

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

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address

3b. Phone No. (include area code)

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

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

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Office

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

(Instructions on page 2)

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 S2535340/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 216H
2. Name of Operator TAP ROCK OPERATING LLC		9. API Well No. 30-025-55580
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 Dogie Draw; Wolfcamp
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE / 559 FSL / 1715 FEL / LAT 32.139136 / LONG -103.3524077 At proposed prod. zone SWSE / 5 FSL / 1599 FEL / LAT 32.1086177 / LONG -103.3520284		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) 549 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 12483 feet / 22860 feet 20. BLM/BIA Bond No. in file FED:
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3225 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 07/05/2022
Approved by (Signature) (Electronic Submission) Title Assistant Field Manager Lands & Minerals	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959 Office Carlsbad Field Office	Date 02/08/2023

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)

APPROVED WITH CONDITIONS

Well Name: JUNIOR MINT FED	Well Location: T25S / R35E / SEC 10 / SWSE / 32.139136 / -103.3524077	County or Parish/State: LEA / NM
Well Number: 216H	Type of Well: CONVENTIONAL GAS 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: 2874508

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 09/19/2025	Time Sundry Submitted: 01:01
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 550' FSL & 1715' FEL, SWSE, Sec. 10, T.25S, R.35E to 563' 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. 10400086514.

NOI Attachments

Procedure Description

JM_216H_Sundry_Attachment_091825_20250919130018.pdf

Well Name: JUNIOR MINT FED	Well Location: T25S / R35E / SEC 10 / SWSE / 32.139136 / -103.3524077	County or Parish/State: LEA / NM
Well Number: 216H	Type of Well: CONVENTIONAL GAS 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_2874508_Junior_Mint_Fed_216H_COAs_20251029131637.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 03:18 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: ALLISON MORENCY	BLM POC Title: Contractor WO
BLM POC Phone: 2029127157	BLM POC Email Address: amorency@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	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No. JUNIOR MINT FED/216H	
9. API Well No.	
10. Field and Pool or Exploratory Area Dogie Draw; Wolfcamp	
11. Country or Parish, State LEA/NM	

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 8	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	

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
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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 550 FSL & 1715 FEL, SWSE, Sec. 10, T.25S, R.35E to 563 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. 10400086514.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) CORY WALK / Ph: (505) 466-8120	Title Permitting Agent
Signature (Electronic Submission)	Date 09/25/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 11/13/2025
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 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 / 559 FSL / 1715 FEL / TWSP: 25S / RANGE: 35E / SECTION: 10 / LAT: 32.139136 / LONG: -103.3524077 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 20 FNL / 1592 FEL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1375753 / LONG: -103.3520073 (TVD: 12210 feet, MD: 12261 feet)

BHL: SWSE / 5 FSL / 1599 FEL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.1086177 / LONG: -103.3520284 (TVD: 12483 feet, MD: 22860 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Civitas Permian Operating LLC
WELL NAME & NO.:	Junior Mint Fed 216H
LOCATION:	Sec 10-25S-35E-NMP
COUNTY:	Lea County, New Mexico

*Changes approved through engineering via **Sundry 2874508** 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 ☒ Flex Hose ☒ Break Testing	Casing 3-String Well ☐ Liner ☒ Fluid Filled ☒ Casing Clearance	
	Cementing ☐ DV Tool ☒ Offline Cement ☐ Bradenhead ☐ Open Annulus ☐ Echometer ☐ 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 30-025-55580	Pool Code 17980	Pool Name DOGIE DRAW; WOLFCAMP
Property Code 337333	Property Name JUNIOR MINT FED	Well Number 216H
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. O	Section 10	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 563' S	Feet from the E/W 1485' E	Latitude N 32.1391715	Longitude W 103.3516642	County LEA
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Bottom Hole Location

UL or lot no. O	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 5' S	Feet from the E/W 1599' E	Latitude N 32.1086177	Longitude W 103.3520284	County LEA
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Dedicated Acres 1280.00	Infill or Defining Well Infill	Defining Well API 30-025-54751 (217H)	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. B	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 1599' E	Latitude N 32.1373487	Longitude W 103.3520251	County LEA
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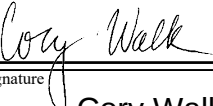
First Take Point (FTP)

UL or lot no. B	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 1599' E	Latitude N 32.1373487	Longitude W 103.3520251	County LEA
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Last Take Point (LTP)

UL or lot no. O	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' S	Feet from the E/W 1599' E	Latitude N 32.1088789	Longitude W 103.3520283	County LEA
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Unitized Area or Area of Uniform Interest N/A	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3222'
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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 10:16:59 AM	
Signature Cory Walk		Signature and Seal of Professional Surveyor	
Date		Date	
Print Name cory@permitswest.com		Certificate Number	Date of Survey 8/8/2025
E-mail Address			

<u>C-102</u> 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
Property Name and Well Number		JUNIOR MINT FED 216H	

SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=845189 Y=415751
LAT.: N 32.1391715
LONG.: W 103.3516642

NAD 1927
X=804002 Y=415693
LAT.: N 32.1390451
LONG.: W 103.3511994
563' FSL 1485' FEL

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

NEW MEXICO EAST
NAD 1983
X=845083 Y=415087
LAT.: N 32.1373487
LONG.: W 103.3520251

NAD 1927
X=803897 Y=415029
LAT.: N 32.1372223
LONG.: W 103.3515604
100' FNL 1599' FEL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
NAD 1983
X=845177 Y=404730
LAT.: N 32.1088789
LONG.: W 103.3520283

NAD 1927
X=803990 Y=404672
LAT.: N 32.1087523
LONG.: W 103.3515651
100' FSL 1599' FEL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
NAD 1983
X=845178 Y=404635
LAT.: N 32.1086177
LONG.: W 103.3520284

NAD 1927
X=803991 Y=404577
LAT.: N 32.1084912
LONG.: W 103.3515622
5' FSL 1599' 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:

RAMON DOMINGUEZ
NEW MEXICO
24508
PROFESSIONAL SURVEYOR

The figure is a detailed survey plat for a well location. It features a grid system with stationing numbers (e.g., 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28) along the top and bottom edges. The central area is labeled "USA NMNM 101609". A dashed red line runs vertically through the center, representing the well's path. Key points are marked with dots and labeled: SHL (Surface Location), KOP/FTP (Kick Off Point / First Take Point), LTP (Last Take Point), and BHL (Bottom Hole Location). Various distances and bearings are noted, such as "AZ = 189.04° 672.5'", "1485'", "1599'", "100'", "330'", "AZ = 179.48° 10357.7'", "AZ = 179.49° 95.0'", and "5'". Coordinates for several points are provided, including X=841396 Y=415161, X=844041 Y=415179, X=846682 Y=415198, X=841422 Y=412523, X=841434 Y=409884, X=841469 Y=407244, X=844132 Y=404625, X=841487 Y=404600, X=846706 Y=412560, X=846728 Y=409919, X=846753 Y=407279, and X=846777 Y=404636. Two shaded rectangular areas are labeled "PROJECT AREA". The bottom right corner contains a circular professional seal for Ramon Dominguez, New Mexico Professional Surveyor No. 24508, dated 8/8/2025.

DRILLING AND OPERATIONS PLAN

Civitas Permian Operating LLC

Section 1:**Well Information**

Well Name and Number: Junior Mint Fed 216

Proposed TD (ft MD): 22720

Proposed TD (ft TVD): 12483

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	1,076	surface	1,075	42	J55	BTC		1.13	1.15	BUOY	1.80	BUOY	1.80
Intermediate	9.875	7.625	surface	11,741	surface	11,708	29.7	P110	BTC		1.13	1.15	BUOY	1.80	BUOY	1.80
Production	6.75	5.5	surface	22,720	surface	12,483	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	391	1.72	100	Class C	Additives + LCM
Surface	Tail	776	14.8	196	1.33	100	Class C	Additives + LCM
Intermediate	Lead	0	10.5	813	3.98	25	Class C	Additives + LCM
Intermediate	Tail	10741	13.2	231	1.61	25	Class C	Additives + LCM
Production	Lead	na	10.5	na	3.93	na	Class H	Additives + LCM
Production	Tail	11391	13.2	788	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	1076	Water Based Mud	8.4	8.8
1076	11741	Brine or Oil Based Mud	9.2	10.0
11741	22720	Brine or Oil Based Mud	11.5	13.0

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	9 7/8	7 5/8	13-5/8", 10M	480	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	6 3/4	5 1/2	13-5/8", 10M	7068	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 colexchoke 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:

8439 PSI

Anticipated Static Bottom Hole Temperature:

200 °F

Anticipated Abnormal Pressure?

No

Potential Hazards:

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**

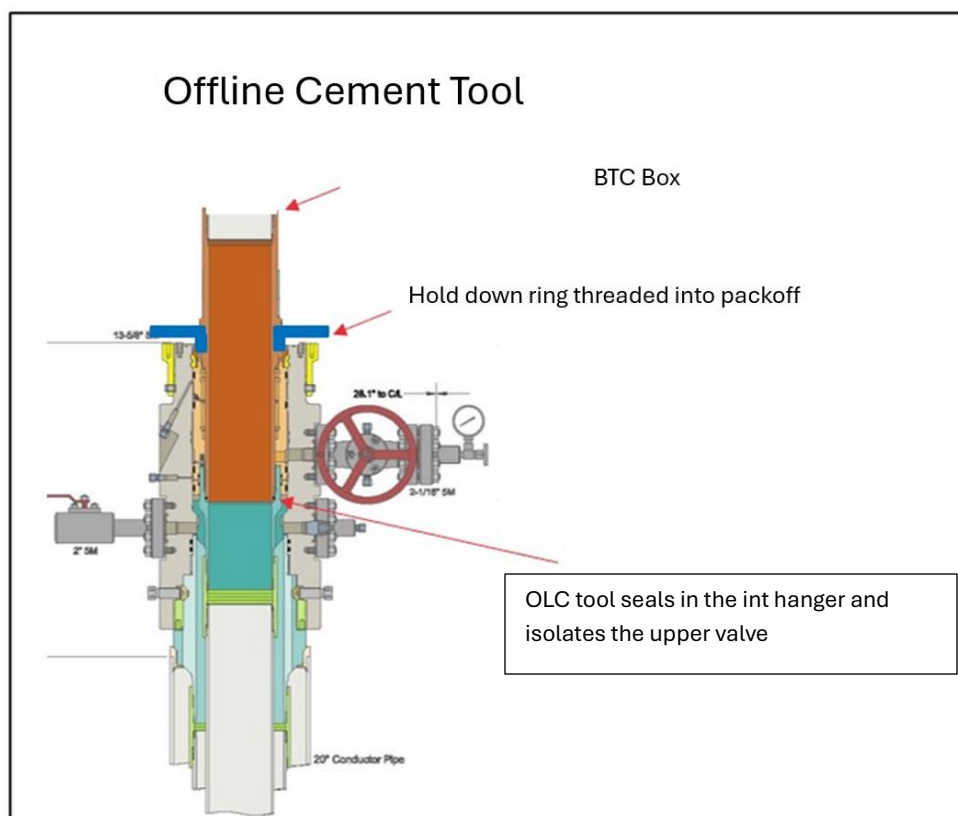
Var #	Type	Description of Request
1	Offline Cementing	Request to perform offline cementing of surface and intermediate casing when strings are set above the Wolfcamp formation. This allows rig operations to continue while cement sets. (see attached plan).
2	Intermediate Second-Stage Bullheading	Request 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

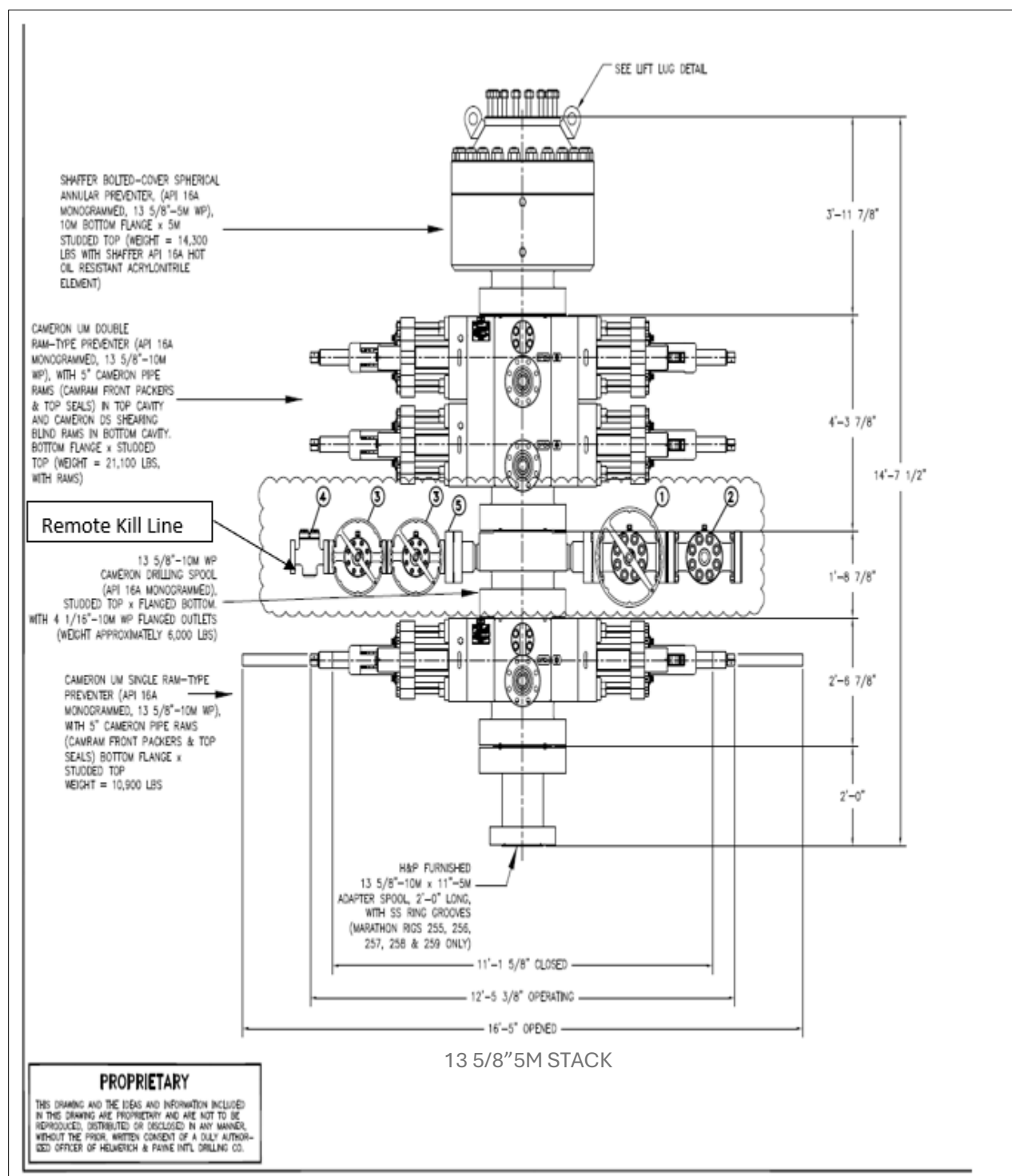
Offline Cementing: Civitas requests a variance for the option to offline cement surface and intermediate casing strings set higher than Wolfcamp formations. To execute offline cement jobs safely, the following precautions and equipment are detailed below:

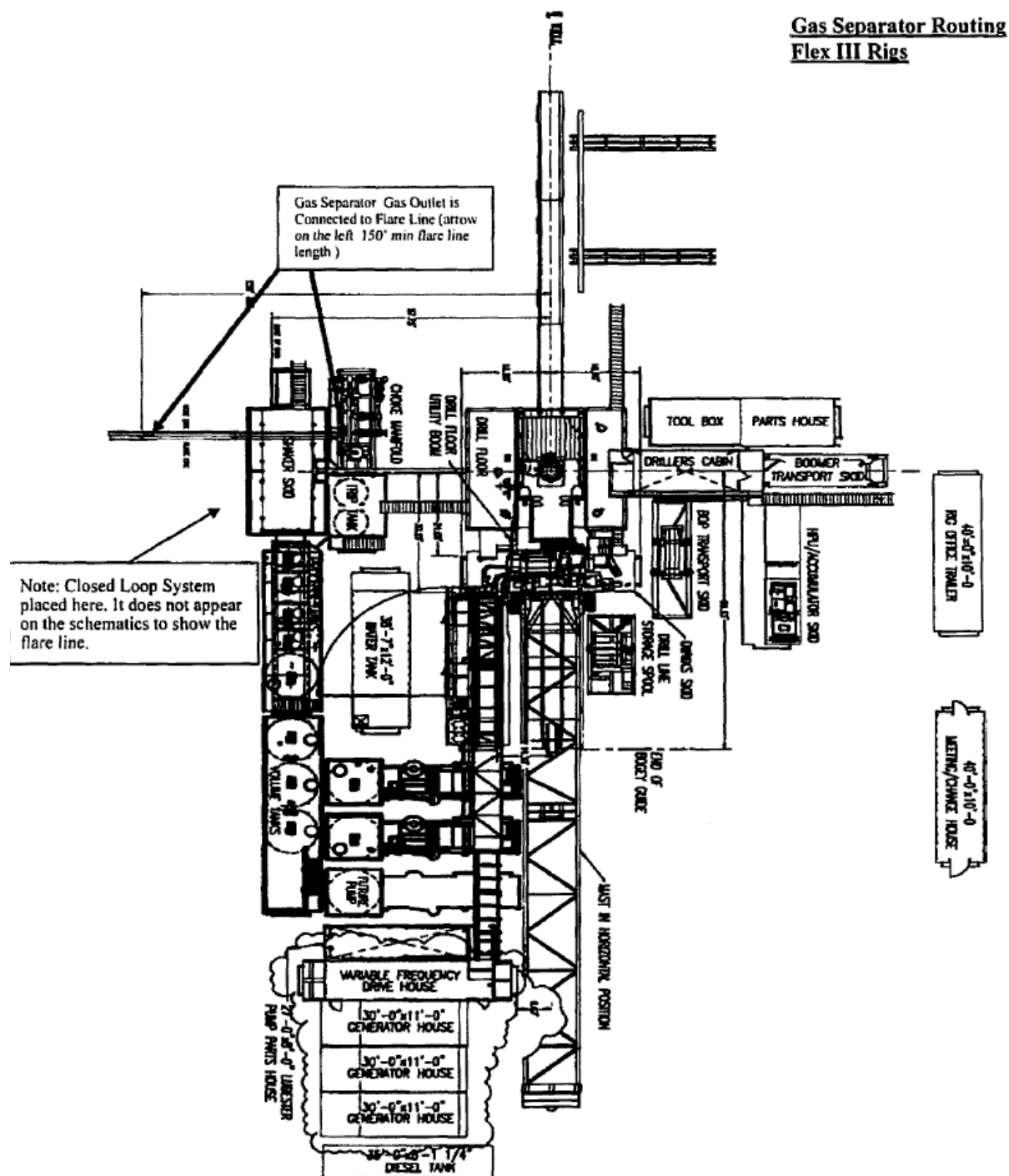
- For surface casing, no change to cement procedures to offline cement surface casing is anticipated.
- For intermediate casing, during the drilling of the intermediate hole section (all intermediate strings will be TD'd above the WCA top), hole conditions will be monitored and addressed to ensure for 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:



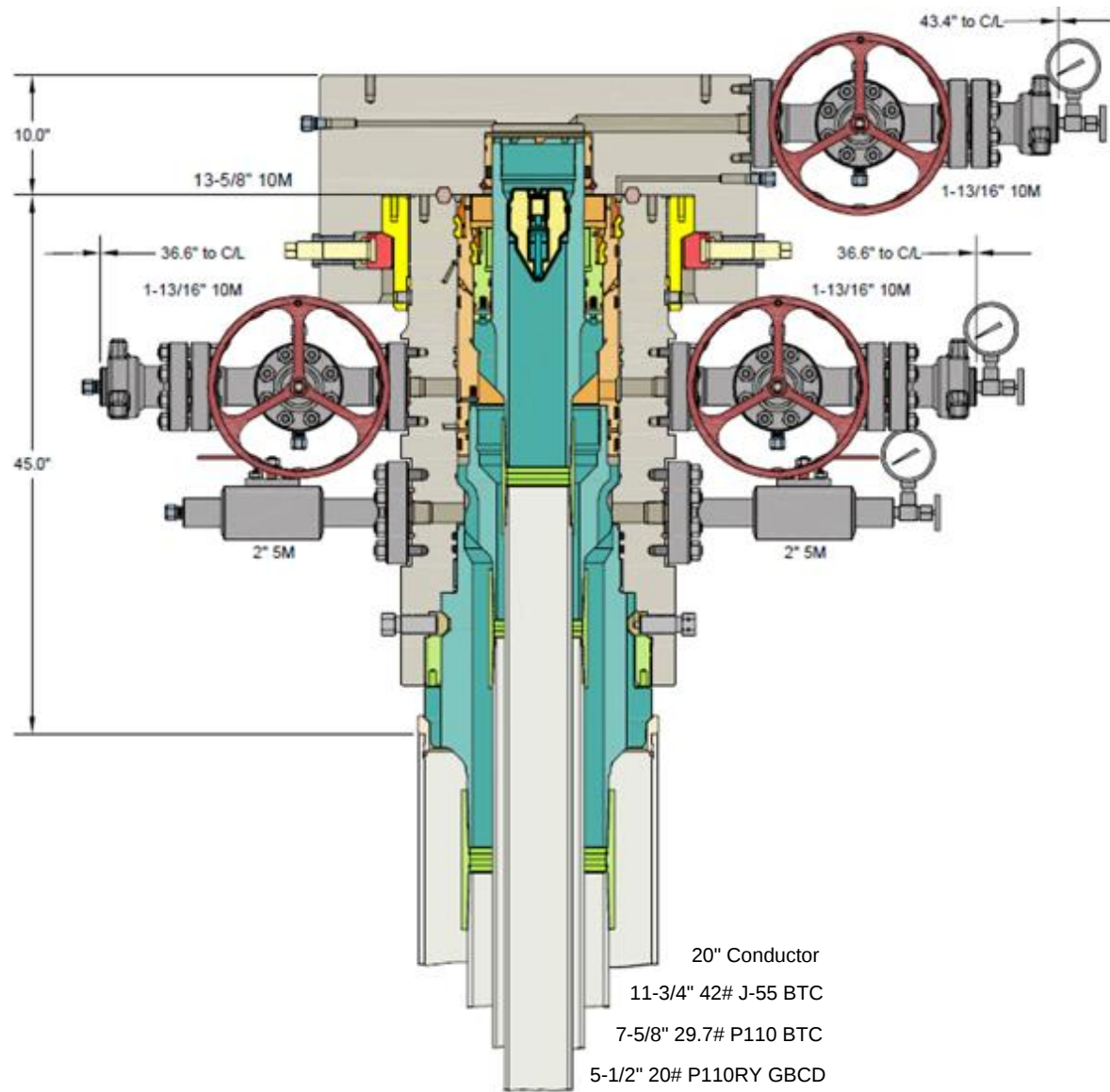
[illegible]

10M BOP Stack





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.

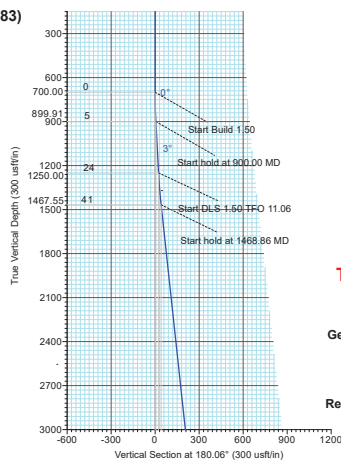
See attached: Notes for GB Connection Performance Properties.

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 216H
 Wellbore: OH
 Design: Plan #2
 Rig: 26' KB



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 3222' + KB 26' @ 3248.00usft (26' KB)

SHL

RKB Elevation: GE 3222' + KB 26' @ 3248.00usft (26' KB)

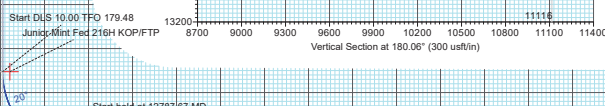
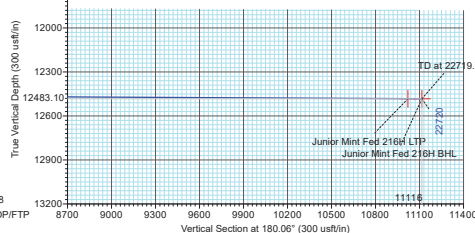
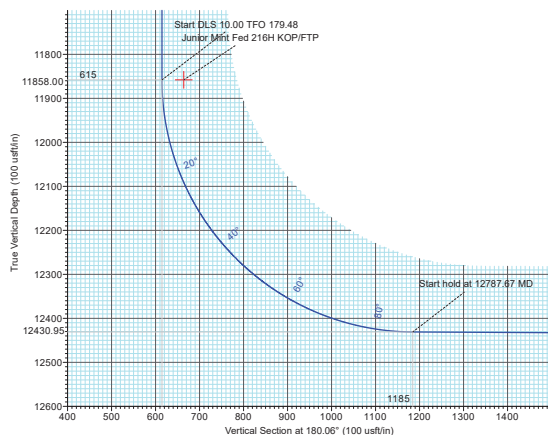
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	415751.00	845189.00	32.1391713	-103.3516648	

SECTION DETAILS

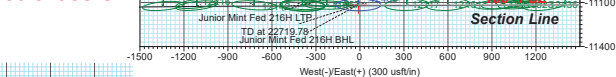
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
900.00	3.00	184.32	899.91	-5.22	-0.39	1.50	184.32	5.22	
1250.57	3.00	184.32	1250.00	-23.52	-1.78	0.00	0.00	23.52	
1468.86	6.25	190.10	1467.55	-40.91	-4.29	1.50	11.06	40.91	
6616.33	6.25	190.10	6584.48	-592.19	-102.48	0.00	0.00	592.30	
7032.58	0.00	0.00	7000.00	-614.51	-106.45	1.50	180.00	614.62	
11890.58	0.00	0.00	11858.00	-614.51	-106.45	0.00	0.00	614.62	
12787.67	89.70	179.48	12430.95	-1184.44	-101.27	10.00	179.48	1184.54	
22719.78	89.70	179.48	12483.10	-11116.00	-11.00	0.00	0.00	11116.01	

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Junior Mint Fed 216H KOP/FTP	11858.00	-664.00	-106.00	415087.00	845083.00	32.1373490	-103.3520267
Junior Mint Fed 216H LTP	12482.70	-11021.00	-12.00	404730.00	845177.00	32.1088799	-103.3520278
Junior Mint Fed 216H BHL	12483.10	-11116.00	-11.00	404635.00	845178.00	32.1086188	-103.3520274



Do Not Cross SL



Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 216H

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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 216H					
Well Position	+N/-S	0.00 usft	Northing:	415,751.00 usft	Latitude:	32.1391714
	+E/-W	0.00 usft	Easting:	845,189.00 usft	Longitude:	-103.3516647
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,222.00 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	180.06	

Survey Tool Program	Date	8/18/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	22,718.98	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	3.00	184.32	899.91	-5.22	-0.39	1.50	1.50	0.00	184.32	
1,250.57	3.00	184.32	1,250.00	-23.52	-1.78	0.00	0.00	0.00	0.00	
1,468.86	6.25	190.10	1,467.55	-40.91	-4.29	1.50	1.49	2.65	11.06	
6,616.33	6.25	190.10	6,584.48	-592.19	-102.48	0.00	0.00	0.00	0.00	
7,032.68	0.00	0.00	7,000.00	-614.51	-106.45	1.50	-1.50	0.00	180.00	
11,890.68	0.00	0.00	11,858.00	-614.51	-106.45	0.00	0.00	0.00	0.00	
12,787.67	89.70	179.48	12,430.95	-1,184.44	-101.27	10.00	10.00	20.01	179.48	
22,719.79	89.70	179.48	12,483.10	-11,116.00	-11.00	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	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	415,751.00	845,189.00	32.1391714	-103.3516647	0.00	0.00	0.00	0.00
800.00	1.50	184.32	799.99	-1.31	-0.10	415,749.69	845,188.90	32.1391678	-103.3516651	1.31	1.50	1.50	0.00
900.00	3.00	184.32	899.91	-5.22	-0.39	415,745.78	845,188.61	32.1391570	-103.3516662	5.22	1.50	1.50	0.00
1,000.00	3.00	184.32	999.77	-10.44	-0.79	415,740.56	845,188.21	32.1391427	-103.3516676	10.44	0.00	0.00	0.00
1,100.00	3.00	184.32	1,099.63	-15.66	-1.18	415,735.34	845,187.82	32.1391284	-103.3516690	15.66	0.00	0.00	0.00
1,200.00	3.00	184.32	1,199.50	-20.88	-1.58	415,730.12	845,187.42	32.1391140	-103.3516705	20.88	0.00	0.00	0.00
1,250.57	3.00	184.32	1,250.00	-23.52	-1.78	415,727.48	845,187.22	32.1391068	-103.3516712	23.52	0.00	0.00	0.00
1,300.00	3.73	186.51	1,299.34	-26.40	-2.06	415,724.60	845,186.94	32.1390989	-103.3516722	26.40	1.50	1.48	4.42
1,400.00	5.22	189.05	1,399.04	-34.13	-3.14	415,716.87	845,185.86	32.1390777	-103.3516759	34.13	1.50	1.49	2.54
1,468.86	6.25	190.10	1,467.55	-40.91	-4.29	415,710.09	845,184.71	32.1390591	-103.3516798	40.91	1.50	1.49	1.52
1,500.00	6.25	190.10	1,498.51	-44.24	-4.88	415,706.76	845,184.12	32.1390499	-103.3516818	44.25	0.00	0.00	0.00
1,600.00	6.25	190.10	1,597.91	-54.95	-6.79	415,696.05	845,182.21	32.1390205	-103.3516883	54.96	0.00	0.00	0.00
1,700.00	6.25	190.10	1,697.32	-65.66	-8.70	415,685.34	845,180.30	32.1389911	-103.3516948	65.67	0.00	0.00	0.00
1,800.00	6.25	190.10	1,796.72	-76.37	-10.61	415,674.63	845,178.39	32.1389617	-103.3517013	76.38	0.00	0.00	0.00
1,900.00	6.25	190.10	1,896.13	-87.08	-12.51	415,663.92	845,176.49	32.1389323	-103.3517077	87.09	0.00	0.00	0.00
2,000.00	6.25	190.10	1,995.54	-97.79	-14.42	415,653.21	845,174.58	32.1389030	-103.3517142	97.80	0.00	0.00	0.00
2,100.00	6.25	190.10	2,094.94	-108.50	-16.33	415,642.50	845,172.67	32.1388736	-103.3517207	108.52	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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)
2,200.00	6.25	190.10	2,194.35	-119.21	-18.24	415,631.79	845,170.76	32.1388442	-103.3517272	119.23	0.00	0.00	0.00
2,300.00	6.25	190.10	2,293.76	-129.92	-20.14	415,621.08	845,168.86	32.1388148	-103.3517336	129.94	0.00	0.00	0.00
2,400.00	6.25	190.10	2,393.16	-140.63	-22.05	415,610.37	845,166.95	32.1387854	-103.3517401	140.65	0.00	0.00	0.00
2,500.00	6.25	190.10	2,492.57	-151.34	-23.96	415,599.66	845,165.04	32.1387560	-103.3517466	151.36	0.00	0.00	0.00
2,600.00	6.25	190.10	2,591.98	-162.05	-25.87	415,588.95	845,163.13	32.1387266	-103.3517531	162.08	0.00	0.00	0.00
2,700.00	6.25	190.10	2,691.38	-172.76	-27.77	415,578.24	845,161.23	32.1386972	-103.3517595	172.79	0.00	0.00	0.00
2,800.00	6.25	190.10	2,790.79	-183.47	-29.68	415,567.53	845,159.32	32.1386678	-103.3517660	183.50	0.00	0.00	0.00
2,900.00	6.25	190.10	2,890.20	-194.18	-31.59	415,556.82	845,157.41	32.1386385	-103.3517725	194.21	0.00	0.00	0.00
3,000.00	6.25	190.10	2,989.60	-204.89	-33.50	415,546.11	845,155.50	32.1386091	-103.3517790	204.92	0.00	0.00	0.00
3,100.00	6.25	190.10	3,089.01	-215.60	-35.40	415,535.40	845,153.60	32.1385797	-103.3517855	215.63	0.00	0.00	0.00
3,200.00	6.25	190.10	3,188.42	-226.31	-37.31	415,524.69	845,151.69	32.1385503	-103.3517919	226.35	0.00	0.00	0.00
3,300.00	6.25	190.10	3,287.82	-237.02	-39.22	415,513.98	845,149.78	32.1385209	-103.3517984	237.06	0.00	0.00	0.00
3,400.00	6.25	190.10	3,387.23	-247.73	-41.12	415,503.27	845,147.88	32.1384915	-103.3518049	247.77	0.00	0.00	0.00
3,500.00	6.25	190.10	3,486.64	-258.44	-43.03	415,492.56	845,145.97	32.1384621	-103.3518114	258.48	0.00	0.00	0.00
3,600.00	6.25	190.10	3,586.04	-269.15	-44.94	415,481.85	845,144.06	32.1384327	-103.3518178	269.19	0.00	0.00	0.00
3,700.00	6.25	190.10	3,685.45	-279.86	-46.85	415,471.14	845,142.15	32.1384033	-103.3518243	279.91	0.00	0.00	0.00
3,800.00	6.25	190.10	3,784.86	-290.57	-48.75	415,460.43	845,140.25	32.1383740	-103.3518308	290.62	0.00	0.00	0.00
3,900.00	6.25	190.10	3,884.26	-301.28	-50.66	415,449.72	845,138.34	32.1383446	-103.3518373	301.33	0.00	0.00	0.00
4,000.00	6.25	190.10	3,983.67	-311.99	-52.57	415,439.01	845,136.43	32.1383152	-103.3518438	312.04	0.00	0.00	0.00
4,100.00	6.25	190.10	4,083.08	-322.70	-54.48	415,428.30	845,134.52	32.1382858	-103.3518502	322.75	0.00	0.00	0.00
4,200.00	6.25	190.10	4,182.48	-333.41	-56.38	415,417.59	845,132.62	32.1382564	-103.3518567	333.47	0.00	0.00	0.00
4,300.00	6.25	190.10	4,281.89	-344.12	-58.29	415,406.88	845,130.71	32.1382270	-103.3518632	344.18	0.00	0.00	0.00
4,400.00	6.25	190.10	4,381.30	-354.83	-60.20	415,396.17	845,128.80	32.1381976	-103.3518697	354.89	0.00	0.00	0.00
4,500.00	6.25	190.10	4,480.70	-365.54	-62.11	415,385.46	845,126.89	32.1381682	-103.3518761	365.60	0.00	0.00	0.00
4,600.00	6.25	190.10	4,580.11	-376.25	-64.01	415,374.75	845,124.99	32.1381389	-103.3518826	376.31	0.00	0.00	0.00
4,700.00	6.25	190.10	4,679.51	-386.96	-65.92	415,364.04	845,123.08	32.1381095	-103.3518891	387.02	0.00	0.00	0.00
4,800.00	6.25	190.10	4,778.92	-397.67	-67.83	415,353.33	845,121.17	32.1380801	-103.3518956	397.74	0.00	0.00	0.00
4,900.00	6.25	190.10	4,878.33	-408.38	-69.74	415,342.62	845,119.26	32.1380507	-103.3519020	408.45	0.00	0.00	0.00
5,000.00	6.25	190.10	4,977.73	-419.09	-71.64	415,331.91	845,117.36	32.1380213	-103.3519085	419.16	0.00	0.00	0.00
5,100.00	6.25	190.10	5,077.14	-429.80	-73.55	415,321.20	845,115.45	32.1379919	-103.3519150	429.87	0.00	0.00	0.00
5,200.00	6.25	190.10	5,176.55	-440.51	-75.46	415,310.49	845,113.54	32.1379625	-103.3519215	440.58	0.00	0.00	0.00
5,300.00	6.25	190.10	5,275.95	-451.22	-77.37	415,299.78	845,111.63	32.1379331	-103.3519280	451.30	0.00	0.00	0.00
5,400.00	6.25	190.10	5,375.36	-461.92	-79.27	415,289.08	845,109.73	32.1379037	-103.3519344	462.01	0.00	0.00	0.00
5,500.00	6.25	190.10	5,474.77	-472.63	-81.18	415,278.37	845,107.82	32.1378744	-103.3519409	472.72	0.00	0.00	0.00
5,600.00	6.25	190.10	5,574.17	-483.34	-83.09	415,267.66	845,105.91	32.1378450	-103.3519474	483.43	0.00	0.00	0.00
5,700.00	6.25	190.10	5,673.58	-494.05	-85.00	415,256.95	845,104.00	32.1378156	-103.3519539	494.14	0.00	0.00	0.00
5,800.00	6.25	190.10	5,772.99	-504.76	-86.90	415,246.24	845,102.10	32.1377862	-103.3519603	504.86	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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)
5,900.00	6.25	190.10	5,872.39	-515.47	-88.81	415,235.53	845,100.19	32.1377568	-103.3519668	515.57	0.00	0.00	0.00
6,000.00	6.25	190.10	5,971.80	-526.18	-90.72	415,224.82	845,098.28	32.1377274	-103.3519733	526.28	0.00	0.00	0.00
6,100.00	6.25	190.10	6,071.21	-536.89	-92.63	415,214.11	845,096.37	32.1376980	-103.3519798	536.99	0.00	0.00	0.00
6,200.00	6.25	190.10	6,170.61	-547.60	-94.53	415,203.40	845,094.47	32.1376686	-103.3519862	547.70	0.00	0.00	0.00
6,300.00	6.25	190.10	6,270.02	-558.31	-96.44	415,192.69	845,092.56	32.1376392	-103.3519927	558.41	0.00	0.00	0.00
6,400.00	6.25	190.10	6,369.43	-569.02	-98.35	415,181.98	845,090.65	32.1376099	-103.3519992	569.13	0.00	0.00	0.00
6,500.00	6.25	190.10	6,468.83	-579.73	-100.26	415,171.27	845,088.74	32.1375805	-103.3520057	579.84	0.00	0.00	0.00
6,600.00	6.25	190.10	6,568.24	-590.44	-102.16	415,160.56	845,086.84	32.1375511	-103.3520122	590.55	0.00	0.00	0.00
6,616.33	6.25	190.10	6,584.48	-592.19	-102.48	415,158.81	845,086.52	32.1375463	-103.3520132	592.30	0.00	0.00	0.00
6,700.00	4.99	190.10	6,667.74	-600.26	-103.91	415,150.74	845,085.09	32.1375241	-103.3520181	600.36	1.50	-1.50	0.00
6,800.00	3.49	190.10	6,767.46	-607.53	-105.21	415,143.47	845,083.79	32.1375042	-103.3520225	607.64	1.50	-1.50	0.00
6,900.00	1.99	190.10	6,867.34	-612.24	-106.05	415,138.76	845,082.95	32.1374913	-103.3520253	612.35	1.50	-1.50	0.00
7,000.00	0.49	190.10	6,967.32	-614.37	-106.43	415,136.63	845,082.57	32.1374854	-103.3520266	614.48	1.50	-1.50	0.00
7,032.68	0.00	0.00	7,000.00	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	1.50	-1.50	0.00
7,100.00	0.00	0.00	7,067.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,200.00	0.00	0.00	7,167.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,300.00	0.00	0.00	7,267.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,400.00	0.00	0.00	7,367.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,500.00	0.00	0.00	7,467.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,600.00	0.00	0.00	7,567.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,700.00	0.00	0.00	7,667.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,800.00	0.00	0.00	7,767.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
7,900.00	0.00	0.00	7,867.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,000.00	0.00	0.00	7,967.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,100.00	0.00	0.00	8,067.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,200.00	0.00	0.00	8,167.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,300.00	0.00	0.00	8,267.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,400.00	0.00	0.00	8,367.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,500.00	0.00	0.00	8,467.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,600.00	0.00	0.00	8,567.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,700.00	0.00	0.00	8,667.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,800.00	0.00	0.00	8,767.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
8,900.00	0.00	0.00	8,867.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,000.00	0.00	0.00	8,967.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,100.00	0.00	0.00	9,067.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,200.00	0.00	0.00	9,167.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,300.00	0.00	0.00	9,267.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,400.00	0.00	0.00	9,367.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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)
9,500.00	0.00	0.00	9,467.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,600.00	0.00	0.00	9,567.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,700.00	0.00	0.00	9,667.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,800.00	0.00	0.00	9,767.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
9,900.00	0.00	0.00	9,867.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,000.00	0.00	0.00	9,967.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,100.00	0.00	0.00	10,067.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,200.00	0.00	0.00	10,167.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,300.00	0.00	0.00	10,267.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,400.00	0.00	0.00	10,367.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,500.00	0.00	0.00	10,467.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,600.00	0.00	0.00	10,567.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,700.00	0.00	0.00	10,667.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,800.00	0.00	0.00	10,767.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
10,900.00	0.00	0.00	10,867.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,000.00	0.00	0.00	10,967.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,100.00	0.00	0.00	11,067.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,200.00	0.00	0.00	11,167.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,300.00	0.00	0.00	11,267.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,400.00	0.00	0.00	11,367.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,500.00	0.00	0.00	11,467.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,600.00	0.00	0.00	11,567.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,700.00	0.00	0.00	11,667.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,800.00	0.00	0.00	11,767.32	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,890.68	0.00	0.00	11,858.00	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	0.00	0.00	0.00
11,891.08	0.04	179.48	11,858.40	-614.51	-106.45	415,136.49	845,082.55	32.1374850	-103.3520267	614.62	10.00	10.00	0.00
Junior Mint Fed 216H KOP/FTP													
11,900.00	0.93	179.48	11,867.32	-614.59	-106.45	415,136.41	845,082.55	32.1374848	-103.3520267	614.70	10.00	10.00	0.00
11,950.00	5.93	179.48	11,917.21	-617.58	-106.42	415,133.42	845,082.58	32.1374766	-103.3520267	617.69	10.00	10.00	0.00
12,000.00	10.93	179.48	11,966.66	-624.91	-106.36	415,126.09	845,082.64	32.1374565	-103.3520267	625.02	10.00	10.00	0.00
12,050.00	15.93	179.48	12,015.27	-636.52	-106.25	415,114.48	845,082.75	32.1374245	-103.3520267	636.63	10.00	10.00	0.00
12,100.00	20.93	179.48	12,062.69	-652.32	-106.11	415,098.68	845,082.89	32.1373811	-103.3520267	652.43	10.00	10.00	0.00
12,150.00	25.93	179.48	12,108.56	-672.20	-105.93	415,078.80	845,083.07	32.1373265	-103.3520267	672.31	10.00	10.00	0.00
12,200.00	30.93	179.48	12,152.51	-695.99	-105.71	415,055.01	845,083.29	32.1372611	-103.3520267	696.10	10.00	10.00	0.00
12,250.00	35.93	179.48	12,194.22	-723.53	-105.46	415,027.47	845,083.54	32.1371854	-103.3520267	723.64	10.00	10.00	0.00
12,300.00	40.93	179.48	12,233.38	-754.60	-105.18	414,996.40	845,083.82	32.1371000	-103.3520267	754.71	10.00	10.00	0.00
12,350.00	45.93	179.48	12,269.68	-788.96	-104.86	414,962.04	845,084.14	32.1370055	-103.3520267	789.07	10.00	10.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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)
12,400.00	50.93	179.48	12,302.84	-826.36	-104.52	414,924.64	845,084.48	32.1369027	-103.3520267	826.46	10.00	10.00	0.00
12,450.00	55.93	179.48	12,332.62	-866.50	-104.16	414,884.50	845,084.84	32.1367924	-103.3520267	866.61	10.00	10.00	0.00
12,500.00	60.93	179.48	12,358.79	-909.08	-103.77	414,841.92	845,085.23	32.1366753	-103.3520267	909.19	10.00	10.00	0.00
12,550.00	65.93	179.48	12,381.15	-953.79	-103.37	414,797.21	845,085.63	32.1365524	-103.3520267	953.90	10.00	10.00	0.00
12,600.00	70.93	179.48	12,399.52	-1,000.27	-102.94	414,750.73	845,086.06	32.1364247	-103.3520267	1,000.38	10.00	10.00	0.00
12,650.00	75.93	179.48	12,413.77	-1,048.18	-102.51	414,702.82	845,086.49	32.1362930	-103.3520267	1,048.28	10.00	10.00	0.00
12,700.00	80.93	179.48	12,423.80	-1,097.14	-102.06	414,653.86	845,086.94	32.1361584	-103.3520267	1,097.25	10.00	10.00	0.00
12,750.00	85.93	179.48	12,429.51	-1,146.80	-101.61	414,604.20	845,087.39	32.1360219	-103.3520267	1,146.90	10.00	10.00	0.00
12,787.67	89.70	179.48	12,430.95	-1,184.44	-101.27	414,566.56	845,087.73	32.1359184	-103.3520267	1,184.54	10.00	10.00	0.00
12,800.00	89.70	179.48	12,431.01	-1,196.76	-101.16	414,554.24	845,087.84	32.1358846	-103.3520267	1,196.87	0.00	0.00	0.00
12,900.00	89.70	179.48	12,431.54	-1,296.76	-100.25	414,454.24	845,088.75	32.1356097	-103.3520268	1,296.86	0.00	0.00	0.00
13,000.00	89.70	179.48	12,432.07	-1,396.75	-99.34	414,354.25	845,089.66	32.1353348	-103.3520268	1,396.85	0.00	0.00	0.00
13,100.00	89.70	179.48	12,432.59	-1,496.75	-98.43	414,254.25	845,090.57	32.1350600	-103.3520268	1,496.85	0.00	0.00	0.00
13,200.00	89.70	179.48	12,433.12	-1,596.74	-97.52	414,154.26	845,091.48	32.1347851	-103.3520268	1,596.84	0.00	0.00	0.00
13,300.00	89.70	179.48	12,433.64	-1,696.73	-96.61	414,054.27	845,092.39	32.1345103	-103.3520268	1,696.83	0.00	0.00	0.00
13,400.00	89.70	179.48	12,434.17	-1,796.73	-95.70	413,954.27	845,093.30	32.1342354	-103.3520268	1,796.83	0.00	0.00	0.00
13,500.00	89.70	179.48	12,434.69	-1,896.72	-94.80	413,854.28	845,094.20	32.1339605	-103.3520268	1,896.82	0.00	0.00	0.00
13,600.00	89.70	179.48	12,435.22	-1,996.72	-93.89	413,754.28	845,095.11	32.1336857	-103.3520268	1,996.81	0.00	0.00	0.00
13,700.00	89.70	179.48	12,435.74	-2,096.71	-92.98	413,654.29	845,096.02	32.1334108	-103.3520268	2,096.81	0.00	0.00	0.00
13,800.00	89.70	179.48	12,436.27	-2,196.71	-92.07	413,554.29	845,096.93	32.1331359	-103.3520268	2,196.80	0.00	0.00	0.00
13,900.00	89.70	179.48	12,436.79	-2,296.70	-91.16	413,454.30	845,097.84	32.1328611	-103.3520268	2,296.80	0.00	0.00	0.00
14,000.00	89.70	179.48	12,437.32	-2,396.70	-90.25	413,354.30	845,098.75	32.1325862	-103.3520268	2,396.79	0.00	0.00	0.00
14,100.00	89.70	179.48	12,437.84	-2,496.69	-89.34	413,254.31	845,099.66	32.1323114	-103.3520268	2,496.78	0.00	0.00	0.00
14,200.00	89.70	179.48	12,438.37	-2,596.68	-88.43	413,154.32	845,100.57	32.1320365	-103.3520268	2,596.78	0.00	0.00	0.00
14,300.00	89.70	179.48	12,438.89	-2,696.68	-87.52	413,054.32	845,101.48	32.1317616	-103.3520269	2,696.77	0.00	0.00	0.00
14,400.00	89.70	179.48	12,439.42	-2,796.67	-86.62	412,954.33	845,102.38	32.1314868	-103.3520269	2,796.76	0.00	0.00	0.00
14,500.00	89.70	179.48	12,439.94	-2,896.67	-85.71	412,854.33	845,103.29	32.1312119	-103.3520269	2,896.76	0.00	0.00	0.00
14,600.00	89.70	179.48	12,440.47	-2,996.66	-84.80	412,754.34	845,104.20	32.1309370	-103.3520269	2,996.75	0.00	0.00	0.00
14,700.00	89.70	179.48	12,440.99	-3,096.66	-83.89	412,654.34	845,105.11	32.1306622	-103.3520269	3,096.74	0.00	0.00	0.00
14,800.00	89.70	179.48	12,441.52	-3,196.65	-82.98	412,554.35	845,106.02	32.1303873	-103.3520269	3,196.74	0.00	0.00	0.00
14,900.00	89.70	179.48	12,442.04	-3,296.65	-82.07	412,454.35	845,106.93	32.1301125	-103.3520269	3,296.73	0.00	0.00	0.00
15,000.00	89.70	179.48	12,442.57	-3,396.64	-81.16	412,354.36	845,107.84	32.1298376	-103.3520269	3,396.72	0.00	0.00	0.00
15,100.00	89.70	179.48	12,443.09	-3,496.63	-80.25	412,254.37	845,108.75	32.1295627	-103.3520269	3,496.72	0.00	0.00	0.00
15,200.00	89.70	179.48	12,443.62	-3,596.63	-79.34	412,154.37	845,109.66	32.1292879	-103.3520269	3,596.71	0.00	0.00	0.00
15,300.00	89.70	179.48	12,444.14	-3,696.62	-78.44	412,054.38	845,110.56	32.1290130	-103.3520269	3,696.70	0.00	0.00	0.00
15,400.00	89.70	179.48	12,444.67	-3,796.62	-77.53	411,954.38	845,111.47	32.1287382	-103.3520269	3,796.70	0.00	0.00	0.00
15,500.00	89.70	179.48	12,445.19	-3,896.61	-76.62	411,854.39	845,112.38	32.1284633	-103.3520269	3,896.69	0.00	0.00	0.00
15,600.00	89.70	179.48	12,445.72	-3,996.61	-75.71	411,754.39	845,113.29	32.1281884	-103.3520269	3,996.68	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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)
15,700.00	89.70	179.48	12,446.24	-4,096.60	-74.80	411,654.40	845,114.20	32.1279136	-103.3520269	4,096.68	0.00	0.00	0.00
15,800.00	89.70	179.48	12,446.77	-4,196.60	-73.89	411,554.40	845,115.11	32.1276387	-103.3520270	4,196.67	0.00	0.00	0.00
15,900.00	89.70	179.48	12,447.29	-4,296.59	-72.98	411,454.41	845,116.02	32.1273638	-103.3520270	4,296.66	0.00	0.00	0.00
16,000.00	89.70	179.48	12,447.82	-4,396.59	-72.07	411,354.41	845,116.93	32.1270890	-103.3520270	4,396.66	0.00	0.00	0.00
16,100.00	89.70	179.48	12,448.34	-4,496.58	-71.17	411,254.42	845,117.83	32.1268141	-103.3520270	4,496.65	0.00	0.00	0.00
16,200.00	89.70	179.48	12,448.87	-4,596.57	-70.26	411,154.43	845,118.74	32.1265393	-103.3520270	4,596.65	0.00	0.00	0.00
16,300.00	89.70	179.48	12,449.39	-4,696.57	-69.35	411,054.43	845,119.65	32.1262644	-103.3520270	4,696.64	0.00	0.00	0.00
16,400.00	89.70	179.48	12,449.92	-4,796.56	-68.44	410,954.44	845,120.56	32.1259895	-103.3520270	4,796.63	0.00	0.00	0.00
16,500.00	89.70	179.48	12,450.44	-4,896.56	-67.53	410,854.44	845,121.47	32.1257147	-103.3520270	4,896.63	0.00	0.00	0.00
16,600.00	89.70	179.48	12,450.97	-4,996.55	-66.62	410,754.45	845,122.38	32.1254398	-103.3520270	4,996.62	0.00	0.00	0.00
16,700.00	89.70	179.48	12,451.49	-5,096.55	-65.71	410,654.45	845,123.29	32.1251649	-103.3520270	5,096.61	0.00	0.00	0.00
16,800.00	89.70	179.48	12,452.02	-5,196.54	-64.80	410,554.46	845,124.20	32.1248901	-103.3520270	5,196.61	0.00	0.00	0.00
16,900.00	89.70	179.48	12,452.54	-5,296.54	-63.89	410,454.46	845,125.11	32.1246152	-103.3520270	5,296.60	0.00	0.00	0.00
17,000.00	89.70	179.48	12,453.07	-5,396.53	-62.99	410,354.47	845,126.01	32.1243404	-103.3520270	5,396.59	0.00	0.00	0.00
17,100.00	89.70	179.48	12,453.59	-5,496.52	-62.08	410,254.48	845,126.92	32.1240655	-103.3520270	5,496.59	0.00	0.00	0.00
17,200.00	89.70	179.48	12,454.12	-5,596.52	-61.17	410,154.48	845,127.83	32.1237906	-103.3520270	5,596.58	0.00	0.00	0.00
17,300.00	89.70	179.48	12,454.64	-5,696.51	-60.26	410,054.49	845,128.74	32.1235158	-103.3520270	5,696.57	0.00	0.00	0.00
17,400.00	89.70	179.48	12,455.17	-5,796.51	-59.35	409,954.49	845,129.65	32.1232409	-103.3520271	5,796.57	0.00	0.00	0.00
17,500.00	89.70	179.48	12,455.69	-5,896.50	-58.44	409,854.50	845,130.56	32.1229660	-103.3520271	5,896.56	0.00	0.00	0.00
17,600.00	89.70	179.48	12,456.22	-5,996.50	-57.53	409,754.50	845,131.47	32.1226912	-103.3520271	5,996.55	0.00	0.00	0.00
17,700.00	89.70	179.48	12,456.74	-6,096.49	-56.62	409,654.51	845,132.38	32.1224163	-103.3520271	6,096.55	0.00	0.00	0.00
17,800.00	89.70	179.48	12,457.27	-6,196.49	-55.71	409,554.51	845,133.29	32.1221415	-103.3520271	6,196.54	0.00	0.00	0.00
17,900.00	89.70	179.48	12,457.79	-6,296.48	-54.81	409,454.52	845,134.19	32.1218666	-103.3520271	6,296.53	0.00	0.00	0.00
18,000.00	89.70	179.48	12,458.32	-6,396.48	-53.90	409,354.52	845,135.10	32.1215917	-103.3520271	6,396.53	0.00	0.00	0.00
18,100.00	89.70	179.48	12,458.84	-6,496.47	-52.99	409,254.53	845,136.01	32.1213169	-103.3520271	6,496.52	0.00	0.00	0.00
18,200.00	89.70	179.48	12,459.37	-6,596.46	-52.08	409,154.54	845,136.92	32.1210420	-103.3520271	6,596.52	0.00	0.00	0.00
18,300.00	89.70	179.48	12,459.89	-6,696.46	-51.17	409,054.54	845,137.83	32.1207671	-103.3520271	6,696.51	0.00	0.00	0.00
18,400.00	89.70	179.48	12,460.42	-6,796.45	-50.26	408,954.55	845,138.74	32.1204923	-103.3520271	6,796.50	0.00	0.00	0.00
18,500.00	89.70	179.48	12,460.94	-6,896.45	-49.35	408,854.55	845,139.65	32.1202174	-103.3520271	6,896.50	0.00	0.00	0.00
18,600.00	89.70	179.48	12,461.47	-6,996.44	-48.44	408,754.56	845,140.56	32.1199426	-103.3520271	6,996.49	0.00	0.00	0.00
18,700.00	89.70	179.48	12,461.99	-7,096.44	-47.53	408,654.56	845,141.47	32.1196677	-103.3520271	7,096.48	0.00	0.00	0.00
18,800.00	89.70	179.48	12,462.52	-7,196.43	-46.63	408,554.57	845,142.37	32.1193928	-103.3520271	7,196.48	0.00	0.00	0.00
18,900.00	89.70	179.48	12,463.04	-7,296.43	-45.72	408,454.57	845,143.28	32.1191180	-103.3520271	7,296.47	0.00	0.00	0.00
19,000.00	89.70	179.48	12,463.57	-7,396.42	-44.81	408,354.58	845,144.19	32.1188431	-103.3520271	7,396.46	0.00	0.00	0.00
19,100.00	89.70	179.48	12,464.09	-7,496.41	-43.90	408,254.59	845,145.10	32.1185683	-103.3520272	7,496.46	0.00	0.00	0.00
19,200.00	89.70	179.48	12,464.62	-7,596.41	-42.99	408,154.59	845,146.01	32.1182934	-103.3520272	7,596.45	0.00	0.00	0.00
19,300.00	89.70	179.48	12,465.14	-7,696.40	-42.08	408,054.60	845,146.92	32.1180185	-103.3520272	7,696.44	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	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)
19,400.00	89.70	179.48	12,465.67	-7,796.40	-41.17	407,954.60	845,147.83	32.1177437	-103.3520272	7,796.44	0.00	0.00	0.00
19,500.00	89.70	179.48	12,466.19	-7,896.39	-40.26	407,854.61	845,148.74	32.1174688	-103.3520272	7,896.43	0.00	0.00	0.00
19,600.00	89.70	179.48	12,466.72	-7,996.39	-39.35	407,754.61	845,149.65	32.1171939	-103.3520272	7,996.42	0.00	0.00	0.00
19,700.00	89.70	179.48	12,467.24	-8,096.38	-38.45	407,654.62	845,150.55	32.1169191	-103.3520272	8,096.42	0.00	0.00	0.00
19,800.00	89.70	179.48	12,467.77	-8,196.38	-37.54	407,554.62	845,151.46	32.1166442	-103.3520272	8,196.41	0.00	0.00	0.00
19,900.00	89.70	179.48	12,468.29	-8,296.37	-36.63	407,454.63	845,152.37	32.1163694	-103.3520272	8,296.40	0.00	0.00	0.00
20,000.00	89.70	179.48	12,468.82	-8,396.37	-35.72	407,354.64	845,153.28	32.1160945	-103.3520272	8,396.40	0.00	0.00	0.00
20,100.00	89.70	179.48	12,469.34	-8,496.36	-34.81	407,254.64	845,154.19	32.1158196	-103.3520272	8,496.39	0.00	0.00	0.00
20,200.00	89.70	179.48	12,469.87	-8,596.35	-33.90	407,154.65	845,155.10	32.1155448	-103.3520272	8,596.38	0.00	0.00	0.00
20,300.00	89.70	179.48	12,470.39	-8,696.35	-32.99	407,054.65	845,156.01	32.1152699	-103.3520272	8,696.38	0.00	0.00	0.00
20,400.00	89.70	179.48	12,470.92	-8,796.34	-32.08	406,954.66	845,156.92	32.1149950	-103.3520272	8,796.37	0.00	0.00	0.00
20,500.00	89.70	179.48	12,471.44	-8,896.34	-31.17	406,854.66	845,157.83	32.1147202	-103.3520272	8,896.37	0.00	0.00	0.00
20,600.00	89.70	179.48	12,471.97	-8,996.33	-30.27	406,754.67	845,158.73	32.1144453	-103.3520272	8,996.36	0.00	0.00	0.00
20,700.00	89.70	179.48	12,472.50	-9,096.33	-29.36	406,654.67	845,159.64	32.1141705	-103.3520272	9,096.35	0.00	0.00	0.00
20,800.00	89.70	179.48	12,473.02	-9,196.32	-28.45	406,554.68	845,160.55	32.1138956	-103.3520272	9,196.35	0.00	0.00	0.00
20,900.00	89.70	179.48	12,473.55	-9,296.32	-27.54	406,454.68	845,161.46	32.1136207	-103.3520273	9,296.34	0.00	0.00	0.00
21,000.00	89.70	179.48	12,474.07	-9,396.31	-26.63	406,354.69	845,162.37	32.1133459	-103.3520273	9,396.33	0.00	0.00	0.00
21,100.00	89.70	179.48	12,474.60	-9,496.30	-25.72	406,254.70	845,163.28	32.1130710	-103.3520273	9,496.33	0.00	0.00	0.00
21,200.00	89.70	179.48	12,475.12	-9,596.30	-24.81	406,154.70	845,164.19	32.1127961	-103.3520273	9,596.32	0.00	0.00	0.00
21,300.00	89.70	179.48	12,475.65	-9,696.29	-23.90	406,054.71	845,165.10	32.1125213	-103.3520273	9,696.31	0.00	0.00	0.00
21,400.00	89.70	179.48	12,476.17	-9,796.29	-23.00	405,954.71	845,166.00	32.1122464	-103.3520273	9,796.31	0.00	0.00	0.00
21,500.00	89.70	179.48	12,476.70	-9,896.28	-22.09	405,854.72	845,166.91	32.1119715	-103.3520273	9,896.30	0.00	0.00	0.00
21,600.00	89.70	179.48	12,477.22	-9,996.28	-21.18	405,754.72	845,167.82	32.1116967	-103.3520273	9,996.29	0.00	0.00	0.00
21,700.00	89.70	179.48	12,477.75	-10,096.27	-20.27	405,654.73	845,168.73	32.1114218	-103.3520273	10,096.29	0.00	0.00	0.00
21,800.00	89.70	179.48	12,478.27	-10,196.27	-19.36	405,554.73	845,169.64	32.1111470	-103.3520273	10,196.28	0.00	0.00	0.00
21,900.00	89.70	179.48	12,478.80	-10,296.26	-18.45	405,454.74	845,170.55	32.1108721	-103.3520273	10,296.27	0.00	0.00	0.00
22,000.00	89.70	179.48	12,479.32	-10,396.25	-17.54	405,354.75	845,171.46	32.1105972	-103.3520273	10,396.27	0.00	0.00	0.00
22,100.00	89.70	179.48	12,479.85	-10,496.25	-16.63	405,254.75	845,172.37	32.1103224	-103.3520273	10,496.26	0.00	0.00	0.00
22,200.00	89.70	179.48	12,480.37	-10,596.24	-15.72	405,154.76	845,173.28	32.1100475	-103.3520273	10,596.25	0.00	0.00	0.00
22,300.00	89.70	179.48	12,480.90	-10,696.24	-14.82	405,054.76	845,174.18	32.1097726	-103.3520273	10,696.25	0.00	0.00	0.00
22,400.00	89.70	179.48	12,481.42	-10,796.23	-13.91	404,954.77	845,175.09	32.1094978	-103.3520273	10,796.24	0.00	0.00	0.00
22,500.00	89.70	179.48	12,481.95	-10,896.23	-13.00	404,854.77	845,176.00	32.1092229	-103.3520273	10,896.24	0.00	0.00	0.00
22,600.00	89.70	179.48	12,482.47	-10,996.22	-12.09	404,754.78	845,176.91	32.1089481	-103.3520273	10,996.23	0.00	0.00	0.00
22,624.78	89.70	179.48	12,482.60	-11,021.00	-11.86	404,730.00	845,177.14	32.1088800	-103.3520273	11,021.01	0.00	0.00	0.00
Junior Mint Fed 216H LTP													
22,700.00	89.70	179.48	12,483.00	-11,096.22	-11.18	404,654.78	845,177.82	32.1086732	-103.3520273	11,096.22	0.00	0.00	0.00
22,719.79	89.70	179.48	12,483.10	-11,116.00	-11.00	404,635.00	845,178.00	32.1086188	-103.3520273	11,116.01	0.00	0.00	0.00
Junior Mint Fed 216H BHL													

Total Directional
Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Well:	Junior Mint Fed 216H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured			Vertical	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Dogleg	Build	Turn
Depth	INC	AZI	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longituge	Section	Rate	Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)	(usft)	(°/100usft)	(°/100usft)

Design Targets

Target Name		Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- hit/miss target		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
- Shape										
Junior Mint Fed 216H		0.00	0.00	11,858.00	-664.00	-106.00	415,087.00	845,083.00	32.1373490	-103.3520267
- plan misses target center by 49.49usft at 11890.70usft MD (11858.02 TVD, -614.51 N, -106.45 E)										
- Point										
Junior Mint Fed 216H		0.00	0.00	12,482.70	-11,021.00	-12.00	404,730.00	845,177.00	32.1088800	-103.3520278
- plan misses target center by 0.17usft at 22624.78usft MD (12482.60 TVD, -11021.00 N, -11.86 E)										
- Point										
Junior Mint Fed 216H		0.00	0.00	12,483.10	-11,116.00	-11.00	404,635.00	845,178.00	32.1086188	-103.3520273
- plan hits target center										
- Point										

Checked By: _____

Approved By: _____

Date: _____

Civitas Resources

Lea County, NM (NAD 83)

Junior Mint Fed Pad

Junior Mint Fed 216H

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 216H					
Well Position	+N/-S	0.00 usft	Northing:	415,751.00 usft	Latitude:	32.1391714
	+E/-W	0.00 usft	Easting:	845,189.00 usft	Longitude:	-103.3516647
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,222.00 usft
Grid Convergence:		0.52 °				

Survey Tool Program	Date	8/18/2025					
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description			
0.00	22,718.98	Plan #2 (OH)	MWD+HRGM+SAG+FDIR (n	OWSG MWD + HRGM + SAG + FDIR Correction			

Experimental: Summary Highlights: Junior Mint Fed 216H

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 156H -	3,221.00	3,247.00	415,701.00	845,189.00	32.1390339	-103.3516662	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 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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	Reference	Offset	Distance		Separation	Warning
	Measured Depth (usft)	Measured Depth (usft)	Between Centres (usft)	Between Ellipses (usft)		
Offset Well - Wellbore - Design						
Junior Mint Fed Pad						
Junior Mint Fed 131H - OH - Plan 1						Out of range
Junior Mint Fed 132H - OH - Plan 2	7,090.01	7,098.58	1,756.96	1,729.84	64.78	CC
Junior Mint Fed 132H - OH - Plan 2	22,719.79	22,425.19	1,782.40	1,491.74	6.13	ES, SF
Junior Mint Fed 133H - OH - Plan #2	925.57	923.31	24.09	16.61	3.22	CC, ES
Junior Mint Fed 133H - OH - Plan #2	22,719.79	22,387.52	511.18	270.86	2.13	SF
Junior Mint Fed 134H - OH - Plan #2	1,841.88	1,824.48	133.45	122.98	12.74	CC, ES
Junior Mint Fed 134H - OH - Plan #2	22,719.79	22,335.19	492.58	273.30	2.25	SF
Junior Mint Fed 135H - OH - Plan 1	7,090.01	7,085.49	2,416.99	2,389.99	89.52	CC
Junior Mint Fed 135H - OH - Plan 1	11,600.00	11,595.58	2,417.04	2,384.79	74.96	ES
Junior Mint Fed 135H - OH - Plan 1	12,500.00	12,300.00	2,433.16	2,399.22	71.69	SF
Junior Mint Fed 137H - OH - Plan 2	7,090.01	7,187.74	1,096.96	1,065.94	35.36	CC
Junior Mint Fed 137H - OH - Plan 2	22,713.36	22,512.84	1,134.02	847.39	3.96	ES
Junior Mint Fed 137H - OH - Plan 2	22,719.79	22,512.84	1,134.04	847.40	3.96	SF
Junior Mint Fed 138H - OH - Plan #2	1,600.31	1,579.08	208.98	199.24	21.46	CC, ES
Junior Mint Fed 138H - OH - Plan #2	22,719.79	22,384.55	1,061.76	775.85	3.71	SF
Junior Mint Fed 151H - OH - Plan 1						Out of range
Junior Mint Fed 152H - OH - Plan #3	8,846.10	8,843.40	1,844.66	1,816.07	64.51	CC
Junior Mint Fed 152H - OH - Plan #3	22,719.79	22,079.41	1,981.07	1,700.30	7.06	ES, SF
Junior Mint Fed 156H - OH - Plan #2	300.00	299.00	50.00	46.04	12.63	CC, ES
Junior Mint Fed 156H - OH - Plan #2	22,719.79	21,918.86	853.78	721.36	6.45	SF
Junior Mint Fed 158H - OH - Plan #2	300.00	298.00	235.00	231.05	59.44	CC, ES
Junior Mint Fed 158H - OH - Plan #2	22,719.79	21,943.92	1,399.44	1,149.66	5.60	SF
Junior Mint Fed 211H - OH - Plan 1						Out of range
Junior Mint Fed 212H - OH - Plan #1	7,090.01	7,079.07	2,035.97	2,009.66	77.38	CC
Junior Mint Fed 212H - OH - Plan #1	22,719.79	22,634.88	2,042.41	1,748.77	6.96	ES, SF
Junior Mint Fed 213H - OH - Plan #2	500.00	499.00	55.90	50.64	10.62	CC, ES
Junior Mint Fed 213H - OH - Plan #2	22,719.79	22,830.04	711.49	406.99	2.34	SF
Junior Mint Fed 214H - OH - Plan #2	1,688.64	1,669.36	198.05	187.81	19.33	CC
Junior Mint Fed 214H - OH - Plan #2	1,700.00	1,680.10	198.07	187.78	19.25	ES
Junior Mint Fed 214H - OH - Plan #2	22,719.79	22,701.83	609.39	306.92	2.01	SF
Junior Mint Fed 215H - OH - Plan 1						Out of range
Junior Mint Fed 217H - OH - Plan #1	7,090.01	7,167.75	1,324.95	1,295.79	45.44	CC
Junior Mint Fed 217H - OH - Plan #1	22,719.79	22,698.24	1,333.57	1,039.92	4.54	ES, SF
Junior Mint Fed 218H - OH - Plan #2	300.00	298.00	236.33	232.37	59.77	CC
Junior Mint Fed 218H - OH - Plan #2	400.00	395.64	236.81	232.16	50.92	ES
Junior Mint Fed 218H - OH - Plan #2	22,719.79	22,763.21	1,268.86	966.34	4.19	SF
Junior Mint Fed 221H - OH - Plan 1						Out of range
Junior Mint Fed 222H - OH - Plan #1	7,090.01	7,122.31	1,630.97	1,603.14	58.60	CC
Junior Mint Fed 222H - OH - Plan #1	22,719.79	23,183.49	1,772.60	1,487.13	6.21	ES, SF
Junior Mint Fed 223H - OH - Plan #2	700.00	700.00	25.00	18.67	3.95	CC

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 223H - OH - Plan #2	800.00	799.99	25.13	18.34	3.70	ES
Junior Mint Fed 223H - OH - Plan #2	22,719.79	23,138.20	529.08	296.78	2.28	SF
Junior Mint Fed 224H - OH - Plan #2	2,068.30	2,055.57	103.94	92.59	9.16	CC, ES
Junior Mint Fed 224H - OH - Plan #2	22,719.79	23,099.59	989.49	700.42	3.42	SF

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)										Offset Site Error:	0.00 usft		
Rule Assigned:										Offset Well Error:	0.50 usft		
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,700.00	1,697.32	1,974.31	1,971.73	5.08	5.56	60.52	-895.59	-2,271.03	2,425.33	2,414.91	10.42	232.844	
1,800.00	1,796.72	2,072.42	2,069.21	5.27	5.73	60.76	-891.43	-2,260.73	2,408.66	2,397.88	10.78	223.528	
1,900.00	1,896.13	2,170.54	2,166.70	5.46	5.92	60.99	-887.27	-2,250.43	2,392.02	2,380.88	11.14	214.668	
2,000.00	1,995.54	2,300.10	2,295.35	5.64	6.15	61.32	-881.14	-2,236.40	2,375.02	2,363.48	11.54	205.733	
2,100.00	2,094.94	2,446.18	2,440.03	5.83	6.42	61.75	-871.44	-2,218.69	2,356.18	2,344.20	11.98	196.747	
2,200.00	2,194.35	2,590.50	2,582.46	6.02	6.69	62.24	-858.85	-2,199.17	2,335.42	2,323.02	12.40	188.300	
2,300.00	2,293.76	2,690.12	2,680.56	6.20	6.88	62.61	-849.00	-2,184.92	2,313.65	2,300.88	12.77	181.212	
2,400.00	2,393.16	2,786.68	2,775.65	6.39	7.06	62.97	-839.46	-2,171.10	2,291.96	2,278.83	13.13	174.572	
2,500.00	2,492.57	2,883.23	2,870.73	6.58	7.25	63.34	-829.91	-2,157.29	2,270.36	2,256.87	13.49	168.287	
2,600.00	2,591.98	2,979.79	2,965.82	6.76	7.43	63.71	-820.36	-2,143.47	2,248.86	2,235.01	13.85	162.329	
2,700.00	2,691.38	3,076.35	3,060.91	6.95	7.61	64.10	-810.81	-2,129.65	2,227.45	2,213.24	14.22	156.675	
2,800.00	2,790.79	3,172.91	3,155.99	7.13	7.80	64.49	-801.27	-2,115.83	2,206.14	2,191.56	14.58	151.304	
2,900.00	2,890.20	3,269.47	3,251.08	7.32	7.98	64.88	-791.72	-2,102.01	2,184.94	2,169.99	14.95	146.195	
3,000.00	2,989.60	3,366.03	3,346.17	7.50	8.17	65.29	-782.17	-2,088.19	2,163.83	2,148.52	15.31	141.332	
3,100.00	3,089.01	3,462.59	3,441.25	7.69	8.36	65.70	-772.62	-2,074.37	2,142.84	2,127.16	15.68	136.698	
3,200.00	3,188.42	3,559.15	3,536.34	7.88	8.55	66.12	-763.08	-2,060.56	2,121.96	2,105.91	16.04	132.279	
3,300.00	3,287.82	3,655.71	3,631.43	8.06	8.74	66.55	-753.53	-2,046.74	2,101.19	2,084.78	16.41	128.049	
3,400.00	3,387.23	3,752.27	3,726.52	8.25	8.95	66.99	-743.98	-2,032.92	2,080.53	2,063.76	16.78	124.021	
3,500.00	3,486.64	3,848.83	3,821.60	8.43	9.17	67.43	-734.43	-2,019.10	2,060.00	2,042.86	17.14	120.166	
3,600.00	3,586.04	3,945.39	3,916.69	8.62	9.38	67.89	-724.89	-2,005.28	2,039.60	2,022.09	17.51	116.476	
3,700.00	3,685.45	4,041.94	4,011.78	8.80	9.59	68.35	-715.34	-1,991.46	2,019.32	2,001.44	17.88	112.942	
3,800.00	3,784.86	4,138.50	4,106.86	8.99	9.80	68.82	-705.79	-1,977.64	1,999.18	1,980.93	18.25	109.555	
3,900.00	3,884.26	4,235.06	4,201.95	9.17	10.02	69.30	-696.24	-1,963.83	1,979.17	1,960.55	18.62	106.307	
4,000.00	3,983.67	4,331.62	4,297.04	9.36	10.23	69.79	-686.70	-1,950.01	1,959.30	1,940.32	18.99	103.190	
4,100.00	4,083.08	4,428.18	4,392.13	9.54	10.43	70.29	-677.15	-1,936.19	1,939.58	1,920.24	19.34	100.271	
4,200.00	4,182.48	4,500.00	4,462.91	9.73	10.57	70.67	-670.26	-1,926.21	1,920.51	1,900.86	19.66	97.703	
4,300.00	4,281.89	4,578.01	4,539.97	9.91	10.73	71.07	-663.34	-1,916.20	1,902.72	1,882.72	20.00	95.149	
4,400.00	4,381.30	4,652.85	4,614.05	10.10	10.88	71.44	-657.27	-1,907.41	1,886.22	1,865.89	20.33	92.782	
4,500.00	4,480.70	4,728.13	4,688.68	10.28	11.03	71.82	-651.71	-1,899.38	1,871.02	1,850.36	20.66	90.571	
4,600.00	4,580.11	4,800.00	4,760.06	10.47	11.16	72.16	-646.93	-1,892.45	1,857.11	1,836.13	20.98	88.532	
4,700.00	4,679.51	4,879.86	4,839.49	10.65	11.29	72.53	-642.21	-1,885.63	1,844.47	1,823.17	21.30	86.592	
4,800.00	4,778.92	4,956.28	4,915.59	10.84	11.41	72.88	-638.29	-1,879.95	1,833.13	1,811.51	21.61	84.812	
4,900.00	4,878.33	5,033.02	4,992.11	11.02	11.52	73.22	-634.93	-1,875.09	1,823.07	1,801.14	21.92	83.163	
5,000.00	4,977.73	5,100.00	5,058.95	11.21	11.62	73.50	-632.48	-1,871.54	1,814.31	1,792.11	22.21	81.700	
5,100.00	5,077.14	5,187.41	5,146.24	11.39	11.73	73.86	-629.94	-1,867.87	1,806.76	1,784.25	22.52	80.240	
5,200.00	5,176.55	5,264.99	5,223.77	11.58	11.82	74.16	-628.32	-1,865.53	1,800.51	1,777.71	22.80	78.960	
5,300.00	5,275.95	5,342.80	5,301.56	11.76	11.91	74.45	-627.30	-1,864.05	1,795.52	1,772.44	23.08	77.808	
5,400.00	5,375.36	5,420.81	5,379.57	11.95	11.99	74.72	-626.88	-1,863.44	1,791.78	1,768.45	23.33	76.802	
5,500.00	5,474.77	5,516.01	5,474.77	12.13	12.04	75.04	-626.87	-1,863.42	1,788.90	1,765.35	23.55	75.965	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:	
												Offset Well Error:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,600.00	5,574.17	5,615.42	5,574.17	12.32	12.12	75.38	-626.87	-1,863.42	1,786.11	1,762.31	23.79	75.067	
5,700.00	5,673.58	5,714.83	5,673.58	12.50	12.19	75.71	-626.87	-1,863.42	1,783.38	1,759.34	24.04	74.190	
5,800.00	5,772.99	5,814.23	5,772.99	12.69	12.27	76.05	-626.87	-1,863.42	1,780.71	1,756.43	24.28	73.333	
5,900.00	5,872.39	5,913.64	5,872.39	12.87	12.34	76.39	-626.87	-1,863.42	1,778.10	1,753.57	24.53	72.496	
6,000.00	5,971.80	6,013.05	5,971.80	13.06	12.42	76.73	-626.87	-1,863.42	1,775.56	1,750.79	24.77	71.677	
6,100.00	6,071.21	6,112.45	6,071.21	13.24	12.49	77.07	-626.87	-1,863.42	1,773.08	1,748.06	25.02	70.877	
6,200.00	6,170.61	6,211.86	6,170.61	13.43	12.57	77.41	-626.87	-1,863.42	1,770.66	1,745.40	25.26	70.094	
6,300.00	6,270.02	6,311.27	6,270.02	13.61	12.65	77.75	-626.87	-1,863.42	1,768.31	1,742.80	25.51	69.329	
6,400.00	6,369.43	6,410.67	6,369.43	13.80	12.72	78.09	-626.87	-1,863.42	1,766.02	1,740.27	25.75	68.581	
6,500.00	6,468.83	6,510.08	6,468.83	13.98	12.80	78.44	-626.87	-1,863.42	1,763.79	1,737.80	26.00	67.849	
6,600.00	6,568.24	6,609.49	6,568.24	14.17	12.87	78.78	-626.87	-1,863.42	1,761.63	1,735.39	26.24	67.133	
6,700.00	6,667.74	6,708.99	6,667.74	14.34	12.95	79.08	-626.87	-1,863.42	1,759.71	1,733.25	26.46	66.501	
6,800.00	6,767.46	6,808.71	6,767.46	14.53	13.03	79.29	-626.87	-1,863.42	1,758.32	1,731.64	26.68	65.905	
6,900.00	6,867.34	6,908.59	6,867.34	14.70	13.10	79.43	-626.87	-1,863.42	1,757.43	1,730.56	26.88	65.389	
7,000.00	6,967.32	7,008.57	6,967.32	14.86	13.18	79.49	-626.87	-1,863.42	1,757.04	1,729.99	27.05	64.949	
7,090.01	7,057.33	7,098.58	7,057.33	14.87	13.25	79.51	-626.87	-1,863.42	1,756.96	1,729.84	27.12	64.777	CC
7,100.00	7,067.32	7,108.57	7,067.32	14.88	13.26	-90.40	-626.87	-1,863.42	1,757.01	1,729.88	27.13	64.760	
7,200.00	7,167.32	7,208.57	7,167.32	14.90	13.34	-90.40	-626.87	-1,863.42	1,757.01	1,729.79	27.23	64.534	
7,300.00	7,267.32	7,308.57	7,267.32	14.93	13.41	-90.40	-626.87	-1,863.42	1,757.01	1,729.69	27.32	64.308	
7,400.00	7,367.32	7,408.57	7,367.32	14.95	13.49	-90.40	-626.87	-1,863.42	1,757.01	1,729.60	27.42	64.082	
7,500.00	7,467.32	7,508.57	7,467.32	14.98	13.57	-90.40	-626.87	-1,863.42	1,757.01	1,729.50	27.51	63.857	
7,600.00	7,567.32	7,608.57	7,567.32	15.01	13.64	-90.40	-626.87	-1,863.42	1,757.01	1,729.40	27.61	63.632	
7,700.00	7,667.32	7,708.57	7,667.32	15.03	13.72	-90.40	-626.87	-1,863.42	1,757.01	1,729.30	27.71	63.407	
7,800.00	7,767.32	7,808.57	7,767.32	15.06	13.80	-90.40	-626.87	-1,863.42	1,757.01	1,729.21	27.81	63.183	
7,900.00	7,867.32	7,908.57	7,867.32	15.09	13.88	-90.40	-626.87	-1,863.42	1,757.01	1,729.11	27.91	62.960	
8,000.00	7,967.32	8,008.57	7,967.32	15.12	13.95	-90.40	-626.87	-1,863.42	1,757.01	1,729.01	28.01	62.736	
8,100.00	8,067.32	8,108.57	8,067.32	15.15	14.03	-90.40	-626.87	-1,863.42	1,757.01	1,728.91	28.11	62.514	
8,200.00	8,167.32	8,208.57	8,167.32	15.18	14.11	-90.40	-626.87	-1,863.42	1,757.01	1,728.81	28.21	62.291	
8,300.00	8,267.32	8,308.57	8,267.32	15.21	14.19	-90.40	-626.87	-1,863.42	1,757.01	1,728.71	28.31	62.069	
8,400.00	8,367.32	8,408.57	8,367.32	15.24	14.26	-90.40	-626.87	-1,863.42	1,757.01	1,728.60	28.41	61.848	
8,500.00	8,467.32	8,508.57	8,467.32	15.27	14.34	-90.40	-626.87	-1,863.42	1,757.01	1,728.50	28.51	61.627	
8,600.00	8,567.32	8,608.57	8,567.32	15.30	14.42	-90.40	-626.87	-1,863.42	1,757.01	1,728.40	28.61	61.407	
8,700.00	8,667.32	8,708.57	8,667.32	15.33	14.50	-90.40	-626.87	-1,863.42	1,757.01	1,728.30	28.72	61.187	
8,800.00	8,767.32	8,808.57	8,767.32	15.36	14.58	-90.40	-626.87	-1,863.42	1,757.01	1,728.19	28.82	60.968	
8,900.00	8,867.32	8,908.57	8,867.32	15.39	14.65	-90.40	-626.87	-1,863.42	1,757.01	1,728.09	28.92	60.749	
9,000.00	8,967.32	9,008.57	8,967.32	15.43	14.73	-90.40	-626.87	-1,863.42	1,757.01	1,727.99	29.03	60.531	
9,100.00	9,067.32	9,108.57	9,067.32	15.46	14.81	-90.40	-626.87	-1,863.42	1,757.01	1,727.88	29.13	60.313	
9,200.00	9,167.32	9,208.57	9,167.32	15.49	14.89	-90.40	-626.87	-1,863.42	1,757.01	1,727.78	29.24	60.096	
9,300.00	9,267.32	9,308.57	9,267.32	15.53	14.97	-90.40	-626.87	-1,863.42	1,757.01	1,727.67	29.34	59.880	
9,400.00	9,367.32	9,408.57	9,367.32	15.56	15.04	-90.40	-626.87	-1,863.42	1,757.01	1,727.57	29.45	59.664	
9,500.00	9,467.32	9,508.57	9,467.32	15.59	15.12	-90.40	-626.87	-1,863.42	1,757.01	1,727.46	29.55	59.449	
9,600.00	9,567.32	9,608.57	9,567.32	15.63	15.20	-90.40	-626.87	-1,863.42	1,757.01	1,727.35	29.66	59.235	
9,700.00	9,667.32	9,708.57	9,667.32	15.66	15.28	-90.40	-626.87	-1,863.42	1,757.01	1,727.24	29.77	59.021	
9,800.00	9,767.32	9,808.57	9,767.32	15.70	15.36	-90.40	-626.87	-1,863.42	1,757.01	1,727.14	29.88	58.808	
9,900.00	9,867.32	9,908.57	9,867.32	15.73	15.43	-90.40	-626.87	-1,863.42	1,757.01	1,727.03	29.99	58.595	
10,000.00	9,967.32	10,008.57	9,967.32	15.77	15.51	-90.40	-626.87	-1,863.42	1,757.01	1,726.92	30.09	58.384	
10,100.00	10,067.32	10,108.57	10,067.32	15.81	15.59	-90.40	-626.87	-1,863.42	1,757.01	1,726.81	30.20	58.173	
10,200.00	10,167.32	10,208.57	10,167.32	15.84	15.67	-90.40	-626.87	-1,863.42	1,757.01	1,726.70	30.31	57.962	
10,300.00	10,267.32	10,308.57	10,267.32	15.88	15.75	-90.40	-626.87	-1,863.42	1,757.01	1,726.59	30.42	57.752	
10,400.00	10,367.32	10,408.57	10,367.32	15.92	15.83	-90.40	-626.87	-1,863.42	1,757.01	1,726.48	30.53	57.543	
10,500.00	10,467.32	10,508.57	10,467.32	15.95	15.91	-90.40	-626.87	-1,863.42	1,757.01	1,726.37	30.64	57.335	
10,600.00	10,567.32	10,608.57	10,567.32	15.99	15.98	-90.40	-626.87	-1,863.42	1,757.01	1,726.26	30.76	57.128	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:	
												Offset Well Error:	
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
10,700.00	10,667.32	10,708.57	10,667.32	16.03	16.06	-90.40	-626.87	-1,863.42	1,757.01	1,726.15	30.87	56.921	
10,800.00	10,767.32	10,808.57	10,767.32	16.07	16.14	-90.40	-626.87	-1,863.42	1,757.01	1,726.03	30.98	56.715	
10,900.00	10,867.32	10,908.57	10,867.32	16.11	16.22	-90.40	-626.87	-1,863.42	1,757.01	1,725.92	31.09	56.509	
11,000.00	10,967.32	11,008.57	10,967.32	16.15	16.30	-90.40	-626.87	-1,863.42	1,757.01	1,725.81	31.21	56.305	
11,100.00	11,067.32	11,108.57	11,067.32	16.19	16.38	-90.40	-626.87	-1,863.42	1,757.01	1,725.69	31.32	56.101	
11,200.00	11,167.32	11,208.57	11,167.32	16.23	16.46	-90.40	-626.87	-1,863.42	1,757.01	1,725.58	31.43	55.898	
11,300.00	11,267.32	11,308.57	11,267.32	16.27	16.53	-90.40	-626.87	-1,863.42	1,757.01	1,725.47	31.55	55.696	
11,400.00	11,367.32	11,408.57	11,367.32	16.31	16.61	-90.40	-626.87	-1,863.42	1,757.01	1,725.35	31.66	55.494	
11,500.00	11,467.32	11,508.57	11,467.32	16.35	16.69	-90.40	-626.87	-1,863.42	1,757.01	1,725.24	31.78	55.294	
11,600.00	11,567.32	11,608.62	11,567.38	16.39	16.76	-90.41	-627.00	-1,863.42	1,757.01	1,725.14	31.88	55.118	
11,643.94	11,611.26	11,652.60	11,611.26	16.41	16.80	-90.49	-629.64	-1,863.40	1,757.01	1,725.13	31.88	55.112	
11,700.00	11,667.32	11,707.68	11,665.74	16.43	16.84	-90.76	-637.67	-1,863.33	1,757.03	1,725.16	31.87	55.132	
11,800.00	11,767.32	11,800.00	11,754.49	16.47	16.90	-91.57	-662.72	-1,863.11	1,757.37	1,725.54	31.83	55.217	
11,900.00	11,867.32	11,883.39	11,830.28	16.51	16.96	87.80	-697.33	-1,862.81	1,758.70	1,726.93	31.77	55.355	
12,000.00	11,966.66	11,959.54	11,894.44	16.75	17.01	86.44	-738.24	-1,862.46	1,761.24	1,729.43	31.81	55.365	
12,100.00	12,062.69	12,032.65	11,950.42	17.02	17.07	85.14	-785.18	-1,862.06	1,764.55	1,732.53	32.02	55.114	
12,200.00	12,152.51	12,100.00	11,996.31	17.30	17.13	83.98	-834.41	-1,861.63	1,768.28	1,735.88	32.40	54.571	
12,300.00	12,233.38	12,172.50	12,038.90	17.56	17.22	82.87	-893.02	-1,861.13	1,772.10	1,739.14	32.96	53.762	
12,400.00	12,302.84	12,240.23	12,071.70	17.80	17.31	81.94	-952.23	-1,860.62	1,775.71	1,742.01	33.70	52.696	
12,500.00	12,358.79	12,300.00	12,094.68	18.10	17.42	81.24	-1,007.38	-1,860.14	1,778.84	1,744.25	34.58	51.434	
12,600.00	12,399.52	12,373.07	12,114.77	18.99	17.57	80.66	-1,077.58	-1,859.54	1,781.20	1,745.59	35.61	50.020	
12,700.00	12,423.80	12,438.71	12,125.07	19.97	17.74	80.32	-1,142.37	-1,858.98	1,782.71	1,745.98	36.72	48.546	
12,800.00	12,431.01	12,510.97	12,128.11	21.01	17.96	80.22	-1,214.53	-1,858.36	1,783.21	1,745.29	37.92	47.026	
12,900.00	12,431.54	12,610.97	12,128.98	22.11	18.34	80.23	-1,314.52	-1,857.50	1,783.20	1,743.86	39.34	45.330	
13,000.00	12,432.07	12,710.97	12,129.85	23.23	18.79	80.24	-1,414.52	-1,856.64	1,783.18	1,742.30	40.89	43.614	
13,100.00	12,432.59	12,810.97	12,130.72	24.37	19.31	80.25	-1,514.51	-1,855.78	1,783.17	1,740.62	42.55	41.909	
13,200.00	12,433.12	12,910.97	12,131.59	25.54	19.92	80.26	-1,614.50	-1,854.92	1,783.16	1,738.84	44.32	40.236	
13,300.00	12,433.64	13,010.97	12,132.47	26.73	20.59	80.28	-1,714.49	-1,854.06	1,783.15	1,736.97	46.18	38.613	
13,400.00	12,434.17	13,110.97	12,133.34	27.93	21.33	80.29	-1,814.48	-1,853.19	1,783.14	1,735.01	48.13	37.051	
13,500.00	12,434.69	13,210.97	12,134.21	29.15	22.14	80.30	-1,914.47	-1,852.33	1,783.13	1,732.98	50.15	35.558	
13,600.00	12,435.22	13,310.97	12,135.08	30.38	23.00	80.31	-2,014.47	-1,851.47	1,783.12	1,730.88	52.23	34.137	
13,700.00	12,435.74	13,410.97	12,135.95	31.62	23.90	80.32	-2,114.46	-1,850.61	1,783.10	1,728.73	54.38	32.790	
13,800.00	12,436.27	13,510.97	12,136.82	32.87	24.86	80.33	-2,214.45	-1,849.75	1,783.09	1,726.52	56.58	31.517	
13,900.00	12,436.79	13,610.97	12,137.69	34.13	25.85	80.34	-2,314.44	-1,848.89	1,783.08	1,724.26	58.82	30.315	
14,000.00	12,437.32	13,710.97	12,138.56	35.40	26.87	80.35	-2,414.43	-1,848.03	1,783.07	1,721.97	61.10	29.182	
14,100.00	12,437.84	13,810.97	12,139.44	36.68	27.93	80.37	-2,514.43	-1,847.17	1,783.06	1,719.64	63.42	28.115	
14,200.00	12,438.37	13,910.97	12,140.31	37.96	29.02	80.38	-2,614.42	-1,846.31	1,783.05	1,717.28	65.77	27.110	
14,300.00	12,438.89	14,010.96	12,141.18	39.25	30.12	80.39	-2,714.41	-1,845.45	1,783.04	1,714.89	68.15	26.163	
14,400.00	12,439.42	14,110.96	12,142.05	40.55	31.25	80.40	-2,814.40	-1,844.58	1,783.03	1,712.47	70.55	25.272	
14,500.00	12,439.94	14,210.96	12,142.92	41.84	32.40	80.41	-2,914.39	-1,843.72	1,783.02	1,710.04	72.98	24.431	
14,600.00	12,440.47	14,310.96	12,143.79	43.15	33.57	80.42	-3,014.39	-1,842.86	1,783.01	1,707.58	75.43	23.638	
14,700.00	12,440.99	14,410.96	12,144.66	44.45	34.75	80.43	-3,114.38	-1,842.00	1,783.00	1,705.10	77.90	22.889	
14,800.00	12,441.52	14,510.96	12,145.54	45.77	35.94	80.44	-3,214.37	-1,841.14	1,782.99	1,702.61	80.38	22.182	
14,900.00	12,442.04	14,610.96	12,146.41	47.08	37.15	80.46	-3,314.36	-1,840.28	1,782.98	1,700.10	82.88	21.514	
15,000.00	12,442.57	14,710.96	12,147.28	48.40	38.37	80.47	-3,414.35	-1,839.42	1,782.97	1,697.58	85.39	20.881	
15,100.00	12,443.09	14,810.96	12,148.15	49.72	39.59	80.48	-3,514.35	-1,838.56	1,782.96	1,695.04	87.91	20.281	
15,200.00	12,443.62	14,910.96	12,149.02	51.04	40.83	80.49	-3,614.34	-1,837.70	1,782.95	1,692.50	90.45	19.712	
15,300.00	12,444.14	15,010.96	12,149.89	52.36	42.08	80.50	-3,714.33	-1,836.84	1,782.94	1,689.94	92.99	19.172	
15,400.00	12,444.67	15,110.96	12,150.76	53.69	43.33	80.51	-3,814.32	-1,835.97	1,782.93	1,687.38	95.55	18.660	
15,500.00	12,445.19	15,210.96	12,151.64	55.02	44.59	80.52	-3,914.31	-1,835.11	1,782.92	1,684.80	98.11	18.172	
15,600.00	12,445.72	15,310.96	12,152.51	56.35	45.86	80.53	-4,014.30	-1,834.25	1,782.91	1,682.22	100.69	17.707	
15,700.00	12,446.24	15,410.96	12,153.38	57.69	47.13	80.55	-4,114.30	-1,833.39	1,782.90	1,679.63	103.27	17.265	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:	
												Offset Well Error:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,800.00	12,446.77	15,510.96	12,154.25	59.02	48.41	80.56	-4,214.29	-1,832.53	1,782.89	1,677.03	105.85	16.843	
15,900.00	12,447.29	15,610.95	12,155.12	60.36	49.69	80.57	-4,314.28	-1,831.67	1,782.88	1,674.43	108.45	16.440	
16,000.00	12,447.82	15,710.95	12,155.99	61.69	50.98	80.58	-4,414.27	-1,830.81	1,782.87	1,671.82	111.05	16.055	
16,100.00	12,448.34	15,810.95	12,156.86	63.03	52.27	80.59	-4,514.26	-1,829.95	1,782.86	1,669.21	113.65	15.687	
16,200.00	12,448.87	15,910.95	12,157.74	64.37	53.57	80.60	-4,614.26	-1,829.09	1,782.85	1,666.59	116.26	15.335	
16,300.00	12,449.39	16,010.95	12,158.61	65.72	54.87	80.61	-4,714.25	-1,828.23	1,782.84	1,663.97	118.88	14.998	
16,400.00	12,449.92	16,110.95	12,159.48	67.06	56.17	80.62	-4,814.24	-1,827.36	1,782.83	1,661.34	121.49	14.674	
16,500.00	12,450.44	16,210.95	12,160.35	68.40	57.48	80.64	-4,914.23	-1,826.50	1,782.82	1,658.70	124.12	14.364	
16,600.00	12,450.97	16,310.95	12,161.22	69.75	58.78	80.65	-5,014.22	-1,825.64	1,782.81	1,656.07	126.75	14.066	
16,700.00	12,451.49	16,410.95	12,162.09	71.09	60.10	80.66	-5,114.22	-1,824.78	1,782.80	1,653.43	129.38	13.780	
16,800.00	12,452.02	16,510.95	12,162.96	72.44	61.41	80.67	-5,214.21	-1,823.92	1,782.80	1,650.78	132.01	13.505	
16,900.00	12,452.54	16,610.95	12,163.84	73.79	62.73	80.68	-5,314.20	-1,823.06	1,782.79	1,648.14	134.65	13.240	
17,000.00	12,453.07	16,710.95	12,164.71	75.13	64.05	80.69	-5,414.19	-1,822.20	1,782.78	1,645.49	137.29	12.986	
17,100.00	12,453.59	16,810.95	12,165.58	76.48	65.37	80.70	-5,514.18	-1,821.34	1,782.77	1,642.84	139.93	12.740	
17,200.00	12,454.12	16,910.95	12,166.45	77.83	66.69	80.71	-5,614.17	-1,820.48	1,782.76	1,640.18	142.58	12.504	
17,300.00	12,454.64	17,010.95	12,167.32	79.18	68.02	80.73	-5,714.17	-1,819.62	1,782.75	1,637.52	145.23	12.275	
17,400.00	12,455.17	17,110.95	12,168.19	80.53	69.34	80.74	-5,814.16	-1,818.75	1,782.74	1,634.86	147.88	12.055	
17,500.00	12,455.69	17,210.94	12,169.06	81.89	70.67	80.75	-5,914.15	-1,817.89	1,782.73	1,632.20	150.53	11.843	
17,600.00	12,456.22	17,310.94	12,169.93	83.24	72.00	80.76	-6,014.14	-1,817.03	1,782.73	1,629.54	153.19	11.637	
17,700.00	12,456.74	17,410.94	12,170.81	84.59	73.33	80.77	-6,114.13	-1,816.17	1,782.72	1,626.87	155.85	11.439	
17,800.00	12,457.27	17,510.94	12,171.68	85.94	74.66	80.78	-6,214.13	-1,815.31	1,782.71	1,624.20	158.51	11.247	
17,900.00	12,457.79	17,610.94	12,172.55	87.30	76.00	80.79	-6,314.12	-1,814.45	1,782.70	1,621.53	161.17	11.061	
18,000.00	12,458.32	17,710.94	12,173.42	88.65	77.33	80.80	-6,414.11	-1,813.59	1,782.69	1,618.86	163.84	10.881	
18,100.00	12,458.84	17,810.94	12,174.29	90.01	78.67	80.82	-6,514.10	-1,812.73	1,782.69	1,616.18	166.50	10.707	
18,200.00	12,459.37	17,910.94	12,175.16	91.36	80.01	80.83	-6,614.09	-1,811.87	1,782.68	1,613.51	169.17	10.538	
18,300.00	12,459.89	18,010.94	12,176.03	92.72	81.35	80.84	-6,714.09	-1,811.01	1,782.67	1,610.83	171.84	10.374	
18,400.00	12,460.42	18,110.94	12,176.91	94.07	82.69	80.85	-6,814.08	-1,810.15	1,782.66	1,608.15	174.51	10.215	
18,500.00	12,460.94	18,210.94	12,177.78	95.43	84.03	80.86	-6,914.07	-1,809.28	1,782.65	1,605.47	177.18	10.061	
18,600.00	12,461.47	18,310.94	12,178.65	96.79	85.37	80.87	-7,014.06	-1,808.42	1,782.65	1,602.79	179.85	9.912	
18,700.00	12,461.99	18,410.94	12,179.52	98.15	86.71	80.88	-7,114.05	-1,807.56	1,782.64	1,600.11	182.53	9.766	
18,800.00	12,462.52	18,510.94	12,180.39	99.50	88.06	80.89	-7,214.04	-1,806.70	1,782.63	1,597.43	185.21	9.625	
18,900.00	12,463.04	18,610.94	12,181.26	100.86	89.40	80.90	-7,314.04	-1,805.84	1,782.62	1,594.74	187.88	9.488	
19,000.00	12,463.57	18,710.94	12,182.13	102.22	90.74	80.92	-7,414.03	-1,804.98	1,782.62	1,592.05	190.56	9.355	
19,100.00	12,464.09	18,810.94	12,183.01	103.58	92.09	80.93	-7,514.02	-1,804.12	1,782.61	1,589.37	193.24	9.225	
19,200.00	12,464.62	18,910.93	12,183.88	104.94	93.44	80.94	-7,614.01	-1,803.26	1,782.60	1,586.68	195.92	9.099	
19,300.00	12,465.14	19,010.93	12,184.75	106.29	94.78	80.95	-7,714.00	-1,802.40	1,782.59	1,583.99	198.60	8.976	
19,400.00	12,465.67	19,110.93	12,185.62	107.65	96.13	80.96	-7,814.00	-1,801.54	1,782.59	1,581.30	201.29	8.856	
19,500.00	12,466.19	19,210.93	12,186.49	109.01	97.48	80.97	-7,913.99	-1,800.67	1,782.58	1,578.61	203.97	8.739	
19,600.00	12,466.72	19,310.93	12,187.36	110.37	98.83	80.98	-8,013.98	-1,799.81	1,782.57	1,575.92	206.66	8.626	
19,700.00	12,467.24	19,410.93	12,188.23	111.73	100.18	80.99	-8,113.97	-1,798.95	1,782.57	1,573.22	209.34	8.515	
19,800.00	12,467.77	19,510.93	12,189.11	113.09	101.53	81.01	-8,213.96	-1,798.09	1,782.56	1,570.53	212.03	8.407	
19,900.00	12,468.29	19,610.93	12,189.98	114.45	102.88	81.02	-8,313.96	-1,797.23	1,782.55	1,567.84	214.72	8.302	
20,000.00	12,468.82	19,710.93	12,190.85	115.82	104.23	81.03	-8,413.95	-1,796.37	1,782.54	1,565.14	217.40	8.199	
20,100.00	12,469.34	19,810.93	12,191.72	117.18	105.58	81.04	-8,513.94	-1,795.51	1,782.54	1,562.44	220.09	8.099	
20,200.00	12,469.87	19,910.93	12,192.59	118.54	106.93	81.05	-8,613.93	-1,794.65	1,782.53	1,559.75	222.78	8.001	
20,300.00	12,470.39	20,010.93	12,193.46	119.90	108.29	81.06	-8,713.92	-1,793.79	1,782.52	1,557.05	225.48	7.906	
20,400.00	12,470.92	20,110.93	12,194.33	121.26	109.64	81.07	-8,813.92	-1,792.93	1,782.52	1,554.35	228.17	7.812	
20,500.00	12,471.44	20,210.93	12,195.21	122.62	110.99	81.08	-8,913.91	-1,792.06	1,782.51	1,551.65	230.86	7.721	
20,600.00	12,471.97	20,310.93	12,196.08	123.98	112.35	81.10	-9,013.90	-1,791.20	1,782.51	1,548.95	233.55	7.632	
20,700.00	12,472.50	20,410.93	12,196.95	125.35	113.70	81.11	-9,113.89	-1,790.34	1,782.50	1,546.25	236.25	7.545	
20,800.00	12,473.02	20,510.92	12,197.82	126.71	115.06	81.12	-9,213.88	-1,789.48	1,782.49	1,543.55	238.94	7.460	
20,900.00	12,473.55	20,610.92	12,198.69	128.07	116.41	81.13	-9,313.87	-1,788.62	1,782.49	1,540.85	241.64	7.377	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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)			
21,000.00	12,474.07	20,710.92	12,199.56	129.43	117.77	81.14	-9,413.87	-1,787.76	1,782.48	1,538.15	244.33	7.295	
21,100.00	12,474.60	20,810.92	12,200.43	130.80	119.12	81.15	-9,513.86	-1,786.90	1,782.47	1,535.45	247.03	7.216	
21,200.00	12,475.12	20,910.92	12,201.31	132.16	120.48	81.16	-9,613.85	-1,786.04	1,782.47	1,532.75	249.72	7.138	
21,300.00	12,475.65	21,010.92	12,202.18	133.52	121.83	81.17	-9,713.84	-1,785.18	1,782.46	1,530.04	252.42	7.061	
21,400.00	12,476.17	21,110.92	12,203.05	134.88	123.19	81.19	-9,813.83	-1,784.32	1,782.46	1,527.34	255.12	6.987	
21,500.00	12,476.70	21,210.92	12,203.92	136.25	124.55	81.20	-9,913.83	-1,783.45	1,782.45	1,524.63	257.82	6.914	
21,600.00	12,477.22	21,310.92	12,204.79	137.61	125.90	81.21	-10,013.82	-1,782.59	1,782.45	1,521.93	260.52	6.842	
21,700.00	12,477.75	21,410.92	12,205.66	138.97	127.26	81.22	-10,113.81	-1,781.73	1,782.44	1,519.22	263.22	6.772	
21,800.00	12,478.27	21,510.92	12,206.53	140.34	128.62	81.23	-10,213.80	-1,780.87	1,782.43	1,516.52	265.92	6.703	
21,900.00	12,478.80	21,610.92	12,207.40	141.70	129.98	81.24	-10,313.79	-1,780.01	1,782.43	1,513.81	268.62	6.636	
22,000.00	12,479.32	21,710.92	12,208.28	143.06	131.33	81.25	-10,413.79	-1,779.15	1,782.42	1,511.11	271.32	6.569	
22,100.00	12,479.85	21,810.92	12,209.15	144.43	132.69	81.26	-10,513.78	-1,778.29	1,782.42	1,508.40	274.02	6.505	
22,200.00	12,480.37	21,910.92	12,210.02	145.79	134.05	81.28	-10,613.77	-1,777.43	1,782.41	1,505.69	276.72	6.441	
22,300.00	12,480.90	22,010.92	12,210.89	147.16	135.41	81.29	-10,713.76	-1,776.57	1,782.41	1,502.98	279.42	6.379	
22,400.00	12,481.42	22,110.92	12,211.76	148.52	136.77	81.30	-10,813.75	-1,775.71	1,782.40	1,500.28	282.13	6.318	
22,500.00	12,481.95	22,210.91	12,212.63	149.89	138.13	81.31	-10,913.74	-1,774.84	1,782.40	1,497.57	284.83	6.258	
22,600.00	12,482.47	22,310.91	12,213.50	151.25	139.49	81.32	-11,013.74	-1,773.98	1,782.39	1,494.86	287.53	6.199	
22,700.00	12,483.00	22,410.91	12,214.38	152.61	140.85	81.33	-11,113.73	-1,773.12	1,782.39	1,492.15	290.24	6.141	
22,713.67	12,483.07	22,424.59	12,214.50	152.78	141.03	81.33	-11,127.40	-1,773.01	1,782.39	1,491.80	290.59	6.134	
22,719.79	12,483.10	22,425.19	12,214.50	152.85	141.04	81.33	-11,128.00	-1,773.00	1,782.40	1,491.74	290.66	6.132	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	1.00	0.50	0.50	180.00	-25.00	0.00	25.02				
100.00	100.00	99.00	100.00	0.98	0.97	180.00	-25.00	0.00	25.00	23.05	1.95	12.788	
200.00	200.00	199.00	200.00	1.56	1.56	180.00	-25.00	0.00	25.00	21.88	3.12	8.022	
300.00	300.00	299.00	300.00	1.98	1.98	180.00	-25.00	0.00	25.00	21.04	3.96	6.316	
400.00	400.00	399.00	400.00	2.33	2.33	180.00	-25.00	0.00	25.00	20.34	4.66	5.370	
500.00	500.00	499.00	500.00	2.63	2.63	180.00	-25.00	0.00	25.00	19.73	5.27	4.747	
600.00	600.00	599.00	600.00	2.91	2.91	180.00	-25.00	0.00	25.00	19.18	5.82	4.297	
700.00	700.00	699.00	700.00	3.16	3.16	180.00	-25.00	0.00	25.00	18.67	6.33	3.953	
800.00	799.99	798.46	799.45	3.45	3.44	-2.90	-26.05	-0.71	24.76	17.89	6.87	3.604	
900.00	899.91	897.89	898.81	3.70	3.70	1.59	-29.24	-2.88	24.17	16.81	7.37	3.282	
925.57	925.44	923.31	924.18	3.75	3.76	3.26	-30.40	-3.67	24.09	16.61	7.48	3.222	CC, ES
1,000.00	999.77	997.27	997.97	3.89	3.94	8.98	-34.56	-6.50	24.86	17.06	7.80	3.188	
1,100.00	1,099.63	1,096.93	1,097.26	4.08	4.04	16.91	-41.60	-11.29	27.95	19.86	8.08	3.457	
1,200.00	1,199.50	1,196.80	1,196.76	4.26	4.23	23.21	-48.80	-16.18	31.63	23.18	8.46	3.741	
1,300.00	1,299.34	1,296.28	1,295.83	4.35	4.33	26.18	-56.17	-21.24	35.58	26.96	8.63	4.125	
1,400.00	1,399.04	1,395.15	1,394.08	4.58	4.56	29.20	-65.08	-27.73	39.84	30.80	9.05	4.404	
1,500.00	1,498.51	1,493.84	1,491.84	4.71	4.79	34.03	-75.84	-35.93	44.80	35.45	9.35	4.792	
1,600.00	1,597.91	1,592.78	1,589.49	4.89	4.92	38.82	-88.33	-45.73	51.98	42.36	9.62	5.405	
1,700.00	1,697.32	1,692.41	1,687.75	5.08	5.10	42.39	-101.24	-55.91	59.88	49.91	9.98	6.003	
1,800.00	1,796.72	1,792.03	1,786.02	5.27	5.30	45.11	-114.15	-66.08	67.97	57.62	10.35	6.570	
1,900.00	1,896.13	1,891.66	1,884.28	5.46	5.49	47.25	-127.06	-76.26	76.17	65.45	10.72	7.106	
2,000.00	1,995.54	1,991.29	1,982.54	5.64	5.69	48.98	-139.97	-86.43	84.46	73.37	11.10	7.612	
2,100.00	2,094.94	2,090.91	2,080.80	5.83	5.89	50.39	-152.88	-96.61	92.82	81.34	11.48	8.088	
2,200.00	2,194.35	2,190.54	2,179.06	6.02	6.08	51.57	-165.79	-106.78	101.22	89.36	11.86	8.537	
2,300.00	2,293.76	2,290.17	2,277.32	6.20	6.28	52.57	-178.70	-116.96	109.65	97.41	12.24	8.960	
2,400.00	2,393.16	2,389.79	2,375.58	6.39	6.48	53.43	-191.61	-127.13	118.12	105.49	12.62	9.358	
2,500.00	2,492.57	2,489.42	2,473.84	6.58	6.67	54.17	-204.52	-137.31	126.60	113.60	13.01	9.733	
2,600.00	2,591.98	2,589.05	2,572.11	6.76	6.87	54.82	-217.44	-147.48	135.11	121.71	13.39	10.088	
2,700.00	2,691.38	2,688.67	2,670.37	6.95	7.07	55.39	-230.35	-157.66	143.63	129.85	13.78	10.423	
2,800.00	2,790.79	2,788.30	2,768.63	7.13	7.30	55.90	-243.26	-167.84	152.16	137.99	14.17	10.740	
2,900.00	2,890.20	2,887.93	2,866.89	7.32	7.53	56.35	-256.17	-178.01	160.70	146.15	14.56	11.041	
3,000.00	2,989.60	2,987.55	2,965.15	7.50	7.76	56.76	-269.08	-188.19	169.26	154.31	14.94	11.326	
3,100.00	3,089.01	3,087.18	3,063.41	7.69	7.99	57.13	-281.99	-198.36	177.82	162.48	15.33	11.597	
3,200.00	3,188.42	3,186.81	3,161.67	7.88	8.22	57.46	-294.90	-208.54	186.38	170.66	15.72	11.854	
3,300.00	3,287.82	3,286.43	3,259.93	8.06	8.45	57.77	-307.81	-218.71	194.95	178.84	16.11	12.099	
3,400.00	3,387.23	3,386.06	3,358.20	8.25	8.69	58.05	-320.72	-228.89	203.53	187.03	16.50	12.333	
3,500.00	3,486.64	3,485.69	3,456.46	8.43	8.92	58.30	-333.63	-239.06	212.11	195.22	16.89	12.556	
3,600.00	3,586.04	3,585.31	3,554.72	8.62	9.15	58.54	-346.54	-249.24	220.70	203.41	17.28	12.768	
3,700.00	3,685.45	3,684.94	3,652.98	8.80	9.38	58.76	-359.45	-259.41	229.29	211.61	17.68	12.972	
3,800.00	3,784.86	3,784.57	3,751.24	8.99	9.62	58.96	-372.36	-269.59	237.88	219.81	18.07	13.166	
3,900.00	3,884.26	3,884.19	3,849.50	9.17	9.85	59.15	-385.27	-279.76	246.48	228.02	18.46	13.352	
4,000.00	3,983.67	3,983.82	3,947.76	9.36	10.09	59.33	-398.18	-289.94	255.07	236.22	18.85	13.531	
4,100.00	4,083.08	4,083.45	4,046.02	9.54	10.32	59.49	-411.09	-300.11	263.67	244.43	19.24	13.702	
4,200.00	4,182.48	4,183.07	4,144.29	9.73	10.56	59.65	-424.00	-310.29	272.28	252.64	19.64	13.866	
4,300.00	4,281.89	4,282.70	4,242.55	9.91	10.79	59.79	-436.91	-320.46	280.88	260.85	20.03	14.024	
4,400.00	4,381.30	4,382.33	4,340.81	10.10	11.03	59.93	-449.82	-330.64	289.48	269.06	20.42	14.175	
4,500.00	4,480.70	4,481.95	4,439.07	10.28	11.26	60.06	-462.74	-340.81	298.09	277.28	20.81	14.321	
4,600.00	4,580.11	4,581.58	4,537.33	10.47	11.50	60.18	-475.65	-350.99	306.70	285.49	21.21	14.462	
4,700.00	4,679.51	4,681.21	4,635.59	10.65	11.74	60.29	-488.56	-361.16	315.31	293.71	21.60	14.597	
4,800.00	4,778.92	4,780.83	4,733.85	10.84	11.97	60.40	-501.47	-371.34	323.92	301.93	21.99	14.727	
4,900.00	4,878.33	4,880.46	4,832.11	11.02	12.21	60.51	-514.38	-381.51	332.53	310.14	22.39	14.853	
5,000.00	4,977.73	4,980.09	4,930.38	11.21	12.45	60.60	-527.29	-391.69	341.14	318.36	22.78	14.975	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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						
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance		Offset Well Error:		0.50 usft		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	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)			
5,100.00	5,077.14	5,079.72	5,028.64	11.39	12.68	60.70	-540.20	-401.87	349.76	326.58	23.17	15.092		
5,200.00	5,176.55	5,179.34	5,126.90	11.58	12.92	60.78	-553.11	-412.04	358.37	334.80	23.57	15.205		
5,300.00	5,275.95	5,278.97	5,225.16	11.76	13.16	60.87	-566.02	-422.22	366.99	343.03	23.96	15.315		
5,400.00	5,375.36	5,380.66	5,325.47	11.95	13.37	60.96	-579.13	-432.55	375.54	351.20	24.34	15.430		
5,500.00	5,474.77	5,489.44	5,433.11	12.13	13.60	61.23	-591.48	-442.28	382.43	357.67	24.76	15.448		
5,600.00	5,574.17	5,598.44	5,541.37	12.32	13.81	61.74	-601.42	-450.12	386.95	361.79	25.16	15.379		
5,700.00	5,673.58	5,707.48	5,649.98	12.50	13.99	62.50	-608.94	-456.04	389.14	363.60	25.54	15.237		
5,800.00	5,772.99	5,816.38	5,758.68	12.69	14.14	63.51	-614.02	-460.04	389.07	363.18	25.89	15.028		
5,900.00	5,872.39	5,924.96	5,867.21	12.87	14.25	64.79	-616.65	-462.12	386.81	360.61	26.20	14.766		
6,000.00	5,971.80	6,029.55	5,971.80	13.06	14.29	66.29	-617.07	-462.45	382.68	356.26	26.42	14.484		
6,100.00	6,071.21	6,128.96	6,071.21	13.24	14.33	67.79	-617.07	-462.45	378.41	351.78	26.64	14.206		
6,200.00	6,170.61	6,228.37	6,170.61	13.43	14.36	69.32	-617.07	-462.45	374.42	347.56	26.85	13.942		
6,300.00	6,270.02	6,327.77	6,270.02	13.61	14.40	70.89	-617.07	-462.45	370.69	343.62	27.07	13.693		
6,400.00	6,369.43	6,427.18	6,369.43	13.80	14.43	72.48	-617.07	-462.45	367.26	339.97	27.29	13.457		
6,500.00	6,468.83	6,526.59	6,468.83	13.98	14.47	74.11	-617.07	-462.45	364.11	336.60	27.51	13.235		
6,600.00	6,568.24	6,625.99	6,568.24	14.17	14.50	75.76	-617.07	-462.45	361.27	333.54	27.73	13.028		
6,700.00	6,667.74	6,725.49	6,667.74	14.34	14.54	77.26	-617.07	-462.45	358.93	331.01	27.93	12.853		
6,800.00	6,767.46	6,825.22	6,767.46	14.53	14.57	78.39	-617.07	-462.45	357.37	329.25	28.12	12.710		
6,900.00	6,867.34	6,925.10	6,867.34	14.70	14.61	79.13	-617.07	-462.45	356.44	328.15	28.28	12.603		
7,000.00	6,967.32	7,025.07	6,967.32	14.86	14.65	79.47	-617.07	-462.45	356.03	327.61	28.42	12.526		
7,089.99	7,057.31	7,115.06	7,057.31	14.87	14.68	79.53	-617.07	-462.45	355.96	327.50	28.46	12.506		
7,100.00	7,067.32	7,125.07	7,067.32	14.88	14.68	-90.41	-617.07	-462.45	356.01	327.54	28.47	12.506		
7,200.00	7,167.32	7,225.07	7,167.32	14.90	14.72	-90.41	-617.07	-462.45	356.01	327.48	28.53	12.481		
7,300.00	7,267.32	7,325.07	7,267.32	14.93	14.76	-90.41	-617.07	-462.45	356.01	327.42	28.58	12.455		
7,400.00	7,367.32	7,425.07	7,367.32	14.95	14.80	-90.41	-617.07	-462.45	356.01	327.36	28.65	12.428		
7,500.00	7,467.32	7,525.07	7,467.32	14.98	14.84	-90.41	-617.07	-462.45	356.01	327.30	28.71	12.402		
7,600.00	7,567.32	7,625.07	7,567.32	15.01	14.88	-90.41	-617.07	-462.45	356.01	327.24	28.77	12.375		
7,700.00	7,667.32	7,725.07	7,667.32	15.03	14.92	-90.41	-617.07	-462.45	356.01	327.18	28.83	12.348		
7,800.00	7,767.32	7,825.07	7,767.32	15.06	14.96	-90.41	-617.07	-462.45	356.01	327.11	28.89	12.321		
7,900.00	7,867.32	7,925.07	7,867.32	15.09	15.00	-90.41	-617.07	-462.45	356.01	327.05	28.96	12.294		
8,000.00	7,967.32	8,025.07	7,967.32	15.12	15.04	-90.41	-617.07	-462.45	356.01	326.99	29.02	12.266		
8,100.00	8,067.32	8,125.07	8,067.32	15.15	15.08	-90.41	-617.07	-462.45	356.01	326.92	29.09	12.238		
8,200.00	8,167.32	8,225.07	8,167.32	15.18	15.12	-90.41	-617.07	-462.45	356.01	326.85	29.16	12.210		
8,300.00	8,267.32	8,325.07	8,267.32	15.21	15.16	-90.41	-617.07	-462.45	356.01	326.79	29.22	12.182		
8,400.00	8,367.32	8,425.07	8,367.32	15.24	15.21	-90.41	-617.07	-462.45	356.01	326.72	29.29	12.154		
8,500.00	8,467.32	8,525.07	8,467.32	15.27	15.25	-90.41	-617.07	-462.45	356.01	326.65	29.36	12.126		
8,600.00	8,567.32	8,625.07	8,567.32	15.30	15.29	-90.41	-617.07	-462.45	356.01	326.58	29.43	12.097		
8,700.00	8,667.32	8,725.07	8,667.32	15.33	15.34	-90.41	-617.07	-462.45	356.01	326.51	29.50	12.068		
8,800.00	8,767.32	8,825.07	8,767.32	15.36	15.38	-90.41	-617.07	-462.45	356.01	326.44	29.57	12.039		
8,900.00	8,867.32	8,925.07	8,867.32	15.39	15.42	-90.41	-617.07	-462.45	356.01	326.37	29.64	12.010		
9,000.00	8,967.32	9,025.07	8,967.32	15.43	15.47	-90.41	-617.07	-462.45	356.01	326.29	29.72	11.981		
9,100.00	9,067.32	9,125.07	9,067.32	15.46	15.51	-90.41	-617.07	-462.45	356.01	326.22	29.79	11.951		
9,200.00	9,167.32	9,225.07	9,167.32	15.49	15.56	-90.41	-617.07	-462.45	356.01	326.15	29.86	11.922		
9,300.00	9,267.32	9,325.07	9,267.32	15.53	15.60	-90.41	-617.07	-462.45	356.01	326.07	29.94	11.892		
9,400.00	9,367.32	9,425.07	9,367.32	15.56	15.65	-90.41	-617.07	-462.45	356.01	326.00	30.01	11.862		
9,500.00	9,467.32	9,525.07	9,467.32	15.59	15.69	-90.41	-617.07	-462.45	356.01	325.92	30.09	11.832		
9,600.00	9,567.32	9,625.07	9,567.32	15.63	15.74	-90.41	-617.07	-462.45	356.01	325.84	30.17	11.802		
9,700.00	9,667.32	9,725.07	9,667.32	15.66	15.79	-90.41	-617.07	-462.45	356.01	325.77	30.24	11.772		
9,800.00	9,767.32	9,825.07	9,767.32	15.70	15.83	-90.41	-617.07	-462.45	356.01	325.69	30.32	11.742		
9,900.00	9,867.32	9,925.07	9,867.32	15.73	15.88	-90.41	-617.07	-462.45	356.01	325.61	30.40	11.711		
10,000.00	9,967.32	10,025.07	9,967.32	15.77	15.93	-90.41	-617.07	-462.45	356.01	325.53	30.48	11.681		
10,100.00	10,067.32	10,125.07	10,067.32	15.81	15.98	-90.41	-617.07	-462.45	356.01	325.45	30.56	11.650		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.00	10,167.32	10,225.07	10,167.32	15.84	16.02	-90.41	-617.07	-462.45	356.01	325.37	30.64	11.619	
10,300.00	10,267.32	10,325.07	10,267.32	15.88	16.07	-90.41	-617.07	-462.45	356.01	325.29	30.72	11.589	
10,400.00	10,367.32	10,425.07	10,367.32	15.92	16.12	-90.41	-617.07	-462.45	356.01	325.21	30.80	11.558	
10,500.00	10,467.32	10,525.07	10,467.32	15.95	16.17	-90.41	-617.07	-462.45	356.01	325.12	30.89	11.527	
10,600.00	10,567.32	10,625.07	10,567.32	15.99	16.22	-90.41	-617.07	-462.45	356.01	325.04	30.97	11.496	
10,700.00	10,667.32	10,725.07	10,667.32	16.03	16.27	-90.41	-617.07	-462.45	356.01	324.96	31.05	11.465	
10,800.00	10,767.32	10,825.07	10,767.32	16.07	16.32	-90.41	-617.07	-462.45	356.01	324.87	31.14	11.434	
10,900.00	10,867.32	10,925.07	10,867.32	16.11	16.37	-90.41	-617.07	-462.45	356.01	324.79	31.22	11.403	
11,000.00	10,967.32	11,025.07	10,967.32	16.15	16.42	-90.41	-617.07	-462.45	356.01	324.70	31.31	11.371	
11,100.00	11,067.32	11,125.07	11,067.32	16.19	16.47	-90.41	-617.07	-462.45	356.01	324.62	31.39	11.340	
11,200.00	11,167.32	11,225.07	11,167.32	16.23	16.52	-90.41	-617.07	-462.45	356.01	324.53	31.48	11.309	
11,300.00	11,267.32	11,325.07	11,267.32	16.27	16.57	-90.41	-617.07	-462.45	356.01	324.44	31.57	11.277	
11,400.00	11,367.32	11,425.07	11,367.32	16.31	16.62	-90.41	-617.07	-462.45	356.01	324.35	31.66	11.246	
11,500.00	11,467.32	11,525.07	11,467.32	16.35	16.67	-90.41	-617.07	-462.45	356.01	324.27	31.74	11.217	
11,506.61	11,473.93	11,531.68	11,473.93	16.35	16.67	-90.41	-617.07	-462.45	356.01	324.27	31.74	11.215	
11,600.00	11,567.32	11,623.24	11,565.35	16.39	16.75	-91.01	-620.81	-462.56	356.18	324.35	31.82	11.193	
11,700.00	11,667.32	11,717.01	11,657.21	16.43	16.94	-93.94	-639.05	-463.12	357.66	325.66	32.00	11.178	
11,800.00	11,767.32	11,802.82	11,737.66	16.47	17.18	-98.61	-668.66	-464.03	362.87	330.51	32.35	11.216	
11,900.00	11,867.32	11,878.42	11,804.19	16.51	17.45	76.30	-704.44	-465.12	375.11	342.00	33.11	11.330	
12,000.00	11,966.66	11,950.00	11,862.32	16.75	17.75	69.42	-746.11	-466.39	393.96	359.55	34.41	11.448	
12,100.00	12,062.69	12,015.02	11,910.25	17.02	18.08	63.62	-789.97	-467.73	415.89	379.60	36.29	11.459	
12,200.00	12,152.51	12,080.40	11,953.12	17.30	18.47	58.62	-839.26	-469.24	438.68	400.29	38.39	11.428	
12,300.00	12,233.38	12,150.00	11,992.27	17.56	18.95	54.40	-896.73	-470.99	460.60	420.19	40.42	11.396	
12,400.00	12,302.84	12,200.00	12,015.95	17.80	19.33	51.56	-940.73	-472.34	480.29	437.57	42.72	11.243	
12,500.00	12,358.79	12,269.95	12,042.45	18.10	19.92	49.11	-1,005.38	-474.31	496.63	452.17	44.46	11.170	
12,600.00	12,399.52	12,331.85	12,059.18	18.99	20.48	47.57	-1,064.92	-476.13	509.20	463.09	46.10	11.045	
12,700.00	12,423.80	12,400.00	12,070.05	19.97	21.14	46.73	-1,132.13	-478.19	517.52	470.06	47.46	10.904	
12,800.00	12,431.01	12,455.98	12,072.96	21.01	21.70	46.61	-1,187.99	-479.89	521.27	472.66	48.61	10.723	
12,900.00	12,431.54	12,571.25	12,073.76	22.11	22.89	46.78	-1,303.24	-481.00	522.51	472.82	49.69	10.515	
13,000.00	12,432.07	12,670.72	12,074.46	23.23	23.94	46.80	-1,402.70	-480.11	522.40	471.53	50.87	10.270	
13,100.00	12,432.59	12,770.72	12,075.16	24.37	25.04	46.81	-1,502.69	-479.20	522.28	470.18	52.10	10.024	
13,200.00	12,433.12	12,870.72	12,075.86	25.54	26.15	46.83	-1,602.69	-478.29	522.16	468.77	53.39	9.780	
13,300.00	12,433.64	12,970.72	12,076.55	26.73	27.30	46.84	-1,702.68	-477.38	522.05	467.32	54.73	9.538	
13,400.00	12,434.17	13,070.72	12,077.25	27.93	28.46	46.85	-1,802.67	-476.48	521.93	465.81	56.12	9.301	
13,500.00	12,434.69	13,170.72	12,077.95	29.15	29.63	46.87	-1,902.67	-475.57	521.81	464.26	57.55	9.067	
13,600.00	12,435.22	13,270.72	12,078.65	30.38	30.83	46.88	-2,002.66	-474.66	521.70	462.68	59.02	8.839	
13,700.00	12,435.74	13,370.72	12,079.35	31.62	32.03	46.90	-2,102.65	-473.76	521.58	461.05	60.53	8.617	
13,800.00	12,436.27	13,470.72	12,080.05	32.87	33.25	46.91	-2,202.65	-472.85	521.46	459.39	62.07	8.401	
13,900.00	12,436.79	13,570.72	12,080.74	34.13	34.48	46.92	-2,302.64	-471.94	521.35	457.70	63.65	8.191	
14,000.00	12,437.32	13,670.72	12,081.44	35.40	35.72	46.94	-2,402.63	-471.04	521.23	455.97	65.25	7.988	
14,100.00	12,437.84	13,770.72	12,082.14	36.68	36.96	46.95	-2,502.63	-470.13	521.11	454.22	66.89	7.791	
14,200.00	12,438.37	13,870.71	12,082.84	37.96	38.22	46.97	-2,602.62	-469.22	521.00	452.45	68.55	7.600	
14,300.00	12,438.89	13,970.71	12,083.54	39.25	39.48	46.98	-2,702.61	-468.32	520.88	450.64	70.23	7.416	
14,400.00	12,439.42	14,070.71	12,084.23	40.55	40.75	47.00	-2,802.61	-467.41	520.76	448.82	71.94	7.239	
14,500.00	12,439.94	14,170.71	12,084.93	41.84	42.03	47.01	-2,902.60	-466.50	520.65	446.97	73.67	7.067	
14,600.00	12,440.47	14,270.71	12,085.63	43.15	43.31	47.02	-3,002.59	-465.60	520.53	445.11	75.42	6.902	
14,700.00	12,440.99	14,370.71	12,086.33	44.45	44.60	47.04	-3,102.59	-464.69	520.41	443.22	77.19	6.742	
14,800.00	12,441.52	14,470.71	12,087.03	45.77	45.89	47.05	-3,202.58	-463.78	520.30	441.32	78.97	6.588	
14,900.00	12,442.04	14,570.71	12,087.73	47.08	47.18	47.07	-3,302.57	-462.88	520.18	439.40	80.78	6.440	
15,000.00	12,442.57	14,670.71	12,088.42	48.40	48.48	47.08	-3,402.57	-461.97	520.06	437.47	82.59	6.297	
15,100.00	12,443.09	14,770.71	12,089.12	49.72	49.78	47.09	-3,502.56	-461.06	519.95	435.52	84.42	6.159	
15,200.00	12,443.62	14,870.71	12,089.82	51.04	51.09	47.11	-3,602.55	-460.16	519.83	433.56	86.27	6.026	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 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)			Minimum Separation (usft)	
20,500.00	12,471.44	20,170.71	12,126.83	122.62	122.29	47.87	-8,902.20	-412.09	513.71	320.49	193.22	2.659		
20,600.00	12,471.97	20,270.71	12,127.53	123.98	123.65	47.88	-9,002.19	-411.19	513.59	318.27	195.32	2.629		
20,700.00	12,472.50	20,370.71	12,128.22	125.35	125.00	47.90	-9,102.19	-410.28	513.48	316.05	197.43	2.601		
20,800.00	12,473.02	20,470.71	12,128.92	126.71	126.36	47.91	-9,202.18	-409.37	513.36	313.82	199.54	2.573		
20,900.00	12,473.55	20,570.70	12,129.62	128.07	127.72	47.92	-9,302.17	-408.47	513.25	311.60	201.65	2.545		
21,000.00	12,474.07	20,670.70	12,130.32	129.43	129.08	47.94	-9,402.16	-407.56	513.13	309.37	203.76	2.518		
21,100.00	12,474.60	20,770.70	12,131.02	130.80	130.44	47.95	-9,502.16	-406.65	513.02	307.14	205.88	2.492		
21,200.00	12,475.12	20,870.70	12,131.72	132.16	131.80	47.97	-9,602.15	-405.75	512.91	304.91	207.99	2.466		
21,300.00	12,475.65	20,970.70	12,132.41	133.52	133.16	47.98	-9,702.14	-404.84	512.79	302.68	210.11	2.441		
21,400.00	12,476.17	21,070.70	12,133.11	134.88	134.52	48.00	-9,802.14	-403.93	512.68	300.44	212.23	2.416		
21,500.00	12,476.70	21,170.70	12,133.81	136.25	135.88	48.01	-9,902.13	-403.03	512.56	298.21	214.35	2.391		
21,600.00	12,477.22	21,270.70	12,134.51	137.61	137.24	48.03	-10,002.12	-402.12	512.45	295.97	216.48	2.367		
21,700.00	12,477.75	21,370.70	12,135.21	138.97	138.60	48.04	-10,102.12	-401.21	512.33	293.73	218.60	2.344		
21,800.00	12,478.27	21,470.70	12,135.90	140.34	139.97	48.06	-10,202.11	-400.31	512.22	291.49	220.73	2.321		
21,900.00	12,478.80	21,570.70	12,136.60	141.70	141.33	48.07	-10,302.10	-399.40	512.11	289.25	222.85	2.298		
22,000.00	12,479.32	21,670.70	12,137.30	143.06	142.69	48.08	-10,402.10	-398.49	511.99	287.01	224.98	2.276		
22,100.00	12,479.85	21,770.70	12,138.00	144.43	144.05	48.10	-10,502.09	-397.59	511.88	284.76	227.11	2.254		
22,200.00	12,480.37	21,870.70	12,138.70	145.79	145.41	48.11	-10,602.08	-396.68	511.76	282.52	229.25	2.232		
22,300.00	12,480.90	21,970.70	12,139.40	147.16	146.77	48.13	-10,702.08	-395.77	511.65	280.27	231.38	2.211		
22,400.00	12,481.42	22,070.70	12,140.09	148.52	148.14	48.14	-10,802.07	-394.87	511.53	278.02	233.51	2.191		
22,500.00	12,481.95	22,170.70	12,140.79	149.89	149.50	48.16	-10,902.06	-393.96	511.42	275.77	235.65	2.170		
22,600.00	12,482.47	22,270.70	12,141.49	151.25	150.86	48.17	-11,002.06	-393.05	511.31	273.52	237.79	2.150		
22,700.00	12,483.00	22,370.70	12,142.19	152.61	152.22	48.19	-11,102.05	-392.14	511.19	271.27	239.93	2.131		
22,718.01	12,483.09	22,387.52	12,142.31	152.83	152.46	48.19	-11,118.87	-391.99	511.17	270.89	240.29	2.127		
22,719.79	12,483.10	22,387.52	12,142.31	152.85	152.46	48.19	-11,118.87	-391.99	511.18	270.86	240.32	2.127	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:
Reference										Offset Well Error:				0.00 usft
Offset										Warning				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	
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	0.96	180.00	-185.00	0.00	185.00	183.06	1.94	95.174		
200.00	200.00	199.00	200.00	1.56	1.55	180.00	-185.00	0.00	185.00	181.89	3.11	59.503		
300.00	300.00	299.00	300.00	1.98	1.97	180.00	-185.00	0.00	185.00	181.05	3.95	46.806		
400.00	400.00	399.00	400.00	2.33	2.32	180.00	-185.00	0.00	185.00	180.35	4.65	39.780		
500.00	500.00	499.00	500.00	2.63	2.63	180.00	-185.00	0.00	185.00	179.74	5.26	35.160		
600.00	600.00	599.00	600.00	2.91	2.90	180.00	-185.00	0.00	185.00	179.19	5.81	31.823		
700.00	700.00	699.00	700.00	3.16	3.16	180.00	-185.00	0.00	185.00	178.68	6.32	29.265		
800.00	799.99	798.99	799.99	3.45	3.39	-4.35	-185.00	0.00	183.69	176.85	6.84	26.854		
900.00	899.91	898.91	899.91	3.70	3.62	-4.45	-185.00	0.00	179.78	172.46	7.32	24.570		
1,000.00	999.77	998.77	999.77	3.89	3.83	-4.59	-185.00	0.00	174.56	166.84	7.72	22.609		
1,100.00	1,099.63	1,098.63	1,099.63	4.08	4.03	-4.73	-185.00	0.00	169.35	161.24	8.11	20.878		
1,200.00	1,199.50	1,198.50	1,199.50	4.26	4.23	-4.88	-185.00	0.00	164.13	155.64	8.49	19.330		
1,300.00	1,299.34	1,298.34	1,299.34	4.35	4.41	-7.26	-185.00	0.00	158.61	149.84	8.77	18.092		
1,400.00	1,399.04	1,396.21	1,397.21	4.58	4.49	-10.27	-185.28	0.00	151.20	142.12	9.08	16.660		
1,500.00	1,498.51	1,492.20	1,493.16	4.71	4.67	-12.07	-187.65	0.00	143.59	134.22	9.37	15.332		
1,600.00	1,597.91	1,588.47	1,589.32	4.89	4.85	-12.91	-192.44	0.00	137.93	128.20	9.72	14.185		
1,700.00	1,697.32	1,685.00	1,685.57	5.08	4.98	-13.76	-199.68	0.00	134.82	124.78	10.03	13.438		
1,800.00	1,796.72	1,783.34	1,783.48	5.27	5.11	-15.12	-208.76	1.20	133.58	123.24	10.34	12.921		
1,841.88	1,838.36	1,824.48	1,824.40	5.35	5.17	-15.98	-212.86	2.40	133.45	122.98	10.47	12.742	CC, ES	
1,900.00	1,896.13	1,881.50	1,881.06	5.46	5.25	-17.44	-218.81	4.73	133.71	123.05	10.66	12.543		
2,000.00	1,995.54	1,979.99	1,978.76	5.64	5.34	-20.61	-229.82	10.46	135.40	124.48	10.92	12.404		
2,100.00	2,094.94	2,079.64	2,077.56	5.83	5.48	-23.92	-241.19	16.79	137.86	126.63	11.23	12.276		
2,200.00	2,194.35	2,179.30	2,176.36	6.02	5.63	-27.10	-252.55	23.13	140.76	129.20	11.56	12.176		
2,300.00	2,293.76	2,278.95	2,275.17	6.20	5.79	-30.15	-263.92	29.46	144.09	132.20	11.89	12.117		
2,400.00	2,393.16	2,378.61	2,373.97	6.39	5.95	-33.06	-275.28	35.80	147.80	135.58	12.22	12.093		
2,500.00	2,492.57	2,478.26	2,472.77	6.58	6.11	-35.81	-286.64	42.13	151.88	139.33	12.55	12.098		
2,600.00	2,591.98	2,577.92	2,571.57	6.76	6.28	-38.42	-298.01	48.47	156.29	143.40	12.89	12.129		
2,700.00	2,691.38	2,677.58	2,670.38	6.95	6.44	-40.88	-309.37	54.80	161.01	147.79	13.22	12.180		
2,800.00	2,790.79	2,777.23	2,769.18	7.13	6.61	-43.19	-320.74	61.13	166.00	152.45	13.55	12.248		
2,900.00	2,890.20	2,876.89	2,867.98	7.32	6.78	-45.37	-332.10	67.47	171.26	157.37	13.89	12.331		
3,000.00	2,989.60	2,976.54	2,966.79	7.50	6.94	-47.42	-343.47	73.80	176.74	162.52	14.22	12.425		
3,100.00	3,089.01	3,076.20	3,065.59	7.69	7.11	-49.34	-354.83	80.14	182.44	167.88	14.56	12.528		
3,200.00	3,188.42	3,175.86	3,164.39	7.88	7.29	-51.14	-366.19	86.47	188.33	173.43	14.90	12.638		
3,300.00	3,287.82	3,275.51	3,263.19	8.06	7.46	-52.84	-377.56	92.80	194.39	179.15	15.24	12.754		
3,400.00	3,387.23	3,375.17	3,362.00	8.25	7.63	-54.43	-388.92	99.14	200.62	185.03	15.58	12.874		
3,500.00	3,486.64	3,474.82	3,460.80	8.43	7.80	-55.92	-400.29	105.47	206.99	191.06	15.93	12.997		
3,600.00	3,586.04	3,574.48	3,559.60	8.62	7.98	-57.32	-411.65	111.81	213.49	197.22	16.27	13.121		
3,700.00	3,685.45	3,674.13	3,658.41	8.80	8.15	-58.64	-423.02	118.14	220.11	203.49	16.62	13.247		
3,800.00	3,784.86	3,773.79	3,757.21	8.99	8.33	-59.88	-434.38	124.48	226.84	209.88	16.96	13.373		
3,900.00	3,884.26	3,873.45	3,856.01	9.17	8.51	-61.05	-445.74	130.81	233.67	216.36	17.31	13.499		
4,000.00	3,983.67	3,973.10	3,954.81	9.36	8.68	-62.16	-457.11	137.14	240.59	222.93	17.66	13.625		
4,100.00	4,083.08	4,072.76	4,053.62	9.54	8.86	-63.20	-468.47	143.48	247.60	229.59	18.01	13.749		
4,200.00	4,182.48	4,172.41	4,152.42	9.73	9.04	-64.18	-479.84	149.81	254.68	236.32	18.36	13.872		
4,300.00	4,281.89	4,272.07	4,251.22	9.91	9.22	-65.11	-491.20	156.15	261.84	243.13	18.71	13.994		
4,400.00	4,381.30	4,371.73	4,350.03	10.10	9.40	-65.99	-502.57	162.48	269.06	249.99	19.06	14.114		
4,500.00	4,480.70	4,471.38	4,448.83	10.28	9.58	-66.83	-513.93	168.82	276.34	256.92	19.42	14.232		
4,600.00	4,580.11	4,571.04	4,547.63	10.47	9.76	-67.62	-525.29	175.15	283.67	263.90	19.77	14.348		
4,700.00	4,679.51	4,670.69	4,646.43	10.65	9.94	-68.37	-536.66	181.48	291.06	270.93	20.13	14.462		
4,800.00	4,778.92	4,770.35	4,745.24	10.84	10.12	-69.09	-548.02	187.82	298.49	278.01	20.48	14.574		
4,900.00	4,878.33	4,870.00	4,844.04	11.02	10.31	-69.77	-559.39	194.15	305.97	285.13	20.84	14.684		
5,000.00	4,977.73	4,969.66	4,942.84	11.21	10.49	-70.41	-570.75	200.49	313.49	292.30	21.19	14.792		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:
														Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,200.00	10,167.32	10,196.52	10,167.32	15.84	14.15	89.59	-612.13	223.55	330.01	301.26	28.75	11.479		
10,300.00	10,267.32	10,296.52	10,267.32	15.88	14.22	89.59	-612.13	223.55	330.01	301.16	28.84	11.441		
10,400.00	10,367.32	10,396.52	10,367.32	15.92	14.28	89.59	-612.13	223.55	330.01	301.07	28.94	11.403		
10,500.00	10,467.32	10,496.52	10,467.32	15.95	14.34	89.59	-612.13	223.55	330.01	300.97	29.04	11.365		
10,600.00	10,567.32	10,596.52	10,567.32	15.99	14.41	89.59	-612.13	223.55	330.01	300.87	29.13	11.327		
10,700.00	10,667.32	10,696.52	10,667.32	16.03	14.47	89.59	-612.13	223.55	330.01	300.78	29.23	11.289		
10,800.00	10,767.32	10,796.52	10,767.32	16.07	14.54	89.59	-612.13	223.55	330.01	300.68	29.33	11.251		
10,900.00	10,867.32	10,896.52	10,867.32	16.11	14.60	89.59	-612.13	223.55	330.01	300.58	29.43	11.214		
11,000.00	10,967.32	10,996.52	10,967.32	16.15	14.67	89.59	-612.13	223.55	330.01	300.48	29.53	11.176		
11,100.00	11,067.32	11,096.52	11,067.32	16.19	14.73	89.59	-612.13	223.55	330.01	300.38	29.63	11.138		
11,200.00	11,167.32	11,196.52	11,167.32	16.23	14.80	89.59	-612.13	223.55	330.01	300.28	29.73	11.100		
11,300.00	11,267.32	11,296.52	11,267.32	16.27	14.86	89.59	-612.13	223.55	330.01	300.18	29.83	11.063		
11,400.00	11,367.32	11,396.52	11,367.32	16.31	14.93	89.59	-612.13	223.55	330.01	300.08	29.93	11.025		
11,500.00	11,467.32	11,496.52	11,467.32	16.35	15.00	89.59	-612.13	223.55	330.01	299.97	30.04	10.987		
11,503.26	11,470.58	11,499.78	11,470.58	16.35	15.00	89.59	-612.13	223.55	330.01	299.97	30.04	10.985		
11,600.00	11,567.32	11,596.52	11,567.32	16.39	15.17	90.85	-619.41	223.62	330.10	299.98	30.13	10.958		
11,700.00	11,667.32	11,696.52	11,667.32	16.43	15.39	94.73	-641.85	223.82	331.56	301.26	30.30	10.942		
11,800.00	11,767.32	11,796.52	11,767.32	16.47	15.59	100.30	-674.60	224.12	337.52	306.79	30.73	10.985		
11,900.00	11,867.32	11,896.52	11,867.32	16.51	15.76	-72.69	-713.34	224.47	351.81	320.13	31.68	11.105		
12,000.00	11,966.66	11,995.42	11,966.66	16.75	15.92	-65.42	-753.46	224.83	373.37	339.90	33.47	11.155		
12,100.00	12,066.69	12,095.67	12,066.69	17.02	16.09	-58.96	-799.08	225.25	397.89	362.16	35.73	11.135		
12,200.00	12,166.69	12,195.67	12,166.69	17.30	16.36	-53.35	-853.01	225.74	422.92	384.89	38.03	11.120		
12,300.00	12,266.69	12,295.67	12,266.69	17.56	16.64	-49.54	-894.96	226.12	446.45	405.68	40.77	10.951		
12,400.00	12,366.69	12,395.67	12,366.69	17.80	17.11	-46.02	-955.67	226.67	467.02	424.18	42.84	10.902		
12,500.00	12,466.69	12,495.67	12,466.69	18.10	17.59	-43.59	-1,012.59	227.19	483.83	439.04	44.80	10.801		
12,600.00	12,566.69	12,595.67	12,566.69	18.99	18.11	-41.95	-1,071.01	227.72	496.12	449.68	46.44	10.684		
12,700.00	12,666.69	12,695.67	12,666.69	19.97	18.65	-41.01	-1,130.94	228.26	503.43	455.70	47.74	10.546		
12,800.00	12,766.69	12,795.67	12,766.69	21.01	19.28	-40.75	-1,196.44	228.86	505.54	456.85	48.69	10.383		
12,900.00	12,866.69	12,895.67	12,866.69	22.11	20.28	-40.76	-1,266.43	229.77	505.41	455.89	49.52	10.206		
13,000.00	12,966.69	12,995.67	12,966.69	23.23	21.32	-40.78	-1,336.43	230.68	505.28	454.86	50.41	10.022		
13,100.00	13,066.69	13,095.67	13,066.69	24.37	22.39	-40.79	-1,406.42	231.59	505.15	453.78	51.36	9.835		
13,200.00	13,166.69	13,195.67	13,166.69	25.54	23.50	-40.80	-1,576.41	232.50	505.01	452.65	52.37	9.644		
13,300.00	13,266.69	13,295.67	13,266.69	26.73	24.63	-40.82	-1,646.41	233.40	504.88	451.46	53.42	9.451		
13,400.00	13,366.69	13,395.67	13,366.69	27.93	25.78	-40.83	-1,716.40	234.31	504.75	450.23	54.52	9.258		
13,500.00	13,466.69	13,495.67	13,466.69	29.15	26.96	-40.84	-1,786.39	235.22	504.62	448.95	55.67	9.064		
13,600.00	13,566.69	13,595.67	13,566.69	30.38	28.15	-40.85	-1,856.38	236.13	504.49	447.63	56.86	8.872		
13,700.00	13,666.69	13,695.67	13,666.69	31.62	29.36	-40.87	-1,926.37	237.04	504.36	446.26	58.09	8.682		
13,800.00	13,766.69	13,795.67	13,766.69	32.87	30.58	-40.88	-2,096.36	237.95	504.22	444.86	59.36	8.494		
13,900.00	13,866.69	13,895.67	13,866.69	34.13	31.81	-40.89	-2,266.35	238.86	504.09	443.43	60.66	8.310		
14,000.00	13,966.69	13,995.67	13,966.69	35.40	33.05	-40.91	-2,336.34	239.77	503.96	441.96	62.00	8.128		
14,100.00	14,066.69	14,095.67	14,066.69	36.68	34.30	-40.92	-2,406.33	240.67	503.83	440.46	63.37	7.951		
14,200.00	14,166.69	14,195.67	14,166.69	37.96	35.57	-40.93	-2,476.32	241.58	503.70	438.93	64.77	7.777		
14,300.00	14,266.69	14,295.67	14,266.69	39.25	36.83	-40.95	-2,546.31	242.49	503.57	437.38	66.19	7.608		
14,400.00	14,366.69	14,395.67	14,366.69	40.55	38.11	-40.96	-2,616.30	243.40	503.43	435.79	67.64	7.443		
14,500.00	14,466.69	14,495.67	14,466.69	41.84	39.39	-40.97	-2,686.29	244.31	503.30	434.19	69.12	7.282		
14,600.00	14,566.69	14,595.67	14,566.69	43.15	40.68	-40.98	-2,756.28	245.22	503.17	432.56	70.61	7.126		
14,700.00	14,666.69	14,695.67	14,666.69	44.45	41.97	-41.00	-2,826.27	246.13	503.04	430.91	72.13	6.974		
14,800.00	14,766.69	14,795.67	14,766.69	45.77	43.27	-41.01	-2,896.26	247.03	502.91	429.24	73.67	6.826		
14,900.00	14,866.69	14,895.67	14,866.69	47.08	44.57	-41.02	-2,966.25	247.94	502.78	427.55	75.23	6.683		
15,000.00	14,966.69	14,995.67	14,966.69	48.40	45.88	-41.04	-3,036.24	248.85	502.65	425.84	76.81	6.544		
15,100.00	15,066.69	15,095.67	15,066.69	49.72	47.19	-41.05	-3,106.23	249.76	502.51	424.11	78.40	6.410		
15,200.00	15,166.69	15,195.67	15,166.69	51.04	48.50	-41.06	-3,176.22	250.67	502.38	422.37	80.01	6.279		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:	
												Offset Well Error:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis 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)					
15,300.00	12,444.14	14,915.58	12,065.53	52.36	49.82	-41.08	-3,696.27	251.58	502.25	420.62	81.63	6.152	
15,400.00	12,444.67	15,015.58	12,066.23	53.69	51.14	-41.09	-3,796.27	252.49	502.12	418.85	83.27	6.030	
15,500.00	12,445.19	15,115.58	12,066.93	55.02	52.46	-41.10	-3,896.26	253.40	501.99	417.06	84.93	5.911	
15,600.00	12,445.72	15,215.58	12,067.63	56.35	53.78	-41.11	-3,996.25	254.30	501.86	415.27	86.59	5.796	
15,700.00	12,446.24	15,315.58	12,068.33	57.69	55.11	-41.13	-4,096.25	255.21	501.73	413.46	88.27	5.684	
15,800.00	12,446.77	15,415.58	12,069.03	59.02	56.43	-41.14	-4,196.24	256.12	501.60	411.64	89.96	5.576	
15,900.00	12,447.29	15,515.58	12,069.72	60.36	57.76	-41.15	-4,296.23	257.03	501.46	409.81	91.65	5.471	
16,000.00	12,447.82	15,615.58	12,070.42	61.69	59.10	-41.17	-4,396.22	257.94	501.33	407.97	93.36	5.370	
16,100.00	12,448.34	15,715.58	12,071.12	63.03	60.43	-41.18	-4,496.22	258.85	501.20	406.12	95.08	5.271	
16,200.00	12,448.87	15,815.58	12,071.82	64.37	61.76	-41.19	-4,596.21	259.76	501.07	404.26	96.81	5.176	
16,300.00	12,449.39	15,915.58	12,072.52	65.72	63.10	-41.21	-4,696.20	260.67	500.94	402.39	98.55	5.083	
16,400.00	12,449.92	16,015.58	12,073.22	67.06	64.44	-41.22	-4,796.20	261.57	500.81	400.51	100.30	4.993	
16,500.00	12,450.44	16,115.58	12,073.92	68.40	65.78	-41.23	-4,896.19	262.48	500.68	398.63	102.05	4.906	
16,600.00	12,450.97	16,215.58	12,074.62	69.75	67.12	-41.25	-4,996.18	263.39	500.55	396.74	103.81	4.822	
16,700.00	12,451.49	16,315.58	12,075.32	71.09	68.46	-41.26	-5,096.18	264.30	500.42	394.83	105.58	4.740	
16,800.00	12,452.02	16,415.58	12,076.02	72.44	69.80	-41.27	-5,196.17	265.21	500.28	392.93	107.36	4.660	
16,900.00	12,452.54	16,515.58	12,076.72	73.79	71.14	-41.28	-5,296.16	266.12	500.15	391.01	109.14	4.583	
17,000.00	12,453.07	16,615.58	12,077.42	75.13	72.49	-41.30	-5,396.16	267.03	500.02	389.09	110.93	4.508	
17,100.00	12,453.59	16,715.58	12,078.11	76.48	73.83	-41.31	-5,496.15	267.94	499.89	387.17	112.73	4.435	
17,200.00	12,454.12	16,815.58	12,078.81	77.83	75.18	-41.32	-5,596.14	268.84	499.76	385.23	114.53	4.364	
17,300.00	12,454.64	16,915.58	12,079.51	79.18	76.53	-41.34	-5,696.14	269.75	499.63	383.30	116.34	4.295	
17,400.00	12,455.17	17,015.58	12,080.21	80.53	77.88	-41.35	-5,796.13	270.66	499.50	381.35	118.15	4.228	
17,500.00	12,455.69	17,115.58	12,080.91	81.89	79.22	-41.36	-5,896.12	271.57	499.37	379.40	119.97	4.163	
17,600.00	12,456.22	17,215.58	12,081.61	83.24	80.57	-41.38	-5,996.12	272.48	499.24	377.45	121.79	4.099	
17,700.00	12,456.74	17,315.58	12,082.31	84.59	81.92	-41.39	-6,096.11	273.39	499.11	375.49	123.62	4.038	
17,800.00	12,457.27	17,415.58	12,083.01	85.94	83.27	-41.40	-6,196.10	274.30	498.98	373.53	125.45	3.977	
17,900.00	12,457.79	17,515.58	12,083.71	87.30	84.63	-41.42	-6,296.10	275.21	498.85	371.56	127.29	3.919	
18,000.00	12,458.32	17,615.58	12,084.41	88.65	85.98	-41.43	-6,396.09	276.11	498.72	369.59	129.13	3.862	
18,100.00	12,458.84	17,715.58	12,085.11	90.01	87.33	-41.44	-6,496.08	277.02	498.59	367.61	130.98	3.807	
18,200.00	12,459.37	17,815.58	12,085.80	91.36	88.68	-41.46	-6,596.08	277.93	498.45	365.63	132.83	3.753	
18,300.00	12,459.89	17,915.58	12,086.50	92.72	90.04	-41.47	-6,696.07	278.84	498.32	363.64	134.68	3.700	
18,400.00	12,460.42	18,015.58	12,087.20	94.07	91.39	-41.48	-6,796.06	279.75	498.19	361.65	136.54	3.649	
18,500.00	12,460.94	18,115.57	12,087.90	95.43	92.74	-41.50	-6,896.06	280.66	498.06	359.66	138.40	3.599	
18,600.00	12,461.47	18,215.57	12,088.60	96.79	94.10	-41.51	-6,996.05	281.57	497.93	357.67	140.27	3.550	
18,700.00	12,461.99	18,315.57	12,089.30	98.15	95.45	-41.52	-7,096.04	282.48	497.80	355.67	142.14	3.502	
18,800.00	12,462.52	18,415.57	12,090.00	99.50	96.81	-41.54	-7,196.04	283.38	497.67	353.66	144.01	3.456	
18,900.00	12,463.04	18,515.57	12,090.70	100.86	98.17	-41.55	-7,296.03	284.29	497.54	351.66	145.88	3.411	
19,000.00	12,463.57	18,615.57	12,091.40	102.22	99.52	-41.56	-7,396.02	285.20	497.41	349.65	147.76	3.366	
19,100.00	12,464.09	18,715.57	12,092.10	103.58	100.88	-41.58	-7,496.02	286.11	497.28	347.64	149.65	3.323	
19,200.00	12,464.62	18,815.57	12,092.80	104.94	102.24	-41.59	-7,596.01	287.02	497.15	345.62	151.53	3.281	
19,300.00	12,465.14	18,915.57	12,093.50	106.29	103.59	-41.60	-7,696.00	287.93	497.02	343.60	153.42	3.240	
19,400.00	12,465.67	19,015.57	12,094.19	107.65	104.95	-41.62	-7,796.00	288.84	496.89	341.58	155.31	3.199	
19,500.00	12,466.19	19,115.57	12,094.89	109.01	106.31	-41.63	-7,895.99	289.75	496.76	339.56	157.20	3.160	
19,600.00	12,466.72	19,215.57	12,095.59	110.37	107.67	-41.64	-7,995.98	290.65	496.63	337.53	159.10	3.122	
19,700.00	12,467.24	19,315.57	12,096.29	111.73	109.03	-41.66	-8,095.98	291.56	496.50	335.50	161.00	3.084	
19,800.00	12,467.77	19,415.57	12,096.99	113.09	110.39	-41.67	-8,195.97	292.47	496.37	333.47	162.90	3.047	
19,900.00	12,468.29	19,515.57	12,097.69	114.45	111.74	-41.68	-8,295.96	293.38	496.24	331.43	164.80	3.011	
20,000.00	12,468.82	19,615.57	12,098.39	115.82	113.10	-41.70	-8,395.96	294.29	496.11	329.40	166.71	2.976	
20,100.00	12,469.34	19,715.57	12,099.09	117.18	114.46	-41.71	-8,495.95	295.20	495.98	327.36	168.62	2.941	
20,200.00	12,469.87	19,815.57	12,099.79	118.54	115.82	-41.72	-8,595.94	296.11	495.85	325.32	170.53	2.908	
20,300.00	12,470.39	19,915.57	12,100.49	119.90	117.18	-41.74	-8,695.94	297.02	495.72	323.27	172.45	2.875	
20,400.00	12,470.92	20,015.57	12,101.19	121.26	118.54	-41.75	-8,795.93	297.92	495.59	321.23	174.36	2.842	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	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)		Ellipses (usft)			
20,500.00	12,471.44	20,115.57	12,101.88	122.62	119.90	-41.76	-8,895.92	298.83	495.46	319.18	176.28	2.811	
20,600.00	12,471.97	20,215.57	12,102.58	123.98	121.27	-41.78	-8,995.92	299.74	495.33	317.13	178.20	2.780	
20,700.00	12,472.50	20,315.57	12,103.28	125.35	122.63	-41.79	-9,095.91	300.65	495.20	315.07	180.12	2.749	
20,800.00	12,473.02	20,415.57	12,103.98	126.71	123.99	-41.80	-9,195.90	301.56	495.07	313.02	182.05	2.719	
20,900.00	12,473.55	20,515.57	12,104.68	128.07	125.35	-41.82	-9,295.90	302.47	494.94	310.96	183.98	2.690	
21,000.00	12,474.07	20,615.57	12,105.38	129.43	126.71	-41.83	-9,395.89	303.38	494.81	308.90	185.91	2.662	
21,100.00	12,474.60	20,715.57	12,106.08	130.80	128.07	-41.84	-9,495.88	304.29	494.68	306.84	187.84	2.634	
21,200.00	12,475.12	20,815.57	12,106.78	132.16	129.43	-41.86	-9,595.88	305.19	494.55	304.78	189.77	2.606	
21,300.00	12,475.65	20,915.57	12,107.48	133.52	130.80	-41.87	-9,695.87	306.10	494.42	302.72	191.70	2.579	
21,400.00	12,476.17	21,015.57	12,108.18	134.88	132.16	-41.88	-9,795.86	307.01	494.29	300.65	193.64	2.553	
21,500.00	12,476.70	21,115.57	12,108.88	136.25	133.52	-41.90	-9,895.86	307.92	494.16	298.58	195.58	2.527	
21,600.00	12,477.22	21,215.57	12,109.58	137.61	134.88	-41.91	-9,995.85	308.83	494.03	296.51	197.52	2.501	
21,700.00	12,477.75	21,315.57	12,110.27	138.97	136.25	-41.92	-10,095.84	309.74	493.90	294.44	199.46	2.476	
21,800.00	12,478.27	21,415.57	12,110.97	140.34	137.61	-41.94	-10,195.83	310.65	493.77	292.37	201.41	2.452	
21,900.00	12,478.80	21,515.57	12,111.67	141.70	138.97	-41.95	-10,295.83	311.56	493.64	290.29	203.35	2.428	
22,000.00	12,479.32	21,615.57	12,112.37	143.06	140.33	-41.96	-10,395.82	312.46	493.51	288.21	205.30	2.404	
22,100.00	12,479.85	21,715.57	12,113.07	144.43	141.70	-41.98	-10,495.81	313.37	493.38	286.13	207.25	2.381	
22,200.00	12,480.37	21,815.57	12,113.77	145.79	143.06	-41.99	-10,595.81	314.28	493.25	284.05	209.20	2.358	
22,300.00	12,480.90	21,915.57	12,114.47	147.16	144.42	-42.00	-10,695.80	315.19	493.13	281.97	211.15	2.335	
22,400.00	12,481.42	22,015.57	12,115.17	148.52	145.79	-42.02	-10,795.79	316.10	493.00	279.89	213.11	2.313	
22,500.00	12,481.95	22,115.57	12,115.87	149.89	147.15	-42.03	-10,895.79	317.01	492.87	277.80	215.06	2.292	
22,600.00	12,482.47	22,215.57	12,116.57	151.25	148.51	-42.05	-10,995.78	317.92	492.74	275.72	217.02	2.270	
22,700.00	12,483.00	22,315.57	12,117.27	152.61	149.86	-42.06	-11,095.77	318.83	492.61	273.65	218.96	2.250	
22,719.79	12,483.10	22,335.19	12,117.40	152.85	150.09	-42.06	-11,115.40	319.00	492.58	273.30	219.29	2.246	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:	
														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		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)							
6,100.00	6,071.21	6,099.37	6,071.21	13.24	12.78	77.75	-631.36	-2,523.43	2,432.64	2,407.91	24.73	98.377			
6,200.00	6,170.61	6,198.78	6,170.61	13.43	12.87	78.00	-631.36	-2,523.43	2,430.34	2,405.35	24.99	97.250			
6,300.00	6,270.02	6,298.18	6,270.02	13.61	12.95	78.25	-631.36	-2,523.43	2,428.09	2,402.83	25.25	96.150			
6,400.00	6,369.43	6,397.59	6,369.43	13.80	13.04	78.50	-631.36	-2,523.43	2,425.88	2,400.37	25.52	95.074			
6,500.00	6,468.83	6,497.00	6,468.83	13.98	13.13	78.75	-631.36	-2,523.43	2,423.72	2,397.95	25.78	94.023			
6,600.00	6,568.24	6,596.40	6,568.24	14.17	13.21	79.00	-631.36	-2,523.43	2,421.61	2,395.57	26.04	92.995			
6,700.00	6,667.74	6,695.90	6,667.74	14.34	13.30	79.20	-631.36	-2,523.43	2,419.72	2,393.44	26.28	92.083			
6,800.00	6,767.46	6,795.63	6,767.46	14.53	13.39	79.36	-631.36	-2,523.43	2,418.34	2,391.83	26.51	91.217			
6,900.00	6,867.34	6,895.51	6,867.34	14.70	13.47	79.45	-631.36	-2,523.43	2,417.46	2,390.74	26.72	90.458			
7,000.00	6,967.32	6,995.48	6,967.32	14.86	13.56	79.50	-631.36	-2,523.43	2,417.06	2,390.15	26.92	89.803			
7,090.01	7,057.33	7,085.49	7,057.33	14.87	13.64	79.51	-631.36	-2,523.43	2,416.99	2,389.99	27.00	89.522	CC		
7,100.00	7,067.32	7,095.48	7,067.32	14.88	13.65	-90.40	-631.36	-2,523.43	2,417.04	2,390.03	27.01	89.493			
7,200.00	7,167.32	7,195.48	7,167.32	14.90	13.73	-90.40	-631.36	-2,523.43	2,417.04	2,389.92	27.12	89.132			
7,300.00	7,267.32	7,295.48	7,267.32	14.93	13.82	-90.40	-631.36	-2,523.43	2,417.04	2,389.81	27.23	88.774			
7,400.00	7,367.32	7,395.48	7,367.32	14.95	13.91	-90.40	-631.36	-2,523.43	2,417.04	2,389.70	27.34	88.417			
7,500.00	7,467.32	7,495.48	7,467.32	14.98	13.99	-90.40	-631.36	-2,523.43	2,417.04	2,389.59	27.45	88.062			
7,600.00	7,567.32	7,595.48	7,567.32	15.01	14.08	-90.40	-631.36	-2,523.43	2,417.04	2,389.48	27.56	87.708			
7,700.00	7,667.32	7,695.48	7,667.32	15.03	14.17	-90.40	-631.36	-2,523.43	2,417.04	2,389.37	27.67	87.356			
7,800.00	7,767.32	7,795.48	7,767.32	15.06	14.25	-90.40	-631.36	-2,523.43	2,417.04	2,389.26	27.78	87.006			
7,900.00	7,867.32	7,895.48	7,867.32	15.09	14.34	-90.40	-631.36	-2,523.43	2,417.04	2,389.15	27.89	86.658			
8,000.00	7,967.32	7,995.48	7,967.32	15.12	14.42	-90.40	-631.36	-2,523.43	2,417.04	2,389.03	28.00	86.311			
8,100.00	8,067.32	8,095.48	8,067.32	15.15	14.51	-90.40	-631.36	-2,523.43	2,417.04	2,388.92	28.12	85.966			
8,200.00	8,167.32	8,195.48	8,167.32	15.18	14.60	-90.40	-631.36	-2,523.43	2,417.04	2,388.81	28.23	85.622			
8,300.00	8,267.32	8,295.48	8,267.32	15.21	14.68	-90.40	-631.36	-2,523.43	2,417.04	2,388.70	28.34	85.280			
8,400.00	8,367.32	8,395.48	8,367.32	15.24	14.77	-90.40	-631.36	-2,523.43	2,417.04	2,388.58	28.46	84.940			
8,500.00	8,467.32	8,495.48	8,467.32	15.27	14.85	-90.40	-631.36	-2,523.43	2,417.04	2,388.47	28.57	84.602			
8,600.00	8,567.32	8,595.48	8,567.32	15.30	14.94	-90.40	-631.36	-2,523.43	2,417.04	2,388.35	28.68	84.265			
8,700.00	8,667.32	8,695.48	8,667.32	15.33	15.03	-90.40	-631.36	-2,523.43	2,417.04	2,388.24	28.80	83.930			
8,800.00	8,767.32	8,795.48	8,767.32	15.36	15.11	-90.40	-631.36	-2,523.43	2,417.04	2,388.13	28.91	83.596			
8,900.00	8,867.32	8,895.48	8,867.32	15.39	15.20	-90.40	-631.36	-2,523.43	2,417.04	2,388.01	29.03	83.264			
9,000.00	8,967.32	8,995.48	8,967.32	15.43	15.28	-90.40	-631.36	-2,523.43	2,417.04	2,387.89	29.14	82.934			
9,100.00	9,067.32	9,095.48	9,067.32	15.46	15.37	-90.40	-631.36	-2,523.43	2,417.04	2,387.78	29.26	82.605			
9,200.00	9,167.32	9,195.48	9,167.32	15.49	15.45	-90.40	-631.36	-2,523.43	2,417.04	2,387.66	29.38	82.278			
9,300.00	9,267.32	9,295.48	9,267.32	15.53	15.54	-90.40	-631.36	-2,523.43	2,417.04	2,387.55	29.49	81.953			
9,400.00	9,367.32	9,395.48	9,367.32	15.56	15.63	-90.40	-631.36	-2,523.43	2,417.04	2,387.43	29.61	81.629			
9,500.00	9,467.32	9,495.48	9,467.32	15.59	15.71	-90.40	-631.36	-2,523.43	2,417.04	2,387.31	29.73	81.307			
9,600.00	9,567.32	9,595.48	9,567.32	15.63	15.80	-90.40	-631.36	-2,523.43	2,417.04	2,387.19	29.85	80.986			
9,700.00	9,667.32	9,695.48	9,667.32	15.66	15.88	-90.40	-631.36	-2,523.43	2,417.04	2,387.08	29.96	80.667			
9,800.00	9,767.32	9,795.48	9,767.32	15.70	15.97	-90.40	-631.36	-2,523.43	2,417.04	2,386.96	30.08	80.350			
9,900.00	9,867.32	9,895.48	9,867.32	15.73	16.05	-90.40	-631.36	-2,523.43	2,417.04	2,386.84	30.20	80.034			
10,000.00	9,967.32	9,995.48	9,967.32	15.77	16.14	-90.40	-631.36	-2,523.43	2,417.04	2,386.72	30.32	79.720			
10,100.00	10,067.32	10,095.48	10,067.32	15.81	16.22	-90.40	-631.36	-2,523.43	2,417.04	2,386.60	30.44	79.407			
10,200.00	10,167.32	10,195.48	10,167.32	15.84	16.31	-90.40	-631.36	-2,523.43	2,417.04	2,386.48	30.56	79.097			
10,300.00	10,267.32	10,295.48	10,267.32	15.88	16.39	-90.40	-631.36	-2,523.43	2,417.04	2,386.36	30.68	78.787			
10,400.00	10,367.32	10,395.48	10,367.32	15.92	16.48	-90.40	-631.36	-2,523.43	2,417.04	2,386.24	30.80	78.479			
10,500.00	10,467.32	10,495.48	10,467.32	15.95	16.56	-90.40	-631.36	-2,523.43	2,417.04	2,386.12	30.92	78.173			
10,600.00	10,567.32	10,595.48	10,567.32	15.99	16.65	-90.40	-631.36	-2,523.43	2,417.04	2,386.00	31.04	77.869			
10,700.00	10,667.32	10,695.48	10,667.32	16.03	16.73	-90.40	-631.36	-2,523.43	2,417.04	2,385.88	31.16	77.566			
10,800.00	10,767.32	10,795.48	10,767.32	16.07	16.82	-90.40	-631.36	-2,523.43	2,417.04	2,385.76	31.28	77.264			
10,900.00	10,867.32	10,895.48	10,867.32	16.11	16.90	-90.40	-631.36	-2,523.43	2,417.04	2,385.63	31.40	76.964			
11,000.00	10,967.32	10,995.48	10,967.32	16.15	16.99	-90.40	-631.36	-2,523.43	2,417.04	2,385.51	31.53	76.666			
11,100.00	11,067.32	11,095.48	11,067.32	16.19	17.07	-90.40	-631.36	-2,523.43	2,417.04	2,385.39	31.65	76.369			

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)

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)			
11,200.00	11,167.32	11,195.48	11,167.32	16.23	17.16	-90.40	-631.36	-2,523.43	2,417.04	2,385.27	31.77	76.074	
11,300.00	11,267.32	11,295.48	11,267.32	16.27	17.24	-90.40	-631.36	-2,523.43	2,417.04	2,385.14	31.90	75.780	
11,400.00	11,367.32	11,395.48	11,367.32	16.31	17.33	-90.40	-631.36	-2,523.43	2,417.04	2,385.02	32.02	75.488	
11,500.00	11,467.32	11,495.48	11,467.32	16.35	17.41	-90.40	-631.36	-2,523.43	2,417.04	2,384.90	32.14	75.197	
11,600.00	11,567.32	11,595.58	11,567.41	16.39	17.48	-90.40	-631.54	-2,523.43	2,417.04	2,384.79	32.25	74.958	ES
11,652.94	11,620.25	11,648.57	11,620.25	16.41	17.49	-90.49	-635.32	-2,523.40	2,417.04	2,384.80	32.24	74.980	
11,700.00	11,667.32	11,694.77	11,665.86	16.43	17.50	-90.67	-642.58	-2,523.33	2,417.05	2,384.84	32.21	75.046	
11,800.00	11,767.32	11,787.56	11,754.96	16.47	17.52	-91.27	-668.13	-2,523.11	2,417.29	2,385.19	32.10	75.295	
11,900.00	11,867.32	11,870.36	11,830.07	16.51	17.52	88.42	-702.81	-2,522.81	2,418.26	2,386.29	31.97	75.648	
12,000.00	11,966.66	11,950.00	11,896.88	16.75	17.53	87.38	-746.03	-2,522.44	2,420.13	2,388.24	31.89	75.893	
12,100.00	12,062.69	12,019.33	11,949.69	17.02	17.53	86.47	-790.89	-2,522.06	2,422.56	2,390.59	31.97	75.775	
12,200.00	12,152.51	12,089.99	11,997.53	17.30	17.53	85.58	-842.82	-2,521.61	2,425.31	2,393.11	32.20	75.318	
12,300.00	12,233.38	12,158.90	12,037.69	17.56	17.53	84.79	-898.76	-2,521.13	2,428.15	2,395.54	32.61	74.469	
12,400.00	12,302.84	12,226.48	12,070.28	17.80	17.54	84.10	-957.93	-2,520.62	2,430.82	2,397.63	33.19	73.234	
12,500.00	12,358.79	12,300.00	12,097.55	18.10	17.55	83.52	-1,026.14	-2,520.03	2,433.16	2,399.22	33.94	71.692	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	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
1,300.00	1,299.34	1,511.36	1,509.65	4.35	5.23	63.02	-886.65	-2,265.14	2,430.19	2,420.73	9.46	256.934	
1,400.00	1,399.04	1,610.42	1,608.34	4.58	5.44	60.77	-884.56	-2,256.77	2,417.83	2,407.97	9.86	245.277	
1,500.00	1,498.51	1,709.15	1,706.69	4.71	5.65	60.03	-882.48	-2,248.42	2,404.05	2,393.88	10.17	236.457	
1,600.00	1,597.91	1,807.79	1,804.96	4.89	5.85	60.24	-880.40	-2,240.07	2,389.94	2,379.39	10.55	226.497	
1,700.00	1,697.32	1,906.43	1,903.22	5.08	6.05	60.44	-878.33	-2,231.73	2,375.86	2,364.92	10.93	217.287	
1,800.00	1,796.72	2,005.07	2,001.49	5.27	6.25	60.65	-876.25	-2,223.39	2,361.81	2,350.50	11.31	208.742	
1,900.00	1,896.13	2,103.71	2,099.76	5.46	6.45	60.86	-874.17	-2,215.05	2,347.79	2,336.10	11.69	200.782	
2,000.00	1,995.54	2,202.35	2,198.02	5.64	6.65	61.07	-872.10	-2,206.70	2,333.81	2,321.73	12.08	193.190	
2,100.00	2,094.94	2,445.53	2,439.46	5.83	7.20	61.59	-865.18	-2,178.91	2,316.90	2,304.14	12.76	181.576	
2,200.00	2,194.35	2,688.65	2,678.54	6.02	7.77	62.09	-854.57	-2,136.29	2,293.76	2,280.34	13.43	170.851	
2,300.00	2,293.76	2,893.89	2,877.87	6.20	8.21	62.51	-842.78	-2,088.93	2,264.78	2,250.83	13.95	162.331	
2,400.00	2,393.16	2,988.76	2,969.51	6.39	8.41	62.71	-836.85	-2,065.10	2,234.04	2,219.71	14.33	155.899	
2,500.00	2,492.57	3,083.63	3,061.14	6.58	8.61	62.91	-830.92	-2,041.27	2,203.33	2,188.61	14.71	149.750	
2,600.00	2,591.98	3,178.50	3,152.78	6.76	8.81	63.12	-824.99	-2,017.44	2,172.64	2,157.54	15.10	143.910	
2,700.00	2,691.38	3,273.37	3,244.42	6.95	9.02	63.34	-819.06	-1,993.61	2,141.98	2,126.49	15.48	138.357	
2,800.00	2,790.79	3,368.24	3,336.05	7.13	9.23	63.56	-813.12	-1,969.78	2,111.34	2,095.48	15.87	133.071	
2,900.00	2,890.20	3,463.11	3,427.69	7.32	9.45	63.78	-807.19	-1,945.95	2,080.74	2,064.49	16.25	128.034	
3,000.00	2,989.60	3,557.98	3,519.33	7.50	9.68	64.02	-801.26	-1,922.12	2,050.17	2,033.53	16.64	123.229	
3,100.00	3,089.01	3,652.85	3,610.96	7.69	9.94	64.26	-795.33	-1,898.29	2,019.63	2,002.60	17.02	118.642	
3,200.00	3,188.42	3,747.72	3,702.60	7.88	10.21	64.51	-789.40	-1,874.46	1,989.12	1,971.71	17.41	114.258	
3,300.00	3,287.82	3,842.59	3,794.24	8.06	10.50	64.76	-783.47	-1,850.63	1,958.65	1,940.85	17.80	110.065	
3,400.00	3,387.23	3,937.46	3,885.87	8.25	10.79	65.03	-777.54	-1,826.80	1,928.21	1,910.03	18.18	106.053	
3,500.00	3,486.64	4,032.33	3,977.51	8.43	11.09	65.30	-771.61	-1,802.97	1,897.81	1,879.25	18.57	102.205	
3,600.00	3,586.04	4,127.20	4,069.15	8.62	11.39	65.58	-765.68	-1,779.15	1,867.46	1,848.50	18.96	98.511	
3,700.00	3,685.45	4,222.07	4,160.78	8.80	11.69	65.87	-759.74	-1,755.32	1,837.14	1,817.80	19.34	94.973	
3,800.00	3,784.86	4,316.94	4,252.42	8.99	11.99	66.17	-753.81	-1,731.49	1,806.88	1,787.14	19.73	91.575	
3,900.00	3,884.26	4,411.81	4,344.06	9.17	12.30	66.48	-747.88	-1,707.66	1,776.65	1,756.54	20.12	88.308	
4,000.00	3,983.67	4,506.68	4,435.69	9.36	12.61	66.80	-741.95	-1,683.83	1,746.48	1,725.98	20.51	85.167	
4,100.00	4,083.08	4,601.55	4,527.33	9.54	12.92	67.13	-736.02	-1,660.00	1,716.36	1,695.47	20.89	82.145	
4,200.00	4,182.48	4,696.42	4,618.97	9.73	13.23	67.48	-730.09	-1,636.17	1,686.30	1,665.01	21.28	79.234	
4,300.00	4,281.89	4,791.29	4,710.60	9.91	13.54	67.83	-724.16	-1,612.34	1,656.29	1,634.62	21.67	76.430	
4,400.00	4,381.30	4,886.16	4,802.24	10.10	13.85	68.20	-718.23	-1,588.51	1,626.34	1,604.28	22.06	73.727	
4,500.00	4,480.70	4,981.03	4,893.88	10.28	14.17	68.59	-712.30	-1,564.68	1,596.46	1,574.01	22.45	71.119	
4,600.00	4,580.11	5,075.90	4,985.52	10.47	14.48	68.98	-706.36	-1,540.85	1,566.65	1,543.81	22.84	68.603	
4,700.00	4,679.51	5,170.77	5,077.15	10.65	14.80	69.39	-700.43	-1,517.02	1,536.90	1,513.68	23.23	66.173	
4,800.00	4,778.92	5,265.64	5,168.79	10.84	15.12	69.82	-694.50	-1,493.19	1,507.24	1,483.62	23.61	63.826	
4,900.00	4,878.33	5,360.51	5,260.43	11.02	15.43	70.27	-688.57	-1,469.36	1,477.65	1,453.65	24.00	61.558	
5,000.00	4,977.73	5,455.38	5,352.06	11.21	15.75	70.73	-682.64	-1,445.53	1,448.15	1,423.76	24.39	59.364	
5,100.00	5,077.14	5,550.25	5,443.70	11.39	16.07	71.21	-676.71	-1,421.70	1,418.75	1,393.96	24.78	57.243	
5,200.00	5,176.55	5,645.12	5,535.34	11.58	16.39	71.72	-670.78	-1,397.87	1,389.44	1,364.26	25.18	55.190	
5,300.00	5,275.95	5,739.99	5,626.97	11.76	16.71	72.24	-664.85	-1,374.04	1,360.23	1,334.66	25.57	53.202	
5,400.00	5,375.36	5,834.86	5,718.61	11.95	17.03	72.79	-658.91	-1,350.22	1,331.13	1,305.17	25.96	51.278	
5,500.00	5,474.77	5,916.32	5,797.29	12.13	17.30	73.27	-653.82	-1,329.75	1,302.22	1,275.88	26.34	49.440	
5,600.00	5,574.17	6,000.00	5,878.35	12.32	17.57	73.79	-648.80	-1,309.60	1,274.45	1,247.73	26.72	47.690	
5,700.00	5,673.58	6,069.72	5,946.22	12.50	17.78	74.23	-644.95	-1,294.12	1,248.63	1,221.53	27.10	46.067	
5,800.00	5,772.99	6,142.56	6,017.43	12.69	17.99	74.69	-641.25	-1,279.24	1,224.76	1,197.28	27.48	44.566	
5,900.00	5,872.39	6,216.11	6,089.61	12.87	18.19	75.16	-637.84	-1,265.55	1,202.86	1,175.01	27.85	43.188	
6,000.00	5,971.80	6,300.00	6,172.26	13.06	18.40	75.70	-634.37	-1,251.59	1,183.01	1,154.78	28.23	41.909	
6,100.00	6,071.21	6,365.14	6,236.64	13.24	18.54	76.12	-631.97	-1,241.97	1,165.07	1,136.50	28.57	40.784	
6,200.00	6,170.61	6,440.53	6,311.34	13.43	18.69	76.61	-629.53	-1,232.16	1,149.22	1,120.31	28.91	39.751	
6,300.00	6,270.02	6,516.43	6,386.75	13.61	18.83	77.10	-627.43	-1,223.73	1,135.43	1,106.18	29.24	38.825	
6,400.00	6,369.43	6,600.00	6,469.95	13.80	18.97	77.63	-625.54	-1,216.14	1,123.72	1,094.14	29.58	37.984	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:	
												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
6,500.00	6,468.83	6,669.54	6,539.30	13.98	19.06	78.06	-624.31	-1,211.17	1,114.04	1,084.16	29.88	37.287	
6,600.00	6,568.24	6,746.64	6,616.28	14.17	19.15	78.53	-623.29	-1,207.09	1,106.46	1,076.29	30.17	36.671	
6,700.00	6,667.74	6,824.09	6,693.69	14.34	19.23	78.89	-622.65	-1,204.51	1,101.13	1,070.71	30.43	36.189	
6,800.00	6,767.46	6,901.93	6,771.52	14.53	19.29	79.16	-622.39	-1,203.46	1,098.36	1,067.70	30.66	35.828	
6,900.00	6,867.34	6,997.76	6,867.34	14.70	19.32	79.38	-622.38	-1,203.43	1,097.43	1,066.62	30.82	35.613	
7,000.00	6,967.32	7,097.73	6,967.32	14.86	19.37	79.48	-622.38	-1,203.43	1,097.03	1,066.07	30.97	35.424	
7,090.01	7,057.33	7,187.74	7,057.33	14.87	19.42	79.50	-622.38	-1,203.43	1,096.96	1,065.94	31.02	35.365	CC
7,100.00	7,067.32	7,197.73	7,067.32	14.88	19.42	-90.41	-622.38	-1,203.43	1,097.01	1,065.98	31.02	35.360	
7,200.00	7,167.32	7,297.73	7,167.32	14.90	19.47	-90.41	-622.38	-1,203.43	1,097.01	1,065.91	31.10	35.279	
7,300.00	7,267.32	7,397.73	7,267.32	14.93	19.52	-90.41	-622.38	-1,203.43	1,097.01	1,065.84	31.17	35.197	
7,400.00	7,367.32	7,497.73	7,367.32	14.95	19.57	-90.41	-622.38	-1,203.43	1,097.01	1,065.77	31.24	35.115	
7,500.00	7,467.32	7,597.73	7,467.32	14.98	19.62	-90.41	-622.38	-1,203.43	1,097.01	1,065.69	31.31	35.032	
7,600.00	7,567.32	7,697.73	7,567.32	15.01	19.67	-90.41	-622.38	-1,203.43	1,097.01	1,065.62	31.39	34.949	
7,700.00	7,667.32	7,797.73	7,667.32	15.03	19.72	-90.41	-622.38	-1,203.43	1,097.01	1,065.54	31.46	34.866	
7,800.00	7,767.32	7,897.73	7,767.32	15.06	19.78	-90.41	-622.38	-1,203.43	1,097.01	1,065.47	31.54	34.783	
7,900.00	7,867.32	7,997.73	7,867.32	15.09	19.83	-90.41	-622.38	-1,203.43	1,097.01	1,065.39	31.62	34.699	
8,000.00	7,967.32	8,097.73	7,967.32	15.12	19.88	-90.41	-622.38	-1,203.43	1,097.01	1,065.32	31.69	34.615	
8,100.00	8,067.32	8,197.73	8,067.32	15.15	19.93	-90.41	-622.38	-1,203.43	1,097.01	1,065.24	31.77	34.530	
8,200.00	8,167.32	8,297.73	8,167.32	15.18	19.98	-90.41	-622.38	-1,203.43	1,097.01	1,065.16	31.85	34.445	
8,300.00	8,267.32	8,397.73	8,267.32	15.21	20.03	-90.41	-622.38	-1,203.43	1,097.01	1,065.08	31.93	34.360	
8,400.00	8,367.32	8,497.73	8,367.32	15.24	20.09	-90.41	-622.38	-1,203.43	1,097.01	1,065.00	32.01	34.275	
8,500.00	8,467.32	8,597.73	8,467.32	15.27	20.14	-90.41	-622.38	-1,203.43	1,097.01	1,064.92	32.09	34.189	
8,600.00	8,567.32	8,697.73	8,567.32	15.30	20.19	-90.41	-622.38	-1,203.43	1,097.01	1,064.84	32.17	34.104	
8,700.00	8,667.32	8,797.73	8,667.32	15.33	20.24	-90.41	-622.38	-1,203.43	1,097.01	1,064.76	32.25	34.017	
8,800.00	8,767.32	8,897.73	8,767.32	15.36	20.30	-90.41	-622.38	-1,203.43	1,097.01	1,064.68	32.33	33.931	
8,900.00	8,867.32	8,997.73	8,867.32	15.39	20.35	-90.41	-622.38	-1,203.43	1,097.01	1,064.60	32.41	33.845	
9,000.00	8,967.32	9,097.73	8,967.32	15.43	20.40	-90.41	-622.38	-1,203.43	1,097.01	1,064.51	32.50	33.758	
9,100.00	9,067.32	9,197.73	9,067.32	15.46	20.46	-90.41	-622.38	-1,203.43	1,097.01	1,064.43	32.58	33.671	
9,200.00	9,167.32	9,297.73	9,167.32	15.49	20.51	-90.41	-622.38	-1,203.43	1,097.01	1,064.34	32.66	33.584	
9,300.00	9,267.32	9,397.73	9,267.32	15.53	20.57	-90.41	-622.38	-1,203.43	1,097.01	1,064.26	32.75	33.497	
9,400.00	9,367.32	9,497.73	9,367.32	15.56	20.62	-90.41	-622.38	-1,203.43	1,097.01	1,064.17	32.84	33.410	
9,500.00	9,467.32	9,597.73	9,467.32	15.59	20.67	-90.41	-622.38	-1,203.43	1,097.01	1,064.09	32.92	33.322	
9,600.00	9,567.32	9,697.73	9,567.32	15.63	20.73	-90.41	-622.38	-1,203.43	1,097.01	1,064.00	33.01	33.235	
9,700.00	9,667.32	9,797.73	9,667.32	15.66	20.78	-90.41	-622.38	-1,203.43	1,097.01	1,063.91	33.10	33.147	
9,800.00	9,767.32	9,897.73	9,767.32	15.70	20.84	-90.41	-622.38	-1,203.43	1,097.01	1,063.82	33.18	33.059	
9,900.00	9,867.32	9,997.73	9,867.32	15.73	20.89	-90.41	-622.38	-1,203.43	1,097.01	1,063.74	33.27	32.971	
10,000.00	9,967.32	10,097.73	9,967.32	15.77	20.95	-90.41	-622.38	-1,203.43	1,097.01	1,063.65	33.36	32.883	
10,100.00	10,067.32	10,197.73	10,067.32	15.81	21.00	-90.41	-622.38	-1,203.43	1,097.01	1,063.56	33.45	32.795	
10,200.00	10,167.32	10,297.73	10,167.32	15.84	21.06	-90.41	-622.38	-1,203.43	1,097.01	1,063.47	33.54	32.707	
10,300.00	10,267.32	10,397.73	10,267.32	15.88	21.12	-90.41	-622.38	-1,203.43	1,097.01	1,063.38	33.63	32.618	
10,400.00	10,367.32	10,497.73	10,367.32	15.92	21.17	-90.41	-622.38	-1,203.43	1,097.01	1,063.29	33.72	32.530	
10,500.00	10,467.32	10,597.73	10,467.32	15.95	21.23	-90.41	-622.38	-1,203.43	1,097.01	1,063.19	33.81	32.442	
10,600.00	10,567.32	10,697.73	10,567.32	15.99	21.28	-90.41	-622.38	-1,203.43	1,097.01	1,063.10	33.91	32.353	
10,700.00	10,667.32	10,797.73	10,667.32	16.03	21.34	-90.41	-622.38	-1,203.43	1,097.01	1,063.01	34.00	32.265	
10,800.00	10,767.32	10,897.73	10,767.32	16.07	21.40	-90.41	-622.38	-1,203.43	1,097.01	1,062.91	34.09	32.176	
10,900.00	10,867.32	10,997.73	10,867.32	16.11	21.45	-90.41	-622.38	-1,203.43	1,097.01	1,062.82	34.19	32.088	
11,000.00	10,967.32	11,097.73	10,967.32	16.15	21.51	-90.41	-622.38	-1,203.43	1,097.01	1,062.73	34.28	31.999	
11,100.00	11,067.32	11,197.73	11,067.32	16.19	21.57	-90.41	-622.38	-1,203.43	1,097.01	1,062.63	34.38	31.911	
11,200.00	11,167.32	11,297.73	11,167.32	16.23	21.63	-90.41	-622.38	-1,203.43	1,097.01	1,062.54	34.47	31.822	
11,300.00	11,267.32	11,397.73	11,267.32	16.27	21.68	-90.41	-622.38	-1,203.43	1,097.01	1,062.44	34.57	31.734	
11,400.00	11,367.32	11,497.73	11,367.32	16.31	21.74	-90.41	-622.38	-1,203.43	1,097.01	1,062.34	34.67	31.646	
11,500.00	11,467.32	11,597.73	11,467.32	16.35	21.80	-90.41	-622.38	-1,203.43	1,097.01	1,062.25	34.76	31.557	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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					
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	Between Ellipses	Minimum Separation	Separation Factor	Warning
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
11,600.00	11,567.32	11,697.76	11,567.35	16.39	21.84	-90.42	-622.49	-1,203.43	1,097.01	1,062.16	34.85	31.480	
11,631.21	11,598.53	11,728.98	11,598.53	16.40	21.86	-90.49	-623.96	-1,203.42	1,097.01	1,062.15	34.85	31.476	
11,700.00	11,667.32	11,796.66	11,665.57	16.43	21.91	-90.96	-632.95	-1,203.34	1,097.05	1,062.19	34.85	31.477	
11,800.00	11,767.32	11,889.38	11,754.75	16.47	21.95	-92.27	-657.95	-1,203.12	1,097.61	1,062.78	34.83	31.516	
11,900.00	11,867.32	11,972.29	11,830.16	16.51	21.98	86.44	-692.23	-1,202.83	1,099.75	1,064.94	34.81	31.590	
12,000.00	11,966.66	12,050.00	11,895.67	16.75	22.01	84.24	-733.92	-1,202.47	1,103.81	1,068.88	34.93	31.603	
12,100.00	12,062.69	12,121.62	11,950.54	17.02	22.05	82.22	-779.86	-1,202.07	1,109.05	1,073.80	35.25	31.465	
12,200.00	12,152.51	12,192.46	11,998.78	17.30	22.11	80.33	-831.69	-1,201.63	1,114.94	1,079.17	35.76	31.174	
12,300.00	12,233.38	12,261.57	12,039.31	17.56	22.20	78.66	-887.61	-1,201.15	1,120.94	1,084.47	36.46	30.742	
12,400.00	12,302.84	12,329.36	12,072.25	17.80	22.32	77.23	-946.80	-1,200.64	1,126.56	1,089.25	37.31	30.194	
12,500.00	12,358.79	12,400.00	12,098.90	18.10	22.47	76.06	-1,012.18	-1,200.07	1,131.39	1,093.12	38.27	29.565	
12,600.00	12,399.52	12,462.32	12,115.57	18.99	22.65	75.26	-1,072.20	-1,199.56	1,135.06	1,095.77	39.29	28.889	
12,700.00	12,423.80	12,528.04	12,125.99	19.97	22.87	74.77	-1,137.04	-1,199.00	1,137.34	1,097.00	40.34	28.193	
12,800.00	12,431.01	12,599.94	12,129.10	21.01	23.15	74.62	-1,208.84	-1,198.38	1,138.07	1,096.66	41.41	27.484	
12,900.00	12,431.54	12,699.94	12,129.97	22.11	23.60	74.63	-1,308.84	-1,197.52	1,138.02	1,095.32	42.70	26.655	
13,000.00	12,432.07	12,799.94	12,130.84	23.23	24.10	74.65	-1,408.83	-1,196.66	1,137.97	1,093.88	44.10	25.806	
13,100.00	12,432.59	12,899.94	12,131.71	24.37	24.66	74.67	-1,508.82	-1,195.79	1,137.93	1,092.32	45.60	24.952	
13,200.00	12,433.12	12,999.94	12,132.58	25.54	25.27	74.69	-1,608.81	-1,194.93	1,137.88	1,090.67	47.21	24.102	
13,300.00	12,433.64	13,099.94	12,133.46	26.73	25.92	74.70	-1,708.80	-1,194.07	1,137.84	1,088.93	48.91	23.266	
13,400.00	12,434.17	13,199.94	12,134.33	27.93	26.62	74.72	-1,808.80	-1,193.21	1,137.79	1,087.11	50.68	22.449	
13,500.00	12,434.69	13,299.94	12,135.20	29.15	27.36	74.74	-1,908.79	-1,192.35	1,137.75	1,085.21	52.54	21.656	
13,600.00	12,435.22	13,399.94	12,136.07	30.38	28.15	74.76	-2,008.78	-1,191.49	1,137.70	1,083.24	54.46	20.892	
13,700.00	12,435.74	13,499.94	12,136.94	31.62	28.96	74.77	-2,108.77	-1,190.63	1,137.66	1,081.22	56.44	20.158	
13,800.00	12,436.27	13,599.94	12,137.81	32.87	29.82	74.79	-2,208.76	-1,189.77	1,137.61	1,079.14	58.47	19.455	
13,900.00	12,436.79	13,699.94	12,138.69	34.13	30.71	74.81	-2,308.75	-1,188.90	1,137.57	1,077.00	60.56	18.784	
14,000.00	12,437.32	13,799.94	12,139.56	35.40	31.62	74.83	-2,408.75	-1,188.04	1,137.52	1,074.83	62.69	18.145	
14,100.00	12,437.84	13,899.94	12,140.43	36.68	32.57	74.84	-2,508.74	-1,187.18	1,137.48	1,072.61	64.86	17.536	
14,200.00	12,438.37	13,999.93	12,141.30	37.96	33.54	74.86	-2,608.73	-1,186.32	1,137.43	1,070.36	67.07	16.958	
14,300.00	12,438.89	14,099.93	12,142.17	39.25	34.54	74.88	-2,708.72	-1,185.46	1,137.39	1,068.07	69.32	16.409	
14,400.00	12,439.42	14,199.93	12,143.04	40.55	35.56	74.89	-2,808.71	-1,184.60	1,137.34	1,065.75	71.59	15.887	
14,500.00	12,439.94	14,299.93	12,143.92	41.84	36.60	74.91	-2,908.71	-1,183.74	1,137.30	1,063.41	73.89	15.392	
14,600.00	12,440.47	14,399.93	12,144.79	43.15	37.66	74.93	-3,008.70	-1,182.88	1,137.25	1,061.04	76.21	14.922	
14,700.00	12,440.99	14,499.93	12,145.66	44.45	38.74	74.95	-3,108.69	-1,182.01	1,137.21	1,058.65	78.56	14.475	
14,800.00	12,441.52	14,599.93	12,146.53	45.77	39.84	74.96	-3,208.68	-1,181.15	1,137.17	1,056.23	80.93	14.051	
14,900.00	12,442.04	14,699.93	12,147.40	47.08	40.95	74.98	-3,308.67	-1,180.29	1,137.12	1,053.80	83.32	13.648	
15,000.00	12,442.57	14,799.93	12,148.27	48.40	42.08	75.00	-3,408.67	-1,179.43	1,137.08	1,051.35	85.72	13.264	
15,100.00	12,443.09	14,899.93	12,149.14	49.72	43.22	75.02	-3,508.66	-1,178.57	1,137.03	1,048.89	88.14	12.900	
15,200.00	12,443.62	14,999.93	12,150.02	51.04	44.37	75.03	-3,608.65	-1,177.71	1,136.99	1,046.41	90.58	12.552	
15,300.00	12,444.14	15,099.93	12,150.89	52.36	45.54	75.05	-3,708.64	-1,176.85	1,136.95	1,043.92	93.03	12.222	
15,400.00	12,444.67	15,199.93	12,151.76	53.69	46.71	75.07	-3,808.63	-1,175.99	1,136.90	1,041.41	95.49	11.906	
15,500.00	12,445.19	15,299.93	12,152.63	55.02	47.90	75.09	-3,908.63	-1,175.12	1,136.86	1,038.90	97.96	11.605	
15,600.00	12,445.72	15,399.93	12,153.50	56.35	49.10	75.10	-4,008.62	-1,174.26	1,136.82	1,036.37	100.45	11.318	
15,700.00	12,446.24	15,499.93	12,154.37	57.69	50.30	75.12	-4,108.61	-1,173.40	1,136.77	1,033.84	102.94	11.043	
15,800.00	12,446.77	15,599.93	12,155.25	59.02	51.51	75.14	-4,208.60	-1,172.54	1,136.73	1,031.29	105.44	10.781	
15,900.00	12,447.29	15,699.92	12,156.12	60.36	52.73	75.16	-4,308.59	-1,171.68	1,136.69	1,028.74	107.95	10.530	
16,000.00	12,447.82	15,799.92	12,156.99	61.69	53.96	75.17	-4,408.58	-1,170.82	1,136.65	1,026.18	110.47	10.289	
16,100.00	12,448.34	15,899.92	12,157.86	63.03	55.19	75.19	-4,508.58	-1,169.96	1,136.60	1,023.61	113.00	10.059	
16,200.00	12,448.87	15,999.92	12,158.73	64.37	56.43	75.21	-4,608.57	-1,169.09	1,136.56	1,021.03	115.53	9.838	
16,300.00	12,449.39	16,099.92	12,159.60	65.72	57.67	75.23	-4,708.56	-1,168.23	1,136.52	1,018.45	118.07	9.626	
16,400.00	12,449.92	16,199.92	12,160.48	67.06	58.93	75.24	-4,808.55	-1,167.37	1,136.48	1,015.86	120.61	9.422	
16,500.00	12,450.44	16,299.92	12,161.35	68.40	60.18	75.26	-4,908.54	-1,166.51	1,136.43	1,013.27	123.16	9.227	
16,600.00	12,450.97	16,399.92	12,162.22	69.75	61.44	75.28	-5,008.54	-1,165.65	1,136.39	1,010.67	125.72	9.039	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:	
												Offset Well Error:	
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
16,700.00	12,451.49	16,499.92	12,163.09	71.09	62.71	75.30	-5,108.53	-1,164.79	1,136.35	1,008.07	128.28	8.858	
16,800.00	12,452.02	16,599.92	12,163.96	72.44	63.98	75.31	-5,208.52	-1,163.93	1,136.31	1,005.46	130.85	8.684	
16,900.00	12,452.54	16,699.92	12,164.83	73.79	65.25	75.33	-5,308.51	-1,163.07	1,136.27	1,002.84	133.42	8.516	
17,000.00	12,453.07	16,799.92	12,165.71	75.13	66.53	75.35	-5,408.50	-1,162.20	1,136.22	1,000.23	136.00	8.355	
17,100.00	12,453.59	16,899.92	12,166.58	76.48	67.81	75.37	-5,508.50	-1,161.34	1,136.18	997.61	138.58	8.199	
17,200.00	12,454.12	16,999.92	12,167.45	77.83	69.09	75.38	-5,608.49	-1,160.48	1,136.14	994.98	141.16	8.049	
17,300.00	12,454.64	17,099.92	12,168.32	79.18	70.38	75.40	-5,708.48	-1,159.62	1,136.10	992.35	143.75	7.904	
17,400.00	12,455.17	17,199.92	12,169.19	80.53	71.67	75.42	-5,808.47	-1,158.76	1,136.06	989.72	146.34	7.763	
17,500.00	12,455.69	17,299.91	12,170.06	81.89	72.96	75.44	-5,908.46	-1,157.90	1,136.02	987.09	148.93	7.628	
17,600.00	12,456.22	17,399.91	12,170.94	83.24	74.26	75.45	-6,008.45	-1,157.04	1,135.98	984.45	151.53	7.497	
17,700.00	12,456.74	17,499.91	12,171.81	84.59	75.56	75.47	-6,108.45	-1,156.18	1,135.93	981.81	154.13	7.370	
17,800.00	12,457.27	17,599.91	12,172.68	85.94	76.86	75.49	-6,208.44	-1,155.31	1,135.89	979.16	156.73	7.247	
17,900.00	12,457.79	17,699.91	12,173.55	87.30	78.16	75.51	-6,308.43	-1,154.45	1,135.85	976.52	159.33	7.129	
18,000.00	12,458.32	17,799.91	12,174.42	88.65	79.47	75.53	-6,408.42	-1,153.59	1,135.81	973.87	161.94	7.014	
18,100.00	12,458.84	17,899.91	12,175.29	90.01	80.78	75.54	-6,508.41	-1,152.73	1,135.77	971.22	164.55	6.902	
18,200.00	12,459.37	17,999.91	12,176.16	91.36	82.09	75.56	-6,608.41	-1,151.87	1,135.73	968.57	167.17	6.794	
18,300.00	12,459.89	18,099.91	12,177.04	92.72	83.40	75.58	-6,708.40	-1,151.01	1,135.69	965.91	169.78	6.689	
18,400.00	12,460.42	18,199.91	12,177.91	94.07	84.71	75.60	-6,808.39	-1,150.15	1,135.65	963.25	172.40	6.587	
18,500.00	12,460.94	18,299.91	12,178.78	95.43	86.03	75.61	-6,908.38	-1,149.29	1,135.61	960.59	175.02	6.489	
18,600.00	12,461.47	18,399.91	12,179.65	96.79	87.35	75.63	-7,008.37	-1,148.42	1,135.57	957.93	177.64	6.393	
18,700.00	12,461.99	18,499.91	12,180.52	98.15	88.66	75.65	-7,108.37	-1,147.56	1,135.53	955.27	180.26	6.299	
18,800.00	12,462.52	18,599.91	12,181.39	99.50	89.98	75.67	-7,208.36	-1,146.70	1,135.49	952.60	182.89	6.209	
18,900.00	12,463.04	18,699.91	12,182.27	100.86	91.31	75.68	-7,308.35	-1,145.84	1,135.45	949.93	185.52	6.120	
19,000.00	12,463.57	18,799.91	12,183.14	102.22	92.63	75.70	-7,408.34	-1,144.98	1,135.41	947.27	188.15	6.035	
19,100.00	12,464.09	18,899.90	12,184.01	103.58	93.95	75.72	-7,508.33	-1,144.12	1,135.37	944.60	190.78	5.951	
19,200.00	12,464.62	18,999.90	12,184.88	104.94	95.28	75.74	-7,608.32	-1,143.26	1,135.33	941.92	193.41	5.870	
19,300.00	12,465.14	19,099.90	12,185.75	106.29	96.61	75.75	-7,708.32	-1,142.40	1,135.29	939.25	196.04	5.791	
19,400.00	12,465.67	19,199.90	12,186.62	107.65	97.93	75.77	-7,808.31	-1,141.53	1,135.25	936.58	198.68	5.714	
19,500.00	12,466.19	19,299.90	12,187.50	109.01	99.26	75.79	-7,908.30	-1,140.67	1,135.22	933.90	201.32	5.639	
19,600.00	12,466.72	19,399.90	12,188.37	110.37	100.59	75.81	-8,008.29	-1,139.81	1,135.18	931.22	203.96	5.566	
19,700.00	12,467.24	19,499.90	12,189.24	111.73	101.92	75.82	-8,108.28	-1,138.95	1,135.14	928.54	206.60	5.494	
19,800.00	12,467.77	19,599.90	12,190.11	113.09	103.26	75.84	-8,208.28	-1,138.09	1,135.10	925.86	209.24	5.425	
19,900.00	12,468.29	19,699.90	12,190.98	114.45	104.59	75.86	-8,308.27	-1,137.23	1,135.06	923.18	211.88	5.357	
20,000.00	12,468.82	19,799.90	12,191.85	115.82	105.92	75.88	-8,408.26	-1,136.37	1,135.02	920.50	214.52	5.291	
20,100.00	12,469.34	19,899.90	12,192.73	117.18	107.26	75.89	-8,508.25	-1,135.50	1,134.98	917.81	217.17	5.226	
20,200.00	12,469.87	19,999.90	12,193.60	118.54	108.60	75.91	-8,608.24	-1,134.64	1,134.95	915.13	219.82	5.163	
20,300.00	12,470.39	20,099.90	12,194.47	119.90	109.93	75.93	-8,708.24	-1,133.78	1,134.91	912.44	222.46	5.102	
20,400.00	12,470.92	20,199.90	12,195.34	121.26	111.27	75.95	-8,808.23	-1,132.92	1,134.87	909.76	225.11	5.041	
20,500.00	12,471.44	20,299.90	12,196.21	122.62	112.61	75.96	-8,908.22	-1,132.06	1,134.83	907.07	227.76	4.983	
20,600.00	12,471.97	20,399.90	12,197.08	123.98	113.95	75.98	-9,008.21	-1,131.20	1,134.79	904.38	230.41	4.925	
20,700.00	12,472.50	20,499.90	12,197.96	125.35	115.29	76.00	-9,108.20	-1,130.34	1,134.76	901.69	233.07	4.869	
20,800.00	12,473.02	20,599.89	12,198.83	126.71	116.63	76.02	-9,208.19	-1,129.48	1,134.72	899.00	235.72	4.814	
20,900.00	12,473.55	20,699.89	12,199.70	128.07	117.97	76.03	-9,308.19	-1,128.61	1,134.68	896.31	238.37	4.760	
21,000.00	12,474.07	20,799.89	12,200.57	129.43	119.31	76.05	-9,408.18	-1,127.75	1,134.64	893.61	241.03	4.707	
21,100.00	12,474.60	20,899.89	12,201.44	130.80	120.65	76.07	-9,508.17	-1,126.89	1,134.61	890.92	243.69	4.656	
21,200.00	12,475.12	20,999.89	12,202.31	132.16	122.00	76.09	-9,608.16	-1,126.03	1,134.57	888.23	246.34	4.606	
21,300.00	12,475.65	21,099.89	12,203.18	133.52	123.34	76.10	-9,708.15	-1,125.17	1,134.53	885.53	249.00	4.556	
21,400.00	12,476.17	21,199.89	12,204.06	134.88	124.69	76.12	-9,808.15	-1,124.31	1,134.49	882.83	251.66	4.508	
21,500.00	12,476.70	21,299.89	12,204.93	136.25	126.03	76.14	-9,908.14	-1,123.45	1,134.46	880.14	254.32	4.461	
21,600.00	12,477.22	21,399.89	12,205.80	137.61	127.38	76.16	-10,008.13	-1,122.59	1,134.42	877.44	256.98	4.414	
21,700.00	12,477.75	21,499.89	12,206.67	138.97	128.72	76.17	-10,108.12	-1,121.72	1,134.38	874.74	259.64	4.369	
21,800.00	12,478.27	21,599.89	12,207.54	140.34	130.07	76.19	-10,208.11	-1,120.86	1,134.35	872.04	262.30	4.325	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	
21,900.00	12,478.80	21,699.89	12,208.41	141.70	131.42	76.21	-10,308.11	-1,120.00	1,134.31	869.34	264.97	4.281	
22,000.00	12,479.32	21,799.89	12,209.29	143.06	132.76	76.23	-10,408.10	-1,119.14	1,134.27	866.64	267.63	4.238	
22,100.00	12,479.85	21,899.89	12,210.16	144.43	134.11	76.24	-10,508.09	-1,118.28	1,134.24	863.94	270.30	4.196	
22,200.00	12,480.37	21,999.89	12,211.03	145.79	135.46	76.26	-10,608.08	-1,117.42	1,134.20	861.24	272.96	4.155	
22,300.00	12,480.90	22,099.89	12,211.90	147.16	136.81	76.28	-10,708.07	-1,116.56	1,134.17	858.54	275.63	4.115	
22,400.00	12,481.42	22,199.88	12,212.77	148.52	138.16	76.30	-10,808.06	-1,115.70	1,134.13	855.83	278.30	4.075	
22,500.00	12,481.95	22,299.88	12,213.64	149.89	139.51	76.32	-10,908.06	-1,114.83	1,134.09	853.13	280.97	4.036	
22,600.00	12,482.47	22,399.88	12,214.52	151.25	140.86	76.33	-11,008.05	-1,113.97	1,134.06	850.42	283.63	3.998	
22,700.00	12,483.00	22,499.88	12,215.39	152.61	142.21	76.35	-11,108.04	-1,113.11	1,134.02	847.72	286.30	3.961	
22,713.36	12,483.07	22,512.84	12,215.50	152.78	142.38	76.35	-11,121.00	-1,113.00	1,134.02	847.39	286.63	3.956	ES
22,719.79	12,483.10	22,512.84	12,215.50	152.85	142.38	76.35	-11,121.00	-1,113.00	1,134.04	847.40	286.64	3.956	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)			
0.00	0.00	0.00	2.00	0.50	0.50	180.00	-210.00	0.00	210.01				
100.00	100.00	98.00	100.00	0.98	0.97	180.00	-210.00	0.00	210.00	208.05	1.95	107.820	
200.00	200.00	198.00	200.00	1.56	1.55	180.00	-210.00	0.00	210.00	206.89	3.11	67.519	
300.00	300.00	298.00	300.00	1.98	1.97	180.00	-210.00	0.00	210.00	206.05	3.95	53.113	
400.00	400.00	398.00	400.00	2.33	2.32	180.00	-210.00	0.00	210.00	205.35	4.65	45.143	
500.00	500.00	498.00	500.00	2.63	2.63	180.00	-210.00	0.00	210.00	204.74	5.26	39.902	
600.00	600.00	598.00	600.00	2.91	2.90	180.00	-210.00	0.00	210.00	204.19	5.81	36.116	
605.93	605.93	603.93	605.93	2.93	2.91	180.00	-210.00	0.00	210.00	204.16	5.84	35.961	
700.00	700.00	696.36	698.36	3.16	3.02	179.94	-210.18	0.22	210.19	204.01	6.18	34.012	
800.00	799.99	792.90	794.86	3.45	3.29	-4.90	-211.72	2.05	210.49	203.79	6.70	31.419	
900.00	899.91	889.32	891.16	3.70	3.56	-5.99	-214.82	5.74	209.87	202.69	7.18	29.216	
956.20	956.03	943.43	945.14	3.81	3.67	-6.84	-217.24	8.63	209.58	202.18	7.39	28.347	
1,000.00	999.77	985.64	987.21	3.89	3.75	-7.61	-219.47	11.29	209.76	202.21	7.55	27.790	
1,100.00	1,099.63	1,085.39	1,086.58	4.08	3.93	-9.52	-225.06	17.95	210.68	202.76	7.92	26.596	
1,200.00	1,199.50	1,185.14	1,185.95	4.26	4.14	-11.41	-230.65	24.61	211.83	203.52	8.31	25.482	
1,300.00	1,299.34	1,284.88	1,285.31	4.35	4.34	-15.49	-236.24	31.27	212.93	204.32	8.60	24.750	
1,400.00	1,399.04	1,384.55	1,384.60	4.58	4.54	-20.19	-241.82	37.92	212.21	203.18	9.03	23.497	
1,500.00	1,498.51	1,482.11	1,481.72	4.71	4.75	-23.88	-247.47	45.25	210.00	200.65	9.35	22.470	
1,600.00	1,597.91	1,578.78	1,577.71	4.89	4.97	-27.20	-253.60	54.86	208.98	199.24	9.74	21.464	
1,600.31	1,598.22	1,579.08	1,578.01	4.89	4.97	-27.21	-253.62	54.89	208.98	199.24	9.74	21.462	CC, ES
1,700.00	1,697.32	1,674.86	1,672.82	5.08	5.19	-31.07	-260.23	66.76	210.12	199.99	10.13	20.751	
1,800.00	1,796.72	1,770.26	1,766.90	5.27	5.41	-35.35	-267.32	80.88	213.83	203.31	10.51	20.342	
1,900.00	1,896.13	1,864.85	1,859.77	5.46	5.63	-39.88	-274.86	97.14	220.47	209.58	10.89	20.244	
2,000.00	1,995.54	1,958.53	1,951.30	5.64	5.80	-44.48	-282.82	115.45	230.35	219.14	11.21	20.545	
2,100.00	2,094.94	2,055.94	2,046.21	5.83	5.96	-49.03	-291.35	135.63	242.69	231.15	11.55	21.016	
2,200.00	2,194.35	2,153.34	2,141.11	6.02	6.15	-53.13	-299.87	155.81	256.45	244.53	11.92	21.522	
2,300.00	2,293.76	2,250.74	2,236.02	6.20	6.35	-56.81	-308.40	175.99	271.40	259.12	12.28	22.099	
2,400.00	2,393.16	2,348.14	2,330.93	6.39	6.55	-60.11	-316.93	196.17	287.36	274.71	12.65	22.724	
2,500.00	2,492.57	2,445.54	2,425.83	6.58	6.76	-63.06	-325.45	216.35	304.17	291.16	13.01	23.384	
2,600.00	2,591.98	2,542.95	2,520.74	6.76	7.01	-65.70	-333.98	236.53	321.69	308.31	13.38	24.038	
2,700.00	2,691.38	2,640.35	2,615.65	6.95	7.28	-68.06	-342.51	256.71	339.82	326.07	13.75	24.713	
2,800.00	2,790.79	2,737.75	2,710.55	7.13	7.55	-70.19	-351.03	276.88	358.47	344.34	14.12	25.384	
2,900.00	2,890.20	2,835.15	2,805.46	7.32	7.83	-72.11	-359.56	297.06	377.55	363.05	14.49	26.047	
3,000.00	2,989.60	2,932.56	2,900.37	7.50	8.10	-73.85	-368.09	317.24	397.01	382.13	14.87	26.697	
3,100.00	3,089.01	3,029.96	2,995.28	7.69	8.38	-75.42	-376.61	337.42	416.78	401.54	15.25	27.332	
3,200.00	3,188.42	3,127.36	3,090.18	7.88	8.66	-76.86	-385.14	357.60	436.84	421.21	15.63	27.950	
3,300.00	3,287.82	3,224.76	3,185.09	8.06	8.94	-78.16	-393.67	377.78	457.14	441.13	16.01	28.550	
3,400.00	3,387.23	3,322.16	3,280.00	8.25	9.23	-79.36	-402.20	397.96	477.65	461.26	16.40	29.132	
3,500.00	3,486.64	3,419.57	3,374.90	8.43	9.51	-80.46	-410.72	418.14	498.35	481.57	16.78	29.694	
3,600.00	3,586.04	3,516.97	3,469.81	8.62	9.80	-81.47	-419.25	438.31	519.21	502.04	17.17	30.237	
3,700.00	3,685.45	3,614.37	3,564.72	8.80	10.09	-82.40	-427.78	458.49	540.21	522.65	17.56	30.762	
3,800.00	3,784.86	3,711.77	3,659.62	8.99	10.38	-83.27	-436.30	478.67	561.34	543.39	17.95	31.268	
3,900.00	3,884.26	3,809.18	3,754.53	9.17	10.67	-84.07	-444.83	498.85	582.58	564.24	18.35	31.756	
4,000.00	3,983.67	3,906.58	3,849.44	9.36	10.96	-84.81	-453.36	519.03	603.93	585.19	18.74	32.227	
4,100.00	4,083.08	4,003.98	3,944.34	9.54	11.25	-85.51	-461.88	539.21	625.37	606.23	19.14	32.681	
4,200.00	4,182.48	4,101.38	4,039.25	9.73	11.54	-86.16	-470.41	559.39	646.88	627.35	19.53	33.118	
4,300.00	4,281.89	4,198.78	4,134.16	9.91	11.84	-86.76	-478.94	579.57	668.48	648.55	19.93	33.540	
4,400.00	4,381.30	4,296.19	4,229.06	10.10	12.13	-87.33	-487.46	599.74	690.14	669.81	20.33	33.947	
4,500.00	4,480.70	4,393.59	4,323.97	10.28	12.43	-87.87	-495.99	619.92	711.86	691.13	20.73	34.340	
4,600.00	4,580.11	4,490.99	4,418.88	10.47	12.72	-88.37	-504.52	640.10	733.64	712.51	21.13	34.718	
4,700.00	4,679.51	4,588.39	4,513.78	10.65	13.02	-88.85	-513.04	660.28	755.47	733.94	21.53	35.084	
4,800.00	4,778.92	4,685.80	4,608.69	10.84	13.31	-89.29	-521.57	680.46	777.35	755.41	21.94	35.437	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		Semi Major Axis		Offset Wellbore Centre		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
4,900.00	4,878.33	4,783.20	4,703.60	11.02	13.61	-89.72	-530.10	700.64	799.27	776.93	22.34	35.778	
5,000.00	4,977.73	4,880.60	4,798.50	11.21	13.91	-90.12	-538.62	720.82	821.22	798.48	22.74	36.107	
5,100.00	5,077.14	4,978.00	4,893.41	11.39	14.21	-90.50	-547.15	741.00	843.22	820.07	23.15	36.425	
5,200.00	5,176.55	5,075.40	4,988.32	11.58	14.50	-90.86	-555.68	761.17	865.25	841.69	23.56	36.732	
5,300.00	5,275.95	5,172.81	5,083.22	11.76	14.80	-91.20	-564.21	781.35	887.31	863.34	23.96	37.030	
5,400.00	5,375.36	5,281.89	5,189.59	11.95	15.11	-91.57	-573.63	803.65	909.14	884.75	24.39	37.270	
5,500.00	5,474.77	5,409.41	5,314.64	12.13	15.46	-92.04	-583.33	826.62	928.44	903.52	24.91	37.268	
5,600.00	5,574.17	5,538.27	5,441.78	12.32	15.77	-92.56	-591.48	845.91	944.60	919.19	25.41	37.174	
5,700.00	5,673.58	5,668.21	5,570.63	12.50	16.03	-93.13	-598.01	861.35	957.59	931.71	25.88	36.999	
5,800.00	5,772.99	5,798.94	5,700.76	12.69	16.26	-93.77	-602.85	872.81	967.41	941.09	26.32	36.751	
5,900.00	5,872.39	5,930.16	5,831.72	12.87	16.43	-94.48	-605.96	880.17	974.05	947.33	26.73	36.446	
6,000.00	5,971.80	6,061.54	5,963.06	13.06	16.55	-95.25	-607.32	883.39	977.53	950.47	27.05	36.134	
6,100.00	6,071.21	6,169.69	6,071.21	13.24	16.60	-95.93	-607.39	883.55	978.72	951.42	27.30	35.855	
6,200.00	6,170.61	6,269.10	6,170.61	13.43	16.64	-96.56	-607.39	883.55	979.91	952.38	27.53	35.590	
6,300.00	6,270.02	6,368.50	6,270.02	13.61	16.69	-97.19	-607.39	883.55	981.22	953.45	27.77	35.333	
6,400.00	6,369.43	6,467.91	6,369.43	13.80	16.73	-97.81	-607.39	883.55	982.65	954.64	28.01	35.084	
6,500.00	6,468.83	6,567.32	6,468.83	13.98	16.77	-98.44	-607.39	883.55	984.19	955.95	28.25	34.843	
6,600.00	6,568.24	6,666.72	6,568.24	14.17	16.82	-99.06	-607.39	883.55	985.86	957.37	28.49	34.608	
6,700.00	6,667.74	6,766.22	6,667.74	14.34	16.86	-99.65	-607.39	883.55	987.49	958.79	28.70	34.408	
6,800.00	6,767.46	6,865.95	6,767.46	14.53	16.90	-100.09	-607.39	883.55	988.76	959.85	28.91	34.207	
6,900.00	6,867.34	6,965.83	6,867.34	14.70	16.95	-100.37	-607.39	883.55	989.61	960.52	29.08	34.026	
7,000.00	6,967.32	7,065.80	6,967.32	14.86	16.99	-100.50	-607.39	883.55	990.00	960.76	29.24	33.862	
7,100.00	7,067.32	7,165.80	7,067.32	14.88	17.04	89.59	-607.39	883.55	990.03	960.74	29.29	33.805	
7,200.00	7,167.32	7,265.80	7,167.32	14.90	17.08	89.59	-607.39	883.55	990.03	960.67	29.35	33.728	
7,300.00	7,267.32	7,365.80	7,267.32	14.93	17.13	89.59	-607.39	883.55	990.03	960.61	29.42	33.651	
7,400.00	7,367.32	7,465.80	7,367.32	14.95	17.18	89.59	-607.39	883.55	990.03	960.54	29.49	33.573	
7,500.00	7,467.32	7,565.80	7,467.32	14.98	17.22	89.59	-607.39	883.55	990.03	960.47	29.56	33.495	
7,600.00	7,567.32	7,665.80	7,567.32	15.01	17.27	89.59	-607.39	883.55	990.03	960.40	29.63	33.416	
7,700.00	7,667.32	7,765.80	7,667.32	15.03	17.31	89.59	-607.39	883.55	990.03	960.33	29.70	33.337	
7,800.00	7,767.32	7,865.80	7,767.32	15.06	17.36	89.59	-607.39	883.55	990.03	960.26	29.77	33.258	
7,900.00	7,867.32	7,965.80	7,867.32	15.09	17.41	89.59	-607.39	883.55	990.03	960.19	29.84	33.178	
8,000.00	7,967.32	8,065.80	7,967.32	15.12	17.46	89.59	-607.39	883.55	990.03	960.11	29.91	33.098	
8,100.00	8,067.32	8,165.80	8,067.32	15.15	17.50	89.59	-607.39	883.55	990.03	960.04	29.99	33.017	
8,200.00	8,167.32	8,265.80	8,167.32	15.18	17.55	89.59	-607.39	883.55	990.03	959.97	30.06	32.936	
8,300.00	8,267.32	8,365.80	8,267.32	15.21	17.60	89.59	-607.39	883.55	990.03	959.89	30.13	32.854	
8,400.00	8,367.32	8,465.80	8,367.32	15.24	17.65	89.59	-607.39	883.55	990.03	959.82	30.21	32.773	
8,500.00	8,467.32	8,565.80	8,467.32	15.27	17.70	89.59	-607.39	883.55	990.03	959.74	30.28	32.690	
8,600.00	8,567.32	8,665.80	8,567.32	15.30	17.75	89.59	-607.39	883.55	990.03	959.66	30.36	32.608	
8,700.00	8,667.32	8,765.80	8,667.32	15.33	17.80	89.59	-607.39	883.55	990.03	959.59	30.44	32.525	
8,800.00	8,767.32	8,865.80	8,767.32	15.36	17.84	89.59	-607.39	883.55	990.03	959.51	30.52	32.442	
8,900.00	8,867.32	8,965.80	8,867.32	15.39	17.89	89.59	-607.39	883.55	990.03	959.43	30.60	32.359	
9,000.00	8,967.32	9,065.80	8,967.32	15.43	17.94	89.59	-607.39	883.55	990.03	959.35	30.67	32.275	
9,100.00	9,067.32	9,165.80	9,067.32	15.46	17.99	89.59	-607.39	883.55	990.03	959.27	30.75	32.192	
9,200.00	9,167.32	9,265.80	9,167.32	15.49	18.04	89.59	-607.39	883.55	990.03	959.19	30.83	32.107	
9,300.00	9,267.32	9,365.80	9,267.32	15.53	18.10	89.59	-607.39	883.55	990.03	959.11	30.92	32.023	
9,400.00	9,367.32	9,465.80	9,367.32	15.56	18.15	89.59	-607.39	883.55	990.03	959.03	31.00	31.939	
9,500.00	9,467.32	9,565.80	9,467.32	15.59	18.20	89.59	-607.39	883.55	990.03	958.95	31.08	31.854	
9,600.00	9,567.32	9,665.80	9,567.32	15.63	18.25	89.59	-607.39	883.55	990.03	958.86	31.16	31.769	
9,700.00	9,667.32	9,765.80	9,667.32	15.66	18.30	89.59	-607.39	883.55	990.03	958.78	31.25	31.684	
9,800.00	9,767.32	9,865.80	9,767.32	15.70	18.35	89.59	-607.39	883.55	990.03	958.69	31.33	31.598	
9,900.00	9,867.32	9,965.80	9,867.32	15.73	18.40	89.59	-607.39	883.55	990.03	958.61	31.42	31.513	
10,000.00	9,967.32	10,065.80	9,967.32	15.77	18.46	89.59	-607.39	883.55	990.03	958.52	31.50	31.427	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		Semi Major Axis		Offset Wellbore Centre		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	
10,100.00	10,067.32	10,165.80	10,067.32	15.81	18.51	89.59	-607.39	883.55	990.03	958.44	31.59	31.342		
10,200.00	10,167.32	10,265.80	10,167.32	15.84	18.56	89.59	-607.39	883.55	990.03	958.35	31.67	31.256		
10,300.00	10,267.32	10,365.80	10,267.32	15.88	18.61	89.59	-607.39	883.55	990.03	958.26	31.76	31.170		
10,400.00	10,367.32	10,465.80	10,367.32	15.92	18.67	89.59	-607.39	883.55	990.03	958.18	31.85	31.084		
10,500.00	10,467.32	10,565.80	10,467.32	15.95	18.72	89.59	-607.39	883.55	990.03	958.09	31.94	30.997		
10,600.00	10,567.32	10,665.80	10,567.32	15.99	18.77	89.59	-607.39	883.55	990.03	958.00	32.03	30.911		
10,700.00	10,667.32	10,765.80	10,667.32	16.03	18.83	89.59	-607.39	883.55	990.03	957.91	32.12	30.825		
10,800.00	10,767.32	10,865.80	10,767.32	16.07	18.88	89.59	-607.39	883.55	990.03	957.82	32.21	30.738		
10,900.00	10,867.32	10,965.80	10,867.32	16.11	18.94	89.59	-607.39	883.55	990.03	957.73	32.30	30.652		
11,000.00	10,967.32	11,065.80	10,967.32	16.15	18.99	89.59	-607.39	883.55	990.03	957.64	32.39	30.565		
11,100.00	11,067.32	11,165.80	11,067.32	16.19	19.04	89.59	-607.39	883.55	990.03	957.54	32.48	30.479		
11,200.00	11,167.32	11,265.80	11,167.32	16.23	19.10	89.59	-607.39	883.55	990.03	957.45	32.58	30.392		
11,300.00	11,267.32	11,365.80	11,267.32	16.27	19.15	89.59	-607.39	883.55	990.03	957.36	32.67	30.306		
11,400.00	11,367.32	11,465.80	11,367.32	16.31	19.21	89.59	-607.39	883.55	990.03	957.26	32.76	30.219		
11,412.55	11,379.86	11,478.35	11,379.86	16.31	19.22	89.59	-607.39	883.55	990.03	957.25	32.77	30.208		
11,500.00	11,467.32	11,565.76	11,467.28	16.35	19.26	89.59	-607.50	883.55	990.03	957.19	32.84	30.147		
11,600.00	11,567.32	11,664.08	11,564.93	16.39	19.38	90.19	-617.84	883.64	990.10	957.20	32.91	30.088		
11,700.00	11,667.32	11,756.33	11,653.69	16.43	19.56	91.62	-642.58	883.87	990.81	957.81	33.00	30.022		
11,800.00	11,767.32	11,838.88	11,728.86	16.47	19.76	93.58	-676.53	884.18	993.31	960.16	33.15	29.964		
11,900.00	11,867.32	11,910.37	11,789.44	16.51	19.96	-83.66	-714.41	884.52	999.03	965.65	33.38	29.930		
12,000.00	11,966.66	11,975.85	11,840.40	16.75	20.18	-80.76	-755.46	884.90	1,007.75	973.92	33.83	29.789		
12,100.00	12,062.69	12,039.34	11,885.03	17.02	20.43	-78.00	-800.58	885.31	1,018.06	983.49	34.57	29.447		
12,200.00	12,152.51	12,100.00	11,922.75	17.30	20.70	-75.49	-848.04	885.74	1,029.01	993.43	35.59	28.915		
12,300.00	12,233.38	12,162.33	11,956.07	17.56	21.02	-73.20	-900.68	886.21	1,039.76	1,002.94	36.82	28.239		
12,400.00	12,302.84	12,222.47	11,982.62	17.80	21.36	-71.30	-954.61	886.71	1,049.54	1,011.32	38.22	27.461		
12,500.00	12,358.79	12,282.03	12,003.20	18.10	21.74	-69.79	-1,010.47	887.21	1,057.72	1,018.00	39.72	26.628		
12,600.00	12,399.52	12,350.00	12,019.46	18.99	22.21	-68.65	-1,076.42	887.81	1,063.88	1,022.61	41.27	25.776		
12,700.00	12,423.80	12,400.00	12,026.37	19.97	22.58	-68.08	-1,125.92	888.26	1,067.48	1,024.65	42.83	24.924		
12,800.00	12,431.01	12,464.78	12,029.05	21.01	23.09	-67.90	-1,190.62	888.85	1,068.52	1,024.15	44.37	24.085		
12,900.00	12,431.54	12,564.78	12,029.75	22.11	23.92	-67.91	-1,290.61	889.76	1,068.45	1,022.41	46.04	23.207		
13,000.00	12,432.07	12,664.78	12,030.46	23.23	24.81	-67.92	-1,390.60	890.67	1,068.38	1,020.59	47.79	22.354		
13,100.00	12,432.59	12,764.78	12,031.17	24.37	25.74	-67.93	-1,490.60	891.58	1,068.31	1,018.69	49.62	21.531		
13,200.00	12,433.12	12,864.78	12,031.88	25.54	26.71	-67.94	-1,590.59	892.48	1,068.24	1,016.74	51.50	20.741		
13,300.00	12,433.64	12,964.78	12,032.59	26.73	27.71	-67.95	-1,690.58	893.39	1,068.17	1,014.72	53.45	19.985		
13,400.00	12,434.17	13,064.78	12,033.30	27.93	28.74	-67.96	-1,790.58	894.30	1,068.10	1,012.66	55.44	19.265		
13,500.00	12,434.69	13,164.78	12,034.01	29.15	29.79	-67.97	-1,890.57	895.21	1,068.03	1,010.55	57.48	18.580		
13,600.00	12,435.22	13,264.78	12,034.72	30.38	30.87	-67.97	-1,990.56	896.12	1,067.96	1,008.40	59.56	17.930		
13,700.00	12,435.74	13,364.78	12,035.43	31.62	31.97	-67.98	-2,090.56	897.03	1,067.89	1,006.22	61.68	17.314		
13,800.00	12,436.27	13,464.78	12,036.14	32.87	33.09	-67.99	-2,190.55	897.94	1,067.83	1,004.00	63.83	16.729		
13,900.00	12,436.79	13,564.78	12,036.85	34.13	34.22	-68.00	-2,290.54	898.84	1,067.76	1,001.75	66.01	16.176		
14,000.00	12,437.32	13,664.78	12,037.55	35.40	35.37	-68.01	-2,390.53	899.75	1,067.69	999.47	68.22	15.651		
14,100.00	12,437.84	13,764.78	12,038.26	36.68	36.54	-68.02	-2,490.53	900.66	1,067.62	997.17	70.45	15.155		
14,200.00	12,438.37	13,864.78	12,038.97	37.96	37.72	-68.03	-2,590.52	901.57	1,067.55	994.85	72.70	14.684		
14,300.00	12,438.89	13,964.78	12,039.68	39.25	38.91	-68.04	-2,690.51	902.48	1,067.48	992.50	74.98	14.237		
14,400.00	12,439.42	14,064.78	12,040.39	40.55	40.11	-68.05	-2,790.51	903.39	1,067.41	990.14	77.27	13.814		
14,500.00	12,439.94	14,164.78	12,041.10	41.84	41.32	-68.06	-2,890.50	904.30	1,067.34	987.76	79.58	13.412		
14,600.00	12,440.47	14,264.78	12,041.81	43.15	42.54	-68.07	-2,990.49	905.20	1,067.27	985.37	81.91	13.030		
14,700.00	12,440.99	14,364.78	12,042.52	44.45	43.77	-68.08	-3,090.49	906.11	1,067.20	982.96	84.25	12.667		
14,800.00	12,441.52	14,464.77	12,043.23	45.77	45.00	-68.08	-3,190.48	907.02	1,067.13	980.53	86.60	12.322		
14,900.00	12,442.04	14,564.77	12,043.94	47.08	46.25	-68.09	-3,290.47	907.93	1,067.07	978.10	88.97	11.994		
15,000.00	12,442.57	14,664.77	12,044.65	48.40	47.50	-68.10	-3,390.47	908.84	1,067.00	975.65	91.34	11.681		
15,100.00	12,443.09	14,764.77	12,045.35	49.72	48.75	-68.11	-3,490.46	909.75	1,066.93	973.20	93.73	11.383		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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			
Rule Assigned:										Offset Well Error:	0.50 usft			
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
15,200.00	12,443.62	14,864.77	12,046.06	51.04	50.01	-68.12	-3,590.45	910.66	1,066.86	970.73	96.13	11.098		
15,300.00	12,444.14	14,964.77	12,046.77	52.36	51.28	-68.13	-3,690.45	911.56	1,066.79	968.26	98.53	10.827		
15,400.00	12,444.67	15,064.77	12,047.48	53.69	52.55	-68.14	-3,790.44	912.47	1,066.72	965.77	100.95	10.567		
15,500.00	12,445.19	15,164.77	12,048.19	55.02	53.83	-68.15	-3,890.43	913.38	1,066.65	963.28	103.37	10.319		
15,600.00	12,445.72	15,264.77	12,048.90	56.35	55.11	-68.16	-3,990.43	914.29	1,066.58	960.78	105.80	10.081		
15,700.00	12,446.24	15,364.77	12,049.61	57.69	56.40	-68.17	-4,090.42	915.20	1,066.52	958.28	108.24	9.854		
15,800.00	12,446.77	15,464.77	12,050.32	59.02	57.68	-68.18	-4,190.41	916.11	1,066.45	955.77	110.68	9.636		
15,900.00	12,447.29	15,564.77	12,051.03	60.36	58.98	-68.19	-4,290.41	917.02	1,066.38	953.25	113.13	9.426		
16,000.00	12,447.82	15,664.77	12,051.74	61.69	60.27	-68.19	-4,390.40	917.92	1,066.31	950.73	115.58	9.226		
16,100.00	12,448.34	15,764.77	12,052.44	63.03	61.57	-68.20	-4,490.39	918.83	1,066.24	948.20	118.04	9.033		
16,200.00	12,448.87	15,864.77	12,053.15	64.37	62.87	-68.21	-4,590.38	919.74	1,066.17	945.67	120.51	8.848		
16,300.00	12,449.39	15,964.77	12,053.86	65.72	64.18	-68.22	-4,690.38	920.65	1,066.10	943.13	122.97	8.669		
16,400.00	12,449.92	16,064.77	12,054.57	67.06	65.48	-68.23	-4,790.37	921.56	1,066.03	940.59	125.45	8.498		
16,500.00	12,450.44	16,164.77	12,055.28	68.40	66.79	-68.24	-4,890.36	922.47	1,065.97	938.04	127.93	8.333		
16,600.00	12,450.97	16,264.77	12,055.99	69.75	68.10	-68.25	-4,990.36	923.38	1,065.90	935.49	130.41	8.174		
16,700.00	12,451.49	16,364.77	12,056.70	71.09	69.42	-68.26	-5,090.35	924.28	1,065.83	932.94	132.89	8.020		
16,800.00	12,452.02	16,464.77	12,057.41	72.44	70.73	-68.27	-5,190.34	925.19	1,065.76	930.38	135.38	7.872		
16,900.00	12,452.54	16,564.77	12,058.12	73.79	72.05	-68.28	-5,290.34	926.10	1,065.69	927.82	137.88	7.729		
17,000.00	12,453.07	16,664.77	12,058.83	75.13	73.37	-68.29	-5,390.33	927.01	1,065.62	925.25	140.37	7.591		
17,100.00	12,453.59	16,764.77	12,059.54	76.48	74.69	-68.30	-5,490.32	927.92	1,065.56	922.69	142.87	7.458		
17,200.00	12,454.12	16,864.77	12,060.24	77.83	76.01	-68.30	-5,590.32	928.83	1,065.49	920.12	145.37	7.329		
17,300.00	12,454.64	16,964.77	12,060.95	79.18	77.34	-68.31	-5,690.31	929.74	1,065.42	917.54	147.88	7.205		
17,400.00	12,455.17	17,064.77	12,061.66	80.53	78.66	-68.32	-5,790.30	930.64	1,065.35	914.97	150.38	7.084		
17,500.00	12,455.69	17,164.77	12,062.37	81.89	79.99	-68.33	-5,890.30	931.55	1,065.28	912.39	152.89	6.967		
17,600.00	12,456.22	17,264.77	12,063.08	83.24	81.32	-68.34	-5,990.29	932.46	1,065.21	909.81	155.41	6.854		
17,700.00	12,456.74	17,364.77	12,063.79	84.59	82.65	-68.35	-6,090.28	933.37	1,065.15	907.23	157.92	6.745		
17,800.00	12,457.27	17,464.77	12,064.50	85.94	83.98	-68.36	-6,190.28	934.28	1,065.08	904.64	160.44	6.639		
17,900.00	12,457.79	17,564.77	12,065.21	87.30	85.31	-68.37	-6,290.27	935.19	1,065.01	902.05	162.96	6.535		
18,000.00	12,458.32	17,664.77	12,065.92	88.65	86.65	-68.38	-6,390.26	936.10	1,064.94	899.46	165.48	6.436		
18,100.00	12,458.84	17,764.77	12,066.63	90.01	87.98	-68.39	-6,490.26	937.01	1,064.87	896.87	168.00	6.338		
18,200.00	12,459.37	17,864.77	12,067.34	91.36	89.32	-68.40	-6,590.25	937.91	1,064.81	894.28	170.53	6.244		
18,300.00	12,459.89	17,964.77	12,068.04	92.72	90.65	-68.41	-6,690.24	938.82	1,064.74	891.68	173.05	6.153		
18,400.00	12,460.42	18,064.77	12,068.75	94.07	91.99	-68.41	-6,790.24	939.73	1,064.67	889.09	175.58	6.064		
18,500.00	12,460.94	18,164.77	12,069.46	95.43	93.33	-68.42	-6,890.23	940.64	1,064.60	886.49	178.11	5.977		
18,600.00	12,461.47	18,264.77	12,070.17	96.79	94.67	-68.43	-6,990.22	941.55	1,064.53	883.89	180.65	5.893		
18,700.00	12,461.99	18,364.77	12,070.88	98.15	96.01	-68.44	-7,090.21	942.46	1,064.47	881.29	183.18	5.811		
18,800.00	12,462.52	18,464.77	12,071.59	99.50	97.35	-68.45	-7,190.21	943.36	1,064.40	878.68	185.71	5.731		
18,900.00	12,463.04	18,564.77	12,072.30	100.86	98.69	-68.46	-7,290.20	944.27	1,064.33	876.08	188.25	5.654		
19,000.00	12,463.57	18,664.77	12,073.01	102.22	100.04	-68.47	-7,390.19	945.18	1,064.26	873.47	190.79	5.578		
19,100.00	12,464.09	18,764.77	12,073.72	103.58	101.38	-68.48	-7,490.19	946.09	1,064.20	870.87	193.33	5.505		
19,200.00	12,464.62	18,864.77	12,074.43	104.94	102.72	-68.49	-7,590.18	947.00	1,064.13	868.26	195.87	5.433		
19,300.00	12,465.14	18,964.77	12,075.14	106.29	104.07	-68.50	-7,690.17	947.91	1,064.06	865.65	198.41	5.363		
19,400.00	12,465.67	19,064.77	12,075.84	107.65	105.41	-68.51	-7,790.17	948.82	1,063.99	863.04	200.96	5.295		
19,500.00	12,466.19	19,164.77	12,076.55	109.01	106.76	-68.52	-7,890.16	949.72	1,063.92	860.42	203.50	5.228		
19,600.00	12,466.72	19,264.77	12,077.26	110.37	108.10	-68.53	-7,990.15	950.63	1,063.86	857.81	206.05	5.163		
19,700.00	12,467.24	19,364.77	12,077.97	111.73	109.45	-68.53	-8,090.15	951.54	1,063.79	855.20	208.59	5.100		
19,800.00	12,467.77	19,464.77	12,078.68	113.09	110.80	-68.54	-8,190.14	952.45	1,063.72	852.58	211.14	5.038		
19,900.00	12,468.29	19,564.77	12,079.39	114.45	112.15	-68.55	-8,290.13	953.36	1,063.65	849.96	213.69	4.978		
20,000.00	12,468.82	19,664.77	12,080.10	115.82	113.50	-68.56	-8,390.13	954.27	1,063.59	847.34	216.24	4.918		
20,100.00	12,469.34	19,764.77	12,080.81	117.18	114.85	-68.57	-8,490.12	955.18	1,063.52	844.73	218.79	4.861		
20,200.00	12,469.87	19,864.77	12,081.52	118.54	116.19	-68.58	-8,590.11	956.08	1,063.45	842.11	221.35	4.804		
20,300.00	12,470.39	19,964.77	12,082.23	119.90	117.54	-68.59	-8,690.11	956.99	1,063.38	839.48	223.90	4.749		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Ellipses (usft)			
20,400.00	12,470.92	20,064.77	12,082.94	121.26	118.90	-68.60	-8,790.10	957.90	1,063.32	836.86	226.46	4.695	
20,500.00	12,471.44	20,164.77	12,083.64	122.62	120.25	-68.61	-8,890.09	958.81	1,063.25	834.24	229.01	4.643	
20,600.00	12,471.97	20,264.77	12,084.35	123.98	121.60	-68.62	-8,990.09	959.72	1,063.18	831.62	231.57	4.591	
20,700.00	12,472.50	20,364.77	12,085.06	125.35	122.95	-68.63	-9,090.08	960.63	1,063.12	828.99	234.12	4.541	
20,800.00	12,473.02	20,464.76	12,085.77	126.71	124.30	-68.64	-9,190.07	961.54	1,063.05	826.37	236.68	4.491	
20,900.00	12,473.55	20,564.76	12,086.48	128.07	125.65	-68.65	-9,290.06	962.45	1,062.98	823.74	239.24	4.443	
21,000.00	12,474.07	20,664.76	12,087.19	129.43	127.01	-68.65	-9,390.06	963.35	1,062.91	821.11	241.80	4.396	
21,100.00	12,474.60	20,764.76	12,087.90	130.80	128.36	-68.66	-9,490.05	964.26	1,062.85	818.48	244.36	4.349	
21,200.00	12,475.12	20,864.76	12,088.61	132.16	129.71	-68.67	-9,590.04	965.17	1,062.78	815.85	246.92	4.304	
21,300.00	12,475.65	20,964.76	12,089.32	133.52	131.07	-68.68	-9,690.04	966.08	1,062.71	813.23	249.49	4.260	
21,400.00	12,476.17	21,064.76	12,090.03	134.88	132.42	-68.69	-9,790.03	966.99	1,062.64	810.60	252.05	4.216	
21,500.00	12,476.70	21,164.76	12,090.73	136.25	133.78	-68.70	-9,890.02	967.90	1,062.58	807.96	254.61	4.173	
21,600.00	12,477.22	21,264.76	12,091.44	137.61	135.13	-68.71	-9,990.02	968.81	1,062.51	805.33	257.18	4.131	
21,700.00	12,477.75	21,364.76	12,092.15	138.97	136.48	-68.72	-10,090.01	969.71	1,062.44	802.70	259.74	4.090	
21,800.00	12,478.27	21,464.76	12,092.86	140.34	137.84	-68.73	-10,190.00	970.62	1,062.38	800.07	262.31	4.050	
21,900.00	12,478.80	21,564.76	12,093.57	141.70	139.20	-68.74	-10,290.00	971.53	1,062.31	797.43	264.88	4.011	
22,000.00	12,479.32	21,664.76	12,094.28	143.06	140.55	-68.75	-10,389.99	972.44	1,062.24	794.80	267.44	3.972	
22,100.00	12,479.85	21,764.76	12,094.99	144.43	141.91	-68.76	-10,489.98	973.35	1,062.18	792.16	270.01	3.934	
22,200.00	12,480.37	21,864.76	12,095.70	145.79	143.26	-68.77	-10,589.98	974.26	1,062.11	789.53	272.58	3.896	
22,300.00	12,480.90	21,964.76	12,096.41	147.16	144.62	-68.77	-10,689.97	975.17	1,062.04	786.89	275.15	3.860	
22,400.00	12,481.42	22,064.76	12,097.12	148.52	145.98	-68.78	-10,789.96	976.07	1,061.97	784.25	277.72	3.824	
22,500.00	12,481.95	22,164.76	12,097.83	149.89	147.33	-68.79	-10,889.96	976.98	1,061.91	781.62	280.29	3.789	
22,600.00	12,482.47	22,264.76	12,098.53	151.25	148.69	-68.80	-10,989.95	977.89	1,061.84	778.98	282.86	3.754	
22,700.00	12,483.00	22,364.76	12,099.24	152.61	150.05	-68.81	-11,089.94	978.80	1,061.77	776.34	285.43	3.720	
22,719.79	12,483.10	22,384.55	12,099.38	152.85	150.32	-68.81	-11,109.73	978.98	1,061.76	775.85	285.91	3.714	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:	
												Offset Well Error:	
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
1,300.00	1,299.34	1,547.19	1,545.52	4.35	5.33	64.41	-829.63	-2,273.47	2,421.80	2,412.26	9.53	254.068	
1,400.00	1,399.04	1,646.73	1,644.51	4.58	5.53	62.25	-824.57	-2,264.40	2,407.98	2,398.06	9.92	242.705	
1,500.00	1,498.51	1,738.54	1,735.85	4.71	5.72	61.58	-819.97	-2,256.22	2,393.03	2,382.82	10.21	234.407	
1,600.00	1,597.91	1,825.54	1,822.43	4.89	5.89	61.82	-815.82	-2,248.73	2,378.15	2,367.59	10.56	225.128	
1,700.00	1,697.32	1,915.86	1,912.35	5.08	6.07	62.07	-811.82	-2,241.26	2,363.75	2,352.83	10.92	216.396	
1,800.00	1,796.72	2,003.38	1,999.51	5.27	6.24	62.31	-807.96	-2,234.34	2,349.76	2,338.48	11.27	208.406	
1,900.00	1,896.13	2,100.98	2,096.72	5.46	6.43	62.61	-803.02	-2,227.22	2,336.18	2,324.54	11.64	200.682	
2,000.00	1,995.54	2,197.97	2,193.30	5.64	6.62	62.92	-797.47	-2,220.24	2,322.56	2,310.56	12.00	193.481	
2,100.00	2,094.94	2,332.87	2,327.57	5.83	6.88	63.35	-789.73	-2,209.91	2,308.68	2,296.24	12.44	185.654	
2,200.00	2,194.35	2,639.75	2,630.76	6.02	7.62	64.33	-768.29	-2,168.39	2,287.99	2,274.75	13.24	172.752	
2,300.00	2,293.76	2,745.34	2,734.13	6.20	7.84	64.76	-756.75	-2,150.24	2,263.66	2,250.02	13.64	165.945	
2,400.00	2,393.16	2,818.02	2,805.25	6.39	7.99	65.11	-747.07	-2,138.78	2,240.12	2,226.13	13.98	160.189	
2,500.00	2,492.57	2,896.00	2,881.70	6.58	8.14	65.49	-736.97	-2,127.22	2,217.68	2,203.35	14.33	154.766	
2,600.00	2,591.98	2,962.82	2,947.38	6.76	8.28	65.80	-729.14	-2,117.80	2,196.38	2,181.72	14.66	149.833	
2,700.00	2,691.38	3,045.15	3,028.49	6.95	8.44	66.17	-720.27	-2,106.81	2,176.19	2,161.18	15.01	145.001	
2,800.00	2,790.79	3,140.94	3,122.90	7.13	8.64	66.62	-709.99	-2,094.29	2,156.42	2,141.04	15.37	140.258	
2,900.00	2,890.20	3,248.53	3,228.96	7.32	8.85	67.10	-699.15	-2,079.77	2,136.54	2,120.78	15.76	135.582	
3,000.00	2,989.60	3,332.19	3,311.40	7.50	9.02	67.48	-690.77	-2,068.30	2,116.61	2,100.51	16.11	131.401	
3,100.00	3,089.01	3,409.89	3,388.11	7.69	9.17	67.83	-683.51	-2,058.31	2,097.75	2,081.30	16.45	127.542	
3,200.00	3,188.42	3,505.29	3,482.40	7.88	9.36	68.27	-674.82	-2,046.65	2,079.67	2,062.86	16.81	123.710	
3,300.00	3,287.82	3,627.70	3,603.20	8.06	9.61	68.85	-663.03	-2,030.76	2,060.87	2,043.66	17.21	119.718	
3,400.00	3,387.23	3,723.93	3,698.08	8.25	9.81	69.31	-653.87	-2,017.57	2,041.55	2,023.97	17.58	116.118	
3,500.00	3,486.64	3,787.86	3,761.20	8.43	9.96	69.60	-648.22	-2,009.14	2,023.09	2,005.17	17.92	112.895	
3,600.00	3,586.04	3,849.00	3,821.78	8.62	10.12	69.88	-643.38	-2,002.48	2,006.89	1,988.62	18.26	109.877	
3,700.00	3,685.45	3,902.16	3,874.59	8.80	10.23	70.12	-639.70	-1,997.68	1,992.74	1,974.17	18.56	107.348	
3,800.00	3,784.86	3,984.04	3,956.09	8.99	10.40	70.46	-635.19	-1,991.22	1,980.22	1,961.32	18.90	104.785	
3,900.00	3,884.26	4,092.23	4,063.82	9.17	10.59	70.86	-631.14	-1,982.11	1,967.62	1,948.36	19.26	102.155	
4,000.00	3,983.67	4,186.12	4,157.29	9.36	10.76	71.20	-627.72	-1,974.02	1,954.94	1,935.34	19.60	99.728	
4,100.00	4,083.08	4,261.37	4,232.25	9.54	10.91	71.49	-624.91	-1,968.00	1,942.98	1,923.06	19.92	97.550	
4,200.00	4,182.48	4,326.00	4,296.72	9.73	11.03	71.73	-622.64	-1,963.96	1,932.76	1,912.54	20.22	95.607	
4,300.00	4,281.89	4,373.66	4,344.31	9.91	11.14	71.91	-621.28	-1,962.00	1,924.79	1,904.33	20.47	94.053	
4,400.00	4,381.30	4,422.00	4,392.64	10.10	11.26	72.08	-620.40	-1,961.16	1,919.46	1,898.75	20.71	92.702	
4,500.00	4,480.70	4,481.40	4,452.03	10.28	11.30	72.28	-620.10	-1,961.44	1,916.53	1,895.63	20.90	91.704	
4,600.00	4,580.11	4,558.25	4,528.86	10.47	11.32	72.50	-620.85	-1,963.26	1,915.61	1,894.54	21.07	90.902	
4,700.00	4,679.51	4,689.79	4,660.37	10.65	11.35	72.90	-621.40	-1,965.39	1,913.97	1,892.69	21.28	89.926	
4,800.00	4,778.92	4,851.64	4,822.19	10.84	11.54	73.41	-620.89	-1,963.08	1,908.84	1,887.18	21.66	88.114	
4,900.00	4,878.33	4,936.17	4,906.69	11.02	11.62	73.64	-622.05	-1,961.23	1,903.73	1,881.81	21.93	86.819	
5,000.00	4,977.73	5,010.87	4,981.38	11.21	11.65	73.84	-623.19	-1,960.45	1,899.81	1,877.66	22.15	85.771	
5,100.00	5,077.14	5,089.00	5,059.51	11.39	11.66	74.06	-624.02	-1,960.83	1,897.33	1,874.99	22.34	84.937	
5,200.00	5,176.55	5,158.28	5,128.77	11.58	11.65	74.27	-624.57	-1,962.14	1,896.24	1,873.75	22.48	84.334	
5,300.00	5,275.95	5,261.45	5,231.90	11.76	11.63	74.58	-625.38	-1,964.81	1,895.98	1,873.34	22.64	83.752	
5,400.00	5,375.36	5,357.58	5,328.00	11.95	11.60	74.87	-625.82	-1,966.94	1,895.36	1,872.58	22.77	83.225	
5,500.00	5,474.77	5,453.05	5,423.44	12.13	11.59	75.18	-625.89	-1,969.53	1,895.25	1,872.32	22.93	82.665	
5,600.00	5,574.17	5,559.82	5,530.18	12.32	11.60	75.53	-625.77	-1,972.27	1,895.06	1,871.97	23.09	82.068	
5,700.00	5,673.58	5,664.48	5,634.81	12.50	11.62	75.87	-625.73	-1,974.54	1,894.52	1,871.27	23.26	81.456	
5,800.00	5,772.99	5,769.82	5,740.13	12.69	11.63	76.21	-625.89	-1,976.54	1,893.79	1,870.37	23.43	80.835	
5,900.00	5,872.39	5,875.54	5,845.84	12.87	11.64	76.54	-626.31	-1,978.16	1,892.78	1,869.18	23.60	80.206	
6,000.00	5,971.80	5,974.29	5,944.58	13.06	11.65	76.84	-626.80	-1,979.57	1,891.72	1,867.95	23.77	79.581	
6,100.00	6,071.21	6,088.63	6,058.91	13.24	11.67	77.19	-627.28	-1,980.79	1,890.36	1,866.40	23.96	78.902	
6,200.00	6,170.61	6,204.88	6,175.16	13.43	11.70	77.55	-627.81	-1,980.92	1,888.09	1,863.91	24.19	78.069	
6,300.00	6,270.02	6,310.70	6,280.98	13.61	11.74	77.87	-628.52	-1,980.42	1,885.31	1,860.88	24.44	77.152	
6,400.00	6,369.43	6,415.59	6,385.86	13.80	11.78	78.19	-629.31	-1,979.64	1,882.33	1,857.63	24.70	76.207	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:	
												Offset Well Error:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,500.00	6,468.83	6,516.06	6,486.32	13.98	11.84	78.50	-629.91	-1,978.68	1,879.18	1,854.21	24.97	75.261	
6,600.00	6,568.24	6,623.04	6,593.29	14.17	11.92	78.83	-630.31	-1,977.50	1,875.93	1,850.68	25.25	74.285	
6,700.00	6,667.74	6,725.26	6,695.50	14.34	12.01	79.09	-630.31	-1,976.05	1,872.58	1,847.07	25.52	73.384	
6,800.00	6,767.46	6,836.79	6,807.01	14.53	12.13	79.30	-630.04	-1,973.99	1,869.33	1,843.54	25.80	72.468	
6,900.00	6,867.34	6,932.86	6,903.06	14.70	12.23	79.41	-629.78	-1,972.07	1,866.44	1,840.41	26.03	71.693	
7,000.00	6,967.32	7,030.93	7,001.12	14.86	12.35	79.45	-629.21	-1,970.22	1,864.16	1,837.91	26.25	71.008	
7,100.00	7,067.32	7,125.78	7,095.95	14.88	12.47	-90.43	-628.43	-1,968.65	1,862.47	1,836.11	26.37	70.632	
7,200.00	7,167.32	7,223.53	7,193.69	14.90	12.57	-90.43	-628.59	-1,967.21	1,861.00	1,834.50	26.50	70.235	
7,300.00	7,267.32	7,320.33	7,290.48	14.93	12.65	-90.45	-629.19	-1,965.89	1,859.64	1,833.02	26.62	69.858	
7,400.00	7,367.32	7,416.49	7,386.63	14.95	12.74	-90.47	-629.60	-1,964.87	1,858.58	1,831.84	26.74	69.496	
7,500.00	7,467.32	7,524.56	7,494.69	14.98	12.85	-90.48	-630.18	-1,963.45	1,857.27	1,830.38	26.88	69.087	
7,600.00	7,567.32	7,627.17	7,597.29	15.01	12.96	-90.50	-630.63	-1,961.87	1,855.73	1,828.71	27.02	68.676	
7,700.00	7,667.32	7,730.24	7,700.34	15.03	13.08	-90.50	-630.60	-1,960.11	1,854.03	1,826.86	27.17	68.246	
7,800.00	7,767.32	7,821.99	7,792.08	15.06	13.18	-90.49	-630.35	-1,958.56	1,852.34	1,825.05	27.29	67.875	
7,900.00	7,867.32	7,917.55	7,887.63	15.09	13.26	-90.52	-631.18	-1,957.58	1,851.31	1,823.91	27.41	67.549	
8,000.00	7,967.32	8,022.42	7,992.49	15.12	13.36	-90.54	-631.95	-1,956.20	1,850.00	1,822.46	27.54	67.177	
8,100.00	8,067.32	8,114.57	8,084.63	15.15	13.46	-90.55	-632.20	-1,955.06	1,848.78	1,821.11	27.66	66.829	
8,200.00	8,167.32	8,206.20	8,176.26	15.18	13.56	-90.55	-632.25	-1,954.46	1,848.12	1,820.33	27.79	66.512	
8,300.00	8,267.32	8,305.41	8,275.46	15.21	13.67	-90.54	-632.05	-1,954.06	1,847.71	1,819.79	27.91	66.193	
8,400.00	8,367.32	8,406.85	8,376.91	15.24	13.78	-90.53	-631.64	-1,953.56	1,847.21	1,819.17	28.04	65.873	
8,500.00	8,467.32	8,506.10	8,476.15	15.27	13.88	-90.51	-630.99	-1,953.06	1,846.70	1,818.54	28.16	65.574	
8,600.00	8,567.32	8,611.31	8,581.36	15.30	13.99	-90.48	-630.01	-1,952.47	1,846.14	1,817.85	28.29	65.265	
8,700.00	8,667.32	8,708.91	8,678.95	15.33	14.10	-90.45	-629.11	-1,951.74	1,845.39	1,816.98	28.41	64.952	
8,800.00	8,767.32	8,807.08	8,777.11	15.36	14.21	-90.44	-628.79	-1,951.19	1,844.82	1,816.28	28.54	64.638	
8,846.10	8,813.42	8,843.40	8,813.44	15.38	14.24	-90.44	-628.68	-1,951.06	1,844.66	1,816.07	28.60	64.507	CC
8,900.00	8,867.32	8,880.04	8,850.08	15.39	14.26	-90.45	-628.84	-1,951.23	1,844.91	1,816.25	28.66	64.376	
9,000.00	8,967.32	8,969.75	8,939.76	15.43	14.28	-90.48	-629.98	-1,952.64	1,846.46	1,817.73	28.73	64.272	
9,100.00	9,067.32	9,084.73	9,054.74	15.46	14.28	-90.48	-630.03	-1,953.86	1,847.52	1,818.76	28.76	64.240	
9,200.00	9,167.32	9,202.60	9,172.59	15.49	14.34	-90.42	-628.10	-1,954.13	1,847.74	1,818.90	28.84	64.064	
9,300.00	9,267.32	9,299.00	9,268.95	15.53	14.43	-90.33	-625.18	-1,953.89	1,847.47	1,818.53	28.94	63.840	
9,301.63	9,268.95	9,299.00	9,268.95	15.53	14.43	-90.33	-625.18	-1,953.89	1,847.47	1,818.53	28.94	63.839	
9,400.00	9,367.32	9,365.53	9,335.44	15.56	14.46	-90.28	-623.47	-1,954.39	1,848.24	1,819.25	28.98	63.767	
9,500.00	9,467.32	9,488.65	9,458.55	15.59	14.47	-90.28	-623.48	-1,956.44	1,850.03	1,821.01	29.02	63.747	
9,600.00	9,567.32	9,590.21	9,560.10	15.63	14.46	-90.31	-624.36	-1,956.87	1,850.46	1,821.39	29.07	63.666	
9,700.00	9,667.32	9,687.26	9,657.15	15.66	14.45	-90.32	-624.84	-1,957.32	1,850.93	1,821.83	29.10	63.606	
9,800.00	9,767.32	9,784.92	9,754.80	15.70	14.44	-90.33	-625.14	-1,957.92	1,851.54	1,822.41	29.13	63.565	
9,900.00	9,867.32	9,882.73	9,852.61	15.73	14.45	-90.31	-624.69	-1,958.63	1,852.26	1,823.09	29.17	63.504	
10,000.00	9,967.32	9,976.42	9,946.29	15.77	14.48	-90.29	-623.74	-1,959.53	1,853.22	1,824.01	29.21	63.434	
10,100.00	10,067.32	10,070.41	10,040.27	15.81	14.50	-90.26	-622.86	-1,960.77	1,854.54	1,825.29	29.26	63.392	
10,200.00	10,167.32	10,156.00	10,125.84	15.84	14.53	-90.21	-621.46	-1,961.99	1,856.01	1,826.71	29.30	63.339	
10,300.00	10,267.32	10,231.83	10,201.63	15.88	14.56	-90.16	-619.56	-1,963.85	1,858.56	1,829.20	29.36	63.301	
10,400.00	10,367.32	10,331.30	10,301.00	15.92	14.57	-90.11	-618.00	-1,967.66	1,862.40	1,833.01	29.39	63.364	
10,500.00	10,467.32	10,460.69	10,430.34	15.95	14.56	-90.12	-618.52	-1,971.22	1,865.14	1,835.74	29.40	63.437	
10,600.00	10,567.32	10,568.61	10,538.23	15.99	14.59	-90.08	-617.23	-1,973.06	1,866.84	1,837.40	29.44	63.415	
10,700.00	10,667.32	10,668.58	10,638.18	16.03	14.64	-90.03	-615.56	-1,974.62	1,868.40	1,838.91	29.49	63.359	
10,800.00	10,767.32	10,768.55	10,738.13	16.07	14.69	-89.98	-613.88	-1,976.18	1,869.96	1,840.42	29.54	63.300	
10,900.00	10,867.32	10,892.24	10,861.79	16.11	14.75	-89.94	-612.54	-1,977.44	1,871.00	1,841.40	29.60	63.208	
11,000.00	10,967.32	10,997.76	10,967.32	16.15	14.80	-89.94	-612.50	-1,977.47	1,871.02	1,841.34	29.68	63.040	
11,100.00	11,067.32	11,097.76	11,067.32	16.19	14.87	-89.94	-612.50	-1,977.47	1,871.02	1,841.25	29.78	62.833	
11,200.00	11,167.32	11,197.76	11,167.32	16.23	14.93	-89.94	-612.50	-1,977.47	1,871.02	1,841.15	29.88	62.626	
11,300.00	11,267.32	11,299.54	11,268.96	16.27	14.98	-90.05	-616.16	-1,977.44	1,870.99	1,841.07	29.92	62.533	
11,379.87	11,347.19	11,379.16	11,347.19	16.30	15.05	-90.49	-630.61	-1,977.32	1,870.94	1,841.02	29.92	62.533	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 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)	Semi Major Axis Reference	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
11,400.00	11,367.32	11,398.47	11,365.81	16.31	15.07	-90.65	-635.74	-1,977.27	1,870.94	1,841.03	29.92	62.538			
11,500.00	11,467.32	11,488.37	11,449.72	16.35	15.15	-91.63	-667.73	-1,977.00	1,871.39	1,841.49	29.89	62.601			
11,600.00	11,567.32	11,566.69	11,517.98	16.39	15.22	-92.80	-706.00	-1,976.67	1,873.11	1,843.22	29.89	62.670			
11,700.00	11,667.32	11,633.18	11,571.39	16.43	15.28	-94.01	-745.55	-1,976.33	1,876.92	1,846.98	29.94	62.699			
11,800.00	11,767.32	11,688.92	11,612.38	16.47	15.34	-95.16	-783.29	-1,976.00	1,883.54	1,853.48	30.06	62.652			
11,900.00	11,867.32	11,735.53	11,643.71	16.51	15.40	84.21	-817.77	-1,975.71	1,893.52	1,863.23	30.29	62.523			
12,000.00	11,966.66	11,779.40	11,670.54	16.75	15.45	82.00	-852.46	-1,975.41	1,906.00	1,875.33	30.67	62.147			
12,100.00	12,062.69	11,824.11	11,695.08	17.02	15.51	79.78	-889.83	-1,975.09	1,919.54	1,888.30	31.24	61.437			
12,200.00	12,152.51	11,869.44	11,716.91	17.30	15.58	77.65	-929.53	-1,974.75	1,933.28	1,901.30	31.99	60.442			
12,300.00	12,233.38	11,915.22	11,735.70	17.56	15.67	75.70	-971.27	-1,974.39	1,946.43	1,913.56	32.87	59.223			
12,400.00	12,302.84	11,950.00	11,747.72	17.80	15.74	74.12	-1,003.90	-1,974.11	1,958.32	1,924.48	33.85	57.860			
12,500.00	12,358.79	12,000.00	11,761.47	18.10	15.86	72.69	-1,051.95	-1,973.69	1,968.20	1,933.30	34.90	56.396			
12,600.00	12,399.52	12,050.00	11,770.99	18.99	15.99	71.63	-1,101.02	-1,973.27	1,975.69	1,939.69	36.00	54.881			
12,700.00	12,423.80	12,100.00	11,776.19	19.97	16.15	70.97	-1,150.73	-1,972.84	1,980.43	1,943.31	37.11	53.361			
12,800.00	12,431.01	12,166.71	11,777.48	21.01	16.40	70.75	-1,217.42	-1,972.27	1,982.07	1,943.80	38.27	51.788			
12,900.00	12,431.54	12,266.71	11,778.17	22.11	16.86	70.75	-1,317.41	-1,971.41	1,982.06	1,942.42	39.64	50.000			
13,000.00	12,432.07	12,366.71	11,778.87	23.23	17.40	70.76	-1,417.41	-1,970.55	1,982.05	1,940.92	41.13	48.191			
13,100.00	12,432.59	12,466.71	11,779.57	24.37	18.04	70.76	-1,517.40	-1,969.69	1,982.04	1,939.31	42.73	46.388			
13,200.00	12,433.12	12,566.71	11,780.27	25.54	18.76	70.77	-1,617.39	-1,968.83	1,982.03	1,937.60	44.42	44.616			
13,300.00	12,433.64	12,666.71	11,780.96	26.73	19.56	70.77	-1,717.39	-1,967.97	1,982.02	1,935.80	46.21	42.891			
13,400.00	12,434.17	12,766.71	11,781.66	27.93	20.42	70.78	-1,817.38	-1,967.11	1,982.00	1,933.93	48.07	41.228			
13,500.00	12,434.69	12,866.71	11,782.36	29.15	21.33	70.78	-1,917.37	-1,966.25	1,981.99	1,931.98	50.01	39.633			
13,600.00	12,435.22	12,966.71	11,783.06	30.38	22.30	70.79	-2,017.37	-1,965.39	1,981.98	1,929.98	52.01	38.111			
13,700.00	12,435.74	13,066.71	11,783.75	31.62	23.30	70.79	-2,117.36	-1,964.53	1,981.97	1,927.91	54.06	36.664			
13,800.00	12,436.27	13,166.71	11,784.45	32.87	24.35	70.80	-2,217.36	-1,963.67	1,981.96	1,925.80	56.16	35.292			
13,900.00	12,436.79	13,266.71	11,785.15	34.13	25.42	70.80	-2,317.35	-1,962.81	1,981.95	1,923.65	58.30	33.994			
14,000.00	12,437.32	13,366.71	11,785.85	35.40	26.53	70.81	-2,417.34	-1,961.95	1,981.94	1,921.45	60.49	32.767			
14,100.00	12,437.84	13,466.71	11,786.54	36.68	27.66	70.81	-2,517.34	-1,961.09	1,981.93	1,919.23	62.70	31.608			
14,200.00	12,438.37	13,566.71	11,787.24	37.96	28.81	70.82	-2,617.33	-1,960.23	1,981.92	1,916.97	64.95	30.514			
14,300.00	12,438.89	13,666.71	11,787.94	39.25	29.97	70.83	-2,717.32	-1,959.37	1,981.91	1,914.68	67.23	29.481			
14,400.00	12,439.42	13,766.71	11,788.64	40.55	31.16	70.83	-2,817.32	-1,958.51	1,981.90	1,912.37	69.53	28.506			
14,500.00	12,439.94	13,866.71	11,789.33	41.84	32.36	70.84	-2,917.31	-1,957.65	1,981.89	1,910.04	71.85	27.584			
14,600.00	12,440.47	13,966.71	11,790.03	43.15	33.58	70.84	-3,017.30	-1,956.79	1,981.87	1,907.68	74.19	26.714			
14,700.00	12,440.99	14,066.71	11,790.73	44.45	34.80	70.85	-3,117.30	-1,955.92	1,981.86	1,905.31	76.55	25.890			
14,800.00	12,441.52	14,166.71	11,791.43	45.77	36.04	70.85	-3,217.29	-1,955.06	1,981.85	1,902.93	78.93	25.110			
14,900.00	12,442.04	14,266.71	11,792.12	47.08	37.28	70.86	-3,317.29	-1,954.20	1,981.84	1,900.52	81.32	24.372			
15,000.00	12,442.57	14,366.71	11,792.82	48.40	38.54	70.86	-3,417.28	-1,953.34	1,981.83	1,898.11	83.72	23.671			
15,100.00	12,443.09	14,466.71	11,793.52	49.72	39.80	70.87	-3,517.27	-1,952.48	1,981.82	1,895.68	86.14	23.007			
15,200.00	12,443.62	14,566.71	11,794.22	51.04	41.07	70.87	-3,617.27	-1,951.62	1,981.81	1,893.24	88.57	22.376			
15,300.00	12,444.14	14,666.71	11,794.91	52.36	42.35	70.88	-3,717.26	-1,950.76	1,981.80	1,890.79	91.01	21.776			
15,400.00	12,444.67	14,766.71	11,795.61	53.69	43.63	70.88	-3,817.25	-1,949.90	1,981.79	1,888.33	93.46	21.206			
15,500.00	12,445.19	14,866.70	11,796.31	55.02	44.91	70.89	-3,917.25	-1,949.04	1,981.78	1,885.87	95.91	20.662			
15,600.00	12,445.72	14,966.70	11,797.01	56.35	46.21	70.89	-4,017.24	-1,948.18	1,981.77	1,883.39	98.38	20.144			
15,700.00	12,446.24	15,066.70	11,797.70	57.69	47.50	70.90	-4,117.24	-1,947.32	1,981.76	1,880.91	100.85	19.650			
15,800.00	12,446.77	15,166.70	11,798.40	59.02	48.80	70.90	-4,217.23	-1,946.46	1,981.75	1,878.42	103.33	19.178			
15,900.00	12,447.29	15,266.70	11,799.10	60.36	50.10	70.91	-4,317.22	-1,945.60	1,981.74	1,875.92	105.82	18.728			
16,000.00	12,447.82	15,366.70	11,799.80	61.69	51.41	70.91	-4,417.22	-1,944.74	1,981.73	1,873.42	108.31	18.297			
16,100.00	12,448.34	15,466.70	11,800.50	63.03	52.72	70.92	-4,517.21	-1,943.88	1,981.72	1,870.91	110.81	17.884			
16,200.00	12,448.87	15,566.70	11,801.19	64.37	54.04	70.92	-4,617.20	-1,943.02	1,981.71	1,868.39	113.31	17.489			
16,300.00	12,449.39	15,666.70	11,801.89	65.72	55.35	70.93	-4,717.20	-1,942.16	1,981.69	1,865.87	115.82	17.110			
16,400.00	12,449.92	15,766.70	11,802.59	67.06	56.67	70.93	-4,817.19	-1,941.30	1,981.68	1,863.35	118.33	16.747			
16,500.00	12,450.44	15,866.70	11,803.29	68.40	57.99	70.94	-4,917.19	-1,940.44	1,981.67	1,860.82	120.85	16.398			

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:	
												Offset Well Error:	
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
16,600.00	12,450.97	15,966.70	11,803.98	69.75	59.32	70.94	-5,017.18	-1,939.58	1,981.66	1,858.29	123.37	16.063	
16,700.00	12,451.49	16,066.70	11,804.68	71.09	60.64	70.95	-5,117.17	-1,938.72	1,981.65	1,855.76	125.90	15.740	
16,800.00	12,452.02	16,166.70	11,805.38	72.44	61.97	70.95	-5,217.17	-1,937.86	1,981.64	1,853.22	128.43	15.430	
16,900.00	12,452.54	16,266.70	11,806.08	73.79	63.30	70.96	-5,317.16	-1,937.00	1,981.63	1,850.68	130.96	15.132	
17,000.00	12,453.07	16,366.70	11,806.77	75.13	64.63	70.96	-5,417.15	-1,936.14	1,981.62	1,848.13	133.49	14.844	
17,100.00	12,453.59	16,466.70	11,807.47	76.48	65.96	70.97	-5,517.15	-1,935.28	1,981.61	1,845.58	136.03	14.567	
17,200.00	12,454.12	16,566.70	11,808.17	77.83	67.30	70.98	-5,617.14	-1,934.42	1,981.60	1,843.03	138.57	14.300	
17,300.00	12,454.64	16,666.70	11,808.87	79.18	68.63	70.98	-5,717.13	-1,933.56	1,981.59	1,840.48	141.12	14.042	
17,400.00	12,455.17	16,766.70	11,809.56	80.53	69.97	70.99	-5,817.13	-1,932.70	1,981.58	1,837.92	143.66	13.793	
17,500.00	12,455.69	16,866.70	11,810.26	81.89	71.31	70.99	-5,917.12	-1,931.84	1,981.57	1,835.36	146.21	13.553	
17,600.00	12,456.22	16,966.70	11,810.96	83.24	72.64	71.00	-6,017.12	-1,930.98	1,981.56	1,832.80	148.76	13.320	
17,700.00	12,456.74	17,066.70	11,811.66	84.59	73.98	71.00	-6,117.11	-1,930.12	1,981.55	1,830.24	151.31	13.096	
17,800.00	12,457.27	17,166.70	11,812.35	85.94	75.33	71.01	-6,217.10	-1,929.26	1,981.54	1,827.67	153.87	12.878	
17,900.00	12,457.79	17,266.70	11,813.05	87.30	76.67	71.01	-6,317.10	-1,928.40	1,981.53	1,825.10	156.43	12.667	
18,000.00	12,458.32	17,366.70	11,813.75	88.65	78.01	71.02	-6,417.09	-1,927.54	1,981.52	1,822.53	158.99	12.464	
18,100.00	12,458.84	17,466.70	11,814.45	90.01	79.36	71.02	-6,517.08	-1,926.68	1,981.51	1,819.96	161.55	12.266	
18,200.00	12,459.37	17,566.70	11,815.14	91.36	80.70	71.03	-6,617.08	-1,925.82	1,981.50	1,817.39	164.11	12.074	
18,300.00	12,459.89	17,666.70	11,815.84	92.72	82.05	71.03	-6,717.07	-1,924.96	1,981.49	1,814.82	166.67	11.888	
18,400.00	12,460.42	17,766.70	11,816.54	94.07	83.39	71.04	-6,817.07	-1,924.10	1,981.48	1,812.24	169.24	11.708	
18,500.00	12,460.94	17,866.70	11,817.24	95.43	84.74	71.04	-6,917.06	-1,923.24	1,981.47	1,809.66	171.81	11.533	
18,600.00	12,461.47	17,966.70	11,817.93	96.79	86.09	71.05	-7,017.05	-1,922.38	1,981.46	1,807.08	174.38	11.363	
18,700.00	12,461.99	18,066.70	11,818.63	98.15	87.44	71.05	-7,117.05	-1,921.52	1,981.45	1,804.50	176.95	11.198	
18,800.00	12,462.52	18,166.70	11,819.33	99.50	88.79	71.06	-7,217.04	-1,920.65	1,981.44	1,801.92	179.52	11.038	
18,900.00	12,463.04	18,266.70	11,820.03	100.86	90.14	71.06	-7,317.03	-1,919.79	1,981.43	1,799.34	182.09	10.882	
19,000.00	12,463.57	18,366.70	11,820.72	102.22	91.49	71.07	-7,417.03	-1,918.93	1,981.42	1,796.75	184.67	10.730	
19,100.00	12,464.09	18,466.70	11,821.42	103.58	92.84	71.07	-7,517.02	-1,918.07	1,981.41	1,794.17	187.24	10.582	
19,200.00	12,464.62	18,566.70	11,822.12	104.94	94.19	71.08	-7,617.02	-1,917.21	1,981.40	1,791.58	189.82	10.438	
19,300.00	12,465.14	18,666.70	11,822.82	106.29	95.54	71.08	-7,717.01	-1,916.35	1,981.39	1,788.99	192.40	10.299	
19,400.00	12,465.67	18,766.70	11,823.52	107.65	96.90	71.09	-7,817.00	-1,915.49	1,981.38	1,786.41	194.97	10.162	
19,500.00	12,466.19	18,866.70	11,824.21	109.01	98.25	71.09	-7,917.00	-1,914.63	1,981.37	1,783.82	197.55	10.029	
19,600.00	12,466.72	18,966.70	11,824.91	110.37	99.60	71.10	-8,016.99	-1,913.77	1,981.36	1,781.22	200.14	9.900	
19,700.00	12,467.24	19,066.70	11,825.61	111.73	100.96	71.10	-8,116.98	-1,912.91	1,981.35	1,778.63	202.72	9.774	
19,800.00	12,467.77	19,166.70	11,826.31	113.09	102.31	71.11	-8,216.98	-1,912.05	1,981.34	1,776.04	205.30	9.651	
19,900.00	12,468.29	19,266.70	11,827.00	114.45	103.67	71.11	-8,316.97	-1,911.19	1,981.33	1,773.45	207.88	9.531	
20,000.00	12,468.82	19,366.70	11,827.70	115.82	105.02	71.12	-8,416.97	-1,910.33	1,981.32	1,770.85	210.47	9.414	
20,100.00	12,469.34	19,466.70	11,828.40	117.18	106.38	71.13	-8,516.96	-1,909.47	1,981.31	1,768.26	213.05	9.300	
20,200.00	12,469.87	19,566.70	11,829.10	118.54	107.74	71.13	-8,616.95	-1,908.61	1,981.30	1,765.66	215.64	9.188	
20,300.00	12,470.39	19,666.70	11,829.79	119.90	109.09	71.14	-8,716.95	-1,907.75	1,981.29	1,763.06	218.23	9.079	
20,400.00	12,470.92	19,766.70	11,830.49	121.26	110.45	71.14	-8,816.94	-1,906.89	1,981.28	1,760.47	220.82	8.973	
20,500.00	12,471.44	19,866.70	11,831.19	122.62	111.81	71.15	-8,916.93	-1,906.03	1,981.27	1,757.87	223.40	8.869	
20,600.00	12,471.97	19,966.70	11,831.89	123.98	113.16	71.15	-9,016.93	-1,905.17	1,981.26	1,755.27	225.99	8.767	
20,700.00	12,472.50	20,066.70	11,832.58	125.35	114.52	71.16	-9,116.92	-1,904.31	1,981.25	1,752.67	228.58	8.668	
20,800.00	12,473.02	20,166.70	11,833.28	126.71	115.88	71.16	-9,216.91	-1,903.45	1,981.24	1,750.07	231.17	8.570	
20,900.00	12,473.55	20,266.70	11,833.98	128.07	117.24	71.17	-9,316.91	-1,902.59	1,981.23	1,747.47	233.77	8.475	
21,000.00	12,474.07	20,366.70	11,834.68	129.43	118.60	71.17	-9,416.90	-1,901.73	1,981.22	1,744.87	236.36	8.382	
21,100.00	12,474.60	20,466.70	11,835.37	130.80	119.95	71.18	-9,516.90	-1,900.87	1,981.21	1,742.26	238.95	8.291	
21,200.00	12,475.12	20,566.70	11,836.07	132.16	121.31	71.18	-9,616.89	-1,900.01	1,981.20	1,739.66	241.54	8.202	
21,300.00	12,475.65	20,666.70	11,836.77	133.52	122.67	71.19	-9,716.88	-1,899.15	1,981.19	1,737.06	244.14	8.115	
21,400.00	12,476.17	20,766.70	11,837.47	134.88	124.03	71.19	-9,816.88	-1,898.29	1,981.18	1,734.45	246.73	8.030	
21,500.00	12,476.70	20,866.70	11,838.16	136.25	125.39	71.20	-9,916.87	-1,897.43	1,981.17	1,731.85	249.33	7.946	
21,600.00	12,477.22	20,966.70	11,838.86	137.61	126.75	71.20	-10,016.86	-1,896.57	1,981.17	1,729.24	251.92	7.864	
21,700.00	12,477.75	21,066.70	11,839.56	138.97	128.11	71.21	-10,116.86	-1,895.71	1,981.16	1,726.64	254.52	7.784	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 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
21,800.00	12,478.27	21,166.69	11,840.26	140.34	129.47	71.21	-10,216.85	-1,894.85	1,981.15	1,724.03	257.12	7.705	
21,900.00	12,478.80	21,266.69	11,840.95	141.70	130.83	71.22	-10,316.85	-1,893.99	1,981.14	1,721.42	259.71	7.628	
22,000.00	12,479.32	21,366.69	11,841.65	143.06	132.19	71.22	-10,416.84	-1,893.13	1,981.13	1,718.81	262.31	7.553	
22,100.00	12,479.85	21,466.69	11,842.35	144.43	133.55	71.23	-10,516.83	-1,892.27	1,981.12	1,716.21	264.91	7.478	
22,200.00	12,480.37	21,566.69	11,843.05	145.79	134.92	71.23	-10,616.83	-1,891.41	1,981.11	1,713.60	267.51	7.406	
22,300.00	12,480.90	21,666.69	11,843.74	147.16	136.28	71.24	-10,716.82	-1,890.55	1,981.10	1,710.99	270.11	7.334	
22,400.00	12,481.42	21,766.69	11,844.44	148.52	137.64	71.24	-10,816.81	-1,889.69	1,981.09	1,708.38	272.71	7.264	
22,500.00	12,481.95	21,866.69	11,845.14	149.89	139.00	71.25	-10,916.81	-1,888.83	1,981.08	1,705.77	275.31	7.196	
22,600.00	12,482.47	21,966.69	11,845.84	151.25	140.36	71.25	-11,016.80	-1,887.97	1,981.07	1,703.16	277.91	7.128	
22,700.00	12,483.00	22,066.69	11,846.54	152.61	141.63	71.26	-11,116.80	-1,887.11	1,981.06	1,700.65	280.41	7.065	
22,712.82	12,483.06	22,079.41	11,846.62	152.77	141.78	71.26	-11,129.51	-1,887.00	1,981.06	1,700.36	280.70	7.057	
22,719.79	12,483.10	22,079.41	11,846.62	152.85	141.78	71.26	-11,129.51	-1,887.00	1,981.07	1,700.30	280.77	7.056	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	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
0.00	0.00	0.00	1.00	0.50	0.50	180.00	-50.00	0.00	50.01				
100.00	100.00	99.00	100.00	0.98	0.97	180.00	-50.00	0.00	50.00	48.05	1.95	25.576	
200.00	200.00	199.00	200.00	1.56	1.56	180.00	-50.00	0.00	50.00	46.88	3.12	16.045	
300.00	300.00	299.00	300.00	1.98	1.98	180.00	-50.00	0.00	50.00	46.04	3.96	12.632	CC, ES
400.00	400.00	397.82	398.81	2.33	2.40	-179.41	-51.14	-0.53	51.15	46.44	4.71	10.855	
500.00	500.00	496.49	497.40	2.63	2.76	-177.77	-54.58	-2.12	54.69	49.32	5.36	10.194	
600.00	600.00	594.90	595.61	2.91	3.08	-175.46	-60.32	-4.79	60.67	54.72	5.96	10.186	
700.00	700.00	693.95	694.30	3.16	3.22	-173.01	-67.98	-8.33	68.73	62.38	6.35	10.827	
800.00	799.99	793.67	793.63	3.45	3.45	4.73	-75.87	-11.99	75.77	68.90	6.87	11.029	
900.00	899.91	893.53	893.11	3.70	3.69	6.65	-83.76	-15.65	80.30	72.94	7.36	10.909	
1,000.00	999.77	993.44	992.64	3.89	3.92	8.50	-91.66	-19.31	83.61	75.83	7.78	10.742	
1,100.00	1,099.63	1,093.35	1,092.17	4.08	4.14	10.21	-99.56	-22.97	87.01	78.81	8.20	10.612	
1,200.00	1,199.50	1,193.26	1,191.70	4.26	4.36	11.78	-107.46	-26.64	90.48	81.87	8.61	10.513	
1,300.00	1,299.34	1,292.25	1,290.30	4.35	4.49	11.09	-115.46	-30.38	93.89	85.07	8.82	10.644	
1,400.00	1,399.04	1,389.80	1,387.26	4.58	4.73	10.32	-125.02	-35.22	97.11	87.83	9.28	10.463	
1,500.00	1,498.51	1,487.23	1,483.79	4.71	4.99	11.38	-136.61	-41.45	100.43	90.80	9.63	10.427	
1,600.00	1,597.91	1,584.43	1,579.74	4.89	5.23	13.65	-150.20	-49.05	105.77	95.73	10.05	10.528	
1,700.00	1,697.32	1,681.27	1,674.90	5.08	5.48	15.87	-165.73	-57.99	113.78	103.33	10.45	10.885	
1,800.00	1,796.72	1,779.42	1,770.95	5.27	5.65	17.94	-183.15	-68.20	124.03	113.23	10.80	11.483	
1,900.00	1,896.13	1,878.77	1,868.13	5.46	5.86	19.71	-200.96	-78.67	134.65	123.45	11.19	12.028	
2,000.00	1,995.54	1,978.13	1,965.31	5.64	6.07	21.23	-218.78	-89.13	145.37	133.78	11.60	12.537	
2,100.00	2,094.94	2,077.48	2,062.50	5.83	6.28	22.54	-236.60	-99.59	156.19	144.19	12.00	13.018	
2,200.00	2,194.35	2,176.84	2,159.68	6.02	6.49	23.68	-254.41	-110.06	167.07	154.67	12.40	13.474	
2,300.00	2,293.76	2,276.19	2,256.86	6.20	6.70	24.68	-272.23	-120.52	178.01	165.21	12.80	13.906	
2,400.00	2,393.16	2,375.55	2,354.05	6.39	6.92	25.56	-290.04	-130.98	189.00	175.79	13.21	14.312	
2,500.00	2,492.57	2,474.90	2,451.23	6.58	7.20	26.34	-307.86	-141.44	200.03	186.42	13.61	14.699	
2,600.00	2,591.98	2,574.26	2,548.41	6.76	7.47	27.05	-325.67	-151.91	211.09	197.08	14.01	15.067	
2,700.00	2,691.38	2,673.61	2,645.59	6.95	7.75	27.68	-343.49	-162.37	222.18	207.76	14.41	15.415	
2,800.00	2,790.79	2,772.97	2,742.78	7.13	8.03	28.26	-361.30	-172.83	233.29	218.47	14.82	15.745	
2,900.00	2,890.20	2,872.32	2,839.96	7.32	8.31	28.78	-379.12	-183.30	244.42	229.20	15.22	16.058	
3,000.00	2,989.60	2,971.68	2,937.14	7.50	8.59	29.25	-396.94	-193.76	255.58	239.95	15.63	16.357	
3,100.00	3,089.01	3,071.03	3,034.33	7.69	8.87	29.69	-414.75	-204.22	266.74	250.71	16.03	16.641	
3,200.00	3,188.42	3,170.39	3,131.51	7.88	9.16	30.09	-432.57	-214.69	277.93	261.49	16.43	16.911	
3,300.00	3,287.82	3,269.74	3,228.69	8.06	9.44	30.46	-450.38	-225.15	289.12	272.28	16.84	17.169	
3,400.00	3,387.23	3,369.10	3,325.87	8.25	9.72	30.80	-468.20	-235.61	300.33	283.08	17.24	17.416	
3,500.00	3,486.64	3,468.45	3,423.06	8.43	10.01	31.12	-486.01	-246.07	311.54	293.89	17.65	17.651	
3,600.00	3,586.04	3,567.80	3,520.24	8.62	10.30	31.41	-503.83	-256.54	322.77	304.71	18.06	17.876	
3,700.00	3,685.45	3,667.16	3,617.42	8.80	10.58	31.69	-521.64	-267.00	334.00	315.54	18.46	18.092	
3,800.00	3,784.86	3,766.51	3,714.61	8.99	10.86	31.95	-539.46	-277.46	345.24	326.38	18.86	18.303	
3,900.00	3,884.26	3,873.26	3,819.19	9.17	11.15	32.24	-557.87	-288.28	355.72	336.41	19.31	18.423	
4,000.00	3,983.67	3,983.03	3,927.30	9.36	11.44	32.62	-574.25	-297.89	363.51	343.75	19.77	18.390	
4,100.00	4,083.08	4,093.16	4,036.27	9.54	11.69	33.09	-587.98	-305.96	368.52	348.31	20.21	18.239	
4,200.00	4,182.48	4,203.48	4,145.84	9.73	11.91	33.67	-599.01	-312.44	370.74	350.12	20.62	17.978	
4,300.00	4,281.89	4,313.79	4,255.73	9.91	12.10	34.35	-607.31	-317.31	370.20	349.18	21.01	17.617	
4,400.00	4,381.30	4,423.92	4,365.66	10.10	12.25	35.17	-612.86	-320.57	366.90	345.53	21.38	17.162	
4,500.00	4,480.70	4,533.67	4,475.37	10.28	12.37	36.13	-615.67	-322.22	360.91	339.22	21.69	16.637	
4,600.00	4,580.11	4,638.42	4,580.11	10.47	12.42	37.21	-616.06	-322.45	352.56	330.64	21.92	16.081	
4,700.00	4,679.51	4,737.82	4,679.51	10.65	12.46	38.30	-616.06	-322.45	343.94	321.79	22.15	15.528	
4,800.00	4,778.92	4,837.23	4,778.92	10.84	12.50	39.45	-616.06	-322.45	335.45	313.08	22.37	14.992	
4,900.00	4,878.33	4,936.64	4,878.33	11.02	12.54	40.66	-616.06	-322.45	327.10	304.50	22.60	14.473	
5,000.00	4,977.73	5,036.04	4,977.73	11.21	12.58	41.93	-616.06	-322.45	318.91	296.08	22.83	13.971	
5,100.00	5,077.14	5,135.45	5,077.14	11.39	12.61	43.26	-616.06	-322.45	310.88	287.82	23.05	13.485	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)			
5,200.00	5,176.55	5,234.86	5,176.55	11.58	12.65	44.67	-616.06	-322.45	303.02	279.74	23.28	13.017	
5,300.00	5,275.95	5,334.26	5,275.95	11.76	12.70	46.15	-616.06	-322.45	295.36	271.86	23.51	12.565	
5,400.00	5,375.36	5,433.67	5,375.36	11.95	12.74	47.70	-616.06	-322.45	287.91	264.18	23.73	12.131	
5,500.00	5,474.77	5,533.08	5,474.77	12.13	12.78	49.34	-616.06	-322.45	280.68	256.72	23.96	11.714	
5,600.00	5,574.17	5,632.48	5,574.17	12.32	12.82	51.06	-616.06	-322.45	273.69	249.50	24.19	11.315	
5,700.00	5,673.58	5,731.89	5,673.58	12.50	12.86	52.87	-616.06	-322.45	266.96	242.55	24.42	10.934	
5,800.00	5,772.99	5,831.30	5,772.99	12.69	12.90	54.77	-616.06	-322.45	260.52	235.87	24.65	10.571	
5,900.00	5,872.39	5,930.70	5,872.39	12.87	12.95	56.77	-616.06	-322.45	254.37	229.50	24.87	10.226	
6,000.00	5,971.80	6,030.11	5,971.80	13.06	12.99	58.85	-616.06	-322.45	248.55	223.45	25.10	9.901	
6,100.00	6,071.21	6,129.51	6,071.21	13.24	13.03	61.04	-616.06	-322.45	243.08	217.74	25.33	9.595	
6,200.00	6,170.61	6,228.92	6,170.61	13.43	13.08	63.32	-616.06	-322.45	237.97	212.41	25.57	9.309	
6,300.00	6,270.02	6,328.33	6,270.02	13.61	13.12	65.70	-616.06	-322.45	233.27	207.47	25.80	9.042	
6,400.00	6,369.43	6,427.73	6,369.43	13.80	13.17	68.17	-616.06	-322.45	228.98	202.95	26.03	8.797	
6,500.00	6,468.83	6,527.14	6,468.83	13.98	13.21	70.72	-616.06	-322.45	225.14	198.88	26.26	8.572	
6,600.00	6,568.24	6,626.55	6,568.24	14.17	13.26	73.36	-616.06	-322.45	221.77	195.27	26.50	8.368	
6,700.00	6,667.74	6,726.05	6,667.74	14.34	13.30	75.82	-616.06	-322.45	219.11	192.40	26.71	8.203	
6,800.00	6,767.46	6,825.77	6,767.46	14.53	13.35	77.68	-616.06	-322.45	217.41	190.49	26.92	8.077	
6,900.00	6,867.34	6,925.65	6,867.34	14.70	13.39	78.90	-616.06	-322.45	216.44	189.34	27.10	7.987	
7,000.00	6,967.32	7,025.63	6,967.32	14.86	13.44	79.45	-616.06	-322.45	216.03	188.78	27.25	7.928	
7,089.98	7,057.29	7,115.60	7,057.29	14.87	13.48	79.56	-616.06	-322.45	215.95	188.66	27.30	7.911	
7,100.00	7,067.32	7,125.63	7,067.32	14.88	13.49	-90.41	-616.06	-322.45	216.01	188.70	27.30	7.911	
7,200.00	7,167.32	7,225.63	7,167.32	14.90	13.54	-90.41	-616.06	-322.45	216.01	188.63	27.37	7.891	
7,300.00	7,267.32	7,325.63	7,267.32	14.93	13.58	-90.41	-616.06	-322.45	216.01	188.56	27.44	7.871	
7,400.00	7,367.32	7,425.63	7,367.32	14.95	13.63	-90.41	-616.06	-322.45	216.01	188.49	27.51	7.851	
7,500.00	7,467.32	7,525.63	7,467.32	14.98	13.68	-90.41	-616.06	-322.45	216.01	188.42	27.58	7.831	
7,600.00	7,567.32	7,625.63	7,567.32	15.01	13.73	-90.41	-616.06	-322.45	216.01	188.35	27.66	7.810	
7,700.00	7,667.32	7,725.63	7,667.32	15.03	13.78	-90.41	-616.06	-322.45	216.01	188.28	27.73	7.790	
7,800.00	7,767.32	7,825.63	7,767.32	15.06	13.83	-90.41	-616.06	-322.45	216.01	188.20	27.80	7.769	
7,900.00	7,867.32	7,925.63	7,867.32	15.09	13.88	-90.41	-616.06	-322.45	216.01	188.13	27.88	7.749	
8,000.00	7,967.32	8,025.63	7,967.32	15.12	13.93	-90.41	-616.06	-322.45	216.01	188.05	27.95	7.728	
8,100.00	8,067.32	8,125.63	8,067.32	15.15	13.98	-90.41	-616.06	-322.45	216.01	187.98	28.03	7.707	
8,200.00	8,167.32	8,225.63	8,167.32	15.18	14.03	-90.41	-616.06	-322.45	216.01	187.90	28.10	7.686	
8,300.00	8,267.32	8,325.63	8,267.32	15.21	14.08	-90.41	-616.06	-322.45	216.01	187.82	28.18	7.665	
8,400.00	8,367.32	8,425.63	8,367.32	15.24	14.13	-90.41	-616.06	-322.45	216.01	187.75	28.26	7.644	
8,500.00	8,467.32	8,525.63	8,467.32	15.27	14.19	-90.41	-616.06	-322.45	216.01	187.67	28.34	7.623	
8,600.00	8,567.32	8,625.63	8,567.32	15.30	14.24	-90.41	-616.06	-322.45	216.01	187.59	28.42	7.601	
8,700.00	8,667.32	8,725.63	8,667.32	15.33	14.29	-90.41	-616.06	-322.45	216.01	187.51	28.50	7.580	
8,800.00	8,767.32	8,825.63	8,767.32	15.36	14.34	-90.41	-616.06	-322.45	216.01	187.43	28.58	7.559	
8,900.00	8,867.32	8,925.63	8,867.32	15.39	14.40	-90.41	-616.06	-322.45	216.01	187.35	28.66	7.537	
9,000.00	8,967.32	9,025.63	8,967.32	15.43	14.45	-90.41	-616.06	-322.45	216.01	187.26	28.74	7.516	
9,100.00	9,067.32	9,125.63	9,067.32	15.46	14.50	-90.41	-616.06	-322.45	216.01	187.18	28.82	7.494	
9,200.00	9,167.32	9,225.63	9,167.32	15.49	14.56	-90.41	-616.06	-322.45	216.01	187.10	28.91	7.472	
9,300.00	9,267.32	9,325.63	9,267.32	15.53	14.61	-90.41	-616.06	-322.45	216.01	187.01	28.99	7.451	
9,400.00	9,367.32	9,425.63	9,367.32	15.56	14.67	-90.41	-616.06	-322.45	216.01	186.93	29.08	7.429	
9,500.00	9,467.32	9,525.63	9,467.32	15.59	14.72	-90.41	-616.06	-322.45	216.01	186.84	29.16	7.407	
9,600.00	9,567.32	9,625.63	9,567.32	15.63	14.78	-90.41	-616.06	-322.45	216.01	186.76	29.25	7.385	
9,700.00	9,667.32	9,725.63	9,667.32	15.66	14.83	-90.41	-616.06	-322.45	216.01	186.67	29.33	7.364	
9,800.00	9,767.32	9,825.63	9,767.32	15.70	14.89	-90.41	-616.06	-322.45	216.01	186.58	29.42	7.342	
9,900.00	9,867.32	9,925.63	9,867.32	15.73	14.94	-90.41	-616.06	-322.45	216.01	186.50	29.51	7.320	
10,000.00	9,967.32	10,025.63	9,967.32	15.77	15.00	-90.41	-616.06	-322.45	216.01	186.41	29.60	7.298	
10,100.00	10,067.32	10,125.63	10,067.32	15.81	15.05	-90.41	-616.06	-322.45	216.01	186.32	29.69	7.276	
10,200.00	10,167.32	10,225.63	10,167.32	15.84	15.11	-90.41	-616.06	-322.45	216.01	186.23	29.78	7.254	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		Offset		Semi Major Axis		Offset Wellbore Centre		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	
10,300.00	10,267.32	10,325.63	10,267.32	15.88	15.17	-90.41	-616.06	-322.45	216.01	186.14	29.87	7.232		
10,400.00	10,367.32	10,425.63	10,367.32	15.92	15.23	-90.41	-616.06	-322.45	216.01	186.05	29.96	7.210		
10,500.00	10,467.32	10,525.63	10,467.32	15.95	15.28	-90.41	-616.06	-322.45	216.01	185.96	30.05	7.188		
10,600.00	10,567.32	10,625.63	10,567.32	15.99	15.34	-90.41	-616.06	-322.45	216.01	185.86	30.14	7.166		
10,700.00	10,667.32	10,725.63	10,667.32	16.03	15.40	-90.41	-616.06	-322.45	216.01	185.77	30.23	7.144		
10,800.00	10,767.32	10,825.63	10,767.32	16.07	15.46	-90.41	-616.06	-322.45	216.01	185.68	30.33	7.122		
10,900.00	10,867.32	10,925.63	10,867.32	16.11	15.51	-90.41	-616.06	-322.45	216.01	185.58	30.42	7.100		
11,000.00	10,967.32	11,025.63	10,967.32	16.15	15.57	-90.41	-616.06	-322.45	216.01	185.49	30.51	7.079		
11,086.45	11,053.76	11,112.08	11,053.76	16.18	15.62	-90.52	-616.47	-322.45	216.01	185.42	30.59	7.062		
11,100.00	11,067.32	11,125.61	11,067.28	16.19	15.63	-90.70	-617.15	-322.44	216.01	185.41	30.60	7.060		
11,200.00	11,167.32	11,223.28	11,163.79	16.23	15.80	-94.48	-631.42	-322.31	216.55	185.82	30.73	7.047		
11,300.00	11,267.32	11,313.74	11,249.81	16.27	16.03	-101.68	-659.07	-322.06	220.86	189.79	31.07	7.109		
11,400.00	11,367.32	11,393.87	11,321.56	16.31	16.28	-110.41	-694.61	-321.74	234.22	202.23	31.98	7.323		
11,500.00	11,467.32	11,462.77	11,378.78	16.35	16.55	-118.85	-732.92	-321.39	260.88	227.10	33.77	7.724		
11,600.00	11,567.32	11,521.06	11,423.31	16.39	16.82	-126.01	-770.49	-321.05	301.86	265.71	36.15	8.350		
11,700.00	11,667.32	11,570.06	11,457.62	16.43	17.08	-131.70	-805.44	-320.73	355.45	316.87	38.58	9.214		
11,800.00	11,767.32	11,611.25	11,484.08	16.47	17.32	-136.12	-837.01	-320.44	418.95	378.21	40.74	10.284		
11,900.00	11,867.32	11,650.00	11,506.83	16.51	17.58	39.98	-868.36	-320.16	489.92	447.46	42.46	11.538		
12,000.00	11,966.66	11,680.06	11,522.99	16.75	17.79	31.97	-893.70	-319.93	560.98	516.79	44.19	12.693		
12,100.00	12,062.69	11,716.10	11,540.59	17.02	18.06	26.17	-925.15	-319.64	626.60	580.91	45.69	13.714		
12,200.00	12,152.51	11,750.00	11,555.30	17.30	18.33	22.25	-955.68	-319.36	685.38	638.27	47.11	14.548		
12,300.00	12,233.38	11,800.00	11,573.64	17.56	18.75	19.27	-1,002.17	-318.94	736.37	688.17	48.20	15.276		
12,400.00	12,302.84	11,831.86	11,583.19	17.80	19.04	17.44	-1,032.56	-318.66	778.64	729.26	49.38	15.768		
12,500.00	12,358.79	11,871.99	11,592.78	18.10	19.41	16.12	-1,071.52	-318.31	811.90	761.58	50.31	16.137		
12,600.00	12,399.52	11,900.00	11,597.86	18.99	19.67	15.30	-1,099.06	-318.06	835.88	784.75	51.13	16.348		
12,700.00	12,423.80	11,950.00	11,603.54	19.97	20.16	14.80	-1,148.72	-317.61	849.67	797.98	51.69	16.438		
12,800.00	12,431.01	12,004.38	11,605.04	21.01	20.71	14.66	-1,203.06	-317.11	853.76	801.70	52.06	16.400		
12,900.00	12,431.54	12,104.38	11,605.56	22.11	21.76	14.66	-1,303.06	-316.21	853.76	801.45	52.32	16.319		
13,000.00	12,432.07	12,204.38	11,606.09	23.23	22.85	14.66	-1,403.05	-315.30	853.76	801.17	52.60	16.233		
13,100.00	12,432.59	12,304.38	11,606.62	24.37	23.97	14.66	-1,503.05	-314.39	853.76	800.87	52.90	16.140		
13,200.00	12,433.12	12,404.38	11,607.14	25.54	25.10	14.66	-1,603.03	-313.48	853.76	800.54	53.22	16.042		
13,300.00	12,433.64	12,504.38	11,607.67	26.73	26.27	14.66	-1,703.03	-312.57	853.76	800.20	53.56	15.939		
13,400.00	12,434.17	12,604.38	11,608.19	27.93	27.45	14.66	-1,803.03	-311.66	853.76	799.83	53.93	15.831		
13,500.00	12,434.69	12,704.38	11,608.72	29.15	28.64	14.66	-1,903.02	-310.75	853.76	799.45	54.32	15.719		
13,600.00	12,435.22	12,804.38	11,609.24	30.38	29.86	14.66	-2,003.02	-309.84	853.76	799.04	54.72	15.602		
13,700.00	12,435.74	12,904.38	11,609.77	31.62	31.08	14.66	-2,103.01	-308.93	853.76	798.62	55.15	15.481		
13,800.00	12,436.27	13,004.38	11,610.29	32.87	32.32	14.66	-2,203.01	-308.03	853.76	798.17	55.59	15.358		
13,900.00	12,436.79	13,104.38	11,610.82	34.13	33.56	14.66	-2,303.00	-307.12	853.76	797.71	56.06	15.230		
14,000.00	12,437.32	13,204.38	11,611.34	35.40	34.82	14.66	-2,403.00	-306.21	853.76	797.22	56.54	15.101		
14,100.00	12,437.84	13,304.38	11,611.87	36.68	36.08	14.66	-2,502.99	-305.30	853.76	796.72	57.04	14.968		
14,200.00	12,438.37	13,404.38	11,612.39	37.96	37.35	14.66	-2,602.98	-304.39	853.76	796.21	57.56	14.834		
14,300.00	12,438.89	13,504.38	11,612.92	39.25	38.63	14.66	-2,702.98	-303.48	853.76	795.67	58.09	14.697		
14,400.00	12,439.42	13,604.38	11,613.44	40.55	39.91	14.66	-2,802.97	-302.57	853.76	795.12	58.64	14.559		
14,500.00	12,439.94	13,704.38	11,613.97	41.84	41.20	14.66	-2,902.97	-301.66	853.76	794.55	59.21	14.420		
14,600.00	12,440.47	13,804.38	11,614.49	43.15	42.49	14.66	-3,002.96	-300.75	853.76	793.97	59.79	14.279		
14,700.00	12,440.99	13,904.38	11,615.02	44.45	43.79	14.66	-3,102.96	-299.84	853.76	793.37	60.39	14.138		
14,800.00	12,441.52	14,004.38	11,615.54	45.77	45.09	14.66	-3,202.95	-298.94	853.76	792.76	61.00	13.996		
14,900.00	12,442.04	14,104.38	11,616.07	47.08	46.40	14.66	-3,302.95	-298.03	853.76	792.14	61.63	13.854		
15,000.00	12,442.57	14,204.38	11,616.59	48.40	47.71	14.66	-3,402.94	-297.12	853.76	791.50	62.27	13.711		
15,100.00	12,443.09	14,304.38	11,617.12	49.72	49.02	14.66	-3,502.94	-296.21	853.76	790.84	62.92	13.569		
15,200.00	12,443.62	14,404.38	11,617.64	51.04	50.34	14.66	-3,602.93	-295.30	853.76	790.18	63.59	13.427		
15,300.00	12,444.14	14,504.38	11,618.17	52.36	51.66	14.66	-3,702.92	-294.39	853.76	789.50	64.27	13.285		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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										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)			
20,600.00	12,471.97	19,804.38	11,646.00	123.98	123.13	14.66	-9,002.63	-246.22	853.76	742.82	110.94	7.696	
20,700.00	12,472.50	19,904.38	11,646.52	125.35	124.49	14.66	-9,102.63	-245.31	853.76	741.82	111.94	7.627	
20,800.00	12,473.02	20,004.38	11,647.05	126.71	125.85	14.66	-9,202.62	-244.40	853.76	740.83	112.93	7.560	
20,900.00	12,473.55	20,104.38	11,647.57	128.07	127.21	14.66	-9,302.62	-243.49	853.76	739.83	113.93	7.494	
21,000.00	12,474.07	20,204.38	11,648.10	129.43	128.58	14.66	-9,402.61	-242.58	853.76	738.83	114.93	7.428	
21,100.00	12,474.60	20,304.38	11,648.62	130.80	129.94	14.66	-9,502.60	-241.67	853.76	737.82	115.94	7.364	
21,200.00	12,475.12	20,404.38	11,649.15	132.16	131.30	14.66	-9,602.60	-240.77	853.76	736.81	116.95	7.301	
21,300.00	12,475.65	20,504.38	11,649.67	133.52	132.66	14.66	-9,702.59	-239.86	853.76	735.81	117.95	7.238	
21,400.00	12,476.17	20,604.38	11,650.20	134.88	134.02	14.66	-9,802.59	-238.95	853.76	734.80	118.96	7.177	
21,500.00	12,476.70	20,704.38	11,650.72	136.25	135.39	14.66	-9,902.58	-238.04	853.76	733.78	119.98	7.116	
21,600.00	12,477.22	20,804.38	11,651.25	137.61	136.75	14.66	-10,002.58	-237.13	853.76	732.77	120.99	7.056	
21,700.00	12,477.75	20,904.38	11,651.77	138.97	138.11	14.66	-10,102.57	-236.22	853.76	731.75	122.01	6.998	
21,800.00	12,478.27	21,004.38	11,652.30	140.34	139.47	14.66	-10,202.57	-235.31	853.76	730.74	123.02	6.940	
21,900.00	12,478.80	21,104.38	11,652.82	141.70	140.84	14.66	-10,302.56	-234.40	853.76	729.72	124.04	6.883	
22,000.00	12,479.32	21,204.38	11,653.35	143.06	142.20	14.66	-10,402.56	-233.49	853.76	728.70	125.06	6.827	
22,100.00	12,479.85	21,304.38	11,653.87	144.43	143.56	14.66	-10,502.55	-232.59	853.76	727.67	126.09	6.771	
22,200.00	12,480.37	21,404.38	11,654.40	145.79	144.92	14.66	-10,602.54	-231.68	853.76	726.65	127.11	6.717	
22,300.00	12,480.90	21,504.38	11,654.92	147.16	146.29	14.66	-10,702.54	-230.77	853.76	725.62	128.14	6.663	
22,400.00	12,481.42	21,604.38	11,655.45	148.52	147.65	14.66	-10,802.53	-229.86	853.76	724.60	129.16	6.610	
22,500.00	12,481.95	21,704.38	11,655.97	149.89	149.01	14.66	-10,902.53	-228.95	853.76	723.57	130.19	6.558	
22,600.00	12,482.47	21,804.38	11,656.50	151.25	150.38	14.66	-11,002.52	-228.04	853.76	722.54	131.22	6.506	
22,700.00	12,483.00	21,904.38	11,657.02	152.61	151.74	14.66	-11,102.52	-227.13	853.76	721.51	132.25	6.455	
22,713.55	12,483.07	21,917.93	11,657.10	152.78	151.93	14.66	-11,116.06	-227.01	853.76	721.39	132.37	6.450	
22,719.79	12,483.10	21,918.86	11,657.10	152.85	151.94	14.66	-11,117.00	-227.00	853.78	721.36	132.42	6.448	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)										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)				
0.00	0.00	0.00	2.00	0.50	0.50	180.00	-235.00	0.00	235.01					
100.00	100.00	98.00	100.00	0.98	0.97	180.00	-235.00	0.00	235.00	233.05	1.95	120.655		
200.00	200.00	198.00	200.00	1.56	1.55	180.00	-235.00	0.00	235.00	231.89	3.11	75.557		
300.00	300.00	298.00	300.00	1.98	1.97	180.00	-235.00	0.00	235.00	231.05	3.95	59.436	CC, ES	
400.00	400.00	394.25	396.24	2.33	2.38	179.78	-235.75	0.89	235.78	231.11	4.67	50.535		
500.00	500.00	490.31	492.23	2.63	2.74	179.13	-238.05	3.63	238.20	232.92	5.29	45.071		
600.00	600.00	586.13	587.86	2.91	3.05	178.06	-241.89	8.21	242.33	236.48	5.85	41.437		
700.00	700.00	681.58	682.95	3.16	3.35	176.62	-247.24	14.59	248.26	241.89	6.37	38.958		
800.00	799.99	776.65	777.41	3.45	3.63	-9.47	-254.09	22.75	254.82	247.91	6.91	36.869		
900.00	899.91	873.22	873.10	3.70	3.79	-11.61	-262.46	32.73	260.75	253.43	7.32	35.627		
1,000.00	999.77	972.54	971.45	3.89	3.99	-13.86	-271.35	43.32	266.12	258.39	7.73	34.430		
1,100.00	1,099.63	1,071.86	1,069.80	4.08	4.22	-16.01	-280.23	53.91	271.89	263.74	8.16	33.337		
1,200.00	1,199.50	1,171.17	1,168.15	4.26	4.44	-18.07	-289.12	64.49	278.03	269.45	8.58	32.392		
1,300.00	1,299.34	1,270.22	1,266.19	4.35	4.66	-22.34	-297.85	75.59	284.28	275.38	8.90	31.948		
1,400.00	1,399.04	1,368.55	1,363.27	4.58	4.87	-27.55	-305.97	88.91	289.23	279.89	9.34	30.959		
1,500.00	1,498.51	1,465.94	1,459.11	4.71	5.09	-31.92	-313.44	104.52	293.24	283.56	9.68	30.303		
1,600.00	1,597.91	1,562.32	1,553.59	4.89	5.32	-35.66	-320.25	122.31	298.35	288.27	10.08	29.594		
1,700.00	1,697.32	1,658.69	1,647.68	5.08	5.50	-39.65	-326.55	142.16	305.43	294.98	10.45	29.222		
1,800.00	1,796.72	1,755.98	1,742.60	5.27	5.70	-43.54	-332.84	162.53	314.13	303.30	10.83	28.993		
1,900.00	1,896.13	1,853.26	1,837.52	5.46	5.92	-47.21	-339.12	182.90	324.26	313.04	11.22	28.897		
2,000.00	1,995.54	1,950.54	1,932.44	5.64	6.17	-50.66	-345.40	203.27	335.68	324.07	11.61	28.907		
2,100.00	2,094.94	2,047.83	2,027.36	5.83	6.44	-53.88	-351.68	223.63	348.26	336.28	11.99	29.051		
2,200.00	2,194.35	2,145.11	2,122.28	6.02	6.71	-56.87	-357.97	244.00	361.89	349.53	12.37	29.267		
2,300.00	2,293.76	2,242.39	2,217.20	6.20	6.99	-59.65	-364.25	264.37	376.46	363.71	12.74	29.546		
2,400.00	2,393.16	2,339.68	2,312.12	6.39	7.26	-62.22	-370.53	284.74	391.85	378.73	13.12	29.873		
2,500.00	2,492.57	2,436.96	2,407.04	6.58	7.54	-64.60	-376.81	305.11	407.97	394.47	13.49	30.236		
2,600.00	2,591.98	2,534.25	2,501.96	6.76	7.82	-66.80	-383.10	325.47	424.74	410.87	13.87	30.624		
2,700.00	2,691.38	2,631.53	2,596.88	6.95	8.11	-68.83	-389.38	345.84	442.09	427.84	14.25	31.030		
2,800.00	2,790.79	2,728.81	2,691.80	7.13	8.39	-70.71	-395.66	366.21	459.95	445.32	14.63	31.448		
2,900.00	2,890.20	2,826.10	2,786.71	7.32	8.67	-72.45	-401.94	386.58	478.26	463.26	15.01	31.871		
3,000.00	2,989.60	2,923.38	2,881.63	7.50	8.96	-74.07	-408.23	406.95	496.98	481.59	15.39	32.297		
3,100.00	3,089.01	3,020.66	2,976.55	7.69	9.25	-75.56	-414.51	427.31	516.06	500.29	15.77	32.722		
3,200.00	3,188.42	3,117.95	3,071.47	7.88	9.53	-76.96	-420.79	447.68	535.46	519.30	16.16	33.143		
3,300.00	3,287.82	3,215.23	3,166.39	8.06	9.82	-78.25	-427.07	468.05	555.15	538.60	16.54	33.560		
3,400.00	3,387.23	3,312.51	3,261.31	8.25	10.11	-79.46	-433.35	488.42	575.09	558.16	16.93	33.969		
3,500.00	3,486.64	3,409.80	3,356.23	8.43	10.40	-80.59	-439.64	508.79	595.27	577.95	17.32	34.370		
3,600.00	3,586.04	3,507.08	3,451.15	8.62	10.69	-81.64	-445.92	529.15	615.65	597.94	17.71	34.763		
3,700.00	3,685.45	3,604.36	3,546.07	8.80	10.98	-82.63	-452.20	549.52	636.23	618.13	18.10	35.147		
3,800.00	3,784.86	3,701.65	3,640.99	8.99	11.27	-83.55	-458.48	569.89	656.97	638.48	18.49	35.522		
3,900.00	3,884.26	3,798.93	3,735.91	9.17	11.56	-84.42	-464.77	590.26	677.88	658.99	18.89	35.887		
4,000.00	3,983.67	3,896.21	3,830.83	9.36	11.85	-85.24	-471.05	610.63	698.92	679.64	19.28	36.242		
4,100.00	4,083.08	3,993.50	3,925.75	9.54	12.14	-86.01	-477.33	631.00	720.09	700.41	19.68	36.588		
4,200.00	4,182.48	4,090.78	4,020.67	9.73	12.43	-86.74	-483.61	651.36	741.39	721.31	20.08	36.924		
4,300.00	4,281.89	4,188.06	4,115.59	9.91	12.72	-87.42	-489.90	671.73	762.79	742.31	20.48	37.250		
4,400.00	4,381.30	4,285.35	4,210.51	10.10	13.02	-88.07	-496.18	692.10	784.28	763.41	20.88	37.567		
4,500.00	4,480.70	4,382.63	4,305.43	10.28	13.31	-88.68	-502.46	712.47	805.88	784.60	21.28	37.876		
4,600.00	4,580.11	4,479.91	4,400.35	10.47	13.60	-89.27	-508.74	732.84	827.55	805.87	21.68	38.175		
4,700.00	4,679.51	4,577.20	4,495.27	10.65	13.89	-89.82	-515.03	753.20	849.30	827.22	22.08	38.465		
4,800.00	4,778.92	4,674.48	4,590.19	10.84	14.19	-90.35	-521.31	773.57	871.13	848.65	22.48	38.747		
4,900.00	4,878.33	4,771.76	4,685.11	11.02	14.48	-90.85	-527.59	793.94	893.02	870.13	22.89	39.021		
5,000.00	4,977.73	4,869.05	4,780.03	11.21	14.78	-91.32	-533.87	814.31	914.97	891.68	23.29	39.287		
5,100.00	5,077.14	4,966.33	4,874.95	11.39	15.07	-91.77	-540.16	834.68	936.98	913.29	23.69	39.545		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)		Rule Assigned:		Offset Site Error:		0.00 usft						
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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	
5,200.00	5,176.55	5,063.61	4,969.87	11.58	15.36	-92.21	-546.44	855.04	959.05	934.95	24.10	39.796		
5,300.00	5,275.95	5,160.90	5,064.79	11.76	15.66	-92.62	-552.72	875.41	981.16	956.66	24.50	40.040		
5,400.00	5,375.36	5,258.18	5,159.71	11.95	15.95	-93.02	-559.00	895.78	1,003.33	978.42	24.91	40.277		
5,500.00	5,474.77	5,355.46	5,254.63	12.13	16.25	-93.40	-565.28	916.15	1,025.53	1,000.21	25.32	40.507		
5,600.00	5,574.17	5,452.75	5,349.54	12.32	16.54	-93.76	-571.57	936.52	1,047.78	1,022.05	25.72	40.730		
5,700.00	5,673.58	5,550.03	5,444.46	12.50	16.83	-94.11	-577.85	956.88	1,070.06	1,043.94	26.12	40.962		
5,800.00	5,772.99	5,676.77	5,568.43	12.69	17.18	-94.55	-585.61	982.06	1,091.36	1,064.73	26.63	40.987		
5,900.00	5,872.39	5,813.23	5,702.79	12.87	17.53	-95.07	-592.63	1,004.81	1,109.38	1,082.22	27.16	40.850		
6,000.00	5,971.80	5,951.11	5,839.33	13.06	17.83	-95.62	-598.28	1,023.12	1,124.01	1,096.35	27.65	40.645		
6,100.00	6,071.21	6,090.09	5,977.55	13.24	18.07	-96.22	-602.50	1,036.81	1,135.21	1,107.09	28.12	40.374		
6,200.00	6,170.61	6,229.79	6,116.94	13.43	18.26	-96.87	-605.25	1,045.71	1,142.96	1,114.43	28.54	40.052		
6,300.00	6,270.02	6,369.85	6,256.93	13.61	18.39	-97.58	-606.49	1,049.75	1,147.27	1,118.37	28.90	39.693		
6,400.00	6,369.43	6,482.35	6,369.43	13.80	18.44	-98.18	-606.57	1,050.00	1,148.96	1,119.82	29.15	39.420		
6,500.00	6,468.83	6,581.76	6,468.83	13.98	18.47	-98.71	-606.57	1,050.00	1,150.57	1,121.19	29.38	39.165		
6,600.00	6,568.24	6,681.16	6,568.24	14.17	18.51	-99.24	-606.57	1,050.00	1,152.28	1,122.67	29.61	38.914		
6,700.00	6,667.74	6,780.66	6,667.74	14.34	18.55	-99.75	-606.57	1,050.00	1,153.93	1,124.11	29.82	38.699		
6,800.00	6,767.46	6,880.39	6,767.46	14.53	18.59	-100.13	-606.57	1,050.00	1,155.21	1,125.19	30.02	38.484		
6,900.00	6,867.34	6,980.27	6,867.34	14.70	18.63	-100.37	-606.57	1,050.00	1,156.06	1,125.87	30.19	38.291		
7,000.00	6,967.32	7,080.24	6,967.32	14.86	18.67	-100.48	-606.57	1,050.00	1,156.45	1,126.11	30.34	38.119		
7,100.00	7,067.32	7,180.24	7,067.32	14.88	18.71	89.61	-606.57	1,050.00	1,156.48	1,126.09	30.38	38.062		
7,200.00	7,167.32	7,280.24	7,167.32	14.90	18.75	89.61	-606.57	1,050.00	1,156.48	1,126.03	30.45	37.985		
7,300.00	7,267.32	7,380.24	7,267.32	14.93	18.79	89.61	-606.57	1,050.00	1,156.48	1,125.97	30.51	37.907		
7,400.00	7,367.32	7,480.24	7,367.32	14.95	18.84	89.61	-606.57	1,050.00	1,156.48	1,125.91	30.57	37.829		
7,500.00	7,467.32	7,580.24	7,467.32	14.98	18.88	89.61	-606.57	1,050.00	1,156.48	1,125.84	30.64	37.749		
7,600.00	7,567.32	7,680.24	7,567.32	15.01	18.92	89.61	-606.57	1,050.00	1,156.48	1,125.78	30.70	37.670		
7,700.00	7,667.32	7,780.24	7,667.32	15.03	18.96	89.61	-606.57	1,050.00	1,156.48	1,125.71	30.77	37.590		
7,800.00	7,767.32	7,880.24	7,767.32	15.06	19.00	89.61	-606.57	1,050.00	1,156.48	1,125.65	30.83	37.509		
7,900.00	7,867.32	7,980.24	7,867.32	15.09	19.05	89.61	-606.57	1,050.00	1,156.48	1,125.58	30.90	37.427		
8,000.00	7,967.32	8,080.24	7,967.32	15.12	19.09	89.61	-606.57	1,050.00	1,156.48	1,125.51	30.97	37.346		
8,100.00	8,067.32	8,180.24	8,067.32	15.15	19.13	89.61	-606.57	1,050.00	1,156.48	1,125.44	31.04	37.263		
8,200.00	8,167.32	8,280.24	8,167.32	15.18	19.18	89.61	-606.57	1,050.00	1,156.48	1,125.37	31.10	37.181		
8,300.00	8,267.32	8,380.24	8,267.32	15.21	19.22	89.61	-606.57	1,050.00	1,156.48	1,125.30	31.17	37.097		
8,400.00	8,367.32	8,480.24	8,367.32	15.24	19.26	89.61	-606.57	1,050.00	1,156.48	1,125.23	31.24	37.014		
8,500.00	8,467.32	8,580.24	8,467.32	15.27	19.31	89.61	-606.57	1,050.00	1,156.48	1,125.16	31.32	36.929		
8,600.00	8,567.32	8,680.24	8,567.32	15.30	19.35	89.61	-606.57	1,050.00	1,156.48	1,125.09	31.39	36.845		
8,700.00	8,667.32	8,780.24	8,667.32	15.33	19.40	89.61	-606.57	1,050.00	1,156.48	1,125.02	31.46	36.760		
8,800.00	8,767.32	8,880.24	8,767.32	15.36	19.44	89.61	-606.57	1,050.00	1,156.48	1,124.94	31.53	36.674		
8,900.00	8,867.32	8,980.24	8,867.32	15.39	19.49	89.61	-606.57	1,050.00	1,156.48	1,124.87	31.61	36.589		
9,000.00	8,967.32	9,080.24	8,967.32	15.43	19.53	89.61	-606.57	1,050.00	1,156.48	1,124.80	31.68	36.503		
9,100.00	9,067.32	9,180.24	9,067.32	15.46	19.58	89.61	-606.57	1,050.00	1,156.48	1,124.72	31.76	36.416		
9,200.00	9,167.32	9,280.24	9,167.32	15.49	19.62	89.61	-606.57	1,050.00	1,156.48	1,124.64	31.83	36.329		
9,300.00	9,267.32	9,380.24	9,267.32	15.53	19.67	89.61	-606.57	1,050.00	1,156.48	1,124.57	31.91	36.242		
9,400.00	9,367.32	9,480.24	9,367.32	15.56	19.72	89.61	-606.57	1,050.00	1,156.48	1,124.49	31.99	36.154		
9,500.00	9,467.32	9,580.24	9,467.32	15.59	19.76	89.61	-606.57	1,050.00	1,156.48	1,124.41	32.06	36.067		
9,600.00	9,567.32	9,680.24	9,567.32	15.63	19.81	89.61	-606.57	1,050.00	1,156.48	1,124.33	32.14	35.979		
9,700.00	9,667.32	9,780.24	9,667.32	15.66	19.86	89.61	-606.57	1,050.00	1,156.48	1,124.25	32.22	35.890		
9,800.00	9,767.32	9,880.24	9,767.32	15.70	19.90	89.61	-606.57	1,050.00	1,156.48	1,124.17	32.30	35.801		
9,900.00	9,867.32	9,980.24	9,867.32	15.73	19.95	89.61	-606.57	1,050.00	1,156.48	1,124.09	32.38	35.713		
10,000.00	9,967.32	10,080.24	9,967.32	15.77	20.00	89.61	-606.57	1,050.00	1,156.48	1,124.01	32.46	35.623		
10,100.00	10,067.32	10,180.24	10,067.32	15.81	20.05	89.61	-606.57	1,050.00	1,156.48	1,123.93	32.55	35.534		
10,200.00	10,167.32	10,280.24	10,167.32	15.84	20.09	89.61	-606.57	1,050.00	1,156.48	1,123.85	32.63	35.444		
10,300.00	10,267.32	10,380.24	10,267.32	15.88	20.14	89.61	-606.57	1,050.00	1,156.48	1,123.77	32.71	35.355		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)		Rule Assigned:		Offset Site Error:		0.00 usft					
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		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
15,400.00	12,444.67	14,624.14	11,584.68	53.69	52.81	-52.10	-3,791.17	1,027.00	1,399.85	1,307.55	92.30	15.167	
15,500.00	12,445.19	14,724.14	11,585.20	55.02	54.07	-52.10	-3,891.17	1,027.90	1,399.85	1,305.53	94.31	14.842	
15,600.00	12,445.72	14,824.14	11,585.73	56.35	55.34	-52.09	-3,991.16	1,028.80	1,399.84	1,303.50	96.34	14.530	
15,700.00	12,446.24	14,924.14	11,586.25	57.69	56.62	-52.09	-4,091.16	1,029.70	1,399.84	1,301.46	98.38	14.229	
15,800.00	12,446.77	15,024.14	11,586.78	59.02	57.90	-52.09	-4,191.15	1,030.60	1,399.83	1,299.41	100.42	13.940	
15,900.00	12,447.29	15,124.14	11,587.30	60.36	59.18	-52.09	-4,291.15	1,031.51	1,399.82	1,297.35	102.47	13.661	
16,000.00	12,447.82	15,224.14	11,587.83	61.69	60.46	-52.09	-4,391.14	1,032.41	1,399.82	1,295.29	104.53	13.392	
16,100.00	12,448.34	15,324.14	11,588.35	63.03	61.75	-52.09	-4,491.14	1,033.31	1,399.81	1,293.22	106.59	13.132	
16,200.00	12,448.87	15,424.14	11,588.88	64.37	63.05	-52.09	-4,591.13	1,034.21	1,399.81	1,291.14	108.67	12.882	
16,300.00	12,449.39	15,524.14	11,589.40	65.72	64.34	-52.09	-4,691.12	1,035.11	1,399.80	1,289.06	110.75	12.640	
16,400.00	12,449.92	15,624.14	11,589.93	67.06	65.64	-52.09	-4,791.12	1,036.01	1,399.80	1,286.97	112.83	12.406	
16,500.00	12,450.44	15,724.14	11,590.45	68.40	66.94	-52.09	-4,891.11	1,036.92	1,399.79	1,284.87	114.92	12.181	
16,600.00	12,450.97	15,824.14	11,590.98	69.75	68.25	-52.09	-4,991.11	1,037.82	1,399.78	1,282.77	117.02	11.962	
16,700.00	12,451.49	15,924.14	11,591.50	71.09	69.55	-52.09	-5,091.10	1,038.72	1,399.78	1,280.66	119.12	11.751	
16,800.00	12,452.02	16,024.14	11,592.03	72.44	70.86	-52.09	-5,191.10	1,039.62	1,399.77	1,278.55	121.22	11.547	
16,900.00	12,452.54	16,124.14	11,592.55	73.79	72.17	-52.09	-5,291.09	1,040.52	1,399.77	1,276.44	123.33	11.350	
17,000.00	12,453.07	16,224.14	11,593.08	75.13	73.48	-52.09	-5,391.09	1,041.42	1,399.76	1,274.32	125.44	11.158	
17,100.00	12,453.59	16,324.14	11,593.60	76.48	74.80	-52.09	-5,491.08	1,042.32	1,399.76	1,272.19	127.56	10.973	
17,200.00	12,454.12	16,424.14	11,594.13	77.83	76.11	-52.09	-5,591.08	1,043.23	1,399.75	1,270.07	129.68	10.794	
17,300.00	12,454.64	16,524.14	11,594.65	79.18	77.43	-52.09	-5,691.07	1,044.13	1,399.74	1,267.94	131.81	10.619	
17,400.00	12,455.17	16,624.14	11,595.17	80.53	78.75	-52.09	-5,791.07	1,045.03	1,399.74	1,265.80	133.94	10.451	
17,500.00	12,455.69	16,724.14	11,595.70	81.89	80.07	-52.09	-5,891.06	1,045.93	1,399.73	1,263.66	136.07	10.287	
17,600.00	12,456.22	16,824.14	11,596.22	83.24	81.40	-52.09	-5,991.05	1,046.83	1,399.73	1,261.52	138.21	10.128	
17,700.00	12,456.74	16,924.14	11,596.75	84.59	82.72	-52.09	-6,091.05	1,047.73	1,399.72	1,259.38	140.34	9.973	
17,800.00	12,457.27	17,024.14	11,597.27	85.94	84.05	-52.09	-6,191.04	1,048.64	1,399.72	1,257.23	142.49	9.824	
17,900.00	12,457.79	17,124.14	11,597.80	87.30	85.38	-52.09	-6,291.04	1,049.54	1,399.71	1,255.08	144.63	9.678	
18,000.00	12,458.32	17,224.14	11,598.32	88.65	86.70	-52.09	-6,391.03	1,050.44	1,399.71	1,252.93	146.78	9.536	
18,100.00	12,458.84	17,324.14	11,598.85	90.01	88.03	-52.09	-6,491.03	1,051.34	1,399.70	1,250.77	148.93	9.399	
18,200.00	12,459.37	17,424.14	11,599.37	91.36	89.37	-52.09	-6,591.02	1,052.24	1,399.69	1,248.62	151.08	9.265	
18,300.00	12,459.89	17,524.14	11,599.90	92.72	90.70	-52.09	-6,691.02	1,053.14	1,399.69	1,246.46	153.23	9.134	
18,400.00	12,460.42	17,624.14	11,600.42	94.07	92.03	-52.09	-6,791.01	1,054.04	1,399.68	1,244.30	155.39	9.008	
18,500.00	12,460.94	17,724.14	11,600.95	95.43	93.36	-52.09	-6,891.01	1,054.95	1,399.68	1,242.13	157.55	8.884	
18,600.00	12,461.47	17,824.14	11,601.47	96.79	94.70	-52.09	-6,991.00	1,055.85	1,399.67	1,239.97	159.71	8.764	
18,700.00	12,461.99	17,924.14	11,602.00	98.15	96.04	-52.09	-7,090.99	1,056.75	1,399.67	1,237.80	161.87	8.647	
18,800.00	12,462.52	18,024.14	11,602.52	99.50	97.37	-52.09	-7,190.99	1,057.65	1,399.66	1,235.63	164.03	8.533	
18,900.00	12,463.04	18,124.14	11,603.05	100.86	98.71	-52.09	-7,290.98	1,058.55	1,399.65	1,233.46	166.20	8.422	
19,000.00	12,463.57	18,224.14	11,603.57	102.22	100.05	-52.09	-7,390.98	1,059.45	1,399.65	1,231.28	168.37	8.313	
19,100.00	12,464.09	18,324.14	11,604.10	103.58	101.39	-52.09	-7,490.97	1,060.35	1,399.64	1,229.11	170.54	8.207	
19,200.00	12,464.62	18,424.14	11,604.62	104.94	102.73	-52.09	-7,590.97	1,061.26	1,399.64	1,226.93	172.71	8.104	
19,300.00	12,465.14	18,524.14	11,605.15	106.29	104.07	-52.09	-7,690.96	1,062.16	1,399.63	1,224.75	174.88	8.003	
19,400.00	12,465.67	18,624.14	11,605.67	107.65	105.41	-52.09	-7,790.96	1,063.06	1,399.63	1,222.57	177.05	7.905	
19,500.00	12,466.19	18,724.14	11,606.20	109.01	106.75	-52.09	-7,890.95	1,063.96	1,399.62	1,220.39	179.23	7.809	
19,600.00	12,466.72	18,824.14	11,606.72	110.37	108.10	-52.09	-7,990.95	1,064.86	1,399.62	1,218.21	181.41	7.715	
19,700.00	12,467.24	18,924.14	11,607.25	111.73	109.44	-52.09	-8,090.94	1,065.76	1,399.61	1,216.03	183.58	7.624	
19,800.00	12,467.77	19,024.14	11,607.77	113.09	110.79	-52.09	-8,190.93	1,066.67	1,399.60	1,213.84	185.76	7.534	
19,900.00	12,468.29	19,124.14	11,608.29	114.45	112.13	-52.09	-8,290.93	1,067.57	1,399.60	1,211.65	187.94	7.447	
20,000.00	12,468.82	19,224.14	11,608.82	115.82	113.48	-52.09	-8,390.92	1,068.47	1,399.59	1,209.47	190.13	7.361	
20,100.00	12,469.34	19,324.14	11,609.34	117.18	114.82	-52.09	-8,490.92	1,069.37	1,399.59	1,207.28	192.31	7.278	
20,200.00	12,469.87	19,424.14	11,609.87	118.54	116.17	-52.09	-8,590.91	1,070.27	1,399.58	1,205.09	194.49	7.196	
20,300.00	12,470.39	19,524.14	11,610.39	119.90	117.52	-52.09	-8,690.91	1,071.17	1,399.58	1,202.90	196.68	7.116	
20,400.00	12,470.92	19,624.14	11,610.92	121.26	118.86	-52.09	-8,790.90	1,072.07	1,399.57	1,200.71	198.86	7.038	
20,500.00	12,471.44	19,724.14	11,611.44	122.62	120.21	-52.09	-8,890.90	1,072.98	1,399.56	1,198.51	201.05	6.961	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)			
20,600.00	12,471.97	19,824.14	11,611.97	123.98	121.56	-52.09	-8,990.89	1,073.88	1,399.56	1,196.32	203.24	6.886	
20,700.00	12,472.50	19,924.14	11,612.49	125.35	122.91	-52.08	-9,090.89	1,074.78	1,399.55	1,194.12	205.43	6.813	
20,800.00	12,473.02	20,024.14	11,613.02	126.71	124.26	-52.08	-9,190.88	1,075.68	1,399.55	1,191.93	207.62	6.741	
20,900.00	12,473.55	20,124.14	11,613.54	128.07	125.61	-52.08	-9,290.87	1,076.58	1,399.54	1,189.73	209.81	6.671	
21,000.00	12,474.07	20,224.14	11,614.07	129.43	126.96	-52.08	-9,390.87	1,077.48	1,399.54	1,187.53	212.00	6.602	
21,100.00	12,474.60	20,324.14	11,614.59	130.80	128.31	-52.08	-9,490.86	1,078.38	1,399.53	1,185.34	214.20	6.534	
21,200.00	12,475.12	20,424.14	11,615.12	132.16	129.66	-52.08	-9,590.86	1,079.29	1,399.52	1,183.14	216.39	6.468	
21,300.00	12,475.65	20,524.14	11,615.64	133.52	131.01	-52.08	-9,690.85	1,080.19	1,399.52	1,180.94	218.58	6.403	
21,400.00	12,476.17	20,624.14	11,616.17	134.88	132.36	-52.08	-9,790.85	1,081.09	1,399.51	1,178.74	220.78	6.339	
21,500.00	12,476.70	20,724.14	11,616.69	136.25	133.72	-52.08	-9,890.84	1,081.99	1,399.51	1,176.53	222.97	6.277	
21,600.00	12,477.22	20,824.14	11,617.22	137.61	135.07	-52.08	-9,990.84	1,082.89	1,399.50	1,174.33	225.17	6.215	
21,700.00	12,477.75	20,924.14	11,617.74	138.97	136.42	-52.08	-10,090.83	1,083.79	1,399.50	1,172.13	227.37	6.155	
21,800.00	12,478.27	21,024.14	11,618.27	140.34	137.77	-52.08	-10,190.83	1,084.70	1,399.49	1,169.93	229.57	6.096	
21,900.00	12,478.80	21,124.14	11,618.79	141.70	139.13	-52.08	-10,290.82	1,085.60	1,399.49	1,167.72	231.76	6.038	
22,000.00	12,479.32	21,224.14	11,619.32	143.06	140.48	-52.08	-10,390.81	1,086.50	1,399.48	1,165.52	233.96	5.982	
22,100.00	12,479.85	21,324.14	11,619.84	144.43	141.84	-52.08	-10,490.81	1,087.40	1,399.47	1,163.31	236.16	5.926	
22,200.00	12,480.37	21,424.14	11,620.36	145.79	143.19	-52.08	-10,590.80	1,088.30	1,399.47	1,161.11	238.36	5.871	
22,300.00	12,480.90	21,524.14	11,620.89	147.16	144.55	-52.08	-10,690.80	1,089.20	1,399.46	1,158.90	240.56	5.817	
22,400.00	12,481.42	21,624.14	11,621.41	148.52	145.90	-52.08	-10,790.79	1,090.10	1,399.46	1,156.69	242.77	5.765	
22,500.00	12,481.95	21,724.14	11,621.94	149.89	147.26	-52.08	-10,890.79	1,091.01	1,399.45	1,154.48	244.97	5.713	
22,600.00	12,482.47	21,824.14	11,622.46	151.25	148.61	-52.08	-10,990.78	1,091.91	1,399.45	1,152.28	247.17	5.662	
22,700.00	12,483.00	21,924.14	11,622.99	152.61	149.97	-52.08	-11,090.78	1,092.81	1,399.44	1,150.07	249.37	5.612	
22,719.79	12,483.10	21,943.92	11,623.09	152.85	150.23	-52.08	-11,110.56	1,092.99	1,399.44	1,149.66	249.78	5.603	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,700.00	2,691.38	2,976.31	2,974.22	6.95	7.12	64.28	-852.01	-2,332.92	2,419.73	2,406.07	13.66	177.146	
2,800.00	2,790.79	3,073.45	3,070.41	7.13	7.26	64.69	-841.73	-2,324.15	2,403.35	2,389.37	13.98	171.913	
2,900.00	2,890.20	3,170.58	3,166.60	7.32	7.41	65.10	-831.45	-2,315.38	2,387.09	2,372.79	14.30	166.904	
3,000.00	2,989.60	3,267.72	3,262.79	7.50	7.56	65.52	-821.17	-2,306.61	2,370.96	2,356.34	14.63	162.107	
3,100.00	3,089.01	3,364.85	3,358.98	7.69	7.71	65.95	-810.89	-2,297.83	2,354.96	2,340.01	14.95	157.511	
3,200.00	3,188.42	3,461.98	3,455.17	7.88	7.87	66.38	-800.61	-2,289.06	2,339.09	2,323.81	15.28	153.105	
3,300.00	3,287.82	3,559.12	3,551.35	8.06	8.02	66.81	-790.33	-2,280.29	2,323.36	2,307.75	15.61	148.881	
3,400.00	3,387.23	3,656.25	3,647.54	8.25	8.18	67.26	-780.05	-2,271.51	2,307.76	2,291.83	15.93	144.828	
3,500.00	3,486.64	3,753.39	3,743.73	8.43	8.34	67.70	-769.76	-2,262.74	2,292.30	2,276.04	16.26	140.937	
3,600.00	3,586.04	3,850.52	3,839.92	8.62	8.50	68.16	-759.48	-2,253.97	2,276.99	2,260.40	16.60	137.201	
3,700.00	3,685.45	3,947.65	3,936.11	8.80	8.66	68.62	-749.20	-2,245.20	2,261.82	2,244.90	16.93	133.612	
3,800.00	3,784.86	4,044.79	4,032.30	8.99	8.82	69.08	-738.92	-2,236.42	2,246.81	2,229.55	17.26	130.163	
3,900.00	3,884.26	4,141.92	4,128.49	9.17	8.99	69.55	-728.64	-2,227.65	2,231.94	2,214.35	17.60	126.847	
4,000.00	3,983.67	4,239.05	4,224.68	9.36	9.15	70.03	-718.36	-2,218.88	2,217.23	2,199.30	17.93	123.657	
4,100.00	4,083.08	4,336.19	4,320.87	9.54	9.32	70.51	-708.08	-2,210.10	2,202.68	2,184.41	18.27	120.587	
4,200.00	4,182.48	4,433.32	4,417.06	9.73	9.49	71.00	-697.80	-2,201.33	2,188.29	2,169.69	18.60	117.633	
4,300.00	4,281.89	4,530.46	4,513.25	9.91	9.65	71.50	-687.52	-2,192.56	2,174.06	2,155.12	18.94	114.787	
4,400.00	4,381.30	4,627.59	4,609.43	10.10	9.82	72.00	-677.24	-2,183.78	2,160.00	2,140.73	19.28	112.046	
4,500.00	4,480.70	4,724.72	4,705.62	10.28	9.99	72.51	-666.96	-2,175.01	2,146.12	2,126.50	19.62	109.404	
4,600.00	4,580.11	4,818.56	4,798.54	10.47	10.15	73.01	-657.03	-2,166.54	2,132.41	2,112.47	19.94	106.942	
4,700.00	4,679.51	4,900.00	4,879.31	10.65	10.28	73.43	-649.07	-2,159.74	2,119.60	2,099.35	20.25	104.684	
4,800.00	4,778.92	4,959.11	4,938.05	10.84	10.39	73.72	-644.11	-2,155.51	2,108.19	2,087.65	20.54	102.652	
4,900.00	4,878.33	5,029.00	5,007.64	11.02	10.52	74.04	-639.14	-2,151.27	2,098.27	2,077.43	20.84	100.705	
5,000.00	4,977.73	5,100.00	5,078.44	11.21	10.65	74.34	-635.08	-2,147.80	2,089.79	2,068.66	21.13	98.903	
5,100.00	5,077.14	5,170.13	5,148.45	11.39	10.77	74.62	-632.05	-2,145.22	2,082.74	2,061.33	21.41	97.269	
5,200.00	5,176.55	5,241.28	5,219.55	11.58	10.89	74.88	-629.98	-2,143.46	2,077.11	2,055.42	21.69	95.771	
5,300.00	5,275.95	5,312.76	5,291.02	11.76	11.00	75.11	-628.92	-2,142.55	2,072.87	2,050.92	21.95	94.437	
5,400.00	5,375.36	5,397.10	5,375.36	11.95	11.05	75.36	-628.77	-2,142.42	2,069.88	2,047.71	22.17	93.358	
5,500.00	5,474.77	5,496.51	5,474.77	12.13	11.14	75.65	-628.77	-2,142.42	2,067.14	2,044.71	22.44	92.137	
5,600.00	5,574.17	5,595.92	5,574.17	12.32	11.24	75.94	-628.77	-2,142.42	2,064.46	2,041.76	22.70	90.943	
5,700.00	5,673.58	5,695.32	5,673.58	12.50	11.33	76.23	-628.77	-2,142.42	2,061.83	2,038.86	22.97	89.779	
5,800.00	5,772.99	5,794.73	5,772.99	12.69	11.42	76.53	-628.77	-2,142.42	2,059.25	2,036.02	23.23	88.646	
5,900.00	5,872.39	5,894.14	5,872.39	12.87	11.52	76.82	-628.77	-2,142.42	2,056.73	2,033.24	23.49	87.541	
6,000.00	5,971.80	5,993.54	5,971.80	13.06	11.61	77.11	-628.77	-2,142.42	2,054.26	2,030.51	23.76	86.463	
6,100.00	6,071.21	6,092.95	6,071.21	13.24	11.70	77.41	-628.77	-2,142.42	2,051.85	2,027.83	24.02	85.413	
6,200.00	6,170.61	6,192.36	6,170.61	13.43	11.79	77.70	-628.77	-2,142.42	2,049.49	2,025.21	24.29	84.388	
6,300.00	6,270.02	6,291.76	6,270.02	13.61	11.89	78.00	-628.77	-2,142.42	2,047.19	2,022.64	24.55	83.388	
6,400.00	6,369.43	6,391.17	6,369.43	13.80	11.98	78.30	-628.77	-2,142.42	2,044.94	2,020.13	24.81	82.412	
6,500.00	6,468.83	6,490.58	6,468.83	13.98	12.07	78.59	-628.77	-2,142.42	2,042.75	2,017.68	25.08	81.459	
6,600.00	6,568.24	6,589.98	6,568.24	14.17	12.16	78.89	-628.77	-2,142.42	2,040.62	2,015.28	25.34	80.529	
6,700.00	6,667.74	6,689.48	6,667.74	14.34	12.25	79.14	-628.77	-2,142.42	2,038.71	2,013.13	25.58	79.703	
6,800.00	6,767.46	6,789.21	6,767.46	14.53	12.34	79.32	-628.77	-2,142.42	2,037.32	2,011.51	25.82	78.920	
6,900.00	6,867.34	6,889.09	6,867.34	14.70	12.44	79.44	-628.77	-2,142.42	2,036.44	2,010.41	26.03	78.233	
7,000.00	6,967.32	6,989.06	6,967.32	14.86	12.53	79.50	-628.77	-2,142.42	2,036.05	2,009.82	26.22	77.639	
7,090.01	7,057.33	7,079.07	7,057.33	14.87	12.61	79.51	-628.77	-2,142.42	2,035.97	2,009.66	26.31	77.379	CC
7,100.00	7,067.32	7,089.06	7,067.32	14.88	12.62	-90.40	-628.77	-2,142.42	2,036.02	2,009.70	26.32	77.352	
7,200.00	7,167.32	7,189.06	7,167.32	14.90	12.71	-90.40	-628.77	-2,142.42	2,036.02	2,009.59	26.43	77.020	
7,300.00	7,267.32	7,289.06	7,267.32	14.93	12.80	-90.40	-628.77	-2,142.42	2,036.02	2,009.47	26.55	76.691	
7,400.00	7,367.32	7,389.06	7,367.32	14.95	12.89	-90.40	-628.77	-2,142.42	2,036.02	2,009.36	26.66	76.364	
7,500.00	7,467.32	7,489.06	7,467.32	14.98	12.99	-90.40	-628.77	-2,142.42	2,036.02	2,009.24	26.78	76.038	
7,600.00	7,567.32	7,589.06	7,567.32	15.01	13.08	-90.40	-628.77	-2,142.42	2,036.02	2,009.13	26.89	75.715	
7,700.00	7,667.32	7,689.06	7,667.32	15.03	13.17	-90.40	-628.77	-2,142.42	2,036.02	2,009.01	27.01	75.393	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	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
7,800.00	7,767.32	7,789.06	7,767.32	15.06	13.26	-90.40	-628.77	-2,142.42	2,036.02	2,008.90	27.12	75.073	
7,900.00	7,867.32	7,889.06	7,867.32	15.09	13.35	-90.40	-628.77	-2,142.42	2,036.02	2,008.78	27.24	74.755	
8,000.00	7,967.32	7,989.06	7,967.32	15.12	13.44	-90.40	-628.77	-2,142.42	2,036.02	2,008.67	27.35	74.439	
8,100.00	8,067.32	8,089.06	8,067.32	15.15	13.53	-90.40	-628.77	-2,142.42	2,036.02	2,008.55	27.47	74.125	
8,200.00	8,167.32	8,189.06	8,167.32	15.18	13.62	-90.40	-628.77	-2,142.42	2,036.02	2,008.44	27.58	73.813	
8,300.00	8,267.32	8,289.06	8,267.32	15.21	13.71	-90.40	-628.77	-2,142.42	2,036.02	2,008.32	27.70	73.502	
8,400.00	8,367.32	8,389.06	8,367.32	15.24	13.80	-90.40	-628.77	-2,142.42	2,036.02	2,008.20	27.82	73.193	
8,500.00	8,467.32	8,489.06	8,467.32	15.27	13.89	-90.40	-628.77	-2,142.42	2,036.02	2,008.09	27.93	72.886	
8,600.00	8,567.32	8,589.06	8,567.32	15.30	13.98	-90.40	-628.77	-2,142.42	2,036.02	2,007.97	28.05	72.581	
8,700.00	8,667.32	8,689.06	8,667.32	15.33	14.07	-90.40	-628.77	-2,142.42	2,036.02	2,007.85	28.17	72.277	
8,800.00	8,767.32	8,789.06	8,767.32	15.36	14.16	-90.40	-628.77	-2,142.42	2,036.02	2,007.73	28.29	71.975	
8,900.00	8,867.32	8,889.06	8,867.32	15.39	14.25	-90.40	-628.77	-2,142.42	2,036.02	2,007.61	28.41	71.675	
9,000.00	8,967.32	8,989.06	8,967.32	15.43	14.34	-90.40	-628.77	-2,142.42	2,036.02	2,007.50	28.52	71.377	
9,100.00	9,067.32	9,089.06	9,067.32	15.46	14.43	-90.40	-628.77	-2,142.42	2,036.02	2,007.38	28.64	71.080	
9,200.00	9,167.32	9,189.06	9,167.32	15.49	14.52	-90.40	-628.77	-2,142.42	2,036.02	2,007.26	28.76	70.785	
9,300.00	9,267.32	9,289.06	9,267.32	15.53	14.61	-90.40	-628.77	-2,142.42	2,036.02	2,007.14	28.88	70.492	
9,400.00	9,367.32	9,389.06	9,367.32	15.56	14.70	-90.40	-628.77	-2,142.42	2,036.02	2,007.02	29.00	70.201	
9,500.00	9,467.32	9,489.06	9,467.32	15.59	14.79	-90.40	-628.77	-2,142.42	2,036.02	2,006.90	29.12	69.911	
9,600.00	9,567.32	9,589.06	9,567.32	15.63	14.88	-90.40	-628.77	-2,142.42	2,036.02	2,006.78	29.24	69.623	
9,700.00	9,667.32	9,689.06	9,667.32	15.66	14.96	-90.40	-628.77	-2,142.42	2,036.02	2,006.66	29.36	69.336	
9,800.00	9,767.32	9,789.06	9,767.32	15.70	15.05	-90.40	-628.77	-2,142.42	2,036.02	2,006.53	29.49	69.051	
9,900.00	9,867.32	9,889.06	9,867.32	15.73	15.14	-90.40	-628.77	-2,142.42	2,036.02	2,006.41	29.61	68.768	
10,000.00	9,967.32	9,989.06	9,967.32	15.77	15.23	-90.40	-628.77	-2,142.42	2,036.02	2,006.29	29.73	68.486	
10,100.00	10,067.32	10,089.06	10,067.32	15.81	15.32	-90.40	-628.77	-2,142.42	2,036.02	2,006.17	29.85	68.206	
10,200.00	10,167.32	10,189.06	10,167.32	15.84	15.41	-90.40	-628.77	-2,142.42	2,036.02	2,006.05	29.97	67.928	
10,300.00	10,267.32	10,289.06	10,267.32	15.88	15.50	-90.40	-628.77	-2,142.42	2,036.02	2,005.92	30.10	67.651	
10,400.00	10,367.32	10,389.06	10,367.32	15.92	15.59	-90.40	-628.77	-2,142.42	2,036.02	2,005.80	30.22	67.376	
10,500.00	10,467.32	10,489.06	10,467.32	15.95	15.67	-90.40	-628.77	-2,142.42	2,036.02	2,005.68	30.34	67.102	
10,600.00	10,567.32	10,589.06	10,567.32	15.99	15.76	-90.40	-628.77	-2,142.42	2,036.02	2,005.55	30.47	66.830	
10,700.00	10,667.32	10,689.06	10,667.32	16.03	15.85	-90.40	-628.77	-2,142.42	2,036.02	2,005.43	30.59	66.560	
10,800.00	10,767.32	10,789.06	10,767.32	16.07	15.94	-90.40	-628.77	-2,142.42	2,036.02	2,005.31	30.71	66.291	
10,900.00	10,867.32	10,889.06	10,867.32	16.11	16.03	-90.40	-628.77	-2,142.42	2,036.02	2,005.18	30.84	66.024	
11,000.00	10,967.32	10,989.06	10,967.32	16.15	16.11	-90.40	-628.77	-2,142.42	2,036.02	2,005.06	30.96	65.758	
11,100.00	11,067.32	11,089.06	11,067.32	16.19	16.20	-90.40	-628.77	-2,142.42	2,036.02	2,004.93	31.09	65.494	
11,200.00	11,167.32	11,189.06	11,167.32	16.23	16.29	-90.40	-628.77	-2,142.42	2,036.02	2,004.81	31.21	65.231	
11,300.00	11,267.32	11,289.06	11,267.32	16.27	16.38	-90.40	-628.77	-2,142.42	2,036.02	2,004.68	31.34	64.970	
11,400.00	11,367.32	11,389.06	11,367.32	16.31	16.47	-90.40	-628.77	-2,142.42	2,036.02	2,004.56	31.46	64.710	
11,500.00	11,467.32	11,489.06	11,467.32	16.35	16.55	-90.40	-628.77	-2,142.42	2,036.02	2,004.43	31.59	64.452	
11,600.00	11,567.32	11,589.06	11,567.32	16.39	16.64	-90.40	-628.77	-2,142.42	2,036.02	2,004.30	31.72	64.195	
11,700.00	11,667.32	11,689.06	11,667.32	16.43	16.73	-90.40	-628.77	-2,142.42	2,036.02	2,004.18	31.84	63.940	
11,800.00	11,767.32	11,789.06	11,767.32	16.47	16.82	-90.40	-628.77	-2,142.42	2,036.02	2,004.05	31.97	63.680	
11,881.11	11,848.42	11,870.32	11,848.44	16.50	16.88	90.03	-632.45	-2,142.39	2,036.02	2,004.02	32.00	63.621	
11,900.00	11,867.32	11,888.95	11,866.92	16.51	16.89	89.95	-634.86	-2,142.37	2,036.02	2,004.02	32.00	63.632	
12,000.00	11,966.66	11,986.58	11,961.83	16.75	16.93	89.59	-657.19	-2,142.18	2,036.08	2,004.08	32.01	63.616	
12,100.00	12,062.69	12,082.22	12,049.83	17.02	16.98	89.25	-694.37	-2,141.86	2,036.22	2,004.12	32.11	63.418	
12,200.00	12,152.51	12,176.11	12,129.03	17.30	17.03	88.93	-744.59	-2,141.42	2,036.43	2,004.10	32.33	62.984	
12,300.00	12,233.38	12,268.50	12,197.94	17.56	17.08	88.65	-805.97	-2,140.89	2,036.67	2,003.96	32.71	62.264	
12,400.00	12,302.84	12,359.63	12,255.39	17.80	17.13	88.40	-876.59	-2,140.29	2,036.93	2,003.66	33.27	61.224	
12,500.00	12,358.79	12,450.00	12,300.61	18.10	17.19	88.20	-954.72	-2,139.61	2,037.18	2,003.16	34.03	59.869	
12,600.00	12,399.52	12,539.10	12,332.62	18.99	17.27	88.05	-1,037.78	-2,138.90	2,037.40	2,002.41	34.99	58.228	
12,700.00	12,423.80	12,627.94	12,351.36	19.97	17.37	87.95	-1,124.52	-2,138.15	2,037.56	2,001.43	36.13	56.388	
12,800.00	12,431.01	12,718.34	12,356.65	21.01	17.53	87.91	-1,214.68	-2,137.38	2,037.65	2,000.21	37.44	54.426	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	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
12,900.00	12,431.54	12,818.34	12,357.18	22.11	17.77	87.91	-1,314.68	-2,136.51	2,037.70	1,998.77	38.93	52.339	
13,000.00	12,432.07	12,918.34	12,357.70	23.23	18.11	87.91	-1,414.67	-2,135.65	2,037.75	1,997.19	40.56	50.246	
13,100.00	12,432.59	13,018.34	12,358.22	24.37	18.58	87.91	-1,514.67	-2,134.79	2,037.80	1,995.50	42.29	48.182	
13,200.00	12,433.12	13,118.34	12,358.75	25.54	19.15	87.91	-1,614.66	-2,133.93	2,037.85	1,993.71	44.14	46.172	
13,300.00	12,433.64	13,218.34	12,359.27	26.73	19.83	87.91	-1,714.66	-2,133.07	2,037.89	1,991.82	46.07	44.234	
13,400.00	12,434.17	13,318.34	12,359.79	27.93	20.59	87.91	-1,814.65	-2,132.21	2,037.94	1,989.85	48.09	42.380	
13,500.00	12,434.69	13,418.34	12,360.32	29.15	21.42	87.91	-1,914.65	-2,131.35	2,037.99	1,987.81	50.18	40.616	
13,600.00	12,435.22	13,518.34	12,360.84	30.38	22.31	87.91	-2,014.64	-2,130.49	2,038.04	1,985.71	52.33	38.946	
13,700.00	12,435.74	13,618.34	12,361.37	31.62	23.25	87.91	-2,114.64	-2,129.63	2,038.08	1,983.55	54.54	37.369	
13,800.00	12,436.27	13,718.34	12,361.89	32.87	24.23	87.91	-2,214.63	-2,128.77	2,038.13	1,981.34	56.80	35.884	
13,900.00	12,436.79	13,818.34	12,362.41	34.13	25.25	87.91	-2,314.63	-2,127.90	2,038.18	1,979.08	59.10	34.488	
14,000.00	12,437.32	13,918.34	12,362.94	35.40	26.31	87.91	-2,414.62	-2,127.04	2,038.23	1,976.79	61.44	33.175	
14,100.00	12,437.84	14,018.34	12,363.46	36.68	27.40	87.91	-2,514.62	-2,126.18	2,038.28	1,974.46	63.81	31.941	
14,200.00	12,438.37	14,118.34	12,363.98	37.96	28.51	87.91	-2,614.61	-2,125.32	2,038.32	1,972.11	66.22	30.782	
14,300.00	12,438.89	14,218.34	12,364.51	39.25	29.64	87.91	-2,714.61	-2,124.46	2,038.37	1,969.72	68.65	29.693	
14,400.00	12,439.42	14,318.34	12,365.03	40.55	30.79	87.91	-2,814.60	-2,123.60	2,038.42	1,967.32	71.10	28.668	
14,500.00	12,439.94	14,418.34	12,365.55	41.84	31.96	87.91	-2,914.60	-2,122.74	2,038.47	1,964.89	73.58	27.704	
14,600.00	12,440.47	14,518.34	12,366.08	43.15	33.15	87.91	-3,014.59	-2,121.88	2,038.52	1,962.44	76.07	26.796	
14,700.00	12,440.99	14,618.34	12,366.60	44.45	34.35	87.91	-3,114.59	-2,121.02	2,038.56	1,959.98	78.59	25.940	
14,800.00	12,441.52	14,718.34	12,367.12	45.77	35.56	87.91	-3,214.58	-2,120.16	2,038.61	1,957.50	81.11	25.132	
14,900.00	12,442.04	14,818.34	12,367.65	47.08	36.78	87.91	-3,314.58	-2,119.29	2,038.66	1,955.00	83.66	24.369	
15,000.00	12,442.57	14,918.34	12,368.17	48.40	38.01	87.91	-3,414.57	-2,118.43	2,038.71	1,952.50	86.21	23.648	
15,100.00	12,443.09	15,018.34	12,368.69	49.72	39.26	87.91	-3,514.57	-2,117.57	2,038.76	1,949.98	88.78	22.965	
15,200.00	12,443.62	15,118.34	12,369.22	51.04	40.51	87.91	-3,614.56	-2,116.71	2,038.80	1,947.45	91.35	22.318	
15,300.00	12,444.14	15,218.34	12,369.74	52.36	41.77	87.91	-3,714.56	-2,115.85	2,038.85	1,944.91	93.94	21.704	
15,400.00	12,444.67	15,318.34	12,370.26	53.69	43.03	87.91	-3,814.55	-2,114.99	2,038.90	1,942.36	96.54	21.121	
15,500.00	12,445.19	15,418.34	12,370.79	55.02	44.30	87.91	-3,914.55	-2,114.13	2,038.95	1,939.81	99.14	20.567	
15,600.00	12,445.72	15,518.34	12,371.31	56.35	45.58	87.91	-4,014.54	-2,113.27	2,038.99	1,937.25	101.75	20.039	
15,700.00	12,446.24	15,618.34	12,371.83	57.69	46.86	87.91	-4,114.54	-2,112.41	2,039.04	1,934.68	104.37	19.537	
15,800.00	12,446.77	15,718.34	12,372.36	59.02	48.15	87.91	-4,214.53	-2,111.55	2,039.09	1,932.10	106.99	19.059	
15,900.00	12,447.29	15,818.34	12,372.88	60.36	49.44	87.91	-4,314.53	-2,110.68	2,039.14	1,929.52	109.62	18.602	
16,000.00	12,447.82	15,918.34	12,373.40	61.69	50.74	87.91	-4,414.52	-2,109.82	2,039.19	1,926.93	112.25	18.166	
16,100.00	12,448.34	16,018.34	12,373.93	63.03	52.04	87.91	-4,514.52	-2,108.96	2,039.23	1,924.34	114.89	17.749	
16,200.00	12,448.87	16,118.34	12,374.45	64.37	53.34	87.91	-4,614.51	-2,108.10	2,039.28	1,921.74	117.54	17.350	
16,300.00	12,449.39	16,218.34	12,374.98	65.72	54.65	87.91	-4,714.51	-2,107.24	2,039.33	1,919.14	120.19	16.968	
16,400.00	12,449.92	16,318.34	12,375.50	67.06	55.96	87.91	-4,814.50	-2,106.38	2,039.38	1,916.54	122.84	16.602	
16,500.00	12,450.44	16,418.34	12,376.02	68.40	57.27	87.91	-4,914.50	-2,105.52	2,039.43	1,913.93	125.50	16.251	
16,600.00	12,450.97	16,518.34	12,376.55	69.75	58.58	87.91	-5,014.49	-2,104.66	2,039.47	1,911.32	128.16	15.914	
16,700.00	12,451.49	16,618.34	12,377.07	71.09	59.90	87.91	-5,114.49	-2,103.80	2,039.52	1,908.70	130.82	15.590	
16,800.00	12,452.02	16,718.34	12,377.59	72.44	61.22	87.91	-5,214.48	-2,102.94	2,039.57	1,906.08	133.49	15.279	
16,900.00	12,452.54	16,818.34	12,378.12	73.79	62.54	87.91	-5,314.48	-2,102.07	2,039.62	1,903.46	136.16	14.980	
17,000.00	12,453.07	16,918.34	12,378.64	75.13	63.87	87.91	-5,414.47	-2,101.21	2,039.67	1,900.84	138.83	14.692	
17,100.00	12,453.59	17,018.34	12,379.16	76.48	65.19	87.91	-5,514.46	-2,100.35	2,039.71	1,898.21	141.50	14.414	
17,200.00	12,454.12	17,118.34	12,379.69	77.83	66.52	87.91	-5,614.46	-2,099.49	2,039.76	1,895.58	144.18	14.147	
17,300.00	12,454.64	17,218.34	12,380.21	79.18	67.85	87.91	-5,714.45	-2,098.63	2,039.81	1,892.95	146.86	13.889	
17,400.00	12,455.17	17,318.34	12,380.73	80.53	69.18	87.91	-5,814.45	-2,097.77	2,039.86	1,890.31	149.54	13.641	
17,500.00	12,455.69	17,418.34	12,381.26	81.89	70.51	87.91	-5,914.44	-2,096.91	2,039.90	1,887.68	152.23	13.400	
17,600.00	12,456.22	17,518.34	12,381.78	83.24	71.85	87.91	-6,014.44	-2,096.05	2,039.95	1,885.04	154.91	13.168	
17,700.00	12,456.74	17,618.34	12,382.30	84.59	73.18	87.91	-6,114.43	-2,095.19	2,040.00	1,882.40	157.60	12.944	
17,800.00	12,457.27	17,718.34	12,382.83	85.94	74.52	87.91	-6,214.43	-2,094.33	2,040.05	1,879.76	160.29	12.727	
17,900.00	12,457.79	17,818.34	12,383.35	87.30	75.86	87.91	-6,314.42	-2,093.46	2,040.10	1,877.12	162.98	12.517	
18,000.00	12,458.32	17,918.34	12,383.87	88.65	77.20	87.91	-6,414.42	-2,092.60	2,040.14	1,874.47	165.67	12.314	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 (usft)	Semi Major Axis Reference	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
18,100.00	12,458.84	18,018.34	12,384.40	90.01	78.54	87.91			-6,514.41	-2,091.74	2,040.19	1,871.83	168.37	12.118	
18,200.00	12,459.37	18,118.34	12,384.92	91.36	79.88	87.91			-6,614.41	-2,090.88	2,040.24	1,869.18	171.06	11.927	
18,300.00	12,459.89	18,218.34	12,385.44	92.72	81.22	87.91			-6,714.40	-2,090.02	2,040.29	1,866.53	173.76	11.742	
18,400.00	12,460.42	18,318.34	12,385.97	94.07	82.56	87.91			-6,814.40	-2,089.16	2,040.34	1,863.88	176.46	11.563	
18,500.00	12,460.94	18,418.34	12,386.49	95.43	83.90	87.91			-6,914.39	-2,088.30	2,040.38	1,861.23	179.16	11.389	
18,600.00	12,461.47	18,518.34	12,387.02	96.79	85.25	87.91			-7,014.39	-2,087.44	2,040.43	1,858.57	181.86	11.220	
18,700.00	12,461.99	18,618.34	12,387.54	98.15	86.59	87.91			-7,114.38	-2,086.58	2,040.48	1,855.92	184.56	11.056	
18,800.00	12,462.52	18,718.34	12,388.06	99.50	87.94	87.91			-7,214.38	-2,085.72	2,040.53	1,853.27	187.26	10.897	
18,900.00	12,463.04	18,818.34	12,388.59	100.86	89.29	87.91			-7,314.37	-2,084.85	2,040.58	1,850.61	189.96	10.742	
19,000.00	12,463.57	18,918.34	12,389.11	102.22	90.63	87.91			-7,414.37	-2,083.99	2,040.62	1,847.95	192.67	10.591	
19,100.00	12,464.09	19,018.34	12,389.63	103.58	91.98	87.91			-7,514.36	-2,083.13	2,040.67	1,845.30	195.37	10.445	
19,200.00	12,464.62	19,118.34	12,390.16	104.94	93.33	87.91			-7,614.36	-2,082.27	2,040.72	1,842.64	198.08	10.302	
19,300.00	12,465.14	19,218.34	12,390.68	106.29	94.68	87.91			-7,714.35	-2,081.41	2,040.77	1,839.98	200.79	10.164	
19,400.00	12,465.67	19,318.34	12,391.20	107.65	96.03	87.91			-7,814.35	-2,080.55	2,040.81	1,837.32	203.50	10.029	
19,500.00	12,466.19	19,418.34	12,391.73	109.01	97.38	87.91			-7,914.34	-2,079.69	2,040.86	1,834.66	206.21	9.897	
19,600.00	12,466.72	19,518.34	12,392.25	110.37	98.73	87.91			-8,014.34	-2,078.83	2,040.91	1,832.00	208.92	9.769	
19,700.00	12,467.24	19,618.34	12,392.77	111.73	100.08	87.91			-8,114.33	-2,077.97	2,040.96	1,829.33	211.63	9.644	
19,800.00	12,467.77	19,718.34	12,393.30	113.09	101.43	87.91			-8,214.33	-2,077.11	2,041.01	1,826.67	214.34	9.522	
19,900.00	12,468.29	19,818.34	12,393.82	114.45	102.79	87.91			-8,314.32	-2,076.24	2,041.05	1,824.01	217.05	9.404	
20,000.00	12,468.82	19,918.34	12,394.34	115.82	104.14	87.91			-8,414.32	-2,075.38	2,041.10	1,821.34	219.76	9.288	
20,100.00	12,469.34	20,018.34	12,394.87	117.18	105.49	87.91			-8,514.31	-2,074.52	2,041.15	1,818.68	222.47	9.175	
20,200.00	12,469.87	20,118.34	12,395.39	118.54	106.85	87.91			-8,614.31	-2,073.66	2,041.20	1,816.01	225.19	9.064	
20,300.00	12,470.39	20,218.34	12,395.91	119.90	108.20	87.91			-8,714.30	-2,072.80	2,041.25	1,813.34	227.90	8.957	
20,400.00	12,470.92	20,318.34	12,396.44	121.26	109.55	87.91			-8,814.30	-2,071.94	2,041.29	1,810.68	230.62	8.851	
20,500.00	12,471.44	20,418.34	12,396.96	122.62	110.91	87.91			-8,914.29	-2,071.08	2,041.34	1,808.01	233.33	8.749	
20,600.00	12,471.97	20,518.34	12,397.48	123.98	112.26	87.91			-9,014.29	-2,070.22	2,041.39	1,805.34	236.05	8.648	
20,700.00	12,472.50	20,618.34	12,398.01	125.35	113.62	87.91			-9,114.28	-2,069.36	2,041.44	1,802.67	238.76	8.550	
20,800.00	12,473.02	20,718.34	12,398.53	126.71	114.98	87.91			-9,214.28	-2,068.50	2,041.49	1,800.00	241.48	8.454	
20,900.00	12,473.55	20,818.34	12,399.05	128.07	116.33	87.91			-9,314.27	-2,067.63	2,041.53	1,797.33	244.20	8.360	
21,000.00	12,474.07	20,918.34	12,399.58	129.43	117.69	87.91			-9,414.27	-2,066.77	2,041.58	1,794.66	246.92	8.268	
21,100.00	12,474.60	21,018.34	12,400.10	130.80	119.05	87.91			-9,514.26	-2,065.91	2,041.63	1,791.99	249.63	8.178	
21,200.00	12,475.12	21,118.34	12,400.63	132.16	120.40	87.91			-9,614.26	-2,065.05	2,041.68	1,789.32	252.35	8.091	
21,300.00	12,475.65	21,218.34	12,401.15	133.52	121.76	87.91			-9,714.25	-2,064.19	2,041.72	1,786.65	255.07	8.005	
21,400.00	12,476.17	21,318.34	12,401.67	134.88	123.12	87.91			-9,814.25	-2,063.33	2,041.77	1,783.98	257.79	7.920	
21,500.00	12,476.70	21,418.34	12,402.20	136.25	124.48	87.91			-9,914.24	-2,062.47	2,041.82	1,781.31	260.51	7.838	
21,600.00	12,477.22	21,518.34	12,402.72	137.61	125.83	87.91			-10,014.24	-2,061.61	2,041.87	1,778.64	263.23	7.757	
21,700.00	12,477.75	21,618.34	12,403.24	138.97	127.19	87.91			-10,114.23	-2,060.75	2,041.92	1,775.96	265.95	7.678	
21,800.00	12,478.27	21,718.34	12,403.77	140.34	128.55	87.91			-10,214.23	-2,059.89	2,041.96	1,773.29	268.67	7.600	
21,900.00	12,478.80	21,818.34	12,404.29	141.70	129.91	87.91			-10,314.22	-2,059.02	2,042.01	1,770.62	271.39	7.524	
22,000.00	12,479.32	21,918.34	12,404.81	143.06	131.27	87.91			-10,414.22	-2,058.16	2,042.06	1,767.94	274.12	7.450	
22,100.00	12,479.85	22,018.34	12,405.34	144.43	132.63	87.91			-10,514.21	-2,057.30	2,042.11	1,765.27	276.84	7.377	
22,200.00	12,480.37	22,118.34	12,405.86	145.79	133.99	87.91			-10,614.21	-2,056.44	2,042.16	1,762.60	279.56	7.305	
22,300.00	12,480.90	22,218.34	12,406.38	147.16	135.35	87.91			-10,714.20	-2,055.58	2,042.20	1,759.92	282.28	7.235	
22,400.00	12,481.42	22,318.34	12,406.91	148.52	136.71	87.91			-10,814.20	-2,054.72	2,042.25	1,757.25	285.01	7.166	
22,500.00	12,481.95	22,418.34	12,407.43	149.89	138.07	87.91			-10,914.19	-2,053.86	2,042.30	1,754.57	287.73	7.098	
22,600.00	12,482.47	22,518.34	12,407.95	151.25	139.43	87.91			-11,014.19	-2,053.00	2,042.35	1,751.90	290.45	7.032	
22,700.00	12,483.00	22,618.34	12,408.48	152.61	140.79	87.91			-11,114.18	-2,052.14	2,042.40	1,749.22	293.17	6.966	
22,719.79	12,483.10	22,634.88	12,408.56	152.85	141.01	87.91			-11,130.72	-2,051.99	2,042.41	1,748.77	293.64	6.956	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		
Reference										Offset Well Error:		0.50 usft			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis 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	153.43			-50.00	25.00	55.91				
100.00	100.00	99.00	100.00	0.98	0.97	153.43			-50.00	25.00	55.90	53.95	1.95	28.595	
200.00	200.00	199.00	200.00	1.56	1.56	153.43			-50.00	25.00	55.90	52.79	3.12	17.939	
300.00	300.00	299.00	300.00	1.98	1.98	153.43			-50.00	25.00	55.90	51.94	3.96	14.123	
400.00	400.00	399.00	400.00	2.33	2.33	153.43			-50.00	25.00	55.90	51.25	4.66	12.008	
500.00	500.00	499.00	500.00	2.63	2.63	153.43			-50.00	25.00	55.90	50.64	5.27	10.616	CC, ES
600.00	600.00	597.99	598.98	2.91	2.96	154.36			-51.18	24.57	56.78	50.95	5.84	9.729	
700.00	700.00	696.84	697.76	3.16	3.25	156.98			-54.77	23.27	59.54	53.19	6.36	9.369	
800.00	799.99	795.52	796.22	3.45	3.53	-23.92			-60.74	21.09	63.21	56.33	6.88	9.182	
900.00	899.91	894.90	895.25	3.70	3.65	-20.59			-68.70	18.19	66.31	59.06	7.25	9.145	
1,000.00	999.77	994.83	994.79	3.89	3.85	-17.82			-76.88	15.21	68.53	60.86	7.66	8.942	
1,100.00	1,099.63	1,094.75	1,094.33	4.08	4.06	-15.22			-85.07	12.24	70.89	62.82	8.07	8.783	
1,200.00	1,199.50	1,194.67	1,193.87	4.26	4.27	-12.80			-93.25	9.26	73.40	64.93	8.47	8.662	
1,300.00	1,299.34	1,294.46	1,293.27	4.35	4.38	-12.63			-101.49	6.06	75.77	67.09	8.68	8.729	
1,400.00	1,399.04	1,393.98	1,392.26	4.58	4.59	-11.95			-110.28	0.78	76.55	67.43	9.12	8.392	
1,500.00	1,498.51	1,493.28	1,490.80	4.71	4.81	-8.47			-119.73	-6.97	75.91	66.45	9.46	8.023	
1,538.79	1,537.07	1,531.72	1,528.87	4.78	4.89	-6.25			-123.57	-10.63	75.79	66.17	9.62	7.877	
1,600.00	1,597.91	1,592.24	1,588.72	4.89	5.03	-2.20			-129.82	-17.15	76.14	66.27	9.87	7.713	
1,700.00	1,697.32	1,690.73	1,686.81	5.08	5.24	5.53			-140.53	-29.72	78.61	68.34	10.27	7.653	
1,800.00	1,796.72	1,788.62	1,781.89	5.27	5.46	13.97			-151.81	-44.61	84.07	73.42	10.65	7.894	
1,900.00	1,896.13	1,885.78	1,876.80	5.46	5.68	22.26			-163.64	-61.74	93.05	82.04	11.00	8.456	
2,000.00	1,995.54	1,982.11	1,970.36	5.64	5.90	29.72			-175.97	-81.02	105.74	94.41	11.34	9.327	
2,100.00	2,094.94	2,079.09	2,064.08	5.83	6.07	36.03			-188.89	-102.33	121.70	110.07	11.63	10.468	
2,200.00	2,194.35	2,176.96	2,158.62	6.02	6.29	40.94			-201.97	-124.02	138.99	127.02	11.97	11.616	
2,300.00	2,293.76	2,274.83	2,253.16	6.20	6.54	44.76			-215.06	-145.72	157.05	144.72	12.34	12.729	
2,400.00	2,393.16	2,372.71	2,347.70	6.39	6.82	47.78			-228.14	-167.41	175.66	162.96	12.70	13.832	
2,500.00	2,492.57	2,470.58	2,442.23	6.58	7.11	50.22			-241.23	-189.10	194.65	181.57	13.08	14.886	
2,600.00	2,591.98	2,568.45	2,536.77	6.76	7.41	52.23			-254.31	-210.80	213.92	200.46	13.46	15.894	
2,700.00	2,691.38	2,666.32	2,631.31	6.95	7.71	53.91			-267.40	-232.49	233.40	219.55	13.85	16.854	
2,800.00	2,790.79	2,764.20	2,725.85	7.13	8.02	55.32			-280.48	-254.19	253.05	238.80	14.24	17.769	
2,900.00	2,890.20	2,862.07	2,820.38	7.32	8.33	56.54			-293.57	-275.88	272.82	258.18	14.64	18.638	
3,000.00	2,989.60	2,959.94	2,914.92	7.50	8.65	57.59			-306.65	-297.57	292.70	277.66	15.04	19.464	
3,100.00	3,089.01	3,057.82	3,009.46	7.69	8.97	58.50			-319.74	-319.27	312.65	297.21	15.44	20.249	
3,200.00	3,188.42	3,155.69	3,103.99	7.88	9.29	59.31			-332.82	-340.96	332.68	316.83	15.85	20.995	
3,300.00	3,287.82	3,253.56	3,198.53	8.06	9.61	60.02			-345.91	-362.65	352.76	336.51	16.25	21.704	
3,400.00	3,387.23	3,351.44	3,293.07	8.25	9.94	60.66			-358.99	-384.35	372.89	356.23	16.66	22.379	
3,500.00	3,486.64	3,449.31	3,387.61	8.43	10.27	61.23			-372.08	-406.04	393.06	375.99	17.07	23.022	
3,600.00	3,586.04	3,547.18	3,482.14	8.62	10.60	61.75			-385.16	-427.73	413.26	395.78	17.49	23.635	
3,700.00	3,685.45	3,645.06	3,576.68	8.80	10.93	62.22			-398.25	-449.43	433.49	415.60	17.90	24.219	
3,800.00	3,784.86	3,742.93	3,671.22	8.99	11.26	62.65			-411.33	-471.12	453.75	435.44	18.31	24.777	
3,900.00	3,884.26	3,840.80	3,765.76	9.17	11.60	63.04			-424.42	-492.82	474.03	455.30	18.73	25.310	
4,000.00	3,983.67	3,938.68	3,860.29	9.36	11.93	63.39			-437.50	-514.51	494.33	475.18	19.15	25.819	
4,100.00	4,083.08	4,036.55	3,954.83	9.54	12.27	63.72			-450.59	-536.20	514.65	495.08	19.56	26.306	
4,200.00	4,182.48	4,134.42	4,049.37	9.73	12.61	64.03			-463.67	-557.90	534.98	515.00	19.98	26.772	
4,300.00	4,281.89	4,232.30	4,143.91	9.91	12.95	64.31			-476.76	-579.59	555.32	534.92	20.40	27.219	
4,400.00	4,381.30	4,330.17	4,238.44	10.10	13.29	64.57			-489.84	-601.28	575.68	554.86	20.82	27.647	
4,500.00	4,480.70	4,428.04	4,332.98	10.28	13.63	64.82			-502.93	-622.98	596.05	574.80	21.24	28.058	
4,600.00	4,580.11	4,525.92	4,427.52	10.47	13.97	65.05			-516.01	-644.67	616.42	594.76	21.66	28.453	
4,700.00	4,679.51	4,623.79	4,522.06	10.65	14.31	65.26			-529.10	-666.36	636.81	614.72	22.09	28.832	
4,800.00	4,778.92	4,721.66	4,616.59	10.84	14.65	65.46			-542.18	-688.06	657.21	634.70	22.51	29.197	
4,900.00	4,878.33	4,823.93	4,715.40	11.02	15.01	65.66			-555.81	-710.65	677.54	654.58	22.95	29.518	
5,000.00	4,977.73	4,942.51	4,830.59	11.21	15.39	65.94			-570.34	-734.74	695.86	672.38	23.48	29.638	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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)	Separation Factor		
5,100.00	5,077.14	5,062.23	4,947.72	11.39	15.74	66.30	-583.13	-755.94	711.28	687.29	23.98	29.657		
5,200.00	5,176.55	5,182.87	5,066.47	11.58	16.06	66.74	-594.09	-774.11	723.75	699.29	24.47	29.582		
5,300.00	5,275.95	5,304.19	5,186.51	11.76	16.33	67.26	-603.15	-789.14	733.28	708.36	24.92	29.420		
5,400.00	5,375.36	5,425.95	5,307.48	11.95	16.56	67.87	-610.27	-800.93	739.87	714.51	25.35	29.182		
5,500.00	5,474.77	5,547.91	5,429.04	12.13	16.75	68.57	-615.39	-809.43	743.52	717.76	25.75	28.870		
5,600.00	5,574.17	5,669.82	5,550.79	12.32	16.89	69.36	-618.51	-814.60	744.26	718.14	26.12	28.491		
5,700.00	5,673.58	5,791.44	5,672.38	12.50	16.99	70.26	-619.62	-816.44	742.14	715.73	26.40	28.107		
5,800.00	5,772.99	5,892.04	5,772.99	12.69	17.03	71.06	-619.62	-816.44	738.52	711.88	26.65	27.716		
5,900.00	5,872.39	5,991.45	5,872.39	12.87	17.06	71.86	-619.62	-816.44	735.04	708.15	26.89	27.336		
6,000.00	5,971.80	6,090.86	5,971.80	13.06	17.10	72.66	-619.62	-816.44	731.71	704.58	27.13	26.967		
6,100.00	6,071.21	6,190.26	6,071.21	13.24	17.13	73.47	-619.62	-816.44	728.53	701.15	27.38	26.609		
6,200.00	6,170.61	6,289.67	6,170.61	13.43	17.17	74.29	-619.62	-816.44	725.49	697.86	27.63	26.262		
6,300.00	6,270.02	6,389.07	6,270.02	13.61	17.21	75.12	-619.62	-816.44	722.60	694.73	27.87	25.925		
6,400.00	6,369.43	6,488.48	6,369.43	13.80	17.24	75.95	-619.62	-816.44	719.87	691.75	28.12	25.599		
6,500.00	6,468.83	6,587.89	6,468.83	13.98	17.28	76.79	-619.62	-816.44	717.29	688.92	28.37	25.283		
6,600.00	6,568.24	6,687.29	6,568.24	14.17	17.32	77.63	-619.62	-816.44	714.87	686.25	28.62	24.977		
6,700.00	6,667.74	6,786.79	6,667.74	14.34	17.36	78.39	-619.62	-816.44	712.79	683.95	28.85	24.711		
6,800.00	6,767.46	6,886.52	6,767.46	14.53	17.39	78.95	-619.62	-816.44	711.33	682.28	29.06	24.481		
6,900.00	6,867.34	6,986.40	6,867.34	14.70	17.43	79.31	-619.62	-816.44	710.43	681.19	29.24	24.298		
7,000.00	6,967.32	7,086.37	6,967.32	14.86	17.47	79.48	-619.62	-816.44	710.03	680.64	29.39	24.160		
7,090.00	7,057.32	7,176.38	7,057.32	14.87	17.51	79.51	-619.62	-816.44	709.96	680.53	29.43	24.122		
7,100.00	7,067.32	7,186.37	7,067.32	14.88	17.51	-90.41	-619.62	-816.44	710.01	680.57	29.44	24.121		
7,200.00	7,167.32	7,286.37	7,167.32	14.90	17.55	-90.41	-619.62	-816.44	710.01	680.51	29.50	24.070		
7,300.00	7,267.32	7,386.37	7,267.32	14.93	17.59	-90.41	-619.62	-816.44	710.01	680.45	29.56	24.019		
7,400.00	7,367.32	7,486.37	7,367.32	14.95	17.63	-90.41	-619.62	-816.44	710.01	680.38	29.62	23.968		
7,500.00	7,467.32	7,586.37	7,467.32	14.98	17.67	-90.41	-619.62	-816.44	710.01	680.32	29.69	23.916		
7,600.00	7,567.32	7,686.37	7,567.32	15.01	17.71	-90.41	-619.62	-816.44	710.01	680.26	29.75	23.864		
7,700.00	7,667.32	7,786.37	7,667.32	15.03	17.75	-90.41	-619.62	-816.44	710.01	680.19	29.82	23.811		
7,800.00	7,767.32	7,886.37	7,767.32	15.06	17.79	-90.41	-619.62	-816.44	710.01	680.12	29.89	23.758		
7,900.00	7,867.32	7,986.37	7,867.32	15.09	17.83	-90.41	-619.62	-816.44	710.01	680.06	29.95	23.704		
8,000.00	7,967.32	8,086.37	7,967.32	15.12	17.88	-90.41	-619.62	-816.44	710.01	679.99	30.02	23.651		
8,100.00	8,067.32	8,186.37	8,067.32	15.15	17.92	-90.41	-619.62	-816.44	710.01	679.92	30.09	23.597		
8,200.00	8,167.32	8,286.37	8,167.32	15.18	17.96	-90.41	-619.62	-816.44	710.01	679.85	30.16	23.542		
8,300.00	8,267.32	8,386.37	8,267.32	15.21	18.00	-90.41	-619.62	-816.44	710.01	679.78	30.23	23.488		
8,400.00	8,367.32	8,486.37	8,367.32	15.24	18.05	-90.41	-619.62	-816.44	710.01	679.71	30.30	23.433		
8,500.00	8,467.32	8,586.37	8,467.32	15.27	18.09	-90.41	-619.62	-816.44	710.01	679.64	30.37	23.378		
8,600.00	8,567.32	8,686.37	8,567.32	15.30	18.13	-90.41	-619.62	-816.44	710.01	679.56	30.44	23.322		
8,700.00	8,667.32	8,786.37	8,667.32	15.33	18.18	-90.41	-619.62	-816.44	710.01	679.49	30.52	23.266		
8,800.00	8,767.32	8,886.37	8,767.32	15.36	18.22	-90.41	-619.62	-816.44	710.01	679.42	30.59	23.210		
8,900.00	8,867.32	8,986.37	8,867.32	15.39	18.27	-90.41	-619.62	-816.44	710.01	679.34	30.66	23.154		
9,000.00	8,967.32	9,086.37	8,967.32	15.43	18.31	-90.41	-619.62	-816.44	710.01	679.27	30.74	23.097		
9,100.00	9,067.32	9,186.37	9,067.32	15.46	18.36	-90.41	-619.62	-816.44	710.01	679.19	30.82	23.041		
9,200.00	9,167.32	9,286.37	9,167.32	15.49	18.40	-90.41	-619.62	-816.44	710.01	679.12	30.89	22.984		
9,300.00	9,267.32	9,386.37	9,267.32	15.53	18.45	-90.41	-619.62	-816.44	710.01	679.04	30.97	22.926		
9,400.00	9,367.32	9,486.37	9,367.32	15.56	18.49	-90.41	-619.62	-816.44	710.01	678.96	31.05	22.869		
9,500.00	9,467.32	9,586.37	9,467.32	15.59	18.54	-90.41	-619.62	-816.44	710.01	678.88	31.13	22.811		
9,600.00	9,567.32	9,686.37	9,567.32	15.63	18.58	-90.41	-619.62	-816.44	710.01	678.80	31.20	22.753		
9,700.00	9,667.32	9,786.37	9,667.32	15.66	18.63	-90.41	-619.62	-816.44	710.01	678.72	31.28	22.695		
9,800.00	9,767.32	9,886.37	9,767.32	15.70	18.68	-90.41	-619.62	-816.44	710.01	678.64	31.36	22.637		
9,900.00	9,867.32	9,986.37	9,867.32	15.73	18.72	-90.41	-619.62	-816.44	710.01	678.56	31.45	22.579		
10,000.00	9,967.32	10,086.37	9,967.32	15.77	18.77	-90.41	-619.62	-816.44	710.01	678.48	31.53	22.521		
10,100.00	10,067.32	10,186.37	10,067.32	15.81	18.82	-90.41	-619.62	-816.44	710.01	678.40	31.61	22.462		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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)			Minimum Separation (usft)
20,500.00	12,471.44	20,613.51	12,497.54	122.62	122.18	92.10	-8,902.59	-741.94	711.27	467.16	244.11	2.914	
20,600.00	12,471.97	20,713.51	12,498.06	123.98	123.54	92.10	-9,002.59	-741.04	711.28	464.45	246.82	2.882	
20,700.00	12,472.50	20,813.51	12,498.59	125.35	124.89	92.10	-9,102.58	-740.14	711.29	461.74	249.54	2.850	
20,800.00	12,473.02	20,913.51	12,499.12	126.71	126.24	92.10	-9,202.58	-739.24	711.30	459.04	252.26	2.820	
20,900.00	12,473.55	21,013.51	12,499.64	128.07	127.60	92.10	-9,302.57	-738.34	711.31	456.33	254.98	2.790	
21,000.00	12,474.07	21,113.51	12,500.17	129.43	128.95	92.10	-9,402.57	-737.44	711.31	453.62	257.70	2.760	
21,100.00	12,474.60	21,213.51	12,500.69	130.80	130.31	92.10	-9,502.56	-736.54	711.32	450.91	260.42	2.731	
21,200.00	12,475.12	21,313.51	12,501.22	132.16	131.66	92.10	-9,602.56	-735.64	711.33	448.19	263.14	2.703	
21,300.00	12,475.65	21,413.51	12,501.75	133.52	133.02	92.10	-9,702.55	-734.74	711.34	445.48	265.86	2.676	
21,400.00	12,476.17	21,513.51	12,502.27	134.88	134.37	92.10	-9,802.54	-733.84	711.35	442.77	268.58	2.649	
21,500.00	12,476.70	21,613.51	12,502.80	136.25	135.73	92.10	-9,902.54	-732.94	711.36	440.06	271.30	2.622	
21,600.00	12,477.22	21,713.51	12,503.33	137.61	137.08	92.10	-10,002.53	-732.04	711.37	437.35	274.02	2.596	
21,700.00	12,477.75	21,813.51	12,503.85	138.97	138.44	92.10	-10,102.53	-731.14	711.38	434.64	276.75	2.571	
21,800.00	12,478.27	21,913.51	12,504.38	140.34	139.80	92.10	-10,202.52	-730.24	711.39	431.92	279.47	2.546	
21,900.00	12,478.80	22,013.51	12,504.90	141.70	141.15	92.10	-10,302.52	-729.34	711.40	429.21	282.19	2.521	
22,000.00	12,479.32	22,113.51	12,505.43	143.06	142.51	92.10	-10,402.51	-728.44	711.41	426.50	284.91	2.497	
22,100.00	12,479.85	22,213.51	12,505.96	144.43	143.87	92.10	-10,502.51	-727.55	711.42	423.78	287.64	2.473	
22,200.00	12,480.37	22,313.51	12,506.48	145.79	145.23	92.10	-10,602.50	-726.65	711.43	421.07	290.36	2.450	
22,300.00	12,480.90	22,413.51	12,507.01	147.16	146.58	92.10	-10,702.50	-725.75	711.44	418.35	293.08	2.427	
22,400.00	12,481.42	22,513.51	12,507.53	148.52	147.94	92.10	-10,802.49	-724.85	711.45	415.64	295.81	2.405	
22,500.00	12,481.95	22,613.51	12,508.06	149.89	149.30	92.10	-10,902.48	-723.95	711.46	412.93	298.53	2.383	
22,600.00	12,482.47	22,713.51	12,508.59	151.25	150.66	92.10	-11,002.48	-723.05	711.47	410.21	301.26	2.362	
22,700.00	12,483.00	22,813.51	12,509.11	152.61	152.02	92.10	-11,102.47	-722.15	711.48	407.50	303.98	2.341	
22,700.63	12,483.00	22,814.14	12,509.12	152.62	152.02	92.10	-11,103.11	-722.14	711.48	407.48	304.00	2.340	
22,719.79	12,483.10	22,830.04	12,509.20	152.85	152.24	92.10	-11,119.00	-722.00	711.49	406.99	304.50	2.337	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)			
0.00	0.00	0.00	2.00	0.50	0.50	173.21	-210.00	25.00	211.49				
100.00	100.00	98.00	100.00	0.98	0.97	173.21	-210.00	25.00	211.48	209.54	1.95	108.581	
200.00	200.00	198.00	200.00	1.56	1.55	173.21	-210.00	25.00	211.48	208.37	3.11	67.996	
300.00	300.00	298.00	300.00	1.98	1.97	173.21	-210.00	25.00	211.48	207.53	3.95	53.488	
400.00	400.00	395.59	397.58	2.33	2.39	172.92	-210.41	26.12	212.04	207.38	4.65	45.555	
500.00	500.00	493.01	494.93	2.63	2.75	172.04	-211.67	29.58	213.78	208.52	5.27	40.596	
600.00	600.00	592.69	594.48	2.91	3.02	170.82	-213.45	34.48	216.29	210.47	5.81	37.196	
700.00	700.00	692.56	694.20	3.16	3.27	169.63	-215.24	39.39	218.89	212.57	6.32	34.623	
800.00	799.99	792.43	793.94	3.45	3.51	-15.94	-217.02	44.30	220.32	213.49	6.84	32.215	
900.00	899.91	892.27	893.64	3.70	3.74	-17.39	-218.81	49.21	219.37	212.05	7.32	29.986	
1,000.00	999.77	992.07	993.30	3.89	3.96	-18.96	-220.60	54.12	217.31	209.58	7.73	28.129	
1,100.00	1,099.63	1,091.87	1,092.96	4.08	4.18	-20.55	-222.38	59.03	215.42	207.30	8.12	26.514	
1,200.00	1,199.50	1,191.67	1,192.63	4.26	4.39	-22.17	-224.17	63.94	213.70	205.19	8.52	25.096	
1,300.00	1,299.34	1,291.45	1,292.27	4.35	4.60	-26.06	-225.96	68.84	211.89	203.09	8.80	24.073	
1,400.00	1,399.04	1,391.09	1,391.78	4.58	4.80	-30.72	-227.74	73.74	208.45	199.23	9.22	22.616	
1,500.00	1,498.51	1,490.52	1,491.07	4.71	5.01	-34.39	-229.52	78.63	203.37	193.84	9.53	21.350	
1,600.00	1,597.91	1,585.55	1,585.93	4.89	5.21	-37.15	-231.98	83.84	199.24	189.34	9.90	20.120	
1,688.64	1,686.03	1,669.36	1,669.45	5.06	5.40	-39.72	-235.72	89.56	198.05	187.81	10.24	19.332	CC
1,700.00	1,697.32	1,680.10	1,680.15	5.08	5.42	-40.05	-236.31	90.37	198.07	187.78	10.29	19.251	ES
1,800.00	1,796.72	1,774.58	1,774.09	5.27	5.64	-43.01	-242.55	98.24	199.94	189.26	10.68	18.727	
1,900.00	1,896.13	1,869.49	1,868.19	5.46	5.79	-45.91	-250.70	107.49	204.83	193.83	11.00	18.621	
2,000.00	1,995.54	1,968.74	1,966.47	5.64	5.96	-48.78	-259.99	117.71	211.22	199.86	11.36	18.594	
2,100.00	2,094.94	2,067.98	2,064.75	5.83	6.16	-51.48	-269.28	127.92	218.11	206.36	11.74	18.575	
2,200.00	2,194.35	2,167.23	2,163.04	6.02	6.36	-54.01	-278.58	138.13	225.45	213.33	12.12	18.597	
2,300.00	2,293.76	2,266.48	2,261.32	6.20	6.55	-56.37	-287.87	148.34	233.21	220.71	12.50	18.653	
2,400.00	2,393.16	2,365.72	2,359.60	6.39	6.75	-58.59	-297.16	158.56	241.34	228.46	12.88	18.737	
2,500.00	2,492.57	2,464.97	2,457.88	6.58	6.95	-60.65	-306.45	168.77	249.81	236.56	13.26	18.844	
2,600.00	2,591.98	2,564.21	2,556.16	6.76	7.14	-62.58	-315.74	178.98	258.59	244.95	13.63	18.969	
2,700.00	2,691.38	2,663.46	2,654.44	6.95	7.34	-64.38	-325.03	189.19	267.63	253.63	14.01	19.108	
2,800.00	2,790.79	2,762.71	2,752.72	7.13	7.54	-66.07	-334.33	199.41	276.93	262.55	14.38	19.257	
2,900.00	2,890.20	2,861.95	2,851.00	7.32	7.73	-67.64	-343.62	209.62	286.44	271.69	14.75	19.415	
3,000.00	2,989.60	2,961.20	2,949.29	7.50	7.93	-69.11	-352.91	219.83	296.16	281.03	15.13	19.579	
3,100.00	3,089.01	3,060.45	3,047.57	7.69	8.13	-70.49	-362.20	230.05	306.06	290.56	15.50	19.748	
3,200.00	3,188.42	3,159.69	3,145.85	7.88	8.32	-71.78	-371.49	240.26	316.12	300.25	15.87	19.919	
3,300.00	3,287.82	3,258.94	3,244.13	8.06	8.52	-72.99	-380.78	250.47	326.34	310.10	16.24	20.092	
3,400.00	3,387.23	3,358.18	3,342.41	8.25	8.72	-74.13	-390.08	260.68	336.69	320.08	16.61	20.265	
3,500.00	3,486.64	3,457.43	3,440.69	8.43	8.92	-75.20	-399.37	270.90	347.16	330.18	16.99	20.438	
3,600.00	3,586.04	3,556.68	3,538.97	8.62	9.11	-76.20	-408.66	281.11	357.75	340.39	17.36	20.610	
3,700.00	3,685.45	3,655.92	3,637.25	8.80	9.31	-77.15	-417.95	291.32	368.44	350.71	17.73	20.781	
3,800.00	3,784.86	3,755.17	3,735.53	8.99	9.51	-78.05	-427.24	301.53	379.23	361.13	18.10	20.950	
3,900.00	3,884.26	3,854.42	3,833.82	9.17	9.71	-78.89	-436.53	311.75	390.10	371.63	18.47	21.116	
4,000.00	3,983.67	3,953.66	3,932.10	9.36	9.90	-79.69	-445.83	321.96	401.05	382.21	18.85	21.281	
4,100.00	4,083.08	4,052.91	4,030.38	9.54	10.10	-80.45	-455.12	332.17	412.08	392.86	19.22	21.442	
4,200.00	4,182.48	4,152.15	4,128.66	9.73	10.30	-81.17	-464.41	342.38	423.17	403.58	19.59	21.601	
4,300.00	4,281.89	4,251.40	4,226.94	9.91	10.50	-81.85	-473.70	352.60	434.33	414.37	19.96	21.757	
4,400.00	4,381.30	4,350.65	4,325.22	10.10	10.70	-82.50	-482.99	362.81	445.54	425.21	20.34	21.909	
4,500.00	4,480.70	4,449.89	4,423.50	10.28	10.90	-83.11	-492.28	373.02	456.81	436.10	20.71	22.059	
4,600.00	4,580.11	4,549.14	4,521.78	10.47	11.10	-83.70	-501.58	383.24	468.13	447.04	21.08	22.206	
4,700.00	4,679.51	4,648.39	4,620.07	10.65	11.29	-84.26	-510.87	393.45	479.49	458.03	21.45	22.349	
4,800.00	4,778.92	4,747.63	4,718.35	10.84	11.49	-84.79	-520.16	403.66	490.89	469.07	21.83	22.489	
4,900.00	4,878.33	4,846.88	4,816.63	11.02	11.69	-85.30	-529.45	413.87	502.34	480.14	22.20	22.627	
5,000.00	4,977.73	4,946.13	4,914.91	11.21	11.89	-85.78	-538.74	424.09	513.82	491.25	22.57	22.761	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,077.14	5,045.37	5,013.19	11.39	12.09	-86.25	-548.03	434.30	525.34	502.39	22.95	22.892	
5,200.00	5,176.55	5,144.62	5,111.47	11.58	12.29	-86.69	-557.33	444.51	536.89	513.57	23.32	23.021	
5,300.00	5,275.95	5,243.86	5,209.75	11.76	12.49	-87.12	-566.62	454.72	548.47	524.77	23.70	23.146	
5,400.00	5,375.36	5,343.11	5,308.03	11.95	12.69	-87.53	-575.91	464.94	560.08	536.01	24.07	23.268	
5,500.00	5,474.77	5,442.46	5,406.42	12.13	12.88	-87.92	-585.21	475.16	571.72	547.29	24.43	23.403	
5,600.00	5,574.17	5,556.63	5,519.70	12.32	13.09	-88.44	-594.74	485.64	582.09	557.26	24.83	23.440	
5,700.00	5,673.58	5,671.15	5,633.70	12.50	13.31	-89.11	-602.01	493.63	589.96	564.72	25.24	23.378	
5,800.00	5,772.99	5,785.81	5,748.12	12.69	13.51	-89.94	-606.99	499.09	595.37	569.75	25.61	23.246	
5,900.00	5,872.39	5,900.41	5,862.65	12.87	13.69	-90.94	-609.64	502.01	598.36	572.41	25.95	23.055	
6,000.00	5,971.80	6,009.56	5,971.80	13.06	13.75	-92.03	-610.13	502.55	599.18	573.01	26.17	22.898	
6,100.00	6,071.21	6,108.97	6,071.21	13.24	13.79	-93.07	-610.13	502.55	599.67	573.29	26.38	22.734	
6,200.00	6,170.61	6,208.38	6,170.61	13.43	13.82	-94.10	-610.13	502.55	600.35	573.76	26.59	22.581	
6,300.00	6,270.02	6,307.78	6,270.02	13.61	13.86	-95.12	-610.13	502.55	601.23	574.43	26.80	22.436	
6,400.00	6,369.43	6,407.19	6,369.43	13.80	13.90	-96.15	-610.13	502.55	602.30	575.30	27.01	22.301	
6,500.00	6,468.83	6,506.60	6,468.83	13.98	13.94	-97.17	-610.13	502.55	603.57	576.35	27.22	22.174	
6,600.00	6,568.24	6,606.00	6,568.24	14.17	13.98	-98.19	-610.13	502.55	605.03	577.60	27.43	22.056	
6,700.00	6,667.74	6,705.50	6,667.74	14.34	14.02	-99.13	-610.13	502.55	606.54	578.92	27.62	21.961	
6,800.00	6,767.46	6,805.23	6,767.46	14.53	14.06	-99.84	-610.13	502.55	607.76	579.96	27.81	21.858	
6,900.00	6,867.34	6,905.11	6,867.34	14.70	14.10	-100.29	-610.13	502.55	608.60	580.63	27.97	21.759	
7,000.00	6,967.32	7,005.08	6,967.32	14.86	14.14	-100.50	-610.13	502.55	608.99	580.88	28.11	21.661	
7,100.00	7,067.32	7,105.08	7,067.32	14.88	14.18	-89.59	-610.13	502.55	609.02	580.85	28.16	21.626	
7,200.00	7,167.32	7,205.08	7,167.32	14.90	14.22	89.59	-610.13	502.55	609.02	580.79	28.22	21.578	
7,300.00	7,267.32	7,305.08	7,267.32	14.93	14.26	89.59	-610.13	502.55	609.02	580.73	28.29	21.529	
7,400.00	7,367.32	7,405.08	7,367.32	14.95	14.31	89.59	-610.13	502.55	609.02	580.66	28.35	21.480	
7,500.00	7,467.32	7,505.08	7,467.32	14.98	14.35	89.59	-610.13	502.55	609.02	580.60	28.42	21.430	
7,600.00	7,567.32	7,605.08	7,567.32	15.01	14.39	89.59	-610.13	502.55	609.02	580.53	28.48	21.380	
7,700.00	7,667.32	7,705.08	7,667.32	15.03	14.44	89.59	-610.13	502.55	609.02	580.46	28.55	21.330	
7,800.00	7,767.32	7,805.08	7,767.32	15.06	14.48	89.59	-610.13	502.55	609.02	580.40	28.62	21.279	
7,900.00	7,867.32	7,905.08	7,867.32	15.09	14.52	89.59	-610.13	502.55	609.02	580.33	28.69	21.228	
8,000.00	7,967.32	8,005.08	7,967.32	15.12	14.57	89.59	-610.13	502.55	609.02	580.26	28.76	21.177	
8,100.00	8,067.32	8,105.08	8,067.32	15.15	14.61	89.59	-610.13	502.55	609.02	580.19	28.83	21.126	
8,200.00	8,167.32	8,205.08	8,167.32	15.18	14.66	89.59	-610.13	502.55	609.02	580.12	28.90	21.074	
8,300.00	8,267.32	8,305.08	8,267.32	15.21	14.70	89.59	-610.13	502.55	609.02	580.05	28.97	21.022	
8,400.00	8,367.32	8,405.08	8,367.32	15.24	14.75	89.59	-610.13	502.55	609.02	579.97	29.04	20.969	
8,500.00	8,467.32	8,505.08	8,467.32	15.27	14.79	89.59	-610.13	502.55	609.02	579.90	29.12	20.917	
8,600.00	8,567.32	8,605.08	8,567.32	15.30	14.84	89.59	-610.13	502.55	609.02	579.83	29.19	20.864	
8,700.00	8,667.32	8,705.08	8,667.32	15.33	14.89	89.59	-610.13	502.55	609.02	579.75	29.26	20.811	
8,800.00	8,767.32	8,805.08	8,767.32	15.36	14.93	89.59	-610.13	502.55	609.02	579.68	29.34	20.757	
8,900.00	8,867.32	8,905.08	8,867.32	15.39	14.98	89.59	-610.13	502.55	609.02	579.60	29.42	20.704	
9,000.00	8,967.32	9,005.08	8,967.32	15.43	15.03	89.59	-610.13	502.55	609.02	579.52	29.49	20.650	
9,100.00	9,067.32	9,105.08	9,067.32	15.46	15.08	89.59	-610.13	502.55	609.02	579.45	29.57	20.596	
9,200.00	9,167.32	9,205.08	9,167.32	15.49	15.12	89.59	-610.13	502.55	609.02	579.37	29.65	20.542	
9,300.00	9,267.32	9,305.08	9,267.32	15.53	15.17	89.59	-610.13	502.55	609.02	579.29	29.73	20.487	
9,400.00	9,367.32	9,405.08	9,367.32	15.56	15.22	89.59	-610.13	502.55	609.02	579.21	29.81	20.433	
9,500.00	9,467.32	9,505.08	9,467.32	15.59	15.27	89.59	-610.13	502.55	609.02	579.13	29.89	20.378	
9,600.00	9,567.32	9,605.08	9,567.32	15.63	15.32	89.59	-610.13	502.55	609.02	579.05	29.97	20.323	
9,700.00	9,667.32	9,705.08	9,667.32	15.66	15.37	89.59	-610.13	502.55	609.02	578.97	30.05	20.268	
9,800.00	9,767.32	9,805.08	9,767.32	15.70	15.42	89.59	-610.13	502.55	609.02	578.89	30.13	20.213	
9,900.00	9,867.32	9,905.08	9,867.32	15.73	15.47	89.59	-610.13	502.55	609.02	578.80	30.21	20.158	
10,000.00	9,967.32	10,005.08	9,967.32	15.77	15.52	89.59	-610.13	502.55	609.02	578.72	30.30	20.102	
10,100.00	10,067.32	10,105.08	10,067.32	15.81	15.57	89.59	-610.13	502.55	609.02	578.64	30.38	20.047	
10,200.00	10,167.32	10,205.08	10,167.32	15.84	15.62	89.59	-610.13	502.55	609.02	578.55	30.46	19.991	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 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		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
15,400.00	12,444.67	15,382.04	12,422.66	53.69	51.54	-87.93	-3,791.20	531.46	609.41	504.48	104.93	5.808		
15,500.00	12,445.19	15,482.04	12,423.18	55.02	52.84	-87.93	-3,891.19	532.37	609.41	501.84	107.56	5.666		
15,600.00	12,445.72	15,582.04	12,423.71	56.35	54.15	-87.93	-3,991.19	533.27	609.41	499.20	110.20	5.530		
15,700.00	12,446.24	15,682.04	12,424.23	57.69	55.46	-87.93	-4,091.18	534.18	609.41	496.56	112.85	5.400		
15,800.00	12,446.77	15,782.04	12,424.76	59.02	56.77	-87.93	-4,191.18	535.09	609.40	493.91	115.50	5.276		
15,900.00	12,447.29	15,882.04	12,425.28	60.36	58.08	-87.93	-4,291.17	536.00	609.40	491.26	118.15	5.158		
16,000.00	12,447.82	15,982.04	12,425.81	61.69	59.40	-87.93	-4,391.17	536.91	609.40	488.60	120.80	5.045		
16,100.00	12,448.34	16,082.04	12,426.33	63.03	60.71	-87.93	-4,491.16	537.82	609.40	485.94	123.46	4.936		
16,200.00	12,448.87	16,182.04	12,426.86	64.37	62.04	-87.93	-4,591.16	538.73	609.40	483.28	126.13	4.832		
16,300.00	12,449.39	16,282.04	12,427.38	65.72	63.36	-87.93	-4,691.15	539.63	609.40	480.61	128.80	4.732		
16,400.00	12,449.92	16,382.04	12,427.91	67.06	64.68	-87.93	-4,791.14	540.54	609.40	477.94	131.46	4.635		
16,500.00	12,450.44	16,482.04	12,428.43	68.40	66.01	-87.93	-4,891.14	541.45	609.40	475.27	134.14	4.543		
16,600.00	12,450.97	16,582.04	12,428.96	69.75	67.34	-87.93	-4,991.13	542.36	609.40	472.59	136.81	4.454		
16,700.00	12,451.49	16,682.04	12,429.48	71.09	68.67	-87.93	-5,091.13	543.27	609.40	469.91	139.49	4.369		
16,800.00	12,452.02	16,782.04	12,430.01	72.44	70.00	-87.93	-5,191.12	544.18	609.40	467.23	142.17	4.286		
16,900.00	12,452.54	16,882.04	12,430.53	73.79	71.33	-87.93	-5,291.12	545.09	609.40	464.55	144.85	4.207		
17,000.00	12,453.07	16,982.04	12,431.06	75.13	72.66	-87.93	-5,391.11	546.00	609.40	461.87	147.53	4.131		
17,100.00	12,453.59	17,082.04	12,431.58	76.48	74.00	-87.93	-5,491.11	546.90	609.40	459.18	150.22	4.057		
17,200.00	12,454.12	17,182.04	12,432.11	77.83	75.34	-87.93	-5,591.10	547.81	609.40	456.49	152.91	3.985		
17,300.00	12,454.64	17,282.04	12,432.63	79.18	76.67	-87.93	-5,691.10	548.72	609.40	453.80	155.60	3.917		
17,400.00	12,455.17	17,382.04	12,433.16	80.53	78.01	-87.93	-5,791.09	549.63	609.40	451.11	158.29	3.850		
17,500.00	12,455.69	17,482.04	12,433.68	81.89	79.35	-87.93	-5,891.08	550.54	609.40	448.42	160.98	3.786		
17,600.00	12,456.22	17,582.04	12,434.21	83.24	80.69	-87.93	-5,991.08	551.45	609.40	445.73	163.68	3.723		
17,700.00	12,456.74	17,682.04	12,434.73	84.59	82.03	-87.93	-6,091.07	552.36	609.40	443.03	166.37	3.663		
17,800.00	12,457.27	17,782.04	12,435.26	85.94	83.38	-87.93	-6,191.07	553.26	609.40	440.33	169.07	3.604		
17,900.00	12,457.79	17,882.04	12,435.78	87.30	84.72	-87.93	-6,291.06	554.17	609.40	437.63	171.77	3.548		
18,000.00	12,458.32	17,982.04	12,436.31	88.65	86.06	-87.93	-6,391.06	555.08	609.40	434.94	174.47	3.493		
18,100.00	12,458.84	18,082.04	12,436.83	90.01	87.41	-87.93	-6,491.05	555.99	609.40	432.23	177.17	3.440		
18,200.00	12,459.37	18,182.04	12,437.36	91.36	88.75	-87.93	-6,591.05	556.90	609.40	429.53	179.87	3.388		
18,300.00	12,459.89	18,282.04	12,437.88	92.72	90.10	-87.93	-6,691.04	557.81	609.40	426.83	182.57	3.338		
18,400.00	12,460.42	18,382.04	12,438.41	94.07	91.45	-87.93	-6,791.03	558.72	609.40	424.13	185.27	3.289		
18,500.00	12,460.94	18,482.04	12,438.93	95.43	92.79	-87.93	-6,891.03	559.63	609.40	421.42	187.98	3.242		
18,600.00	12,461.47	18,582.04	12,439.46	96.79	94.14	-87.93	-6,991.02	560.53	609.40	418.71	190.69	3.196		
18,700.00	12,461.99	18,682.04	12,439.98	98.15	95.49	-87.93	-7,091.02	561.44	609.40	416.01	193.39	3.151		
18,800.00	12,462.52	18,782.04	12,440.51	99.50	96.84	-87.93	-7,191.01	562.35	609.40	413.30	196.10	3.108		
18,900.00	12,463.04	18,882.04	12,441.03	100.86	98.19	-87.93	-7,291.01	563.26	609.40	410.59	198.81	3.065		
19,000.00	12,463.57	18,982.04	12,441.56	102.22	99.54	-87.93	-7,391.00	564.17	609.40	407.88	201.52	3.024		
19,100.00	12,464.09	19,082.04	12,442.08	103.58	100.89	-87.93	-7,491.00	565.08	609.40	405.17	204.23	2.984		
19,200.00	12,464.62	19,182.04	12,442.61	104.94	102.24	-87.93	-7,590.99	565.99	609.40	402.46	206.94	2.945		
19,300.00	12,465.14	19,282.04	12,443.13	106.29	103.60	-87.93	-7,690.99	566.89	609.40	399.75	209.65	2.907		
19,400.00	12,465.67	19,382.04	12,443.66	107.65	104.95	-87.93	-7,790.98	567.80	609.40	397.04	212.36	2.870		
19,500.00	12,466.19	19,482.04	12,444.18	109.01	106.30	-87.93	-7,890.97	568.71	609.40	394.32	215.07	2.833		
19,600.00	12,466.72	19,582.04	12,444.71	110.37	107.65	-87.93	-7,990.97	569.62	609.40	391.61	217.79	2.798		
19,700.00	12,467.24	19,682.04	12,445.23	111.73	109.01	-87.93	-8,090.96	570.53	609.40	388.90	220.50	2.764		
19,800.00	12,467.77	19,782.04	12,445.76	113.09	110.36	-87.93	-8,190.96	571.44	609.40	386.18	223.22	2.730		
19,900.00	12,468.29	19,882.04	12,446.28	114.45	111.72	-87.93	-8,290.95	572.35	609.40	383.47	225.93	2.697		
20,000.00	12,468.82	19,982.04	12,446.81	115.82	113.07	-87.93	-8,390.95	573.26	609.40	380.75	228.65	2.665		
20,100.00	12,469.34	20,082.04	12,447.33	117.18	114.43	-87.93	-8,490.94	574.16	609.40	378.03	231.36	2.634		
20,200.00	12,469.87	20,182.04	12,447.85	118.54	115.78	-87.93	-8,590.94	575.07	609.40	375.32	234.08	2.603		
20,300.00	12,470.39	20,282.04	12,448.38	119.90	117.14	-87.93	-8,690.93	575.98	609.40	372.60	236.80	2.574		
20,400.00	12,470.92	20,382.04	12,448.90	121.26	118.49	-87.93	-8,790.92	576.89	609.40	369.88	239.51	2.544		
20,500.00	12,471.44	20,482.04	12,449.43	122.62	119.85	-87.93	-8,890.92	577.80	609.40	367.16	242.23	2.516		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	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
20,600.00	12,471.97	20,582.04	12,449.95	123.98	121.21	-87.93	-8,990.91	578.71	609.40	364.45	244.95	2.488		
20,700.00	12,472.50	20,682.04	12,450.48	125.35	122.56	-87.93	-9,090.91	579.62	609.40	361.73	247.67	2.461		
20,800.00	12,473.02	20,782.04	12,451.00	126.71	123.92	-87.93	-9,190.90	580.52	609.39	359.01	250.39	2.434		
20,900.00	12,473.55	20,882.04	12,451.53	128.07	125.28	-87.93	-9,290.90	581.43	609.39	356.29	253.11	2.408		
21,000.00	12,474.07	20,982.04	12,452.05	129.43	126.64	-87.93	-9,390.89	582.34	609.39	353.57	255.83	2.382		
21,100.00	12,474.60	21,082.04	12,452.58	130.80	127.99	-87.93	-9,490.89	583.25	609.39	350.85	258.55	2.357		
21,200.00	12,475.12	21,182.04	12,453.10	132.16	129.35	-87.93	-9,590.88	584.16	609.39	348.13	261.27	2.332		
21,300.00	12,475.65	21,282.04	12,453.63	133.52	130.71	-87.93	-9,690.88	585.07	609.39	345.40	263.99	2.308		
21,400.00	12,476.17	21,382.04	12,454.15	134.88	132.07	-87.93	-9,790.87	585.98	609.39	342.68	266.71	2.285		
21,500.00	12,476.70	21,482.04	12,454.68	136.25	133.43	-87.93	-9,890.86	586.89	609.39	339.96	269.43	2.262		
21,600.00	12,477.22	21,582.04	12,455.20	137.61	134.79	-87.93	-9,990.86	587.79	609.39	337.24	272.16	2.239		
21,700.00	12,477.75	21,682.04	12,455.73	138.97	136.15	-87.93	-10,090.85	588.70	609.39	334.51	274.88	2.217		
21,800.00	12,478.27	21,782.04	12,456.25	140.34	137.51	-87.93	-10,190.85	589.61	609.39	331.79	277.60	2.195		
21,900.00	12,478.80	21,882.04	12,456.78	141.70	138.87	-87.93	-10,290.84	590.52	609.39	329.07	280.32	2.174		
22,000.00	12,479.32	21,982.04	12,457.30	143.06	140.23	-87.93	-10,390.84	591.43	609.39	326.35	283.05	2.153		
22,100.00	12,479.85	22,082.04	12,457.83	144.43	141.59	-87.93	-10,490.83	592.34	609.39	323.62	285.77	2.132		
22,200.00	12,480.37	22,182.04	12,458.35	145.79	142.95	-87.93	-10,590.83	593.25	609.39	320.90	288.49	2.112		
22,300.00	12,480.90	22,282.04	12,458.88	147.16	144.31	-87.93	-10,690.82	594.15	609.39	318.17	291.22	2.093		
22,400.00	12,481.42	22,382.04	12,459.40	148.52	145.67	-87.93	-10,790.81	595.06	609.39	315.45	293.94	2.073		
22,500.00	12,481.95	22,482.04	12,459.93	149.89	147.03	-87.93	-10,890.81	595.97	609.39	312.72	296.67	2.054		
22,600.00	12,482.47	22,582.04	12,460.45	151.25	148.39	-87.93	-10,990.80	596.88	609.39	310.00	299.39	2.035		
22,700.00	12,483.00	22,682.04	12,460.98	152.61	149.63	-87.93	-11,090.80	597.79	609.39	307.40	302.00	2.018		
22,719.79	12,483.10	22,701.83	12,461.08	152.85	149.88	-87.93	-11,110.58	597.97	609.39	306.92	302.48	2.015	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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+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)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
1,900.00	1,896.13	2,095.78	2,093.38	5.46	5.84	61.26	-883.89	-2,296.32	2,426.85	2,415.79	11.06	219.444	
2,000.00	1,995.54	2,194.68	2,191.90	5.64	6.03	61.41	-884.19	-2,287.71	2,413.46	2,402.04	11.42	211.305	
2,100.00	2,094.94	2,441.32	2,436.88	5.83	6.52	61.82	-881.63	-2,259.66	2,397.33	2,385.28	12.05	198.968	
2,200.00	2,194.35	2,696.04	2,687.58	6.02	7.06	62.32	-871.50	-2,215.95	2,374.69	2,362.01	12.69	187.146	
2,300.00	2,293.76	2,915.52	2,900.86	6.20	7.52	62.82	-856.73	-2,166.44	2,345.93	2,332.69	13.25	177.093	
2,400.00	2,393.16	3,010.23	2,992.34	6.39	7.70	63.06	-849.33	-2,143.07	2,315.16	2,301.55	13.61	170.110	
2,500.00	2,492.57	3,104.94	3,083.82	6.58	7.88	63.30	-841.93	-2,119.70	2,284.43	2,270.45	13.97	163.473	
2,600.00	2,591.98	3,199.65	3,175.31	6.76	8.06	63.55	-834.52	-2,096.33	2,253.73	2,239.39	14.34	157.160	
2,700.00	2,691.38	3,294.36	3,266.79	6.95	8.25	63.80	-827.12	-2,072.96	2,223.07	2,208.37	14.71	151.153	
2,800.00	2,790.79	3,389.07	3,358.27	7.13	8.48	64.06	-819.72	-2,049.59	2,192.46	2,177.38	15.08	145.413	
2,900.00	2,890.20	3,483.79	3,449.76	7.32	8.75	64.33	-812.32	-2,026.22	2,161.88	2,146.44	15.45	139.959	
3,000.00	2,989.60	3,578.50	3,541.24	7.50	9.02	64.60	-804.92	-2,002.85	2,131.36	2,115.54	15.82	134.747	
3,100.00	3,089.01	3,673.21	3,632.73	7.69	9.30	64.89	-797.51	-1,979.47	2,100.87	2,084.68	16.19	129.768	
3,200.00	3,188.42	3,767.92	3,724.21	7.88	9.58	65.18	-790.11	-1,956.10	2,070.44	2,053.88	16.56	125.008	
3,300.00	3,287.82	3,862.63	3,815.69	8.06	9.86	65.48	-782.71	-1,932.73	2,040.06	2,023.12	16.94	120.454	
3,400.00	3,387.23	3,957.34	3,907.18	8.25	10.15	65.79	-775.31	-1,909.36	2,009.73	1,992.42	17.31	116.094	
3,500.00	3,486.64	4,052.05	3,998.66	8.43	10.44	66.11	-767.91	-1,885.99	1,979.45	1,961.77	17.69	111.917	
3,600.00	3,586.04	4,146.76	4,090.14	8.62	10.73	66.44	-760.50	-1,862.62	1,949.24	1,931.17	18.06	107.912	
3,700.00	3,685.45	4,241.48	4,181.63	8.80	11.03	66.78	-753.10	-1,839.25	1,919.08	1,900.64	18.44	104.069	
3,800.00	3,784.86	4,336.19	4,273.11	8.99	11.32	67.13	-745.70	-1,815.88	1,888.99	1,870.17	18.82	100.380	
3,900.00	3,884.26	4,430.90	4,364.59	9.17	11.62	67.49	-738.30	-1,792.51	1,858.96	1,839.77	19.20	96.836	
4,000.00	3,983.67	4,525.61	4,456.08	9.36	11.92	67.86	-730.90	-1,769.14	1,829.01	1,809.43	19.58	93.428	
4,100.00	4,083.08	4,620.32	4,547.56	9.54	12.22	68.24	-723.49	-1,745.77	1,799.13	1,779.17	19.96	90.151	
4,200.00	4,182.48	4,715.03	4,639.05	9.73	12.53	68.64	-716.09	-1,722.40	1,769.32	1,748.99	20.34	86.997	
4,300.00	4,281.89	4,809.74	4,730.53	9.91	12.83	69.05	-708.69	-1,699.03	1,739.60	1,718.88	20.72	83.959	
4,400.00	4,381.30	4,904.45	4,822.01	10.10	13.14	69.47	-701.29	-1,675.66	1,709.96	1,688.86	21.10	81.033	
4,500.00	4,480.70	4,999.17	4,913.50	10.28	13.45	69.91	-693.89	-1,652.29	1,680.42	1,658.93	21.49	78.211	
4,600.00	4,580.11	5,093.88	5,004.98	10.47	13.76	70.37	-686.48	-1,628.92	1,650.97	1,629.10	21.87	75.490	
4,700.00	4,679.51	5,188.59	5,096.46	10.65	14.07	70.84	-679.08	-1,605.55	1,621.61	1,599.36	22.26	72.864	
4,800.00	4,778.92	5,283.30	5,187.95	10.84	14.38	71.33	-671.68	-1,582.18	1,592.37	1,569.73	22.64	70.329	
4,900.00	4,878.33	5,378.01	5,279.43	11.02	14.69	71.83	-664.28	-1,558.81	1,563.23	1,540.21	23.02	67.897	
5,000.00	4,977.73	5,449.57	5,348.66	11.21	14.91	72.22	-658.81	-1,541.56	1,534.83	1,511.44	23.39	65.608	
5,100.00	5,077.14	5,518.01	5,415.18	11.39	15.12	72.60	-653.95	-1,526.20	1,508.21	1,484.45	23.77	63.460	
5,200.00	5,176.55	5,600.00	5,495.23	11.58	15.36	73.06	-648.60	-1,509.30	1,483.50	1,459.35	24.15	61.430	
5,300.00	5,275.95	5,657.01	5,551.10	11.76	15.51	73.38	-645.18	-1,498.52	1,460.48	1,435.99	24.50	59.623	
5,400.00	5,375.36	5,727.48	5,620.40	11.95	15.69	73.77	-641.31	-1,486.29	1,439.42	1,414.56	24.85	57.921	
5,500.00	5,474.77	5,800.00	5,691.94	12.13	15.86	74.17	-637.73	-1,474.98	1,420.25	1,395.04	25.20	56.350	
5,600.00	5,574.17	5,870.18	5,761.38	12.32	16.01	74.56	-634.65	-1,465.27	1,402.99	1,377.44	25.54	54.927	
5,700.00	5,673.58	5,942.33	5,832.94	12.50	16.15	74.95	-631.89	-1,456.56	1,387.65	1,361.78	25.88	53.626	
5,800.00	5,772.99	6,014.94	5,905.12	12.69	16.27	75.34	-629.53	-1,449.09	1,374.26	1,348.06	26.20	52.448	
5,900.00	5,872.39	6,100.00	5,989.86	12.87	16.41	75.78	-627.29	-1,442.01	1,362.88	1,336.34	26.54	51.345	
6,000.00	5,971.80	6,161.36	6,051.07	13.06	16.48	76.10	-626.02	-1,438.02	1,353.32	1,326.50	26.82	50.454	
6,100.00	6,071.21	6,235.06	6,124.69	13.24	16.57	76.47	-624.90	-1,434.47	1,345.79	1,318.67	27.12	49.632	
6,200.00	6,170.61	6,300.00	6,189.59	13.43	16.64	76.78	-624.26	-1,432.46	1,340.26	1,312.88	27.38	48.959	
6,300.00	6,270.02	6,391.42	6,281.00	13.61	16.71	77.21	-623.93	-1,431.42	1,336.64	1,309.00	27.63	48.371	
6,400.00	6,369.43	6,479.85	6,369.43	13.80	16.75	77.61	-623.93	-1,431.42	1,334.20	1,306.35	27.85	47.908	
6,500.00	6,468.83	6,579.25	6,468.83	13.98	16.81	78.07	-623.93	-1,431.42	1,331.90	1,303.81	28.09	47.421	
6,600.00	6,568.24	6,678.66	6,568.24	14.17	16.87	78.52	-623.93	-1,431.42	1,329.68	1,301.35	28.32	46.944	
6,700.00	6,667.74	6,778.16	6,667.74	14.34	16.93	78.92	-623.93	-1,431.42	1,327.72	1,299.18	28.54	46.524	
6,800.00	6,767.46	6,877.88	6,767.46	14.53	16.98	79.21	-623.93	-1,431.42	1,326.31	1,297.57	28.75	46.136	
6,900.00	6,867.34	6,977.77	6,867.34	14.70	17.04	79.40	-623.93	-1,431.42	1,325.43	1,296.49	28.93	45.807	
7,000.00	6,967.32	7,077.74	6,967.32	14.86	17.10	79.49	-623.93	-1,431.42	1,325.03	1,295.93	29.10	45.535	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 Site Error:
														Offset Well Error:
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	
7,090.01	7,057.33	7,167.75	7,057.33	14.87	17.15	79.51	-623.93	-1,431.42	1,324.95	1,295.79	29.16	45.440	CC	
7,100.00	7,067.32	7,177.74	7,067.32	14.88	17.16	-90.41	-623.93	-1,431.42	1,325.00	1,295.84	29.16	45.432		
7,200.00	7,167.32	7,277.74	7,167.32	14.90	17.22	-90.41	-623.93	-1,431.42	1,325.00	1,295.76	29.25	45.304		
7,300.00	7,267.32	7,377.74	7,267.32	14.93	17.28	-90.41	-623.93	-1,431.42	1,325.00	1,295.67	29.33	45.176		
7,400.00	7,367.32	7,477.74	7,367.32	14.95	17.34	-90.41	-623.93	-1,431.42	1,325.00	1,295.59	29.41	45.048		
7,500.00	7,467.32	7,577.74	7,467.32	14.98	17.40	-90.41	-623.93	-1,431.42	1,325.00	1,295.51	29.50	44.920		
7,600.00	7,567.32	7,677.74	7,567.32	15.01	17.46	-90.41	-623.93	-1,431.42	1,325.00	1,295.42	29.58	44.791		
7,700.00	7,667.32	7,777.74	7,667.32	15.03	17.52	-90.41	-623.93	-1,431.42	1,325.00	1,295.34	29.67	44.662		
7,800.00	7,767.32	7,877.74	7,767.32	15.06	17.58	-90.41	-623.93	-1,431.42	1,325.00	1,295.25	29.75	44.533		
7,900.00	7,867.32	7,977.74	7,867.32	15.09	17.64	-90.41	-623.93	-1,431.42	1,325.00	1,295.16	29.84	44.404		
8,000.00	7,967.32	8,077.74	7,967.32	15.12	17.70	-90.41	-623.93	-1,431.42	1,325.00	1,295.08	29.93	44.275		
8,100.00	8,067.32	8,177.74	8,067.32	15.15	17.76	-90.41	-623.93	-1,431.42	1,325.00	1,294.99	30.01	44.146		
8,200.00	8,167.32	8,277.74	8,167.32	15.18	17.82	-90.41	-623.93	-1,431.42	1,325.00	1,294.90	30.10	44.016		
8,300.00	8,267.32	8,377.74	8,267.32	15.21	17.88	-90.41	-623.93	-1,431.42	1,325.00	1,294.81	30.19	43.886		
8,400.00	8,367.32	8,477.74	8,367.32	15.24	17.94	-90.41	-623.93	-1,431.42	1,325.00	1,294.72	30.28	43.757		
8,500.00	8,467.32	8,577.74	8,467.32	15.27	18.00	-90.41	-623.93	-1,431.42	1,325.00	1,294.63	30.37	43.627		
8,600.00	8,567.32	8,677.74	8,567.32	15.30	18.06	-90.41	-623.93	-1,431.42	1,325.00	1,294.54	30.46	43.497		
8,700.00	8,667.32	8,777.74	8,667.32	15.33	18.12	-90.41	-623.93	-1,431.42	1,325.00	1,294.45	30.55	43.367		
8,800.00	8,767.32	8,877.74	8,767.32	15.36	18.19	-90.41	-623.93	-1,431.42	1,325.00	1,294.36	30.65	43.237		
8,900.00	8,867.32	8,977.74	8,867.32	15.39	18.25	-90.41	-623.93	-1,431.42	1,325.00	1,294.27	30.74	43.107		
9,000.00	8,967.32	9,077.74	8,967.32	15.43	18.31	-90.41	-623.93	-1,431.42	1,325.00	1,294.17	30.83	42.977		
9,100.00	9,067.32	9,177.74	9,067.32	15.46	18.37	-90.41	-623.93	-1,431.42	1,325.00	1,294.08	30.92	42.847		
9,200.00	9,167.32	9,277.74	9,167.32	15.49	18.44	-90.41	-623.93	-1,431.42	1,325.00	1,293.99	31.02	42.717		
9,300.00	9,267.32	9,377.74	9,267.32	15.53	18.50	-90.41	-623.93	-1,431.42	1,325.00	1,293.89	31.11	42.587		
9,400.00	9,367.32	9,477.74	9,367.32	15.56	18.56	-90.41	-623.93	-1,431.42	1,325.00	1,293.80	31.21	42.457		
9,500.00	9,467.32	9,577.74	9,467.32	15.59	18.62	-90.41	-623.93	-1,431.42	1,325.00	1,293.70	31.30	42.328		
9,600.00	9,567.32	9,677.74	9,567.32	15.63	18.69	-90.41	-623.93	-1,431.42	1,325.00	1,293.60	31.40	42.198		
9,700.00	9,667.32	9,777.74	9,667.32	15.66	18.75	-90.41	-623.93	-1,431.42	1,325.00	1,293.51	31.50	42.068		
9,800.00	9,767.32	9,877.74	9,767.32	15.70	18.81	-90.41	-623.93	-1,431.42	1,325.00	1,293.41	31.59	41.939		
9,900.00	9,867.32	9,977.74	9,867.32	15.73	18.88	-90.41	-623.93	-1,431.42	1,325.00	1,293.31	31.69	41.809		
10,000.00	9,967.32	10,077.74	9,967.32	15.77	18.94	-90.41	-623.93	-1,431.42	1,325.00	1,293.21	31.79	41.680		
10,100.00	10,067.32	10,177.74	10,067.32	15.81	19.00	-90.41	-623.93	-1,431.42	1,325.00	1,293.11	31.89	41.551		
10,200.00	10,167.32	10,277.74	10,167.32	15.84	19.07	-90.41	-623.93	-1,431.42	1,325.00	1,293.02	31.99	41.421		
10,300.00	10,267.32	10,377.74	10,267.32	15.88	19.13	-90.41	-623.93	-1,431.42	1,325.00	1,292.92	32.09	41.293		
10,400.00	10,367.32	10,477.74	10,367.32	15.92	19.20	-90.41	-623.93	-1,431.42	1,325.00	1,292.81	32.19	41.164		
10,500.00	10,467.32	10,577.74	10,467.32	15.95	19.26	-90.41	-623.93	-1,431.42	1,325.00	1,292.71	32.29	41.035		
10,600.00	10,567.32	10,677.74	10,567.32	15.99	19.32	-90.41	-623.93	-1,431.42	1,325.00	1,292.61	32.39	40.907		
10,700.00	10,667.32	10,777.74	10,667.32	16.03	19.39	-90.41	-623.93	-1,431.42	1,325.00	1,292.51	32.49	40.778		
10,800.00	10,767.32	10,877.74	10,767.32	16.07	19.45	-90.41	-623.93	-1,431.42	1,325.00	1,292.41	32.60	40.650		
10,900.00	10,867.32	10,977.74	10,867.32	16.11	19.52	-90.41	-623.93	-1,431.42	1,325.00	1,292.31	32.70	40.523		
11,000.00	10,967.32	11,077.74	10,967.32	16.15	19.58	-90.41	-623.93	-1,431.42	1,325.00	1,292.20	32.80	40.395		
11,100.00	11,067.32	11,177.74	11,067.32	16.19	19.65	-90.41	-623.93	-1,431.42	1,325.00	1,292.10	32.91	40.267		
11,200.00	11,167.32	11,277.74	11,167.32	16.23	19.71	-90.41	-623.93	-1,431.42	1,325.00	1,291.99	33.01	40.140		
11,300.00	11,267.32	11,377.74	11,267.32	16.27	19.78	-90.41	-623.93	-1,431.42	1,325.00	1,291.89	33.11	40.013		
11,400.00	11,367.32	11,477.74	11,367.32	16.31	19.84	-90.41	-623.93	-1,431.42	1,325.00	1,291.78	33.22	39.887		
11,500.00	11,467.32	11,577.74	11,467.32	16.35	19.91	-90.41	-623.93	-1,431.42	1,325.00	1,291.68	33.32	39.760		
11,600.00	11,567.32	11,677.74	11,567.32	16.39	19.97	-90.41	-623.93	-1,431.42	1,325.00	1,291.57	33.43	39.634		
11,700.00	11,667.32	11,777.74	11,667.32	16.43	20.04	-90.41	-623.93	-1,431.42	1,325.00	1,291.47	33.54	39.508		
11,800.00	11,767.32	11,877.76	11,767.34	16.47	20.09	-90.41	-623.96	-1,431.42	1,325.00	1,291.37	33.63	39.400		
11,842.68	11,810.00	11,920.48	11,810.00	16.49	20.11	90.03	-626.01	-1,431.40	1,325.00	1,291.37	33.64	39.392		
11,900.00	11,867.32	11,976.92	11,865.91	16.51	20.15	89.70	-633.58	-1,431.34	1,325.02	1,291.40	33.63	39.404		
12,000.00	11,966.66	12,072.90	11,958.37	16.75	20.20	89.00	-658.93	-1,431.12	1,325.23	1,291.57	33.65	39.378		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)				
12,100.00	12,062.69	12,166.49	12,043.22	17.02	20.23	88.33	-698.16	-1,430.78	1,325.61	1,291.81	33.80	39.224		
12,200.00	12,152.51	12,258.02	12,118.96	17.30	20.27	87.72	-749.36	-1,430.34	1,326.13	1,292.05	34.08	38.912		
12,300.00	12,233.38	12,350.00	12,185.90	17.56	20.33	87.17	-812.31	-1,429.80	1,326.73	1,292.20	34.53	38.427		
12,400.00	12,302.84	12,436.16	12,238.72	17.80	20.41	86.71	-880.28	-1,429.21	1,327.33	1,292.17	35.16	37.749		
12,500.00	12,358.79	12,523.41	12,281.22	18.10	20.54	86.33	-956.37	-1,428.56	1,327.90	1,291.91	35.98	36.904		
12,600.00	12,399.52	12,609.82	12,311.45	18.99	20.73	86.06	-1,037.23	-1,427.86	1,328.36	1,291.38	36.98	35.925		
12,700.00	12,423.80	12,695.69	12,329.12	19.97	20.97	85.88	-1,121.18	-1,427.14	1,328.67	1,290.55	38.12	34.855		
12,800.00	12,431.01	12,783.41	12,334.21	21.01	21.28	85.82	-1,208.68	-1,426.38	1,328.81	1,289.42	39.39	33.738		
12,900.00	12,431.54	12,883.41	12,334.73	22.11	21.71	85.82	-1,308.67	-1,425.52	1,328.86	1,288.00	40.86	32.522		
13,000.00	12,432.07	12,983.41	12,335.25	23.23	22.20	85.82	-1,408.67	-1,424.66	1,328.91	1,286.45	42.45	31.304		
13,100.00	12,432.59	13,083.41	12,335.77	24.37	22.76	85.82	-1,508.66	-1,423.80	1,328.95	1,284.80	44.15	30.100		
13,200.00	12,433.12	13,183.41	12,336.29	25.54	23.38	85.82	-1,608.66	-1,422.94	1,329.00	1,283.05	45.95	28.923		
13,300.00	12,433.64	13,283.41	12,336.81	26.73	24.05	85.82	-1,708.65	-1,422.08	1,329.05	1,281.21	47.84	27.783		
13,400.00	12,434.17	13,383.41	12,337.34	27.93	24.77	85.82	-1,808.65	-1,421.22	1,329.10	1,279.29	49.80	26.687		
13,500.00	12,434.69	13,483.41	12,337.86	29.15	25.54	85.82	-1,908.64	-1,420.36	1,329.15	1,277.31	51.84	25.639		
13,600.00	12,435.22	13,583.41	12,338.38	30.38	26.35	85.82	-2,008.64	-1,419.49	1,329.19	1,275.25	53.94	24.641		
13,700.00	12,435.74	13,683.41	12,338.90	31.62	27.21	85.82	-2,108.63	-1,418.63	1,329.24	1,273.14	56.10	23.694		
13,800.00	12,436.27	13,783.41	12,339.42	32.87	28.10	85.82	-2,208.63	-1,417.77	1,329.29	1,270.98	58.31	22.798		
13,900.00	12,436.79	13,883.41	12,339.94	34.13	29.03	85.82	-2,308.62	-1,416.91	1,329.34	1,268.78	60.56	21.951		
14,000.00	12,437.32	13,983.41	12,340.46	35.40	29.99	85.82	-2,408.62	-1,416.05	1,329.38	1,266.53	62.85	21.151		
14,100.00	12,437.84	14,083.41	12,340.99	36.68	30.98	85.82	-2,508.61	-1,415.19	1,329.43	1,264.25	65.18	20.396		
14,200.00	12,438.37	14,183.41	12,341.51	37.96	31.99	85.82	-2,608.61	-1,414.33	1,329.48	1,261.94	67.54	19.684		
14,300.00	12,438.89	14,283.41	12,342.03	39.25	33.03	85.82	-2,708.60	-1,413.47	1,329.53	1,259.60	69.93	19.012		
14,400.00	12,439.42	14,383.41	12,342.55	40.55	34.10	85.82	-2,808.60	-1,412.61	1,329.58	1,257.23	72.35	18.378		
14,500.00	12,439.94	14,483.41	12,343.07	41.84	35.18	85.82	-2,908.59	-1,411.74	1,329.62	1,254.84	74.78	17.780		
14,600.00	12,440.47	14,583.41	12,343.59	43.15	36.29	85.82	-3,008.59	-1,410.88	1,329.67	1,252.43	77.24	17.214		
14,700.00	12,440.99	14,683.41	12,344.11	44.45	37.41	85.82	-3,108.58	-1,410.02	1,329.72	1,250.00	79.72	16.680		
14,800.00	12,441.52	14,783.41	12,344.63	45.77	38.54	85.82	-3,208.58	-1,409.16	1,329.77	1,247.55	82.21	16.175		
14,900.00	12,442.04	14,883.41	12,345.16	47.08	39.69	85.82	-3,308.57	-1,408.30	1,329.82	1,245.09	84.72	15.696		
15,000.00	12,442.57	14,983.41	12,345.68	48.40	40.86	85.82	-3,408.57	-1,407.44	1,329.86	1,242.62	87.25	15.242		
15,100.00	12,443.09	15,083.41	12,346.20	49.72	42.03	85.82	-3,508.56	-1,406.58	1,329.91	1,240.13	89.78	14.812		
15,200.00	12,443.62	15,183.41	12,346.72	51.04	43.22	85.82	-3,608.56	-1,405.72	1,329.96	1,237.63	92.33	14.404		
15,300.00	12,444.14	15,283.41	12,347.24	52.36	44.42	85.82	-3,708.55	-1,404.85	1,330.01	1,235.11	94.89	14.016		
15,400.00	12,444.67	15,383.41	12,347.76	53.69	45.63	85.82	-3,808.55	-1,403.99	1,330.05	1,232.59	97.46	13.647		
15,500.00	12,445.19	15,483.41	12,348.28	55.02	46.84	85.82	-3,908.54	-1,403.13	1,330.10	1,230.06	100.04	13.296		
15,600.00	12,445.72	15,583.41	12,348.81	56.35	48.07	85.82	-4,008.54	-1,402.27	1,330.15	1,227.52	102.63	12.961		
15,700.00	12,446.24	15,683.41	12,349.33	57.69	49.30	85.82	-4,108.53	-1,401.41	1,330.20	1,224.98	105.22	12.642		
15,800.00	12,446.77	15,783.41	12,349.85	59.02	50.54	85.82	-4,208.53	-1,400.55	1,330.25	1,222.42	107.82	12.337		
15,900.00	12,447.29	15,883.41	12,350.37	60.36	51.79	85.82	-4,308.52	-1,399.69	1,330.29	1,219.86	110.43	12.046		
16,000.00	12,447.82	15,983.41	12,350.89	61.69	53.04	85.82	-4,408.52	-1,398.83	1,330.34	1,217.30	113.05	11.768		
16,100.00	12,448.34	16,083.41	12,351.41	63.03	54.30	85.82	-4,508.51	-1,397.97	1,330.39	1,214.72	115.67	11.502		
16,200.00	12,448.87	16,183.41	12,351.93	64.37	55.56	85.82	-4,608.51	-1,397.10	1,330.44	1,212.15	118.29	11.247		
16,300.00	12,449.39	16,283.41	12,352.46	65.72	56.83	85.82	-4,708.50	-1,396.24	1,330.49	1,209.56	120.92	11.003		
16,400.00	12,449.92	16,383.41	12,352.98	67.06	58.10	85.82	-4,808.50	-1,395.38	1,330.53	1,206.98	123.56	10.769		
16,500.00	12,450.44	16,483.41	12,353.50	68.40	59.38	85.82	-4,908.49	-1,394.52	1,330.58	1,204.39	126.20	10.544		
16,600.00	12,450.97	16,583.41	12,354.02	69.75	60.66	85.82	-5,008.49	-1,393.66	1,330.63	1,201.79	128.84	10.328		
16,700.00	12,451.49	16,683.41	12,354.54	71.09	61.94	85.82	-5,108.48	-1,392.80	1,330.68	1,199.19	131.49	10.120		
16,800.00	12,452.02	16,783.41	12,355.06	72.44	63.23	85.82	-5,208.48	-1,391.94	1,330.72	1,196.59	134.14	9.921		
16,900.00	12,452.54	16,883.41	12,355.58	73.79	64.52	85.82	-5,308.47	-1,391.08	1,330.77	1,193.98	136.79	9.729		
17,000.00	12,453.07	16,983.41	12,356.10	75.13	65.82	85.82	-5,408.47	-1,390.21	1,330.82	1,191.37	139.45	9.544		
17,100.00	12,453.59	17,083.41	12,356.63	76.48	67.11	85.82	-5,508.46	-1,389.35	1,330.87	1,188.76	142.11	9.365		
17,200.00	12,454.12	17,183.41	12,357.15	77.83	68.41	85.82	-5,608.46	-1,388.49	1,330.92	1,186.15	144.77	9.193		

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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	
17,300.00	12,454.64	17,283.41	12,357.67	79.18	69.72	85.82	-5,708.45	-1,387.63	1,330.96	1,183.53	147.44	9.027		
17,400.00	12,455.17	17,383.41	12,358.19	80.53	71.02	85.82	-5,808.45	-1,386.77	1,331.01	1,180.91	150.10	8.867		
17,500.00	12,455.69	17,483.41	12,358.71	81.89	72.33	85.82	-5,908.44	-1,385.91	1,331.06	1,178.28	152.77	8.713		
17,600.00	12,456.22	17,583.41	12,359.23	83.24	73.64	85.82	-6,008.44	-1,385.05	1,331.11	1,175.66	155.45	8.563		
17,700.00	12,456.74	17,683.41	12,359.75	84.59	74.95	85.82	-6,108.43	-1,384.19	1,331.15	1,173.03	158.12	8.419		
17,800.00	12,457.27	17,783.41	12,360.28	85.94	76.27	85.82	-6,208.43	-1,383.33	1,331.20	1,170.40	160.80	8.279		
17,900.00	12,457.79	17,883.41	12,360.80	87.30	77.58	85.82	-6,308.42	-1,382.46	1,331.25	1,167.77	163.48	8.143		
18,000.00	12,458.32	17,983.41	12,361.32	88.65	78.90	85.82	-6,408.42	-1,381.60	1,331.30	1,165.14	166.16	8.012		
18,100.00	12,458.84	18,083.41	12,361.84	90.01	80.22	85.82	-6,508.41	-1,380.74	1,331.35	1,162.51	168.84	7.885		
18,200.00	12,459.37	18,183.41	12,362.36	91.36	81.54	85.82	-6,608.41	-1,379.88	1,331.39	1,159.87	171.52	7.762		
18,300.00	12,459.89	18,283.41	12,362.88	92.72	82.87	85.82	-6,708.40	-1,379.02	1,331.44	1,157.23	174.21	7.643		
18,400.00	12,460.42	18,383.41	12,363.40	94.07	84.19	85.82	-6,808.40	-1,378.16	1,331.49	1,154.59	176.90	7.527		
18,500.00	12,460.94	18,483.41	12,363.93	95.43	85.52	85.82	-6,908.39	-1,377.30	1,331.54	1,151.95	179.58	7.415		
18,600.00	12,461.47	18,583.41	12,364.45	96.79	86.84	85.82	-7,008.38	-1,376.44	1,331.59	1,149.31	182.27	7.305		
18,700.00	12,461.99	18,683.41	12,364.97	98.15	88.17	85.82	-7,108.38	-1,375.57	1,331.63	1,146.67	184.96	7.199		
18,800.00	12,462.52	18,783.41	12,365.49	99.50	89.50	85.82	-7,208.37	-1,374.71	1,331.68	1,144.02	187.66	7.096		
18,900.00	12,463.04	18,883.41	12,366.01	100.86	90.83	85.82	-7,308.37	-1,373.85	1,331.73	1,141.38	190.35	6.996		
19,000.00	12,463.57	18,983.41	12,366.53	102.22	92.17	85.82	-7,408.36	-1,372.99	1,331.78	1,138.73	193.04	6.899		
19,100.00	12,464.09	19,083.41	12,367.05	103.58	93.50	85.82	-7,508.36	-1,372.13	1,331.82	1,136.09	195.74	6.804		
19,200.00	12,464.62	19,183.41	12,367.58	104.94	94.83	85.82	-7,608.35	-1,371.27	1,331.87	1,133.44	198.44	6.712		
19,300.00	12,465.14	19,283.41	12,368.10	106.29	96.17	85.82	-7,708.35	-1,370.41	1,331.92	1,130.79	201.13	6.622		
19,400.00	12,465.67	19,383.41	12,368.62	107.65	97.50	85.82	-7,808.34	-1,369.55	1,331.97	1,128.14	203.83	6.535		
19,500.00	12,466.19	19,483.41	12,369.14	109.01	98.84	85.82	-7,908.34	-1,368.69	1,332.02	1,125.48	206.53	6.449		
19,600.00	12,466.72	19,583.41	12,369.66	110.37	100.18	85.82	-8,008.33	-1,367.82	1,332.06	1,122.83	209.23	6.366		
19,700.00	12,467.24	19,683.41	12,370.18	111.73	101.52	85.82	-8,108.33	-1,366.96	1,332.11	1,120.18	211.93	6.286		
19,800.00	12,467.77	19,783.41	12,370.70	113.09	102.86	85.82	-8,208.32	-1,366.10	1,332.16	1,117.52	214.63	6.207		
19,900.00	12,468.29	19,883.41	12,371.22	114.45	104.20	85.82	-8,308.32	-1,365.24	1,332.21	1,114.87	217.34	6.130		
20,000.00	12,468.82	19,983.41	12,371.75	115.82	105.54	85.82	-8,408.31	-1,364.38	1,332.26	1,112.21	220.04	6.055		
20,100.00	12,469.34	20,083.41	12,372.27	117.18	106.88	85.82	-8,508.31	-1,363.52	1,332.30	1,109.56	222.75	5.981		
20,200.00	12,469.87	20,183.41	12,372.79	118.54	108.22	85.82	-8,608.30	-1,362.66	1,332.35	1,106.90	225.45	5.910		
20,300.00	12,470.39	20,283.41	12,373.31	119.90	109.57	85.82	-8,708.30	-1,361.80	1,332.40	1,104.24	228.16	5.840		
20,400.00	12,470.92	20,383.41	12,373.83	121.26	110.91	85.82	-8,808.29	-1,360.93	1,332.45	1,101.58	230.86	5.772		
20,500.00	12,471.44	20,483.41	12,374.35	122.62	112.26	85.82	-8,908.29	-1,360.07	1,332.49	1,098.93	233.57	5.705		
20,600.00	12,471.97	20,583.41	12,374.87	123.98	113.60	85.82	-9,008.28	-1,359.21	1,332.54	1,096.27	236.28	5.640		
20,700.00	12,472.50	20,683.41	12,375.40	125.35	114.95	85.82	-9,108.28	-1,358.35	1,332.59	1,093.61	238.98	5.576		
20,800.00	12,473.02	20,783.41	12,375.92	126.71	116.29	85.82	-9,208.27	-1,357.49	1,332.64	1,090.95	241.69	5.514		
20,900.00	12,473.55	20,883.41	12,376.44	128.07	117.64	85.82	-9,308.27	-1,356.63	1,332.69	1,088.28	244.40	5.453		
21,000.00	12,474.07	20,983.41	12,376.96	129.43	118.99	85.82	-9,408.26	-1,355.77	1,332.73	1,085.62	247.11	5.393		
21,100.00	12,474.60	21,083.41	12,377.48	130.80	120.33	85.82	-9,508.26	-1,354.91	1,332.78	1,082.96	249.82	5.335		
21,200.00	12,475.12	21,183.41	12,378.00	132.16	121.68	85.82	-9,608.25	-1,354.05	1,332.83	1,080.30	252.53	5.278		
21,300.00	12,475.65	21,283.41	12,378.52	133.52	123.03	85.82	-9,708.25	-1,353.18	1,332.88	1,077.63	255.24	5.222		
21,400.00	12,476.17	21,383.41	12,379.05	134.88	124.38	85.82	-9,808.24	-1,352.32	1,332.92	1,074.97	257.96	5.167		
21,500.00	12,476.70	21,483.41	12,379.57	136.25	125.73	85.82	-9,908.24	-1,351.46	1,332.97	1,072.31	260.67	5.114		
21,600.00	12,477.22	21,583.41	12,380.09	137.61	127.08	85.82	-10,008.23	-1,350.60	1,333.02	1,069.64	263.38	5.061		
21,700.00	12,477.75	21,683.41	12,380.61	138.97	128.43	85.82	-10,108.23	-1,349.74	1,333.07	1,066.98	266.09	5.010		
21,800.00	12,478.27	21,783.41	12,381.13	140.34	129.78	85.82	-10,208.22	-1,348.88	1,333.12	1,064.31	268.81	4.959		
21,900.00	12,478.80	21,883.41	12,381.65	141.70	131.13	85.82	-10,308.22	-1,348.02	1,333.16	1,061.64	271.52	4.910		
22,000.00	12,479.32	21,983.41	12,382.17	143.06	132.49	85.82	-10,408.21	-1,347.16	1,333.21	1,058.98	274.23	4.862		
22,100.00	12,479.85	22,083.41	12,382.69	144.43	133.84	85.82	-10,508.21	-1,346.29	1,333.26	1,056.31	276.95	4.814		
22,200.00	12,480.37	22,183.41	12,383.22	145.79	135.19	85.82	-10,608.20	-1,345.43	1,333.31	1,053.64	279.66	4.768		
22,300.00	12,480.90	22,283.41	12,383.74	147.16	136.54	85.82	-10,708.20	-1,344.57	1,333.36	1,050.98	282.38	4.722		
22,400.00	12,481.42	22,383.41	12,384.26	148.52	137.90	85.82	-10,808.19	-1,343.71	1,333.40	1,048.31	285.09	4.677		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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)			Minimum Separation (usft)
22,500.00	12,481.95	22,483.41	12,384.78	149.89	139.25	85.82	-10,908.19	-1,342.85	1,333.45	1,045.64	287.81	4.633	
22,600.00	12,482.47	22,583.41	12,385.30	151.25	140.60	85.82	-11,008.18	-1,341.99	1,333.50	1,042.97	290.53	4.590	
22,700.00	12,483.00	22,683.41	12,385.82	152.61	141.96	85.82	-11,108.18	-1,341.13	1,333.55	1,040.30	293.24	4.548	
22,700.07	12,483.00	22,683.48	12,385.82	152.62	141.96	85.82	-11,108.24	-1,341.13	1,333.55	1,040.30	293.24	4.548	
22,719.79	12,483.10	22,698.24	12,385.90	152.85	142.16	85.82	-11,123.00	-1,341.00	1,333.57	1,039.92	293.64	4.541	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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	
0.00	0.00	0.00	2.00	0.50	0.50	173.93	-235.00	25.00	236.33				
100.00	100.00	98.00	100.00	0.98	0.97	173.93	-235.00	25.00	236.33	234.38	1.95	121.336	
200.00	200.00	198.00	200.00	1.56	1.55	173.93	-235.00	25.00	236.33	233.22	3.11	75.983	
300.00	300.00	298.00	300.00	1.98	1.97	173.93	-235.00	25.00	236.33	232.37	3.95	59.771	CC
400.00	400.00	395.64	397.63	2.33	2.39	173.66	-235.35	26.14	236.81	232.16	4.65	50.916	ES
500.00	500.00	493.11	495.03	2.63	2.75	172.85	-236.44	29.66	238.35	233.09	5.26	45.317	
600.00	600.00	590.33	592.05	2.91	3.07	171.52	-238.26	35.54	241.03	235.21	5.81	41.460	
700.00	700.00	687.17	688.51	3.16	3.38	169.71	-240.80	43.73	245.01	238.67	6.33	38.701	
800.00	799.99	783.54	784.25	3.45	3.66	-16.91	-244.04	54.20	249.23	242.37	6.86	36.318	
900.00	899.91	880.99	880.79	3.70	3.81	-19.75	-247.95	66.85	252.60	245.34	7.26	34.778	
1,000.00	999.77	980.04	978.88	3.89	4.02	-22.75	-252.03	80.02	255.60	247.92	7.68	33.265	
1,100.00	1,099.63	1,079.10	1,076.97	4.08	4.25	-25.66	-256.11	93.18	259.30	251.18	8.11	31.962	
1,200.00	1,199.50	1,178.15	1,175.06	4.26	4.46	-28.50	-260.18	106.35	263.66	255.12	8.53	30.900	
1,300.00	1,299.34	1,277.19	1,273.14	4.35	4.68	-33.43	-264.26	119.52	268.41	259.56	8.85	30.338	
1,400.00	1,399.04	1,376.08	1,371.07	4.58	4.90	-38.94	-268.33	132.67	272.17	262.89	9.28	29.317	
1,500.00	1,498.51	1,474.77	1,468.80	4.71	5.11	-43.24	-272.39	145.79	275.02	265.41	9.61	28.615	
1,600.00	1,597.91	1,573.39	1,566.46	4.89	5.32	-46.55	-276.45	158.90	278.40	268.39	10.01	27.807	
1,700.00	1,697.32	1,672.02	1,664.13	5.08	5.53	-49.77	-280.51	172.01	282.70	272.29	10.41	27.161	
1,800.00	1,796.72	1,770.65	1,761.79	5.27	5.74	-52.89	-284.57	185.13	287.88	277.08	10.80	26.654	
1,900.00	1,896.13	1,869.27	1,859.46	5.46	5.95	-55.88	-288.63	198.24	293.91	282.72	11.19	26.266	
2,000.00	1,995.54	1,967.90	1,957.13	5.64	6.16	-58.76	-292.69	211.35	300.72	289.14	11.58	25.978	
2,100.00	2,094.94	2,066.53	2,054.79	5.83	6.36	-61.50	-296.74	224.46	308.27	296.31	11.96	25.776	
2,200.00	2,194.35	2,165.15	2,152.46	6.02	6.57	-64.11	-300.80	237.57	316.50	304.16	12.34	25.645	
2,300.00	2,293.76	2,260.05	2,246.40	6.20	6.75	-66.50	-304.80	250.44	325.64	312.94	12.69	25.659	
2,400.00	2,393.16	2,350.67	2,335.81	6.39	6.96	-68.73	-309.24	264.48	337.37	324.32	13.05	25.851	
2,500.00	2,492.57	2,440.62	2,424.19	6.58	7.18	-70.86	-314.36	280.38	351.96	338.54	13.42	26.233	
2,600.00	2,591.98	2,529.80	2,511.40	6.76	7.40	-72.85	-320.12	298.08	369.35	355.57	13.78	26.803	
2,700.00	2,691.38	2,618.41	2,597.61	6.95	7.60	-74.68	-326.53	317.56	389.48	375.36	14.11	27.594	
2,800.00	2,790.79	2,715.24	2,691.57	7.13	7.83	-76.51	-333.88	339.80	411.08	396.59	14.48	28.380	
2,900.00	2,890.20	2,812.07	2,785.52	7.32	8.09	-78.15	-341.23	362.04	433.04	418.17	14.87	29.118	
3,000.00	2,989.60	2,908.90	2,879.47	7.50	8.38	-79.64	-348.58	384.28	455.31	440.05	15.26	29.838	
3,100.00	3,089.01	3,005.73	2,973.43	7.69	8.67	-80.99	-355.93	406.52	477.85	462.21	15.65	30.536	
3,200.00	3,188.42	3,102.56	3,067.38	7.88	8.96	-82.22	-363.28	428.76	500.63	484.59	16.04	31.212	
3,300.00	3,287.82	3,199.39	3,161.33	8.06	9.26	-83.34	-370.62	451.00	523.60	507.17	16.43	31.866	
3,400.00	3,387.23	3,296.22	3,255.29	8.25	9.56	-84.37	-377.97	473.24	546.76	529.93	16.82	32.497	
3,500.00	3,486.64	3,393.05	3,349.24	8.43	9.86	-85.32	-385.32	495.48	570.06	552.84	17.22	33.106	
3,600.00	3,586.04	3,489.87	3,443.19	8.62	10.17	-86.19	-392.67	517.72	593.50	575.89	17.61	33.693	
3,700.00	3,685.45	3,586.70	3,537.15	8.80	10.47	-86.99	-400.02	539.96	617.07	599.06	18.01	34.259	
3,800.00	3,784.86	3,683.53	3,631.10	8.99	10.78	-87.74	-407.36	562.20	640.74	622.33	18.41	34.804	
3,900.00	3,884.26	3,780.36	3,725.05	9.17	11.09	-88.43	-414.71	584.44	664.51	645.70	18.81	35.329	
4,000.00	3,983.67	3,877.19	3,819.01	9.36	11.40	-89.08	-422.06	606.68	688.36	669.15	19.21	35.834	
4,100.00	4,083.08	3,974.02	3,912.96	9.54	11.71	-89.68	-429.41	628.92	712.29	692.68	19.61	36.321	
4,200.00	4,182.48	4,070.85	4,006.91	9.73	12.02	-90.25	-436.76	651.16	736.29	716.28	20.01	36.790	
4,300.00	4,281.89	4,167.68	4,100.87	9.91	12.33	-90.78	-444.11	673.40	760.36	739.94	20.42	37.241	
4,400.00	4,381.30	4,264.51	4,194.82	10.10	12.64	-91.27	-451.45	695.64	784.48	763.66	20.82	37.677	
4,500.00	4,480.70	4,361.33	4,288.77	10.28	12.95	-91.74	-458.80	717.88	808.65	787.42	21.23	38.097	
4,600.00	4,580.11	4,458.16	4,382.73	10.47	13.27	-92.18	-466.15	740.12	832.87	811.24	21.63	38.501	
4,700.00	4,679.51	4,554.99	4,476.68	10.65	13.58	-92.59	-473.50	762.36	857.14	835.10	22.04	38.892	
4,800.00	4,778.92	4,651.82	4,570.63	10.84	13.90	-92.98	-480.85	784.60	881.44	859.00	22.45	39.268	
4,900.00	4,878.33	4,748.65	4,664.59	11.02	14.21	-93.36	-488.19	806.84	905.78	882.93	22.85	39.632	
5,000.00	4,977.73	4,845.48	4,758.54	11.21	14.53	-93.71	-495.54	829.08	930.16	906.90	23.26	39.983	
5,100.00	5,077.14	4,942.31	4,852.49	11.39	14.85	-94.04	-502.89	851.32	954.57	930.89	23.67	40.322	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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	5,176.55	5,039.14	4,946.45	11.58	15.16	-94.36	-510.24	873.56	979.00	954.92	24.08	40.650		
5,300.00	5,275.95	5,135.97	5,040.40	11.76	15.48	-94.66	-517.59	895.80	1,003.47	978.97	24.49	40.967		
5,400.00	5,375.36	5,232.80	5,134.35	11.95	15.80	-94.95	-524.94	918.04	1,027.96	1,003.05	24.91	41.273		
5,500.00	5,474.77	5,329.62	5,228.31	12.13	16.12	-95.22	-532.28	940.28	1,052.47	1,027.15	25.32	41.569		
5,600.00	5,574.17	5,426.45	5,322.26	12.32	16.44	-95.48	-539.63	962.52	1,077.00	1,051.27	25.73	41.856		
5,700.00	5,673.58	5,523.28	5,416.21	12.50	16.76	-95.73	-546.98	984.76	1,101.56	1,075.41	26.14	42.133		
5,800.00	5,772.99	5,620.11	5,510.17	12.69	17.07	-95.97	-554.33	1,007.00	1,126.13	1,099.57	26.56	42.402		
5,900.00	5,872.39	5,716.94	5,604.12	12.87	17.39	-96.20	-561.68	1,029.24	1,150.72	1,123.75	26.97	42.663		
6,000.00	5,971.80	5,813.77	5,698.07	13.06	17.71	-96.42	-569.02	1,051.48	1,175.32	1,147.94	27.38	42.923		
6,100.00	6,071.21	5,948.04	5,828.82	13.24	18.12	-96.74	-578.60	1,080.46	1,198.60	1,170.67	27.93	42.919		
6,200.00	6,170.61	6,088.65	5,966.81	13.43	18.50	-97.12	-587.08	1,106.13	1,218.48	1,189.99	28.48	42.777		
6,300.00	6,270.02	6,230.95	6,107.36	13.61	18.83	-97.56	-594.03	1,127.18	1,234.90	1,205.89	29.01	42.572		
6,400.00	6,369.43	6,374.57	6,249.95	13.80	19.11	-98.05	-599.38	1,143.36	1,247.82	1,218.32	29.49	42.309		
6,500.00	6,468.83	6,519.10	6,393.99	13.98	19.33	-98.61	-603.06	1,154.50	1,257.20	1,227.27	29.94	41.995		
6,600.00	6,568.24	6,664.15	6,538.90	14.17	19.48	-99.24	-605.03	1,160.47	1,263.06	1,232.73	30.33	41.645		
6,700.00	6,667.74	6,793.00	6,667.74	14.34	19.54	-99.83	-605.39	1,161.55	1,265.47	1,234.92	30.56	41.415		
6,800.00	6,767.46	6,892.72	6,767.46	14.53	19.58	-100.18	-605.39	1,161.55	1,266.76	1,236.01	30.75	41.193		
6,900.00	6,867.34	6,992.60	6,867.34	14.70	19.62	-100.40	-605.39	1,161.55	1,267.61	1,236.69	30.92	40.992		
7,000.00	6,967.32	7,092.58	6,967.32	14.86	19.65	-100.50	-605.39	1,161.55	1,268.01	1,236.94	31.07	40.813		
7,100.00	7,067.32	7,192.58	7,067.32	14.88	19.69	89.59	-605.39	1,161.55	1,268.03	1,236.92	31.11	40.757		
7,200.00	7,167.32	7,292.58	7,167.32	14.90	19.73	89.59	-605.39	1,161.55	1,268.03	1,236.86	31.17	40.679		
7,300.00	7,267.32	7,392.58	7,267.32	14.93	19.77	89.59	-605.39	1,161.55	1,268.03	1,236.80	31.23	40.600		
7,400.00	7,367.32	7,492.58	7,367.32	14.95	19.81	89.59	-605.39	1,161.55	1,268.03	1,236.74	31.29	40.520		
7,500.00	7,467.32	7,592.58	7,467.32	14.98	19.85	89.59	-605.39	1,161.55	1,268.03	1,236.68	31.36	40.440		
7,600.00	7,567.32	7,692.58	7,567.32	15.01	19.89	89.59	-605.39	1,161.55	1,268.03	1,236.61	31.42	40.360		
7,700.00	7,667.32	7,792.58	7,667.32	15.03	19.93	89.59	-605.39	1,161.55	1,268.03	1,236.55	31.48	40.278		
7,800.00	7,767.32	7,892.58	7,767.32	15.06	19.97	89.59	-605.39	1,161.55	1,268.03	1,236.49	31.55	40.196		
7,900.00	7,867.32	7,992.58	7,867.32	15.09	20.01	89.59	-605.39	1,161.55	1,268.03	1,236.42	31.61	40.114		
8,000.00	7,967.32	8,092.58	7,967.32	15.12	20.05	89.59	-605.39	1,161.55	1,268.03	1,236.36	31.68	40.031		
8,100.00	8,067.32	8,192.58	8,067.32	15.15	20.09	89.59	-605.39	1,161.55	1,268.03	1,236.29	31.74	39.947		
8,200.00	8,167.32	8,292.58	8,167.32	15.18	20.13	89.59	-605.39	1,161.55	1,268.03	1,236.22	31.81	39.863		
8,300.00	8,267.32	8,392.58	8,267.32	15.21	20.17	89.59	-605.39	1,161.55	1,268.03	1,236.16	31.88	39.778		
8,400.00	8,367.32	8,492.58	8,367.32	15.24	20.22	89.59	-605.39	1,161.55	1,268.03	1,236.09	31.95	39.693		
8,500.00	8,467.32	8,592.58	8,467.32	15.27	20.26	89.59	-605.39	1,161.55	1,268.03	1,236.02	32.02	39.607		
8,600.00	8,567.32	8,692.58	8,567.32	15.30	20.30	89.59	-605.39	1,161.55	1,268.03	1,235.95	32.09	39.521		
8,700.00	8,667.32	8,792.58	8,667.32	15.33	20.34	89.59	-605.39	1,161.55	1,268.03	1,235.88	32.16	39.434		
8,800.00	8,767.32	8,892.58	8,767.32	15.36	20.39	89.59	-605.39	1,161.55	1,268.03	1,235.81	32.23	39.347		
8,900.00	8,867.32	8,992.58	8,867.32	15.39	20.43	89.59	-605.39	1,161.55	1,268.03	1,235.73	32.30	39.260		
9,000.00	8,967.32	9,092.58	8,967.32	15.43	20.47	89.59	-605.39	1,161.55	1,268.03	1,235.66	32.37	39.172		
9,100.00	9,067.32	9,192.58	9,067.32	15.46	20.52	89.59	-605.39	1,161.55	1,268.03	1,235.59	32.44	39.083		
9,200.00	9,167.32	9,292.58	9,167.32	15.49	20.56	89.59	-605.39	1,161.55	1,268.03	1,235.51	32.52	38.995		
9,300.00	9,267.32	9,392.58	9,267.32	15.53	20.60	89.59	-605.39	1,161.55	1,268.03	1,235.44	32.59	38.905		
9,400.00	9,367.32	9,492.58	9,367.32	15.56	20.65	89.59	-605.39	1,161.55	1,268.03	1,235.37	32.67	38.816		
9,500.00	9,467.32	9,592.58	9,467.32	15.59	20.69	89.59	-605.39	1,161.55	1,268.03	1,235.29	32.74	38.726		
9,600.00	9,567.32	9,692.58	9,567.32	15.63	20.74	89.59	-605.39	1,161.55	1,268.03	1,235.21	32.82	38.636		
9,700.00	9,667.32	9,792.58	9,667.32	15.66	20.78	89.59	-605.39	1,161.55	1,268.03	1,235.14	32.90	38.545		
9,800.00	9,767.32	9,892.58	9,767.32	15.70	20.83	89.59	-605.39	1,161.55	1,268.03	1,235.06	32.97	38.455		
9,900.00	9,867.32	9,992.58	9,867.32	15.73	20.87	89.59	-605.39	1,161.55	1,268.03	1,234.98	33.05	38.363		
10,000.00	9,967.32	10,092.58	9,967.32	15.77	20.92	89.59	-605.39	1,161.55	1,268.03	1,234.90	33.13	38.272		
10,100.00	10,067.32	10,192.58	10,067.32	15.81	20.96	89.59	-605.39	1,161.55	1,268.03	1,234.82	33.21	38.180		
10,200.00	10,167.32	10,292.58	10,167.32	15.84	21.01	89.59	-605.39	1,161.55	1,268.03	1,234.74	33.29	38.088		
10,300.00	10,267.32	10,392.58	10,267.32	15.88	21.06	89.59	-605.39	1,161.55	1,268.03	1,234.66	33.37	37.996		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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			Warning	
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	
10,400.00	10,367.32	10,492.58	10,367.32	15.92	21.10	89.59	-605.39	1,161.55	1,268.03	1,234.58	33.45	37.903	
10,500.00	10,467.32	10,592.58	10,467.32	15.95	21.15	89.59	-605.39	1,161.55	1,268.03	1,234.50	33.54	37.811	
10,600.00	10,567.32	10,692.58	10,567.32	15.99	21.20	89.59	-605.39	1,161.55	1,268.03	1,234.41	33.62	37.718	
10,700.00	10,667.32	10,792.58	10,667.32	16.03	21.24	89.59	-605.39	1,161.55	1,268.03	1,234.33	33.70	37.625	
10,800.00	10,767.32	10,892.58	10,767.32	16.07	21.29	89.59	-605.39	1,161.55	1,268.03	1,234.25	33.79	37.531	
10,900.00	10,867.32	10,992.58	10,867.32	16.11	21.34	89.59	-605.39	1,161.55	1,268.03	1,234.16	33.87	37.438	
11,000.00	10,967.32	11,092.58	10,967.32	16.15	21.39	89.59	-605.39	1,161.55	1,268.03	1,234.08	33.96	37.344	
11,100.00	11,067.32	11,192.58	11,067.32	16.19	21.43	89.59	-605.39	1,161.55	1,268.03	1,233.99	34.04	37.250	
11,200.00	11,167.32	11,292.58	11,167.32	16.23	21.48	89.59	-605.39	1,161.55	1,268.03	1,233.91	34.13	37.156	
11,300.00	11,267.32	11,392.58	11,267.32	16.27	21.53	89.59	-605.39	1,161.55	1,268.03	1,233.82	34.21	37.062	
11,400.00	11,367.32	11,492.58	11,367.32	16.31	21.58	89.59	-605.39	1,161.55	1,268.03	1,233.73	34.30	36.967	
11,500.00	11,467.32	11,592.58	11,467.32	16.35	21.63	89.59	-605.39	1,161.55	1,268.03	1,233.64	34.39	36.873	
11,600.00	11,567.32	11,692.58	11,567.32	16.39	21.68	89.59	-605.39	1,161.55	1,268.03	1,233.56	34.48	36.778	
11,700.00	11,667.32	11,792.58	11,667.32	16.43	21.73	89.59	-605.39	1,161.55	1,268.03	1,233.47	34.57	36.684	
11,800.00	11,767.32	11,892.58	11,767.32	16.47	21.77	89.59	-605.39	1,161.55	1,268.03	1,233.38	34.66	36.589	
11,848.20	11,815.52	11,940.76	11,815.50	16.49	21.79	-89.90	-605.41	1,161.55	1,268.03	1,233.35	34.68	36.560	
11,900.00	11,867.32	11,992.17	11,866.82	16.51	21.83	-89.77	-608.12	1,161.57	1,268.04	1,233.33	34.71	36.536	
12,000.00	11,966.66	12,090.30	11,963.19	16.75	21.97	-89.41	-625.97	1,161.74	1,268.10	1,233.24	34.85	36.383	
12,100.00	12,062.69	12,187.16	12,053.96	17.02	22.16	-89.07	-659.45	1,162.04	1,268.20	1,233.01	35.19	36.038	
12,200.00	12,152.51	12,282.90	12,136.87	17.30	22.40	-88.76	-707.08	1,162.47	1,268.33	1,232.60	35.73	35.496	
12,300.00	12,233.38	12,377.65	12,210.01	17.56	22.70	-88.49	-767.16	1,163.02	1,268.47	1,231.98	36.49	34.759	
12,400.00	12,302.84	12,471.59	12,271.77	17.80	23.07	-88.26	-837.80	1,163.66	1,268.62	1,231.13	37.49	33.839	
12,500.00	12,358.79	12,564.88	12,320.88	18.10	23.52	-88.08	-916.99	1,164.38	1,268.74	1,230.03	38.72	32.768	
12,600.00	12,399.52	12,657.70	12,356.36	18.99	24.04	-87.95	-1,002.65	1,165.16	1,268.84	1,228.67	40.17	31.590	
12,700.00	12,423.80	12,750.00	12,377.48	19.97	24.64	-87.89	-1,092.39	1,165.97	1,268.89	1,227.10	41.79	30.362	
12,800.00	12,431.01	12,843.42	12,384.00	21.01	25.31	-87.88	-1,185.49	1,166.82	1,268.90	1,225.35	43.55	29.134	
12,900.00	12,431.54	12,943.42	12,384.53	22.11	26.08	-87.88	-1,285.48	1,167.73	1,268.90	1,223.45	45.45	27.920	
13,000.00	12,432.07	13,043.42	12,385.06	23.23	26.91	-87.88	-1,385.48	1,168.64	1,268.90	1,221.48	47.42	26.757	
13,100.00	12,432.59	13,143.42	12,385.58	24.37	27.77	-87.88	-1,485.47	1,169.55	1,268.90	1,219.43	49.47	25.651	
13,200.00	12,433.12	13,243.42	12,386.11	25.54	28.68	-87.88	-1,585.47	1,170.45	1,268.90	1,217.32	51.58	24.603	
13,300.00	12,433.64	13,343.42	12,386.63	26.73	29.61	-87.88	-1,685.46	1,171.36	1,268.90	1,215.16	53.74	23.612	
13,400.00	12,434.17	13,443.42	12,387.16	27.93	30.58	-87.88	-1,785.46	1,172.27	1,268.90	1,212.94	55.95	22.678	
13,500.00	12,434.69	13,543.42	12,387.68	29.15	31.57	-87.88	-1,885.45	1,173.18	1,268.90	1,210.69	58.21	21.798	
13,600.00	12,435.22	13,643.42	12,388.21	30.38	32.59	-87.88	-1,985.44	1,174.09	1,268.90	1,208.39	60.51	20.971	
13,700.00	12,435.74	13,743.42	12,388.74	31.62	33.63	-87.88	-2,085.44	1,175.00	1,268.90	1,206.06	62.84	20.193	
13,800.00	12,436.27	13,843.42	12,389.26	32.87	34.70	-87.88	-2,185.43	1,175.91	1,268.90	1,203.69	65.20	19.461	
13,900.00	12,436.79	13,943.42	12,389.79	34.13	35.78	-87.88	-2,285.43	1,176.81	1,268.90	1,201.30	67.59	18.773	
14,000.00	12,437.32	14,043.42	12,390.31	35.40	36.88	-87.88	-2,385.42	1,177.72	1,268.90	1,198.89	70.01	18.125	
14,100.00	12,437.84	14,143.42	12,390.84	36.68	37.99	-87.88	-2,485.42	1,178.63	1,268.89	1,196.45	72.45	17.515	
14,200.00	12,438.37	14,243.42	12,391.37	37.96	39.12	-87.88	-2,585.41	1,179.54	1,268.89	1,193.99	74.91	16.939	
14,300.00	12,438.89	14,343.42	12,391.89	39.25	40.27	-87.88	-2,685.41	1,180.45	1,268.89	1,191.51	77.39	16.397	
14,400.00	12,439.42	14,443.42	12,392.42	40.55	41.42	-87.88	-2,785.40	1,181.36	1,268.89	1,189.01	79.88	15.885	
14,500.00	12,439.94	14,543.42	12,392.94	41.84	42.59	-87.88	-2,885.39	1,182.27	1,268.89	1,186.50	82.39	15.401	
14,600.00	12,440.47	14,643.42	12,393.47	43.15	43.77	-87.88	-2,985.39	1,183.17	1,268.89	1,183.98	84.92	14.943	
14,700.00	12,440.99	14,743.42	12,393.99	44.45	44.96	-87.88	-3,085.38	1,184.08	1,268.89	1,181.44	87.45	14.509	
14,800.00	12,441.52	14,843.42	12,394.52	45.77	46.16	-87.88	-3,185.38	1,184.99	1,268.89	1,178.89	90.00	14.098	
14,900.00	12,442.04	14,943.42	12,395.05	47.08	47.36	-87.88	-3,285.37	1,185.90	1,268.89	1,176.33	92.56	13.708	
15,000.00	12,442.57	15,043.42	12,395.57	48.40	48.58	-87.88	-3,385.37	1,186.81	1,268.89	1,173.76	95.13	13.338	
15,100.00	12,443.09	15,143.42	12,396.10	49.72	49.80	-87.88	-3,485.36	1,187.72	1,268.89	1,171.18	97.71	12.986	
15,200.00	12,443.62	15,243.42	12,396.62	51.04	51.03	-87.88	-3,585.36	1,188.62	1,268.89	1,168.59	100.30	12.651	
15,300.00	12,444.14	15,343.42	12,397.15	52.36	52.27	-87.88	-3,685.35	1,189.53	1,268.89	1,166.00	102.89	12.332	
15,400.00	12,444.67	15,443.42	12,397.68	53.69	53.51	-87.88	-3,785.35	1,190.44	1,268.89	1,163.39	105.50	12.028	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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)			
15,500.00	12,445.19	15,543.42	12,398.20	55.02	54.75	-87.88	-3,885.34	1,191.35	1,268.89	1,160.78	108.11	11.737		
15,600.00	12,445.72	15,643.42	12,398.73	56.35	56.01	-87.88	-3,985.33	1,192.26	1,268.89	1,158.17	110.72	11.460		
15,700.00	12,446.24	15,743.42	12,399.25	57.69	57.27	-87.88	-4,085.33	1,193.17	1,268.89	1,155.55	113.34	11.195		
15,800.00	12,446.77	15,843.42	12,399.78	59.02	58.53	-87.88	-4,185.32	1,194.08	1,268.89	1,152.92	115.97	10.942		
15,900.00	12,447.29	15,943.42	12,400.31	60.36	59.80	-87.88	-4,285.32	1,194.98	1,268.89	1,150.29	118.60	10.699		
16,000.00	12,447.82	16,043.42	12,400.83	61.69	61.07	-87.88	-4,385.31	1,195.89	1,268.89	1,147.65	121.24	10.466		
16,100.00	12,448.34	16,143.42	12,401.36	63.03	62.34	-87.88	-4,485.31	1,196.80	1,268.89	1,145.01	123.88	10.243		
16,200.00	12,448.87	16,243.42	12,401.88	64.37	63.62	-87.88	-4,585.30	1,197.71	1,268.89	1,142.36	126.52	10.029		
16,300.00	12,449.39	16,343.42	12,402.41	65.72	64.90	-87.88	-4,685.30	1,198.62	1,268.89	1,139.71	129.17	9.823		
16,400.00	12,449.92	16,443.42	12,402.93	67.06	66.19	-87.88	-4,785.29	1,199.53	1,268.89	1,137.06	131.82	9.626		
16,500.00	12,450.44	16,543.42	12,403.46	68.40	67.48	-87.88	-4,885.28	1,200.44	1,268.89	1,134.41	134.48	9.435		
16,600.00	12,450.97	16,643.42	12,403.99	69.75	68.77	-87.88	-4,985.28	1,201.34	1,268.89	1,131.75	137.14	9.253		
16,700.00	12,451.49	16,743.42	12,404.51	71.09	70.07	-87.88	-5,085.27	1,202.25	1,268.88	1,129.08	139.80	9.076		
16,800.00	12,452.02	16,843.42	12,405.04	72.44	71.36	-87.88	-5,185.27	1,203.16	1,268.88	1,126.42	142.47	8.907		
16,900.00	12,452.54	16,943.42	12,405.56	73.79	72.66	-87.88	-5,285.26	1,204.07	1,268.88	1,123.75	145.13	8.743		
17,000.00	12,453.07	17,043.42	12,406.09	75.13	73.97	-87.88	-5,385.26	1,204.98	1,268.88	1,121.08	147.80	8.585		
17,100.00	12,453.59	17,143.42	12,406.62	76.48	75.27	-87.88	-5,485.25	1,205.89	1,268.88	1,118.41	150.48	8.432		
17,200.00	12,454.12	17,243.42	12,407.14	77.83	76.58	-87.88	-5,585.25	1,206.80	1,268.88	1,115.73	153.15	8.285		
17,300.00	12,454.64	17,343.42	12,407.67	79.18	77.89	-87.88	-5,685.24	1,207.70	1,268.88	1,113.05	155.83	8.143		
17,400.00	12,455.17	17,443.42	12,408.19	80.53	79.20	-87.88	-5,785.24	1,208.61	1,268.88	1,110.37	158.51	8.005		
17,500.00	12,455.69	17,543.42	12,408.72	81.89	80.51	-87.88	-5,885.23	1,209.52	1,268.88	1,107.69	161.19	7.872		
17,600.00	12,456.22	17,643.42	12,409.24	83.24	81.83	-87.88	-5,985.22	1,210.43	1,268.88	1,105.01	163.87	7.743		
17,700.00	12,456.74	17,743.42	12,409.77	84.59	83.14	-87.88	-6,085.22	1,211.34	1,268.88	1,102.32	166.56	7.618		
17,800.00	12,457.27	17,843.42	12,410.30	85.94	84.46	-87.88	-6,185.21	1,212.25	1,268.88	1,099.64	169.24	7.497		
17,900.00	12,457.79	17,943.42	12,410.82	87.30	85.78	-87.88	-6,285.21	1,213.15	1,268.88	1,096.95	171.93	7.380		
18,000.00	12,458.32	18,043.42	12,411.35	88.65	87.10	-87.88	-6,385.20	1,214.06	1,268.88	1,094.26	174.62	7.266		
18,100.00	12,458.84	18,143.42	12,411.87	90.01	88.42	-87.88	-6,485.20	1,214.97	1,268.88	1,091.57	177.31	7.156		
18,200.00	12,459.37	18,243.42	12,412.40	91.36	89.75	-87.88	-6,585.19	1,215.88	1,268.88	1,088.87	180.01	7.049		
18,300.00	12,459.89	18,343.42	12,412.93	92.72	91.07	-87.88	-6,685.19	1,216.79	1,268.88	1,086.18	182.70	6.945		
18,400.00	12,460.42	18,443.42	12,413.45	94.07	92.40	-87.88	-6,785.18	1,217.70	1,268.88	1,083.48	185.39	6.844		
18,500.00	12,460.94	18,543.42	12,413.98	95.43	93.73	-87.88	-6,885.17	1,218.61	1,268.88	1,080.79	188.09	6.746		
18,600.00	12,461.47	18,643.42	12,414.50	96.79	95.05	-87.88	-6,985.17	1,219.51	1,268.88	1,078.09	190.79	6.651		
18,700.00	12,461.99	18,743.42	12,415.03	98.15	96.38	-87.88	-7,085.16	1,220.42	1,268.88	1,075.39	193.49	6.558		
18,800.00	12,462.52	18,843.42	12,415.55	99.50	97.71	-87.88	-7,185.16	1,221.33	1,268.88	1,072.69	196.19	6.468		
18,900.00	12,463.04	18,943.42	12,416.08	100.86	99.05	-87.88	-7,285.15	1,222.24	1,268.88	1,069.99	198.89	6.380		
19,000.00	12,463.57	19,043.42	12,416.61	102.22	100.38	-87.88	-7,385.15	1,223.15	1,268.88	1,067.29	201.59	6.294		
19,100.00	12,464.09	19,143.42	12,417.13	103.58	101.71	-87.88	-7,485.14	1,224.06	1,268.88	1,064.58	204.29	6.211		
19,200.00	12,464.62	19,243.42	12,417.66	104.94	103.05	-87.88	-7,585.14	1,224.97	1,268.87	1,061.88	207.00	6.130		
19,300.00	12,465.14	19,343.42	12,418.18	106.29	104.38	-87.88	-7,685.13	1,225.87	1,268.87	1,059.17	209.70	6.051		
19,400.00	12,465.67	19,443.42	12,418.71	107.65	105.72	-87.88	-7,785.12	1,226.78	1,268.87	1,056.47	212.41	5.974		
19,500.00	12,466.19	19,543.42	12,419.24	109.01	107.06	-87.88	-7,885.12	1,227.69	1,268.87	1,053.76	215.11	5.899		
19,600.00	12,466.72	19,643.42	12,419.76	110.37	108.40	-87.88	-7,985.11	1,228.60	1,268.87	1,051.05	217.82	5.825		
19,700.00	12,467.24	19,743.42	12,420.29	111.73	109.73	-87.88	-8,085.11	1,229.51	1,268.87	1,048.35	220.53	5.754		
19,800.00	12,467.77	19,843.42	12,420.81	113.09	111.07	-87.88	-8,185.10	1,230.42	1,268.87	1,045.64	223.24	5.684		
19,900.00	12,468.29	19,943.42	12,421.34	114.45	112.41	-87.88	-8,285.10	1,231.32	1,268.87	1,042.93	225.95	5.616		
20,000.00	12,468.82	20,043.42	12,421.87	115.82	113.76	-87.88	-8,385.09	1,232.23	1,268.87	1,040.22	228.66	5.549		
20,100.00	12,469.34	20,143.42	12,422.39	117.18	115.10	-87.88	-8,485.09	1,233.14	1,268.87	1,037.51	231.37	5.484		
20,200.00	12,469.87	20,243.42	12,422.92	118.54	116.44	-87.88	-8,585.08	1,234.05	1,268.87	1,034.79	234.08	5.421		
20,300.00	12,470.39	20,343.42	12,423.44	119.90	117.78	-87.88	-8,685.08	1,234.96	1,268.87	1,032.08	236.79	5.359		
20,400.00	12,470.92	20,443.42	12,423.97	121.26	119.13	-87.88	-8,785.07	1,235.87	1,268.87	1,029.37	239.50	5.298		
20,500.00	12,471.44	20,543.42	12,424.49	122.62	120.47	-87.88	-8,885.06	1,236.78	1,268.87	1,026.66	242.21	5.239		
20,600.00	12,471.97	20,643.42	12,425.02	123.98	121.81	-87.88	-8,985.06	1,237.68	1,268.87	1,023.94	244.93	5.181		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	
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
20,700.00	12,472.50	20,743.42	12,425.55	125.35	123.16	-87.88	-9,085.05	1,238.59	1,268.87	1,021.23	247.64	5.124	
20,800.00	12,473.02	20,843.42	12,426.07	126.71	124.51	-87.88	-9,185.05	1,239.50	1,268.87	1,018.51	250.36	5.068	
20,900.00	12,473.55	20,943.42	12,426.60	128.07	125.85	-87.88	-9,285.04	1,240.41	1,268.87	1,015.80	253.07	5.014	
21,000.00	12,474.07	21,043.42	12,427.12	129.43	127.20	-87.88	-9,385.04	1,241.32	1,268.87	1,013.08	255.79	4.961	
21,100.00	12,474.60	21,143.42	12,427.65	130.80	128.54	-87.88	-9,485.03	1,242.23	1,268.87	1,010.36	258.50	4.909	
21,200.00	12,475.12	21,243.42	12,428.18	132.16	129.89	-87.88	-9,585.03	1,243.14	1,268.87	1,007.65	261.22	4.857	
21,300.00	12,475.65	21,343.42	12,428.70	133.52	131.24	-87.88	-9,685.02	1,244.04	1,268.87	1,004.93	263.94	4.807	
21,400.00	12,476.17	21,443.42	12,429.23	134.88	132.59	-87.88	-9,785.01	1,244.95	1,268.87	1,002.21	266.65	4.758	
21,500.00	12,476.70	21,543.42	12,429.75	136.25	133.94	-87.88	-9,885.01	1,245.86	1,268.87	999.49	269.37	4.710	
21,600.00	12,477.22	21,643.42	12,430.28	137.61	135.29	-87.88	-9,985.00	1,246.77	1,268.87	996.78	272.09	4.663	
21,700.00	12,477.75	21,743.42	12,430.80	138.97	136.64	-87.88	-10,085.00	1,247.68	1,268.87	994.06	274.81	4.617	
21,800.00	12,478.27	21,843.42	12,431.33	140.34	137.99	-87.88	-10,184.99	1,248.59	1,268.86	991.34	277.53	4.572	
21,900.00	12,478.80	21,943.42	12,431.86	141.70	139.34	-87.88	-10,284.99	1,249.50	1,268.86	988.62	280.25	4.528	
22,000.00	12,479.32	22,043.42	12,432.38	143.06	140.69	-87.88	-10,384.98	1,250.40	1,268.86	985.90	282.97	4.484	
22,100.00	12,479.85	22,143.42	12,432.91	144.43	142.04	-87.88	-10,484.98	1,251.31	1,268.86	983.18	285.69	4.441	
22,200.00	12,480.37	22,243.42	12,433.43	145.79	143.39	-87.88	-10,584.97	1,252.22	1,268.86	980.46	288.41	4.400	
22,300.00	12,480.90	22,343.42	12,433.96	147.16	144.74	-87.88	-10,684.97	1,253.13	1,268.86	977.74	291.13	4.358	
22,400.00	12,481.42	22,443.42	12,434.49	148.52	146.09	-87.88	-10,784.96	1,254.04	1,268.86	975.01	293.85	4.318	
22,500.00	12,481.95	22,543.42	12,435.01	149.89	147.45	-87.88	-10,884.95	1,254.95	1,268.86	972.29	296.57	4.278	
22,600.00	12,482.47	22,643.42	12,435.54	151.25	148.80	-87.88	-10,984.95	1,255.85	1,268.86	969.57	299.29	4.240	
22,700.00	12,483.00	22,743.42	12,436.06	152.61	150.15	-87.88	-11,084.94	1,256.76	1,268.86	966.85	302.01	4.201	
22,719.79	12,483.10	22,763.21	12,436.17	152.85	150.42	-87.88	-11,104.73	1,256.94	1,268.86	966.34	302.52	4.194	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
2,200.00	2,194.35	2,696.55	2,691.14	6.02	6.83	62.06	-899.28	-2,265.82	2,430.42	2,417.95	12.47	194.939	CC	
2,300.00	2,293.76	2,795.91	2,788.33	6.20	7.00	62.37	-889.79	-2,247.48	2,404.79	2,391.98	12.81	187.706		
2,400.00	2,393.16	2,891.77	2,882.10	6.39	7.16	62.68	-880.64	-2,229.78	2,379.23	2,366.08	13.16	180.856		
2,500.00	2,492.57	2,987.63	2,975.86	6.58	7.33	62.99	-871.49	-2,212.08	2,353.74	2,340.24	13.50	174.332		
2,600.00	2,591.98	3,083.49	3,069.63	6.76	7.50	63.31	-862.34	-2,194.38	2,328.31	2,314.46	13.85	168.116		
2,700.00	2,691.38	3,179.35	3,163.40	6.95	7.67	63.64	-853.18	-2,176.69	2,302.96	2,288.76	14.20	162.190		
2,800.00	2,790.79	3,275.21	3,257.17	7.13	7.84	63.98	-844.03	-2,158.99	2,277.67	2,263.12	14.55	156.537		
2,900.00	2,890.20	3,371.07	3,350.93	7.32	8.01	64.32	-834.88	-2,141.29	2,252.47	2,237.57	14.90	151.142		
3,000.00	2,989.60	3,466.93	3,444.70	7.50	8.21	64.67	-825.72	-2,123.59	2,227.34	2,212.08	15.26	145.960		
3,100.00	3,089.01	3,562.79	3,538.47	7.69	8.43	65.03	-816.57	-2,105.89	2,202.30	2,186.68	15.61	141.043		
3,200.00	3,188.42	3,658.65	3,632.23	7.88	8.66	65.40	-807.42	-2,088.20	2,177.34	2,161.37	15.97	136.327		
3,300.00	3,287.82	3,754.51	3,726.00	8.06	8.88	65.77	-798.26	-2,070.50	2,152.46	2,136.13	16.33	131.810		
3,400.00	3,387.23	3,850.37	3,819.77	8.25	9.11	66.15	-789.11	-2,052.80	2,127.68	2,110.99	16.69	127.484		
3,500.00	3,486.64	3,946.24	3,913.54	8.43	9.34	66.55	-779.96	-2,035.10	2,102.99	2,085.94	17.05	123.336		
3,600.00	3,586.04	4,042.10	4,007.30	8.62	9.57	66.95	-770.81	-2,017.40	2,078.40	2,060.98	17.41	119.358		
3,700.00	3,685.45	4,137.96	4,101.07	8.80	9.80	67.36	-761.65	-1,999.71	2,053.90	2,036.13	17.78	115.540		
3,800.00	3,784.86	4,233.82	4,194.84	8.99	10.04	67.78	-752.50	-1,982.01	2,029.52	2,011.37	18.14	111.874		
3,900.00	3,884.26	4,329.68	4,288.61	9.17	10.28	68.21	-743.35	-1,964.31	2,005.23	1,986.73	18.51	108.351		
4,000.00	3,983.67	4,425.54	4,382.37	9.36	10.51	68.65	-734.19	-1,946.61	1,981.06	1,962.19	18.87	104.965		
4,100.00	4,083.08	4,521.40	4,476.14	9.54	10.76	69.10	-725.04	-1,928.91	1,957.01	1,937.77	19.24	101.708		
4,200.00	4,182.48	4,617.26	4,569.91	9.73	11.00	69.56	-715.89	-1,911.22	1,933.08	1,913.47	19.61	98.573		
4,300.00	4,281.89	4,713.12	4,663.67	9.91	11.24	70.04	-706.73	-1,893.52	1,909.27	1,889.29	19.98	95.556		
4,400.00	4,381.30	4,808.98	4,757.44	10.10	11.49	70.52	-697.58	-1,875.82	1,885.59	1,865.24	20.35	92.649		
4,500.00	4,480.70	4,904.84	4,851.21	10.28	11.73	71.02	-688.43	-1,858.12	1,862.04	1,841.32	20.72	89.847		
4,600.00	4,580.11	5,000.70	4,944.98	10.47	11.98	71.53	-679.28	-1,840.42	1,838.64	1,817.54	21.10	87.147		
4,700.00	4,679.51	5,096.57	5,038.74	10.65	12.23	72.05	-670.12	-1,822.73	1,815.37	1,793.90	21.47	84.542		
4,800.00	4,778.92	5,181.58	5,121.91	10.84	12.42	72.52	-662.04	-1,807.10	1,792.37	1,770.56	21.81	82.186		
4,900.00	4,878.33	5,248.33	5,187.41	11.02	12.58	72.89	-656.12	-1,795.65	1,770.79	1,748.64	22.15	79.950		
5,000.00	4,977.73	5,315.69	5,253.72	11.21	12.73	73.26	-650.68	-1,785.13	1,750.96	1,728.46	22.49	77.839		
5,100.00	5,077.14	5,383.62	5,320.79	11.39	12.88	73.62	-645.74	-1,775.58	1,732.89	1,710.05	22.83	75.889		
5,200.00	5,176.55	5,452.09	5,388.58	11.58	13.02	73.97	-641.32	-1,767.03	1,716.59	1,693.42	23.17	74.095		
5,300.00	5,275.95	5,521.05	5,457.02	11.76	13.15	74.32	-637.42	-1,759.50	1,702.07	1,678.57	23.49	72.445		
5,400.00	5,375.36	5,600.00	5,535.54	11.95	13.28	74.70	-633.67	-1,752.24	1,689.37	1,665.53	23.83	70.892		
5,500.00	5,474.77	5,660.31	5,595.64	12.13	13.37	74.99	-631.30	-1,747.66	1,678.37	1,654.25	24.12	69.573		
5,600.00	5,574.17	5,730.53	5,665.68	12.32	13.47	75.30	-629.09	-1,743.39	1,669.20	1,644.77	24.43	68.338		
5,700.00	5,673.58	5,800.00	5,735.07	12.50	13.56	75.60	-627.49	-1,740.29	1,661.81	1,637.09	24.72	67.235		
5,800.00	5,772.99	5,871.88	5,806.91	12.69	13.63	75.89	-626.45	-1,738.27	1,656.19	1,631.20	25.00	66.258		
5,900.00	5,872.39	5,942.94	5,877.96	12.87	13.68	76.17	-626.02	-1,737.45	1,652.35	1,627.12	25.23	65.479		
6,000.00	5,971.80	6,036.78	5,971.80	13.06	13.73	76.51	-626.01	-1,737.43	1,649.73	1,624.27	25.46	64.799		
6,100.00	6,071.21	6,136.18	6,071.21	13.24	13.80	76.88	-626.01	-1,737.43	1,647.22	1,621.51	25.71	64.077		
6,200.00	6,170.61	6,235.59	6,170.61	13.43	13.88	77.24	-626.01	-1,737.43	1,644.77	1,618.81	25.95	63.372		
6,300.00	6,270.02	6,335.00	6,270.02	13.61	13.95	77.61	-626.01	-1,737.43	1,642.38	1,616.18	26.20	62.682		
6,400.00	6,369.43	6,434.40	6,369.43	13.80	14.02	77.98	-626.01	-1,737.43	1,640.07	1,613.62	26.45	62.008		
6,500.00	6,468.83	6,533.81	6,468.83	13.98	14.10	78.35	-626.01	-1,737.43	1,637.83	1,611.13	26.70	61.348		
6,600.00	6,568.24	6,633.22	6,568.24	14.17	14.17	78.72	-626.01	-1,737.43	1,635.65	1,608.71	26.94	60.703		
6,700.00	6,667.74	6,732.72	6,667.74	14.34	14.24	79.04	-626.01	-1,737.43	1,633.72	1,606.55	27.17	60.134		
6,800.00	6,767.46	6,832.44	6,767.46	14.53	14.32	79.27	-626.01	-1,737.43	1,632.33	1,604.94	27.39	59.600		
6,900.00	6,867.34	6,932.32	6,867.34	14.70	14.39	79.42	-626.01	-1,737.43	1,631.44	1,603.86	27.59	59.140		
7,000.00	6,967.32	7,032.30	6,967.32	14.86	14.46	79.49	-626.01	-1,737.43	1,631.05	1,603.28	27.76	58.750		
7,090.01	7,057.33	7,122.31	7,057.33	14.87	14.53	79.51	-626.01	-1,737.43	1,630.97	1,603.14	27.83	58.599		
7,100.00	7,067.32	7,132.30	7,067.32	14.88	14.54	-90.40	-626.01	-1,737.43	1,631.02	1,603.18	27.84	58.584		
7,200.00	7,167.32	7,232.30	7,167.32	14.90	14.61	-90.40	-626.01	-1,737.43	1,631.02	1,603.09	27.94	58.385		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 (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)				
7,300.00	7,267.32	7,332.30	7,267.32	14.93	14.68	-90.40	-626.01	-1,737.43	1,631.02	1,602.99	28.03	58.187		
7,400.00	7,367.32	7,432.30	7,367.32	14.95	14.76	-90.40	-626.01	-1,737.43	1,631.02	1,602.89	28.13	57.989		
7,500.00	7,467.32	7,532.30	7,467.32	14.98	14.83	-90.40	-626.01	-1,737.43	1,631.02	1,602.80	28.22	57.791		
7,600.00	7,567.32	7,632.30	7,567.32	15.01	14.91	-90.40	-626.01	-1,737.43	1,631.02	1,602.70	28.32	57.593		
7,700.00	7,667.32	7,732.30	7,667.32	15.03	14.98	-90.40	-626.01	-1,737.43	1,631.02	1,602.60	28.42	57.395		
7,800.00	7,767.32	7,832.30	7,767.32	15.06	15.06	-90.40	-626.01	-1,737.43	1,631.02	1,602.51	28.52	57.198		
7,900.00	7,867.32	7,932.30	7,867.32	15.09	15.13	-90.40	-626.01	-1,737.43	1,631.02	1,602.41	28.61	57.002		
8,000.00	7,967.32	8,032.30	7,967.32	15.12	15.21	-90.40	-626.01	-1,737.43	1,631.02	1,602.31	28.71	56.805		
8,100.00	8,067.32	8,132.30	8,067.32	15.15	15.28	-90.40	-626.01	-1,737.43	1,631.02	1,602.21	28.81	56.609		
8,200.00	8,167.32	8,232.30	8,167.32	15.18	15.35	-90.40	-626.01	-1,737.43	1,631.02	1,602.11	28.91	56.413		
8,300.00	8,267.32	8,332.30	8,267.32	15.21	15.43	-90.40	-626.01	-1,737.43	1,631.02	1,602.01	29.01	56.218		
8,400.00	8,367.32	8,432.30	8,367.32	15.24	15.50	-90.40	-626.01	-1,737.43	1,631.02	1,601.91	29.11	56.023		
8,500.00	8,467.32	8,532.30	8,467.32	15.27	15.58	-90.40	-626.01	-1,737.43	1,631.02	1,601.81	29.21	55.829		
8,600.00	8,567.32	8,632.30	8,567.32	15.30	15.65	-90.40	-626.01	-1,737.43	1,631.02	1,601.70	29.32	55.634		
8,700.00	8,667.32	8,732.30	8,667.32	15.33	15.73	-90.40	-626.01	-1,737.43	1,631.02	1,601.60	29.42	55.441		
8,800.00	8,767.32	8,832.30	8,767.32	15.36	15.81	-90.40	-626.01	-1,737.43	1,631.02	1,601.50	29.52	55.248		
8,900.00	8,867.32	8,932.30	8,867.32	15.39	15.88	-90.40	-626.01	-1,737.43	1,631.02	1,601.40	29.63	55.055		
9,000.00	8,967.32	9,032.30	8,967.32	15.43	15.96	-90.40	-626.01	-1,737.43	1,631.02	1,601.29	29.73	54.862		
9,100.00	9,067.32	9,132.30	9,067.32	15.46	16.03	-90.40	-626.01	-1,737.43	1,631.02	1,601.19	29.83	54.671		
9,200.00	9,167.32	9,232.30	9,167.32	15.49	16.11	-90.40	-626.01	-1,737.43	1,631.02	1,601.08	29.94	54.479		
9,300.00	9,267.32	9,332.30	9,267.32	15.53	16.18	-90.40	-626.01	-1,737.43	1,631.02	1,600.98	30.04	54.288		
9,400.00	9,367.32	9,432.30	9,367.32	15.56	16.26	-90.40	-626.01	-1,737.43	1,631.02	1,600.87	30.15	54.098		
9,500.00	9,467.32	9,532.30	9,467.32	15.59	16.33	-90.40	-626.01	-1,737.43	1,631.02	1,600.77	30.26	53.908		
9,600.00	9,567.32	9,632.30	9,567.32	15.63	16.41	-90.40	-626.01	-1,737.43	1,631.02	1,600.66	30.36	53.719		
9,700.00	9,667.32	9,732.30	9,667.32	15.66	16.49	-90.40	-626.01	-1,737.43	1,631.02	1,600.55	30.47	53.530		
9,800.00	9,767.32	9,832.30	9,767.32	15.70	16.56	-90.40	-626.01	-1,737.43	1,631.02	1,600.44	30.58	53.342		
9,900.00	9,867.32	9,932.30	9,867.32	15.73	16.64	-90.40	-626.01	-1,737.43	1,631.02	1,600.34	30.68	53.154		
10,000.00	9,967.32	10,032.30	9,967.32	15.77	16.71	-90.40	-626.01	-1,737.43	1,631.02	1,600.23	30.79	52.967		
10,100.00	10,067.32	10,132.30	10,067.32	15.81	16.79	-90.40	-626.01	-1,737.43	1,631.02	1,600.12	30.90	52.780		
10,200.00	10,167.32	10,232.30	10,167.32	15.84	16.86	-90.40	-626.01	-1,737.43	1,631.02	1,600.01	31.01	52.594		
10,300.00	10,267.32	10,332.30	10,267.32	15.88	16.94	-90.40	-626.01	-1,737.43	1,631.02	1,599.90	31.12	52.409		
10,400.00	10,367.32	10,432.30	10,367.32	15.92	17.02	-90.40	-626.01	-1,737.43	1,631.02	1,599.79	31.23	52.224		
10,500.00	10,467.32	10,532.30	10,467.32	15.95	17.09	-90.40	-626.01	-1,737.43	1,631.02	1,599.68	31.34	52.040		
10,600.00	10,567.32	10,632.30	10,567.32	15.99	17.17	-90.40	-626.01	-1,737.43	1,631.02	1,599.57	31.45	51.856		
10,700.00	10,667.32	10,732.30	10,667.32	16.03	17.25	-90.40	-626.01	-1,737.43	1,631.02	1,599.46	31.56	51.673		
10,800.00	10,767.32	10,832.30	10,767.32	16.07	17.32	-90.40	-626.01	-1,737.43	1,631.02	1,599.34	31.68	51.491		
10,900.00	10,867.32	10,932.30	10,867.32	16.11	17.40	-90.40	-626.01	-1,737.43	1,631.02	1,599.23	31.79	51.309		
11,000.00	10,967.32	11,032.30	10,967.32	16.15	17.48	-90.40	-626.01	-1,737.43	1,631.02	1,599.12	31.90	51.128		
11,100.00	11,067.32	11,132.30	11,067.32	16.19	17.55	-90.40	-626.01	-1,737.43	1,631.02	1,599.01	32.01	50.948		
11,200.00	11,167.32	11,232.30	11,167.32	16.23	17.63	-90.40	-626.01	-1,737.43	1,631.02	1,598.89	32.13	50.768		
11,300.00	11,267.32	11,332.30	11,267.32	16.27	17.71	-90.40	-626.01	-1,737.43	1,631.02	1,598.78	32.24	50.588		
11,400.00	11,367.32	11,432.30	11,367.32	16.31	17.78	-90.40	-626.01	-1,737.43	1,631.02	1,598.67	32.36	50.410		
11,500.00	11,467.32	11,532.30	11,467.32	16.35	17.86	-90.40	-626.01	-1,737.43	1,631.02	1,598.55	32.47	50.232		
11,600.00	11,567.32	11,632.30	11,567.32	16.39	17.94	-90.40	-626.01	-1,737.43	1,631.02	1,598.44	32.58	50.055		
11,700.00	11,667.32	11,732.30	11,667.32	16.43	18.01	-90.40	-626.01	-1,737.43	1,631.02	1,598.32	32.70	49.878		
11,800.00	11,767.32	11,832.30	11,767.32	16.47	18.09	-90.40	-626.01	-1,737.43	1,631.02	1,598.20	32.82	49.702		
11,807.73	11,775.05	11,840.03	11,775.05	16.48	18.10	90.12	-626.01	-1,737.43	1,631.02	1,598.20	32.82	49.690		
11,900.00	11,867.32	11,932.30	11,867.32	16.51	18.17	90.12	-626.01	-1,737.43	1,631.02	1,598.10	32.92	49.540		
12,000.00	11,966.66	12,031.63	11,966.66	16.75	18.24	90.47	-626.01	-1,737.43	1,631.07	1,597.98	33.10	49.280		
12,100.00	12,062.69	12,127.67	12,062.69	17.02	18.32	91.35	-626.01	-1,737.43	1,631.54	1,598.14	33.40	48.851		
12,200.00	12,152.51	12,217.49	12,152.51	17.30	18.39	92.55	-626.01	-1,737.43	1,633.22	1,599.39	33.83	48.277		
12,300.00	12,233.38	12,298.36	12,233.38	17.56	18.45	93.80	-626.01	-1,737.43	1,637.31	1,602.91	34.40	47.594		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)		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)			
12,400.00	12,302.84	12,369.10	12,304.12	17.80	18.49	94.78	-626.26	-1,737.45	1,645.14	1,610.06	35.09	46.888	
12,500.00	12,358.79	12,443.06	12,377.70	18.10	18.54	95.52	-633.20	-1,738.12	1,657.58	1,621.73	35.85	46.242	
12,600.00	12,399.52	12,526.88	12,459.20	18.99	18.57	96.11	-652.38	-1,739.97	1,674.65	1,637.99	36.66	45.678	
12,700.00	12,423.80	12,628.82	12,553.19	19.97	18.58	96.76	-691.30	-1,743.72	1,696.02	1,658.49	37.53	45.187	
12,800.00	12,431.01	12,768.93	12,668.12	21.01	18.61	98.27	-770.48	-1,751.34	1,720.77	1,682.26	38.51	44.687	
12,900.00	12,431.54	12,987.10	12,799.44	22.11	18.74	102.53	-942.15	-1,767.87	1,744.15	1,704.36	39.79	43.830	
13,000.00	12,432.07	13,341.98	12,860.77	23.23	19.48	104.18	-1,286.05	-1,799.40	1,756.77	1,714.70	42.07	41.760	
13,100.00	12,432.59	13,563.76	12,862.70	24.37	20.45	104.15	-1,507.70	-1,804.80	1,759.77	1,715.33	44.45	39.593	
13,200.00	12,433.12	13,663.76	12,863.56	25.54	21.02	104.16	-1,607.69	-1,803.94	1,759.91	1,713.77	46.14	38.147	
13,300.00	12,433.64	13,763.76	12,864.43	26.73	21.65	104.17	-1,707.68	-1,803.08	1,760.04	1,712.12	47.91	36.735	
13,400.00	12,434.17	13,863.76	12,865.30	27.93	22.35	104.18	-1,807.68	-1,802.22	1,760.17	1,710.40	49.77	35.368	
13,500.00	12,434.69	13,963.76	12,866.17	29.15	23.11	104.19	-1,907.67	-1,801.36	1,760.30	1,708.60	51.70	34.051	
13,600.00	12,435.22	14,063.76	12,867.04	30.38	23.92	104.20	-2,007.66	-1,800.50	1,760.43	1,706.74	53.69	32.790	
13,700.00	12,435.74	14,163.76	12,867.90	31.62	24.78	104.21	-2,107.65	-1,799.64	1,760.56	1,704.82	55.74	31.586	
13,800.00	12,436.27	14,263.75	12,868.77	32.87	25.69	104.22	-2,207.64	-1,798.78	1,760.69	1,702.85	57.84	30.440	
13,900.00	12,436.79	14,363.75	12,869.64	34.13	26.64	104.23	-2,307.63	-1,797.92	1,760.82	1,700.83	59.99	29.352	
14,000.00	12,437.32	14,463.75	12,870.51	35.40	27.62	104.24	-2,407.63	-1,797.05	1,760.95	1,698.77	62.18	28.320	
14,100.00	12,437.84	14,563.75	12,871.38	36.68	28.64	104.25	-2,507.62	-1,796.19	1,761.08	1,696.67	64.41	27.342	
14,200.00	12,438.37	14,663.75	12,872.24	37.96	29.69	104.26	-2,607.61	-1,795.33	1,761.21	1,694.54	66.67	26.417	
14,300.00	12,438.89	14,763.75	12,873.11	39.25	30.76	104.27	-2,707.60	-1,794.47	1,761.35	1,692.38	68.96	25.541	
14,400.00	12,439.42	14,863.75	12,873.98	40.55	31.85	104.28	-2,807.59	-1,793.61	1,761.48	1,690.20	71.28	24.713	
14,500.00	12,439.94	14,963.75	12,874.85	41.84	32.97	104.29	-2,907.59	-1,792.75	1,761.61	1,687.99	73.62	23.928	
14,600.00	12,440.47	15,063.75	12,875.72	43.15	34.11	104.30	-3,007.58	-1,791.89	1,761.74	1,685.75	75.99	23.185	
14,700.00	12,440.99	15,163.75	12,876.58	44.45	35.26	104.31	-3,107.57	-1,791.03	1,761.87	1,683.50	78.37	22.482	
14,800.00	12,441.52	15,263.75	12,877.45	45.77	36.43	104.32	-3,207.56	-1,790.17	1,762.00	1,681.23	80.77	21.815	
14,900.00	12,442.04	15,363.75	12,878.32	47.08	37.61	104.34	-3,307.55	-1,789.31	1,762.13	1,678.94	83.19	21.182	
15,000.00	12,442.57	15,463.75	12,879.19	48.40	38.80	104.35	-3,407.55	-1,788.45	1,762.27	1,676.64	85.62	20.582	
15,100.00	12,443.09	15,563.75	12,880.06	49.72	40.01	104.36	-3,507.54	-1,787.59	1,762.40	1,674.33	88.07	20.011	
15,200.00	12,443.62	15,663.75	12,880.92	51.04	41.22	104.37	-3,607.53	-1,786.73	1,762.53	1,672.00	90.53	19.469	
15,300.00	12,444.14	15,763.75	12,881.79	52.36	42.45	104.38	-3,707.52	-1,785.87	1,762.66	1,669.66	93.00	18.953	
15,400.00	12,444.67	15,863.75	12,882.66	53.69	43.68	104.39	-3,807.51	-1,785.00	1,762.79	1,667.31	95.48	18.462	
15,500.00	12,445.19	15,963.74	12,883.53	55.02	44.93	104.40	-3,907.51	-1,784.14	1,762.92	1,664.95	97.97	17.994	
15,600.00	12,445.72	16,063.74	12,884.40	56.35	46.18	104.41	-4,007.50	-1,783.28	1,763.06	1,662.58	100.47	17.548	
15,700.00	12,446.24	16,163.74	12,885.26	57.69	47.43	104.42	-4,107.49	-1,782.42	1,763.19	1,660.21	102.98	17.122	
15,800.00	12,446.77	16,263.74	12,886.13	59.02	48.70	104.43	-4,207.48	-1,781.56	1,763.32	1,657.82	105.49	16.715	
15,900.00	12,447.29	16,363.74	12,887.00	60.36	49.96	104.44	-4,307.47	-1,780.70	1,763.45	1,655.43	108.02	16.326	
16,000.00	12,447.82	16,463.74	12,887.87	61.69	51.24	104.45	-4,407.47	-1,779.84	1,763.58	1,653.04	110.55	15.953	
16,100.00	12,448.34	16,563.74	12,888.74	63.03	52.52	104.46	-4,507.46	-1,778.98	1,763.72	1,650.64	113.08	15.597	
16,200.00	12,448.87	16,663.74	12,889.60	64.37	53.80	104.47	-4,607.45	-1,778.12	1,763.85	1,648.23	115.62	15.255	
16,300.00	12,449.39	16,763.74	12,890.47	65.72	55.09	104.48	-4,707.44	-1,777.26	1,763.98	1,645.81	118.17	14.928	
16,400.00	12,449.92	16,863.74	12,891.34	67.06	56.38	104.49	-4,807.43	-1,776.40	1,764.11	1,643.40	120.72	14.614	
16,500.00	12,450.44	16,963.74	12,892.21	68.40	57.67	104.50	-4,907.43	-1,775.54	1,764.25	1,640.97	123.27	14.312	
16,600.00	12,450.97	17,063.74	12,893.08	69.75	58.97	104.51	-5,007.42	-1,774.68	1,764.38	1,638.55	125.83	14.022	
16,700.00	12,451.49	17,163.74	12,893.94	71.09	60.27	104.52	-5,107.41	-1,773.82	1,764.51	1,636.12	128.39	13.743	
16,800.00	12,452.02	17,263.74	12,894.81	72.44	61.58	104.53	-5,207.40	-1,772.95	1,764.64	1,633.68	130.96	13.475	
16,900.00	12,452.54	17,363.74	12,895.68	73.79	62.89	104.54	-5,307.39	-1,772.09	1,764.78	1,631.25	133.53	13.216	
17,000.00	12,453.07	17,463.74	12,896.55	75.13	64.20	104.55	-5,407.38	-1,771.23	1,764.91	1,628.81	136.10	12.967	
17,100.00	12,453.59	17,563.74	12,897.42	76.48	65.51	104.56	-5,507.38	-1,770.37	1,765.04	1,626.36	138.68	12.727	
17,200.00	12,454.12	17,663.73	12,898.28	77.83	66.82	104.57	-5,607.37	-1,769.51	1,765.17	1,623.92	141.26	12.496	
17,300.00	12,454.64	17,763.73	12,899.15	79.18	68.14	104.58	-5,707.36	-1,768.65	1,765.31	1,621.47	143.84	12.273	
17,400.00	12,455.17	17,863.73	12,900.02	80.53	69.46	104.60	-5,807.35	-1,767.79	1,765.44	1,619.02	146.43	12.057	
17,500.00	12,455.69	17,963.73	12,900.89	81.89	70.78	104.61	-5,907.34	-1,766.93	1,765.57	1,616.56	149.01	11.849	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)		
17,600.00	12,456.22	18,063.73	12,901.76	83.24	72.10	104.62	-6,007.34	-1,766.07	1,765.71	1,614.11	151.60	11.647	
17,700.00	12,456.74	18,163.73	12,902.62	84.59	73.43	104.63	-6,107.33	-1,765.21	1,765.84	1,611.65	154.19	11.452	
17,800.00	12,457.27	18,263.73	12,903.49	85.94	74.76	104.64	-6,207.32	-1,764.35	1,765.97	1,609.19	156.78	11.264	
17,900.00	12,457.79	18,363.73	12,904.36	87.30	76.08	104.65	-6,307.31	-1,763.49	1,766.11	1,606.73	159.38	11.081	
18,000.00	12,458.32	18,463.73	12,905.23	88.65	77.41	104.66	-6,407.30	-1,762.63	1,766.24	1,604.26	161.98	10.904	
18,100.00	12,458.84	18,563.73	12,906.10	90.01	78.74	104.67	-6,507.30	-1,761.77	1,766.37	1,601.80	164.57	10.733	
18,200.00	12,459.37	18,663.73	12,906.96	91.36	80.08	104.68	-6,607.29	-1,760.90	1,766.51	1,599.33	167.17	10.567	
18,300.00	12,459.89	18,763.73	12,907.83	92.72	81.41	104.69	-6,707.28	-1,760.04	1,766.64	1,596.86	169.78	10.406	
18,400.00	12,460.42	18,863.73	12,908.70	94.07	82.74	104.70	-6,807.27	-1,759.18	1,766.77	1,594.39	172.38	10.249	
18,500.00	12,460.94	18,963.73	12,909.57	95.43	84.08	104.71	-6,907.26	-1,758.32	1,766.91	1,591.92	174.98	10.098	
18,600.00	12,461.47	19,063.73	12,910.44	96.79	85.42	104.72	-7,007.26	-1,757.46	1,767.04	1,589.45	177.59	9.950	
18,700.00	12,461.99	19,163.73	12,911.30	98.15	86.75	104.73	-7,107.25	-1,756.60	1,767.17	1,586.98	180.19	9.807	
18,800.00	12,462.52	19,263.73	12,912.17	99.50	88.09	104.74	-7,207.24	-1,755.74	1,767.31	1,584.51	182.80	9.668	
18,900.00	12,463.04	19,363.72	12,913.04	100.86	89.43	104.75	-7,307.23	-1,754.88	1,767.44	1,582.03	185.41	9.533	
19,000.00	12,463.57	19,463.72	12,913.91	102.22	90.77	104.76	-7,407.22	-1,754.02	1,767.58	1,579.55	188.02	9.401	
19,100.00	12,464.09	19,563.72	12,914.78	103.58	92.11	104.77	-7,507.22	-1,753.16	1,767.71	1,577.08	190.63	9.273	
19,200.00	12,464.62	19,663.72	12,915.65	104.94	93.46	104.78	-7,607.21	-1,752.30	1,767.84	1,574.60	193.24	9.148	
19,300.00	12,465.14	19,763.72	12,916.51	106.29	94.80	104.79	-7,707.20	-1,751.44	1,767.98	1,572.12	195.86	9.027	
19,400.00	12,465.67	19,863.72	12,917.38	107.65	96.14	104.80	-7,807.19	-1,750.58	1,768.11	1,569.64	198.47	8.909	
19,500.00	12,466.19	19,963.72	12,918.25	109.01	97.49	104.81	-7,907.18	-1,749.72	1,768.25	1,567.16	201.08	8.794	
19,600.00	12,466.72	20,063.72	12,919.12	110.37	98.83	104.82	-8,007.17	-1,748.85	1,768.38	1,564.68	203.70	8.681	
19,700.00	12,467.24	20,163.72	12,919.99	111.73	100.18	104.83	-8,107.17	-1,747.99	1,768.52	1,562.20	206.31	8.572	
19,800.00	12,467.77	20,263.72	12,920.85	113.09	101.53	104.84	-8,207.16	-1,747.13	1,768.65	1,559.72	208.93	8.465	
19,900.00	12,468.29	20,363.72	12,921.72	114.45	102.87	104.85	-8,307.15	-1,746.27	1,768.78	1,557.24	211.55	8.361	
20,000.00	12,468.82	20,463.72	12,922.59	115.82	104.22	104.86	-8,407.14	-1,745.41	1,768.92	1,554.75	214.17	8.260	
20,100.00	12,469.34	20,563.72	12,923.46	117.18	105.57	104.87	-8,507.13	-1,744.55	1,769.05	1,552.27	216.78	8.160	
20,200.00	12,469.87	20,663.72	12,924.33	118.54	106.92	104.89	-8,607.13	-1,743.69	1,769.19	1,549.78	219.40	8.064	
20,300.00	12,470.39	20,763.72	12,925.19	119.90	108.27	104.90	-8,707.12	-1,742.83	1,769.32	1,547.30	222.02	7.969	
20,400.00	12,470.92	20,863.72	12,926.06	121.26	109.62	104.91	-8,807.11	-1,741.97	1,769.46	1,544.82	224.64	7.877	
20,500.00	12,471.44	20,963.71	12,926.93	122.62	110.97	104.92	-8,907.10	-1,741.11	1,769.59	1,542.33	227.26	7.787	
20,600.00	12,471.97	21,063.71	12,927.80	123.98	112.32	104.93	-9,007.09	-1,740.25	1,769.73	1,539.84	229.88	7.698	
20,700.00	12,472.50	21,163.71	12,928.67	125.35	113.67	104.94	-9,107.09	-1,739.39	1,769.86	1,537.36	232.50	7.612	
20,800.00	12,473.02	21,263.71	12,929.53	126.71	115.02	104.95	-9,207.08	-1,738.53	1,770.00	1,534.87	235.12	7.528	
20,900.00	12,473.55	21,363.71	12,930.40	128.07	116.37	104.96	-9,307.07	-1,737.67	1,770.13	1,532.38	237.75	7.445	
21,000.00	12,474.07	21,463.71	12,931.27	129.43	117.73	104.97	-9,407.06	-1,736.80	1,770.27	1,529.90	240.37	7.365	
21,100.00	12,474.60	21,563.71	12,932.14	130.80	119.08	104.98	-9,507.05	-1,735.94	1,770.40	1,527.41	242.99	7.286	
21,200.00	12,475.12	21,663.71	12,933.01	132.16	120.43	104.99	-9,607.05	-1,735.08	1,770.54	1,524.92	245.61	7.209	
21,300.00	12,475.65	21,763.71	12,933.87	133.52	121.79	105.00	-9,707.04	-1,734.22	1,770.67	1,522.43	248.24	7.133	
21,400.00	12,476.17	21,863.71	12,934.74	134.88	123.14	105.01	-9,807.03	-1,733.36	1,770.81	1,519.95	250.86	7.059	
21,500.00	12,476.70	21,963.71	12,935.61	136.25	124.50	105.02	-9,907.02	-1,732.50	1,770.94	1,517.46	253.48	6.986	
21,600.00	12,477.22	22,063.71	12,936.48	137.61	125.85	105.03	-10,007.01	-1,731.64	1,771.08	1,514.97	256.11	6.915	
21,700.00	12,477.75	22,163.71	12,937.35	138.97	127.21	105.04	-10,107.01	-1,730.78	1,771.21	1,512.48	258.73	6.846	
21,800.00	12,478.27	22,263.71	12,938.21	140.34	128.56	105.05	-10,207.00	-1,729.92	1,771.35	1,509.99	261.36	6.778	
21,900.00	12,478.80	22,363.71	12,939.08	141.70	129.92	105.06	-10,306.99	-1,729.06	1,771.48	1,507.50	263.98	6.711	
22,000.00	12,479.32	22,463.71	12,939.95	143.06	131.27	105.07	-10,406.98	-1,728.20	1,771.62	1,505.01	266.61	6.645	
22,100.00	12,479.85	22,563.71	12,940.82	144.43	132.63	105.08	-10,506.97	-1,727.34	1,771.76	1,502.53	269.23	6.581	
22,200.00	12,480.37	22,663.70	12,941.69	145.79	133.99	105.09	-10,606.97	-1,726.48	1,771.89	1,500.04	271.86	6.518	
22,300.00	12,480.90	22,763.70	12,942.55	147.16	135.34	105.10	-10,706.96	-1,725.62	1,772.03	1,497.55	274.48	6.456	
22,400.00	12,481.42	22,863.70	12,943.42	148.52	136.70	105.11	-10,806.95	-1,724.75	1,772.16	1,495.06	277.11	6.395	
22,500.00	12,481.95	22,963.70	12,944.29	149.89	138.06	105.12	-10,906.94	-1,723.89	1,772.30	1,492.57	279.73	6.336	
22,600.00	12,482.47	23,063.70	12,945.16	151.25	139.42	105.13	-11,006.93	-1,723.03	1,772.44	1,490.08	282.36	6.277	
22,700.00	12,483.00	23,163.70	12,946.03	152.61	140.77	105.14	-11,106.92	-1,722.17	1,772.57	1,487.59	284.98	6.220	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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													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)				
22,719.79	12,483.10	23,183.49	12,946.20	152.85	141.04	105.15	-11,126.71	-1,722.00	1,772.60	1,487.13	285.47	6.209	ES, 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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:
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	
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		
400.00	400.00	400.00	400.00	2.33	2.33	90.00	0.00	25.00	25.00	20.34	4.66	5.366		
500.00	500.00	500.00	500.00	2.63	2.63	90.00	0.00	25.00	25.00	19.73	5.27	4.745		
600.00	600.00	600.00	600.00	2.91	2.91	90.00	0.00	25.00	25.00	19.18	5.82	4.295		
700.00	700.00	700.00	700.00	3.16	3.16	90.00	0.00	25.00	25.00	18.67	6.33	3.951	CC	
800.00	799.99	799.99	799.99	3.45	3.40	-97.29	0.00	25.00	25.13	18.34	6.79	3.703	ES	
900.00	899.91	899.91	899.91	3.70	3.62	-105.91	0.00	25.00	25.93	18.71	7.22	3.593		
1,000.00	999.77	999.77	999.77	3.89	3.84	-116.33	0.00	25.00	27.82	20.19	7.63	3.645		
1,100.00	1,099.63	1,099.63	1,099.63	4.08	4.04	-125.16	0.00	25.00	30.51	22.47	8.04	3.797		
1,200.00	1,199.50	1,199.50	1,199.50	4.26	4.23	-132.43	0.00	25.00	33.80	25.37	8.43	4.011		
1,300.00	1,299.34	1,299.34	1,299.34	4.35	4.42	-140.75	0.00	25.00	37.80	29.09	8.71	4.340		
1,400.00	1,399.04	1,399.04	1,399.04	4.58	4.60	-149.44	0.00	25.00	44.23	35.11	9.12	4.848		
1,500.00	1,498.51	1,498.51	1,498.51	4.71	4.77	-155.93	0.00	25.00	53.39	43.96	9.43	5.661		
1,600.00	1,597.91	1,597.91	1,597.91	4.89	4.94	-159.94	0.00	25.00	63.48	53.68	9.80	6.478		
1,700.00	1,697.32	1,697.32	1,697.32	5.08	5.11	-162.83	0.00	25.00	73.80	63.64	10.16	7.263		
1,800.00	1,796.72	1,796.72	1,796.72	5.27	5.27	-165.02	0.00	25.00	84.26	73.75	10.52	8.013		
1,900.00	1,896.13	1,896.13	1,896.13	5.46	5.43	-166.72	0.00	25.00	94.82	83.95	10.86	8.727		
2,000.00	1,995.54	1,995.54	1,995.54	5.64	5.58	-168.07	0.00	25.00	105.44	94.23	11.21	9.407		
2,100.00	2,094.94	2,097.67	2,097.66	5.83	5.75	-169.45	-0.91	24.15	114.98	103.41	11.57	9.942		
2,200.00	2,194.35	2,200.29	2,200.20	6.02	5.91	-171.12	-3.84	21.42	122.13	110.23	11.90	10.265		
2,300.00	2,293.76	2,303.13	2,302.81	6.20	6.06	-173.14	-8.80	16.81	126.95	114.73	12.23	10.384		
2,400.00	2,393.16	2,406.03	2,405.27	6.39	6.21	-175.58	-15.78	10.31	129.54	116.99	12.55	10.322		
2,500.00	2,492.57	2,508.86	2,507.35	6.58	6.37	-178.54	-24.78	1.95	130.03	117.16	12.87	10.103		
2,600.00	2,591.98	2,611.45	2,608.84	6.76	6.52	177.85	-35.75	-8.27	128.63	115.44	13.19	9.755		
2,700.00	2,691.38	2,713.67	2,709.52	6.95	6.68	173.42	-48.67	-20.28	125.63	112.14	13.50	9.308		
2,800.00	2,790.79	2,815.01	2,808.85	7.13	6.84	167.97	-63.39	-33.98	121.50	107.70	13.81	8.800		
2,900.00	2,890.20	2,914.15	2,905.82	7.32	6.97	161.97	-78.48	-48.02	117.90	103.78	14.12	8.352		
3,000.00	2,989.60	3,013.28	3,002.79	7.50	7.11	155.68	-93.56	-62.06	115.68	101.26	14.43	8.019		
3,100.00	3,089.01	3,112.42	3,099.76	7.69	7.24	149.22	-108.65	-76.10	114.93	100.19	14.74	7.798		
3,100.35	3,089.36	3,112.76	3,100.10	7.69	7.24	149.20	-108.70	-76.14	114.93	100.19	14.74	7.798		
3,200.00	3,188.42	3,211.55	3,196.73	7.88	7.38	142.76	-123.74	-90.13	115.67	100.62	15.05	7.684		
3,300.00	3,287.82	3,310.69	3,293.70	8.06	7.53	136.46	-138.82	-104.17	117.88	102.50	15.38	7.666		
3,400.00	3,387.23	3,409.82	3,390.67	8.25	7.68	130.46	-153.91	-118.21	121.47	105.76	15.71	7.733		
3,500.00	3,486.64	3,508.96	3,487.64	8.43	7.86	124.86	-168.99	-132.24	126.33	110.29	16.04	7.875		
3,600.00	3,586.04	3,608.09	3,584.61	8.62	8.06	119.71	-184.08	-146.28	132.32	115.93	16.39	8.074		
3,700.00	3,685.45	3,707.23	3,681.58	8.80	8.27	115.03	-199.16	-160.32	139.29	122.55	16.74	8.321		
3,800.00	3,784.86	3,806.36	3,778.55	8.99	8.48	110.82	-214.25	-174.35	147.10	130.00	17.10	8.604		
3,900.00	3,884.26	3,905.50	3,875.52	9.17	8.70	107.05	-229.34	-188.39	155.63	138.17	17.46	8.913		
4,000.00	3,983.67	4,004.63	3,972.49	9.36	8.93	103.68	-244.42	-202.43	164.76	146.93	17.83	9.242		
4,100.00	4,083.08	4,103.77	4,069.46	9.54	9.16	100.67	-259.51	-216.46	174.41	156.21	18.20	9.583		
4,200.00	4,182.48	4,202.90	4,166.43	9.73	9.39	97.98	-274.59	-230.50	184.48	165.91	18.57	9.932		
4,300.00	4,281.89	4,302.04	4,263.40	9.91	9.63	95.57	-289.68	-244.54	194.92	175.96	18.95	10.285		
4,400.00	4,381.30	4,401.18	4,360.37	10.10	9.87	93.40	-304.76	-258.57	205.66	186.33	19.33	10.639		
4,500.00	4,480.70	4,500.31	4,457.34	10.28	10.11	91.46	-319.85	-272.61	216.67	196.95	19.71	10.992		
4,600.00	4,580.11	4,599.45	4,554.31	10.47	10.35	89.70	-334.94	-286.65	227.90	207.80	20.10	11.341		
4,700.00	4,679.51	4,698.58	4,651.28	10.65	10.60	88.11	-350.02	-300.68	239.32	218.84	20.48	11.686		
4,800.00	4,778.92	4,797.72	4,748.25	10.84	10.85	86.66	-365.11	-314.72	250.91	230.04	20.87	12.025		
4,900.00	4,878.33	4,896.85	4,845.22	11.02	11.10	85.34	-380.19	-328.76	262.64	241.39	21.25	12.358		
5,000.00	4,977.73	4,995.99	4,942.19	11.21	11.36	84.14	-395.28	-342.79	274.50	252.86	21.64	12.684		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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			Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)				Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
5,100.00	5,077.14	5,095.12	5,039.16	11.39	11.61	83.03	-410.36	-356.83	286.47	264.44	22.03	13.003	
5,200.00	5,176.55	5,194.26	5,136.13	11.58	11.87	82.02	-425.45	-370.87	298.54	276.12	22.42	13.315	
5,300.00	5,275.95	5,293.39	5,233.10	11.76	12.13	81.08	-440.54	-384.90	310.69	287.88	22.81	13.620	
5,400.00	5,375.36	5,392.53	5,330.07	11.95	12.39	80.21	-455.62	-398.94	322.92	299.72	23.20	13.916	
5,500.00	5,474.77	5,491.66	5,427.04	12.13	12.65	79.41	-470.71	-412.98	335.22	311.62	23.60	14.206	
5,600.00	5,574.17	5,590.80	5,524.01	12.32	12.91	78.66	-485.79	-427.01	347.57	323.58	23.99	14.487	
5,700.00	5,673.58	5,689.93	5,620.98	12.50	13.18	77.97	-500.88	-441.05	359.98	335.60	24.39	14.762	
5,800.00	5,772.99	5,789.07	5,717.95	12.69	13.45	77.32	-515.96	-455.09	372.44	347.66	24.78	15.029	
5,900.00	5,872.39	5,888.20	5,814.92	12.87	13.71	76.71	-531.05	-469.12	384.95	359.77	25.18	15.290	
6,000.00	5,971.80	5,987.34	5,911.89	13.06	13.98	76.14	-546.14	-483.16	397.49	371.92	25.57	15.543	
6,100.00	6,071.21	6,088.90	6,011.25	13.24	14.23	75.61	-561.50	-497.46	409.98	384.03	25.95	15.797	
6,200.00	6,170.61	6,196.88	6,117.35	13.43	14.50	75.28	-576.21	-511.14	420.97	394.59	26.38	15.956	
6,300.00	6,270.02	6,305.37	6,224.47	13.61	14.74	75.25	-588.77	-522.83	429.90	403.10	26.80	16.040	
6,400.00	6,369.43	6,414.18	6,332.35	13.80	14.95	75.50	-599.13	-532.47	436.74	409.54	27.20	16.056	
6,500.00	6,468.83	6,523.15	6,440.75	13.98	15.13	76.01	-607.24	-540.02	441.52	413.93	27.58	16.008	
6,600.00	6,568.24	6,632.09	6,549.39	14.17	15.28	76.79	-613.09	-545.46	444.27	416.33	27.94	15.900	
6,700.00	6,667.74	6,740.90	6,658.09	14.34	15.40	77.73	-616.66	-548.78	445.28	417.03	28.25	15.761	
6,800.00	6,767.46	6,849.62	6,766.79	14.53	15.48	78.57	-617.96	-549.99	444.91	416.41	28.50	15.612	
6,900.00	6,867.34	6,950.17	6,867.34	14.70	15.51	79.17	-617.97	-550.00	443.99	415.33	28.66	15.489	
7,000.00	6,967.32	7,050.14	6,967.32	14.86	15.55	79.44	-617.97	-550.00	443.59	414.77	28.81	15.395	
7,090.00	7,057.31	7,140.14	7,057.31	14.87	15.58	79.49	-617.97	-550.00	443.51	414.65	28.86	15.369	
7,100.00	7,067.32	7,150.14	7,067.32	14.88	15.59	-90.45	-617.97	-550.00	443.56	414.70	28.86	15.369	
7,200.00	7,167.32	7,250.14	7,167.32	14.90	15.63	-90.45	-617.97	-550.00	443.56	414.64	28.92	15.336	
7,300.00	7,267.32	7,350.14	7,267.32	14.93	15.67	-90.45	-617.97	-550.00	443.56	414.58	28.99	15.302	
7,400.00	7,367.32	7,450.14	7,367.32	14.95	15.71	-90.45	-617.97	-550.00	443.56	414.51	29.05	15.269	
7,500.00	7,467.32	7,550.14	7,467.32	14.98	15.75	-90.45	-617.97	-550.00	443.56	414.45	29.12	15.235	
7,600.00	7,567.32	7,650.14	7,567.32	15.01	15.80	-90.45	-617.97	-550.00	443.56	414.38	29.18	15.200	
7,700.00	7,667.32	7,750.14	7,667.32	15.03	15.84	-90.45	-617.97	-550.00	443.56	414.32	29.25	15.166	
7,800.00	7,767.32	7,850.14	7,767.32	15.06	15.88	-90.45	-617.97	-550.00	443.56	414.25	29.31	15.131	
7,900.00	7,867.32	7,950.14	7,867.32	15.09	15.92	-90.45	-617.97	-550.00	443.56	414.18	29.38	15.096	
8,000.00	7,967.32	8,050.14	7,967.32	15.12	15.97	-90.45	-617.97	-550.00	443.56	414.11	29.45	15.061	
8,100.00	8,067.32	8,150.14	8,067.32	15.15	16.01	-90.45	-617.97	-550.00	443.56	414.04	29.52	15.025	
8,200.00	8,167.32	8,250.14	8,167.32	15.18	16.06	-90.45	-617.97	-550.00	443.56	413.97	29.59	14.990	
8,300.00	8,267.32	8,350.14	8,267.32	15.21	16.10	-90.45	-617.97	-550.00	443.56	413.90	29.66	14.954	
8,400.00	8,367.32	8,450.14	8,367.32	15.24	16.15	-90.45	-617.97	-550.00	443.56	413.83	29.73	14.918	
8,500.00	8,467.32	8,550.14	8,467.32	15.27	16.19	-90.45	-617.97	-550.00	443.56	413.76	29.81	14.882	
8,600.00	8,567.32	8,650.14	8,567.32	15.30	16.24	-90.45	-617.97	-550.00	443.56	413.68	29.88	14.846	
8,700.00	8,667.32	8,750.14	8,667.32	15.33	16.28	-90.45	-617.97	-550.00	443.56	413.61	29.95	14.809	
8,800.00	8,767.32	8,850.14	8,767.32	15.36	16.33	-90.45	-617.97	-550.00	443.56	413.54	30.03	14.772	
8,900.00	8,867.32	8,950.14	8,867.32	15.39	16.37	-90.45	-617.97	-550.00	443.56	413.46	30.10	14.735	
9,000.00	8,967.32	9,050.14	8,967.32	15.43	16.42	-90.45	-617.97	-550.00	443.56	413.39	30.18	14.698	
9,100.00	9,067.32	9,150.14	9,067.32	15.46	16.47	-90.45	-617.97	-550.00	443.56	413.31	30.25	14.661	
9,200.00	9,167.32	9,250.14	9,167.32	15.49	16.52	-90.45	-617.97	-550.00	443.56	413.23	30.33	14.624	
9,300.00	9,267.32	9,350.14	9,267.32	15.53	16.56	-90.45	-617.97	-550.00	443.56	413.15	30.41	14.587	
9,400.00	9,367.32	9,450.14	9,367.32	15.56	16.61	-90.45	-617.97	-550.00	443.56	413.08	30.49	14.549	
9,500.00	9,467.32	9,550.14	9,467.32	15.59	16.66	-90.45	-617.97	-550.00	443.56	413.00	30.57	14.511	
9,600.00	9,567.32	9,650.14	9,567.32	15.63	16.71	-90.45	-617.97	-550.00	443.56	412.92	30.65	14.474	
9,700.00	9,667.32	9,750.14	9,667.32	15.66	16.76	-90.45	-617.97	-550.00	443.56	412.84	30.73	14.436	
9,800.00	9,767.32	9,850.14	9,767.32	15.70	16.80	-90.45	-617.97	-550.00	443.56	412.76	30.81	14.398	
9,900.00	9,867.32	9,950.14	9,867.32	15.73	16.85	-90.45	-617.97	-550.00	443.56	412.67	30.89	14.360	
10,000.00	9,967.32	10,050.14	9,967.32	15.77	16.90	-90.45	-617.97	-550.00	443.56	412.59	30.97	14.321	
10,100.00	10,067.32	10,150.14	10,067.32	15.81	16.95	-90.45	-617.97	-550.00	443.56	412.51	31.06	14.283	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:
													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.00	10,167.32	10,250.14	10,167.32	15.84	17.00	-90.45	-617.97	-550.00	443.56	412.42	31.14	14.245	
10,300.00	10,267.32	10,350.14	10,267.32	15.88	17.05	-90.45	-617.97	-550.00	443.56	412.34	31.22	14.206	
10,400.00	10,367.32	10,450.14	10,367.32	15.92	17.10	-90.45	-617.97	-550.00	443.56	412.26	31.31	14.168	
10,500.00	10,467.32	10,550.14	10,467.32	15.95	17.15	-90.45	-617.97	-550.00	443.56	412.17	31.39	14.129	
10,600.00	10,567.32	10,650.14	10,567.32	15.99	17.20	-90.45	-617.97	-550.00	443.56	412.08	31.48	14.090	
10,700.00	10,667.32	10,750.14	10,667.32	16.03	17.26	-90.45	-617.97	-550.00	443.56	412.00	31.57	14.052	
10,800.00	10,767.32	10,850.14	10,767.32	16.07	17.31	-90.45	-617.97	-550.00	443.56	411.91	31.65	14.013	
10,900.00	10,867.32	10,950.14	10,867.32	16.11	17.36	-90.45	-617.97	-550.00	443.56	411.82	31.74	13.974	
11,000.00	10,967.32	11,050.14	10,967.32	16.15	17.41	-90.45	-617.97	-550.00	443.56	411.73	31.83	13.935	
11,100.00	11,067.32	11,150.14	11,067.32	16.19	17.46	-90.45	-617.97	-550.00	443.56	411.64	31.92	13.896	
11,200.00	11,167.32	11,250.14	11,167.32	16.23	17.52	-90.45	-617.97	-550.00	443.56	411.55	32.01	13.857	
11,300.00	11,267.32	11,350.14	11,267.32	16.27	17.57	-90.45	-617.97	-550.00	443.56	411.46	32.10	13.818	
11,400.00	11,367.32	11,450.14	11,367.32	16.31	17.62	-90.45	-617.97	-550.00	443.56	411.37	32.19	13.779	
11,500.00	11,467.32	11,550.14	11,467.32	16.35	17.67	-90.45	-617.97	-550.00	443.56	411.28	32.28	13.740	
11,600.00	11,567.32	11,650.14	11,567.32	16.39	17.73	-90.45	-617.97	-550.00	443.56	411.19	32.37	13.701	
11,700.00	11,667.32	11,750.14	11,667.32	16.43	17.78	-90.45	-617.97	-550.00	443.56	411.10	32.47	13.662	
11,800.00	11,767.32	11,850.14	11,767.32	16.47	17.83	-90.45	-617.97	-550.00	443.56	411.00	32.56	13.623	
11,807.91	11,775.23	11,858.06	11,775.23	16.48	17.84	90.07	-617.97	-550.00	443.56	411.00	32.57	13.620	
11,900.00	11,867.32	11,950.14	11,867.32	16.51	17.89	90.08	-617.97	-550.00	443.56	410.92	32.64	13.588	
11,900.17	11,867.49	11,950.31	11,867.49	16.51	17.89	90.08	-617.97	-550.00	443.56	410.92	32.64	13.587	
12,000.00	11,966.66	12,049.48	11,966.66	16.75	17.94	91.39	-617.97	-550.00	443.70	410.88	32.82	13.518	
12,100.00	12,062.69	12,145.52	12,062.69	17.02	17.99	94.62	-617.97	-550.00	445.22	412.04	33.18	13.420	
12,200.00	12,152.51	12,235.34	12,152.51	17.30	18.04	99.02	-617.97	-550.00	451.09	417.37	33.72	13.376	
12,300.00	12,233.38	12,320.03	12,233.21	17.56	18.10	103.77	-618.10	-549.99	465.30	430.84	34.46	13.503	
12,400.00	12,302.84	12,443.84	12,359.74	17.80	18.27	110.80	-633.96	-548.42	487.13	451.48	35.64	13.666	
12,500.00	12,358.79	12,599.89	12,504.58	18.10	18.68	118.33	-690.46	-542.83	511.69	473.46	38.23	13.385	
12,600.00	12,399.52	12,803.88	12,661.36	18.99	19.52	125.90	-818.64	-530.15	532.97	490.06	42.91	12.421	
12,700.00	12,423.80	13,037.98	12,772.59	19.97	21.06	131.23	-1,021.71	-510.06	542.04	494.34	47.70	11.364	
12,800.00	12,431.01	13,247.33	12,798.17	21.01	22.91	133.32	-1,227.48	-490.02	535.69	485.70	49.99	10.716	
12,900.00	12,431.54	13,335.27	12,798.63	22.11	23.79	133.71	-1,315.21	-484.00	531.38	480.35	51.03	10.412	
13,000.00	12,432.07	13,423.45	12,799.10	23.23	24.70	133.90	-1,403.32	-480.68	529.32	477.24	52.07	10.165	
13,100.00	12,432.59	13,518.41	12,799.60	24.37	25.71	133.92	-1,498.28	-479.57	529.11	475.97	53.15	9.956	
13,108.85	12,432.64	13,527.26	12,799.64	24.48	25.81	133.92	-1,507.13	-479.49	529.11	475.87	53.25	9.937	
13,200.00	12,433.12	13,618.41	12,800.12	25.54	26.80	133.92	-1,598.28	-478.66	529.11	474.82	54.29	9.746	
13,300.00	12,433.64	13,718.41	12,800.65	26.73	27.92	133.92	-1,698.27	-477.75	529.11	473.62	55.49	9.535	
13,400.00	12,434.17	13,818.41	12,801.18	27.93	29.06	133.92	-1,798.27	-476.84	529.11	472.37	56.74	9.325	
13,500.00	12,434.69	13,918.41	12,801.70	29.15	30.22	133.92	-1,898.26	-475.93	529.11	471.07	58.04	9.116	
13,600.00	12,435.22	14,018.41	12,802.23	30.38	31.39	133.92	-1,998.26	-475.02	529.11	469.73	59.38	8.910	
13,700.00	12,435.74	14,118.41	12,802.75	31.62	32.58	133.92	-2,098.25	-474.11	529.11	468.35	60.76	8.708	
13,800.00	12,436.27	14,218.41	12,803.28	32.87	33.79	133.92	-2,198.25	-473.20	529.11	466.93	62.19	8.509	
13,900.00	12,436.79	14,318.41	12,803.81	34.13	35.00	133.92	-2,298.24	-472.29	529.11	465.47	63.64	8.314	
14,000.00	12,437.32	14,418.41	12,804.33	35.40	36.22	133.92	-2,398.23	-471.38	529.11	463.98	65.13	8.124	
14,100.00	12,437.84	14,518.41	12,804.86	36.68	37.46	133.92	-2,498.23	-470.47	529.11	462.46	66.65	7.938	
14,200.00	12,438.37	14,618.41	12,805.38	37.96	38.70	133.92	-2,598.22	-469.56	529.11	460.91	68.20	7.758	
14,300.00	12,438.89	14,718.41	12,805.91	39.25	39.95	133.92	-2,698.22	-468.65	529.11	459.33	69.78	7.583	
14,400.00	12,439.42	14,818.41	12,806.44	40.55	41.21	133.92	-2,798.21	-467.73	529.11	457.73	71.38	7.412	
14,500.00	12,439.94	14,918.42	12,806.96	41.84	42.48	133.92	-2,898.21	-466.82	529.11	456.10	73.01	7.247	
14,600.00	12,440.47	15,018.42	12,807.49	43.15	43.75	133.92	-2,998.20	-465.91	529.11	454.45	74.66	7.087	
14,700.00	12,440.99	15,118.42	12,808.01	44.45	45.02	133.92	-3,098.20	-465.00	529.11	452.78	76.32	6.932	
14,800.00	12,441.52	15,218.42	12,808.54	45.77	46.31	133.92	-3,198.19	-464.09	529.11	451.10	78.01	6.782	
14,900.00	12,442.04	15,318.42	12,809.07	47.08	47.59	133.92	-3,298.18	-463.18	529.11	449.39	79.72	6.637	
15,000.00	12,442.57	15,418.42	12,809.59	48.40	48.88	133.92	-3,398.18	-462.27	529.11	447.67	81.44	6.497	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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: 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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,100.00	12,443.09	15,518.42	12,810.12	49.72	50.18	133.92	-3,498.17	-461.36	529.11	445.93	83.18	6.361	
15,200.00	12,443.62	15,618.42	12,810.64	51.04	51.48	133.92	-3,598.17	-460.45	529.11	444.17	84.93	6.230	
15,300.00	12,444.14	15,718.42	12,811.17	52.36	52.78	133.92	-3,698.16	-459.54	529.11	442.40	86.70	6.103	
15,400.00	12,444.67	15,818.42	12,811.70	53.69	54.08	133.92	-3,798.16	-458.63	529.11	440.62	88.48	5.980	
15,500.00	12,445.19	15,918.42	12,812.22	55.02	55.39	133.92	-3,898.15	-457.72	529.11	438.83	90.28	5.861	
15,600.00	12,445.72	16,018.42	12,812.75	56.35	56.70	133.92	-3,998.15	-456.81	529.11	437.02	92.08	5.746	
15,700.00	12,446.24	16,118.42	12,813.27	57.69	58.02	133.92	-4,098.14	-455.90	529.11	435.21	93.90	5.635	
15,800.00	12,446.77	16,218.42	12,813.80	59.02	59.33	133.92	-4,198.13	-454.99	529.11	433.38	95.73	5.527	
15,900.00	12,447.29	16,318.42	12,814.33	60.36	60.65	133.92	-4,298.13	-454.08	529.10	431.54	97.56	5.423	
16,000.00	12,447.82	16,418.42	12,814.85	61.69	61.97	133.92	-4,398.12	-453.17	529.10	429.70	99.41	5.323	
16,100.00	12,448.34	16,518.42	12,815.38	63.03	63.30	133.92	-4,498.12	-452.26	529.10	427.84	101.26	5.225	
16,200.00	12,448.87	16,618.42	12,815.90	64.37	64.62	133.92	-4,598.11	-451.35	529.10	425.98	103.12	5.131	
16,300.00	12,449.39	16,718.42	12,816.43	65.72	65.95	133.92	-4,698.11	-450.44	529.10	424.11	105.00	5.039	
16,400.00	12,449.92	16,818.42	12,816.96	67.06	67.28	133.92	-4,798.10	-449.53	529.10	422.23	106.87	4.951	
16,500.00	12,450.44	16,918.42	12,817.48	68.40	68.61	133.92	-4,898.10	-448.62	529.10	420.34	108.76	4.865	
16,600.00	12,450.97	17,018.42	12,818.01	69.75	69.94	133.92	-4,998.09	-447.71	529.10	418.45	110.65	4.782	
16,700.00	12,451.49	17,118.42	12,818.53	71.09	71.27	133.92	-5,098.09	-446.80	529.10	416.55	112.55	4.701	
16,800.00	12,452.02	17,218.42	12,819.06	72.44	72.60	133.93	-5,198.08	-445.89	529.10	414.65	114.45	4.623	
16,900.00	12,452.54	17,318.42	12,819.59	73.79	73.94	133.93	-5,298.07	-444.98	529.10	412.74	116.36	4.547	
17,000.00	12,453.07	17,418.42	12,820.11	75.13	75.28	133.93	-5,398.07	-444.07	529.10	410.82	118.28	4.473	
17,100.00	12,453.59	17,518.42	12,820.64	76.48	76.61	133.93	-5,498.06	-443.16	529.10	408.90	120.20	4.402	
17,200.00	12,454.12	17,618.42	12,821.16	77.83	77.95	133.93	-5,598.06	-442.25	529.10	406.98	122.12	4.333	
17,300.00	12,454.64	17,718.42	12,821.69	79.18	79.29	133.93	-5,698.05	-441.34	529.10	405.05	124.05	4.265	
17,400.00	12,455.17	17,818.42	12,822.22	80.53	80.63	133.93	-5,798.05	-440.43	529.10	403.11	125.99	4.200	
17,500.00	12,455.69	17,918.42	12,822.74	81.89	81.97	133.93	-5,898.04	-439.52	529.10	401.17	127.93	4.136	
17,600.00	12,456.22	18,018.42	12,823.27	83.24	83.32	133.93	-5,998.04	-438.61	529.10	399.23	129.87	4.074	
17,700.00	12,456.74	18,118.42	12,823.79	84.59	84.66	133.93	-6,098.03	-437.70	529.10	397.28	131.82	4.014	
17,800.00	12,457.27	18,218.42	12,824.32	85.94	86.00	133.93	-6,198.02	-436.79	529.10	395.33	133.77	3.955	
17,900.00	12,457.79	18,318.42	12,824.85	87.30	87.35	133.93	-6,298.02	-435.88	529.10	393.38	135.72	3.898	
18,000.00	12,458.32	18,418.42	12,825.37	88.65	88.69	133.93	-6,398.01	-434.97	529.10	391.42	137.68	3.843	
18,100.00	12,458.84	18,518.42	12,825.90	90.01	90.04	133.93	-6,498.01	-434.06	529.10	389.46	139.64	3.789	
18,200.00	12,459.37	18,618.42	12,826.42	91.36	91.39	133.93	-6,598.00	-433.15	529.10	387.49	141.60	3.736	
18,300.00	12,459.89	18,718.42	12,826.95	92.72	92.74	133.93	-6,698.00	-432.24	529.10	385.53	143.57	3.685	
18,400.00	12,460.42	18,818.42	12,827.48	94.07	94.08	133.93	-6,797.99	-431.32	529.10	383.55	145.54	3.635	
18,500.00	12,460.94	18,918.42	12,828.00	95.43	95.43	133.93	-6,897.99	-430.41	529.10	381.58	147.51	3.587	
18,600.00	12,461.47	19,018.42	12,828.53	96.79	96.78	133.93	-6,997.98	-429.50	529.10	379.61	149.49	3.539	
18,700.00	12,461.99	19,118.42	12,829.05	98.15	98.13	133.93	-7,097.97	-428.59	529.10	377.63	151.47	3.493	
18,800.00	12,462.52	19,218.42	12,829.58	99.50	99.48	133.93	-7,197.97	-427.68	529.09	375.65	153.45	3.448	
18,900.00	12,463.04	19,318.42	12,830.11	100.86	100.83	133.93	-7,297.96	-426.77	529.09	373.66	155.43	3.404	
19,000.00	12,463.57	19,418.42	12,830.63	102.22	102.19	133.93	-7,397.96	-425.86	529.09	371.68	157.42	3.361	
19,100.00	12,464.09	19,518.42	12,831.16	103.58	103.54	133.93	-7,497.95	-424.95	529.09	369.69	159.40	3.319	
19,200.00	12,464.62	19,618.42	12,831.68	104.94	104.89	133.93	-7,597.95	-424.04	529.09	367.70	161.39	3.278	
19,300.00	12,465.14	19,718.42	12,832.21	106.29	106.24	133.93	-7,697.94	-423.13	529.09	365.71	163.38	3.238	
19,400.00	12,465.67	19,818.42	12,832.74	107.65	107.60	133.93	-7,797.94	-422.22	529.09	363.71	165.38	3.199	
19,500.00	12,466.19	19,918.42	12,833.26	109.01	108.95	133.93	-7,897.93	-421.31	529.09	361.72	167.37	3.161	
19,600.00	12,466.72	20,018.42	12,833.79	110.37	110.30	133.93	-7,997.92	-420.40	529.09	359.72	169.37	3.124	
19,700.00	12,467.24	20,118.42	12,834.31	111.73	111.66	133.93	-8,097.92	-419.49	529.09	357.72	171.37	3.087	
19,800.00	12,467.77	20,218.42	12,834.84	113.09	113.01	133.93	-8,197.91	-418.58	529.09	355.72	173.37	3.052	
19,900.00	12,468.29	20,318.42	12,835.37	114.45	114.37	133.93	-8,297.91	-417.67	529.09	353.72	175.37	3.017	
20,000.00	12,468.82	20,418.42	12,835.89	115.82	115.72	133.93	-8,397.90	-416.76	529.09	351.71	177.38	2.983	
20,100.00	12,469.34	20,518.42	12,836.42	117.18	117.08	133.93	-8,497.90	-415.85	529.09	349.71	179.38	2.950	
20,200.00	12,469.87	20,618.42	12,836.94	118.54	118.44	133.93	-8,597.89	-414.94	529.09	347.70	181.39	2.917	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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
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
20,300.00	12,470.39	20,718.42	12,837.47	119.90	119.79	133.93	-8,697.89	-414.03	529.09	345.69	183.40	2.885	
20,400.00	12,470.92	20,818.42	12,838.00	121.26	121.15	133.93	-8,797.88	-413.12	529.09	343.68	185.41	2.854	
20,500.00	12,471.44	20,918.42	12,838.52	122.62	122.51	133.93	-8,897.88	-412.21	529.09	341.67	187.42	2.823	
20,600.00	12,471.97	21,018.42	12,839.05	123.98	123.86	133.93	-8,997.87	-411.30	529.09	339.66	189.43	2.793	
20,700.00	12,472.50	21,118.42	12,839.57	125.35	125.22	133.93	-9,097.86	-410.39	529.09	337.64	191.44	2.764	
20,800.00	12,473.02	21,218.42	12,840.10	126.71	126.58	133.93	-9,197.86	-409.48	529.09	335.63	193.46	2.735	
20,900.00	12,473.55	21,318.42	12,840.63	128.07	127.94	133.93	-9,297.85	-408.57	529.09	333.61	195.48	2.707	
21,000.00	12,474.07	21,418.42	12,841.15	129.43	129.30	133.93	-9,397.85	-407.66	529.09	331.59	197.49	2.679	
21,100.00	12,474.60	21,518.42	12,841.68	130.80	130.65	133.93	-9,497.84	-406.75	529.09	329.58	199.51	2.652	
21,200.00	12,475.12	21,618.42	12,842.20	132.16	132.01	133.93	-9,597.84	-405.84	529.09	327.56	201.53	2.625	
21,300.00	12,475.65	21,718.42	12,842.73	133.52	133.37	133.93	-9,697.83	-404.93	529.09	325.54	203.55	2.599	
21,400.00	12,476.17	21,818.42	12,843.26	134.88	134.73	133.93	-9,797.83	-404.02	529.09	323.51	205.57	2.574	
21,500.00	12,476.70	21,918.42	12,843.78	136.25	136.09	133.93	-9,897.82	-403.11	529.09	321.49	207.59	2.549	
21,600.00	12,477.22	22,018.42	12,844.31	137.61	137.45	133.93	-9,997.81	-402.20	529.09	319.47	209.62	2.524	
21,700.00	12,477.75	22,118.42	12,844.83	138.97	138.81	133.93	-10,097.81	-401.29	529.08	317.44	211.64	2.500	
21,800.00	12,478.27	22,218.42	12,845.36	140.34	140.17	133.93	-10,197.80	-400.38	529.08	315.42	213.67	2.476	
21,900.00	12,478.80	22,318.42	12,845.89	141.70	141.53	133.93	-10,297.80	-399.47	529.08	313.39	215.69	2.453	
22,000.00	12,479.32	22,418.42	12,846.41	143.06	142.89	133.93	-10,397.79	-398.56	529.08	311.36	217.72	2.430	
22,100.00	12,479.85	22,518.42	12,846.94	144.43	144.25	133.93	-10,497.79	-397.65	529.08	309.34	219.75	2.408	
22,200.00	12,480.37	22,618.42	12,847.46	145.79	145.61	133.93	-10,597.78	-396.74	529.08	307.31	221.78	2.386	
22,300.00	12,480.90	22,718.42	12,847.99	147.16	146.97	133.93	-10,697.78	-395.83	529.08	305.28	223.81	2.364	
22,400.00	12,481.42	22,818.42	12,848.52	148.52	148.33	133.94	-10,797.77	-394.92	529.08	303.25	225.84	2.343	
22,500.00	12,481.95	22,918.42	12,849.04	149.89	149.69	133.94	-10,897.76	-394.00	529.08	301.22	227.87	2.322	
22,600.00	12,482.47	23,018.42	12,849.57	151.25	151.06	133.94	-10,997.76	-393.09	529.08	299.18	229.90	2.301	
22,700.00	12,483.00	23,118.42	12,850.09	152.61	152.42	133.94	-11,097.75	-392.18	529.08	297.15	231.93	2.281	
22,719.79	12,483.10	23,138.20	12,850.20	152.85	152.69	133.94	-11,117.54	-392.00	529.08	296.78	232.30	2.278	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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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:
													Offset Well Error:
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
0.00	0.00	0.00	0.00	0.50	0.50	172.30	-185.00	25.00	186.68				
100.00	100.00	100.00	100.00	0.98	0.98	172.30	-185.00	25.00	186.68	184.72	1.96	95.140	
200.00	200.00	200.00	200.00	1.56	1.56	172.30	-185.00	25.00	186.68	183.56	3.12	59.791	
300.00	300.00	300.00	300.00	1.98	1.98	172.30	-185.00	25.00	186.68	182.72	3.96	47.114	
400.00	400.00	400.00	400.00	2.33	2.33	172.30	-185.00	25.00	186.68	182.02	4.66	40.070	
500.00	500.00	500.00	500.00	2.63	2.63	172.30	-185.00	25.00	186.68	181.41	5.27	35.430	
600.00	600.00	600.00	600.00	2.91	2.91	172.30	-185.00	25.00	186.68	180.86	5.82	32.075	
700.00	700.00	700.00	700.00	3.16	3.16	172.30	-185.00	25.00	186.68	180.35	6.33	29.503	
800.00	799.99	799.99	799.99	3.45	3.40	-12.10	-185.00	25.00	185.40	178.56	6.84	27.090	
900.00	899.91	899.91	899.91	3.70	3.62	-12.38	-185.00	25.00	181.56	174.25	7.32	24.811	
1,000.00	999.77	999.77	999.77	3.89	3.84	-12.74	-185.00	25.00	176.46	168.73	7.72	22.854	
1,100.00	1,099.63	1,099.63	1,099.63	4.08	4.04	-13.13	-185.00	25.00	171.35	163.24	8.11	21.127	
1,200.00	1,199.50	1,199.50	1,199.50	4.26	4.23	-13.54	-185.00	25.00	166.26	157.77	8.49	19.584	
1,300.00	1,299.34	1,299.34	1,299.34	4.35	4.42	-16.22	-185.00	25.00	160.89	152.12	8.76	18.358	
1,400.00	1,399.04	1,399.04	1,399.04	4.58	4.60	-19.69	-185.00	25.00	153.48	144.31	9.17	16.738	
1,500.00	1,498.51	1,498.51	1,498.51	4.71	4.77	-22.20	-185.00	25.00	143.90	134.44	9.46	15.212	
1,600.00	1,597.91	1,597.91	1,597.91	4.89	4.94	-23.96	-185.00	25.00	133.88	124.07	9.81	13.644	
1,700.00	1,697.32	1,697.32	1,697.32	5.08	5.11	-26.00	-185.00	25.00	124.01	113.85	10.16	12.207	
1,800.00	1,796.72	1,794.67	1,794.66	5.27	5.29	-28.74	-185.54	26.04	115.18	104.68	10.50	10.970	
1,900.00	1,896.13	1,892.01	1,891.93	5.46	5.45	-32.77	-187.24	29.27	108.61	97.79	10.82	10.037	
2,000.00	1,995.54	1,989.27	1,988.99	5.64	5.62	-38.05	-190.08	34.70	104.75	93.61	11.14	9.405	
2,068.30	2,063.43	2,055.57	2,055.06	5.77	5.73	-42.24	-192.67	39.65	103.94	92.59	11.35	9.158	CC, ES
2,100.00	2,094.94	2,086.31	2,085.65	5.83	5.78	-44.30	-194.05	42.29	104.12	92.68	11.45	9.096	
2,200.00	2,194.35	2,183.01	2,181.73	6.02	5.94	-51.00	-199.14	52.02	107.17	95.42	11.75	9.120	
2,300.00	2,293.76	2,279.26	2,277.04	6.20	6.11	-57.55	-205.33	63.84	114.10	102.06	12.05	9.472	
2,400.00	2,393.16	2,374.93	2,371.43	6.39	6.27	-63.44	-212.58	77.69	124.89	112.56	12.34	10.123	
2,500.00	2,492.57	2,469.92	2,464.72	6.58	6.43	-68.41	-220.87	93.51	139.32	126.69	12.63	11.033	
2,600.00	2,591.98	2,564.11	2,556.75	6.76	6.60	-72.41	-230.14	111.22	157.07	144.15	12.91	12.162	
2,700.00	2,691.38	2,657.83	2,647.83	6.95	6.72	-75.55	-240.40	130.83	177.84	164.68	13.16	13.519	
2,800.00	2,790.79	2,755.00	2,742.02	7.13	6.84	-78.10	-251.47	151.97	200.00	186.55	13.45	14.870	
2,900.00	2,890.20	2,852.16	2,836.21	7.32	6.99	-80.14	-262.54	173.12	222.47	208.69	13.78	16.148	
3,000.00	2,989.60	2,949.33	2,930.40	7.50	7.14	-81.81	-273.61	194.26	245.16	231.05	14.11	17.374	
3,100.00	3,089.01	3,046.50	3,024.58	7.69	7.31	-83.20	-284.68	215.41	268.01	253.55	14.46	18.540	
3,200.00	3,188.42	3,143.66	3,118.77	7.88	7.55	-84.37	-295.75	236.55	290.99	276.19	14.80	19.663	
3,300.00	3,287.82	3,240.83	3,212.96	8.06	7.80	-85.36	-306.82	257.70	314.06	298.91	15.15	20.732	
3,400.00	3,387.23	3,337.99	3,307.15	8.25	8.04	-86.22	-317.89	278.84	337.22	321.71	15.50	21.751	
3,500.00	3,486.64	3,435.16	3,401.34	8.43	8.30	-86.97	-328.96	299.99	360.43	344.57	15.86	22.722	
3,600.00	3,586.04	3,532.33	3,495.53	8.62	8.56	-87.63	-340.03	321.14	383.70	367.48	16.23	23.648	
3,700.00	3,685.45	3,629.49	3,589.72	8.80	8.83	-88.22	-351.10	342.28	407.01	390.42	16.59	24.530	
3,800.00	3,784.86	3,726.66	3,683.91	8.99	9.10	-88.74	-362.16	363.43	430.36	413.40	16.96	25.372	
3,900.00	3,884.26	3,823.82	3,778.10	9.17	9.37	-89.21	-373.23	384.57	453.74	436.40	17.34	26.175	
4,000.00	3,983.67	3,920.99	3,872.29	9.36	9.65	-89.63	-384.30	405.72	477.14	459.43	17.71	26.940	
4,100.00	4,083.08	4,018.16	3,966.48	9.54	9.93	-90.01	-395.37	426.86	500.56	482.47	18.09	27.672	
4,200.00	4,182.48	4,115.32	4,060.66	9.73	10.22	-90.36	-406.44	448.01	524.01	505.54	18.47	28.370	
4,300.00	4,281.89	4,212.49	4,154.85	9.91	10.50	-90.68	-417.51	469.15	547.47	528.61	18.85	29.038	
4,400.00	4,381.30	4,309.65	4,249.04	10.10	10.80	-90.97	-428.58	490.30	570.94	551.70	19.24	29.676	
4,500.00	4,480.70	4,406.82	4,343.23	10.28	11.09	-91.24	-439.65	511.44	594.43	574.81	19.63	30.287	
4,600.00	4,580.11	4,503.99	4,437.42	10.47	11.38	-91.49	-450.72	532.59	617.93	597.92	20.02	30.871	
4,700.00	4,679.51	4,601.15	4,531.61	10.65	11.68	-91.72	-461.79	553.73	641.44	621.03	20.41	31.431	
4,800.00	4,778.92	4,698.32	4,625.80	10.84	11.98	-91.93	-472.86	574.88	664.96	644.16	20.80	31.968	
4,900.00	4,878.33	4,795.48	4,719.99	11.02	12.28	-92.13	-483.93	596.02	688.49	667.29	21.20	32.482	
5,000.00	4,977.73	4,892.65	4,814.18	11.21	12.58	-92.32	-495.00	617.17	712.02	690.43	21.59	32.976	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	5,077.14	4,989.82	4,908.37	11.39	12.89	-92.49	-506.07	638.31	735.56	713.57	21.99	33.451	
5,200.00	5,176.55	5,086.98	5,002.55	11.58	13.19	-92.65	-517.14	659.46	759.11	736.72	22.39	33.906	
5,300.00	5,275.95	5,184.15	5,096.74	11.76	13.50	-92.81	-528.21	680.60	782.66	759.88	22.79	34.344	
5,400.00	5,375.36	5,281.31	5,190.93	11.95	13.81	-92.95	-539.28	701.75	806.22	783.03	23.19	34.765	
5,500.00	5,474.77	5,378.48	5,285.12	12.13	14.12	-93.09	-550.35	722.89	829.78	806.19	23.60	35.164	
5,600.00	5,574.17	5,493.90	5,397.25	12.32	14.48	-93.27	-563.04	747.14	852.60	828.52	24.08	35.405	
5,700.00	5,673.58	5,617.82	5,518.47	12.50	14.83	-93.54	-574.96	769.91	872.62	848.03	24.59	35.488	
5,800.00	5,772.99	5,743.05	5,641.75	12.69	15.13	-93.90	-585.15	789.37	889.68	864.61	25.08	35.479	
5,900.00	5,872.39	5,869.34	5,766.74	12.87	15.40	-94.35	-593.51	805.36	903.76	878.22	25.54	35.385	
6,000.00	5,971.80	5,996.42	5,893.04	13.06	15.63	-94.88	-600.00	817.74	914.85	888.87	25.98	35.213	
6,100.00	6,071.21	6,124.01	6,020.25	13.24	15.81	-95.51	-604.54	826.42	922.94	896.55	26.39	34.975	
6,200.00	6,170.61	6,251.84	6,147.95	13.43	15.95	-96.23	-607.12	831.34	928.06	901.30	26.76	34.676	
6,300.00	6,270.02	6,373.92	6,270.02	13.61	16.02	-97.01	-607.75	832.55	930.31	903.26	27.04	34.402	
6,400.00	6,369.43	6,473.33	6,369.43	13.80	16.06	-97.67	-607.75	832.55	931.70	904.42	27.28	34.149	
6,500.00	6,468.83	6,572.73	6,468.83	13.98	16.11	-98.33	-607.75	832.55	933.23	905.69	27.53	33.893	
6,600.00	6,568.24	6,672.14	6,568.24	14.17	16.15	-98.99	-607.75	832.55	934.87	907.09	27.79	33.646	
6,700.00	6,667.74	6,771.64	6,667.74	14.34	16.20	-99.60	-607.75	832.55	936.49	908.48	28.01	33.434	
6,800.00	6,767.46	6,871.36	6,767.46	14.53	16.25	-100.07	-607.75	832.55	937.76	909.53	28.23	33.224	
6,900.00	6,867.34	6,971.24	6,867.34	14.70	16.30	-100.37	-607.75	832.55	938.61	910.19	28.41	33.034	
7,000.00	6,967.32	7,071.22	6,967.32	14.86	16.35	-100.50	-607.75	832.55	939.00	910.43	28.57	32.864	
7,100.00	7,067.32	7,171.22	7,067.32	14.88	16.40	-89.59	-607.75	832.55	939.02	910.40	28.63	32.799	
7,200.00	7,167.32	7,271.22	7,167.32	14.90	16.45	-89.59	-607.75	832.55	939.02	910.32	28.70	32.716	
7,300.00	7,267.32	7,371.22	7,267.32	14.93	16.50	-89.59	-607.75	832.55	939.02	910.25	28.78	32.632	
7,400.00	7,367.32	7,471.22	7,367.32	14.95	16.55	-89.59	-607.75	832.55	939.02	910.17	28.85	32.548	
7,500.00	7,467.32	7,571.22	7,467.32	14.98	16.60	-89.59	-607.75	832.55	939.02	910.10	28.93	32.463	
7,600.00	7,567.32	7,671.22	7,567.32	15.01	16.66	-89.59	-607.75	832.55	939.02	910.02	29.00	32.379	
7,700.00	7,667.32	7,771.22	7,667.32	15.03	16.71	-89.59	-607.75	832.55	939.02	909.95	29.08	32.293	
7,800.00	7,767.32	7,871.22	7,767.32	15.06	16.76	-89.59	-607.75	832.55	939.02	909.87	29.16	32.208	
7,900.00	7,867.32	7,971.22	7,867.32	15.09	16.81	-89.59	-607.75	832.55	939.02	909.79	29.23	32.122	
8,000.00	7,967.32	8,071.22	7,967.32	15.12	16.86	-89.59	-607.75	832.55	939.02	909.71	29.31	32.036	
8,100.00	8,067.32	8,171.22	8,067.32	15.15	16.92	-89.59	-607.75	832.55	939.02	909.63	29.39	31.949	
8,200.00	8,167.32	8,271.22	8,167.32	15.18	16.97	-89.59	-607.75	832.55	939.02	909.55	29.47	31.863	
8,300.00	8,267.32	8,371.22	8,267.32	15.21	17.02	-89.59	-607.75	832.55	939.02	909.47	29.55	31.776	
8,400.00	8,367.32	8,471.22	8,367.32	15.24	17.08	-89.59	-607.75	832.55	939.02	909.39	29.63	31.689	
8,500.00	8,467.32	8,571.22	8,467.32	15.27	17.13	-89.59	-607.75	832.55	939.02	909.31	29.71	31.601	
8,600.00	8,567.32	8,671.22	8,567.32	15.30	17.18	-89.59	-607.75	832.55	939.02	909.23	29.80	31.514	
8,700.00	8,667.32	8,771.22	8,667.32	15.33	17.24	-89.59	-607.75	832.55	939.02	909.14	29.88	31.426	
8,800.00	8,767.32	8,871.22	8,767.32	15.36	17.29	-89.59	-607.75	832.55	939.02	909.06	29.96	31.338	
8,900.00	8,867.32	8,971.22	8,867.32	15.39	17.35	-89.59	-607.75	832.55	939.02	908.98	30.05	31.250	
9,000.00	8,967.32	9,071.22	8,967.32	15.43	17.40	-89.59	-607.75	832.55	939.02	908.89	30.13	31.162	
9,100.00	9,067.32	9,171.22	9,067.32	15.46	17.45	-89.59	-607.75	832.55	939.02	908.80	30.22	31.073	
9,200.00	9,167.32	9,271.22	9,167.32	15.49	17.51	-89.59	-607.75	832.55	939.02	908.72	30.31	30.985	
9,300.00	9,267.32	9,371.22	9,267.32	15.53	17.56	-89.59	-607.75	832.55	939.02	908.63	30.39	30.896	
9,400.00	9,367.32	9,471.22	9,367.32	15.56	17.62	-89.59	-607.75	832.55	939.02	908.54	30.48	30.808	
9,500.00	9,467.32	9,571.22	9,467.32	15.59	17.68	-89.59	-607.75	832.55	939.02	908.46	30.57	30.719	
9,600.00	9,567.32	9,671.22	9,567.32	15.63	17.73	-89.59	-607.75	832.55	939.02	908.37	30.66	30.630	
9,700.00	9,667.32	9,771.22	9,667.32	15.66	17.79	-89.59	-607.75	832.55	939.02	908.28	30.75	30.541	
9,800.00	9,767.32	9,871.22	9,767.32	15.70	17.84	-89.59	-607.75	832.55	939.02	908.19	30.84	30.452	
9,900.00	9,867.32	9,971.22	9,867.32	15.73	17.90	-89.59	-607.75	832.55	939.02	908.10	30.93	30.362	
10,000.00	9,967.32	10,071.22	9,967.32	15.77	17.96	-89.59	-607.75	832.55	939.02	908.01	31.02	30.273	
10,100.00	10,067.32	10,171.22	10,067.32	15.81	18.01	-89.59	-607.75	832.55	939.02	907.91	31.11	30.184	
10,200.00	10,167.32	10,271.22	10,167.32	15.84	18.07	-89.59	-607.75	832.55	939.02	907.82	31.20	30.095	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,267.32	10,371.22	10,267.32	15.88	18.13	89.59	-607.75	832.55	939.02	907.73	31.30	30.005	
10,400.00	10,367.32	10,471.22	10,367.32	15.92	18.19	89.59	-607.75	832.55	939.02	907.64	31.39	29.916	
10,500.00	10,467.32	10,571.22	10,467.32	15.95	18.24	89.59	-607.75	832.55	939.02	907.54	31.48	29.827	
10,600.00	10,567.32	10,671.22	10,567.32	15.99	18.30	89.59	-607.75	832.55	939.02	907.45	31.58	29.737	
10,700.00	10,667.32	10,771.22	10,667.32	16.03	18.36	89.59	-607.75	832.55	939.02	907.35	31.67	29.648	
10,800.00	10,767.32	10,871.22	10,767.32	16.07	18.42	89.59	-607.75	832.55	939.02	907.26	31.77	29.559	
10,900.00	10,867.32	10,971.22	10,867.32	16.11	18.48	89.59	-607.75	832.55	939.02	907.16	31.86	29.470	
11,000.00	10,967.32	11,071.22	10,967.32	16.15	18.53	89.59	-607.75	832.55	939.02	907.06	31.96	29.381	
11,100.00	11,067.32	11,171.22	11,067.32	16.19	18.59	89.59	-607.75	832.55	939.02	906.97	32.06	29.292	
11,200.00	11,167.32	11,271.22	11,167.32	16.23	18.65	89.59	-607.75	832.55	939.02	906.87	32.16	29.202	
11,300.00	11,267.32	11,371.22	11,267.32	16.27	18.71	89.59	-607.75	832.55	939.02	906.77	32.25	29.113	
11,400.00	11,367.32	11,471.22	11,367.32	16.31	18.77	89.59	-607.75	832.55	939.02	906.67	32.35	29.025	
11,500.00	11,467.32	11,571.22	11,467.32	16.35	18.83	89.59	-607.75	832.55	939.02	906.57	32.45	28.936	
11,600.00	11,567.32	11,671.22	11,567.32	16.39	18.89	89.59	-607.75	832.55	939.02	906.47	32.55	28.847	
11,700.00	11,667.32	11,771.22	11,667.32	16.43	18.95	89.59	-607.75	832.55	939.02	906.37	32.65	28.758	
11,800.00	11,767.32	11,871.22	11,767.32	16.47	19.01	89.59	-607.75	832.55	939.02	906.27	32.75	28.670	
11,900.00	11,867.32	11,971.22	11,867.32	16.51	19.07	-89.90	-607.75	832.55	939.02	906.18	32.85	28.589	
11,935.79	11,903.06	12,006.96	11,903.06	16.59	19.09	-90.00	-607.75	832.55	939.02	906.12	32.91	28.536	
12,000.00	11,966.66	12,070.56	11,966.66	16.75	19.13	-90.52	-607.75	832.55	939.06	906.03	33.03	28.431	
12,100.00	12,062.69	12,166.59	12,062.69	17.02	19.19	-92.05	-607.75	832.55	939.71	906.33	33.38	28.152	
12,200.00	12,152.51	12,256.41	12,152.51	17.30	19.23	-94.16	-607.75	832.55	942.40	908.51	33.89	27.805	
12,300.00	12,233.38	12,356.87	12,252.68	17.56	19.32	-96.84	-613.75	832.60	948.50	913.93	34.56	27.442	
12,400.00	12,302.84	12,474.97	12,366.97	17.80	19.53	-99.68	-642.67	832.87	957.37	921.85	35.52	26.950	
12,500.00	12,358.79	12,613.66	12,490.20	18.10	19.88	-102.58	-705.57	833.44	968.01	931.06	36.96	26.194	
12,600.00	12,399.52	12,779.27	12,612.34	18.99	20.49	-105.38	-816.54	834.45	978.65	939.64	39.01	25.087	
12,700.00	12,423.80	12,974.50	12,708.61	19.97	21.52	-107.58	-985.29	835.98	986.69	945.16	41.53	23.758	
12,800.00	12,431.01	13,179.81	12,743.00	21.01	23.00	-108.38	-1,186.59	837.81	989.49	945.67	43.82	22.578	
12,900.00	12,431.54	13,279.81	12,743.52	22.11	23.83	-108.38	-1,286.58	838.72	989.49	943.97	45.53	21.734	
13,000.00	12,432.07	13,379.81	12,744.05	23.23	24.71	-108.38	-1,386.58	839.63	989.49	942.18	47.31	20.915	
13,100.00	12,432.59	13,479.81	12,744.57	24.37	25.64	-108.38	-1,486.57	840.53	989.49	940.32	49.17	20.125	
13,200.00	12,433.12	13,579.81	12,745.10	25.54	26.60	-108.38	-1,586.57	841.44	989.49	938.40	51.09	19.367	
13,300.00	12,433.64	13,679.81	12,745.63	26.73	27.60	-108.38	-1,686.56	842.35	989.49	936.42	53.07	18.644	
13,400.00	12,434.17	13,779.81	12,746.15	27.93	28.63	-108.38	-1,786.56	843.26	989.49	934.39	55.11	17.956	
13,500.00	12,434.69	13,879.81	12,746.68	29.15	29.69	-108.38	-1,886.55	844.17	989.49	932.30	57.19	17.303	
13,600.00	12,435.22	13,979.81	12,747.20	30.38	30.77	-108.38	-1,986.55	845.08	989.49	930.18	59.31	16.683	
13,700.00	12,435.74	14,079.81	12,747.73	31.62	31.87	-108.38	-2,086.54	845.99	989.49	928.02	61.47	16.097	
13,800.00	12,436.27	14,179.81	12,748.26	32.87	32.99	-108.38	-2,186.53	846.89	989.49	925.82	63.67	15.542	
13,900.00	12,436.79	14,279.81	12,748.78	34.13	34.13	-108.38	-2,286.53	847.80	989.49	923.60	65.89	15.017	
14,000.00	12,437.32	14,379.81	12,749.31	35.40	35.29	-108.38	-2,386.52	848.71	989.49	921.35	68.15	14.520	
14,100.00	12,437.84	14,479.81	12,749.83	36.68	36.45	-108.38	-2,486.52	849.62	989.49	919.07	70.43	14.050	
14,200.00	12,438.37	14,579.81	12,750.36	37.96	37.64	-108.38	-2,586.51	850.53	989.49	916.77	72.73	13.606	
14,300.00	12,438.89	14,679.81	12,750.89	39.25	38.83	-108.38	-2,686.51	851.44	989.49	914.44	75.05	13.185	
14,400.00	12,439.42	14,779.81	12,751.41	40.55	40.03	-108.38	-2,786.50	852.35	989.49	912.10	77.39	12.786	
14,500.00	12,439.94	14,879.81	12,751.94	41.84	41.25	-108.38	-2,886.50	853.25	989.49	909.75	79.75	12.408	
14,600.00	12,440.47	14,979.81	12,752.46	43.15	42.47	-108.38	-2,986.49	854.16	989.49	907.37	82.12	12.049	
14,700.00	12,440.99	15,079.81	12,752.99	44.45	43.70	-108.38	-3,086.48	855.07	989.49	904.98	84.51	11.709	
14,800.00	12,441.52	15,179.81	12,753.51	45.77	44.94	-108.38	-3,186.48	855.98	989.49	902.58	86.91	11.386	
14,900.00	12,442.04	15,279.81	12,754.04	47.08	46.19	-108.38	-3,286.47	856.89	989.49	900.17	89.32	11.078	
15,000.00	12,442.57	15,379.81	12,754.57	48.40	47.44	-108.38	-3,386.47	857.80	989.49	897.75	91.74	10.785	
15,100.00	12,443.09	15,479.81	12,755.09	49.72	48.70	-108.38	-3,486.46	858.71	989.49	895.31	94.18	10.507	
15,200.00	12,443.62	15,579.81	12,755.62	51.04	49.97	-108.38	-3,586.46	859.61	989.49	892.87	96.62	10.241	
15,300.00	12,444.14	15,679.81	12,756.14	52.36	51.24	-108.38	-3,686.45	860.52	989.49	890.42	99.07	9.987	

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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		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	12,444.67	15,779.81	12,756.67	53.69	52.51	-108.38	-3,786.45	861.43	989.49	887.96	101.53	9.745		
15,500.00	12,445.19	15,879.81	12,757.20	55.02	53.79	-108.38	-3,886.44	862.34	989.49	885.49	104.00	9.514		
15,600.00	12,445.72	15,979.81	12,757.72	56.35	55.08	-108.38	-3,986.44	863.25	989.49	883.01	106.48	9.293		
15,700.00	12,446.24	16,079.81	12,758.25	57.69	56.36	-108.38	-4,086.43	864.16	989.49	880.53	108.96	9.081		
15,800.00	12,446.77	16,179.81	12,758.77	59.02	57.66	-108.38	-4,186.42	865.07	989.49	878.04	111.45	8.879		
15,900.00	12,447.29	16,279.81	12,759.30	60.36	58.95	-108.38	-4,286.42	865.97	989.49	875.55	113.94	8.684		
16,000.00	12,447.82	16,379.81	12,759.83	61.69	60.25	-108.38	-4,386.41	866.88	989.49	873.05	116.44	8.498		
16,100.00	12,448.34	16,479.81	12,760.35	63.03	61.55	-108.38	-4,486.41	867.79	989.49	870.55	118.94	8.319		
16,200.00	12,448.87	16,579.81	12,760.88	64.37	62.85	-108.38	-4,586.40	868.70	989.49	868.04	121.45	8.147		
16,300.00	12,449.39	16,679.81	12,761.40	65.72	64.16	-108.38	-4,686.40	869.61	989.49	865.53	123.96	7.982		
16,400.00	12,449.92	16,779.81	12,761.93	67.06	65.47	-108.38	-4,786.39	870.52	989.49	863.01	126.48	7.823		
16,500.00	12,450.44	16,879.81	12,762.45	68.40	66.78	-108.38	-4,886.39	871.43	989.49	860.49	129.00	7.670		
16,600.00	12,450.97	16,979.81	12,762.98	69.75	68.09	-108.38	-4,986.38	872.33	989.49	857.96	131.53	7.523		
16,700.00	12,451.49	17,079.81	12,763.51	71.09	69.41	-108.38	-5,086.37	873.24	989.49	855.44	134.05	7.381		
16,800.00	12,452.02	17,179.81	12,764.03	72.44	70.73	-108.38	-5,186.37	874.15	989.49	852.90	136.59	7.244		
16,900.00	12,452.54	17,279.81	12,764.56	73.79	72.05	-108.38	-5,286.36	875.06	989.49	850.37	139.12	7.112		
17,000.00	12,453.07	17,379.81	12,765.08	75.13	73.37	-108.38	-5,386.36	875.97	989.49	847.83	141.66	6.985		
17,100.00	12,453.59	17,479.81	12,765.61	76.48	74.69	-108.38	-5,486.35	876.88	989.49	845.29	144.20	6.862		
17,200.00	12,454.12	17,579.81	12,766.14	77.83	76.02	-108.38	-5,586.35	877.79	989.49	842.75	146.74	6.743		
17,300.00	12,454.64	17,679.81	12,766.66	79.18	77.34	-108.38	-5,686.34	878.69	989.49	840.20	149.29	6.628		
17,400.00	12,455.17	17,779.81	12,767.19	80.53	78.67	-108.38	-5,786.34	879.60	989.49	837.66	151.83	6.517		
17,500.00	12,455.69	17,879.81	12,767.71	81.89	80.00	-108.38	-5,886.33	880.51	989.49	835.11	154.38	6.409		
17,600.00	12,456.22	17,979.81	12,768.24	83.24	81.33	-108.38	-5,986.33	881.42	989.49	832.55	156.94	6.305		
17,700.00	12,456.74	18,079.81	12,768.76	84.59	82.66	-108.38	-6,086.32	882.33	989.49	830.00	159.49	6.204		
17,800.00	12,457.27	18,179.81	12,769.29	85.94	83.99	-108.38	-6,186.31	883.24	989.49	827.44	162.05	6.106		
17,900.00	12,457.79	18,279.81	12,769.82	87.30	85.33	-108.38	-6,286.31	884.15	989.49	824.89	164.60	6.011		
18,000.00	12,458.32	18,379.81	12,770.34	88.65	86.66	-108.38	-6,386.30	885.05	989.49	822.33	167.16	5.919		
18,100.00	12,458.84	18,479.81	12,770.87	90.01	88.00	-108.38	-6,486.30	885.96	989.49	819.77	169.72	5.830		
18,200.00	12,459.37	18,579.81	12,771.39	91.36	89.34	-108.38	-6,586.29	886.87	989.49	817.20	172.29	5.743		
18,300.00	12,459.89	18,679.81	12,771.92	92.72	90.67	-108.38	-6,686.29	887.78	989.49	814.64	174.85	5.659		
18,400.00	12,460.42	18,779.81	12,772.45	94.07	92.01	-108.38	-6,786.28	888.69	989.49	812.07	177.42	5.577		
18,500.00	12,460.94	18,879.81	12,772.97	95.43	93.35	-108.38	-6,886.28	889.60	989.49	809.51	179.98	5.498		
18,600.00	12,461.47	18,979.81	12,773.50	96.79	94.69	-108.38	-6,986.27	890.50	989.49	806.94	182.55	5.420		
18,700.00	12,461.99	19,079.81	12,774.02	98.15	96.04	-108.38	-7,086.26	891.41	989.49	804.37	185.12	5.345		
18,800.00	12,462.52	19,179.81	12,774.55	99.50	97.38	-108.38	-7,186.26	892.32	989.49	801.80	187.69	5.272		
18,900.00	12,463.04	19,279.81	12,775.08	100.86	98.72	-108.38	-7,286.25	893.23	989.49	799.22	190.27	5.201		
19,000.00	12,463.57	19,379.81	12,775.60	102.22	100.06	-108.38	-7,386.25	894.14	989.49	796.65	192.84	5.131		
19,100.00	12,464.09	19,479.81	12,776.13	103.58	101.41	-108.38	-7,486.24	895.05	989.49	794.07	195.41	5.064		
19,200.00	12,464.62	19,579.81	12,776.65	104.94	102.75	-108.38	-7,586.24	895.96	989.49	791.50	197.99	4.998		
19,300.00	12,465.14	19,679.81	12,777.18	106.29	104.10	-108.38	-7,686.23	896.86	989.49	788.92	200.57	4.933		
19,400.00	12,465.67	19,779.81	12,777.70	107.65	105.45	-108.38	-7,786.23	897.77	989.49	786.34	203.14	4.871		
19,500.00	12,466.19	19,879.81	12,778.23	109.01	106.79	-108.38	-7,886.22	898.68	989.49	783.77	205.72	4.810		
19,600.00	12,466.72	19,979.81	12,778.76	110.37	108.14	-108.38	-7,986.21	899.59	989.49	781.19	208.30	4.750		
19,700.00	12,467.24	20,079.81	12,779.28	111.73	109.49	-108.38	-8,086.21	900.50	989.49	778.61	210.88	4.692		
19,800.00	12,467.77	20,179.81	12,779.81	113.09	110.84	-108.38	-8,186.20	901.41	989.49	776.03	213.46	4.635		
19,900.00	12,468.29	20,279.81	12,780.33	114.45	112.19	-108.38	-8,286.20	902.32	989.49	773.44	216.05	4.580		
20,000.00	12,468.82	20,379.81	12,780.86	115.82	113.53	-108.38	-8,386.19	903.22	989.49	770.86	218.63	4.526		
20,100.00	12,469.34	20,479.81	12,781.39	117.18	114.88	-108.38	-8,486.19	904.13	989.49	768.28	221.21	4.473		
20,200.00	12,469.87	20,579.81	12,781.91	118.54	116.23	-108.38	-8,586.18	905.04	989.49	765.69	223.80	4.421		
20,300.00	12,470.39	20,679.81	12,782.44	119.90	117.59	-108.38	-8,686.18	905.95	989.49	763.11	226.38	4.371		
20,400.00	12,470.92	20,779.81	12,782.96	121.26	118.94	-108.38	-8,786.17	906.86	989.49	760.52	228.97	4.322		
20,500.00	12,471.44	20,879.81	12,783.49	122.62	120.29	-108.38	-8,886.17	907.77	989.49	757.94	231.55	4.273		

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 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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)	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
20,600.00	12,471.97	20,979.81	12,784.02	123.98	121.64	-108.38	-8,986.16	908.68	989.49	755.35	234.14	4.226	
20,700.00	12,472.50	21,079.81	12,784.54	125.35	122.99	-108.38	-9,086.15	909.58	989.49	752.76	236.73	4.180	
20,800.00	12,473.02	21,179.81	12,785.07	126.71	124.35	-108.38	-9,186.15	910.49	989.49	750.17	239.32	4.135	
20,900.00	12,473.55	21,279.81	12,785.59	128.07	125.70	-108.38	-9,286.14	911.40	989.49	747.58	241.90	4.090	
21,000.00	12,474.07	21,379.81	12,786.12	129.43	127.05	-108.38	-9,386.14	912.31	989.49	745.00	244.49	4.047	
21,100.00	12,474.60	21,479.81	12,786.64	130.80	128.41	-108.38	-9,486.13	913.22	989.49	742.41	247.08	4.005	
21,200.00	12,475.12	21,579.81	12,787.17	132.16	129.76	-108.38	-9,586.13	914.13	989.49	739.82	249.67	3.963	
21,300.00	12,475.65	21,679.81	12,787.70	133.52	131.11	-108.38	-9,686.12	915.04	989.49	737.22	252.26	3.922	
21,400.00	12,476.17	21,779.81	12,788.22	134.88	132.47	-108.38	-9,786.12	915.94	989.49	734.63	254.85	3.883	
21,500.00	12,476.70	21,879.81	12,788.75	136.25	133.82	-108.38	-9,886.11	916.85	989.49	732.04	257.45	3.843	
21,600.00	12,477.22	21,979.81	12,789.27	137.61	135.18	-108.38	-9,986.10	917.76	989.49	729.45	260.04	3.805	
21,700.00	12,477.75	22,079.81	12,789.80	138.97	136.54	-108.38	-10,086.10	918.67	989.49	726.86	262.63	3.768	
21,800.00	12,478.27	22,179.81	12,790.33	140.34	137.89	-108.38	-10,186.09	919.58	989.49	724.26	265.22	3.731	
21,900.00	12,478.80	22,279.81	12,790.85	141.70	139.25	-108.38	-10,286.09	920.49	989.49	721.67	267.82	3.695	
22,000.00	12,479.32	22,379.81	12,791.38	143.06	140.60	-108.38	-10,386.08	921.40	989.49	719.08	270.41	3.659	
22,100.00	12,479.85	22,479.81	12,791.90	144.43	141.96	-108.38	-10,486.08	922.30	989.49	716.48	273.01	3.624	
22,200.00	12,480.37	22,579.81	12,792.43	145.79	143.32	-108.38	-10,586.07	923.21	989.49	713.89	275.60	3.590	
22,300.00	12,480.90	22,679.81	12,792.96	147.16	144.67	-108.38	-10,686.07	924.12	989.49	711.29	278.20	3.557	
22,400.00	12,481.42	22,779.81	12,793.48	148.52	146.03	-108.38	-10,786.06	925.03	989.49	708.70	280.79	3.524	
22,500.00	12,481.95	22,879.81	12,794.01	149.89	147.39	-108.38	-10,886.06	925.94	989.49	706.10	283.39	3.492	
22,600.00	12,482.47	22,979.81	12,794.53	151.25	148.75	-108.38	-10,986.05	926.85	989.49	703.51	285.98	3.460	
22,700.00	12,483.00	23,079.81	12,795.06	152.61	150.11	-108.38	-11,086.04	927.76	989.49	700.91	288.58	3.429	
22,719.79	12,483.10	23,099.59	12,795.16	152.85	150.37	-108.38	-11,105.83	927.93	989.49	700.42	289.06	3.423	SF

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

Total Directional Anticollision Report

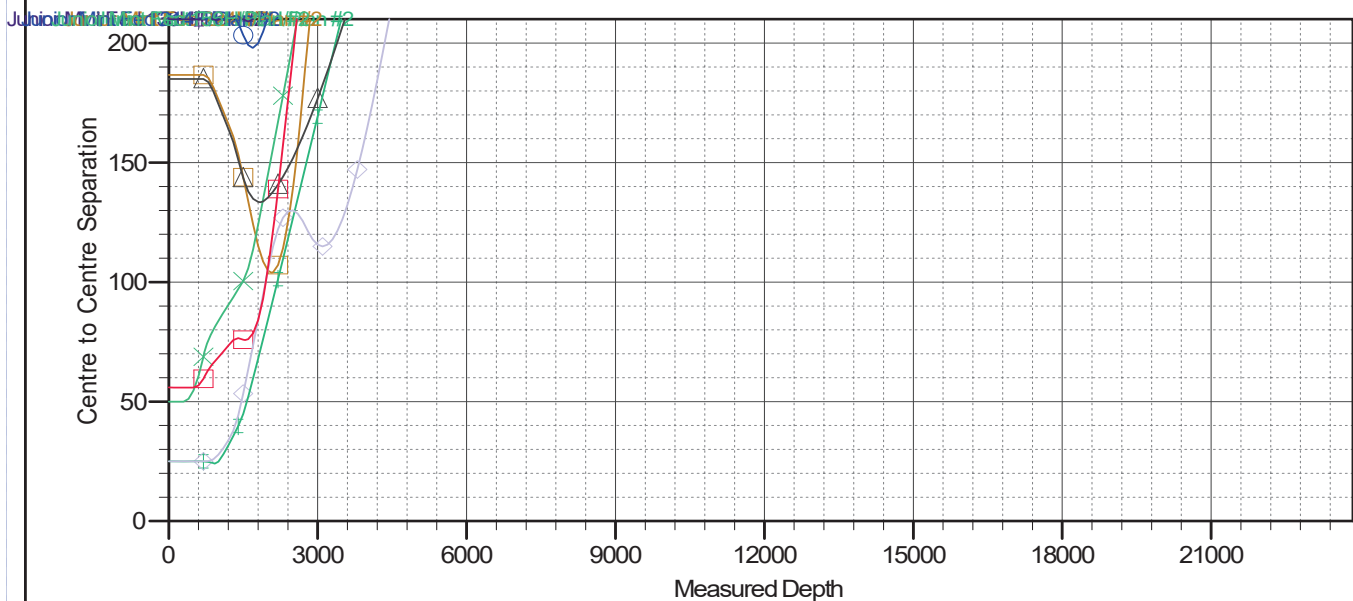


Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 3222' + KB 26' @ 3248.00usft (26' K)
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Junior Mint Fed 216H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
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 134H, OH, Plan#2 V0
Junior Mint Fed 138H, OH, Plan#2 V0	Junior Mint Fed 223H, OH, Plan#2 V0	Junior Mint Fed 135H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan#3 V0	Junior Mint Fed 214H, OH, Plan#2 V0	Junior Mint Fed 213H, OH, Plan#2 V0
Junior Mint Fed 158H, OH, Plan#2 V0	Junior Mint Fed 218H, OH, Plan#2 V0	Junior Mint Fed 212H, 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 156H, 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

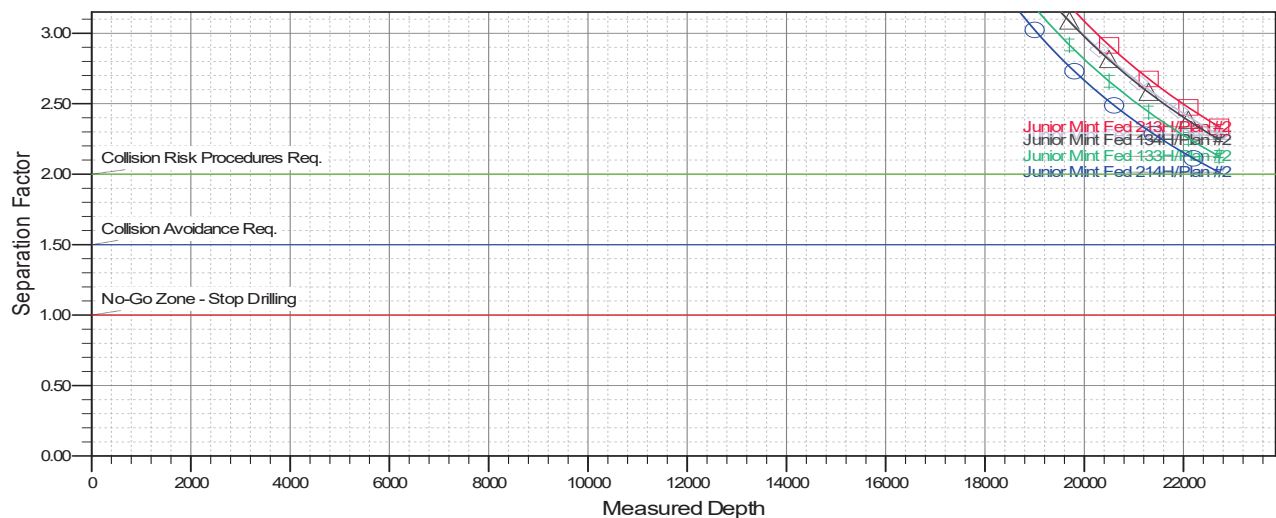


Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 216H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3222' + KB 26' @ 3248.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 216H	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 3222' + KB 26' @ 3248.00usft (26' K)
Offset Depths are relative to Offset Datum
Central Meridian is -104.3333333

Coordinates are relative to: Junior Mint Fed 216H
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 134H, OH, Plan#2 V0
Junior Mint Fed 138H, OH, Plan#2 V0	Junior Mint Fed 223H, OH, Plan#2 V0	Junior Mint Fed 135H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan#3 V0	Junior Mint Fed 214H, OH, Plan#2 V0	Junior Mint Fed 213H, OH, Plan#2 V0
Junior Mint Fed 158H, OH, Plan#2 V0	Junior Mint Fed 218H, OH, Plan#2 V0	Junior Mint Fed 212H, 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 156H, 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 17980	Pool Name DOGIE DRAW; WOLFCAMP
Property Code	Property Name JUNIOR MINT FED	Well Number 216H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3225'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no. O	Section 10	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 550' S	Feet from the E/W 1715' E	Latitude N 32.1391360	Longitude W 103.3524077	County LEA
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Bottom Hole Location

UL or lot no. O	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 5' S	Feet from the E/W 1599' E	Latitude N 32.1086177	Longitude W 103.3520284	County LEA
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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. B	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 1599' E	Latitude N 32.1373493	Longitude W 103.3520251	County LEA
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First Take Point (FTP)

UL or lot no. B	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 1599' E	Latitude N 32.1373493	Longitude W 103.3520251	County LEA
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Last Take Point (LTP)

UL or lot no. O	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' S	Feet from the E/W 1599' E	Latitude N 32.1088789	Longitude W 103.3520283	County LEA
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Unitized Area or Area of Uniform Interest Y	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3225'
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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.

Signature 	Date 9-16-25
Print Name Cory Walk	
E-mail Address cory@permitswest.com	

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 9:56:33 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 216H

SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=844959
Y=415736
LAT.: N 32.1391360
LONG.: W 103.3524077
550' FSL 1715' FEL

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

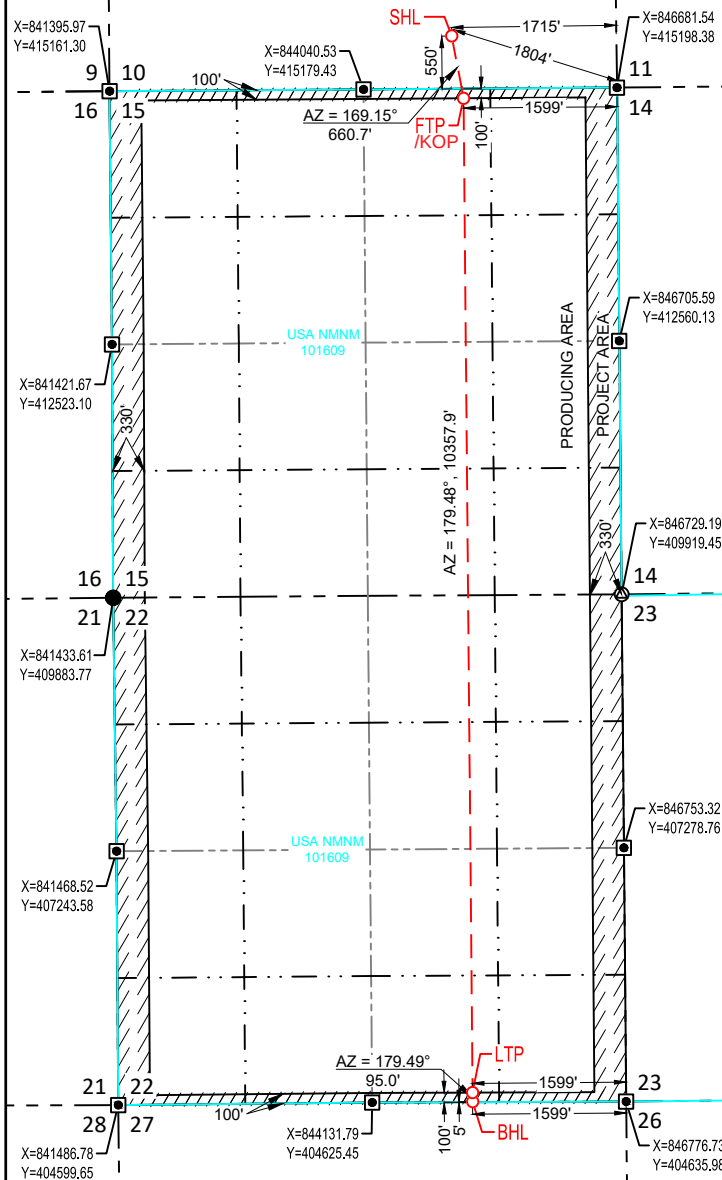
NEW MEXICO EAST
NAD 1983
X=845083
Y=415087
LAT.: N 32.1373493
LONG.: W 103.3520251
100' FNL 1599' FEL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
NAD 1983
X=845177
Y=404730
LAT.: N 32.1088789
LONG.: W 103.3520283
100' FSL 1599' FEL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
NAD 1983
X=845178
Y=404635
LAT.: N 32.1086177
LONG.: W 103.3520284
5' FSL 1599' 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

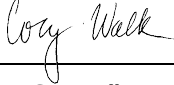
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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: 10400086514

Submission Date: 07/05/2022

Highlighted data
reflects the most
recent changes

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 216H

Well Type: CONVENTIONAL GAS 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
9894227	QUATERNARY	3225	0	0	OTHER : Caliche	NONE	N
9894228	RUSTLER	2565	660	660	SALT	OTHER : Salt	N
9894229	TOP SALT	2125	1100	1100	SALT	OTHER : Salt	N
9894230	BASE OF SALT	-1695	4920	4934	SALT	OTHER : Salt	N
9894231	DELAWARE	-1935	5160	5175	OTHER, SANDSTONE : Mountain Group	NONE	N
9894232	LAMAR	-1940	5165	5180	SANDSTONE	NATURAL GAS, OIL	N
9894233	BELL CANYON	-1960	5185	5200	SANDSTONE	NATURAL GAS, OIL	N
9894234	RAMSEY SAND	-1980	5205	5221	SANDSTONE	NATURAL GAS, OIL	N
9894235	CHERRY CANYON	-2925	6150	6171	OTHER : Carbonate	NATURAL GAS, OIL	N
9894236	BRUSHY CANYON	-4395	7620	7643	SANDSTONE	NATURAL GAS, OIL	N
9894237	BONE SPRING LIME	-5705	8930	8953	OTHER : Carbonate	NATURAL GAS, OIL	N
9894238	UPPER AVALON SHALE	-5730	8955	8978	OTHER : Carbonate	NATURAL GAS, OIL	N
9894239	AVALON SAND	-5960	9185	9208	OTHER : Middle Carbonate	NATURAL GAS, OIL	N
9894240	BONE SPRING 1ST	-6940	10165	10188	SANDSTONE	NATURAL GAS, OIL	N
9894241	BONE SPRING 2ND	-7105	10330	10353	OTHER : Carbonate	NATURAL GAS, OIL	N
9894242	BONE SPRING 2ND	-7490	10715	10738	SANDSTONE	NATURAL GAS, OIL	N
9894225	BONE SPRING 3RD	-8040	11265	11288	OTHER : Carbonate	NATURAL GAS, OIL	N

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 216H

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
9894226	BONE SPRING 3RD	-8670	11895	11918	SANDSTONE	NATURAL GAS, OIL	N
9894243	WOLFCAMP	-8985	12210	12261	OTHER : A	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M**Rating Depth:** 15000

Equipment: At 22,860', a 10M 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 10M 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. Tap Rock requests a variance to use a 5000 psi annular BOP on a 10M BOP stack. The annular will be tested to 250 psi low and 5,000 psi high.

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, 10000 psi high, and the annular preventer will be tested to 250 psi low, 5000 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_20220704102709.pdf

BOP Diagram Attachment:

10M_BOP_Stack_5M_Annular_Preventer_20220704102718.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	14.75	11.75	NEW	API	N	0	685	0	685	3225	2540	685	J-55	42	BUTT	1.13	1.15	DRY	1.6	DRY	1.6

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 216H

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
2	PRODUCTI ON	6.75	5.5	NEW	NON API	N	0	11580	0	11557	3221	-8332	11580	P- 110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6
3	INTERMED IATE	9.87 5	7.625	NEW	API	N	0	11780	0	11757	3221	-8532	11780	P- 110	29.7	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
4	PRODUCTI ON	6.75	5.5	NEW	NON API	N	11580	22860	11557	12483	-8332	-9258	11280	P- 110	20	OTHER - W441	1.13	1.15	DRY	1.6	DRY	1.6

Casing Attachments

Casing ID: 1StringSURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704102743.pdf

Casing ID: 2StringPRODUCTION

Inspection Document:

Spec Document:

5.5in_TXP_Casing_Spec_20220704102823.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704102831.pdf

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 216H

Casing Attachments

Casing ID: 3StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704102803.pdf

Casing ID: 4StringPRODUCTION

Inspection Document:

Spec Document:

5.5in_W441_Casing_Spec_20220704102854.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704102902.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
PRODUCTION	Lead		0	0	0	0	0	0	0	None	None
PRODUCTION	Tail		11580	22860	912	1.24	14.5	1131	20	Class H	Fluid Loss + Dispersant + Retarder + LCM
SURFACE	Lead		0	385	183	1.82	13.5	334	100	Class C	5% NCI + LCM
SURFACE	Tail		385	685	194	1.34	14.8	260	100	Class C	5% NCI + LCM
INTERMEDIATE	Lead		0	10780	889	4.29	10.5	3815	65	Class C	Bentonite + 1% CaCL2 + 8% NaCL+

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 216H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											LCM
INTERMEDIATE	Tail		1078 0	1178 0	212	1.67	13.2	354	65	Class C	5% NaCL + LCM

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	1178 0	OTHER : Diesel Brine Emulsion	9.2	9.2							
1178 0	2286 0	OIL-BASED MUD	12.5	12.5							

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 216H

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.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8114**Anticipated Surface Pressure:** 5367**Anticipated Bottom Hole Temperature(F):** 200**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_20221112102649.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

JM_216H_Horizontal_Plan_20220704103045.pdf

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

JM_216H_Drill_Plan_20220704103054.pdf

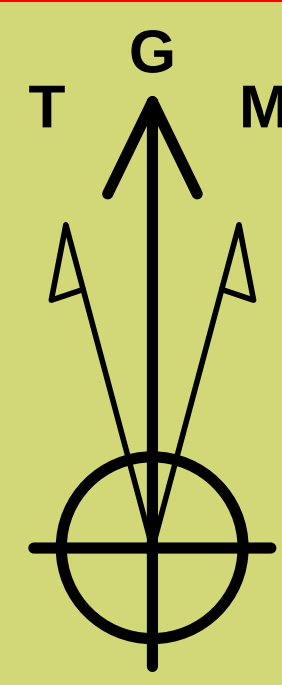
CoFlex_Certs_20220704103123.pdf

JM_216H_Anticollision_Report_20220704103134.pdf

Wellhead_3T_11.75_1.625_5.5_062922_20220704103142.pdf

Well_Control_Plan_10M_BOP_5M_Annular_20220704103142.pdf

Other Variance attachment:

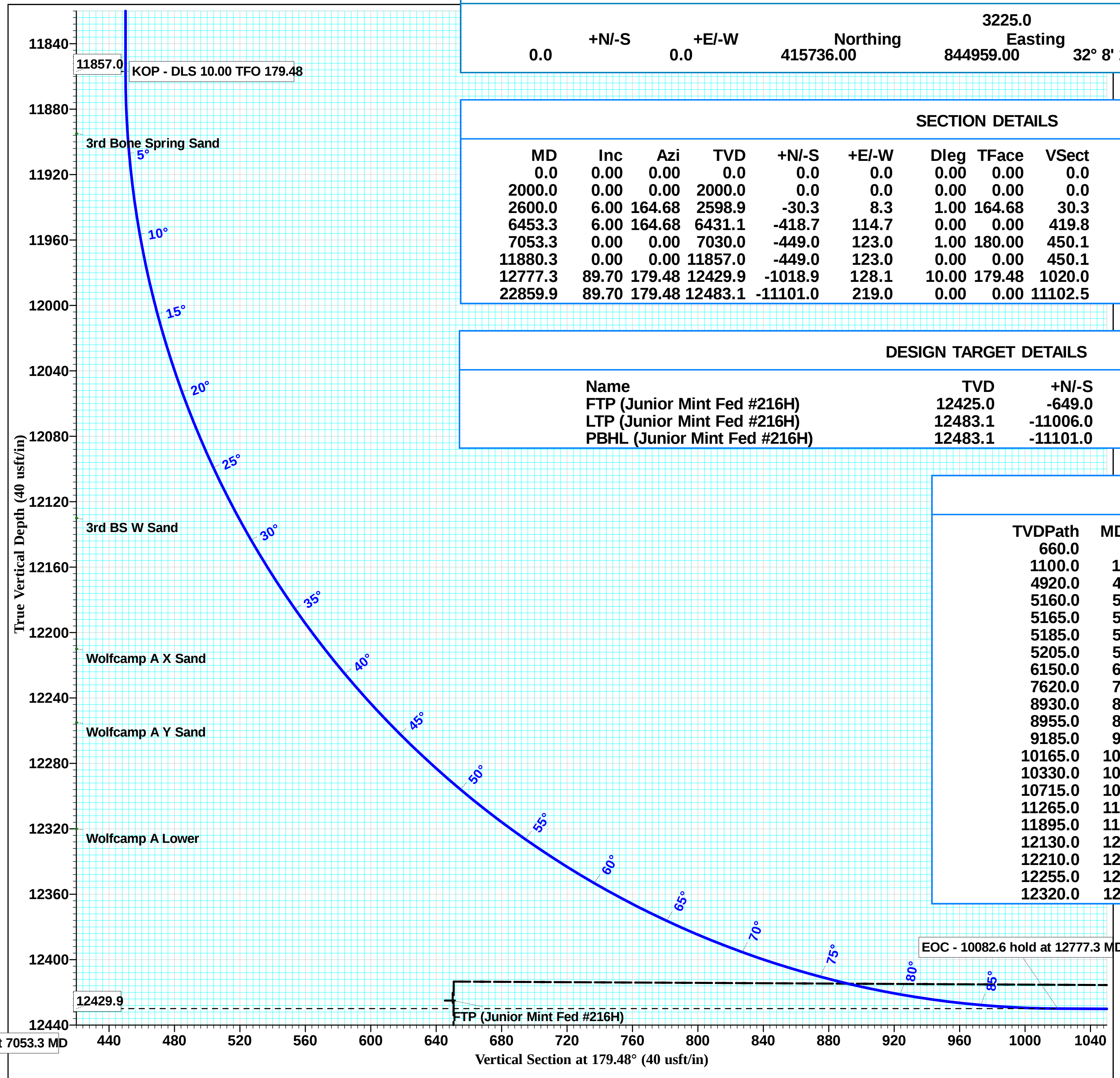
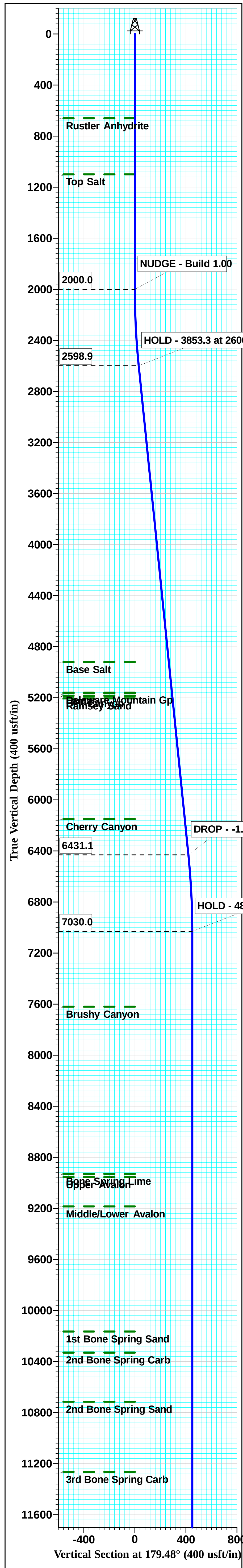


Azimuths to Grid North
True North: -0.52°
Magnetic North: 5.77°

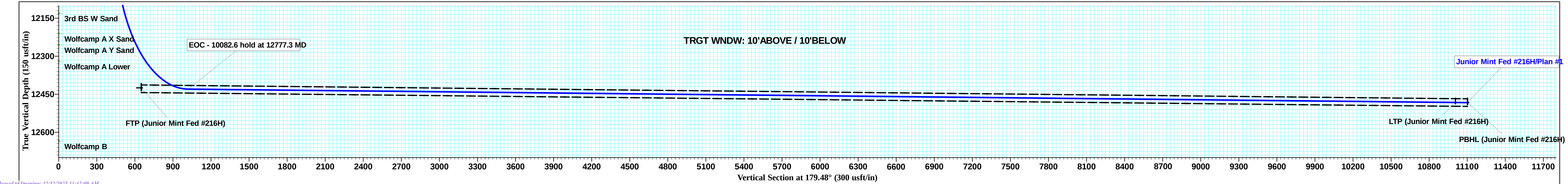
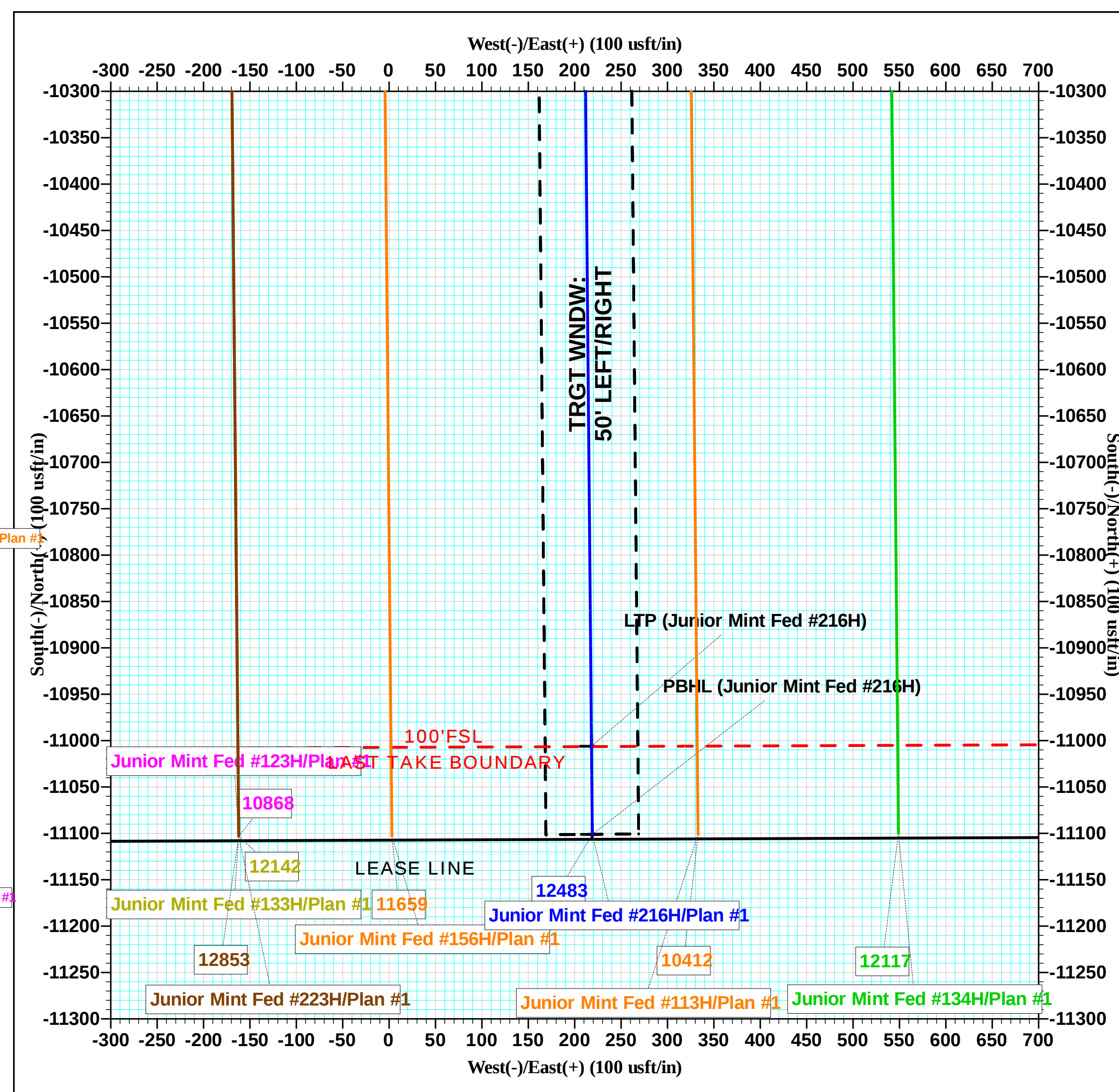
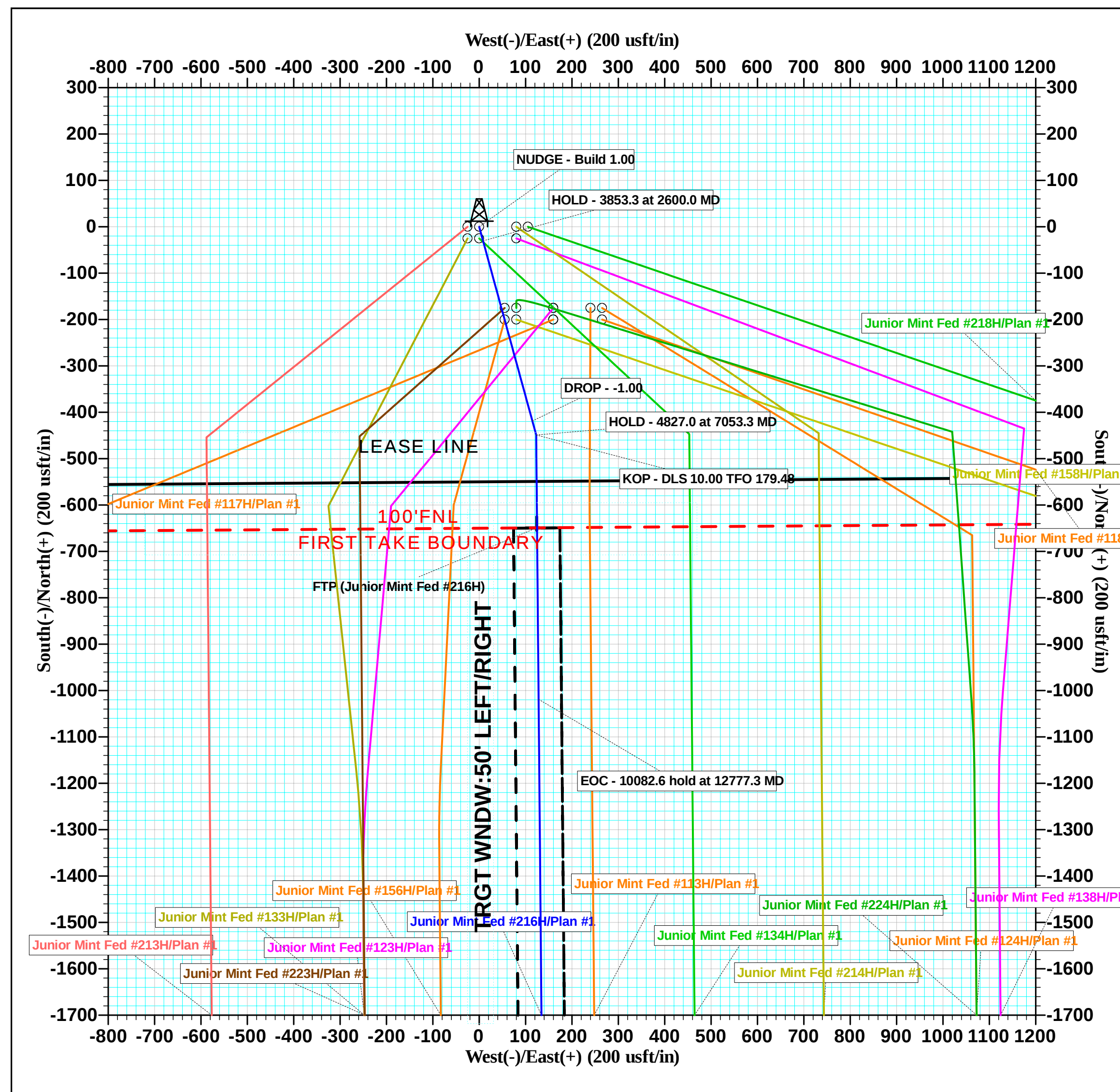
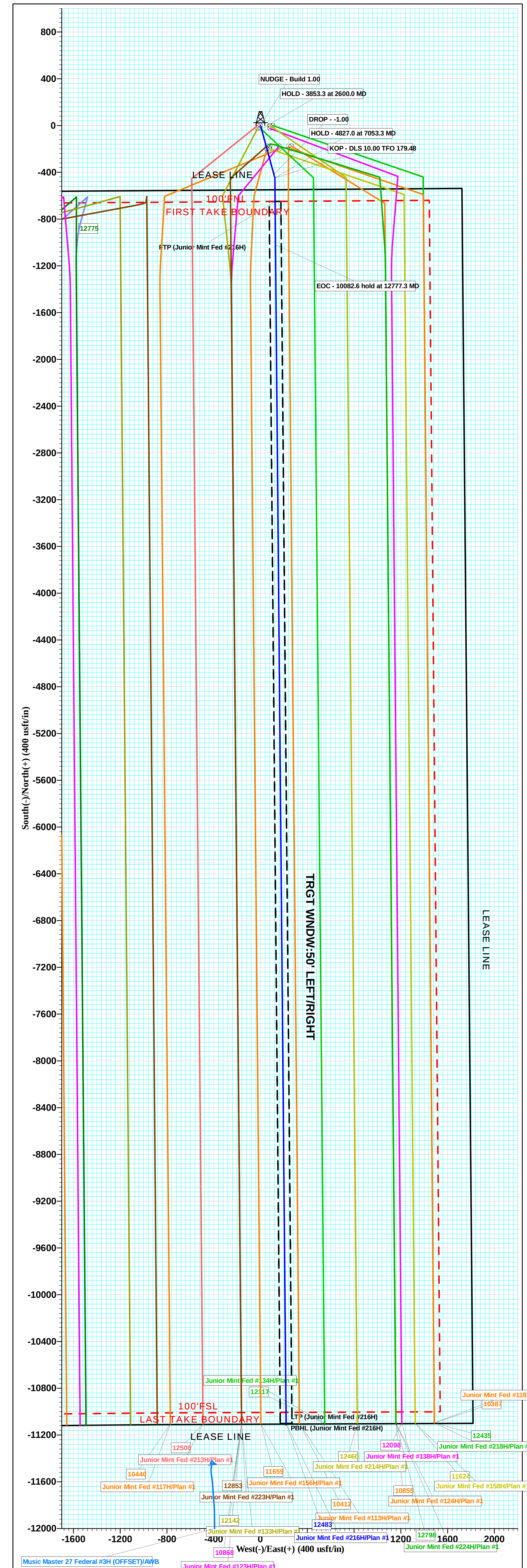
Magnetic Field
Strength: 47396.2nT
Dip Angle: 59.95°
Date: 06/23/2022
Model: IGRF2015

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 #216H
Wellbore: OWB
Design: Plan #1
Lat: 32° 8' 20.889 N
Long: 103° 21' 8.669 W
Pad GL: 3225.0
KB: KB @ 3251.0usft



WELL DETAILS: Junior Mint Fed #216H									
				3225.0					
0.0	+N/-S	0.0	+E/-W	Northings	Eastings	Latitude		Longitude	
				415736.00	844959.00	32° 8' 20.889 N		103° 21' 8.669 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	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	NUDGE - Build 1.00
2600.0	6.00	164.68	2598.9	-30.3	8.3	1.00	164.68	30.3	HOLD - 3853.3 at 2600.0 MD
6453.3	6.00	164.68	6431.1	-418.7	114.7	0.00	0.00	419.8	DROP - -1.00
7053.3	0.00	0.00	7030.0	-449.0	123.0	1.00	180.00	450.1	HOLD - 4827.0 at 7053.3 MD
11880.3	0.00	0.00	11857.0	-449.0	123.0	0.00	0.00	450.1	KOP - DLS 10.00 TFO 179.48
12777.3	89.70	179.48	12429.9	-1018.9	128.1	10.00	179.48	1020.0	EOC - 10082.6 hold at 12777.3 MD
22859.9	89.70	179.48	12483.1	-11101.0	219.0	0.00	0.00	11102.5	TD at 22859.9
DESIGN TARGET DETAILS									
Name					TVD	+N/-S	+E/-W	Northings	Eastings
FTP (Junior Mint Fed #216H)					12425.0	-649.0	124.0	415087.00	845083.00
LTP (Junior Mint Fed #216H)					12483.1	-11006.0	218.0	404730.00	845177.00
PBHL (Junior Mint Fed #216H)					12483.1	-11101.0	219.0	404635.00	845178.00
FORMATIONS									
TVDPATH		MDPATH		FORMATION					
660.0		660.0		Rustler Anhydrite					
1100.0		1100.0		Top Salt					
4920.0		4933.9		Base Salt					
5160.0		5175.2		Delaware Mountain Gp					
5165.0		5180.2		Lamar					
5185.0		5200.3		Bell Canyon					
5205.0		5220.5		Ramsey Sand					
6150.0		6170.7		Cherry Canyon					
7620.0		7643.3		Brushy Canyon					
8930.0		8953.3		Bone Spring Lime					
8955.0		8978.3		Upper Avalon					
9185.0		9208.3		Middle/Lower Avalon					
10165.0		10188.3		1st Bone Spring Sand					
10330.0		10353.3		2nd Bone Spring Carb					
10715.0		10738.3		2nd Bone Spring Sand					
11265.0		11288.3		3rd Bone Spring Carb					
11895.0		11918.3		3rd Bone Spring Sand					
12130.0		12164.9		3rd BS W Sand					
12210.0		12260.6		Wolfcamp A X Sand					
12255.0		12320.3		Wolfcamp A Y Sand					
12320.0		12419.4		Wolfcamp A Lower					





Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)
(Junior Mint Fed) Sec-15_T-25-S_R-35-E
Junior Mint Fed #216H**

OWB

Plan: Plan #1

Standard Planning Report

27 June, 2022





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Junior Mint Fed #216H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3251.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3251.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #216H	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 #216H					
Well Position	+N/-S	1,011.0 usft	Northing:	415,736.00 usft	Latitude:	32° 8' 20.889 N
	+E/-W	2,034.0 usft	Easting:	844,959.00 usft	Longitude:	103° 21' 8.669 W
Position Uncertainty	0.0 usft		Wellhead Elevation:		Ground Level:	3,225.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/23/22	6.29	59.95	47,396.17035248

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	06/27/22		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	22,859.8	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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,600.0	6.00	164.68	2,598.9	-30.3	8.3	1.00	1.00	0.00	164.68	
6,453.3	6.00	164.68	6,431.1	-418.7	114.7	0.00	0.00	0.00	0.00	
7,053.3	0.00	0.00	7,030.0	-449.0	123.0	1.00	-1.00	0.00	180.00	
11,880.3	0.00	0.00	11,857.0	-449.0	123.0	0.00	0.00	0.00	0.00	
12,777.3	89.70	179.48	12,429.9	-1,018.9	128.1	10.00	10.00	20.01	179.48	
22,859.9	89.70	179.48	12,483.1	-11,101.0	219.0	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 #216H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #216H
TVD Reference: KB @ 3251.0usft
MD Reference: KB @ 3251.0usft
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
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 1.00									
2,100.0	1.00	164.68	2,100.0	-0.8	0.2	0.8	1.00	1.00	0.00
2,200.0	2.00	164.68	2,200.0	-3.4	0.9	3.4	1.00	1.00	0.00
2,300.0	3.00	164.68	2,299.9	-7.6	2.1	7.6	1.00	1.00	0.00
2,400.0	4.00	164.68	2,399.7	-13.5	3.7	13.5	1.00	1.00	0.00
2,500.0	5.00	164.68	2,499.4	-21.0	5.8	21.1	1.00	1.00	0.00
2,600.0	6.00	164.68	2,598.9	-30.3	8.3	30.3	1.00	1.00	0.00
HOLD - 3853.3 at 2600.0 MD									
2,700.0	6.00	164.68	2,698.4	-40.4	11.1	40.5	0.00	0.00	0.00
2,800.0	6.00	164.68	2,797.8	-50.4	13.8	50.6	0.00	0.00	0.00
2,900.0	6.00	164.68	2,897.3	-60.5	16.6	60.7	0.00	0.00	0.00
3,000.0	6.00	164.68	2,996.7	-70.6	19.3	70.8	0.00	0.00	0.00
3,100.0	6.00	164.68	3,096.2	-80.7	22.1	80.9	0.00	0.00	0.00
3,200.0	6.00	164.68	3,195.6	-90.8	24.9	91.0	0.00	0.00	0.00
3,300.0	6.00	164.68	3,295.1	-100.8	27.6	101.1	0.00	0.00	0.00
3,400.0	6.00	164.68	3,394.5	-110.9	30.4	111.2	0.00	0.00	0.00
3,500.0	6.00	164.68	3,494.0	-121.0	33.1	121.3	0.00	0.00	0.00
3,600.0	6.00	164.68	3,593.4	-131.1	35.9	131.4	0.00	0.00	0.00
3,700.0	6.00	164.68	3,692.9	-141.2	38.7	141.5	0.00	0.00	0.00
3,800.0	6.00	164.68	3,792.3	-151.2	41.4	151.6	0.00	0.00	0.00
3,900.0	6.00	164.68	3,891.8	-161.3	44.2	161.7	0.00	0.00	0.00
4,000.0	6.00	164.68	3,991.2	-171.4	47.0	171.8	0.00	0.00	0.00
4,100.0	6.00	164.68	4,090.7	-181.5	49.7	181.9	0.00	0.00	0.00
4,200.0	6.00	164.68	4,190.1	-191.6	52.5	192.0	0.00	0.00	0.00
4,300.0	6.00	164.68	4,289.6	-201.7	55.2	202.1	0.00	0.00	0.00
4,400.0	6.00	164.68	4,389.0	-211.7	58.0	212.2	0.00	0.00	0.00
4,500.0	6.00	164.68	4,488.5	-221.8	60.8	222.4	0.00	0.00	0.00
4,600.0	6.00	164.68	4,587.9	-231.9	63.5	232.5	0.00	0.00	0.00
4,700.0	6.00	164.68	4,687.4	-242.0	66.3	242.6	0.00	0.00	0.00
4,800.0	6.00	164.68	4,786.9	-252.1	69.0	252.7	0.00	0.00	0.00
4,900.0	6.00	164.68	4,886.3	-262.1	71.8	262.8	0.00	0.00	0.00
5,000.0	6.00	164.68	4,985.8	-272.2	74.6	272.9	0.00	0.00	0.00



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Well: Junior Mint Fed #216H
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Local Co-ordinate Reference: Well Junior Mint Fed #216H
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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)
5,100.0	6.00	164.68	5,085.2	-282.3	77.3	283.0	0.00	0.00	0.00
5,200.0	6.00	164.68	5,184.7	-292.4	80.1	293.1	0.00	0.00	0.00
5,300.0	6.00	164.68	5,284.1	-302.5	82.9	303.2	0.00	0.00	0.00
5,400.0	6.00	164.68	5,383.6	-312.5	85.6	313.3	0.00	0.00	0.00
5,500.0	6.00	164.68	5,483.0	-322.6	88.4	323.4	0.00	0.00	0.00
5,600.0	6.00	164.68	5,582.5	-332.7	91.1	333.5	0.00	0.00	0.00
5,700.0	6.00	164.68	5,681.9	-342.8	93.9	343.6	0.00	0.00	0.00
5,800.0	6.00	164.68	5,781.4	-352.9	96.7	353.7	0.00	0.00	0.00
5,900.0	6.00	164.68	5,880.8	-362.9	99.4	363.8	0.00	0.00	0.00
6,000.0	6.00	164.68	5,980.3	-373.0	102.2	373.9	0.00	0.00	0.00
6,100.0	6.00	164.68	6,079.7	-383.1	105.0	384.0	0.00	0.00	0.00
6,200.0	6.00	164.68	6,179.2	-393.2	107.7	394.2	0.00	0.00	0.00
6,300.0	6.00	164.68	6,278.6	-403.3	110.5	404.3	0.00	0.00	0.00
6,400.0	6.00	164.68	6,378.1	-413.4	113.2	414.4	0.00	0.00	0.00
6,453.3	6.00	164.68	6,431.1	-418.7	114.7	419.8	0.00	0.00	0.00
DROP - -1.00									
6,500.0	5.53	164.68	6,477.6	-423.3	115.9	424.3	1.00	-1.00	0.00
6,600.0	4.53	164.68	6,577.2	-431.7	118.3	432.8	1.00	-1.00	0.00
6,700.0	3.53	164.68	6,676.9	-438.5	120.1	439.6	1.00	-1.00	0.00
6,800.0	2.53	164.68	6,776.8	-443.6	121.5	444.7	1.00	-1.00	0.00
6,900.0	1.53	164.68	6,876.7	-447.0	122.5	448.1	1.00	-1.00	0.00
7,000.0	0.53	164.68	6,976.7	-448.8	122.9	449.9	1.00	-1.00	0.00
7,053.3	0.00	0.00	7,030.0	-449.0	123.0	450.1	1.00	-1.00	0.00
HOLD - 4827.0 at 7053.3 MD									
7,100.0	0.00	0.00	7,076.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,176.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,276.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,376.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,476.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,576.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,676.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,776.7	-449.0	123.0	450.1	0.00	0.00	0.00
7,900.0	0.00	0.00	7,876.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,000.0	0.00	0.00	7,976.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,100.0	0.00	0.00	8,076.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,200.0	0.00	0.00	8,176.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,300.0	0.00	0.00	8,276.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,400.0	0.00	0.00	8,376.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,500.0	0.00	0.00	8,476.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,600.0	0.00	0.00	8,576.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,700.0	0.00	0.00	8,676.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,800.0	0.00	0.00	8,776.7	-449.0	123.0	450.1	0.00	0.00	0.00
8,900.0	0.00	0.00	8,876.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,000.0	0.00	0.00	8,976.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,100.0	0.00	0.00	9,076.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,200.0	0.00	0.00	9,176.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,300.0	0.00	0.00	9,276.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,400.0	0.00	0.00	9,376.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,500.0	0.00	0.00	9,476.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,600.0	0.00	0.00	9,576.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,700.0	0.00	0.00	9,676.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,800.0	0.00	0.00	9,776.7	-449.0	123.0	450.1	0.00	0.00	0.00
9,900.0	0.00	0.00	9,876.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,000.0	0.00	0.00	9,976.7	-449.0	123.0	450.1	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)
10,100.0	0.00	0.00	10,076.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,200.0	0.00	0.00	10,176.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,300.0	0.00	0.00	10,276.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,400.0	0.00	0.00	10,376.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,500.0	0.00	0.00	10,476.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,600.0	0.00	0.00	10,576.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,700.0	0.00	0.00	10,676.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,800.0	0.00	0.00	10,776.7	-449.0	123.0	450.1	0.00	0.00	0.00
10,900.0	0.00	0.00	10,876.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,000.0	0.00	0.00	10,976.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,100.0	0.00	0.00	11,076.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,200.0	0.00	0.00	11,176.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,300.0	0.00	0.00	11,276.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,400.0	0.00	0.00	11,376.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,500.0	0.00	0.00	11,476.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,600.0	0.00	0.00	11,576.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,700.0	0.00	0.00	11,676.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,800.0	0.00	0.00	11,776.7	-449.0	123.0	450.1	0.00	0.00	0.00
11,880.3	0.00	0.00	11,857.0	-449.0	123.0	450.1	0.00	0.00	0.00
KOP - DLS 10.00 TFO 179.48									
11,900.0	1.97	179.48	11,876.7	-449.3	123.0	450.4	10.00	10.00	0.00
11,950.0	6.97	179.48	11,926.5	-453.2	123.0	454.3	10.00	10.00	0.00
12,000.0	11.97	179.48	11,975.8	-461.5	123.1	462.6	10.00	10.00	0.00
12,050.0	16.97	179.48	12,024.2	-473.9	123.2	475.0	10.00	10.00	0.00
12,100.0	21.97	179.48	12,071.4	-490.6	123.4	491.7	10.00	10.00	0.00
12,150.0	26.97	179.48	12,116.9	-511.3	123.6	512.4	10.00	10.00	0.00
12,200.0	31.97	179.48	12,160.4	-535.9	123.8	537.0	10.00	10.00	0.00
12,250.0	36.97	179.48	12,201.6	-564.2	124.0	565.3	10.00	10.00	0.00
12,300.0	41.97	179.48	12,240.2	-596.0	124.3	597.1	10.00	10.00	0.00
12,350.0	46.97	179.48	12,275.8	-631.0	124.6	632.1	10.00	10.00	0.00
12,400.0	51.97	179.48	12,308.3	-669.0	125.0	670.1	10.00	10.00	0.00
12,450.0	56.97	179.48	12,337.4	-709.6	125.3	710.7	10.00	10.00	0.00
12,500.0	61.97	179.48	12,362.8	-752.7	125.7	753.8	10.00	10.00	0.00
12,550.0	66.97	179.48	12,384.3	-797.8	126.1	798.9	10.00	10.00	0.00
12,600.0	71.97	179.48	12,401.8	-844.6	126.6	845.7	10.00	10.00	0.00
12,650.0	76.97	179.48	12,415.2	-892.8	127.0	893.9	10.00	10.00	0.00
12,700.0	81.97	179.48	12,424.3	-941.9	127.4	943.0	10.00	10.00	0.00
12,750.0	86.97	179.48	12,429.2	-991.7	127.9	992.8	10.00	10.00	0.00
12,777.3	89.70	179.48	12,429.9	-1,018.9	128.1	1,020.0	10.00	10.00	0.00
EOC - 10082.6 hold at 12777.3 MD									
12,800.0	89.70	179.48	12,430.1	-1,041.6	128.3	1,042.8	0.00	0.00	0.00
12,900.0	89.70	179.48	12,430.6	-1,141.6	129.2	1,142.8	0.00	0.00	0.00
13,000.0	89.70	179.48	12,431.1	-1,241.6	130.1	1,242.8	0.00	0.00	0.00
13,100.0	89.70	179.48	12,431.7	-1,341.6	131.0	1,342.8	0.00	0.00	0.00
13,200.0	89.70	179.48	12,432.2	-1,441.6	131.9	1,442.8	0.00	0.00	0.00
13,300.0	89.70	179.48	12,432.7	-1,541.6	132.8	1,542.7	0.00	0.00	0.00
13,400.0	89.70	179.48	12,433.2	-1,641.6	133.7	1,642.7	0.00	0.00	0.00
13,500.0	89.70	179.48	12,433.8	-1,741.6	134.6	1,742.7	0.00	0.00	0.00
13,600.0	89.70	179.48	12,434.3	-1,841.6	135.6	1,842.7	0.00	0.00	0.00
13,700.0	89.70	179.48	12,434.8	-1,941.6	136.5	1,942.7	0.00	0.00	0.00
13,800.0	89.70	179.48	12,435.3	-2,041.6	137.4	2,042.7	0.00	0.00	0.00
13,900.0	89.70	179.48	12,435.9	-2,141.6	138.3	2,142.7	0.00	0.00	0.00
14,000.0	89.70	179.48	12,436.4	-2,241.6	139.2	2,242.7	0.00	0.00	0.00
14,100.0	89.70	179.48	12,436.9	-2,341.6	140.1	2,342.7	0.00	0.00	0.00



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14,200.0	89.70	179.48	12,437.5	-2,441.6	141.0	2,442.7	0.00	0.00	0.00
14,300.0	89.70	179.48	12,438.0	-2,541.6	141.9	2,542.7	0.00	0.00	0.00
14,400.0	89.70	179.48	12,438.5	-2,641.5	142.8	2,642.7	0.00	0.00	0.00
14,500.0	89.70	179.48	12,439.0	-2,741.5	143.7	2,742.7	0.00	0.00	0.00
14,600.0	89.70	179.48	12,439.6	-2,841.5	144.6	2,842.7	0.00	0.00	0.00
14,700.0	89.70	179.48	12,440.1	-2,941.5	145.5	2,942.7	0.00	0.00	0.00
14,800.0	89.70	179.48	12,440.6	-3,041.5	146.4	3,042.7	0.00	0.00	0.00
14,900.0	89.70	179.48	12,441.1	-3,141.5	147.3	3,142.7	0.00	0.00	0.00
15,000.0	89.70	179.48	12,441.7	-3,241.5	148.2	3,242.7	0.00	0.00	0.00
15,100.0	89.70	179.48	12,442.2	-3,341.5	149.1	3,342.7	0.00	0.00	0.00
15,200.0	89.70	179.48	12,442.7	-3,441.5	150.0	3,442.7	0.00	0.00	0.00
15,300.0	89.70	179.48	12,443.3	-3,541.5	150.9	3,542.7	0.00	0.00	0.00
15,400.0	89.70	179.48	12,443.8	-3,641.5	151.8	3,642.7	0.00	0.00	0.00
15,500.0	89.70	179.48	12,444.3	-3,741.5	152.7	3,742.7	0.00	0.00	0.00
15,600.0	89.70	179.48	12,444.8	-3,841.5	153.6	3,842.7	0.00	0.00	0.00
15,700.0	89.70	179.48	12,445.4	-3,941.5	154.5	3,942.7	0.00	0.00	0.00
15,800.0	89.70	179.48	12,445.9	-4,041.5	155.4	4,042.7	0.00	0.00	0.00
15,900.0	89.70	179.48	12,446.4	-4,141.5	156.3	4,142.7	0.00	0.00	0.00
16,000.0	89.70	179.48	12,446.9	-4,241.5	157.2	4,242.7	0.00	0.00	0.00
16,100.0	89.70	179.48	12,447.5	-4,341.5	158.1	4,342.7	0.00	0.00	0.00
16,200.0	89.70	179.48	12,448.0	-4,441.4	159.0	4,442.7	0.00	0.00	0.00
16,300.0	89.70	179.48	12,448.5	-4,541.4	159.9	4,542.7	0.00	0.00	0.00
16,400.0	89.70	179.48	12,449.1	-4,641.4	160.8	4,642.7	0.00	0.00	0.00
16,500.0	89.70	179.48	12,449.6	-4,741.4	161.7	4,742.7	0.00	0.00	0.00
16,600.0	89.70	179.48	12,450.1	-4,841.4	162.6	4,842.7	0.00	0.00	0.00
16,700.0	89.70	179.48	12,450.6	-4,941.4	163.5	4,942.7	0.00	0.00	0.00
16,800.0	89.70	179.48	12,451.2	-5,041.4	164.4	5,042.7	0.00	0.00	0.00
16,900.0	89.70	179.48	12,451.7	-5,141.4	165.3	5,142.7	0.00	0.00	0.00
17,000.0	89.70	179.48	12,452.2	-5,241.4	166.2	5,242.7	0.00	0.00	0.00
17,100.0	89.70	179.48	12,452.8	-5,341.4	167.1	5,342.7	0.00	0.00	0.00
17,200.0	89.70	179.48	12,453.3	-5,441.4	168.0	5,442.7	0.00	0.00	0.00
17,300.0	89.70	179.48	12,453.8	-5,541.4	168.9	5,542.7	0.00	0.00	0.00
17,400.0	89.70	179.48	12,454.3	-5,641.4	169.8	5,642.7	0.00	0.00	0.00
17,500.0	89.70	179.48	12,454.9	-5,741.4	170.7	5,742.7	0.00	0.00	0.00
17,600.0	89.70	179.48	12,455.4	-5,841.4	171.6	5,842.7	0.00	0.00	0.00
17,700.0	89.70	179.48	12,455.9	-5,941.4	172.5	5,942.7	0.00	0.00	0.00
17,800.0	89.70	179.48	12,456.4	-6,041.4	173.4	6,042.7	0.00	0.00	0.00
17,900.0	89.70	179.48	12,457.0	-6,141.4	174.3	6,142.7	0.00	0.00	0.00
18,000.0	89.70	179.48	12,457.5	-6,241.4	175.2	6,242.7	0.00	0.00	0.00
18,100.0	89.70	179.48	12,458.0	-6,341.3	176.1	6,342.7	0.00	0.00	0.00
18,200.0	89.70	179.48	12,458.6	-6,441.3	177.0	6,442.7	0.00	0.00	0.00
18,300.0	89.70	179.48	12,459.1	-6,541.3	177.9	6,542.7	0.00	0.00	0.00
18,400.0	89.70	179.48	12,459.6	-6,641.3	178.8	6,642.7	0.00	0.00	0.00
18,500.0	89.70	179.48	12,460.1	-6,741.3	179.7	6,742.7	0.00	0.00	0.00
18,600.0	89.70	179.48	12,460.7	-6,841.3	180.6	6,842.7	0.00	0.00	0.00
18,700.0	89.70	179.48	12,461.2	-6,941.3	181.5	6,942.7	0.00	0.00	0.00
18,800.0	89.70	179.48	12,461.7	-7,041.3	182.4	7,042.7	0.00	0.00	0.00
18,900.0	89.70	179.48	12,462.2	-7,141.3	183.3	7,142.7	0.00	0.00	0.00
19,000.0	89.70	179.48	12,462.8	-7,241.3	184.2	7,242.7	0.00	0.00	0.00
19,100.0	89.70	179.48	12,463.3	-7,341.3	185.1	7,342.7	0.00	0.00	0.00
19,200.0	89.70	179.48	12,463.8	-7,441.3	186.0	7,442.7	0.00	0.00	0.00
19,300.0	89.70	179.48	12,464.4	-7,541.3	186.9	7,542.7	0.00	0.00	0.00
19,400.0	89.70	179.48	12,464.9	-7,641.3	187.8	7,642.7	0.00	0.00	0.00
19,500.0	89.70	179.48	12,465.4	-7,741.3	188.7	7,742.7	0.00	0.00	0.00



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 #216H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #216H
TVD Reference: KB @ 3251.0usft
MD Reference: KB @ 3251.0usft
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)	
19,600.0	89.70	179.48	12,465.9	-7,841.3	189.6	7,842.7	0.00	0.00	0.00	
19,700.0	89.70	179.48	12,466.5	-7,941.3	190.5	7,942.7	0.00	0.00	0.00	
19,800.0	89.70	179.48	12,467.0	-8,041.3	191.4	8,042.7	0.00	0.00	0.00	
19,900.0	89.70	179.48	12,467.5	-8,141.2	192.3	8,142.7	0.00	0.00	0.00	
20,000.0	89.70	179.48	12,468.0	-8,241.2	193.2	8,242.7	0.00	0.00	0.00	
20,100.0	89.70	179.48	12,468.6	-8,341.2	194.1	8,342.7	0.00	0.00	0.00	
20,200.0	89.70	179.48	12,469.1	-8,441.2	195.0	8,442.7	0.00	0.00	0.00	
20,300.0	89.70	179.48	12,469.6	-8,541.2	195.9	8,542.7	0.00	0.00	0.00	
20,400.0	89.70	179.48	12,470.2	-8,641.2	196.8	8,642.6	0.00	0.00	0.00	
20,500.0	89.70	179.48	12,470.7	-8,741.2	197.7	8,742.6	0.00	0.00	0.00	
20,600.0	89.70	179.48	12,471.2	-8,841.2	198.6	8,842.6	0.00	0.00	0.00	
20,700.0	89.70	179.48	12,471.7	-8,941.2	199.5	8,942.6	0.00	0.00	0.00	
20,800.0	89.70	179.48	12,472.3	-9,041.2	200.4	9,042.6	0.00	0.00	0.00	
20,900.0	89.70	179.48	12,472.8	-9,141.2	201.3	9,142.6	0.00	0.00	0.00	
21,000.0	89.70	179.48	12,473.3	-9,241.2	202.2	9,242.6	0.00	0.00	0.00	
21,100.0	89.70	179.48	12,473.8	-9,341.2	203.1	9,342.6	0.00	0.00	0.00	
21,200.0	89.70	179.48	12,474.4	-9,441.2	204.0	9,442.6	0.00	0.00	0.00	
21,300.0	89.70	179.48	12,474.9	-9,541.2	204.9	9,542.6	0.00	0.00	0.00	
21,400.0	89.70	179.48	12,475.4	-9,641.2	205.8	9,642.6	0.00	0.00	0.00	
21,500.0	89.70	179.48	12,476.0	-9,741.2	206.7	9,742.6	0.00	0.00	0.00	
21,600.0	89.70	179.48	12,476.5	-9,841.2	207.6	9,842.6	0.00	0.00	0.00	
21,700.0	89.70	179.48	12,477.0	-9,941.1	208.5	9,942.6	0.00	0.00	0.00	
21,800.0	89.70	179.48	12,477.5	-10,041.1	209.4	10,042.6	0.00	0.00	0.00	
21,900.0	89.70	179.48	12,478.1	-10,141.1	210.3	10,142.6	0.00	0.00	0.00	
22,000.0	89.70	179.48	12,478.6	-10,241.1	211.3	10,242.6	0.00	0.00	0.00	
22,100.0	89.70	179.48	12,479.1	-10,341.1	212.2	10,342.6	0.00	0.00	0.00	
22,200.0	89.70	179.48	12,479.7	-10,441.1	213.1	10,442.6	0.00	0.00	0.00	
22,300.0	89.70	179.48	12,480.2	-10,541.1	214.0	10,542.6	0.00	0.00	0.00	
22,400.0	89.70	179.48	12,480.7	-10,641.1	214.9	10,642.6	0.00	0.00	0.00	
22,500.0	89.70	179.48	12,481.2	-10,741.1	215.8	10,742.6	0.00	0.00	0.00	
22,600.0	89.70	179.48	12,481.8	-10,841.1	216.7	10,842.6	0.00	0.00	0.00	
22,700.0	89.70	179.48	12,482.3	-10,941.1	217.6	10,942.6	0.00	0.00	0.00	
22,800.0	89.70	179.48	12,482.8	-11,041.1	218.5	11,042.6	0.00	0.00	0.00	
22,859.9	89.70	179.48	12,483.1	-11,101.0	219.0	11,102.5	0.00	0.00	0.00	
TD at 22859.9										

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
FTP (Junior Mint Fed #	0.00	0.00	12,425.0	-649.0	124.0	415,087.00	845,083.00	32° 8' 14.456 N		103° 21' 7.296 W
- plan misses target center by 106.6usft at 12450.0usft MD (12337.4 TVD, -709.6 N, 125.3 E)										
- Point										
LTP (Junior Mint Fed #	0.00	0.00	12,483.1	-11,006.0	218.0	404,730.00	845,177.00	32° 6' 31.968 N		103° 21' 7.300 W
- plan misses target center by 0.5usft at 22764.9usft MD (12482.6 TVD, -11006.0 N, 218.1 E)										
- Point										
PBHL (Junior Mint Fed	0.30	179.48	12,483.1	-11,101.0	219.0	404,635.00	845,178.00	32° 6' 31.028 N		103° 21' 7.298 W
- plan hits target center										
- Rectangle (sides W100.0 H10,452.0 D30.0)										



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Junior Mint Fed #216H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3251.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3251.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #216H	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				
4,933.9	4,920.0	Base Salt				
5,175.2	5,160.0	Delaware Mountain Gp				
5,180.2	5,165.0	Lamar				
5,200.3	5,185.0	Bell Canyon				
5,220.5	5,205.0	Ramsey Sand				
6,170.7	6,150.0	Cherry Canyon				
7,643.3	7,620.0	Brushy Canyon				
8,953.3	8,930.0	Bone Spring Lime				
8,978.3	8,955.0	Upper Avalon				
9,208.3	9,185.0	Middle/Lower Avalon				
10,188.3	10,165.0	1st Bone Spring Sand				
10,353.3	10,330.0	2nd Bone Spring Carb				
10,738.3	10,715.0	2nd Bone Spring Sand				
11,288.3	11,265.0	3rd Bone Spring Carb				
11,918.3	11,895.0	3rd Bone Spring Sand				
12,164.9	12,130.0	3rd BS W Sand				
12,260.6	12,210.0	Wolfcamp A X Sand				
12,320.3	12,255.0	Wolfcamp A Y Sand				
12,419.4	12,320.0	Wolfcamp A Lower				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,000.0	2,000.0	0.0	0.0	NUDGE - Build 1.00	
2,600.0	2,598.9	-30.3	8.3	HOLD - 3853.3 at 2600.0 MD	
6,453.3	6,431.1	-418.7	114.7	DROP - -1.00	
7,053.3	7,030.0	-449.0	123.0	HOLD - 4827.0 at 7053.3 MD	
11,880.3	11,857.0	-449.0	123.0	KOP - DLS 10.00 TFO 179.48	
12,777.3	12,429.9	-1,018.9	128.1	EOC - 10082.6 hold at 12777.3 MD	
22,859.9	12,483.1	-11,101.0	219.0	TD at 22859.9	

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	Junior Mint Fed 216H
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 **11-3/4** 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 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:
 - Cement should tie-back at least **300 feet** into previous casing string. Operator shall provide method of verification. ***Larger casing tie back due to failing to meet the 0.422 inch clearance requirement per OO2.III.B***

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 **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 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

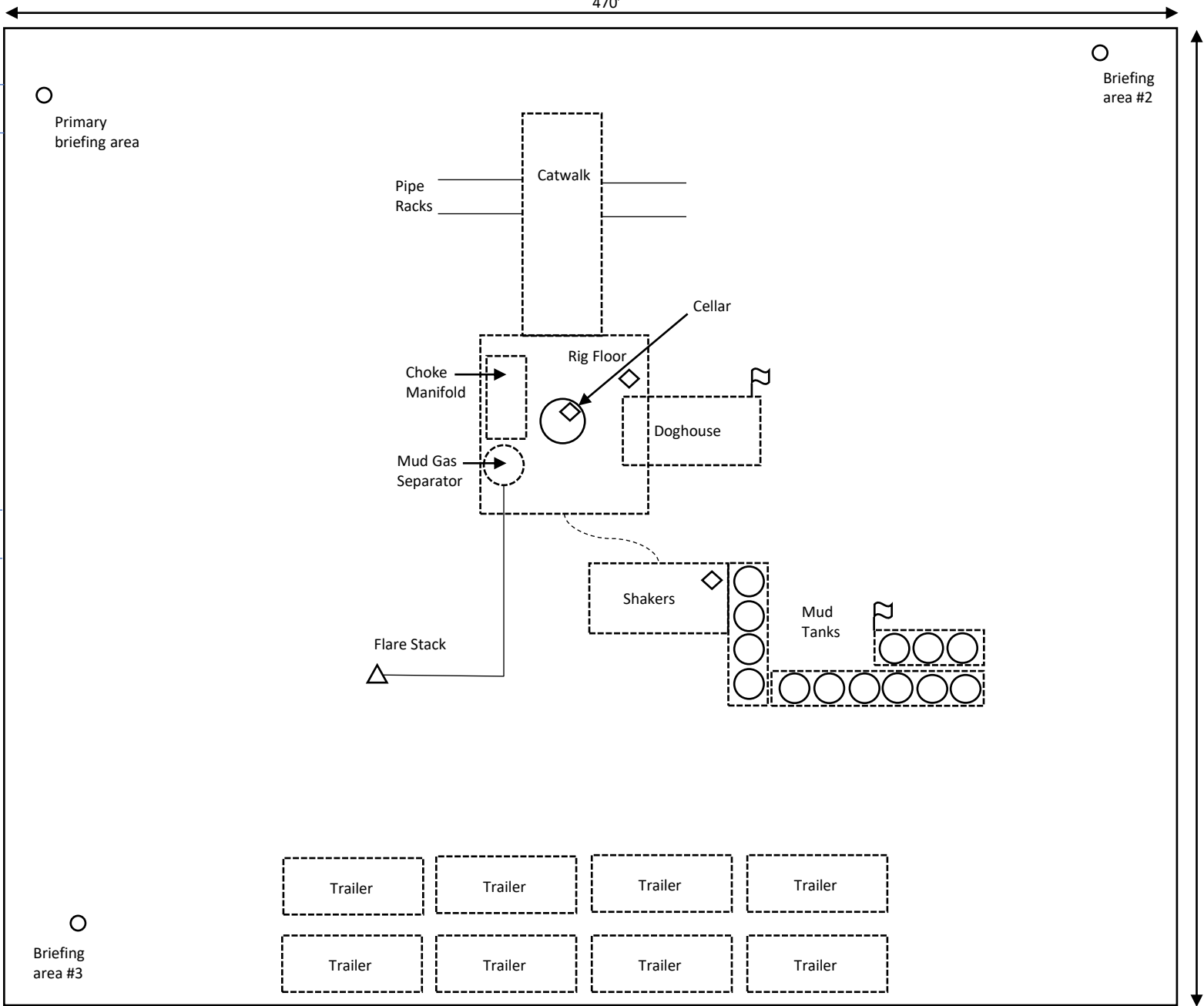
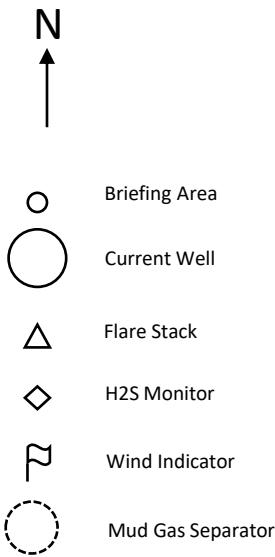
8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubulars good and other mechanical equipment

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

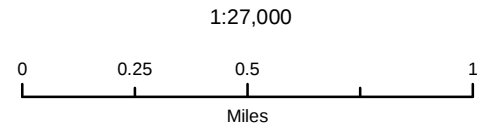


Tap Rock Operating LLC

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

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

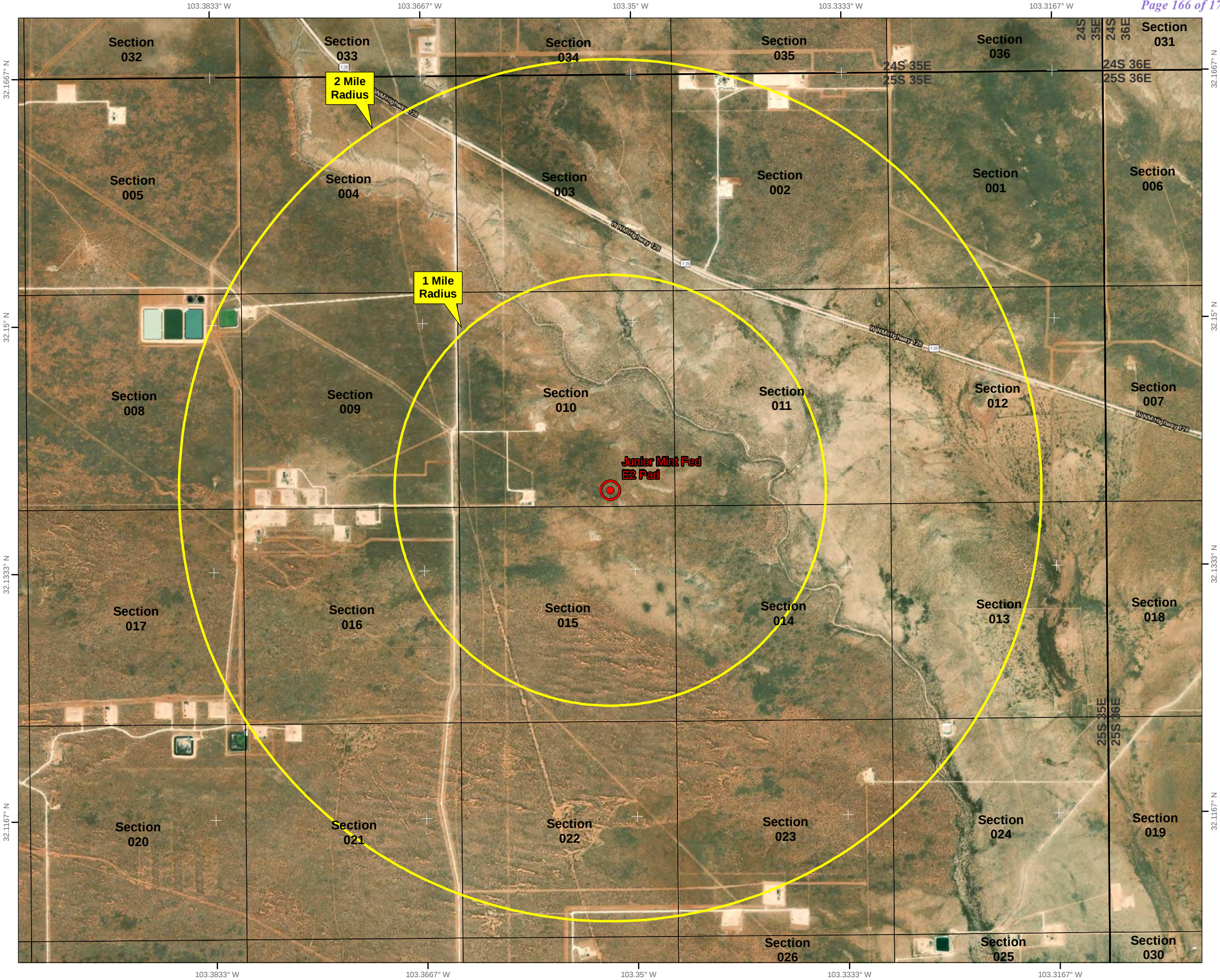
 Well Pad Location

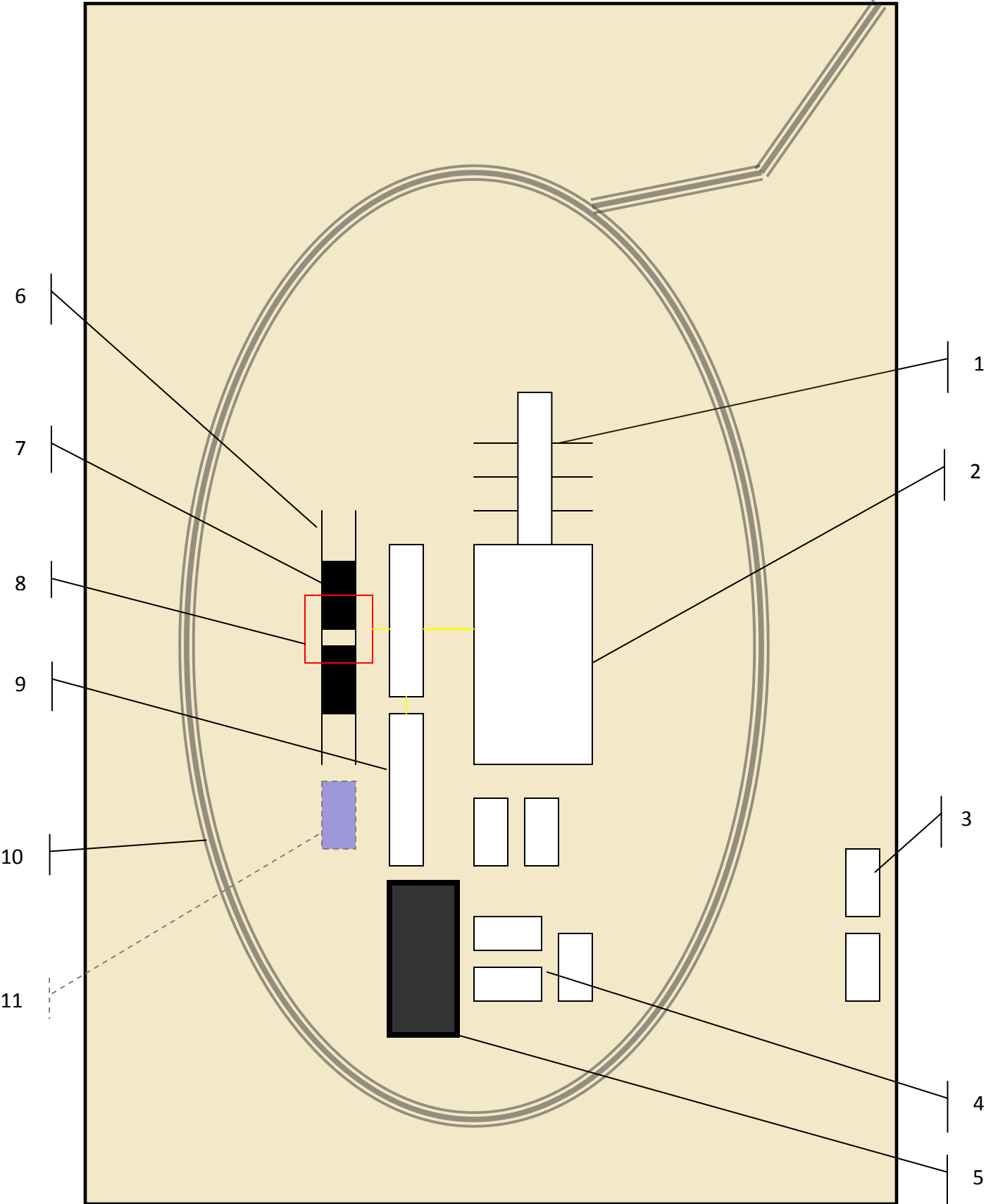


NAD 1983 New Mexico State Plane East
FIPS 3001 Feet



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

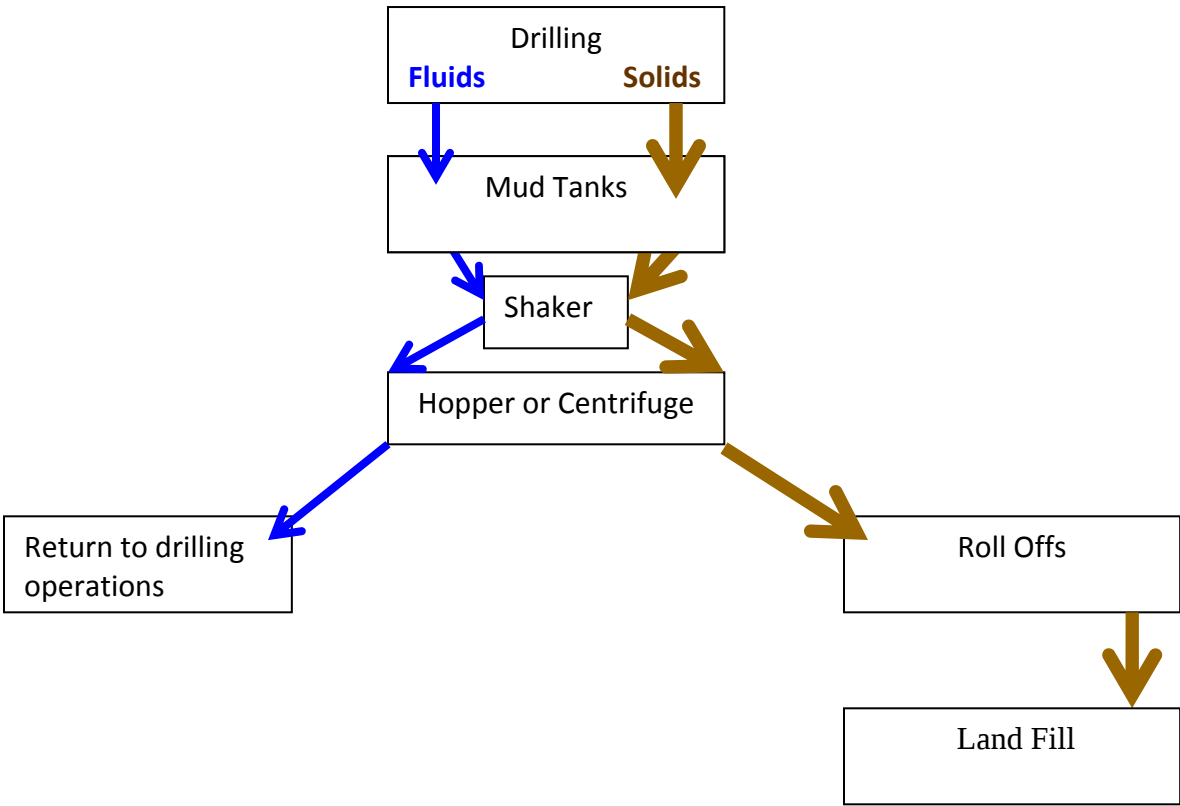


PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



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/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 526888

ACKNOWLEDGMENTS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 526888
	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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CONDITIONS

Action 526888

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CONDITIONS

Created By	Condition	Condition Date
permitsw	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/16/2025
matthew.gomez	If cement does not circulate 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.	12/12/2025
matthew.gomez	All conducted logs must be submitted to the OCD.	12/12/2025
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.	12/12/2025
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	12/12/2025
matthew.gomez	Directional survey reports the first take point is anticipated to occur within the Bone Spring formation. If production is desired to occur outside of the Wolfcamp formation, a second pool must be added via a [C-103] NOI Change of Plans (C-103A) and a DHC must be approved prior to producing the well.	12/12/2025
matthew.gomez	Notify the OCD 24 hours prior to casing & cement.	12/12/2025
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.	12/12/2025
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.	12/12/2025
matthew.gomez	File As Drilled C-102 and a directional Survey with C-104 completion packet.	12/12/2025