	-190.00	132.02	115.89	16.13	8.184	
3,100.00	3,061.66	3,105.23	3,080.21	8.96	8.03	152.79	-234.33	-200.20	137.06	120.49	16.57	8.270	
3,200.00	3,159.48	3,205.10	3,178.72	9.24	8.26	152.82	-247.27	-210.40	142.11	125.09	17.02	8.352	
3,300.00	3,257.29	3,304.97	3,277.22	9.53	8.50	152.85	-260.21	-220.60	147.16	129.70	17.46	8.429	
3,400.00	3,355.10	3,404.85	3,375.72	9.81	8.73	152.87	-273.15	-230.81	152.20	134.30	17.90	8.502	
3,500.00	3,452.92	3,504.72	3,474.23	10.10	8.96	152.90	-286.10	-241.01	157.25	138.91	18.35	8.572	
3,600.00	3,550.73	3,604.59	3,572.73	10.39	9.20	152.92	-299.04	-251.21	162.30	143.51	18.79	8.638	
3,700.00	3,648.55	3,704.46	3,671.23	10.68	9.43	152.94	-311.98	-261.41	167.34	148.11	19.23	8.701	
3,800.00	3,746.36	3,804.34	3,769.74	10.95	9.67	152.96	-324.92	-271.61	172.38	152.72	19.66	8.766	
3,900.00	3,844.48	3,904.26	3,868.30	11.23	9.90	152.78	-337.87	-281.81	176.08	155.96	20.12	8.750	
4,000.00	3,943.06	4,004.23	3,966.90	11.48	10.14	152.20	-350.83	-292.02	177.47	156.89	20.58	8.623	
4,100.00	4,042.05	4,104.18	4,065.47	11.70	10.37	151.22	-363.78	-302.23	176.57	155.54	21.03	8.394	
4,200.00	4,141.38	4,204.04	4,163.96	11.90	10.61	149.77	-376.72	-312.43	173.46	151.97	21.49	8.073	
4,300.00	4,240.98	4,303.73	4,262.29	12.08	10.84	147.80	-389.64	-322.61	168.24	146.30	21.94	7.669	
4,400.00	4,340.77	4,403.19	4,360.39	12.22	11.08	145.16	-402.53	-332.77	161.07	138.68	22.39	7.194	
4,500.00	4,440.70	4,502.36	4,458.20	12.34	11.31	141.68	-415.38	-342.90	152.19	129.35	22.84	6.664	
4,600.00	4,540.69	4,601.16	4,555.64	12.41	11.55	-12.49	-428.18	-352.99	142.01	118.76	23.25	6.108	
4,700.00	4,640.69	4,699.79	4,652.92	12.44	11.78	-17.99	-440.96	-363.06	132.09	108.45	23.64	5.588	
4,800.00	4,740.69	4,798.42	4,750.20	12.48	12.01	-24.29	-453.75	-373.14	123.59	99.54	24.05	5.138	
4,900.00	4,840.69	4,897.05	4,847.48	12.52	12.25	-31.40	-466.53	-383.21	116.81	92.34	24.47	4.773	
5,000.00	4,940.69	4,995.68	4,944.75	12.56	12.48	-39.23	-479.31	-393.28	112.07	87.18	24.89	4.503	
5,100.00	5,040.69	5,094.31	5,042.03	12.60	12.72	-47.56	-492.09	-403.36	109.63	84.37	25.26	4.339	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,149.25	5,089.94	5,142.89	5,089.94	12.62	12.83	-51.76	-498.38	-408.32	109.33	83.90	25.43	4.299	
5,200.00	5,140.69	5,192.94	5,139.31	12.64	12.95	-56.08	-504.87	-413.43	109.65	84.06	25.59	4.286	
5,300.00	5,240.69	5,291.57	5,236.59	12.68	13.19	-64.40	-517.65	-423.50	112.12	86.28	25.84	4.339	
5,400.00	5,340.69	5,390.58	5,334.26	12.72	13.39	-72.18	-530.36	-433.52	116.84	90.83	26.01	4.491	
5,500.00	5,440.69	5,490.82	5,433.48	12.76	13.61	-78.48	-541.62	-442.39	122.62	96.44	26.18	4.684	
5,600.00	5,540.69	5,591.76	5,533.72	12.81	13.80	-83.20	-550.88	-449.69	128.33	102.01	26.32	4.875	
5,700.00	5,640.69	5,693.26	5,634.80	12.85	13.97	-86.57	-558.10	-455.38	133.30	106.83	26.47	5.036	
5,800.00	5,740.69	5,795.18	5,736.50	12.89	14.11	-88.81	-563.22	-459.41	137.06	110.45	26.61	5.151	
5,900.00	5,840.69	5,897.37	5,838.63	12.93	14.23	-90.06	-566.21	-461.77	139.34	112.59	26.75	5.210	
6,000.00	5,940.69	5,999.45	5,940.69	12.98	14.28	-90.41	-567.07	-462.45	140.00	113.18	26.83	5.219	
6,100.00	6,040.69	6,099.45	6,040.69	13.02	14.32	-90.41	-567.07	-462.45	140.00	113.10	26.90	5.204	
6,200.00	6,140.69	6,199.45	6,140.69	13.06	14.35	-90.41	-567.07	-462.45	140.00	113.03	26.98	5.190	
6,300.00	6,240.69	6,299.45	6,240.69	13.11	14.39	-90.41	-567.07	-462.45	140.00	112.95	27.05	5.175	
6,400.00	6,340.69	6,399.45	6,340.69	13.15	14.42	-90.41	-567.07	-462.45	140.00	112.87	27.13	5.160	
6,500.00	6,440.69	6,499.45	6,440.69	13.20	14.46	-90.41	-567.07	-462.45	140.00	112.79	27.21	5.145	
6,600.00	6,540.69	6,599.45	6,540.69	13.24	14.49	-90.41	-567.07	-462.45	140.00	112.71	27.29	5.130	
6,700.00	6,640.69	6,699.45	6,640.69	13.29	14.53	-90.41	-567.07	-462.45	140.00	112.63	27.37	5.115	
6,800.00	6,740.69	6,799.45	6,740.69	13.34	14.56	-90.41	-567.07	-462.45	140.00	112.55	27.45	5.100	
6,900.00	6,840.69	6,899.45	6,840.69	13.38	14.60	-90.41	-567.07	-462.45	140.00	112.47	27.53	5.085	
7,000.00	6,940.69	6,999.45	6,940.69	13.43	14.64	-90.41	-567.07	-462.45	140.00	112.39	27.62	5.070	
7,100.00	7,040.69	7,099.45	7,040.69	13.48	14.67	-90.41	-567.07	-462.45	140.00	112.30	27.70	5.054	
7,200.00	7,140.69	7,199.45	7,140.69	13.52	14.71	-90.41	-567.07	-462.45	140.00	112.22	27.78	5.039	
7,300.00	7,240.69	7,299.45	7,240.69	13.57	14.75	-90.41	-567.07	-462.45	140.00	112.14	27.87	5.024	
7,400.00	7,340.69	7,399.45	7,340.69	13.62	14.79	-90.41	-567.07	-462.45	140.00	112.05	27.95	5.009	
7,500.00	7,440.69	7,499.45	7,440.69	13.67	14.83	-90.41	-567.07	-462.45	140.00	111.97	28.04	4.993	
7,600.00	7,540.69	7,599.45	7,540.69	13.72	14.87	-90.41	-567.07	-462.45	140.00	111.88	28.12	4.978	
7,700.00	7,640.69	7,699.45	7,640.69	13.77	14.91	-90.41	-567.07	-462.45	140.00	111.79	28.21	4.963	
7,800.00	7,740.69	7,799.45	7,740.69	13.82	14.95	-90.41	-567.07	-462.45	140.00	111.70	28.30	4.947	
7,900.00	7,840.69	7,899.45	7,840.69	13.87	14.99	-90.41	-567.07	-462.45	140.00	111.62	28.39	4.932	
8,000.00	7,940.69	7,999.45	7,940.69	13.92	15.03	-90.41	-567.07	-462.45	140.00	111.53	28.48	4.916	
8,100.00	8,040.69	8,099.45	8,040.69	13.97	15.07	-90.41	-567.07	-462.45	140.00	111.44	28.57	4.901	
8,200.00	8,140.69	8,199.45	8,140.69	14.02	15.11	-90.41	-567.07	-462.45	140.00	111.35	28.66	4.885	
8,300.00	8,240.69	8,299.45	8,240.69	14.07	15.15	-90.41	-567.07	-462.45	140.00	111.26	28.75	4.870	
8,400.00	8,340.69	8,399.45	8,340.69	14.12	15.20	-90.41	-567.07	-462.45	140.00	111.16	28.84	4.854	
8,500.00	8,440.69	8,499.45	8,440.69	14.17	15.24	-90.41	-567.07	-462.45	140.00	111.07	28.93	4.839	
8,600.00	8,540.69	8,599.45	8,540.69	14.23	15.28	-90.41	-567.07	-462.45	140.00	110.98	29.03	4.823	
8,700.00	8,640.69	8,699.45	8,640.69	14.28	15.32	-90.41	-567.07	-462.45	140.00	110.88	29.12	4.808	
8,800.00	8,740.69	8,799.45	8,740.69	14.33	15.37	-90.41	-567.07	-462.45	140.00	110.79	29.21	4.792	
8,900.00	8,840.69	8,899.45	8,840.69	14.38	15.41	-90.41	-567.07	-462.45	140.00	110.70	29.31	4.777	
9,000.00	8,940.69	8,999.45	8,940.69	14.44	15.46	-90.41	-567.07	-462.45	140.00	110.60	29.40	4.761	
9,100.00	9,040.69	9,099.45	9,040.69	14.49	15.50	-90.41	-567.07	-462.45	140.00	110.50	29.50	4.746	
9,200.00	9,140.69	9,199.45	9,140.69	14.54	15.55	-90.41	-567.07	-462.45	140.00	110.41	29.60	4.731	
9,300.00	9,240.69	9,299.45	9,240.69	14.60	15.59	-90.41	-567.07	-462.45	140.00	110.31	29.69	4.715	
9,400.00	9,340.69	9,399.45	9,340.69	14.65	15.64	-90.41	-567.07	-462.45	140.00	110.21	29.79	4.700	
9,500.00	9,440.69	9,499.45	9,440.69	14.71	15.68	-90.41	-567.07	-462.45	140.00	110.11	29.89	4.684	
9,600.00	9,540.69	9,599.45	9,540.69	14.76	15.73	-90.41	-567.07	-462.45	140.00	110.02	29.99	4.669	
9,700.00	9,640.69	9,699.45	9,640.69	14.82	15.77	-90.41	-567.07	-462.45	140.00	109.92	30.09	4.653	
9,800.00	9,740.69	9,799.45	9,740.69	14.87	15.82	-90.41	-567.07	-462.45	140.00	109.82	30.19	4.638	
9,900.00	9,840.69	9,899.45	9,840.69	14.93	15.87	-90.41	-567.07	-462.45	140.00	109.72	30.29	4.622	
10,000.00	9,940.69	9,999.45	9,940.69	14.98	15.92	-90.41	-567.07	-462.45	140.00	109.62	30.39	4.607	
10,100.00	10,040.69	10,099.45	10,040.69	15.04	15.96	-90.41	-567.07	-462.45	140.00	109.51	30.49	4.592	
10,200.00	10,140.69	10,199.45	10,140.69	15.10	16.01	-90.41	-567.07	-462.45	140.00	109.41	30.59	4.576	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,300.00	10,240.69	10,299.45	10,240.69	15.15	16.06	-90.41	-567.07	-462.45	140.00	109.31	30.69	4.561	
10,400.00	10,340.69	10,399.45	10,340.69	15.21	16.11	-90.41	-567.07	-462.45	140.00	109.21	30.80	4.546	
10,500.00	10,440.69	10,499.45	10,440.69	15.27	16.16	-90.41	-567.07	-462.45	140.00	109.10	30.90	4.531	
10,600.00	10,540.69	10,599.45	10,540.69	15.33	16.21	-90.41	-567.07	-462.45	140.00	109.00	31.01	4.515	
10,700.00	10,640.69	10,699.45	10,640.69	15.38	16.26	-90.41	-567.07	-462.45	140.00	108.89	31.11	4.500	
10,800.00	10,740.69	10,799.45	10,740.69	15.44	16.31	-90.41	-567.07	-462.45	140.00	108.79	31.22	4.485	
10,900.00	10,840.69	10,899.45	10,840.69	15.50	16.36	-90.41	-567.07	-462.45	140.00	108.68	31.32	4.470	
11,000.00	10,940.69	10,999.45	10,940.69	15.56	16.41	-90.41	-567.07	-462.45	140.00	108.58	31.43	4.455	
11,008.00	10,948.70	11,007.45	10,948.70	15.56	16.41	90.11	-567.07	-462.45	140.00	108.57	31.44	4.454	
11,100.00	11,040.69	11,099.45	11,040.69	15.61	16.46	90.14	-567.07	-462.45	140.00	108.48	31.52	4.441	
11,100.00	11,040.69	11,099.45	11,040.69	15.61	16.46	90.14	-567.07	-462.45	140.00	108.48	31.52	4.441	
11,200.00	11,140.02	11,198.78	11,140.02	15.75	16.51	94.30	-567.07	-462.45	140.41	108.69	31.73	4.426	
11,300.00	11,236.04	11,294.80	11,236.04	15.99	16.56	104.30	-567.07	-462.45	145.12	112.95	32.18	4.510	
11,400.00	11,325.83	11,384.59	11,325.83	16.30	16.60	116.65	-567.07	-462.45	162.22	129.43	32.79	4.947	
11,500.00	11,406.66	11,465.42	11,406.66	16.71	16.64	127.17	-567.07	-462.45	198.42	165.07	33.35	5.949	
11,600.00	11,476.08	11,534.83	11,476.08	17.25	16.67	133.69	-567.07	-462.45	254.40	220.68	33.72	7.544	
11,700.00	11,531.97	11,624.08	11,565.17	17.94	16.75	140.56	-570.90	-462.57	325.00	290.86	34.15	9.518	
11,800.00	11,572.64	11,767.18	11,703.80	18.75	17.08	149.23	-604.90	-463.61	398.40	362.18	36.22	10.999	
11,900.00	11,596.86	11,984.41	11,886.99	19.67	17.92	156.67	-719.00	-467.09	464.04	422.51	41.53	11.173	
12,000.00	11,604.02	12,436.48	12,071.01	20.67	21.50	160.89	-1,118.53	-479.30	495.26	445.12	50.14	9.878	
12,100.00	11,604.54	12,564.77	12,072.72	21.72	22.82	160.61	-1,246.76	-481.06	496.35	445.86	50.48	9.832	
12,200.00	11,605.07	12,664.91	12,073.42	22.80	23.88	160.62	-1,346.90	-480.16	496.51	445.72	50.79	9.775	
12,300.00	11,605.59	12,764.91	12,074.12	23.92	24.97	160.62	-1,446.89	-479.25	496.67	445.54	51.13	9.714	
12,400.00	11,606.12	12,864.91	12,074.82	25.06	26.09	160.63	-1,546.88	-478.34	496.84	445.34	51.50	9.648	
12,500.00	11,606.64	12,964.91	12,075.51	26.22	27.23	160.63	-1,646.88	-477.44	497.00	445.11	51.89	9.577	
12,600.00	11,607.17	13,064.91	12,076.21	27.40	28.39	160.64	-1,746.87	-476.53	497.17	444.85	52.31	9.503	
12,700.00	11,607.69	13,164.91	12,076.91	28.59	29.56	160.65	-1,846.86	-475.62	497.33	444.57	52.76	9.426	
12,800.00	11,608.22	13,264.91	12,077.61	29.80	30.76	160.65	-1,946.86	-474.72	497.49	444.26	53.23	9.345	
12,900.00	11,608.74	13,364.91	12,078.31	31.03	31.96	160.66	-2,046.85	-473.81	497.66	443.93	53.73	9.262	
13,000.00	11,609.27	13,464.91	12,079.00	32.26	33.18	160.67	-2,146.84	-472.90	497.82	443.57	54.25	9.176	
13,100.00	11,609.79	13,564.91	12,079.70	33.51	34.41	160.67	-2,246.84	-472.00	497.99	443.19	54.80	9.088	
13,200.00	11,610.32	13,664.91	12,080.40	34.76	35.64	160.68	-2,346.83	-471.09	498.15	442.79	55.36	8.998	
13,300.00	11,610.84	13,764.91	12,081.10	36.03	36.89	160.69	-2,446.82	-470.18	498.31	442.36	55.95	8.906	
13,400.00	11,611.37	13,864.91	12,081.80	37.30	38.15	160.69	-2,546.82	-469.28	498.48	441.92	56.56	8.813	
13,500.00	11,611.89	13,964.91	12,082.50	38.57	39.41	160.70	-2,646.81	-468.37	498.64	441.45	57.19	8.719	
13,600.00	11,612.42	14,064.91	12,083.19	39.86	40.68	160.70	-2,746.80	-467.46	498.81	440.96	57.84	8.624	
13,700.00	11,612.94	14,164.91	12,083.89	41.14	41.95	160.71	-2,846.80	-466.56	498.97	440.46	58.51	8.528	
13,800.00	11,613.47	14,264.91	12,084.59	42.44	43.24	160.72	-2,946.79	-465.65	499.14	439.94	59.20	8.432	
13,900.00	11,613.99	14,364.91	12,085.29	43.74	44.52	160.72	-3,046.78	-464.74	499.30	439.40	59.90	8.335	
14,000.00	11,614.52	14,464.91	12,085.99	45.04	45.81	160.73	-3,146.78	-463.84	499.46	438.84	60.63	8.239	
14,100.00	11,615.04	14,564.91	12,086.69	46.34	47.11	160.74	-3,246.77	-462.93	499.63	438.26	61.36	8.142	
14,200.00	11,615.57	14,664.91	12,087.38	47.65	48.41	160.74	-3,346.76	-462.02	499.79	437.67	62.12	8.046	
14,300.00	11,616.09	14,764.91	12,088.08	48.97	49.71	160.75	-3,446.76	-461.11	499.96	437.07	62.89	7.950	
14,400.00	11,616.62	14,864.91	12,088.78	50.28	51.01	160.75	-3,546.75	-460.21	500.12	436.45	63.67	7.855	
14,500.00	11,617.14	14,964.91	12,089.48	51.60	52.32	160.76	-3,646.74	-459.30	500.28	435.82	64.47	7.760	
14,600.00	11,617.67	15,064.91	12,090.18	52.92	53.63	160.77	-3,746.74	-458.39	500.45	435.17	65.28	7.666	
14,700.00	11,618.19	15,164.91	12,090.87	54.25	54.95	160.77	-3,846.73	-457.49	500.61	434.51	66.10	7.573	
14,800.00	11,618.72	15,264.91	12,091.57	55.57	56.27	160.78	-3,946.72	-456.58	500.78	433.84	66.94	7.481	
14,900.00	11,619.24	15,364.91	12,092.27	56.90	57.59	160.79	-4,046.72	-455.67	500.94	433.15	67.79	7.390	
15,000.00	11,619.77	15,464.91	12,092.97	58.23	58.91	160.79	-4,146.71	-454.77	501.11	432.45	68.65	7.299	
15,100.00	11,620.29	15,564.91	12,093.67	59.56	60.23	160.80	-4,246.70	-453.86	501.27	431.75	69.52	7.210	
15,200.00	11,620.82	15,664.91	12,094.37	60.89	61.56	160.81	-4,346.70	-452.95	501.43	431.03	70.41	7.122	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,300.00	11,621.34	15,764.91	12,095.06	62.23	62.89	160.81	-4,446.69	-452.05	501.60	430.30	71.30	7.035	
15,400.00	11,621.87	15,864.91	12,095.76	63.56	64.21	160.82	-4,546.68	-451.14	501.76	429.56	72.20	6.950	
15,500.00	11,622.40	15,964.91	12,096.46	64.90	65.55	160.82	-4,646.68	-450.23	501.93	428.81	73.11	6.865	
15,600.00	11,622.92	16,064.91	12,097.16	66.24	66.88	160.83	-4,746.67	-449.33	502.09	428.06	74.03	6.782	
15,700.00	11,623.45	16,164.91	12,097.86	67.58	68.21	160.84	-4,846.66	-448.42	502.26	427.29	74.96	6.700	
15,800.00	11,623.97	16,264.91	12,098.56	68.92	69.55	160.84	-4,946.66	-447.51	502.42	426.52	75.90	6.619	
15,900.00	11,624.50	16,364.91	12,099.25	70.26	70.88	160.85	-5,046.65	-446.61	502.58	425.73	76.85	6.540	
16,000.00	11,625.02	16,464.91	12,099.95	71.61	72.22	160.86	-5,146.64	-445.70	502.75	424.94	77.80	6.462	
16,100.00	11,625.55	16,564.91	12,100.65	72.95	73.56	160.86	-5,246.64	-444.79	502.91	424.15	78.77	6.385	
16,200.00	11,626.07	16,664.91	12,101.35	74.30	74.90	160.87	-5,346.63	-443.89	503.08	423.34	79.73	6.309	
16,300.00	11,626.60	16,764.91	12,102.05	75.64	76.24	160.87	-5,446.62	-442.98	503.24	422.53	80.71	6.235	
16,400.00	11,627.12	16,864.91	12,102.74	76.99	77.58	160.88	-5,546.62	-442.07	503.41	421.71	81.69	6.162	
16,500.00	11,627.65	16,964.91	12,103.44	78.34	78.93	160.89	-5,646.61	-441.16	503.57	420.89	82.68	6.090	
16,600.00	11,628.17	17,064.91	12,104.14	79.68	80.27	160.89	-5,746.60	-440.26	503.73	420.06	83.68	6.020	
16,700.00	11,628.70	17,164.91	12,104.84	81.03	81.61	160.90	-5,846.60	-439.35	503.90	419.22	84.68	5.951	
16,800.00	11,629.22	17,264.91	12,105.54	82.38	82.96	160.91	-5,946.59	-438.44	504.06	418.38	85.69	5.883	
16,900.00	11,629.75	17,364.91	12,106.24	83.73	84.31	160.91	-6,046.58	-437.54	504.23	417.53	86.70	5.816	
17,000.00	11,630.27	17,464.91	12,106.93	85.08	85.65	160.92	-6,146.58	-436.63	504.39	416.67	87.72	5.750	
17,100.00	11,630.80	17,564.91	12,107.63	86.44	87.00	160.92	-6,246.57	-435.72	504.56	415.82	88.74	5.686	
17,200.00	11,631.32	17,664.91	12,108.33	87.79	88.35	160.93	-6,346.56	-434.82	504.72	414.95	89.77	5.623	
17,300.00	11,631.85	17,764.91	12,109.03	89.14	89.70	160.94	-6,446.56	-433.91	504.88	414.08	90.80	5.560	
17,400.00	11,632.37	17,864.91	12,109.73	90.49	91.05	160.94	-6,546.55	-433.00	505.05	413.21	91.84	5.499	
17,500.00	11,632.90	17,964.91	12,110.43	91.85	92.40	160.95	-6,646.54	-432.10	505.21	412.33	92.88	5.440	
17,600.00	11,633.42	18,064.91	12,111.12	93.20	93.75	160.95	-6,746.54	-431.19	505.38	411.45	93.92	5.381	
17,700.00	11,633.95	18,164.91	12,111.82	94.56	95.10	160.96	-6,846.53	-430.28	505.54	410.57	94.97	5.323	
17,800.00	11,634.47	18,264.91	12,112.52	95.91	96.45	160.97	-6,946.52	-429.38	505.71	409.68	96.03	5.266	
17,900.00	11,635.00	18,364.91	12,113.22	97.27	97.80	160.97	-7,046.52	-428.47	505.87	408.79	97.08	5.211	
18,000.00	11,635.52	18,464.91	12,113.92	98.62	99.16	160.98	-7,146.51	-427.56	506.03	407.89	98.15	5.156	
18,100.00	11,636.05	18,564.91	12,114.62	99.98	100.51	160.99	-7,246.50	-426.66	506.20	406.99	99.21	5.102	
18,200.00	11,636.57	18,664.90	12,115.31	101.34	101.86	160.99	-7,346.50	-425.75	506.36	406.08	100.28	5.050	
18,300.00	11,637.10	18,764.90	12,116.01	102.69	103.22	161.00	-7,446.49	-424.84	506.53	405.18	101.35	4.998	
18,400.00	11,637.62	18,864.90	12,116.71	104.05	104.57	161.00	-7,546.48	-423.94	506.69	404.27	102.43	4.947	
18,500.00	11,638.15	18,964.90	12,117.41	105.41	105.93	161.01	-7,646.48	-423.03	506.86	403.35	103.50	4.897	
18,600.00	11,638.67	19,064.90	12,118.11	106.76	107.28	161.02	-7,746.47	-422.12	507.02	402.44	104.58	4.848	
18,700.00	11,639.20	19,164.90	12,118.80	108.12	108.64	161.02	-7,846.46	-421.22	507.19	401.52	105.67	4.800	
18,800.00	11,639.72	19,264.90	12,119.50	109.48	109.99	161.03	-7,946.46	-420.31	507.35	400.60	106.75	4.753	
18,900.00	11,640.25	19,364.90	12,120.20	110.84	111.35	161.03	-8,046.45	-419.40	507.51	399.67	107.84	4.706	
19,000.00	11,640.77	19,464.90	12,120.90	112.20	112.70	161.04	-8,146.44	-418.49	507.68	398.75	108.93	4.660	
19,100.00	11,641.30	19,564.90	12,121.60	113.56	114.06	161.05	-8,246.44	-417.59	507.84	397.82	110.03	4.616	
19,200.00	11,641.82	19,664.90	12,122.30	114.92	115.42	161.05	-8,346.43	-416.68	508.01	396.88	111.12	4.572	
19,300.00	11,642.35	19,764.90	12,122.99	116.28	116.78	161.06	-8,446.42	-415.77	508.17	395.95	112.22	4.528	
19,400.00	11,642.87	19,864.90	12,123.69	117.64	118.13	161.07	-8,546.42	-414.87	508.34	395.01	113.32	4.486	
19,500.00	11,643.40	19,964.90	12,124.39	119.00	119.49	161.07	-8,646.41	-413.96	508.50	394.07	114.43	4.444	
19,600.00	11,643.92	20,064.90	12,125.09	120.36	120.85	161.08	-8,746.40	-413.05	508.67	393.13	115.53	4.403	
19,700.00	11,644.45	20,164.90	12,125.79	121.72	122.21	161.08	-8,846.40	-412.15	508.83	392.19	116.64	4.362	
19,800.00	11,644.97	20,264.90	12,126.49	123.08	123.57	161.09	-8,946.39	-411.24	508.99	391.25	117.75	4.323	
19,900.00	11,645.50	20,364.90	12,127.18	124.44	124.93	161.10	-9,046.38	-410.33	509.16	390.30	118.86	4.284	
20,000.00	11,646.02	20,464.90	12,127.88	125.80	126.28	161.10	-9,146.38	-409.43	509.32	389.35	119.97	4.245	
20,100.00	11,646.55	20,564.90	12,128.58	127.16	127.64	161.11	-9,246.37	-408.52	509.49	388.40	121.09	4.208	
20,200.00	11,647.07	20,664.90	12,129.28	128.52	129.00	161.11	-9,346.36	-407.61	509.65	387.45	122.20	4.171	
20,300.00	11,647.60	20,764.90	12,129.98	129.88	130.36	161.12	-9,446.36	-406.71	509.82	386.50	123.32	4.134	
20,400.00	11,648.12	20,864.90	12,130.67	131.25	131.72	161.13	-9,546.35	-405.80	509.98	385.54	124.44	4.098	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,500.00	11,648.65	20,964.90	12,131.37	132.61	133.08	161.13	-9,646.34	-404.89	510.15	384.58	125.56	4.063	
20,600.00	11,649.17	21,064.90	12,132.07	133.97	134.44	161.14	-9,746.34	-403.99	510.31	383.63	126.68	4.028	
20,700.00	11,649.70	21,164.90	12,132.77	135.33	135.80	161.14	-9,846.33	-403.08	510.47	382.67	127.81	3.994	
20,800.00	11,650.23	21,264.90	12,133.47	136.69	137.16	161.15	-9,946.32	-402.17	510.64	381.71	128.93	3.961	
20,900.00	11,650.75	21,364.90	12,134.17	138.06	138.53	161.16	-10,046.32	-401.27	510.80	380.74	130.06	3.927	
21,000.00	11,651.28	21,464.90	12,134.86	139.42	139.89	161.16	-10,146.31	-400.36	510.97	379.78	131.19	3.895	
21,100.00	11,651.80	21,564.90	12,135.56	140.78	141.25	161.17	-10,246.30	-399.45	511.13	378.82	132.32	3.863	
21,200.00	11,652.33	21,664.90	12,136.26	142.15	142.61	161.17	-10,346.30	-398.54	511.30	377.85	133.45	3.831	
21,300.00	11,652.85	21,764.90	12,136.96	143.51	143.97	161.18	-10,446.29	-397.64	511.46	376.88	134.58	3.800	
21,400.00	11,653.38	21,864.90	12,137.66	144.87	145.33	161.19	-10,546.28	-396.73	511.63	375.91	135.71	3.770	
21,500.00	11,653.90	21,964.90	12,138.36	146.24	146.69	161.19	-10,646.28	-395.82	511.79	374.94	136.85	3.740	
21,600.00	11,654.43	22,064.90	12,139.05	147.60	148.06	161.20	-10,746.27	-394.92	511.96	373.97	137.98	3.710	
21,700.00	11,654.95	22,164.90	12,139.75	148.96	149.42	161.20	-10,846.26	-394.01	512.12	373.00	139.12	3.681	
21,800.00	11,655.48	22,264.90	12,140.45	150.33	150.78	161.21	-10,946.26	-393.10	512.29	372.03	140.25	3.653	
21,900.00	11,656.00	22,364.90	12,141.15	151.69	152.14	161.22	-11,046.25	-392.20	512.45	371.06	141.39	3.624	
21,918.86	11,656.10	22,383.76	12,141.28	151.95	152.40	161.22	-11,065.11	-392.03	512.48	370.87	141.61	3.619	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.50	0.50	180.00	-135.00	0.00	135.00				
100.00	100.00	100.00	100.00	0.98	0.97	180.00	-135.00	0.00	135.00	133.05	1.95	69.198	
200.00	200.00	200.00	200.00	1.56	1.55	180.00	-135.00	0.00	135.00	131.88	3.12	43.336	
300.00	300.00	300.00	300.00	1.98	1.98	180.00	-135.00	0.00	135.00	131.04	3.96	34.119	
400.00	399.99	399.99	399.99	2.41	2.32	-25.11	-135.00	0.00	133.81	129.10	4.72	28.375	
500.00	499.91	499.91	499.91	2.77	2.63	-25.87	-135.00	0.00	130.27	124.90	5.37	24.263	
600.00	599.69	599.69	599.69	3.10	2.91	-27.22	-135.00	0.00	124.42	118.46	5.96	20.884	
700.00	699.32	699.32	699.32	3.23	3.16	-29.16	-135.00	0.00	116.85	110.52	6.33	18.449	
800.00	798.94	798.94	798.94	3.47	3.39	-31.39	-135.00	0.00	109.32	102.51	6.81	16.061	
900.00	898.56	898.56	898.56	3.70	3.62	-33.93	-135.00	0.00	101.97	94.72	7.26	14.054	
1,000.00	998.18	998.18	998.18	3.93	3.83	-36.87	-135.00	0.00	94.86	87.17	7.68	12.343	
1,100.00	1,097.80	1,097.80	1,097.80	4.16	4.03	-40.27	-135.00	0.00	88.03	79.93	8.10	10.873	
1,200.00	1,197.42	1,197.42	1,197.42	4.38	4.22	-44.22	-135.00	0.00	81.56	73.07	8.49	9.606	
1,300.00	1,297.01	1,297.01	1,297.01	4.50	4.41	-50.22	-135.00	0.00	75.40	66.62	8.77	8.593	
1,400.00	1,396.38	1,395.67	1,395.67	4.76	4.49	-59.10	-135.27	0.00	69.13	60.08	9.05	7.635	
1,500.00	1,495.42	1,493.59	1,493.56	5.02	4.67	-69.50	-137.70	0.00	65.12	55.72	9.40	6.929	
1,568.84	1,563.37	1,561.10	1,561.00	5.19	4.80	-77.33	-140.83	0.00	64.26	54.63	9.63	6.672	CC, ES
1,600.00	1,594.07	1,591.69	1,591.53	5.27	4.85	-80.95	-142.64	0.00	64.44	54.71	9.74	6.620	
1,700.00	1,692.25	1,689.86	1,689.41	5.52	4.98	-92.29	-150.11	0.01	67.56	57.51	10.05	6.722	
1,800.00	1,790.08	1,786.97	1,786.09	5.69	5.11	-102.26	-159.12	1.29	75.15	64.77	10.38	7.241	
1,900.00	1,887.89	1,883.64	1,882.19	5.90	5.26	-109.82	-169.04	4.83	87.10	76.31	10.79	8.074	
2,000.00	1,985.71	1,980.58	1,978.35	6.11	5.34	-115.11	-179.89	10.50	102.45	91.32	11.13	9.206	
2,100.00	2,083.52	2,078.93	2,075.86	6.33	5.48	-118.97	-191.11	16.75	118.96	107.43	11.53	10.316	
2,200.00	2,181.34	2,177.28	2,173.37	6.54	5.63	-121.89	-202.32	23.00	135.87	123.93	11.95	11.372	
2,300.00	2,279.15	2,275.64	2,270.88	6.76	5.79	-124.16	-213.54	29.25	153.05	140.69	12.36	12.380	
2,400.00	2,376.96	2,373.99	2,368.39	6.99	5.94	-125.97	-224.75	35.50	170.42	157.64	12.78	13.338	
2,500.00	2,474.78	2,472.34	2,465.90	7.27	6.10	-127.44	-235.97	41.75	187.92	174.72	13.19	14.245	
2,600.00	2,572.59	2,570.69	2,563.41	7.54	6.26	-128.66	-247.18	48.01	205.52	191.91	13.61	15.103	
2,700.00	2,670.41	2,669.05	2,660.92	7.82	6.43	-129.69	-258.40	54.26	223.19	209.17	14.02	15.916	
2,800.00	2,768.22	2,767.40	2,758.43	8.11	6.59	-130.57	-269.62	60.51	240.93	226.49	14.44	16.684	
2,900.00	2,866.03	2,865.75	2,855.94	8.39	6.76	-131.33	-280.83	66.76	258.71	243.85	14.86	17.412	
3,000.00	2,963.85	2,964.10	2,953.45	8.67	6.92	-131.99	-292.05	73.01	276.53	261.26	15.28	18.101	
3,100.00	3,061.66	3,062.46	3,050.96	8.96	7.09	-132.57	-303.26	79.26	294.39	278.69	15.70	18.753	
3,200.00	3,159.48	3,160.81	3,148.47	9.24	7.26	-133.09	-314.48	85.51	312.27	296.15	16.12	19.372	
3,300.00	3,257.29	3,259.16	3,245.98	9.53	7.43	-133.54	-325.69	91.77	330.17	313.63	16.54	19.960	
3,400.00	3,355.10	3,357.51	3,343.49	9.81	7.60	-133.96	-336.91	98.02	348.09	331.12	16.97	20.518	
3,500.00	3,452.92	3,455.86	3,441.00	10.10	7.77	-134.33	-348.13	104.27	366.02	348.63	17.39	21.048	
3,600.00	3,550.73	3,554.22	3,538.51	10.39	7.94	-134.66	-359.34	110.52	383.97	366.15	17.81	21.553	
3,700.00	3,648.55	3,652.57	3,636.02	10.68	8.12	-134.97	-370.56	116.77	401.93	383.69	18.24	22.034	
3,800.00	3,746.36	3,750.92	3,733.54	10.95	8.29	-135.26	-381.77	123.02	419.89	401.24	18.66	22.507	
3,900.00	3,844.48	3,849.47	3,831.24	11.23	8.46	-135.56	-393.01	129.29	436.81	417.72	19.09	22.885	
4,000.00	3,943.06	3,948.32	3,929.25	11.48	8.64	-135.59	-404.28	135.57	451.88	432.37	19.51	23.164	
4,100.00	4,042.05	4,047.40	4,027.48	11.70	8.82	-135.39	-415.58	141.87	465.11	445.20	19.92	23.353	
4,200.00	4,141.38	4,146.65	4,125.87	11.90	8.99	-134.96	-426.90	148.18	476.52	456.21	20.31	23.459	
4,300.00	4,240.98	4,245.98	4,224.36	12.08	9.17	-134.31	-438.23	154.49	486.16	465.46	20.70	23.491	
4,400.00	4,340.77	4,345.34	4,322.87	12.22	9.35	-133.46	-449.56	160.80	494.08	473.01	21.06	23.459	
4,500.00	4,440.70	4,444.66	4,421.34	12.34	9.53	-132.41	-460.88	167.12	500.36	478.95	21.41	23.372	
4,600.00	4,540.69	4,543.87	4,519.70	12.41	9.71	79.28	-472.20	173.42	505.11	483.44	21.68	23.300	
4,700.00	4,640.69	4,643.01	4,617.99	12.44	9.89	80.66	-483.50	179.72	509.42	487.50	21.92	23.241	
4,800.00	4,740.69	4,742.16	4,716.29	12.48	10.07	82.02	-494.81	186.03	514.02	491.86	22.16	23.196	
4,900.00	4,840.69	4,841.30	4,814.58	12.52	10.25	83.36	-506.11	192.33	518.91	496.51	22.40	23.164	
5,000.00	4,940.69	4,940.45	4,912.88	12.56	10.43	84.67	-517.42	198.63	524.08	501.44	22.64	23.146	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	5,039.59	5,011.18	12.60	10.61	85.95	-528.73	204.93	529.52	506.65	22.88	23.146	
5,200.00	5,140.69	5,142.51	5,113.28	12.64	10.78	87.21	-540.05	211.24	535.03	511.92	23.11	23.148	
5,300.00	5,240.69	5,248.79	5,219.00	12.68	10.98	88.23	-549.43	216.47	539.61	516.25	23.36	23.098	
5,400.00	5,340.69	5,355.58	5,325.50	12.72	11.17	88.97	-556.26	220.28	543.03	519.44	23.59	23.023	
5,500.00	5,440.69	5,462.73	5,432.54	12.76	11.35	89.42	-560.50	222.64	545.18	521.40	23.78	22.922	
5,600.00	5,540.69	5,570.06	5,539.86	12.81	11.48	89.59	-562.11	223.54	546.01	522.08	23.92	22.822	
5,700.00	5,640.69	5,670.90	5,640.69	12.85	11.53	89.59	-562.13	223.55	546.01	522.01	24.01	22.744	
5,800.00	5,740.69	5,770.90	5,740.69	12.89	11.58	89.59	-562.13	223.55	546.01	521.92	24.10	22.660	
5,900.00	5,840.69	5,870.90	5,840.69	12.93	11.63	89.59	-562.13	223.55	546.01	521.83	24.19	22.575	
6,000.00	5,940.69	5,970.90	5,940.69	12.98	11.68	89.59	-562.13	223.55	546.01	521.74	24.28	22.490	
6,100.00	6,040.69	6,070.90	6,040.69	13.02	11.73	89.59	-562.13	223.55	546.01	521.64	24.37	22.404	
6,200.00	6,140.69	6,170.90	6,140.69	13.06	11.79	89.59	-562.13	223.55	546.01	521.55	24.46	22.319	
6,300.00	6,240.69	6,270.90	6,240.69	13.11	11.84	89.59	-562.13	223.55	546.01	521.46	24.56	22.234	
6,400.00	6,340.69	6,370.90	6,340.69	13.15	11.89	89.59	-562.13	223.55	546.01	521.36	24.65	22.149	
6,500.00	6,440.69	6,470.90	6,440.69	13.20	11.95	89.59	-562.13	223.55	546.01	521.27	24.75	22.064	
6,600.00	6,540.69	6,570.90	6,540.69	13.24	12.00	89.59	-562.13	223.55	546.01	521.17	24.84	21.979	
6,700.00	6,640.69	6,670.90	6,640.69	13.29	12.06	89.59	-562.13	223.55	546.01	521.07	24.94	21.894	
6,800.00	6,740.69	6,770.90	6,740.69	13.34	12.11	89.59	-562.13	223.55	546.01	520.98	25.04	21.809	
6,900.00	6,840.69	6,870.90	6,840.69	13.38	12.17	89.59	-562.13	223.55	546.01	520.88	25.13	21.724	
7,000.00	6,940.69	6,970.90	6,940.69	13.43	12.22	89.59	-562.13	223.55	546.01	520.78	25.23	21.639	
7,100.00	7,040.69	7,070.90	7,040.69	13.48	12.28	89.59	-562.13	223.55	546.01	520.68	25.33	21.554	
7,200.00	7,140.69	7,170.90	7,140.69	13.52	12.33	89.59	-562.13	223.55	546.01	520.58	25.43	21.470	
7,300.00	7,240.69	7,270.90	7,240.69	13.57	12.39	89.59	-562.13	223.55	546.01	520.48	25.53	21.385	
7,400.00	7,340.69	7,370.90	7,340.69	13.62	12.45	89.59	-562.13	223.55	546.01	520.38	25.63	21.301	
7,500.00	7,440.69	7,470.90	7,440.69	13.67	12.50	89.59	-562.13	223.55	546.01	520.28	25.74	21.216	
7,600.00	7,540.69	7,570.90	7,540.69	13.72	12.56	89.59	-562.13	223.55	546.01	520.18	25.84	21.132	
7,700.00	7,640.69	7,670.90	7,640.69	13.77	12.62	89.59	-562.13	223.55	546.01	520.07	25.94	21.048	
7,800.00	7,740.69	7,770.90	7,740.69	13.82	12.68	89.59	-562.13	223.55	546.01	519.97	26.04	20.964	
7,900.00	7,840.69	7,870.90	7,840.69	13.87	12.73	89.59	-562.13	223.55	546.01	519.87	26.15	20.881	
8,000.00	7,940.69	7,970.90	7,940.69	13.92	12.79	89.59	-562.13	223.55	546.01	519.76	26.25	20.797	
8,100.00	8,040.69	8,070.90	8,040.69	13.97	12.85	89.59	-562.13	223.55	546.01	519.65	26.36	20.714	
8,200.00	8,140.69	8,170.90	8,140.69	14.02	12.91	89.59	-562.13	223.55	546.01	519.55	26.47	20.631	
8,300.00	8,240.69	8,270.90	8,240.69	14.07	12.97	89.59	-562.13	223.55	546.01	519.44	26.57	20.548	
8,400.00	8,340.69	8,370.90	8,340.69	14.12	13.03	89.59	-562.13	223.55	546.01	519.33	26.68	20.466	
8,500.00	8,440.69	8,470.90	8,440.69	14.17	13.09	89.59	-562.13	223.55	546.01	519.23	26.79	20.384	
8,600.00	8,540.69	8,570.90	8,540.69	14.23	13.15	89.59	-562.13	223.55	546.01	519.12	26.90	20.302	
8,700.00	8,640.69	8,670.90	8,640.69	14.28	13.21	89.59	-562.13	223.55	546.01	519.01	27.00	20.220	
8,800.00	8,740.69	8,770.90	8,740.69	14.33	13.27	89.59	-562.13	223.55	546.01	518.90	27.11	20.138	
8,900.00	8,840.69	8,870.90	8,840.69	14.38	13.33	89.59	-562.13	223.55	546.01	518.79	27.22	20.057	
9,000.00	8,940.69	8,970.90	8,940.69	14.44	13.39	89.59	-562.13	223.55	546.01	518.68	27.33	19.976	
9,100.00	9,040.69	9,070.90	9,040.69	14.49	13.45	89.59	-562.13	223.55	546.01	518.57	27.44	19.895	
9,200.00	9,140.69	9,170.90	9,140.69	14.54	13.51	89.59	-562.13	223.55	546.01	518.46	27.56	19.814	
9,300.00	9,240.69	9,270.90	9,240.69	14.60	13.57	89.59	-562.13	223.55	546.01	518.35	27.67	19.734	
9,400.00	9,340.69	9,370.90	9,340.69	14.65	13.64	89.59	-562.13	223.55	546.01	518.23	27.78	19.654	
9,500.00	9,440.69	9,470.90	9,440.69	14.71	13.70	89.59	-562.13	223.55	546.01	518.12	27.89	19.575	
9,600.00	9,540.69	9,570.90	9,540.69	14.76	13.76	89.59	-562.13	223.55	546.01	518.01	28.01	19.495	
9,700.00	9,640.69	9,670.90	9,640.69	14.82	13.82	89.59	-562.13	223.55	546.01	517.89	28.12	19.416	
9,800.00	9,740.69	9,770.90	9,740.69	14.87	13.88	89.59	-562.13	223.55	546.01	517.78	28.24	19.338	
9,900.00	9,840.69	9,870.90	9,840.69	14.93	13.95	89.59	-562.13	223.55	546.01	517.66	28.35	19.259	
10,000.00	9,940.69	9,970.90	9,940.69	14.98	14.01	89.59	-562.13	223.55	546.01	517.55	28.47	19.181	
10,100.00	10,040.69	10,070.90	10,040.69	15.04	14.07	89.59	-562.13	223.55	546.01	517.43	28.58	19.103	
10,200.00	10,140.69	10,170.90	10,140.69	15.10	14.14	89.59	-562.13	223.55	546.01	517.32	28.70	19.026	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
15,400.00	11,621.87	15,809.76	12,070.78	63.56	61.69	-129.43	-4,540.40	259.70	706.86	602.13	104.73	6.749
15,500.00	11,622.40	15,909.76	12,071.48	64.90	63.02	-129.44	-4,640.39	260.61	706.97	600.21	106.76	6.622
15,600.00	11,622.92	16,009.76	12,072.18	66.24	64.36	-129.45	-4,740.38	261.52	707.08	598.29	108.80	6.499
15,700.00	11,623.45	16,109.76	12,072.88	67.58	65.70	-129.46	-4,840.38	262.43	707.19	596.35	110.84	6.380
15,800.00	11,623.97	16,209.76	12,073.58	68.92	67.04	-129.47	-4,940.37	263.34	707.30	594.42	112.89	6.266
15,900.00	11,624.50	16,309.76	12,074.28	70.26	68.38	-129.48	-5,040.36	264.25	707.41	592.48	114.94	6.155
16,000.00	11,625.02	16,409.76	12,074.98	71.61	69.72	-129.49	-5,140.36	265.16	707.53	590.53	116.99	6.048
16,100.00	11,625.55	16,509.76	12,075.68	72.95	71.07	-129.50	-5,240.35	266.07	707.64	588.58	119.05	5.944
16,200.00	11,626.07	16,609.76	12,076.37	74.30	72.41	-129.51	-5,340.34	266.97	707.75	586.63	121.11	5.844
16,300.00	11,626.60	16,709.76	12,077.07	75.64	73.76	-129.52	-5,440.34	267.88	707.86	584.68	123.18	5.747
16,400.00	11,627.12	16,809.76	12,077.77	76.99	75.10	-129.54	-5,540.33	268.79	707.97	582.72	125.25	5.653
16,500.00	11,627.65	16,909.76	12,078.47	78.34	76.45	-129.55	-5,640.32	269.70	708.08	580.76	127.32	5.561
16,600.00	11,628.17	17,009.76	12,079.17	79.68	77.80	-129.56	-5,740.32	270.61	708.19	578.80	129.39	5.473
16,700.00	11,628.70	17,109.76	12,079.87	81.03	79.15	-129.57	-5,840.31	271.52	708.30	576.83	131.47	5.387
16,800.00	11,629.22	17,209.76	12,080.57	82.38	80.49	-129.58	-5,940.30	272.43	708.41	574.86	133.55	5.304
16,900.00	11,629.75	17,309.76	12,081.27	83.73	81.84	-129.59	-6,040.30	273.34	708.52	572.89	135.63	5.224
17,000.00	11,630.27	17,409.76	12,081.97	85.08	83.20	-129.60	-6,140.29	274.24	708.63	570.92	137.72	5.146
17,100.00	11,630.80	17,509.76	12,082.67	86.44	84.55	-129.61	-6,240.28	275.15	708.74	568.94	139.80	5.070
17,200.00	11,631.32	17,609.76	12,083.37	87.79	85.90	-129.62	-6,340.28	276.06	708.85	566.96	141.89	4.996
17,300.00	11,631.85	17,709.76	12,084.07	89.14	87.25	-129.63	-6,440.27	276.97	708.96	564.98	143.98	4.924
17,400.00	11,632.37	17,809.76	12,084.76	90.49	88.60	-129.64	-6,540.26	277.88	709.08	563.00	146.07	4.854
17,500.00	11,632.90	17,909.76	12,085.46	91.85	89.96	-129.66	-6,640.26	278.79	709.19	561.02	148.17	4.786
17,600.00	11,633.42	18,009.76	12,086.16	93.20	91.31	-129.67	-6,740.25	279.70	709.30	559.04	150.26	4.720
17,700.00	11,633.95	18,109.76	12,086.86	94.56	92.67	-129.68	-6,840.24	280.61	709.41	557.05	152.36	4.656
17,800.00	11,634.47	18,209.76	12,087.56	95.91	94.02	-129.69	-6,940.24	281.51	709.52	555.06	154.46	4.594
17,900.00	11,635.00	18,309.76	12,088.26	97.27	95.38	-129.70	-7,040.23	282.42	709.63	553.08	156.56	4.533
18,000.00	11,635.52	18,409.76	12,088.96	98.62	96.73	-129.71	-7,140.22	283.33	709.74	551.09	158.66	4.473
18,100.00	11,636.05	18,509.76	12,089.66	99.98	98.09	-129.72	-7,240.22	284.24	709.85	549.10	160.76	4.416
18,200.00	11,636.57	18,609.76	12,090.36	101.34	99.44	-129.73	-7,340.21	285.15	709.96	547.10	162.86	4.359
18,300.00	11,637.10	18,709.76	12,091.06	102.69	100.80	-129.74	-7,440.20	286.06	710.07	545.11	164.96	4.304
18,400.00	11,637.62	18,809.76	12,091.76	104.05	102.16	-129.75	-7,540.20	286.97	710.19	543.12	167.07	4.251
18,500.00	11,638.15	18,909.76	12,092.45	105.41	103.51	-129.76	-7,640.19	287.88	710.30	541.12	169.17	4.199
18,600.00	11,638.67	19,009.76	12,093.15	106.76	104.87	-129.77	-7,740.18	288.78	710.41	539.13	171.28	4.148
18,700.00	11,639.20	19,109.76	12,093.85	108.12	106.23	-129.78	-7,840.18	289.69	710.52	537.13	173.39	4.098
18,800.00	11,639.72	19,209.76	12,094.55	109.48	107.59	-129.80	-7,940.17	290.60	710.63	535.14	175.50	4.049
18,900.00	11,640.25	19,309.76	12,095.25	110.84	108.95	-129.81	-8,040.16	291.51	710.74	533.14	177.60	4.002
19,000.00	11,640.77	19,409.76	12,095.95	112.20	110.31	-129.82	-8,140.16	292.42	710.85	531.14	179.71	3.955
19,100.00	11,641.30	19,509.76	12,096.65	113.56	111.67	-129.83	-8,240.15	293.33	710.96	529.14	181.82	3.910
19,200.00	11,641.82	19,609.76	12,097.35	114.92	113.03	-129.84	-8,340.14	294.24	711.08	527.14	183.93	3.866
19,300.00	11,642.35	19,709.76	12,098.05	116.28	114.38	-129.85	-8,440.14	295.15	711.19	525.14	186.05	3.823
19,400.00	11,642.87	19,809.76	12,098.75	117.64	115.74	-129.86	-8,540.13	296.05	711.30	523.14	188.16	3.780
19,500.00	11,643.40	19,909.76	12,099.45	119.00	117.10	-129.87	-8,640.12	296.96	711.41	521.14	190.27	3.739
19,600.00	11,643.92	20,009.76	12,100.15	120.36	118.47	-129.88	-8,740.12	297.87	711.52	519.14	192.38	3.698
19,700.00	11,644.45	20,109.76	12,100.84	121.72	119.83	-129.89	-8,840.11	298.78	711.63	517.14	194.49	3.659
19,800.00	11,644.97	20,209.76	12,101.54	123.08	121.19	-129.90	-8,940.10	299.69	711.74	515.14	196.61	3.620
19,900.00	11,645.50	20,309.76	12,102.24	124.44	122.55	-129.91	-9,040.09	300.60	711.86	513.13	198.72	3.582
20,000.00	11,646.02	20,409.76	12,102.94	125.80	123.91	-129.92	-9,140.09	301.51	711.97	511.13	200.84	3.545
20,100.00	11,646.55	20,509.76	12,103.64	127.16	125.27	-129.94	-9,240.08	302.42	712.08	509.13	202.95	3.509
20,200.00	11,647.07	20,609.76	12,104.34	128.52	126.63	-129.95	-9,340.07	303.32	712.19	507.13	205.06	3.473
20,300.00	11,647.60	20,709.76	12,105.04	129.88	127.99	-129.96	-9,440.07	304.23	712.30	505.12	207.18	3.438
20,400.00	11,648.12	20,809.76	12,105.74	131.25	129.35	-129.97	-9,540.06	305.14	712.41	503.12	209.29	3.404
20,500.00	11,648.65	20,909.76	12,106.44	132.61	130.72	-129.98	-9,640.05	306.05	712.53	501.12	211.41	3.370

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,600.00	11,649.17	21,009.76	12,107.14	133.97	132.08	-129.99	-9,740.05	306.96	712.64	499.11	213.52	3.338	
20,700.00	11,649.70	21,109.76	12,107.84	135.33	133.44	-130.00	-9,840.04	307.87	712.75	497.11	215.64	3.305	
20,800.00	11,650.23	21,209.76	12,108.53	136.69	134.80	-130.01	-9,940.03	308.78	712.86	495.11	217.76	3.274	
20,900.00	11,650.75	21,309.76	12,109.23	138.06	136.17	-130.02	-10,040.03	309.69	712.97	493.10	219.87	3.243	
21,000.00	11,651.28	21,409.76	12,109.93	139.42	137.53	-130.03	-10,140.02	310.59	713.08	491.10	221.99	3.212	
21,100.00	11,651.80	21,509.76	12,110.63	140.78	138.89	-130.04	-10,240.01	311.50	713.20	489.09	224.10	3.182	
21,200.00	11,652.33	21,609.76	12,111.33	142.15	140.26	-130.05	-10,340.01	312.41	713.31	487.09	226.22	3.153	
21,300.00	11,652.85	21,709.76	12,112.03	143.51	141.62	-130.06	-10,440.00	313.32	713.42	485.09	228.33	3.124	
21,400.00	11,653.38	21,809.76	12,112.73	144.87	142.98	-130.07	-10,539.99	314.23	713.53	483.08	230.45	3.096	
21,500.00	11,653.90	21,909.75	12,113.43	146.24	144.34	-130.09	-10,639.99	315.14	713.64	481.08	232.57	3.069	
21,600.00	11,654.43	22,009.75	12,114.13	147.60	145.71	-130.10	-10,739.98	316.05	713.76	479.08	234.68	3.041	
21,700.00	11,654.95	22,109.75	12,114.83	148.96	147.07	-130.11	-10,839.97	316.95	713.87	477.07	236.80	3.015	
21,800.00	11,655.48	22,209.75	12,115.53	150.33	148.44	-130.12	-10,939.97	317.86	713.98	475.07	238.91	2.988	
21,900.00	11,656.00	22,309.75	12,116.23	151.69	149.79	-130.13	-11,039.96	318.77	714.09	473.07	241.02	2.963	
21,918.86	11,656.10	22,328.62	12,116.36	151.95	150.01	-130.13	-11,058.82	318.94	714.11	472.73	241.39	2.958	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 135H - OH - Plan 1

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)		Rule Assigned:		Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)
									Ellipses
									(usft)
									Minimum Separation
									(usft)
									Separation Factor
									Warning
7,100.00	7,040.69	7,069.86	7,040.69	13.48	13.62	-90.40	-581.36	-2,523.43	2,201.03
7,200.00	7,140.69	7,169.86	7,140.69	13.52	13.71	-90.40	-581.36	-2,523.43	2,201.03
7,300.00	7,240.69	7,269.86	7,240.69	13.57	13.80	-90.40	-581.36	-2,523.43	2,201.03
7,400.00	7,340.69	7,369.86	7,340.69	13.62	13.88	-90.40	-581.36	-2,523.43	2,201.03
7,500.00	7,440.69	7,469.86	7,440.69	13.67	13.97	-90.40	-581.36	-2,523.43	2,201.03
7,600.00	7,540.69	7,569.86	7,540.69	13.72	14.06	-90.40	-581.36	-2,523.43	2,201.03
7,700.00	7,640.69	7,669.86	7,640.69	13.77	14.14	-90.40	-581.36	-2,523.43	2,201.03
7,800.00	7,740.69	7,769.86	7,740.69	13.82	14.23	-90.40	-581.36	-2,523.43	2,201.03
7,900.00	7,840.69	7,869.86	7,840.69	13.87	14.32	-90.40	-581.36	-2,523.43	2,201.03
8,000.00	7,940.69	7,969.86	7,940.69	13.92	14.40	-90.40	-581.36	-2,523.43	2,201.03
8,100.00	8,040.69	8,069.86	8,040.69	13.97	14.49	-90.40	-581.36	-2,523.43	2,201.03
8,200.00	8,140.69	8,169.86	8,140.69	14.02	14.57	-90.40	-581.36	-2,523.43	2,201.03
8,300.00	8,240.69	8,269.86	8,240.69	14.07	14.66	-90.40	-581.36	-2,523.43	2,201.03
8,400.00	8,340.69	8,369.86	8,340.69	14.12	14.75	-90.40	-581.36	-2,523.43	2,201.03
8,500.00	8,440.69	8,469.86	8,440.69	14.17	14.83	-90.40	-581.36	-2,523.43	2,201.03
8,600.00	8,540.69	8,569.86	8,540.69	14.23	14.92	-90.40	-581.36	-2,523.43	2,201.03
8,700.00	8,640.69	8,669.86	8,640.69	14.28	15.00	-90.40	-581.36	-2,523.43	2,201.03
8,800.00	8,740.69	8,769.86	8,740.69	14.33	15.09	-90.40	-581.36	-2,523.43	2,201.03
8,900.00	8,840.69	8,869.86	8,840.69	14.38	15.18	-90.40	-581.36	-2,523.43	2,201.03
9,000.00	8,940.69	8,969.86	8,940.69	14.44	15.26	-90.40	-581.36	-2,523.43	2,201.03
9,100.00	9,040.69	9,069.86	9,040.69	14.49	15.35	-90.40	-581.36	-2,523.43	2,201.03
9,200.00	9,140.69	9,169.86	9,140.69	14.54	15.43	-90.40	-581.36	-2,523.43	2,201.03
9,300.00	9,240.69	9,269.86	9,240.69	14.60	15.52	-90.40	-581.36	-2,523.43	2,201.03
9,400.00	9,340.69	9,369.86	9,340.69	14.65	15.60	-90.40	-581.36	-2,523.43	2,201.03
9,500.00	9,440.69	9,469.86	9,440.69	14.71	15.69	-90.40	-581.36	-2,523.43	2,201.03
9,600.00	9,540.69	9,569.86	9,540.69	14.76	15.77	-90.40	-581.36	-2,523.43	2,201.03
9,700.00	9,640.69	9,669.86	9,640.69	14.82	15.86	-90.40	-581.36	-2,523.43	2,201.03
9,800.00	9,740.69	9,769.86	9,740.69	14.87	15.95	-90.40	-581.36	-2,523.43	2,201.03
9,900.00	9,840.69	9,869.86	9,840.69	14.93	16.03	-90.40	-581.36	-2,523.43	2,201.03
10,000.00	9,940.69	9,969.86	9,940.69	14.98	16.12	-90.40	-581.36	-2,523.43	2,201.03
10,100.00	10,040.69	10,069.86	10,040.69	15.04	16.20	-90.40	-581.36	-2,523.43	2,201.03
10,200.00	10,140.69	10,169.86	10,140.69	15.10	16.29	-90.40	-581.36	-2,523.43	2,201.03
10,300.00	10,240.69	10,269.86	10,240.69	15.15	16.37	-90.40	-581.36	-2,523.43	2,201.03
10,400.00	10,340.69	10,369.86	10,340.69	15.21	16.46	-90.40	-581.36	-2,523.43	2,201.03
10,500.00	10,440.69	10,469.86	10,440.69	15.27	16.54	-90.40	-581.36	-2,523.43	2,201.03
10,600.00	10,540.69	10,569.86	10,540.69	15.33	16.63	-90.40	-581.36	-2,523.43	2,201.03
10,700.00	10,640.69	10,669.86	10,640.69	15.38	16.71	-90.40	-581.36	-2,523.43	2,201.03
10,800.00	10,740.69	10,769.86	10,740.69	15.44	16.80	-90.40	-581.36	-2,523.43	2,201.03
10,900.00	10,840.69	10,869.86	10,840.69	15.50	16.88	-90.40	-581.36	-2,523.43	2,201.03
11,000.00	10,940.69	10,969.86	10,940.69	15.56	16.97	-90.40	-581.36	-2,523.43	2,201.03
11,007.57	10,948.26	10,977.43	10,948.26	15.56	16.97	90.12	-581.36	-2,523.43	2,201.03
11,100.00	11,040.69	11,069.85	11,040.69	15.61	17.05	90.12	-581.36	-2,523.43	2,201.03
11,200.00	11,140.02	11,169.19	11,140.02	15.75	17.14	90.39	-581.36	-2,523.43	2,201.08
11,300.00	11,236.04	11,265.21	11,236.04	15.99	17.22	91.04	-581.36	-2,523.43	2,201.44
11,400.00	11,325.83	11,354.99	11,325.83	16.30	17.29	91.93	-581.36	-2,523.43	2,202.72
11,500.00	11,406.66	11,435.83	11,406.66	16.71	17.36	92.85	-581.36	-2,523.43	2,205.80
11,600.00	11,476.08	11,505.24	11,476.08	17.25	17.42	93.55	-581.36	-2,523.43	2,211.68
11,700.00	11,531.97	11,561.13	11,531.97	17.94	17.46	93.78	-581.36	-2,523.43	2,221.33
11,800.00	11,572.64	11,645.46	11,616.16	18.75	17.49	94.35	-584.96	-2,523.40	2,235.26
11,900.00	11,596.86	11,855.84	11,816.28	19.67	17.52	97.33	-645.95	-2,522.87	2,252.08
12,000.00	11,604.02	12,489.97	12,125.06	20.67	17.62	103.32	-1,163.10	-2,518.42	2,262.14
12,100.00	11,604.54	12,589.97	12,125.93	21.72	17.68	103.33	-1,263.09	-2,517.56	2,262.26

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
900.00	898.56	1,104.86	1,103.70	3.70	4.43	46.00	-845.06	-2,299.53	2,431.97	2,423.96	8.02	303.380	
1,000.00	998.18	1,209.47	1,207.92	3.93	4.58	46.13	-843.00	-2,290.68	2,417.29	2,408.91	8.39	288.208	
1,100.00	1,097.80	1,308.24	1,306.31	4.16	4.80	46.26	-840.92	-2,282.32	2,402.59	2,393.77	8.82	272.272	
1,200.00	1,197.42	1,407.00	1,404.70	4.38	5.01	46.39	-838.84	-2,273.97	2,387.90	2,378.65	9.25	258.082	
1,300.00	1,297.01	1,505.72	1,503.04	4.50	5.22	45.43	-836.76	-2,265.62	2,373.00	2,363.42	9.58	247.694	
1,400.00	1,396.38	1,604.07	1,601.01	4.76	5.43	44.04	-834.69	-2,257.30	2,356.34	2,346.31	10.03	235.003	
1,500.00	1,495.42	1,701.92	1,698.49	5.02	5.63	43.30	-832.63	-2,249.03	2,337.66	2,327.18	10.47	223.241	
1,600.00	1,594.07	1,799.21	1,795.41	5.27	5.83	42.96	-830.58	-2,240.80	2,316.99	2,306.07	10.91	212.284	
1,700.00	1,692.25	1,895.88	1,891.71	5.52	6.03	42.89	-828.55	-2,232.62	2,294.37	2,283.01	11.36	202.009	
1,800.00	1,790.08	1,992.07	1,987.54	5.69	6.22	43.17	-826.52	-2,224.49	2,270.44	2,258.70	11.73	193.526	
1,900.00	1,887.89	2,088.24	2,083.34	5.90	6.42	43.52	-824.50	-2,216.36	2,246.53	2,234.37	12.16	184.797	
2,000.00	1,985.71	2,184.42	2,179.15	6.11	6.62	43.87	-822.47	-2,208.22	2,222.70	2,210.11	12.59	176.522	
2,100.00	2,083.52	2,380.93	2,374.51	6.33	7.05	44.61	-817.38	-2,187.75	2,197.27	2,184.05	13.22	166.248	
2,200.00	2,181.34	2,600.35	2,591.04	6.54	7.56	45.47	-808.85	-2,153.48	2,166.52	2,152.64	13.88	156.123	
2,300.00	2,279.15	2,811.26	2,796.93	6.76	8.06	46.34	-797.83	-2,109.21	2,130.60	2,116.11	14.49	147.057	
2,400.00	2,376.96	2,936.45	2,917.98	6.99	8.29	46.89	-790.12	-2,078.24	2,091.00	2,076.08	14.92	140.149	
2,500.00	2,474.78	3,027.17	3,005.61	7.27	8.49	47.30	-784.45	-2,055.45	2,051.26	2,035.91	15.35	133.609	
2,600.00	2,572.59	3,117.88	3,093.23	7.54	8.68	47.73	-778.78	-2,032.67	2,011.62	1,995.83	15.79	127.411	
2,700.00	2,670.41	3,208.60	3,180.85	7.82	8.88	48.18	-773.11	-2,009.88	1,972.08	1,955.85	16.23	121.532	
2,800.00	2,768.22	3,299.31	3,268.47	8.11	9.08	48.64	-767.43	-1,987.09	1,932.65	1,915.98	16.67	115.950	
2,900.00	2,866.03	3,390.02	3,356.10	8.39	9.28	49.12	-761.76	-1,964.31	1,893.33	1,876.22	17.11	110.646	
3,000.00	2,963.85	3,480.74	3,443.72	8.67	9.49	49.63	-756.09	-1,941.52	1,854.13	1,836.58	17.56	105.600	
3,100.00	3,061.66	3,571.45	3,531.34	8.96	9.72	50.15	-750.42	-1,918.74	1,815.07	1,797.06	18.01	100.798	
3,200.00	3,159.48	3,662.17	3,618.96	9.24	9.96	50.69	-744.75	-1,895.95	1,776.14	1,757.68	18.46	96.222	
3,300.00	3,257.29	3,752.88	3,706.59	9.53	10.23	51.26	-739.08	-1,873.17	1,737.36	1,718.44	18.91	91.859	
3,400.00	3,355.10	3,843.60	3,794.21	9.81	10.50	51.86	-733.41	-1,850.38	1,698.73	1,679.36	19.37	87.697	
3,500.00	3,452.92	3,934.31	3,881.83	10.10	10.78	52.48	-727.73	-1,827.60	1,660.27	1,640.44	19.83	83.722	
3,600.00	3,550.73	4,025.02	3,969.45	10.39	11.06	53.13	-722.06	-1,804.81	1,622.00	1,601.70	20.29	79.925	
3,700.00	3,648.55	4,115.74	4,057.08	10.68	11.35	53.81	-716.39	-1,782.02	1,583.91	1,563.15	20.76	76.291	
3,800.00	3,746.36	4,206.46	4,144.70	10.95	11.64	54.48	-710.72	-1,759.24	1,546.04	1,524.82	21.22	72.855	
3,900.00	3,844.48	4,297.73	4,232.86	11.23	11.93	54.69	-705.01	-1,736.31	1,509.19	1,487.50	21.69	69.580	
4,000.00	3,943.06	4,389.92	4,321.92	11.48	12.23	54.88	-699.25	-1,713.15	1,473.94	1,451.80	22.15	66.559	
4,100.00	4,042.05	4,482.98	4,411.80	11.70	12.53	55.03	-693.43	-1,689.78	1,440.27	1,417.68	22.59	63.771	
4,200.00	4,141.38	4,576.83	4,502.45	11.90	12.84	55.14	-687.57	-1,666.21	1,408.13	1,385.12	23.01	61.201	
4,300.00	4,240.98	4,671.41	4,593.81	12.08	13.15	55.21	-681.65	-1,642.45	1,377.52	1,354.10	23.41	58.833	
4,400.00	4,340.77	4,766.66	4,685.81	12.22	13.46	55.23	-675.70	-1,618.53	1,348.40	1,324.60	23.80	56.654	
4,500.00	4,440.70	4,862.50	4,778.39	12.34	13.77	55.18	-669.71	-1,594.45	1,320.76	1,296.59	24.17	54.653	
4,600.00	4,540.69	4,958.89	4,871.49	12.41	14.09	-94.47	-663.68	-1,570.24	1,294.58	1,270.12	24.46	52.923	
4,700.00	4,640.69	5,055.48	4,964.79	12.44	14.41	-94.28	-657.64	-1,545.98	1,269.04	1,244.30	24.73	51.310	
4,800.00	4,740.69	5,152.07	5,058.09	12.48	14.74	-94.08	-651.60	-1,521.72	1,243.50	1,218.50	25.01	49.730	
4,900.00	4,840.69	5,248.66	5,151.39	12.52	15.06	-93.87	-645.56	-1,497.46	1,217.99	1,192.71	25.28	48.183	
5,000.00	4,940.69	5,345.25	5,244.69	12.56	15.38	-93.65	-639.52	-1,473.19	1,192.49	1,166.93	25.55	46.667	
5,100.00	5,040.69	5,441.85	5,337.99	12.60	15.71	-93.43	-633.49	-1,448.93	1,167.00	1,141.17	25.83	45.182	
5,200.00	5,140.69	5,538.44	5,431.29	12.64	16.03	-93.19	-627.45	-1,424.67	1,141.54	1,115.43	26.11	43.727	
5,300.00	5,240.69	5,635.03	5,524.59	12.68	16.36	-92.94	-621.41	-1,400.41	1,116.09	1,089.71	26.38	42.301	
5,400.00	5,340.69	5,731.62	5,617.89	12.72	16.68	-92.68	-615.37	-1,376.15	1,090.66	1,064.00	26.66	40.904	
5,500.00	5,440.69	5,828.21	5,711.19	12.76	17.01	-92.41	-609.33	-1,351.88	1,065.26	1,038.31	26.94	39.535	
5,600.00	5,540.69	5,916.32	5,796.29	12.81	17.30	-92.15	-603.82	-1,329.75	1,039.91	1,012.69	27.22	38.197	
5,700.00	5,640.69	6,000.00	5,877.35	12.85	17.57	-91.90	-598.80	-1,309.60	1,015.65	988.14	27.51	36.922	
5,800.00	5,740.69	6,077.14	5,952.46	12.89	17.81	-91.68	-594.56	-1,292.54	993.35	965.55	27.80	35.737	
5,900.00	5,840.69	6,155.29	6,028.90	12.93	18.03	-91.48	-590.64	-1,276.77	973.02	944.94	28.07	34.659	
6,000.00	5,940.69	6,234.09	6,106.30	12.98	18.23	-91.28	-587.06	-1,262.41	954.67	926.33	28.34	33.685	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,100.00	6,040.69	6,313.48	6,184.57	13.02	18.43	-91.10	-583.85	-1,249.51	938.33	909.73	28.60	32.813	
6,200.00	6,140.69	6,400.00	6,270.16	13.06	18.62	-90.92	-580.80	-1,237.25	924.04	895.19	28.85	32.032	
6,300.00	6,240.69	6,473.79	6,343.36	13.11	18.76	-90.79	-578.57	-1,228.29	911.72	882.66	29.07	31.366	
6,400.00	6,340.69	6,554.57	6,423.69	13.15	18.90	-90.67	-576.52	-1,220.05	901.49	872.21	29.28	30.787	
6,500.00	6,440.69	6,635.67	6,504.51	13.20	19.02	-90.57	-574.87	-1,213.44	893.31	863.83	29.48	30.301	
6,600.00	6,540.69	6,717.03	6,585.71	13.24	19.12	-90.49	-573.64	-1,208.48	887.20	857.54	29.67	29.907	
6,700.00	6,640.69	6,800.00	6,668.60	13.29	19.21	-90.44	-572.81	-1,205.15	883.17	853.33	29.84	29.600	
6,800.00	6,740.69	6,880.22	6,748.81	13.34	19.27	-90.41	-572.42	-1,203.60	881.21	851.23	29.97	29.400	
6,859.85	6,800.55	6,931.96	6,800.55	13.36	19.30	-90.41	-572.38	-1,203.43	881.00	850.97	30.03	29.337	
6,900.00	6,840.69	6,972.11	6,840.69	13.38	19.31	-90.41	-572.38	-1,203.43	881.00	850.94	30.06	29.304	
7,000.00	6,940.69	7,072.11	6,940.69	13.43	19.36	-90.41	-572.38	-1,203.43	881.00	850.85	30.16	29.214	
7,100.00	7,040.69	7,172.11	7,040.69	13.48	19.41	-90.41	-572.38	-1,203.43	881.00	850.75	30.25	29.121	
7,200.00	7,140.69	7,272.11	7,140.69	13.52	19.46	-90.41	-572.38	-1,203.43	881.00	850.65	30.35	29.028	
7,300.00	7,240.69	7,372.11	7,240.69	13.57	19.51	-90.41	-572.38	-1,203.43	881.00	850.56	30.45	28.936	
7,400.00	7,340.69	7,472.11	7,340.69	13.62	19.56	-90.41	-572.38	-1,203.43	881.00	850.46	30.54	28.843	
7,500.00	7,440.69	7,572.11	7,440.69	13.67	19.61	-90.41	-572.38	-1,203.43	881.00	850.36	30.64	28.751	
7,600.00	7,540.69	7,672.11	7,540.69	13.72	19.66	-90.41	-572.38	-1,203.43	881.00	850.26	30.74	28.658	
7,700.00	7,640.69	7,772.11	7,640.69	13.77	19.71	-90.41	-572.38	-1,203.43	881.00	850.16	30.84	28.566	
7,800.00	7,740.69	7,872.11	7,740.69	13.82	19.76	-90.41	-572.38	-1,203.43	881.00	850.06	30.94	28.474	
7,900.00	7,840.69	7,972.11	7,840.69	13.87	19.81	-90.41	-572.38	-1,203.43	881.00	849.96	31.04	28.381	
8,000.00	7,940.69	8,072.11	7,940.69	13.92	19.87	-90.41	-572.38	-1,203.43	881.00	849.86	31.14	28.289	
8,100.00	8,040.69	8,172.11	8,040.69	13.97	19.92	-90.41	-572.38	-1,203.43	881.00	849.76	31.24	28.197	
8,200.00	8,140.69	8,272.11	8,140.69	14.02	19.97	-90.41	-572.38	-1,203.43	881.00	849.66	31.35	28.106	
8,300.00	8,240.69	8,372.11	8,240.69	14.07	20.02	-90.41	-572.38	-1,203.43	881.00	849.55	31.45	28.014	
8,400.00	8,340.69	8,472.11	8,340.69	14.12	20.07	-90.41	-572.38	-1,203.43	881.00	849.45	31.55	27.922	
8,500.00	8,440.69	8,572.11	8,440.69	14.17	20.13	-90.41	-572.38	-1,203.43	881.00	849.35	31.66	27.831	
8,600.00	8,540.69	8,672.11	8,540.69	14.23	20.18	-90.41	-572.38	-1,203.43	881.00	849.24	31.76	27.740	
8,700.00	8,640.69	8,772.11	8,640.69	14.28	20.23	-90.41	-572.38	-1,203.43	881.00	849.14	31.86	27.648	
8,800.00	8,740.69	8,872.11	8,740.69	14.33	20.28	-90.41	-572.38	-1,203.43	881.00	849.03	31.97	27.557	
8,900.00	8,840.69	8,972.11	8,840.69	14.38	20.34	-90.41	-572.38	-1,203.43	881.00	848.93	32.08	27.467	
9,000.00	8,940.69	9,072.11	8,940.69	14.44	20.39	-90.41	-572.38	-1,203.43	881.00	848.82	32.18	27.376	
9,100.00	9,040.69	9,172.11	9,040.69	14.49	20.44	-90.41	-572.38	-1,203.43	881.00	848.71	32.29	27.286	
9,200.00	9,140.69	9,272.11	9,140.69	14.54	20.50	-90.41	-572.38	-1,203.43	881.00	848.61	32.40	27.195	
9,300.00	9,240.69	9,372.11	9,240.69	14.60	20.55	-90.41	-572.38	-1,203.43	881.00	848.50	32.50	27.105	
9,400.00	9,340.69	9,472.11	9,340.69	14.65	20.61	-90.41	-572.38	-1,203.43	881.00	848.39	32.61	27.016	
9,500.00	9,440.69	9,572.11	9,440.69	14.71	20.66	-90.41	-572.38	-1,203.43	881.00	848.28	32.72	26.926	
9,600.00	9,540.69	9,672.11	9,540.69	14.76	20.72	-90.41	-572.38	-1,203.43	881.00	848.17	32.83	26.837	
9,700.00	9,640.69	9,772.11	9,640.69	14.82	20.77	-90.41	-572.38	-1,203.43	881.00	848.06	32.94	26.747	
9,800.00	9,740.69	9,872.11	9,740.69	14.87	20.82	-90.41	-572.38	-1,203.43	881.00	847.96	33.05	26.659	
9,900.00	9,840.69	9,972.11	9,840.69	14.93	20.88	-90.41	-572.38	-1,203.43	881.00	847.84	33.16	26.570	
10,000.00	9,940.69	10,072.11	9,940.69	14.98	20.94	-90.41	-572.38	-1,203.43	881.00	847.73	33.27	26.481	
10,100.00	10,040.69	10,172.11	10,040.69	15.04	20.99	-90.41	-572.38	-1,203.43	881.00	847.62	33.38	26.393	
10,200.00	10,140.69	10,272.11	10,140.69	15.10	21.05	-90.41	-572.38	-1,203.43	881.00	847.51	33.49	26.305	
10,300.00	10,240.69	10,372.11	10,240.69	15.15	21.10	-90.41	-572.38	-1,203.43	881.00	847.40	33.60	26.217	
10,400.00	10,340.69	10,472.11	10,340.69	15.21	21.16	-90.41	-572.38	-1,203.43	881.00	847.29	33.72	26.130	
10,500.00	10,440.69	10,572.11	10,440.69	15.27	21.21	-90.41	-572.38	-1,203.43	881.00	847.17	33.83	26.043	
10,600.00	10,540.69	10,672.11	10,540.69	15.33	21.27	-90.41	-572.38	-1,203.43	881.00	847.06	33.94	25.956	
10,700.00	10,640.69	10,772.11	10,640.69	15.38	21.33	-90.41	-572.38	-1,203.43	881.00	846.95	34.06	25.869	
10,800.00	10,740.69	10,872.11	10,740.69	15.44	21.38	-90.41	-572.38	-1,203.43	881.00	846.83	34.17	25.783	
10,900.00	10,840.69	10,972.11	10,840.69	15.50	21.44	-90.41	-572.38	-1,203.43	881.00	846.72	34.28	25.697	
11,000.00	10,940.69	11,072.11	10,940.69	15.56	21.50	-90.41	-572.38	-1,203.43	881.00	846.60	34.40	25.611	CC
11,007.63	10,948.32	11,079.74	10,948.32	15.56	21.50	90.11	-572.38	-1,203.43	881.00	846.60	34.41	25.605	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 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	
11,100.00	11,040.69	11,172.11	11,040.69	15.61	21.55	90.12	-572.38	-1,203.43	881.00	846.50	34.50	25.533	
11,200.00	11,140.02	11,271.44	11,140.02	15.75	21.61	90.78	-572.38	-1,203.43	881.08	846.44	34.65	25.428	
11,300.00	11,236.04	11,367.46	11,236.04	15.99	21.67	92.41	-572.38	-1,203.43	881.89	846.96	34.93	25.244	
11,400.00	11,325.83	11,457.24	11,325.83	16.30	21.72	94.64	-572.38	-1,203.43	884.94	849.56	35.38	25.013	
11,500.00	11,406.66	11,538.08	11,406.66	16.71	21.76	96.94	-572.38	-1,203.43	892.38	856.37	36.00	24.786	
11,600.00	11,476.08	11,607.49	11,476.08	17.25	21.80	98.69	-572.38	-1,203.43	906.58	869.77	36.81	24.628	
11,700.00	11,531.97	11,663.38	11,531.97	17.94	21.83	99.28	-572.38	-1,203.43	929.59	891.82	37.77	24.615	
11,800.00	11,572.64	11,740.72	11,609.23	18.75	21.87	100.31	-574.95	-1,203.41	962.25	923.45	38.79	24.806	
11,900.00	11,596.86	11,939.11	11,799.58	19.67	21.97	106.90	-627.21	-1,202.96	1,001.05	961.09	39.96	25.052	
12,000.00	11,604.02	12,592.81	12,128.04	20.67	23.12	120.74	-1,151.71	-1,198.44	1,025.31	981.57	43.74	23.440	
12,100.00	11,604.54	12,692.81	12,128.91	21.72	23.56	120.75	-1,251.70	-1,197.58	1,025.53	980.70	44.83	22.874	
12,200.00	11,605.07	12,792.81	12,129.78	22.80	24.06	120.77	-1,351.69	-1,196.72	1,025.75	979.73	46.02	22.290	
12,300.00	11,605.59	12,892.80	12,130.65	23.92	24.62	120.78	-1,451.68	-1,195.86	1,025.97	978.67	47.29	21.693	
12,400.00	11,606.12	12,992.80	12,131.52	25.06	25.22	120.80	-1,551.68	-1,194.99	1,026.19	977.54	48.65	21.093	
12,500.00	11,606.64	13,092.80	12,132.39	26.22	25.87	120.81	-1,651.67	-1,194.13	1,026.41	976.32	50.08	20.494	
12,600.00	11,607.17	13,192.80	12,133.27	27.40	26.57	120.83	-1,751.66	-1,193.27	1,026.62	975.04	51.59	19.901	
12,700.00	11,607.69	13,292.80	12,134.14	28.59	27.31	120.84	-1,851.65	-1,192.41	1,026.84	973.69	53.15	19.319	
12,800.00	11,608.22	13,392.80	12,135.01	29.80	28.09	120.86	-1,951.64	-1,191.55	1,027.06	972.28	54.78	18.749	
12,900.00	11,608.74	13,492.80	12,135.88	31.03	28.91	120.87	-2,051.64	-1,190.69	1,027.28	970.82	56.46	18.196	
13,000.00	11,609.27	13,592.80	12,136.75	32.26	29.76	120.89	-2,151.63	-1,189.83	1,027.50	969.31	58.19	17.659	
13,100.00	11,609.79	13,692.80	12,137.62	33.51	30.64	120.90	-2,251.62	-1,188.97	1,027.72	967.76	59.96	17.140	
13,200.00	11,610.32	13,792.80	12,138.49	34.76	31.56	120.92	-2,351.61	-1,188.10	1,027.94	966.16	61.77	16.640	
13,300.00	11,610.84	13,892.80	12,139.37	36.03	32.50	120.94	-2,451.60	-1,187.24	1,028.15	964.53	63.63	16.159	
13,400.00	11,611.37	13,992.80	12,140.24	37.30	33.47	120.95	-2,551.59	-1,186.38	1,028.37	962.86	65.51	15.697	
13,500.00	11,611.89	14,092.80	12,141.11	38.57	34.47	120.97	-2,651.59	-1,185.52	1,028.59	961.16	67.43	15.254	
13,600.00	11,612.42	14,192.80	12,141.98	39.86	35.49	120.98	-2,751.58	-1,184.66	1,028.81	959.43	69.38	14.829	
13,700.00	11,612.94	14,292.80	12,142.85	41.14	36.53	121.00	-2,851.57	-1,183.80	1,029.03	957.68	71.35	14.422	
13,800.00	11,613.47	14,392.80	12,143.72	42.44	37.59	121.01	-2,951.56	-1,182.94	1,029.25	955.90	73.35	14.032	
13,900.00	11,613.99	14,492.80	12,144.60	43.74	38.67	121.03	-3,051.55	-1,182.08	1,029.47	954.10	75.37	13.659	
14,000.00	11,614.52	14,592.79	12,145.47	45.04	39.76	121.04	-3,151.55	-1,181.21	1,029.69	952.28	77.41	13.302	
14,100.00	11,615.04	14,692.79	12,146.34	46.34	40.87	121.06	-3,251.54	-1,180.35	1,029.91	950.44	79.47	12.960	
14,200.00	11,615.57	14,792.79	12,147.21	47.65	42.00	121.07	-3,351.53	-1,179.49	1,030.13	948.58	81.55	12.632	
14,300.00	11,616.09	14,892.79	12,148.08	48.97	43.14	121.09	-3,451.52	-1,178.63	1,030.35	946.71	83.64	12.319	
14,400.00	11,616.62	14,992.79	12,148.95	50.28	44.29	121.10	-3,551.51	-1,177.77	1,030.57	944.82	85.75	12.019	
14,500.00	11,617.14	15,092.79	12,149.83	51.60	45.46	121.12	-3,651.51	-1,176.91	1,030.79	942.92	87.87	11.731	
14,600.00	11,617.67	15,192.79	12,150.70	52.92	46.63	121.13	-3,751.50	-1,176.05	1,031.01	941.00	90.00	11.455	
14,700.00	11,618.19	15,292.79	12,151.57	54.25	47.82	121.15	-3,851.49	-1,175.19	1,031.23	939.08	92.15	11.191	
14,800.00	11,618.72	15,392.79	12,152.44	55.57	49.01	121.16	-3,951.48	-1,174.32	1,031.45	937.14	94.31	10.937	
14,900.00	11,619.24	15,492.79	12,153.31	56.90	50.21	121.18	-4,051.47	-1,173.46	1,031.67	935.20	96.47	10.694	
15,000.00	11,619.77	15,592.79	12,154.18	58.23	51.42	121.19	-4,151.46	-1,172.60	1,031.89	933.24	98.65	10.460	
15,100.00	11,620.29	15,692.79	12,155.06	59.56	52.64	121.21	-4,251.46	-1,171.74	1,032.11	931.27	100.83	10.236	
15,200.00	11,620.82	15,792.79	12,155.93	60.89	53.87	121.22	-4,351.45	-1,170.88	1,032.33	929.30	103.03	10.020	
15,300.00	11,621.34	15,892.79	12,156.80	62.23	55.10	121.24	-4,451.44	-1,170.02	1,032.55	927.32	105.23	9.813	
15,400.00	11,621.87	15,992.79	12,157.67	63.56	56.34	121.25	-4,551.43	-1,169.16	1,032.77	925.33	107.44	9.613	
15,500.00	11,622.40	16,092.79	12,158.54	64.90	57.59	121.27	-4,651.42	-1,168.30	1,032.99	923.34	109.65	9.421	
15,600.00	11,622.92	16,192.78	12,159.41	66.24	58.84	121.28	-4,751.42	-1,167.43	1,033.21	921.34	111.87	9.236	
15,700.00	11,623.45	16,292.78	12,160.29	67.58	60.09	121.30	-4,851.41	-1,166.57	1,033.43	919.33	114.10	9.058	
15,800.00	11,623.97	16,392.78	12,161.16	68.92	61.35	121.31	-4,951.40	-1,165.71	1,033.65	917.32	116.33	8.886	
15,900.00	11,624.50	16,492.78	12,162.03	70.26	62.62	121.33	-5,051.39	-1,164.85	1,033.87	915.31	118.56	8.720	
16,000.00	11,625.02	16,592.78	12,162.90	71.61	63.89	121.34	-5,151.38	-1,163.99	1,034.09	913.29	120.81	8.560	
16,100.00	11,625.55	16,692.78	12,163.77	72.95	65.16	121.36	-5,251.38	-1,163.13	1,034.31	911.26	123.05	8.406	
16,200.00	11,626.07	16,792.78	12,164.64	74.30	66.44	121.37	-5,351.37	-1,162.27	1,034.54	909.23	125.30	8.256	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Minimum Separation	Separation Factor	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)	Separation (usft)		
16,300.00	11,626.60	16,892.78	12,165.51	75.64	67.72	121.39	-5,451.36	-1,161.40	1,034.76	907.20	127.55	8.112	
16,400.00	11,627.12	16,992.78	12,166.39	76.99	69.00	121.40	-5,551.35	-1,160.54	1,034.98	905.17	129.81	7.973	
16,500.00	11,627.65	17,092.78	12,167.26	78.34	70.29	121.42	-5,651.34	-1,159.68	1,035.20	903.13	132.07	7.838	
16,600.00	11,628.17	17,192.78	12,168.13	79.68	71.58	121.43	-5,751.33	-1,158.82	1,035.42	901.08	134.34	7.708	
16,700.00	11,628.70	17,292.78	12,169.00	81.03	72.87	121.45	-5,851.33	-1,157.96	1,035.64	899.04	136.60	7.581	
16,800.00	11,629.22	17,392.78	12,169.87	82.38	74.17	121.46	-5,951.32	-1,157.10	1,035.86	896.99	138.87	7.459	
16,900.00	11,629.75	17,492.78	12,170.74	83.73	75.47	121.48	-6,051.31	-1,156.24	1,036.08	894.94	141.15	7.341	
17,000.00	11,630.27	17,592.78	12,171.62	85.08	76.77	121.49	-6,151.30	-1,155.38	1,036.31	892.89	143.42	7.226	
17,100.00	11,630.80	17,692.78	12,172.49	86.44	78.07	121.51	-6,251.29	-1,154.51	1,036.53	890.83	145.70	7.114	
17,200.00	11,631.32	17,792.77	12,173.36	87.79	79.38	121.52	-6,351.29	-1,153.65	1,036.75	888.77	147.98	7.006	
17,300.00	11,631.85	17,892.77	12,174.23	89.14	80.68	121.54	-6,451.28	-1,152.79	1,036.97	886.71	150.26	6.901	
17,400.00	11,632.37	17,992.77	12,175.10	90.49	81.99	121.55	-6,551.27	-1,151.93	1,037.19	884.65	152.54	6.799	
17,500.00	11,632.90	18,092.77	12,175.97	91.85	83.31	121.57	-6,651.26	-1,151.07	1,037.42	882.59	154.83	6.700	
17,600.00	11,633.42	18,192.77	12,176.85	93.20	84.62	121.58	-6,751.25	-1,150.21	1,037.64	880.52	157.11	6.604	
17,700.00	11,633.95	18,292.77	12,177.72	94.56	85.93	121.60	-6,851.25	-1,149.35	1,037.86	878.46	159.40	6.511	
17,800.00	11,634.47	18,392.77	12,178.59	95.91	87.25	121.61	-6,951.24	-1,148.49	1,038.08	876.39	161.69	6.420	
17,900.00	11,635.00	18,492.77	12,179.46	97.27	88.57	121.63	-7,051.23	-1,147.62	1,038.30	874.32	163.98	6.332	
18,000.00	11,635.52	18,592.77	12,180.33	98.62	89.89	121.64	-7,151.22	-1,146.76	1,038.53	872.25	166.28	6.246	
18,100.00	11,636.05	18,692.77	12,181.20	99.98	91.21	121.66	-7,251.21	-1,145.90	1,038.75	870.18	168.57	6.162	
18,200.00	11,636.57	18,792.77	12,182.08	101.34	92.53	121.67	-7,351.20	-1,145.04	1,038.97	868.10	170.87	6.081	
18,300.00	11,637.10	18,892.77	12,182.95	102.69	93.86	121.69	-7,451.20	-1,144.18	1,039.19	866.03	173.16	6.001	
18,400.00	11,637.62	18,992.77	12,183.82	104.05	95.18	121.70	-7,551.19	-1,143.32	1,039.42	863.96	175.46	5.924	
18,500.00	11,638.15	19,092.77	12,184.69	105.41	96.51	121.72	-7,651.18	-1,142.46	1,039.64	861.88	177.76	5.849	
18,600.00	11,638.67	19,192.77	12,185.56	106.76	97.84	121.73	-7,751.17	-1,141.60	1,039.86	859.80	180.06	5.775	
18,700.00	11,639.20	19,292.77	12,186.43	108.12	99.17	121.75	-7,851.16	-1,140.73	1,040.08	857.73	182.36	5.704	
18,800.00	11,639.72	19,392.77	12,187.31	109.48	100.50	121.76	-7,951.16	-1,139.87	1,040.31	855.65	184.66	5.634	
18,900.00	11,640.25	19,492.76	12,188.18	110.84	101.83	121.78	-8,051.15	-1,139.01	1,040.53	853.57	186.96	5.566	
19,000.00	11,640.77	19,592.76	12,189.05	112.20	103.16	121.79	-8,151.14	-1,138.15	1,040.75	851.49	189.26	5.499	
19,100.00	11,641.30	19,692.76	12,189.92	113.56	104.50	121.81	-8,251.13	-1,137.29	1,040.98	849.41	191.56	5.434	
19,200.00	11,641.82	19,792.76	12,190.79	114.92	105.83	121.82	-8,351.12	-1,136.43	1,041.20	847.33	193.87	5.371	
19,300.00	11,642.35	19,892.76	12,191.66	116.28	107.16	121.84	-8,451.12	-1,135.57	1,041.42	845.25	196.17	5.309	
19,400.00	11,642.87	19,992.76	12,192.53	117.64	108.50	121.85	-8,551.11	-1,134.71	1,041.65	843.17	198.48	5.248	
19,500.00	11,643.40	20,092.76	12,193.41	119.00	109.84	121.87	-8,651.10	-1,133.84	1,041.87	841.09	200.78	5.189	
19,600.00	11,643.92	20,192.76	12,194.28	120.36	111.18	121.88	-8,751.09	-1,132.98	1,042.09	839.01	203.09	5.131	
19,700.00	11,644.45	20,292.76	12,195.15	121.72	112.51	121.89	-8,851.08	-1,132.12	1,042.32	836.92	205.39	5.075	
19,800.00	11,644.97	20,392.76	12,196.02	123.08	113.85	121.91	-8,951.08	-1,131.26	1,042.54	834.84	207.70	5.019	
19,900.00	11,645.50	20,492.76	12,196.89	124.44	115.19	121.92	-9,051.07	-1,130.40	1,042.76	832.76	210.01	4.965	
20,000.00	11,646.02	20,592.76	12,197.76	125.80	116.53	121.94	-9,151.06	-1,129.54	1,042.99	830.67	212.31	4.913	
20,100.00	11,646.55	20,692.76	12,198.64	127.16	117.87	121.95	-9,251.05	-1,128.68	1,043.21	828.59	214.62	4.861	
20,200.00	11,647.07	20,792.76	12,199.51	128.52	119.22	121.97	-9,351.04	-1,127.81	1,043.43	826.51	216.93	4.810	
20,300.00	11,647.60	20,892.76	12,200.38	129.88	120.56	121.98	-9,451.03	-1,126.95	1,043.66	824.42	219.23	4.760	
20,400.00	11,648.12	20,992.76	12,201.25	131.25	121.90	122.00	-9,551.03	-1,126.09	1,043.88	822.34	221.54	4.712	
20,500.00	11,648.65	21,092.75	12,202.12	132.61	123.25	122.01	-9,651.02	-1,125.23	1,044.11	820.26	223.85	4.664	
20,600.00	11,649.17	21,192.75	12,202.99	133.97	124.59	122.03	-9,751.01	-1,124.37	1,044.33	818.17	226.16	4.618	
20,700.00	11,649.70	21,292.75	12,203.87	135.33	125.93	122.04	-9,851.00	-1,123.51	1,044.55	816.09	228.46	4.572	
20,800.00	11,650.23	21,392.75	12,204.74	136.69	127.28	122.06	-9,950.99	-1,122.65	1,044.78	814.01	230.77	4.527	
20,900.00	11,650.75	21,492.75	12,205.61	138.06	128.63	122.07	-10,050.99	-1,121.79	1,045.00	811.92	233.08	4.483	
21,000.00	11,651.28	21,592.75	12,206.48	139.42	129.97	122.09	-10,150.98	-1,120.92	1,045.23	809.84	235.39	4.440	
21,100.00	11,651.80	21,692.75	12,207.35	140.78	131.32	122.10	-10,250.97	-1,120.06	1,045.45	807.76	237.70	4.398	
21,200.00	11,652.33	21,792.75	12,208.22	142.15	132.67	122.12	-10,350.96	-1,119.20	1,045.68	805.67	240.00	4.357	
21,300.00	11,652.85	21,892.75	12,209.10	143.51	134.01	122.13	-10,450.95	-1,118.34	1,045.90	803.59	242.31	4.316	
21,400.00	11,653.38	21,992.75	12,209.97	144.87	135.36	122.15	-10,550.95	-1,117.48	1,046.13	801.51	244.62	4.277	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 2

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 1003-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:			Offset Well Error:			0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Minimum Separation (usft)	Separation Factor	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)			
21,500.00	11,653.90	22,092.75	12,210.84	146.24	136.71	122.16	-10,650.94	-1,116.62	1,046.35	799.42	246.93	4.237	
21,600.00	11,654.43	22,192.75	12,211.71	147.60	138.06	122.17	-10,750.93	-1,115.76	1,046.58	797.34	249.24	4.199	
21,700.00	11,654.95	22,292.75	12,212.58	148.96	139.41	122.19	-10,850.92	-1,114.90	1,046.80	795.26	251.54	4.162	
21,800.00	11,655.48	22,392.75	12,213.45	150.33	140.76	122.20	-10,950.91	-1,114.03	1,047.02	793.17	253.85	4.125	
21,900.00	11,656.00	22,492.75	12,214.33	151.69	142.11	122.22	-11,050.90	-1,113.17	1,047.25	791.09	256.16	4.088	
21,918.86	11,656.10	22,511.61	12,214.49	151.95	142.36	122.22	-11,069.76	-1,113.01	1,047.29	790.70	256.59	4.082	ES, SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	1.00	0.50	0.50	180.00	-160.00	0.00	160.00				
100.00	100.00	99.00	100.00	0.98	0.97	180.00	-160.00	0.00	160.00	158.05	1.95	81.844	
200.00	200.00	199.00	200.00	1.56	1.56	180.00	-160.00	0.00	160.00	156.88	3.12	51.344	
300.00	300.00	299.00	300.00	1.98	1.98	180.00	-160.00	0.00	160.00	156.04	3.96	40.424	
400.00	399.99	398.99	399.99	2.41	2.33	-25.08	-160.00	0.00	158.81	154.10	4.72	33.666	
500.00	499.91	498.91	499.91	2.77	2.63	-25.71	-160.00	0.00	155.27	149.90	5.37	28.911	
600.00	599.69	598.69	599.69	3.10	2.91	-26.84	-160.00	0.00	149.40	143.44	5.96	25.068	
700.00	699.32	697.12	698.12	3.23	3.02	-28.49	-160.19	0.22	142.00	135.81	6.19	22.926	
800.00	798.94	794.27	795.24	3.47	3.29	-30.93	-161.75	2.09	136.19	129.51	6.68	20.399	
900.00	898.56	891.36	892.20	3.70	3.56	-34.28	-164.90	5.84	132.57	125.43	7.14	18.557	
989.29	987.51	977.88	978.48	3.91	3.74	-37.96	-169.04	10.77	131.48	123.97	7.50	17.523	CC
1,000.00	998.18	988.38	988.94	3.93	3.75	-38.44	-169.63	11.47	131.49	123.95	7.54	17.442	ES
1,100.00	1,097.80	1,087.82	1,088.00	4.16	3.94	-43.01	-175.20	18.11	132.12	124.18	7.94	16.640	
1,200.00	1,197.42	1,187.25	1,187.06	4.38	4.14	-47.50	-180.77	24.75	133.59	125.24	8.35	15.997	
1,300.00	1,297.01	1,286.67	1,286.09	4.50	4.34	-53.13	-186.34	31.39	135.73	127.07	8.66	15.680	
1,400.00	1,396.38	1,385.88	1,384.92	4.76	4.54	-59.97	-191.89	38.01	137.77	128.69	9.07	15.184	
1,500.00	1,495.42	1,482.46	1,481.07	5.02	4.75	-67.07	-197.49	45.28	140.77	131.29	9.48	14.845	
1,600.00	1,594.07	1,577.59	1,575.53	5.27	4.97	-74.84	-203.52	54.73	146.93	137.04	9.89	14.850	
1,700.00	1,692.25	1,671.42	1,668.42	5.52	5.18	-82.86	-209.98	66.29	157.39	147.08	10.31	15.263	
1,800.00	1,790.08	1,763.93	1,759.67	5.69	5.40	-90.21	-216.83	79.87	172.91	162.22	10.68	16.186	
1,900.00	1,887.89	1,855.36	1,849.47	5.90	5.61	-96.37	-224.08	95.41	193.30	182.19	11.11	17.397	
2,000.00	1,985.71	1,945.64	1,937.73	6.11	5.78	-101.37	-231.70	112.80	217.93	206.44	11.49	18.960	
2,100.00	2,083.52	2,039.61	2,029.30	6.33	5.92	-105.56	-239.92	132.25	245.41	233.52	11.89	20.638	
2,200.00	2,181.34	2,134.30	2,121.57	6.54	6.11	-108.93	-248.21	151.87	273.92	261.58	12.34	22.193	
2,300.00	2,279.15	2,229.00	2,213.84	6.76	6.30	-111.68	-256.50	171.49	303.16	290.36	12.80	23.688	
2,400.00	2,376.96	2,323.69	2,306.11	6.99	6.50	-113.95	-264.79	191.10	332.93	319.67	13.26	25.113	
2,500.00	2,474.78	2,418.39	2,398.38	7.27	6.69	-115.84	-273.08	210.72	363.10	349.38	13.72	26.466	
2,600.00	2,572.59	2,513.09	2,490.65	7.54	6.93	-117.45	-281.37	230.34	393.59	379.40	14.19	27.746	
2,700.00	2,670.41	2,607.78	2,582.92	7.82	7.19	-118.83	-289.66	249.96	424.31	409.66	14.65	28.957	
2,800.00	2,768.22	2,702.48	2,675.19	8.11	7.45	-120.03	-297.95	269.58	455.24	440.11	15.12	30.100	
2,900.00	2,866.03	2,797.18	2,767.46	8.39	7.72	-121.07	-306.24	289.20	486.32	470.72	15.60	31.179	
3,000.00	2,963.85	2,891.87	2,859.73	8.67	7.99	-121.99	-314.53	308.81	517.53	501.45	16.07	32.199	
3,100.00	3,061.66	2,986.57	2,952.00	8.96	8.26	-122.80	-322.82	328.43	548.84	532.29	16.55	33.163	
3,200.00	3,159.48	3,081.26	3,044.27	9.24	8.53	-123.53	-331.11	348.05	580.25	563.22	17.03	34.074	
3,300.00	3,257.29	3,175.96	3,136.54	9.53	8.80	-124.18	-339.40	367.67	611.73	594.22	17.51	34.936	
3,400.00	3,355.10	3,270.66	3,228.81	9.81	9.08	-124.77	-347.69	387.29	643.27	625.28	17.99	35.752	
3,500.00	3,452.92	3,365.35	3,321.08	10.10	9.35	-125.30	-355.98	406.90	674.87	656.40	18.48	36.526	
3,600.00	3,550.73	3,460.05	3,413.35	10.39	9.63	-125.79	-364.27	426.52	706.52	687.56	18.96	37.260	
3,700.00	3,648.55	3,554.74	3,505.62	10.68	9.91	-126.23	-372.56	446.14	738.22	718.77	19.45	37.957	
3,800.00	3,746.36	3,649.44	3,597.89	10.95	10.19	-126.67	-380.85	465.76	769.94	750.01	19.93	38.641	
3,900.00	3,844.48	3,744.47	3,690.49	11.23	10.47	-127.34	-389.17	485.45	800.83	780.42	20.41	39.235	
4,000.00	3,943.06	3,840.04	3,783.61	11.48	10.76	-127.82	-397.53	505.25	830.22	809.34	20.88	39.757	
4,100.00	4,042.05	3,936.08	3,877.18	11.70	11.05	-128.13	-405.94	525.14	858.07	836.74	21.34	40.214	
4,200.00	4,141.38	4,032.52	3,971.16	11.90	11.34	-128.27	-414.38	545.12	884.37	862.60	21.78	40.612	
4,300.00	4,240.98	4,129.31	4,065.46	12.08	11.63	-128.28	-422.85	565.17	909.12	886.92	22.20	40.957	
4,400.00	4,340.77	4,226.36	4,160.02	12.22	11.92	-128.15	-431.35	585.28	932.33	909.73	22.60	41.258	
4,500.00	4,440.70	4,323.62	4,254.79	12.34	12.21	-127.89	-439.86	605.43	954.02	931.04	22.98	41.522	
4,600.00	4,540.69	4,421.01	4,349.69	12.41	12.51	82.92	-448.39	625.60	974.24	950.96	23.28	41.850	
4,700.00	4,640.69	4,518.45	4,444.63	12.44	12.80	83.57	-456.92	645.79	993.90	970.35	23.55	42.197	
4,800.00	4,740.69	4,615.89	4,539.57	12.48	13.10	84.19	-465.45	665.98	1,013.69	989.86	23.83	42.541	
4,900.00	4,840.69	4,713.33	4,634.52	12.52	13.40	84.78	-473.98	686.16	1,033.58	1,009.48	24.10	42.883	
5,000.00	4,940.69	4,810.76	4,729.46	12.56	13.69	85.36	-482.51	706.35	1,053.58	1,029.20	24.38	43.222	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	4,908.20	4,824.40	12.60	13.99	85.91	-491.04	726.54	1,073.68	1,049.03	24.65	43.558	
5,200.00	5,140.69	5,005.64	4,919.34	12.64	14.29	86.44	-499.57	746.72	1,093.87	1,068.94	24.92	43.891	
5,300.00	5,240.69	5,103.08	5,014.28	12.68	14.59	86.95	-508.10	766.91	1,114.15	1,088.95	25.20	44.220	
5,400.00	5,340.69	5,200.52	5,109.23	12.72	14.89	87.45	-516.63	787.09	1,134.51	1,109.04	25.47	44.546	
5,500.00	5,440.69	5,323.38	5,229.18	12.76	15.23	88.03	-526.96	811.54	1,154.21	1,128.39	25.83	44.692	
5,600.00	5,540.69	5,459.44	5,362.92	12.81	15.59	88.55	-536.70	834.58	1,170.97	1,144.73	26.24	44.619	
5,700.00	5,640.69	5,597.15	5,499.10	12.85	15.90	88.96	-544.65	853.41	1,184.55	1,157.92	26.63	44.484	
5,800.00	5,740.69	5,736.19	5,637.24	12.89	16.15	89.26	-550.74	867.82	1,194.86	1,167.89	26.97	44.300	
5,900.00	5,840.69	5,876.19	5,776.83	12.93	16.36	89.47	-554.90	877.65	1,201.85	1,174.57	27.28	44.063	
6,000.00	5,940.69	6,016.79	5,917.31	12.98	16.51	89.57	-557.06	882.76	1,205.48	1,177.95	27.52	43.800	
6,100.00	6,040.69	6,140.18	6,040.69	13.02	16.59	89.59	-557.39	883.55	1,206.03	1,178.39	27.64	43.638	
6,200.00	6,140.69	6,240.18	6,140.69	13.06	16.63	89.59	-557.39	883.55	1,206.03	1,178.31	27.72	43.505	
6,300.00	6,240.69	6,340.18	6,240.69	13.11	16.68	89.59	-557.39	883.55	1,206.03	1,178.22	27.81	43.371	
6,400.00	6,340.69	6,440.18	6,340.69	13.15	16.72	89.59	-557.39	883.55	1,206.03	1,178.14	27.89	43.236	
6,500.00	6,440.69	6,540.18	6,440.69	13.20	16.76	89.59	-557.39	883.55	1,206.03	1,178.05	27.98	43.102	
6,600.00	6,540.69	6,640.18	6,540.69	13.24	16.81	89.59	-557.39	883.55	1,206.03	1,177.96	28.07	42.967	
6,700.00	6,640.69	6,740.18	6,640.69	13.29	16.85	89.59	-557.39	883.55	1,206.03	1,177.87	28.16	42.833	
6,800.00	6,740.69	6,840.18	6,740.69	13.34	16.89	89.59	-557.39	883.55	1,206.03	1,177.79	28.25	42.698	
6,900.00	6,840.69	6,940.18	6,840.69	13.38	16.94	89.59	-557.39	883.55	1,206.03	1,177.70	28.34	42.562	
7,000.00	6,940.69	7,040.18	6,940.69	13.43	16.98	89.59	-557.39	883.55	1,206.03	1,177.61	28.43	42.427	
7,100.00	7,040.69	7,140.18	7,040.69	13.48	17.03	89.59	-557.39	883.55	1,206.03	1,177.51	28.52	42.292	
7,200.00	7,140.69	7,240.18	7,140.69	13.52	17.07	89.59	-557.39	883.55	1,206.03	1,177.42	28.61	42.156	
7,300.00	7,240.69	7,340.18	7,240.69	13.57	17.12	89.59	-557.39	883.55	1,206.03	1,177.33	28.70	42.021	
7,400.00	7,340.69	7,440.18	7,340.69	13.62	17.16	89.59	-557.39	883.55	1,206.03	1,177.24	28.79	41.885	
7,500.00	7,440.69	7,540.18	7,440.69	13.67	17.21	89.59	-557.39	883.55	1,206.03	1,177.14	28.89	41.750	
7,600.00	7,540.69	7,640.18	7,540.69	13.72	17.26	89.59	-557.39	883.55	1,206.03	1,177.05	28.98	41.614	
7,700.00	7,640.69	7,740.18	7,640.69	13.77	17.30	89.59	-557.39	883.55	1,206.03	1,176.96	29.08	41.479	
7,800.00	7,740.69	7,840.18	7,740.69	13.82	17.35	89.59	-557.39	883.55	1,206.03	1,176.86	29.17	41.343	
7,900.00	7,840.69	7,940.18	7,840.69	13.87	17.40	89.59	-557.39	883.55	1,206.03	1,176.76	29.27	41.208	
8,000.00	7,940.69	8,040.18	7,940.69	13.92	17.44	89.59	-557.39	883.55	1,206.03	1,176.67	29.36	41.072	
8,100.00	8,040.69	8,140.18	8,040.69	13.97	17.49	89.59	-557.39	883.55	1,206.03	1,176.57	29.46	40.937	
8,200.00	8,140.69	8,240.18	8,140.69	14.02	17.54	89.59	-557.39	883.55	1,206.03	1,176.47	29.56	40.801	
8,300.00	8,240.69	8,340.18	8,240.69	14.07	17.59	89.59	-557.39	883.55	1,206.03	1,176.37	29.66	40.666	
8,400.00	8,340.69	8,440.18	8,340.69	14.12	17.64	89.59	-557.39	883.55	1,206.03	1,176.28	29.76	40.531	
8,500.00	8,440.69	8,540.18	8,440.69	14.17	17.68	89.59	-557.39	883.55	1,206.03	1,176.18	29.86	40.396	
8,600.00	8,540.69	8,640.18	8,540.69	14.23	17.73	89.59	-557.39	883.55	1,206.03	1,176.08	29.96	40.261	
8,700.00	8,640.69	8,740.18	8,640.69	14.28	17.78	89.59	-557.39	883.55	1,206.03	1,175.98	30.06	40.126	
8,800.00	8,740.69	8,840.18	8,740.69	14.33	17.83	89.59	-557.39	883.55	1,206.03	1,175.87	30.16	39.992	
8,900.00	8,840.69	8,940.18	8,840.69	14.38	17.88	89.59	-557.39	883.55	1,206.03	1,175.77	30.26	39.858	
9,000.00	8,940.69	9,040.18	8,940.69	14.44	17.93	89.59	-557.39	883.55	1,206.03	1,175.67	30.36	39.724	
9,100.00	9,040.69	9,140.18	9,040.69	14.49	17.98	89.59	-557.39	883.55	1,206.03	1,175.57	30.46	39.590	
9,200.00	9,140.69	9,240.18	9,140.69	14.54	18.03	89.59	-557.39	883.55	1,206.03	1,175.46	30.57	39.456	
9,300.00	9,240.69	9,340.18	9,240.69	14.60	18.08	89.59	-557.39	883.55	1,206.03	1,175.36	30.67	39.322	
9,400.00	9,340.69	9,440.18	9,340.69	14.65	18.13	89.59	-557.39	883.55	1,206.03	1,175.26	30.77	39.189	
9,500.00	9,440.69	9,540.18	9,440.69	14.71	18.18	89.59	-557.39	883.55	1,206.03	1,175.15	30.88	39.056	
9,600.00	9,540.69	9,640.18	9,540.69	14.76	18.24	89.59	-557.39	883.55	1,206.03	1,175.05	30.98	38.924	
9,700.00	9,640.69	9,740.18	9,640.69	14.82	18.29	89.59	-557.39	883.55	1,206.03	1,174.94	31.09	38.791	
9,800.00	9,740.69	9,840.18	9,740.69	14.87	18.34	89.59	-557.39	883.55	1,206.03	1,174.83	31.20	38.659	
9,900.00	9,840.69	9,940.18	9,840.69	14.93	18.39	89.59	-557.39	883.55	1,206.03	1,174.73	31.30	38.527	
10,000.00	9,940.69	10,040.18	9,940.69	14.98	18.44	89.59	-557.39	883.55	1,206.03	1,174.62	31.41	38.396	
10,100.00	10,040.69	10,140.18	10,040.69	15.04	18.50	89.59	-557.39	883.55	1,206.03	1,174.51	31.52	38.264	
10,200.00	10,140.69	10,240.18	10,140.69	15.10	18.55	89.59	-557.39	883.55	1,206.03	1,174.40	31.63	38.133	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 138H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.00	11,649.17	21,058.87	12,088.98	133.97	132.34	-110.04	-9,734.14	966.93	1,283.70	1,032.19	251.51	5.104	
20,700.00	11,649.70	21,158.87	12,089.69	135.33	133.70	-110.04	-9,834.13	967.84	1,283.76	1,029.69	254.07	5.053	
20,800.00	11,650.23	21,258.87	12,090.40	136.69	135.05	-110.05	-9,934.12	968.75	1,283.82	1,027.20	256.62	5.003	
20,900.00	11,650.75	21,358.87	12,091.11	138.06	136.41	-110.06	-10,034.11	969.66	1,283.89	1,024.70	259.18	4.954	
21,000.00	11,651.28	21,458.87	12,091.82	139.42	137.76	-110.07	-10,134.11	970.57	1,283.95	1,022.21	261.74	4.905	
21,100.00	11,651.80	21,558.87	12,092.53	140.78	139.12	-110.08	-10,234.10	971.48	1,284.01	1,019.71	264.30	4.858	
21,200.00	11,652.33	21,658.87	12,093.24	142.15	140.47	-110.08	-10,334.09	972.39	1,284.07	1,017.21	266.86	4.812	
21,300.00	11,652.85	21,758.87	12,093.95	143.51	141.83	-110.09	-10,434.09	973.29	1,284.14	1,014.72	269.42	4.766	
21,400.00	11,653.38	21,858.87	12,094.66	144.87	143.18	-110.10	-10,534.08	974.20	1,284.20	1,012.22	271.98	4.722	
21,500.00	11,653.90	21,958.87	12,095.37	146.24	144.54	-110.11	-10,634.07	975.11	1,284.26	1,009.72	274.54	4.678	
21,600.00	11,654.43	22,058.87	12,096.07	147.60	145.90	-110.11	-10,734.07	976.02	1,284.33	1,007.23	277.10	4.635	
21,700.00	11,654.95	22,158.87	12,096.78	148.96	147.25	-110.12	-10,834.06	976.93	1,284.39	1,004.73	279.66	4.593	
21,800.00	11,655.48	22,258.87	12,097.49	150.33	148.61	-110.13	-10,934.05	977.84	1,284.45	1,002.23	282.22	4.551	
21,900.00	11,656.00	22,358.87	12,098.20	151.69	149.97	-110.14	-11,034.05	978.75	1,284.51	999.74	284.78	4.511	
21,918.86	11,656.10	22,377.73	12,098.34	151.95	150.23	-110.14	-11,052.91	978.92	1,284.53	999.27	285.26	4.503	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	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)
5,900.00	5,840.69	5,847.30	5,816.60	12.93	11.64	-90.35	-576.20	-1,977.76	1,655.52	1,631.48	24.04	68.867	
6,000.00	5,940.69	5,947.33	5,916.62	12.98	11.65	-90.37	-576.65	-1,979.18	1,656.93	1,632.85	24.08	68.802	
6,100.00	6,040.69	6,055.79	6,025.08	13.02	11.66	-90.38	-577.16	-1,980.52	1,658.19	1,634.05	24.13	68.717	
6,200.00	6,140.69	6,173.22	6,142.50	13.06	11.69	-90.40	-577.64	-1,980.98	1,658.57	1,634.35	24.21	68.493	
6,300.00	6,240.69	6,280.41	6,249.68	13.11	11.72	-90.42	-578.30	-1,980.59	1,658.21	1,633.88	24.33	68.149	
6,400.00	6,340.69	6,384.58	6,353.85	13.15	11.77	-90.45	-579.09	-1,979.90	1,657.56	1,633.09	24.46	67.757	
6,500.00	6,440.69	6,487.21	6,456.47	13.20	11.82	-90.47	-579.76	-1,978.95	1,656.64	1,632.03	24.60	67.336	
6,600.00	6,540.69	6,591.09	6,560.35	13.24	11.89	-90.49	-580.23	-1,977.91	1,655.64	1,630.88	24.75	66.888	
6,700.00	6,640.69	6,695.42	6,664.66	13.29	11.98	-90.50	-580.36	-1,976.48	1,654.27	1,629.36	24.91	66.402	
6,800.00	6,740.69	6,805.01	6,774.24	13.34	12.09	-90.49	-580.12	-1,974.66	1,652.61	1,627.52	25.09	65.879	
6,900.00	6,840.69	6,903.72	6,872.93	13.38	12.20	-90.48	-579.86	-1,972.63	1,650.55	1,625.30	25.25	65.370	
7,000.00	6,940.69	7,002.49	6,971.68	13.43	12.32	-90.46	-579.42	-1,970.75	1,648.64	1,623.23	25.41	64.872	
7,100.00	7,040.69	7,097.77	7,066.94	13.48	12.43	-90.44	-578.66	-1,969.09	1,646.89	1,621.32	25.57	64.397	
7,200.00	7,140.69	7,195.33	7,164.50	13.52	12.54	-90.43	-578.41	-1,967.61	1,645.38	1,619.65	25.73	63.949	
7,300.00	7,240.69	7,293.72	7,262.87	13.57	12.63	-90.45	-579.04	-1,966.24	1,643.99	1,618.11	25.88	63.523	
7,400.00	7,340.69	7,387.10	7,356.25	13.62	12.72	-90.47	-579.49	-1,965.15	1,642.83	1,616.81	26.03	63.123	
7,500.00	7,440.69	7,495.23	7,464.37	13.67	12.82	-90.49	-580.01	-1,963.88	1,641.66	1,615.47	26.19	62.688	
7,600.00	7,540.69	7,597.18	7,566.30	13.72	12.92	-90.51	-580.54	-1,962.35	1,640.16	1,613.81	26.35	62.251	
7,700.00	7,640.69	7,700.07	7,669.18	13.77	13.04	-90.51	-580.67	-1,960.64	1,638.51	1,611.99	26.52	61.794	
7,800.00	7,740.69	7,797.76	7,766.85	13.82	13.16	-90.50	-580.33	-1,958.91	1,636.73	1,610.06	26.68	61.354	
7,900.00	7,840.69	7,886.57	7,855.66	13.87	13.24	-90.52	-580.87	-1,957.89	1,635.58	1,608.76	26.81	60.998	
8,000.00	7,940.69	7,993.98	7,963.05	13.92	13.33	-90.55	-581.79	-1,956.59	1,634.37	1,607.40	26.97	60.607	
8,100.00	8,040.69	8,089.97	8,059.03	13.97	13.43	-90.56	-582.16	-1,955.32	1,633.05	1,605.93	27.12	60.214	
8,200.00	8,140.69	8,180.68	8,149.74	14.02	13.53	-90.57	-582.26	-1,954.59	1,632.25	1,604.98	27.27	59.858	
8,300.00	8,240.69	8,278.17	8,247.22	14.07	13.64	-90.56	-582.12	-1,954.17	1,631.81	1,604.39	27.42	59.515	
8,400.00	8,340.69	8,379.98	8,349.04	14.12	13.75	-90.55	-581.78	-1,953.70	1,631.34	1,603.77	27.57	59.168	
8,500.00	8,440.69	8,479.78	8,448.84	14.17	13.86	-90.53	-581.19	-1,953.18	1,630.82	1,603.11	27.72	58.835	
8,600.00	8,540.69	8,582.08	8,551.12	14.23	13.96	-90.50	-580.33	-1,952.67	1,630.32	1,602.45	27.86	58.511	
8,700.00	8,640.69	8,683.10	8,652.14	14.28	14.07	-90.46	-579.26	-1,951.91	1,629.56	1,601.55	28.01	58.171	
8,800.00	8,740.69	8,780.55	8,749.59	14.33	14.18	-90.45	-578.88	-1,951.34	1,628.96	1,600.80	28.16	57.837	
8,871.78	8,812.47	8,843.43	8,812.47	14.37	14.24	-90.44	-578.68	-1,951.06	1,628.66	1,600.38	28.27	57.605	CC
8,900.00	8,840.69	8,863.37	8,832.40	14.38	14.25	-90.45	-578.73	-1,951.11	1,628.73	1,600.41	28.31	57.525	
9,000.00	8,940.69	8,944.00	8,913.02	14.44	14.28	-90.48	-579.69	-1,952.23	1,630.07	1,601.63	28.43	57.328	
9,100.00	9,040.69	9,057.72	9,026.72	14.49	14.27	-90.50	-580.20	-1,953.65	1,631.32	1,602.84	28.48	57.282	
9,200.00	9,140.69	9,172.05	9,141.05	14.54	14.32	-90.45	-578.76	-1,954.18	1,631.78	1,603.21	28.57	57.115	
9,300.00	9,240.69	9,275.95	9,244.91	14.60	14.41	-90.35	-576.00	-1,953.94	1,631.53	1,602.84	28.69	56.865	
9,327.26	9,267.95	9,299.00	9,267.95	14.61	14.43	-90.32	-575.18	-1,953.89	1,631.47	1,602.74	28.72	56.802	
9,400.00	9,340.69	9,350.75	9,319.67	14.65	14.45	-90.27	-573.72	-1,954.17	1,631.87	1,603.10	28.77	56.712	
9,500.00	9,440.69	9,450.15	9,419.04	14.71	14.47	-90.25	-573.18	-1,956.10	1,633.81	1,604.97	28.84	56.654	
9,600.00	9,540.69	9,565.28	9,534.18	14.76	14.46	-90.29	-574.20	-1,956.77	1,634.35	1,605.45	28.90	56.553	
9,700.00	9,640.69	9,663.43	9,632.32	14.82	14.45	-90.30	-574.75	-1,957.19	1,634.79	1,605.83	28.96	56.453	
9,800.00	9,740.69	9,761.19	9,730.08	14.87	14.44	-90.32	-575.08	-1,957.76	1,635.37	1,606.36	29.01	56.374	
9,900.00	9,840.69	9,859.71	9,828.59	14.93	14.44	-90.31	-574.90	-1,958.45	1,636.07	1,607.00	29.07	56.284	
10,000.00	9,940.69	9,954.59	9,923.47	14.98	14.47	-90.28	-573.98	-1,959.29	1,636.95	1,607.81	29.14	56.180	
10,100.00	10,040.69	10,048.55	10,017.41	15.04	14.49	-90.24	-573.06	-1,960.46	1,638.19	1,608.99	29.20	56.100	
10,200.00	10,140.69	10,149.46	10,118.30	15.10	14.52	-90.19	-571.61	-1,961.90	1,639.61	1,610.34	29.27	56.017	
10,300.00	10,240.69	10,219.60	10,188.40	15.15	14.55	-90.13	-569.89	-1,963.43	1,641.82	1,612.47	29.35	55.940	
10,400.00	10,340.69	10,311.04	10,279.76	15.21	14.57	-90.07	-568.01	-1,966.93	1,645.61	1,616.20	29.41	55.951	
10,500.00	10,440.69	10,436.43	10,405.09	15.27	14.56	-90.09	-568.54	-1,970.72	1,648.65	1,619.22	29.44	56.005	
10,600.00	10,540.69	10,546.33	10,514.96	15.33	14.58	-90.05	-567.60	-1,972.71	1,650.46	1,620.97	29.49	55.958	
10,700.00	10,640.69	10,646.30	10,614.91	15.38	14.63	-90.00	-565.93	-1,974.27	1,652.02	1,622.46	29.56	55.884	
10,800.00	10,740.69	10,746.28	10,714.86	15.44	14.68	-89.94	-564.26	-1,975.83	1,653.58	1,623.95	29.64	55.794	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan #3

Survey Program: 204-MWD+HRGM+SAG+FDIR (rev.5), 10536-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:			Offset Well Error:			0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Factor	
21,200.00	11,652.33	21,361.00	11,840.61	142.15	132.12	96.47	-10,361.14	-1,893.18	1,670.34	1,397.65	272.69	6.125	
21,300.00	11,652.85	21,461.00	11,841.31	143.51	133.48	96.48	-10,461.14	-1,892.32	1,670.41	1,395.01	275.40	6.065	
21,400.00	11,653.38	21,561.00	11,842.01	144.87	134.84	96.48	-10,561.13	-1,891.46	1,670.47	1,392.37	278.11	6.007	
21,500.00	11,653.90	21,661.00	11,842.71	146.24	136.20	96.49	-10,661.12	-1,890.60	1,670.54	1,389.73	280.81	5.949	
21,600.00	11,654.43	21,761.00	11,843.40	147.60	137.56	96.50	-10,761.12	-1,889.73	1,670.61	1,387.09	283.52	5.892	
21,700.00	11,654.95	21,861.00	11,844.10	148.96	138.92	96.50	-10,861.11	-1,888.87	1,670.68	1,384.45	286.23	5.837	
21,800.00	11,655.48	21,961.00	11,844.80	150.33	140.28	96.51	-10,961.11	-1,888.01	1,670.75	1,381.81	288.94	5.782	
21,900.00	11,656.00	22,061.00	11,845.50	151.69	141.56	96.51	-11,061.10	-1,887.15	1,670.81	1,379.26	291.55	5.731	
21,918.86	11,656.10	22,079.41	11,845.62	151.95	141.78	96.51	-11,079.51	-1,887.00	1,670.83	1,378.80	292.03	5.721	ES, SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 158H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	1.00	0.50	0.50	180.00	-185.00	0.00	185.00	185.00			
100.00	100.00	99.00	100.00	0.98	0.97	180.00	-185.00	0.00	185.00	183.05	1.95	94.633	
200.00	200.00	199.00	200.00	1.56	1.56	180.00	-185.00	0.00	185.00	181.88	3.12	59.366	
300.00	300.00	299.00	300.00	1.98	1.98	180.00	-185.00	0.00	185.00	181.04	3.96	46.740	
400.00	399.99	395.99	396.98	2.41	2.39	-25.32	-185.78	0.92	184.62	179.88	4.73	38.998	
500.00	499.91	492.81	493.72	2.77	2.74	-26.71	-188.13	3.73	183.58	178.18	5.40	34.014	
600.00	599.69	589.35	590.07	3.10	3.07	-29.04	-192.04	8.39	182.10	176.10	6.00	30.351	
697.92	697.28	683.53	683.88	3.22	3.36	-32.11	-197.37	14.74	181.31	174.92	6.39	28.374	
700.00	699.32	685.50	685.85	3.23	3.36	-32.23	-197.49	14.89	181.07	174.67	6.40	28.299	CC, ES
800.00	798.94	781.28	781.01	3.47	3.64	-35.93	-204.46	23.20	182.47	175.56	6.90	26.429	
900.00	898.56	878.30	877.13	3.70	3.80	-39.99	-212.92	33.27	186.52	179.23	7.29	25.586	
1,000.00	998.18	977.27	975.14	3.93	4.00	-44.00	-221.77	43.82	191.83	184.10	7.73	24.804	
1,100.00	1,097.80	1,076.23	1,073.14	4.16	4.23	-47.77	-230.62	54.37	198.05	189.86	8.18	24.201	
1,200.00	1,197.42	1,175.20	1,171.14	4.38	4.45	-51.31	-239.48	64.92	205.07	196.44	8.63	23.762	
1,300.00	1,297.01	1,273.01	1,267.95	4.50	4.66	-55.90	-248.09	75.93	212.89	203.94	8.95	23.779	
1,400.00	1,396.38	1,369.39	1,363.10	4.76	4.88	-61.75	-256.04	89.04	221.49	212.11	9.38	23.617	
1,500.00	1,495.42	1,464.40	1,456.59	5.02	5.09	-67.71	-263.32	104.25	231.61	221.82	9.80	23.642	
1,600.00	1,594.07	1,557.73	1,548.10	5.27	5.31	-73.81	-269.94	121.41	244.22	234.02	10.21	23.923	
1,700.00	1,692.25	1,650.68	1,638.86	5.52	5.49	-79.98	-276.04	140.48	260.13	249.53	10.60	24.544	
1,800.00	1,790.08	1,745.09	1,730.98	5.69	5.68	-85.68	-282.13	160.25	278.91	267.94	10.97	25.432	
1,900.00	1,887.89	1,839.48	1,823.07	5.90	5.89	-90.63	-288.23	180.01	300.15	288.74	11.41	26.297	
2,000.00	1,985.71	1,933.87	1,915.17	6.11	6.13	-94.93	-294.32	199.77	323.37	311.50	11.87	27.234	
2,100.00	2,083.52	2,028.26	2,007.27	6.33	6.38	-98.68	-300.42	219.54	348.18	335.85	12.33	28.229	
2,200.00	2,181.34	2,122.65	2,099.36	6.54	6.65	-101.93	-306.52	239.30	374.26	361.46	12.80	29.238	
2,300.00	2,279.15	2,217.04	2,191.46	6.76	6.92	-104.77	-312.61	259.06	401.37	388.10	13.27	30.246	
2,400.00	2,376.96	2,311.43	2,283.56	6.99	7.18	-107.26	-318.71	278.82	429.30	415.56	13.74	31.238	
2,500.00	2,474.78	2,405.82	2,375.65	7.27	7.45	-109.45	-324.80	298.59	457.91	443.70	14.22	32.208	
2,600.00	2,572.59	2,500.21	2,467.75	7.54	7.73	-111.39	-330.90	318.35	487.08	472.39	14.69	33.148	
2,700.00	2,670.41	2,594.60	2,559.85	7.82	8.00	-113.11	-336.99	338.11	516.72	501.55	15.17	34.057	
2,800.00	2,768.22	2,688.99	2,651.95	8.11	8.27	-114.65	-343.09	357.87	546.74	531.09	15.65	34.932	
2,900.00	2,866.03	2,783.39	2,744.04	8.39	8.55	-116.03	-349.18	377.64	577.09	560.96	16.13	35.773	
3,000.00	2,963.85	2,877.78	2,836.14	8.67	8.83	-117.27	-355.28	397.40	607.72	591.11	16.61	36.580	
3,100.00	3,061.66	2,972.17	2,928.24	8.96	9.10	-118.40	-361.38	417.16	638.59	621.49	17.10	37.354	
3,200.00	3,159.48	3,066.56	3,020.33	9.24	9.38	-119.42	-367.47	436.92	669.66	652.08	17.58	38.095	
3,300.00	3,257.29	3,160.95	3,112.43	9.53	9.66	-120.36	-373.57	456.69	700.91	682.85	18.06	38.804	
3,400.00	3,355.10	3,255.34	3,204.53	9.81	9.94	-121.21	-379.66	476.45	732.32	713.77	18.55	39.484	
3,500.00	3,452.92	3,349.73	3,296.62	10.10	10.22	-122.00	-385.76	496.21	763.86	744.83	19.03	40.135	
3,600.00	3,550.73	3,444.12	3,388.72	10.39	10.50	-122.72	-391.85	515.97	795.52	776.01	19.52	40.758	
3,700.00	3,648.55	3,538.51	3,480.82	10.68	10.78	-123.39	-397.95	535.74	827.29	807.29	20.00	41.356	
3,800.00	3,746.36	3,632.90	3,572.92	10.95	11.06	-124.04	-404.04	555.50	859.15	838.67	20.48	41.951	
3,900.00	3,844.48	3,727.66	3,665.37	11.23	11.34	-124.93	-410.16	575.34	890.28	869.32	20.96	42.469	
4,000.00	3,943.06	3,823.01	3,758.40	11.48	11.63	-125.64	-416.32	595.30	920.03	898.60	21.43	42.932	
4,100.00	4,042.05	3,918.88	3,851.95	11.70	11.92	-126.16	-422.51	615.37	948.33	926.45	21.88	43.342	
4,200.00	4,141.38	4,015.21	3,945.94	11.90	12.20	-126.53	-428.73	635.54	975.15	952.83	22.31	43.703	
4,300.00	4,240.98	4,111.94	4,040.32	12.08	12.49	-126.74	-434.98	655.79	1,000.46	977.74	22.73	44.020	
4,400.00	4,340.77	4,208.99	4,135.01	12.22	12.79	-126.82	-441.25	676.11	1,024.27	1,001.15	23.12	44.298	
4,500.00	4,440.70	4,306.30	4,229.96	12.34	13.08	-126.77	-447.53	696.49	1,046.57	1,023.08	23.49	44.545	
4,600.00	4,540.69	4,403.81	4,325.09	12.41	13.37	83.84	-453.83	716.90	1,067.39	1,043.60	23.79	44.861	
4,700.00	4,640.69	4,501.38	4,420.29	12.44	13.67	84.29	-460.13	737.33	1,087.63	1,063.56	24.06	45.196	
4,800.00	4,740.69	4,598.95	4,515.49	12.48	13.96	84.73	-466.43	757.76	1,107.92	1,083.59	24.34	45.527	
4,900.00	4,840.69	4,696.52	4,610.69	12.52	14.25	85.15	-472.73	778.19	1,128.28	1,103.67	24.61	45.853	
5,000.00	4,940.69	4,794.09	4,705.89	12.56	14.55	85.56	-479.03	798.61	1,148.69	1,123.81	24.88	46.175	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	4,891.66	4,801.09	12.60	14.84	85.95	-485.33	819.04	1,169.16	1,144.01	25.15	46.491	
5,200.00	5,140.69	4,989.23	4,896.29	12.64	15.14	86.33	-491.63	839.47	1,189.68	1,164.26	25.42	46.803	
5,300.00	5,240.69	5,086.80	4,991.49	12.68	15.43	86.70	-497.93	859.90	1,210.24	1,184.56	25.69	47.111	
5,400.00	5,340.69	5,184.37	5,086.69	12.72	15.73	87.06	-504.24	880.33	1,230.86	1,204.90	25.96	47.413	
5,500.00	5,440.69	5,281.94	5,181.89	12.76	16.03	87.40	-510.54	900.76	1,251.52	1,225.29	26.23	47.711	
5,600.00	5,540.69	5,379.51	5,277.09	12.81	16.32	87.73	-516.84	921.18	1,272.22	1,245.71	26.50	48.004	
5,700.00	5,640.69	5,477.08	5,372.29	12.85	16.62	88.06	-523.14	941.61	1,292.96	1,266.18	26.77	48.293	
5,800.00	5,740.69	5,576.34	5,469.13	12.89	16.90	88.37	-529.55	962.39	1,313.73	1,286.69	27.04	48.591	
5,900.00	5,840.69	5,722.41	5,612.27	12.93	17.31	88.78	-538.12	990.18	1,332.65	1,305.16	27.49	48.485	
6,000.00	5,940.69	5,870.55	5,758.46	12.98	17.66	89.10	-545.16	1,012.99	1,347.98	1,320.07	27.91	48.301	
6,100.00	6,040.69	6,020.36	5,907.14	13.02	17.96	89.34	-550.57	1,030.54	1,359.66	1,331.37	28.29	48.064	
6,200.00	6,140.69	6,171.40	6,057.64	13.06	18.18	89.51	-554.28	1,042.58	1,367.61	1,338.99	28.62	47.793	
6,300.00	6,240.69	6,323.20	6,209.29	13.11	18.35	89.59	-556.25	1,048.95	1,371.79	1,342.91	28.89	47.488	
6,400.00	6,340.69	6,454.62	6,340.69	13.15	18.43	89.60	-556.57	1,050.00	1,372.48	1,343.45	29.03	47.277	
6,500.00	6,440.69	6,554.62	6,440.69	13.20	18.46	89.60	-556.57	1,050.00	1,372.48	1,343.37	29.11	47.150	
6,600.00	6,540.69	6,654.62	6,540.69	13.24	18.50	89.60	-556.57	1,050.00	1,372.48	1,343.29	29.19	47.017	
6,700.00	6,640.69	6,754.62	6,640.69	13.29	18.54	89.60	-556.57	1,050.00	1,372.48	1,343.21	29.28	46.882	
6,800.00	6,740.69	6,854.62	6,740.69	13.34	18.58	89.60	-556.57	1,050.00	1,372.48	1,343.12	29.36	46.748	
6,900.00	6,840.69	6,954.62	6,840.69	13.38	18.62	89.60	-556.57	1,050.00	1,372.48	1,343.04	29.44	46.613	
7,000.00	6,940.69	7,054.62	6,940.69	13.43	18.66	89.60	-556.57	1,050.00	1,372.48	1,342.95	29.53	46.478	
7,100.00	7,040.69	7,154.62	7,040.69	13.48	18.70	89.60	-556.57	1,050.00	1,372.48	1,342.87	29.62	46.343	
7,200.00	7,140.69	7,254.62	7,140.69	13.52	18.74	89.60	-556.57	1,050.00	1,372.48	1,342.78	29.70	46.207	
7,300.00	7,240.69	7,354.62	7,240.69	13.57	18.78	89.60	-556.57	1,050.00	1,372.48	1,342.69	29.79	46.072	
7,400.00	7,340.69	7,454.62	7,340.69	13.62	18.83	89.60	-556.57	1,050.00	1,372.48	1,342.60	29.88	45.936	
7,500.00	7,440.69	7,554.62	7,440.69	13.67	18.87	89.60	-556.57	1,050.00	1,372.48	1,342.52	29.97	45.800	
7,600.00	7,540.69	7,654.62	7,540.69	13.72	18.91	89.60	-556.57	1,050.00	1,372.48	1,342.43	30.06	45.664	
7,700.00	7,640.69	7,754.62	7,640.69	13.77	18.95	89.60	-556.57	1,050.00	1,372.48	1,342.34	30.15	45.527	
7,800.00	7,740.69	7,854.62	7,740.69	13.82	18.99	89.60	-556.57	1,050.00	1,372.48	1,342.25	30.24	45.391	
7,900.00	7,840.69	7,954.62	7,840.69	13.87	19.04	89.60	-556.57	1,050.00	1,372.48	1,342.15	30.33	45.254	
8,000.00	7,940.69	8,054.62	7,940.69	13.92	19.08	89.60	-556.57	1,050.00	1,372.48	1,342.06	30.42	45.118	
8,100.00	8,040.69	8,154.62	8,040.69	13.97	19.12	89.60	-556.57	1,050.00	1,372.48	1,341.97	30.51	44.981	
8,200.00	8,140.69	8,254.62	8,140.69	14.02	19.16	89.60	-556.57	1,050.00	1,372.48	1,341.88	30.61	44.844	
8,300.00	8,240.69	8,354.62	8,240.69	14.07	19.21	89.60	-556.57	1,050.00	1,372.48	1,341.78	30.70	44.708	
8,400.00	8,340.69	8,454.62	8,340.69	14.12	19.25	89.60	-556.57	1,050.00	1,372.48	1,341.69	30.79	44.571	
8,500.00	8,440.69	8,554.62	8,440.69	14.17	19.30	89.60	-556.57	1,050.00	1,372.48	1,341.59	30.89	44.434	
8,600.00	8,540.69	8,654.62	8,540.69	14.23	19.34	89.60	-556.57	1,050.00	1,372.48	1,341.50	30.98	44.298	
8,700.00	8,640.69	8,754.62	8,640.69	14.28	19.38	89.60	-556.57	1,050.00	1,372.48	1,341.40	31.08	44.161	
8,800.00	8,740.69	8,854.62	8,740.69	14.33	19.43	89.60	-556.57	1,050.00	1,372.48	1,341.31	31.18	44.024	
8,900.00	8,840.69	8,954.62	8,840.69	14.38	19.47	89.60	-556.57	1,050.00	1,372.48	1,341.21	31.27	43.888	
9,000.00	8,940.69	9,054.62	8,940.69	14.44	19.52	89.60	-556.57	1,050.00	1,372.48	1,341.11	31.37	43.752	
9,100.00	9,040.69	9,154.62	9,040.69	14.49	19.57	89.60	-556.57	1,050.00	1,372.48	1,341.01	31.47	43.615	
9,200.00	9,140.69	9,254.62	9,140.69	14.54	19.61	89.60	-556.57	1,050.00	1,372.48	1,340.92	31.57	43.479	
9,300.00	9,240.69	9,354.62	9,240.69	14.60	19.66	89.60	-556.57	1,050.00	1,372.48	1,340.82	31.67	43.343	
9,400.00	9,340.69	9,454.62	9,340.69	14.65	19.70	89.60	-556.57	1,050.00	1,372.48	1,340.72	31.77	43.207	
9,500.00	9,440.69	9,554.62	9,440.69	14.71	19.75	89.60	-556.57	1,050.00	1,372.48	1,340.62	31.87	43.071	
9,600.00	9,540.69	9,654.62	9,540.69	14.76	19.80	89.60	-556.57	1,050.00	1,372.48	1,340.52	31.97	42.935	
9,700.00	9,640.69	9,754.62	9,640.69	14.82	19.84	89.60	-556.57	1,050.00	1,372.48	1,340.42	32.07	42.800	
9,800.00	9,740.69	9,854.62	9,740.69	14.87	19.89	89.60	-556.57	1,050.00	1,372.48	1,340.31	32.17	42.665	
9,900.00	9,840.69	9,954.62	9,840.69	14.93	19.94	89.60	-556.57	1,050.00	1,372.48	1,340.21	32.27	42.529	
10,000.00	9,940.69	10,054.62	9,940.69	14.98	19.99	89.60	-556.57	1,050.00	1,372.48	1,340.11	32.37	42.394	
10,100.00	10,040.69	10,154.62	10,040.69	15.04	20.03	89.60	-556.57	1,050.00	1,372.48	1,340.01	32.48	42.260	
10,200.00	10,140.69	10,254.62	10,140.69	15.10	20.08	89.60	-556.57	1,050.00	1,372.48	1,339.90	32.58	42.125	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference: 0-MWD+HRGM+SAG+FDIR (rev.5)										Offset Well Error:		Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,240.69	10,354.62	10,240.69	15.15	20.13	89.60	-556.57	1,050.00	1,372.48	1,339.80	32.69	41.991	
10,400.00	10,340.69	10,454.62	10,340.69	15.21	20.18	89.60	-556.57	1,050.00	1,372.48	1,339.69	32.79	41.857	
10,500.00	10,440.69	10,554.62	10,440.69	15.27	20.23	89.60	-556.57	1,050.00	1,372.48	1,339.59	32.90	41.723	
10,600.00	10,540.69	10,654.62	10,540.69	15.33	20.28	89.60	-556.57	1,050.00	1,372.48	1,339.48	33.00	41.590	
10,700.00	10,640.69	10,754.62	10,640.69	15.38	20.33	89.60	-556.57	1,050.00	1,372.48	1,339.38	33.11	41.456	
10,800.00	10,740.69	10,854.62	10,740.69	15.44	20.37	89.60	-556.57	1,050.00	1,372.48	1,339.27	33.21	41.323	
10,900.00	10,840.69	10,954.62	10,840.69	15.50	20.42	89.60	-556.57	1,050.00	1,372.48	1,339.16	33.32	41.191	
11,000.00	10,940.69	11,054.62	10,940.69	15.56	20.47	89.60	-556.57	1,050.00	1,372.48	1,339.06	33.43	41.058	
11,100.00	11,040.69	11,163.89	11,049.89	15.61	20.54	-89.78	-559.01	1,049.84	1,372.33	1,338.83	33.51	40.956	
11,200.00	11,140.02	11,263.32	11,166.81	15.75	20.72	-89.47	-582.25	1,048.27	1,370.90	1,337.25	33.65	40.746	
11,300.00	11,236.04	11,399.66	11,273.67	15.99	20.95	-89.15	-627.63	1,045.22	1,368.04	1,334.07	33.98	40.263	
11,400.00	11,325.83	11,512.36	11,366.39	16.30	21.24	-88.86	-691.24	1,040.94	1,363.94	1,329.42	34.52	39.507	
11,500.00	11,406.66	11,621.21	11,442.45	16.71	21.60	-88.61	-768.69	1,035.72	1,358.80	1,323.50	35.30	38.496	
11,600.00	11,476.08	11,726.21	11,500.66	17.25	22.04	-88.41	-855.71	1,029.87	1,352.84	1,316.53	36.31	37.256	
11,700.00	11,531.97	11,827.58	11,540.87	17.94	22.57	-88.27	-948.41	1,023.63	1,346.27	1,308.71	37.57	35.837	
11,800.00	11,572.64	11,925.63	11,563.62	18.75	23.17	-88.19	-1,043.45	1,017.23	1,339.32	1,300.28	39.04	34.305	
11,900.00	11,596.86	12,007.93	11,569.95	19.67	23.74	-88.26	-1,125.24	1,011.73	1,332.24	1,291.60	40.64	32.783	
12,000.00	11,604.02	12,085.04	11,570.35	20.67	24.33	-88.53	-1,202.25	1,007.59	1,326.25	1,283.90	42.35	31.314	
12,100.00	11,604.54	12,153.39	11,570.71	21.72	24.89	-88.53	-1,270.56	1,005.65	1,322.51	1,278.40	44.12	29.979	
12,200.00	11,605.07	12,221.82	11,571.07	22.80	25.48	-88.53	-1,338.99	1,005.35	1,321.15	1,275.23	45.92	28.769	
12,238.41	11,605.27	12,258.19	11,571.26	23.23	25.81	-88.53	-1,375.36	1,005.67	1,321.15	1,274.45	46.69	28.294	
12,300.00	11,605.59	12,319.78	11,571.59	23.92	26.37	-88.53	-1,436.94	1,006.23	1,321.14	1,273.18	47.96	27.547	
12,400.00	11,606.12	12,419.78	11,572.11	25.06	27.31	-88.52	-1,536.94	1,007.13	1,321.13	1,271.06	50.08	26.382	
12,500.00	11,606.64	12,519.78	11,572.64	26.22	28.29	-88.52	-1,636.93	1,008.03	1,321.13	1,268.88	52.25	25.284	
12,600.00	11,607.17	12,619.78	11,573.16	27.40	29.29	-88.52	-1,736.92	1,008.93	1,321.12	1,266.64	54.48	24.252	
12,700.00	11,607.69	12,719.78	11,573.69	28.59	30.32	-88.52	-1,836.92	1,009.83	1,321.11	1,264.37	56.74	23.282	
12,800.00	11,608.22	12,819.78	11,574.21	29.80	31.38	-88.52	-1,936.91	1,010.73	1,321.11	1,262.05	59.05	22.371	
12,900.00	11,608.74	12,919.78	11,574.73	31.03	32.45	-88.52	-2,036.91	1,011.63	1,321.10	1,259.70	61.40	21.517	
13,000.00	11,609.27	13,019.78	11,575.26	32.26	33.55	-88.52	-2,136.90	1,012.54	1,321.09	1,257.32	63.77	20.716	
13,100.00	11,609.79	13,119.78	11,575.78	33.51	34.66	-88.52	-2,236.90	1,013.44	1,321.08	1,254.91	66.18	19.963	
13,200.00	11,610.32	13,219.78	11,576.31	34.76	35.80	-88.52	-2,336.89	1,014.34	1,321.08	1,252.47	68.60	19.257	
13,300.00	11,610.84	13,319.78	11,576.83	36.03	36.94	-88.52	-2,436.89	1,015.24	1,321.07	1,250.01	71.05	18.592	
13,400.00	11,611.37	13,419.78	11,577.36	37.30	38.10	-88.52	-2,536.88	1,016.14	1,321.06	1,247.54	73.53	17.967	
13,500.00	11,611.89	13,519.78	11,577.88	38.57	39.27	-88.52	-2,636.88	1,017.04	1,321.05	1,245.04	76.01	17.379	
13,600.00	11,612.42	13,619.78	11,578.41	39.86	40.45	-88.52	-2,736.87	1,017.94	1,321.05	1,242.53	78.52	16.824	
13,700.00	11,612.94	13,719.78	11,578.93	41.14	41.65	-88.52	-2,836.86	1,018.85	1,321.04	1,240.00	81.04	16.301	
13,800.00	11,613.47	13,819.78	11,579.46	42.44	42.85	-88.52	-2,936.86	1,019.75	1,321.03	1,237.46	83.58	15.806	
13,900.00	11,613.99	13,919.78	11,579.98	43.74	44.06	-88.52	-3,036.85	1,020.65	1,321.02	1,234.90	86.12	15.339	
14,000.00	11,614.52	14,019.78	11,580.51	45.04	45.28	-88.52	-3,136.85	1,021.55	1,321.02	1,232.34	88.68	14.896	
14,100.00	11,615.04	14,119.78	11,581.03	46.34	46.51	-88.52	-3,236.84	1,022.45	1,321.01	1,229.76	91.25	14.477	
14,200.00	11,615.57	14,219.78	11,581.56	47.65	47.75	-88.52	-3,336.84	1,023.35	1,321.00	1,227.17	93.83	14.079	
14,300.00	11,616.09	14,319.78	11,582.08	48.97	48.99	-88.52	-3,436.83	1,024.26	1,320.99	1,224.58	96.42	13.701	
14,400.00	11,616.62	14,419.78	11,582.61	50.28	50.24	-88.52	-3,536.83	1,025.16	1,320.99	1,221.98	99.01	13.342	
14,500.00	11,617.14	14,519.78	11,583.13	51.60	51.49	-88.52	-3,636.82	1,026.06	1,320.98	1,219.36	101.61	13.000	
14,600.00	11,617.67	14,619.78	11,583.66	52.92	52.75	-88.52	-3,736.82	1,026.96	1,320.97	1,216.75	104.22	12.674	
14,700.00	11,618.19	14,719.78	11,584.18	54.25	54.02	-88.52	-3,836.81	1,027.86	1,320.96	1,214.12	106.84	12.364	
14,800.00	11,618.72	14,819.78	11,584.71	55.57	55.29	-88.52	-3,936.80	1,028.76	1,320.96	1,211.49	109.46	12.068	
14,900.00	11,619.24	14,919.78	11,585.23	56.90	56.56	-88.52	-4,036.80	1,029.66	1,320.95	1,208.86	112.09	11.785	
15,000.00	11,619.77	15,019.78	11,585.76	58.23	57.84	-88.52	-4,136.79	1,030.57	1,320.94	1,206.22	114.72	11.514	
15,100.00	11,620.29	15,119.78	11,586.28	59.56	59.12	-88.52	-4,236.79	1,031.47	1,320.93	1,203.57	117.36	11.255	
15,200.00	11,620.82	15,219.78	11,586.80	60.89	60.41	-88.52	-4,336.78	1,032.37	1,320.93	1,200.92	120.00	11.007	
15,300.00	11,621.34	15,319.78	11,587.33	62.23	61.70	-88.52	-4,436.78	1,033.27	1,320.92	1,198.27	122.65	10.770	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)								Rule Assigned:		Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
15,400.00	11,621.87	15,419.78	11,587.85	63.56	62.99	-88.52	-4,536.77	1,034.17	1,320.91	1,195.61	125.30	10.542		
15,500.00	11,622.40	15,519.78	11,588.38	64.90	64.29	-88.52	-4,636.77	1,035.07	1,320.91	1,192.95	127.96	10.323		
15,600.00	11,622.92	15,619.78	11,588.90	66.24	65.58	-88.52	-4,736.76	1,035.97	1,320.90	1,190.28	130.61	10.113		
15,700.00	11,623.45	15,719.78	11,589.43	67.58	66.89	-88.52	-4,836.76	1,036.88	1,320.89	1,187.62	133.28	9.911		
15,800.00	11,623.97	15,819.78	11,589.95	68.92	68.19	-88.52	-4,936.75	1,037.78	1,320.88	1,184.94	135.94	9.717		
15,900.00	11,624.50	15,919.78	11,590.48	70.26	69.49	-88.52	-5,036.74	1,038.68	1,320.88	1,182.27	138.61	9.530		
16,000.00	11,625.02	16,019.78	11,591.00	71.61	70.80	-88.52	-5,136.74	1,039.58	1,320.87	1,179.59	141.28	9.350		
16,100.00	11,625.55	16,119.78	11,591.53	72.95	72.11	-88.52	-5,236.73	1,040.48	1,320.86	1,176.91	143.95	9.176		
16,200.00	11,626.07	16,219.78	11,592.05	74.30	73.43	-88.52	-5,336.73	1,041.38	1,320.85	1,174.23	146.62	9.008		
16,300.00	11,626.60	16,319.78	11,592.58	75.64	74.74	-88.52	-5,436.72	1,042.29	1,320.85	1,171.55	149.30	8.847		
16,400.00	11,627.12	16,419.78	11,593.10	76.99	76.06	-88.52	-5,536.72	1,043.19	1,320.84	1,168.86	151.98	8.691		
16,500.00	11,627.65	16,519.78	11,593.63	78.34	77.38	-88.52	-5,636.71	1,044.09	1,320.83	1,166.17	154.66	8.540		
16,600.00	11,628.17	16,619.78	11,594.15	79.68	78.70	-88.52	-5,736.71	1,044.99	1,320.82	1,163.48	157.34	8.394		
16,700.00	11,628.70	16,719.78	11,594.68	81.03	80.02	-88.52	-5,836.70	1,045.89	1,320.82	1,160.79	160.03	8.254		
16,800.00	11,629.22	16,819.78	11,595.20	82.38	81.34	-88.52	-5,936.70	1,046.79	1,320.81	1,158.09	162.72	8.117		
16,900.00	11,629.75	16,919.78	11,595.73	83.73	82.66	-88.52	-6,036.69	1,047.69	1,320.80	1,155.40	165.41	7.985		
17,000.00	11,630.27	17,019.78	11,596.25	85.08	83.99	-88.52	-6,136.68	1,048.60	1,320.79	1,152.70	168.10	7.857		
17,100.00	11,630.80	17,119.78	11,596.78	86.44	85.32	-88.52	-6,236.68	1,049.50	1,320.79	1,150.00	170.79	7.733		
17,200.00	11,631.32	17,219.78	11,597.30	87.79	86.65	-88.52	-6,336.67	1,050.40	1,320.78	1,147.30	173.48	7.613		
17,300.00	11,631.85	17,319.78	11,597.83	89.14	87.98	-88.52	-6,436.67	1,051.30	1,320.77	1,144.60	176.18	7.497		
17,400.00	11,632.37	17,419.78	11,598.35	90.49	89.31	-88.52	-6,536.66	1,052.20	1,320.76	1,141.89	178.87	7.384		
17,500.00	11,632.90	17,519.78	11,598.88	91.85	90.64	-88.52	-6,636.66	1,053.10	1,320.76	1,139.19	181.57	7.274		
17,600.00	11,633.42	17,619.78	11,599.40	93.20	91.97	-88.52	-6,736.65	1,054.00	1,320.75	1,136.48	184.27	7.168		
17,700.00	11,633.95	17,719.78	11,599.92	94.56	93.31	-88.52	-6,836.65	1,054.91	1,320.74	1,133.77	186.97	7.064		
17,800.00	11,634.47	17,819.78	11,600.45	95.91	94.64	-88.52	-6,936.64	1,055.81	1,320.74	1,131.07	189.67	6.963		
17,900.00	11,635.00	17,919.78	11,600.97	97.27	95.98	-88.52	-7,036.64	1,056.71	1,320.73	1,128.36	192.37	6.866		
18,000.00	11,635.52	18,019.78	11,601.50	98.62	97.31	-88.52	-7,136.63	1,057.61	1,320.72	1,125.65	195.07	6.770		
18,100.00	11,636.05	18,119.78	11,602.02	99.98	98.65	-88.52	-7,236.63	1,058.51	1,320.71	1,122.94	197.78	6.678		
18,200.00	11,636.57	18,219.78	11,602.55	101.34	99.99	-88.52	-7,336.62	1,059.41	1,320.71	1,120.22	200.48	6.588		
18,300.00	11,637.10	18,319.78	11,603.07	102.69	101.33	-88.52	-7,436.61	1,060.32	1,320.70	1,117.51	203.19	6.500		
18,400.00	11,637.62	18,419.78	11,603.60	104.05	102.67	-88.52	-7,536.61	1,061.22	1,320.69	1,114.80	205.89	6.414		
18,500.00	11,638.15	18,519.78	11,604.12	105.41	104.01	-88.52	-7,636.60	1,062.12	1,320.68	1,112.08	208.60	6.331		
18,600.00	11,638.67	18,619.78	11,604.65	106.76	105.35	-88.52	-7,736.60	1,063.02	1,320.68	1,109.37	211.31	6.250		
18,700.00	11,639.20	18,719.78	11,605.17	108.12	106.70	-88.52	-7,836.59	1,063.92	1,320.67	1,106.65	214.02	6.171		
18,800.00	11,639.72	18,819.78	11,605.70	109.48	108.04	-88.52	-7,936.59	1,064.82	1,320.66	1,103.93	216.73	6.094		
18,900.00	11,640.25	18,919.78	11,606.22	110.84	109.38	-88.52	-8,036.58	1,065.72	1,320.65	1,101.21	219.44	6.018		
19,000.00	11,640.77	19,019.78	11,606.75	112.20	110.73	-88.52	-8,136.58	1,066.63	1,320.65	1,098.50	222.15	5.945		
19,100.00	11,641.30	19,119.78	11,607.27	113.56	112.07	-88.52	-8,236.57	1,067.53	1,320.64	1,095.78	224.86	5.873		
19,200.00	11,641.82	19,219.78	11,607.80	114.92	113.42	-88.52	-8,336.57	1,068.43	1,320.63	1,093.06	227.57	5.803		
19,300.00	11,642.35	19,319.78	11,608.32	116.28	114.76	-88.52	-8,436.56	1,069.33	1,320.62	1,090.34	230.29	5.735		
19,400.00	11,642.87	19,419.78	11,608.85	117.64	116.11	-88.52	-8,536.55	1,070.23	1,320.62	1,087.62	233.00	5.668		
19,500.00	11,643.40	19,519.78	11,609.37	119.00	117.46	-88.52	-8,636.55	1,071.13	1,320.61	1,084.89	235.72	5.603		
19,600.00	11,643.92	19,619.78	11,609.90	120.36	118.80	-88.52	-8,736.54	1,072.03	1,320.60	1,082.17	238.43	5.539		
19,700.00	11,644.45	19,719.78	11,610.42	121.72	120.15	-88.52	-8,836.54	1,072.94	1,320.59	1,079.45	241.15	5.476		
19,800.00	11,644.97	19,819.78	11,610.95	123.08	121.50	-88.52	-8,936.53	1,073.84	1,320.59	1,076.73	243.86	5.415		
19,900.00	11,645.50	19,919.78	11,611.47	124.44	122.85	-88.52	-9,036.53	1,074.74	1,320.58	1,074.00	246.58	5.356		
20,000.00	11,646.02	20,019.78	11,611.99	125.80	124.20	-88.52	-9,136.52	1,075.64	1,320.57	1,071.28	249.29	5.297		
20,100.00	11,646.55	20,119.78	11,612.52	127.16	125.55	-88.52	-9,236.52	1,076.54	1,320.56	1,068.55	252.01	5.240		
20,200.00	11,647.07	20,219.78	11,613.04	128.52	126.90	-88.52	-9,336.51	1,077.44	1,320.56	1,065.83	254.73	5.184		
20,300.00	11,647.60	20,319.78	11,613.57	129.88	128.25	-88.52	-9,436.51	1,078.35	1,320.55	1,063.10	257.45	5.129		
20,400.00	11,648.12	20,419.78	11,614.09	131.25	129.60	-88.52	-9,536.50	1,079.25	1,320.54	1,060.38	260.17	5.076		
20,500.00	11,648.65	20,519.78	11,614.62	132.61	130.95	-88.52	-9,636.49	1,080.15	1,320.54	1,057.65	262.88	5.023		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)		Between Ellipses (usft)			
20,600.00	11,649.17	20,619.78	11,615.14	133.97	132.30	-88.52	-9,736.49	1,081.05	1,320.53	1,054.92	265.60	4.972	
20,700.00	11,649.70	20,719.78	11,615.67	135.33	133.66	-88.52	-9,836.48	1,081.95	1,320.52	1,052.20	268.32	4.921	
20,800.00	11,650.23	20,819.78	11,616.19	136.69	135.01	-88.52	-9,936.48	1,082.85	1,320.51	1,049.47	271.04	4.872	
20,900.00	11,650.75	20,919.78	11,616.72	138.06	136.36	-88.52	-10,036.47	1,083.75	1,320.51	1,046.74	273.76	4.824	
21,000.00	11,651.28	21,019.78	11,617.24	139.42	137.72	-88.52	-10,136.47	1,084.66	1,320.50	1,044.01	276.49	4.776	
21,100.00	11,651.80	21,119.78	11,617.77	140.78	139.07	-88.52	-10,236.46	1,085.56	1,320.49	1,041.28	279.21	4.729	
21,200.00	11,652.33	21,219.78	11,618.29	142.15	140.42	-88.52	-10,336.46	1,086.46	1,320.48	1,038.55	281.93	4.684	
21,300.00	11,652.85	21,319.78	11,618.82	143.51	141.78	-88.52	-10,436.45	1,087.36	1,320.48	1,035.83	284.65	4.639	
21,400.00	11,653.38	21,419.78	11,619.34	144.87	143.13	-88.52	-10,536.45	1,088.26	1,320.47	1,033.10	287.37	4.595	
21,500.00	11,653.90	21,519.78	11,619.87	146.24	144.49	-88.52	-10,636.44	1,089.16	1,320.46	1,030.37	290.10	4.552	
21,600.00	11,654.43	21,619.78	11,620.39	147.60	145.84	-88.52	-10,736.43	1,090.06	1,320.45	1,027.64	292.82	4.509	
21,700.00	11,654.95	21,719.78	11,620.92	148.96	147.20	-88.52	-10,836.43	1,090.97	1,320.45	1,024.91	295.54	4.468	
21,800.00	11,655.48	21,819.78	11,621.44	150.33	148.55	-88.52	-10,936.42	1,091.87	1,320.44	1,022.17	298.26	4.427	
21,900.00	11,656.00	21,919.78	11,621.97	151.69	149.91	-88.52	-11,036.42	1,092.77	1,320.43	1,019.44	300.99	4.387	
21,918.86	11,656.10	21,938.64	11,622.06	151.95	150.16	-88.52	-11,055.28	1,092.94	1,320.43	1,018.93	301.50	4.380	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1

Survey Program: 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5)								Rule Assigned:				Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,800.00	1,790.08	1,789.08	1,790.08	5.69	5.26	42.90	-856.00	-2,379.00	2,418.05	2,407.26	10.79	224.117	
1,900.00	1,887.89	1,886.89	1,887.89	5.90	5.41	43.24	-856.00	-2,379.00	2,402.70	2,391.52	11.18	214.902	
2,000.00	1,985.71	1,984.71	1,985.71	6.11	5.57	43.58	-856.00	-2,379.00	2,387.44	2,375.87	11.57	206.332	
2,100.00	2,083.52	2,082.52	2,083.52	6.33	5.72	43.92	-856.00	-2,379.00	2,372.26	2,360.30	11.96	198.341	
2,200.00	2,181.34	2,180.34	2,181.34	6.54	5.86	44.27	-856.00	-2,379.00	2,357.16	2,344.81	12.35	190.871	
2,300.00	2,279.15	2,258.99	2,259.95	6.76	6.17	44.96	-853.48	-2,376.85	2,340.81	2,327.94	12.87	181.932	
2,400.00	2,376.96	2,553.32	2,553.81	6.99	6.51	45.86	-843.58	-2,368.40	2,320.51	2,307.13	13.38	173.386	
2,500.00	2,474.78	2,737.53	2,736.75	7.27	6.79	46.88	-827.28	-2,354.49	2,296.44	2,282.61	13.84	165.974	
2,600.00	2,572.59	2,831.54	2,829.85	7.54	6.90	47.45	-817.33	-2,346.00	2,270.85	2,256.66	14.19	160.039	
2,700.00	2,670.41	2,925.55	2,922.95	7.82	7.04	48.03	-807.38	-2,337.51	2,245.48	2,230.90	14.57	154.066	
2,800.00	2,768.22	3,019.57	3,016.05	8.11	7.18	48.62	-797.43	-2,329.02	2,220.34	2,205.38	14.96	148.369	
2,900.00	2,866.03	3,113.58	3,109.15	8.39	7.32	49.23	-787.48	-2,320.53	2,195.44	2,180.08	15.36	142.939	
3,000.00	2,963.85	3,207.59	3,202.25	8.67	7.47	49.85	-777.53	-2,312.04	2,170.80	2,155.04	15.76	137.761	
3,100.00	3,061.66	3,301.61	3,295.35	8.96	7.61	50.48	-767.58	-2,303.54	2,146.41	2,130.25	16.16	132.821	
3,200.00	3,159.48	3,395.62	3,388.45	9.24	7.76	51.12	-757.63	-2,295.05	2,122.29	2,105.72	16.57	128.106	
3,300.00	3,257.29	3,489.63	3,481.55	9.53	7.91	51.78	-747.68	-2,286.56	2,098.44	2,081.47	16.98	123.606	
3,400.00	3,355.10	3,583.65	3,574.65	9.81	8.06	52.45	-737.73	-2,278.07	2,074.88	2,057.49	17.39	119.309	
3,500.00	3,452.92	3,677.66	3,667.75	10.10	8.22	53.14	-727.78	-2,269.58	2,051.62	2,033.81	17.81	115.204	
3,600.00	3,550.73	3,771.68	3,760.84	10.39	8.37	53.84	-717.83	-2,261.09	2,028.66	2,010.43	18.23	111.282	
3,700.00	3,648.55	3,865.69	3,853.94	10.68	8.53	54.56	-707.88	-2,252.60	2,006.02	1,987.37	18.65	107.534	
3,800.00	3,746.36	3,959.71	3,947.05	10.95	8.68	55.27	-697.93	-2,244.11	1,983.71	1,964.64	19.07	104.014	
3,900.00	3,844.48	4,054.22	4,040.64	11.23	8.84	55.72	-687.93	-2,235.57	1,962.56	1,943.07	19.50	100.653	
4,000.00	3,943.06	4,149.56	4,135.05	11.48	9.00	56.14	-677.84	-2,226.96	1,943.16	1,923.25	19.91	97.604	
4,100.00	4,042.05	4,245.65	4,230.20	11.70	9.16	56.54	-667.67	-2,218.28	1,925.43	1,905.13	20.30	94.842	
4,200.00	4,141.38	4,342.42	4,326.04	11.90	9.33	56.91	-657.42	-2,209.54	1,909.35	1,888.67	20.68	92.349	
4,300.00	4,240.98	4,439.82	4,422.50	12.08	9.50	57.25	-647.11	-2,200.74	1,894.85	1,873.82	21.03	90.106	
4,400.00	4,340.77	4,537.78	4,519.50	12.22	9.67	57.55	-636.75	-2,191.90	1,881.90	1,860.54	21.36	88.095	
4,500.00	4,440.70	4,636.23	4,616.99	12.34	9.84	57.81	-626.33	-2,183.00	1,870.45	1,848.78	21.67	86.304	
4,600.00	4,540.69	4,735.09	4,714.89	12.41	10.01	-91.54	-615.86	-2,174.08	1,860.47	1,838.56	21.91	84.907	
4,700.00	4,640.69	4,830.31	4,809.19	12.44	10.17	-91.24	-605.80	-2,165.49	1,851.15	1,829.04	22.11	83.732	
4,800.00	4,740.69	4,900.00	4,878.31	12.48	10.28	-91.03	-599.07	-2,159.74	1,842.73	1,820.45	22.28	82.701	
4,900.00	4,840.69	4,980.68	4,958.52	12.52	10.43	-90.83	-592.47	-2,154.11	1,835.64	1,813.16	22.47	81.682	
5,000.00	4,940.69	5,056.33	5,033.88	12.56	10.57	-90.67	-587.46	-2,149.83	1,829.88	1,807.23	22.65	80.788	
5,100.00	5,040.69	5,132.21	5,109.59	12.60	10.70	-90.55	-583.57	-2,146.51	1,825.45	1,802.63	22.82	79.996	
5,200.00	5,140.69	5,200.00	5,177.30	12.64	10.82	-90.47	-581.06	-2,144.38	1,822.36	1,799.38	22.97	79.332	
5,300.00	5,240.69	5,284.43	5,261.69	12.68	10.96	-90.41	-579.22	-2,142.81	1,820.52	1,797.40	23.13	78.714	
5,400.00	5,340.69	5,363.43	5,340.69	12.72	11.03	-90.40	-578.77	-2,142.42	1,820.01	1,796.78	23.23	78.333	
5,500.00	5,440.69	5,463.43	5,440.69	12.76	11.11	-90.40	-578.77	-2,142.42	1,820.01	1,796.66	23.35	77.931	
5,600.00	5,540.69	5,563.43	5,540.69	12.81	11.21	-90.40	-578.77	-2,142.42	1,820.01	1,796.53	23.49	77.483	
5,700.00	5,640.69	5,663.43	5,640.69	12.85	11.30	-90.40	-578.77	-2,142.42	1,820.01	1,796.39	23.62	77.039	
5,800.00	5,740.69	5,763.43	5,740.69	12.89	11.39	-90.40	-578.77	-2,142.42	1,820.01	1,796.25	23.76	76.600	
5,900.00	5,840.69	5,863.43	5,840.69	12.93	11.49	-90.40	-578.77	-2,142.42	1,820.01	1,796.12	23.90	76.164	
6,000.00	5,940.69	5,963.43	5,940.69	12.98	11.58	-90.40	-578.77	-2,142.42	1,820.01	1,795.98	24.03	75.734	
6,100.00	6,040.69	6,063.43	6,040.69	13.02	11.67	-90.40	-578.77	-2,142.42	1,820.01	1,795.85	24.17	75.307	
6,200.00	6,140.69	6,163.43	6,140.69	13.06	11.77	-90.40	-578.77	-2,142.42	1,820.01	1,795.71	24.30	74.885	
6,300.00	6,240.69	6,263.43	6,240.69	13.11	11.86	-90.40	-578.77	-2,142.42	1,820.01	1,795.57	24.44	74.466	
6,400.00	6,340.69	6,363.43	6,340.69	13.15	11.95	-90.40	-578.77	-2,142.42	1,820.01	1,795.44	24.58	74.052	
6,500.00	6,440.69	6,463.43	6,440.69	13.20	12.04	-90.40	-578.77	-2,142.42	1,820.01	1,795.30	24.71	73.642	
6,600.00	6,540.69	6,563.43	6,540.69	13.24	12.14	-90.40	-578.77	-2,142.42	1,820.01	1,795.16	24.85	73.235	
6,700.00	6,640.69	6,663.43	6,640.69	13.29	12.23	-90.40	-578.77	-2,142.42	1,820.01	1,795.03	24.99	72.833	
6,800.00	6,740.69	6,763.43	6,740.69	13.34	12.32	-90.40	-578.77	-2,142.42	1,820.01	1,794.89	25.13	72.434	
6,900.00	6,840.69	6,863.43	6,840.69	13.38	12.41	-90.40	-578.77	-2,142.42	1,820.01	1,794.75	25.26	72.039	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1

Survey Program: 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,000.00	6,940.69	6,963.43	6,940.69	13.43	12.51	-90.40	-578.77	-2,142.42	1,820.01	1,794.61	25.40	71.648	
7,100.00	7,040.69	7,063.43	7,040.69	13.48	12.60	-90.40	-578.77	-2,142.42	1,820.01	1,794.47	25.54	71.261	
7,200.00	7,140.69	7,163.43	7,140.69	13.52	12.69	-90.40	-578.77	-2,142.42	1,820.01	1,794.34	25.68	70.877	
7,300.00	7,240.69	7,263.43	7,240.69	13.57	12.78	-90.40	-578.77	-2,142.42	1,820.01	1,794.20	25.82	70.497	
7,400.00	7,340.69	7,363.43	7,340.69	13.62	12.87	-90.40	-578.77	-2,142.42	1,820.01	1,794.06	25.96	70.120	
7,500.00	7,440.69	7,463.43	7,440.69	13.67	12.96	-90.40	-578.77	-2,142.42	1,820.01	1,793.92	26.09	69.747	
7,600.00	7,540.69	7,563.43	7,540.69	13.72	13.05	-90.40	-578.77	-2,142.42	1,820.01	1,793.78	26.23	69.377	
7,700.00	7,640.69	7,663.43	7,640.69	13.77	13.14	-90.40	-578.77	-2,142.42	1,820.01	1,793.64	26.37	69.010	
7,800.00	7,740.69	7,763.43	7,740.69	13.82	13.24	-90.40	-578.77	-2,142.42	1,820.01	1,793.50	26.51	68.647	
7,900.00	7,840.69	7,863.43	7,840.69	13.87	13.33	-90.40	-578.77	-2,142.42	1,820.01	1,793.36	26.65	68.288	
8,000.00	7,940.69	7,963.43	7,940.69	13.92	13.42	-90.40	-578.77	-2,142.42	1,820.01	1,793.22	26.79	67.931	
8,100.00	8,040.69	8,063.43	8,040.69	13.97	13.51	-90.40	-578.77	-2,142.42	1,820.01	1,793.08	26.93	67.578	
8,200.00	8,140.69	8,163.43	8,140.69	14.02	13.60	-90.40	-578.77	-2,142.42	1,820.01	1,792.94	27.07	67.228	
8,300.00	8,240.69	8,263.43	8,240.69	14.07	13.69	-90.40	-578.77	-2,142.42	1,820.01	1,792.80	27.21	66.881	
8,400.00	8,340.69	8,363.43	8,340.69	14.12	13.78	-90.40	-578.77	-2,142.42	1,820.01	1,792.66	27.35	66.537	
8,500.00	8,440.69	8,463.43	8,440.69	14.17	13.87	-90.40	-578.77	-2,142.42	1,820.01	1,792.52	27.49	66.196	
8,600.00	8,540.69	8,563.43	8,540.69	14.23	13.96	-90.40	-578.77	-2,142.42	1,820.01	1,792.38	27.64	65.858	
8,700.00	8,640.69	8,663.43	8,640.69	14.28	14.05	-90.40	-578.77	-2,142.42	1,820.01	1,792.24	27.78	65.523	
8,800.00	8,740.69	8,763.43	8,740.69	14.33	14.14	-90.40	-578.77	-2,142.42	1,820.01	1,792.10	27.92	65.192	
8,900.00	8,840.69	8,863.43	8,840.69	14.38	14.23	-90.40	-578.77	-2,142.42	1,820.01	1,791.95	28.06	64.863	
9,000.00	8,940.69	8,963.43	8,940.69	14.44	14.32	-90.40	-578.77	-2,142.42	1,820.01	1,791.81	28.20	64.537	
9,100.00	9,040.69	9,063.43	9,040.69	14.49	14.41	-90.40	-578.77	-2,142.42	1,820.01	1,791.67	28.34	64.213	
9,200.00	9,140.69	9,163.43	9,140.69	14.54	14.50	-90.40	-578.77	-2,142.42	1,820.01	1,791.53	28.49	63.893	
9,300.00	9,240.69	9,263.43	9,240.69	14.60	14.59	-90.40	-578.77	-2,142.42	1,820.01	1,791.39	28.63	63.576	
9,400.00	9,340.69	9,363.43	9,340.69	14.65	14.67	-90.40	-578.77	-2,142.42	1,820.01	1,791.24	28.77	63.261	
9,500.00	9,440.69	9,463.43	9,440.69	14.71	14.76	-90.40	-578.77	-2,142.42	1,820.01	1,791.10	28.91	62.949	
9,600.00	9,540.69	9,563.43	9,540.69	14.76	14.85	-90.40	-578.77	-2,142.42	1,820.01	1,790.96	29.06	62.639	
9,700.00	9,640.69	9,663.43	9,640.69	14.82	14.94	-90.40	-578.77	-2,142.42	1,820.01	1,790.82	29.20	62.333	
9,800.00	9,740.69	9,763.43	9,740.69	14.87	15.03	-90.40	-578.77	-2,142.42	1,820.01	1,790.67	29.34	62.028	
9,900.00	9,840.69	9,863.43	9,840.69	14.93	15.12	-90.40	-578.77	-2,142.42	1,820.01	1,790.53	29.48	61.727	
10,000.00	9,940.69	9,963.43	9,940.69	14.98	15.21	-90.40	-578.77	-2,142.42	1,820.01	1,790.39	29.63	61.428	
10,100.00	10,040.69	10,063.43	10,040.69	15.04	15.30	-90.40	-578.77	-2,142.42	1,820.01	1,790.24	29.77	61.132	
10,200.00	10,140.69	10,163.43	10,140.69	15.10	15.39	-90.40	-578.77	-2,142.42	1,820.01	1,790.10	29.92	60.838	
10,300.00	10,240.69	10,263.43	10,240.69	15.15	15.47	-90.40	-578.77	-2,142.42	1,820.01	1,789.95	30.06	60.546	
10,400.00	10,340.69	10,363.43	10,340.69	15.21	15.56	-90.40	-578.77	-2,142.42	1,820.01	1,789.81	30.20	60.257	
10,500.00	10,440.69	10,463.43	10,440.69	15.27	15.65	-90.40	-578.77	-2,142.42	1,820.01	1,789.67	30.35	59.971	
10,600.00	10,540.69	10,563.43	10,540.69	15.33	15.74	-90.40	-578.77	-2,142.42	1,820.01	1,789.52	30.49	59.687	
10,700.00	10,640.69	10,663.43	10,640.69	15.38	15.83	-90.40	-578.77	-2,142.42	1,820.01	1,789.38	30.64	59.405	
10,800.00	10,740.69	10,763.43	10,740.69	15.44	15.92	-90.40	-578.77	-2,142.42	1,820.01	1,789.23	30.78	59.126	
10,900.00	10,840.69	10,863.43	10,840.69	15.50	16.00	-90.40	-578.77	-2,142.42	1,820.01	1,789.09	30.93	58.848	
11,000.00	10,940.69	10,963.43	10,940.69	15.56	16.09	-90.40	-578.77	-2,142.42	1,820.01	1,788.94	31.07	58.574	CC
11,007.58	10,948.27	10,971.02	10,948.27	15.56	16.10	90.12	-578.77	-2,142.42	1,820.01	1,788.93	31.08	58.554	
11,100.00	11,040.69	11,063.43	11,040.69	15.61	16.18	90.12	-578.77	-2,142.42	1,820.01	1,788.81	31.21	58.321	
11,200.00	11,140.02	11,162.77	11,140.02	15.75	16.27	90.44	-578.77	-2,142.42	1,820.07	1,788.70	31.37	58.021	
11,300.00	11,236.04	11,258.79	11,236.04	15.99	16.35	91.23	-578.77	-2,142.42	1,820.49	1,788.84	31.65	57.527	
11,400.00	11,325.83	11,348.57	11,325.83	16.30	16.43	92.31	-578.77	-2,142.42	1,822.02	1,789.97	32.05	56.858	
11,500.00	11,406.66	11,429.40	11,406.66	16.71	16.50	93.42	-578.77	-2,142.42	1,825.71	1,793.13	32.58	56.039	
11,600.00	11,476.08	11,498.82	11,476.08	17.25	16.56	94.27	-578.77	-2,142.42	1,832.78	1,799.53	33.25	55.116	
11,700.00	11,531.97	11,554.71	11,531.97	17.94	16.61	94.55	-578.77	-2,142.42	1,844.37	1,810.31	34.06	54.151	
11,800.00	11,572.64	11,595.39	11,572.64	18.75	16.65	94.00	-578.77	-2,142.42	1,861.32	1,826.35	34.97	53.221	
11,900.00	11,596.86	11,619.60	11,596.86	19.67	16.67	92.40	-578.77	-2,142.42	1,884.00	1,848.05	35.95	52.402	
12,000.00	11,604.02	11,626.76	11,604.02	20.67	16.67	90.10	-578.77	-2,142.42	1,912.17	1,875.23	36.94	51.759	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1

Survey Program: 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:		Offset Well Error:		0.50 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
12,100.00	11,604.54	11,627.29	11,604.54	21.72	16.67	90.11	-578.77	-2,142.42	1,945.17	1,907.24	37.93	51.285
12,200.00	11,605.07	12,914.08	12,356.68	22.80	18.10	112.44	-1,360.41	-2,135.69	1,969.45	1,927.45	42.00	46.891
12,300.00	11,605.59	13,014.08	12,357.20	23.92	18.56	112.43	-1,460.41	-2,134.83	1,969.50	1,926.06	43.44	45.340
12,400.00	11,606.12	13,114.08	12,357.73	25.06	19.13	112.43	-1,560.40	-2,133.97	1,969.54	1,924.56	44.98	43.791
12,500.00	11,606.64	13,214.08	12,358.25	26.22	19.80	112.43	-1,660.40	-2,133.11	1,969.58	1,922.98	46.60	42.263
12,600.00	11,607.17	13,314.08	12,358.77	27.40	20.55	112.43	-1,760.39	-2,132.25	1,969.63	1,921.32	48.31	40.770
12,700.00	11,607.69	13,414.08	12,359.30	28.59	21.38	112.43	-1,860.39	-2,131.38	1,969.67	1,919.58	50.09	39.321
12,800.00	11,608.22	13,514.08	12,359.82	29.80	22.27	112.43	-1,960.38	-2,130.52	1,969.71	1,917.77	51.94	37.923
12,900.00	11,608.74	13,614.08	12,360.34	31.03	23.21	112.43	-2,060.38	-2,129.66	1,969.76	1,915.91	53.85	36.580
13,000.00	11,609.27	13,714.08	12,360.87	32.26	24.19	112.43	-2,160.37	-2,128.80	1,969.80	1,913.99	55.81	35.296
13,100.00	11,609.79	13,814.08	12,361.39	33.51	25.21	112.43	-2,260.37	-2,127.94	1,969.85	1,912.03	57.82	34.071
13,200.00	11,610.32	13,914.08	12,361.91	34.76	26.26	112.43	-2,360.36	-2,127.08	1,969.89	1,910.02	59.87	32.904
13,300.00	11,610.84	14,014.08	12,362.44	36.03	27.35	112.43	-2,460.36	-2,126.22	1,969.93	1,907.97	61.96	31.794
13,400.00	11,611.37	14,114.08	12,362.96	37.30	28.46	112.43	-2,560.35	-2,125.36	1,969.98	1,905.89	64.08	30.741
13,500.00	11,611.89	14,214.08	12,363.48	38.57	29.59	112.43	-2,660.35	-2,124.50	1,970.02	1,903.78	66.24	29.740
13,600.00	11,612.42	14,314.08	12,364.01	39.86	30.74	112.43	-2,760.34	-2,123.64	1,970.06	1,901.64	68.43	28.791
13,700.00	11,612.94	14,414.08	12,364.53	41.14	31.91	112.43	-2,860.34	-2,122.77	1,970.11	1,899.47	70.64	27.890
13,800.00	11,613.47	14,514.08	12,365.05	42.44	33.09	112.43	-2,960.33	-2,121.91	1,970.15	1,897.28	72.87	27.036
13,900.00	11,613.99	14,614.08	12,365.58	43.74	34.29	112.43	-3,060.33	-2,121.05	1,970.20	1,895.07	75.13	26.224
14,000.00	11,614.52	14,714.08	12,366.10	45.04	35.51	112.43	-3,160.32	-2,120.19	1,970.24	1,892.83	77.40	25.454
14,100.00	11,615.04	14,814.08	12,366.62	46.34	36.73	112.42	-3,260.32	-2,119.33	1,970.28	1,890.59	79.70	24.722
14,200.00	11,615.57	14,914.08	12,367.15	47.65	37.96	112.42	-3,360.31	-2,118.47	1,970.33	1,888.32	82.01	24.027
14,300.00	11,616.09	15,014.08	12,367.67	48.97	39.20	112.42	-3,460.31	-2,117.61	1,970.37	1,886.04	84.33	23.365
14,400.00	11,616.62	15,114.08	12,368.19	50.28	40.45	112.42	-3,560.30	-2,116.75	1,970.41	1,883.75	86.67	22.735
14,500.00	11,617.14	15,214.08	12,368.72	51.60	41.71	112.42	-3,660.30	-2,115.89	1,970.46	1,881.44	89.02	22.136
14,600.00	11,617.67	15,314.08	12,369.24	52.92	42.98	112.42	-3,760.29	-2,115.03	1,970.50	1,879.12	91.38	21.564
14,700.00	11,618.19	15,414.08	12,369.77	54.25	44.25	112.42	-3,860.29	-2,114.16	1,970.54	1,876.79	93.75	21.019
14,800.00	11,618.72	15,514.08	12,370.29	55.57	45.53	112.42	-3,960.28	-2,113.30	1,970.59	1,874.46	96.13	20.499
14,900.00	11,619.24	15,614.08	12,370.81	56.90	46.81	112.42	-4,060.28	-2,112.44	1,970.63	1,872.11	98.52	20.002
15,000.00	11,619.77	15,714.08	12,371.34	58.23	48.10	112.42	-4,160.27	-2,111.58	1,970.68	1,869.75	100.92	19.527
15,100.00	11,620.29	15,814.08	12,371.86	59.56	49.39	112.42	-4,260.27	-2,110.72	1,970.72	1,867.39	103.33	19.072
15,200.00	11,620.82	15,914.08	12,372.38	60.89	50.68	112.42	-4,360.26	-2,109.86	1,970.76	1,865.02	105.74	18.637
15,300.00	11,621.34	16,014.08	12,372.91	62.23	51.98	112.42	-4,460.26	-2,109.00	1,970.81	1,862.64	108.16	18.220
15,400.00	11,621.87	16,114.08	12,373.43	63.56	53.29	112.42	-4,560.25	-2,108.14	1,970.85	1,860.26	110.59	17.821
15,500.00	11,622.40	16,214.08	12,373.95	64.90	54.59	112.42	-4,660.25	-2,107.28	1,970.89	1,857.87	113.02	17.438
15,600.00	11,622.92	16,314.08	12,374.48	66.24	55.90	112.42	-4,760.24	-2,106.42	1,970.94	1,855.47	115.46	17.070
15,700.00	11,623.45	16,414.08	12,375.00	67.58	57.21	112.42	-4,860.24	-2,105.55	1,970.98	1,853.07	117.91	16.716
15,800.00	11,623.97	16,514.08	12,375.52	68.92	58.53	112.41	-4,960.23	-2,104.69	1,971.03	1,850.67	120.36	16.377
15,900.00	11,624.50	16,614.08	12,376.05	70.26	59.85	112.41	-5,060.23	-2,103.83	1,971.07	1,848.26	122.81	16.050
16,000.00	11,625.02	16,714.08	12,376.57	71.61	61.17	112.41	-5,160.22	-2,102.97	1,971.11	1,845.85	125.27	15.735
16,100.00	11,625.55	16,814.08	12,377.09	72.95	62.49	112.41	-5,260.21	-2,102.11	1,971.16	1,843.43	127.73	15.432
16,200.00	11,626.07	16,914.08	12,377.62	74.30	63.81	112.41	-5,360.21	-2,101.25	1,971.20	1,841.01	130.19	15.141
16,300.00	11,626.60	17,014.08	12,378.14	75.64	65.14	112.41	-5,460.20	-2,100.39	1,971.24	1,838.58	132.66	14.859
16,400.00	11,627.12	17,114.08	12,378.66	76.99	66.47	112.41	-5,560.20	-2,099.53	1,971.29	1,836.15	135.13	14.588
16,500.00	11,627.65	17,214.08	12,379.19	78.34	67.79	112.41	-5,660.19	-2,098.67	1,971.33	1,833.72	137.61	14.326
16,600.00	11,628.17	17,314.08	12,379.71	79.68	69.13	112.41	-5,760.19	-2,097.81	1,971.37	1,831.29	140.09	14.072
16,700.00	11,628.70	17,414.08	12,380.23	81.03	70.46	112.41	-5,860.18	-2,096.94	1,971.42	1,828.85	142.57	13.828
16,800.00	11,629.22	17,514.08	12,380.76	82.38	71.79	112.41	-5,960.18	-2,096.08	1,971.46	1,826.41	145.05	13.591
16,900.00	11,629.75	17,614.08	12,381.28	83.73	73.13	112.41	-6,060.17	-2,095.22	1,971.51	1,823.97	147.54	13.363
17,000.00	11,630.27	17,714.08	12,381.81	85.08	74.46	112.41	-6,160.17	-2,094.36	1,971.55	1,821.52	150.03	13.141
17,100.00	11,630.80	17,814.08	12,382.33	86.44	75.80	112.41	-6,260.16	-2,093.50	1,971.59	1,819.07	152.52	12.927
17,200.00	11,631.32	17,914.08	12,382.85	87.79	77.14	112.41	-6,360.16	-2,092.64	1,971.64	1,816.62	155.01	12.719

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 212H - OH - Plan #1

Survey Program: 232-MWD+HRGM+SAG+FDIR (rev.5), 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
17,300.00	11,631.85	18,014.08	12,383.38	89.14	78.48	112.41	-6,460.15	-2,091.78	1,971.68	1,814.17	157.51	12.518	
17,400.00	11,632.37	18,114.08	12,383.90	90.49	79.82	112.41	-6,560.15	-2,090.92	1,971.72	1,811.72	160.00	12.323	
17,500.00	11,632.90	18,214.08	12,384.42	91.85	81.16	112.40	-6,660.14	-2,090.06	1,971.77	1,809.26	162.50	12.134	
17,600.00	11,633.42	18,314.08	12,384.95	93.20	82.50	112.40	-6,760.14	-2,089.20	1,971.81	1,806.81	165.01	11.950	
17,700.00	11,633.95	18,414.08	12,385.47	94.56	83.85	112.40	-6,860.13	-2,088.33	1,971.86	1,804.35	167.51	11.772	
17,800.00	11,634.47	18,514.08	12,385.99	95.91	85.19	112.40	-6,960.13	-2,087.47	1,971.90	1,801.89	170.01	11.599	
17,900.00	11,635.00	18,614.08	12,386.52	97.27	86.54	112.40	-7,060.12	-2,086.61	1,971.94	1,799.42	172.52	11.430	
18,000.00	11,635.52	18,714.08	12,387.04	98.62	87.88	112.40	-7,160.12	-2,085.75	1,971.99	1,796.96	175.03	11.267	
18,100.00	11,636.05	18,814.08	12,387.56	99.98	89.23	112.40	-7,260.11	-2,084.89	1,972.03	1,794.49	177.54	11.108	
18,200.00	11,636.57	18,914.08	12,388.09	101.34	90.58	112.40	-7,360.11	-2,084.03	1,972.07	1,792.03	180.05	10.953	
18,300.00	11,637.10	19,014.08	12,388.61	102.69	91.92	112.40	-7,460.10	-2,083.17	1,972.12	1,789.56	182.56	10.803	
18,400.00	11,637.62	19,114.08	12,389.13	104.05	93.27	112.40	-7,560.10	-2,082.31	1,972.16	1,787.09	185.07	10.656	
18,500.00	11,638.15	19,214.08	12,389.66	105.41	94.62	112.40	-7,660.09	-2,081.45	1,972.20	1,784.62	187.59	10.514	
18,600.00	11,638.67	19,314.08	12,390.18	106.76	95.97	112.40	-7,760.09	-2,080.59	1,972.25	1,782.15	190.10	10.375	
18,700.00	11,639.20	19,414.08	12,390.70	108.12	97.32	112.40	-7,860.08	-2,079.72	1,972.29	1,779.67	192.62	10.239	
18,800.00	11,639.72	19,514.08	12,391.23	109.48	98.67	112.40	-7,960.08	-2,078.86	1,972.34	1,777.20	195.14	10.108	
18,900.00	11,640.25	19,614.08	12,391.75	110.84	100.02	112.40	-8,060.07	-2,078.00	1,972.38	1,774.72	197.65	9.979	
19,000.00	11,640.77	19,714.08	12,392.27	112.20	101.38	112.40	-8,160.07	-2,077.14	1,972.42	1,772.25	200.17	9.854	
19,100.00	11,641.30	19,814.08	12,392.80	113.56	102.73	112.40	-8,260.06	-2,076.28	1,972.47	1,769.77	202.70	9.731	
19,200.00	11,641.82	19,914.08	12,393.32	114.92	104.08	112.40	-8,360.06	-2,075.42	1,972.51	1,767.29	205.22	9.612	
19,300.00	11,642.35	20,014.08	12,393.84	116.28	105.44	112.39	-8,460.05	-2,074.56	1,972.55	1,764.81	207.74	9.495	
19,400.00	11,642.87	20,114.08	12,394.37	117.64	106.79	112.39	-8,560.05	-2,073.70	1,972.60	1,762.33	210.26	9.382	
19,500.00	11,643.40	20,214.08	12,394.89	119.00	108.14	112.39	-8,660.04	-2,072.84	1,972.64	1,759.85	212.79	9.270	
19,600.00	11,643.92	20,314.08	12,395.42	120.36	109.50	112.39	-8,760.04	-2,071.98	1,972.69	1,757.37	215.31	9.162	
19,700.00	11,644.45	20,414.08	12,395.94	121.72	110.85	112.39	-8,860.03	-2,071.11	1,972.73	1,754.89	217.84	9.056	
19,800.00	11,644.97	20,514.08	12,396.46	123.08	112.21	112.39	-8,960.03	-2,070.25	1,972.77	1,752.41	220.37	8.952	
19,900.00	11,645.50	20,614.08	12,396.99	124.44	113.56	112.39	-9,060.02	-2,069.39	1,972.82	1,749.92	222.89	8.851	
20,000.00	11,646.02	20,714.08	12,397.51	125.80	114.92	112.39	-9,160.02	-2,068.53	1,972.86	1,747.44	225.42	8.752	
20,100.00	11,646.55	20,814.08	12,398.03	127.16	116.27	112.39	-9,260.01	-2,067.67	1,972.90	1,744.95	227.95	8.655	
20,200.00	11,647.07	20,914.08	12,398.56	128.52	117.63	112.39	-9,360.01	-2,066.81	1,972.95	1,742.47	230.48	8.560	
20,300.00	11,647.60	21,014.08	12,399.08	129.88	118.99	112.39	-9,460.00	-2,065.95	1,972.99	1,739.98	233.01	8.467	
20,400.00	11,648.12	21,114.08	12,399.60	131.25	120.35	112.39	-9,560.00	-2,065.09	1,973.03	1,737.49	235.54	8.377	
20,500.00	11,648.65	21,214.08	12,400.13	132.61	121.70	112.39	-9,659.99	-2,064.23	1,973.08	1,735.01	238.07	8.288	
20,600.00	11,649.17	21,314.08	12,400.65	133.97	123.06	112.39	-9,759.99	-2,063.37	1,973.12	1,732.52	240.60	8.201	
20,700.00	11,649.70	21,414.08	12,401.17	135.33	124.42	112.39	-9,859.98	-2,062.50	1,973.17	1,730.03	243.14	8.115	
20,800.00	11,650.23	21,514.08	12,401.70	136.69	125.78	112.39	-9,959.98	-2,061.64	1,973.21	1,727.54	245.67	8.032	
20,900.00	11,650.75	21,614.08	12,402.22	138.06	127.13	112.39	-10,059.97	-2,060.78	1,973.25	1,725.05	248.20	7.950	
21,000.00	11,651.28	21,714.08	12,402.74	139.42	128.49	112.38	-10,159.97	-2,059.92	1,973.30	1,722.56	250.74	7.870	
21,100.00	11,651.80	21,814.08	12,403.27	140.78	129.85	112.38	-10,259.96	-2,059.06	1,973.34	1,720.07	253.27	7.791	
21,200.00	11,652.33	21,914.08	12,403.79	142.15	131.21	112.38	-10,359.96	-2,058.20	1,973.38	1,717.58	255.81	7.714	
21,300.00	11,652.85	22,014.08	12,404.31	143.51	132.57	112.38	-10,459.95	-2,057.34	1,973.43	1,715.09	258.34	7.639	
21,400.00	11,653.38	22,114.08	12,404.84	144.87	133.93	112.38	-10,559.95	-2,056.48	1,973.47	1,712.59	260.88	7.565	
21,500.00	11,653.90	22,214.08	12,405.36	146.24	135.29	112.38	-10,659.94	-2,055.62	1,973.52	1,710.10	263.41	7.492	
21,600.00	11,654.43	22,314.08	12,405.88	147.60	136.65	112.38	-10,759.94	-2,054.76	1,973.56	1,707.61	265.95	7.421	
21,700.00	11,654.95	22,414.08	12,406.41	148.96	138.01	112.38	-10,859.93	-2,053.89	1,973.60	1,705.11	268.49	7.351	
21,800.00	11,655.48	22,514.08	12,406.93	150.33	139.37	112.38	-10,959.93	-2,053.03	1,973.65	1,702.62	271.03	7.282	
21,900.00	11,656.00	22,614.08	12,407.46	151.69	140.73	112.38	-11,059.92	-2,052.17	1,973.69	1,700.13	273.56	7.215	
21,918.86	11,656.10	22,632.94	12,407.55	151.95	140.99	112.38	-11,078.78	-2,052.01	1,973.70	1,699.66	274.04	7.202	ES, SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.50	0.50	90.00	0.00	25.00	25.00				
100.00	100.00	100.00	100.00	0.98	0.98	90.00	0.00	25.00	25.00	23.04	1.96	12.741	
200.00	200.00	200.00	200.00	1.56	1.56	90.00	0.00	25.00	25.00	21.88	3.12	8.007	
300.00	300.00	300.00	300.00	1.98	1.98	90.00	0.00	25.00	25.00	21.04	3.96	6.309	CC
400.00	399.99	399.99	399.99	2.41	2.33	-117.52	0.00	25.00	25.58	20.91	4.67	5.479	ES
500.00	499.91	499.91	499.91	2.77	2.63	-124.74	0.00	25.00	27.61	22.32	5.30	5.213	
600.00	599.69	600.20	600.19	3.10	2.97	-132.59	-1.23	24.55	30.98	25.08	5.90	5.248	
700.00	699.32	700.65	700.56	3.23	3.27	-137.93	-4.95	23.20	34.53	28.21	6.32	5.465	
800.00	798.94	801.28	800.97	3.47	3.54	-139.58	-11.16	20.94	36.54	29.72	6.82	5.357	
900.00	898.56	901.49	900.81	3.70	3.66	-138.89	-19.24	18.00	37.14	29.98	7.16	5.187	
1,000.00	998.18	1,001.49	1,000.43	3.93	3.87	-138.07	-27.43	15.02	37.65	30.05	7.60	4.956	
1,100.00	1,097.80	1,101.49	1,100.05	4.16	4.08	-137.27	-35.62	12.04	38.17	30.15	8.02	4.758	
1,200.00	1,197.42	1,201.49	1,199.66	4.38	4.28	-136.50	-43.81	9.05	38.70	30.26	8.44	4.587	
1,300.00	1,297.01	1,301.99	1,299.77	4.50	4.39	-137.20	-52.13	5.74	39.15	30.50	8.65	4.524	
1,400.00	1,396.38	1,403.02	1,400.23	4.76	4.61	-140.67	-61.11	0.18	39.19	30.07	9.12	4.298	
1,500.00	1,495.42	1,503.99	1,500.41	5.02	4.83	-146.17	-70.79	-7.95	38.93	29.31	9.62	4.049	
1,582.75	1,577.08	1,587.48	1,583.01	5.23	5.01	-152.50	-79.32	-16.60	38.78	28.73	10.05	3.858	
1,600.00	1,594.07	1,604.87	1,600.18	5.27	5.05	-154.03	-81.16	-18.63	38.79	28.64	10.14	3.823	
1,700.00	1,692.25	1,705.59	1,699.43	5.52	5.28	-164.24	-92.20	-31.83	39.43	28.74	10.69	3.688	
1,800.00	1,790.08	1,806.14	1,798.05	5.69	5.50	-175.76	-103.90	-47.52	40.88	29.75	11.13	3.672	
1,900.00	1,887.89	1,906.45	1,895.92	5.90	5.73	-171.29	-116.23	-65.68	42.21	30.62	11.59	3.642	SF
2,000.00	1,985.71	2,006.39	1,992.85	6.11	5.95	-156.69	-129.17	-86.24	44.41	32.41	12.01	3.699	
2,100.00	2,083.52	2,105.66	2,088.76	6.33	6.12	-142.36	-142.44	-108.22	48.88	36.49	12.39	3.944	
2,200.00	2,181.34	2,204.88	2,184.59	6.54	6.36	-130.95	-155.70	-130.21	55.84	42.99	12.85	4.345	
2,300.00	2,279.15	2,304.09	2,280.42	6.76	6.62	-122.31	-168.97	-152.20	64.51	51.16	13.35	4.832	
2,400.00	2,376.96	2,403.30	2,376.25	6.99	6.91	-115.81	-182.23	-174.19	74.30	60.41	13.88	5.352	
2,500.00	2,474.78	2,502.51	2,472.08	7.27	7.20	-110.86	-195.50	-196.18	84.80	70.37	14.43	5.876	
2,600.00	2,572.59	2,601.72	2,567.91	7.54	7.51	-107.03	-208.76	-218.17	95.80	80.81	14.99	6.390	
2,700.00	2,670.41	2,700.94	2,663.74	7.82	7.82	-103.99	-222.02	-240.16	107.13	91.57	15.56	6.885	
2,800.00	2,768.22	2,800.15	2,759.57	8.11	8.13	-101.53	-235.29	-262.15	118.71	102.57	16.14	7.356	
2,900.00	2,866.03	2,899.36	2,855.40	8.39	8.45	-99.52	-248.55	-284.14	130.46	113.74	16.72	7.804	
3,000.00	2,963.85	2,998.57	2,951.23	8.67	8.77	-97.84	-261.82	-306.13	142.34	125.04	17.30	8.228	
3,100.00	3,061.66	3,097.78	3,047.06	8.96	9.10	-96.41	-275.08	-328.12	154.33	136.44	17.88	8.629	
3,200.00	3,159.48	3,196.99	3,142.89	9.24	9.42	-95.20	-288.34	-350.11	166.40	147.92	18.47	9.008	
3,300.00	3,257.29	3,296.21	3,238.72	9.53	9.75	-94.15	-301.61	-372.10	178.53	159.46	19.06	9.365	
3,400.00	3,355.10	3,395.42	3,334.55	9.81	10.09	-93.23	-314.87	-394.10	190.71	171.06	19.66	9.703	
3,500.00	3,452.92	3,494.63	3,430.38	10.10	10.42	-92.42	-328.14	-416.09	202.94	182.69	20.25	10.022	
3,600.00	3,550.73	3,593.84	3,526.21	10.39	10.75	-91.70	-341.40	-438.08	215.20	194.35	20.84	10.324	
3,700.00	3,648.55	3,693.05	3,622.04	10.68	11.09	-91.07	-354.66	-460.07	227.49	206.05	21.44	10.610	
3,800.00	3,746.36	3,792.26	3,717.87	10.95	11.43	-90.51	-367.93	-482.06	239.80	217.78	22.03	10.887	
3,900.00	3,844.48	3,891.43	3,813.66	11.23	11.77	-89.83	-381.19	-504.04	252.14	229.54	22.60	11.155	
4,000.00	3,943.06	3,990.46	3,909.32	11.48	12.11	-88.67	-394.43	-525.99	264.59	241.45	23.14	11.435	
4,100.00	4,042.05	4,089.30	4,004.78	11.70	12.45	-87.09	-407.64	-547.89	277.30	253.66	23.63	11.734	
4,200.00	4,141.38	4,187.87	4,100.00	11.90	12.79	-85.17	-420.82	-569.74	290.46	266.38	24.08	12.063	
4,300.00	4,240.98	4,286.11	4,194.89	12.08	13.13	-82.95	-433.95	-591.52	304.30	279.83	24.47	12.433	
4,400.00	4,340.77	4,383.95	4,289.39	12.22	13.47	-80.51	-447.03	-613.20	319.06	294.24	24.82	12.855	
4,500.00	4,440.70	4,481.31	4,383.44	12.34	13.81	-77.90	-460.05	-634.78	334.99	309.88	25.12	13.337	
4,600.00	4,540.69	4,578.15	4,476.98	12.41	14.15	-74.42	-473.00	-656.25	352.34	327.01	25.33	13.911	
4,700.00	4,640.69	4,674.74	4,570.28	12.44	14.49	-77.28	-485.91	-677.66	370.88	345.38	25.50	14.542	
4,800.00	4,740.69	4,771.34	4,663.57	12.48	14.83	-79.88	-498.82	-699.07	390.27	364.59	25.68	15.197	
4,900.00	4,840.69	4,874.40	4,763.32	12.52	15.18	-82.31	-512.22	-721.28	409.82	383.91	25.90	15.820	
5,000.00	4,940.69	4,981.17	4,867.32	12.56	15.51	-84.37	-524.68	-741.93	427.85	401.70	26.15	16.362	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	5,089.24	4,973.25	12.60	15.82	-86.04	-535.75	-760.29	444.04	417.65	26.39	16.828	
5,200.00	5,140.69	5,198.48	5,080.88	12.64	16.10	-87.39	-545.37	-776.23	458.17	431.55	26.62	17.213	
5,300.00	5,240.69	5,308.72	5,190.00	12.68	16.34	-88.45	-553.45	-789.64	470.10	443.26	26.84	17.517	
5,400.00	5,340.69	5,419.78	5,300.34	12.72	16.55	-89.27	-559.95	-800.41	479.70	452.66	27.04	17.740	
5,500.00	5,440.69	5,531.48	5,411.64	12.76	16.72	-89.85	-564.82	-808.48	486.90	459.67	27.23	17.881	
5,600.00	5,540.69	5,643.65	5,523.63	12.81	16.86	-90.23	-568.01	-813.77	491.62	464.22	27.40	17.943	
5,700.00	5,640.69	5,756.08	5,636.03	12.85	16.96	-90.40	-569.50	-816.24	493.83	466.31	27.52	17.944	
5,800.00	5,740.69	5,860.75	5,740.69	12.89	17.02	-90.41	-569.62	-816.44	494.00	466.40	27.60	17.900	
5,900.00	5,840.69	5,960.75	5,840.69	12.93	17.05	-90.41	-569.62	-816.44	494.00	466.33	27.68	17.850	
6,000.00	5,940.69	6,060.75	5,940.69	12.98	17.09	-90.41	-569.62	-816.44	494.00	466.25	27.75	17.799	
6,100.00	6,040.69	6,160.75	6,040.69	13.02	17.12	-90.41	-569.62	-816.44	494.00	466.17	27.83	17.748	
6,200.00	6,140.69	6,260.75	6,140.69	13.06	17.16	-90.41	-569.62	-816.44	494.00	466.09	27.91	17.697	
6,300.00	6,240.69	6,360.75	6,240.69	13.11	17.20	-90.41	-569.62	-816.44	494.00	466.01	27.99	17.646	
6,400.00	6,340.69	6,460.75	6,340.69	13.15	17.23	-90.41	-569.62	-816.44	494.00	465.93	28.08	17.595	
6,500.00	6,440.69	6,560.75	6,440.69	13.20	17.27	-90.41	-569.62	-816.44	494.00	465.84	28.16	17.544	
6,600.00	6,540.69	6,660.75	6,540.69	13.24	17.31	-90.41	-569.62	-816.44	494.00	465.76	28.24	17.492	
6,700.00	6,640.69	6,760.75	6,640.69	13.29	17.35	-90.41	-569.62	-816.44	494.00	465.68	28.33	17.440	
6,800.00	6,740.69	6,860.75	6,740.69	13.34	17.38	-90.41	-569.62	-816.44	494.00	465.59	28.41	17.389	
6,900.00	6,840.69	6,960.75	6,840.69	13.38	17.42	-90.41	-569.62	-816.44	494.00	465.51	28.49	17.337	
7,000.00	6,940.69	7,060.75	6,940.69	13.43	17.46	-90.41	-569.62	-816.44	494.00	465.42	28.58	17.285	
7,100.00	7,040.69	7,160.75	7,040.69	13.48	17.50	-90.41	-569.62	-816.44	494.00	465.34	28.67	17.233	
7,200.00	7,140.69	7,260.75	7,140.69	13.52	17.54	-90.41	-569.62	-816.44	494.00	465.25	28.75	17.181	
7,300.00	7,240.69	7,360.75	7,240.69	13.57	17.58	-90.41	-569.62	-816.44	494.00	465.16	28.84	17.128	
7,400.00	7,340.69	7,460.75	7,340.69	13.62	17.62	-90.41	-569.62	-816.44	494.00	465.07	28.93	17.076	
7,500.00	7,440.69	7,560.75	7,440.69	13.67	17.66	-90.41	-569.62	-816.44	494.00	464.98	29.02	17.024	
7,600.00	7,540.69	7,660.75	7,540.69	13.72	17.70	-90.41	-569.62	-816.44	494.00	464.89	29.11	16.971	
7,700.00	7,640.69	7,760.75	7,640.69	13.77	17.74	-90.41	-569.62	-816.44	494.00	464.80	29.20	16.919	
7,800.00	7,740.69	7,860.75	7,740.69	13.82	17.78	-90.41	-569.62	-816.44	494.00	464.71	29.29	16.866	
7,900.00	7,840.69	7,960.75	7,840.69	13.87	17.82	-90.41	-569.62	-816.44	494.00	464.62	29.38	16.814	
8,000.00	7,940.69	8,060.75	7,940.69	13.92	17.87	-90.41	-569.62	-816.44	494.00	464.53	29.47	16.761	
8,100.00	8,040.69	8,160.75	8,040.69	13.97	17.91	-90.41	-569.62	-816.44	494.00	464.44	29.57	16.709	
8,200.00	8,140.69	8,260.75	8,140.69	14.02	17.95	-90.41	-569.62	-816.44	494.00	464.34	29.66	16.656	
8,300.00	8,240.69	8,360.75	8,240.69	14.07	17.99	-90.41	-569.62	-816.44	494.00	464.25	29.75	16.603	
8,400.00	8,340.69	8,460.75	8,340.69	14.12	18.04	-90.41	-569.62	-816.44	494.00	464.16	29.85	16.551	
8,500.00	8,440.69	8,560.75	8,440.69	14.17	18.08	-90.41	-569.62	-816.44	494.00	464.06	29.94	16.498	
8,600.00	8,540.69	8,660.75	8,540.69	14.23	18.12	-90.41	-569.62	-816.44	494.00	463.96	30.04	16.446	
8,700.00	8,640.69	8,760.75	8,640.69	14.28	18.17	-90.41	-569.62	-816.44	494.00	463.87	30.13	16.393	
8,800.00	8,740.69	8,860.75	8,740.69	14.33	18.21	-90.41	-569.62	-816.44	494.00	463.77	30.23	16.341	
8,900.00	8,840.69	8,960.75	8,840.69	14.38	18.25	-90.41	-569.62	-816.44	494.00	463.67	30.33	16.288	
9,000.00	8,940.69	9,060.75	8,940.69	14.44	18.30	-90.41	-569.62	-816.44	494.00	463.58	30.43	16.236	
9,100.00	9,040.69	9,160.75	9,040.69	14.49	18.34	-90.41	-569.62	-816.44	494.00	463.48	30.53	16.183	
9,200.00	9,140.69	9,260.75	9,140.69	14.54	18.39	-90.41	-569.62	-816.44	494.00	463.38	30.62	16.131	
9,300.00	9,240.69	9,360.75	9,240.69	14.60	18.43	-90.41	-569.62	-816.44	494.00	463.28	30.72	16.078	
9,400.00	9,340.69	9,460.75	9,340.69	14.65	18.48	-90.41	-569.62	-816.44	494.00	463.18	30.82	16.026	
9,500.00	9,440.69	9,560.75	9,440.69	14.71	18.53	-90.41	-569.62	-816.44	494.00	463.08	30.93	15.974	
9,600.00	9,540.69	9,660.75	9,540.69	14.76	18.57	-90.41	-569.62	-816.44	494.00	462.98	31.03	15.922	
9,700.00	9,640.69	9,760.75	9,640.69	14.82	18.62	-90.41	-569.62	-816.44	494.00	462.87	31.13	15.870	
9,800.00	9,740.69	9,860.75	9,740.69	14.87	18.66	-90.41	-569.62	-816.44	494.00	462.77	31.23	15.818	
9,900.00	9,840.69	9,960.75	9,840.69	14.93	18.71	-90.41	-569.62	-816.44	494.00	462.67	31.33	15.766	
10,000.00	9,940.69	10,060.75	9,940.69	14.98	18.76	-90.41	-569.62	-816.44	494.00	462.57	31.44	15.714	
10,100.00	10,040.69	10,160.75	10,040.69	15.04	18.81	-90.41	-569.62	-816.44	494.00	462.46	31.54	15.662	
10,200.00	10,140.69	10,260.75	10,140.69	15.10	18.85	-90.41	-569.62	-816.44	494.00	462.36	31.64	15.611	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,300.00	10,240.69	10,360.75	10,240.69	15.15	18.90	-90.41	-569.62	-816.44	494.00	462.25	31.75	15.559		
10,400.00	10,340.69	10,460.75	10,340.69	15.21	18.95	-90.41	-569.62	-816.44	494.00	462.15	31.86	15.508		
10,500.00	10,440.69	10,560.75	10,440.69	15.27	19.00	-90.41	-569.62	-816.44	494.00	462.04	31.96	15.457		
10,600.00	10,540.69	10,660.75	10,540.69	15.33	19.05	-90.41	-569.62	-816.44	494.00	461.94	32.07	15.405		
10,700.00	10,640.69	10,760.75	10,640.69	15.38	19.09	-90.41	-569.62	-816.44	494.00	461.83	32.17	15.354		
10,800.00	10,740.69	10,860.75	10,740.69	15.44	19.14	-90.41	-569.62	-816.44	494.00	461.72	32.28	15.303		
10,900.00	10,840.69	10,960.75	10,840.69	15.50	19.19	-90.41	-569.62	-816.44	494.00	461.61	32.39	15.252		
11,000.00	10,940.69	11,060.75	10,940.69	15.56	19.24	-90.41	-569.62	-816.44	494.00	461.51	32.50	15.202		
11,007.70	10,948.39	11,068.45	10,948.39	15.56	19.25	90.11	-569.62	-816.44	494.00	461.50	32.50	15.198		
11,100.00	11,040.69	11,160.75	11,040.69	15.61	19.29	90.12	-569.62	-816.44	494.00	461.41	32.60	15.156		
11,100.52	11,041.21	11,161.26	11,041.21	15.61	19.29	90.12	-569.62	-816.44	494.00	461.41	32.60	15.155		
11,200.00	11,140.02	11,260.08	11,140.02	15.75	19.34	91.30	-569.62	-816.44	494.13	461.35	32.78	15.072		
11,300.00	11,236.04	11,356.10	11,236.04	15.99	19.39	94.20	-569.62	-816.44	495.53	462.33	33.20	14.926		
11,400.00	11,325.83	11,445.89	11,325.83	16.30	19.43	98.16	-569.62	-816.44	500.86	467.01	33.85	14.794		
11,500.00	11,406.66	11,526.72	11,406.66	16.71	19.47	102.18	-569.62	-816.44	513.80	479.06	34.74	14.790		
11,600.00	11,476.08	11,596.13	11,476.08	17.25	19.51	105.20	-569.62	-816.44	537.99	502.22	35.78	15.038		
11,700.00	11,531.97	11,652.03	11,531.97	17.94	19.54	106.20	-569.62	-816.44	575.81	538.99	36.82	15.639		
11,800.00	11,572.64	11,692.70	11,572.64	18.75	19.56	104.33	-569.62	-816.44	627.58	589.85	37.73	16.634		
11,900.00	11,596.86	11,716.91	11,596.86	19.67	19.57	98.74	-569.62	-816.44	691.55	653.12	38.43	17.994		
12,000.00	11,604.02	11,724.07	11,604.02	20.67	19.57	90.36	-569.62	-816.44	764.59	725.67	38.92	19.646		
12,100.00	11,604.54	11,724.60	11,604.54	21.72	19.58	90.42	-569.62	-816.44	843.40	804.15	39.24	21.492		
12,200.00	11,605.07	11,725.12	11,605.07	22.80	19.58	90.48	-569.62	-816.44	926.30	886.84	39.46	23.474		
12,300.00	11,605.59	13,209.15	12,457.58	23.92	26.76	149.89	-1,448.63	-808.53	984.90	933.15	51.74	19.035		
12,400.00	11,606.12	13,309.15	12,458.10	25.06	27.78	149.89	-1,548.62	-807.63	984.90	932.55	52.35	18.813		
12,500.00	11,606.64	13,409.15	12,458.63	26.22	28.83	149.89	-1,648.62	-806.73	984.91	931.90	53.01	18.581		
12,600.00	11,607.17	13,509.15	12,459.16	27.40	29.90	149.89	-1,748.61	-805.84	984.91	931.22	53.70	18.342		
12,700.00	11,607.69	13,609.15	12,459.68	28.59	31.00	149.89	-1,848.61	-804.94	984.92	930.49	54.42	18.097		
12,800.00	11,608.22	13,709.15	12,460.21	29.80	32.11	149.89	-1,948.60	-804.04	984.92	929.74	55.19	17.847		
12,900.00	11,608.74	13,809.15	12,460.73	31.03	33.25	149.89	-2,048.60	-803.14	984.93	928.94	55.99	17.592		
13,000.00	11,609.27	13,909.15	12,461.26	32.26	34.40	149.89	-2,148.59	-802.24	984.94	928.12	56.82	17.335		
13,100.00	11,609.79	14,009.15	12,461.79	33.51	35.57	149.89	-2,248.59	-801.34	984.94	927.26	57.68	17.075		
13,200.00	11,610.32	14,109.15	12,462.31	34.76	36.75	149.89	-2,348.58	-800.44	984.95	926.37	58.57	16.815		
13,300.00	11,610.84	14,209.15	12,462.84	36.03	37.94	149.89	-2,448.58	-799.54	984.95	925.46	59.50	16.555		
13,400.00	11,611.37	14,309.15	12,463.36	37.30	39.15	149.89	-2,548.57	-798.64	984.96	924.51	60.45	16.295		
13,500.00	11,611.89	14,409.15	12,463.89	38.57	40.36	149.88	-2,648.56	-797.74	984.96	923.54	61.42	16.036		
13,600.00	11,612.42	14,509.15	12,464.42	39.86	41.59	149.88	-2,748.56	-796.84	984.97	922.55	62.42	15.779		
13,700.00	11,612.94	14,609.15	12,464.94	41.14	42.82	149.88	-2,848.55	-795.94	984.97	921.53	63.45	15.525		
13,800.00	11,613.47	14,709.15	12,465.47	42.44	44.06	149.88	-2,948.55	-795.04	984.98	920.49	64.49	15.273		
13,900.00	11,613.99	14,809.15	12,466.00	43.74	45.31	149.88	-3,048.54	-794.14	984.99	919.42	65.56	15.024		
14,000.00	11,614.52	14,909.15	12,466.52	45.04	46.56	149.88	-3,148.54	-793.24	984.99	918.34	66.65	14.778		
14,100.00	11,615.04	15,009.15	12,467.05	46.34	47.82	149.88	-3,248.53	-792.34	985.00	917.24	67.76	14.537		
14,200.00	11,615.57	15,109.15	12,467.57	47.65	49.08	149.88	-3,348.53	-791.44	985.00	916.12	68.89	14.299		
14,300.00	11,616.09	15,209.15	12,468.10	48.97	50.35	149.88	-3,448.52	-790.54	985.01	914.98	70.03	14.065		
14,400.00	11,616.62	15,309.15	12,468.63	50.28	51.63	149.88	-3,548.52	-789.65	985.01	913.82	71.19	13.836		
14,500.00	11,617.14	15,409.15	12,469.15	51.60	52.91	149.88	-3,648.51	-788.75	985.02	912.65	72.37	13.611		
14,600.00	11,617.67	15,509.15	12,469.68	52.92	54.19	149.88	-3,748.50	-787.85	985.03	911.46	73.56	13.390		
14,700.00	11,618.19	15,609.15	12,470.21	54.25	55.48	149.88	-3,848.50	-786.95	985.03	910.26	74.77	13.174		
14,800.00	11,618.72	15,709.15	12,470.73	55.57	56.77	149.88	-3,948.49	-786.05	985.04	909.04	75.99	12.962		
14,900.00	11,619.24	15,809.15	12,471.26	56.90	58.07	149.88	-4,048.49	-785.15	985.04	907.82	77.23	12.755		
15,000.00	11,619.77	15,909.15	12,471.78	58.23	59.37	149.88	-4,148.48	-784.25	985.05	906.57	78.48	12.552		
15,100.00	11,620.29	16,009.15	12,472.31	59.56	60.67	149.88	-4,248.48	-783.35	985.05	905.32	79.73	12.354		
15,200.00	11,620.82	16,109.15	12,472.84	60.89	61.97	149.88	-4,348.47	-782.45	985.06	904.06	81.01	12.160		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,300.00	11,621.34	16,209.15	12,473.36	62.23	63.28	149.88	-4,448.47	-781.55	985.07	902.78	82.29	11.971	
15,400.00	11,621.87	16,309.15	12,473.89	63.56	64.59	149.88	-4,548.46	-780.65	985.07	901.49	83.58	11.786	
15,500.00	11,622.40	16,409.15	12,474.41	64.90	65.90	149.88	-4,648.46	-779.75	985.08	900.20	84.88	11.605	
15,600.00	11,622.92	16,509.15	12,474.94	66.24	67.22	149.88	-4,748.45	-778.85	985.08	898.89	86.19	11.429	
15,700.00	11,623.45	16,609.15	12,475.47	67.58	68.53	149.87	-4,848.45	-777.95	985.09	897.58	87.51	11.256	
15,800.00	11,623.97	16,709.15	12,475.99	68.92	69.85	149.87	-4,948.44	-777.05	985.09	896.25	88.84	11.088	
15,900.00	11,624.50	16,809.15	12,476.52	70.26	71.17	149.87	-5,048.43	-776.15	985.10	894.92	90.18	10.924	
16,000.00	11,625.02	16,909.15	12,477.05	71.61	72.49	149.87	-5,148.43	-775.25	985.11	893.58	91.53	10.763	
16,100.00	11,625.55	17,009.15	12,477.57	72.95	73.82	149.87	-5,248.42	-774.36	985.11	892.23	92.88	10.606	
16,200.00	11,626.07	17,109.15	12,478.10	74.30	75.14	149.87	-5,348.42	-773.46	985.12	890.88	94.24	10.453	
16,300.00	11,626.60	17,209.15	12,478.62	75.64	76.47	149.87	-5,448.41	-772.56	985.12	889.52	95.61	10.304	
16,400.00	11,627.12	17,309.15	12,479.15	76.99	77.79	149.87	-5,548.41	-771.66	985.13	888.15	96.98	10.158	
16,500.00	11,627.65	17,409.15	12,479.68	78.34	79.12	149.87	-5,648.40	-770.76	985.13	886.77	98.36	10.016	
16,600.00	11,628.17	17,509.15	12,480.20	79.68	80.45	149.87	-5,748.40	-769.86	985.14	885.39	99.75	9.876	
16,700.00	11,628.70	17,609.15	12,480.73	81.03	81.79	149.87	-5,848.39	-768.96	985.15	884.01	101.14	9.740	
16,800.00	11,629.22	17,709.15	12,481.25	82.38	83.12	149.87	-5,948.39	-768.06	985.15	882.61	102.54	9.608	
16,900.00	11,629.75	17,809.15	12,481.78	83.73	84.45	149.87	-6,048.38	-767.16	985.16	881.22	103.94	9.478	
17,000.00	11,630.27	17,909.15	12,482.31	85.08	85.79	149.87	-6,148.37	-766.26	985.16	879.81	105.35	9.351	
17,100.00	11,630.80	18,009.15	12,482.83	86.44	87.13	149.87	-6,248.37	-765.36	985.17	878.41	106.76	9.228	
17,200.00	11,631.32	18,109.15	12,483.36	87.79	88.46	149.87	-6,348.36	-764.46	985.17	876.99	108.18	9.107	
17,300.00	11,631.85	18,209.15	12,483.89	89.14	89.80	149.87	-6,448.36	-763.56	985.18	875.58	109.60	8.988	
17,400.00	11,632.37	18,309.15	12,484.41	90.49	91.14	149.87	-6,548.35	-762.66	985.19	874.15	111.03	8.873	
17,500.00	11,632.90	18,409.15	12,484.94	91.85	92.48	149.87	-6,648.35	-761.76	985.19	872.73	112.46	8.760	
17,600.00	11,633.42	18,509.15	12,485.46	93.20	93.82	149.87	-6,748.34	-760.86	985.20	871.30	113.90	8.650	
17,700.00	11,633.95	18,609.15	12,485.99	94.56	95.16	149.87	-6,848.34	-759.96	985.20	869.86	115.34	8.542	
17,800.00	11,634.47	18,709.15	12,486.52	95.91	96.51	149.87	-6,948.33	-759.06	985.21	868.43	116.78	8.436	
17,900.00	11,635.00	18,809.15	12,487.04	97.27	97.85	149.86	-7,048.33	-758.17	985.21	866.98	118.23	8.333	
18,000.00	11,635.52	18,909.15	12,487.57	98.62	99.19	149.86	-7,148.32	-757.27	985.22	865.54	119.68	8.232	
18,100.00	11,636.05	19,009.15	12,488.10	99.98	100.54	149.86	-7,248.31	-756.37	985.23	864.09	121.14	8.133	
18,200.00	11,636.57	19,109.15	12,488.62	101.34	101.88	149.86	-7,348.31	-755.47	985.23	862.64	122.59	8.037	
18,300.00	11,637.10	19,209.15	12,489.15	102.69	103.23	149.86	-7,448.30	-754.57	985.24	861.18	124.05	7.942	
18,400.00	11,637.62	19,309.15	12,489.67	104.05	104.58	149.86	-7,548.30	-753.67	985.24	859.73	125.52	7.849	
18,500.00	11,638.15	19,409.15	12,490.20	105.41	105.92	149.86	-7,648.29	-752.77	985.25	858.26	126.98	7.759	
18,600.00	11,638.67	19,509.15	12,490.73	106.76	107.27	149.86	-7,748.29	-751.87	985.25	856.80	128.45	7.670	
18,700.00	11,639.20	19,609.15	12,491.25	108.12	108.62	149.86	-7,848.28	-750.97	985.26	855.33	129.93	7.583	
18,800.00	11,639.72	19,709.15	12,491.78	109.48	109.97	149.86	-7,948.28	-750.07	985.27	853.86	131.40	7.498	
18,900.00	11,640.25	19,809.15	12,492.30	110.84	111.32	149.86	-8,048.27	-749.17	985.27	852.39	132.88	7.415	
19,000.00	11,640.77	19,909.15	12,492.83	112.20	112.67	149.86	-8,148.27	-748.27	985.28	850.92	134.36	7.333	
19,100.00	11,641.30	20,009.15	12,493.36	113.56	114.02	149.86	-8,248.26	-747.37	985.28	849.44	135.84	7.253	
19,200.00	11,641.82	20,109.15	12,493.88	114.92	115.37	149.86	-8,348.26	-746.47	985.29	847.96	137.33	7.175	
19,300.00	11,642.35	20,209.15	12,494.41	116.28	116.72	149.86	-8,448.25	-745.57	985.29	846.48	138.81	7.098	
19,400.00	11,642.87	20,309.15	12,494.94	117.64	118.07	149.86	-8,548.24	-744.67	985.30	845.00	140.30	7.023	
19,500.00	11,643.40	20,409.15	12,495.46	119.00	119.42	149.86	-8,648.24	-743.77	985.31	843.51	141.80	6.949	
19,600.00	11,643.92	20,509.15	12,495.99	120.36	120.77	149.86	-8,748.23	-742.87	985.31	842.02	143.29	6.876	
19,700.00	11,644.45	20,609.15	12,496.51	121.72	122.12	149.86	-8,848.23	-741.98	985.32	840.53	144.78	6.805	
19,800.00	11,644.97	20,709.15	12,497.04	123.08	123.48	149.86	-8,948.22	-741.08	985.32	839.04	146.28	6.736	
19,900.00	11,645.50	20,809.15	12,497.57	124.44	124.83	149.86	-9,048.22	-740.18	985.33	837.55	147.78	6.667	
20,000.00	11,646.02	20,909.15	12,498.09	125.80	126.18	149.86	-9,148.21	-739.28	985.33	836.05	149.28	6.600	
20,100.00	11,646.55	21,009.15	12,498.62	127.16	127.54	149.86	-9,248.21	-738.38	985.34	834.55	150.79	6.535	
20,200.00	11,647.07	21,109.15	12,499.15	128.52	128.89	149.85	-9,348.20	-737.48	985.35	833.05	152.29	6.470	
20,300.00	11,647.60	21,209.15	12,499.67	129.88	130.25	149.85	-9,448.20	-736.58	985.35	831.55	153.80	6.407	
20,400.00	11,648.12	21,309.15	12,500.20	131.25	131.60	149.85	-9,548.19	-735.68	985.36	830.05	155.31	6.345	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,500.00	11,648.65	21,409.15	12,500.72	132.61	132.96	149.85	-9,648.18	-734.78	985.36	828.55	156.82	6.284	
20,600.00	11,649.17	21,509.15	12,501.25	133.97	134.31	149.85	-9,748.18	-733.88	985.37	827.04	158.33	6.224	
20,700.00	11,649.70	21,609.15	12,501.78	135.33	135.67	149.85	-9,848.17	-732.98	985.37	825.54	159.84	6.165	
20,800.00	11,650.23	21,709.15	12,502.30	136.69	137.02	149.85	-9,948.17	-732.08	985.38	824.03	161.35	6.107	
20,900.00	11,650.75	21,809.15	12,502.83	138.06	138.38	149.85	-10,048.16	-731.18	985.39	822.52	162.87	6.050	
21,000.00	11,651.28	21,909.15	12,503.35	139.42	139.74	149.85	-10,148.16	-730.28	985.39	821.01	164.39	5.994	
21,100.00	11,651.80	22,009.15	12,503.88	140.78	141.09	149.85	-10,248.15	-729.38	985.40	819.49	165.90	5.940	
21,200.00	11,652.33	22,109.15	12,504.41	142.15	142.45	149.85	-10,348.15	-728.48	985.40	817.98	167.42	5.886	
21,300.00	11,652.85	22,209.15	12,504.93	143.51	143.81	149.85	-10,448.14	-727.58	985.41	816.46	168.94	5.833	
21,400.00	11,653.38	22,309.15	12,505.46	144.87	145.17	149.85	-10,548.14	-726.69	985.41	814.95	170.47	5.781	
21,500.00	11,653.90	22,409.15	12,505.99	146.24	146.52	149.85	-10,648.13	-725.79	985.42	813.43	171.99	5.730	
21,600.00	11,654.43	22,509.15	12,506.51	147.60	147.88	149.85	-10,748.12	-724.89	985.43	811.91	173.51	5.679	
21,700.00	11,654.95	22,609.15	12,507.04	148.96	149.24	149.85	-10,848.12	-723.99	985.43	810.39	175.04	5.630	
21,800.00	11,655.48	22,709.15	12,507.56	150.33	150.60	149.85	-10,948.11	-723.09	985.44	808.87	176.57	5.581	
21,900.00	11,656.00	22,809.15	12,508.09	151.69	151.96	149.85	-11,048.11	-722.19	985.44	807.35	178.09	5.533	
21,918.86	11,656.10	22,828.01	12,508.19	151.95	152.21	149.85	-11,066.97	-722.02	985.44	807.06	178.38	5.524	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	1.00	0.50	0.50	171.12	-160.00	25.00	161.94				
100.00	100.00	99.00	100.00	0.98	0.97	171.12	-160.00	25.00	161.94	159.99	1.95	82.837	
200.00	200.00	199.00	200.00	1.56	1.56	171.12	-160.00	25.00	161.94	158.83	3.12	51.967	
300.00	300.00	299.00	300.00	1.98	1.98	171.12	-160.00	25.00	161.94	157.98	3.96	40.914	
400.00	399.99	396.98	397.97	2.41	2.40	-34.39	-160.42	26.16	161.47	156.76	4.71	34.264	
500.00	499.91	494.73	495.64	2.77	2.76	-36.34	-161.70	29.66	160.21	154.85	5.36	29.898	
600.00	599.69	594.23	595.01	3.10	3.02	-39.37	-163.48	34.55	157.89	151.96	5.93	26.622	
700.00	699.32	693.69	694.33	3.23	3.27	-42.98	-165.26	39.44	154.53	148.22	6.30	24.516	
800.00	798.94	793.13	793.64	3.47	3.51	-46.75	-167.04	44.34	151.71	144.93	6.78	22.375	
900.00	898.56	892.57	892.94	3.70	3.74	-50.66	-168.82	49.23	149.58	142.34	7.24	20.665	
1,000.00	998.18	992.02	992.25	3.93	3.96	-54.65	-170.60	54.12	148.17	140.49	7.68	19.290	
1,100.00	1,097.80	1,091.46	1,091.56	4.16	4.18	-58.70	-172.38	59.01	147.49	139.38	8.11	18.184	
1,139.55	1,137.20	1,130.79	1,130.83	4.24	4.26	-60.31	-173.08	60.94	147.44	139.16	8.28	17.812	CC
1,200.00	1,197.42	1,190.91	1,190.87	4.38	4.39	-62.77	-174.16	63.90	147.57	139.04	8.53	17.298	ES
1,300.00	1,297.01	1,290.32	1,290.15	4.50	4.60	-68.08	-175.94	68.79	148.33	139.49	8.84	16.770	
1,400.00	1,396.38	1,389.48	1,389.17	4.76	4.80	-74.69	-177.71	73.66	149.51	140.24	9.26	16.138	
1,500.00	1,495.42	1,488.28	1,487.83	5.02	5.00	-81.54	-179.48	78.52	151.62	141.94	9.69	15.652	
1,600.00	1,594.07	1,583.59	1,582.97	5.27	5.21	-88.39	-181.91	83.72	156.22	146.10	10.12	15.436	
1,700.00	1,692.25	1,678.01	1,677.06	5.52	5.42	-94.99	-186.20	90.21	165.16	154.59	10.57	15.621	
1,800.00	1,790.08	1,772.06	1,770.59	5.69	5.63	-100.63	-192.36	98.02	178.37	167.40	10.98	16.251	
1,900.00	1,887.89	1,866.30	1,864.04	5.90	5.79	-105.02	-200.40	107.17	194.99	183.62	11.37	17.144	
2,000.00	1,985.71	1,963.76	1,960.55	6.11	5.95	-108.66	-209.53	117.19	213.34	201.54	11.80	18.082	
2,100.00	2,083.52	2,061.22	2,057.06	6.33	6.15	-111.72	-218.65	127.22	232.40	220.16	12.25	18.973	
2,200.00	2,181.34	2,158.68	2,153.57	6.54	6.34	-114.32	-227.77	137.25	252.02	239.32	12.70	19.847	
2,300.00	2,279.15	2,256.14	2,250.08	6.76	6.53	-116.55	-236.90	147.28	272.06	258.92	13.15	20.696	
2,400.00	2,376.96	2,353.59	2,346.59	6.99	6.72	-118.46	-246.02	157.31	292.45	278.86	13.59	21.516	
2,500.00	2,474.78	2,451.05	2,443.10	7.27	6.92	-120.13	-255.15	167.34	313.12	299.08	14.04	22.305	
2,600.00	2,572.59	2,548.51	2,539.61	7.54	7.11	-121.60	-264.27	177.37	334.00	319.52	14.48	23.061	
2,700.00	2,670.41	2,645.97	2,636.12	7.82	7.30	-122.89	-273.40	187.39	355.08	340.15	14.93	23.786	
2,800.00	2,768.22	2,743.43	2,732.63	8.11	7.50	-124.03	-282.52	197.42	376.30	360.93	15.37	24.478	
2,900.00	2,866.03	2,840.88	2,829.14	8.39	7.69	-125.06	-291.64	207.45	397.66	381.84	15.82	25.141	
3,000.00	2,963.85	2,938.34	2,925.65	8.67	7.88	-125.98	-300.77	217.48	419.12	402.86	16.26	25.773	
3,100.00	3,061.66	3,035.80	3,022.16	8.96	8.08	-126.81	-309.89	227.51	440.68	423.98	16.71	26.378	
3,200.00	3,159.48	3,133.26	3,118.67	9.24	8.27	-127.56	-319.02	237.54	462.32	445.17	17.15	26.956	
3,300.00	3,257.29	3,230.71	3,215.18	9.53	8.47	-128.25	-328.14	247.57	484.03	466.44	17.60	27.508	
3,400.00	3,355.10	3,328.17	3,311.69	9.81	8.66	-128.88	-337.27	257.59	505.80	487.76	18.04	28.036	
3,500.00	3,452.92	3,425.63	3,408.20	10.10	8.85	-129.45	-346.39	267.62	527.62	509.14	18.49	28.542	
3,600.00	3,550.73	3,523.09	3,504.71	10.39	9.05	-129.98	-355.51	277.65	549.49	530.56	18.93	29.026	
3,700.00	3,648.55	3,620.55	3,601.22	10.68	9.24	-130.47	-364.64	287.68	571.41	552.03	19.38	29.489	
3,800.00	3,746.36	3,718.01	3,697.73	10.95	9.43	-130.94	-373.76	297.71	593.35	573.54	19.81	29.951	
3,900.00	3,844.48	3,815.72	3,794.50	11.23	9.63	-131.50	-382.91	307.76	614.35	594.09	20.26	30.327	
4,000.00	3,943.06	3,913.83	3,891.65	11.48	9.83	-131.83	-392.10	317.86	633.66	612.97	20.69	30.622	
4,100.00	4,042.05	4,012.26	3,989.12	11.70	10.02	-131.96	-401.31	327.99	651.26	630.15	21.12	30.841	
4,200.00	4,141.38	4,110.95	4,086.86	11.90	10.22	-131.91	-410.55	338.14	667.14	645.62	21.53	30.990	
4,300.00	4,240.98	4,209.84	4,184.78	12.08	10.42	-131.68	-419.81	348.32	681.32	659.39	21.92	31.076	
4,400.00	4,340.77	4,308.84	4,282.82	12.22	10.61	-131.28	-429.08	358.51	693.81	671.50	22.30	31.106	
4,500.00	4,440.70	4,407.90	4,380.92	12.34	10.81	-130.73	-438.35	368.70	704.66	682.00	22.67	31.089	
4,600.00	4,540.69	4,506.96	4,479.01	12.41	11.01	80.42	-447.63	378.89	713.94	690.99	22.95	31.105	
4,700.00	4,640.69	4,605.98	4,577.07	12.44	11.21	81.28	-456.90	389.08	722.67	699.45	23.21	31.135	
4,800.00	4,740.69	4,705.01	4,675.14	12.48	11.41	82.12	-466.17	399.27	731.55	708.08	23.47	31.172	
4,900.00	4,840.69	4,804.04	4,773.20	12.52	11.61	82.94	-475.44	409.46	740.58	716.86	23.73	31.215	
5,000.00	4,940.69	4,903.07	4,871.27	12.56	11.81	83.74	-484.71	419.66	749.77	725.79	23.98	31.264	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	5,002.09	4,969.33	12.60	12.00	84.53	-493.98	429.85	759.10	734.86	24.24	31.318	
5,200.00	5,140.69	5,101.12	5,067.40	12.64	12.20	85.29	-503.25	440.04	768.57	744.08	24.49	31.377	
5,300.00	5,240.69	5,200.15	5,165.46	12.68	12.40	86.04	-512.52	450.23	778.17	753.42	24.75	31.440	
5,400.00	5,340.69	5,299.18	5,263.53	12.72	12.60	86.76	-521.80	460.42	787.90	762.90	25.01	31.508	
5,500.00	5,440.69	5,398.20	5,361.59	12.76	12.80	87.47	-531.07	470.61	797.76	772.50	25.26	31.580	
5,600.00	5,540.69	5,507.23	5,469.63	12.81	12.99	88.21	-540.90	481.41	807.39	781.87	25.52	31.638	
5,700.00	5,640.69	5,624.73	5,586.45	12.85	13.22	88.82	-549.34	490.70	815.12	789.30	25.82	31.568	
5,800.00	5,740.69	5,742.89	5,704.27	12.89	13.44	89.25	-555.40	497.35	820.67	794.58	26.09	31.452	
5,900.00	5,840.69	5,861.51	5,822.76	12.93	13.63	89.51	-559.00	501.31	823.98	797.65	26.33	31.295	
6,000.00	5,940.69	5,980.34	5,941.58	12.98	13.75	89.59	-560.13	502.55	825.02	798.54	26.48	31.156	
6,031.84	5,972.53	6,011.29	5,972.53	12.99	13.75	89.59	-560.13	502.55	825.02	798.53	26.49	31.140	
6,100.00	6,040.69	6,079.46	6,040.69	13.02	13.78	89.59	-560.13	502.55	825.02	798.47	26.55	31.076	
6,200.00	6,140.69	6,179.46	6,140.69	13.06	13.81	89.59	-560.13	502.55	825.02	798.39	26.63	30.981	
6,300.00	6,240.69	6,279.46	6,240.69	13.11	13.85	89.59	-560.13	502.55	825.02	798.31	26.71	30.886	
6,400.00	6,340.69	6,379.46	6,340.69	13.15	13.89	89.59	-560.13	502.55	825.02	798.23	26.79	30.791	
6,500.00	6,440.69	6,479.46	6,440.69	13.20	13.93	89.59	-560.13	502.55	825.02	798.14	26.88	30.696	
6,600.00	6,540.69	6,579.46	6,540.69	13.24	13.97	89.59	-560.13	502.55	825.02	798.06	26.96	30.600	
6,700.00	6,640.69	6,679.46	6,640.69	13.29	14.01	89.59	-560.13	502.55	825.02	797.98	27.05	30.504	
6,800.00	6,740.69	6,779.46	6,740.69	13.34	14.05	89.59	-560.13	502.55	825.02	797.89	27.13	30.408	
6,900.00	6,840.69	6,879.46	6,840.69	13.38	14.09	89.59	-560.13	502.55	825.02	797.80	27.22	30.312	
7,000.00	6,940.69	6,979.46	6,940.69	13.43	14.13	89.59	-560.13	502.55	825.02	797.72	27.30	30.216	
7,100.00	7,040.69	7,079.46	7,040.69	13.48	14.17	89.59	-560.13	502.55	825.02	797.63	27.39	30.119	
7,200.00	7,140.69	7,179.46	7,140.69	13.52	14.21	89.59	-560.13	502.55	825.02	797.54	27.48	30.022	
7,300.00	7,240.69	7,279.46	7,240.69	13.57	14.25	89.59	-560.13	502.55	825.02	797.45	27.57	29.925	
7,400.00	7,340.69	7,379.46	7,340.69	13.62	14.30	89.59	-560.13	502.55	825.02	797.36	27.66	29.828	
7,500.00	7,440.69	7,479.46	7,440.69	13.67	14.34	89.59	-560.13	502.55	825.02	797.27	27.75	29.731	
7,600.00	7,540.69	7,579.46	7,540.69	13.72	14.38	89.59	-560.13	502.55	825.02	797.18	27.84	29.634	
7,700.00	7,640.69	7,679.46	7,640.69	13.77	14.42	89.59	-560.13	502.55	825.02	797.09	27.93	29.537	
7,800.00	7,740.69	7,779.46	7,740.69	13.82	14.47	89.59	-560.13	502.55	825.02	797.00	28.02	29.440	
7,900.00	7,840.69	7,879.46	7,840.69	13.87	14.51	89.59	-560.13	502.55	825.02	796.90	28.12	29.343	
8,000.00	7,940.69	7,979.46	7,940.69	13.92	14.56	89.59	-560.13	502.55	825.02	796.81	28.21	29.245	
8,100.00	8,040.69	8,079.46	8,040.69	13.97	14.60	89.59	-560.13	502.55	825.02	796.72	28.30	29.148	
8,200.00	8,140.69	8,179.46	8,140.69	14.02	14.65	89.59	-560.13	502.55	825.02	796.62	28.40	29.051	
8,300.00	8,240.69	8,279.46	8,240.69	14.07	14.69	89.59	-560.13	502.55	825.02	796.53	28.49	28.954	
8,400.00	8,340.69	8,379.46	8,340.69	14.12	14.74	89.59	-560.13	502.55	825.02	796.43	28.59	28.856	
8,500.00	8,440.69	8,479.46	8,440.69	14.17	14.78	89.59	-560.13	502.55	825.02	796.33	28.69	28.759	
8,600.00	8,540.69	8,579.46	8,540.69	14.23	14.83	89.59	-560.13	502.55	825.02	796.24	28.78	28.662	
8,700.00	8,640.69	8,679.46	8,640.69	14.28	14.87	89.59	-560.13	502.55	825.02	796.14	28.88	28.565	
8,800.00	8,740.69	8,779.46	8,740.69	14.33	14.92	89.59	-560.13	502.55	825.02	796.04	28.98	28.468	
8,900.00	8,840.69	8,879.46	8,840.69	14.38	14.97	89.59	-560.13	502.55	825.02	795.94	29.08	28.371	
9,000.00	8,940.69	8,979.46	8,940.69	14.44	15.02	89.59	-560.13	502.55	825.02	795.84	29.18	28.274	
9,100.00	9,040.69	9,079.46	9,040.69	14.49	15.06	89.59	-560.13	502.55	825.02	795.74	29.28	28.178	
9,200.00	9,140.69	9,179.46	9,140.69	14.54	15.11	89.59	-560.13	502.55	825.02	795.64	29.38	28.081	
9,300.00	9,240.69	9,279.46	9,240.69	14.60	15.16	89.59	-560.13	502.55	825.02	795.54	29.48	27.985	
9,400.00	9,340.69	9,379.46	9,340.69	14.65	15.21	89.59	-560.13	502.55	825.02	795.44	29.58	27.888	
9,500.00	9,440.69	9,479.46	9,440.69	14.71	15.26	89.59	-560.13	502.55	825.02	795.34	29.69	27.792	
9,600.00	9,540.69	9,579.46	9,540.69	14.76	15.31	89.59	-560.13	502.55	825.02	795.23	29.79	27.696	
9,700.00	9,640.69	9,679.46	9,640.69	14.82	15.36	89.59	-560.13	502.55	825.02	795.13	29.89	27.600	
9,800.00	9,740.69	9,779.46	9,740.69	14.87	15.41	89.59	-560.13	502.55	825.02	795.03	30.00	27.505	
9,900.00	9,840.69	9,879.46	9,840.69	14.93	15.46	89.59	-560.13	502.55	825.02	794.92	30.10	27.409	
10,000.00	9,940.69	9,979.46	9,940.69	14.98	15.51	89.59	-560.13	502.55	825.02	794.82	30.20	27.314	
10,100.00	10,040.69	10,079.46	10,040.69	15.04	15.56	89.59	-560.13	502.55	825.02	794.71	30.31	27.219	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 214H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,500.00	11,648.65	21,277.67	12,452.61	132.61	130.65	-134.26	-9,636.50	585.03	1,151.95	951.82	200.12	5.756	
20,600.00	11,649.17	21,377.67	12,453.13	133.97	132.01	-134.26	-9,736.49	585.94	1,151.95	949.81	202.14	5.699	
20,700.00	11,649.70	21,477.67	12,453.66	135.33	133.37	-134.26	-9,836.49	586.85	1,151.95	947.79	204.16	5.642	
20,800.00	11,650.23	21,577.67	12,454.18	136.69	134.73	-134.26	-9,936.48	587.75	1,151.95	945.77	206.17	5.587	
20,900.00	11,650.75	21,677.67	12,454.71	138.06	136.09	-134.26	-10,036.48	588.66	1,151.95	943.76	208.19	5.533	
21,000.00	11,651.28	21,777.67	12,455.23	139.42	137.45	-134.26	-10,136.47	589.57	1,151.95	941.74	210.21	5.480	
21,100.00	11,651.80	21,877.67	12,455.76	140.78	138.81	-134.26	-10,236.47	590.48	1,151.95	939.72	212.23	5.428	
21,200.00	11,652.33	21,977.67	12,456.28	142.15	140.17	-134.26	-10,336.46	591.39	1,151.95	937.70	214.25	5.377	
21,300.00	11,652.85	22,077.67	12,456.81	143.51	141.53	-134.26	-10,436.46	592.30	1,151.95	935.68	216.27	5.326	
21,400.00	11,653.38	22,177.67	12,457.33	144.87	142.89	-134.26	-10,536.45	593.21	1,151.95	933.65	218.29	5.277	
21,500.00	11,653.90	22,277.67	12,457.86	146.24	144.25	-134.26	-10,636.45	594.11	1,151.94	931.63	220.31	5.229	
21,600.00	11,654.43	22,377.67	12,458.38	147.60	145.61	-134.26	-10,736.44	595.02	1,151.94	929.61	222.34	5.181	
21,700.00	11,654.95	22,477.67	12,458.91	148.96	146.97	-134.26	-10,836.43	595.93	1,151.94	927.58	224.36	5.134	
21,800.00	11,655.48	22,577.67	12,459.43	150.33	148.33	-134.26	-10,936.43	596.84	1,151.94	925.56	226.38	5.088	
21,900.00	11,656.00	22,677.67	12,459.96	151.69	149.58	-134.26	-11,036.42	597.75	1,151.94	923.64	228.30	5.046	
21,918.86	11,656.10	22,696.53	12,460.05	151.95	149.81	-134.26	-11,055.28	597.92	1,151.94	923.29	228.66	5.038	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 215H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)					
8,000.00	7,940.69	7,978.54	7,940.69	13.92	14.63	-90.40	-582.91	-2,751.43	2,429.04	2,401.12	27.92	87.009	
8,100.00	8,040.69	8,078.54	8,040.69	13.97	14.71	-90.40	-582.91	-2,751.43	2,429.04	2,400.99	28.05	86.603	
8,200.00	8,140.69	8,178.54	8,140.69	14.02	14.79	-90.40	-582.91	-2,751.43	2,429.04	2,400.86	28.18	86.201	
8,300.00	8,240.69	8,278.54	8,240.69	14.07	14.88	-90.40	-582.91	-2,751.43	2,429.04	2,400.73	28.31	85.801	
8,400.00	8,340.69	8,378.54	8,340.69	14.12	14.96	-90.40	-582.91	-2,751.43	2,429.04	2,400.60	28.44	85.404	
8,500.00	8,440.69	8,478.54	8,440.69	14.17	15.04	-90.40	-582.91	-2,751.43	2,429.04	2,400.46	28.57	85.009	
8,600.00	8,540.69	8,578.54	8,540.69	14.23	15.12	-90.40	-582.91	-2,751.43	2,429.04	2,400.33	28.71	84.618	
8,700.00	8,640.69	8,678.54	8,640.69	14.28	15.20	-90.40	-582.91	-2,751.43	2,429.04	2,400.20	28.84	84.229	
8,800.00	8,740.69	8,778.54	8,740.69	14.33	15.29	-90.40	-582.91	-2,751.43	2,429.04	2,400.07	28.97	83.843	
8,900.00	8,840.69	8,878.54	8,840.69	14.38	15.37	-90.40	-582.91	-2,751.43	2,429.04	2,399.93	29.10	83.460	
9,000.00	8,940.69	8,978.54	8,940.69	14.44	15.45	-90.40	-582.91	-2,751.43	2,429.04	2,399.80	29.24	83.079	
9,100.00	9,040.69	9,078.54	9,040.69	14.49	15.53	-90.40	-582.91	-2,751.43	2,429.04	2,399.67	29.37	82.701	
9,200.00	9,140.69	9,178.54	9,140.69	14.54	15.61	-90.40	-582.91	-2,751.43	2,429.04	2,399.53	29.51	82.326	
9,300.00	9,240.69	9,278.54	9,240.69	14.60	15.70	-90.40	-582.91	-2,751.43	2,429.04	2,399.40	29.64	81.953	
9,400.00	9,340.69	9,378.54	9,340.69	14.65	15.78	-90.40	-582.91	-2,751.43	2,429.04	2,399.26	29.77	81.583	
9,500.00	9,440.69	9,478.54	9,440.69	14.71	15.86	-90.40	-582.91	-2,751.43	2,429.04	2,399.13	29.91	81.215	
9,600.00	9,540.69	9,578.54	9,540.69	14.76	15.94	-90.40	-582.91	-2,751.43	2,429.04	2,398.99	30.04	80.850	
9,700.00	9,640.69	9,678.54	9,640.69	14.82	16.03	-90.40	-582.91	-2,751.43	2,429.04	2,398.86	30.18	80.488	
9,800.00	9,740.69	9,778.54	9,740.69	14.87	16.11	-90.40	-582.91	-2,751.43	2,429.04	2,398.72	30.31	80.128	
9,900.00	9,840.69	9,878.54	9,840.69	14.93	16.19	-90.40	-582.91	-2,751.43	2,429.04	2,398.59	30.45	79.771	
10,000.00	9,940.69	9,978.54	9,940.69	14.98	16.27	-90.40	-582.91	-2,751.43	2,429.04	2,398.45	30.59	79.416	
10,100.00	10,040.69	10,078.54	10,040.69	15.04	16.35	-90.40	-582.91	-2,751.43	2,429.04	2,398.32	30.72	79.063	
10,200.00	10,140.69	10,178.54	10,140.69	15.10	16.44	-90.40	-582.91	-2,751.43	2,429.04	2,398.18	30.86	78.714	
10,300.00	10,240.69	10,278.54	10,240.69	15.15	16.52	-90.40	-582.91	-2,751.43	2,429.04	2,398.04	31.00	78.366	
10,400.00	10,340.69	10,378.54	10,340.69	15.21	16.60	-90.40	-582.91	-2,751.43	2,429.04	2,397.91	31.13	78.021	
10,500.00	10,440.69	10,478.54	10,440.69	15.27	16.68	-90.40	-582.91	-2,751.43	2,429.04	2,397.77	31.27	77.679	
10,600.00	10,540.69	10,578.54	10,540.69	15.33	16.76	-90.40	-582.91	-2,751.43	2,429.04	2,397.63	31.41	77.339	
10,700.00	10,640.69	10,678.54	10,640.69	15.38	16.85	-90.40	-582.91	-2,751.43	2,429.04	2,397.49	31.55	77.001	
10,800.00	10,740.69	10,778.54	10,740.69	15.44	16.93	-90.40	-582.91	-2,751.43	2,429.04	2,397.36	31.68	76.666	
10,900.00	10,840.69	10,878.54	10,840.69	15.50	17.01	-90.40	-582.91	-2,751.43	2,429.04	2,397.22	31.82	76.333	
11,000.00	10,940.69	10,978.54	10,940.69	15.56	17.09	-90.40	-582.91	-2,751.43	2,429.04	2,397.08	31.96	76.002	
11,007.57	10,948.26	10,986.11	10,948.26	15.56	17.10	90.12	-582.91	-2,751.43	2,429.04	2,397.07	31.97	75.979	
11,100.00	11,040.69	11,078.54	11,040.69	15.61	17.17	90.13	-582.91	-2,751.43	2,429.04	2,396.95	32.09	75.699	
11,200.00	11,140.02	11,177.88	11,140.02	15.75	17.26	90.36	-582.91	-2,751.43	2,429.08	2,396.84	32.25	75.330	
11,300.00	11,236.04	11,273.89	11,236.04	15.99	17.34	90.95	-582.91	-2,751.43	2,429.42	2,396.90	32.52	74.704	
11,400.00	11,325.83	11,363.68	11,325.83	16.30	17.41	91.76	-582.91	-2,751.43	2,430.59	2,397.67	32.92	73.832	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.00	0.00	0.50	0.50	0.00	50.00	0.00	50.00				
100.00	100.00	101.00	100.00	0.98	0.99	0.00	50.00	0.00	50.00	48.03	1.97	25.411	
200.00	200.00	201.00	200.00	1.56	1.57	0.00	50.00	0.00	50.00	46.87	3.13	15.993	
300.00	300.00	301.00	300.00	1.98	1.98	0.00	50.00	0.00	50.00	46.03	3.97	12.608	CC, ES
400.00	399.99	400.99	399.99	2.41	2.33	155.74	50.00	0.00	51.19	46.47	4.72	10.834	
500.00	499.91	500.91	499.91	2.77	2.64	157.40	50.00	0.00	54.79	49.41	5.38	10.180	
600.00	599.69	600.69	599.69	3.10	2.91	159.74	50.00	0.00	60.88	54.90	5.98	10.176	
700.00	699.32	700.33	699.33	3.23	3.16	162.19	50.00	0.00	68.99	62.62	6.37	10.829	
800.00	798.94	801.98	800.96	3.47	3.45	164.29	48.64	-0.10	76.01	69.11	6.90	11.012	
900.00	898.56	903.84	902.74	3.70	3.71	166.25	44.58	-0.41	80.47	73.07	7.39	10.885	
1,000.00	998.18	1,003.75	1,002.52	3.93	3.90	168.09	39.37	-0.80	83.79	75.97	7.82	10.721	
1,100.00	1,097.80	1,103.66	1,102.29	4.16	4.09	169.79	34.15	-1.20	87.19	78.96	8.23	10.594	
1,200.00	1,197.42	1,203.57	1,202.06	4.38	4.27	171.36	28.94	-1.59	90.66	82.02	8.63	10.502	
1,300.00	1,297.01	1,304.80	1,303.14	4.50	4.36	171.72	23.28	-2.09	94.09	85.24	8.85	10.632	
1,400.00	1,396.38	1,407.27	1,405.27	4.76	4.60	171.88	15.22	-3.25	97.39	88.06	9.33	10.437	
1,500.00	1,495.42	1,508.71	1,506.17	5.02	4.72	172.97	4.83	-5.05	100.88	91.18	9.71	10.394	
1,600.00	1,594.07	1,608.46	1,605.32	5.27	4.91	174.50	-5.86	-6.95	106.61	96.46	10.15	10.505	
1,700.00	1,692.25	1,708.00	1,704.27	5.52	5.10	176.17	-16.52	-8.85	115.08	104.49	10.59	10.870	
1,800.00	1,790.08	1,807.36	1,803.04	5.69	5.28	178.10	-27.16	-10.75	125.51	114.58	10.94	11.478	
1,900.00	1,887.89	1,906.71	1,901.81	5.90	5.47	179.84	-37.80	-12.64	136.15	124.81	11.33	12.011	
2,000.00	1,985.71	2,006.07	2,000.57	6.11	5.65	-178.67	-48.44	-14.54	146.88	135.15	11.73	12.518	
2,100.00	2,083.52	2,105.42	2,099.34	6.33	5.84	-177.39	-59.08	-16.43	157.71	145.58	12.13	12.998	
2,200.00	2,181.34	2,204.78	2,198.10	6.54	6.03	-176.27	-69.72	-18.33	168.60	156.07	12.53	13.453	
2,300.00	2,279.15	2,304.13	2,296.87	6.76	6.21	-175.29	-80.36	-20.22	179.55	166.62	12.93	13.884	
2,400.00	2,376.96	2,403.49	2,395.63	6.99	6.40	-174.43	-91.00	-22.12	190.54	177.21	13.33	14.292	
2,500.00	2,474.78	2,502.84	2,494.40	7.27	6.58	-173.65	-101.64	-24.01	201.57	187.84	13.73	14.678	
2,600.00	2,572.59	2,602.20	2,593.16	7.54	6.77	-172.96	-112.28	-25.91	212.64	198.51	14.13	15.044	
2,700.00	2,670.41	2,701.55	2,691.93	7.82	6.95	-172.33	-122.92	-27.80	223.73	209.20	14.54	15.392	
2,800.00	2,768.22	2,800.91	2,790.69	8.11	7.13	-171.77	-133.57	-29.70	234.85	219.91	14.94	15.722	
2,900.00	2,866.03	2,900.26	2,889.46	8.39	7.32	-171.25	-144.21	-31.59	245.99	230.65	15.34	16.036	
3,000.00	2,963.85	2,999.62	2,988.22	8.67	7.50	-170.78	-154.85	-33.49	257.14	241.40	15.74	16.334	
3,100.00	3,061.66	3,098.97	3,086.99	8.96	7.69	-170.35	-165.49	-35.38	268.31	252.17	16.15	16.619	
3,200.00	3,159.48	3,198.33	3,185.75	9.24	7.87	-169.96	-176.13	-37.28	279.49	262.95	16.55	16.890	
3,300.00	3,257.29	3,297.68	3,284.52	9.53	8.06	-169.59	-186.77	-39.17	290.69	273.74	16.95	17.148	
3,400.00	3,355.10	3,397.04	3,383.28	9.81	8.24	-169.25	-197.41	-41.07	301.90	284.54	17.36	17.395	
3,500.00	3,452.92	3,496.39	3,482.05	10.10	8.43	-168.94	-208.05	-42.96	313.12	295.36	17.76	17.630	
3,600.00	3,550.73	3,595.75	3,580.81	10.39	8.61	-168.65	-218.69	-44.86	324.34	306.18	18.16	17.856	
3,700.00	3,648.55	3,695.10	3,679.58	10.68	8.79	-168.37	-229.33	-46.75	335.57	317.01	18.57	18.072	
3,800.00	3,746.36	3,794.46	3,778.34	10.95	8.98	-168.12	-239.97	-48.65	346.81	327.85	18.96	18.290	
3,900.00	3,844.48	3,893.96	3,877.26	11.23	9.16	-167.86	-250.63	-50.55	356.58	337.20	19.38	18.398	
4,000.00	3,943.06	3,993.67	3,976.37	11.48	9.35	-167.52	-261.31	-52.45	363.82	344.02	19.80	18.379	
4,100.00	4,042.05	4,093.51	4,075.63	11.70	9.53	-167.09	-272.00	-54.35	368.52	348.32	20.20	18.242	
4,200.00	4,141.38	4,193.43	4,174.95	11.90	9.72	-166.58	-282.70	-56.26	370.70	350.10	20.60	17.996	
4,300.00	4,240.98	4,293.35	4,274.28	12.08	9.90	-165.96	-293.40	-58.17	370.37	349.38	20.99	17.648	
4,400.00	4,340.77	4,393.20	4,373.53	12.22	10.09	-165.24	-304.10	-60.07	367.55	346.19	21.36	17.206	
4,500.00	4,440.70	4,492.91	4,472.66	12.34	10.27	-164.38	-314.78	-61.97	362.27	340.55	21.72	16.678	
4,600.00	4,540.69	4,592.42	4,571.58	12.41	10.45	47.06	-325.43	-63.87	354.57	332.58	21.99	16.124	
4,700.00	4,640.69	4,691.83	4,670.39	12.44	10.64	48.14	-336.08	-65.77	345.92	323.71	22.21	15.574	
4,800.00	4,740.69	4,791.24	4,769.21	12.48	10.82	49.28	-346.73	-67.66	337.40	314.96	22.43	15.040	
4,900.00	4,840.69	4,890.64	4,868.03	12.52	11.01	50.47	-357.37	-69.56	329.02	306.36	22.66	14.522	
5,000.00	4,940.69	4,990.05	4,966.84	12.56	11.19	51.73	-368.02	-71.45	320.78	297.91	22.88	14.021	
5,100.00	5,040.69	5,089.46	5,065.66	12.60	11.37	53.05	-378.67	-73.35	312.71	289.61	23.10	13.537	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,140.69	5,188.86	5,164.48	12.64	11.56	54.44	-389.31	-75.25	304.82	281.50	23.32	13.069	
5,300.00	5,240.69	5,288.27	5,263.29	12.68	11.74	55.90	-399.96	-77.14	297.11	273.57	23.55	12.619	
5,400.00	5,340.69	5,387.68	5,362.11	12.72	11.93	57.44	-410.61	-79.04	289.61	265.84	23.77	12.185	
5,500.00	5,440.69	5,487.08	5,460.93	12.76	12.11	59.05	-421.25	-80.94	282.33	258.34	23.99	11.768	
5,600.00	5,540.69	5,586.49	5,559.74	12.81	12.29	60.76	-431.90	-82.83	275.28	251.07	24.21	11.369	
5,700.00	5,640.69	5,685.90	5,658.56	12.85	12.48	62.54	-442.54	-84.73	268.49	244.05	24.44	10.987	
5,800.00	5,740.69	5,785.30	5,757.38	12.89	12.66	64.42	-453.19	-86.62	261.98	237.32	24.66	10.624	
5,900.00	5,840.69	5,884.71	5,856.19	12.93	12.85	66.40	-463.84	-88.52	255.76	230.88	24.88	10.279	
6,000.00	5,940.69	5,984.12	5,955.01	12.98	13.03	68.46	-474.48	-90.42	249.86	224.76	25.11	9.952	
6,100.00	6,040.69	6,083.52	6,053.83	13.02	13.21	70.63	-485.13	-92.31	244.31	218.97	25.33	9.644	
6,200.00	6,140.69	6,182.93	6,152.64	13.06	13.40	72.88	-495.78	-94.21	239.12	213.56	25.56	9.356	
6,300.00	6,240.69	6,282.34	6,251.46	13.11	13.58	75.24	-506.42	-96.10	234.32	208.53	25.78	9.088	
6,400.00	6,340.69	6,381.74	6,350.28	13.15	13.77	77.69	-517.07	-98.00	229.93	203.92	26.01	8.840	
6,500.00	6,440.69	6,481.15	6,449.09	13.20	13.95	80.22	-527.71	-99.90	225.99	199.75	26.24	8.612	
6,600.00	6,540.69	6,580.56	6,547.91	13.24	14.13	82.85	-538.36	-101.79	222.51	196.04	26.47	8.406	
6,700.00	6,640.69	6,679.05	6,645.87	13.29	14.30	85.39	-548.40	-103.58	219.64	192.96	26.68	8.233	
6,800.00	6,740.69	6,777.39	6,743.90	13.34	14.49	87.38	-556.11	-104.95	217.75	190.87	26.88	8.101	
6,900.00	6,840.69	6,876.08	6,842.44	13.38	14.66	88.75	-561.35	-105.89	216.62	189.56	27.06	8.006	
7,000.00	6,940.69	6,974.97	6,941.29	13.43	14.82	89.48	-564.08	-106.37	216.09	188.87	27.21	7.940	
7,079.37	7,020.06	7,053.74	7,020.06	13.47	14.87	89.59	-564.51	-106.45	216.01	188.72	27.28	7.918	
7,100.00	7,040.69	7,074.37	7,040.69	13.48	14.87	89.59	-564.51	-106.45	216.01	188.71	27.29	7.915	
7,200.00	7,140.69	7,174.37	7,140.69	13.52	14.89	89.59	-564.51	-106.45	216.01	188.65	27.35	7.897	
7,300.00	7,240.69	7,274.37	7,240.69	13.57	14.92	89.59	-564.51	-106.45	216.01	188.58	27.42	7.876	
7,400.00	7,340.69	7,374.37	7,340.69	13.62	14.95	89.59	-564.51	-106.45	216.01	188.51	27.49	7.856	
7,500.00	7,440.69	7,474.37	7,440.69	13.67	14.97	89.59	-564.51	-106.45	216.01	188.44	27.57	7.836	
7,600.00	7,540.69	7,574.37	7,540.69	13.72	15.00	89.59	-564.51	-106.45	216.01	188.37	27.64	7.816	
7,700.00	7,640.69	7,674.37	7,640.69	13.77	15.03	89.59	-564.51	-106.45	216.01	188.30	27.71	7.795	
7,800.00	7,740.69	7,774.37	7,740.69	13.82	15.06	89.59	-564.51	-106.45	216.01	188.22	27.78	7.775	
7,900.00	7,840.69	7,874.37	7,840.69	13.87	15.08	89.59	-564.51	-106.45	216.01	188.15	27.86	7.754	
8,000.00	7,940.69	7,974.37	7,940.69	13.92	15.11	89.59	-564.51	-106.45	216.01	188.07	27.93	7.733	
8,100.00	8,040.69	8,074.37	8,040.69	13.97	15.14	89.59	-564.51	-106.45	216.01	188.00	28.01	7.712	
8,200.00	8,140.69	8,174.37	8,140.69	14.02	15.17	89.59	-564.51	-106.45	216.01	187.92	28.08	7.691	
8,300.00	8,240.69	8,274.37	8,240.69	14.07	15.20	89.59	-564.51	-106.45	216.01	187.84	28.16	7.670	
8,400.00	8,340.69	8,374.37	8,340.69	14.12	15.23	89.59	-564.51	-106.45	216.01	187.77	28.24	7.649	
8,500.00	8,440.69	8,474.37	8,440.69	14.17	15.26	89.59	-564.51	-106.45	216.01	187.69	28.32	7.628	
8,600.00	8,540.69	8,574.37	8,540.69	14.23	15.29	89.59	-564.51	-106.45	216.01	187.61	28.40	7.607	
8,700.00	8,640.69	8,674.37	8,640.69	14.28	15.32	89.59	-564.51	-106.45	216.01	187.53	28.48	7.585	
8,800.00	8,740.69	8,774.37	8,740.69	14.33	15.35	89.59	-564.51	-106.45	216.01	187.45	28.56	7.564	
8,900.00	8,840.69	8,874.37	8,840.69	14.38	15.39	89.59	-564.51	-106.45	216.01	187.37	28.64	7.543	
9,000.00	8,940.69	8,974.37	8,940.69	14.44	15.42	89.59	-564.51	-106.45	216.01	187.29	28.72	7.521	
9,100.00	9,040.69	9,074.37	9,040.69	14.49	15.45	89.59	-564.51	-106.45	216.01	187.20	28.80	7.500	
9,200.00	9,140.69	9,174.37	9,140.69	14.54	15.48	89.59	-564.51	-106.45	216.01	187.12	28.89	7.478	
9,300.00	9,240.69	9,274.37	9,240.69	14.60	15.52	89.59	-564.51	-106.45	216.01	187.04	28.97	7.456	
9,400.00	9,340.69	9,374.37	9,340.69	14.65	15.55	89.59	-564.51	-106.45	216.01	186.95	29.05	7.435	
9,500.00	9,440.69	9,474.37	9,440.69	14.71	15.59	89.59	-564.51	-106.45	216.01	186.87	29.14	7.413	
9,600.00	9,540.69	9,574.37	9,540.69	14.76	15.62	89.59	-564.51	-106.45	216.01	186.78	29.23	7.391	
9,700.00	9,640.69	9,674.37	9,640.69	14.82	15.65	89.59	-564.51	-106.45	216.01	186.69	29.31	7.369	
9,800.00	9,740.69	9,774.37	9,740.69	14.87	15.69	89.59	-564.51	-106.45	216.01	186.61	29.40	7.347	
9,900.00	9,840.69	9,874.37	9,840.69	14.93	15.73	89.59	-564.51	-106.45	216.01	186.52	29.49	7.326	
10,000.00	9,940.69	9,974.37	9,940.69	14.98	15.76	89.59	-564.51	-106.45	216.01	186.43	29.57	7.304	
10,100.00	10,040.69	10,074.37	10,040.69	15.04	15.80	89.59	-564.51	-106.45	216.01	186.34	29.66	7.282	
10,200.00	10,140.69	10,174.37	10,140.69	15.10	15.83	89.59	-564.51	-106.45	216.01	186.25	29.75	7.260	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference	Offset	Reference	Offset	(usft)	(usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,600.00	11,649.17	21,395.62	12,475.15	133.97	134.82	-165.34	-9,741.91	-23.03	853.76	734.84	118.92	7.179	
20,700.00	11,649.70	21,495.62	12,475.67	135.33	136.18	-165.34	-9,841.91	-22.13	853.76	733.83	119.93	7.119	
20,800.00	11,650.23	21,595.62	12,476.20	136.69	137.54	-165.34	-9,941.90	-21.22	853.76	732.81	120.95	7.059	
20,900.00	11,650.75	21,695.62	12,476.72	138.06	138.91	-165.34	-10,041.89	-20.31	853.76	731.80	121.96	7.000	
21,000.00	11,651.28	21,795.62	12,477.25	139.42	140.27	-165.34	-10,141.89	-19.40	853.76	730.78	122.98	6.942	
21,100.00	11,651.80	21,895.62	12,477.77	140.78	141.63	-165.34	-10,241.88	-18.49	853.76	729.76	124.00	6.885	
21,200.00	11,652.33	21,995.62	12,478.30	142.15	143.00	-165.34	-10,341.88	-17.58	853.76	728.74	125.02	6.829	
21,300.00	11,652.85	22,095.62	12,478.82	143.51	144.36	-165.34	-10,441.87	-16.67	853.76	727.72	126.04	6.774	
21,400.00	11,653.38	22,195.62	12,479.35	144.87	145.73	-165.34	-10,541.87	-15.76	853.76	726.69	127.07	6.719	
21,500.00	11,653.90	22,295.62	12,479.87	146.24	147.09	-165.34	-10,641.86	-14.86	853.76	725.67	128.09	6.665	
21,600.00	11,654.43	22,395.62	12,480.40	147.60	148.45	-165.34	-10,741.86	-13.95	853.76	724.64	129.12	6.612	
21,700.00	11,654.95	22,495.62	12,480.92	148.96	149.82	-165.34	-10,841.85	-13.04	853.76	723.61	130.15	6.560	
21,800.00	11,655.48	22,595.62	12,481.45	150.33	151.18	-165.34	-10,941.85	-12.13	853.76	722.58	131.18	6.508	
21,900.00	11,656.00	22,695.62	12,481.97	151.69	152.55	-165.34	-11,041.84	-11.22	853.76	721.55	132.21	6.458	
21,918.86	11,656.10	22,714.49	12,482.07	151.95	152.78	-165.34	-11,060.70	-11.05	853.76	721.39	132.37	6.450	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,500.00	6,440.69	6,552.11	6,440.69	13.20	16.79	-90.41	-573.93	-1,431.42	1,109.00	1,081.24	27.76	39.950	
6,600.00	6,540.69	6,652.11	6,540.69	13.24	16.85	-90.41	-573.93	-1,431.42	1,109.00	1,081.13	27.86	39.801	
6,700.00	6,640.69	6,752.11	6,640.69	13.29	16.91	-90.41	-573.93	-1,431.42	1,109.00	1,081.03	27.97	39.653	
6,800.00	6,740.69	6,852.11	6,740.69	13.34	16.97	-90.41	-573.93	-1,431.42	1,109.00	1,080.93	28.07	39.504	
6,900.00	6,840.69	6,952.11	6,840.69	13.38	17.03	-90.41	-573.93	-1,431.42	1,109.00	1,080.82	28.18	39.356	
7,000.00	6,940.69	7,052.11	6,940.69	13.43	17.09	-90.41	-573.93	-1,431.42	1,109.00	1,080.71	28.28	39.209	
7,100.00	7,040.69	7,152.11	7,040.69	13.48	17.14	-90.41	-573.93	-1,431.42	1,109.00	1,080.61	28.39	39.061	
7,200.00	7,140.69	7,252.11	7,140.69	13.52	17.20	-90.41	-573.93	-1,431.42	1,109.00	1,080.50	28.50	38.914	
7,300.00	7,240.69	7,352.11	7,240.69	13.57	17.26	-90.41	-573.93	-1,431.42	1,109.00	1,080.39	28.61	38.768	
7,400.00	7,340.69	7,452.11	7,340.69	13.62	17.32	-90.41	-573.93	-1,431.42	1,109.00	1,080.28	28.71	38.622	
7,500.00	7,440.69	7,552.11	7,440.69	13.67	17.38	-90.41	-573.93	-1,431.42	1,109.00	1,080.17	28.82	38.476	
7,600.00	7,540.69	7,652.11	7,540.69	13.72	17.44	-90.41	-573.93	-1,431.42	1,109.00	1,080.07	28.93	38.331	
7,700.00	7,640.69	7,752.11	7,640.69	13.77	17.50	-90.41	-573.93	-1,431.42	1,109.00	1,079.96	29.04	38.186	
7,800.00	7,740.69	7,852.11	7,740.69	13.82	17.56	-90.41	-573.93	-1,431.42	1,109.00	1,079.85	29.15	38.041	
7,900.00	7,840.69	7,952.11	7,840.69	13.87	17.62	-90.41	-573.93	-1,431.42	1,109.00	1,079.73	29.26	37.897	
8,000.00	7,940.69	8,052.11	7,940.69	13.92	17.68	-90.41	-573.93	-1,431.42	1,109.00	1,079.62	29.37	37.754	
8,100.00	8,040.69	8,152.11	8,040.69	13.97	17.74	-90.41	-573.93	-1,431.42	1,109.00	1,079.51	29.49	37.611	
8,200.00	8,140.69	8,252.11	8,140.69	14.02	17.80	-90.41	-573.93	-1,431.42	1,109.00	1,079.40	29.60	37.468	
8,300.00	8,240.69	8,352.11	8,240.69	14.07	17.86	-90.41	-573.93	-1,431.42	1,109.00	1,079.29	29.71	37.326	
8,400.00	8,340.69	8,452.11	8,340.69	14.12	17.92	-90.41	-573.93	-1,431.42	1,109.00	1,079.17	29.82	37.184	
8,500.00	8,440.69	8,552.11	8,440.69	14.17	17.99	-90.41	-573.93	-1,431.42	1,109.00	1,079.06	29.94	37.043	
8,600.00	8,540.69	8,652.11	8,540.69	14.23	18.05	-90.41	-573.93	-1,431.42	1,109.00	1,078.95	30.05	36.902	
8,700.00	8,640.69	8,752.11	8,640.69	14.28	18.11	-90.41	-573.93	-1,431.42	1,109.00	1,078.83	30.17	36.762	
8,800.00	8,740.69	8,852.11	8,740.69	14.33	18.17	-90.41	-573.93	-1,431.42	1,109.00	1,078.72	30.28	36.622	
8,900.00	8,840.69	8,952.11	8,840.69	14.38	18.23	-90.41	-573.93	-1,431.42	1,109.00	1,078.60	30.40	36.483	
9,000.00	8,940.69	9,052.11	8,940.69	14.44	18.29	-90.41	-573.93	-1,431.42	1,109.00	1,078.48	30.51	36.345	
9,100.00	9,040.69	9,152.11	9,040.69	14.49	18.36	-90.41	-573.93	-1,431.42	1,109.00	1,078.37	30.63	36.207	
9,200.00	9,140.69	9,252.11	9,140.69	14.54	18.42	-90.41	-573.93	-1,431.42	1,109.00	1,078.25	30.75	36.069	
9,300.00	9,240.69	9,352.11	9,240.69	14.60	18.48	-90.41	-573.93	-1,431.42	1,109.00	1,078.13	30.86	35.932	
9,400.00	9,340.69	9,452.11	9,340.69	14.65	18.54	-90.41	-573.93	-1,431.42	1,109.00	1,078.02	30.98	35.796	
9,500.00	9,440.69	9,552.11	9,440.69	14.71	18.61	-90.41	-573.93	-1,431.42	1,109.00	1,077.90	31.10	35.660	
9,600.00	9,540.69	9,652.11	9,540.69	14.76	18.67	-90.41	-573.93	-1,431.42	1,109.00	1,077.78	31.22	35.525	
9,700.00	9,640.69	9,752.11	9,640.69	14.82	18.73	-90.41	-573.93	-1,431.42	1,109.00	1,077.66	31.34	35.390	
9,800.00	9,740.69	9,852.11	9,740.69	14.87	18.80	-90.41	-573.93	-1,431.42	1,109.00	1,077.54	31.46	35.256	
9,900.00	9,840.69	9,952.11	9,840.69	14.93	18.86	-90.41	-573.93	-1,431.42	1,109.00	1,077.42	31.58	35.122	
10,000.00	9,940.69	10,052.11	9,940.69	14.98	18.92	-90.41	-573.93	-1,431.42	1,109.00	1,077.30	31.70	34.989	
10,100.00	10,040.69	10,152.11	10,040.69	15.04	18.99	-90.41	-573.93	-1,431.42	1,109.00	1,077.18	31.82	34.857	
10,200.00	10,140.69	10,252.11	10,140.69	15.10	19.05	-90.41	-573.93	-1,431.42	1,109.00	1,077.06	31.94	34.725	
10,300.00	10,240.69	10,352.11	10,240.69	15.15	19.11	-90.41	-573.93	-1,431.42	1,109.00	1,076.94	32.06	34.593	
10,400.00	10,340.69	10,452.11	10,340.69	15.21	19.18	-90.41	-573.93	-1,431.42	1,109.00	1,076.82	32.18	34.463	
10,500.00	10,440.69	10,552.11	10,440.69	15.27	19.24	-90.41	-573.93	-1,431.42	1,109.00	1,076.70	32.30	34.333	
10,600.00	10,540.69	10,652.11	10,540.69	15.33	19.31	-90.41	-573.93	-1,431.42	1,109.00	1,076.57	32.42	34.203	
10,700.00	10,640.69	10,752.11	10,640.69	15.38	19.37	-90.41	-573.93	-1,431.42	1,109.00	1,076.45	32.55	34.074	
10,800.00	10,740.69	10,852.11	10,740.69	15.44	19.44	-90.41	-573.93	-1,431.42	1,109.00	1,076.33	32.67	33.946	
10,900.00	10,840.69	10,952.11	10,840.69	15.50	19.50	-90.41	-573.93	-1,431.42	1,109.00	1,076.21	32.79	33.818	
11,000.00	10,940.69	11,052.11	10,940.69	15.56	19.57	-90.41	-573.93	-1,431.42	1,109.00	1,076.08	32.92	33.691	CC
11,007.61	10,948.30	11,059.72	10,948.30	15.56	19.57	90.11	-573.93	-1,431.42	1,109.00	1,076.07	32.93	33.682	
11,100.00	11,040.69	11,152.11	11,040.69	15.61	19.63	90.12	-573.93	-1,431.42	1,109.00	1,075.97	33.03	33.575	
11,200.00	11,140.02	11,251.44	11,140.02	15.75	19.70	90.64	-573.93	-1,431.42	1,109.07	1,075.89	33.18	33.423	ES
11,300.00	11,236.04	11,347.46	11,236.04	15.99	19.76	91.94	-573.93	-1,431.42	1,109.72	1,076.25	33.47	33.156	
11,400.00	11,325.83	11,437.25	11,325.83	16.30	19.82	93.71	-573.93	-1,431.42	1,112.16	1,078.26	33.91	32.802	
11,500.00	11,406.66	11,518.08	11,406.66	16.71	19.87	95.54	-573.93	-1,431.42	1,118.12	1,083.61	34.51	32.403	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:						Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
11,600.00	11,476.08	11,587.50	11,476.08	17.25	19.92	96.94	-573.93	-1,431.42	1,129.52	1,094.24	35.28	32.018		
11,700.00	11,531.97	11,643.39	11,531.97	17.94	19.95	97.41	-573.93	-1,431.42	1,148.11	1,111.91	36.20	31.719		
11,800.00	11,572.64	11,684.06	11,572.64	18.75	19.98	96.51	-573.93	-1,431.42	1,175.02	1,137.81	37.21	31.576		
11,900.00	11,596.86	11,708.28	11,596.86	19.67	19.99	93.93	-573.93	-1,431.42	1,210.51	1,172.25	38.26	31.643		
12,000.00	11,604.02	11,715.44	11,604.02	20.67	20.00	90.16	-573.93	-1,431.42	1,253.77	1,214.52	39.25	31.943		
12,100.00	11,604.54	11,715.96	11,604.54	21.72	20.00	90.19	-573.93	-1,431.42	1,303.42	1,263.25	40.17	32.450		
12,200.00	11,605.07	12,979.17	12,334.23	22.80	22.18	123.32	-1,354.43	-1,424.70	1,327.55	1,281.81	45.74	29.023		
12,300.00	11,605.59	13,079.17	12,334.75	23.92	22.74	123.32	-1,454.42	-1,423.84	1,327.59	1,280.63	46.96	28.272		
12,400.00	11,606.12	13,179.17	12,335.27	25.06	23.35	123.31	-1,554.42	-1,422.98	1,327.63	1,279.37	48.26	27.512		
12,500.00	11,606.64	13,279.17	12,335.79	26.22	24.02	123.31	-1,654.41	-1,422.11	1,327.66	1,278.04	49.63	26.752		
12,600.00	11,607.17	13,379.17	12,336.31	27.40	24.74	123.31	-1,754.41	-1,421.25	1,327.70	1,276.63	51.07	25.996		
12,700.00	11,607.69	13,479.17	12,336.83	28.59	25.50	123.31	-1,854.40	-1,420.39	1,327.74	1,275.16	52.58	25.252		
12,800.00	11,608.22	13,579.17	12,337.36	29.80	26.32	123.31	-1,954.40	-1,419.53	1,327.78	1,273.63	54.15	24.522		
12,900.00	11,608.74	13,679.17	12,337.88	31.03	27.17	123.31	-2,054.39	-1,418.67	1,327.82	1,272.05	55.77	23.810		
13,000.00	11,609.27	13,779.17	12,338.40	32.26	28.06	123.31	-2,154.39	-1,417.81	1,327.85	1,270.42	57.44	23.118		
13,100.00	11,609.79	13,879.17	12,338.92	33.51	28.99	123.31	-2,254.38	-1,416.95	1,327.89	1,268.74	59.16	22.448		
13,200.00	11,610.32	13,979.17	12,339.44	34.76	29.95	123.30	-2,354.38	-1,416.09	1,327.93	1,267.02	60.91	21.800		
13,300.00	11,610.84	14,079.17	12,339.96	36.03	30.93	123.30	-2,454.37	-1,415.23	1,327.97	1,265.26	62.71	21.176		
13,400.00	11,611.37	14,179.17	12,340.48	37.30	31.95	123.30	-2,554.37	-1,414.36	1,328.01	1,263.46	64.54	20.576		
13,500.00	11,611.89	14,279.17	12,341.01	38.57	32.99	123.30	-2,654.36	-1,413.50	1,328.04	1,261.64	66.41	19.998		
13,600.00	11,612.42	14,379.17	12,341.53	39.86	34.05	123.30	-2,754.36	-1,412.64	1,328.08	1,259.78	68.30	19.444		
13,700.00	11,612.94	14,479.17	12,342.05	41.14	35.14	123.30	-2,854.35	-1,411.78	1,328.12	1,257.90	70.22	18.913		
13,800.00	11,613.47	14,579.17	12,342.57	42.44	36.24	123.30	-2,954.34	-1,410.92	1,328.16	1,255.99	72.17	18.403		
13,900.00	11,613.99	14,679.17	12,343.09	43.74	37.36	123.29	-3,054.34	-1,410.06	1,328.19	1,254.05	74.14	17.914		
14,000.00	11,614.52	14,779.17	12,343.61	45.04	38.49	123.29	-3,154.33	-1,409.20	1,328.23	1,252.10	76.13	17.446		
14,100.00	11,615.04	14,879.17	12,344.13	46.34	39.64	123.29	-3,254.33	-1,408.34	1,328.27	1,250.12	78.15	16.997		
14,200.00	11,615.57	14,979.17	12,344.66	47.65	40.81	123.29	-3,354.32	-1,407.47	1,328.31	1,248.13	80.18	16.567		
14,300.00	11,616.09	15,079.17	12,345.18	48.97	41.98	123.29	-3,454.32	-1,406.61	1,328.35	1,246.12	82.22	16.155		
14,400.00	11,616.62	15,179.17	12,345.70	50.28	43.17	123.29	-3,554.31	-1,405.75	1,328.38	1,244.10	84.29	15.760		
14,500.00	11,617.14	15,279.17	12,346.22	51.60	44.37	123.29	-3,654.31	-1,404.89	1,328.42	1,242.06	86.36	15.382		
14,600.00	11,617.67	15,379.17	12,346.74	52.92	45.58	123.29	-3,754.30	-1,404.03	1,328.46	1,240.00	88.46	15.018		
14,700.00	11,618.19	15,479.17	12,347.26	54.25	46.79	123.28	-3,854.30	-1,403.17	1,328.50	1,237.94	90.56	14.670		
14,800.00	11,618.72	15,579.17	12,347.78	55.57	48.02	123.28	-3,954.29	-1,402.31	1,328.54	1,235.86	92.67	14.335		
14,900.00	11,619.24	15,679.17	12,348.31	56.90	49.25	123.28	-4,054.29	-1,401.45	1,328.57	1,233.77	94.80	14.014		
15,000.00	11,619.77	15,779.17	12,348.83	58.23	50.49	123.28	-4,154.28	-1,400.59	1,328.61	1,231.67	96.94	13.706		
15,100.00	11,620.29	15,879.17	12,349.35	59.56	51.73	123.28	-4,254.28	-1,399.72	1,328.65	1,229.56	99.08	13.409		
15,200.00	11,620.82	15,979.17	12,349.87	60.89	52.99	123.28	-4,354.27	-1,398.86	1,328.69	1,227.45	101.24	13.124		
15,300.00	11,621.34	16,079.17	12,350.39	62.23	54.24	123.28	-4,454.27	-1,398.00	1,328.73	1,225.32	103.40	12.850		
15,400.00	11,621.87	16,179.17	12,350.91	63.56	55.51	123.28	-4,554.26	-1,397.14	1,328.76	1,223.19	105.58	12.586		
15,500.00	11,622.40	16,279.17	12,351.43	64.90	56.77	123.27	-4,654.26	-1,396.28	1,328.80	1,221.05	107.76	12.332		
15,600.00	11,622.92	16,379.17	12,351.95	66.24	58.04	123.27	-4,754.25	-1,395.42	1,328.84	1,218.90	109.94	12.087		
15,700.00	11,623.45	16,479.17	12,352.48	67.58	59.32	123.27	-4,854.25	-1,394.56	1,328.88	1,216.74	112.13	11.851		
15,800.00	11,623.97	16,579.17	12,353.00	68.92	60.60	123.27	-4,954.24	-1,393.70	1,328.91	1,214.58	114.33	11.623		
15,900.00	11,624.50	16,679.17	12,353.52	70.26	61.89	123.27	-5,054.24	-1,392.83	1,328.95	1,212.41	116.54	11.404		
16,000.00	11,625.02	16,779.17	12,354.04	71.61	63.17	123.27	-5,154.23	-1,391.97	1,328.99	1,210.24	118.75	11.192		
16,100.00	11,625.55	16,879.17	12,354.56	72.95	64.47	123.27	-5,254.23	-1,391.11	1,329.03	1,208.06	120.96	10.987		
16,200.00	11,626.07	16,979.17	12,355.08	74.30	65.76	123.27	-5,354.22	-1,390.25	1,329.07	1,205.88	123.18	10.789		
16,300.00	11,626.60	17,079.17	12,355.60	75.64	67.06	123.26	-5,454.22	-1,389.39	1,329.10	1,203.69	125.41	10.598		
16,400.00	11,627.12	17,179.17	12,356.13	76.99	68.36	123.26	-5,554.21	-1,388.53	1,329.14	1,201.50	127.64	10.413		
16,500.00	11,627.65	17,279.17	12,356.65	78.34	69.66	123.26	-5,654.21	-1,387.67	1,329.18	1,199.31	129.87	10.234		
16,600.00	11,628.17	17,379.17	12,357.17	79.68	70.97	123.26	-5,754.20	-1,386.81	1,329.22	1,197.11	132.11	10.061		
16,700.00	11,628.70	17,479.17	12,357.69	81.03	72.27	123.26	-5,854.20	-1,385.95	1,329.26	1,194.90	134.35	9.894		

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
16,800.00	11,629.22	17,579.17	12,358.21	82.38	73.58	123.26	-5,954.19	-1,385.08	1,329.29	1,192.69	136.60	9.731	
16,900.00	11,629.75	17,679.17	12,358.73	83.73	74.90	123.26	-6,054.19	-1,384.22	1,329.33	1,190.48	138.85	9.574	
17,000.00	11,630.27	17,779.17	12,359.25	85.08	76.21	123.26	-6,154.18	-1,383.36	1,329.37	1,188.27	141.10	9.422	
17,100.00	11,630.80	17,879.17	12,359.78	86.44	77.53	123.25	-6,254.18	-1,382.50	1,329.41	1,186.05	143.35	9.274	
17,200.00	11,631.32	17,979.17	12,360.30	87.79	78.85	123.25	-6,354.17	-1,381.64	1,329.44	1,183.83	145.61	9.130	
17,300.00	11,631.85	18,079.17	12,360.82	89.14	80.17	123.25	-6,454.17	-1,380.78	1,329.48	1,181.61	147.87	8.991	
17,400.00	11,632.37	18,179.17	12,361.34	90.49	81.49	123.25	-6,554.16	-1,379.92	1,329.52	1,179.38	150.14	8.855	
17,500.00	11,632.90	18,279.17	12,361.86	91.85	82.81	123.25	-6,654.16	-1,379.06	1,329.56	1,177.16	152.40	8.724	
17,600.00	11,633.42	18,379.17	12,362.38	93.20	84.13	123.25	-6,754.15	-1,378.19	1,329.60	1,174.92	154.67	8.596	
17,700.00	11,633.95	18,479.17	12,362.90	94.56	85.46	123.25	-6,854.15	-1,377.33	1,329.63	1,172.69	156.94	8.472	
17,800.00	11,634.47	18,579.17	12,363.42	95.91	86.79	123.25	-6,954.14	-1,376.47	1,329.67	1,170.46	159.22	8.351	
17,900.00	11,635.00	18,679.17	12,363.95	97.27	88.12	123.24	-7,054.14	-1,375.61	1,329.71	1,168.22	161.49	8.234	
18,000.00	11,635.52	18,779.17	12,364.47	98.62	89.45	123.24	-7,154.13	-1,374.75	1,329.75	1,165.98	163.77	8.120	
18,100.00	11,636.05	18,879.17	12,364.99	99.98	90.78	123.24	-7,254.13	-1,373.89	1,329.79	1,163.74	166.05	8.008	
18,200.00	11,636.57	18,979.17	12,365.51	101.34	92.11	123.24	-7,354.12	-1,373.03	1,329.82	1,161.49	168.33	7.900	
18,300.00	11,637.10	19,079.17	12,366.03	102.69	93.44	123.24	-7,454.12	-1,372.17	1,329.86	1,159.25	170.61	7.795	
18,400.00	11,637.62	19,179.17	12,366.55	104.05	94.78	123.24	-7,554.11	-1,371.31	1,329.90	1,157.00	172.90	7.692	
18,500.00	11,638.15	19,279.17	12,367.07	105.41	96.11	123.24	-7,654.11	-1,370.44	1,329.94	1,154.75	175.19	7.592	
18,600.00	11,638.67	19,379.17	12,367.60	106.76	97.45	123.24	-7,754.10	-1,369.58	1,329.98	1,152.50	177.48	7.494	
18,700.00	11,639.20	19,479.17	12,368.12	108.12	98.78	123.23	-7,854.10	-1,368.72	1,330.01	1,150.25	179.77	7.399	
18,800.00	11,639.72	19,579.17	12,368.64	109.48	100.12	123.23	-7,954.09	-1,367.86	1,330.05	1,147.99	182.06	7.306	
18,900.00	11,640.25	19,679.17	12,369.16	110.84	101.46	123.23	-8,054.09	-1,367.00	1,330.09	1,145.74	184.35	7.215	
19,000.00	11,640.77	19,779.17	12,369.68	112.20	102.80	123.23	-8,154.08	-1,366.14	1,330.13	1,143.48	186.65	7.126	
19,100.00	11,641.30	19,879.17	12,370.20	113.56	104.14	123.23	-8,254.08	-1,365.28	1,330.16	1,141.22	188.94	7.040	
19,200.00	11,641.82	19,979.17	12,370.72	114.92	105.48	123.23	-8,354.07	-1,364.42	1,330.20	1,138.96	191.24	6.956	
19,300.00	11,642.35	20,079.17	12,371.25	116.28	106.82	123.23	-8,454.07	-1,363.55	1,330.24	1,136.70	193.54	6.873	
19,400.00	11,642.87	20,179.17	12,371.77	117.64	108.17	123.23	-8,554.06	-1,362.69	1,330.28	1,134.44	195.84	6.793	
19,500.00	11,643.40	20,279.17	12,372.29	119.00	109.51	123.22	-8,654.06	-1,361.83	1,330.32	1,132.18	198.14	6.714	
19,600.00	11,643.92	20,379.17	12,372.81	120.36	110.85	123.22	-8,754.05	-1,360.97	1,330.35	1,129.91	200.44	6.637	
19,700.00	11,644.45	20,479.17	12,373.33	121.72	112.20	123.22	-8,854.05	-1,360.11	1,330.39	1,127.65	202.74	6.562	
19,800.00	11,644.97	20,579.17	12,373.85	123.08	113.54	123.22	-8,954.04	-1,359.25	1,330.43	1,125.38	205.05	6.488	
19,900.00	11,645.50	20,679.17	12,374.37	124.44	114.89	123.22	-9,054.04	-1,358.39	1,330.47	1,123.11	207.35	6.416	
20,000.00	11,646.02	20,779.17	12,374.89	125.80	116.24	123.22	-9,154.03	-1,357.53	1,330.51	1,120.85	209.66	6.346	
20,100.00	11,646.55	20,879.17	12,375.42	127.16	117.58	123.22	-9,254.03	-1,356.67	1,330.54	1,118.58	211.97	6.277	
20,200.00	11,647.07	20,979.17	12,375.94	128.52	118.93	123.22	-9,354.02	-1,355.80	1,330.58	1,116.31	214.28	6.210	
20,300.00	11,647.60	21,079.17	12,376.46	129.88	120.28	123.21	-9,454.02	-1,354.94	1,330.62	1,114.03	216.59	6.144	
20,400.00	11,648.12	21,179.17	12,376.98	131.25	121.63	123.21	-9,554.01	-1,354.08	1,330.66	1,111.76	218.90	6.079	
20,500.00	11,648.65	21,279.17	12,377.50	132.61	122.97	123.21	-9,654.00	-1,353.22	1,330.70	1,109.49	221.21	6.016	
20,600.00	11,649.17	21,379.17	12,378.02	133.97	124.32	123.21	-9,754.00	-1,352.36	1,330.73	1,107.21	223.52	5.954	
20,700.00	11,649.70	21,479.17	12,378.54	135.33	125.67	123.21	-9,853.99	-1,351.50	1,330.77	1,104.94	225.83	5.893	
20,800.00	11,650.23	21,579.17	12,379.07	136.69	127.02	123.21	-9,953.99	-1,350.64	1,330.81	1,102.66	228.15	5.833	
20,900.00	11,650.75	21,679.17	12,379.59	138.06	128.37	123.21	-10,053.98	-1,349.78	1,330.85	1,100.39	230.46	5.775	
21,000.00	11,651.28	21,779.17	12,380.11	139.42	129.72	123.21	-10,153.98	-1,348.91	1,330.88	1,098.11	232.77	5.717	
21,100.00	11,651.80	21,879.17	12,380.63	140.78	131.08	123.20	-10,253.97	-1,348.05	1,330.92	1,095.83	235.09	5.661	
21,200.00	11,652.33	21,979.17	12,381.15	142.15	132.43	123.20	-10,353.97	-1,347.19	1,330.96	1,093.55	237.41	5.606	
21,300.00	11,652.85	22,079.17	12,381.67	143.51	133.78	123.20	-10,453.96	-1,346.33	1,331.00	1,091.27	239.72	5.552	
21,400.00	11,653.38	22,179.17	12,382.19	144.87	135.13	123.20	-10,553.96	-1,345.47	1,331.04	1,088.99	242.04	5.499	
21,500.00	11,653.90	22,279.17	12,382.72	146.24	136.49	123.20	-10,653.95	-1,344.61	1,331.07	1,086.71	244.36	5.447	
21,600.00	11,654.43	22,379.17	12,383.24	147.60	137.84	123.20	-10,753.95	-1,343.75	1,331.11	1,084.43	246.68	5.396	
21,700.00	11,654.95	22,479.17	12,383.76	148.96	139.19	123.20	-10,853.94	-1,342.89	1,331.15	1,082.15	249.00	5.346	
21,800.00	11,655.48	22,579.17	12,384.28	150.33	140.55	123.20	-10,953.94	-1,342.03	1,331.19	1,079.87	251.32	5.297	
21,900.00	11,656.00	22,679.17	12,384.80	151.69	141.90	123.19	-11,053.93	-1,341.16	1,331.23	1,077.58	253.64	5.248	

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

Total Directional
Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Well Error:	0.50 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:						
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside		Between	Between	Minimum	Separation	Warning		
Depth	Depth	Depth	Depth			Toolface	+N/-S	Centres	Ellipses	Separation	Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)				
21,918.86	11,656.10	22,698.03	12,384.90	151.95	142.15	123.19	-11,072.79	-1,341.00	1,331.23	1,077.15	254.08	5.239	SF	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:
														Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	1.00	0.50	0.50	172.30	-185.00	25.00	186.68					
100.00	100.00	99.00	100.00	0.98	0.97	172.30	-185.00	25.00	186.68	184.73	1.95	95.493		
200.00	200.00	199.00	200.00	1.56	1.56	172.30	-185.00	25.00	186.68	183.57	3.12	59.906		
300.00	300.00	299.00	300.00	1.98	1.98	172.30	-185.00	25.00	186.68	182.72	3.96	47.165		
400.00	399.99	396.97	397.96	2.41	2.40	-33.13	-185.36	26.18	186.12	181.41	4.71	39.518		
500.00	499.91	494.70	495.61	2.77	2.76	-34.84	-186.47	29.74	184.55	179.20	5.35	34.476		
600.00	599.69	591.98	592.70	3.10	3.08	-37.73	-188.30	35.66	182.33	176.40	5.94	30.714		
700.00	699.32	688.67	689.00	3.23	3.38	-41.71	-190.84	43.87	180.48	174.15	6.32	28.539		
730.51	729.72	718.07	718.24	3.30	3.47	-43.06	-191.76	46.83	180.35	173.88	6.48	27.846	CC, ES	
800.00	798.94	784.80	784.50	3.47	3.66	-46.34	-194.09	54.35	181.03	174.20	6.82	26.531		
900.00	898.56	881.84	880.64	3.70	3.81	-51.44	-197.99	66.96	184.36	177.15	7.21	25.577		
1,000.00	998.18	980.33	978.17	3.93	4.02	-56.45	-202.04	80.05	189.41	181.76	7.66	24.731		
1,100.00	1,097.80	1,078.82	1,075.70	4.16	4.24	-61.18	-206.10	93.15	195.88	187.76	8.11	24.145		
1,200.00	1,197.42	1,177.30	1,173.22	4.38	4.46	-65.59	-210.15	106.24	203.61	195.06	8.55	23.803		
1,300.00	1,297.01	1,275.75	1,270.72	4.50	4.68	-70.84	-214.20	119.33	212.43	203.54	8.89	23.901		
1,400.00	1,396.38	1,373.89	1,367.89	4.76	4.89	-76.77	-218.24	132.38	222.01	212.69	9.32	23.811		
1,500.00	1,495.42	1,471.59	1,464.65	5.02	5.10	-82.32	-222.26	145.37	232.68	222.92	9.76	23.840		
1,600.00	1,594.07	1,568.80	1,560.91	5.27	5.31	-87.69	-226.26	158.29	244.85	234.65	10.20	23.999		
1,700.00	1,692.25	1,665.44	1,656.61	5.52	5.52	-92.89	-230.24	171.14	258.88	248.23	10.66	24.293		
1,800.00	1,790.08	1,761.66	1,751.89	5.69	5.72	-97.62	-234.20	183.93	274.97	263.90	11.07	24.844		
1,900.00	1,887.89	1,857.86	1,847.16	5.90	5.93	-101.78	-238.16	196.72	292.72	281.19	11.54	25.372		
2,000.00	1,985.71	1,954.06	1,942.42	6.11	6.13	-105.47	-242.12	209.51	311.86	299.86	12.01	25.976		
2,100.00	2,083.52	2,050.26	2,037.68	6.33	6.33	-108.73	-246.07	222.30	332.15	319.67	12.47	26.630		
2,200.00	2,181.34	2,146.46	2,132.95	6.54	6.53	-111.62	-250.03	235.09	353.38	340.44	12.94	27.314		
2,300.00	2,279.15	2,240.28	2,225.84	6.76	6.71	-114.13	-253.92	247.64	375.48	362.11	13.37	28.076		
2,400.00	2,376.96	2,327.65	2,312.13	6.99	6.90	-116.15	-258.04	260.72	399.80	386.01	13.80	28.982		
2,500.00	2,474.78	2,414.18	2,397.26	7.27	7.11	-117.86	-262.78	275.50	426.69	412.46	14.23	29.989		
2,600.00	2,572.59	2,500.00	2,481.31	7.54	7.32	-119.28	-268.12	291.95	455.97	441.31	14.66	31.111		
2,700.00	2,670.41	2,584.44	2,563.62	7.82	7.53	-120.44	-274.00	309.87	487.47	472.40	15.08	32.336		
2,800.00	2,768.22	2,674.64	2,651.17	8.11	7.73	-121.47	-280.80	330.47	520.71	505.21	15.50	33.598		
2,900.00	2,866.03	2,768.49	2,742.23	8.39	7.97	-122.41	-287.92	352.03	554.22	538.25	15.97	34.714		
3,000.00	2,963.85	2,862.34	2,833.30	8.67	8.24	-123.24	-295.05	373.58	587.84	571.40	16.44	35.759		
3,100.00	3,061.66	2,956.19	2,924.36	8.96	8.52	-123.98	-302.17	395.14	621.57	604.65	16.92	36.746		
3,200.00	3,159.48	3,050.05	3,015.43	9.24	8.80	-124.65	-309.29	416.70	655.37	637.98	17.39	37.681		
3,300.00	3,257.29	3,143.90	3,106.49	9.53	9.09	-125.25	-316.41	438.25	689.25	671.38	17.87	38.565		
3,400.00	3,355.10	3,237.75	3,197.55	9.81	9.38	-125.80	-323.53	459.81	723.19	704.84	18.35	39.403		
3,500.00	3,452.92	3,331.60	3,288.62	10.10	9.67	-126.29	-330.66	481.36	757.19	738.35	18.84	40.198		
3,600.00	3,550.73	3,425.45	3,379.68	10.39	9.96	-126.75	-337.78	502.92	791.22	771.90	19.32	40.952		
3,700.00	3,648.55	3,519.30	3,470.74	10.68	10.26	-127.16	-344.90	524.48	825.30	805.50	19.81	41.669		
3,800.00	3,746.36	3,613.15	3,561.81	10.95	10.56	-127.58	-352.02	546.03	859.41	839.13	20.28	42.373		
3,900.00	3,844.48	3,707.37	3,653.23	11.23	10.85	-128.27	-359.17	567.67	892.68	871.91	20.77	42.984		
4,000.00	3,943.06	3,802.18	3,745.22	11.48	11.16	-128.78	-366.37	589.45	924.43	903.19	21.24	43.525		
4,100.00	4,042.05	3,897.51	3,837.72	11.70	11.46	-129.13	-373.60	611.35	954.62	932.92	21.70	43.999		
4,200.00	4,141.38	3,993.30	3,930.67	11.90	11.77	-129.34	-380.87	633.35	983.23	961.09	22.14	44.414		
4,300.00	4,240.98	4,089.48	4,023.99	12.08	12.08	-129.42	-388.17	655.44	1,010.26	987.69	22.56	44.777		
4,400.00	4,340.77	4,185.99	4,117.64	12.22	12.39	-129.37	-395.50	677.61	1,035.71	1,012.74	22.97	45.096		
4,500.00	4,440.70	4,282.76	4,211.53	12.34	12.70	-129.20	-402.84	699.83	1,059.60	1,036.25	23.35	45.377		
4,600.00	4,540.69	4,379.73	4,305.62	12.41	13.01	81.51	-410.20	722.10	1,081.96	1,058.30	23.66	45.730		
4,700.00	4,640.69	4,476.76	4,399.77	12.44	13.33	82.08	-417.56	744.39	1,103.74	1,079.80	23.94	46.103		
4,800.00	4,740.69	4,573.79	4,493.92	12.48	13.64	82.62	-424.92	766.68	1,125.62	1,101.40	24.22	46.472		
4,900.00	4,840.69	4,670.82	4,588.06	12.52	13.96	83.14	-432.29	788.96	1,147.59	1,123.09	24.50	46.837		
5,000.00	4,940.69	4,767.85	4,682.21	12.56	14.28	83.64	-439.65	811.25	1,169.64	1,144.86	24.78	47.198		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	4,864.88	4,776.36	12.60	14.59	84.12	-447.01	833.54	1,191.78	1,166.72	25.06	47.555	
5,200.00	5,140.69	4,961.91	4,870.51	12.64	14.91	84.59	-454.38	855.82	1,214.00	1,188.66	25.34	47.907	
5,300.00	5,240.69	5,058.94	4,964.66	12.68	15.23	85.03	-461.74	878.11	1,236.29	1,210.67	25.62	48.255	
5,400.00	5,340.69	5,155.97	5,058.81	12.72	15.55	85.47	-469.10	900.40	1,258.65	1,232.76	25.90	48.598	
5,500.00	5,440.69	5,253.00	5,152.96	12.76	15.87	85.88	-476.47	922.68	1,281.08	1,254.90	26.18	48.937	
5,600.00	5,540.69	5,350.03	5,247.10	12.81	16.18	86.29	-483.83	944.97	1,303.57	1,277.12	26.46	49.271	
5,700.00	5,640.69	5,447.06	5,341.25	12.85	16.50	86.68	-491.20	967.26	1,326.13	1,299.39	26.74	49.600	
5,800.00	5,740.69	5,544.09	5,435.40	12.89	16.82	87.05	-498.56	989.54	1,348.73	1,321.72	27.02	49.924	
5,900.00	5,840.69	5,641.12	5,529.55	12.93	17.14	87.42	-505.92	1,011.83	1,371.39	1,344.10	27.30	50.243	
6,000.00	5,940.69	5,738.15	5,623.70	12.98	17.46	87.77	-513.29	1,034.11	1,394.11	1,366.53	27.57	50.558	
6,100.00	6,040.69	5,841.17	5,723.67	13.02	17.79	88.13	-521.09	1,057.74	1,416.85	1,388.98	27.87	50.842	
6,200.00	6,140.69	5,991.84	5,870.69	13.06	18.24	88.59	-531.41	1,088.98	1,437.44	1,409.09	28.34	50.713	
6,300.00	6,240.69	6,144.96	6,021.32	13.11	18.64	88.96	-540.03	1,115.05	1,454.38	1,425.58	28.79	50.512	
6,400.00	6,340.69	6,300.09	6,174.92	13.15	18.98	89.24	-546.82	1,135.60	1,467.57	1,438.38	29.20	50.263	
6,500.00	6,440.69	6,456.75	6,330.80	13.20	19.24	89.44	-551.68	1,150.33	1,476.95	1,447.40	29.55	49.980	
6,600.00	6,540.69	6,614.43	6,488.20	13.24	19.44	89.55	-554.55	1,159.01	1,482.44	1,452.59	29.85	49.660	
6,700.00	6,640.69	6,766.95	6,640.69	13.29	19.54	89.59	-555.39	1,161.55	1,484.04	1,454.02	30.02	49.434	
6,800.00	6,740.69	6,866.95	6,740.69	13.34	19.57	89.59	-555.39	1,161.55	1,484.04	1,453.94	30.09	49.314	
6,900.00	6,840.69	6,966.95	6,840.69	13.38	19.61	89.59	-555.39	1,161.55	1,484.04	1,453.86	30.18	49.179	
7,000.00	6,940.69	7,066.95	6,940.69	13.43	19.64	89.59	-555.39	1,161.55	1,484.04	1,453.78	30.26	49.043	
7,100.00	7,040.69	7,166.95	7,040.69	13.48	19.68	89.59	-555.39	1,161.55	1,484.04	1,453.69	30.34	48.907	
7,200.00	7,140.69	7,266.95	7,140.69	13.52	19.72	89.59	-555.39	1,161.55	1,484.04	1,453.61	30.43	48.771	
7,300.00	7,240.69	7,366.95	7,240.69	13.57	19.76	89.59	-555.39	1,161.55	1,484.04	1,453.52	30.51	48.634	
7,400.00	7,340.69	7,466.95	7,340.69	13.62	19.80	89.59	-555.39	1,161.55	1,484.04	1,453.44	30.60	48.497	
7,500.00	7,440.69	7,566.95	7,440.69	13.67	19.84	89.59	-555.39	1,161.55	1,484.04	1,453.35	30.69	48.360	
7,600.00	7,540.69	7,666.95	7,540.69	13.72	19.88	89.59	-555.39	1,161.55	1,484.04	1,453.26	30.77	48.223	
7,700.00	7,640.69	7,766.95	7,640.69	13.77	19.92	89.59	-555.39	1,161.55	1,484.04	1,453.18	30.86	48.086	
7,800.00	7,740.69	7,866.95	7,740.69	13.82	19.96	89.59	-555.39	1,161.55	1,484.04	1,453.09	30.95	47.948	
7,900.00	7,840.69	7,966.95	7,840.69	13.87	20.00	89.59	-555.39	1,161.55	1,484.04	1,453.00	31.04	47.810	
8,000.00	7,940.69	8,066.95	7,940.69	13.92	20.04	89.59	-555.39	1,161.55	1,484.04	1,452.91	31.13	47.672	
8,100.00	8,040.69	8,166.95	8,040.69	13.97	20.08	89.59	-555.39	1,161.55	1,484.04	1,452.82	31.22	47.535	
8,200.00	8,140.69	8,266.95	8,140.69	14.02	20.12	89.59	-555.39	1,161.55	1,484.04	1,452.73	31.31	47.397	
8,300.00	8,240.69	8,366.95	8,240.69	14.07	20.16	89.59	-555.39	1,161.55	1,484.04	1,452.64	31.40	47.258	
8,400.00	8,340.69	8,466.95	8,340.69	14.12	20.21	89.59	-555.39	1,161.55	1,484.04	1,452.54	31.49	47.120	
8,500.00	8,440.69	8,566.95	8,440.69	14.17	20.25	89.59	-555.39	1,161.55	1,484.04	1,452.45	31.59	46.982	
8,600.00	8,540.69	8,666.95	8,540.69	14.23	20.29	89.59	-555.39	1,161.55	1,484.04	1,452.36	31.68	46.844	
8,700.00	8,640.69	8,766.95	8,640.69	14.28	20.33	89.59	-555.39	1,161.55	1,484.04	1,452.26	31.77	46.705	
8,800.00	8,740.69	8,866.95	8,740.69	14.33	20.38	89.59	-555.39	1,161.55	1,484.04	1,452.17	31.87	46.567	
8,900.00	8,840.69	8,966.95	8,840.69	14.38	20.42	89.59	-555.39	1,161.55	1,484.04	1,452.07	31.96	46.429	
9,000.00	8,940.69	9,066.95	8,940.69	14.44	20.46	89.59	-555.39	1,161.55	1,484.04	1,451.98	32.06	46.291	
9,100.00	9,040.69	9,166.95	9,040.69	14.49	20.50	89.59	-555.39	1,161.55	1,484.04	1,451.88	32.16	46.153	
9,200.00	9,140.69	9,266.95	9,140.69	14.54	20.55	89.59	-555.39	1,161.55	1,484.04	1,451.79	32.25	46.014	
9,300.00	9,240.69	9,366.95	9,240.69	14.60	20.59	89.59	-555.39	1,161.55	1,484.04	1,451.69	32.35	45.876	
9,400.00	9,340.69	9,466.95	9,340.69	14.65	20.64	89.59	-555.39	1,161.55	1,484.04	1,451.59	32.45	45.738	
9,500.00	9,440.69	9,566.95	9,440.69	14.71	20.68	89.59	-555.39	1,161.55	1,484.04	1,451.49	32.54	45.600	
9,600.00	9,540.69	9,666.95	9,540.69	14.76	20.73	89.59	-555.39	1,161.55	1,484.04	1,451.40	32.64	45.463	
9,700.00	9,640.69	9,766.95	9,640.69	14.82	20.77	89.59	-555.39	1,161.55	1,484.04	1,451.30	32.74	45.325	
9,800.00	9,740.69	9,866.95	9,740.69	14.87	20.82	89.59	-555.39	1,161.55	1,484.04	1,451.20	32.84	45.188	
9,900.00	9,840.69	9,966.95	9,840.69	14.93	20.86	89.59	-555.39	1,161.55	1,484.04	1,451.10	32.94	45.050	
10,000.00	9,940.69	10,066.95	9,940.69	14.98	20.91	89.59	-555.39	1,161.55	1,484.04	1,451.00	33.04	44.913	
10,100.00	10,040.69	10,166.95	10,040.69	15.04	20.95	89.59	-555.39	1,161.55	1,484.04	1,450.89	33.14	44.776	
10,200.00	10,140.69	10,266.95	10,140.69	15.10	21.00	89.59	-555.39	1,161.55	1,484.04	1,450.79	33.25	44.639	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)				Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance					
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Major Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
10,300.00	10,240.69	10,366.95	10,240.69	15.15	21.04	89.59	-555.39	1,161.55	1,484.04	1,450.69	33.35	44.502	
10,400.00	10,340.69	10,466.95	10,340.69	15.21	21.09	89.59	-555.39	1,161.55	1,484.04	1,450.59	33.45	44.366	
10,500.00	10,440.69	10,566.95	10,440.69	15.27	21.14	89.59	-555.39	1,161.55	1,484.04	1,450.49	33.55	44.229	
10,600.00	10,540.69	10,666.95	10,540.69	15.33	21.18	89.59	-555.39	1,161.55	1,484.04	1,450.38	33.66	44.093	
10,700.00	10,640.69	10,766.95	10,640.69	15.38	21.23	89.59	-555.39	1,161.55	1,484.04	1,450.28	33.76	43.958	
10,800.00	10,740.69	10,866.95	10,740.69	15.44	21.28	89.59	-555.39	1,161.55	1,484.04	1,450.17	33.87	43.822	
10,900.00	10,840.69	10,966.95	10,840.69	15.50	21.33	89.59	-555.39	1,161.55	1,484.04	1,450.07	33.97	43.687	
11,000.00	10,940.69	11,066.95	10,940.69	15.56	21.37	89.59	-555.39	1,161.55	1,484.04	1,449.96	34.08	43.551	
11,100.00	11,040.69	11,166.95	11,040.69	15.61	21.42	-89.89	-555.39	1,161.55	1,484.04	1,449.87	34.17	43.430	
11,147.17	11,087.77	11,214.03	11,087.77	15.67	21.44	-90.00	-555.39	1,161.55	1,484.04	1,449.80	34.23	43.353	
11,200.00	11,140.02	11,266.28	11,140.02	15.75	21.47	-90.29	-555.39	1,161.55	1,484.06	1,449.75	34.30	43.261	
11,300.00	11,236.04	11,362.30	11,236.04	15.99	21.52	-91.27	-555.39	1,161.55	1,484.45	1,449.88	34.57	42.942	
11,400.00	11,325.83	11,452.09	11,325.83	16.30	21.56	-92.61	-555.39	1,161.55	1,486.13	1,451.16	34.97	42.500	
11,500.00	11,406.66	11,532.92	11,406.66	16.71	21.60	-94.00	-555.39	1,161.55	1,490.39	1,454.89	35.50	41.981	
11,600.00	11,476.08	11,602.34	11,476.08	17.25	21.63	-95.08	-555.39	1,161.55	1,498.73	1,462.56	36.16	41.444	
11,700.00	11,531.97	11,658.23	11,531.97	17.94	21.66	-95.46	-555.39	1,161.55	1,512.51	1,475.58	36.93	40.956	
11,800.00	11,572.64	11,698.90	11,572.64	18.75	21.68	-94.81	-555.39	1,161.55	1,532.74	1,494.97	37.77	40.586	
11,900.00	11,596.86	11,723.11	11,596.86	19.67	21.69	-92.91	-555.39	1,161.55	1,559.79	1,521.17	38.62	40.388	
12,000.00	11,604.02	11,730.28	11,604.02	20.67	21.69	-90.12	-555.39	1,161.55	1,593.29	1,553.85	39.44	40.395	
12,100.00	11,604.54	11,730.80	11,604.54	21.72	21.70	-90.14	-555.39	1,161.55	1,632.34	1,592.12	40.22	40.586	
12,200.00	11,605.07	13,039.04	12,384.03	22.80	26.87	-117.70	-1,331.10	1,168.60	1,676.05	1,628.31	47.74	35.106	
12,300.00	11,605.59	13,139.04	12,384.56	23.92	27.73	-117.70	-1,431.09	1,169.51	1,676.05	1,626.77	49.29	34.005	
12,400.00	11,606.12	13,239.04	12,385.08	25.06	28.64	-117.70	-1,531.08	1,170.41	1,676.05	1,625.15	50.90	32.926	
12,500.00	11,606.64	13,339.04	12,385.61	26.22	29.57	-117.70	-1,631.08	1,171.32	1,676.05	1,623.47	52.59	31.873	
12,600.00	11,607.17	13,439.04	12,386.14	27.40	30.54	-117.70	-1,731.07	1,172.23	1,676.05	1,621.73	54.32	30.852	
12,700.00	11,607.69	13,539.04	12,386.66	28.59	31.53	-117.70	-1,831.07	1,173.14	1,676.05	1,619.94	56.12	29.867	
12,800.00	11,608.22	13,639.04	12,387.19	29.80	32.55	-117.70	-1,931.06	1,174.05	1,676.05	1,618.10	57.96	28.918	
12,900.00	11,608.74	13,739.04	12,387.71	31.03	33.59	-117.70	-2,031.06	1,174.96	1,676.05	1,616.21	59.84	28.007	
13,000.00	11,609.27	13,839.04	12,388.24	32.26	34.65	-117.70	-2,131.05	1,175.87	1,676.05	1,614.28	61.77	27.134	
13,100.00	11,609.79	13,939.04	12,388.77	33.51	35.73	-117.70	-2,231.05	1,176.77	1,676.05	1,612.32	63.73	26.299	
13,200.00	11,610.32	14,039.04	12,389.29	34.76	36.83	-117.70	-2,331.04	1,177.68	1,676.05	1,610.33	65.73	25.500	
13,300.00	11,610.84	14,139.04	12,389.82	36.03	37.94	-117.70	-2,431.03	1,178.59	1,676.05	1,608.30	67.75	24.738	
13,400.00	11,611.37	14,239.04	12,390.34	37.30	39.07	-117.70	-2,531.03	1,179.50	1,676.05	1,606.25	69.81	24.010	
13,500.00	11,611.89	14,339.04	12,390.87	38.57	40.22	-117.70	-2,631.02	1,180.41	1,676.05	1,604.17	71.89	23.315	
13,600.00	11,612.42	14,439.04	12,391.39	39.86	41.37	-117.70	-2,731.02	1,181.32	1,676.05	1,602.07	73.99	22.653	
13,700.00	11,612.94	14,539.04	12,391.92	41.14	42.54	-117.70	-2,831.01	1,182.23	1,676.05	1,599.94	76.11	22.021	
13,800.00	11,613.47	14,639.04	12,392.45	42.44	43.72	-117.70	-2,931.01	1,183.13	1,676.05	1,597.80	78.26	21.417	
13,900.00	11,613.99	14,739.04	12,392.97	43.74	44.91	-117.70	-3,031.00	1,184.04	1,676.05	1,595.64	80.42	20.842	
14,000.00	11,614.52	14,839.04	12,393.50	45.04	46.10	-117.70	-3,131.00	1,184.95	1,676.05	1,593.46	82.60	20.292	
14,100.00	11,615.04	14,939.04	12,394.02	46.34	47.31	-117.70	-3,230.99	1,185.86	1,676.05	1,591.26	84.79	19.767	
14,200.00	11,615.57	15,039.04	12,394.55	47.65	48.52	-117.70	-3,330.98	1,186.77	1,676.05	1,589.05	87.00	19.265	
14,300.00	11,616.09	15,139.04	12,395.08	48.97	49.75	-117.70	-3,430.98	1,187.68	1,676.05	1,586.83	89.22	18.785	
14,400.00	11,616.62	15,239.04	12,395.60	50.28	50.98	-117.70	-3,530.97	1,188.59	1,676.05	1,584.60	91.46	18.326	
14,500.00	11,617.14	15,339.04	12,396.13	51.60	52.21	-117.70	-3,630.97	1,189.49	1,676.05	1,582.35	93.70	17.887	
14,600.00	11,617.67	15,439.04	12,396.65	52.92	53.45	-117.70	-3,730.96	1,190.40	1,676.05	1,580.10	95.96	17.467	
14,700.00	11,618.19	15,539.04	12,397.18	54.25	54.70	-117.70	-3,830.96	1,191.31	1,676.05	1,577.83	98.22	17.064	
14,800.00	11,618.72	15,639.04	12,397.70	55.57	55.95	-117.70	-3,930.95	1,192.22	1,676.05	1,575.56	100.50	16.677	
14,900.00	11,619.24	15,739.04	12,398.23	56.90	57.21	-117.70	-4,030.95	1,193.13	1,676.05	1,573.27	102.78	16.307	
15,000.00	11,619.77	15,839.04	12,398.76	58.23	58.47	-117.70	-4,130.94	1,194.04	1,676.05	1,570.98	105.07	15.951	
15,100.00	11,620.29	15,939.04	12,399.28	59.56	59.74	-117.70	-4,230.94	1,194.94	1,676.05	1,568.68	107.37	15.610	
15,200.00	11,620.82	16,039.04	12,399.81	60.89	61.01	-117.70	-4,330.93	1,195.85	1,676.05	1,566.37	109.68	15.281	
15,300.00	11,621.34	16,139.04	12,400.33	62.23	62.29	-117.70	-4,430.92	1,196.76	1,676.05	1,564.06	111.99	14.966	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:
														Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
15,400.00	11,621.87	16,239.04	12,400.86	63.56	63.57	-117.70	-4,530.92	1,197.67	1,676.05	1,561.74	114.31	14.662		
15,500.00	11,622.40	16,339.04	12,401.39	64.90	64.85	-117.70	-4,630.91	1,198.58	1,676.05	1,559.42	116.64	14.370		
15,600.00	11,622.92	16,439.04	12,401.91	66.24	66.13	-117.70	-4,730.91	1,199.49	1,676.05	1,557.09	118.97	14.088		
15,700.00	11,623.45	16,539.04	12,402.44	67.58	67.42	-117.70	-4,830.90	1,200.40	1,676.05	1,554.75	121.30	13.817		
15,800.00	11,623.97	16,639.04	12,402.96	68.92	68.71	-117.70	-4,930.90	1,201.30	1,676.05	1,552.41	123.64	13.556		
15,900.00	11,624.50	16,739.04	12,403.49	70.26	70.01	-117.70	-5,030.89	1,202.21	1,676.05	1,550.07	125.99	13.303		
16,000.00	11,625.02	16,839.04	12,404.01	71.61	71.31	-117.70	-5,130.89	1,203.12	1,676.05	1,547.72	128.34	13.060		
16,100.00	11,625.55	16,939.04	12,404.54	72.95	72.61	-117.70	-5,230.88	1,204.03	1,676.05	1,545.36	130.69	12.825		
16,200.00	11,626.07	17,039.04	12,405.07	74.30	73.91	-117.70	-5,330.87	1,204.94	1,676.05	1,543.01	133.05	12.597		
16,300.00	11,626.60	17,139.04	12,405.59	75.64	75.21	-117.70	-5,430.87	1,205.85	1,676.05	1,540.64	135.41	12.378		
16,400.00	11,627.12	17,239.04	12,406.12	76.99	76.52	-117.70	-5,530.86	1,206.76	1,676.05	1,538.28	137.77	12.165		
16,500.00	11,627.65	17,339.04	12,406.64	78.34	77.83	-117.70	-5,630.86	1,207.66	1,676.05	1,535.91	140.14	11.960		
16,600.00	11,628.17	17,439.04	12,407.17	79.68	79.14	-117.70	-5,730.85	1,208.57	1,676.05	1,533.54	142.51	11.761		
16,700.00	11,628.70	17,539.04	12,407.70	81.03	80.45	-117.70	-5,830.85	1,209.48	1,676.05	1,531.17	144.89	11.568		
16,800.00	11,629.22	17,639.04	12,408.22	82.38	81.77	-117.70	-5,930.84	1,210.39	1,676.05	1,528.79	147.26	11.381		
16,900.00	11,629.75	17,739.04	12,408.75	83.73	83.08	-117.70	-6,030.84	1,211.30	1,676.05	1,526.41	149.64	11.200		
17,000.00	11,630.27	17,839.04	12,409.27	85.08	84.40	-117.70	-6,130.83	1,212.21	1,676.05	1,524.03	152.03	11.025		
17,100.00	11,630.80	17,939.04	12,409.80	86.44	85.72	-117.70	-6,230.83	1,213.11	1,676.05	1,521.64	154.41	10.854		
17,200.00	11,631.32	18,039.04	12,410.33	87.79	87.04	-117.70	-6,330.82	1,214.02	1,676.05	1,519.25	156.80	10.689		
17,300.00	11,631.85	18,139.04	12,410.85	89.14	88.36	-117.70	-6,430.81	1,214.93	1,676.05	1,516.87	159.19	10.529		
17,400.00	11,632.37	18,239.04	12,411.38	90.49	89.69	-117.70	-6,530.81	1,215.84	1,676.05	1,514.47	161.58	10.373		
17,500.00	11,632.90	18,339.04	12,411.90	91.85	91.01	-117.70	-6,630.80	1,216.75	1,676.05	1,512.08	163.97	10.221		
17,600.00	11,633.42	18,439.04	12,412.43	93.20	92.34	-117.70	-6,730.80	1,217.66	1,676.05	1,509.68	166.37	10.074		
17,700.00	11,633.95	18,539.04	12,412.95	94.56	93.67	-117.70	-6,830.79	1,218.57	1,676.05	1,507.29	168.77	9.931		
17,800.00	11,634.47	18,639.04	12,413.48	95.91	95.00	-117.70	-6,930.79	1,219.47	1,676.05	1,504.89	171.17	9.792		
17,900.00	11,635.00	18,739.04	12,414.01	97.27	96.33	-117.70	-7,030.78	1,220.38	1,676.05	1,502.49	173.57	9.657		
18,000.00	11,635.52	18,839.04	12,414.53	98.62	97.66	-117.70	-7,130.78	1,221.29	1,676.05	1,500.08	175.97	9.525		
18,100.00	11,636.05	18,939.04	12,415.06	99.98	98.99	-117.70	-7,230.77	1,222.20	1,676.05	1,497.68	178.37	9.396		
18,200.00	11,636.57	19,039.04	12,415.58	101.34	100.32	-117.70	-7,330.76	1,223.11	1,676.05	1,495.27	180.78	9.271		
18,300.00	11,637.10	19,139.04	12,416.11	102.69	101.66	-117.70	-7,430.76	1,224.02	1,676.05	1,492.87	183.19	9.149		
18,400.00	11,637.62	19,239.04	12,416.64	104.05	102.99	-117.70	-7,530.75	1,224.93	1,676.05	1,490.46	185.60	9.031		
18,500.00	11,638.15	19,339.04	12,417.16	105.41	104.33	-117.70	-7,630.75	1,225.83	1,676.05	1,488.05	188.01	8.915		
18,600.00	11,638.67	19,439.04	12,417.69	106.76	105.66	-117.70	-7,730.74	1,226.74	1,676.05	1,485.64	190.42	8.802		
18,700.00	11,639.20	19,539.04	12,418.21	108.12	107.00	-117.70	-7,830.74	1,227.65	1,676.05	1,483.22	192.83	8.692		
18,800.00	11,639.72	19,639.04	12,418.74	109.48	108.34	-117.70	-7,930.73	1,228.56	1,676.05	1,480.81	195.24	8.584		
18,900.00	11,640.25	19,739.04	12,419.26	110.84	109.68	-117.70	-8,030.73	1,229.47	1,676.05	1,478.39	197.66	8.479		
19,000.00	11,640.77	19,839.04	12,419.79	112.20	111.02	-117.70	-8,130.72	1,230.38	1,676.05	1,475.98	200.08	8.377		
19,100.00	11,641.30	19,939.04	12,420.32	113.56	112.36	-117.70	-8,230.72	1,231.29	1,676.05	1,473.56	202.49	8.277		
19,200.00	11,641.82	20,039.04	12,420.84	114.92	113.70	-117.70	-8,330.71	1,232.19	1,676.05	1,471.14	204.91	8.179		
19,300.00	11,642.35	20,139.04	12,421.37	116.28	115.04	-117.70	-8,430.70	1,233.10	1,676.05	1,468.72	207.33	8.084		
19,400.00	11,642.87	20,239.04	12,421.89	117.64	116.38	-117.70	-8,530.70	1,234.01	1,676.05	1,466.30	209.75	7.991		
19,500.00	11,643.40	20,339.04	12,422.42	119.00	117.72	-117.70	-8,630.69	1,234.92	1,676.05	1,463.88	212.17	7.899		
19,600.00	11,643.92	20,439.04	12,422.95	120.36	119.07	-117.70	-8,730.69	1,235.83	1,676.05	1,461.46	214.59	7.810		
19,700.00	11,644.45	20,539.04	12,423.47	121.72	120.41	-117.70	-8,830.68	1,236.74	1,676.05	1,459.04	217.02	7.723		
19,800.00	11,644.97	20,639.04	12,424.00	123.08	121.76	-117.70	-8,930.68	1,237.64	1,676.05	1,456.61	219.44	7.638		
19,900.00	11,645.50	20,739.04	12,424.52	124.44	123.10	-117.70	-9,030.67	1,238.55	1,676.05	1,454.19	221.87	7.554		
20,000.00	11,646.02	20,839.04	12,425.05	125.80	124.45	-117.70	-9,130.67	1,239.46	1,676.05	1,451.76	224.29	7.473		
20,100.00	11,646.55	20,939.04	12,425.57	127.16	125.79	-117.70	-9,230.66	1,240.37	1,676.05	1,449.34	226.72	7.393		
20,200.00	11,647.07	21,039.04	12,426.10	128.52	127.14	-117.70	-9,330.65	1,241.28	1,676.05	1,446.91	229.14	7.314		
20,300.00	11,647.60	21,139.04	12,426.63	129.88	128.49	-117.70	-9,430.65	1,242.19	1,676.05	1,444.48	231.57	7.238		
20,400.00	11,648.12	21,239.04	12,427.15	131.25	129.83	-117.70	-9,530.64	1,243.10	1,676.05	1,442.05	234.00	7.163		
20,500.00	11,648.65	21,339.04	12,427.68	132.61	131.18	-117.70	-9,630.64	1,244.00	1,676.05	1,439.62	236.43	7.089		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 218H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference	Offset	Reference	Offset	(usft)	(usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,600.00	11,649.17	21,439.04	12,428.20	133.97	132.53	-117.70	-9,730.63	1,244.91	1,676.05	1,437.19	238.86	7.017	
20,700.00	11,649.70	21,539.04	12,428.73	135.33	133.88	-117.70	-9,830.63	1,245.82	1,676.05	1,434.76	241.29	6.946	
20,800.00	11,650.23	21,639.04	12,429.26	136.69	135.23	-117.70	-9,930.62	1,246.73	1,676.05	1,432.33	243.72	6.877	
20,900.00	11,650.75	21,739.04	12,429.78	138.06	136.58	-117.70	-10,030.62	1,247.64	1,676.05	1,429.90	246.15	6.809	
21,000.00	11,651.28	21,839.04	12,430.31	139.42	137.93	-117.70	-10,130.61	1,248.55	1,676.05	1,427.47	248.58	6.742	
21,100.00	11,651.80	21,939.04	12,430.83	140.78	139.28	-117.70	-10,230.60	1,249.46	1,676.05	1,425.04	251.02	6.677	
21,200.00	11,652.33	22,039.04	12,431.36	142.15	140.63	-117.70	-10,330.60	1,250.36	1,676.05	1,422.60	253.45	6.613	
21,300.00	11,652.85	22,139.04	12,431.89	143.51	141.98	-117.70	-10,430.59	1,251.27	1,676.05	1,420.17	255.88	6.550	
21,400.00	11,653.38	22,239.04	12,432.41	144.87	143.33	-117.70	-10,530.59	1,252.18	1,676.05	1,417.73	258.32	6.488	
21,500.00	11,653.90	22,339.04	12,432.94	146.24	144.68	-117.70	-10,630.58	1,253.09	1,676.05	1,415.30	260.75	6.428	
21,600.00	11,654.43	22,439.04	12,433.46	147.60	146.04	-117.70	-10,730.58	1,254.00	1,676.05	1,412.86	263.19	6.368	
21,700.00	11,654.95	22,539.04	12,433.99	148.96	147.39	-117.70	-10,830.57	1,254.91	1,676.05	1,410.43	265.62	6.310	
21,800.00	11,655.48	22,639.04	12,434.51	150.33	148.74	-117.70	-10,930.57	1,255.81	1,676.05	1,407.99	268.06	6.253	
21,900.00	11,656.00	22,739.04	12,435.04	151.69	150.09	-117.70	-11,030.56	1,256.72	1,676.05	1,405.56	270.50	6.196	
21,918.86	11,656.10	22,757.90	12,435.14	151.95	150.35	-117.70	-11,049.42	1,256.89	1,676.05	1,405.10	270.96	6.186	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 221H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,500.00	2,474.78	2,332.56	2,327.01	7.27	6.55	42.80	-967.37	-2,463.12	2,428.33	2,414.85	13.48	180.141	
2,600.00	2,572.59	2,400.00	2,393.91	7.54	6.70	43.19	-961.87	-2,469.55	2,419.79	2,405.93	13.86	174.622	
2,700.00	2,670.41	2,460.70	2,454.01	7.82	6.83	43.56	-956.55	-2,476.28	2,412.79	2,398.57	14.23	169.592	
2,800.00	2,768.22	2,524.45	2,516.96	8.11	6.97	43.96	-950.62	-2,484.32	2,407.38	2,392.77	14.61	164.827	
2,900.00	2,866.03	2,600.00	2,591.36	8.39	7.13	44.46	-943.10	-2,495.11	2,403.61	2,388.60	15.01	160.081	
3,000.00	2,963.85	2,651.10	2,641.53	8.67	7.24	44.81	-937.73	-2,503.19	2,401.39	2,386.02	15.37	156.247	
3,100.00	3,061.66	2,722.68	2,711.61	8.96	7.39	45.31	-929.83	-2,515.49	2,400.81	2,385.04	15.77	152.245	
3,112.19	3,073.58	2,734.33	2,722.99	8.99	7.41	45.39	-928.53	-2,517.54	2,400.81	2,384.98	15.83	151.702	CC
3,200.00	3,159.48	2,818.21	2,805.04	9.24	7.58	45.99	-919.17	-2,532.25	2,400.95	2,384.72	16.23	147.910	ES
3,300.00	3,257.29	2,913.73	2,898.47	9.53	7.77	46.66	-908.51	-2,549.01	2,401.45	2,384.75	16.70	143.804	
3,400.00	3,355.10	3,009.25	2,991.91	9.81	7.96	47.33	-897.85	-2,565.76	2,402.32	2,385.15	17.17	139.915	
3,500.00	3,452.92	3,104.77	3,085.34	10.10	8.16	48.01	-887.18	-2,582.52	2,403.55	2,385.91	17.64	136.229	
3,600.00	3,550.73	3,200.30	3,178.78	10.39	8.35	48.68	-876.52	-2,599.27	2,405.14	2,387.02	18.12	132.735	
3,700.00	3,648.55	3,295.82	3,272.21	10.68	8.56	49.35	-865.86	-2,616.03	2,407.10	2,388.50	18.60	129.421	
3,800.00	3,746.36	3,391.34	3,365.65	10.95	8.76	50.02	-855.20	-2,632.79	2,409.42	2,390.36	19.07	126.355	
3,900.00	3,844.48	3,487.17	3,459.38	11.23	8.97	50.71	-844.50	-2,649.60	2,413.06	2,393.51	19.55	123.428	
4,000.00	3,943.06	3,583.48	3,553.59	11.48	9.18	51.38	-833.75	-2,666.49	2,418.67	2,398.65	20.02	120.841	
4,100.00	4,042.05	3,680.20	3,648.20	11.70	9.40	52.03	-822.96	-2,683.46	2,426.17	2,405.70	20.46	118.571	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)		Rule Assigned:		Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)
1,700.00	1,692.25	1,899.66	1,899.98	5.52	5.44	42.68	-878.52	-2,358.84	2,430.08
1,800.00	1,790.08	1,996.02	1,995.98	5.69	5.59	42.91	-877.50	-2,350.50	2,406.23
1,900.00	1,887.89	2,092.36	2,091.95	5.90	5.74	43.21	-876.48	-2,342.17	2,382.40
2,000.00	1,985.71	2,188.70	2,187.92	6.11	5.89	43.52	-875.45	-2,333.83	2,358.62
2,100.00	2,083.52	2,284.01	2,283.05	6.33	6.25	44.23	-870.26	-2,312.79	2,333.03
2,200.00	2,181.34	2,379.30	2,378.89	6.54	6.65	45.13	-867.42	-2,282.22	2,302.66
2,300.00	2,279.15	2,474.61	2,474.04	6.76	6.92	45.86	-844.22	-2,256.03	2,268.38
2,400.00	2,376.96	2,569.92	2,569.05	6.99	7.08	46.34	-835.43	-2,239.04	2,233.70
2,500.00	2,474.78	2,665.23	2,664.06	7.27	7.24	46.84	-826.64	-2,222.05	2,199.18
2,600.00	2,572.59	2,760.54	2,759.08	7.54	7.40	47.35	-817.86	-2,205.06	2,164.82
2,700.00	2,670.41	2,855.85	2,854.09	7.82	7.56	47.88	-809.07	-2,188.07	2,130.62
2,800.00	2,768.22	2,951.16	2,949.10	8.11	7.72	48.43	-800.28	-2,171.08	2,096.59
2,900.00	2,866.03	3,046.47	3,044.04	8.39	7.89	48.99	-791.50	-2,154.09	2,062.74
3,000.00	2,963.85	3,141.78	3,139.12	8.67	8.05	49.57	-782.71	-2,137.10	2,029.08
3,100.00	3,061.66	3,237.09	3,234.13	8.96	8.26	50.17	-773.92	-2,120.11	1,995.63
3,200.00	3,159.48	3,332.40	3,329.15	9.24	8.47	50.79	-765.14	-2,103.12	1,962.38
3,300.00	3,257.29	3,427.71	3,424.16	9.53	8.68	51.43	-756.35	-2,086.13	1,929.36
3,400.00	3,355.10	3,523.02	3,519.17	9.81	8.90	52.09	-747.56	-2,069.15	1,896.57
3,500.00	3,452.92	3,618.33	3,614.18	10.10	9.12	52.77	-738.78	-2,052.16	1,864.02
3,600.00	3,550.73	3,713.64	3,709.19	10.39	9.34	53.48	-729.99	-2,035.17	1,831.73
3,700.00	3,648.55	3,808.95	3,804.20	10.68	9.56	54.21	-721.21	-2,018.18	1,799.71
3,800.00	3,746.36	3,904.26	3,900.22	10.95	9.78	54.93	-712.42	-2,001.19	1,767.99
3,900.00	3,844.18	3,999.57	3,995.77	11.23	10.01	55.27	-703.58	-1,984.10	1,737.38
4,000.00	3,941.99	4,094.88	4,091.22	11.48	10.24	55.60	-694.65	-1,966.84	1,708.45
4,100.00	4,039.80	4,190.19	4,186.50	11.70	10.48	55.89	-685.64	-1,949.42	1,681.17
4,200.00	4,137.61	4,285.50	4,281.55	11.90	10.72	56.16	-676.56	-1,931.86	1,655.50
4,300.00	4,235.42	4,380.81	4,376.31	12.08	10.96	56.39	-667.41	-1,914.16	1,631.40
4,400.00	4,333.23	4,476.12	4,471.70	12.22	11.20	56.58	-658.20	-1,896.34	1,608.83
4,500.00	4,431.04	4,571.43	4,567.07	12.34	11.45	56.72	-648.93	-1,878.42	1,587.77
4,600.00	4,528.85	4,666.74	4,662.15	12.41	11.70	56.89	-639.61	-1,860.40	1,568.17
4,700.00	4,626.66	4,762.05	4,757.19	12.44	11.95	57.02	-630.27	-1,842.34	1,549.23
4,800.00	4,724.47	4,857.36	4,852.19	12.48	12.20	57.09	-620.93	-1,824.28	1,530.33
4,900.00	4,822.28	4,952.67	4,947.18	12.52	12.41	57.18	-612.34	-1,807.67	1,511.56
5,000.00	4,920.09	5,047.98	5,042.19	12.56	12.58	57.25	-603.92	-1,790.26	1,494.09
5,100.00	5,017.90	5,143.29	5,137.05	12.60	12.75	57.33	-600.08	-1,773.96	1,478.35
5,200.00	5,115.71	5,238.60	5,232.19	12.64	12.92	57.41	-594.63	-1,757.44	1,464.35
5,300.00	5,213.52	5,333.91	5,327.09	12.68	13.06	57.49	-589.21	-1,741.88	1,452.08
5,400.00	5,311.33	5,429.22	5,422.19	12.72	13.19	57.58	-586.21	-1,726.16	1,441.57
5,500.00	5,409.14	5,524.53	5,517.05	12.76	13.31	57.67	-582.86	-1,710.68	1,432.80
5,600.00	5,506.95	5,619.84	5,612.19	12.81	13.43	57.75	-579.98	-1,695.11	1,425.79
5,700.00	5,604.76	5,715.15	5,707.06	12.85	13.52	57.84	-578.14	-1,679.54	1,420.51
5,800.00	5,702.57	5,810.46	5,802.19	12.89	13.60	57.93	-576.78	-1,663.91	1,417.00
5,900.00	5,800.38	5,905.77	5,897.05	12.93	13.67	58.01	-576.01	-1,648.34	1,415.24
5,967.08	5,907.77	5,973.75	5,967.77	12.96	13.70	58.04	-576.01	-1,632.77	1,415.02
6,000.00	5,940.69	6,006.67	5,940.69	12.98	13.71	58.04	-576.01	-1,617.20	1,415.02
6,100.00	6,040.69	6,106.67	6,040.69	13.02	13.78	58.04	-576.01	-1,601.63	1,415.02
6,200.00	6,140.69	6,206.67	6,140.69	13.06	13.86	58.04	-576.01	-1,586.06	1,415.02
6,300.00	6,240.69	6,306.67	6,240.69	13.11	13.93	58.04	-576.01	-1,570.49	1,415.02
6,400.00	6,340.69	6,406.67	6,340.69	13.15	14.00	58.04	-576.01	-1,554.92	1,415.02
6,500.00	6,440.69	6,506.67	6,440.69	13.20	14.08	58.04	-576.01	-1,539.35	1,415.02
6,600.00	6,540.69	6,606.67	6,540.69	13.24	14.15	58.04	-576.01	-1,523.78	1,415.02
6,700.00	6,640.69	6,706.67	6,640.69	13.29	14.22	58.04	-576.01	-1,508.21	1,415.02

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance		Offset Well Error:		0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,740.69	6,806.67	6,740.69	13.34	14.30	-90.40	-576.01	-1,737.43	1,415.02	1,388.31	26.71	52.982	
6,900.00	6,840.69	6,906.67	6,840.69	13.38	14.37	-90.40	-576.01	-1,737.43	1,415.02	1,388.19	26.83	52.748	
7,000.00	6,940.69	7,006.67	6,940.69	13.43	14.44	-90.40	-576.01	-1,737.43	1,415.02	1,388.07	26.94	52.516	
7,100.00	7,040.69	7,106.67	7,040.69	13.48	14.52	-90.40	-576.01	-1,737.43	1,415.02	1,387.95	27.06	52.284	
7,200.00	7,140.69	7,206.67	7,140.69	13.52	14.59	-90.40	-576.01	-1,737.43	1,415.02	1,387.83	27.18	52.054	
7,300.00	7,240.69	7,306.67	7,240.69	13.57	14.67	-90.40	-576.01	-1,737.43	1,415.02	1,387.71	27.30	51.824	
7,400.00	7,340.69	7,406.67	7,340.69	13.62	14.74	-90.40	-576.01	-1,737.43	1,415.02	1,387.59	27.42	51.596	
7,500.00	7,440.69	7,506.67	7,440.69	13.67	14.81	-90.40	-576.01	-1,737.43	1,415.02	1,387.47	27.55	51.369	
7,600.00	7,540.69	7,606.67	7,540.69	13.72	14.89	-90.40	-576.01	-1,737.43	1,415.02	1,387.35	27.67	51.144	
7,700.00	7,640.69	7,706.67	7,640.69	13.77	14.96	-90.40	-576.01	-1,737.43	1,415.02	1,387.23	27.79	50.919	
7,800.00	7,740.69	7,806.67	7,740.69	13.82	15.04	-90.40	-576.01	-1,737.43	1,415.02	1,387.10	27.91	50.696	
7,900.00	7,840.69	7,906.67	7,840.69	13.87	15.11	-90.40	-576.01	-1,737.43	1,415.02	1,386.98	28.03	50.474	
8,000.00	7,940.69	8,006.67	7,940.69	13.92	15.19	-90.40	-576.01	-1,737.43	1,415.02	1,386.86	28.16	50.254	
8,100.00	8,040.69	8,106.67	8,040.69	13.97	15.26	-90.40	-576.01	-1,737.43	1,415.02	1,386.73	28.28	50.034	
8,200.00	8,140.69	8,206.67	8,140.69	14.02	15.34	-90.40	-576.01	-1,737.43	1,415.02	1,386.61	28.40	49.816	
8,300.00	8,240.69	8,306.67	8,240.69	14.07	15.41	-90.40	-576.01	-1,737.43	1,415.02	1,386.49	28.53	49.599	
8,400.00	8,340.69	8,406.67	8,340.69	14.12	15.49	-90.40	-576.01	-1,737.43	1,415.02	1,386.36	28.65	49.383	
8,500.00	8,440.69	8,506.67	8,440.69	14.17	15.56	-90.40	-576.01	-1,737.43	1,415.02	1,386.24	28.78	49.169	
8,600.00	8,540.69	8,606.67	8,540.69	14.23	15.64	-90.40	-576.01	-1,737.43	1,415.02	1,386.11	28.90	48.955	
8,700.00	8,640.69	8,706.67	8,640.69	14.28	15.71	-90.40	-576.01	-1,737.43	1,415.02	1,385.99	29.03	48.743	
8,800.00	8,740.69	8,806.67	8,740.69	14.33	15.79	-90.40	-576.01	-1,737.43	1,415.02	1,385.86	29.16	48.532	
8,900.00	8,840.69	8,906.67	8,840.69	14.38	15.86	-90.40	-576.01	-1,737.43	1,415.02	1,385.73	29.28	48.323	
9,000.00	8,940.69	9,006.67	8,940.69	14.44	15.94	-90.40	-576.01	-1,737.43	1,415.02	1,385.61	29.41	48.114	
9,100.00	9,040.69	9,106.67	9,040.69	14.49	16.01	-90.40	-576.01	-1,737.43	1,415.02	1,385.48	29.54	47.907	
9,200.00	9,140.69	9,206.67	9,140.69	14.54	16.09	-90.40	-576.01	-1,737.43	1,415.02	1,385.35	29.66	47.701	
9,300.00	9,240.69	9,306.67	9,240.69	14.60	16.16	-90.40	-576.01	-1,737.43	1,415.02	1,385.22	29.79	47.497	
9,400.00	9,340.69	9,406.67	9,340.69	14.65	16.24	-90.40	-576.01	-1,737.43	1,415.02	1,385.09	29.92	47.293	
9,500.00	9,440.69	9,506.67	9,440.69	14.71	16.31	-90.40	-576.01	-1,737.43	1,415.02	1,384.97	30.05	47.091	
9,600.00	9,540.69	9,606.67	9,540.69	14.76	16.39	-90.40	-576.01	-1,737.43	1,415.02	1,384.84	30.18	46.890	
9,700.00	9,640.69	9,706.67	9,640.69	14.82	16.47	-90.40	-576.01	-1,737.43	1,415.02	1,384.71	30.31	46.690	
9,800.00	9,740.69	9,806.67	9,740.69	14.87	16.54	-90.40	-576.01	-1,737.43	1,415.02	1,384.58	30.44	46.491	
9,900.00	9,840.69	9,906.67	9,840.69	14.93	16.62	-90.40	-576.01	-1,737.43	1,415.02	1,384.45	30.57	46.294	
10,000.00	9,940.69	10,006.67	9,940.69	14.98	16.69	-90.40	-576.01	-1,737.43	1,415.02	1,384.32	30.70	46.098	
10,100.00	10,040.69	10,106.67	10,040.69	15.04	16.77	-90.40	-576.01	-1,737.43	1,415.02	1,384.19	30.83	45.903	
10,200.00	10,140.69	10,206.67	10,140.69	15.10	16.85	-90.40	-576.01	-1,737.43	1,415.02	1,384.06	30.96	45.709	
10,300.00	10,240.69	10,306.67	10,240.69	15.15	16.92	-90.40	-576.01	-1,737.43	1,415.02	1,383.93	31.09	45.516	
10,400.00	10,340.69	10,406.67	10,340.69	15.21	17.00	-90.40	-576.01	-1,737.43	1,415.02	1,383.80	31.22	45.325	
10,500.00	10,440.69	10,506.67	10,440.69	15.27	17.07	-90.40	-576.01	-1,737.43	1,415.02	1,383.66	31.35	45.134	
10,600.00	10,540.69	10,606.67	10,540.69	15.33	17.15	-90.40	-576.01	-1,737.43	1,415.02	1,383.53	31.48	44.945	
10,700.00	10,640.69	10,706.67	10,640.69	15.38	17.23	-90.40	-576.01	-1,737.43	1,415.02	1,383.40	31.62	44.757	
10,800.00	10,740.69	10,806.67	10,740.69	15.44	17.30	-90.40	-576.01	-1,737.43	1,415.02	1,383.27	31.75	44.570	
10,900.00	10,840.69	10,906.67	10,840.69	15.50	17.38	-90.40	-576.01	-1,737.43	1,415.02	1,383.13	31.88	44.385	
11,000.00	10,940.69	11,006.67	10,940.69	15.56	17.46	-90.40	-576.01	-1,737.43	1,415.02	1,383.00	32.01	44.200	CC
11,007.59	10,948.29	11,014.26	10,948.29	15.56	17.46	90.12	-576.01	-1,737.43	1,415.02	1,382.99	32.02	44.187	
11,100.00	11,040.69	11,106.67	11,040.69	15.61	17.53	90.12	-576.01	-1,737.43	1,415.02	1,382.88	32.14	44.032	
11,200.00	11,140.02	11,206.00	11,140.02	15.75	17.61	90.53	-576.01	-1,737.43	1,415.08	1,382.78	32.29	43.821	ES
11,300.00	11,236.04	11,302.02	11,236.04	15.99	17.68	91.54	-576.01	-1,737.43	1,415.60	1,383.03	32.57	43.462	
11,400.00	11,325.83	11,391.81	11,325.83	16.30	17.75	92.93	-576.01	-1,737.43	1,417.54	1,384.55	32.98	42.976	
11,500.00	11,406.66	11,472.64	11,406.66	16.71	17.81	94.37	-576.01	-1,737.43	1,422.24	1,388.70	33.54	42.400	
11,600.00	11,476.08	11,542.06	11,476.08	17.25	17.87	95.47	-576.01	-1,737.43	1,431.26	1,397.01	34.25	41.785	
11,700.00	11,531.97	11,597.95	11,531.97	17.94	17.91	95.83	-576.01	-1,737.43	1,446.01	1,410.91	35.10	41.197	
11,800.00	11,572.64	11,638.62	11,572.64	18.75	17.94	95.12	-576.01	-1,737.43	1,467.52	1,431.47	36.05	40.708	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:
														Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset (usft)	Semi Major Axis Reference (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,900.00	11,596.86	11,662.83	11,596.86	19.67	17.96	93.09		-576.01	-1,737.43	1,496.13	1,459.08	37.05	40.384	
12,000.00	11,604.02	11,669.99	11,604.02	20.67	17.96	90.12		-576.01	-1,737.43	1,531.39	1,493.35	38.03	40.265	
12,100.00	11,604.54	11,670.52	11,604.54	21.72	17.96	90.15		-576.01	-1,737.43	1,572.34	1,533.36	38.98	40.339	
12,200.00	11,605.07	11,671.04	11,605.07	22.80	17.97	90.17		-576.01	-1,737.43	1,618.44	1,578.58	39.86	40.599	
12,300.00	11,605.59	11,671.57	11,605.59	23.92	17.97	90.19		-576.01	-1,737.43	1,669.27	1,628.59	40.68	41.032	
12,400.00	11,606.12	11,672.09	11,606.12	25.06	17.97	90.21		-576.01	-1,737.43	1,724.41	1,682.98	41.43	41.621	
12,500.00	11,606.64	11,672.62	11,606.64	26.22	17.97	90.23		-576.01	-1,737.43	1,783.45	1,741.34	42.11	42.351	
12,600.00	11,607.17	11,673.14	11,607.17	27.40	17.97	90.25		-576.01	-1,737.43	1,846.02	1,803.30	42.72	43.207	
12,700.00	11,607.69	11,673.67	11,607.69	28.59	17.97	90.27		-576.01	-1,737.43	1,911.78	1,868.50	43.28	44.176	
12,800.00	11,608.22	14,056.65	12,865.97	29.80	23.86	130.16		-1,950.55	-1,800.56	1,950.40	1,896.13	54.27	35.937	
12,900.00	11,608.74	14,156.65	12,866.84	31.03	24.72	130.16		-2,050.55	-1,799.70	1,950.66	1,895.02	55.64	35.062	
13,000.00	11,609.27	14,256.65	12,867.71	32.26	25.63	130.17		-2,150.54	-1,798.84	1,950.92	1,893.87	57.05	34.199	
13,100.00	11,609.79	14,356.65	12,868.58	33.51	26.57	130.18		-2,250.53	-1,797.98	1,951.18	1,892.67	58.50	33.351	
13,200.00	11,610.32	14,456.65	12,869.45	34.76	27.55	130.18		-2,350.52	-1,797.12	1,951.43	1,891.43	60.00	32.522	
13,300.00	11,610.84	14,556.65	12,870.31	36.03	28.57	130.19		-2,450.51	-1,796.25	1,951.69	1,890.15	61.54	31.712	
13,400.00	11,611.37	14,656.65	12,871.18	37.30	29.61	130.20		-2,550.51	-1,795.39	1,951.95	1,888.83	63.12	30.924	
13,500.00	11,611.89	14,756.65	12,872.05	38.57	30.68	130.21		-2,650.50	-1,794.53	1,952.21	1,887.48	64.73	30.159	
13,600.00	11,612.42	14,856.65	12,872.92	39.86	31.78	130.21		-2,750.49	-1,793.67	1,952.47	1,886.09	66.37	29.417	
13,700.00	11,612.94	14,956.65	12,873.79	41.14	32.89	130.22		-2,850.48	-1,792.81	1,952.72	1,884.68	68.04	28.698	
13,800.00	11,613.47	15,056.64	12,874.65	42.44	34.02	130.23		-2,950.47	-1,791.95	1,952.98	1,883.24	69.74	28.003	
13,900.00	11,613.99	15,156.64	12,875.52	43.74	35.18	130.23		-3,050.47	-1,791.09	1,953.24	1,881.78	71.47	27.331	
14,000.00	11,614.52	15,256.64	12,876.39	45.04	36.34	130.24		-3,150.46	-1,790.23	1,953.50	1,880.29	73.21	26.682	
14,100.00	11,615.04	15,356.64	12,877.26	46.34	37.52	130.25		-3,250.45	-1,789.37	1,953.76	1,878.78	74.98	26.056	
14,200.00	11,615.57	15,456.64	12,878.13	47.65	38.72	130.25		-3,350.44	-1,788.51	1,954.02	1,877.24	76.77	25.452	
14,300.00	11,616.09	15,556.64	12,878.99	48.97	39.92	130.26		-3,450.43	-1,787.65	1,954.27	1,875.69	78.58	24.870	
14,400.00	11,616.62	15,656.64	12,879.86	50.28	41.14	130.27		-3,550.42	-1,786.79	1,954.53	1,874.13	80.41	24.308	
14,500.00	11,617.14	15,756.64	12,880.73	51.60	42.36	130.27		-3,650.42	-1,785.93	1,954.79	1,872.54	82.25	23.767	
14,600.00	11,617.67	15,856.64	12,881.60	52.92	43.60	130.28		-3,750.41	-1,785.07	1,955.05	1,870.94	84.11	23.245	
14,700.00	11,618.19	15,956.64	12,882.47	54.25	44.84	130.29		-3,850.40	-1,784.20	1,955.31	1,869.33	85.98	22.742	
14,800.00	11,618.72	16,056.64	12,883.33	55.57	46.09	130.29		-3,950.39	-1,783.34	1,955.57	1,867.70	87.86	22.257	
14,900.00	11,619.24	16,156.64	12,884.20	56.90	47.34	130.30		-4,050.38	-1,782.48	1,955.83	1,866.07	89.76	21.789	
15,000.00	11,619.77	16,256.64	12,885.07	58.23	48.61	130.31		-4,150.38	-1,781.62	1,956.08	1,864.41	91.67	21.338	
15,100.00	11,620.29	16,356.64	12,885.94	59.56	49.87	130.31		-4,250.37	-1,780.76	1,956.34	1,862.75	93.59	20.903	
15,200.00	11,620.82	16,456.64	12,886.81	60.89	51.15	130.32		-4,350.36	-1,779.90	1,956.60	1,861.08	95.52	20.484	
15,300.00	11,621.34	16,556.64	12,887.67	62.23	52.43	130.33		-4,450.35	-1,779.04	1,956.86	1,859.40	97.46	20.079	
15,400.00	11,621.87	16,656.63	12,888.54	63.56	53.71	130.33		-4,550.34	-1,778.18	1,957.12	1,857.71	99.41	19.687	
15,500.00	11,622.40	16,756.63	12,889.41	64.90	55.00	130.34		-4,650.34	-1,777.32	1,957.38	1,856.01	101.37	19.310	
15,600.00	11,622.92	16,856.63	12,890.28	66.24	56.29	130.35		-4,750.33	-1,776.46	1,957.64	1,854.30	103.33	18.945	
15,700.00	11,623.45	16,956.63	12,891.15	67.58	57.58	130.35		-4,850.32	-1,775.60	1,957.90	1,852.59	105.31	18.593	
15,800.00	11,623.97	17,056.63	12,892.01	68.92	58.88	130.36		-4,950.31	-1,774.74	1,958.15	1,850.87	107.29	18.252	
15,900.00	11,624.50	17,156.63	12,892.88	70.26	60.18	130.37		-5,050.30	-1,773.88	1,958.41	1,849.14	109.27	17.922	
16,000.00	11,625.02	17,256.63	12,893.75	71.61	61.49	130.37		-5,150.30	-1,773.02	1,958.67	1,847.41	111.26	17.604	
16,100.00	11,625.55	17,356.63	12,894.62	72.95	62.79	130.38		-5,250.29	-1,772.16	1,958.93	1,845.67	113.26	17.295	
16,200.00	11,626.07	17,456.63	12,895.49	74.30	64.10	130.39		-5,350.28	-1,771.29	1,959.19	1,843.92	115.27	16.997	
16,300.00	11,626.60	17,556.63	12,896.35	75.64	65.42	130.39		-5,450.27	-1,770.43	1,959.45	1,842.17	117.28	16.708	
16,400.00	11,627.12	17,656.63	12,897.22	76.99	66.73	130.40		-5,550.26	-1,769.57	1,959.71	1,840.42	119.29	16.428	
16,500.00	11,627.65	17,756.63	12,898.09	78.34	68.05	130.41		-5,650.26	-1,768.71	1,959.97	1,838.65	121.31	16.156	
16,600.00	11,628.17	17,856.63	12,898.96	79.68	69.37	130.41		-5,750.25	-1,767.85	1,960.23	1,836.89	123.34	15.893	
16,700.00	11,628.70	17,956.63	12,899.83	81.03	70.69	130.42		-5,850.24	-1,766.99	1,960.48	1,835.12	125.36	15.638	
16,800.00	11,629.22	18,056.63	12,900.69	82.38	72.01	130.43		-5,950.23	-1,766.13	1,960.74	1,833.35	127.40	15.391	
16,900.00	11,629.75	18,156.63	12,901.56	83.73	73.33	130.43		-6,050.22	-1,765.27	1,961.00	1,831.57	129.43	15.151	
17,000.00	11,630.27	18,256.63	12,902.43	85.08	74.66	130.44		-6,150.21	-1,764.41	1,961.26	1,829.79	131.47	14.918	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 222H - OH - Plan #1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance			Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
17,100.00	11,630.80	18,356.62	12,903.30	86.44	75.99	130.45	-6,250.21	-1,763.55	1,961.52	1,828.01	133.51	14.691		
17,200.00	11,631.32	18,456.62	12,904.17	87.79	77.32	130.45	-6,350.20	-1,762.69	1,961.78	1,826.22	135.56	14.472		
17,300.00	11,631.85	18,556.62	12,905.04	89.14	78.65	130.46	-6,450.19	-1,761.83	1,962.04	1,824.43	137.61	14.258		
17,400.00	11,632.37	18,656.62	12,905.90	90.49	79.98	130.47	-6,550.18	-1,760.97	1,962.30	1,822.64	139.66	14.050		
17,500.00	11,632.90	18,756.62	12,906.77	91.85	81.31	130.47	-6,650.17	-1,760.11	1,962.56	1,820.84	141.72	13.848		
17,600.00	11,633.42	18,856.62	12,907.64	93.20	82.65	130.48	-6,750.17	-1,759.24	1,962.82	1,819.04	143.77	13.652		
17,700.00	11,633.95	18,956.62	12,908.51	94.56	83.98	130.49	-6,850.16	-1,758.38	1,963.08	1,817.24	145.83	13.461		
17,800.00	11,634.47	19,056.62	12,909.38	95.91	85.32	130.49	-6,950.15	-1,757.52	1,963.34	1,815.44	147.90	13.275		
17,900.00	11,635.00	19,156.62	12,910.24	97.27	86.66	130.50	-7,050.14	-1,756.66	1,963.59	1,813.63	149.96	13.094		
18,000.00	11,635.52	19,256.62	12,911.11	98.62	88.00	130.51	-7,150.13	-1,755.80	1,963.85	1,811.83	152.03	12.918		
18,100.00	11,636.05	19,356.62	12,911.98	99.98	89.34	130.51	-7,250.13	-1,754.94	1,964.11	1,810.02	154.10	12.746		
18,200.00	11,636.57	19,456.62	12,912.85	101.34	90.68	130.52	-7,350.12	-1,754.08	1,964.37	1,808.20	156.17	12.579		
18,300.00	11,637.10	19,556.62	12,913.72	102.69	92.02	130.53	-7,450.11	-1,753.22	1,964.63	1,806.39	158.24	12.415		
18,400.00	11,637.62	19,656.62	12,914.58	104.05	93.36	130.54	-7,550.10	-1,752.36	1,964.89	1,804.58	160.32	12.256		
18,500.00	11,638.15	19,756.62	12,915.45	105.41	94.70	130.54	-7,650.09	-1,751.50	1,965.15	1,802.76	162.39	12.101		
18,600.00	11,638.67	19,856.62	12,916.32	106.76	96.05	130.55	-7,750.09	-1,750.64	1,965.41	1,800.94	164.47	11.950		
18,700.00	11,639.20	19,956.62	12,917.19	108.12	97.39	130.56	-7,850.08	-1,749.78	1,965.67	1,799.12	166.55	11.802		
18,800.00	11,639.72	20,056.61	12,918.06	109.48	98.74	130.56	-7,950.07	-1,748.92	1,965.93	1,797.30	168.63	11.658		
18,900.00	11,640.25	20,156.61	12,918.92	110.84	100.08	130.57	-8,050.06	-1,748.06	1,966.19	1,795.48	170.71	11.517		
19,000.00	11,640.77	20,256.61	12,919.79	112.20	101.43	130.58	-8,150.05	-1,747.19	1,966.45	1,793.65	172.80	11.380		
19,100.00	11,641.30	20,356.61	12,920.66	113.56	102.78	130.58	-8,250.05	-1,746.33	1,966.71	1,791.83	174.88	11.246		
19,200.00	11,641.82	20,456.61	12,921.53	114.92	104.13	130.59	-8,350.04	-1,745.47	1,966.97	1,790.00	176.97	11.115		
19,300.00	11,642.35	20,556.61	12,922.40	116.28	105.47	130.60	-8,450.03	-1,744.61	1,967.23	1,788.17	179.06	10.987		
19,400.00	11,642.87	20,656.61	12,923.26	117.64	106.82	130.60	-8,550.02	-1,743.75	1,967.49	1,786.34	181.15	10.861		
19,500.00	11,643.40	20,756.61	12,924.13	119.00	108.17	130.61	-8,650.01	-1,742.89	1,967.75	1,784.51	183.24	10.739		
19,600.00	11,643.92	20,856.61	12,925.00	120.36	109.52	130.62	-8,750.01	-1,742.03	1,968.01	1,782.68	185.33	10.619		
19,700.00	11,644.45	20,956.61	12,925.87	121.72	110.87	130.62	-8,850.00	-1,741.17	1,968.27	1,780.85	187.42	10.502		
19,800.00	11,644.97	21,056.61	12,926.74	123.08	112.22	130.63	-8,949.99	-1,740.31	1,968.53	1,779.02	189.51	10.387		
19,900.00	11,645.50	21,156.61	12,927.60	124.44	113.57	130.64	-9,049.98	-1,739.45	1,968.79	1,777.18	191.60	10.275		
20,000.00	11,646.02	21,256.61	12,928.47	125.80	114.93	130.64	-9,149.97	-1,738.59	1,969.05	1,775.35	193.70	10.165		
20,100.00	11,646.55	21,356.61	12,929.34	127.16	116.28	130.65	-9,249.96	-1,737.73	1,969.31	1,773.51	195.79	10.058		
20,200.00	11,647.07	21,456.61	12,930.21	128.52	117.63	130.66	-9,349.96	-1,736.87	1,969.57	1,771.68	197.89	9.953		
20,300.00	11,647.60	21,556.61	12,931.08	129.88	118.98	130.66	-9,449.95	-1,736.01	1,969.83	1,769.84	199.99	9.850		
20,400.00	11,648.12	21,656.60	12,931.94	131.25	120.34	130.67	-9,549.94	-1,735.14	1,970.09	1,768.00	202.08	9.749		
20,500.00	11,648.65	21,756.60	12,932.81	132.61	121.69	130.68	-9,649.93	-1,734.28	1,970.35	1,766.16	204.18	9.650		
20,600.00	11,649.17	21,856.60	12,933.68	133.97	123.05	130.68	-9,749.92	-1,733.42	1,970.61	1,764.33	206.28	9.553		
20,700.00	11,649.70	21,956.60	12,934.55	135.33	124.40	130.69	-9,849.92	-1,732.56	1,970.87	1,762.49	208.38	9.458		
20,800.00	11,650.23	22,056.60	12,935.42	136.69	125.75	130.70	-9,949.91	-1,731.70	1,971.13	1,760.65	210.48	9.365		
20,900.00	11,650.75	22,156.60	12,936.28	138.06	127.11	130.70	-10,049.90	-1,730.84	1,971.39	1,758.81	212.58	9.274		
21,000.00	11,651.28	22,256.60	12,937.15	139.42	128.47	130.71	-10,149.89	-1,729.98	1,971.65	1,756.97	214.68	9.184		
21,100.00	11,651.80	22,356.60	12,938.02	140.78	129.82	130.71	-10,249.88	-1,729.12	1,971.91	1,755.12	216.78	9.096		
21,200.00	11,652.33	22,456.60	12,938.89	142.15	131.18	130.72	-10,349.88	-1,728.26	1,972.17	1,753.28	218.89	9.010		
21,300.00	11,652.85	22,556.60	12,939.76	143.51	132.53	130.73	-10,449.87	-1,727.40	1,972.43	1,751.44	220.99	8.925		
21,400.00	11,653.38	22,656.60	12,940.62	144.87	133.89	130.73	-10,549.86	-1,726.54	1,972.69	1,749.60	223.09	8.843		
21,500.00	11,653.90	22,756.60	12,941.49	146.24	135.25	130.74	-10,649.85	-1,725.68	1,972.95	1,747.76	225.19	8.761		
21,600.00	11,654.43	22,856.60	12,942.36	147.60	136.60	130.75	-10,749.84	-1,724.82	1,973.21	1,745.91	227.30	8.681		
21,700.00	11,654.95	22,956.60	12,943.23	148.96	137.96	130.75	-10,849.84	-1,723.96	1,973.47	1,744.07	229.40	8.603		
21,800.00	11,655.48	23,056.60	12,944.10	150.33	139.32	130.76	-10,949.83	-1,723.09	1,973.73	1,742.22	231.51	8.526		
21,900.00	11,656.00	23,156.60	12,944.96	151.69	140.68	130.77	-11,049.82	-1,722.23	1,973.99	1,740.38	233.61	8.450		
21,918.86	11,656.10	23,175.46	12,945.13	151.95	140.93	130.77	-11,068.68	-1,722.07	1,974.04	1,740.03	234.01	8.436	SF	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.00	0.00	0.50	0.50	26.57	50.00	25.00	55.90				
100.00	100.00	101.00	100.00	0.98	0.99	26.57	50.00	25.00	55.90	53.93	1.97	28.410	
200.00	200.00	201.00	200.00	1.56	1.57	26.57	50.00	25.00	55.90	52.78	3.13	17.881	
300.00	300.00	301.00	300.00	1.98	1.98	26.57	50.00	25.00	55.90	51.94	3.97	14.096	CC, ES
400.00	399.99	400.99	399.99	2.41	2.33	-178.34	50.00	25.00	57.21	52.47	4.74	12.072	
500.00	499.91	500.91	499.91	2.77	2.64	-178.45	50.00	25.00	61.13	55.73	5.40	11.311	
600.00	599.69	600.69	599.69	3.10	2.91	-178.60	50.00	25.00	67.67	61.66	6.01	11.264	
700.00	699.32	700.32	699.32	3.23	3.16	-178.75	50.00	25.00	76.24	69.85	6.39	11.930	
800.00	798.94	799.94	798.94	3.47	3.40	-178.88	50.00	25.00	84.95	78.09	6.87	12.367	
900.00	898.56	899.56	898.56	3.70	3.62	-178.98	50.00	25.00	93.67	86.34	7.33	12.785	
1,000.00	998.18	999.18	998.18	3.93	3.83	-179.07	50.00	25.00	102.38	94.62	7.77	13.183	
1,100.00	1,097.80	1,098.80	1,097.80	4.16	4.04	-179.14	50.00	25.00	111.10	102.91	8.19	13.562	
1,200.00	1,197.42	1,198.42	1,197.42	4.38	4.23	-179.21	50.00	25.00	119.81	111.21	8.60	13.924	
1,300.00	1,297.01	1,298.01	1,297.01	4.50	4.42	179.58	50.00	25.00	128.81	119.90	8.92	14.447	
1,400.00	1,396.38	1,397.38	1,396.38	4.76	4.60	177.95	50.00	25.00	140.03	130.67	9.36	14.965	
1,500.00	1,495.42	1,496.42	1,495.42	5.02	4.77	177.04	50.00	25.00	153.82	144.03	9.79	15.713	
1,600.00	1,594.07	1,595.07	1,594.07	5.27	4.94	176.53	50.00	25.00	170.17	159.96	10.21	16.664	
1,700.00	1,692.25	1,693.25	1,692.25	5.52	5.10	176.28	50.00	25.00	189.08	178.45	10.63	17.793	
1,800.00	1,790.08	1,791.08	1,790.08	5.69	5.26	176.54	50.00	25.00	209.77	198.82	10.95	19.156	
1,900.00	1,887.89	1,888.89	1,887.89	5.90	5.42	176.85	50.00	25.00	230.53	219.22	11.32	20.367	
2,000.00	1,985.71	1,986.71	1,985.71	6.11	5.57	177.11	50.00	25.00	251.30	239.62	11.68	21.507	
2,100.00	2,083.52	2,090.75	2,089.74	6.33	5.74	177.29	49.21	24.27	271.10	259.03	12.08	22.451	
2,200.00	2,181.34	2,196.75	2,195.66	6.54	5.90	177.29	46.29	21.55	288.31	275.86	12.45	23.157	
2,300.00	2,279.15	2,303.67	2,302.35	6.76	6.06	177.14	41.17	16.78	302.87	290.05	12.82	23.623	
2,400.00	2,376.96	2,411.35	2,409.55	6.99	6.22	176.85	33.80	9.93	314.74	301.55	13.19	23.862	
2,500.00	2,474.78	2,519.62	2,517.02	7.27	6.38	176.44	24.17	0.96	323.91	310.35	13.56	23.891	
2,600.00	2,572.59	2,628.31	2,624.48	7.54	6.55	175.91	12.25	-10.12	330.38	316.46	13.92	23.728	
2,700.00	2,670.41	2,737.25	2,731.68	7.82	6.72	175.24	-1.93	-23.32	334.16	319.87	14.29	23.384	
2,800.00	2,768.22	2,842.38	2,834.62	8.11	6.88	174.46	-17.56	-37.86	335.50	320.85	14.65	22.898	
2,900.00	2,866.03	2,942.28	2,932.34	8.39	7.01	173.71	-32.76	-52.01	336.46	321.44	15.01	22.411	
3,000.00	2,963.85	3,042.18	3,030.05	8.67	7.14	172.96	-47.96	-66.15	337.47	322.09	15.38	21.943	
3,100.00	3,061.66	3,142.08	3,127.77	8.96	7.28	172.21	-63.16	-80.29	338.54	322.79	15.75	21.493	
3,200.00	3,159.48	3,241.97	3,225.48	9.24	7.43	171.47	-78.36	-94.44	339.67	323.54	16.13	21.062	
3,300.00	3,257.29	3,341.87	3,323.20	9.53	7.58	170.74	-93.57	-108.58	340.85	324.34	16.51	20.648	
3,400.00	3,355.10	3,441.77	3,420.91	9.81	7.74	170.01	-108.77	-122.73	342.09	325.20	16.89	20.251	
3,500.00	3,452.92	3,541.66	3,518.63	10.10	7.92	169.28	-123.97	-136.87	343.39	326.10	17.29	19.864	
3,600.00	3,550.73	3,641.56	3,616.35	10.39	8.13	168.56	-139.17	-151.02	344.73	327.05	17.68	19.497	
3,700.00	3,648.55	3,741.46	3,714.06	10.68	8.34	167.85	-154.37	-165.16	346.14	328.06	18.08	19.143	
3,800.00	3,746.36	3,841.36	3,811.78	10.95	8.56	167.14	-169.57	-179.31	347.59	329.11	18.47	18.815	
3,900.00	3,844.48	3,941.25	3,909.49	11.23	8.78	166.38	-184.78	-193.45	347.63	328.73	18.90	18.394	
4,000.00	3,943.06	4,041.08	4,007.13	11.48	9.01	165.50	-199.97	-207.59	345.19	325.87	19.32	17.864	
4,100.00	4,042.05	4,140.78	4,104.66	11.70	9.24	164.49	-215.14	-221.70	340.31	320.57	19.74	17.236	
4,200.00	4,141.38	4,240.28	4,201.99	11.90	9.48	163.31	-230.28	-235.79	333.04	312.87	20.16	16.518	
4,300.00	4,240.98	4,339.52	4,299.06	12.08	9.72	161.92	-245.38	-249.84	323.42	302.84	20.58	15.717	
4,400.00	4,340.77	4,438.42	4,395.80	12.22	9.96	160.28	-260.43	-263.85	311.54	290.55	20.99	14.844	
4,500.00	4,440.70	4,536.92	4,492.15	12.34	10.20	158.31	-275.42	-277.79	297.50	276.11	21.39	13.908	
4,600.00	4,540.69	4,634.95	4,588.04	12.41	10.44	6.37	-290.34	-291.67	281.45	259.71	21.73	12.951	
4,700.00	4,640.69	4,732.77	4,683.72	12.44	10.69	3.71	-305.22	-305.52	264.90	242.87	22.04	12.020	
4,800.00	4,740.69	4,830.59	4,779.40	12.48	10.93	0.72	-320.11	-319.37	249.00	226.63	22.36	11.134	
4,900.00	4,840.69	4,928.40	4,875.08	12.52	11.18	-2.67	-334.99	-333.22	233.86	211.15	22.71	10.297	
5,000.00	4,940.69	5,026.22	4,970.76	12.56	11.43	-6.50	-349.88	-347.07	219.65	196.56	23.08	9.515	
5,100.00	5,040.69	5,124.03	5,066.44	12.60	11.69	-10.82	-364.76	-360.92	206.55	183.07	23.48	8.796	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,140.69	5,221.85	5,162.12	12.64	11.94	-15.68	-379.65	-374.77	194.80	170.89	23.91	8.148	
5,300.00	5,240.69	5,319.66	5,257.80	12.68	12.20	-21.10	-394.53	-388.62	184.64	160.29	24.35	7.582	
5,400.00	5,340.69	5,417.48	5,353.48	12.72	12.45	-27.06	-409.42	-402.47	176.36	151.56	24.81	7.110	
5,500.00	5,440.69	5,515.30	5,449.16	12.76	12.71	-33.51	-424.30	-416.32	170.23	144.98	25.25	6.741	
5,600.00	5,540.69	5,613.11	5,544.84	12.81	12.97	-40.33	-439.19	-430.17	166.49	140.81	25.67	6.485	
5,695.93	5,636.62	5,706.94	5,636.62	12.85	13.22	-47.06	-453.47	-443.46	165.29	139.26	26.03	6.349	
5,700.00	5,640.69	5,710.93	5,640.52	12.85	13.24	-47.35	-454.07	-444.02	165.29	139.24	26.05	6.346	
5,800.00	5,740.69	5,808.74	5,736.19	12.89	13.50	-54.36	-468.96	-457.87	166.70	140.34	26.36	6.324	SF
5,900.00	5,840.69	5,906.56	5,831.87	12.93	13.76	-61.15	-483.84	-471.72	170.64	144.04	26.60	6.414	
6,000.00	5,940.69	6,004.38	5,927.55	12.98	14.03	-67.57	-498.73	-485.57	176.96	150.17	26.79	6.605	
6,100.00	6,040.69	6,103.18	6,024.26	13.02	14.26	-73.48	-513.57	-499.38	185.29	158.37	26.92	6.883	
6,200.00	6,140.69	6,203.94	6,123.30	13.06	14.51	-78.38	-527.10	-511.97	194.26	167.21	27.06	7.180	
6,300.00	6,240.69	6,305.63	6,223.72	13.11	14.74	-82.25	-538.80	-522.86	202.96	175.77	27.19	7.465	
6,400.00	6,340.69	6,408.11	6,325.32	13.15	14.94	-85.24	-548.61	-531.99	210.82	183.50	27.32	7.716	
6,500.00	6,440.69	6,511.24	6,427.89	13.20	15.12	-87.47	-556.47	-539.30	217.44	189.98	27.46	7.918	
6,600.00	6,540.69	6,614.88	6,531.22	13.24	15.26	-89.04	-562.32	-544.74	222.52	194.93	27.60	8.063	
6,700.00	6,640.69	6,718.89	6,635.09	13.29	15.38	-90.02	-566.12	-548.28	225.90	198.17	27.73	8.146	
6,800.00	6,740.69	6,823.10	6,739.27	13.34	15.47	-90.45	-567.85	-549.89	227.45	199.60	27.85	8.167	
6,900.00	6,840.69	6,924.52	6,840.69	13.38	15.49	-90.48	-567.97	-550.00	227.56	199.64	27.92	8.151	
7,000.00	6,940.69	7,024.52	6,940.69	13.43	15.54	-90.48	-567.97	-550.00	227.56	199.55	28.00	8.126	
7,100.00	7,040.69	7,124.52	7,040.69	13.48	15.58	-90.48	-567.97	-550.00	227.56	199.47	28.09	8.101	
7,200.00	7,140.69	7,224.52	7,140.69	13.52	15.62	-90.48	-567.97	-550.00	227.56	199.38	28.18	8.076	
7,300.00	7,240.69	7,324.52	7,240.69	13.57	15.66	-90.48	-567.97	-550.00	227.56	199.29	28.27	8.051	
7,400.00	7,340.69	7,424.52	7,340.69	13.62	15.70	-90.48	-567.97	-550.00	227.56	199.20	28.35	8.025	
7,500.00	7,440.69	7,524.52	7,440.69	13.67	15.74	-90.48	-567.97	-550.00	227.56	199.11	28.44	8.000	
7,600.00	7,540.69	7,624.52	7,540.69	13.72	15.78	-90.48	-567.97	-550.00	227.56	199.02	28.53	7.975	
7,700.00	7,640.69	7,724.52	7,640.69	13.77	15.83	-90.48	-567.97	-550.00	227.56	198.93	28.63	7.949	
7,800.00	7,740.69	7,824.52	7,740.69	13.82	15.87	-90.48	-567.97	-550.00	227.56	198.84	28.72	7.924	
7,900.00	7,840.69	7,924.52	7,840.69	13.87	15.91	-90.48	-567.97	-550.00	227.56	198.75	28.81	7.899	
8,000.00	7,940.69	8,024.52	7,940.69	13.92	15.96	-90.48	-567.97	-550.00	227.56	198.66	28.90	7.873	
8,100.00	8,040.69	8,124.52	8,040.69	13.97	16.00	-90.48	-567.97	-550.00	227.56	198.56	29.00	7.848	
8,200.00	8,140.69	8,224.52	8,140.69	14.02	16.04	-90.48	-567.97	-550.00	227.56	198.47	29.09	7.823	
8,300.00	8,240.69	8,324.52	8,240.69	14.07	16.09	-90.48	-567.97	-550.00	227.56	198.37	29.18	7.797	
8,400.00	8,340.69	8,424.52	8,340.69	14.12	16.13	-90.48	-567.97	-550.00	227.56	198.28	29.28	7.772	
8,500.00	8,440.69	8,524.52	8,440.69	14.17	16.18	-90.48	-567.97	-550.00	227.56	198.18	29.38	7.747	
8,600.00	8,540.69	8,624.52	8,540.69	14.23	16.22	-90.48	-567.97	-550.00	227.56	198.09	29.47	7.721	
8,700.00	8,640.69	8,724.52	8,640.69	14.28	16.27	-90.48	-567.97	-550.00	227.56	197.99	29.57	7.696	
8,800.00	8,740.69	8,824.52	8,740.69	14.33	16.32	-90.48	-567.97	-550.00	227.56	197.89	29.67	7.671	
8,900.00	8,840.69	8,924.52	8,840.69	14.38	16.36	-90.48	-567.97	-550.00	227.56	197.79	29.76	7.645	
9,000.00	8,940.69	9,024.52	8,940.69	14.44	16.41	-90.48	-567.97	-550.00	227.56	197.70	29.86	7.620	
9,100.00	9,040.69	9,124.52	9,040.69	14.49	16.46	-90.48	-567.97	-550.00	227.56	197.60	29.96	7.595	
9,200.00	9,140.69	9,224.52	9,140.69	14.54	16.50	-90.48	-567.97	-550.00	227.56	197.50	30.06	7.570	
9,300.00	9,240.69	9,324.52	9,240.69	14.60	16.55	-90.48	-567.97	-550.00	227.56	197.40	30.16	7.544	
9,400.00	9,340.69	9,424.52	9,340.69	14.65	16.60	-90.48	-567.97	-550.00	227.56	197.29	30.26	7.519	
9,500.00	9,440.69	9,524.52	9,440.69	14.71	16.65	-90.48	-567.97	-550.00	227.56	197.19	30.36	7.494	
9,600.00	9,540.69	9,624.52	9,540.69	14.76	16.69	-90.48	-567.97	-550.00	227.56	197.09	30.47	7.469	
9,700.00	9,640.69	9,724.52	9,640.69	14.82	16.74	-90.48	-567.97	-550.00	227.56	196.99	30.57	7.444	
9,800.00	9,740.69	9,824.52	9,740.69	14.87	16.79	-90.48	-567.97	-550.00	227.56	196.89	30.67	7.419	
9,900.00	9,840.69	9,924.52	9,840.69	14.93	16.84	-90.48	-567.97	-550.00	227.56	196.78	30.78	7.394	
10,000.00	9,940.69	10,024.52	9,940.69	14.98	16.89	-90.48	-567.97	-550.00	227.56	196.68	30.88	7.369	
10,100.00	10,040.69	10,124.52	10,040.69	15.04	16.94	-90.48	-567.97	-550.00	227.56	196.57	30.98	7.344	
10,200.00	10,140.69	10,224.52	10,140.69	15.10	16.99	-90.48	-567.97	-550.00	227.56	196.47	31.09	7.319	

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
10,300.00	10,240.69	10,324.52	10,240.69	15.15	17.04	-90.48	-567.97	-550.00	227.56	196.36	31.20	7.295	
10,400.00	10,340.69	10,424.52	10,340.69	15.21	17.09	-90.48	-567.97	-550.00	227.56	196.26	31.30	7.270	
10,500.00	10,440.69	10,524.52	10,440.69	15.27	17.14	-90.48	-567.97	-550.00	227.56	196.15	31.41	7.245	
10,600.00	10,540.69	10,624.52	10,540.69	15.33	17.19	-90.48	-567.97	-550.00	227.56	196.04	31.51	7.221	
10,700.00	10,640.69	10,724.52	10,640.69	15.38	17.24	-90.48	-567.97	-550.00	227.56	195.94	31.62	7.196	
10,800.00	10,740.69	10,824.52	10,740.69	15.44	17.29	-90.48	-567.97	-550.00	227.56	195.83	31.73	7.172	
10,900.00	10,840.69	10,924.52	10,840.69	15.50	17.35	-90.48	-567.97	-550.00	227.56	195.72	31.84	7.147	
11,000.00	10,940.69	11,024.52	10,940.69	15.56	17.40	-90.48	-567.97	-550.00	227.56	195.61	31.95	7.123	
11,008.20	10,948.89	11,032.72	10,948.89	15.56	17.40	90.04	-567.97	-550.00	227.56	195.60	31.96	7.121	
11,100.00	11,040.69	11,124.52	11,040.69	15.61	17.45	90.06	-567.97	-550.00	227.56	195.51	32.05	7.101	
11,100.03	11,040.72	11,124.55	11,040.72	15.61	17.45	90.06	-567.97	-550.00	227.56	195.51	32.05	7.101	
11,200.00	11,140.02	11,223.85	11,140.02	15.75	17.50	92.62	-567.97	-550.00	227.81	195.54	32.26	7.061	
11,300.00	11,236.04	11,319.87	11,236.04	15.99	17.55	98.89	-567.97	-550.00	230.73	197.98	32.74	7.047	
11,400.00	11,325.83	11,409.66	11,325.83	16.30	17.60	107.14	-567.97	-550.00	241.83	208.38	33.45	7.229	
11,500.00	11,406.66	11,490.49	11,406.66	16.71	17.64	114.99	-567.97	-550.00	267.44	233.20	34.23	7.812	
11,600.00	11,476.08	11,559.90	11,476.08	17.25	17.68	120.44	-567.97	-550.00	311.22	276.33	34.88	8.922	
11,700.00	11,531.97	11,615.80	11,531.97	17.94	17.71	122.18	-567.97	-550.00	372.63	337.32	35.31	10.554	
11,800.00	11,572.64	11,656.47	11,572.64	18.75	17.73	118.97	-567.97	-550.00	448.33	412.78	35.55	12.612	
11,900.00	11,596.86	11,680.68	11,596.86	19.67	17.74	108.43	-567.97	-550.00	534.08	498.42	35.66	14.975	
12,000.00	11,604.02	11,687.84	11,604.02	20.67	17.75	90.77	-567.97	-550.00	625.66	589.96	35.70	17.526	
12,100.00	11,604.54	11,688.37	11,604.54	21.72	17.75	90.90	-567.97	-550.00	719.73	684.03	35.70	20.160	
12,200.00	11,605.07	11,688.89	11,605.07	22.80	17.75	91.03	-567.97	-550.00	815.21	779.51	35.70	22.837	
12,300.00	11,605.59	11,689.42	11,605.59	23.92	17.75	91.17	-567.97	-550.00	911.66	875.96	35.70	25.539	
12,400.00	11,606.12	11,689.94	11,606.12	25.06	17.75	91.30	-567.97	-550.00	1,008.80	973.10	35.70	28.257	
12,500.00	11,606.64	11,690.47	11,606.64	26.22	17.75	91.43	-567.97	-550.00	1,106.45	1,070.74	35.71	30.985	
12,600.00	11,607.17	11,691.03	12,800.15	27.40	29.01	172.12	-1,743.88	-476.88	1,204.38	1,149.35	55.02	21.889	
12,700.00	11,607.69	13,914.03	12,800.68	28.59	30.17	172.12	-1,843.87	-475.97	1,204.38	1,149.10	55.27	21.790	
12,800.00	11,608.22	14,014.03	12,801.20	29.80	31.34	172.12	-1,943.87	-475.06	1,204.38	1,148.84	55.54	21.685	
12,900.00	11,608.74	14,114.03	12,801.73	31.03	32.53	172.12	-2,043.86	-474.15	1,204.38	1,148.55	55.82	21.575	
13,000.00	11,609.27	14,214.03	12,802.26	32.26	33.73	172.12	-2,143.86	-473.24	1,204.38	1,148.26	56.12	21.460	
13,100.00	11,609.79	14,314.03	12,802.78	33.51	34.95	172.12	-2,243.85	-472.33	1,204.38	1,147.94	56.44	21.341	
13,200.00	11,610.32	14,414.03	12,803.31	34.76	36.17	172.12	-2,343.85	-471.42	1,204.38	1,147.61	56.77	21.217	
13,300.00	11,610.84	14,514.03	12,803.83	36.03	37.40	172.12	-2,443.84	-470.51	1,204.38	1,147.27	57.11	21.089	
13,400.00	11,611.37	14,614.03	12,804.36	37.30	38.65	172.12	-2,543.84	-469.60	1,204.38	1,146.91	57.47	20.957	
13,500.00	11,611.89	14,714.03	12,804.89	38.57	39.90	172.12	-2,643.83	-468.69	1,204.38	1,146.54	57.84	20.822	
13,600.00	11,612.42	14,814.03	12,805.41	39.86	41.16	172.12	-2,743.82	-467.77	1,204.38	1,146.15	58.23	20.684	
13,700.00	11,612.94	14,914.03	12,805.94	41.14	42.42	172.12	-2,843.82	-466.86	1,204.38	1,145.75	58.63	20.542	
13,800.00	11,613.47	15,014.03	12,806.46	42.44	43.69	172.12	-2,943.81	-465.95	1,204.38	1,145.34	59.04	20.398	
13,900.00	11,613.99	15,114.03	12,806.99	43.74	44.97	172.12	-3,043.81	-465.04	1,204.38	1,144.91	59.47	20.251	
14,000.00	11,614.52	15,214.03	12,807.52	45.04	46.25	172.12	-3,143.80	-464.13	1,204.39	1,144.47	59.91	20.103	
14,100.00	11,615.04	15,314.03	12,808.04	46.34	47.54	172.12	-3,243.80	-463.22	1,204.39	1,144.02	60.36	19.952	
14,200.00	11,615.57	15,414.03	12,808.57	47.65	48.83	172.12	-3,343.79	-462.31	1,204.39	1,143.56	60.83	19.799	
14,300.00	11,616.09	15,514.03	12,809.09	48.97	50.12	172.12	-3,443.79	-461.40	1,204.39	1,143.08	61.31	19.645	
14,400.00	11,616.62	15,614.03	12,809.62	50.28	51.42	172.12	-3,543.78	-460.49	1,204.39	1,142.59	61.80	19.490	
14,500.00	11,617.14	15,714.03	12,810.15	51.60	52.72	172.12	-3,643.78	-459.58	1,204.39	1,142.09	62.30	19.333	
14,600.00	11,617.67	15,814.03	12,810.67	52.92	54.03	172.12	-3,743.77	-458.67	1,204.39	1,141.58	62.81	19.176	
14,700.00	11,618.19	15,914.03	12,811.20	54.25	55.34	172.12	-3,843.76	-457.76	1,204.39	1,141.06	63.33	19.018	
14,800.00	11,618.72	16,014.03	12,811.72	55.57	56.65	172.12	-3,943.76	-456.85	1,204.39	1,140.53	63.86	18.859	
14,900.00	11,619.24	16,114.03	12,812.25	56.90	57.96	172.12	-4,043.75	-455.94	1,204.39	1,139.98	64.41	18.700	
15,000.00	11,619.77	16,214.03	12,812.78	58.23	59.28	172.12	-4,143.75	-455.03	1,204.39	1,139.43	64.96	18.540	
15,100.00	11,620.29	16,314.03	12,813.30	59.56	60.60	172.12	-4,243.74	-454.12	1,204.39	1,138.87	65.52	18.381	
15,200.00	11,620.82	16,414.03	12,813.83	60.89	61.92	172.12	-4,343.74	-453.21	1,204.39	1,138.30	66.10	18.222	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)				Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,300.00	11,621.34	16,514.03	12,814.35	62.23	63.24	172.12	-4,443.73	-452.30	1,204.39	1,137.71	66.68	18.062	
15,400.00	11,621.87	16,614.03	12,814.88	63.56	64.56	172.12	-4,543.73	-451.39	1,204.40	1,137.12	67.27	17.904	
15,500.00	11,622.40	16,714.03	12,815.41	64.90	65.89	172.12	-4,643.72	-450.48	1,204.40	1,136.52	67.87	17.745	
15,600.00	11,622.92	16,814.03	12,815.93	66.24	67.22	172.12	-4,743.71	-449.57	1,204.40	1,135.92	68.48	17.587	
15,700.00	11,623.45	16,914.03	12,816.46	67.58	68.55	172.12	-4,843.71	-448.66	1,204.40	1,135.30	69.10	17.430	
15,800.00	11,623.97	17,014.03	12,816.98	68.92	69.88	172.12	-4,943.70	-447.75	1,204.40	1,134.67	69.72	17.274	
15,900.00	11,624.50	17,114.03	12,817.51	70.26	71.21	172.12	-5,043.70	-446.84	1,204.40	1,134.04	70.36	17.118	
16,000.00	11,625.02	17,214.03	12,818.04	71.61	72.55	172.12	-5,143.69	-445.93	1,204.40	1,133.40	71.00	16.964	
16,100.00	11,625.55	17,314.03	12,818.56	72.95	73.88	172.12	-5,243.69	-445.02	1,204.40	1,132.75	71.65	16.810	
16,200.00	11,626.07	17,414.03	12,819.09	74.30	75.22	172.12	-5,343.68	-444.11	1,204.40	1,132.10	72.30	16.658	
16,300.00	11,626.60	17,514.03	12,819.61	75.64	76.55	172.12	-5,443.68	-443.20	1,204.40	1,131.44	72.97	16.506	
16,400.00	11,627.12	17,614.03	12,820.14	76.99	77.89	172.12	-5,543.67	-442.29	1,204.40	1,130.77	73.64	16.356	
16,500.00	11,627.65	17,714.03	12,820.67	78.34	79.23	172.12	-5,643.66	-441.38	1,204.40	1,130.09	74.31	16.207	
16,600.00	11,628.17	17,814.03	12,821.19	79.68	80.57	172.12	-5,743.66	-440.47	1,204.40	1,129.41	75.00	16.059	
16,700.00	11,628.70	17,914.03	12,821.72	81.03	81.91	172.12	-5,843.65	-439.56	1,204.40	1,128.72	75.69	15.913	
16,800.00	11,629.22	18,014.03	12,822.24	82.38	83.26	172.12	-5,943.65	-438.65	1,204.41	1,128.02	76.38	15.768	
16,900.00	11,629.75	18,114.03	12,822.77	83.73	84.60	172.12	-6,043.64	-437.74	1,204.41	1,127.32	77.09	15.624	
17,000.00	11,630.27	18,214.03	12,823.30	85.08	85.94	172.12	-6,143.64	-436.83	1,204.41	1,126.61	77.79	15.482	
17,100.00	11,630.80	18,314.03	12,823.82	86.44	87.29	172.12	-6,243.63	-435.92	1,204.41	1,125.90	78.51	15.341	
17,200.00	11,631.32	18,414.03	12,824.35	87.79	88.64	172.12	-6,343.63	-435.01	1,204.41	1,125.18	79.23	15.202	
17,300.00	11,631.85	18,514.03	12,824.87	89.14	89.98	172.12	-6,443.62	-434.10	1,204.41	1,124.46	79.95	15.064	
17,400.00	11,632.37	18,614.03	12,825.40	90.49	91.33	172.12	-6,543.61	-433.19	1,204.41	1,123.73	80.68	14.928	
17,500.00	11,632.90	18,714.03	12,825.93	91.85	92.68	172.12	-6,643.61	-432.28	1,204.41	1,122.99	81.42	14.793	
17,600.00	11,633.42	18,814.03	12,826.45	93.20	94.02	172.12	-6,743.60	-431.36	1,204.41	1,122.25	82.16	14.660	
17,700.00	11,633.95	18,914.03	12,826.98	94.56	95.37	172.12	-6,843.60	-430.45	1,204.41	1,121.51	82.90	14.528	
17,800.00	11,634.47	19,014.03	12,827.50	95.91	96.72	172.12	-6,943.59	-429.54	1,204.41	1,120.76	83.65	14.398	
17,900.00	11,635.00	19,114.03	12,828.03	97.27	98.07	172.12	-7,043.59	-428.63	1,204.41	1,120.01	84.41	14.269	
18,000.00	11,635.52	19,214.03	12,828.56	98.62	99.42	172.12	-7,143.58	-427.72	1,204.41	1,119.25	85.16	14.142	
18,100.00	11,636.05	19,314.03	12,829.08	99.98	100.77	172.12	-7,243.58	-426.81	1,204.41	1,118.49	85.93	14.017	
18,200.00	11,636.57	19,414.03	12,829.61	101.34	102.13	172.12	-7,343.57	-425.90	1,204.42	1,117.72	86.70	13.893	
18,300.00	11,637.10	19,514.03	12,830.13	102.69	103.48	172.12	-7,443.57	-424.99	1,204.42	1,116.95	87.47	13.770	
18,400.00	11,637.62	19,614.03	12,830.66	104.05	104.83	172.12	-7,543.56	-424.08	1,204.42	1,116.17	88.24	13.649	
18,500.00	11,638.15	19,714.03	12,831.19	105.41	106.18	172.12	-7,643.55	-423.17	1,204.42	1,115.40	89.02	13.529	
18,600.00	11,638.67	19,814.03	12,831.71	106.76	107.54	172.12	-7,743.55	-422.26	1,204.42	1,114.61	89.81	13.411	
18,700.00	11,639.20	19,914.03	12,832.24	108.12	108.89	172.12	-7,843.54	-421.35	1,204.42	1,113.83	90.59	13.295	
18,800.00	11,639.72	20,014.03	12,832.76	109.48	110.24	172.12	-7,943.54	-420.44	1,204.42	1,113.04	91.38	13.180	
18,900.00	11,640.25	20,114.03	12,833.29	110.84	111.60	172.12	-8,043.53	-419.53	1,204.42	1,112.24	92.18	13.066	
19,000.00	11,640.77	20,214.03	12,833.82	112.20	112.95	172.12	-8,143.53	-418.62	1,204.42	1,111.45	92.98	12.954	
19,100.00	11,641.30	20,314.03	12,834.34	113.56	114.31	172.12	-8,243.52	-417.71	1,204.42	1,110.65	93.78	12.844	
19,200.00	11,641.82	20,414.03	12,834.87	114.92	115.66	172.12	-8,343.52	-416.80	1,204.42	1,109.84	94.58	12.734	
19,300.00	11,642.35	20,514.03	12,835.39	116.28	117.02	172.12	-8,443.51	-415.89	1,204.42	1,109.04	95.39	12.627	
19,400.00	11,642.87	20,614.03	12,835.92	117.64	118.38	172.12	-8,543.50	-414.98	1,204.42	1,108.23	96.20	12.520	
19,500.00	11,643.40	20,714.03	12,836.45	119.00	119.73	172.12	-8,643.50	-414.07	1,204.42	1,107.41	97.01	12.415	
19,600.00	11,643.92	20,814.03	12,836.97	120.36	121.09	172.12	-8,743.49	-413.16	1,204.43	1,106.60	97.83	12.312	
19,700.00	11,644.45	20,914.03	12,837.50	121.72	122.45	172.12	-8,843.49	-412.25	1,204.43	1,105.78	98.65	12.209	
19,800.00	11,644.97	21,014.03	12,838.02	123.08	123.80	172.12	-8,943.48	-411.34	1,204.43	1,104.96	99.47	12.108	
19,900.00	11,645.50	21,114.03	12,838.55	124.44	125.16	172.12	-9,043.48	-410.43	1,204.43	1,104.13	100.30	12.009	
20,000.00	11,646.02	21,214.03	12,839.08	125.80	126.52	172.12	-9,143.47	-409.52	1,204.43	1,103.30	101.12	11.910	
20,100.00	11,646.55	21,314.03	12,839.60	127.16	127.88	172.12	-9,243.47	-408.61	1,204.43	1,102.47	101.95	11.813	
20,200.00	11,647.07	21,414.03	12,840.13	128.52	129.24	172.12	-9,343.46	-407.70	1,204.43	1,101.64	102.79	11.718	
20,300.00	11,647.60	21,514.03	12,840.65	129.88	130.59	172.12	-9,443.45	-406.79	1,204.43	1,100.81	103.62	11.623	
20,400.00	11,648.12	21,614.03	12,841.18	131.25	131.95	172.12	-9,543.45	-405.88	1,204.43	1,099.97	104.46	11.530	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,500.00	11,648.65	21,714.03	12,841.71	132.61	133.31	172.13	-9,643.44	-404.97	1,204.43	1,099.13	105.30	11.438	
20,600.00	11,649.17	21,814.03	12,842.23	133.97	134.67	172.13	-9,743.44	-404.06	1,204.43	1,098.29	106.14	11.347	
20,700.00	11,649.70	21,914.03	12,842.76	135.33	136.03	172.13	-9,843.43	-403.15	1,204.43	1,097.45	106.99	11.258	
20,800.00	11,650.23	22,014.03	12,843.28	136.69	137.39	172.13	-9,943.43	-402.24	1,204.43	1,096.60	107.83	11.169	
20,900.00	11,650.75	22,114.03	12,843.81	138.06	138.75	172.13	-10,043.42	-401.33	1,204.43	1,095.75	108.68	11.082	
21,000.00	11,651.28	22,214.03	12,844.34	139.42	140.11	172.13	-10,143.42	-400.42	1,204.44	1,094.90	109.53	10.996	
21,100.00	11,651.80	22,314.03	12,844.86	140.78	141.47	172.13	-10,243.41	-399.51	1,204.44	1,094.05	110.39	10.911	
21,200.00	11,652.33	22,414.03	12,845.39	142.15	142.83	172.13	-10,343.41	-398.60	1,204.44	1,093.19	111.24	10.827	
21,300.00	11,652.85	22,514.03	12,845.91	143.51	144.19	172.13	-10,443.40	-397.69	1,204.44	1,092.34	112.10	10.744	
21,400.00	11,653.38	22,614.03	12,846.44	144.87	145.55	172.13	-10,543.39	-396.78	1,204.44	1,091.48	112.96	10.663	
21,500.00	11,653.90	22,714.03	12,846.97	146.24	146.91	172.13	-10,643.39	-395.87	1,204.44	1,090.62	113.82	10.582	
21,600.00	11,654.43	22,814.03	12,847.49	147.60	148.27	172.13	-10,743.38	-394.95	1,204.44	1,089.76	114.68	10.502	
21,700.00	11,654.95	22,914.03	12,848.02	148.96	149.63	172.13	-10,843.38	-394.04	1,204.44	1,088.89	115.55	10.424	
21,800.00	11,655.48	23,014.03	12,848.54	150.33	151.00	172.13	-10,943.37	-393.13	1,204.44	1,088.03	116.41	10.346	
21,900.00	11,656.00	23,114.03	12,849.07	151.69	152.36	172.13	-11,043.37	-392.22	1,204.44	1,087.16	117.28	10.270	
21,918.86	11,656.10	23,132.89	12,849.17	151.95	152.61	172.13	-11,062.23	-392.05	1,204.44	1,087.00	117.44	10.255	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
Reference										Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	0.00	0.50	0.50	169.51	-135.00	25.00	137.30				
100.00	100.00	101.00	100.00	0.98	0.99	169.51	-135.00	25.00	137.30	135.33	1.97	69.776	
200.00	200.00	201.00	200.00	1.56	1.57	169.51	-135.00	25.00	137.30	134.17	3.13	43.915	
300.00	300.00	301.00	300.00	1.98	1.98	169.51	-135.00	25.00	137.30	133.33	3.97	34.620	
400.00	399.99	400.99	399.99	2.41	2.33	-35.69	-135.00	25.00	136.23	131.52	4.71	28.923	
500.00	499.91	500.91	499.91	2.77	2.64	-36.70	-135.00	25.00	133.06	127.71	5.35	24.869	
600.00	599.69	600.69	599.69	3.10	2.91	-38.50	-135.00	25.00	127.87	121.95	5.93	21.579	
700.00	699.32	700.32	699.32	3.23	3.16	-41.04	-135.00	25.00	121.28	114.98	6.30	19.258	
800.00	798.94	799.94	798.94	3.47	3.40	-43.89	-135.00	25.00	114.83	108.07	6.77	16.969	
900.00	898.56	899.56	898.56	3.70	3.62	-47.07	-135.00	25.00	108.71	101.50	7.21	15.071	
1,000.00	998.18	999.18	998.18	3.93	3.83	-50.62	-135.00	25.00	102.96	95.32	7.64	13.479	
1,100.00	1,097.80	1,098.80	1,097.80	4.16	4.04	-54.56	-135.00	25.00	97.65	89.60	8.05	12.135	
1,200.00	1,197.42	1,198.42	1,197.42	4.38	4.23	-58.94	-135.00	25.00	92.85	84.41	8.44	11.003	
1,300.00	1,297.01	1,298.01	1,297.01	4.50	4.42	-65.13	-135.00	25.00	88.57	79.85	8.72	10.156	
1,400.00	1,396.38	1,397.38	1,396.38	4.76	4.60	-73.82	-135.00	25.00	84.63	75.53	9.10	9.300	
1,500.00	1,495.42	1,496.42	1,495.42	5.02	4.77	-84.23	-135.00	25.00	81.98	72.51	9.47	8.654	
1,549.13	1,543.94	1,544.94	1,543.94	5.14	4.85	-90.00	-135.00	25.00	81.59	71.93	9.66	8.443	CC, ES
1,600.00	1,594.07	1,595.07	1,594.07	5.27	4.94	-96.33	-135.00	25.00	82.08	72.21	9.87	8.317	
1,700.00	1,692.25	1,693.25	1,692.25	5.52	5.10	-109.24	-135.00	25.00	86.38	76.08	10.30	8.383	
1,800.00	1,790.08	1,789.11	1,788.10	5.69	5.28	-120.46	-135.48	25.92	96.32	85.61	10.71	8.993	
1,900.00	1,887.89	1,884.65	1,883.58	5.90	5.44	-128.59	-137.07	28.95	111.36	100.23	11.13	10.004	
2,000.00	1,985.71	1,979.92	1,978.67	6.11	5.60	-134.03	-139.75	34.08	129.96	118.44	11.52	11.280	
2,100.00	2,083.52	2,074.78	2,073.18	6.33	5.76	-137.44	-143.52	41.28	151.14	139.25	11.89	12.709	
2,200.00	2,181.34	2,169.14	2,166.96	6.54	5.92	-139.43	-148.34	50.49	174.35	162.09	12.25	14.227	
2,300.00	2,279.15	2,262.87	2,259.84	6.76	6.08	-140.44	-154.20	61.68	199.28	186.67	12.61	15.800	
2,400.00	2,376.96	2,355.88	2,351.66	6.99	6.24	-140.76	-161.05	74.77	225.81	212.84	12.97	17.407	
2,500.00	2,474.78	2,448.06	2,442.29	7.27	6.40	-140.62	-168.86	89.69	253.87	240.53	13.33	19.039	
2,600.00	2,572.59	2,539.33	2,531.59	7.54	6.55	-140.16	-177.60	106.37	283.45	269.75	13.70	20.690	
2,700.00	2,670.41	2,629.58	2,619.43	7.82	6.69	-139.47	-187.20	124.72	314.56	300.51	14.05	22.394	
2,800.00	2,768.22	2,723.13	2,710.12	8.11	6.79	-138.70	-197.84	145.04	346.75	332.34	14.40	24.074	
2,900.00	2,866.03	2,817.70	2,801.79	8.39	6.93	-138.04	-208.61	165.62	379.02	364.19	14.82	25.572	
3,000.00	2,963.85	2,912.26	2,893.47	8.67	7.08	-137.49	-219.39	186.20	411.32	396.08	15.25	26.976	
3,100.00	3,061.66	3,006.83	2,985.14	8.96	7.23	-137.01	-230.16	206.78	443.66	427.98	15.68	28.295	
3,200.00	3,159.48	3,101.40	3,076.81	9.24	7.45	-136.60	-240.93	227.36	476.02	459.90	16.12	29.532	
3,300.00	3,257.29	3,195.97	3,168.48	9.53	7.68	-136.25	-251.71	247.94	508.40	491.84	16.56	30.694	
3,400.00	3,355.10	3,290.54	3,260.15	9.81	7.92	-135.93	-262.48	268.52	540.79	523.78	17.01	31.785	
3,500.00	3,452.92	3,385.11	3,351.82	10.10	8.17	-135.65	-273.25	289.10	573.20	555.73	17.47	32.811	
3,600.00	3,550.73	3,479.67	3,443.49	10.39	8.42	-135.40	-284.03	309.68	605.62	587.69	17.93	33.778	
3,700.00	3,648.55	3,574.24	3,535.16	10.68	8.68	-135.18	-294.80	330.26	638.05	619.65	18.39	34.688	
3,800.00	3,746.36	3,668.81	3,626.83	10.95	8.94	-135.00	-305.57	350.84	670.48	651.63	18.85	35.568	
3,900.00	3,844.48	3,763.69	3,718.80	11.23	9.20	-135.08	-316.38	371.48	701.91	682.59	19.32	36.325	
4,000.00	3,943.06	3,859.06	3,811.25	11.48	9.47	-135.00	-327.25	392.24	731.60	711.81	19.78	36.979	
4,100.00	4,042.05	3,954.84	3,904.10	11.70	9.75	-134.80	-338.16	413.08	759.56	739.32	20.23	37.539	
4,200.00	4,141.38	4,050.99	3,997.30	11.90	10.03	-134.46	-349.11	434.01	785.81	765.14	20.67	38.018	
4,300.00	4,240.98	4,147.43	4,090.79	12.08	10.31	-134.02	-360.10	454.99	810.40	789.31	21.09	38.428	
4,400.00	4,340.77	4,244.09	4,184.49	12.22	10.60	-133.47	-371.11	476.03	833.35	811.86	21.49	38.779	
4,500.00	4,440.70	4,340.91	4,278.34	12.34	10.89	-132.81	-382.14	497.10	854.73	832.86	21.87	39.083	
4,600.00	4,540.69	4,437.83	4,372.29	12.41	11.18	78.38	-393.18	518.19	874.60	852.43	22.17	39.449	
4,700.00	4,640.69	4,534.76	4,466.25	12.44	11.48	79.36	-404.23	539.28	893.98	871.54	22.44	39.837	
4,800.00	4,740.69	4,631.70	4,560.22	12.48	11.78	80.31	-415.27	560.38	913.62	890.91	22.71	40.227	
4,900.00	4,840.69	4,728.63	4,654.19	12.52	12.07	81.21	-426.31	581.48	933.48	910.50	22.98	40.619	
5,000.00	4,940.69	4,825.57	4,748.15	12.56	12.38	82.08	-437.36	602.57	953.57	930.32	23.25	41.012	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,040.69	4,922.51	4,842.12	12.60	12.68	82.91	-448.40	623.67	973.86	950.34	23.52	41.405	
5,200.00	5,140.69	5,019.44	4,936.09	12.64	12.98	83.71	-459.44	644.76	994.35	970.56	23.79	41.798	
5,300.00	5,240.69	5,116.38	5,030.05	12.68	13.29	84.48	-470.49	665.86	1,015.01	990.96	24.06	42.190	
5,400.00	5,340.69	5,213.32	5,124.02	12.72	13.59	85.21	-481.53	686.95	1,035.85	1,011.52	24.33	42.581	
5,500.00	5,440.69	5,310.25	5,217.98	12.76	13.90	85.92	-492.57	708.05	1,056.85	1,032.25	24.60	42.969	
5,600.00	5,540.69	5,407.59	5,312.34	12.81	14.22	86.60	-503.66	729.23	1,077.99	1,053.12	24.87	43.344	
5,700.00	5,640.69	5,536.84	5,438.16	12.85	14.60	87.41	-517.38	755.42	1,097.82	1,072.54	25.28	43.423	
5,800.00	5,740.69	5,668.02	5,566.80	12.89	14.95	88.09	-529.27	778.14	1,114.85	1,089.18	25.67	43.422	
5,900.00	5,840.69	5,800.85	5,697.88	12.93	15.27	88.63	-539.21	797.14	1,128.98	1,102.94	26.04	43.356	
6,000.00	5,940.69	5,935.04	5,830.98	12.98	15.52	89.04	-547.11	812.22	1,140.12	1,113.75	26.37	43.236	
6,100.00	6,040.69	6,070.28	5,965.64	13.02	15.74	89.34	-552.87	823.23	1,148.21	1,121.54	26.67	43.057	
6,200.00	6,140.69	6,206.24	6,101.37	13.06	15.91	89.52	-556.43	830.02	1,153.18	1,126.25	26.93	42.825	
6,300.00	6,240.69	6,342.57	6,237.67	13.11	16.01	89.59	-557.74	832.54	1,155.02	1,127.91	27.11	42.603	
6,400.00	6,340.69	6,445.59	6,340.69	13.15	16.04	89.59	-557.75	832.55	1,155.03	1,127.84	27.19	42.481	
6,500.00	6,440.69	6,545.59	6,440.69	13.20	16.09	89.59	-557.75	832.55	1,155.03	1,127.75	27.28	42.335	
6,600.00	6,540.69	6,645.59	6,540.69	13.24	16.14	89.59	-557.75	832.55	1,155.03	1,127.65	27.38	42.189	
6,700.00	6,640.69	6,745.59	6,640.69	13.29	16.19	89.59	-557.75	832.55	1,155.03	1,127.56	27.47	42.044	
6,800.00	6,740.69	6,845.59	6,740.69	13.34	16.24	89.59	-557.75	832.55	1,155.03	1,127.46	27.57	41.898	
6,900.00	6,840.69	6,945.59	6,840.69	13.38	16.29	89.59	-557.75	832.55	1,155.03	1,127.37	27.66	41.752	
7,000.00	6,940.69	7,045.59	6,940.69	13.43	16.34	89.59	-557.75	832.55	1,155.03	1,127.27	27.76	41.607	
7,100.00	7,040.69	7,145.59	7,040.69	13.48	16.39	89.59	-557.75	832.55	1,155.03	1,127.17	27.86	41.461	
7,200.00	7,140.69	7,245.59	7,140.69	13.52	16.44	89.59	-557.75	832.55	1,155.03	1,127.07	27.96	41.316	
7,300.00	7,240.69	7,345.59	7,240.69	13.57	16.49	89.59	-557.75	832.55	1,155.03	1,126.98	28.05	41.171	
7,400.00	7,340.69	7,445.59	7,340.69	13.62	16.54	89.59	-557.75	832.55	1,155.03	1,126.88	28.15	41.025	
7,500.00	7,440.69	7,545.59	7,440.69	13.67	16.59	89.59	-557.75	832.55	1,155.03	1,126.78	28.25	40.881	
7,600.00	7,540.69	7,645.59	7,540.69	13.72	16.64	89.59	-557.75	832.55	1,155.03	1,126.68	28.35	40.736	
7,700.00	7,640.69	7,745.59	7,640.69	13.77	16.69	89.59	-557.75	832.55	1,155.03	1,126.57	28.46	40.591	
7,800.00	7,740.69	7,845.59	7,740.69	13.82	16.75	89.59	-557.75	832.55	1,155.03	1,126.47	28.56	40.447	
7,900.00	7,840.69	7,945.59	7,840.69	13.87	16.80	89.59	-557.75	832.55	1,155.03	1,126.37	28.66	40.303	
8,000.00	7,940.69	8,045.59	7,940.69	13.92	16.85	89.59	-557.75	832.55	1,155.03	1,126.27	28.76	40.159	
8,100.00	8,040.69	8,145.59	8,040.69	13.97	16.90	89.59	-557.75	832.55	1,155.03	1,126.17	28.86	40.015	
8,200.00	8,140.69	8,245.59	8,140.69	14.02	16.96	89.59	-557.75	832.55	1,155.03	1,126.06	28.97	39.872	
8,300.00	8,240.69	8,345.59	8,240.69	14.07	17.01	89.59	-557.75	832.55	1,155.03	1,125.96	29.07	39.728	
8,400.00	8,340.69	8,445.59	8,340.69	14.12	17.06	89.59	-557.75	832.55	1,155.03	1,125.85	29.18	39.586	
8,500.00	8,440.69	8,545.59	8,440.69	14.17	17.12	89.59	-557.75	832.55	1,155.03	1,125.75	29.28	39.443	
8,600.00	8,540.69	8,645.59	8,540.69	14.23	17.17	89.59	-557.75	832.55	1,155.03	1,125.64	29.39	39.301	
8,700.00	8,640.69	8,745.59	8,640.69	14.28	17.22	89.59	-557.75	832.55	1,155.03	1,125.53	29.50	39.159	
8,800.00	8,740.69	8,845.59	8,740.69	14.33	17.28	89.59	-557.75	832.55	1,155.03	1,125.43	29.60	39.017	
8,900.00	8,840.69	8,945.59	8,840.69	14.38	17.33	89.59	-557.75	832.55	1,155.03	1,125.32	29.71	38.876	
9,000.00	8,940.69	9,045.59	8,940.69	14.44	17.39	89.59	-557.75	832.55	1,155.03	1,125.21	29.82	38.735	
9,100.00	9,040.69	9,145.59	9,040.69	14.49	17.44	89.59	-557.75	832.55	1,155.03	1,125.10	29.93	38.595	
9,200.00	9,140.69	9,245.59	9,140.69	14.54	17.50	89.59	-557.75	832.55	1,155.03	1,124.99	30.04	38.455	
9,300.00	9,240.69	9,345.59	9,240.69	14.60	17.55	89.59	-557.75	832.55	1,155.03	1,124.88	30.15	38.315	
9,400.00	9,340.69	9,445.59	9,340.69	14.65	17.61	89.59	-557.75	832.55	1,155.03	1,124.77	30.26	38.176	
9,500.00	9,440.69	9,545.59	9,440.69	14.71	17.66	89.59	-557.75	832.55	1,155.03	1,124.66	30.37	38.037	
9,600.00	9,540.69	9,645.59	9,540.69	14.76	17.72	89.59	-557.75	832.55	1,155.03	1,124.55	30.48	37.898	
9,700.00	9,640.69	9,745.59	9,640.69	14.82	17.77	89.59	-557.75	832.55	1,155.03	1,124.44	30.59	37.760	
9,800.00	9,740.69	9,845.59	9,740.69	14.87	17.83	89.59	-557.75	832.55	1,155.03	1,124.33	30.70	37.623	
9,900.00	9,840.69	9,945.59	9,840.69	14.93	17.89	89.59	-557.75	832.55	1,155.03	1,124.22	30.81	37.485	
10,000.00	9,940.69	10,045.59	9,940.69	14.98	17.94	89.59	-557.75	832.55	1,155.03	1,124.10	30.93	37.349	
10,100.00	10,040.69	10,145.59	10,040.69	15.04	18.00	89.59	-557.75	832.55	1,155.03	1,123.99	31.04	37.212	
10,200.00	10,140.69	10,245.59	10,140.69	15.10	18.06	89.59	-557.75	832.55	1,155.03	1,123.88	31.15	37.077	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:							Offset Well Error: 0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.00	10,240.69	10,345.59	10,240.69	15.15	18.11	89.59	-557.75	832.55	1,155.03	1,123.76	31.27	36.941		
10,400.00	10,340.69	10,445.59	10,340.69	15.21	18.17	89.59	-557.75	832.55	1,155.03	1,123.65	31.38	36.806		
10,500.00	10,440.69	10,545.59	10,440.69	15.27	18.23	89.59	-557.75	832.55	1,155.03	1,123.53	31.50	36.672		
10,600.00	10,540.69	10,645.59	10,540.69	15.33	18.29	89.59	-557.75	832.55	1,155.03	1,123.42	31.61	36.538		
10,700.00	10,640.69	10,745.59	10,640.69	15.38	18.34	89.59	-557.75	832.55	1,155.03	1,123.30	31.73	36.405		
10,800.00	10,740.69	10,845.59	10,740.69	15.44	18.40	89.59	-557.75	832.55	1,155.03	1,123.19	31.84	36.272		
10,900.00	10,840.69	10,945.59	10,840.69	15.50	18.46	89.59	-557.75	832.55	1,155.03	1,123.07	31.96	36.139		
11,000.00	10,940.69	11,045.59	10,940.69	15.56	18.52	89.59	-557.75	832.55	1,155.03	1,122.95	32.08	36.007		
11,100.00	11,040.69	11,145.59	11,040.69	15.61	18.58	-89.90	-557.75	832.55	1,155.03	1,122.85	32.18	35.888		
11,140.40	11,081.03	11,185.93	11,081.03	15.66	18.60	-90.00	-557.75	832.55	1,155.03	1,122.79	32.24	35.825		
11,200.00	11,140.02	11,244.92	11,140.02	15.75	18.64	-90.40	-557.75	832.55	1,155.06	1,122.73	32.33	35.726		
11,300.00	11,236.04	11,340.94	11,236.04	15.99	18.69	-91.66	-557.75	832.55	1,155.58	1,122.97	32.61	35.438		
11,400.00	11,325.83	11,430.73	11,325.83	16.30	18.75	-93.38	-557.75	832.55	1,157.76	1,124.74	33.02	35.063		
11,500.00	11,406.66	11,511.56	11,406.66	16.71	18.79	-95.16	-557.75	832.55	1,163.26	1,129.70	33.56	34.662		
11,600.00	11,476.08	11,580.98	11,476.08	17.25	18.84	-96.53	-557.75	832.55	1,173.96	1,139.74	34.22	34.311		
11,700.00	11,531.97	11,636.87	11,531.97	17.94	18.87	-97.01	-557.75	832.55	1,191.54	1,156.59	34.95	34.090		
11,800.00	11,572.64	11,677.54	11,572.64	18.75	18.89	-96.19	-557.75	832.55	1,217.17	1,181.44	35.72	34.071		
11,900.00	11,596.86	11,701.76	11,596.86	19.67	18.91	-93.74	-557.75	832.55	1,251.12	1,214.64	36.47	34.301		
12,000.00	11,604.02	11,708.92	11,604.02	20.67	18.91	-90.15	-557.75	832.55	1,292.68	1,255.53	37.15	34.797		
12,100.00	11,604.54	11,709.44	11,604.54	21.72	18.91	-90.18	-557.75	832.55	1,340.56	1,302.82	37.74	35.517		
12,200.00	11,605.07	11,709.97	11,605.07	22.80	18.91	-90.20	-557.75	832.55	1,393.99	1,355.73	38.26	36.435		
12,300.00	11,605.59	11,710.49	11,605.59	23.92	18.91	-90.23	-557.75	832.55	1,452.34	1,413.64	38.70	37.531		
12,400.00	11,606.12	11,711.02	11,606.12	25.06	18.91	-90.26	-557.75	832.55	1,515.05	1,475.98	39.07	38.781		
12,500.00	11,606.64	11,711.54	11,606.64	26.22	18.91	-90.28	-557.75	832.55	1,581.60	1,542.23	39.38	40.166		
12,600.00	11,607.17	13,775.42	12,745.13	27.40	28.59	-134.57	-1,732.17	843.22	1,621.44	1,566.92	54.52	29.740		
12,700.00	11,607.69	13,875.42	12,745.66	28.59	29.64	-134.57	-1,832.17	844.13	1,621.44	1,565.66	55.78	29.070		
12,800.00	11,608.22	13,975.42	12,746.18	29.80	30.72	-134.57	-1,932.16	845.04	1,621.44	1,564.36	57.08	28.406		
12,900.00	11,608.74	14,075.42	12,746.71	31.03	31.82	-134.57	-2,032.16	845.95	1,621.44	1,563.02	58.43	27.752		
13,000.00	11,609.27	14,175.42	12,747.23	32.26	32.94	-134.57	-2,132.15	846.85	1,621.44	1,561.63	59.81	27.110		
13,100.00	11,609.79	14,275.42	12,747.76	33.51	34.08	-134.57	-2,232.15	847.76	1,621.44	1,560.21	61.23	26.480		
13,200.00	11,610.32	14,375.42	12,748.28	34.76	35.23	-134.57	-2,332.14	848.67	1,621.44	1,558.75	62.69	25.865		
13,300.00	11,610.84	14,475.42	12,748.81	36.03	36.40	-134.57	-2,432.14	849.58	1,621.44	1,557.27	64.18	25.265		
13,400.00	11,611.37	14,575.42	12,749.34	37.30	37.58	-134.57	-2,532.13	850.49	1,621.44	1,555.75	65.70	24.681		
13,500.00	11,611.89	14,675.42	12,749.86	38.57	38.78	-134.57	-2,632.12	851.40	1,621.44	1,554.20	67.24	24.113		
13,600.00	11,612.42	14,775.42	12,750.39	39.86	39.98	-134.57	-2,732.12	852.31	1,621.44	1,552.63	68.82	23.562		
13,700.00	11,612.94	14,875.42	12,750.91	41.14	41.20	-134.57	-2,832.11	853.21	1,621.44	1,551.03	70.41	23.027		
13,800.00	11,613.47	14,975.42	12,751.44	42.44	42.42	-134.57	-2,932.11	854.12	1,621.44	1,549.41	72.03	22.509		
13,900.00	11,613.99	15,075.42	12,751.97	43.74	43.65	-134.57	-3,032.10	855.03	1,621.45	1,547.77	73.68	22.008		
14,000.00	11,614.52	15,175.42	12,752.49	45.04	44.89	-134.57	-3,132.10	855.94	1,621.45	1,546.11	75.34	21.522		
14,100.00	11,615.04	15,275.42	12,753.02	46.34	46.14	-134.57	-3,232.09	856.85	1,621.45	1,544.43	77.02	21.053		
14,200.00	11,615.57	15,375.42	12,753.54	47.65	47.39	-134.57	-3,332.09	857.76	1,621.45	1,542.73	78.72	20.598		
14,300.00	11,616.09	15,475.42	12,754.07	48.97	48.65	-134.57	-3,432.08	858.67	1,621.45	1,541.01	80.43	20.159		
14,400.00	11,616.62	15,575.42	12,754.59	50.28	49.91	-134.57	-3,532.07	859.57	1,621.45	1,539.29	82.16	19.735		
14,500.00	11,617.14	15,675.42	12,755.12	51.60	51.18	-134.57	-3,632.07	860.48	1,621.45	1,537.54	83.91	19.325		
14,600.00	11,617.67	15,775.42	12,755.65	52.92	52.46	-134.57	-3,732.06	861.39	1,621.45	1,535.78	85.66	18.928		
14,700.00	11,618.19	15,875.42	12,756.17	54.25	53.74	-134.57	-3,832.06	862.30	1,621.45	1,534.01	87.43	18.545		
14,800.00	11,618.72	15,975.42	12,756.70	55.57	55.02	-134.57	-3,932.05	863.21	1,621.45	1,532.23	89.22	18.174		
14,900.00	11,619.24	16,075.42	12,757.22	56.90	56.31	-134.57	-4,032.05	864.12	1,621.45	1,530.44	91.01	17.816		
15,000.00	11,619.77	16,175.42	12,757.75	58.23	57.60	-134.57	-4,132.04	865.03	1,621.45	1,528.63	92.82	17.469		
15,100.00	11,620.29	16,275.42	12,758.28	59.56	58.89	-134.57	-4,232.04	865.93	1,621.45	1,526.82	94.63	17.134		
15,200.00	11,620.82	16,375.42	12,758.80	60.89	60.19	-134.57	-4,332.03	866.84	1,621.45	1,524.99	96.46	16.810		
15,300.00	11,621.34	16,475.42	12,759.33	62.23	61.49	-134.57	-4,432.03	867.75	1,621.45	1,523.16	98.29	16.497		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,400.00	11,621.87	16,575.42	12,759.85	63.56	62.80	-134.57	-4,532.02	868.66	1,621.45	1,521.32	100.13	16.193	
15,500.00	11,622.40	16,675.42	12,760.38	64.90	64.10	-134.57	-4,632.01	869.57	1,621.45	1,519.47	101.98	15.900	
15,600.00	11,622.92	16,775.42	12,760.91	66.24	65.41	-134.57	-4,732.01	870.48	1,621.45	1,517.61	103.84	15.615	
15,700.00	11,623.45	16,875.42	12,761.43	67.58	66.72	-134.57	-4,832.00	871.39	1,621.45	1,515.75	105.70	15.340	
15,800.00	11,623.97	16,975.42	12,761.96	68.92	68.04	-134.58	-4,932.00	872.29	1,621.45	1,513.88	107.57	15.073	
15,900.00	11,624.50	17,075.42	12,762.48	70.26	69.35	-134.58	-5,031.99	873.20	1,621.45	1,512.00	109.45	14.814	
16,000.00	11,625.02	17,175.42	12,763.01	71.61	70.67	-134.58	-5,131.99	874.11	1,621.45	1,510.12	111.34	14.564	
16,100.00	11,625.55	17,275.42	12,763.53	72.95	71.99	-134.58	-5,231.98	875.02	1,621.45	1,508.23	113.23	14.321	
16,200.00	11,626.07	17,375.42	12,764.06	74.30	73.31	-134.58	-5,331.98	875.93	1,621.45	1,506.33	115.12	14.085	
16,300.00	11,626.60	17,475.42	12,764.59	75.64	74.63	-134.58	-5,431.97	876.84	1,621.45	1,504.43	117.02	13.856	
16,400.00	11,627.12	17,575.42	12,765.11	76.99	75.96	-134.58	-5,531.96	877.75	1,621.45	1,502.53	118.93	13.634	
16,500.00	11,627.65	17,675.42	12,765.64	78.34	77.28	-134.58	-5,631.96	878.65	1,621.45	1,500.62	120.84	13.419	
16,600.00	11,628.17	17,775.42	12,766.16	79.68	78.61	-134.58	-5,731.95	879.56	1,621.45	1,498.70	122.75	13.209	
16,700.00	11,628.70	17,875.42	12,766.69	81.03	79.94	-134.58	-5,831.95	880.47	1,621.45	1,496.78	124.67	13.006	
16,800.00	11,629.22	17,975.42	12,767.22	82.38	81.27	-134.58	-5,931.94	881.38	1,621.45	1,494.86	126.59	12.808	
16,900.00	11,629.75	18,075.42	12,767.74	83.73	82.60	-134.58	-6,031.94	882.29	1,621.45	1,492.93	128.52	12.616	
17,000.00	11,630.27	18,175.42	12,768.27	85.08	83.94	-134.58	-6,131.93	883.20	1,621.45	1,491.00	130.45	12.429	
17,100.00	11,630.80	18,275.42	12,768.79	86.44	85.27	-134.58	-6,231.93	884.11	1,621.45	1,489.07	132.39	12.248	
17,200.00	11,631.32	18,375.42	12,769.32	87.79	86.60	-134.58	-6,331.92	885.01	1,621.45	1,487.13	134.33	12.071	
17,300.00	11,631.85	18,475.42	12,769.85	89.14	87.94	-134.58	-6,431.91	885.92	1,621.45	1,485.19	136.27	11.899	
17,400.00	11,632.37	18,575.42	12,770.37	90.49	89.28	-134.58	-6,531.91	886.83	1,621.45	1,483.24	138.21	11.732	
17,500.00	11,632.90	18,675.42	12,770.90	91.85	90.62	-134.58	-6,631.90	887.74	1,621.46	1,481.29	140.16	11.568	
17,600.00	11,633.42	18,775.42	12,771.42	93.20	91.95	-134.58	-6,731.90	888.65	1,621.46	1,479.34	142.11	11.410	
17,700.00	11,633.95	18,875.42	12,771.95	94.56	93.29	-134.58	-6,831.89	889.56	1,621.46	1,477.39	144.07	11.255	
17,800.00	11,634.47	18,975.42	12,772.47	95.91	94.64	-134.58	-6,931.89	890.47	1,621.46	1,475.43	146.02	11.104	
17,900.00	11,635.00	19,075.42	12,773.00	97.27	95.98	-134.58	-7,031.88	891.37	1,621.46	1,473.48	147.98	10.957	
18,000.00	11,635.52	19,175.42	12,773.53	98.62	97.32	-134.58	-7,131.88	892.28	1,621.46	1,471.51	149.94	10.814	
18,100.00	11,636.05	19,275.42	12,774.05	99.98	98.66	-134.58	-7,231.87	893.19	1,621.46	1,469.55	151.91	10.674	
18,200.00	11,636.57	19,375.42	12,774.58	101.34	100.01	-134.58	-7,331.87	894.10	1,621.46	1,467.59	153.87	10.538	
18,300.00	11,637.10	19,475.42	12,775.10	102.69	101.35	-134.58	-7,431.86	895.01	1,621.46	1,465.62	155.84	10.405	
18,400.00	11,637.62	19,575.42	12,775.63	104.05	102.69	-134.58	-7,531.85	895.92	1,621.46	1,463.65	157.81	10.275	
18,500.00	11,638.15	19,675.42	12,776.16	105.41	104.04	-134.58	-7,631.85	896.82	1,621.46	1,461.67	159.78	10.148	
18,600.00	11,638.67	19,775.42	12,776.68	106.76	105.39	-134.58	-7,731.84	897.73	1,621.46	1,459.70	161.76	10.024	
18,700.00	11,639.20	19,875.42	12,777.21	108.12	106.73	-134.58	-7,831.84	898.64	1,621.46	1,457.72	163.73	9.903	
18,800.00	11,639.72	19,975.42	12,777.73	109.48	108.08	-134.58	-7,931.83	899.55	1,621.46	1,455.75	165.71	9.785	
18,900.00	11,640.25	20,075.42	12,778.26	110.84	109.43	-134.58	-8,031.83	900.46	1,621.46	1,453.77	167.69	9.669	
19,000.00	11,640.77	20,175.42	12,778.79	112.20	110.78	-134.58	-8,131.82	901.37	1,621.46	1,451.79	169.67	9.556	
19,100.00	11,641.30	20,275.42	12,779.31	113.56	112.13	-134.58	-8,231.82	902.28	1,621.46	1,449.80	171.66	9.446	
19,200.00	11,641.82	20,375.42	12,779.84	114.92	113.48	-134.58	-8,331.81	903.18	1,621.46	1,447.82	173.64	9.338	
19,300.00	11,642.35	20,475.42	12,780.36	116.28	114.83	-134.58	-8,431.80	904.09	1,621.46	1,445.83	175.63	9.232	
19,400.00	11,642.87	20,575.42	12,780.89	117.64	116.18	-134.58	-8,531.80	905.00	1,621.46	1,443.84	177.62	9.129	
19,500.00	11,643.40	20,675.42	12,781.41	119.00	117.53	-134.58	-8,631.79	905.91	1,621.46	1,441.86	179.61	9.028	
19,600.00	11,643.92	20,775.42	12,781.94	120.36	118.88	-134.58	-8,731.79	906.82	1,621.46	1,439.87	181.60	8.929	
19,700.00	11,644.45	20,875.42	12,782.47	121.72	120.23	-134.58	-8,831.78	907.73	1,621.46	1,437.87	183.59	8.832	
19,800.00	11,644.97	20,975.42	12,782.99	123.08	121.58	-134.58	-8,931.78	908.64	1,621.46	1,435.88	185.58	8.737	
19,900.00	11,645.50	21,075.42	12,783.52	124.44	122.93	-134.58	-9,031.77	909.54	1,621.46	1,433.89	187.58	8.644	
20,000.00	11,646.02	21,175.42	12,784.04	125.80	124.29	-134.58	-9,131.77	910.45	1,621.46	1,431.89	189.57	8.553	
20,100.00	11,646.55	21,275.42	12,784.57	127.16	125.64	-134.58	-9,231.76	911.36	1,621.46	1,429.89	191.57	8.464	
20,200.00	11,647.07	21,375.42	12,785.10	128.52	126.99	-134.58	-9,331.76	912.27	1,621.46	1,427.90	193.57	8.377	
20,300.00	11,647.60	21,475.42	12,785.62	129.88	128.35	-134.58	-9,431.75	913.18	1,621.46	1,425.90	195.57	8.291	
20,400.00	11,648.12	21,575.42	12,786.15	131.25	129.70	-134.58	-9,531.74	914.09	1,621.46	1,423.90	197.57	8.207	
20,500.00	11,648.65	21,675.42	12,786.67	132.61	131.06	-134.58	-9,631.74	915.00	1,621.46	1,421.90	199.57	8.125	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 224H - OH - Plan #2

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Reference	Offset	Reference	Offset	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,600.00	11,649.17	21,775.42	12,787.20	133.97	132.41	-134.58	-9,731.73	915.90	1,621.46	1,419.89	201.57	8.044	
20,700.00	11,649.70	21,875.42	12,787.72	135.33	133.77	-134.58	-9,831.73	916.81	1,621.46	1,417.89	203.57	7.965	
20,800.00	11,650.23	21,975.42	12,788.25	136.69	135.12	-134.58	-9,931.72	917.72	1,621.46	1,415.89	205.58	7.887	
20,900.00	11,650.75	22,075.42	12,788.78	138.06	136.48	-134.58	-10,031.72	918.63	1,621.46	1,413.88	207.58	7.811	
21,000.00	11,651.28	22,175.42	12,789.30	139.42	137.83	-134.58	-10,131.71	919.54	1,621.46	1,411.88	209.59	7.736	
21,100.00	11,651.80	22,275.42	12,789.83	140.78	139.19	-134.58	-10,231.71	920.45	1,621.47	1,409.87	211.60	7.663	
21,200.00	11,652.33	22,375.42	12,790.35	142.15	140.54	-134.58	-10,331.70	921.36	1,621.47	1,407.86	213.60	7.591	
21,300.00	11,652.85	22,475.42	12,790.88	143.51	141.90	-134.58	-10,431.69	922.26	1,621.47	1,405.85	215.61	7.520	
21,400.00	11,653.38	22,575.42	12,791.41	144.87	143.26	-134.58	-10,531.69	923.17	1,621.47	1,403.84	217.62	7.451	
21,500.00	11,653.90	22,675.42	12,791.93	146.24	144.62	-134.58	-10,631.68	924.08	1,621.47	1,401.83	219.63	7.383	
21,600.00	11,654.43	22,775.42	12,792.46	147.60	145.97	-134.58	-10,731.68	924.99	1,621.47	1,399.82	221.64	7.316	
21,700.00	11,654.95	22,875.42	12,792.98	148.96	147.33	-134.58	-10,831.67	925.90	1,621.47	1,397.81	223.65	7.250	
21,800.00	11,655.48	22,975.42	12,793.51	150.33	148.69	-134.58	-10,931.67	926.81	1,621.47	1,395.80	225.67	7.185	
21,900.00	11,656.00	23,075.42	12,794.04	151.69	150.05	-134.58	-11,031.66	927.72	1,621.47	1,393.79	227.68	7.122	
21,918.86	11,656.10	23,094.29	12,794.13	151.95	150.30	-134.58	-11,050.52	927.89	1,621.47	1,393.41	228.06	7.110	SF

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3221' + KB 26' @ 3247.00usft (KB 2

Coordinates are relative to: Junior Mint Fed 156H

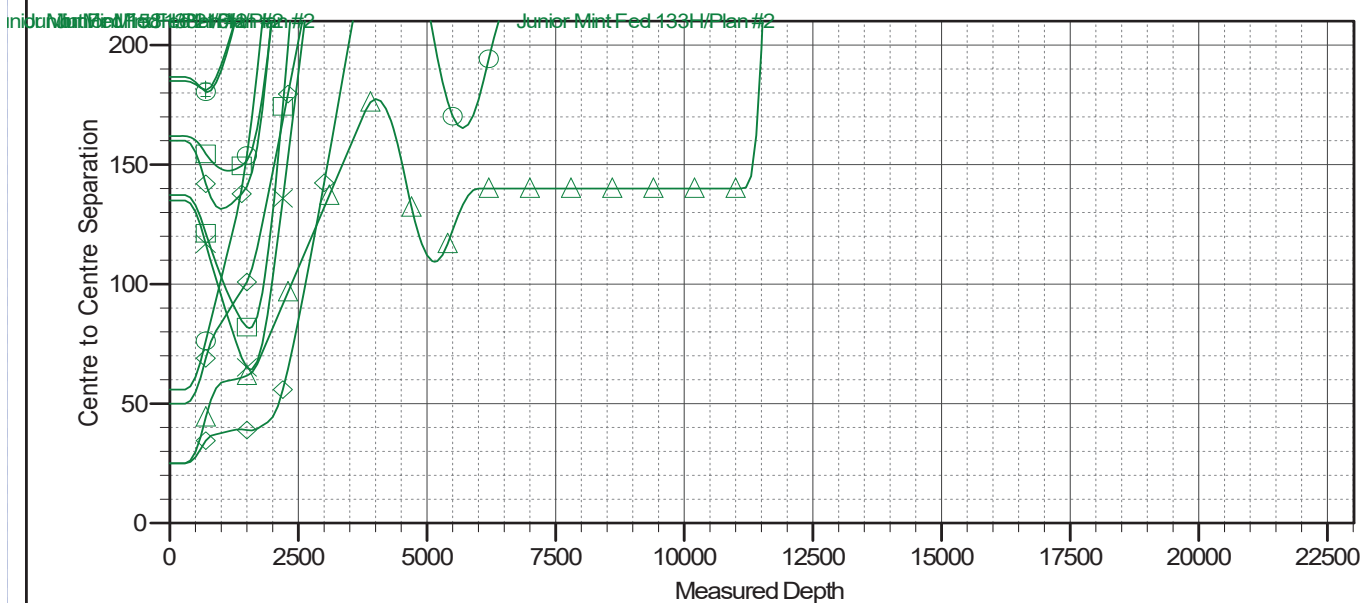
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.3333333

Grid Convergence at Surface is: 0.52°

Ladder Plot



LEGEND

Junior Mint Fed 217H, OH, Plan#1 V0	Junior Mint Fed 224H, OH, Plan#2 V0	Junior Mint Fed 135H, OH, Plan 1V0
Junior Mint Fed 131H, OH, Plan 1 V0	Junior Mint Fed 223H, OH, Plan#2 V0	Junior Mint Fed 213H, OH, Plan#2 V0
Junior Mint Fed 138H, OH, Plan#2 V0	Junior Mint Fed 214H, OH, Plan#2 V0	Junior Mint Fed 221H, OH, Plan 1V0
Junior Mint Fed 152H, OH, Plan#3 V0	Junior Mint Fed 216H, OH, Plan#2 V0	Junior Mint Fed 212H, OH, Plan#1 V0
Junior Mint Fed 158H, OH, Plan#2 V0	Junior Mint Fed 218H, OH, Plan#2 V0	Junior Mint Fed 215H, OH, Plan 1V0
Junior Mint Fed 133H, OH, Plan#2 V0	Junior Mint Fed 132H, OH, Plan 2V0	Junior Mint Fed 222H, OH, Plan#1 V0
Junior Mint Fed 137H, OH, Plan 2V0	Junior Mint Fed 134H, OH, Plan#2 V0	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 156H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3221' + KB 26' @ 3247.00usft (KB 26')
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 156H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3221' + KB 26' @ 3247.00usft (KB 26')

Offset Depths are relative to Offset Datum

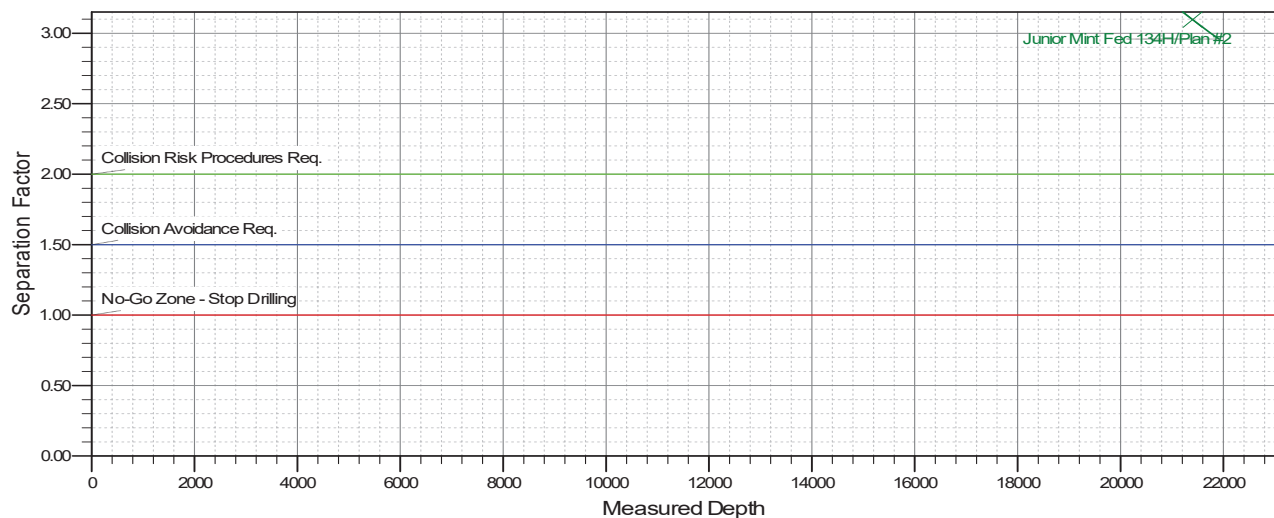
Central Meridian is -104.333333

Coordinates are relative to: Junior Mint Fed 156H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.52°

Separation Factor Plot



LEGEND

Junior Mint Fed 217H, OH, Plan#1 V0	Junior Mint Fed 224H, OH, Plan#2 V0	Junior Mint Fed 135H, OH, Plan 1 V0
Junior Mint Fed 131H, OH, Plan 1 V0	Junior Mint Fed 223H, OH, Plan#2 V0	Junior Mint Fed 213H, OH, Plan#2 V0
Junior Mint Fed 138H, OH, Plan#2 V0	Junior Mint Fed 214H, OH, Plan#2 V0	Junior Mint Fed 221H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan#3 V0	Junior Mint Fed 216H, OH, Plan#2 V0	Junior Mint Fed 212H, OH, Plan#1 V0
Junior Mint Fed 158H, OH, Plan#2 V0	Junior Mint Fed 218H, OH, Plan#2 V0	Junior Mint Fed 215H, OH, Plan 1 V0
Junior Mint Fed 133H, OH, Plan#2 V0	Junior Mint Fed 132H, OH, Plan 2 V0	Junior Mint Fed 222H, OH, Plan#1 V0
Junior Mint Fed 137H, OH, Plan 2 V0	Junior Mint Fed 134H, OH, Plan#2 V0	

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-	Pool Code 98185	Pool Name WC-025 G-09 S253502B; LWR BONE SPRING
Property Code	Property Name JUNIOR MINT FED	Well Number 156H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3222'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	10	25-S	35-E	-	350' S	1663' E	N 32.1385848	W 103.3522363	LEA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	22	25-S	35-E	-	5' S	1815' E	N 32.1086207	W 103.3527260	LEA

Dedicated Acres 1280.00	Infill or Defining Well Infill	Defining Well API 30-025-54739 (131H)	Overlapping Spacing Unit (Y/N) N	Consolidated Code N/A
Order Numbers NSP			Well Setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
B	15	25-S	35-E	-	100' N	1815' E	N 32.1373505	W 103.3527229	LEA

First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
B	15	25-S	35-E	-	100' N	1815' E	N 32.1373505	W 103.3527229	LEA

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	22	25-S	35-E	-	100' S	1815' E	N 32.1088819	W 103.3527259	LEA

Unitized Area or Area of Uniform Interest Y	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3222'
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OPERATOR CERTIFICATION

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

If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Cory Walk
 Signature Date **9-16-25**

Print Name
cory@permitswest.com
 E-mail Address

SURVEYORS 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.



4/21/2025 9:43:11 AM

Signature and Seal of Professional Surveyor Date

Certificate Number Date of Survey
06/07/2022

C-102

Submit Electronically
Via OCD PermittingState of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024

Submittal
Type:

- ☒ Initial Submittal
- ☐ Amended Report
- ☐ As Drilled

Property Name and Well Number

JUNIOR MINT FED 156H

SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=845014
Y=415536
LAT.: N 32.1385848
LONG.: W 103.3522363
449' FSL 1663' FEL

KICK OFF POINT (KOP) /
FIRST TAKE POINT (FTP)

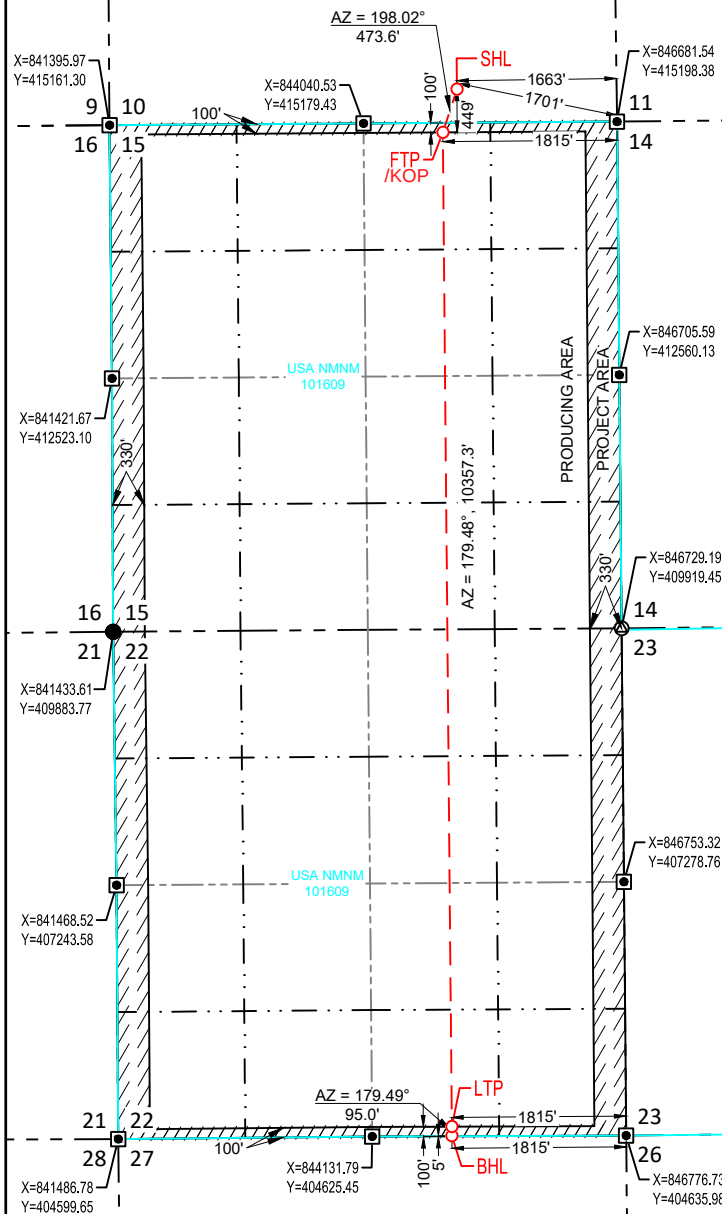
NEW MEXICO EAST
NAD 1983
X=844867
Y=415086
LAT.: N 32.1373505
LONG.: W 103.3527229
100' FNL 1815' FEL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
NAD 1983
X=844961
Y=404729
LAT.: N 32.1088819
LONG.: W 103.3527259
100' FSL 1815' FEL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
NAD 1983
X=844962
Y=404634
LAT.: N 32.1086207
LONG.: W 103.3527260
5' FSL 1815' FEL



SURVEYORS 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.

06/07/2022

Date of Survey

Signature and Seal of Professional Surveyor:



State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: CIVITAS PERMIAN OPERATING, LLC **OGRID:** 332195 **Date:** 04/17/2025

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
<u>SEE ATTACHED</u>						

IV. Central Delivery Point Name: JUNIOR MINT CTB [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
<u>SEE ATTACHED</u>						

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

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

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

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

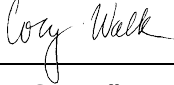
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

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

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

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

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

Signature: 
Printed Name: Cory Walk
Title: Consultant
E-mail Address: cory@permitswest.com
Date: 04/17/2025
Phone: (505) 466-8120
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

III. Well(s): Junior Mint E2 Pad

Well Name	API	ULSTR	Footages	Anticipated Oil (BBL/D)	Anticipated Gas (MCF/D)	Anticipated Produced Water (BBL/D)
Junior Mint Fed 113H	TBD	O-10-25S-35E	373' FSL/1477' FEL	620	800	960
Junior Mint Fed 117H	TBD	O-10-25S-35E	349' FSL/1558' FEL	620	800	960
Junior Mint Fed 118H	TBD	O-10-25S-35E	348' FSL/1452' FEL	620	800	960
Junior Mint Fed 123H	TBD	O-10-25S-35E	374' FSL/1558' FEL	620	800	960
Junior Mint Fed 124H	TBD	O-10-25S-35E	373' FSL/1453' FEL	620	800	960
Junior Mint Fed 133H	TBD	O-10-25S-35E	525' FSL/1740' FEL	620	800	960
Junior Mint Fed 134H	TBD	O-10-25S-35E	525' FSL/1715' FEL	620	800	960
Junior Mint Fed 138H	TBD	O-10-25S-35E	524' FSL/1635' FEL	620	800	960
Junior Mint Fed 156H	TBD	O-10-25S-35E	350' FSL/1663' FEL	620	800	960
Junior Mint Fed 158H	TBD	O-10-25S-35E	350' FSL/1638' FEL	620	800	960
Junior Mint Fed 213H	TBD	O-10-25S-35E	550' FSL/1740' FEL	620	800	960
Junior Mint Fed 214H	TBD	O-10-25S-35E	549' FSL/1635' FEL	620	800	960
Junior Mint Fed 216H	TBD	O-10-25S-35E	550' FSL/1715' FEL	620	800	960
Junior Mint Fed 218H	TBD	O-10-25S-35E	549' FSL/1610' FEL	620	800	960
Junior Mint Fed 223H	TBD	O-10-25S-35E	375' FSL/1663' FEL	620	800	960
Junior Mint Fed 224H	TBD	O-10-25S-35E	375' FSL/1637' FEL	620	800	960

V. Anticipated Schedule: Junior Mint E2 Pad

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Junior Mint Fed 113H	TBD	9/12/2026	12/11/2026	3/11/2027	3/31/2027	4/20/2027
Junior Mint Fed 117H	TBD	9/10/2026	12/9/2026	3/9/2027	3/29/2027	4/18/2027
Junior Mint Fed 118H	TBD	9/13/2026	12/12/2026	3/12/2027	4/1/2027	4/21/2027
Junior Mint Fed 123H	TBD	9/14/2026	12/13/2026	3/13/2027	4/2/2027	4/22/2027
Junior Mint Fed 124H	TBD	9/15/2026	12/14/2026	3/14/2027	4/3/2027	4/23/2027
Junior Mint Fed 133H	TBD	3/28/2026	6/26/2026	9/24/2026	10/14/2026	11/3/2026
Junior Mint Fed 134H	TBD	2/22/2026	5/23/2026	8/21/2026	9/10/2026	9/30/2026
Junior Mint Fed 138H	TBD	2/23/2026	5/24/2026	8/22/2026	9/11/2026	10/1/2026
Junior Mint Fed 156H	TBD	3/27/2026	6/25/2026	9/23/2026	10/13/2026	11/2/2026
Junior Mint Fed 158H	TBD	2/12/2026	5/13/2026	8/11/2026	8/31/2026	9/20/2026
Junior Mint Fed 213H	TBD	4/1/2026	6/30/2026	9/28/2026	10/18/2026	11/7/2026
Junior Mint Fed 214H	TBD	2/25/2026	5/26/2026	8/24/2026	9/13/2026	10/3/2026
Junior Mint Fed 216H	TBD	3/29/2026	6/27/2026	9/25/2026	10/15/2026	11/4/2026
Junior Mint Fed 218H	TBD	2/26/2026	5/27/2026	8/25/2026	9/14/2026	10/4/2026
Junior Mint Fed 223H	TBD	3/30/2026	6/28/2026	9/26/2026	10/16/2026	11/5/2026
Junior Mint Fed 224H	TBD	2/27/2026	5/28/2026	8/26/2026	9/15/2026	10/5/2026



Civitas Permian Operating Natural Gas Management Plan

VI. Separation Equipment:

Each surface facility design includes the following process equipment: Multiphase test measurement per upstream pad, 3-phase separators, a sales gas scrubber, heater treaters, a VRU compressor, multiple water and oil tanks, as well as flare knockouts (HP & LP), and flares (HP & LP - combined). All process vessels will be sized to separate oil, water, gas based upon typical/historical & predicted well performance. Each process vessel will be fitted with an appropriately sized PSV as per ASME code requirements to mitigate vessel rupture and loss of containment. Additionally, the process vessels will be fitted with pressure transmitters tied to the facility control system which will allow operations to monitor pressures and when necessary, shut in the facility to avoid vessel over-pressure and the potential vent of natural gas. Natural gas will preferentially be sold to pipeline, and only during upset/emergency conditions will gas be directed to the flare system. Aboveground steel oil tanks & water tanks will be fitted with 32 oz thief hatches as well as PRVs to protect the tanks from rupture/collapse. Additionally, the tank vapor outlets will preferentially be directed to the VRU and the sales gas pipeline. Only during process upsets/emergency conditions will tank vapors be directed to the LP flare system.

VII. Operational Practices:

- During drilling operations, gas meters will be installed at the shakers and Volume Totalizers will be installed on the pits. In the event that elevated gas levels, or a pit gain are observed, returns will be diverted to a gas buster. Gas coming off the gas buster will be combusted at the flare stack. A 10' or taller flare will be located at least 100' from the SHL.
- During completions operations, including stimulation and frac plug drill out operations, hydrocarbon production to surface is minimized. When gas production does occur, gas will be combusted at a flare stack. A 10' or taller flare will be located at least 100' from the SHL.
- During production operations, all process vessels (separators, heater treaters, tanks) will recompress (where necessary) and route gas outlets into the natural gas gathering pipeline. Gas will preferentially be routed to natural gas gathering pipeline and the flare system will be used only during emergencies, malfunction, or if the gas does not meet pipeline specifications. In the event of flaring off-specification gas, operations will pull gas samples twice a week and will also route gas back to pipeline as soon as the gas meets specification. Exceptions to this will include only those qualified emergencies as mentioned in the BLM Waste Prevention Rule.



- To comply with state performance standards, separation and storage equipment will be designed to handle the maximum anticipated throughput and pressure to minimize waste and reduce the likelihood of venting gas to atmosphere. Additionally, each storage tank (Oil & Water) will be fitted with a level transmitter to facilitate gauging of the tank without opening of the thief hatch. Any gas collected through the tank vent system is expected to be recompressed and routed to sales. However, in the event of an emergency, the tank vapor system will be designed to combust the gas using a flare stack fitted with a continuous or automatic ignitor. The flare stack will be properly anchored and will be located a minimum of 100 feet from the well and storage tanks. Operators will conduct weekly AVO inspections. These AVO inspection records will be stored for the required 5-year period and will be made available upon Division request.

VIII. Best Management Practices:

When performing routine or preventive maintenance on a vessel or tank, initially all inlet valves are closed, and the vessel or tank is allowed to depressurize through the normal outlet connections to gas sales and/or liquid tanks. Once the vessel or tank is depressurized to lowest acceptable sales outlet pressure, usually around 20 psig, a temporary low-pressure flowline is connected from the vessel or tank to the Vapor Recovery Unit (VRU) for further pressure reduction. Once depressurized to less than 1-2 psig, the remaining natural gas in the vessel or tank is vented to atmosphere through a controlled pressure relief valve. Once the vessel or tank is depressurized to atmospheric pressure, the vessel or tank can be safely opened, and maintenance performed.



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

Drilling Plan Data Report

04/11/2025

APD ID: 10400086507

Submission Date: 07/06/2022

Highlighted data
reflects the most
recent changes

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 156H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
9894172	QUATERNARY	3222	0	0	OTHER : Caliche	NONE	N
9894173	RUSTLER	2562	660	660	SALT	OTHER : Salt	N
9894174	TOP SALT	2122	1100	1100	SALT	OTHER : Salt	N
9894175	BASE OF SALT	-1698	4920	4945	SALT	OTHER : Salt	N
9894176	DELAWARE	-1938	5160	5185	OTHER, SANDSTONE : Mountain Group	NONE	N
9894177	LAMAR	-1943	5165	5190	SANDSTONE	NATURAL GAS, OIL	N
9894178	BELL CANYON	-1963	5185	5210	SANDSTONE	NATURAL GAS, OIL	N
9894179	RAMSEY SAND	-1983	5205	5230	SANDSTONE	NATURAL GAS, OIL	N
9894180	CHERRY CANYON	-2928	6150	6175	OTHER : Carbonate	NATURAL GAS, OIL	N
9894181	BRUSHY CANYON	-4398	7620	7645	SANDSTONE	NATURAL GAS, OIL	N
9894182	BONE SPRING LIME	-5708	8930	8955	OTHER : Carbonate	NATURAL GAS, OIL	N
9894183	UPPER AVALON SHALE	-5733	8955	8980	OTHER : Carbonate	NATURAL GAS, OIL	N
9894184	AVALON SAND	-5963	9185	9210	OTHER : Middle Carbonate	NATURAL GAS, OIL	N
9894185	BONE SPRING 1ST	-6943	10165	10190	SANDSTONE	NATURAL GAS, OIL	N
9894186	BONE SPRING 2ND	-7108	10330	10355	OTHER : Carbonate	NATURAL GAS, OIL	N
9894187	BONE SPRING 2ND	-7493	10715	10740	SANDSTONE	NATURAL GAS, OIL	N
9894188	BONE SPRING 3RD	-8043	11265	11297	OTHER : Carbonate	NATURAL GAS, OIL	Y

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 156H**Section 2 - Blowout Prevention****Pressure Rating (PSI):** 5M**Rating Depth:** 15000

Equipment: At 21,886', a 5M pressure control system is required. The BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

Requesting Variance? YES

Variance request: Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after cementing a casing string, a 5M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. T

Testing Procedure: After surface casing is set and the BOP is nipped up, the BOP pressure tests will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 250 psi low, 2500 psi high. The BOP will be tested in this manner after nipple-up if any break of the stack occurs.

Choke Diagram Attachment:

Choke_Diagram_032918_20220703104540.pdf

BOP Diagram Attachment:

10M_BOP_Stack_5M_Annular_Preventer_20220703104549.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	685	0	685	3222	2537	685	J-55	54.5	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5240	0	5215	3221	-1993	5240	J-55	40	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
3	PRODUCTION	8.75	5.5	NEW	NON API	N	0	11056	0	11031	3221	-7809	11056	P-110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6
4	PRODUCTION	7.875	5.5	NEW	NON API	N	11056	21886	11031	11656	-7809	-8434	10830	P-110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 156H

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220703104617.pdf

Casing ID: 2StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220703104648.pdf

Casing ID: 3StringPRODUCTION

Inspection Document:

Spec Document:

5.5in_TXP_Casing_Spec_20220703104717.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220703104726.pdf

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 156H

Casing Attachments

Casing ID: 4 String PRODUCTION

Inspection Document:

Spec Document:

5.5in_TXP_Casing_Spec_20220703104751.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220703104800.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	385	294	1.82	13.5	535	100	Class C	5% NCI + LCM
SURFACE	Tail		385	685	311	1.34	14.8	417	100	Class C	5% NCI + LCM
INTERMEDIATE	Lead		0	4240	650	3.21	11	2086	65	Class C	Bentonite + 1% CaCL2 + 8% NaCL+ LCM
INTERMEDIATE	Tail		4240	5240	306	1.33	14.8	407	30	Class C	5% NaCL + LCM
PRODUCTION	Lead		5040	1105 6	440	4.13	10.5	1816	20	Class H	Fluid Loss + Dispersant + Retarder + LCM
PRODUCTION	Tail		1105 6	2188 6	2265	1.53	13.2	3466	20	Class H	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 156H**Section 5 - Circulating Medium****Mud System Type:** Closed**Will an air or gas system be Used?** NO**Description of the equipment for the circulating system in accordance with 43 CFR 3172:****Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:****Describe what will be on location to control well or mitigate other conditions:** All necessary mud products (i.e., barite, pac) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions.**Describe the mud monitoring system utilized:** Electronic Pason mud monitor system complying with Onshore Order 1 will be used.**Circulating Medium Table**

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	685	OTHER : Fresh Water Spud Mud	8.4	8.4							
685	5240	OTHER : Brine Water	10	10							
5240	2188 6	OTHER : Cut Brine	9	9							

Section 6 - Test, Logging, Coring**List of production tests including testing procedures, equipment and safety measures:**

Electric Logging Program: No open-hole logs are planned at this time for the pilot hole. GR will be collected while drilling through the MWD tools from KOP to TD. A 2-person mud logging program will be used from KOP to TD. CBL w/ CCL from as far as gravity will let it fall to TOC.

List of open and cased hole logs run in the well:

CEMENT BOND LOG,GAMMA RAY LOG,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No DSTs or cores are planned at this time.

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 156H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5455**Anticipated Surface Pressure:** 2890**Anticipated Bottom Hole Temperature(F):** 190**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards description:****Contingency Plans geohazards****Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations**

JM_E2_H2S_Plan_v2_RDC_20221112073728.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

JM_156H_Horizontal_Plan_20220703105012.pdf

Other proposed operations facets description:**Other proposed operations facets attachment:**

CoFlex_Certs_20220703105058.pdf

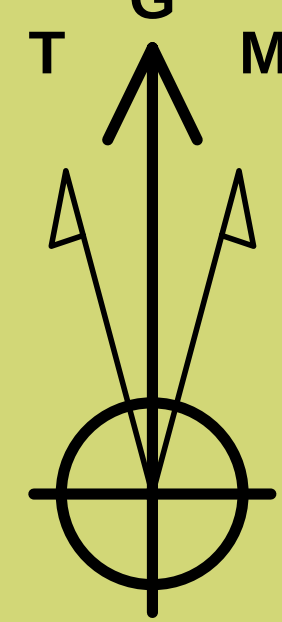
JM_156H_Anticollision_Report_20220703105108.pdf

Wellhead_3T_101619_20220703105116.pdf

Well_Control_Plan_10M_BOP_5M_Annular_20220703105117.pdf

JM_156H_Drill_Plan_v2_20221112073751.pdf

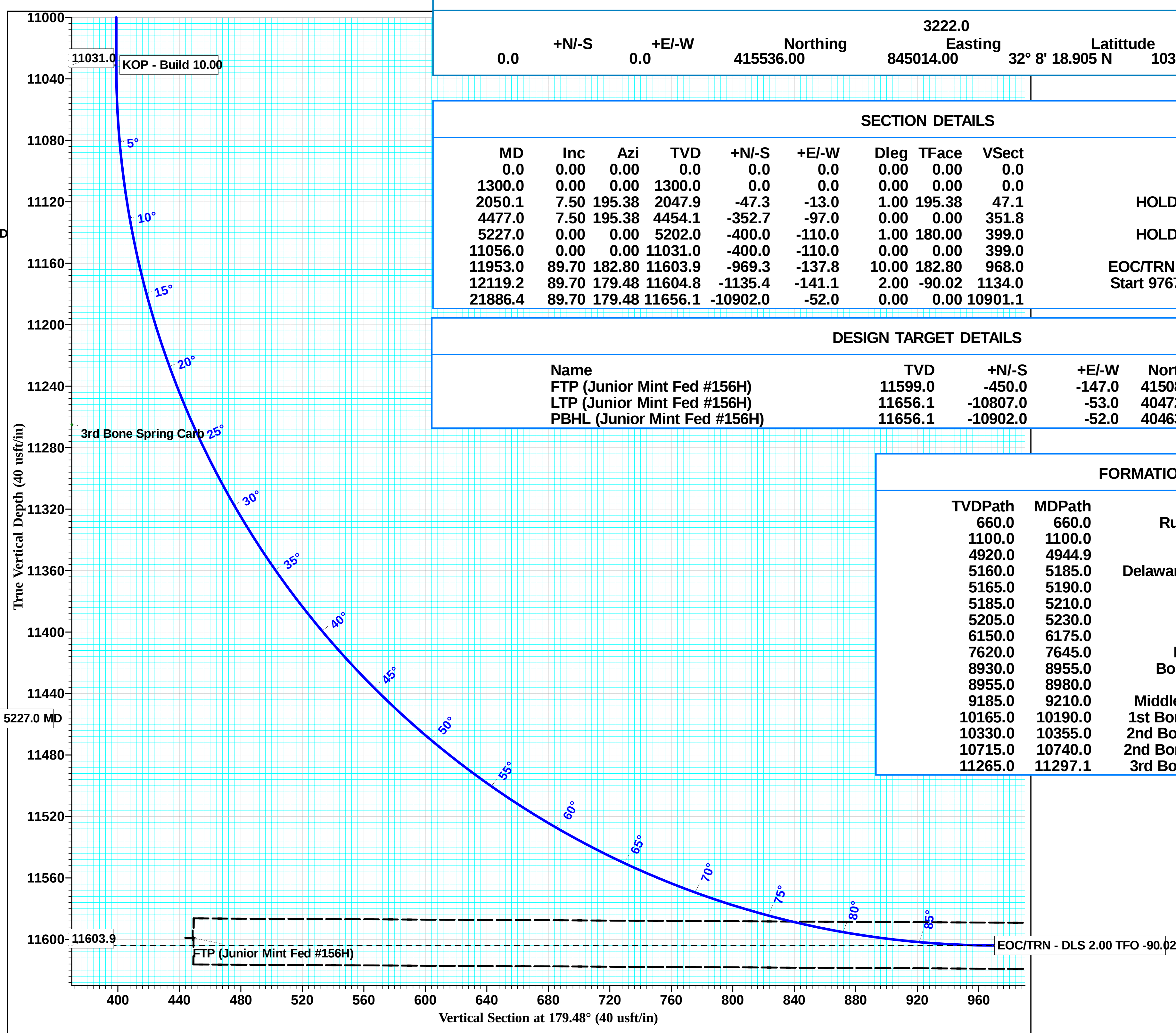
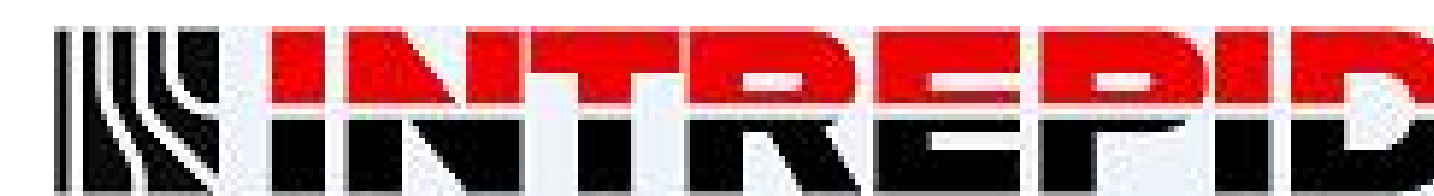
Other Variance attachment:



Magnetic Field
Strength: 47396.2nT
Dip Angle: 59.95°
Date: 06/22/2022
Model: IGRF2015

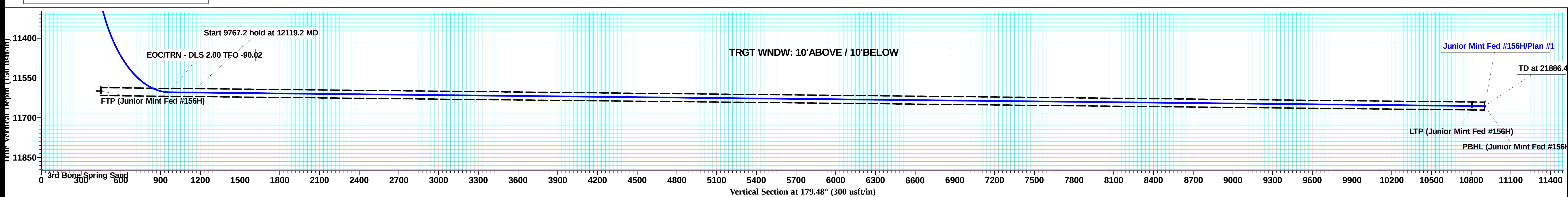
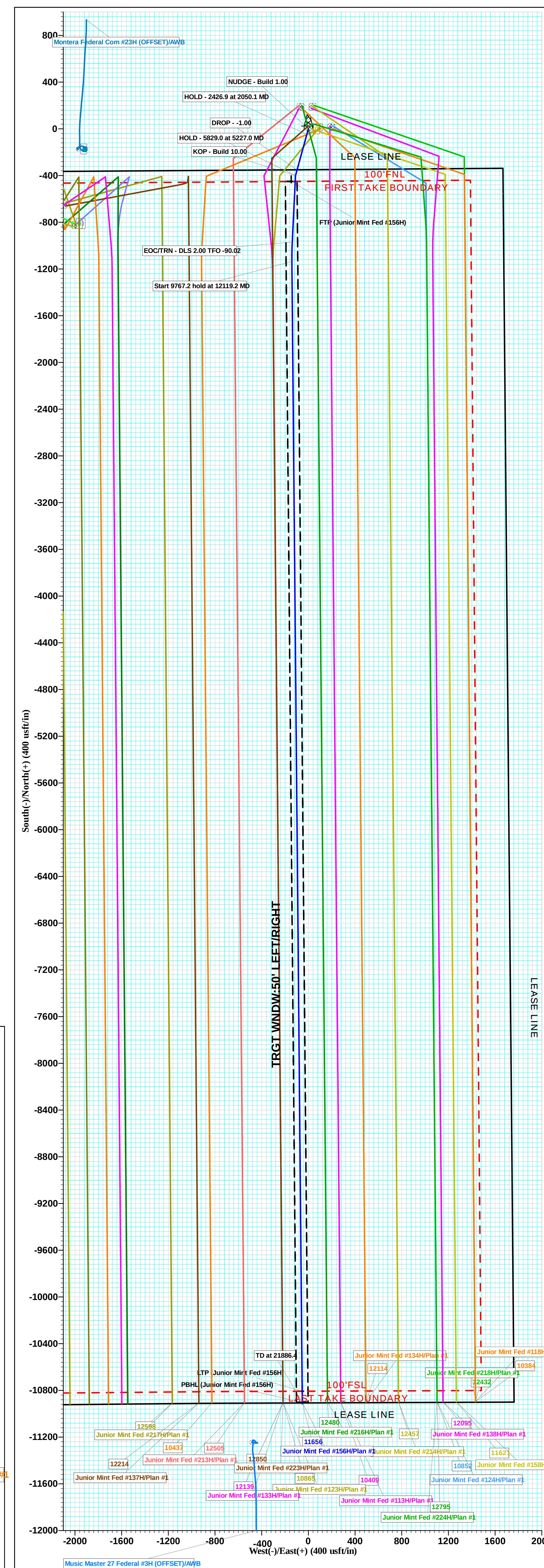
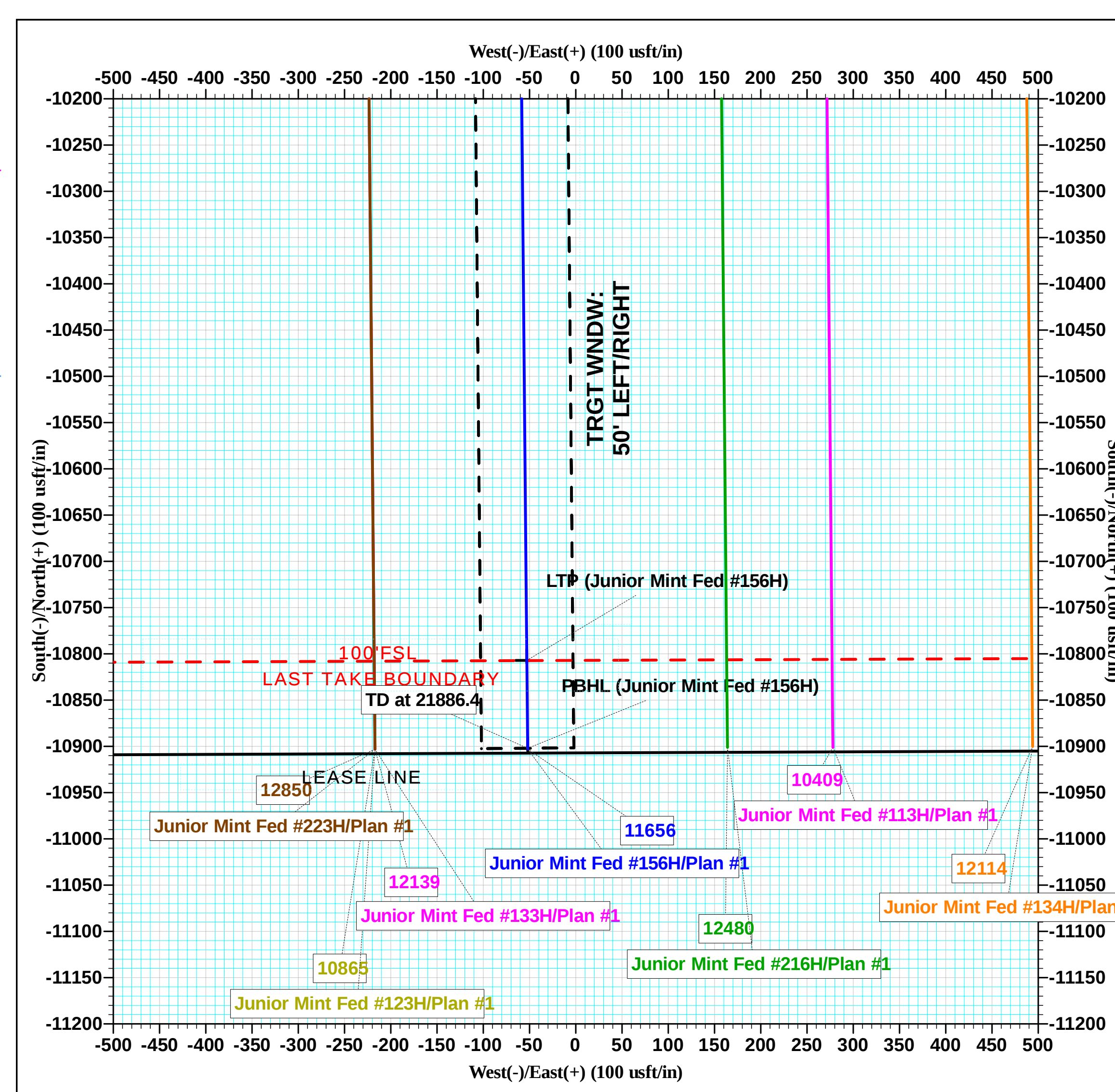
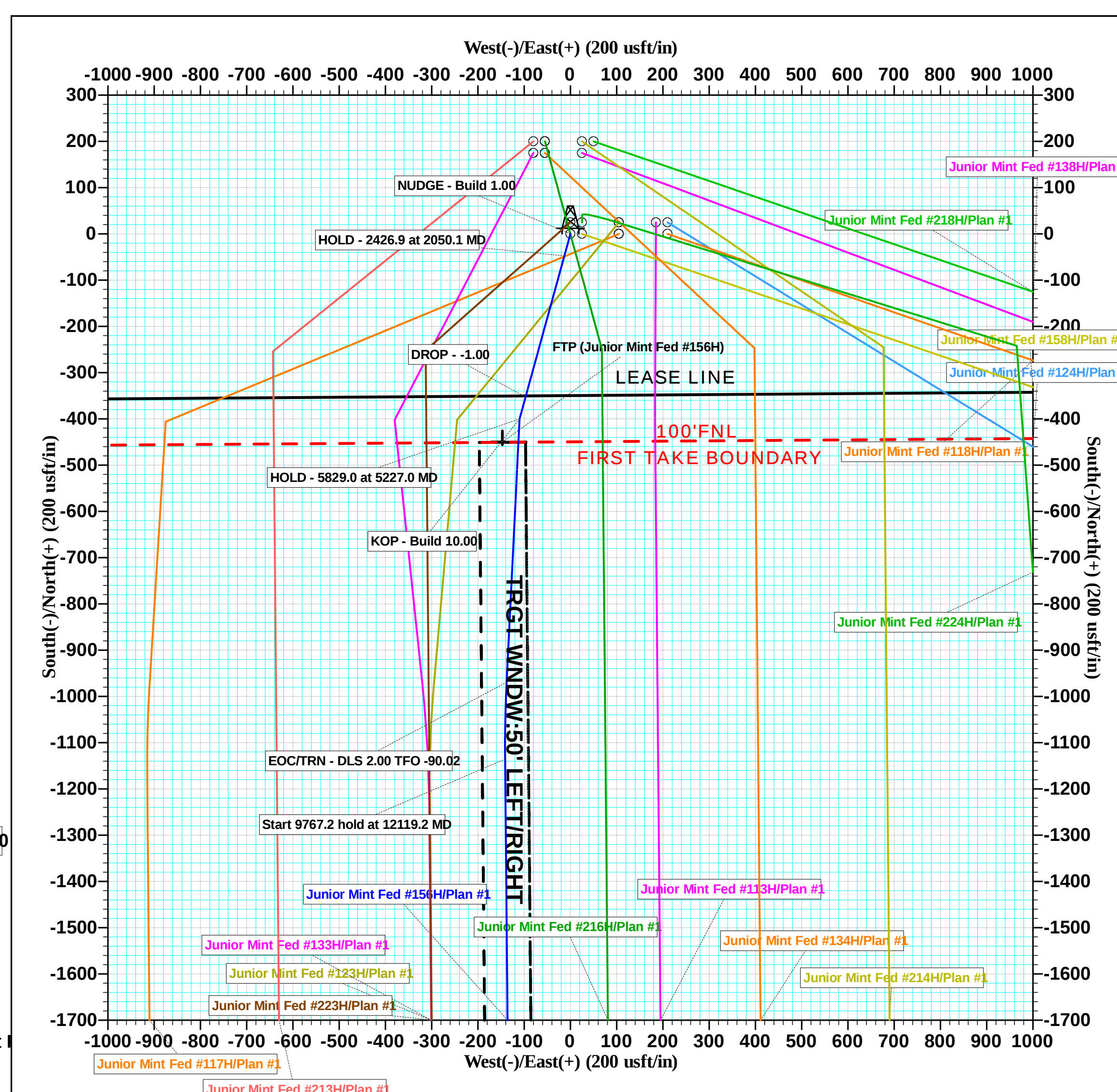
To convert a Magnetic Direction to a Grid Direction, Add 5.77°

Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Junior Mint Fed) Sec-15 T-25-S R-35-E
Well: Junior Mint Fed #156H
Wellbore: OWB
Design: Plan #1
Lat: 32° 8' 18.905 N
Long: 103° 21' 8.051 W
Pad GL: 3222.0
KB: KB @ 3248.0usft



WELL DETAILS: Junior Mint Fed #156H									
0.0		+N/-S	+E/-W	Northing		3222.0		Easting	
0.0		0.0	0.0	415536.00	845014.00	32° 8' 18.905 N		Latitude 103° 21' 8.051 W	
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	NUDGE - Build 1.00
2050.1	7.50	195.38	2047.9	-47.3	-13.0	1.00	195.38	47.1	HOLD - 2426.9 at 2050.1 MD
4477.0	7.50	195.38	4454.1	-352.7	-97.0	0.00	0.00	351.8	DROP - -1.00
5227.0	0.00	0.00	5202.0	-400.0	-110.0	1.00	180.00	399.0	HOLD - 5829.0 at 5227.0 MD
11056.0	0.00	0.00	11031.0	-400.0	-110.0	0.00	0.00	399.0	KOP - Build 10.00
11953.0	89.70	182.80	11603.9	-969.3	-137.8	10.00	182.80	968.0	EOC/TRN - DLS 2.00 TFO -90.02
12119.2	89.70	179.48	11604.8	-1135.4	-141.1	2.00	-90.02	1134.0	Start 9767.2 hold at 12119.2 MD
21886.4	89.70	179.48	11656.1	-10902.0	-52.0	0.00	0.00	10901.1	TD at 21886.4
DESIGN TARGET DETAILS									
Name				TVD		+N/-S	+E/-W	Northing	Easting
FTP (Junior Mint Fed #156H)				11599.0		-450.0	-147.0	415086.00	844867.00
LTP (Junior Mint Fed #156H)				11656.1		-10807.0	-53.0	404729.00	844961.00
PBHL (Junior Mint Fed #156H)				11656.1		-10902.0	-52.0	404634.00	844962.00

FORMATIONS		
TVDPath	MDPPath	Formation
660.0	660.0	Rustler Anhydrite
1100.0	1100.0	Top Salt
4920.0	4944.9	Base Salt
5160.0	5185.0	Delaware Mountain Gp
5165.0	5190.0	Lamar
5185.0	5210.0	Bell Canyon
5205.0	5230.0	Ramsey Sand
6150.0	6175.0	Cherry Canyon
7620.0	7645.0	Brushy Canyon
8930.0	8955.0	Bone Spring Lime
8955.0	8980.0	Upper Avalon
9185.0	9210.0	Middle/Lower Avalon
10165.0	10190.0	1st Bone Spring Sand
10330.0	10355.0	2nd Bone Spring Carb
10715.0	10740.0	2nd Bone Spring Sand
11265.0	11297.1	3rd Bone Spring Carb





Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)
(Junior Mint Fed) Sec-15_T-25-S_R-35-E
Junior Mint Fed #156H**

OWB

Plan: Plan #1

Standard Planning Report

26 June, 2022





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Junior Mint Fed #156H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3248.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3248.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #156H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site (Junior Mint Fed) Sec-15_T-25-S_R-35-E					
Site Position:		Northing:	414,725.00 usft	Latitude:	32° 8' 11.068 N
From:	Map	Easting:	842,925.00 usft	Longitude:	103° 21' 32.430 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.52

Well	Junior Mint Fed #156H					
Well Position	+N/-S	811.0 usft	Northing:	415,536.00 usft	Latitude:	32° 8' 18.905 N
	+E/-W	2,089.0 usft	Easting:	845,014.00 usft	Longitude:	103° 21' 8.051 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,222.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/22/22	6.29	59.95	47,396.16704651

Design	Plan #1			
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	179.48

Plan Survey Tool Program	Date	06/26/22		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,886.3	Plan #1 (OWB)	MWD
				OWSG MWD - Standard

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	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,050.1	7.50	195.38	2,047.9	-47.3	-13.0	1.00	1.00	0.00	195.38	
4,477.0	7.50	195.38	4,454.1	-352.7	-97.0	0.00	0.00	0.00	0.00	
5,227.0	0.00	0.00	5,202.0	-400.0	-110.0	1.00	-1.00	0.00	180.00	
11,056.0	0.00	0.00	11,031.0	-400.0	-110.0	0.00	0.00	0.00	0.00	
11,953.0	89.70	182.80	11,603.9	-969.3	-137.8	10.00	10.00	0.00	182.80	
12,119.2	89.70	179.48	11,604.8	-1,135.4	-141.1	2.00	0.00	-2.00	-90.02	
21,886.4	89.70	179.48	11,656.1	-10,902.0	-52.0	0.00	0.00	0.00	0.00	PBHL (Junior Mint F



Intrepid Planning Report



Database: EDM 5000.15 Single User Db
Company: Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Junior Mint Fed) Sec-15_T-25-S_R-35-E
Well: Junior Mint Fed #156H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #156H
TVD Reference: KB @ 3248.0usft
MD Reference: KB @ 3248.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 1.00									
1,400.0	1.00	195.38	1,400.0	-0.8	-0.2	0.8	1.00	1.00	0.00
1,500.0	2.00	195.38	1,500.0	-3.4	-0.9	3.4	1.00	1.00	0.00
1,600.0	3.00	195.38	1,599.9	-7.6	-2.1	7.6	1.00	1.00	0.00
1,700.0	4.00	195.38	1,699.7	-13.5	-3.7	13.4	1.00	1.00	0.00
1,800.0	5.00	195.38	1,799.4	-21.0	-5.8	21.0	1.00	1.00	0.00
1,900.0	6.00	195.38	1,898.9	-30.3	-8.3	30.2	1.00	1.00	0.00
2,000.0	7.00	195.38	1,998.3	-41.2	-11.3	41.1	1.00	1.00	0.00
2,050.1	7.50	195.38	2,047.9	-47.3	-13.0	47.1	1.00	1.00	0.00
HOLD - 2426.9 at 2050.1 MD									
2,100.0	7.50	195.38	2,097.4	-53.6	-14.7	53.4	0.00	0.00	0.00
2,200.0	7.50	195.38	2,196.6	-66.1	-18.2	66.0	0.00	0.00	0.00
2,300.0	7.50	195.38	2,295.7	-78.7	-21.7	78.5	0.00	0.00	0.00
2,400.0	7.50	195.38	2,394.9	-91.3	-25.1	91.1	0.00	0.00	0.00
2,500.0	7.50	195.38	2,494.0	-103.9	-28.6	103.6	0.00	0.00	0.00
2,600.0	7.50	195.38	2,593.2	-116.5	-32.0	116.2	0.00	0.00	0.00
2,700.0	7.50	195.38	2,692.3	-129.1	-35.5	128.7	0.00	0.00	0.00
2,800.0	7.50	195.38	2,791.4	-141.7	-39.0	141.3	0.00	0.00	0.00
2,900.0	7.50	195.38	2,890.6	-154.2	-42.4	153.9	0.00	0.00	0.00
3,000.0	7.50	195.38	2,989.7	-166.8	-45.9	166.4	0.00	0.00	0.00
3,100.0	7.50	195.38	3,088.9	-179.4	-49.3	179.0	0.00	0.00	0.00
3,200.0	7.50	195.38	3,188.0	-192.0	-52.8	191.5	0.00	0.00	0.00
3,300.0	7.50	195.38	3,287.2	-204.6	-56.3	204.1	0.00	0.00	0.00
3,400.0	7.50	195.38	3,386.3	-217.2	-59.7	216.6	0.00	0.00	0.00
3,500.0	7.50	195.38	3,485.5	-229.8	-63.2	229.2	0.00	0.00	0.00
3,600.0	7.50	195.38	3,584.6	-242.3	-66.6	241.7	0.00	0.00	0.00
3,700.0	7.50	195.38	3,683.7	-254.9	-70.1	254.3	0.00	0.00	0.00
3,800.0	7.50	195.38	3,782.9	-267.5	-73.6	266.8	0.00	0.00	0.00
3,900.0	7.50	195.38	3,882.0	-280.1	-77.0	279.4	0.00	0.00	0.00
4,000.0	7.50	195.38	3,981.2	-292.7	-80.5	292.0	0.00	0.00	0.00
4,100.0	7.50	195.38	4,080.3	-305.3	-84.0	304.5	0.00	0.00	0.00
4,200.0	7.50	195.38	4,179.5	-317.9	-87.4	317.1	0.00	0.00	0.00
4,300.0	7.50	195.38	4,278.6	-330.5	-90.9	329.6	0.00	0.00	0.00
4,400.0	7.50	195.38	4,377.8	-343.0	-94.3	342.2	0.00	0.00	0.00
4,477.0	7.50	195.38	4,454.1	-352.7	-97.0	351.8	0.00	0.00	0.00
DROP - -1.00									
4,500.0	7.27	195.38	4,476.9	-355.6	-97.8	354.7	1.00	-1.00	0.00
4,600.0	6.27	195.38	4,576.2	-366.9	-100.9	366.0	1.00	-1.00	0.00
4,700.0	5.27	195.38	4,675.7	-376.6	-103.6	375.7	1.00	-1.00	0.00



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Well: Junior Mint Fed #156H
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Local Co-ordinate Reference: Well Junior Mint Fed #156H
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North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
4,800.0	4.27	195.38	4,775.3	-384.7	-105.8	383.7	1.00	-1.00	0.00
4,900.0	3.27	195.38	4,875.1	-391.0	-107.5	390.0	1.00	-1.00	0.00
5,000.0	2.27	195.38	4,975.0	-395.7	-108.8	394.7	1.00	-1.00	0.00
5,100.0	1.27	195.38	5,075.0	-398.6	-109.6	397.6	1.00	-1.00	0.00
5,200.0	0.27	195.38	5,175.0	-399.9	-110.0	398.9	1.00	-1.00	0.00
5,227.0	0.00	0.00	5,202.0	-400.0	-110.0	399.0	1.00	-1.00	0.00
HOLD - 5829.0 at 5227.0 MD									
5,300.0	0.00	0.00	5,275.0	-400.0	-110.0	399.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,375.0	-400.0	-110.0	399.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,475.0	-400.0	-110.0	399.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,575.0	-400.0	-110.0	399.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,675.0	-400.0	-110.0	399.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,775.0	-400.0	-110.0	399.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,875.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,975.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,075.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,175.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,275.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,375.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,475.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,575.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,675.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,775.0	-400.0	-110.0	399.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,875.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,975.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,075.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,175.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,275.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,375.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,475.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,575.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,675.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,775.0	-400.0	-110.0	399.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,875.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,975.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,075.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,175.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,275.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,375.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,475.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,575.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,675.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,775.0	-400.0	-110.0	399.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,875.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,000.0	0.00	0.00	8,975.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,075.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,175.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,275.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,375.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,475.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,575.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,675.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,775.0	-400.0	-110.0	399.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,875.0	-400.0	-110.0	399.0	0.00	0.00	0.00



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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.0	0.00	0.00	9,975.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,075.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,175.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,300.0	0.00	0.00	10,275.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,375.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,475.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,575.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,675.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,775.0	-400.0	-110.0	399.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,875.0	-400.0	-110.0	399.0	0.00	0.00	0.00
11,000.0	0.00	0.00	10,975.0	-400.0	-110.0	399.0	0.00	0.00	0.00
11,056.0	0.00	0.00	11,031.0	-400.0	-110.0	399.0	0.00	0.00	0.00
KOP - Build 10.00									
11,100.0	4.40	182.80	11,074.9	-401.7	-110.1	400.7	10.00	10.00	0.00
11,150.0	9.40	182.80	11,124.5	-407.7	-110.4	406.7	10.00	10.00	0.00
11,200.0	14.40	182.80	11,173.4	-418.0	-110.9	416.9	10.00	10.00	0.00
11,250.0	19.40	182.80	11,221.3	-432.5	-111.6	431.4	10.00	10.00	0.00
11,300.0	24.40	182.80	11,267.6	-451.1	-112.5	450.1	10.00	10.00	0.00
11,350.0	29.40	182.80	11,312.2	-473.7	-113.6	472.6	10.00	10.00	0.00
11,400.0	34.40	182.80	11,354.7	-500.1	-114.9	499.0	10.00	10.00	0.00
11,450.0	39.40	182.80	11,394.6	-530.0	-116.4	529.0	10.00	10.00	0.00
11,500.0	44.40	182.80	11,431.8	-563.4	-118.0	562.3	10.00	10.00	0.00
11,550.0	49.40	182.80	11,466.0	-599.8	-119.8	598.7	10.00	10.00	0.00
11,600.0	54.40	182.80	11,496.8	-639.1	-121.7	638.0	10.00	10.00	0.00
11,650.0	59.40	182.80	11,524.1	-680.9	-123.7	679.8	10.00	10.00	0.00
11,700.0	64.40	182.80	11,547.7	-725.0	-125.9	723.8	10.00	10.00	0.00
11,750.0	69.40	182.80	11,567.3	-770.9	-128.1	769.7	10.00	10.00	0.00
11,800.0	74.40	182.80	11,582.8	-818.3	-130.5	817.1	10.00	10.00	0.00
11,850.0	79.40	182.80	11,594.2	-867.0	-132.8	865.7	10.00	10.00	0.00
11,900.0	84.40	182.80	11,601.2	-916.4	-135.3	915.1	10.00	10.00	0.00
11,953.0	89.70	182.80	11,603.9	-969.3	-137.8	968.0	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO -90.02									
12,000.0	89.70	181.86	11,604.2	-1,016.2	-139.8	1,014.9	2.00	0.00	-2.00
12,100.0	89.70	179.86	11,604.7	-1,116.2	-141.3	1,114.8	2.00	0.00	-2.00
12,119.2	89.70	179.48	11,604.8	-1,135.4	-141.1	1,134.0	2.00	0.00	-2.00
Start 9767.2 hold at 12119.2 MD									
12,200.0	89.70	179.48	11,605.2	-1,216.2	-140.4	1,214.8	0.00	0.00	0.00
12,300.0	89.70	179.48	11,605.8	-1,316.2	-139.5	1,314.8	0.00	0.00	0.00
12,400.0	89.70	179.48	11,606.3	-1,416.2	-138.6	1,414.8	0.00	0.00	0.00
12,500.0	89.70	179.48	11,606.8	-1,516.2	-137.7	1,514.8	0.00	0.00	0.00
12,600.0	89.70	179.48	11,607.3	-1,616.1	-136.8	1,614.8	0.00	0.00	0.00
12,700.0	89.70	179.48	11,607.9	-1,716.1	-135.8	1,714.8	0.00	0.00	0.00
12,800.0	89.70	179.48	11,608.4	-1,816.1	-134.9	1,814.8	0.00	0.00	0.00
12,900.0	89.70	179.48	11,608.9	-1,916.1	-134.0	1,914.8	0.00	0.00	0.00
13,000.0	89.70	179.48	11,609.4	-2,016.1	-133.1	2,014.8	0.00	0.00	0.00
13,100.0	89.70	179.48	11,610.0	-2,116.1	-132.2	2,114.8	0.00	0.00	0.00
13,200.0	89.70	179.48	11,610.5	-2,216.1	-131.3	2,214.8	0.00	0.00	0.00
13,300.0	89.70	179.48	11,611.0	-2,316.1	-130.4	2,314.8	0.00	0.00	0.00
13,400.0	89.70	179.48	11,611.5	-2,416.1	-129.5	2,414.8	0.00	0.00	0.00
13,500.0	89.70	179.48	11,612.1	-2,516.1	-128.5	2,514.8	0.00	0.00	0.00
13,600.0	89.70	179.48	11,612.6	-2,616.1	-127.6	2,614.8	0.00	0.00	0.00
13,700.0	89.70	179.48	11,613.1	-2,716.1	-126.7	2,714.8	0.00	0.00	0.00
13,800.0	89.70	179.48	11,613.6	-2,816.1	-125.8	2,814.8	0.00	0.00	0.00



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13,900.0	89.70	179.48	11,614.2	-2,916.1	-124.9	2,914.8	0.00	0.00	0.00
14,000.0	89.70	179.48	11,614.7	-3,016.1	-124.0	3,014.8	0.00	0.00	0.00
14,100.0	89.70	179.48	11,615.2	-3,116.1	-123.1	3,114.8	0.00	0.00	0.00
14,200.0	89.70	179.48	11,615.7	-3,216.1	-122.2	3,214.8	0.00	0.00	0.00
14,300.0	89.70	179.48	11,616.3	-3,316.1	-121.2	3,314.8	0.00	0.00	0.00
14,400.0	89.70	179.48	11,616.8	-3,416.0	-120.3	3,414.8	0.00	0.00	0.00
14,500.0	89.70	179.48	11,617.3	-3,516.0	-119.4	3,514.8	0.00	0.00	0.00
14,600.0	89.70	179.48	11,617.8	-3,616.0	-118.5	3,614.8	0.00	0.00	0.00
14,700.0	89.70	179.48	11,618.4	-3,716.0	-117.6	3,714.8	0.00	0.00	0.00
14,800.0	89.70	179.48	11,618.9	-3,816.0	-116.7	3,814.8	0.00	0.00	0.00
14,900.0	89.70	179.48	11,619.4	-3,916.0	-115.8	3,914.8	0.00	0.00	0.00
15,000.0	89.70	179.48	11,619.9	-4,016.0	-114.9	4,014.8	0.00	0.00	0.00
15,100.0	89.70	179.48	11,620.5	-4,116.0	-113.9	4,114.8	0.00	0.00	0.00
15,200.0	89.70	179.48	11,621.0	-4,216.0	-113.0	4,214.8	0.00	0.00	0.00
15,300.0	89.70	179.48	11,621.5	-4,316.0	-112.1	4,314.8	0.00	0.00	0.00
15,400.0	89.70	179.48	11,622.0	-4,416.0	-111.2	4,414.8	0.00	0.00	0.00
15,500.0	89.70	179.48	11,622.6	-4,516.0	-110.3	4,514.8	0.00	0.00	0.00
15,600.0	89.70	179.48	11,623.1	-4,616.0	-109.4	4,614.8	0.00	0.00	0.00
15,700.0	89.70	179.48	11,623.6	-4,716.0	-108.5	4,714.8	0.00	0.00	0.00
15,800.0	89.70	179.48	11,624.1	-4,816.0	-107.5	4,814.8	0.00	0.00	0.00
15,900.0	89.70	179.48	11,624.7	-4,916.0	-106.6	4,914.8	0.00	0.00	0.00
16,000.0	89.70	179.48	11,625.2	-5,016.0	-105.7	5,014.8	0.00	0.00	0.00
16,100.0	89.70	179.48	11,625.7	-5,116.0	-104.8	5,114.8	0.00	0.00	0.00
16,200.0	89.70	179.48	11,626.2	-5,215.9	-103.9	5,214.8	0.00	0.00	0.00
16,300.0	89.70	179.48	11,626.8	-5,315.9	-103.0	5,314.8	0.00	0.00	0.00
16,400.0	89.70	179.48	11,627.3	-5,415.9	-102.1	5,414.8	0.00	0.00	0.00
16,500.0	89.70	179.48	11,627.8	-5,515.9	-101.2	5,514.8	0.00	0.00	0.00
16,600.0	89.70	179.48	11,628.3	-5,615.9	-100.2	5,614.8	0.00	0.00	0.00
16,700.0	89.70	179.48	11,628.9	-5,715.9	-99.3	5,714.8	0.00	0.00	0.00
16,800.0	89.70	179.48	11,629.4	-5,815.9	-98.4	5,814.8	0.00	0.00	0.00
16,900.0	89.70	179.48	11,629.9	-5,915.9	-97.5	5,914.8	0.00	0.00	0.00
17,000.0	89.70	179.48	11,630.4	-6,015.9	-96.6	6,014.8	0.00	0.00	0.00
17,100.0	89.70	179.48	11,631.0	-6,115.9	-95.7	6,114.8	0.00	0.00	0.00
17,200.0	89.70	179.48	11,631.5	-6,215.9	-94.8	6,214.8	0.00	0.00	0.00
17,300.0	89.70	179.48	11,632.0	-6,315.9	-93.9	6,314.8	0.00	0.00	0.00
17,400.0	89.70	179.48	11,632.5	-6,415.9	-92.9	6,414.8	0.00	0.00	0.00
17,500.0	89.70	179.48	11,633.1	-6,515.9	-92.0	6,514.8	0.00	0.00	0.00
17,600.0	89.70	179.48	11,633.6	-6,615.9	-91.1	6,614.8	0.00	0.00	0.00
17,700.0	89.70	179.48	11,634.1	-6,715.9	-90.2	6,714.8	0.00	0.00	0.00
17,800.0	89.70	179.48	11,634.6	-6,815.9	-89.3	6,814.8	0.00	0.00	0.00
17,900.0	89.70	179.48	11,635.2	-6,915.9	-88.4	6,914.8	0.00	0.00	0.00
18,000.0	89.70	179.48	11,635.7	-7,015.8	-87.5	7,014.8	0.00	0.00	0.00
18,100.0	89.70	179.48	11,636.2	-7,115.8	-86.6	7,114.8	0.00	0.00	0.00
18,200.0	89.70	179.48	11,636.7	-7,215.8	-85.6	7,214.8	0.00	0.00	0.00
18,300.0	89.70	179.48	11,637.3	-7,315.8	-84.7	7,314.8	0.00	0.00	0.00
18,400.0	89.70	179.48	11,637.8	-7,415.8	-83.8	7,414.8	0.00	0.00	0.00
18,500.0	89.70	179.48	11,638.3	-7,515.8	-82.9	7,514.8	0.00	0.00	0.00
18,600.0	89.70	179.48	11,638.8	-7,615.8	-82.0	7,614.8	0.00	0.00	0.00
18,700.0	89.70	179.48	11,639.4	-7,715.8	-81.1	7,714.8	0.00	0.00	0.00
18,800.0	89.70	179.48	11,639.9	-7,815.8	-80.2	7,814.8	0.00	0.00	0.00
18,900.0	89.70	179.48	11,640.4	-7,915.8	-79.3	7,914.8	0.00	0.00	0.00
19,000.0	89.70	179.48	11,640.9	-8,015.8	-78.3	8,014.7	0.00	0.00	0.00
19,100.0	89.70	179.48	11,641.5	-8,115.8	-77.4	8,114.7	0.00	0.00	0.00
19,200.0	89.70	179.48	11,642.0	-8,215.8	-76.5	8,214.7	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Junior Mint Fed #156H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3248.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3248.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #156H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
19,300.0	89.70	179.48	11,642.5	-8,315.8	-75.6	8,314.7	0.00	0.00	0.00	
19,400.0	89.70	179.48	11,643.0	-8,415.8	-74.7	8,414.7	0.00	0.00	0.00	
19,500.0	89.70	179.48	11,643.6	-8,515.8	-73.8	8,514.7	0.00	0.00	0.00	
19,600.0	89.70	179.48	11,644.1	-8,615.8	-72.9	8,614.7	0.00	0.00	0.00	
19,700.0	89.70	179.48	11,644.6	-8,715.8	-72.0	8,714.7	0.00	0.00	0.00	
19,800.0	89.70	179.48	11,645.1	-8,815.7	-71.0	8,814.7	0.00	0.00	0.00	
19,900.0	89.70	179.48	11,645.7	-8,915.7	-70.1	8,914.7	0.00	0.00	0.00	
20,000.0	89.70	179.48	11,646.2	-9,015.7	-69.2	9,014.7	0.00	0.00	0.00	
20,100.0	89.70	179.48	11,646.7	-9,115.7	-68.3	9,114.7	0.00	0.00	0.00	
20,200.0	89.70	179.48	11,647.2	-9,215.7	-67.4	9,214.7	0.00	0.00	0.00	
20,300.0	89.70	179.48	11,647.8	-9,315.7	-66.5	9,314.7	0.00	0.00	0.00	
20,400.0	89.70	179.48	11,648.3	-9,415.7	-65.6	9,414.7	0.00	0.00	0.00	
20,500.0	89.70	179.48	11,648.8	-9,515.7	-64.7	9,514.7	0.00	0.00	0.00	
20,600.0	89.70	179.48	11,649.3	-9,615.7	-63.7	9,614.7	0.00	0.00	0.00	
20,700.0	89.70	179.48	11,649.9	-9,715.7	-62.8	9,714.7	0.00	0.00	0.00	
20,800.0	89.70	179.48	11,650.4	-9,815.7	-61.9	9,814.7	0.00	0.00	0.00	
20,900.0	89.70	179.48	11,650.9	-9,915.7	-61.0	9,914.7	0.00	0.00	0.00	
21,000.0	89.70	179.48	11,651.4	-10,015.7	-60.1	10,014.7	0.00	0.00	0.00	
21,100.0	89.70	179.48	11,652.0	-10,115.7	-59.2	10,114.7	0.00	0.00	0.00	
21,200.0	89.70	179.48	11,652.5	-10,215.7	-58.3	10,214.7	0.00	0.00	0.00	
21,300.0	89.70	179.48	11,653.0	-10,315.7	-57.4	10,314.7	0.00	0.00	0.00	
21,400.0	89.70	179.48	11,653.5	-10,415.7	-56.4	10,414.7	0.00	0.00	0.00	
21,500.0	89.70	179.48	11,654.1	-10,515.7	-55.5	10,514.7	0.00	0.00	0.00	
21,600.0	89.70	179.48	11,654.6	-10,615.6	-54.6	10,614.7	0.00	0.00	0.00	
21,700.0	89.70	179.48	11,655.1	-10,715.6	-53.7	10,714.7	0.00	0.00	0.00	
21,800.0	89.70	179.48	11,655.6	-10,815.6	-52.8	10,814.7	0.00	0.00	0.00	
21,886.4	89.70	179.48	11,656.1	-10,902.0	-52.0	10,901.1	0.00	0.00	0.00	
TD at 21886.4										

Design Targets										
Target Name										
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- Shape										
FTP (Junior Mint Fed #	0.00	0.00	11,599.0	-450.0	-147.0	415,086.00	844,867.00	32° 8' 14.466 N		103° 21' 9.808 W
- plan misses target center by 200.9usft at 11532.6usft MD (11454.5 TVD, -586.8 N, -119.1 E)										
- Point										
PBHL (Junior Mint Fec	0.30	179.48	11,656.1	-10,902.0	-52.0	404,634.00	844,962.00	32° 6' 31.037 N		103° 21' 9.810 W
- plan hits target center										
- Rectangle (sides W100.0 H10,452.0 D30.0)										
LTP (Junior Mint Fed #	0.00	0.00	11,656.1	-10,807.0	-53.0	404,729.00	844,961.00	32° 6' 31.977 N		103° 21' 9.811 W
- plan misses target center by 0.5usft at 21791.4usft MD (11655.6 TVD, -10807.0 N, -52.9 E)										
- Point										



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Junior Mint Fed #156H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3248.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3248.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #156H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
660.0	660.0	Rustler Anhydrite				
1,100.0	1,100.0	Top Salt				
4,944.9	4,920.0	Base Salt				
5,185.0	5,160.0	Delaware Mountain Gp				
5,190.0	5,165.0	Lamar				
5,210.0	5,185.0	Bell Canyon				
5,230.0	5,205.0	Ramsey Sand				
6,175.0	6,150.0	Cherry Canyon				
7,645.0	7,620.0	Brushy Canyon				
8,955.0	8,930.0	Bone Spring Lime				
8,980.0	8,955.0	Upper Avalon				
9,210.0	9,185.0	Middle/Lower Avalon				
10,190.0	10,165.0	1st Bone Spring Sand				
10,355.0	10,330.0	2nd Bone Spring Carb				
10,740.0	10,715.0	2nd Bone Spring Sand				
11,297.1	11,265.0	3rd Bone Spring Carb				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,300.0	1,300.0	0.0	0.0	NUDGE - Build 1.00	
2,050.1	2,047.9	-47.3	-13.0	HOLD - 2426.9 at 2050.1 MD	
4,477.0	4,454.1	-352.7	-97.0	DROP - -1.00	
5,227.0	5,202.0	-400.0	-110.0	HOLD - 5829.0 at 5227.0 MD	
11,056.0	11,031.0	-400.0	-110.0	KOP - Build 10.00	
11,953.0	11,603.9	-969.3	-137.8	EOC/TRN - DLS 2.00 TFO -90.02	
12,119.2	11,604.8	-1,135.4	-141.1	Start 9767.2 hold at 12119.2 MD	
21,886.4	11,656.1	-10,902.0	-52.0	TD at 21886.4	

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	Junior Mint Fed 156H
LOCATION:	Sec 10-24S-35E-NMP
COUNTY:	Lea County, New Mexico

COA

H2S	☐ Yes	☒ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☒ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **710** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface. ***Surface casing set depth adjusted per BLM geologist.***
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours

after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

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

GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)

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

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - 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 Onshore Oil and Gas Order No. 2 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

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 OOGO2.III.A.2.i 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 Onshore Order 2 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 Onshore Order No. 2.

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.



Hydrogen Sulfide Drilling

Operations Plan

Tap Rock Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windssocks and / Wind Streamers:

- Windssocks at mud pit area should be high enough to be visible
- Windssock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
 - Green Flag – Normal Safe Operation Condition
 - Yellow Flag – Potential Pressure and Danger
 - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See Drilling Operations Plan Schematics

6 Communication:

- While working under masks chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.



7 Drilling Stem Testing:

- No DST cores are planned at this time

8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubulars good and other mechanical equipment

9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary

11 Emergency Contacts

Emergency Contacts		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911
Jal Fire Department	575.395.2221	911
Tap Rock Resources	720.772.5090	

Rig Diagram
Junior Mint Fed E2 Pad
Tap Rock Operating, LLC
10-25S-35E
Lea County, NM

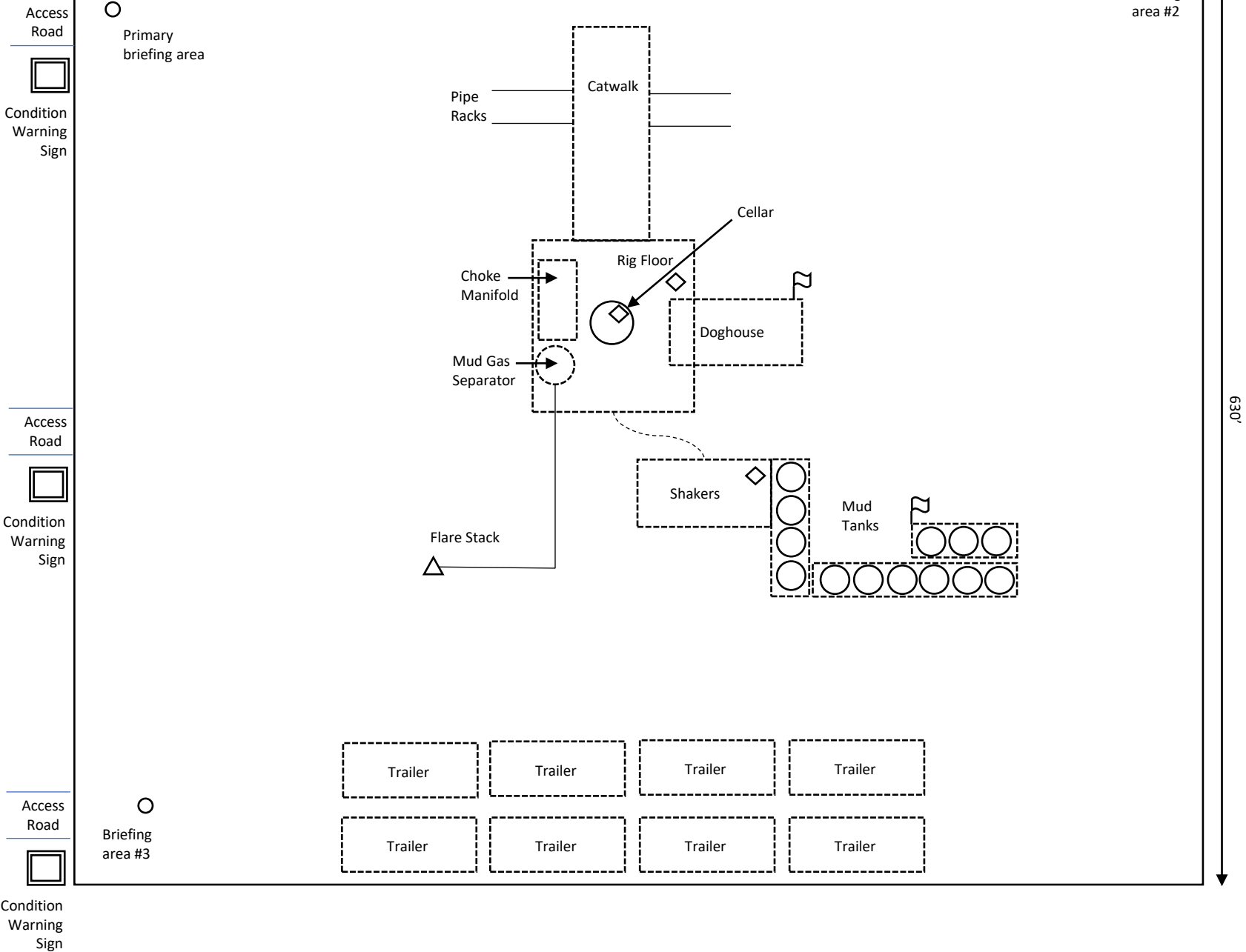
- N

↑
- Briefing Area
- Current Well
- △

Flare Stack
- ◇

H2S Monitor
- ⌚

Wind Indicator
- Mud Gas Separator

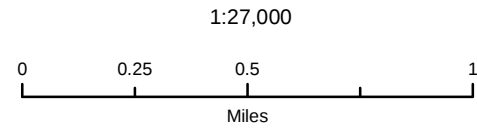


Tap Rock Operating LLC

Junior Mint Fed E2 Pad
H2S Contingency Plan:
2 Mile Radius Map

Sec. 10, Township 25S, Range 35E
Lea County, New Mexico

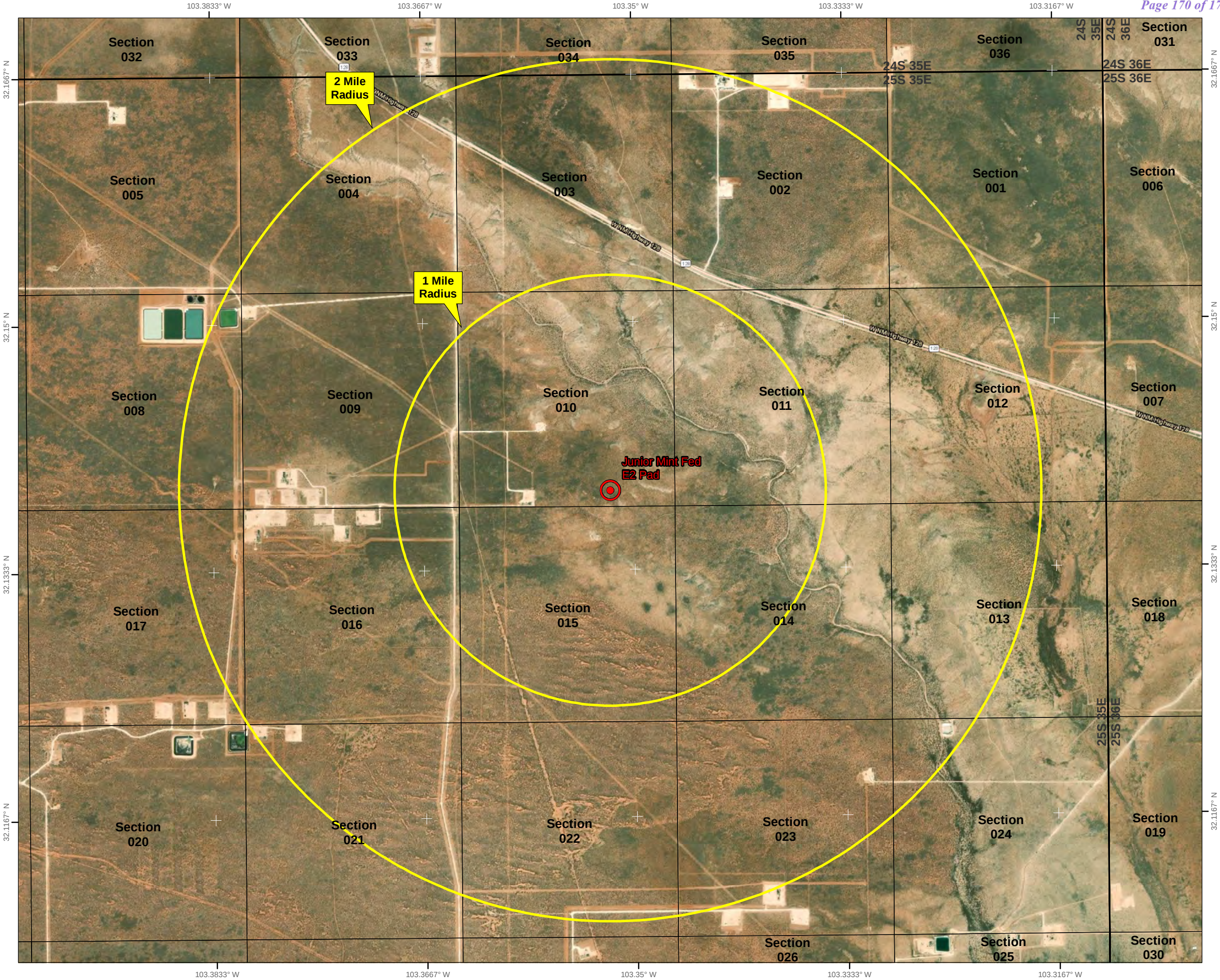
 Well Pad Location

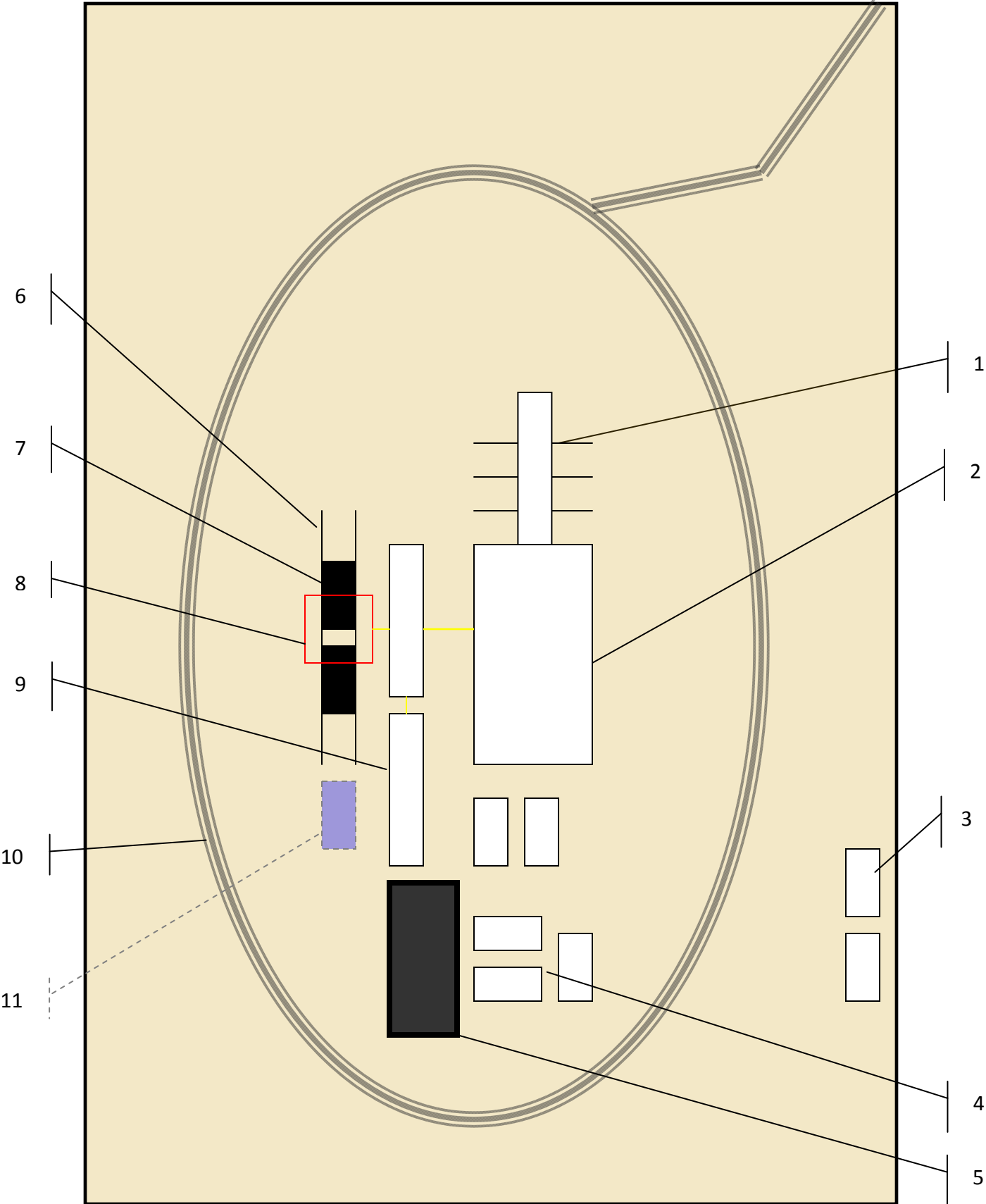


NAD 1983 New Mexico State Plane East
FIPS 3001 Feet



Prepared by Permits West, Inc., June 28, 2022
for Tap Rock Operating, LLC





Schematic Closed Loop Drilling Rig*

- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- 5. Overflow-Frac Tank
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available



Above: Centrifugal Closed Loop System

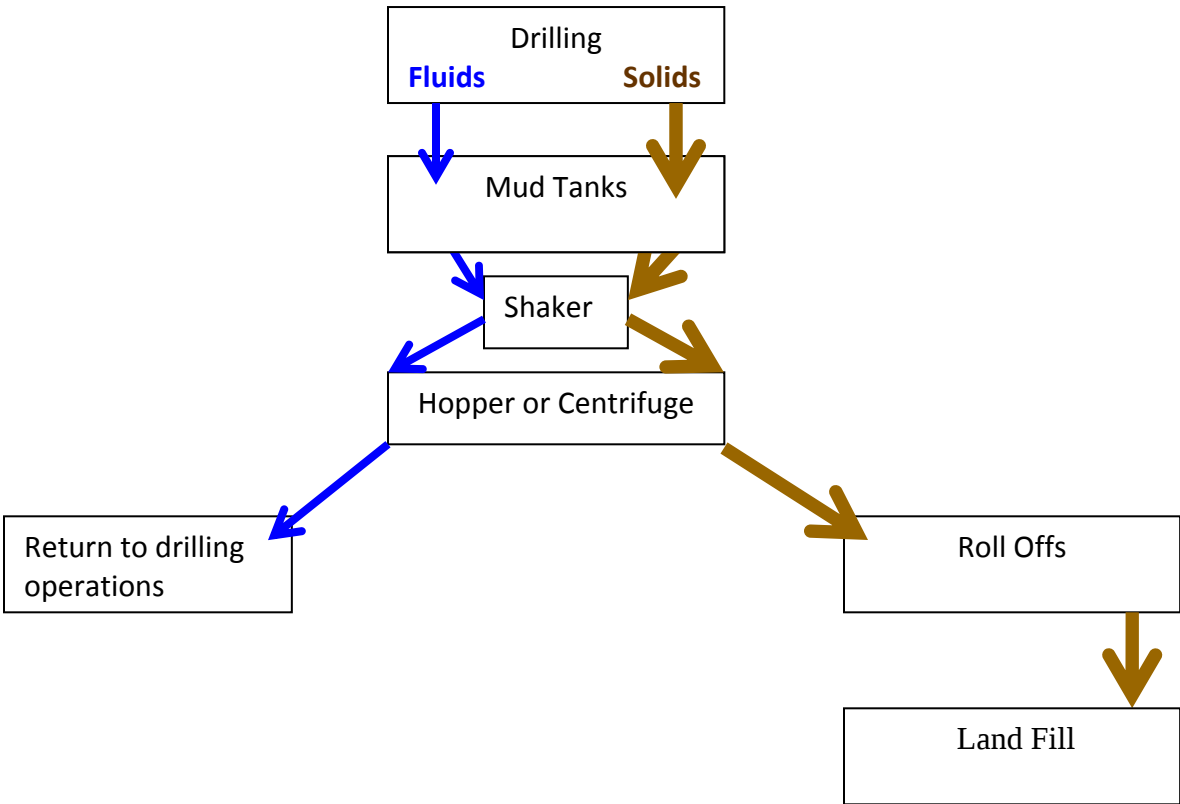


PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil
Field Service



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

General Information
Phone: (505) 629-6116

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

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

ACKNOWLEDGMENTS

Action 526693

ACKNOWLEDGMENTS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 526693
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

☒	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
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State of New Mexico
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1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 526693

CONDITIONS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 526693
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
permitsw	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/14/2025
matthew.gomez	If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing. If a CBL is unable to indicate sufficient cement coverage due to a lighter cement, a USI log may also be required. If strata isolation is not achieved, remediation will be required before further operations may commence.	12/16/2025
matthew.gomez	All conducted logs must be submitted to the OCD.	12/16/2025
matthew.gomez	Cement must be in place for at least eight hours and achieve a minimum compressive strength of 500 PSI before performing any further operations on the well.	12/16/2025
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	12/16/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	12/16/2025
matthew.gomez	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	12/16/2025
matthew.gomez	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	12/16/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/16/2025