

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.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No.
2. Name of Operator		6. If Indian, Allottee or Tribe Name
3a. Address	3b. Phone No. (include area code)	7. If Unit of CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		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				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> 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 218H
2. Name of Operator TAP ROCK OPERATING LLC		9. API Well No. 30-025-55579
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 / 549 FSL / 1610 FEL / LAT 32.1391334 / LONG -103.3520685 At proposed prod. zone SESE / 5 FSL / 331 FEL / LAT 32.1085997 / LONG -103.3479335		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 12434 feet / 22921 feet
20. BLM/BIA Bond No. in file FED:		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3224 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	Date 02/08/2023
Office Carlsbad Field Office		

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

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

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

Well Name: JUNIOR MINT FED	Well Location: T25S / R35E / SEC 10 / SWSE / 32.1391334 / -103.3520685	County or Parish/State: LEA / NM
Well Number: 218H	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_2874578_Junior_Mint_Fed_218H_COAs_20251029131504.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 03:19 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/218H	
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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> 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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
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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.)

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 549 FSL & 1610 FEL, SWSE, Sec. 10, T.25S, R.35E to 328 FSL & 1463 FEL, SWSE, Sec. 10, T.25S, R.35E.nChanges 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. 10400086515.

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 / 549 FSL / 1610 FEL / TWSP: 25S / RANGE: 35E / SECTION: 10 / LAT: 32.1391334 / LONG: -103.3520685 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 51 FNL / 323 FEL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1374905 / LONG: -103.3479125 (TVD: 12210 feet, MD: 12383 feet)

BHL: SESE / 5 FSL / 331 FEL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.1085997 / LONG: -103.3479335 (TVD: 12434 feet, MD: 22921 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Civitas Permian Operating LLC
WELL NAME & NO.:	Junior Mint Fed 218H
LOCATION:	Sec 10-25S-35E-NMP
COUNTY:	Lea County, New Mexico

*Changes approved through engineering via **Sundry 2874577** on 10/29/2025. Any previous COAs not addressed within the updated COAs still apply.*

Create COAs

H₂S <div style="border: 1px solid black; padding: 2px; display: inline-block;">Not Reported</div>	Cave / Karst <div style="border: 1px solid black; padding: 2px; display: inline-block;">Low</div>	Waste Prevention Rule <div style="border: 1px solid black; padding: 2px; display: inline-block;">APD Submitted Prior to 06/10/24</div>
Potash <div style="border: 1px solid black; padding: 2px; display: inline-block;">None</div>	R-111-Q Design <div style="border: 1px solid black; height: 20px; width: 100%;"></div>	
Wellhead <div style="border: 1px solid black; padding: 2px; display: inline-block;">Multibowl</div> <input checked="" type="checkbox"/> Flex Hose <input checked="" type="checkbox"/> Break Testing	<div style="text-align: center; padding-bottom: 5px;"> Casing <div style="border: 1px solid black; padding: 2px; display: inline-block;">3-String Well</div> </div> <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> Liner <input checked="" type="checkbox"/> Fluid Filled <input checked="" type="checkbox"/> Casing Clearance </div>	
	<div style="text-align: center; padding-bottom: 5px;"> Cementing </div> <div style="display: flex; justify-content: space-around;"> <div> <input type="checkbox"/> DV Tool <input checked="" type="checkbox"/> Offline Cement </div> <div> <input type="checkbox"/> Bradenhead <input type="checkbox"/> Open Annulus </div> <div> <input type="checkbox"/> Echometer <input type="checkbox"/> Pilot Hole </div> </div>	
Special Requirements		
<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM <input type="checkbox"/> 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:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-55579	Pool Code 17980	Pool Name DOGIE DRAW; WOLFCAMP
Property Code 337333	Property Name JUNIOR MINT FED	Well Number 218H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3220'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	10	25 -S	35 -E	-	328' S	1463' E	N 32.1385250	W 103.3515904	LEA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	22	25 -S	35 -E	-	5' S	331' E	N 32.1085997	W 103.3479335	LEA

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: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	15	25-S	35-E	-	100' N	331' E	N 32.1373419	W 103.3479290	LEA

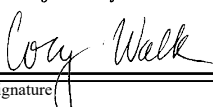
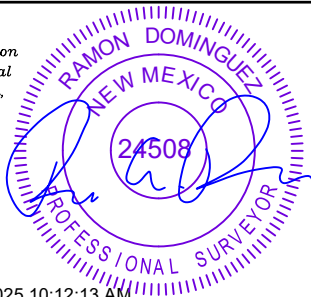
First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	15	25-S	35-E	-	100' N	331' E	N 32.1373419	W 103.3479290	LEA

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	22	25-S	35-E	-	100' S	331' E	N 32.1088609	W 103.3479334	LEA

Unitized Area or Area of Uniform Interest N/A	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation 3220'
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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 10:12:13 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			

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:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
Property Name and Well Number		<input type="checkbox"/> As Drilled	
JUNIOR MINT FED 218H			

SURFACE LOCATION (SHL)
NEW MEXICO EAST
NAD 1983
X=845214 Y=415516
LAT.: N 32.1385250
LONG.: W 103.3515904
NAD 1927
X=804027 Y=415458
LAT.: N 32.1383986
LONG.: W 103.3511256
328' FSL 1463' FEL

KICK OFF POINT (KOP)
FIRST TAKE POINT (FTP)
NEW MEXICO EAST
NAD 1983
X=846351 Y=415096
LAT.: N 32.1373419
LONG.: W 103.3479290
NAD 1927
X=805165 Y=415038
LAT.: N 32.1372154
LONG.: W 103.3474644
100' FNL 331' FEL

LAST TAKE POINT (LTP)
NEW MEXICO EAST
NAD 1983
X=846445 Y=404735
LAT.: N 32.1088609
LONG.: W 103.3479334
NAD 1927
X=805258 Y=404677
LAT.: N 32.1087344
LONG.: W 103.3474703
100' FSL 331' FEL

BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST
NAD 1983
X=846446 Y=404640
LAT.: N 32.1085997
LONG.: W 103.3479335
NAD 1927
X=805259 Y=404582
LAT.: N 32.1084731
LONG.: W 103.3474704
5' FSL 331' 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

Released to Imaging: 12/12/2025 10:43:49 AM
8/11/2025 10:12:16 AM

DRILLING AND OPERATIONS PLAN

Civitas Permian Operating LLC

Section 1:**Well Information**

Well Name and Number: Junior Mint Fed 218

Proposed TD (ft MD): 22769

Proposed TD (ft TVD): 12434

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	11,786	surface	11,659	29.7	P110	BTC		1.13	1.15	BUOY	1.80	BUOY	1.80
Production	6.75	5.5	surface	22,769	surface	12,434	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	816	3.98	25	Class C	Additives + LCM
Intermediate	Tail	10786	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	11436	13.2	789	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	11786	Brine or Oil Based Mud	9.2	10.0
11786	22769	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	7095	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:

8405 PSI

Anticipated Static Bottom Hole Temperature:

199 °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**

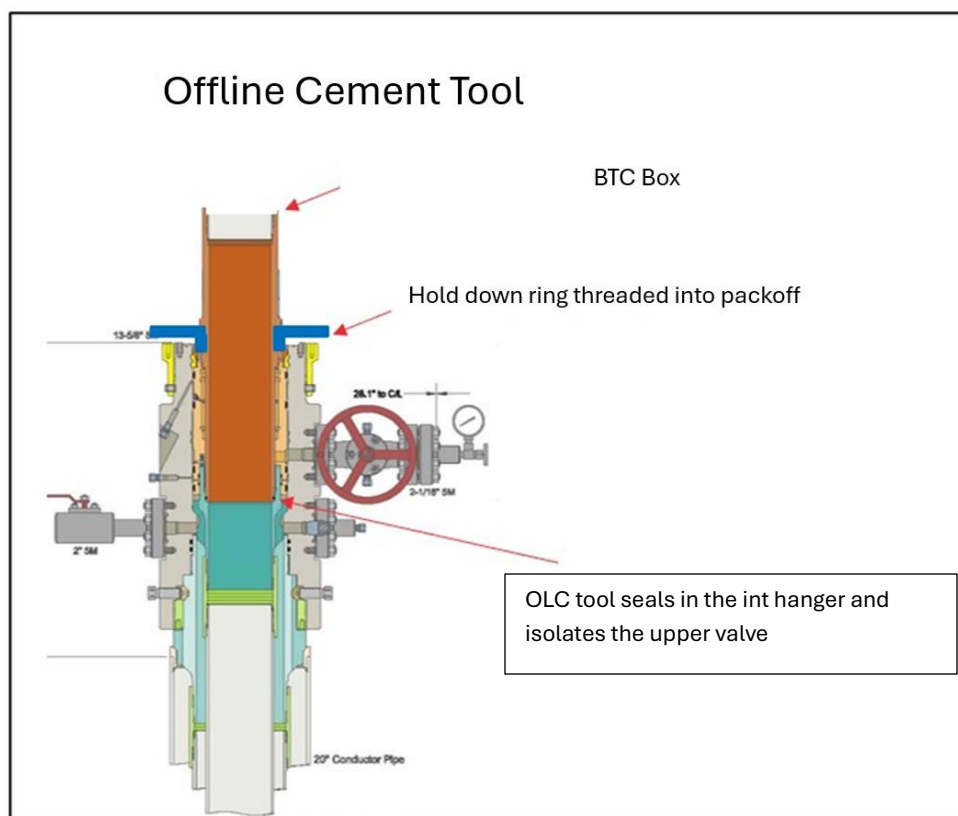
Var #	Type	Description of Request
1	Offline Cementing	Request to perform offline cementing of surface and intermediate casing when strings are set above the Wolfcamp formation. This allows rig operations to continue while cement sets. (see attached plan).
2	Intermediate Second-Stage Bullheading	Request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

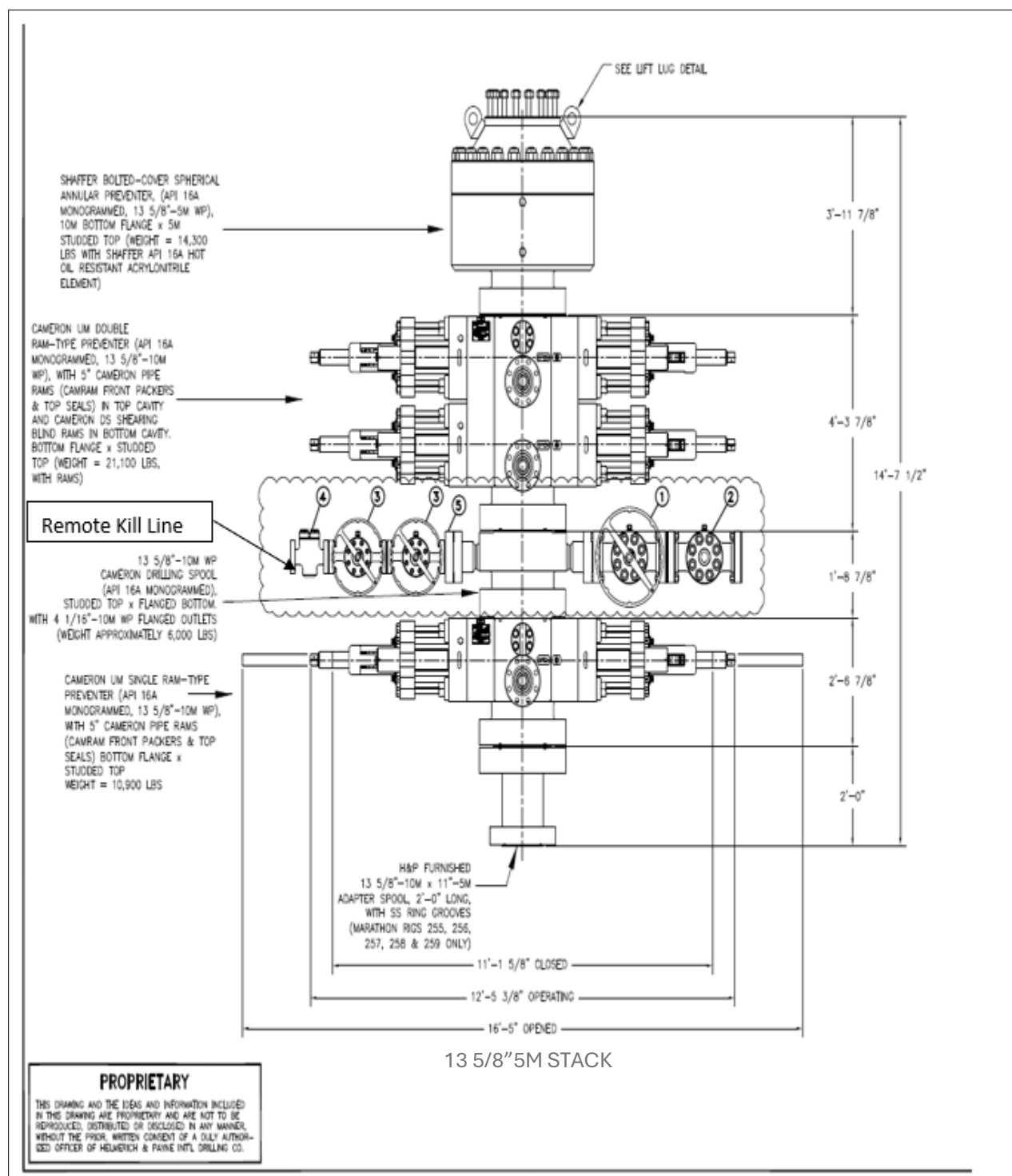
- For surface casing, no change to cement procedures to offline cement surface casing is anticipated.
- For intermediate casing, during the drilling of the intermediate hole section (all intermediate strings will be TD'd above the WCA top), hole conditions will be monitored and addressed to ensure for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



The diagram illustrates a mud gas separator system with the following components and connections:

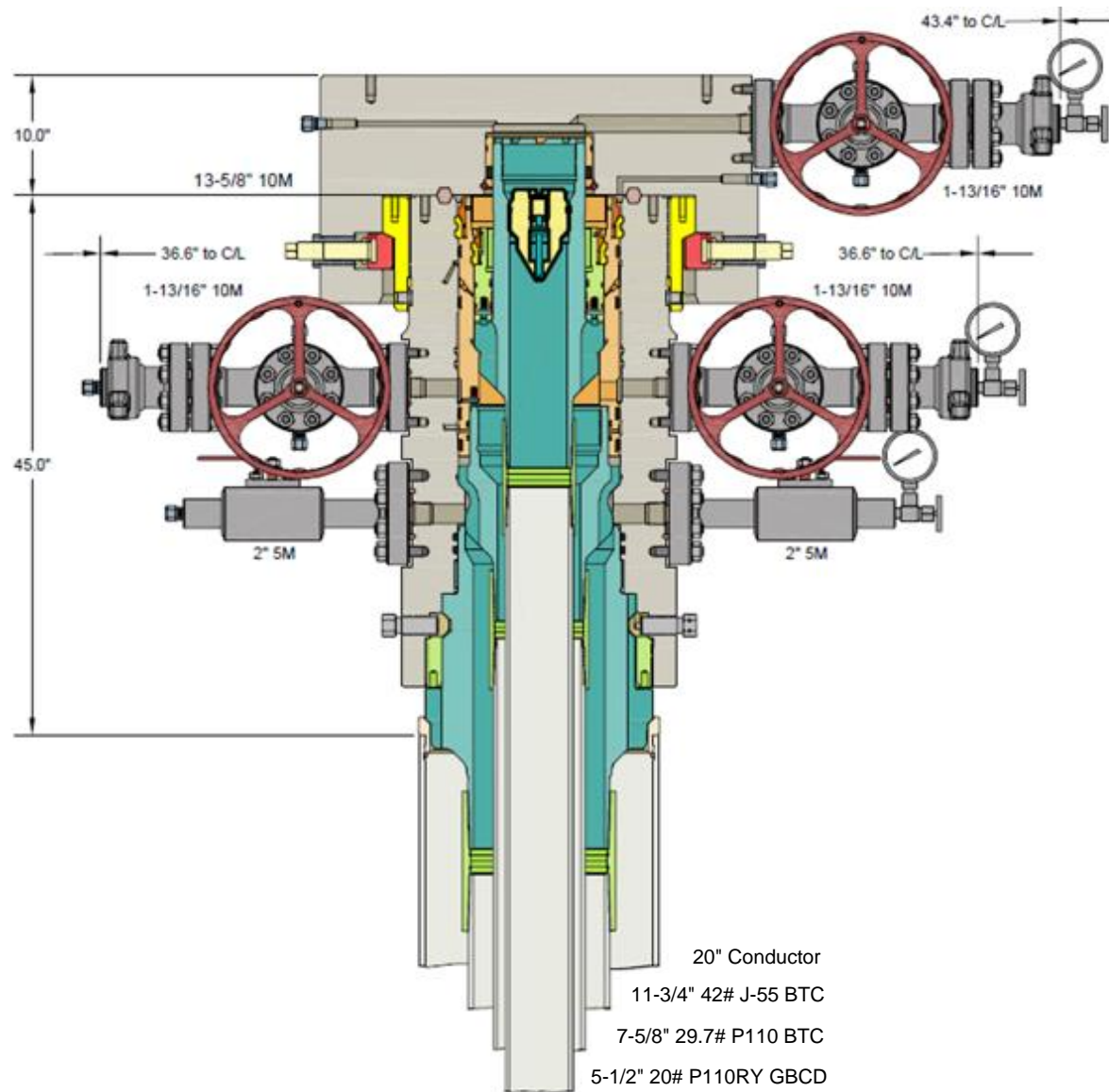
- BOP (Blowout Preventer):** Connected to the system via a 4.06"-10M HCR (High-Pressure Control) hose.
- Steel Line:** A 4" ID-10M COFLEX HOSE connects the BOP area to the main system.
- Remotely Adjustable Valve:** A 3.06"-10M valve is located on the main line.
- Pressure Gauge:** A gauge is installed on the main line to monitor pressure.
- Mud Gas Separator:** The central component, connected to the main line via a 4.06"-10M hose. It has a 4" ID 250PSI HOSE connection to a BUTTERFLY VALVE.
- Shakers:** Connected to the separator via a 10" NOMINAL line.
- Mud Tank:** The final destination for the mud, connected to the shakers.
- Trip Tank:** Connected to the separator via a 3.06"-5M hose.
- Bleed Line:** A line for venting or bleeding the system.
- 4.5M XXH Steel Line:** A line for venting or bleeding the system.

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.

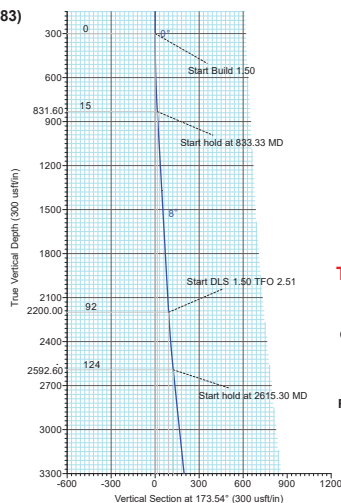
See attached: Notes for GB Connection Performance Properties.

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 218H
 Wellbore: OH
 Design: Plan #2
 Rig: 26' KB



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



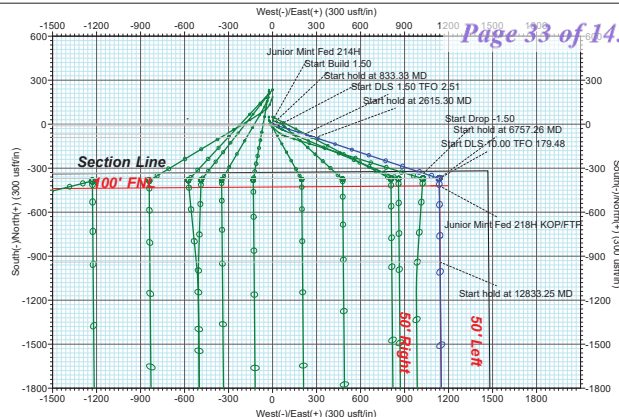
Magnetic Field
 Strength: 47061.9nT
 Dip Angle: 59.57°
 Date: 8/18/2025
 Model: HDGM2025

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 3220 + 26 @ 3246.00usft (26' KB)



SHL

RKB Elevation: GE 3220 + 26 @ 3246.00usft (26' KB)

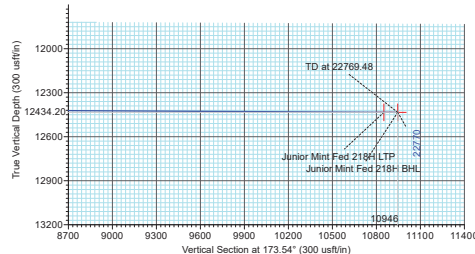
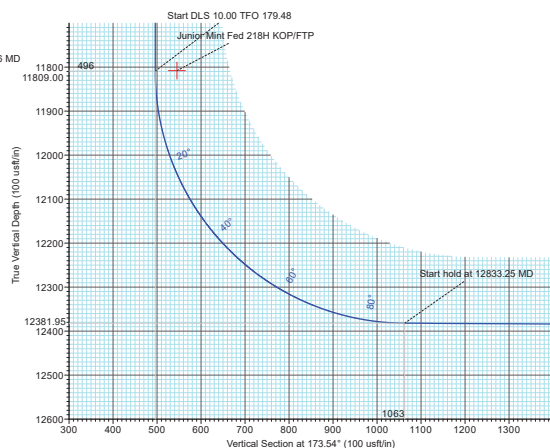
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	415516.00	845214.00	32.1385248	-103.3515909	

SECTION DETAILS

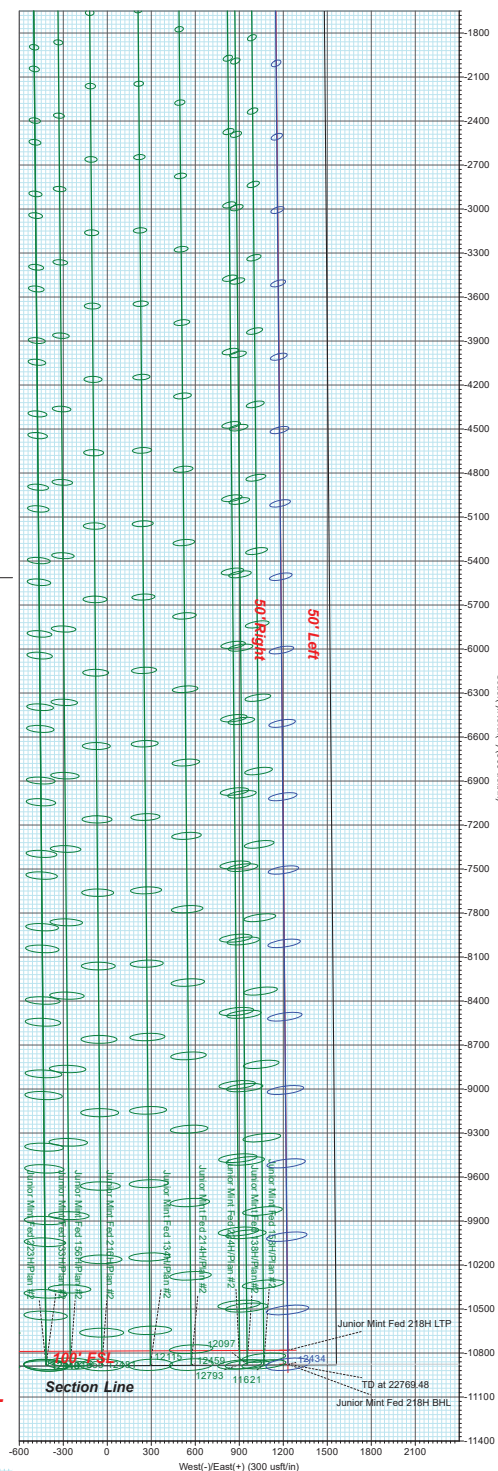
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
833.33	8.00	107.20	831.60	-10.99	35.51	1.50	107.20	14.92	
2215.18	8.00	107.20	2200.00	-67.86	219.23	0.00	0.00	92.10	
2615.30	14.00	108.28	2592.60	-91.30	291.84	1.50	2.51	123.55	
5824.02	14.00	108.28	5706.02	-334.80	1028.84	0.00	0.00	448.43	
6757.26	0.00	0.00	6630.00	-370.39	1136.55	1.50	180.00	495.91	
11936.26	0.00	0.00	11809.00	-370.39	1136.55	0.00	0.00	495.91	
12833.25	89.70	179.48	12381.95	-940.31	1141.73	10.00	179.48	1062.80	
22769.48	89.70	179.48	12434.20	-10876.00	1232.00	0.00	0.00	10945.56	

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Junior Mint Fed 218H KOP/FTP	11808.00	-420.00	1137.00	415096.00	846351.00	32.1373419	-103.3479305
Junior Mint Fed 218H LTP	12433.80	-10781.00	1231.00	404735.00	846445.00	32.1088619	-103.3479329
Junior Mint Fed 218H BHL	12434.20	-10876.00	1232.00	404640.00	846446.00	32.1086007	-103.3479325



Do Not Cross SL



Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 218H

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	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 218H					
Well Position	+N/-S	0.00 usft	Northing:	415,516.00 usft	Latitude:	32.1385248
	+E/-W	0.00 usft	Easting:	845,214.00 usft	Longitude:	-103.3515909
Position Uncertainty	0.50 usft		Wellhead Elevation:	usft	Ground Level:	3,220.00 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	173.54	

Survey Tool Program	Date	8/12/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	22,769.48	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Plan Summary

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.01	300.00	0.00	0.00	0.00	0.00	0.00	0.01	
833.33	8.00	107.20	831.60	-10.99	35.51	1.50	1.50	0.00	107.20	
2,215.18	8.00	107.20	2,200.00	-67.86	219.23	0.00	0.00	0.00	0.00	
2,615.30	14.00	108.28	2,592.60	-91.30	291.84	1.50	1.50	0.27	2.51	
5,824.02	14.00	108.28	5,706.02	-334.80	1,028.84	0.00	0.00	0.00	0.00	
6,757.26	0.00	0.00	6,630.00	-370.39	1,136.55	1.50	-1.50	0.00	180.00	
11,936.26	0.00	0.00	11,809.00	-370.39	1,136.55	0.00	0.00	0.00	0.00	
12,833.25	89.70	179.48	12,381.95	-940.31	1,141.73	10.00	10.00	20.01	179.48	
22,769.48	89.70	179.48	12,434.20	-10,876.00	1,232.00	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	415,516.00	845,214.00	32.1385248	-103.3515909	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	415,516.00	845,214.00	32.1385248	-103.3515909	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	415,516.00	845,214.00	32.1385248	-103.3515909	0.00	0.00	0.00	0.00
300.00	0.00	0.01	300.00	0.00	0.00	415,516.00	845,214.00	32.1385248	-103.3515909	0.00	0.00	0.00	0.00
400.00	1.50	107.20	399.99	-0.39	1.25	415,515.61	845,215.25	32.1385237	-103.3515869	0.53	1.50	1.50	0.00
500.00	3.00	107.20	499.91	-1.55	5.00	415,514.45	845,219.00	32.1385205	-103.3515748	2.10	1.50	1.50	0.00
600.00	4.50	107.20	599.69	-3.48	11.25	415,512.52	845,225.25	32.1385150	-103.3515547	4.73	1.50	1.50	0.00
700.00	6.00	107.20	699.27	-6.19	19.99	415,509.81	845,233.99	32.1385073	-103.3515265	8.40	1.50	1.50	0.00
800.00	7.50	107.20	798.57	-9.66	31.22	415,506.34	845,245.22	32.1384975	-103.3514904	13.11	1.50	1.50	0.00
833.33	8.00	107.20	831.60	-10.99	35.51	415,505.01	845,249.51	32.1384937	-103.3514765	14.92	1.50	1.50	0.00
900.00	8.00	107.20	897.62	-13.74	44.37	415,502.26	845,258.37	32.1384860	-103.3514480	18.64	0.00	0.00	0.00
1,000.00	8.00	107.20	996.65	-17.85	57.67	415,498.15	845,271.67	32.1384743	-103.3514051	24.23	0.00	0.00	0.00
1,100.00	8.00	107.20	1,095.67	-21.97	70.96	415,494.03	845,284.96	32.1384627	-103.3513623	29.81	0.00	0.00	0.00
1,200.00	8.00	107.20	1,194.70	-26.08	84.26	415,489.92	845,298.26	32.1384510	-103.3513195	35.40	0.00	0.00	0.00
1,300.00	8.00	107.20	1,293.73	-30.20	97.55	415,485.80	845,311.55	32.1384394	-103.3512767	40.98	0.00	0.00	0.00
1,400.00	8.00	107.20	1,392.75	-34.31	110.85	415,481.69	845,324.85	32.1384278	-103.3512338	46.57	0.00	0.00	0.00
1,500.00	8.00	107.20	1,491.78	-38.43	124.14	415,477.57	845,338.14	32.1384161	-103.3511910	52.15	0.00	0.00	0.00
1,600.00	8.00	107.20	1,590.81	-42.54	137.44	415,473.46	845,351.44	32.1384045	-103.3511482	57.74	0.00	0.00	0.00
1,700.00	8.00	107.20	1,689.83	-46.66	150.73	415,469.34	845,364.73	32.1383928	-103.3511054	63.32	0.00	0.00	0.00
1,800.00	8.00	107.20	1,788.86	-50.78	164.03	415,465.22	845,378.03	32.1383812	-103.3510625	68.91	0.00	0.00	0.00
1,900.00	8.00	107.20	1,887.89	-54.89	177.32	415,461.11	845,391.32	32.1383695	-103.3510197	74.49	0.00	0.00	0.00
2,000.00	8.00	107.20	1,986.91	-59.01	190.62	415,456.99	845,404.62	32.1383579	-103.3509769	80.08	0.00	0.00	0.00
2,100.00	8.00	107.20	2,085.94	-63.12	203.91	415,452.88	845,417.91	32.1383462	-103.3509341	85.66	0.00	0.00	0.00
2,200.00	8.00	107.20	2,184.97	-67.24	217.21	415,448.76	845,431.21	32.1383346	-103.3508912	91.25	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	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)
2,215.18	8.00	107.20	2,200.00	-67.86	219.23	415,448.14	845,433.23	32.1383328	-103.3508847	92.10	0.00	0.00	0.00
2,300.00	9.27	107.55	2,283.86	-71.67	231.38	415,444.33	845,445.38	32.1383221	-103.3508456	97.24	1.50	1.50	0.41
2,400.00	10.77	107.85	2,382.33	-76.96	247.96	415,439.04	845,461.96	32.1383071	-103.3507922	104.37	1.50	1.50	0.30
2,500.00	12.27	108.08	2,480.31	-83.12	266.95	415,432.88	845,480.95	32.1382897	-103.3507310	112.63	1.50	1.50	0.23
2,600.00	13.77	108.26	2,577.74	-90.15	288.35	415,425.85	845,502.35	32.1382698	-103.3506621	122.02	1.50	1.50	0.18
2,615.30	14.00	108.28	2,592.60	-91.30	291.84	415,424.70	845,505.84	32.1382666	-103.3506509	123.55	1.50	1.50	0.16
2,700.00	14.00	108.28	2,674.78	-97.73	311.30	415,418.27	845,525.30	32.1382484	-103.3505882	132.13	0.00	0.00	0.00
2,800.00	14.00	108.28	2,771.81	-105.32	334.26	415,410.68	845,548.26	32.1382270	-103.3505142	142.25	0.00	0.00	0.00
2,900.00	14.00	108.28	2,868.84	-112.90	357.23	415,403.10	845,571.23	32.1382056	-103.3504403	152.38	0.00	0.00	0.00
3,000.00	14.00	108.28	2,965.87	-120.49	380.20	415,395.51	845,594.20	32.1381841	-103.3503663	162.50	0.00	0.00	0.00
3,100.00	14.00	108.28	3,062.90	-128.08	403.17	415,387.92	845,617.17	32.1381627	-103.3502923	172.63	0.00	0.00	0.00
3,200.00	14.00	108.28	3,159.93	-135.67	426.14	415,380.33	845,640.14	32.1381413	-103.3502183	182.75	0.00	0.00	0.00
3,300.00	14.00	108.28	3,256.96	-143.26	449.11	415,372.74	845,663.11	32.1381198	-103.3501444	192.88	0.00	0.00	0.00
3,400.00	14.00	108.28	3,353.99	-150.85	472.08	415,365.15	845,686.08	32.1380984	-103.3500704	203.00	0.00	0.00	0.00
3,500.00	14.00	108.28	3,451.02	-158.44	495.04	415,357.56	845,709.04	32.1380770	-103.3499964	213.13	0.00	0.00	0.00
3,600.00	14.00	108.28	3,548.05	-166.03	518.01	415,349.97	845,732.01	32.1380555	-103.3499225	223.25	0.00	0.00	0.00
3,700.00	14.00	108.28	3,645.08	-173.61	540.98	415,342.39	845,754.98	32.1380341	-103.3498485	233.38	0.00	0.00	0.00
3,800.00	14.00	108.28	3,742.11	-181.20	563.95	415,334.80	845,777.95	32.1380127	-103.3497745	243.50	0.00	0.00	0.00
3,900.00	14.00	108.28	3,839.14	-188.79	586.92	415,327.21	845,800.92	32.1379912	-103.3497005	253.63	0.00	0.00	0.00
4,000.00	14.00	108.28	3,936.17	-196.38	609.89	415,319.62	845,823.89	32.1379698	-103.3496266	263.75	0.00	0.00	0.00
4,100.00	14.00	108.28	4,033.20	-203.97	632.86	415,312.03	845,846.86	32.1379483	-103.3495526	273.88	0.00	0.00	0.00
4,200.00	14.00	108.28	4,130.23	-211.56	655.82	415,304.44	845,869.82	32.1379269	-103.3494786	284.00	0.00	0.00	0.00
4,300.00	14.00	108.28	4,227.26	-219.15	678.79	415,296.85	845,892.79	32.1379055	-103.3494047	294.13	0.00	0.00	0.00
4,400.00	14.00	108.28	4,324.29	-226.74	701.76	415,289.26	845,915.76	32.1378840	-103.3493307	304.25	0.00	0.00	0.00
4,500.00	14.00	108.28	4,421.32	-234.32	724.73	415,281.68	845,938.73	32.1378626	-103.3492567	314.38	0.00	0.00	0.00
4,600.00	14.00	108.28	4,518.35	-241.91	747.70	415,274.09	845,961.70	32.1378412	-103.3491827	324.50	0.00	0.00	0.00
4,700.00	14.00	108.28	4,615.38	-249.50	770.67	415,266.50	845,984.67	32.1378197	-103.3491088	334.63	0.00	0.00	0.00
4,800.00	14.00	108.28	4,712.41	-257.09	793.64	415,258.91	846,007.64	32.1377983	-103.3490348	344.75	0.00	0.00	0.00
4,900.00	14.00	108.28	4,809.44	-264.68	816.60	415,251.32	846,030.60	32.1377769	-103.3489608	354.88	0.00	0.00	0.00
5,000.00	14.00	108.28	4,906.47	-272.27	839.57	415,243.73	846,053.57	32.1377554	-103.3488869	365.00	0.00	0.00	0.00
5,100.00	14.00	108.28	5,003.50	-279.86	862.54	415,236.14	846,076.54	32.1377340	-103.3488129	375.12	0.00	0.00	0.00
5,200.00	14.00	108.28	5,100.53	-287.45	885.51	415,228.55	846,099.51	32.1377126	-103.3487389	385.25	0.00	0.00	0.00
5,300.00	14.00	108.28	5,197.56	-295.04	908.48	415,220.96	846,122.48	32.1376911	-103.3486649	395.37	0.00	0.00	0.00
5,400.00	14.00	108.28	5,294.59	-302.62	931.45	415,213.38	846,145.45	32.1376697	-103.3485910	405.50	0.00	0.00	0.00
5,500.00	14.00	108.28	5,391.62	-310.21	954.42	415,205.79	846,168.42	32.1376483	-103.3485170	415.62	0.00	0.00	0.00
5,600.00	14.00	108.28	5,488.65	-317.80	977.38	415,198.20	846,191.38	32.1376268	-103.3484430	425.75	0.00	0.00	0.00
5,700.00	14.00	108.28	5,585.68	-325.39	1,000.35	415,190.61	846,214.35	32.1376054	-103.3483691	435.87	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	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)
5,800.00	14.00	108.28	5,682.71	-332.98	1,023.32	415,183.02	846,237.32	32.1375840	-103.3482951	446.00	0.00	0.00	0.00
5,824.02	14.00	108.28	5,706.02	-334.80	1,028.84	415,181.20	846,242.84	32.1375788	-103.3482773	448.43	0.00	0.00	0.00
5,900.00	12.86	108.28	5,779.92	-340.34	1,045.59	415,175.66	846,259.59	32.1375632	-103.3482234	455.82	1.50	-1.50	0.00
6,000.00	11.36	108.28	5,877.69	-346.92	1,065.51	415,169.08	846,279.51	32.1375446	-103.3481592	464.60	1.50	-1.50	0.00
6,100.00	9.86	108.28	5,975.98	-352.69	1,082.99	415,163.31	846,296.99	32.1375283	-103.3481029	472.30	1.50	-1.50	0.00
6,200.00	8.36	108.28	6,074.72	-357.66	1,098.02	415,158.34	846,312.02	32.1375142	-103.3480545	478.93	1.50	-1.50	0.00
6,300.00	6.86	108.28	6,173.83	-361.81	1,110.59	415,154.19	846,324.59	32.1375025	-103.3480140	484.47	1.50	-1.50	0.00
6,400.00	5.36	108.28	6,273.26	-365.15	1,120.70	415,150.85	846,334.70	32.1374931	-103.3479815	488.92	1.50	-1.50	0.00
6,500.00	3.86	108.28	6,372.94	-367.67	1,128.33	415,148.33	846,342.33	32.1374860	-103.3479569	492.29	1.50	-1.50	0.00
6,600.00	2.36	108.28	6,472.79	-369.37	1,133.48	415,146.63	846,347.48	32.1374811	-103.3479403	494.56	1.50	-1.50	0.00
6,700.00	0.86	108.28	6,572.74	-370.26	1,136.14	415,145.74	846,350.14	32.1374787	-103.3479317	495.73	1.50	-1.50	0.00
6,757.26	0.00	0.00	6,630.00	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	1.50	-1.50	0.00
6,800.00	0.00	0.00	6,672.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
6,900.00	0.00	0.00	6,772.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,000.00	0.00	0.00	6,872.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,100.00	0.00	0.00	6,972.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,200.00	0.00	0.00	7,072.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,300.00	0.00	0.00	7,172.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,400.00	0.00	0.00	7,272.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,500.00	0.00	0.00	7,372.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,600.00	0.00	0.00	7,472.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,700.00	0.00	0.00	7,572.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,800.00	0.00	0.00	7,672.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
7,900.00	0.00	0.00	7,772.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,000.00	0.00	0.00	7,872.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,100.00	0.00	0.00	7,972.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,200.00	0.00	0.00	8,072.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,300.00	0.00	0.00	8,172.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,400.00	0.00	0.00	8,272.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,500.00	0.00	0.00	8,372.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,600.00	0.00	0.00	8,472.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,700.00	0.00	0.00	8,572.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,800.00	0.00	0.00	8,672.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
8,900.00	0.00	0.00	8,772.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,000.00	0.00	0.00	8,872.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,100.00	0.00	0.00	8,972.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,200.00	0.00	0.00	9,072.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,300.00	0.00	0.00	9,172.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	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)
9,400.00	0.00	0.00	9,272.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,500.00	0.00	0.00	9,372.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,600.00	0.00	0.00	9,472.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,700.00	0.00	0.00	9,572.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,800.00	0.00	0.00	9,672.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
9,900.00	0.00	0.00	9,772.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,000.00	0.00	0.00	9,872.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,100.00	0.00	0.00	9,972.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,200.00	0.00	0.00	10,072.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,300.00	0.00	0.00	10,172.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,400.00	0.00	0.00	10,272.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,500.00	0.00	0.00	10,372.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,600.00	0.00	0.00	10,472.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,700.00	0.00	0.00	10,572.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,800.00	0.00	0.00	10,672.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
10,900.00	0.00	0.00	10,772.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,000.00	0.00	0.00	10,872.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,100.00	0.00	0.00	10,972.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,200.00	0.00	0.00	11,072.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,300.00	0.00	0.00	11,172.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,400.00	0.00	0.00	11,272.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,500.00	0.00	0.00	11,372.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,600.00	0.00	0.00	11,472.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,700.00	0.00	0.00	11,572.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,800.00	0.00	0.00	11,672.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,900.00	0.00	0.00	11,772.74	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,935.26	0.00	0.00	11,808.00	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
Junior Mint Fed 218H KOP/FTP													
11,936.26	0.00	0.00	11,809.00	-370.39	1,136.55	415,145.61	846,350.55	32.1374783	-103.3479304	495.91	0.00	0.00	0.00
11,950.00	1.37	179.48	11,822.74	-370.55	1,136.55	415,145.45	846,350.55	32.1374778	-103.3479304	496.07	10.00	10.00	0.00
12,000.00	6.37	179.48	11,872.61	-373.93	1,136.58	415,142.07	846,350.58	32.1374685	-103.3479304	499.43	10.00	10.00	0.00
12,050.00	11.37	179.48	11,922.00	-381.64	1,136.65	415,134.36	846,350.65	32.1374474	-103.3479304	507.10	10.00	10.00	0.00
12,100.00	16.37	179.48	11,970.52	-393.63	1,136.76	415,122.37	846,350.76	32.1374144	-103.3479304	519.02	10.00	10.00	0.00
12,150.00	21.37	179.48	12,017.82	-409.80	1,136.91	415,106.20	846,350.91	32.1373700	-103.3479304	535.11	10.00	10.00	0.00
12,200.00	26.37	179.48	12,063.53	-430.03	1,137.09	415,085.97	846,351.09	32.1373144	-103.3479304	555.23	10.00	10.00	0.00
12,250.00	31.37	179.48	12,107.30	-454.16	1,137.31	415,061.84	846,351.31	32.1372480	-103.3479305	579.24	10.00	10.00	0.00
12,300.00	36.37	179.48	12,148.80	-482.02	1,137.56	415,033.98	846,351.56	32.1371714	-103.3479305	606.95	10.00	10.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,350.00	41.37	179.48	12,187.71	-513.39	1,137.85	415,002.61	846,351.85	32.1370852	-103.3479305	638.15	10.00	10.00	0.00
12,400.00	46.37	179.48	12,223.74	-548.03	1,138.16	414,967.97	846,352.16	32.1369900	-103.3479305	672.60	10.00	10.00	0.00
12,450.00	51.37	179.48	12,256.62	-585.68	1,138.51	414,930.32	846,352.51	32.1368865	-103.3479305	710.05	10.00	10.00	0.00
12,500.00	56.37	179.48	12,286.09	-626.05	1,138.87	414,889.95	846,352.87	32.1367755	-103.3479305	750.21	10.00	10.00	0.00
12,550.00	61.37	179.48	12,311.92	-668.84	1,139.26	414,847.16	846,353.26	32.1366579	-103.3479305	792.77	10.00	10.00	0.00
12,600.00	66.37	179.48	12,333.93	-713.71	1,139.67	414,802.29	846,353.67	32.1365346	-103.3479305	837.41	10.00	10.00	0.00
12,650.00	71.37	179.48	12,351.95	-760.34	1,140.09	414,755.66	846,354.09	32.1364064	-103.3479305	883.78	10.00	10.00	0.00
12,700.00	76.37	179.48	12,365.83	-808.35	1,140.53	414,707.65	846,354.53	32.1362744	-103.3479305	931.54	10.00	10.00	0.00
12,750.00	81.37	179.48	12,375.48	-857.39	1,140.97	414,658.61	846,354.97	32.1361396	-103.3479305	980.32	10.00	10.00	0.00
12,800.00	86.37	179.48	12,380.81	-907.09	1,141.43	414,608.91	846,355.43	32.1360030	-103.3479305	1,029.75	10.00	10.00	0.00
12,833.25	89.70	179.48	12,381.95	-940.31	1,141.73	414,575.69	846,355.73	32.1359117	-103.3479306	1,062.80	10.00	10.00	0.00
12,900.00	89.70	179.48	12,382.30	-1,007.06	1,142.33	414,508.94	846,356.33	32.1357282	-103.3479306	1,129.19	0.00	0.00	0.00
13,000.00	89.70	179.48	12,382.83	-1,107.06	1,143.24	414,408.94	846,357.24	32.1354534	-103.3479306	1,228.65	0.00	0.00	0.00
13,100.00	89.70	179.48	12,383.35	-1,207.05	1,144.15	414,308.95	846,358.15	32.1351785	-103.3479306	1,328.11	0.00	0.00	0.00
13,200.00	89.70	179.48	12,383.88	-1,307.05	1,145.06	414,208.95	846,359.06	32.1349036	-103.3479306	1,427.58	0.00	0.00	0.00
13,300.00	89.70	179.48	12,384.40	-1,407.04	1,145.97	414,108.96	846,359.97	32.1346288	-103.3479307	1,527.04	0.00	0.00	0.00
13,400.00	89.70	179.48	12,384.93	-1,507.03	1,146.88	414,008.97	846,360.88	32.1343539	-103.3479307	1,626.50	0.00	0.00	0.00
13,500.00	89.70	179.48	12,385.46	-1,607.03	1,147.79	413,908.97	846,361.79	32.1340790	-103.3479307	1,725.96	0.00	0.00	0.00
13,600.00	89.70	179.48	12,385.98	-1,707.02	1,148.69	413,808.98	846,362.69	32.1338042	-103.3479307	1,825.42	0.00	0.00	0.00
13,700.00	89.70	179.48	12,386.51	-1,807.02	1,149.60	413,708.98	846,363.60	32.1335293	-103.3479307	1,924.89	0.00	0.00	0.00
13,800.00	89.70	179.48	12,387.03	-1,907.01	1,150.51	413,608.99	846,364.51	32.1332545	-103.3479308	2,024.35	0.00	0.00	0.00
13,900.00	89.70	179.48	12,387.56	-2,007.01	1,151.42	413,508.99	846,365.42	32.1329796	-103.3479308	2,123.81	0.00	0.00	0.00
14,000.00	89.70	179.48	12,388.09	-2,107.00	1,152.33	413,409.00	846,366.33	32.1327047	-103.3479308	2,223.27	0.00	0.00	0.00
14,100.00	89.70	179.48	12,388.61	-2,207.00	1,153.24	413,309.00	846,367.24	32.1324299	-103.3479308	2,322.73	0.00	0.00	0.00
14,200.00	89.70	179.48	12,389.14	-2,306.99	1,154.15	413,209.01	846,368.15	32.1321550	-103.3479308	2,422.19	0.00	0.00	0.00
14,300.00	89.70	179.48	12,389.66	-2,406.98	1,155.05	413,109.02	846,369.05	32.1318802	-103.3479309	2,521.66	0.00	0.00	0.00
14,400.00	89.70	179.48	12,390.19	-2,506.98	1,155.96	413,009.02	846,369.96	32.1316053	-103.3479309	2,621.12	0.00	0.00	0.00
14,500.00	89.70	179.48	12,390.71	-2,606.97	1,156.87	412,909.03	846,370.87	32.1313304	-103.3479309	2,720.58	0.00	0.00	0.00
14,600.00	89.70	179.48	12,391.24	-2,706.97	1,157.78	412,809.03	846,371.78	32.1310556	-103.3479309	2,820.04	0.00	0.00	0.00
14,700.00	89.70	179.48	12,391.77	-2,806.96	1,158.69	412,709.04	846,372.69	32.1307807	-103.3479309	2,919.50	0.00	0.00	0.00
14,800.00	89.70	179.48	12,392.29	-2,906.96	1,159.60	412,609.04	846,373.60	32.1305058	-103.3479310	3,018.97	0.00	0.00	0.00
14,900.00	89.70	179.48	12,392.82	-3,006.95	1,160.50	412,509.05	846,374.50	32.1302310	-103.3479310	3,118.43	0.00	0.00	0.00
15,000.00	89.70	179.48	12,393.34	-3,106.95	1,161.41	412,409.05	846,375.41	32.1299561	-103.3479310	3,217.89	0.00	0.00	0.00
15,100.00	89.70	179.48	12,393.87	-3,206.94	1,162.32	412,309.06	846,376.32	32.1296813	-103.3479310	3,317.35	0.00	0.00	0.00
15,200.00	89.70	179.48	12,394.40	-3,306.94	1,163.23	412,209.07	846,377.23	32.1294064	-103.3479310	3,416.81	0.00	0.00	0.00
15,300.00	89.70	179.48	12,394.92	-3,406.93	1,164.14	412,109.07	846,378.14	32.1291315	-103.3479311	3,516.27	0.00	0.00	0.00
15,400.00	89.70	179.48	12,395.45	-3,506.92	1,165.05	412,009.08	846,379.05	32.1288567	-103.3479311	3,615.74	0.00	0.00	0.00
15,500.00	89.70	179.48	12,395.97	-3,606.92	1,165.96	411,909.08	846,379.96	32.1285818	-103.3479311	3,715.20	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Map Coordinates Northing (usft)	Map Coordinates Easting (usft)	Geo Coordinates Latitude (°)	Geo Coordinates Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,600.00	89.70	179.48	12,396.50	-3,706.91	1,166.86	411,809.09	846,380.86	32.1283070	-103.3479311	3,814.66	0.00	0.00	0.00
15,700.00	89.70	179.48	12,397.03	-3,806.91	1,167.77	411,709.09	846,381.77	32.1280321	-103.3479311	3,914.12	0.00	0.00	0.00
15,800.00	89.70	179.48	12,397.55	-3,906.90	1,168.68	411,609.10	846,382.68	32.1277572	-103.3479312	4,013.58	0.00	0.00	0.00
15,900.00	89.70	179.48	12,398.08	-4,006.90	1,169.59	411,509.10	846,383.59	32.1274824	-103.3479312	4,113.05	0.00	0.00	0.00
16,000.00	89.70	179.48	12,398.60	-4,106.89	1,170.50	411,409.11	846,384.50	32.1272075	-103.3479312	4,212.51	0.00	0.00	0.00
16,100.00	89.70	179.48	12,399.13	-4,206.89	1,171.41	411,309.11	846,385.41	32.1269326	-103.3479312	4,311.97	0.00	0.00	0.00
16,200.00	89.70	179.48	12,399.65	-4,306.88	1,172.32	411,209.12	846,386.32	32.1266578	-103.3479312	4,411.43	0.00	0.00	0.00
16,300.00	89.70	179.48	12,400.18	-4,406.87	1,173.22	411,109.13	846,387.22	32.1263829	-103.3479313	4,510.89	0.00	0.00	0.00
16,400.00	89.70	179.48	12,400.71	-4,506.87	1,174.13	411,009.13	846,388.13	32.1261081	-103.3479313	4,610.35	0.00	0.00	0.00
16,500.00	89.70	179.48	12,401.23	-4,606.86	1,175.04	410,909.14	846,389.04	32.1258332	-103.3479313	4,709.82	0.00	0.00	0.00
16,600.00	89.70	179.48	12,401.76	-4,706.86	1,175.95	410,809.14	846,389.95	32.1255583	-103.3479313	4,809.28	0.00	0.00	0.00
16,700.00	89.70	179.48	12,402.28	-4,806.85	1,176.86	410,709.15	846,390.86	32.1252835	-103.3479313	4,908.74	0.00	0.00	0.00
16,800.00	89.70	179.48	12,402.81	-4,906.85	1,177.77	410,609.15	846,391.77	32.1250086	-103.3479314	5,008.20	0.00	0.00	0.00
16,900.00	89.70	179.48	12,403.34	-5,006.84	1,178.68	410,509.16	846,392.68	32.1247338	-103.3479314	5,107.66	0.00	0.00	0.00
17,000.00	89.70	179.48	12,403.86	-5,106.84	1,179.58	410,409.16	846,393.58	32.1244589	-103.3479314	5,207.13	0.00	0.00	0.00
17,100.00	89.70	179.48	12,404.39	-5,206.83	1,180.49	410,309.17	846,394.49	32.1241840	-103.3479314	5,306.59	0.00	0.00	0.00
17,200.00	89.70	179.48	12,404.91	-5,306.82	1,181.40	410,209.18	846,395.40	32.1239092	-103.3479314	5,406.05	0.00	0.00	0.00
17,300.00	89.70	179.48	12,405.44	-5,406.82	1,182.31	410,109.18	846,396.31	32.1236343	-103.3479315	5,505.51	0.00	0.00	0.00
17,400.00	89.70	179.48	12,405.96	-5,506.81	1,183.22	410,009.19	846,397.22	32.1233594	-103.3479315	5,604.97	0.00	0.00	0.00
17,500.00	89.70	179.48	12,406.49	-5,606.81	1,184.13	409,909.19	846,398.13	32.1230846	-103.3479315	5,704.43	0.00	0.00	0.00
17,600.00	89.70	179.48	12,407.02	-5,706.80	1,185.03	409,809.20	846,399.03	32.1228097	-103.3479315	5,803.90	0.00	0.00	0.00
17,700.00	89.70	179.48	12,407.54	-5,806.80	1,185.94	409,709.20	846,399.94	32.1225349	-103.3479315	5,903.36	0.00	0.00	0.00
17,800.00	89.70	179.48	12,408.07	-5,906.79	1,186.85	409,609.21	846,400.85	32.1222600	-103.3479315	6,002.82	0.00	0.00	0.00
17,900.00	89.70	179.48	12,408.59	-6,006.79	1,187.76	409,509.21	846,401.76	32.1219851	-103.3479316	6,102.28	0.00	0.00	0.00
18,000.00	89.70	179.48	12,409.12	-6,106.78	1,188.67	409,409.22	846,402.67	32.1217103	-103.3479316	6,201.74	0.00	0.00	0.00
18,100.00	89.70	179.48	12,409.65	-6,206.78	1,189.58	409,309.22	846,403.58	32.1214354	-103.3479316	6,301.21	0.00	0.00	0.00
18,200.00	89.70	179.48	12,410.17	-6,306.77	1,190.49	409,209.23	846,404.49	32.1211605	-103.3479316	6,400.67	0.00	0.00	0.00
18,300.00	89.70	179.48	12,410.70	-6,406.76	1,191.39	409,109.24	846,405.39	32.1208857	-103.3479316	6,500.13	0.00	0.00	0.00
18,400.00	89.70	179.48	12,411.22	-6,506.76	1,192.30	409,009.24	846,406.30	32.1206108	-103.3479317	6,599.59	0.00	0.00	0.00
18,500.00	89.70	179.48	12,411.75	-6,606.75	1,193.21	408,909.25	846,407.21	32.1203360	-103.3479317	6,699.05	0.00	0.00	0.00
18,600.00	89.70	179.48	12,412.27	-6,706.75	1,194.12	408,809.25	846,408.12	32.1200611	-103.3479317	6,798.51	0.00	0.00	0.00
18,700.00	89.70	179.48	12,412.80	-6,806.74	1,195.03	408,709.26	846,409.03	32.1197862	-103.3479317	6,897.98	0.00	0.00	0.00
18,800.00	89.70	179.48	12,413.33	-6,906.74	1,195.94	408,609.26	846,409.94	32.1195114	-103.3479317	6,997.44	0.00	0.00	0.00
18,900.00	89.70	179.48	12,413.85	-7,006.73	1,196.85	408,509.27	846,410.85	32.1192365	-103.3479318	7,096.90	0.00	0.00	0.00
19,000.00	89.70	179.48	12,414.38	-7,106.73	1,197.75	408,409.27	846,411.75	32.1189616	-103.3479318	7,196.36	0.00	0.00	0.00
19,100.00	89.70	179.48	12,414.90	-7,206.72	1,198.66	408,309.28	846,412.66	32.1186868	-103.3479318	7,295.82	0.00	0.00	0.00
19,200.00	89.70	179.48	12,415.43	-7,306.71	1,199.57	408,209.29	846,413.57	32.1184119	-103.3479318	7,395.28	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,300.00	89.70	179.48	12,415.96	-7,406.71	1,200.48	408,109.29	846,414.48	32.1181371	-103.3479318	7,494.75	0.00	0.00	0.00
19,400.00	89.70	179.48	12,416.48	-7,506.70	1,201.39	408,009.30	846,415.39	32.1178622	-103.3479319	7,594.21	0.00	0.00	0.00
19,500.00	89.70	179.48	12,417.01	-7,606.70	1,202.30	407,909.30	846,416.30	32.1175873	-103.3479319	7,693.67	0.00	0.00	0.00
19,600.00	89.70	179.48	12,417.53	-7,706.69	1,203.20	407,809.31	846,417.20	32.1173125	-103.3479319	7,793.13	0.00	0.00	0.00
19,700.00	89.70	179.48	12,418.06	-7,806.69	1,204.11	407,709.31	846,418.11	32.1170376	-103.3479319	7,892.59	0.00	0.00	0.00
19,800.00	89.70	179.48	12,418.59	-7,906.68	1,205.02	407,609.32	846,419.02	32.1167628	-103.3479319	7,992.06	0.00	0.00	0.00
19,900.00	89.70	179.48	12,419.11	-8,006.68	1,205.93	407,509.32	846,419.93	32.1164879	-103.3479320	8,091.52	0.00	0.00	0.00
20,000.00	89.70	179.48	12,419.64	-8,106.67	1,206.84	407,409.33	846,420.84	32.1162130	-103.3479320	8,190.98	0.00	0.00	0.00
20,100.00	89.70	179.48	12,420.16	-8,206.67	1,207.75	407,309.33	846,421.75	32.1159382	-103.3479320	8,290.44	0.00	0.00	0.00
20,200.00	89.70	179.48	12,420.69	-8,306.66	1,208.66	407,209.34	846,422.66	32.1156633	-103.3479320	8,389.90	0.00	0.00	0.00
20,300.00	89.70	179.48	12,421.21	-8,406.65	1,209.56	407,109.35	846,423.56	32.1153884	-103.3479320	8,489.36	0.00	0.00	0.00
20,400.00	89.70	179.48	12,421.74	-8,506.65	1,210.47	407,009.35	846,424.47	32.1151136	-103.3479320	8,588.83	0.00	0.00	0.00
20,500.00	89.70	179.48	12,422.27	-8,606.64	1,211.38	406,909.36	846,425.38	32.1148387	-103.3479321	8,688.29	0.00	0.00	0.00
20,600.00	89.70	179.48	12,422.79	-8,706.64	1,212.29	406,809.36	846,426.29	32.1145639	-103.3479321	8,787.75	0.00	0.00	0.00
20,700.00	89.70	179.48	12,423.32	-8,806.63	1,213.20	406,709.37	846,427.20	32.1142890	-103.3479321	8,887.21	0.00	0.00	0.00
20,800.00	89.70	179.48	12,423.84	-8,906.63	1,214.11	406,609.37	846,428.11	32.1140141	-103.3479321	8,986.67	0.00	0.00	0.00
20,900.00	89.70	179.48	12,424.37	-9,006.62	1,215.02	406,509.38	846,429.02	32.1137393	-103.3479321	9,086.14	0.00	0.00	0.00
21,000.00	89.70	179.48	12,424.90	-9,106.62	1,215.92	406,409.38	846,429.92	32.1134644	-103.3479322	9,185.60	0.00	0.00	0.00
21,100.00	89.70	179.48	12,425.42	-9,206.61	1,216.83	406,309.39	846,430.83	32.1131895	-103.3479322	9,285.06	0.00	0.00	0.00
21,200.00	89.70	179.48	12,425.95	-9,306.60	1,217.74	406,209.40	846,431.74	32.1129147	-103.3479322	9,384.52	0.00	0.00	0.00
21,300.00	89.70	179.48	12,426.47	-9,406.60	1,218.65	406,109.40	846,432.65	32.1126398	-103.3479322	9,483.98	0.00	0.00	0.00
21,400.00	89.70	179.48	12,427.00	-9,506.59	1,219.56	406,009.41	846,433.56	32.1123650	-103.3479322	9,583.44	0.00	0.00	0.00
21,500.00	89.70	179.48	12,427.52	-9,606.59	1,220.47	405,909.41	846,434.47	32.1120901	-103.3479323	9,682.91	0.00	0.00	0.00
21,600.00	89.70	179.48	12,428.05	-9,706.58	1,221.38	405,809.42	846,435.38	32.1118152	-103.3479323	9,782.37	0.00	0.00	0.00
21,700.00	89.70	179.48	12,428.58	-9,806.58	1,222.28	405,709.42	846,436.28	32.1115404	-103.3479323	9,881.83	0.00	0.00	0.00
21,800.00	89.70	179.48	12,429.10	-9,906.57	1,223.19	405,609.43	846,437.19	32.1112655	-103.3479323	9,981.29	0.00	0.00	0.00
21,900.00	89.70	179.48	12,429.63	-10,006.57	1,224.10	405,509.43	846,438.10	32.1109906	-103.3479323	10,080.75	0.00	0.00	0.00
22,000.00	89.70	179.48	12,430.15	-10,106.56	1,225.01	405,409.44	846,439.01	32.1107158	-103.3479323	10,180.22	0.00	0.00	0.00
22,100.00	89.70	179.48	12,430.68	-10,206.56	1,225.92	405,309.45	846,439.92	32.1104409	-103.3479324	10,279.68	0.00	0.00	0.00
22,200.00	89.70	179.48	12,431.21	-10,306.55	1,226.83	405,209.45	846,440.83	32.1101661	-103.3479324	10,379.14	0.00	0.00	0.00
22,300.00	89.70	179.48	12,431.73	-10,406.54	1,227.73	405,109.46	846,441.73	32.1098912	-103.3479324	10,478.60	0.00	0.00	0.00
22,400.00	89.70	179.48	12,432.26	-10,506.54	1,228.64	405,009.46	846,442.64	32.1096163	-103.3479324	10,578.06	0.00	0.00	0.00
22,500.00	89.70	179.48	12,432.78	-10,606.53	1,229.55	404,909.47	846,443.55	32.1093415	-103.3479324	10,677.52	0.00	0.00	0.00
22,600.00	89.70	179.48	12,433.31	-10,706.53	1,230.46	404,809.47	846,444.46	32.1090666	-103.3479325	10,776.99	0.00	0.00	0.00
22,674.48	89.70	179.48	12,433.70	-10,781.00	1,231.14	404,735.00	846,445.14	32.1088619	-103.3479325	10,851.06	0.00	0.00	0.00
Junior Mint Fed 218H LTP													
22,700.00	89.70	179.48	12,433.83	-10,806.52	1,231.37	404,709.48	846,445.37	32.1087917	-103.3479325	10,876.45	0.00	0.00	0.00
22,769.48	89.70	179.48	12,434.20	-10,876.00	1,232.00	404,640.00	846,446.00	32.1086008	-103.3479325	10,945.56	0.00	0.00	0.00

Total Directional
Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Well:	Junior Mint Fed 218H	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	Longitude
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)
Junior Mint Fed 218H BHL									

Design Targets

Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)
Junior Mint Fed 218H	0.00	0.00	11,808.00	-420.00	1,137.00	415,096.00	846,351.00	32.1373419	-103.3479305
- plan misses target center by 49.61usft at 11935.26usft MD (11808.00 TVD, -370.39 N, 1136.55 E)									
- Point									
Junior Mint Fed 218H	0.00	0.00	12,433.80	-10,781.00	1,231.00	404,735.00	846,445.00	32.1088619	-103.3479329
- plan misses target center by 0.17usft at 22674.48usft MD (12433.70 TVD, -10781.00 N, 1231.14 E)									
- Point									
Junior Mint Fed 218H	0.00	0.00	12,434.20	-10,876.00	1,232.00	404,640.00	846,446.00	32.1086008	-103.3479325
- plan hits target center									
- Point									

Checked By: _____

Approved By: _____

Date: _____

Civitas Resources

Lea County, NM (NAD 83)

Junior Mint Fed Pad

Junior Mint Fed 218H

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 218H					
Well Position	+N/-S	0.00 usft	Northing:	415,516.00 usft	Latitude:	32.1385248
	+E/-W	0.00 usft	Easting:	845,214.00 usft	Longitude:	-103.3515909
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,220.00 usft
Grid Convergence:		0.52 °				

Survey Tool Program	Date	8/12/2025					
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description			
0.00	22,769.48	Plan #2 (OH)	MWD+HRGM+SAG+FDIR (n	OWSG MWD + HRGM + SAG + FDIR Correction			

Experimental: Summary Highlights: Junior Mint Fed 218H

- At 5,200.00 MD, Junior Mint Fed 158H - OH - Plan #2 is 42.31 usft away with a 1.36 SF.
- At 5,300.00 MD, Junior Mint Fed 158H - OH - Plan #2 is 42.80 usft away with a 1.36 SF.

Offset Listing

Offset Customer - Project - Site Name	Ground Level KB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty	
			Northing	Easting	Latitude	Longitude	Site	Well
- - Junior Mint Fed Pad								
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 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 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 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 216H -	3,222.00	3,248.00	415,751.00	845,189.00	32.1391714	-103.3516647	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 Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
Offset Well - Wellbore - Design						

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Junior Mint Fed Pad						
Junior Mint Fed 133H - OH - Plan #2	300.00	301.00	211.48	207.52	53.33	CC
Junior Mint Fed 133H - OH - Plan #2	400.00	400.99	212.02	207.35	45.39	ES
Junior Mint Fed 133H - OH - Plan #2	22,770.20	22,387.52	1,675.00	1,377.23	5.63	SF
Junior Mint Fed 134H - OH - Plan #2	300.00	301.00	55.90	51.94	14.12	CC, ES
Junior Mint Fed 134H - OH - Plan #2	22,763.36	22,335.19	990.68	705.79	3.48	SF
Junior Mint Fed 137H - OH - Plan 2	5,477.70	6,025.48	2,341.50	2,311.75	78.73	CC
Junior Mint Fed 137H - OH - Plan 2	22,770.20	22,512.84	2,380.28	2,090.58	8.22	ES, SF
Junior Mint Fed 138H - OH - Plan #2	300.00	300.00	35.36	31.39	8.92	CC, ES
Junior Mint Fed 138H - OH - Plan #2	22,763.89	22,385.14	436.70	230.95	2.12	SF
Junior Mint Fed 156H - OH - Plan #2	718.07	730.51	180.35	173.88	27.85	CC, ES
Junior Mint Fed 156H - OH - Plan #2	22,770.20	21,918.86	1,676.10	1,405.07	6.18	SF
Junior Mint Fed 158H - OH - Plan #2	300.00	300.00	25.00	21.04	6.31	CC
Junior Mint Fed 158H - OH - Plan #2	5,200.00	5,203.12	42.31	11.20	1.36	Collision Avoidance Req., ES
Junior Mint Fed 158H - OH - Plan #2	5,300.00	5,303.09	42.80	11.22	1.36	Collision Avoidance Req., SF
Junior Mint Fed 213H - OH - Plan #2	300.00	301.00	185.00	181.03	46.65	CC
Junior Mint Fed 213H - OH - Plan #2	867.67	880.64	186.13	179.01	26.12	ES
Junior Mint Fed 213H - OH - Plan #2	22,770.20	22,830.04	1,980.37	1,678.81	6.57	SF
Junior Mint Fed 214H - OH - Plan #2	530.37	530.82	24.72	19.28	4.54	CC
Junior Mint Fed 214H - OH - Plan #2	600.00	600.44	24.94	19.11	4.28	ES
Junior Mint Fed 214H - OH - Plan #2	22,766.62	22,705.24	659.47	359.88	2.20	SF
Junior Mint Fed 216H - OH - Plan #2	300.00	302.00	236.33	232.36	59.54	CC
Junior Mint Fed 216H - OH - Plan #2	400.00	401.99	236.85	232.17	50.68	ES
Junior Mint Fed 216H - OH - Plan #2	22,770.20	22,719.79	1,268.88	966.34	4.19	SF
Junior Mint Fed 223H - OH - Plan #2	300.00	302.00	235.00	231.03	59.21	CC
Junior Mint Fed 223H - OH - Plan #2	400.00	401.99	235.39	230.72	50.44	ES
Junior Mint Fed 223H - OH - Plan #2	22,770.20	23,139.21	1,700.19	1,405.20	5.76	SF
Junior Mint Fed 224H - OH - Plan #2	300.00	302.00	50.00	46.03	12.60	CC
Junior Mint Fed 224H - OH - Plan #2	400.00	401.99	50.40	45.73	10.80	ES
Junior Mint Fed 224H - OH - Plan #2	22,770.20	23,106.58	486.96	264.00	2.18	SF

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		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.00	0.00	0.50	0.50	-6.79	210.00	-25.00	211.48				
100.00	100.00	101.00	100.00	0.98	0.99	-6.79	210.00	-25.00	211.48	209.52	1.97	107.480	
200.00	200.00	201.00	200.00	1.56	1.57	-6.79	210.00	-25.00	211.48	208.36	3.13	67.644	
300.00	300.00	301.00	300.00	1.98	1.98	-6.79	210.00	-25.00	211.48	207.52	3.97	53.327	CC
400.00	399.99	400.99	399.99	2.41	2.33	-114.30	210.00	-25.00	212.02	207.35	4.67	45.392	ES
500.00	499.91	500.91	499.91	2.78	2.64	-115.24	210.00	-25.00	213.66	208.38	5.29	40.422	
600.00	599.69	600.69	599.69	3.11	2.91	-116.77	210.00	-25.00	216.54	210.69	5.85	37.029	
700.00	699.27	700.28	699.28	3.42	3.16	-118.82	210.00	-25.00	220.82	214.44	6.37	34.639	
800.00	798.57	803.62	802.61	3.71	3.46	-121.72	208.84	-25.79	225.85	218.95	6.90	32.722	
900.00	897.62	906.31	905.21	3.84	3.72	-125.46	205.39	-28.13	230.94	223.66	7.28	31.743	
1,000.00	996.65	1,008.46	1,007.13	4.07	3.95	-129.60	199.71	-32.00	235.54	227.82	7.72	30.492	
1,100.00	1,095.67	1,107.60	1,105.90	4.29	4.06	-133.83	192.63	-36.81	240.35	232.28	8.07	29.784	
1,200.00	1,194.70	1,205.90	1,203.82	4.51	4.24	-137.87	185.54	-41.63	246.41	237.92	8.49	29.027	
1,300.00	1,293.73	1,304.98	1,302.49	4.73	4.35	-141.81	178.12	-46.74	253.56	244.75	8.81	28.773	
1,400.00	1,392.75	1,404.08	1,400.94	4.95	4.58	-146.01	169.02	-53.40	261.52	252.28	9.24	28.315	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)			
1,500.00	1,491.78	1,502.21	1,498.11	5.17	4.81	-150.44	158.16	-61.71	270.61	260.96	9.65	28.031	
1,600.00	1,590.81	1,599.31	1,593.93	5.38	4.92	-154.97	145.82	-71.40	281.26	271.27	9.99	28.165	
1,700.00	1,689.83	1,696.15	1,689.45	5.59	5.11	-159.22	133.27	-81.29	293.62	283.21	10.41	28.206	
1,800.00	1,788.86	1,793.00	1,784.97	5.80	5.30	-163.11	120.72	-91.18	307.50	296.67	10.83	28.384	
1,900.00	1,887.89	1,889.84	1,880.48	6.01	5.49	-166.67	108.17	-101.07	322.72	311.46	11.26	28.667	
2,000.00	1,986.91	1,986.69	1,976.00	6.22	5.68	-169.91	95.62	-110.96	339.09	327.41	11.68	29.029	
2,100.00	2,085.94	2,083.53	2,071.52	6.43	5.87	-172.86	83.07	-120.85	356.45	344.34	12.10	29.449	
2,200.00	2,184.97	2,180.38	2,167.04	6.64	6.06	-175.53	70.52	-130.75	374.66	362.14	12.53	29.911	
2,300.00	2,283.86	2,277.04	2,262.37	6.84	6.25	-178.29	58.00	-140.62	394.53	381.60	12.93	30.508	
2,400.00	2,382.33	2,373.15	2,357.17	7.08	6.44	-179.22	45.54	-150.43	417.56	404.17	13.39	31.193	
2,500.00	2,480.31	2,468.65	2,451.36	7.32	6.63	-177.04	33.17	-160.19	443.63	429.79	13.84	32.057	
2,600.00	2,577.74	2,563.47	2,544.88	7.57	6.82	-175.14	20.88	-169.87	472.63	458.34	14.29	33.075	
2,700.00	2,674.78	2,657.81	2,637.93	7.79	7.01	-173.65	8.65	-179.51	503.55	488.86	14.69	34.279	
2,800.00	2,771.81	2,752.15	2,730.97	8.06	7.22	-172.35	-3.57	-189.14	534.77	519.65	15.11	35.387	
2,900.00	2,868.84	2,846.49	2,824.02	8.35	7.43	-171.20	-15.80	-198.78	566.20	550.67	15.54	36.440	
3,000.00	2,965.87	2,940.83	2,917.06	8.65	7.65	-170.16	-28.02	-208.41	597.83	581.86	15.97	37.445	
3,100.00	3,062.90	3,035.16	3,010.11	8.95	7.87	-169.23	-40.25	-218.05	629.61	613.22	16.39	38.404	
3,200.00	3,159.93	3,129.50	3,103.15	9.26	8.09	-168.39	-52.47	-227.68	661.53	644.71	16.83	39.318	
3,300.00	3,256.96	3,223.84	3,196.20	9.57	8.31	-167.63	-64.70	-237.32	693.57	676.32	17.26	40.190	
3,400.00	3,353.99	3,318.18	3,289.24	9.88	8.53	-166.93	-76.92	-246.95	725.71	708.02	17.69	41.021	
3,500.00	3,451.02	3,412.51	3,382.29	10.20	8.75	-166.29	-89.15	-256.59	757.94	739.82	18.13	41.814	
3,600.00	3,548.05	3,506.85	3,475.33	10.51	8.97	-165.70	-101.37	-266.22	790.25	771.69	18.56	42.571	
3,700.00	3,645.08	3,601.19	3,568.38	10.83	9.19	-165.16	-113.60	-275.86	822.62	803.62	19.00	43.293	
3,800.00	3,742.11	3,695.53	3,661.42	11.15	9.41	-164.66	-125.82	-285.49	855.06	835.62	19.44	43.983	
3,900.00	3,839.14	3,789.87	3,754.47	11.47	9.63	-164.20	-138.05	-295.13	887.55	867.67	19.88	44.643	
4,000.00	3,936.17	3,884.20	3,847.51	11.79	9.85	-163.77	-150.27	-304.76	920.09	899.77	20.32	45.273	
4,100.00	4,033.20	3,978.54	3,940.56	12.11	10.07	-163.37	-162.50	-314.40	952.68	931.91	20.77	45.877	
4,200.00	4,130.23	4,072.88	4,033.60	12.43	10.30	-162.99	-174.72	-324.03	985.30	964.09	21.21	46.455	
4,300.00	4,227.26	4,167.22	4,126.65	12.76	10.52	-162.64	-186.95	-333.67	1,017.96	996.30	21.65	47.008	
4,400.00	4,324.29	4,261.56	4,219.69	13.08	10.74	-162.31	-199.17	-343.30	1,050.65	1,028.55	22.10	47.539	
4,500.00	4,421.32	4,355.89	4,312.74	13.40	10.97	-162.00	-211.40	-352.94	1,083.37	1,060.82	22.55	48.048	
4,600.00	4,518.35	4,450.23	4,405.78	13.73	11.19	-161.71	-223.62	-362.57	1,116.11	1,093.12	23.00	48.537	
4,700.00	4,615.38	4,544.57	4,498.83	14.06	11.41	-161.43	-235.85	-372.21	1,148.88	1,125.44	23.44	49.006	
4,800.00	4,712.41	4,638.91	4,591.87	14.38	11.64	-161.17	-248.07	-381.84	1,181.68	1,157.78	23.89	49.456	
4,900.00	4,809.44	4,733.24	4,684.92	14.71	11.86	-160.93	-260.30	-391.48	1,214.49	1,190.15	24.34	49.890	
5,000.00	4,906.47	4,827.58	4,777.96	15.04	12.08	-160.70	-272.52	-401.11	1,247.32	1,222.53	24.79	50.307	
5,100.00	5,003.50	4,921.92	4,871.01	15.36	12.31	-160.47	-284.75	-410.75	1,280.17	1,254.93	25.25	50.708	
5,200.00	5,100.53	5,016.26	4,964.05	15.69	12.53	-160.27	-296.98	-420.38	1,313.04	1,287.34	25.70	51.095	
5,300.00	5,197.56	5,110.60	5,057.09	16.02	12.76	-160.07	-309.20	-430.02	1,345.92	1,319.77	26.15	51.467	
5,400.00	5,294.59	5,204.93	5,150.14	16.35	12.98	-159.88	-321.43	-439.65	1,378.82	1,352.21	26.60	51.826	
5,500.00	5,391.62	5,299.27	5,243.18	16.68	13.20	-159.69	-333.65	-449.29	1,411.73	1,384.67	27.06	52.172	
5,600.00	5,488.65	5,405.73	5,348.23	17.01	13.42	-159.51	-347.19	-459.96	1,444.49	1,416.95	27.53	52.465	
5,700.00	5,585.68	5,531.50	5,472.84	17.34	13.69	-159.41	-360.60	-470.53	1,475.62	1,447.53	28.10	52.519	
5,800.00	5,682.71	5,659.02	5,599.68	17.67	13.91	-159.44	-370.90	-478.65	1,504.74	1,476.11	28.63	52.562	
5,900.00	5,779.92	5,788.29	5,728.63	17.97	14.10	-159.69	-377.94	-484.19	1,531.11	1,502.01	29.10	52.610	
6,000.00	5,877.69	5,919.53	5,859.78	18.27	14.24	-160.03	-381.58	-487.06	1,553.06	1,523.52	29.54	52.573	
6,100.00	5,975.98	6,035.73	5,975.98	18.54	14.30	-160.38	-382.07	-487.45	1,570.71	1,540.88	29.84	52.643	
6,200.00	6,074.72	6,134.47	6,074.72	18.77	14.33	-160.64	-382.07	-487.45	1,585.66	1,555.57	30.09	52.704	
6,300.00	6,173.83	6,233.59	6,173.83	18.98	14.36	-160.86	-382.07	-487.45	1,598.17	1,567.85	30.33	52.699	
6,400.00	6,273.26	6,333.02	6,273.26	19.16	14.40	-161.04	-382.07	-487.45	1,608.24	1,577.68	30.56	52.631	
6,500.00	6,372.94	6,432.69	6,372.94	19.31	14.43	-161.17	-382.07	-487.45	1,615.84	1,585.07	30.78	52.503	
6,600.00	6,472.79	6,532.54	6,472.79	19.42	14.47	-161.25	-382.07	-487.45	1,620.98	1,589.99	30.98	52.321	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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:
													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)			
6,700.00	6,572.74	6,632.50	6,572.74	19.52	14.50	161.30	-382.07	-487.45	1,623.64	1,592.47	31.17	52.091	
6,800.00	6,672.74	6,732.50	6,672.74	19.54	14.54	-90.41	-382.07	-487.45	1,624.04	1,592.80	31.24	51.982	
6,900.00	6,772.74	6,832.50	6,772.74	19.58	14.58	-90.41	-382.07	-487.45	1,624.04	1,592.73	31.31	51.863	
7,000.00	6,872.74	6,932.50	6,872.74	19.62	14.61	-90.41	-382.07	-487.45	1,624.04	1,592.65	31.39	51.742	
7,100.00	6,972.74	7,032.50	6,972.74	19.66	14.65	-90.41	-382.07	-487.45	1,624.04	1,592.58	31.46	51.622	
7,200.00	7,072.74	7,132.50	7,072.74	19.70	14.69	-90.41	-382.07	-487.45	1,624.04	1,592.51	31.53	51.501	
7,300.00	7,172.74	7,232.50	7,172.74	19.74	14.73	-90.41	-382.07	-487.45	1,624.04	1,592.43	31.61	51.379	
7,400.00	7,272.74	7,332.50	7,272.74	19.77	14.76	-90.41	-382.07	-487.45	1,624.04	1,592.36	31.68	51.256	
7,500.00	7,372.74	7,432.50	7,372.74	19.81	14.80	-90.41	-382.07	-487.45	1,624.04	1,592.28	31.76	51.134	
7,600.00	7,472.74	7,532.50	7,472.74	19.85	14.84	-90.41	-382.07	-487.45	1,624.04	1,592.20	31.84	51.011	
7,700.00	7,572.74	7,632.50	7,572.74	19.89	14.88	-90.41	-382.07	-487.45	1,624.04	1,592.13	31.91	50.887	
7,800.00	7,672.74	7,732.50	7,672.74	19.93	14.92	-90.41	-382.07	-487.45	1,624.04	1,592.05	31.99	50.763	
7,900.00	7,772.74	7,832.50	7,772.74	19.97	14.96	-90.41	-382.07	-487.45	1,624.04	1,591.97	32.07	50.638	
8,000.00	7,872.74	7,932.50	7,872.74	20.01	15.00	-90.41	-382.07	-487.45	1,624.04	1,591.89	32.15	50.513	
8,100.00	7,972.74	8,032.50	7,972.74	20.05	15.04	-90.41	-382.07	-487.45	1,624.04	1,591.81	32.23	50.388	
8,200.00	8,072.74	8,132.50	8,072.74	20.10	15.08	-90.41	-382.07	-487.45	1,624.04	1,591.73	32.31	50.262	
8,300.00	8,172.74	8,232.50	8,172.74	20.14	15.13	-90.41	-382.07	-487.45	1,624.04	1,591.65	32.39	50.136	
8,400.00	8,272.74	8,332.50	8,272.74	20.18	15.17	-90.41	-382.07	-487.45	1,624.04	1,591.57	32.47	50.010	
8,500.00	8,372.74	8,432.50	8,372.74	20.22	15.21	-90.41	-382.07	-487.45	1,624.04	1,591.49	32.56	49.883	
8,600.00	8,472.74	8,532.50	8,472.74	20.26	15.25	-90.41	-382.07	-487.45	1,624.04	1,591.40	32.64	49.756	
8,700.00	8,572.74	8,632.50	8,572.74	20.30	15.30	-90.41	-382.07	-487.45	1,624.04	1,591.32	32.72	49.629	
8,800.00	8,672.74	8,732.50	8,672.74	20.35	15.34	-90.41	-382.07	-487.45	1,624.04	1,591.23	32.81	49.502	
8,900.00	8,772.74	8,832.50	8,772.74	20.39	15.38	-90.41	-382.07	-487.45	1,624.04	1,591.15	32.89	49.374	
9,000.00	8,872.74	8,932.50	8,872.74	20.43	15.43	-90.41	-382.07	-487.45	1,624.04	1,591.06	32.98	49.246	
9,100.00	8,972.74	9,032.50	8,972.74	20.48	15.47	-90.41	-382.07	-487.45	1,624.04	1,590.98	33.06	49.118	
9,200.00	9,072.74	9,132.50	9,072.74	20.52	15.52	-90.41	-382.07	-487.45	1,624.04	1,590.89	33.15	48.990	
9,300.00	9,172.74	9,232.50	9,172.74	20.56	15.56	-90.41	-382.07	-487.45	1,624.04	1,590.80	33.24	48.861	
9,400.00	9,272.74	9,332.50	9,272.74	20.61	15.61	-90.41	-382.07	-487.45	1,624.04	1,590.72	33.33	48.732	
9,500.00	9,372.74	9,432.50	9,372.74	20.65	15.65	-90.41	-382.07	-487.45	1,624.04	1,590.63	33.41	48.604	
9,600.00	9,472.74	9,532.50	9,472.74	20.70	15.70	-90.41	-382.07	-487.45	1,624.04	1,590.54	33.50	48.475	
9,700.00	9,572.74	9,632.50	9,572.74	20.74	15.74	-90.41	-382.07	-487.45	1,624.04	1,590.45	33.59	48.345	
9,800.00	9,672.74	9,732.50	9,672.74	20.79	15.79	-90.41	-382.07	-487.45	1,624.04	1,590.36	33.68	48.216	
9,900.00	9,772.74	9,832.50	9,772.74	20.83	15.84	-90.41	-382.07	-487.45	1,624.04	1,590.27	33.77	48.087	
10,000.00	9,872.74	9,932.50	9,872.74	20.88	15.88	-90.41	-382.07	-487.45	1,624.04	1,590.18	33.86	47.958	
10,100.00	9,972.74	10,032.50	9,972.74	20.92	15.93	-90.41	-382.07	-487.45	1,624.04	1,590.09	33.96	47.828	
10,200.00	10,072.74	10,132.50	10,072.74	20.97	15.98	-90.41	-382.07	-487.45	1,624.04	1,589.99	34.05	47.699	
10,300.00	10,172.74	10,232.50	10,172.74	21.01	16.03	-90.41	-382.07	-487.45	1,624.04	1,589.90	34.14	47.569	
10,400.00	10,272.74	10,332.50	10,272.74	21.06	16.08	-90.41	-382.07	-487.45	1,624.04	1,589.81	34.23	47.439	
10,500.00	10,372.74	10,432.50	10,372.74	21.11	16.12	-90.41	-382.07	-487.45	1,624.04	1,589.71	34.33	47.310	
10,600.00	10,472.74	10,532.50	10,472.74	21.15	16.17	-90.41	-382.07	-487.45	1,624.04	1,589.62	34.42	47.180	
10,700.00	10,572.74	10,632.50	10,572.74	21.20	16.22	-90.41	-382.07	-487.45	1,624.04	1,589.53	34.52	47.050	
10,800.00	10,672.74	10,732.50	10,672.74	21.25	16.27	-90.41	-382.07	-487.45	1,624.04	1,589.43	34.61	46.921	
10,900.00	10,772.74	10,832.50	10,772.74	21.29	16.32	-90.41	-382.07	-487.45	1,624.04	1,589.33	34.71	46.791	
11,000.00	10,872.74	10,932.50	10,872.74	21.34	16.37	-90.41	-382.07	-487.45	1,624.04	1,589.24	34.80	46.662	
11,100.00	10,972.74	11,032.50	10,972.74	21.39	16.42	-90.41	-382.07	-487.45	1,624.04	1,589.14	34.90	46.532	
11,200.00	11,072.74	11,132.50	11,072.74	21.44	16.47	-90.41	-382.07	-487.45	1,624.04	1,589.04	35.00	46.403	
11,300.00	11,172.74	11,232.50	11,172.74	21.49	16.52	-90.41	-382.07	-487.45	1,624.04	1,588.95	35.10	46.273	
11,400.00	11,272.74	11,332.50	11,272.74	21.53	16.58	-90.41	-382.07	-487.45	1,624.04	1,588.85	35.19	46.144	
11,500.00	11,372.74	11,432.50	11,372.74	21.58	16.63	-90.41	-382.07	-487.45	1,624.04	1,588.75	35.29	46.015	
11,600.00	11,472.74	11,532.50	11,472.74	21.63	16.67	-90.41	-382.07	-487.45	1,624.04	1,588.66	35.39	45.886	
11,700.00	11,572.74	11,632.50	11,572.74	21.68	16.75	-90.55	-386.01	-487.57	1,624.21	1,588.73	35.48	45.775	
11,800.00	11,672.74	11,732.50	11,672.74	21.73	16.83	-91.14	-402.64	-488.08	1,625.11	1,589.44	35.67	45.566	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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:
														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	
11,900.00	11,772.74	11,791.97	11,725.75	21.78	17.15	-92.07	-429.26	-488.89	1,627.19	1,591.25	35.93	45.285		
12,000.00	11,872.61	11,864.85	11,790.60	21.84	17.40	87.10	-462.38	-489.90	1,630.95	1,594.71	36.24	45.003		
12,100.00	11,970.52	11,934.92	11,848.51	21.99	17.68	85.65	-501.74	-491.11	1,636.01	1,599.34	36.67	44.619		
12,200.00	12,063.53	12,000.00	11,897.62	22.19	17.99	84.30	-544.36	-492.41	1,641.91	1,604.70	37.21	44.127		
12,300.00	12,148.80	12,070.06	11,944.72	22.45	18.40	82.98	-596.15	-493.99	1,648.22	1,610.30	37.92	43.461		
12,400.00	12,223.74	12,135.93	11,982.93	22.78	18.85	81.85	-649.73	-495.63	1,654.57	1,615.82	38.75	42.695		
12,500.00	12,286.09	12,200.00	12,013.95	23.20	19.33	80.89	-705.73	-497.34	1,660.60	1,620.91	39.69	41.839		
12,600.00	12,333.93	12,265.72	12,039.08	23.71	19.88	80.13	-766.39	-499.19	1,666.01	1,625.26	40.75	40.885		
12,700.00	12,365.83	12,330.12	12,056.80	24.31	20.47	79.59	-828.23	-501.08	1,670.56	1,628.69	41.88	39.892		
12,800.00	12,380.81	12,400.00	12,068.05	24.99	21.14	79.31	-897.13	-503.19	1,674.12	1,630.99	43.12	38.821		
12,900.00	12,382.30	12,472.93	12,071.08	25.74	21.87	79.31	-969.93	-505.35	1,677.23	1,632.76	44.47	37.718		
13,000.00	12,382.83	12,627.19	12,072.16	26.54	23.48	79.33	-1,124.18	-505.50	1,677.84	1,630.92	46.92	35.759		
13,100.00	12,383.35	12,727.19	12,072.85	27.39	24.56	79.34	-1,224.17	-504.59	1,677.81	1,629.01	48.80	34.380		
13,200.00	12,383.88	12,827.19	12,073.55	28.28	25.66	79.34	-1,324.16	-503.69	1,677.78	1,627.03	50.76	33.055		
13,300.00	12,384.40	12,927.19	12,074.25	29.20	26.80	79.35	-1,424.16	-502.78	1,677.75	1,624.98	52.78	31.790		
13,400.00	12,384.93	13,027.19	12,074.95	30.16	27.95	79.35	-1,524.15	-501.87	1,677.72	1,622.87	54.85	30.586		
13,500.00	12,385.46	13,127.19	12,075.65	31.14	29.12	79.36	-1,624.14	-500.97	1,677.69	1,620.71	56.98	29.443		
13,600.00	12,385.98	13,227.19	12,076.34	32.15	30.30	79.36	-1,724.14	-500.06	1,677.66	1,618.51	59.16	28.360		
13,700.00	12,386.51	13,327.19	12,077.04	33.18	31.50	79.37	-1,824.13	-499.15	1,677.63	1,616.26	61.37	27.335		
13,800.00	12,387.03	13,427.19	12,077.74	34.23	32.72	79.38	-1,924.12	-498.25	1,677.60	1,613.98	63.63	26.366		
13,900.00	12,387.56	13,527.19	12,078.44	35.31	33.94	79.38	-2,024.12	-497.34	1,677.57	1,611.66	65.91	25.451		
14,000.00	12,388.09	13,627.19	12,079.14	36.40	35.18	79.39	-2,124.11	-496.43	1,677.54	1,609.31	68.23	24.586		
14,100.00	12,388.61	13,727.19	12,079.84	37.51	36.42	79.39	-2,224.10	-495.52	1,677.51	1,606.94	70.58	23.769		
14,200.00	12,389.14	13,827.19	12,080.53	38.63	37.67	79.40	-2,324.10	-494.62	1,677.48	1,604.54	72.94	22.997		
14,300.00	12,389.66	13,927.19	12,081.23	39.77	38.93	79.40	-2,424.09	-493.71	1,677.45	1,602.12	75.34	22.267		
14,400.00	12,390.19	14,027.19	12,081.93	40.92	40.20	79.41	-2,524.08	-492.80	1,677.42	1,599.68	77.75	21.576		
14,500.00	12,390.71	14,127.19	12,082.63	42.08	41.47	79.42	-2,624.08	-491.90	1,677.39	1,597.22	80.18	20.921		
14,600.00	12,391.24	14,227.19	12,083.33	43.26	42.75	79.42	-2,724.07	-490.99	1,677.36	1,594.74	82.62	20.301		
14,700.00	12,391.77	14,327.19	12,084.03	44.44	44.04	79.43	-2,824.06	-490.08	1,677.33	1,592.25	85.08	19.714		
14,800.00	12,392.29	14,427.19	12,084.72	45.64	45.32	79.43	-2,924.06	-489.18	1,677.30	1,589.74	87.56	19.156		
14,900.00	12,392.82	14,527.19	12,085.42	46.84	46.62	79.44	-3,024.05	-488.27	1,677.27	1,587.22	90.05	18.626		
15,000.00	12,393.34	14,627.19	12,086.12	48.05	47.91	79.45	-3,124.04	-487.36	1,677.24	1,584.69	92.55	18.122		
15,100.00	12,393.87	14,727.19	12,086.82	49.27	49.22	79.45	-3,224.04	-486.46	1,677.21	1,582.15	95.06	17.643		
15,200.00	12,394.40	14,827.19	12,087.52	50.50	50.52	79.46	-3,324.03	-485.55	1,677.18	1,579.60	97.58	17.187		
15,300.00	12,394.92	14,927.19	12,088.21	51.73	51.83	79.46	-3,424.02	-484.64	1,677.15	1,577.04	100.12	16.752		
15,400.00	12,395.45	15,027.19	12,088.91	52.97	53.14	79.47	-3,524.02	-483.74	1,677.12	1,574.47	102.66	16.337		
15,500.00	12,395.97	15,127.19	12,089.61	54.21	54.45	79.47	-3,624.01	-482.83	1,677.09	1,571.89	105.20	15.941		
15,600.00	12,396.50	15,227.19	12,090.31	55.47	55.77	79.48	-3,724.00	-481.92	1,677.06	1,569.30	107.76	15.563		
15,700.00	12,397.03	15,327.19	12,091.01	56.72	57.09	79.49	-3,824.00	-481.02	1,677.03	1,566.71	110.32	15.201		
15,800.00	12,397.55	15,427.19	12,091.71	57.98	58.41	79.49	-3,923.99	-480.11	1,677.00	1,564.11	112.89	14.855		
15,900.00	12,398.08	15,527.19	12,092.40	59.25	59.73	79.50	-4,023.98	-479.20	1,676.97	1,561.51	115.47	14.523		
16,000.00	12,398.60	15,627.19	12,093.10	60.52	61.06	79.50	-4,123.98	-478.30	1,676.94	1,558.90	118.05	14.206		
16,100.00	12,399.13	15,727.19	12,093.80	61.79	62.38	79.51	-4,223.97	-477.39	1,676.92	1,556.28	120.63	13.901		
16,200.00	12,399.65	15,827.19	12,094.50	63.07	63.71	79.51	-4,323.96	-476.48	1,676.89	1,553.66	123.23	13.608		
16,300.00	12,400.18	15,927.19	12,095.20	64.35	65.04	79.52	-4,423.96	-475.58	1,676.86	1,551.03	125.82	13.327		
16,400.00	12,400.71	16,027.19	12,095.90	65.63	66.38	79.53	-4,523.95	-474.67	1,676.83	1,548.40	128.42	13.057		
16,500.00	12,401.23	16,127.19	12,096.59	66.92	67.71	79.53	-4,623.94	-473.76	1,676.80	1,545.77	131.03	12.797		
16,600.00	12,401.76	16,227.19	12,097.29	68.21	69.04	79.54	-4,723.94	-472.85	1,676.77	1,543.13	133.64	12.547		
16,700.00	12,402.28	16,327.19	12,097.99	69.51	70.38	79.54	-4,823.93	-471.95	1,676.74	1,540.49	136.25	12.307		
16,800.00	12,402.81	16,427.19	12,098.69	70.80	71.72	79.55	-4,923.92	-471.04	1,676.71	1,537.84	138.86	12.075		
16,900.00	12,403.34	16,527.18	12,099.39	72.10	73.05	79.56	-5,023.92	-470.13	1,676.68	1,535.20	141.48	11.851		
17,000.00	12,403.86	16,627.18	12,100.08	73.40	74.39	79.56	-5,123.91	-469.23	1,676.65	1,532.54	144.10	11.635		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)		
17,100.00	12,404.39	16,727.18	12,100.78	74.71	75.74	79.57	-5,223.90	-468.32	1,676.62	1,529.89	146.73	11.427
17,200.00	12,404.91	16,827.18	12,101.48	76.01	77.08	79.57	-5,323.90	-467.41	1,676.59	1,527.23	149.36	11.225
17,300.00	12,405.44	16,927.18	12,102.18	77.32	78.42	79.58	-5,423.89	-466.51	1,676.56	1,524.57	151.99	11.031
17,400.00	12,405.96	17,027.18	12,102.88	78.63	79.76	79.58	-5,523.88	-465.60	1,676.53	1,521.91	154.62	10.843
17,500.00	12,406.49	17,127.18	12,103.58	79.94	81.11	79.59	-5,623.88	-464.69	1,676.50	1,519.24	157.26	10.661
17,600.00	12,407.02	17,227.18	12,104.27	81.26	82.45	79.60	-5,723.87	-463.79	1,676.47	1,516.58	159.89	10.485
17,700.00	12,407.54	17,327.18	12,104.97	82.57	83.80	79.60	-5,823.86	-462.88	1,676.44	1,513.91	162.53	10.314
17,800.00	12,408.07	17,427.18	12,105.67	83.89	85.14	79.61	-5,923.86	-461.97	1,676.41	1,511.24	165.18	10.149
17,900.00	12,408.59	17,527.18	12,106.37	85.21	86.49	79.61	-6,023.85	-461.07	1,676.38	1,508.56	167.82	9.989
18,000.00	12,409.12	17,627.18	12,107.07	86.53	87.84	79.62	-6,123.84	-460.16	1,676.35	1,505.89	170.47	9.834
18,100.00	12,409.65	17,727.18	12,107.77	87.85	89.19	79.63	-6,223.84	-459.25	1,676.32	1,503.21	173.11	9.683
18,200.00	12,410.17	17,827.18	12,108.46	89.18	90.54	79.63	-6,323.83	-458.35	1,676.29	1,500.53	175.76	9.537
18,300.00	12,410.70	17,927.18	12,109.16	90.50	91.89	79.64	-6,423.82	-457.44	1,676.27	1,497.85	178.42	9.395
18,400.00	12,411.22	18,027.18	12,109.86	91.83	93.24	79.64	-6,523.82	-456.53	1,676.24	1,495.17	181.07	9.257
18,500.00	12,411.75	18,127.18	12,110.56	93.15	94.59	79.65	-6,623.81	-455.63	1,676.21	1,492.48	183.72	9.124
18,600.00	12,412.27	18,227.18	12,111.26	94.48	95.94	79.65	-6,723.80	-454.72	1,676.18	1,489.80	186.38	8.993
18,700.00	12,412.80	18,327.18	12,111.96	95.81	97.29	79.66	-6,823.80	-453.81	1,676.15	1,487.11	189.04	8.867
18,800.00	12,413.33	18,427.18	12,112.65	97.14	98.65	79.67	-6,923.79	-452.90	1,676.12	1,484.42	191.69	8.744
18,900.00	12,413.85	18,527.18	12,113.35	98.47	100.00	79.67	-7,023.78	-452.00	1,676.09	1,481.74	194.35	8.624
19,000.00	12,414.38	18,627.18	12,114.05	99.81	101.35	79.68	-7,123.78	-451.09	1,676.06	1,479.04	197.02	8.507
19,100.00	12,414.90	18,727.18	12,114.75	101.14	102.71	79.68	-7,223.77	-450.18	1,676.03	1,476.35	199.68	8.394
19,200.00	12,415.43	18,827.18	12,115.45	102.47	104.06	79.69	-7,323.76	-449.28	1,676.00	1,473.66	202.34	8.283
19,300.00	12,415.96	18,927.18	12,116.14	103.81	105.41	79.69	-7,423.76	-448.37	1,675.97	1,470.97	205.01	8.175
19,400.00	12,416.48	19,027.18	12,116.84	105.15	106.77	79.70	-7,523.75	-447.46	1,675.94	1,468.27	207.67	8.070
19,500.00	12,417.01	19,127.18	12,117.54	106.48	108.12	79.71	-7,623.74	-446.56	1,675.91	1,465.58	210.34	7.968
19,600.00	12,417.53	19,227.18	12,118.24	107.82	109.48	79.71	-7,723.74	-445.65	1,675.89	1,462.88	213.01	7.868
19,700.00	12,418.06	19,327.18	12,118.94	109.16	110.84	79.72	-7,823.73	-444.74	1,675.86	1,460.18	215.68	7.770
19,800.00	12,418.59	19,427.18	12,119.64	110.50	112.19	79.72	-7,923.72	-443.84	1,675.83	1,457.48	218.34	7.675
19,900.00	12,419.11	19,527.18	12,120.33	111.84	113.55	79.73	-8,023.72	-442.93	1,675.80	1,454.78	221.02	7.582
20,000.00	12,419.64	19,627.18	12,121.03	113.18	114.91	79.74	-8,123.71	-442.02	1,675.77	1,452.08	223.69	7.492
20,100.00	12,420.16	19,727.18	12,121.73	114.52	116.26	79.74	-8,223.70	-441.12	1,675.74	1,449.38	226.36	7.403
20,200.00	12,420.69	19,827.18	12,122.43	115.86	117.62	79.75	-8,323.70	-440.21	1,675.71	1,446.68	229.03	7.316
20,300.00	12,421.21	19,927.18	12,123.13	117.20	118.98	79.75	-8,423.69	-439.30	1,675.68	1,443.97	231.71	7.232
20,400.00	12,421.74	20,027.18	12,123.83	118.55	120.34	79.76	-8,523.68	-438.40	1,675.65	1,441.27	234.38	7.149
20,500.00	12,422.27	20,127.18	12,124.52	119.89	121.70	79.76	-8,623.68	-437.49	1,675.62	1,438.57	237.06	7.068
20,600.00	12,422.79	20,227.18	12,125.22	121.24	123.05	79.77	-8,723.67	-436.58	1,675.59	1,435.86	239.73	6.989
20,700.00	12,423.32	20,327.18	12,125.92	122.58	124.41	79.78	-8,823.66	-435.68	1,675.57	1,433.16	242.41	6.912
20,800.00	12,423.84	20,427.18	12,126.62	123.93	125.77	79.78	-8,923.66	-434.77	1,675.54	1,430.45	245.09	6.836
20,900.00	12,424.37	20,527.18	12,127.32	125.27	127.13	79.79	-9,023.65	-433.86	1,675.51	1,427.74	247.77	6.762
21,000.00	12,424.90	20,627.18	12,128.01	126.62	128.49	79.79	-9,123.64	-432.96	1,675.48	1,425.03	250.45	6.690
21,100.00	12,425.42	20,727.18	12,128.71	127.97	129.85	79.80	-9,223.64	-432.05	1,675.45	1,422.33	253.13	6.619
21,200.00	12,425.95	20,827.18	12,129.41	129.31	131.21	79.81	-9,323.63	-431.14	1,675.42	1,419.62	255.81	6.550
21,300.00	12,426.47	20,927.18	12,130.11	130.66	132.57	79.81	-9,423.62	-430.23	1,675.39	1,416.91	258.49	6.482
21,400.00	12,427.00	21,027.18	12,130.81	132.01	133.93	79.82	-9,523.62	-429.33	1,675.36	1,414.20	261.17	6.415
21,500.00	12,427.52	21,127.18	12,131.51	133.36	135.29	79.82	-9,623.61	-428.42	1,675.33	1,411.49	263.85	6.350
21,600.00	12,428.05	21,227.18	12,132.20	134.71	136.65	79.83	-9,723.60	-427.51	1,675.31	1,408.77	266.53	6.286
21,700.00	12,428.58	21,327.18	12,132.90	136.06	138.01	79.83	-9,823.60	-426.61	1,675.28	1,406.06	269.22	6.223
21,800.00	12,429.10	21,427.18	12,133.60	137.41	139.37	79.84	-9,923.59	-425.70	1,675.25	1,403.35	271.90	6.161
21,900.00	12,429.63	21,527.18	12,134.30	138.76	140.73	79.85	-10,023.58	-424.79	1,675.22	1,400.64	274.58	6.101
22,000.00	12,430.15	21,627.18	12,135.00	140.11	142.10	79.85	-10,123.57	-423.89	1,675.19	1,397.92	277.27	6.042
22,100.00	12,430.68	21,727.18	12,135.70	141.46	143.46	79.86	-10,223.57	-422.98	1,675.16	1,395.21	279.95	5.984
22,200.00	12,431.21	21,827.18	12,136.39	142.81	144.82	79.86	-10,323.56	-422.07	1,675.13	1,392.50	282.64	5.927

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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		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	
22,300.00	12,431.73	21,927.18	12,137.09	144.16	146.18	79.87	-10,423.55	-421.17	1,675.11	1,389.78	285.32	5.871	
22,400.00	12,432.26	22,027.18	12,137.79	145.51	147.54	79.87	-10,523.55	-420.26	1,675.08	1,387.07	288.01	5.816	
22,500.00	12,432.78	22,127.18	12,138.49	146.87	148.90	79.88	-10,623.54	-419.35	1,675.05	1,384.35	290.70	5.762	
22,600.00	12,433.31	22,227.18	12,139.19	148.22	150.27	79.89	-10,723.53	-418.45	1,675.02	1,381.63	293.39	5.709	
22,700.00	12,433.83	22,327.18	12,139.88	149.57	151.63	79.89	-10,823.53	-417.54	1,674.99	1,378.92	296.07	5.657	
22,760.48	12,434.15	22,387.52	12,140.31	150.43	152.46	79.90	-10,883.87	-416.99	1,674.97	1,377.28	297.69	5.627	
22,770.20	12,434.20	22,387.52	12,140.31	150.56	152.46	79.90	-10,883.87	-416.99	1,675.00	1,377.23	297.77	5.625	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance					
Measured	Vertical	Measured	Vertical	Reference	Major	Highside			Between	Between	Minimum	Separation	Warning
Depth	Depth	Depth	Depth		Offset	Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
0.00	0.00	1.00	0.00	0.50	0.50	-26.57	50.00	-25.00	55.90				
100.00	100.00	101.00	100.00	0.98	0.98	-26.57	50.00	-25.00	55.90	53.95	1.96	28.573	
200.00	200.00	201.00	200.00	1.56	1.56	-26.57	50.00	-25.00	55.90	52.78	3.12	17.921	
300.00	300.00	301.00	300.00	1.98	1.98	-26.57	50.00	-25.00	55.90	51.94	3.96	14.116	CC, ES
400.00	399.99	400.99	399.99	2.41	2.33	-134.71	50.00	-25.00	56.81	52.12	4.69	12.103	
500.00	499.91	500.91	499.91	2.78	2.63	-137.36	50.00	-25.00	59.64	54.30	5.34	11.174	
600.00	599.69	600.69	599.69	3.11	2.91	-141.24	50.00	-25.00	64.61	58.68	5.93	10.892	
700.00	699.27	700.27	699.27	3.42	3.16	-145.74	50.00	-25.00	71.98	65.49	6.49	11.086	
800.00	798.57	799.57	798.57	3.71	3.40	-150.28	50.00	-25.00	81.98	74.95	7.03	11.664	
900.00	897.62	898.62	897.62	3.84	3.62	-154.41	50.00	-25.00	94.21	86.81	7.40	12.730	
1,000.00	996.65	997.65	996.65	4.07	3.83	-157.63	50.00	-25.00	106.95	99.10	7.85	13.621	
1,100.00	1,095.67	1,096.67	1,095.67	4.29	4.03	-160.15	50.00	-25.00	119.95	111.67	8.29	14.476	
1,200.00	1,194.70	1,195.70	1,194.70	4.51	4.22	-162.19	50.00	-25.00	133.14	124.43	8.71	15.292	
1,300.00	1,293.73	1,294.73	1,293.73	4.73	4.41	-163.85	50.00	-25.00	146.46	137.35	9.12	16.067	
1,400.00	1,392.75	1,394.74	1,393.74	4.95	4.49	-165.33	49.74	-25.00	159.75	150.33	9.42	16.957	
1,500.00	1,491.78	1,496.09	1,495.06	5.17	4.68	-167.25	47.21	-25.00	172.01	162.22	9.79	17.567	
1,600.00	1,590.81	1,597.46	1,596.29	5.38	4.86	-169.65	41.99	-25.00	183.20	173.04	10.16	18.031	
1,700.00	1,689.83	1,699.19	1,697.70	5.59	4.98	-172.49	34.07	-24.97	193.52	183.05	10.47	18.483	
1,800.00	1,788.86	1,803.79	1,801.82	5.80	5.14	-175.37	24.22	-23.25	202.16	191.31	10.85	18.640	
1,900.00	1,887.89	1,908.81	1,906.17	6.01	5.29	-178.06	13.22	-18.88	208.49	197.29	11.20	18.611	
2,000.00	1,986.91	2,010.42	2,006.93	6.22	5.37	-179.44	1.71	-12.61	213.04	201.55	11.49	18.541	
2,100.00	2,085.94	2,109.91	2,105.57	6.43	5.52	177.08	-9.64	-6.28	217.78	205.92	11.85	18.371	
2,200.00	2,184.97	2,209.40	2,204.21	6.64	5.68	174.84	-20.98	0.04	222.87	210.65	12.22	18.237	
2,300.00	2,283.86	2,308.85	2,302.81	6.84	5.84	172.38	-32.33	6.36	229.21	216.64	12.57	18.231	
2,400.00	2,382.33	2,408.14	2,401.24	7.08	6.00	170.19	-43.65	12.67	238.38	225.40	12.98	18.370	
2,500.00	2,480.31	2,507.19	2,499.45	7.32	6.16	168.33	-54.94	18.97	250.31	236.93	13.38	18.703	
2,600.00	2,577.74	2,605.95	2,597.36	7.57	6.32	166.81	-66.20	25.25	264.92	251.13	13.79	19.205	
2,700.00	2,674.78	2,704.48	2,695.05	7.79	6.49	165.70	-77.44	31.51	281.25	267.09	14.16	19.867	
2,800.00	2,771.81	2,803.00	2,792.73	8.06	6.65	164.75	-88.68	37.77	297.69	283.14	14.55	20.460	
2,900.00	2,868.84	2,901.53	2,890.41	8.35	6.82	163.90	-99.91	44.03	314.21	299.26	14.95	21.022	
3,000.00	2,965.87	3,000.05	2,988.09	8.65	6.98	163.14	-111.15	50.30	330.78	315.44	15.35	21.554	
3,100.00	3,062.90	3,098.58	3,085.77	8.95	7.15	162.44	-122.38	56.56	347.41	331.66	15.75	22.058	
3,200.00	3,159.93	3,197.10	3,183.46	9.26	7.32	161.82	-133.62	62.82	364.08	347.93	16.16	22.535	
3,300.00	3,256.96	3,295.63	3,281.14	9.57	7.49	161.24	-144.85	69.08	380.80	364.23	16.57	22.987	
3,400.00	3,353.99	3,394.15	3,378.82	9.88	7.66	160.72	-156.09	75.35	397.54	380.56	16.98	23.416	
3,500.00	3,451.02	3,492.68	3,476.50	10.20	7.83	160.23	-167.32	81.61	414.32	396.92	17.39	23.823	
3,600.00	3,548.05	3,591.20	3,574.18	10.51	8.01	159.79	-178.56	87.87	431.12	413.31	17.81	24.209	
3,700.00	3,645.08	3,689.73	3,671.86	10.83	8.18	159.37	-189.79	94.13	447.94	429.72	18.23	24.576	
3,800.00	3,742.11	3,788.25	3,769.55	11.15	8.36	158.99	-201.03	100.40	464.79	446.14	18.65	24.925	
3,900.00	3,839.14	3,886.78	3,867.23	11.47	8.53	158.63	-212.26	106.66	481.65	462.58	19.07	25.257	
4,000.00	3,936.17	3,985.30	3,964.91	11.79	8.71	158.30	-223.50	112.92	498.54	479.04	19.49	25.573	
4,100.00	4,033.20	4,083.83	4,062.59	12.11	8.88	157.99	-234.74	119.18	515.43	495.51	19.92	25.874	
4,200.00	4,130.23	4,182.35	4,160.27	12.43	9.06	157.70	-245.97	125.44	532.34	511.99	20.35	26.162	
4,300.00	4,227.26	4,280.88	4,257.95	12.76	9.24	157.43	-257.21	131.71	549.27	528.49	20.78	26.436	
4,400.00	4,324.29	4,379.40	4,355.64	13.08	9.41	157.17	-268.44	137.97	566.20	544.99	21.21	26.698	
4,500.00	4,421.32	4,477.93	4,453.32	13.40	9.59	156.93	-279.68	144.23	583.15	561.51	21.64	26.948	
4,600.00	4,518.35	4,576.45	4,551.00	13.73	9.77	156.71	-290.91	150.49	600.10	578.03	22.07	27.187	
4,700.00	4,615.38	4,674.98	4,648.68	14.06	9.95	156.49	-302.15	156.76	617.06	594.56	22.51	27.416	
4,800.00	4,712.41	4,773.50	4,746.36	14.38	10.13	156.29	-313.38	163.02	634.03	611.09	22.94	27.636	
4,900.00	4,809.44	4,872.03	4,844.05	14.71	10.31	156.09	-324.62	169.28	651.01	627.63	23.38	27.846	
5,000.00	4,906.47	4,970.55	4,941.73	15.04	10.49	155.91	-335.85	175.54	668.00	644.18	23.82	28.048	
5,100.00	5,003.50	5,069.08	5,039.41	15.36	10.66	155.74	-347.09	181.81	684.99	660.75	24.24	28.255	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		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	
5,200.00	5,100.53	5,161.75	5,131.39	15.69	10.82	155.64	-356.94	187.29	702.34	677.70	24.64	28.504	
5,300.00	5,197.56	5,253.23	5,222.43	16.02	10.99	155.72	-364.76	191.66	720.63	695.61	25.03	28.794	
5,400.00	5,294.59	5,344.30	5,313.25	16.35	11.15	155.95	-370.66	194.94	739.87	714.48	25.39	29.142	
5,500.00	5,391.62	5,434.85	5,403.68	16.68	11.31	156.31	-374.65	197.17	760.08	734.35	25.73	29.544	
5,600.00	5,488.65	5,524.78	5,493.58	17.01	11.44	156.80	-376.75	198.34	781.29	755.26	26.03	30.015	
5,700.00	5,585.68	5,616.89	5,585.68	17.34	11.50	157.42	-377.13	198.55	803.47	777.19	26.28	30.573	
5,800.00	5,682.71	5,713.92	5,682.71	17.67	11.55	158.06	-377.13	198.55	825.95	799.41	26.55	31.115	
5,900.00	5,779.92	5,811.13	5,779.92	17.97	11.60	158.74	-377.13	198.55	847.84	821.05	26.79	31.644	
6,000.00	5,877.69	5,908.90	5,877.69	18.27	11.65	159.35	-377.13	198.55	867.49	840.42	27.06	32.056	
6,100.00	5,975.98	6,007.19	5,975.98	18.54	11.70	159.86	-377.13	198.55	884.78	857.45	27.32	32.380	
6,200.00	6,074.72	6,105.92	6,074.72	18.77	11.75	160.28	-377.13	198.55	899.68	872.10	27.58	32.619	
6,300.00	6,173.83	6,205.04	6,173.83	18.98	11.80	160.63	-377.13	198.55	912.17	884.34	27.83	32.775	
6,400.00	6,273.26	6,304.47	6,273.26	19.16	11.86	160.89	-377.13	198.55	922.23	894.15	28.07	32.851	
6,500.00	6,372.94	6,404.14	6,372.94	19.31	11.91	161.09	-377.13	198.55	929.83	901.52	28.30	32.851	
6,600.00	6,472.79	6,503.99	6,472.79	19.42	11.96	161.23	-377.13	198.55	934.96	906.43	28.52	32.778	
6,700.00	6,572.74	6,603.95	6,572.74	19.52	12.02	161.29	-377.13	198.55	937.62	908.89	28.73	32.640	
6,800.00	6,672.74	6,703.95	6,672.74	19.54	12.07	-90.41	-377.13	198.55	938.02	909.21	28.82	32.552	
6,900.00	6,772.74	6,803.95	6,772.74	19.58	12.13	-90.41	-377.13	198.55	938.02	909.12	28.90	32.453	
7,000.00	6,872.74	6,903.95	6,872.74	19.62	12.18	-90.41	-377.13	198.55	938.02	909.03	28.99	32.353	
7,100.00	6,972.74	7,003.95	6,972.74	19.66	12.24	-90.41	-377.13	198.55	938.02	908.94	29.08	32.254	
7,200.00	7,072.74	7,103.95	7,072.74	19.70	12.30	-90.41	-377.13	198.55	938.02	908.85	29.17	32.154	
7,300.00	7,172.74	7,203.95	7,172.74	19.74	12.35	-90.41	-377.13	198.55	938.02	908.76	29.26	32.054	
7,400.00	7,272.74	7,303.95	7,272.74	19.77	12.41	-90.41	-377.13	198.55	938.02	908.67	29.36	31.954	
7,500.00	7,372.74	7,403.95	7,372.74	19.81	12.47	-90.41	-377.13	198.55	938.02	908.58	29.45	31.854	
7,600.00	7,472.74	7,503.95	7,472.74	19.85	12.52	-90.41	-377.13	198.55	938.02	908.48	29.54	31.754	
7,700.00	7,572.74	7,603.95	7,572.74	19.89	12.58	-90.41	-377.13	198.55	938.02	908.39	29.63	31.654	
7,800.00	7,672.74	7,703.95	7,672.74	19.93	12.64	-90.41	-377.13	198.55	938.02	908.30	29.73	31.554	
7,900.00	7,772.74	7,803.95	7,772.74	19.97	12.70	-90.41	-377.13	198.55	938.02	908.20	29.82	31.454	
8,000.00	7,872.74	7,903.95	7,872.74	20.01	12.75	-90.41	-377.13	198.55	938.02	908.11	29.92	31.354	
8,100.00	7,972.74	8,003.95	7,972.74	20.05	12.81	-90.41	-377.13	198.55	938.02	908.01	30.01	31.254	
8,200.00	8,072.74	8,103.95	8,072.74	20.10	12.87	-90.41	-377.13	198.55	938.02	907.92	30.11	31.155	
8,300.00	8,172.74	8,203.95	8,172.74	20.14	12.93	-90.41	-377.13	198.55	938.02	907.82	30.21	31.055	
8,400.00	8,272.74	8,303.95	8,272.74	20.18	12.99	-90.41	-377.13	198.55	938.02	907.72	30.30	30.955	
8,500.00	8,372.74	8,403.95	8,372.74	20.22	13.05	-90.41	-377.13	198.55	938.02	907.62	30.40	30.855	
8,600.00	8,472.74	8,503.95	8,472.74	20.26	13.11	-90.41	-377.13	198.55	938.02	907.52	30.50	30.756	
8,700.00	8,572.74	8,603.95	8,572.74	20.30	13.17	-90.41	-377.13	198.55	938.02	907.43	30.60	30.656	
8,800.00	8,672.74	8,703.95	8,672.74	20.35	13.23	-90.41	-377.13	198.55	938.02	907.33	30.70	30.557	
8,900.00	8,772.74	8,803.95	8,772.74	20.39	13.29	-90.41	-377.13	198.55	938.02	907.23	30.80	30.457	
9,000.00	8,872.74	8,903.95	8,872.74	20.43	13.35	-90.41	-377.13	198.55	938.02	907.13	30.90	30.358	
9,100.00	8,972.74	9,003.95	8,972.74	20.48	13.41	-90.41	-377.13	198.55	938.02	907.02	31.00	30.259	
9,200.00	9,072.74	9,103.95	9,072.74	20.52	13.47	-90.41	-377.13	198.55	938.02	906.92	31.10	30.160	
9,300.00	9,172.74	9,203.95	9,172.74	20.56	13.53	-90.41	-377.13	198.55	938.02	906.82	31.20	30.062	
9,400.00	9,272.74	9,303.95	9,272.74	20.61	13.59	-90.41	-377.13	198.55	938.02	906.72	31.31	29.963	
9,500.00	9,372.74	9,403.95	9,372.74	20.65	13.66	-90.41	-377.13	198.55	938.02	906.62	31.41	29.865	
9,600.00	9,472.74	9,503.95	9,472.74	20.70	13.72	-90.41	-377.13	198.55	938.02	906.51	31.51	29.766	
9,700.00	9,572.74	9,603.95	9,572.74	20.74	13.78	-90.41	-377.13	198.55	938.02	906.41	31.62	29.668	
9,800.00	9,672.74	9,703.95	9,672.74	20.79	13.84	-90.41	-377.13	198.55	938.02	906.30	31.72	29.571	
9,900.00	9,772.74	9,803.95	9,772.74	20.83	13.91	-90.41	-377.13	198.55	938.02	906.20	31.83	29.473	
10,000.00	9,872.74	9,903.95	9,872.74	20.88	13.97	-90.41	-377.13	198.55	938.02	906.09	31.93	29.375	
10,100.00	9,972.74	10,003.95	9,972.74	20.92	14.03	-90.41	-377.13	198.55	938.02	905.99	32.04	29.278	
10,200.00	10,072.74	10,103.95	10,072.74	20.97	14.09	-90.41	-377.13	198.55	938.02	905.88	32.14	29.181	
10,300.00	10,172.74	10,203.95	10,172.74	21.01	14.16	-90.41	-377.13	198.55	938.02	905.77	32.25	29.084	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)								Rule Assigned:		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	
10,400.00	10,272.74	10,303.95	10,272.74	21.06	14.22	-90.41	-377.13	198.55	938.02	905.67	32.36	28.988		
10,500.00	10,372.74	10,403.95	10,372.74	21.11	14.29	-90.41	-377.13	198.55	938.02	905.56	32.47	28.892		
10,600.00	10,472.74	10,503.95	10,472.74	21.15	14.35	-90.41	-377.13	198.55	938.02	905.45	32.58	28.795		
10,700.00	10,572.74	10,603.95	10,572.74	21.20	14.41	-90.41	-377.13	198.55	938.02	905.34	32.68	28.700		
10,800.00	10,672.74	10,703.95	10,672.74	21.25	14.48	-90.41	-377.13	198.55	938.02	905.23	32.79	28.604		
10,900.00	10,772.74	10,803.95	10,772.74	21.29	14.54	-90.41	-377.13	198.55	938.02	905.12	32.90	28.509		
11,000.00	10,872.74	10,903.95	10,872.74	21.34	14.61	-90.41	-377.13	198.55	938.02	905.01	33.01	28.414		
11,100.00	10,972.74	11,003.95	10,972.74	21.39	14.67	-90.41	-377.13	198.55	938.02	904.90	33.12	28.319		
11,200.00	11,072.74	11,103.95	11,072.74	21.44	14.74	-90.41	-377.13	198.55	938.02	904.79	33.23	28.224		
11,300.00	11,172.74	11,203.95	11,172.74	21.49	14.80	-90.41	-377.13	198.55	938.02	904.68	33.35	28.130		
11,400.00	11,272.74	11,303.95	11,272.74	21.53	14.87	-90.41	-377.13	198.55	938.02	904.57	33.46	28.036		
11,500.00	11,372.74	11,403.95	11,372.74	21.58	14.93	-90.41	-377.13	198.55	938.02	904.45	33.57	27.942		
11,600.00	11,472.74	11,503.95	11,472.74	21.63	15.00	-90.41	-377.13	198.55	938.02	904.34	33.69	27.846		
11,645.44	11,518.19	11,549.44	11,518.19	21.65	15.07	-90.52	-378.91	198.57	938.02	904.29	33.73	27.810		
11,700.00	11,572.74	11,603.26	11,571.56	21.68	15.19	-90.93	-385.67	198.63	938.05	904.24	33.81	27.746		
11,800.00	11,672.74	11,696.96	11,662.13	21.73	15.40	-92.37	-409.25	198.84	938.57	904.53	34.04	27.572		
11,900.00	11,772.74	11,781.10	11,739.24	21.78	15.60	-94.41	-442.74	199.15	940.79	906.40	34.39	27.358		
12,000.00	11,872.61	11,855.66	11,802.82	21.84	15.78	83.54	-481.58	199.50	945.82	911.01	34.82	27.167		
12,100.00	11,970.52	11,926.60	11,858.16	21.99	15.94	80.89	-525.90	199.90	952.80	917.38	35.41	26.904		
12,200.00	12,063.53	12,000.00	11,909.20	22.19	16.15	78.31	-578.58	200.38	960.89	924.69	36.20	26.541		
12,300.00	12,148.80	12,062.05	11,946.79	22.45	16.42	76.20	-627.90	200.83	969.31	932.19	37.12	26.113		
12,400.00	12,223.74	12,127.58	11,980.47	22.78	16.82	74.28	-684.07	201.34	977.41	939.25	38.16	25.615		
12,500.00	12,286.09	12,200.00	12,009.95	23.20	17.36	72.60	-750.16	201.94	984.63	945.33	39.30	25.051		
12,600.00	12,333.93	12,250.00	12,025.33	23.71	17.76	71.55	-797.72	202.37	990.36	950.07	40.29	24.580		
12,700.00	12,365.83	12,319.36	12,039.69	24.31	18.37	70.70	-865.53	202.99	994.29	952.89	41.40	24.014		
12,800.00	12,380.81	12,382.47	12,045.55	24.99	18.96	70.32	-928.34	203.56	996.22	953.82	42.39	23.499		
12,900.00	12,382.30	12,472.08	12,046.45	25.74	19.84	70.30	-1,017.93	204.37	996.34	952.63	43.71	22.796		
13,000.00	12,382.83	12,572.08	12,047.15	26.54	20.86	70.31	-1,117.93	205.28	996.28	951.02	45.26	22.012		
13,100.00	12,383.35	12,672.08	12,047.84	27.39	21.92	70.32	-1,217.92	206.19	996.22	949.32	46.90	21.239		
13,200.00	12,383.88	12,772.08	12,048.54	28.28	23.01	70.33	-1,317.91	207.10	996.16	947.53	48.63	20.484		
13,300.00	12,384.40	12,872.08	12,049.24	29.20	24.13	70.34	-1,417.91	208.01	996.10	945.67	50.43	19.751		
13,400.00	12,384.93	12,972.08	12,049.94	30.16	25.28	70.35	-1,517.90	208.92	996.04	943.74	52.30	19.044		
13,500.00	12,385.46	13,072.08	12,050.64	31.14	26.44	70.36	-1,617.89	209.83	995.99	941.76	54.23	18.366		
13,600.00	12,385.98	13,172.08	12,051.34	32.15	27.63	70.37	-1,717.89	210.73	995.93	939.72	56.21	17.718		
13,700.00	12,386.51	13,272.08	12,052.04	33.18	28.83	70.37	-1,817.88	211.64	995.87	937.63	58.24	17.099		
13,800.00	12,387.03	13,372.08	12,052.74	34.23	30.04	70.38	-1,917.87	212.55	995.81	935.50	60.31	16.510		
13,900.00	12,387.56	13,472.08	12,053.44	35.31	31.27	70.39	-2,017.87	213.46	995.75	933.32	62.43	15.950		
14,000.00	12,388.09	13,572.08	12,054.14	36.40	32.51	70.40	-2,117.86	214.37	995.69	931.12	64.58	15.419		
14,100.00	12,388.61	13,672.08	12,054.84	37.51	33.76	70.41	-2,217.85	215.28	995.64	928.88	66.76	14.914		
14,200.00	12,389.14	13,772.08	12,055.54	38.63	35.02	70.42	-2,317.85	216.19	995.58	926.61	68.97	14.435		
14,300.00	12,389.66	13,872.08	12,056.23	39.77	36.28	70.43	-2,417.84	217.10	995.52	924.31	71.20	13.981		
14,400.00	12,390.19	13,972.08	12,056.93	40.92	37.56	70.44	-2,517.83	218.00	995.46	922.00	73.46	13.550		
14,500.00	12,390.71	14,072.08	12,057.63	42.08	38.83	70.45	-2,617.83	218.91	995.40	919.65	75.75	13.141		
14,600.00	12,391.24	14,172.08	12,058.33	43.26	40.12	70.46	-2,717.82	219.82	995.34	917.29	78.05	12.753		
14,700.00	12,391.77	14,272.08	12,059.03	44.44	41.41	70.47	-2,817.81	220.73	995.29	914.91	80.37	12.383		
14,800.00	12,392.29	14,372.08	12,059.73	45.64	42.71	70.48	-2,917.81	221.64	995.23	912.52	82.71	12.033		
14,900.00	12,392.82	14,472.08	12,060.43	46.84	44.01	70.49	-3,017.80	222.55	995.17	910.10	85.06	11.699		
15,000.00	12,393.34	14,572.08	12,061.13	48.05	45.31	70.50	-3,117.79	223.46	995.11	907.68	87.43	11.381		
15,100.00	12,393.87	14,672.08	12,061.83	49.27	46.62	70.51	-3,217.79	224.37	995.05	905.24	89.81	11.079		
15,200.00	12,394.40	14,772.08	12,062.53	50.50	47.93	70.52	-3,317.78	225.27	995.00	902.79	92.21	10.791		
15,300.00	12,394.92	14,872.08	12,063.23	51.73	49.24	70.53	-3,417.77	226.18	994.94	900.32	94.61	10.516		
15,400.00	12,395.45	14,972.08	12,063.92	52.97	50.56	70.53	-3,517.77	227.09	994.88	897.85	97.03	10.253		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		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)			
15,500.00	12,395.97	15,072.08	12,064.62	54.21	51.88	70.54	-3,617.76	228.00	994.82	895.37	99.45	10.003	
15,600.00	12,396.50	15,172.08	12,065.32	55.47	53.20	70.55	-3,717.75	228.91	994.76	892.87	101.89	9.763	
15,700.00	12,397.03	15,272.08	12,066.02	56.72	54.53	70.56	-3,817.75	229.82	994.71	890.37	104.33	9.534	
15,800.00	12,397.55	15,372.08	12,066.72	57.98	55.86	70.57	-3,917.74	230.73	994.65	887.86	106.78	9.315	
15,900.00	12,398.08	15,472.08	12,067.42	59.25	57.18	70.58	-4,017.73	231.64	994.59	885.35	109.24	9.104	
16,000.00	12,398.60	15,572.08	12,068.12	60.52	58.52	70.59	-4,117.73	232.54	994.53	882.83	111.71	8.903	
16,100.00	12,399.13	15,672.08	12,068.82	61.79	59.85	70.60	-4,217.72	233.45	994.47	880.30	114.18	8.710	
16,200.00	12,399.65	15,772.08	12,069.52	63.07	61.18	70.61	-4,317.71	234.36	994.42	877.76	116.66	8.524	
16,300.00	12,400.18	15,872.08	12,070.22	64.35	62.52	70.62	-4,417.71	235.27	994.36	875.22	119.14	8.346	
16,400.00	12,400.71	15,972.08	12,070.92	65.63	63.86	70.63	-4,517.70	236.18	994.30	872.67	121.63	8.175	
16,500.00	12,401.23	16,072.08	12,071.62	66.92	65.19	70.64	-4,617.69	237.09	994.24	870.12	124.12	8.010	
16,600.00	12,401.76	16,172.08	12,072.31	68.21	66.53	70.65	-4,717.69	238.00	994.19	867.56	126.62	7.852	
16,700.00	12,402.28	16,272.08	12,073.01	69.51	67.87	70.66	-4,817.68	238.91	994.13	865.00	129.13	7.699	
16,800.00	12,402.81	16,372.08	12,073.71	70.80	69.22	70.67	-4,917.67	239.81	994.07	862.44	131.63	7.552	
16,900.00	12,403.34	16,472.08	12,074.41	72.10	70.56	70.68	-5,017.67	240.72	994.01	859.87	134.15	7.410	
17,000.00	12,403.86	16,572.08	12,075.11	73.40	71.90	70.69	-5,117.66	241.63	993.96	857.29	136.66	7.273	
17,100.00	12,404.39	16,672.08	12,075.81	74.71	73.25	70.69	-5,217.65	242.54	993.90	854.72	139.18	7.141	
17,200.00	12,404.91	16,772.07	12,076.51	76.01	74.59	70.70	-5,317.65	243.45	993.84	852.13	141.71	7.013	
17,300.00	12,405.44	16,872.07	12,077.21	77.32	75.94	70.71	-5,417.64	244.36	993.78	849.55	144.23	6.890	
17,400.00	12,405.96	16,972.07	12,077.91	78.63	77.29	70.72	-5,517.63	245.27	993.73	846.96	146.76	6.771	
17,500.00	12,406.49	17,072.07	12,078.61	79.94	78.64	70.73	-5,617.62	246.18	993.67	844.37	149.29	6.656	
17,600.00	12,407.02	17,172.07	12,079.31	81.26	79.99	70.74	-5,717.62	247.08	993.61	841.78	151.83	6.544	
17,700.00	12,407.54	17,272.07	12,080.01	82.57	81.34	70.75	-5,817.61	247.99	993.55	839.18	154.37	6.436	
17,800.00	12,408.07	17,372.07	12,080.70	83.89	82.69	70.76	-5,917.60	248.90	993.50	836.59	156.91	6.332	
17,900.00	12,408.59	17,472.07	12,081.40	85.21	84.04	70.77	-6,017.60	249.81	993.44	833.99	159.45	6.230	
18,000.00	12,409.12	17,572.07	12,082.10	86.53	85.39	70.78	-6,117.59	250.72	993.38	831.38	162.00	6.132	
18,100.00	12,409.65	17,672.07	12,082.80	87.85	86.74	70.79	-6,217.58	251.63	993.32	828.78	164.55	6.037	
18,200.00	12,410.17	17,772.07	12,083.50	89.18	88.09	70.80	-6,317.58	252.54	993.27	826.17	167.10	5.944	
18,300.00	12,410.70	17,872.07	12,084.20	90.50	89.45	70.81	-6,417.57	253.45	993.21	823.56	169.65	5.854	
18,400.00	12,411.22	17,972.07	12,084.90	91.83	90.80	70.82	-6,517.56	254.35	993.15	820.95	172.20	5.767	
18,500.00	12,411.75	18,072.07	12,085.60	93.15	92.16	70.83	-6,617.56	255.26	993.10	818.33	174.76	5.683	
18,600.00	12,412.27	18,172.07	12,086.30	94.48	93.51	70.84	-6,717.55	256.17	993.04	815.72	177.32	5.600	
18,700.00	12,412.80	18,272.07	12,087.00	95.81	94.86	70.85	-6,817.54	257.08	992.98	813.10	179.88	5.520	
18,800.00	12,413.33	18,372.07	12,087.70	97.14	96.22	70.86	-6,917.54	257.99	992.92	810.48	182.44	5.442	
18,900.00	12,413.85	18,472.07	12,088.39	98.47	97.58	70.86	-7,017.53	258.90	992.87	807.86	185.01	5.367	
19,000.00	12,414.38	18,572.07	12,089.09	99.81	98.93	70.87	-7,117.52	259.81	992.81	805.24	187.57	5.293	
19,100.00	12,414.90	18,672.07	12,089.79	101.14	100.29	70.88	-7,217.52	260.72	992.75	802.61	190.14	5.221	
19,200.00	12,415.43	18,772.07	12,090.49	102.47	101.65	70.89	-7,317.51	261.62	992.70	799.99	192.71	5.151	
19,300.00	12,415.96	18,872.07	12,091.19	103.81	103.00	70.90	-7,417.50	262.53	992.64	797.36	195.28	5.083	
19,400.00	12,416.48	18,972.07	12,091.89	105.15	104.36	70.91	-7,517.50	263.44	992.58	794.73	197.85	5.017	
19,500.00	12,417.01	19,072.07	12,092.59	106.48	105.72	70.92	-7,617.49	264.35	992.53	792.10	200.42	4.952	
19,600.00	12,417.53	19,172.07	12,093.29	107.82	107.08	70.93	-7,717.48	265.26	992.47	789.47	203.00	4.889	
19,700.00	12,418.06	19,272.07	12,093.99	109.16	108.44	70.94	-7,817.48	266.17	992.41	786.84	205.57	4.828	
19,800.00	12,418.59	19,372.07	12,094.69	110.50	109.79	70.95	-7,917.47	267.08	992.35	784.21	208.15	4.768	
19,900.00	12,419.11	19,472.07	12,095.39	111.84	111.15	70.96	-8,017.46	267.99	992.30	781.57	210.73	4.709	
20,000.00	12,419.64	19,572.07	12,096.09	113.18	112.51	70.97	-8,117.46	268.89	992.24	778.93	213.31	4.652	
20,100.00	12,420.16	19,672.07	12,096.78	114.52	113.87	70.98	-8,217.45	269.80	992.18	776.30	215.89	4.596	
20,200.00	12,420.69	19,772.07	12,097.48	115.86	115.23	70.99	-8,317.44	270.71	992.13	773.66	218.47	4.541	
20,300.00	12,421.21	19,872.07	12,098.18	117.20	116.59	71.00	-8,417.44	271.62	992.07	771.02	221.05	4.488	
20,400.00	12,421.74	19,972.07	12,098.88	118.55	117.95	71.01	-8,517.43	272.53	992.01	768.38	223.63	4.436	
20,500.00	12,422.27	20,072.07	12,099.58	119.89	119.31	71.02	-8,617.42	273.44	991.96	765.74	226.22	4.385	
20,600.00	12,422.79	20,172.07	12,100.28	121.24	120.67	71.03	-8,717.42	274.35	991.90	763.10	228.81	4.335	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)			
20,700.00	12,423.32	20,272.07	12,100.98	122.58	122.03	71.03	-8,817.41	275.26	991.84	760.45	231.39	4.286	
20,800.00	12,423.84	20,372.07	12,101.68	123.93	123.40	71.04	-8,917.40	276.16	991.79	757.81	233.98	4.239	
20,900.00	12,424.37	20,472.07	12,102.38	125.27	124.76	71.05	-9,017.40	277.07	991.73	755.16	236.57	4.192	
21,000.00	12,424.90	20,572.07	12,103.08	126.62	126.12	71.06	-9,117.39	277.98	991.68	752.52	239.16	4.147	
21,100.00	12,425.42	20,672.07	12,103.78	127.97	127.48	71.07	-9,217.38	278.89	991.62	749.87	241.75	4.102	
21,200.00	12,425.95	20,772.07	12,104.47	129.31	128.84	71.08	-9,317.38	279.80	991.56	747.22	244.34	4.058	
21,300.00	12,426.47	20,872.07	12,105.17	130.66	130.20	71.09	-9,417.37	280.71	991.51	744.57	246.93	4.015	
21,400.00	12,427.00	20,972.07	12,105.87	132.01	131.57	71.10	-9,517.36	281.62	991.45	741.92	249.53	3.973	
21,500.00	12,427.52	21,072.07	12,106.57	133.36	132.93	71.11	-9,617.36	282.53	991.39	739.27	252.12	3.932	
21,600.00	12,428.05	21,172.07	12,107.27	134.71	134.29	71.12	-9,717.35	283.43	991.34	736.62	254.71	3.892	
21,700.00	12,428.58	21,272.07	12,107.97	136.06	135.65	71.13	-9,817.34	284.34	991.28	733.97	257.31	3.852	
21,800.00	12,429.10	21,372.07	12,108.67	137.41	137.02	71.14	-9,917.34	285.25	991.22	731.32	259.91	3.814	
21,900.00	12,429.63	21,472.07	12,109.37	138.76	138.38	71.15	-10,017.33	286.16	991.17	728.67	262.50	3.776	
22,000.00	12,430.15	21,572.07	12,110.07	140.11	139.74	71.16	-10,117.32	287.07	991.11	726.01	265.10	3.739	
22,100.00	12,430.68	21,672.07	12,110.77	141.46	141.10	71.17	-10,217.32	287.98	991.06	723.36	267.70	3.702	
22,200.00	12,431.21	21,772.07	12,111.47	142.81	142.47	71.18	-10,317.31	288.89	991.00	720.70	270.30	3.666	
22,300.00	12,431.73	21,872.07	12,112.17	144.16	143.83	71.19	-10,417.30	289.80	990.94	718.05	272.90	3.631	
22,400.00	12,432.26	21,972.07	12,112.86	145.51	145.19	71.20	-10,517.30	290.70	990.89	715.39	275.50	3.597	
22,500.00	12,432.78	22,072.07	12,113.56	146.87	146.56	71.21	-10,617.29	291.61	990.83	712.73	278.10	3.563	
22,600.00	12,433.31	22,172.07	12,114.26	148.22	147.92	71.21	-10,717.28	292.52	990.78	710.07	280.70	3.530	
22,700.00	12,433.83	22,272.07	12,114.96	149.57	149.29	71.22	-10,817.28	293.43	990.72	707.41	283.31	3.497	
22,763.36	12,434.17	22,335.19	12,115.40	150.47	150.09	71.23	-10,880.40	294.00	990.68	705.79	284.89	3.477	SF
22,770.20	12,434.20	22,335.19	12,115.40	150.56	150.09	71.23	-10,880.40	294.00	990.71	705.85	284.86	3.478	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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				
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
3,000.00	2,965.87	3,637.76	3,594.39	8.65	9.90	151.95	-561.27	-1,927.08	2,431.64	2,413.39	18.25	133.253	
3,100.00	3,062.90	3,736.78	3,690.03	8.95	10.18	152.25	-555.08	-1,902.21	2,427.02	2,408.30	18.72	129.678	
3,200.00	3,159.93	3,835.80	3,785.67	9.26	10.48	152.56	-548.89	-1,877.34	2,422.46	2,403.28	19.18	126.277	
3,300.00	3,256.96	3,934.81	3,881.32	9.57	10.78	152.88	-542.70	-1,852.47	2,417.98	2,398.33	19.65	123.040	
3,400.00	3,353.99	4,033.83	3,976.96	9.88	11.09	153.19	-536.51	-1,827.60	2,413.57	2,393.45	20.12	119.954	
3,500.00	3,451.02	4,132.85	4,072.61	10.20	11.40	153.50	-530.32	-1,802.73	2,409.24	2,388.65	20.59	117.007	
3,600.00	3,548.05	4,231.87	4,168.25	10.51	11.72	153.82	-524.13	-1,777.85	2,404.97	2,383.91	21.06	114.199	
3,700.00	3,645.08	4,330.89	4,263.89	10.83	12.04	154.13	-517.94	-1,752.98	2,400.78	2,379.26	21.53	111.515	
3,800.00	3,742.11	4,429.90	4,359.54	11.15	12.36	154.45	-511.75	-1,728.11	2,396.67	2,374.67	22.00	108.949	
3,900.00	3,839.14	4,528.92	4,455.18	11.47	12.68	154.76	-505.56	-1,703.24	2,392.63	2,370.16	22.47	106.493	
4,000.00	3,936.17	4,627.94	4,550.82	11.79	13.00	155.08	-499.37	-1,678.37	2,388.66	2,365.73	22.94	104.141	
4,100.00	4,033.20	4,726.96	4,646.47	12.11	13.33	155.40	-493.18	-1,653.50	2,384.77	2,361.37	23.41	101.887	
4,200.00	4,130.23	4,825.98	4,742.11	12.43	13.65	155.72	-486.99	-1,628.63	2,380.96	2,357.09	23.88	99.724	
4,300.00	4,227.26	4,925.00	4,837.75	12.76	13.98	156.05	-480.80	-1,603.76	2,377.22	2,352.88	24.34	97.649	
4,400.00	4,324.29	5,024.01	4,933.40	13.08	14.31	156.37	-474.61	-1,578.88	2,373.56	2,348.75	24.81	95.655	
4,500.00	4,421.32	5,123.03	5,029.04	13.40	14.64	156.69	-468.42	-1,554.01	2,369.98	2,344.69	25.28	93.739	
4,600.00	4,518.35	5,222.05	5,124.68	13.73	14.97	157.02	-462.23	-1,529.14	2,366.47	2,340.72	25.75	91.895	
4,700.00	4,615.38	5,321.07	5,220.33	14.06	15.30	157.34	-456.04	-1,504.27	2,363.04	2,336.82	26.22	90.122	
4,800.00	4,712.41	5,420.09	5,315.97	14.38	15.63	157.67	-449.85	-1,479.40	2,359.69	2,333.00	26.69	88.413	
4,900.00	4,809.44	5,519.10	5,411.61	14.71	15.97	158.00	-443.66	-1,454.53	2,356.41	2,329.25	27.16	86.767	
5,000.00	4,906.47	5,618.12	5,507.26	15.04	16.30	158.32	-437.46	-1,429.66	2,353.22	2,325.59	27.63	85.179	
5,100.00	5,003.50	5,717.14	5,602.90	15.36	16.64	158.65	-431.27	-1,404.78	2,350.10	2,322.01	28.10	83.648	
5,200.00	5,100.53	5,816.16	5,698.54	15.69	16.97	158.98	-425.08	-1,379.91	2,347.06	2,318.50	28.56	82.170	
5,300.00	5,197.56	5,915.18	5,794.19	16.02	17.30	159.31	-418.89	-1,355.04	2,344.10	2,315.08	29.03	80.759	
5,400.00	5,294.59	5,977.41	5,854.42	16.35	17.50	159.52	-415.12	-1,339.87	2,341.99	2,312.56	29.43	79.579	
5,477.70	5,369.99	6,025.48	5,901.13	16.61	17.65	159.68	-412.36	-1,328.80	2,341.50	2,311.75	29.74	78.726	CC
5,500.00	5,391.62	6,039.29	5,914.56	16.68	17.69	159.72	-411.60	-1,325.73	2,341.54	2,311.71	29.83	78.491	
5,600.00	5,488.65	6,100.00	5,973.79	17.01	17.88	159.91	-408.37	-1,312.77	2,342.73	2,312.50	30.23	77.500	
5,700.00	5,585.68	6,163.14	6,035.60	17.34	18.05	160.11	-405.26	-1,300.27	2,345.57	2,314.95	30.62	76.602	
5,800.00	5,682.71	6,225.05	6,096.41	17.67	18.21	160.29	-402.45	-1,288.98	2,350.04	2,319.04	31.00	75.805	
5,900.00	5,779.92	6,300.00	6,170.26	17.97	18.40	160.52	-399.37	-1,276.59	2,355.50	2,324.11	31.39	75.050	
6,000.00	5,877.69	6,348.94	6,218.61	18.27	18.50	160.67	-397.54	-1,269.26	2,360.07	2,328.35	31.72	74.405	
6,100.00	5,975.98	6,400.00	6,269.16	18.54	18.62	160.80	-395.80	-1,262.25	2,363.89	2,331.85	32.04	73.781	
6,200.00	6,074.72	6,473.14	6,341.72	18.77	18.76	160.96	-393.59	-1,253.36	2,366.77	2,334.37	32.39	73.062	
6,300.00	6,173.83	6,535.34	6,403.55	18.98	18.86	161.07	-391.97	-1,246.86	2,368.81	2,336.11	32.70	72.436	
6,400.00	6,273.26	6,600.00	6,467.95	19.16	18.97	161.17	-390.54	-1,241.14	2,369.98	2,336.99	33.00	71.822	
6,500.00	6,372.94	6,659.88	6,527.66	19.31	19.05	161.23	-389.46	-1,236.79	2,370.27	2,337.01	33.26	71.274	
6,600.00	6,472.79	6,722.22	6,589.89	19.42	19.13	161.27	-388.57	-1,233.22	2,369.67	2,336.17	33.50	70.742	
6,700.00	6,572.74	6,800.00	6,667.60	19.52	19.21	161.30	-387.81	-1,230.15	2,368.26	2,334.51	33.75	70.163	
6,800.00	6,672.74	6,846.97	6,714.56	19.54	19.24	-90.42	-387.53	-1,229.04	2,366.02	2,332.23	33.79	70.022	
6,900.00	6,772.74	6,909.39	6,776.97	19.58	19.29	-90.41	-387.38	-1,228.44	2,365.05	2,331.20	33.85	69.867	
6,937.56	6,810.30	6,942.72	6,810.30	19.60	19.30	-90.41	-387.38	-1,228.43	2,365.04	2,331.17	33.87	69.824	
7,000.00	6,872.74	7,005.16	6,872.74	19.62	19.33	-90.41	-387.38	-1,228.43	2,365.04	2,331.12	33.92	69.725	
7,100.00	6,972.74	7,105.16	6,972.74	19.66	19.38	-90.41	-387.38	-1,228.43	2,365.04	2,331.04	34.01	69.548	
7,200.00	7,072.74	7,205.16	7,072.74	19.70	19.43	-90.41	-387.38	-1,228.43	2,365.04	2,330.95	34.09	69.371	
7,300.00	7,172.74	7,305.16	7,172.74	19.74	19.48	-90.41	-387.38	-1,228.43	2,365.04	2,330.86	34.18	69.193	
7,400.00	7,272.74	7,405.16	7,272.74	19.77	19.53	-90.41	-387.38	-1,228.43	2,365.04	2,330.77	34.27	69.015	
7,500.00	7,372.74	7,505.16	7,372.74	19.81	19.58	-90.41	-387.38	-1,228.43	2,365.04	2,330.68	34.36	68.837	
7,600.00	7,472.74	7,605.16	7,472.74	19.85	19.63	-90.41	-387.38	-1,228.43	2,365.04	2,330.59	34.45	68.659	
7,700.00	7,572.74	7,705.16	7,572.74	19.89	19.68	-90.41	-387.38	-1,228.43	2,365.04	2,330.51	34.54	68.481	
7,800.00	7,672.74	7,805.16	7,672.74	19.93	19.73	-90.41	-387.38	-1,228.43	2,365.04	2,330.42	34.63	68.302	
7,900.00	7,772.74	7,905.16	7,772.74	19.97	19.78	-90.41	-387.38	-1,228.43	2,365.04	2,330.32	34.72	68.124	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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	
8,000.00	7,872.74	8,005.16	7,872.74	20.01	19.83	-90.41	-387.38	-1,228.43	2,365.04	2,330.23	34.81	67.945	
8,100.00	7,972.74	8,105.16	7,972.74	20.05	19.88	-90.41	-387.38	-1,228.43	2,365.04	2,330.14	34.90	67.766	
8,200.00	8,072.74	8,205.16	8,072.74	20.10	19.93	-90.41	-387.38	-1,228.43	2,365.04	2,330.05	34.99	67.588	
8,300.00	8,172.74	8,305.16	8,172.74	20.14	19.99	-90.41	-387.38	-1,228.43	2,365.04	2,329.96	35.09	67.409	
8,400.00	8,272.74	8,405.16	8,272.74	20.18	20.04	-90.41	-387.38	-1,228.43	2,365.04	2,329.86	35.18	67.230	
8,500.00	8,372.74	8,505.16	8,372.74	20.22	20.09	-90.41	-387.38	-1,228.43	2,365.04	2,329.77	35.27	67.051	
8,600.00	8,472.74	8,605.16	8,472.74	20.26	20.14	-90.41	-387.38	-1,228.43	2,365.04	2,329.67	35.37	66.872	
8,700.00	8,572.74	8,705.16	8,572.74	20.30	20.20	-90.41	-387.38	-1,228.43	2,365.04	2,329.58	35.46	66.693	
8,800.00	8,672.74	8,805.16	8,672.74	20.35	20.25	-90.41	-387.38	-1,228.43	2,365.04	2,329.48	35.56	66.515	
8,900.00	8,772.74	8,905.16	8,772.74	20.39	20.30	-90.41	-387.38	-1,228.43	2,365.04	2,329.39	35.65	66.336	
9,000.00	8,872.74	9,005.16	8,872.74	20.43	20.36	-90.41	-387.38	-1,228.43	2,365.04	2,329.29	35.75	66.157	
9,100.00	8,972.74	9,105.16	8,972.74	20.48	20.41	-90.41	-387.38	-1,228.43	2,365.04	2,329.20	35.85	65.979	
9,200.00	9,072.74	9,205.16	9,072.74	20.52	20.46	-90.41	-387.38	-1,228.43	2,365.04	2,329.10	35.94	65.800	
9,300.00	9,172.74	9,305.16	9,172.74	20.56	20.52	-90.41	-387.38	-1,228.43	2,365.04	2,329.00	36.04	65.622	
9,400.00	9,272.74	9,405.16	9,272.74	20.61	20.57	-90.41	-387.38	-1,228.43	2,365.04	2,328.90	36.14	65.443	
9,500.00	9,372.74	9,505.16	9,372.74	20.65	20.62	-90.41	-387.38	-1,228.43	2,365.04	2,328.80	36.24	65.265	
9,600.00	9,472.74	9,605.16	9,472.74	20.70	20.68	-90.41	-387.38	-1,228.43	2,365.04	2,328.70	36.34	65.087	
9,700.00	9,572.74	9,705.16	9,572.74	20.74	20.73	-90.41	-387.38	-1,228.43	2,365.04	2,328.60	36.44	64.909	
9,800.00	9,672.74	9,805.16	9,672.74	20.79	20.79	-90.41	-387.38	-1,228.43	2,365.04	2,328.50	36.54	64.731	
9,900.00	9,772.74	9,905.16	9,772.74	20.83	20.84	-90.41	-387.38	-1,228.43	2,365.04	2,328.40	36.64	64.554	
10,000.00	9,872.74	10,005.16	9,872.74	20.88	20.90	-90.41	-387.38	-1,228.43	2,365.04	2,328.30	36.74	64.376	
10,100.00	9,972.74	10,105.16	9,972.74	20.92	20.95	-90.41	-387.38	-1,228.43	2,365.04	2,328.20	36.84	64.199	
10,200.00	10,072.74	10,205.16	10,072.74	20.97	21.01	-90.41	-387.38	-1,228.43	2,365.04	2,328.10	36.94	64.022	
10,300.00	10,172.74	10,305.16	10,172.74	21.01	21.06	-90.41	-387.38	-1,228.43	2,365.04	2,328.00	37.04	63.846	
10,400.00	10,272.74	10,405.16	10,272.74	21.06	21.12	-90.41	-387.38	-1,228.43	2,365.04	2,327.90	37.15	63.669	
10,500.00	10,372.74	10,505.16	10,372.74	21.11	21.18	-90.41	-387.38	-1,228.43	2,365.04	2,327.79	37.25	63.493	
10,600.00	10,472.74	10,605.16	10,472.74	21.15	21.23	-90.41	-387.38	-1,228.43	2,365.04	2,327.69	37.35	63.317	
10,700.00	10,572.74	10,705.16	10,572.74	21.20	21.29	-90.41	-387.38	-1,228.43	2,365.04	2,327.58	37.46	63.141	
10,800.00	10,672.74	10,805.16	10,672.74	21.25	21.35	-90.41	-387.38	-1,228.43	2,365.04	2,327.48	37.56	62.966	
10,900.00	10,772.74	10,905.16	10,772.74	21.29	21.40	-90.41	-387.38	-1,228.43	2,365.04	2,327.38	37.67	62.790	
11,000.00	10,872.74	11,005.16	10,872.74	21.34	21.46	-90.41	-387.38	-1,228.43	2,365.04	2,327.27	37.77	62.615	
11,100.00	10,972.74	11,105.16	10,972.74	21.39	21.52	-90.41	-387.38	-1,228.43	2,365.04	2,327.16	37.88	62.441	
11,200.00	11,072.74	11,205.16	11,072.74	21.44	21.57	-90.41	-387.38	-1,228.43	2,365.04	2,327.06	37.98	62.266	
11,300.00	11,172.74	11,305.16	11,172.74	21.49	21.63	-90.41	-387.38	-1,228.43	2,365.04	2,326.95	38.09	62.093	
11,400.00	11,272.74	11,405.16	11,272.74	21.53	21.69	-90.41	-387.38	-1,228.43	2,365.04	2,326.85	38.20	61.919	
11,500.00	11,372.74	11,505.16	11,372.74	21.58	21.74	-90.41	-387.38	-1,228.43	2,365.04	2,326.74	38.30	61.745	
11,600.00	11,472.74	11,605.16	11,472.74	21.63	21.80	-90.41	-387.38	-1,228.43	2,365.04	2,326.63	38.41	61.573	
11,700.00	11,572.74	11,705.16	11,572.84	21.68	21.85	-90.42	-387.69	-1,228.43	2,365.04	2,326.54	38.50	61.429	
11,743.41	11,616.15	11,748.69	11,616.15	21.70	21.88	-90.49	-390.76	-1,228.40	2,365.04	2,326.52	38.51	61.407	
11,800.00	11,672.74	11,804.17	11,670.93	21.73	21.91	-90.70	-399.44	-1,228.33	2,365.06	2,326.53	38.52	61.394	
11,900.00	11,772.74	11,896.50	11,759.41	21.78	21.95	-91.33	-425.47	-1,228.10	2,365.33	2,326.81	38.52	61.399	
12,000.00	11,872.61	11,980.16	11,835.04	21.84	21.98	88.32	-461.04	-1,227.80	2,366.28	2,327.78	38.50	61.467	
12,100.00	11,970.52	12,059.63	11,901.38	21.99	22.02	87.45	-504.69	-1,227.42	2,367.80	2,329.27	38.52	61.464	
12,200.00	12,063.53	12,136.18	11,958.98	22.19	22.06	86.63	-555.02	-1,226.99	2,369.69	2,331.05	38.64	61.329	
12,300.00	12,148.80	12,210.48	12,007.99	22.45	22.13	85.89	-610.80	-1,226.51	2,371.76	2,332.90	38.86	61.041	
12,400.00	12,223.74	12,283.05	12,048.51	22.78	22.23	85.24	-670.94	-1,225.99	2,373.82	2,334.64	39.18	60.582	
12,500.00	12,286.09	12,350.00	12,078.87	23.20	22.36	84.72	-730.56	-1,225.47	2,375.71	2,336.10	39.61	59.976	
12,600.00	12,333.93	12,424.65	12,104.27	23.71	22.54	84.29	-800.70	-1,224.87	2,377.26	2,337.08	40.18	59.165	
12,700.00	12,365.83	12,500.00	12,120.45	24.31	22.77	83.99	-874.23	-1,224.24	2,378.37	2,337.51	40.86	58.207	
12,800.00	12,380.81	12,563.66	12,126.51	24.99	23.00	83.86	-937.57	-1,223.69	2,378.95	2,337.38	41.57	57.229	
12,900.00	12,382.30	12,655.76	12,127.58	25.74	23.39	83.85	-1,029.66	-1,222.90	2,379.02	2,336.45	42.57	55.889	
13,000.00	12,382.83	12,755.76	12,128.46	26.54	23.87	83.86	-1,129.65	-1,222.04	2,379.03	2,335.26	43.76	54.361	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	Semi Reference (usft)	Major 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
13,100.00	12,383.35	12,855.76	12,129.33	27.39	24.40	83.87	-1,229.64	-1,221.18	2,379.04	2,333.94	45.09	52.759	
13,200.00	12,383.88	12,955.76	12,130.20	28.28	24.99	83.88	-1,329.63	-1,220.31	2,379.05	2,332.50	46.54	51.114	
13,300.00	12,384.40	13,055.76	12,131.07	29.20	25.63	83.89	-1,429.62	-1,219.45	2,379.06	2,330.95	48.11	49.454	
13,400.00	12,384.93	13,155.76	12,131.94	30.16	26.31	83.90	-1,529.61	-1,218.59	2,379.07	2,329.30	49.77	47.801	
13,500.00	12,385.46	13,255.75	12,132.81	31.14	27.03	83.90	-1,629.61	-1,217.73	2,379.08	2,327.55	51.53	46.173	
13,600.00	12,385.98	13,355.75	12,133.69	32.15	27.80	83.91	-1,729.60	-1,216.87	2,379.09	2,325.72	53.36	44.582	
13,700.00	12,386.51	13,455.75	12,134.56	33.18	28.60	83.92	-1,829.59	-1,216.01	2,379.10	2,323.82	55.28	43.039	
13,800.00	12,387.03	13,555.75	12,135.43	34.23	29.44	83.93	-1,929.58	-1,215.15	2,379.11	2,321.85	57.26	41.550	
13,900.00	12,387.56	13,655.75	12,136.30	35.31	30.31	83.94	-2,029.57	-1,214.28	2,379.12	2,319.82	59.30	40.119	
14,000.00	12,388.09	13,755.75	12,137.17	36.40	31.22	83.95	-2,129.57	-1,213.42	2,379.13	2,317.73	61.40	38.750	
14,100.00	12,388.61	13,855.75	12,138.04	37.51	32.15	83.95	-2,229.56	-1,212.56	2,379.14	2,315.60	63.54	37.442	
14,200.00	12,389.14	13,955.75	12,138.92	38.63	33.11	83.96	-2,329.55	-1,211.70	2,379.15	2,313.42	65.73	36.195	
14,300.00	12,389.66	14,055.75	12,139.79	39.77	34.10	83.97	-2,429.54	-1,210.84	2,379.16	2,311.20	67.96	35.007	
14,400.00	12,390.19	14,155.75	12,140.66	40.92	35.11	83.98	-2,529.53	-1,209.98	2,379.17	2,308.94	70.23	33.878	
14,500.00	12,390.71	14,255.75	12,141.53	42.08	36.14	83.99	-2,629.53	-1,209.12	2,379.18	2,306.66	72.53	32.805	
14,600.00	12,391.24	14,355.75	12,142.40	43.26	37.19	84.00	-2,729.52	-1,208.26	2,379.19	2,304.34	74.85	31.785	
14,700.00	12,391.77	14,455.75	12,143.27	44.44	38.27	84.00	-2,829.51	-1,207.39	2,379.20	2,301.99	77.21	30.816	
14,800.00	12,392.29	14,555.75	12,144.14	45.64	39.36	84.01	-2,929.50	-1,206.53	2,379.21	2,299.63	79.59	29.895	
14,900.00	12,392.82	14,655.75	12,145.02	46.84	40.46	84.02	-3,029.49	-1,205.67	2,379.22	2,297.24	81.99	29.019	
15,000.00	12,393.34	14,755.75	12,145.89	48.05	41.58	84.03	-3,129.48	-1,204.81	2,379.24	2,294.83	84.41	28.187	
15,100.00	12,393.87	14,855.74	12,146.76	49.27	42.72	84.04	-3,229.48	-1,203.95	2,379.25	2,292.40	86.85	27.395	
15,200.00	12,394.40	14,955.74	12,147.63	50.50	43.86	84.05	-3,329.47	-1,203.09	2,379.26	2,289.95	89.31	26.641	
15,300.00	12,394.92	15,055.74	12,148.50	51.73	45.02	84.06	-3,429.46	-1,202.23	2,379.27	2,287.49	91.78	25.924	
15,400.00	12,395.45	15,155.74	12,149.37	52.97	46.19	84.06	-3,529.45	-1,201.37	2,379.28	2,285.01	94.27	25.240	
15,500.00	12,395.97	15,255.74	12,150.25	54.21	47.38	84.07	-3,629.44	-1,200.50	2,379.29	2,282.52	96.77	24.588	
15,600.00	12,396.50	15,355.74	12,151.12	55.47	48.57	84.08	-3,729.44	-1,199.64	2,379.30	2,280.02	99.28	23.965	
15,700.00	12,397.03	15,455.74	12,151.99	56.72	49.77	84.09	-3,829.43	-1,198.78	2,379.31	2,277.51	101.80	23.371	
15,800.00	12,397.55	15,555.74	12,152.86	57.98	50.98	84.10	-3,929.42	-1,197.92	2,379.32	2,274.99	104.34	22.804	
15,900.00	12,398.08	15,655.74	12,153.73	59.25	52.19	84.11	-4,029.41	-1,197.06	2,379.34	2,272.45	106.88	22.261	
16,000.00	12,398.60	15,755.74	12,154.60	60.52	53.41	84.11	-4,129.40	-1,196.20	2,379.35	2,269.91	109.44	21.742	
16,100.00	12,399.13	15,855.74	12,155.48	61.79	54.64	84.12	-4,229.40	-1,195.34	2,379.36	2,267.36	112.00	21.244	
16,200.00	12,399.65	15,955.74	12,156.35	63.07	55.88	84.13	-4,329.39	-1,194.48	2,379.37	2,264.80	114.57	20.768	
16,300.00	12,400.18	16,055.74	12,157.22	64.35	57.12	84.14	-4,429.38	-1,193.61	2,379.38	2,262.24	117.15	20.311	
16,400.00	12,400.71	16,155.74	12,158.09	65.63	58.37	84.15	-4,529.37	-1,192.75	2,379.39	2,259.66	119.73	19.873	
16,500.00	12,401.23	16,255.74	12,158.96	66.92	59.63	84.16	-4,629.36	-1,191.89	2,379.41	2,257.08	122.32	19.452	
16,600.00	12,401.76	16,355.74	12,159.83	68.21	60.88	84.16	-4,729.35	-1,191.03	2,379.42	2,254.50	124.92	19.048	
16,700.00	12,402.28	16,455.74	12,160.71	69.51	62.15	84.17	-4,829.35	-1,190.17	2,379.43	2,251.91	127.52	18.659	
16,800.00	12,402.81	16,555.73	12,161.58	70.80	63.42	84.18	-4,929.34	-1,189.31	2,379.44	2,249.31	130.13	18.285	
16,900.00	12,403.34	16,655.73	12,162.45	72.10	64.69	84.19	-5,029.33	-1,188.45	2,379.45	2,246.71	132.74	17.926	
17,000.00	12,403.86	16,755.73	12,163.32	73.40	65.96	84.20	-5,129.32	-1,187.59	2,379.47	2,244.11	135.36	17.579	
17,100.00	12,404.39	16,855.73	12,164.19	74.71	67.24	84.21	-5,229.31	-1,186.72	2,379.48	2,241.50	137.98	17.245	
17,200.00	12,404.91	16,955.73	12,165.06	76.01	68.52	84.21	-5,329.31	-1,185.86	2,379.49	2,238.88	140.60	16.923	
17,300.00	12,405.44	17,055.73	12,165.94	77.32	69.81	84.22	-5,429.30	-1,185.00	2,379.50	2,236.27	143.23	16.613	
17,400.00	12,405.96	17,155.73	12,166.81	78.63	71.10	84.23	-5,529.29	-1,184.14	2,379.51	2,233.64	145.87	16.313	
17,500.00	12,406.49	17,255.73	12,167.68	79.94	72.39	84.24	-5,629.28	-1,183.28	2,379.53	2,231.02	148.51	16.023	
17,600.00	12,407.02	17,355.73	12,168.55	81.26	73.69	84.25	-5,729.27	-1,182.42	2,379.54	2,228.39	151.15	15.743	
17,700.00	12,407.54	17,455.73	12,169.42	82.57	74.98	84.26	-5,829.27	-1,181.56	2,379.55	2,225.76	153.79	15.473	
17,800.00	12,408.07	17,555.73	12,170.29	83.89	76.28	84.27	-5,929.26	-1,180.69	2,379.56	2,223.13	156.44	15.211	
17,900.00	12,408.59	17,655.73	12,171.16	85.21	77.59	84.27	-6,029.25	-1,179.83	2,379.58	2,220.49	159.09	14.958	
18,000.00	12,409.12	17,755.73	12,172.04	86.53	78.89	84.28	-6,129.24	-1,178.97	2,379.59	2,217.85	161.74	14.712	
18,100.00	12,409.65	17,855.73	12,172.91	87.85	80.20	84.29	-6,229.23	-1,178.11	2,379.60	2,215.21	164.39	14.475	
18,200.00	12,410.17	17,955.73	12,173.78	89.18	81.51	84.30	-6,329.22	-1,177.25	2,379.61	2,212.56	167.05	14.245	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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		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)		
18,300.00	12,410.70	18,055.73	12,174.65	90.50	82.82	84.31	-6,429.22	-1,176.39	2,379.63	2,209.91	169.71	14.022
18,400.00	12,411.22	18,155.72	12,175.52	91.83	84.13	84.32	-6,529.21	-1,175.53	2,379.64	2,207.26	172.37	13.805
18,500.00	12,411.75	18,255.72	12,176.39	93.15	85.45	84.32	-6,629.20	-1,174.67	2,379.65	2,204.61	175.04	13.595
18,600.00	12,412.27	18,355.72	12,177.27	94.48	86.76	84.33	-6,729.19	-1,173.80	2,379.66	2,201.96	177.71	13.391
18,700.00	12,412.80	18,455.72	12,178.14	95.81	88.08	84.34	-6,829.18	-1,172.94	2,379.68	2,199.30	180.37	13.193
18,800.00	12,413.33	18,555.72	12,179.01	97.14	89.40	84.35	-6,929.18	-1,172.08	2,379.69	2,196.64	183.04	13.001
18,900.00	12,413.85	18,655.72	12,179.88	98.47	90.72	84.36	-7,029.17	-1,171.22	2,379.70	2,193.99	185.72	12.814
19,000.00	12,414.38	18,755.72	12,180.75	99.81	92.04	84.37	-7,129.16	-1,170.36	2,379.72	2,191.32	188.39	12.632
19,100.00	12,414.90	18,855.72	12,181.62	101.14	93.37	84.37	-7,229.15	-1,169.50	2,379.73	2,188.66	191.07	12.455
19,200.00	12,415.43	18,955.72	12,182.50	102.47	94.69	84.38	-7,329.14	-1,168.64	2,379.74	2,186.00	193.74	12.283
19,300.00	12,415.96	19,055.72	12,183.37	103.81	96.02	84.39	-7,429.14	-1,167.78	2,379.75	2,183.33	196.42	12.115
19,400.00	12,416.48	19,155.72	12,184.24	105.15	97.35	84.40	-7,529.13	-1,166.91	2,379.77	2,180.66	199.10	11.952
19,500.00	12,417.01	19,255.72	12,185.11	106.48	98.68	84.41	-7,629.12	-1,166.05	2,379.78	2,178.00	201.79	11.794
19,600.00	12,417.53	19,355.72	12,185.98	107.82	100.01	84.42	-7,729.11	-1,165.19	2,379.79	2,175.33	204.47	11.639
19,700.00	12,418.06	19,455.72	12,186.85	109.16	101.34	84.42	-7,829.10	-1,164.33	2,379.81	2,172.65	207.15	11.488
19,800.00	12,418.59	19,555.72	12,187.73	110.50	102.67	84.43	-7,929.10	-1,163.47	2,379.82	2,169.98	209.84	11.341
19,900.00	12,419.11	19,655.72	12,188.60	111.84	104.00	84.44	-8,029.09	-1,162.61	2,379.83	2,167.31	212.53	11.198
20,000.00	12,419.64	19,755.72	12,189.47	113.18	105.34	84.45	-8,129.08	-1,161.75	2,379.85	2,164.63	215.21	11.058
20,100.00	12,420.16	19,855.71	12,190.34	114.52	106.67	84.46	-8,229.07	-1,160.89	2,379.86	2,161.96	217.90	10.922
20,200.00	12,420.69	19,955.71	12,191.21	115.86	108.01	84.47	-8,329.06	-1,160.02	2,379.88	2,159.28	220.59	10.788
20,300.00	12,421.21	20,055.71	12,192.08	117.20	109.34	84.48	-8,429.05	-1,159.16	2,379.89	2,156.60	223.29	10.659
20,400.00	12,421.74	20,155.71	12,192.96	118.55	110.68	84.48	-8,529.05	-1,158.30	2,379.90	2,153.92	225.98	10.532
20,500.00	12,422.27	20,255.71	12,193.83	119.89	112.02	84.49	-8,629.04	-1,157.44	2,379.92	2,151.25	228.67	10.408
20,600.00	12,422.79	20,355.71	12,194.70	121.24	113.36	84.50	-8,729.03	-1,156.58	2,379.93	2,148.56	231.37	10.286
20,700.00	12,423.32	20,455.71	12,195.57	122.58	114.70	84.51	-8,829.02	-1,155.72	2,379.94	2,145.88	234.06	10.168
20,800.00	12,423.84	20,555.71	12,196.44	123.93	116.04	84.52	-8,929.01	-1,154.86	2,379.96	2,143.20	236.76	10.052
20,900.00	12,424.37	20,655.71	12,197.31	125.27	117.38	84.53	-9,029.01	-1,154.00	2,379.97	2,140.52	239.46	9.939
21,000.00	12,424.90	20,755.71	12,198.18	126.62	118.72	84.53	-9,129.00	-1,153.13	2,379.99	2,137.83	242.15	9.828
21,100.00	12,425.42	20,855.71	12,199.06	127.97	120.06	84.54	-9,228.99	-1,152.27	2,380.00	2,135.15	244.85	9.720
21,200.00	12,425.95	20,955.71	12,199.93	129.31	121.40	84.55	-9,328.98	-1,151.41	2,380.01	2,132.46	247.55	9.614
21,300.00	12,426.47	21,055.71	12,200.80	130.66	122.75	84.56	-9,428.97	-1,150.55	2,380.03	2,129.78	250.25	9.511
21,400.00	12,427.00	21,155.71	12,201.67	132.01	124.09	84.57	-9,528.97	-1,149.69	2,380.04	2,127.09	252.95	9.409
21,500.00	12,427.52	21,255.71	12,202.54	133.36	125.44	84.58	-9,628.96	-1,148.83	2,380.06	2,124.40	255.66	9.310
21,600.00	12,428.05	21,355.71	12,203.41	134.71	126.78	84.58	-9,728.95	-1,147.97	2,380.07	2,121.71	258.36	9.212
21,700.00	12,428.58	21,455.70	12,204.29	136.06	128.13	84.59	-9,828.94	-1,147.11	2,380.09	2,119.02	261.06	9.117
21,800.00	12,429.10	21,555.70	12,205.16	137.41	129.47	84.60	-9,928.93	-1,146.24	2,380.10	2,116.34	263.77	9.024
21,900.00	12,429.63	21,655.70	12,206.03	138.76	130.82	84.61	-10,028.92	-1,145.38	2,380.11	2,113.64	266.47	8.932
22,000.00	12,430.15	21,755.70	12,206.90	140.11	132.17	84.62	-10,128.92	-1,144.52	2,380.13	2,110.95	269.18	8.842
22,100.00	12,430.68	21,855.70	12,207.77	141.46	133.52	84.63	-10,228.91	-1,143.66	2,380.14	2,108.26	271.88	8.754
22,200.00	12,431.21	21,955.70	12,208.64	142.81	134.86	84.63	-10,328.90	-1,142.80	2,380.16	2,105.57	274.59	8.668
22,300.00	12,431.73	22,055.70	12,209.52	144.16	136.21	84.64	-10,428.89	-1,141.94	2,380.17	2,102.88	277.29	8.584
22,400.00	12,432.26	22,155.70	12,210.39	145.51	137.56	84.65	-10,528.88	-1,141.08	2,380.19	2,100.19	280.00	8.501
22,500.00	12,432.78	22,255.70	12,211.26	146.87	138.91	84.66	-10,628.88	-1,140.21	2,380.20	2,097.49	282.71	8.419
22,600.00	12,433.31	22,355.70	12,212.13	148.22	140.26	84.67	-10,728.87	-1,139.35	2,380.22	2,094.80	285.42	8.339
22,700.00	12,433.83	22,455.70	12,213.00	149.57	141.61	84.68	-10,828.86	-1,138.49	2,380.23	2,092.10	288.13	8.261
22,701.12	12,433.84	22,456.82	12,213.01	149.59	141.63	84.68	-10,829.98	-1,138.48	2,380.23	2,092.07	288.16	8.260
22,770.20	12,434.20	22,512.84	12,213.50	150.56	142.38	84.68	-10,886.00	-1,138.00	2,380.28	2,090.58	289.70	8.216 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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	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)			
0.00	0.00	0.00	0.00	0.50	0.50	-45.00	25.00	-25.00	35.36				
100.00	100.00	100.00	100.00	0.98	0.98	-45.00	25.00	-25.00	35.36	33.39	1.96	18.018	
200.00	200.00	200.00	200.00	1.56	1.56	-45.00	25.00	-25.00	35.36	32.23	3.12	11.324	
300.00	300.00	300.00	300.00	1.98	1.98	-45.00	25.00	-25.00	35.36	31.39	3.96	8.923	CC, ES
400.00	399.99	399.99	399.99	2.41	2.33	-153.15	25.00	-25.00	36.52	31.80	4.72	7.734	
500.00	499.91	499.91	499.91	2.78	2.63	-155.66	25.00	-25.00	40.06	34.68	5.38	7.441	
600.00	599.69	599.69	599.69	3.11	2.91	-158.98	25.00	-25.00	46.10	40.11	5.99	7.697	
700.00	699.27	699.98	699.98	3.42	3.02	-162.43	24.79	-24.75	54.42	48.01	6.41	8.486	
800.00	798.57	801.08	801.04	3.71	3.32	-165.89	23.08	-22.71	63.14	56.14	7.00	9.021	
900.00	897.62	902.42	902.23	3.84	3.59	-169.27	19.64	-18.61	71.43	64.03	7.40	9.648	
1,000.00	996.65	1,003.67	1,003.17	4.07	3.77	-172.45	14.52	-12.51	77.56	69.76	7.80	9.942	
1,100.00	1,095.67	1,103.44	1,102.56	4.29	3.97	-175.30	8.93	-5.85	83.08	74.84	8.23	10.089	
1,200.00	1,194.70	1,203.21	1,201.95	4.51	4.17	-177.78	3.34	0.81	88.78	80.12	8.66	10.251	
1,300.00	1,293.73	1,302.98	1,301.34	4.73	4.37	-179.96	-2.25	7.48	94.62	85.54	9.08	10.421	
1,400.00	1,392.75	1,402.76	1,400.74	4.95	4.57	-178.11	-7.84	14.14	100.59	91.09	9.50	10.589	
1,500.00	1,491.78	1,505.37	1,502.84	5.17	4.80	-176.37	-13.90	22.35	105.29	95.36	9.93	10.602	
1,600.00	1,590.81	1,608.17	1,604.84	5.38	5.04	-174.75	-20.57	33.25	107.40	97.03	10.37	10.358	
1,700.00	1,689.83	1,711.02	1,706.52	5.59	5.28	-173.14	-27.85	46.84	106.89	96.09	10.80	9.895	
1,800.00	1,788.86	1,813.75	1,807.65	5.80	5.51	-171.42	-35.73	63.08	103.78	92.55	11.23	9.240	
1,900.00	1,887.89	1,916.23	1,908.03	6.01	5.73	-169.42	-44.17	81.91	98.10	86.46	11.64	8.427	
2,000.00	1,986.91	2,016.91	2,006.19	6.22	5.88	-167.02	-52.93	102.55	90.36	78.37	11.99	7.537	
2,100.00	2,085.94	2,116.52	2,103.24	6.43	6.08	-164.16	-61.65	123.18	82.57	70.17	12.41	6.655	
2,200.00	2,184.97	2,216.12	2,200.29	6.64	6.28	-160.73	-70.37	143.82	75.04	62.21	12.83	5.848	
2,300.00	2,283.86	2,315.80	2,297.42	6.84	6.48	-156.59	-79.10	164.47	68.67	55.43	13.24	5.186	
2,400.00	2,382.33	2,415.65	2,394.70	7.08	6.69	-152.87	-87.84	185.15	64.93	51.21	13.71	4.735	
2,500.00	2,480.31	2,515.60	2,492.09	7.32	6.94	-150.07	-96.59	205.86	63.66	49.46	14.20	4.484	
2,503.85	2,484.07	2,519.44	2,495.84	7.33	6.95	-149.99	-96.92	206.66	63.65	49.44	14.21	4.478	
2,600.00	2,577.74	2,615.58	2,589.51	7.57	7.21	-148.52	-105.34	226.57	64.70	50.01	14.69	4.403	
2,700.00	2,674.78	2,715.54	2,686.92	7.79	7.49	-147.97	-114.09	247.28	67.18	52.02	15.16	4.432	
2,800.00	2,771.81	2,815.51	2,784.32	8.06	7.77	-147.50	-122.84	267.99	69.68	54.03	15.65	4.452	
2,900.00	2,868.84	2,915.48	2,881.73	8.35	8.05	-147.06	-131.59	288.70	72.19	56.04	16.15	4.470	
3,000.00	2,965.87	3,015.44	2,979.13	8.65	8.34	-146.65	-140.34	309.41	74.71	58.05	16.65	4.486	
3,100.00	3,062.90	3,115.41	3,076.54	8.95	8.63	-146.27	-149.10	330.12	77.22	60.06	17.16	4.499	
3,200.00	3,159.93	3,215.38	3,173.95	9.26	8.92	-145.91	-157.85	350.83	79.74	62.07	17.68	4.512	
3,300.00	3,256.96	3,315.35	3,271.35	9.57	9.21	-145.57	-166.60	371.54	82.27	64.08	18.19	4.522	
3,400.00	3,353.99	3,415.31	3,368.76	9.88	9.50	-145.26	-175.35	392.25	84.79	66.08	18.71	4.532	
3,500.00	3,451.02	3,515.28	3,466.16	10.20	9.79	-144.96	-184.10	412.96	87.32	68.09	19.23	4.540	
3,600.00	3,548.05	3,615.25	3,563.57	10.51	10.09	-144.68	-192.85	433.67	89.85	70.09	19.76	4.548	
3,700.00	3,645.08	3,715.21	3,660.97	10.83	10.39	-144.41	-201.60	454.38	92.39	72.10	20.29	4.554	
3,800.00	3,742.11	3,815.18	3,758.38	11.15	10.68	-144.16	-210.36	475.09	94.92	74.10	20.82	4.560	
3,900.00	3,839.14	3,915.15	3,855.79	11.47	10.98	-143.93	-219.11	495.80	97.46	76.11	21.35	4.565	
4,000.00	3,936.17	4,015.11	3,953.19	11.79	11.28	-143.70	-227.86	516.51	99.99	78.11	21.88	4.569	
4,100.00	4,033.20	4,115.08	4,050.60	12.11	11.58	-143.48	-236.61	537.23	102.53	80.11	22.42	4.573	
4,200.00	4,130.23	4,215.05	4,148.00	12.43	11.89	-143.28	-245.36	557.94	105.07	82.11	22.96	4.576	
4,300.00	4,227.26	4,315.02	4,245.41	12.76	12.19	-143.08	-254.11	578.65	107.62	84.12	23.50	4.579	
4,400.00	4,324.29	4,414.98	4,342.82	13.08	12.49	-142.90	-262.86	599.36	110.16	86.12	24.04	4.582	
4,500.00	4,421.32	4,514.95	4,440.22	13.40	12.79	-142.72	-271.61	620.07	112.70	88.12	24.59	4.584	
4,600.00	4,518.35	4,614.92	4,537.63	13.73	13.10	-142.55	-280.37	640.78	115.25	90.12	25.13	4.586	
4,700.00	4,615.38	4,714.88	4,635.03	14.06	13.40	-142.39	-289.12	661.49	117.80	92.12	25.68	4.587	
4,800.00	4,712.41	4,814.85	4,732.44	14.38	13.71	-142.23	-297.87	682.20	120.34	94.12	26.23	4.588	
4,900.00	4,809.44	4,914.82	4,829.85	14.71	14.01	-142.08	-306.62	702.91	122.89	96.11	26.78	4.589	
5,000.00	4,906.47	5,014.79	4,927.25	15.04	14.32	-141.94	-315.37	723.62	125.44	98.11	27.33	4.590	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 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	5,003.50	5,114.75	5,024.66	15.36	14.63	141.80	-324.12	744.33	127.99	100.11	27.88	4.591	
5,200.00	5,100.53	5,214.72	5,122.06	15.69	14.93	141.67	-332.87	765.04	130.54	102.11	28.43	4.592	
5,300.00	5,197.56	5,312.59	5,217.62	16.02	15.20	141.80	-341.11	784.53	133.75	104.82	28.93	4.623	
5,400.00	5,294.59	5,409.88	5,313.10	16.35	15.46	142.61	-348.37	801.69	138.82	109.43	29.38	4.724	
5,500.00	5,391.62	5,506.85	5,408.72	16.68	15.70	144.00	-354.65	816.57	145.84	116.08	29.76	4.901	
5,600.00	5,488.65	5,603.39	5,504.28	17.01	15.91	145.84	-359.97	829.15	154.90	124.84	30.06	5.153	
5,700.00	5,585.68	5,700.00	5,600.23	17.34	16.10	147.98	-364.35	839.52	166.12	135.82	30.31	5.481	
5,800.00	5,682.71	5,794.67	5,694.50	17.67	16.25	150.26	-367.72	847.50	179.61	149.11	30.50	5.889	
5,900.00	5,779.92	5,889.33	5,788.95	17.97	16.38	152.58	-370.18	853.33	194.78	164.13	30.65	6.355	
6,000.00	5,877.69	5,983.60	5,883.13	18.27	16.48	154.62	-371.73	856.99	210.06	179.25	30.82	6.816	
6,100.00	5,975.98	6,077.51	5,977.02	18.54	16.56	156.41	-372.37	858.50	225.35	194.42	30.93	7.286	
6,200.00	6,074.72	6,175.20	6,074.72	18.77	16.61	157.98	-372.39	858.55	239.92	208.86	31.06	7.724	
6,300.00	6,173.83	6,274.32	6,173.83	18.98	16.65	159.18	-372.39	858.55	252.27	221.04	31.22	8.080	
6,400.00	6,273.26	6,373.75	6,273.26	19.16	16.69	160.05	-372.39	858.55	262.25	230.85	31.40	8.352	
6,500.00	6,372.94	6,473.42	6,372.94	19.31	16.73	160.67	-372.39	858.55	269.82	238.24	31.58	8.543	
6,600.00	6,472.79	6,573.27	6,472.79	19.42	16.78	161.07	-372.39	858.55	274.94	243.17	31.77	8.654	
6,700.00	6,572.74	6,673.23	6,572.74	19.52	16.82	161.27	-372.39	858.55	277.60	245.65	31.95	8.688	
6,800.00	6,672.74	6,773.23	6,672.74	19.54	16.86	-90.41	-372.39	858.55	278.01	245.98	32.03	8.679	
6,900.00	6,772.74	6,873.23	6,772.74	19.58	16.91	-90.41	-372.39	858.55	278.01	245.90	32.11	8.658	
7,000.00	6,872.74	6,973.23	6,872.74	19.62	16.95	-90.41	-372.39	858.55	278.01	245.82	32.19	8.636	
7,100.00	6,972.74	7,073.23	6,972.74	19.66	17.00	-90.41	-372.39	858.55	278.01	245.73	32.27	8.614	
7,200.00	7,072.74	7,173.23	7,072.74	19.70	17.04	-90.41	-372.39	858.55	278.01	245.65	32.36	8.592	
7,300.00	7,172.74	7,273.23	7,172.74	19.74	17.09	-90.41	-372.39	858.55	278.01	245.57	32.44	8.571	
7,400.00	7,272.74	7,373.23	7,272.74	19.77	17.13	-90.41	-372.39	858.55	278.01	245.49	32.52	8.549	
7,500.00	7,372.74	7,473.23	7,372.74	19.81	17.18	-90.41	-372.39	858.55	278.01	245.40	32.60	8.527	
7,600.00	7,472.74	7,573.23	7,472.74	19.85	17.22	-90.41	-372.39	858.55	278.01	245.32	32.69	8.505	
7,700.00	7,572.74	7,673.23	7,572.74	19.89	17.27	-90.41	-372.39	858.55	278.01	245.23	32.77	8.483	
7,800.00	7,672.74	7,773.23	7,672.74	19.93	17.32	-90.41	-372.39	858.55	278.01	245.15	32.86	8.460	
7,900.00	7,772.74	7,873.23	7,772.74	19.97	17.36	-90.41	-372.39	858.55	278.01	245.06	32.95	8.438	
8,000.00	7,872.74	7,973.23	7,872.74	20.01	17.41	-90.41	-372.39	858.55	278.01	244.97	33.03	8.416	
8,100.00	7,972.74	8,073.23	7,972.74	20.05	17.46	-90.41	-372.39	858.55	278.01	244.89	33.12	8.394	
8,200.00	8,072.74	8,173.23	8,072.74	20.10	17.51	-90.41	-372.39	858.55	278.01	244.80	33.21	8.372	
8,300.00	8,172.74	8,273.23	8,172.74	20.14	17.56	-90.41	-372.39	858.55	278.01	244.71	33.30	8.350	
8,400.00	8,272.74	8,373.23	8,272.74	20.18	17.60	-90.41	-372.39	858.55	278.01	244.62	33.39	8.327	
8,500.00	8,372.74	8,473.23	8,372.74	20.22	17.65	-90.41	-372.39	858.55	278.01	244.53	33.47	8.305	
8,600.00	8,472.74	8,573.23	8,472.74	20.26	17.70	-90.41	-372.39	858.55	278.01	244.44	33.56	8.283	
8,700.00	8,572.74	8,673.23	8,572.74	20.30	17.75	-90.41	-372.39	858.55	278.01	244.35	33.66	8.260	
8,800.00	8,672.74	8,773.23	8,672.74	20.35	17.80	-90.41	-372.39	858.55	278.01	244.26	33.75	8.238	
8,900.00	8,772.74	8,873.23	8,772.74	20.39	17.85	-90.41	-372.39	858.55	278.01	244.17	33.84	8.216	
9,000.00	8,872.74	8,973.23	8,872.74	20.43	17.90	-90.41	-372.39	858.55	278.01	244.08	33.93	8.193	
9,100.00	8,972.74	9,073.23	8,972.74	20.48	17.95	-90.41	-372.39	858.55	278.01	243.98	34.02	8.171	
9,200.00	9,072.74	9,173.23	9,072.74	20.52	18.00	-90.41	-372.39	858.55	278.01	243.89	34.12	8.149	
9,300.00	9,172.74	9,273.23	9,172.74	20.56	18.05	-90.41	-372.39	858.55	278.01	243.80	34.21	8.126	
9,400.00	9,272.74	9,373.23	9,272.74	20.61	18.10	-90.41	-372.39	858.55	278.01	243.70	34.31	8.104	
9,500.00	9,372.74	9,473.23	9,372.74	20.65	18.15	-90.41	-372.39	858.55	278.01	243.61	34.40	8.082	
9,600.00	9,472.74	9,573.23	9,472.74	20.70	18.20	-90.41	-372.39	858.55	278.01	243.51	34.50	8.059	
9,700.00	9,572.74	9,673.23	9,572.74	20.74	18.25	-90.41	-372.39	858.55	278.01	243.42	34.59	8.037	
9,800.00	9,672.74	9,773.23	9,672.74	20.79	18.30	-90.41	-372.39	858.55	278.01	243.32	34.69	8.015	
9,900.00	9,772.74	9,873.23	9,772.74	20.83	18.36	-90.41	-372.39	858.55	278.01	243.22	34.78	7.992	
10,000.00	9,872.74	9,973.23	9,872.74	20.88	18.41	-90.41	-372.39	858.55	278.01	243.13	34.88	7.970	
10,100.00	9,972.74	10,073.23	9,972.74	20.92	18.46	-90.41	-372.39	858.55	278.01	243.03	34.98	7.948	
10,200.00	10,072.74	10,173.23	10,072.74	20.97	18.51	-90.41	-372.39	858.55	278.01	242.93	35.08	7.925	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 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	
10,300.00	10,172.74	10,273.23	10,172.74	21.01	18.57	-90.41	-372.39	858.55	278.01	242.83	35.18	7.903	
10,400.00	10,272.74	10,373.23	10,272.74	21.06	18.62	-90.41	-372.39	858.55	278.01	242.73	35.28	7.881	
10,500.00	10,372.74	10,473.23	10,372.74	21.11	18.67	-90.41	-372.39	858.55	278.01	242.63	35.38	7.859	
10,600.00	10,472.74	10,573.23	10,472.74	21.15	18.72	-90.41	-372.39	858.55	278.01	242.53	35.48	7.836	
10,700.00	10,572.74	10,673.23	10,572.74	21.20	18.78	-90.41	-372.39	858.55	278.01	242.43	35.58	7.814	
10,800.00	10,672.74	10,773.23	10,672.74	21.25	18.83	-90.41	-372.39	858.55	278.01	242.33	35.68	7.792	
10,900.00	10,772.74	10,873.23	10,772.74	21.29	18.89	-90.41	-372.39	858.55	278.01	242.23	35.78	7.770	
11,000.00	10,872.74	10,973.23	10,872.74	21.34	18.94	-90.41	-372.39	858.55	278.01	242.13	35.88	7.748	
11,100.00	10,972.74	11,073.23	10,972.74	21.39	18.99	-90.41	-372.39	858.55	278.01	242.02	35.98	7.726	
11,200.00	11,072.74	11,173.23	11,072.74	21.44	19.05	-90.41	-372.39	858.55	278.01	241.92	36.09	7.704	
11,300.00	11,172.74	11,273.23	11,172.74	21.49	19.10	-90.41	-372.39	858.55	278.01	241.82	36.19	7.682	
11,400.00	11,272.74	11,373.23	11,272.74	21.53	19.16	-90.41	-372.39	858.55	278.01	241.71	36.29	7.660	
11,500.00	11,372.74	11,473.23	11,372.74	21.58	19.21	-90.41	-372.39	858.55	278.01	241.61	36.40	7.638	
11,600.00	11,472.74	11,573.24	11,472.75	21.63	19.26	-90.48	-372.70	858.55	278.01	241.52	36.49	7.619	
11,605.97	11,478.71	11,579.20	11,478.71	21.63	19.27	-90.52	-372.92	858.55	278.01	241.51	36.50	7.617	
11,700.00	11,572.74	11,671.67	11,570.37	21.68	19.40	-92.87	-384.33	858.66	278.25	241.50	36.75	7.571	
11,800.00	11,672.74	11,763.62	11,658.52	21.73	19.57	-98.15	-410.13	858.89	280.85	243.50	37.35	7.520	
11,900.00	11,772.74	11,845.58	11,732.74	21.78	19.77	-105.01	-444.76	859.21	289.91	251.54	38.37	7.556	
12,000.00	11,872.61	11,917.96	11,793.58	21.84	19.99	67.44	-483.86	859.56	308.33	268.52	39.81	7.745	
12,100.00	11,970.52	11,986.93	11,846.54	21.99	20.22	59.86	-527.97	859.96	331.72	290.26	41.46	8.001	
12,200.00	12,063.53	12,050.00	11,890.02	22.19	20.48	53.80	-573.62	860.38	356.79	313.59	43.20	8.260	
12,300.00	12,148.80	12,118.96	11,931.49	22.45	20.79	48.62	-628.66	860.88	381.16	336.34	44.82	8.505	
12,400.00	12,223.74	12,182.96	11,963.82	22.78	21.13	44.78	-683.86	861.38	403.26	356.96	46.31	8.709	
12,500.00	12,286.09	12,250.00	11,990.85	23.20	21.53	41.85	-745.16	861.94	421.95	374.38	47.57	8.871	
12,600.00	12,333.93	12,300.00	12,006.26	23.71	21.86	40.04	-792.71	862.37	436.47	387.92	48.55	8.990	
12,700.00	12,365.83	12,370.61	12,020.83	24.31	22.36	38.68	-861.75	863.00	445.98	396.72	49.26	9.053	
12,800.00	12,380.81	12,432.42	12,026.53	24.99	22.83	38.11	-923.27	863.56	450.54	400.91	49.63	9.078	
12,900.00	12,382.30	12,521.27	12,027.45	25.74	23.55	38.08	-1,012.10	864.36	450.79	400.78	50.01	9.013	
13,000.00	12,382.83	12,621.27	12,028.16	26.54	24.42	38.09	-1,112.10	865.27	450.65	400.08	50.57	8.911	
13,100.00	12,383.35	12,721.27	12,028.86	27.39	25.33	38.10	-1,212.09	866.18	450.51	399.31	51.19	8.800	
13,200.00	12,383.88	12,821.27	12,029.57	28.28	26.28	38.12	-1,312.08	867.09	450.36	398.49	51.87	8.683	
13,300.00	12,384.40	12,921.27	12,030.28	29.20	27.27	38.13	-1,412.08	868.00	450.22	397.61	52.60	8.559	
13,400.00	12,384.93	13,021.27	12,030.99	30.16	28.28	38.15	-1,512.07	868.91	450.07	396.68	53.39	8.430	
13,500.00	12,385.46	13,121.27	12,031.70	31.14	29.33	38.16	-1,612.06	869.81	449.93	395.70	54.23	8.297	
13,600.00	12,385.98	13,221.27	12,032.41	32.15	30.40	38.18	-1,712.06	870.72	449.79	394.67	55.12	8.161	
13,700.00	12,386.51	13,321.27	12,033.12	33.18	31.49	38.19	-1,812.05	871.63	449.64	393.59	56.05	8.022	
13,800.00	12,387.03	13,421.27	12,033.83	34.23	32.60	38.21	-1,912.04	872.54	449.50	392.47	57.03	7.881	
13,900.00	12,387.56	13,521.27	12,034.54	35.31	33.73	38.22	-2,012.04	873.45	449.35	391.30	58.05	7.740	
14,000.00	12,388.09	13,621.27	12,035.25	36.40	34.87	38.23	-2,112.03	874.36	449.21	390.09	59.12	7.599	
14,100.00	12,388.61	13,721.27	12,035.95	37.51	36.03	38.25	-2,212.02	875.27	449.07	388.85	60.22	7.457	
14,200.00	12,389.14	13,821.27	12,036.66	38.63	37.20	38.26	-2,312.02	876.17	448.92	387.56	61.36	7.316	
14,300.00	12,389.66	13,921.27	12,037.37	39.77	38.39	38.28	-2,412.01	877.08	448.78	386.25	62.53	7.177	
14,400.00	12,390.19	14,021.27	12,038.08	40.92	39.58	38.29	-2,512.00	877.99	448.63	384.90	63.74	7.039	
14,500.00	12,390.71	14,121.27	12,038.79	42.08	40.79	38.31	-2,611.99	878.90	448.49	383.52	64.97	6.903	
14,600.00	12,391.24	14,221.27	12,039.50	43.26	42.01	38.32	-2,711.99	879.81	448.35	382.11	66.24	6.769	
14,700.00	12,391.77	14,321.27	12,040.21	44.44	43.23	38.34	-2,811.98	880.72	448.20	380.67	67.53	6.637	
14,800.00	12,392.29	14,421.27	12,040.92	45.64	44.47	38.35	-2,911.97	881.63	448.06	379.21	68.85	6.508	
14,900.00	12,392.82	14,521.27	12,041.63	46.84	45.71	38.36	-3,011.97	882.53	447.91	377.72	70.19	6.381	
15,000.00	12,393.34	14,621.27	12,042.34	48.05	46.95	38.38	-3,111.96	883.44	447.77	376.21	71.56	6.257	
15,100.00	12,393.87	14,721.27	12,043.05	49.27	48.21	38.39	-3,211.95	884.35	447.63	374.67	72.95	6.136	
15,200.00	12,394.40	14,821.27	12,043.75	50.50	49.47	38.41	-3,311.95	885.26	447.48	373.12	74.36	6.017	
15,300.00	12,394.92	14,921.27	12,044.46	51.73	50.73	38.42	-3,411.94	886.17	447.34	371.54	75.80	5.902	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error:		0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
15,400.00	12,395.45	15,021.27	12,045.17	52.97	52.00	38.44	-3,511.93	887.08	447.20	369.95	77.25	5.789			
15,500.00	12,395.97	15,121.27	12,045.88	54.21	53.27	38.45	-3,611.93	887.99	447.05	368.34	78.71	5.679			
15,600.00	12,396.50	15,221.27	12,046.59	55.47	54.55	38.47	-3,711.92	888.89	446.91	366.71	80.20	5.573			
15,700.00	12,397.03	15,321.26	12,047.30	56.72	55.84	38.48	-3,811.91	889.80	446.77	365.07	81.70	5.468			
15,800.00	12,397.55	15,421.26	12,048.01	57.98	57.12	38.50	-3,911.91	890.71	446.62	363.41	83.22	5.367			
15,900.00	12,398.08	15,521.26	12,048.72	59.25	58.41	38.51	-4,011.90	891.62	446.48	361.73	84.75	5.268			
16,000.00	12,398.60	15,621.26	12,049.43	60.52	59.71	38.53	-4,111.89	892.53	446.34	360.04	86.29	5.172			
16,100.00	12,399.13	15,721.26	12,050.14	61.79	61.01	38.54	-4,211.89	893.44	446.19	358.34	87.85	5.079			
16,200.00	12,399.65	15,821.26	12,050.85	63.07	62.31	38.55	-4,311.88	894.35	446.05	356.63	89.42	4.988			
16,300.00	12,400.18	15,921.26	12,051.55	64.35	63.61	38.57	-4,411.87	895.25	445.91	354.90	91.01	4.900			
16,400.00	12,400.71	16,021.26	12,052.26	65.63	64.91	38.58	-4,511.87	896.16	445.76	353.16	92.60	4.814			
16,500.00	12,401.23	16,121.26	12,052.97	66.92	66.22	38.60	-4,611.86	897.07	445.62	351.41	94.20	4.730			
16,600.00	12,401.76	16,221.26	12,053.68	68.21	67.53	38.61	-4,711.85	897.98	445.48	349.66	95.82	4.649			
16,700.00	12,402.28	16,321.26	12,054.39	69.51	68.84	38.63	-4,811.85	898.89	445.33	347.89	97.45	4.570			
16,800.00	12,402.81	16,421.26	12,055.10	70.80	70.16	38.64	-4,911.84	899.80	445.19	346.11	99.08	4.493			
16,900.00	12,403.34	16,521.26	12,055.81	72.10	71.48	38.66	-5,011.83	900.71	445.05	344.32	100.72	4.418			
17,000.00	12,403.86	16,621.26	12,056.52	73.40	72.80	38.67	-5,111.82	901.61	444.90	342.53	102.38	4.346			
17,100.00	12,404.39	16,721.26	12,057.23	74.71	74.12	38.69	-5,211.82	902.52	444.76	340.72	104.04	4.275			
17,200.00	12,404.91	16,821.26	12,057.94	76.01	75.44	38.70	-5,311.81	903.43	444.62	338.91	105.71	4.206			
17,300.00	12,405.44	16,921.26	12,058.65	77.32	76.76	38.72	-5,411.80	904.34	444.47	337.09	107.38	4.139			
17,400.00	12,405.96	17,021.26	12,059.35	78.63	78.09	38.73	-5,511.80	905.25	444.33	335.26	109.07	4.074			
17,500.00	12,406.49	17,121.26	12,060.06	79.94	79.41	38.75	-5,611.79	906.16	444.19	333.43	110.76	4.010			
17,600.00	12,407.02	17,221.26	12,060.77	81.26	80.74	38.76	-5,711.78	907.07	444.04	331.59	112.46	3.949			
17,700.00	12,407.54	17,321.26	12,061.48	82.57	82.07	38.78	-5,811.78	907.97	443.90	329.74	114.16	3.888			
17,800.00	12,408.07	17,421.26	12,062.19	83.89	83.40	38.79	-5,911.77	908.88	443.76	327.89	115.87	3.830			
17,900.00	12,408.59	17,521.26	12,062.90	85.21	84.73	38.81	-6,011.76	909.79	443.62	326.03	117.59	3.773			
18,000.00	12,409.12	17,621.26	12,063.61	86.53	86.07	38.82	-6,111.76	910.70	443.47	324.16	119.31	3.717			
18,100.00	12,409.65	17,721.26	12,064.32	87.85	87.40	38.83	-6,211.75	911.61	443.33	322.29	121.04	3.663			
18,200.00	12,410.17	17,821.26	12,065.03	89.18	88.74	38.85	-6,311.74	912.52	443.19	320.41	122.78	3.610			
18,300.00	12,410.70	17,921.26	12,065.74	90.50	90.07	38.86	-6,411.74	913.43	443.05	318.53	124.51	3.558			
18,400.00	12,411.22	18,021.26	12,066.45	91.83	91.41	38.88	-6,511.73	914.34	442.90	316.64	126.26	3.508			
18,500.00	12,411.75	18,121.26	12,067.15	93.15	92.75	38.89	-6,611.72	915.24	442.76	314.75	128.01	3.459			
18,600.00	12,412.27	18,221.26	12,067.86	94.48	94.09	38.91	-6,711.72	916.15	442.62	312.86	129.76	3.411			
18,700.00	12,412.80	18,321.26	12,068.57	95.81	95.43	38.92	-6,811.71	917.06	442.47	310.95	131.52	3.364			
18,800.00	12,413.33	18,421.26	12,069.28	97.14	96.77	38.94	-6,911.70	917.97	442.33	309.05	133.28	3.319			
18,900.00	12,413.85	18,521.26	12,069.99	98.47	98.11	38.95	-7,011.70	918.88	442.19	307.14	135.05	3.274			
19,000.00	12,414.38	18,621.26	12,070.70	99.81	99.45	38.97	-7,111.69	919.79	442.05	305.22	136.82	3.231			
19,100.00	12,414.90	18,721.26	12,071.41	101.14	100.79	38.98	-7,211.68	920.70	441.90	303.31	138.60	3.188			
19,200.00	12,415.43	18,821.26	12,072.12	102.47	102.14	39.00	-7,311.68	921.60	441.76	301.38	140.38	3.147			
19,300.00	12,415.96	18,921.26	12,072.83	103.81	103.48	39.01	-7,411.67	922.51	441.62	299.46	142.16	3.106			
19,400.00	12,416.48	19,021.26	12,073.54	105.15	104.83	39.03	-7,511.66	923.42	441.48	297.53	143.95	3.067			
19,500.00	12,417.01	19,121.26	12,074.24	106.48	106.17	39.04	-7,611.65	924.33	441.33	295.59	145.74	3.028			
19,600.00	12,417.53	19,221.26	12,074.95	107.82	107.52	39.06	-7,711.65	925.24	441.19	293.66	147.53	2.990			
19,700.00	12,418.06	19,321.26	12,075.66	109.16	108.87	39.07	-7,811.64	926.15	441.05	291.72	149.33	2.953			
19,800.00	12,418.59	19,421.26	12,076.37	110.50	110.21	39.09	-7,911.63	927.06	440.91	289.77	151.13	2.917			
19,900.00	12,419.11	19,521.26	12,077.08	111.84	111.56	39.10	-8,011.63	927.96	440.77	287.83	152.94	2.882			
20,000.00	12,419.64	19,621.26	12,077.79	113.18	112.91	39.12	-8,111.62	928.87	440.62	285.88	154.75	2.847			
20,100.00	12,420.16	19,721.26	12,078.50	114.52	114.26	39.13	-8,211.61	929.78	440.48	283.92	156.56	2.814			
20,200.00	12,420.69	19,821.26	12,079.21	115.86	115.61	39.15	-8,311.61	930.69	440.34	281.97	158.37	2.780			
20,300.00	12,421.21	19,921.26	12,079.92	117.20	116.96	39.16	-8,411.60	931.60	440.20	280.01	160.19	2.748			
20,400.00	12,421.74	20,021.26	12,080.63	118.55	118.31	39.18	-8,511.59	932.51	440.05	278.05	162.01	2.716			
20,500.00	12,422.27	20,121.26	12,081.34	119.89	119.66	39.19	-8,611.59	933.42	439.91	276.08	163.83	2.685			

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)		Ellipses (usft)			
20,600.00	12,422.79	20,221.26	12,082.04	121.24	121.01	39.21	-8,711.58	934.32	439.77	274.11	165.66	2.655	
20,700.00	12,423.32	20,321.26	12,082.75	122.58	122.36	39.22	-8,811.57	935.23	439.63	272.14	167.48	2.625	
20,800.00	12,423.84	20,421.26	12,083.46	123.93	123.71	39.24	-8,911.57	936.14	439.49	270.17	169.32	2.596	
20,900.00	12,424.37	20,521.26	12,084.17	125.27	125.06	39.25	-9,011.56	937.05	439.34	268.19	171.15	2.567	
21,000.00	12,424.90	20,621.26	12,084.88	126.62	126.42	39.27	-9,111.55	937.96	439.20	266.22	172.99	2.539	
21,100.00	12,425.42	20,721.26	12,085.59	127.97	127.77	39.28	-9,211.55	938.87	439.06	264.24	174.82	2.511	
21,200.00	12,425.95	20,821.26	12,086.30	129.31	129.12	39.30	-9,311.54	939.78	438.92	262.25	176.67	2.484	
21,300.00	12,426.47	20,921.26	12,087.01	130.66	130.48	39.31	-9,411.53	940.68	438.78	260.27	178.51	2.458	
21,400.00	12,427.00	21,021.26	12,087.72	132.01	131.83	39.33	-9,511.53	941.59	438.64	258.28	180.36	2.432	
21,500.00	12,427.52	21,121.26	12,088.43	133.36	133.19	39.34	-9,611.52	942.50	438.49	256.29	182.20	2.407	
21,600.00	12,428.05	21,221.26	12,089.14	134.71	134.54	39.36	-9,711.51	943.41	438.35	254.30	184.06	2.382	
21,700.00	12,428.58	21,321.25	12,089.84	136.06	135.90	39.38	-9,811.50	944.32	438.21	252.30	185.91	2.357	
21,800.00	12,429.10	21,421.25	12,090.55	137.41	137.25	39.39	-9,911.50	945.23	438.07	250.30	187.76	2.333	
21,900.00	12,429.63	21,521.25	12,091.26	138.76	138.61	39.41	-10,011.49	946.14	437.93	248.31	189.62	2.309	
22,000.00	12,430.15	21,621.25	12,091.97	140.11	139.96	39.42	-10,111.48	947.04	437.79	246.30	191.48	2.286	
22,100.00	12,430.68	21,721.25	12,092.68	141.46	141.32	39.44	-10,211.48	947.95	437.64	244.30	193.34	2.264	
22,200.00	12,431.21	21,821.25	12,093.39	142.81	142.67	39.45	-10,311.47	948.86	437.50	242.30	195.21	2.241	
22,300.00	12,431.73	21,921.25	12,094.10	144.16	144.03	39.47	-10,411.46	949.77	437.36	240.29	197.07	2.219	
22,400.00	12,432.26	22,021.25	12,094.81	145.51	145.39	39.48	-10,511.46	950.68	437.22	238.28	198.94	2.198	
22,500.00	12,432.78	22,121.25	12,095.52	146.87	146.74	39.50	-10,611.45	951.59	437.08	236.27	200.81	2.177	
22,600.00	12,433.31	22,221.25	12,096.23	148.22	148.10	39.51	-10,711.44	952.50	436.94	234.25	202.68	2.156	
22,700.00	12,433.83	22,321.25	12,096.94	149.57	149.46	39.53	-10,811.44	953.40	436.79	232.24	204.56	2.135	
22,763.89	12,434.17	22,385.14	12,097.39	150.47	150.33	39.54	-10,875.32	953.98	436.70	230.95	205.76	2.122	SF
22,770.20	12,434.20	22,386.82	12,097.40	150.56	150.35	39.54	-10,877.00	954.00	436.72	231.11	205.61	2.124	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.00	0.00	0.50	0.50	-7.70	185.00	-25.00	186.68				
100.00	100.00	101.00	100.00	0.98	0.99	-7.70	185.00	-25.00	186.68	184.71	1.97	94.875	
200.00	200.00	201.00	200.00	1.56	1.57	-7.70	185.00	-25.00	186.68	183.56	3.13	59.711	
300.00	300.00	301.04	300.04	1.98	1.99	-7.70	185.00	-25.00	186.68	182.71	3.97	47.064	
400.00	399.99	405.30	404.28	2.41	2.43	-115.53	183.68	-25.61	186.07	181.33	4.74	39.267	
500.00	499.91	509.29	508.18	2.78	2.80	-117.42	179.80	-27.41	184.41	179.01	5.40	34.172	
600.00	599.69	612.77	611.42	3.11	3.11	-120.62	173.39	-30.38	182.08	176.12	5.97	30.523	
700.00	699.27	712.64	710.91	3.42	3.26	-124.83	165.54	-34.02	180.40	174.01	6.38	28.255	
718.07	717.24	730.51	728.72	3.47	3.30	-125.66	164.13	-34.67	180.35	173.88	6.48	27.846	CC, ES
800.00	798.57	811.43	809.33	3.71	3.50	-129.66	157.73	-37.64	181.32	174.43	6.90	26.292	
900.00	897.62	909.94	907.46	3.84	3.73	-134.84	149.94	-41.25	184.98	177.71	7.27	25.440	
1,000.00	996.65	1,008.42	1,005.57	4.07	3.95	-139.82	142.15	-44.86	190.25	182.51	7.74	24.580	
1,100.00	1,095.67	1,106.91	1,103.69	4.29	4.17	-144.50	134.37	-48.47	196.90	188.70	8.19	24.028	
1,200.00	1,194.70	1,205.40	1,201.80	4.51	4.38	-148.86	126.58	-52.08	204.80	196.17	8.63	23.728	
1,300.00	1,293.73	1,304.38	1,300.38	4.73	4.51	-153.00	118.46	-55.91	213.76	204.79	8.97	23.826	
1,400.00	1,392.75	1,403.26	1,398.61	4.95	4.77	-157.35	108.50	-61.00	223.52	214.11	9.41	23.753	
1,500.00	1,491.78	1,501.28	1,495.68	5.17	5.02	-161.91	96.55	-67.46	234.41	224.56	9.85	23.806	
1,600.00	1,590.81	1,598.33	1,591.42	5.38	5.27	-166.59	82.70	-75.25	246.82	236.54	10.29	23.996	
1,700.00	1,689.83	1,694.30	1,685.67	5.59	5.51	-171.28	67.03	-84.30	261.12	250.39	10.73	24.331	
1,800.00	1,788.86	1,790.21	1,779.50	5.80	5.67	-175.85	49.92	-94.34	277.45	266.32	11.14	24.917	
1,900.00	1,887.89	1,886.41	1,873.60	6.01	5.87	-179.94	32.67	-104.47	295.43	283.84	11.59	25.486	
2,000.00	1,986.91	1,982.61	1,967.70	6.22	6.08	176.44	15.42	-114.60	314.75	302.70	12.05	26.116	
2,100.00	2,085.94	2,078.81	2,061.79	6.43	6.28	173.23	-1.83	-124.73	335.18	322.67	12.51	26.791	
2,200.00	2,184.97	2,175.01	2,155.89	6.64	6.49	170.39	-19.08	-134.86	356.54	343.57	12.97	27.492	
2,300.00	2,283.86	2,271.04	2,249.82	6.84	6.69	167.48	-36.30	-144.98	379.54	366.13	13.41	28.303	
2,400.00	2,382.33	2,366.56	2,343.26	7.08	6.90	164.97	-53.43	-155.04	405.56	391.67	13.90	29.184	
2,500.00	2,480.31	2,461.51	2,436.13	7.32	7.16	162.86	-70.46	-165.03	434.42	420.04	14.38	30.204	
2,600.00	2,577.74	2,555.81	2,528.37	7.57	7.42	161.11	-87.36	-174.97	465.95	451.08	14.87	31.336	
2,700.00	2,674.78	2,649.67	2,620.17	7.79	7.68	159.89	-104.20	-184.85	499.18	483.87	15.31	32.606	
2,800.00	2,771.81	2,743.52	2,711.97	8.06	7.95	158.87	-121.02	-194.73	532.60	516.83	15.77	33.763	
2,900.00	2,868.84	2,837.37	2,803.77	8.35	8.21	157.98	-137.85	-204.62	566.15	549.91	16.24	34.856	
3,000.00	2,965.87	2,931.22	2,895.57	8.65	8.48	157.18	-154.68	-214.50	599.82	583.10	16.71	35.889	
3,100.00	3,062.90	3,025.07	2,987.37	8.95	8.74	156.46	-171.51	-224.38	633.57	616.39	17.19	36.867	
3,200.00	3,159.93	3,118.92	3,079.17	9.26	9.01	155.82	-188.34	-234.27	667.40	649.74	17.66	37.792	
3,300.00	3,256.96	3,212.77	3,170.97	9.57	9.28	155.24	-205.17	-244.15	701.31	683.17	18.14	38.668	
3,400.00	3,353.99	3,306.63	3,262.77	9.88	9.55	154.72	-222.00	-254.03	735.27	716.65	18.62	39.498	
3,500.00	3,451.02	3,400.48	3,354.57	10.20	9.81	154.23	-238.82	-263.92	769.28	750.18	19.10	40.285	
3,600.00	3,548.05	3,494.33	3,446.37	10.51	10.08	153.79	-255.65	-273.80	803.33	783.75	19.58	41.033	
3,700.00	3,645.08	3,588.18	3,538.17	10.83	10.35	153.39	-272.48	-283.68	837.42	817.36	20.06	41.744	
3,800.00	3,742.11	3,682.03	3,629.97	11.15	10.62	153.02	-289.31	-293.57	871.55	851.00	20.55	42.419	
3,900.00	3,839.14	3,775.88	3,721.77	11.47	10.89	152.67	-306.14	-303.45	905.70	884.68	21.03	43.075	
4,000.00	3,936.17	3,883.87	3,827.62	11.79	11.18	152.36	-324.57	-314.28	939.30	917.72	21.58	43.527	
4,100.00	4,033.20	3,996.27	3,938.37	12.11	11.47	152.22	-341.04	-323.95	971.21	949.07	22.14	43.868	
4,200.00	4,130.23	4,110.08	4,051.05	12.43	11.72	152.24	-354.85	-332.06	1,001.35	978.68	22.67	44.163	
4,300.00	4,227.26	4,225.13	4,165.38	12.76	11.95	152.42	-365.85	-338.52	1,029.70	1,006.51	23.18	44.418	
4,400.00	4,324.29	4,341.22	4,281.09	13.08	12.14	152.74	-373.95	-343.27	1,056.23	1,032.58	23.66	44.643	
4,500.00	4,421.32	4,458.16	4,397.88	13.40	12.29	153.20	-379.03	-346.26	1,080.97	1,056.87	24.10	44.847	
4,600.00	4,518.35	4,575.73	4,515.42	13.73	12.40	153.78	-381.03	-347.43	1,103.93	1,079.46	24.48	45.103	
4,700.00	4,615.38	4,675.69	4,615.38	14.06	12.44	154.34	-381.06	-347.45	1,125.83	1,101.07	24.76	45.476	
4,800.00	4,712.41	4,772.72	4,712.41	14.38	12.47	154.86	-381.06	-347.45	1,147.80	1,122.77	25.03	45.854	
4,900.00	4,809.44	4,869.75	4,809.44	14.71	12.51	155.36	-381.06	-347.45	1,169.86	1,144.55	25.31	46.228	
5,000.00	4,906.47	4,966.78	4,906.47	15.04	12.55	155.84	-381.06	-347.45	1,192.00	1,166.42	25.58	46.598	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,003.50	5,063.81	5,003.50	15.36	12.59	156.31	-381.06	-347.45	1,214.22	1,188.36	25.85	46.964	
5,200.00	5,100.53	5,160.84	5,100.53	15.69	12.62	156.75	-381.06	-347.45	1,236.51	1,210.38	26.13	47.325	
5,300.00	5,197.56	5,257.87	5,197.56	16.02	12.66	157.19	-381.06	-347.45	1,258.87	1,232.47	26.40	47.682	
5,400.00	5,294.59	5,354.90	5,294.59	16.35	12.70	157.60	-381.06	-347.45	1,281.30	1,254.62	26.67	48.034	
5,500.00	5,391.62	5,451.93	5,391.62	16.68	12.74	158.01	-381.06	-347.45	1,303.79	1,276.84	26.95	48.382	
5,600.00	5,488.65	5,548.96	5,488.65	17.01	12.78	158.40	-381.06	-347.45	1,326.34	1,299.12	27.22	48.726	
5,700.00	5,585.68	5,645.99	5,585.68	17.34	12.82	158.77	-381.06	-347.45	1,348.95	1,321.46	27.49	49.064	
5,800.00	5,682.71	5,743.02	5,682.71	17.67	12.87	159.14	-381.06	-347.45	1,371.61	1,343.85	27.77	49.398	
5,900.00	5,779.92	5,840.23	5,779.92	17.97	12.91	159.57	-381.06	-347.45	1,393.64	1,365.62	28.02	49.735	
6,000.00	5,877.69	5,938.00	5,877.69	18.27	12.95	159.97	-381.06	-347.45	1,413.37	1,385.08	28.30	49.950	
6,100.00	5,975.98	6,036.29	5,975.98	18.54	12.99	160.31	-381.06	-347.45	1,430.72	1,402.16	28.56	50.091	
6,200.00	6,074.72	6,135.02	6,074.72	18.77	13.03	160.60	-381.06	-347.45	1,445.66	1,416.84	28.82	50.160	
6,300.00	6,173.83	6,234.14	6,173.83	18.98	13.08	160.83	-381.06	-347.45	1,458.17	1,429.10	29.07	50.159	
6,400.00	6,273.26	6,333.57	6,273.26	19.16	13.12	161.02	-381.06	-347.45	1,468.23	1,438.92	29.31	50.091	
6,500.00	6,372.94	6,433.24	6,372.94	19.31	13.17	161.16	-381.06	-347.45	1,475.84	1,446.30	29.54	49.959	
6,600.00	6,472.79	6,533.09	6,472.79	19.42	13.21	161.25	-381.06	-347.45	1,480.97	1,451.22	29.76	49.769	
6,700.00	6,572.74	6,633.05	6,572.74	19.52	13.26	161.30	-381.06	-347.45	1,483.63	1,453.68	29.95	49.529	
6,800.00	6,672.74	6,733.05	6,672.74	19.54	13.30	-90.41	-381.06	-347.45	1,484.04	1,454.00	30.04	49.405	
6,900.00	6,772.74	6,833.05	6,772.74	19.58	13.35	-90.41	-381.06	-347.45	1,484.04	1,453.92	30.12	49.270	
7,000.00	6,872.74	6,933.05	6,872.74	19.62	13.40	-90.41	-381.06	-347.45	1,484.04	1,453.83	30.20	49.134	
7,100.00	6,972.74	7,033.05	6,972.74	19.66	13.44	-90.41	-381.06	-347.45	1,484.04	1,453.75	30.29	48.998	
7,200.00	7,072.74	7,133.05	7,072.74	19.70	13.49	-90.41	-381.06	-347.45	1,484.04	1,453.67	30.37	48.862	
7,300.00	7,172.74	7,233.05	7,172.74	19.74	13.54	-90.41	-381.06	-347.45	1,484.04	1,453.58	30.46	48.726	
7,400.00	7,272.74	7,333.05	7,272.74	19.77	13.59	-90.41	-381.06	-347.45	1,484.04	1,453.50	30.54	48.589	
7,500.00	7,372.74	7,433.05	7,372.74	19.81	13.64	-90.41	-381.06	-347.45	1,484.04	1,453.41	30.63	48.452	
7,600.00	7,472.74	7,533.05	7,472.74	19.85	13.68	-90.41	-381.06	-347.45	1,484.04	1,453.32	30.72	48.315	
7,700.00	7,572.74	7,633.05	7,572.74	19.89	13.73	-90.41	-381.06	-347.45	1,484.04	1,453.24	30.80	48.178	
7,800.00	7,672.74	7,733.05	7,672.74	19.93	13.78	-90.41	-381.06	-347.45	1,484.04	1,453.15	30.89	48.040	
7,900.00	7,772.74	7,833.05	7,772.74	19.97	13.83	-90.41	-381.06	-347.45	1,484.04	1,453.06	30.98	47.903	
8,000.00	7,872.74	7,933.05	7,872.74	20.01	13.88	-90.41	-381.06	-347.45	1,484.04	1,452.97	31.07	47.765	
8,100.00	7,972.74	8,033.05	7,972.74	20.05	13.93	-90.41	-381.06	-347.45	1,484.04	1,452.88	31.16	47.627	
8,200.00	8,072.74	8,133.05	8,072.74	20.10	13.98	-90.41	-381.06	-347.45	1,484.04	1,452.79	31.25	47.489	
8,300.00	8,172.74	8,233.05	8,172.74	20.14	14.04	-90.41	-381.06	-347.45	1,484.04	1,452.70	31.34	47.351	
8,400.00	8,272.74	8,333.05	8,272.74	20.18	14.09	-90.41	-381.06	-347.45	1,484.04	1,452.61	31.43	47.213	
8,500.00	8,372.74	8,433.05	8,372.74	20.22	14.14	-90.41	-381.06	-347.45	1,484.04	1,452.51	31.53	47.075	
8,600.00	8,472.74	8,533.05	8,472.74	20.26	14.19	-90.41	-381.06	-347.45	1,484.04	1,452.42	31.62	46.937	
8,700.00	8,572.74	8,633.05	8,572.74	20.30	14.24	-90.41	-381.06	-347.45	1,484.04	1,452.33	31.71	46.798	
8,800.00	8,672.74	8,733.05	8,672.74	20.35	14.29	-90.41	-381.06	-347.45	1,484.04	1,452.23	31.81	46.660	
8,900.00	8,772.74	8,833.05	8,772.74	20.39	14.35	-90.41	-381.06	-347.45	1,484.04	1,452.14	31.90	46.522	
9,000.00	8,872.74	8,933.05	8,872.74	20.43	14.40	-90.41	-381.06	-347.45	1,484.04	1,452.04	31.99	46.384	
9,100.00	8,972.74	9,033.05	8,972.74	20.48	14.45	-90.41	-381.06	-347.45	1,484.04	1,451.95	32.09	46.245	
9,200.00	9,072.74	9,133.05	9,072.74	20.52	14.51	-90.41	-381.06	-347.45	1,484.04	1,451.85	32.19	46.107	
9,300.00	9,172.74	9,233.05	9,172.74	20.56	14.56	-90.41	-381.06	-347.45	1,484.04	1,451.75	32.28	45.969	
9,400.00	9,272.74	9,333.05	9,272.74	20.61	14.62	-90.41	-381.06	-347.45	1,484.04	1,451.66	32.38	45.831	
9,500.00	9,372.74	9,433.05	9,372.74	20.65	14.67	-90.41	-381.06	-347.45	1,484.04	1,451.56	32.48	45.693	
9,600.00	9,472.74	9,533.05	9,472.74	20.70	14.73	-90.41	-381.06	-347.45	1,484.04	1,451.46	32.58	45.555	
9,700.00	9,572.74	9,633.05	9,572.74	20.74	14.78	-90.41	-381.06	-347.45	1,484.04	1,451.36	32.68	45.417	
9,800.00	9,672.74	9,733.05	9,672.74	20.79	14.84	-90.41	-381.06	-347.45	1,484.04	1,451.26	32.77	45.280	
9,900.00	9,772.74	9,833.05	9,772.74	20.83	14.89	-90.41	-381.06	-347.45	1,484.04	1,451.16	32.87	45.142	
10,000.00	9,872.74	9,933.05	9,872.74	20.88	14.95	-90.41	-381.06	-347.45	1,484.04	1,451.06	32.97	45.005	
10,100.00	9,972.74	10,033.05	9,972.74	20.92	15.00	-90.41	-381.06	-347.45	1,484.04	1,450.96	33.08	44.868	
10,200.00	10,072.74	10,133.05	10,072.74	20.97	15.06	-90.41	-381.06	-347.45	1,484.04	1,450.86	33.18	44.731	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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: Reference		0-MWD+HRGM+SAG+FDIR (rev.5)		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: Distance			Offset Well Error:		0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.00	10,172.74	10,233.05	10,172.74	21.01	15.12	-90.41	-381.06	-347.45	1,484.04	1,450.76	33.28	44.594		
10,400.00	10,272.74	10,333.05	10,272.74	21.06	15.17	-90.41	-381.06	-347.45	1,484.04	1,450.66	33.38	44.457		
10,500.00	10,372.74	10,433.05	10,372.74	21.11	15.23	-90.41	-381.06	-347.45	1,484.04	1,450.55	33.48	44.321		
10,600.00	10,472.74	10,533.05	10,472.74	21.15	15.29	-90.41	-381.06	-347.45	1,484.04	1,450.45	33.59	44.185		
10,700.00	10,572.74	10,633.05	10,572.74	21.20	15.34	-90.41	-381.06	-347.45	1,484.04	1,450.35	33.69	44.049		
10,800.00	10,672.74	10,733.05	10,672.74	21.25	15.40	-90.41	-381.06	-347.45	1,484.04	1,450.24	33.79	43.913		
10,900.00	10,772.74	10,833.05	10,772.74	21.29	15.46	-90.41	-381.06	-347.45	1,484.04	1,450.14	33.90	43.777		
11,000.00	10,872.74	10,933.05	10,872.74	21.34	15.52	-90.41	-381.06	-347.45	1,484.04	1,450.03	34.00	43.642		
11,100.00	10,972.74	11,033.05	10,972.74	21.39	15.57	-90.41	-381.06	-347.45	1,484.04	1,449.93	34.11	43.510		
11,200.00	11,072.74	11,133.18	11,072.83	21.44	15.64	-90.47	-382.66	-347.44	1,484.04	1,449.83	34.20	43.388		
11,213.44	11,086.18	11,146.59	11,086.19	21.44	15.66	-90.52	-383.82	-347.42	1,484.04	1,449.82	34.22	43.370		
11,300.00	11,172.74	11,230.87	11,169.15	21.49	15.82	-91.07	-398.21	-347.29	1,484.11	1,449.73	34.38	43.173		
11,400.00	11,272.74	11,320.93	11,254.45	21.53	16.05	-92.18	-426.85	-347.03	1,484.77	1,450.12	34.65	42.850		
11,500.00	11,372.74	11,400.00	11,324.83	21.58	16.30	-93.56	-462.73	-346.71	1,486.90	1,451.91	34.99	42.489		
11,600.00	11,472.74	11,468.62	11,381.42	21.63	16.58	-95.05	-501.48	-346.36	1,491.49	1,456.08	35.41	42.126		
11,700.00	11,572.74	11,526.21	11,425.05	21.68	16.84	-96.49	-539.02	-346.01	1,499.42	1,463.55	35.86	41.813		
11,800.00	11,672.74	11,574.56	11,458.63	21.73	17.10	-97.81	-573.80	-345.70	1,511.38	1,475.02	36.37	41.560		
11,900.00	11,772.74	11,615.21	11,484.50	21.78	17.35	-99.00	-605.13	-345.41	1,527.88	1,490.95	36.93	41.375		
12,000.00	11,872.61	11,650.00	11,504.83	21.84	17.58	79.12	-633.36	-345.16	1,548.58	1,511.07	37.52	41.276		
12,100.00	11,970.52	11,700.00	11,530.97	21.99	17.93	75.57	-675.96	-344.77	1,570.94	1,532.64	38.29	41.022		
12,200.00	12,063.53	11,727.44	11,543.71	22.19	18.15	72.74	-700.26	-344.55	1,593.27	1,554.19	39.07	40.778		
12,300.00	12,148.80	11,767.46	11,560.16	22.45	18.47	69.89	-736.73	-344.22	1,614.63	1,574.66	39.97	40.393		
12,400.00	12,223.74	11,800.00	11,571.64	22.78	18.75	67.53	-767.17	-343.94	1,633.98	1,593.11	40.87	39.984		
12,500.00	12,286.09	11,850.00	11,585.86	23.20	19.20	65.37	-815.09	-343.50	1,650.30	1,608.43	41.87	39.418		
12,600.00	12,333.93	11,900.00	11,595.86	23.71	19.67	63.77	-864.06	-343.06	1,663.08	1,620.22	42.86	38.803		
12,700.00	12,365.83	11,933.81	11,600.17	24.31	20.01	62.82	-897.59	-342.75	1,671.62	1,627.94	43.69	38.263		
12,800.00	12,380.81	11,976.14	11,602.78	24.99	20.43	62.34	-939.83	-342.37	1,675.72	1,631.21	44.52	37.641		
12,900.00	12,382.30	12,060.96	11,603.34	25.74	21.31	62.30	-1,024.64	-341.60	1,676.05	1,630.33	45.72	36.658		
13,000.00	12,382.83	12,160.96	11,603.86	26.54	22.38	62.30	-1,124.64	-340.69	1,676.05	1,628.90	47.16	35.542		
13,100.00	12,383.35	12,260.96	11,604.39	27.39	23.48	62.30	-1,224.63	-339.78	1,676.05	1,627.38	48.67	34.435		
13,200.00	12,383.88	12,360.96	11,604.91	28.28	24.61	62.30	-1,324.62	-338.87	1,676.05	1,625.79	50.26	33.346		
13,300.00	12,384.40	12,460.96	11,605.44	29.20	25.76	62.30	-1,424.62	-337.96	1,676.05	1,624.13	51.92	32.282		
13,400.00	12,384.93	12,560.96	11,605.96	30.16	26.93	62.30	-1,524.61	-337.06	1,676.05	1,622.42	53.64	31.248		
13,500.00	12,385.46	12,660.96	11,606.49	31.14	28.12	62.30	-1,624.61	-336.15	1,676.05	1,620.64	55.41	30.248		
13,600.00	12,385.98	12,760.96	11,607.01	32.15	29.33	62.30	-1,724.60	-335.24	1,676.05	1,618.82	57.23	29.285		
13,700.00	12,386.51	12,860.96	11,607.54	33.18	30.55	62.30	-1,824.60	-334.33	1,676.05	1,616.95	59.10	28.359		
13,800.00	12,387.03	12,960.96	11,608.06	34.23	31.78	62.30	-1,924.59	-333.42	1,676.05	1,615.04	61.01	27.471		
13,900.00	12,387.56	13,060.96	11,608.59	35.31	33.02	62.30	-2,024.59	-332.51	1,676.05	1,613.09	62.96	26.621		
14,000.00	12,388.09	13,160.96	11,609.11	36.40	34.27	62.30	-2,124.58	-331.60	1,676.05	1,611.11	64.94	25.808		
14,100.00	12,388.61	13,260.96	11,609.64	37.51	35.53	62.30	-2,224.57	-330.69	1,676.05	1,609.10	66.96	25.032		
14,200.00	12,389.14	13,360.96	11,610.16	38.63	36.80	62.30	-2,324.57	-329.78	1,676.05	1,607.05	69.00	24.290		
14,300.00	12,389.66	13,460.96	11,610.69	39.77	38.07	62.30	-2,424.56	-328.88	1,676.05	1,604.98	71.07	23.583		
14,400.00	12,390.19	13,560.96	11,611.21	40.92	39.35	62.30	-2,524.56	-327.97	1,676.05	1,602.89	73.16	22.908		
14,500.00	12,390.71	13,660.96	11,611.74	42.08	40.64	62.30	-2,624.55	-327.06	1,676.05	1,600.77	75.28	22.264		
14,600.00	12,391.24	13,760.96	11,612.26	43.26	41.93	62.30	-2,724.55	-326.15	1,676.05	1,598.64	77.42	21.650		
14,700.00	12,391.77	13,860.96	11,612.79	44.44	43.23	62.30	-2,824.54	-325.24	1,676.05	1,596.48	79.57	21.063		
14,800.00	12,392.29	13,960.96	11,613.31	45.64	44.53	62.30	-2,924.54	-324.33	1,676.05	1,594.31	81.74	20.504		
14,900.00	12,392.82	14,060.96	11,613.84	46.84	45.83	62.30	-3,024.53	-323.42	1,676.05	1,592.12	83.93	19.969		
15,000.00	12,393.34	14,160.96	11,614.36	48.05	47.14	62.30	-3,124.53	-322.51	1,676.05	1,589.92	86.14	19.458		
15,100.00	12,393.87	14,260.96	11,614.89	49.27	48.45	62.30	-3,224.52	-321.60	1,676.05	1,587.70	88.35	18.970		
15,200.00	12,394.40	14,360.96	11,615.41	50.50	49.77	62.30	-3,324.51	-320.70	1,676.05	1,585.47	90.58	18.503		
15,300.00	12,394.92	14,460.96	11,615.94	51.73	51.08	62.30	-3,424.51	-319.79	1,676.05	1,583.23	92.82	18.057		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)			
15,400.00	12,395.45	14,560.96	11,616.46	52.97	52.40	62.30	-3,524.50	-318.88	1,676.05	1,580.98	95.07	17.629	
15,500.00	12,395.97	14,660.96	11,616.99	54.21	53.73	62.30	-3,624.50	-317.97	1,676.05	1,578.72	97.34	17.219	
15,600.00	12,396.50	14,760.96	11,617.51	55.47	55.05	62.30	-3,724.49	-317.06	1,676.05	1,576.45	99.61	16.826	
15,700.00	12,397.03	14,860.96	11,618.04	56.72	56.38	62.30	-3,824.49	-316.15	1,676.05	1,574.17	101.89	16.450	
15,800.00	12,397.55	14,960.96	11,618.56	57.98	57.71	62.30	-3,924.48	-315.24	1,676.05	1,571.88	104.18	16.088	
15,900.00	12,398.08	15,060.96	11,619.09	59.25	59.04	62.30	-4,024.48	-314.33	1,676.05	1,569.58	106.47	15.741	
16,000.00	12,398.60	15,160.96	11,619.61	60.52	60.37	62.30	-4,124.47	-313.42	1,676.05	1,567.28	108.78	15.408	
16,100.00	12,399.13	15,260.96	11,620.14	61.79	61.70	62.30	-4,224.46	-312.51	1,676.05	1,564.97	111.09	15.088	
16,200.00	12,399.65	15,360.96	11,620.67	63.07	63.04	62.30	-4,324.46	-311.61	1,676.05	1,562.65	113.40	14.779	
16,300.00	12,400.18	15,460.96	11,621.19	64.35	64.38	62.30	-4,424.45	-310.70	1,676.05	1,560.33	115.73	14.483	
16,400.00	12,400.71	15,560.96	11,621.72	65.63	65.71	62.30	-4,524.45	-309.79	1,676.05	1,558.00	118.06	14.197	
16,500.00	12,401.23	15,660.96	11,622.24	66.92	67.05	62.30	-4,624.44	-308.88	1,676.05	1,555.66	120.39	13.922	
16,600.00	12,401.76	15,760.96	11,622.77	68.21	68.39	62.30	-4,724.44	-307.97	1,676.05	1,553.33	122.73	13.657	
16,700.00	12,402.28	15,860.96	11,623.29	69.51	69.74	62.30	-4,824.43	-307.06	1,676.05	1,550.98	125.07	13.401	
16,800.00	12,402.81	15,960.96	11,623.82	70.80	71.08	62.30	-4,924.43	-306.15	1,676.05	1,548.63	127.42	13.154	
16,900.00	12,403.34	16,060.96	11,624.34	72.10	72.42	62.30	-5,024.42	-305.24	1,676.05	1,546.28	129.77	12.915	
17,000.00	12,403.86	16,160.96	11,624.87	73.40	73.77	62.30	-5,124.41	-304.33	1,676.05	1,543.93	132.13	12.685	
17,100.00	12,404.39	16,260.96	11,625.39	74.71	75.11	62.30	-5,224.41	-303.43	1,676.05	1,541.57	134.49	12.463	
17,200.00	12,404.91	16,360.96	11,625.92	76.01	76.46	62.30	-5,324.40	-302.52	1,676.05	1,539.20	136.85	12.247	
17,300.00	12,405.44	16,460.96	11,626.44	77.32	77.81	62.30	-5,424.40	-301.61	1,676.05	1,536.84	139.22	12.039	
17,400.00	12,405.96	16,560.96	11,626.97	78.63	79.15	62.30	-5,524.39	-300.70	1,676.05	1,534.47	141.59	11.838	
17,500.00	12,406.49	16,660.96	11,627.49	79.94	80.50	62.30	-5,624.39	-299.79	1,676.05	1,532.09	143.96	11.643	
17,600.00	12,407.02	16,760.96	11,628.02	81.26	81.85	62.30	-5,724.38	-298.88	1,676.05	1,529.72	146.34	11.453	
17,700.00	12,407.54	16,860.96	11,628.54	82.57	83.20	62.30	-5,824.38	-297.97	1,676.05	1,527.34	148.71	11.270	
17,800.00	12,408.07	16,960.96	11,629.07	83.89	84.55	62.30	-5,924.37	-297.06	1,676.05	1,524.96	151.10	11.093	
17,900.00	12,408.59	17,060.96	11,629.59	85.21	85.90	62.30	-6,024.37	-296.15	1,676.05	1,522.57	153.48	10.920	
18,000.00	12,409.12	17,160.96	11,630.12	86.53	87.26	62.30	-6,124.36	-295.25	1,676.05	1,520.19	155.87	10.753	
18,100.00	12,409.65	17,260.96	11,630.64	87.85	88.61	62.30	-6,224.35	-294.34	1,676.05	1,517.80	158.25	10.591	
18,200.00	12,410.17	17,360.96	11,631.17	89.18	89.96	62.30	-6,324.35	-293.43	1,676.05	1,515.41	160.65	10.433	
18,300.00	12,410.70	17,460.96	11,631.69	90.50	91.32	62.30	-6,424.34	-292.52	1,676.05	1,513.01	163.04	10.280	
18,400.00	12,411.22	17,560.96	11,632.22	91.83	92.67	62.30	-6,524.34	-291.61	1,676.05	1,510.62	165.43	10.131	
18,500.00	12,411.75	17,660.96	11,632.74	93.15	94.02	62.30	-6,624.33	-290.70	1,676.05	1,508.22	167.83	9.987	
18,600.00	12,412.27	17,760.96	11,633.27	94.48	95.38	62.30	-6,724.33	-289.79	1,676.05	1,505.82	170.23	9.846	
18,700.00	12,412.80	17,860.96	11,633.79	95.81	96.73	62.30	-6,824.32	-288.88	1,676.05	1,503.42	172.63	9.709	
18,800.00	12,413.33	17,960.96	11,634.32	97.14	98.09	62.30	-6,924.32	-287.97	1,676.05	1,501.02	175.03	9.576	
18,900.00	12,413.85	18,060.96	11,634.84	98.47	99.44	62.30	-7,024.31	-287.07	1,676.05	1,498.62	177.44	9.446	
19,000.00	12,414.38	18,160.96	11,635.37	99.81	100.80	62.30	-7,124.30	-286.16	1,676.05	1,496.21	179.84	9.320	
19,100.00	12,414.90	18,260.96	11,635.89	101.14	102.16	62.30	-7,224.30	-285.25	1,676.05	1,493.81	182.25	9.197	
19,200.00	12,415.43	18,360.96	11,636.42	102.47	103.51	62.30	-7,324.29	-284.34	1,676.05	1,491.40	184.66	9.077	
19,300.00	12,415.96	18,460.96	11,636.94	103.81	104.87	62.30	-7,424.29	-283.43	1,676.05	1,488.99	187.07	8.960	
19,400.00	12,416.48	18,560.96	11,637.47	105.15	106.23	62.30	-7,524.28	-282.52	1,676.05	1,486.58	189.48	8.846	
19,500.00	12,417.01	18,660.96	11,637.99	106.48	107.59	62.30	-7,624.28	-281.61	1,676.05	1,484.17	191.89	8.735	
19,600.00	12,417.53	18,760.96	11,638.52	107.82	108.95	62.30	-7,724.27	-280.70	1,676.05	1,481.75	194.30	8.626	
19,700.00	12,418.06	18,860.96	11,639.04	109.16	110.30	62.30	-7,824.27	-279.79	1,676.05	1,479.34	196.72	8.520	
19,800.00	12,418.59	18,960.96	11,639.57	110.50	111.66	62.30	-7,924.26	-278.88	1,676.05	1,476.92	199.13	8.417	
19,900.00	12,419.11	19,060.96	11,640.09	111.84	113.02	62.30	-8,024.26	-277.98	1,676.05	1,474.50	201.55	8.316	
20,000.00	12,419.64	19,160.96	11,640.62	113.18	114.38	62.30	-8,124.25	-277.07	1,676.05	1,472.09	203.97	8.217	
20,100.00	12,420.16	19,260.96	11,641.14	114.52	115.74	62.30	-8,224.24	-276.16	1,676.05	1,469.67	206.39	8.121	
20,200.00	12,420.69	19,360.96	11,641.67	115.86	117.10	62.30	-8,324.24	-275.25	1,676.05	1,467.25	208.81	8.027	
20,300.00	12,421.21	19,460.96	11,642.19	117.20	118.46	62.30	-8,424.23	-274.34	1,676.05	1,464.83	211.23	7.935	
20,400.00	12,421.74	19,560.96	11,642.72	118.55	119.82	62.30	-8,524.23	-273.43	1,676.05	1,462.40	213.65	7.845	
20,500.00	12,422.27	19,660.96	11,643.24	119.89	121.18	62.30	-8,624.22	-272.52	1,676.05	1,459.98	216.07	7.757	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:					Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,600.00	12,422.79	19,760.96	11,643.77	121.24	122.54	62.30	-8,724.22	-271.61	1,676.05	1,457.56	218.49	7.671	
20,700.00	12,423.32	19,860.96	11,644.29	122.58	123.90	62.30	-8,824.21	-270.70	1,676.05	1,455.13	220.92	7.587	
20,800.00	12,423.84	19,960.96	11,644.82	123.93	125.26	62.30	-8,924.21	-269.80	1,676.05	1,452.71	223.34	7.504	
20,900.00	12,424.37	20,060.96	11,645.34	125.27	126.62	62.30	-9,024.20	-268.89	1,676.05	1,450.28	225.77	7.424	
21,000.00	12,424.90	20,160.96	11,645.87	126.62	127.98	62.30	-9,124.19	-267.98	1,676.05	1,447.86	228.20	7.345	
21,100.00	12,425.42	20,260.96	11,646.39	127.97	129.35	62.30	-9,224.19	-267.07	1,676.05	1,445.43	230.62	7.267	
21,200.00	12,425.95	20,360.96	11,646.92	129.31	130.71	62.30	-9,324.18	-266.16	1,676.05	1,443.00	233.05	7.192	
21,300.00	12,426.47	20,460.96	11,647.44	130.66	132.07	62.30	-9,424.18	-265.25	1,676.05	1,440.57	235.48	7.118	
21,400.00	12,427.00	20,560.96	11,647.97	132.01	133.43	62.30	-9,524.17	-264.34	1,676.05	1,438.14	237.91	7.045	
21,500.00	12,427.52	20,660.96	11,648.50	133.36	134.79	62.30	-9,624.17	-263.43	1,676.05	1,435.71	240.34	6.974	
21,600.00	12,428.05	20,760.96	11,649.02	134.71	136.16	62.30	-9,724.16	-262.52	1,676.05	1,433.28	242.77	6.904	
21,700.00	12,428.58	20,860.96	11,649.55	136.06	137.52	62.30	-9,824.16	-261.62	1,676.05	1,430.85	245.20	6.835	
21,800.00	12,429.10	20,960.96	11,650.07	137.41	138.88	62.30	-9,924.15	-260.71	1,676.05	1,428.42	247.63	6.768	
21,900.00	12,429.63	21,060.96	11,650.60	138.76	140.24	62.30	-10,024.15	-259.80	1,676.05	1,425.99	250.07	6.702	
22,000.00	12,430.15	21,160.96	11,651.12	140.11	141.61	62.30	-10,124.14	-258.89	1,676.05	1,423.55	252.50	6.638	
22,100.00	12,430.68	21,260.96	11,651.65	141.46	142.97	62.30	-10,224.13	-257.98	1,676.05	1,421.12	254.93	6.574	
22,200.00	12,431.21	21,360.96	11,652.17	142.81	144.33	62.30	-10,324.13	-257.07	1,676.05	1,418.69	257.37	6.512	
22,300.00	12,431.73	21,460.96	11,652.70	144.16	145.70	62.30	-10,424.12	-256.16	1,676.05	1,416.25	259.80	6.451	
22,400.00	12,432.26	21,560.96	11,653.22	145.51	147.06	62.30	-10,524.12	-255.25	1,676.05	1,413.82	262.24	6.391	
22,500.00	12,432.78	21,660.96	11,653.75	146.87	148.42	62.30	-10,624.11	-254.34	1,676.05	1,411.38	264.67	6.333	
22,600.00	12,433.31	21,760.96	11,654.27	148.22	149.79	62.30	-10,724.11	-253.44	1,676.05	1,408.94	267.11	6.275	
22,700.00	12,433.83	21,860.96	11,654.80	149.57	151.15	62.30	-10,824.10	-252.53	1,676.05	1,406.51	269.55	6.218	
22,757.27	12,434.14	21,918.23	11,655.10	150.38	151.93	62.30	-10,881.37	-252.01	1,676.05	1,405.11	270.94	6.186	
22,770.20	12,434.20	21,918.86	11,655.10	150.56	151.94	62.30	-10,882.00	-252.00	1,676.10	1,405.07	271.03	6.184	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.50	0.50	-90.00	0.00	-25.00	25.00				
100.00	100.00	100.00	100.00	0.98	0.98	-90.00	0.00	-25.00	25.00	23.04	1.96	12.741	
200.00	200.00	200.00	200.00	1.56	1.56	-90.00	0.00	-25.00	25.00	21.88	3.12	8.007	
300.00	300.00	300.00	300.00	1.98	1.98	-90.00	0.00	-25.00	25.00	21.04	3.96	6.309	CC
400.00	399.99	400.50	400.49	2.41	2.41	161.75	-0.85	-23.99	25.25	20.47	4.77	5.289	
500.00	499.91	500.99	500.89	2.78	2.77	158.74	-3.40	-20.95	26.04	20.58	5.45	4.776	
600.00	599.69	601.44	601.12	3.11	3.11	154.12	-7.64	-15.89	27.50	21.45	6.05	4.549	
700.00	699.27	701.84	701.10	3.42	3.41	148.47	-13.57	-8.82	29.80	23.23	6.57	4.534	
800.00	798.57	802.18	800.73	3.71	3.70	142.45	-21.19	0.25	33.11	26.06	7.05	4.696	
900.00	897.62	902.16	899.76	3.84	3.83	136.91	-30.05	10.81	37.38	30.11	7.27	5.141	
1,000.00	996.65	1,002.01	998.64	4.07	4.06	132.53	-38.98	21.46	41.97	34.26	7.71	5.441	
1,100.00	1,095.67	1,101.86	1,097.51	4.29	4.28	129.04	-47.92	32.10	46.76	38.60	8.16	5.730	
1,200.00	1,194.70	1,201.71	1,196.39	4.51	4.52	126.20	-56.85	42.75	51.70	43.07	8.62	5.994	
1,300.00	1,293.73	1,302.84	1,296.42	4.73	4.73	123.27	-65.61	54.74	55.63	46.56	9.07	6.132	
1,400.00	1,392.75	1,404.08	1,396.27	4.95	4.95	119.45	-73.76	69.33	57.38	47.86	9.52	6.024	
1,500.00	1,491.78	1,505.23	1,495.67	5.17	5.18	114.39	-81.28	86.49	57.18	47.20	9.98	5.730	
1,600.00	1,590.81	1,606.16	1,594.42	5.38	5.41	107.57	-88.16	106.17	55.42	44.99	10.44	5.311	
1,700.00	1,689.83	1,705.91	1,691.74	5.59	5.60	99.29	-94.60	127.05	53.51	42.62	10.89	4.914	
1,800.00	1,788.86	1,805.58	1,788.99	5.80	5.81	90.59	-101.04	147.91	52.78	41.40	11.38	4.636	
1,808.51	1,797.28	1,814.05	1,797.26	5.82	5.83	89.84	-101.59	149.69	52.78	41.35	11.43	4.619	
1,900.00	1,887.89	1,905.25	1,886.24	6.01	6.05	81.86	-107.48	168.78	53.30	41.42	11.88	4.485	
2,000.00	1,986.91	2,004.92	1,983.49	6.22	6.32	73.48	-113.91	189.65	55.02	42.65	12.38	4.446	
2,100.00	2,085.94	2,104.59	2,080.74	6.43	6.60	65.77	-120.35	210.52	57.84	44.98	12.86	4.498	
2,200.00	2,184.97	2,204.26	2,177.99	6.64	6.88	58.87	-126.79	231.38	61.61	48.28	13.33	4.623	
2,300.00	2,283.86	2,304.00	2,275.30	6.84	7.16	53.10	-133.23	252.27	65.57	51.81	13.76	4.765	
2,400.00	2,382.33	2,403.89	2,372.77	7.08	7.45	49.58	-139.68	273.18	68.27	54.03	14.24	4.794	
2,500.00	2,480.31	2,503.86	2,470.31	7.32	7.74	47.93	-146.13	294.11	69.34	54.60	14.74	4.705	
2,600.00	2,577.74	2,603.86	2,567.88	7.57	8.03	47.93	-152.59	315.05	68.62	53.37	15.25	4.499	
2,700.00	2,674.78	2,703.83	2,665.42	7.79	8.32	49.14	-159.05	335.98	66.76	51.01	15.75	4.240	
2,800.00	2,771.81	2,803.80	2,762.96	8.06	8.61	50.45	-165.50	356.91	64.91	48.63	16.28	3.987	
2,900.00	2,868.84	2,903.77	2,860.51	8.35	8.90	51.84	-171.96	377.84	63.10	46.27	16.83	3.750	
3,000.00	2,965.87	3,003.75	2,958.05	8.65	9.20	53.31	-178.42	398.77	61.33	43.94	17.38	3.528	
3,100.00	3,062.90	3,103.72	3,055.59	8.95	9.49	54.87	-184.87	419.70	59.60	41.65	17.95	3.320	
3,200.00	3,159.93	3,203.69	3,153.13	9.26	9.79	56.52	-191.33	440.63	57.91	39.38	18.53	3.125	
3,300.00	3,256.96	3,303.66	3,250.68	9.57	10.08	58.27	-197.78	461.57	56.28	37.16	19.12	2.943	
3,400.00	3,353.99	3,403.63	3,348.22	9.88	10.38	60.12	-204.24	482.50	54.70	34.97	19.73	2.772	
3,500.00	3,451.02	3,503.60	3,445.76	10.20	10.68	62.08	-210.70	503.43	53.19	32.84	20.35	2.613	
3,600.00	3,548.05	3,603.57	3,543.30	10.51	10.97	64.15	-217.15	524.36	51.74	30.75	20.98	2.465	
3,700.00	3,645.08	3,703.55	3,640.84	10.83	11.27	66.33	-223.61	545.29	50.36	28.73	21.63	2.328	
3,800.00	3,742.11	3,803.52	3,738.39	11.15	11.57	68.64	-230.06	566.22	49.05	26.77	22.29	2.201	
3,900.00	3,839.14	3,903.49	3,835.93	11.47	11.87	71.07	-236.52	587.15	47.84	24.88	22.96	2.084	
4,000.00	3,936.17	4,003.46	3,933.47	11.79	12.17	73.62	-242.97	608.08	46.71	23.07	23.63	1.976	Collision Risk Procedures Req.
4,100.00	4,033.20	4,103.43	4,031.01	12.11	12.47	76.29	-249.43	629.01	45.68	21.36	24.31	1.879	Collision Risk Procedures Req.
4,200.00	4,130.23	4,203.40	4,128.56	12.43	12.77	79.08	-255.89	649.94	44.75	19.75	25.00	1.790	Collision Risk Procedures Req.
4,300.00	4,227.26	4,303.37	4,226.10	12.76	13.07	81.97	-262.34	670.87	43.93	18.24	25.69	1.710	Collision Risk Procedures Req.
4,400.00	4,324.29	4,403.35	4,323.64	13.08	13.37	84.97	-268.80	691.80	43.23	16.86	26.37	1.640	Collision Risk Procedures Req.
4,500.00	4,421.32	4,503.32	4,421.18	13.40	13.67	88.06	-275.25	712.74	42.65	15.61	27.04	1.578	Collision Risk Procedures Req.
4,600.00	4,518.35	4,603.29	4,518.73	13.73	13.97	91.23	-281.71	733.67	42.20	14.51	27.69	1.524	Collision Risk Procedures Req.
4,700.00	4,615.38	4,703.26	4,616.27	14.06	14.28	94.45	-288.17	754.60	41.88	13.55	28.33	1.478	Collision Avoidance Req.
4,800.00	4,712.41	4,803.23	4,713.81	14.38	14.58	97.71	-294.62	775.53	41.69	12.75	28.95	1.440	Collision Avoidance Req.
4,886.07	4,795.92	4,889.28	4,797.76	14.66	14.84	100.54	-300.18	793.54	41.64	12.19	29.45	1.414	Collision Avoidance Req.
4,900.00	4,809.44	4,903.20	4,811.35	14.71	14.88	100.99	-301.08	796.46	41.65	12.11	29.53	1.410	Collision Avoidance Req.

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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+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)	Major Offset (usft)		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,000.00	4,906.47	5,003.18	4,908.90	15.04	15.18	104.27	-307.53	817.39	41.73	11.64	30.09	1.387	Collision Avoidance Req.
5,100.00	5,003.50	5,103.15	5,006.44	15.36	15.48	107.53	-313.99	838.32	41.96	11.34	30.62	1.370	Collision Avoidance Req.
5,200.00	5,100.53	5,203.12	5,103.98	15.69	15.79	110.74	-320.45	859.25	42.31	11.20	31.12	1.360	Collision Avoidance Req., ES
5,300.00	5,197.56	5,303.09	5,201.52	16.02	16.09	113.88	-326.90	880.18	42.80	11.22	31.58	1.355	Collision Avoidance Req., SF
5,400.00	5,294.59	5,403.06	5,299.07	16.35	16.39	116.95	-333.36	901.11	43.41	11.40	32.02	1.356	Collision Avoidance Req.
5,500.00	5,391.62	5,503.03	5,396.61	16.68	16.69	119.92	-339.81	922.04	44.15	11.72	32.43	1.361	Collision Avoidance Req.
5,600.00	5,488.65	5,602.80	5,493.98	17.01	16.98	122.92	-346.22	942.81	45.07	12.29	32.78	1.375	Collision Avoidance Req.
5,700.00	5,585.68	5,701.98	5,591.19	17.34	17.25	127.69	-352.02	961.61	47.34	14.38	32.96	1.436	Collision Avoidance Req.
5,800.00	5,682.71	5,800.88	5,688.59	17.67	17.50	134.07	-357.05	977.94	51.71	18.82	32.89	1.572	Collision Risk Procedures Req.
5,900.00	5,779.92	5,900.00	5,786.63	17.97	17.73	140.58	-361.36	991.88	58.06	25.35	32.72	1.775	Collision Risk Procedures Req.
6,000.00	5,877.69	5,997.73	5,883.64	18.27	17.92	145.70	-364.86	1,003.25	65.06	32.45	32.62	1.995	Collision Risk Procedures Req.
6,100.00	5,975.98	6,095.82	5,981.27	18.54	18.08	149.77	-367.64	1,012.27	72.48	39.88	32.60	2.223	
6,200.00	6,074.72	6,193.70	6,078.90	18.77	18.22	153.03	-369.68	1,018.88	80.16	47.53	32.63	2.457	
6,300.00	6,173.83	6,291.36	6,176.45	18.98	18.32	155.67	-370.98	1,023.09	88.02	55.34	32.68	2.693	
6,400.00	6,273.26	6,388.80	6,273.88	19.16	18.41	157.82	-371.54	1,024.91	96.00	63.25	32.75	2.931	
6,500.00	6,372.94	6,487.86	6,372.94	19.31	18.44	159.51	-371.57	1,025.00	103.40	70.59	32.81	3.151	
6,600.00	6,472.79	6,587.71	6,472.79	19.42	18.48	160.54	-371.57	1,025.00	108.50	75.56	32.94	3.294	
6,700.00	6,572.74	6,687.67	6,572.74	19.52	18.52	161.04	-371.57	1,025.00	111.15	78.06	33.09	3.359	
6,800.00	6,672.74	6,787.67	6,672.74	19.54	18.56	-90.61	-371.57	1,025.00	111.56	78.39	33.16	3.364	
6,900.00	6,772.74	6,887.67	6,772.74	19.58	18.60	-90.61	-371.57	1,025.00	111.56	78.32	33.24	3.356	
7,000.00	6,872.74	6,987.67	6,872.74	19.62	18.64	-90.61	-371.57	1,025.00	111.56	78.24	33.31	3.349	
7,100.00	6,972.74	7,087.67	6,972.74	19.66	18.68	-90.61	-371.57	1,025.00	111.56	78.17	33.39	3.341	
7,200.00	7,072.74	7,187.67	7,072.74	19.70	18.72	-90.61	-371.57	1,025.00	111.56	78.09	33.47	3.333	
7,300.00	7,172.74	7,287.67	7,172.74	19.74	18.76	-90.61	-371.57	1,025.00	111.56	78.01	33.55	3.325	
7,400.00	7,272.74	7,387.67	7,272.74	19.77	18.80	-90.61	-371.57	1,025.00	111.56	77.93	33.62	3.318	
7,500.00	7,372.74	7,487.67	7,372.74	19.81	18.84	-90.61	-371.57	1,025.00	111.56	77.85	33.70	3.310	
7,600.00	7,472.74	7,587.67	7,472.74	19.85	18.88	-90.61	-371.57	1,025.00	111.56	77.77	33.78	3.302	
7,700.00	7,572.74	7,687.67	7,572.74	19.89	18.92	-90.61	-371.57	1,025.00	111.56	77.69	33.86	3.294	
7,800.00	7,672.74	7,787.67	7,672.74	19.93	18.96	-90.61	-371.57	1,025.00	111.56	77.61	33.94	3.287	
7,900.00	7,772.74	7,887.67	7,772.74	19.97	19.01	-90.61	-371.57	1,025.00	111.56	77.53	34.03	3.279	
8,000.00	7,872.74	7,987.67	7,872.74	20.01	19.05	-90.61	-371.57	1,025.00	111.56	77.45	34.11	3.271	
8,100.00	7,972.74	8,087.67	7,972.74	20.05	19.09	-90.61	-371.57	1,025.00	111.56	77.37	34.19	3.263	
8,200.00	8,072.74	8,187.67	8,072.74	20.10	19.14	-90.61	-371.57	1,025.00	111.56	77.28	34.27	3.255	
8,300.00	8,172.74	8,287.67	8,172.74	20.14	19.18	-90.61	-371.57	1,025.00	111.56	77.20	34.36	3.247	
8,400.00	8,272.74	8,387.67	8,272.74	20.18	19.22	-90.61	-371.57	1,025.00	111.56	77.12	34.44	3.239	
8,500.00	8,372.74	8,487.67	8,372.74	20.22	19.27	-90.61	-371.57	1,025.00	111.56	77.03	34.53	3.231	
8,600.00	8,472.74	8,587.67	8,472.74	20.26	19.31	-90.61	-371.57	1,025.00	111.56	76.95	34.61	3.223	
8,700.00	8,572.74	8,687.67	8,572.74	20.30	19.36	-90.61	-371.57	1,025.00	111.56	76.86	34.70	3.215	
8,800.00	8,672.74	8,787.67	8,672.74	20.35	19.40	-90.61	-371.57	1,025.00	111.56	76.77	34.78	3.207	
8,900.00	8,772.74	8,887.67	8,772.74	20.39	19.44	-90.61	-371.57	1,025.00	111.56	76.69	34.87	3.199	
9,000.00	8,872.74	8,987.67	8,872.74	20.43	19.49	-90.61	-371.57	1,025.00	111.56	76.60	34.96	3.191	
9,100.00	8,972.74	9,087.67	8,972.74	20.48	19.54	-90.61	-371.57	1,025.00	111.56	76.51	35.05	3.183	
9,200.00	9,072.74	9,187.67	9,072.74	20.52	19.58	-90.61	-371.57	1,025.00	111.56	76.42	35.13	3.175	
9,300.00	9,172.74	9,287.67	9,172.74	20.56	19.63	-90.61	-371.57	1,025.00	111.56	76.33	35.22	3.167	
9,400.00	9,272.74	9,387.67	9,272.74	20.61	19.67	-90.61	-371.57	1,025.00	111.56	76.24	35.31	3.159	
9,500.00	9,372.74	9,487.67	9,372.74	20.65	19.72	-90.61	-371.57	1,025.00	111.56	76.15	35.40	3.151	
9,600.00	9,472.74	9,587.67	9,472.74	20.70	19.77	-90.61	-371.57	1,025.00	111.56	76.06	35.49	3.143	
9,700.00	9,572.74	9,687.67	9,572.74	20.74	19.81	-90.61	-371.57	1,025.00	111.56	75.97	35.59	3.135	
9,800.00	9,672.74	9,787.67	9,672.74	20.79	19.86	-90.61	-371.57	1,025.00	111.56	75.88	35.68	3.127	
9,900.00	9,772.74	9,887.67	9,772.74	20.83	19.91	-90.61	-371.57	1,025.00	111.56	75.79	35.77	3.119	
10,000.00	9,872.74	9,987.67	9,872.74	20.88	19.95	-90.61	-371.57	1,025.00	111.56	75.69	35.86	3.111	
10,100.00	9,972.74	10,087.67	9,972.74	20.92	20.00	-90.61	-371.57	1,025.00	111.56	75.60	35.96	3.103	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 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
10,200.00	10,072.74	10,187.67	10,072.74	20.97	20.05	-90.61	-371.57	1,025.00	111.56	75.51	36.05	3.094	
10,300.00	10,172.74	10,287.67	10,172.74	21.01	20.10	-90.61	-371.57	1,025.00	111.56	75.41	36.14	3.086	
10,400.00	10,272.74	10,387.67	10,272.74	21.06	20.15	-90.61	-371.57	1,025.00	111.56	75.32	36.24	3.078	
10,500.00	10,372.74	10,487.67	10,372.74	21.11	20.19	-90.61	-371.57	1,025.00	111.56	75.22	36.33	3.070	
10,600.00	10,472.74	10,587.67	10,472.74	21.15	20.24	-90.61	-371.57	1,025.00	111.56	75.13	36.43	3.062	
10,700.00	10,572.74	10,687.67	10,572.74	21.20	20.29	-90.61	-371.57	1,025.00	111.56	75.03	36.53	3.054	
10,800.00	10,672.74	10,787.67	10,672.74	21.25	20.34	-90.61	-371.57	1,025.00	111.56	74.93	36.62	3.046	
10,900.00	10,772.74	10,887.67	10,772.74	21.29	20.39	-90.61	-371.57	1,025.00	111.56	74.84	36.72	3.038	
11,000.00	10,872.74	10,987.67	10,872.74	21.34	20.44	-90.61	-371.57	1,025.00	111.56	74.74	36.82	3.030	
11,100.00	10,972.74	11,087.67	10,972.74	21.39	20.49	-90.61	-371.57	1,025.00	111.56	74.64	36.92	3.022	
11,109.81	10,982.55	11,097.48	10,982.55	21.39	20.49	-90.61	-371.57	1,025.00	111.56	74.63	36.93	3.021	
11,200.00	11,072.74	11,186.09	11,070.95	21.44	20.57	-93.12	-376.48	1,024.67	112.06	74.89	37.17	3.015	
11,300.00	11,172.74	11,279.95	11,162.59	21.49	20.71	-102.87	-396.27	1,023.34	116.57	78.42	38.16	3.055	
11,400.00	11,272.74	11,365.38	11,242.17	21.53	20.87	-116.16	-427.02	1,021.27	132.03	92.08	39.95	3.305	
11,500.00	11,372.74	11,440.25	11,307.49	21.58	21.04	-128.32	-463.43	1,018.82	163.63	121.69	41.94	3.902	
11,600.00	11,472.74	11,500.00	11,355.85	21.63	21.20	-136.83	-498.39	1,016.47	210.87	167.25	43.62	4.834	
11,700.00	11,572.74	11,558.51	11,399.43	21.68	21.38	-143.68	-537.31	1,013.85	270.10	225.28	44.82	6.026	
11,800.00	11,672.74	11,600.00	11,427.81	21.73	21.52	-147.67	-567.49	1,011.82	338.23	292.35	45.88	7.372	
11,900.00	11,772.74	11,650.00	11,458.99	21.78	21.71	-151.65	-606.47	1,009.19	412.79	366.18	46.61	8.857	
12,000.00	11,872.61	11,676.89	11,474.31	21.84	21.82	-23.90	-628.52	1,007.71	489.96	442.50	47.46	10.323	
12,100.00	11,970.52	11,712.78	11,493.12	21.99	21.98	-18.99	-659.00	1,005.66	561.72	513.48	48.23	11.645	
12,200.00	12,063.53	11,750.00	11,510.56	22.19	22.15	15.85	-691.80	1,003.45	626.22	577.22	49.00	12.780	
12,300.00	12,148.80	11,800.00	11,530.57	22.45	22.41	13.72	-737.51	1,000.37	682.86	633.20	49.66	13.750	
12,400.00	12,223.74	11,828.57	11,540.18	22.78	22.57	12.41	-764.35	998.57	730.43	680.04	50.39	14.495	
12,500.00	12,286.09	11,868.82	11,551.43	23.20	22.81	11.52	-802.90	995.97	769.04	718.06	50.98	15.085	
12,600.00	12,333.93	11,900.00	11,558.25	23.71	23.01	10.96	-833.25	993.93	798.25	746.76	51.49	15.503	
12,700.00	12,365.83	11,950.00	11,565.72	24.31	23.33	10.73	-882.56	990.61	817.41	765.55	51.86	15.763	
12,800.00	12,380.81	12,000.00	11,568.85	24.99	23.68	10.77	-932.33	987.26	826.85	774.73	52.12	15.864	
12,900.00	12,382.30	12,071.97	11,569.29	25.74	24.23	11.08	-1,004.19	983.14	828.46	776.24	52.21	15.866	
13,000.00	12,382.83	12,177.87	11,569.84	26.54	25.10	11.33	-1,110.04	980.35	829.15	776.78	52.37	15.833	
13,100.00	12,383.35	12,280.62	11,570.38	27.39	26.01	11.36	-1,212.79	980.87	829.23	776.67	52.56	15.778	
13,200.00	12,383.88	12,380.62	11,570.91	28.28	26.94	11.36	-1,312.78	981.77	829.23	776.47	52.76	15.716	
13,300.00	12,384.40	12,480.62	11,571.43	29.20	27.90	11.36	-1,412.78	982.68	829.23	776.24	52.99	15.648	
13,400.00	12,384.93	12,580.62	11,571.95	30.16	28.89	11.36	-1,512.77	983.58	829.23	775.99	53.24	15.575	
13,500.00	12,385.46	12,680.62	11,572.48	31.14	29.92	11.36	-1,612.77	984.48	829.24	775.73	53.51	15.497	
13,600.00	12,385.98	12,780.62	11,573.00	32.15	30.96	11.36	-1,712.76	985.38	829.24	775.44	53.80	15.415	
13,700.00	12,386.51	12,880.62	11,573.53	33.18	32.03	11.36	-1,812.76	986.28	829.24	775.14	54.10	15.328	
13,800.00	12,387.03	12,980.62	11,574.05	34.23	33.12	11.36	-1,912.75	987.18	829.24	774.82	54.42	15.237	
13,900.00	12,387.56	13,080.62	11,574.58	35.31	34.23	11.36	-2,012.75	988.08	829.25	774.48	54.77	15.142	
14,000.00	12,388.09	13,180.62	11,575.10	36.40	35.35	11.36	-2,112.74	988.99	829.25	774.12	55.12	15.043	
14,100.00	12,388.61	13,280.62	11,575.63	37.51	36.49	11.36	-2,212.74	989.89	829.25	773.75	55.50	14.941	
14,200.00	12,389.14	13,380.62	11,576.15	38.63	37.64	11.36	-2,312.73	990.79	829.25	773.36	55.89	14.836	
14,300.00	12,389.66	13,480.62	11,576.68	39.77	38.81	11.36	-2,412.72	991.69	829.26	772.95	56.30	14.728	
14,400.00	12,390.19	13,580.62	11,577.20	40.92	39.99	11.37	-2,512.72	992.59	829.26	772.53	56.73	14.618	
14,500.00	12,390.71	13,680.62	11,577.73	42.08	41.18	11.37	-2,612.71	993.49	829.26	772.09	57.17	14.505	
14,600.00	12,391.24	13,780.62	11,578.25	43.26	42.38	11.37	-2,712.71	994.39	829.26	771.64	57.63	14.390	
14,700.00	12,391.77	13,880.62	11,578.78	44.44	43.59	11.37	-2,812.70	995.30	829.27	771.17	58.10	14.273	
14,800.00	12,392.29	13,980.62	11,579.30	45.64	44.81	11.37	-2,912.70	996.20	829.27	770.68	58.59	14.155	
14,900.00	12,392.82	14,080.62	11,579.83	46.84	46.03	11.37	-3,012.69	997.10	829.27	770.18	59.09	14.035	
15,000.00	12,393.34	14,180.62	11,580.35	48.05	47.26	11.37	-3,112.69	998.00	829.27	769.67	59.60	13.914	
15,100.00	12,393.87	14,280.62	11,580.88	49.27	48.50	11.37	-3,212.68	998.90	829.28	769.14	60.13	13.791	
15,200.00	12,394.40	14,380.62	11,581.40	50.50	49.75	11.37	-3,312.68	999.80	829.28	768.61	60.67	13.668	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)		Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error:		0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,300.00	12,394.92	14,480.62	11,581.93	51.73	51.00	11.37	-3,412.67	1,000.71	829.28	768.05	61.23	13.544		
15,400.00	12,395.45	14,580.62	11,582.45	52.97	52.26	11.37	-3,512.66	1,001.61	829.28	767.49	61.79	13.420		
15,500.00	12,395.97	14,680.62	11,582.98	54.21	53.52	11.37	-3,612.66	1,002.51	829.28	766.91	62.37	13.295		
15,600.00	12,396.50	14,780.62	11,583.50	55.47	54.79	11.37	-3,712.65	1,003.41	829.29	766.32	62.97	13.170		
15,700.00	12,397.03	14,880.62	11,584.03	56.72	56.06	11.37	-3,812.65	1,004.31	829.29	765.72	63.57	13.045		
15,800.00	12,397.55	14,980.62	11,584.55	57.98	57.34	11.37	-3,912.64	1,005.21	829.29	765.11	64.18	12.921		
15,900.00	12,398.08	15,080.62	11,585.07	59.25	58.62	11.37	-4,012.64	1,006.11	829.29	764.49	64.81	12.796		
16,000.00	12,398.60	15,180.62	11,585.60	60.52	59.90	11.37	-4,112.63	1,007.02	829.30	763.85	65.44	12.672		
16,100.00	12,399.13	15,280.62	11,586.12	61.79	61.19	11.37	-4,212.63	1,007.92	829.30	763.21	66.09	12.548		
16,200.00	12,399.65	15,380.62	11,586.65	63.07	62.48	11.37	-4,312.62	1,008.82	829.30	762.56	66.75	12.425		
16,300.00	12,400.18	15,480.62	11,587.17	64.35	63.78	11.37	-4,412.62	1,009.72	829.30	761.89	67.41	12.302		
16,400.00	12,400.71	15,580.62	11,587.70	65.63	65.08	11.37	-4,512.61	1,010.62	829.31	761.22	68.09	12.180		
16,500.00	12,401.23	15,680.62	11,588.22	66.92	66.38	11.37	-4,612.60	1,011.52	829.31	760.54	68.77	12.059		
16,600.00	12,401.76	15,780.62	11,588.75	68.21	67.68	11.38	-4,712.60	1,012.42	829.31	759.85	69.47	11.938		
16,700.00	12,402.28	15,880.62	11,589.27	69.51	68.98	11.38	-4,812.59	1,013.33	829.31	759.15	70.17	11.819		
16,800.00	12,402.81	15,980.62	11,589.80	70.80	70.29	11.38	-4,912.59	1,014.23	829.32	758.44	70.88	11.701		
16,900.00	12,403.34	16,080.62	11,590.32	72.10	71.60	11.38	-5,012.58	1,015.13	829.32	757.72	71.60	11.583		
17,000.00	12,403.86	16,180.62	11,590.85	73.40	72.91	11.38	-5,112.58	1,016.03	829.32	757.00	72.32	11.467		
17,100.00	12,404.39	16,280.62	11,591.37	74.71	74.23	11.38	-5,212.57	1,016.93	829.32	756.27	73.06	11.352		
17,200.00	12,404.91	16,380.62	11,591.90	76.01	75.54	11.38	-5,312.57	1,017.83	829.33	755.53	73.80	11.238		
17,300.00	12,405.44	16,480.62	11,592.42	77.32	76.86	11.38	-5,412.56	1,018.74	829.33	754.78	74.55	11.125		
17,400.00	12,405.96	16,580.62	11,592.95	78.63	78.18	11.38	-5,512.56	1,019.64	829.33	754.03	75.30	11.014		
17,500.00	12,406.49	16,680.62	11,593.47	79.94	79.50	11.38	-5,612.55	1,020.54	829.33	753.27	76.06	10.903		
17,600.00	12,407.02	16,780.62	11,594.00	81.26	80.82	11.38	-5,712.54	1,021.44	829.34	752.50	76.83	10.794		
17,700.00	12,407.54	16,880.62	11,594.52	82.57	82.15	11.38	-5,812.54	1,022.34	829.34	751.73	77.61	10.686		
17,800.00	12,408.07	16,980.62	11,595.05	83.89	83.47	11.38	-5,912.53	1,023.24	829.34	750.95	78.39	10.580		
17,900.00	12,408.59	17,080.62	11,595.57	85.21	84.80	11.38	-6,012.53	1,024.14	829.34	750.17	79.18	10.475		
18,000.00	12,409.12	17,180.62	11,596.10	86.53	86.13	11.38	-6,112.52	1,025.05	829.35	749.38	79.97	10.371		
18,100.00	12,409.65	17,280.62	11,596.62	87.85	87.46	11.38	-6,212.52	1,025.95	829.35	748.58	80.77	10.268		
18,200.00	12,410.17	17,380.62	11,597.14	89.18	88.79	11.38	-6,312.51	1,026.85	829.35	747.78	81.57	10.167		
18,300.00	12,410.70	17,480.62	11,597.67	90.50	90.12	11.38	-6,412.51	1,027.75	829.35	746.97	82.38	10.067		
18,400.00	12,411.22	17,580.62	11,598.19	91.83	91.45	11.38	-6,512.50	1,028.65	829.36	746.16	83.20	9.969		
18,500.00	12,411.75	17,680.62	11,598.72	93.15	92.78	11.38	-6,612.50	1,029.55	829.36	745.34	84.02	9.872		
18,600.00	12,412.27	17,780.62	11,599.24	94.48	94.12	11.38	-6,712.49	1,030.45	829.36	744.52	84.84	9.776		
18,700.00	12,412.80	17,880.62	11,599.77	95.81	95.45	11.39	-6,812.48	1,031.36	829.36	743.69	85.67	9.681		
18,800.00	12,413.33	17,980.62	11,600.29	97.14	96.79	11.39	-6,912.48	1,032.26	829.37	742.86	86.50	9.588		
18,900.00	12,413.85	18,080.62	11,600.82	98.47	98.13	11.39	-7,012.47	1,033.16	829.37	742.03	87.34	9.496		
19,000.00	12,414.38	18,180.62	11,601.34	99.81	99.47	11.39	-7,112.47	1,034.06	829.37	741.19	88.18	9.405		
19,100.00	12,414.90	18,280.63	11,601.87	101.14	100.81	11.39	-7,212.46	1,034.96	829.37	740.34	89.03	9.315		
19,200.00	12,415.43	18,380.63	11,602.39	102.47	102.15	11.39	-7,312.46	1,035.86	829.37	739.49	89.88	9.227		
19,300.00	12,415.96	18,480.63	11,602.92	103.81	103.49	11.39	-7,412.45	1,036.77	829.38	738.64	90.74	9.140		
19,400.00	12,416.48	18,580.63	11,603.44	105.15	104.83	11.39	-7,512.45	1,037.67	829.38	737.78	91.60	9.055		
19,500.00	12,417.01	18,680.63	11,603.97	106.48	106.17	11.39	-7,612.44	1,038.57	829.38	736.92	92.46	8.970		
19,600.00	12,417.53	18,780.63	11,604.49	107.82	107.51	11.39	-7,712.44	1,039.47	829.38	736.06	93.33	8.887		
19,700.00	12,418.06	18,880.63	11,605.02	109.16	108.86	11.39	-7,812.43	1,040.37	829.39	735.19	94.20	8.805		
19,800.00	12,418.59	18,980.63	11,605.54	110.50	110.20	11.39	-7,912.43	1,041.27	829.39	734.32	95.07	8.724		
19,900.00	12,419.11	19,080.63	11,606.07	111.84	111.55	11.39	-8,012.42	1,042.17	829.39	733.45	95.95	8.644		
20,000.00	12,419.64	19,180.63	11,606.59	113.18	112.89	11.39	-8,112.41	1,043.08	829.39	732.57	96.83	8.566		
20,100.00	12,420.16	19,280.63	11,607.12	114.52	114.24	11.39	-8,212.41	1,043.98	829.40	731.69	97.71	8.488		
20,200.00	12,420.69	19,380.63	11,607.64	115.86	115.58	11.39	-8,312.40	1,044.88	829.40	730.80	98.60	8.412		
20,300.00	12,421.21	19,480.63	11,608.17	117.20	116.93	11.39	-8,412.40	1,045.78	829.40	729.92	99.49	8.337		
20,400.00	12,421.74	19,580.63	11,608.69	118.55	118.28	11.39	-8,512.39	1,046.68	829.40	729.03	100.38	8.263		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 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)		
20,500.00	12,422.27	19,680.63	11,609.22	119.89	119.62	11.39	-8,612.39	1,047.58	829.41	728.13	101.27	8.190
20,600.00	12,422.79	19,780.63	11,609.74	121.24	120.97	11.39	-8,712.38	1,048.48	829.41	727.24	102.17	8.118
20,700.00	12,423.32	19,880.63	11,610.26	122.58	122.32	11.39	-8,812.38	1,049.39	829.41	726.34	103.07	8.047
20,800.00	12,423.84	19,980.63	11,610.79	123.93	123.67	11.39	-8,912.37	1,050.29	829.41	725.44	103.98	7.977
20,900.00	12,424.37	20,080.63	11,611.31	125.27	125.02	11.40	-9,012.37	1,051.19	829.42	724.53	104.88	7.908
21,000.00	12,424.90	20,180.63	11,611.84	126.62	126.37	11.40	-9,112.36	1,052.09	829.42	723.63	105.79	7.840
21,100.00	12,425.42	20,280.63	11,612.36	127.97	127.72	11.40	-9,212.35	1,052.99	829.42	722.72	106.70	7.773
21,200.00	12,425.95	20,380.63	11,612.89	129.31	129.07	11.40	-9,312.35	1,053.89	829.42	721.81	107.61	7.707
21,300.00	12,426.47	20,480.63	11,613.41	130.66	130.42	11.40	-9,412.34	1,054.80	829.43	720.89	108.53	7.642
21,400.00	12,427.00	20,580.63	11,613.94	132.01	131.78	11.40	-9,512.34	1,055.70	829.43	719.98	109.45	7.578
21,500.00	12,427.52	20,680.63	11,614.46	133.36	133.13	11.40	-9,612.33	1,056.60	829.43	719.06	110.37	7.515
21,600.00	12,428.05	20,780.63	11,614.99	134.71	134.48	11.40	-9,712.33	1,057.50	829.43	718.14	111.29	7.453
21,700.00	12,428.58	20,880.63	11,615.51	136.06	135.83	11.40	-9,812.32	1,058.40	829.44	717.22	112.22	7.391
21,800.00	12,429.10	20,980.63	11,616.04	137.41	137.19	11.40	-9,912.32	1,059.30	829.44	716.30	113.14	7.331
21,900.00	12,429.63	21,080.63	11,616.56	138.76	138.54	11.40	-10,012.31	1,060.20	829.44	715.37	114.07	7.271
22,000.00	12,430.15	21,180.63	11,617.09	140.11	139.89	11.40	-10,112.31	1,061.11	829.44	714.44	115.00	7.212
22,100.00	12,430.68	21,280.63	11,617.61	141.46	141.25	11.40	-10,212.30	1,062.01	829.45	713.51	115.93	7.154
22,200.00	12,431.21	21,380.63	11,618.14	142.81	142.60	11.40	-10,312.29	1,062.91	829.45	712.58	116.87	7.097
22,300.00	12,431.73	21,480.63	11,618.66	144.16	143.96	11.40	-10,412.29	1,063.81	829.45	711.64	117.81	7.041
22,400.00	12,432.26	21,580.63	11,619.19	145.51	145.31	11.40	-10,512.28	1,064.71	829.45	710.71	118.74	6.985
22,500.00	12,432.78	21,680.63	11,619.71	146.87	146.67	11.40	-10,612.28	1,065.61	829.45	709.77	119.68	6.930
22,600.00	12,433.31	21,780.63	11,620.24	148.22	148.02	11.40	-10,712.27	1,066.51	829.46	708.83	120.62	6.876
22,700.00	12,433.83	21,880.63	11,620.76	149.57	149.38	11.40	-10,812.27	1,067.42	829.46	707.89	121.57	6.823
22,705.72	12,433.86	21,886.34	11,620.79	149.65	149.45	11.40	-10,817.98	1,067.47	829.46	707.84	121.62	6.820
22,770.20	12,434.20	21,945.36	11,621.10	150.56	150.25	11.40	-10,877.00	1,068.00	829.48	707.33	122.15	6.791

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.00	0.00	0.50	0.50	0.00	185.00	0.00	185.00	185.00			
100.00	100.00	101.00	100.00	0.98	0.99	0.00	185.00	0.00	185.00	183.03	1.97	94.021	
200.00	200.00	201.00	200.00	1.56	1.57	0.00	185.00	0.00	185.00	181.87	3.13	59.173	
300.00	300.00	301.00	300.00	1.98	1.98	0.00	185.00	0.00	185.00	181.03	3.97	46.649	CC
400.00	399.99	400.99	399.99	2.41	2.33	-107.58	185.00	0.00	185.39	180.73	4.66	39.749	
500.00	499.91	500.95	499.95	2.78	2.64	-108.71	185.00	0.00	186.61	181.34	5.27	35.385	
600.00	599.69	605.45	604.44	3.11	2.98	-110.84	183.63	-0.50	187.54	181.65	5.89	31.841	
700.00	699.27	709.55	708.44	3.42	3.29	-114.09	179.60	-1.97	187.31	180.86	6.45	29.043	
800.00	798.57	813.02	811.67	3.71	3.55	-118.49	172.95	-4.38	186.52	179.56	6.96	26.816	
867.67	865.64	880.64	879.04	3.80	3.63	-121.86	167.47	-6.38	186.13	179.01	7.13	26.122	ES
900.00	897.62	912.48	910.76	3.84	3.68	-123.56	164.86	-7.33	186.39	179.17	7.22	25.802	
1,000.00	996.65	1,011.07	1,008.97	4.07	3.89	-128.60	156.78	-10.27	187.79	180.11	7.68	24.441	
1,100.00	1,095.67	1,109.66	1,107.19	4.29	4.09	-133.52	148.71	-13.21	190.65	182.52	8.13	23.447	
1,200.00	1,194.70	1,208.25	1,205.40	4.51	4.29	-138.27	140.64	-16.15	194.91	186.35	8.56	22.771	
1,300.00	1,293.73	1,305.88	1,302.63	4.73	4.40	-142.85	132.54	-19.42	200.61	191.72	8.89	22.555	
1,400.00	1,392.75	1,402.02	1,398.24	4.95	4.61	-147.65	123.98	-24.76	208.51	199.19	9.32	22.373	
1,500.00	1,491.78	1,497.15	1,492.64	5.17	4.81	-152.57	114.89	-32.32	219.06	209.33	9.73	22.518	
1,600.00	1,590.81	1,591.18	1,585.67	5.38	5.02	-157.46	105.29	-42.03	232.57	222.44	10.13	22.958	
1,700.00	1,689.83	1,684.01	1,677.19	5.59	5.23	-162.16	95.23	-53.78	249.24	238.71	10.53	23.672	
1,800.00	1,788.86	1,775.55	1,767.09	5.80	5.43	-166.58	84.73	-67.48	269.13	258.21	10.93	24.633	
1,900.00	1,887.89	1,865.73	1,855.26	6.01	5.64	-170.65	73.86	-83.01	292.26	280.93	11.32	25.815	
2,000.00	1,986.91	1,954.49	1,941.59	6.22	5.84	-174.34	62.63	-100.26	318.52	306.81	11.71	27.191	
2,100.00	2,085.94	2,043.32	2,027.53	6.43	6.01	-177.70	50.90	-119.40	347.77	335.69	12.08	28.790	
2,200.00	2,184.97	2,136.57	2,117.61	6.64	6.19	-179.25	38.43	-140.07	378.62	366.13	12.49	30.311	
2,300.00	2,283.86	2,229.54	2,207.41	6.84	6.42	-176.28	26.00	-160.68	411.21	398.31	12.90	31.878	
2,400.00	2,382.33	2,321.69	2,296.42	7.08	6.67	-173.74	13.68	-181.10	446.86	433.50	13.36	33.440	
2,500.00	2,480.31	2,412.95	2,384.56	7.32	6.94	-171.62	1.48	-201.33	485.40	471.58	13.82	35.118	
2,600.00	2,577.74	2,503.25	2,471.79	7.57	7.21	-169.83	-10.59	-221.35	526.64	512.36	14.28	36.883	
2,700.00	2,674.78	2,592.91	2,558.39	7.79	7.48	-168.56	-22.58	-241.22	569.62	554.93	14.69	38.781	
2,800.00	2,771.81	2,682.55	2,644.98	8.06	7.76	-167.50	-34.57	-261.09	612.81	597.69	15.12	40.529	
2,900.00	2,868.84	2,772.20	2,731.57	8.35	8.04	-166.58	-46.55	-280.96	656.15	640.59	15.56	42.182	
3,000.00	2,965.87	2,861.85	2,818.17	8.65	8.33	-165.77	-58.54	-300.83	699.61	683.62	15.99	43.746	
3,100.00	3,062.90	2,951.49	2,904.76	8.95	8.62	-165.06	-70.52	-320.70	743.17	726.74	16.43	45.227	
3,200.00	3,159.93	3,041.14	2,991.35	9.26	8.91	-164.42	-82.51	-340.57	786.82	769.95	16.87	46.629	
3,300.00	3,256.96	3,130.79	3,077.94	9.57	9.21	-163.86	-94.49	-360.44	830.54	813.22	17.32	47.958	
3,400.00	3,353.99	3,220.43	3,164.53	9.88	9.50	-163.34	-106.48	-380.31	874.31	856.55	17.76	49.219	
3,500.00	3,451.02	3,310.08	3,251.12	10.20	9.80	-162.88	-118.46	-400.18	918.14	899.93	18.21	50.415	
3,600.00	3,548.05	3,399.73	3,337.71	10.51	10.10	-162.46	-130.45	-420.05	962.01	943.35	18.66	51.552	
3,700.00	3,645.08	3,489.37	3,424.30	10.83	10.40	-162.08	-142.43	-439.92	1,005.92	986.81	19.11	52.632	
3,800.00	3,742.11	3,579.02	3,510.90	11.15	10.70	-161.72	-154.42	-459.79	1,049.87	1,030.30	19.57	53.660	
3,900.00	3,839.14	3,668.67	3,597.49	11.47	11.01	-161.40	-166.40	-479.66	1,093.84	1,073.82	20.02	54.639	
4,000.00	3,936.17	3,758.31	3,684.08	11.79	11.31	-161.10	-178.39	-499.53	1,137.84	1,117.37	20.47	55.572	
4,100.00	4,033.20	3,847.96	3,770.67	12.11	11.62	-160.82	-190.37	-519.40	1,181.86	1,160.93	20.93	56.462	
4,200.00	4,130.23	3,937.61	3,857.26	12.43	11.93	-160.57	-202.36	-539.27	1,225.91	1,204.52	21.39	57.312	
4,300.00	4,227.26	4,027.25	3,943.85	12.76	12.24	-160.33	-214.35	-559.14	1,269.97	1,248.12	21.85	58.124	
4,400.00	4,324.29	4,116.90	4,030.44	13.08	12.55	-160.10	-226.33	-579.01	1,314.05	1,291.74	22.31	58.900	
4,500.00	4,421.32	4,206.55	4,117.04	13.40	12.86	-159.89	-238.32	-598.88	1,358.14	1,335.37	22.77	59.642	
4,600.00	4,518.35	4,296.19	4,203.63	13.73	13.17	-159.70	-250.30	-618.75	1,402.25	1,379.02	23.23	60.353	
4,700.00	4,615.38	4,385.84	4,290.22	14.06	13.48	-159.51	-262.29	-638.62	1,446.37	1,422.67	23.70	61.033	
4,800.00	4,712.41	4,475.49	4,376.81	14.38	13.79	-159.34	-274.27	-658.49	1,490.50	1,466.34	24.16	61.686	
4,900.00	4,809.44	4,565.13	4,463.40	14.71	14.10	-159.18	-286.26	-678.36	1,534.64	1,510.02	24.63	62.312	
5,000.00	4,906.47	4,654.78	4,549.99	15.04	14.42	-159.02	-298.24	-698.23	1,578.80	1,553.70	25.09	62.913	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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		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	5,003.50	4,744.43	4,636.58	15.36	14.73	158.88	-310.23	-718.10	1,622.96	1,597.39	25.56	63.492	
5,200.00	5,100.53	4,856.38	4,744.83	15.69	15.11	158.72	-324.97	-742.55	1,666.88	1,640.74	26.15	63.751	
5,300.00	5,197.56	5,004.69	4,889.33	16.02	15.58	158.60	-342.22	-771.14	1,708.32	1,681.42	26.90	63.509	
5,400.00	5,294.59	5,157.59	5,039.53	16.35	16.00	158.58	-356.95	-795.57	1,746.59	1,718.98	27.62	63.246	
5,500.00	5,391.62	5,314.78	5,195.01	16.68	16.36	158.68	-368.85	-815.30	1,781.56	1,753.27	28.30	62.956	
5,600.00	5,488.65	5,475.88	5,355.21	17.01	16.64	158.88	-377.61	-829.81	1,813.10	1,784.18	28.93	62.680	
5,700.00	5,585.68	5,640.46	5,519.44	17.34	16.86	159.18	-382.94	-838.66	1,841.10	1,811.60	29.50	62.418	
5,800.00	5,682.71	5,803.77	5,682.71	17.67	17.00	159.57	-384.62	-841.44	1,865.48	1,835.54	29.93	62.318	
5,900.00	5,779.92	5,900.98	5,779.92	17.97	17.03	159.91	-384.62	-841.44	1,887.55	1,857.36	30.19	62.512	
6,000.00	5,877.69	5,998.75	5,877.69	18.27	17.06	160.23	-384.62	-841.44	1,907.32	1,876.85	30.47	62.590	
6,100.00	5,975.98	6,097.04	5,975.98	18.54	17.10	160.50	-384.62	-841.44	1,924.69	1,893.95	30.74	62.607	
6,200.00	6,074.72	6,195.77	6,074.72	18.77	17.14	160.73	-384.62	-841.44	1,939.65	1,908.65	31.00	62.565	
6,300.00	6,173.83	6,294.89	6,173.83	18.98	17.17	160.92	-384.62	-841.44	1,952.17	1,920.91	31.25	62.465	
6,400.00	6,273.26	6,394.32	6,273.26	19.16	17.21	161.07	-384.62	-841.44	1,962.23	1,930.74	31.49	62.311	
6,500.00	6,372.94	6,493.99	6,372.94	19.31	17.25	161.18	-384.62	-841.44	1,969.84	1,938.12	31.72	62.107	
6,600.00	6,472.79	6,593.84	6,472.79	19.42	17.28	161.26	-384.62	-841.44	1,974.98	1,943.05	31.93	61.856	
6,700.00	6,572.74	6,693.80	6,572.74	19.52	17.32	161.30	-384.62	-841.44	1,977.63	1,945.51	32.12	61.569	
6,800.00	6,672.74	6,793.80	6,672.74	19.54	17.36	-90.41	-384.62	-841.44	1,978.04	1,945.84	32.20	61.434	
6,900.00	6,772.74	6,893.80	6,772.74	19.58	17.40	-90.41	-384.62	-841.44	1,978.04	1,945.77	32.27	61.291	
7,000.00	6,872.74	6,993.80	6,872.74	19.62	17.44	-90.41	-384.62	-841.44	1,978.04	1,945.69	32.35	61.146	
7,100.00	6,972.74	7,093.80	6,972.74	19.66	17.47	-90.41	-384.62	-841.44	1,978.04	1,945.62	32.43	61.002	
7,200.00	7,072.74	7,193.80	7,072.74	19.70	17.51	-90.41	-384.62	-841.44	1,978.04	1,945.54	32.50	60.857	
7,300.00	7,172.74	7,293.80	7,172.74	19.74	17.55	-90.41	-384.62	-841.44	1,978.04	1,945.46	32.58	60.711	
7,400.00	7,272.74	7,393.80	7,272.74	19.77	17.59	-90.41	-384.62	-841.44	1,978.04	1,945.38	32.66	60.565	
7,500.00	7,372.74	7,493.80	7,372.74	19.81	17.63	-90.41	-384.62	-841.44	1,978.04	1,945.30	32.74	60.418	
7,600.00	7,472.74	7,593.80	7,472.74	19.85	17.67	-90.41	-384.62	-841.44	1,978.04	1,945.22	32.82	60.271	
7,700.00	7,572.74	7,693.80	7,572.74	19.89	17.71	-90.41	-384.62	-841.44	1,978.04	1,945.14	32.90	60.123	
7,800.00	7,672.74	7,793.80	7,672.74	19.93	17.76	-90.41	-384.62	-841.44	1,978.04	1,945.06	32.98	59.976	
7,900.00	7,772.74	7,893.80	7,772.74	19.97	17.80	-90.41	-384.62	-841.44	1,978.04	1,944.98	33.06	59.827	
8,000.00	7,872.74	7,993.80	7,872.74	20.01	17.84	-90.41	-384.62	-841.44	1,978.04	1,944.90	33.14	59.679	
8,100.00	7,972.74	8,093.80	7,972.74	20.05	17.88	-90.41	-384.62	-841.44	1,978.04	1,944.81	33.23	59.530	
8,200.00	8,072.74	8,193.80	8,072.74	20.10	17.92	-90.41	-384.62	-841.44	1,978.04	1,944.73	33.31	59.381	
8,300.00	8,172.74	8,293.80	8,172.74	20.14	17.96	-90.41	-384.62	-841.44	1,978.04	1,944.65	33.40	59.231	
8,400.00	8,272.74	8,393.80	8,272.74	20.18	18.01	-90.41	-384.62	-841.44	1,978.04	1,944.56	33.48	59.081	
8,500.00	8,372.74	8,493.80	8,372.74	20.22	18.05	-90.41	-384.62	-841.44	1,978.04	1,944.48	33.57	58.931	
8,600.00	8,472.74	8,593.80	8,472.74	20.26	18.09	-90.41	-384.62	-841.44	1,978.04	1,944.39	33.65	58.781	
8,700.00	8,572.74	8,693.80	8,572.74	20.30	18.14	-90.41	-384.62	-841.44	1,978.04	1,944.30	33.74	58.630	
8,800.00	8,672.74	8,793.80	8,672.74	20.35	18.18	-90.41	-384.62	-841.44	1,978.04	1,944.22	33.82	58.480	
8,900.00	8,772.74	8,893.80	8,772.74	20.39	18.22	-90.41	-384.62	-841.44	1,978.04	1,944.13	33.91	58.329	
9,000.00	8,872.74	8,993.80	8,872.74	20.43	18.27	-90.41	-384.62	-841.44	1,978.04	1,944.04	34.00	58.178	
9,100.00	8,972.74	9,093.80	8,972.74	20.48	18.31	-90.41	-384.62	-841.44	1,978.04	1,943.95	34.09	58.026	
9,200.00	9,072.74	9,193.80	9,072.74	20.52	18.36	-90.41	-384.62	-841.44	1,978.04	1,943.86	34.18	57.875	
9,300.00	9,172.74	9,293.80	9,172.74	20.56	18.40	-90.41	-384.62	-841.44	1,978.04	1,943.77	34.27	57.723	
9,400.00	9,272.74	9,393.80	9,272.74	20.61	18.45	-90.41	-384.62	-841.44	1,978.04	1,943.68	34.36	57.572	
9,500.00	9,372.74	9,493.80	9,372.74	20.65	18.49	-90.41	-384.62	-841.44	1,978.04	1,943.59	34.45	57.420	
9,600.00	9,472.74	9,593.80	9,472.74	20.70	18.54	-90.41	-384.62	-841.44	1,978.04	1,943.50	34.54	57.268	
9,700.00	9,572.74	9,693.80	9,572.74	20.74	18.59	-90.41	-384.62	-841.44	1,978.04	1,943.41	34.63	57.116	
9,800.00	9,672.74	9,793.80	9,672.74	20.79	18.63	-90.41	-384.62	-841.44	1,978.04	1,943.32	34.72	56.964	
9,900.00	9,772.74	9,893.80	9,772.74	20.83	18.68	-90.41	-384.62	-841.44	1,978.04	1,943.22	34.82	56.812	
10,000.00	9,872.74	9,993.80	9,872.74	20.88	18.73	-90.41	-384.62	-841.44	1,978.04	1,943.13	34.91	56.660	
10,100.00	9,972.74	10,093.80	9,972.74	20.92	18.77	-90.41	-384.62	-841.44	1,978.04	1,943.04	35.00	56.508	
10,200.00	10,072.74	10,193.80	10,072.74	20.97	18.82	-90.41	-384.62	-841.44	1,978.04	1,942.94	35.10	56.356	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	Major Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
10,300.00	10,172.74	10,293.80	10,172.74	21.01	18.87	-90.41	-384.62	-841.44	1,978.04	1,942.85	35.19	56.204	
10,400.00	10,272.74	10,393.80	10,272.74	21.06	18.92	-90.41	-384.62	-841.44	1,978.04	1,942.75	35.29	56.052	
10,500.00	10,372.74	10,493.80	10,372.74	21.11	18.96	-90.41	-384.62	-841.44	1,978.04	1,942.66	35.39	55.900	
10,600.00	10,472.74	10,593.80	10,472.74	21.15	19.01	-90.41	-384.62	-841.44	1,978.04	1,942.56	35.48	55.748	
10,700.00	10,572.74	10,693.80	10,572.74	21.20	19.06	-90.41	-384.62	-841.44	1,978.04	1,942.46	35.58	55.596	
10,800.00	10,672.74	10,793.80	10,672.74	21.25	19.11	-90.41	-384.62	-841.44	1,978.04	1,942.36	35.68	55.444	
10,900.00	10,772.74	10,893.80	10,772.74	21.29	19.16	-90.41	-384.62	-841.44	1,978.04	1,942.27	35.77	55.292	
11,000.00	10,872.74	10,993.80	10,872.74	21.34	19.21	-90.41	-384.62	-841.44	1,978.04	1,942.17	35.87	55.141	
11,100.00	10,972.74	11,093.80	10,972.74	21.39	19.26	-90.41	-384.62	-841.44	1,978.04	1,942.07	35.97	54.989	
11,200.00	11,072.74	11,193.80	11,072.74	21.44	19.31	-90.41	-384.62	-841.44	1,978.04	1,941.97	36.07	54.838	
11,300.00	11,172.74	11,293.80	11,172.74	21.49	19.36	-90.41	-384.62	-841.44	1,978.04	1,941.87	36.17	54.686	
11,400.00	11,272.74	11,393.80	11,272.74	21.53	19.41	-90.41	-384.62	-841.44	1,978.04	1,941.77	36.27	54.535	
11,500.00	11,372.74	11,493.80	11,372.74	21.58	19.46	-90.41	-384.62	-841.44	1,978.04	1,941.67	36.37	54.384	
11,600.00	11,472.74	11,593.80	11,472.74	21.63	19.51	-90.41	-384.62	-841.44	1,978.04	1,941.57	36.47	54.234	
11,700.00	11,572.74	11,693.80	11,572.74	21.68	19.56	-90.41	-384.62	-841.44	1,978.04	1,941.47	36.57	54.083	
11,800.00	11,672.74	11,793.80	11,672.74	21.73	19.61	-90.41	-384.62	-841.44	1,978.04	1,941.36	36.68	53.932	
11,900.00	11,772.74	11,893.80	11,772.74	21.78	19.66	-90.41	-384.62	-841.44	1,978.04	1,941.26	36.78	53.782	
11,900.01	11,772.75	11,893.80	11,772.75	21.78	19.66	-90.41	-384.62	-841.44	1,978.04	1,941.26	36.78	53.782	
12,000.00	11,872.61	11,993.67	11,872.61	21.84	19.71	90.21	-384.62	-841.44	1,978.05	1,941.20	36.86	53.670	
12,100.00	11,970.52	12,095.12	11,973.67	21.99	19.83	90.57	-392.00	-841.37	1,978.14	1,941.16	36.98	53.490	
12,200.00	12,063.53	12,199.06	12,074.21	22.19	20.04	90.92	-417.82	-841.14	1,978.30	1,941.04	37.26	53.092	
12,300.00	12,148.80	12,305.40	12,170.51	22.45	20.34	91.25	-462.56	-840.74	1,978.52	1,940.78	37.74	52.425	
12,400.00	12,223.74	12,414.05	12,258.65	22.78	20.73	91.53	-525.81	-840.17	1,978.77	1,940.32	38.45	51.464	
12,500.00	12,286.09	12,524.80	12,334.57	23.20	21.24	91.78	-606.20	-839.45	1,979.01	1,939.60	39.42	50.206	
12,600.00	12,333.93	12,637.31	12,394.43	23.71	21.88	91.96	-701.25	-838.59	1,979.23	1,938.57	40.66	48.680	
12,700.00	12,365.83	12,751.10	12,434.92	24.31	22.66	92.07	-807.38	-837.64	1,979.37	1,937.22	42.15	46.957	
12,800.00	12,380.81	12,865.58	12,453.73	24.99	23.57	92.12	-920.11	-836.62	1,979.44	1,935.58	43.86	45.131	
12,900.00	12,382.30	12,969.97	12,455.32	25.74	24.48	92.11	-1,024.47	-835.68	1,979.44	1,933.83	45.61	43.396	
13,000.00	12,382.83	13,069.97	12,455.84	26.54	25.40	92.11	-1,124.46	-834.79	1,979.45	1,932.02	47.43	41.733	
13,100.00	12,383.35	13,169.97	12,456.37	27.39	26.37	92.11	-1,224.46	-833.89	1,979.46	1,930.13	49.33	40.125	
13,200.00	12,383.88	13,269.97	12,456.90	28.28	27.38	92.11	-1,324.45	-832.99	1,979.47	1,928.16	51.31	38.579	
13,300.00	12,384.40	13,369.97	12,457.42	29.20	28.41	92.11	-1,424.45	-832.09	1,979.48	1,926.13	53.35	37.101	
13,400.00	12,384.93	13,469.97	12,457.95	30.16	29.48	92.11	-1,524.44	-831.19	1,979.49	1,924.03	55.46	35.694	
13,500.00	12,385.46	13,569.97	12,458.48	31.14	30.57	92.11	-1,624.44	-830.29	1,979.50	1,921.88	57.61	34.357	
13,600.00	12,385.98	13,669.97	12,459.00	32.15	31.68	92.11	-1,724.43	-829.39	1,979.51	1,919.69	59.82	33.092	
13,700.00	12,386.51	13,769.97	12,459.53	33.18	32.80	92.11	-1,824.43	-828.49	1,979.52	1,917.45	62.07	31.894	
13,800.00	12,387.03	13,869.97	12,460.05	34.23	33.95	92.11	-1,924.42	-827.59	1,979.52	1,915.17	64.35	30.762	
13,900.00	12,387.56	13,969.97	12,460.58	35.31	35.11	92.11	-2,024.42	-826.69	1,979.53	1,912.86	66.67	29.692	
14,000.00	12,388.09	14,069.97	12,461.11	36.40	36.29	92.11	-2,124.41	-825.79	1,979.54	1,910.52	69.02	28.681	
14,100.00	12,388.61	14,169.97	12,461.63	37.51	37.48	92.11	-2,224.40	-824.89	1,979.55	1,908.16	71.40	27.726	
14,200.00	12,389.14	14,269.97	12,462.16	38.63	38.68	92.11	-2,324.40	-823.99	1,979.56	1,905.76	73.80	26.824	
14,300.00	12,389.66	14,369.97	12,462.68	39.77	39.89	92.11	-2,424.39	-823.09	1,979.57	1,903.35	76.22	25.971	
14,400.00	12,390.19	14,469.97	12,463.21	40.92	41.11	92.11	-2,524.39	-822.19	1,979.58	1,900.91	78.67	25.163	
14,500.00	12,390.71	14,569.97	12,463.74	42.08	42.34	92.11	-2,624.38	-821.29	1,979.59	1,898.46	81.13	24.399	
14,600.00	12,391.24	14,669.97	12,464.26	43.26	43.57	92.11	-2,724.38	-820.39	1,979.60	1,895.98	83.61	23.675	
14,700.00	12,391.77	14,769.97	12,464.79	44.44	44.82	92.11	-2,824.37	-819.49	1,979.61	1,893.50	86.11	22.989	
14,800.00	12,392.29	14,869.97	12,465.32	45.64	46.07	92.11	-2,924.37	-818.60	1,979.62	1,890.99	88.62	22.338	
14,900.00	12,392.82	14,969.97	12,465.84	46.84	47.32	92.11	-3,024.36	-817.70	1,979.62	1,888.48	91.15	21.719	
15,000.00	12,393.34	15,069.97	12,466.37	48.05	48.59	92.11	-3,124.36	-816.80	1,979.63	1,885.95	93.68	21.132	
15,100.00	12,393.87	15,169.97	12,466.89	49.27	49.86	92.11	-3,224.35	-815.90	1,979.64	1,883.41	96.23	20.572	
15,200.00	12,394.40	15,269.97	12,467.42	50.50	51.13	92.11	-3,324.34	-815.00	1,979.65	1,880.87	98.79	20.040	
15,300.00	12,394.92	15,369.97	12,467.95	51.73	52.41	92.11	-3,424.34	-814.10	1,979.66	1,878.31	101.35	19.532	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)		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	12,395.45	15,469.97	12,468.47	52.97	53.69	92.11	-3,524.33	-813.20	1,979.67	1,875.74	103.93	19.049	
15,500.00	12,395.97	15,569.97	12,469.00	54.21	54.98	92.11	-3,624.33	-812.30	1,979.68	1,873.17	106.51	18.587	
15,600.00	12,396.50	15,669.97	12,469.53	55.47	56.27	92.11	-3,724.32	-811.40	1,979.69	1,870.59	109.10	18.145	
15,700.00	12,397.03	15,769.97	12,470.05	56.72	57.56	92.11	-3,824.32	-810.50	1,979.70	1,868.00	111.70	17.723	
15,800.00	12,397.55	15,869.97	12,470.58	57.98	58.86	92.11	-3,924.31	-809.60	1,979.71	1,865.40	114.30	17.320	
15,900.00	12,398.08	15,969.97	12,471.10	59.25	60.16	92.11	-4,024.31	-808.70	1,979.72	1,862.80	116.92	16.933	
16,000.00	12,398.60	16,069.97	12,471.63	60.52	61.46	92.11	-4,124.30	-807.80	1,979.72	1,860.19	119.53	16.562	
16,100.00	12,399.13	16,169.97	12,472.16	61.79	62.77	92.11	-4,224.30	-806.90	1,979.73	1,857.58	122.15	16.207	
16,200.00	12,399.65	16,269.97	12,472.68	63.07	64.08	92.11	-4,324.29	-806.00	1,979.74	1,854.96	124.78	15.866	
16,300.00	12,400.18	16,369.97	12,473.21	64.35	65.39	92.11	-4,424.28	-805.10	1,979.75	1,852.34	127.41	15.538	
16,400.00	12,400.71	16,469.97	12,473.73	65.63	66.70	92.11	-4,524.28	-804.20	1,979.76	1,849.71	130.05	15.223	
16,500.00	12,401.23	16,569.97	12,474.26	66.92	68.02	92.11	-4,624.27	-803.31	1,979.77	1,847.08	132.69	14.921	
16,600.00	12,401.76	16,669.97	12,474.79	68.21	69.33	92.11	-4,724.27	-802.41	1,979.78	1,844.45	135.33	14.629	
16,700.00	12,402.28	16,769.97	12,475.31	69.51	70.65	92.11	-4,824.26	-801.51	1,979.79	1,841.81	137.98	14.349	
16,800.00	12,402.81	16,869.97	12,475.84	70.80	71.97	92.11	-4,924.26	-800.61	1,979.80	1,839.17	140.63	14.078	
16,900.00	12,403.34	16,969.97	12,476.37	72.10	73.30	92.11	-5,024.25	-799.71	1,979.81	1,836.52	143.28	13.817	
17,000.00	12,403.86	17,069.97	12,476.89	73.40	74.62	92.11	-5,124.25	-798.81	1,979.82	1,833.87	145.94	13.566	
17,100.00	12,404.39	17,169.97	12,477.42	74.71	75.95	92.11	-5,224.24	-797.91	1,979.82	1,831.22	148.60	13.323	
17,200.00	12,404.91	17,269.97	12,477.94	76.01	77.27	92.11	-5,324.24	-797.01	1,979.83	1,828.57	151.26	13.089	
17,300.00	12,405.44	17,369.97	12,478.47	77.32	78.60	92.11	-5,424.23	-796.11	1,979.84	1,825.91	153.93	12.862	
17,400.00	12,405.96	17,469.97	12,479.00	78.63	79.93	92.11	-5,524.23	-795.21	1,979.85	1,823.25	156.60	12.643	
17,500.00	12,406.49	17,569.97	12,479.52	79.94	81.26	92.11	-5,624.22	-794.31	1,979.86	1,820.59	159.27	12.431	
17,600.00	12,407.02	17,669.97	12,480.05	81.26	82.60	92.11	-5,724.21	-793.41	1,979.87	1,817.93	161.94	12.226	
17,700.00	12,407.54	17,769.97	12,480.57	82.57	83.93	92.11	-5,824.21	-792.51	1,979.88	1,815.26	164.62	12.027	
17,800.00	12,408.07	17,869.97	12,481.10	83.89	85.27	92.11	-5,924.20	-791.61	1,979.89	1,812.60	167.29	11.835	
17,900.00	12,408.59	17,969.97	12,481.63	85.21	86.60	92.11	-6,024.20	-790.71	1,979.90	1,809.93	169.97	11.648	
18,000.00	12,409.12	18,069.97	12,482.15	86.53	87.94	92.11	-6,124.19	-789.81	1,979.91	1,807.26	172.65	11.468	
18,100.00	12,409.65	18,169.97	12,482.68	87.85	89.28	92.11	-6,224.19	-788.91	1,979.92	1,804.58	175.33	11.292	
18,200.00	12,410.17	18,269.97	12,483.21	89.18	90.62	92.11	-6,324.18	-788.01	1,979.92	1,801.91	178.02	11.122	
18,300.00	12,410.70	18,369.97	12,483.73	90.50	91.96	92.11	-6,424.18	-787.12	1,979.93	1,799.23	180.70	10.957	
18,400.00	12,411.22	18,469.97	12,484.26	91.83	93.30	92.11	-6,524.17	-786.22	1,979.94	1,796.55	183.39	10.796	
18,500.00	12,411.75	18,569.97	12,484.78	93.15	94.64	92.11	-6,624.17	-785.32	1,979.95	1,793.87	186.08	10.640	
18,600.00	12,412.27	18,669.97	12,485.31	94.48	95.98	92.11	-6,724.16	-784.42	1,979.96	1,791.19	188.77	10.489	
18,700.00	12,412.80	18,769.97	12,485.84	95.81	97.32	92.11	-6,824.15	-783.52	1,979.97	1,788.51	191.46	10.341	
18,800.00	12,413.33	18,869.97	12,486.36	97.14	98.67	92.11	-6,924.15	-782.62	1,979.98	1,785.83	194.15	10.198	
18,900.00	12,413.85	18,969.97	12,486.89	98.47	100.01	92.11	-7,024.14	-781.72	1,979.99	1,783.14	196.85	10.058	
19,000.00	12,414.38	19,069.97	12,487.42	99.81	101.36	92.11	-7,124.14	-780.82	1,980.00	1,780.45	199.54	9.923	
19,100.00	12,414.90	19,169.97	12,487.94	101.14	102.70	92.11	-7,224.13	-779.92	1,980.01	1,777.77	202.24	9.790	
19,200.00	12,415.43	19,269.97	12,488.47	102.47	104.05	92.11	-7,324.13	-779.02	1,980.02	1,775.08	204.94	9.662	
19,300.00	12,415.96	19,369.97	12,488.99	103.81	105.39	92.11	-7,424.12	-778.12	1,980.02	1,772.39	207.63	9.536	
19,400.00	12,416.48	19,469.97	12,489.52	105.15	106.74	92.11	-7,524.12	-777.22	1,980.03	1,769.70	210.33	9.414	
19,500.00	12,417.01	19,569.97	12,490.05	106.48	108.09	92.11	-7,624.11	-776.32	1,980.04	1,767.01	213.03	9.294	
19,600.00	12,417.53	19,669.97	12,490.57	107.82	109.44	92.11	-7,724.11	-775.42	1,980.05	1,764.32	215.74	9.178	
19,700.00	12,418.06	19,769.97	12,491.10	109.16	110.79	92.11	-7,824.10	-774.52	1,980.06	1,761.62	218.44	9.065	
19,800.00	12,418.59	19,869.97	12,491.62	110.50	112.14	92.11	-7,924.09	-773.62	1,980.07	1,758.93	221.14	8.954	
19,900.00	12,419.11	19,969.97	12,492.15	111.84	113.49	92.11	-8,024.09	-772.72	1,980.08	1,756.23	223.85	8.846	
20,000.00	12,419.64	20,069.97	12,492.68	113.18	114.84	92.11	-8,124.08	-771.82	1,980.09	1,753.54	226.55	8.740	
20,100.00	12,420.16	20,169.97	12,493.20	114.52	116.19	92.11	-8,224.08	-770.93	1,980.10	1,750.84	229.26	8.637	
20,200.00	12,420.69	20,269.97	12,493.73	115.86	117.54	92.11	-8,324.07	-770.03	1,980.11	1,748.14	231.96	8.536	
20,300.00	12,421.21	20,369.97	12,494.26	117.20	118.89	92.11	-8,424.07	-769.13	1,980.12	1,745.45	234.67	8.438	
20,400.00	12,421.74	20,469.97	12,494.78	118.55	120.24	92.11	-8,524.06	-768.23	1,980.12	1,742.75	237.38	8.342	
20,500.00	12,422.27	20,569.97	12,495.31	119.89	121.59	92.11	-8,624.06	-767.33	1,980.13	1,740.05	240.09	8.248	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)		Ellipses (usft)			
20,600.00	12,422.79	20,669.97	12,495.83	121.24	122.95	92.11	-8,724.05	-766.43	1,980.14	1,737.35	242.79	8.156	
20,700.00	12,423.32	20,769.97	12,496.36	122.58	124.30	92.11	-8,824.05	-765.53	1,980.15	1,734.65	245.50	8.066	
20,800.00	12,423.84	20,869.97	12,496.89	123.93	125.65	92.11	-8,924.04	-764.63	1,980.16	1,731.95	248.21	7.978	
20,900.00	12,424.37	20,969.97	12,497.41	125.27	127.01	92.11	-9,024.04	-763.73	1,980.17	1,729.24	250.93	7.891	
21,000.00	12,424.90	21,069.97	12,497.94	126.62	128.36	92.11	-9,124.03	-762.83	1,980.18	1,726.54	253.64	7.807	
21,100.00	12,425.42	21,169.97	12,498.47	127.97	129.72	92.11	-9,224.02	-761.93	1,980.19	1,723.84	256.35	7.725	
21,200.00	12,425.95	21,269.97	12,498.99	129.31	131.07	92.11	-9,324.02	-761.03	1,980.20	1,721.14	259.06	7.644	
21,300.00	12,426.47	21,369.97	12,499.52	130.66	132.43	92.11	-9,424.01	-760.13	1,980.21	1,718.43	261.77	7.565	
21,400.00	12,427.00	21,469.97	12,500.04	132.01	133.78	92.11	-9,524.01	-759.23	1,980.22	1,715.73	264.49	7.487	
21,500.00	12,427.52	21,569.97	12,500.57	133.36	135.14	92.11	-9,624.00	-758.33	1,980.22	1,713.02	267.20	7.411	
21,600.00	12,428.05	21,669.97	12,501.10	134.71	136.49	92.11	-9,724.00	-757.43	1,980.23	1,710.32	269.92	7.336	
21,700.00	12,428.58	21,769.97	12,501.62	136.06	137.85	92.11	-9,823.99	-756.53	1,980.24	1,707.61	272.63	7.263	
21,800.00	12,429.10	21,869.97	12,502.15	137.41	139.21	92.11	-9,923.99	-755.64	1,980.25	1,704.90	275.35	7.192	
21,900.00	12,429.63	21,969.97	12,502.67	138.76	140.56	92.11	-10,023.98	-754.74	1,980.26	1,702.20	278.06	7.122	
22,000.00	12,430.15	22,069.97	12,503.20	140.11	141.92	92.11	-10,123.98	-753.84	1,980.27	1,699.49	280.78	7.053	
22,100.00	12,430.68	22,169.97	12,503.73	141.46	143.28	92.11	-10,223.97	-752.94	1,980.28	1,696.78	283.50	6.985	
22,200.00	12,431.21	22,269.97	12,504.25	142.81	144.63	92.11	-10,323.96	-752.04	1,980.29	1,694.07	286.21	6.919	
22,300.00	12,431.73	22,369.97	12,504.78	144.16	145.99	92.11	-10,423.96	-751.14	1,980.30	1,691.37	288.93	6.854	
22,400.00	12,432.26	22,469.97	12,505.31	145.51	147.35	92.11	-10,523.95	-750.24	1,980.31	1,688.66	291.65	6.790	
22,500.00	12,432.78	22,569.97	12,505.83	146.87	148.71	92.11	-10,623.95	-749.34	1,980.32	1,685.95	294.37	6.727	
22,600.00	12,433.31	22,669.97	12,506.36	148.22	150.07	92.11	-10,723.94	-748.44	1,980.32	1,683.24	297.09	6.666	
22,700.00	12,433.83	22,769.97	12,506.88	149.57	151.42	92.11	-10,823.94	-747.54	1,980.33	1,680.53	299.80	6.605	
22,703.08	12,433.85	22,773.05	12,506.90	149.62	151.47	92.11	-10,827.02	-747.51	1,980.33	1,680.45	299.89	6.604	
22,770.20	12,434.20	22,830.04	12,507.20	150.56	152.24	92.11	-10,884.00	-747.00	1,980.37	1,678.81	301.55	6.567	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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	0.00	0.50	0.50	0.00	25.00	0.00	25.00				
100.00	100.00	100.00	100.00	0.98	0.98	0.00	25.00	0.00	25.00	23.04	1.96	12.741	
200.00	200.00	200.00	200.00	1.56	1.56	0.00	25.00	0.00	25.00	21.88	3.12	8.007	
300.00	300.00	300.00	300.00	1.98	1.98	0.00	25.00	0.00	25.00	21.04	3.96	6.309	
400.00	399.99	400.22	400.21	2.41	2.41	-107.24	24.55	1.24	24.94	20.27	4.67	5.345	
500.00	499.91	500.45	500.36	2.78	2.78	-107.37	23.20	4.94	24.75	19.48	5.27	4.695	
530.37	530.23	530.82	530.69	2.88	2.86	-107.69	22.66	6.43	24.72	19.28	5.44	4.544	CC
600.00	599.69	600.44	600.21	3.11	3.04	-110.42	21.41	9.86	24.94	19.11	5.83	4.277	ES
700.00	699.27	700.35	699.99	3.42	3.29	-118.64	19.62	14.77	26.34	19.95	6.39	4.123	
800.00	798.57	800.14	799.63	3.71	3.53	-129.92	17.84	19.68	29.84	22.87	6.97	4.283	
900.00	897.62	899.77	899.13	3.84	3.76	-140.74	16.05	24.58	35.80	28.38	7.41	4.828	
1,000.00	996.65	999.39	998.61	4.07	3.98	-148.41	14.27	29.48	42.78	34.86	7.92	5.399	
1,100.00	1,095.67	1,099.01	1,098.09	4.29	4.20	-153.87	12.49	34.38	50.31	41.91	8.40	5.987	
1,200.00	1,194.70	1,198.62	1,197.58	4.51	4.41	-157.88	10.70	39.28	58.18	49.32	8.86	6.566	
1,300.00	1,293.73	1,298.24	1,297.06	4.73	4.62	-160.92	8.92	44.18	66.26	56.96	9.30	7.122	
1,400.00	1,392.75	1,397.86	1,396.54	4.95	4.82	-163.30	7.14	49.08	74.49	64.75	9.74	7.651	
1,500.00	1,491.78	1,497.48	1,496.02	5.17	5.02	-165.20	5.35	53.97	82.82	72.65	10.16	8.149	
1,600.00	1,590.81	1,599.21	1,597.55	5.38	5.24	-167.11	2.52	59.70	90.10	79.50	10.61	8.496	
1,700.00	1,689.83	1,701.25	1,699.19	5.59	5.47	-169.46	-2.54	67.02	95.09	84.04	11.05	8.602	
1,800.00	1,788.86	1,803.37	1,800.67	5.80	5.70	-172.33	-9.82	75.91	97.88	86.39	11.50	8.514	
1,900.00	1,887.89	1,904.40	1,900.76	6.01	5.83	-175.75	-18.97	86.09	98.90	87.05	11.84	8.350	
2,000.00	1,986.91	2,004.22	1,999.61	6.22	6.03	-179.17	-28.31	96.36	99.94	87.68	12.26	8.153	
2,100.00	2,085.94	2,104.04	2,098.46	6.43	6.23	-177.49	-37.66	106.63	101.34	88.67	12.67	7.999	
2,200.00	2,184.97	2,203.85	2,197.30	6.64	6.43	-174.24	-47.00	116.90	103.07	89.99	13.07	7.883	
2,300.00	2,283.86	2,303.65	2,296.13	6.84	6.63	-170.87	-56.35	127.17	106.04	92.58	13.46	7.877	
2,400.00	2,382.33	2,403.37	2,394.88	7.08	6.82	-168.02	-65.68	137.43	111.81	97.91	13.90	8.045	
2,500.00	2,480.31	2,502.93	2,493.47	7.32	7.02	-165.83	-75.00	147.68	120.27	105.94	14.34	8.389	
2,600.00	2,577.74	2,602.27	2,591.85	7.57	7.22	-164.27	-84.30	157.90	131.35	116.57	14.78	8.886	
2,700.00	2,674.78	2,701.43	2,690.05	7.79	7.41	-163.33	-93.59	168.10	144.06	128.89	15.18	9.493	
2,800.00	2,771.81	2,800.60	2,788.24	8.06	7.61	-162.56	-102.87	178.31	156.84	141.24	15.60	10.052	
2,900.00	2,868.84	2,899.76	2,886.44	8.35	7.81	-161.92	-112.16	188.51	169.64	153.61	16.03	10.582	
3,000.00	2,965.87	2,998.92	2,984.64	8.65	8.00	-161.36	-121.44	198.71	182.46	166.00	16.46	11.084	
3,100.00	3,062.90	3,098.08	3,082.83	8.95	8.20	-160.88	-130.72	208.92	195.29	178.40	16.89	11.559	
3,200.00	3,159.93	3,197.24	3,181.03	9.26	8.40	-160.45	-140.01	219.12	208.13	190.81	17.33	12.010	
3,300.00	3,256.96	3,296.40	3,279.22	9.57	8.60	-160.08	-149.29	229.33	220.99	203.22	17.77	12.439	
3,400.00	3,353.99	3,395.56	3,377.42	9.88	8.79	-159.74	-158.57	239.53	233.85	215.65	18.20	12.847	
3,500.00	3,451.02	3,494.72	3,475.62	10.20	8.99	-159.45	-167.86	249.73	246.72	228.08	18.64	13.234	
3,600.00	3,548.05	3,593.88	3,573.81	10.51	9.19	-159.18	-177.14	259.94	259.60	240.51	19.08	13.604	
3,700.00	3,645.08	3,693.04	3,672.01	10.83	9.39	-158.93	-186.43	270.14	272.48	252.95	19.52	13.956	
3,800.00	3,742.11	3,792.20	3,770.21	11.15	9.58	-158.71	-195.71	280.34	285.36	265.40	19.97	14.292	
3,900.00	3,839.14	3,891.36	3,868.40	11.47	9.78	-158.51	-204.99	290.55	298.25	277.84	20.41	14.613	
4,000.00	3,936.17	3,990.52	3,966.60	11.79	9.98	-158.32	-214.28	300.75	311.14	290.29	20.85	14.920	
4,100.00	4,033.20	4,089.68	4,064.80	12.11	10.18	-158.15	-223.56	310.96	324.04	302.74	21.30	15.213	
4,200.00	4,130.23	4,188.84	4,162.99	12.43	10.37	-157.99	-232.84	321.16	336.94	315.19	21.75	15.494	
4,300.00	4,227.26	4,288.00	4,261.19	12.76	10.57	-157.85	-242.13	331.36	349.84	327.64	22.19	15.763	
4,400.00	4,324.29	4,387.17	4,359.38	13.08	10.77	-157.71	-251.41	341.57	362.74	340.10	22.64	16.022	
4,500.00	4,421.32	4,486.33	4,457.58	13.40	10.97	-157.58	-260.69	351.77	375.64	352.55	23.09	16.270	
4,600.00	4,518.35	4,585.49	4,555.78	13.73	11.17	-157.47	-269.98	361.98	388.55	365.01	23.54	16.508	
4,700.00	4,615.38	4,684.65	4,653.97	14.06	11.37	-157.36	-279.26	372.18	401.46	377.47	23.99	16.737	
4,800.00	4,712.41	4,783.81	4,752.17	14.38	11.57	-157.25	-288.55	382.38	414.37	389.93	24.44	16.957	
4,900.00	4,809.44	4,882.97	4,850.37	14.71	11.77	-157.15	-297.83	392.59	427.28	402.39	24.89	17.169	
5,000.00	4,906.47	4,982.13	4,948.56	15.04	11.96	-157.06	-307.11	402.79	440.19	414.85	25.34	17.373	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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		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		
5,100.00	5,003.50	5,081.29	5,046.76	15.36	12.16	156.98	-316.40	412.99	453.10	427.31	25.79	17.570		
5,200.00	5,100.53	5,180.45	5,144.96	15.69	12.36	156.90	-325.68	423.20	466.01	439.77	26.24	17.759		
5,300.00	5,197.56	5,279.61	5,243.15	16.02	12.56	156.82	-334.96	433.40	478.93	452.23	26.69	17.943		
5,400.00	5,294.59	5,378.77	5,341.35	16.35	12.76	156.74	-344.25	443.61	491.84	464.70	27.14	18.119		
5,500.00	5,391.62	5,474.93	5,436.59	16.68	12.93	156.69	-353.15	453.39	504.86	477.30	27.56	18.319		
5,600.00	5,488.65	5,565.59	5,526.61	17.01	13.11	156.78	-360.40	461.36	519.17	491.21	27.96	18.569		
5,700.00	5,585.68	5,655.76	5,616.36	17.34	13.28	157.04	-366.17	467.70	535.09	506.75	28.34	18.880		
5,800.00	5,682.71	5,745.32	5,705.70	17.67	13.44	157.44	-370.49	472.45	552.62	523.92	28.70	19.256		
5,900.00	5,779.92	5,834.34	5,794.61	17.97	13.59	158.02	-373.39	475.64	571.10	542.09	29.01	19.686		
6,000.00	5,877.69	5,923.09	5,883.32	18.27	13.71	158.65	-374.89	477.29	588.91	559.61	29.30	20.096		
6,100.00	5,975.98	6,015.74	5,975.98	18.54	13.75	159.31	-375.13	477.55	605.86	576.33	29.53	20.518		
6,200.00	6,074.72	6,114.48	6,074.72	18.77	13.79	159.91	-375.13	477.55	620.72	590.95	29.77	20.852		
6,300.00	6,173.83	6,213.60	6,173.83	18.98	13.83	160.38	-375.13	477.55	633.18	603.18	30.00	21.105		
6,400.00	6,273.26	6,313.03	6,273.26	19.16	13.86	160.75	-375.13	477.55	643.23	613.00	30.23	21.280		
6,500.00	6,372.94	6,412.70	6,372.94	19.31	13.90	161.02	-375.13	477.55	650.82	620.38	30.44	21.377		
6,600.00	6,472.79	6,512.55	6,472.79	19.42	13.94	161.20	-375.13	477.55	655.95	625.30	30.65	21.400		
6,700.00	6,572.74	6,612.51	6,572.74	19.52	13.98	161.29	-375.13	477.55	658.61	627.77	30.84	21.355		
6,800.00	6,672.74	6,712.51	6,672.74	19.54	14.02	-90.41	-375.13	477.55	659.02	628.10	30.92	21.314		
6,900.00	6,772.74	6,812.51	6,772.74	19.58	14.06	-90.41	-375.13	477.55	659.02	628.02	31.00	21.262		
7,000.00	6,872.74	6,912.51	6,872.74	19.62	14.10	-90.41	-375.13	477.55	659.02	627.94	31.07	21.209		
7,100.00	6,972.74	7,012.51	6,972.74	19.66	14.14	-90.41	-375.13	477.55	659.02	627.87	31.15	21.156		
7,200.00	7,072.74	7,112.51	7,072.74	19.70	14.18	-90.41	-375.13	477.55	659.02	627.79	31.23	21.103		
7,300.00	7,172.74	7,212.51	7,172.74	19.74	14.23	-90.41	-375.13	477.55	659.02	627.71	31.31	21.049		
7,400.00	7,272.74	7,312.51	7,272.74	19.77	14.27	-90.41	-375.13	477.55	659.02	627.63	31.39	20.996		
7,500.00	7,372.74	7,412.51	7,372.74	19.81	14.31	-90.41	-375.13	477.55	659.02	627.55	31.47	20.942		
7,600.00	7,472.74	7,512.51	7,472.74	19.85	14.35	-90.41	-375.13	477.55	659.02	627.47	31.55	20.888		
7,700.00	7,572.74	7,612.51	7,572.74	19.89	14.40	-90.41	-375.13	477.55	659.02	627.39	31.63	20.834		
7,800.00	7,672.74	7,712.51	7,672.74	19.93	14.44	-90.41	-375.13	477.55	659.02	627.30	31.71	20.780		
7,900.00	7,772.74	7,812.51	7,772.74	19.97	14.48	-90.41	-375.13	477.55	659.02	627.22	31.80	20.726		
8,000.00	7,872.74	7,912.51	7,872.74	20.01	14.53	-90.41	-375.13	477.55	659.02	627.14	31.88	20.671		
8,100.00	7,972.74	8,012.51	7,972.74	20.05	14.57	-90.41	-375.13	477.55	659.02	627.05	31.97	20.617		
8,200.00	8,072.74	8,112.51	8,072.74	20.10	14.62	-90.41	-375.13	477.55	659.02	626.97	32.05	20.562		
8,300.00	8,172.74	8,212.51	8,172.74	20.14	14.66	-90.41	-375.13	477.55	659.02	626.88	32.14	20.507		
8,400.00	8,272.74	8,312.51	8,272.74	20.18	14.71	-90.41	-375.13	477.55	659.02	626.80	32.22	20.452		
8,500.00	8,372.74	8,412.51	8,372.74	20.22	14.75	-90.41	-375.13	477.55	659.02	626.71	32.31	20.398		
8,600.00	8,472.74	8,512.51	8,472.74	20.26	14.80	-90.41	-375.13	477.55	659.02	626.62	32.40	20.343		
8,700.00	8,572.74	8,612.51	8,572.74	20.30	14.84	-90.41	-375.13	477.55	659.02	626.53	32.48	20.288		
8,800.00	8,672.74	8,712.51	8,672.74	20.35	14.89	-90.41	-375.13	477.55	659.02	626.44	32.57	20.232		
8,900.00	8,772.74	8,812.51	8,772.74	20.39	14.94	-90.41	-375.13	477.55	659.02	626.36	32.66	20.177		
9,000.00	8,872.74	8,912.51	8,872.74	20.43	14.98	-90.41	-375.13	477.55	659.02	626.27	32.75	20.122		
9,100.00	8,972.74	9,012.51	8,972.74	20.48	15.03	-90.41	-375.13	477.55	659.02	626.18	32.84	20.067		
9,200.00	9,072.74	9,112.51	9,072.74	20.52	15.08	-90.41	-375.13	477.55	659.02	626.09	32.93	20.011		
9,300.00	9,172.74	9,212.51	9,172.74	20.56	15.13	-90.41	-375.13	477.55	659.02	625.99	33.02	19.956		
9,400.00	9,272.74	9,312.51	9,272.74	20.61	15.18	-90.41	-375.13	477.55	659.02	625.90	33.12	19.901		
9,500.00	9,372.74	9,412.51	9,372.74	20.65	15.22	-90.41	-375.13	477.55	659.02	625.81	33.21	19.845		
9,600.00	9,472.74	9,512.51	9,472.74	20.70	15.27	-90.41	-375.13	477.55	659.02	625.72	33.30	19.790		
9,700.00	9,572.74	9,612.51	9,572.74	20.74	15.32	-90.41	-375.13	477.55	659.02	625.62	33.39	19.735		
9,800.00	9,672.74	9,712.51	9,672.74	20.79	15.37	-90.41	-375.13	477.55	659.02	625.53	33.49	19.679		
9,900.00	9,772.74	9,812.51	9,772.74	20.83	15.42	-90.41	-375.13	477.55	659.02	625.43	33.58	19.624		
10,000.00	9,872.74	9,912.51	9,872.74	20.88	15.47	-90.41	-375.13	477.55	659.02	625.34	33.68	19.568		
10,100.00	9,972.74	10,012.51	9,972.74	20.92	15.52	-90.41	-375.13	477.55	659.02	625.24	33.77	19.513		
10,200.00	10,072.74	10,112.51	10,072.74	20.97	15.57	-90.41	-375.13	477.55	659.02	625.15	33.87	19.457		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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		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	
10,300.00	10,172.74	10,212.51	10,172.74	21.01	15.62	-90.41	-375.13	477.55	659.02	625.05	33.97	19.402	
10,400.00	10,272.74	10,312.51	10,272.74	21.06	15.68	-90.41	-375.13	477.55	659.02	624.95	34.06	19.347	
10,500.00	10,372.74	10,412.51	10,372.74	21.11	15.73	-90.41	-375.13	477.55	659.02	624.86	34.16	19.291	
10,600.00	10,472.74	10,512.51	10,472.74	21.15	15.78	-90.41	-375.13	477.55	659.02	624.76	34.26	19.236	
10,700.00	10,572.74	10,612.51	10,572.74	21.20	15.83	-90.41	-375.13	477.55	659.02	624.66	34.36	19.181	
10,800.00	10,672.74	10,712.51	10,672.74	21.25	15.88	-90.41	-375.13	477.55	659.02	624.56	34.46	19.126	
10,900.00	10,772.74	10,812.51	10,772.74	21.29	15.94	-90.41	-375.13	477.55	659.02	624.46	34.56	19.071	
11,000.00	10,872.74	10,912.51	10,872.74	21.34	15.99	-90.41	-375.13	477.55	659.02	624.36	34.66	19.016	
11,100.00	10,972.74	11,012.51	10,972.74	21.39	16.04	-90.41	-375.13	477.55	659.02	624.26	34.76	18.960	
11,200.00	11,072.74	11,112.51	11,072.74	21.44	16.10	-90.41	-375.13	477.55	659.02	624.16	34.86	18.906	
11,300.00	11,172.74	11,212.51	11,172.74	21.49	16.15	-90.41	-375.13	477.55	659.02	624.06	34.96	18.851	
11,400.00	11,272.74	11,312.51	11,272.74	21.53	16.20	-90.41	-375.13	477.55	659.02	623.96	35.06	18.796	
11,500.00	11,372.74	11,412.51	11,372.74	21.58	16.26	-90.41	-375.13	477.55	659.02	623.85	35.16	18.741	
11,600.00	11,472.74	11,512.51	11,472.74	21.63	16.31	-90.41	-375.13	477.55	659.02	623.75	35.27	18.686	
11,700.00	11,572.74	11,612.51	11,572.74	21.68	16.37	-90.41	-375.13	477.55	659.02	623.65	35.37	18.632	
11,800.00	11,672.74	11,712.51	11,672.74	21.73	16.42	-90.41	-375.13	477.55	659.02	623.54	35.47	18.577	
11,900.00	11,772.74	11,812.51	11,772.74	21.78	16.47	-90.41	-375.13	477.55	659.02	623.44	35.58	18.524	
12,000.00	11,872.61	11,912.64	11,872.85	21.84	16.52	90.30	-376.45	477.56	659.03	623.40	35.63	18.498	
12,100.00	11,970.52	12,013.54	11,972.39	21.99	16.64	90.67	-392.09	477.70	659.06	623.30	35.76	18.431	
12,200.00	12,063.53	12,115.20	12,068.35	22.19	16.80	91.02	-425.25	478.01	659.12	623.08	36.04	18.289	
12,300.00	12,148.80	12,217.57	12,157.55	22.45	16.97	91.35	-475.22	478.46	659.20	622.70	36.49	18.063	
12,400.00	12,223.74	12,320.61	12,236.90	22.78	17.37	91.63	-540.71	479.05	659.28	622.12	37.16	17.741	
12,500.00	12,286.09	12,424.20	12,303.59	23.20	17.92	91.86	-619.80	479.77	659.36	621.29	38.07	17.320	
12,600.00	12,333.93	12,528.25	12,355.16	23.71	18.60	92.03	-710.01	480.59	659.43	620.20	39.23	16.809	
12,700.00	12,365.83	12,632.62	12,389.66	24.31	19.39	92.14	-808.35	481.49	659.47	618.84	40.64	16.228	
12,800.00	12,380.81	12,737.15	12,405.79	24.99	20.28	92.17	-911.48	482.42	659.49	617.24	42.25	15.611	
12,900.00	12,382.30	12,838.62	12,407.31	25.74	21.21	92.17	-1,012.92	483.35	659.49	615.55	43.94	15.009	
13,000.00	12,382.83	12,938.62	12,407.83	26.54	22.18	92.17	-1,112.91	484.25	659.49	613.77	45.72	14.425	
13,100.00	12,383.35	13,038.62	12,408.36	27.39	23.18	92.17	-1,212.91	485.16	659.49	611.90	47.59	13.858	
13,200.00	12,383.88	13,138.62	12,408.88	28.28	24.21	92.17	-1,312.90	486.07	659.49	609.95	49.54	13.313	
13,300.00	12,384.40	13,238.62	12,409.41	29.20	25.28	92.17	-1,412.90	486.98	659.49	607.93	51.56	12.791	
13,400.00	12,384.93	13,338.62	12,409.93	30.16	26.37	92.17	-1,512.89	487.89	659.49	605.84	53.64	12.294	
13,500.00	12,385.46	13,438.62	12,410.46	31.14	27.48	92.17	-1,612.89	488.80	659.49	603.70	55.78	11.822	
13,600.00	12,385.98	13,538.62	12,410.98	32.15	28.61	92.17	-1,712.88	489.71	659.49	601.51	57.98	11.375	
13,700.00	12,386.51	13,638.62	12,411.51	33.18	29.77	92.17	-1,812.87	490.61	659.49	599.28	60.21	10.953	
13,800.00	12,387.03	13,738.62	12,412.03	34.23	30.94	92.17	-1,912.87	491.52	659.49	597.00	62.49	10.554	
13,900.00	12,387.56	13,838.62	12,412.56	35.31	32.12	92.17	-2,012.86	492.43	659.49	594.69	64.80	10.178	
14,000.00	12,388.09	13,938.62	12,413.08	36.40	33.32	92.17	-2,112.86	493.34	659.49	592.35	67.14	9.822	
14,100.00	12,388.61	14,038.62	12,413.61	37.51	34.53	92.17	-2,212.85	494.25	659.49	589.97	69.51	9.487	
14,200.00	12,389.14	14,138.62	12,414.13	38.63	35.75	92.17	-2,312.85	495.16	659.49	587.58	71.91	9.171	
14,300.00	12,389.66	14,238.62	12,414.66	39.77	36.98	92.17	-2,412.84	496.07	659.49	585.16	74.33	8.872	
14,400.00	12,390.19	14,338.62	12,415.18	40.92	38.22	92.17	-2,512.84	496.98	659.49	582.71	76.77	8.590	
14,500.00	12,390.71	14,438.62	12,415.71	42.08	39.47	92.17	-2,612.83	497.88	659.49	580.25	79.23	8.323	
14,600.00	12,391.24	14,538.62	12,416.23	43.26	40.73	92.17	-2,712.83	498.79	659.49	577.77	81.71	8.071	
14,700.00	12,391.77	14,638.62	12,416.76	44.44	41.99	92.17	-2,812.82	499.70	659.49	575.28	84.21	7.832	
14,800.00	12,392.29	14,738.62	12,417.28	45.64	43.26	92.17	-2,912.81	500.61	659.49	572.77	86.72	7.605	
14,900.00	12,392.82	14,838.62	12,417.81	46.84	44.53	92.17	-3,012.81	501.52	659.49	570.24	89.24	7.390	
15,000.00	12,393.34	14,938.62	12,418.33	48.05	45.81	92.17	-3,112.80	502.43	659.49	567.71	91.78	7.186	
15,100.00	12,393.87	15,038.62	12,418.86	49.27	47.10	92.17	-3,212.80	503.34	659.49	565.16	94.32	6.992	
15,200.00	12,394.40	15,138.62	12,419.38	50.50	48.38	92.17	-3,312.79	504.24	659.48	562.60	96.88	6.807	
15,300.00	12,394.92	15,238.62	12,419.90	51.73	49.68	92.17	-3,412.79	505.15	659.48	560.04	99.45	6.632	
15,400.00	12,395.45	15,338.62	12,420.43	52.97	50.98	92.17	-3,512.78	506.06	659.48	557.46	102.02	6.464	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
												Offset Well Error:	0.50 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	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
15,500.00	12,395.97	15,438.62	12,420.95	54.21	52.28	92.17	-3,612.78	506.97	659.48	554.88	104.61	6.304	
15,600.00	12,396.50	15,538.62	12,421.48	55.47	53.58	92.17	-3,712.77	507.88	659.48	552.29	107.20	6.152	
15,700.00	12,397.03	15,638.62	12,422.00	56.72	54.89	92.17	-3,812.76	508.79	659.48	549.69	109.80	6.006	
15,800.00	12,397.55	15,738.62	12,422.53	57.98	56.20	92.17	-3,912.76	509.70	659.48	547.08	112.40	5.867	
15,900.00	12,398.08	15,838.62	12,423.05	59.25	57.51	92.17	-4,012.75	510.61	659.48	544.47	115.01	5.734	
16,000.00	12,398.60	15,938.62	12,423.58	60.52	58.82	92.17	-4,112.75	511.51	659.48	541.86	117.63	5.607	
16,100.00	12,399.13	16,038.62	12,424.10	61.79	60.14	92.17	-4,212.74	512.42	659.48	539.23	120.25	5.484	
16,200.00	12,399.65	16,138.62	12,424.63	63.07	61.46	92.17	-4,312.74	513.33	659.48	536.61	122.88	5.367	
16,300.00	12,400.18	16,238.62	12,425.15	64.35	62.78	92.17	-4,412.73	514.24	659.48	533.97	125.51	5.254	
16,400.00	12,400.71	16,338.62	12,425.68	65.63	64.11	92.17	-4,512.73	515.15	659.48	531.34	128.15	5.146	
16,500.00	12,401.23	16,438.62	12,426.20	66.92	65.43	92.17	-4,612.72	516.06	659.48	528.70	130.79	5.042	
16,600.00	12,401.76	16,538.62	12,426.73	68.21	66.76	92.17	-4,712.72	516.97	659.48	526.05	133.43	4.943	
16,700.00	12,402.28	16,638.62	12,427.25	69.51	68.09	92.17	-4,812.71	517.87	659.48	523.40	136.08	4.846	
16,800.00	12,402.81	16,738.62	12,427.78	70.80	69.42	92.17	-4,912.70	518.78	659.48	520.75	138.73	4.754	
16,900.00	12,403.34	16,838.62	12,428.30	72.10	70.75	92.17	-5,012.70	519.69	659.48	518.10	141.39	4.664	
17,000.00	12,403.86	16,938.62	12,428.83	73.40	72.08	92.17	-5,112.69	520.60	659.48	515.44	144.04	4.578	
17,100.00	12,404.39	17,038.62	12,429.35	74.71	73.42	92.17	-5,212.69	521.51	659.48	512.78	146.70	4.495	
17,200.00	12,404.91	17,138.62	12,429.88	76.01	74.76	92.17	-5,312.68	522.42	659.48	510.11	149.37	4.415	
17,300.00	12,405.44	17,238.62	12,430.40	77.32	76.09	92.17	-5,412.68	523.33	659.48	507.45	152.03	4.338	
17,400.00	12,405.96	17,338.62	12,430.93	78.63	77.43	92.17	-5,512.67	524.24	659.48	504.78	154.70	4.263	
17,500.00	12,406.49	17,438.62	12,431.45	79.94	78.77	92.17	-5,612.67	525.14	659.48	502.11	157.37	4.191	
17,600.00	12,407.02	17,538.62	12,431.98	81.26	80.11	92.17	-5,712.66	526.05	659.48	499.43	160.05	4.121	
17,700.00	12,407.54	17,638.62	12,432.50	82.57	81.45	92.17	-5,812.65	526.96	659.48	496.76	162.72	4.053	
17,800.00	12,408.07	17,738.62	12,433.03	83.89	82.79	92.17	-5,912.65	527.87	659.48	494.08	165.40	3.987	
17,900.00	12,408.59	17,838.62	12,433.55	85.21	84.14	92.17	-6,012.64	528.78	659.48	491.40	168.08	3.924	
18,000.00	12,409.12	17,938.62	12,434.08	86.53	85.48	92.17	-6,112.64	529.69	659.48	488.72	170.76	3.862	
18,100.00	12,409.65	18,038.62	12,434.60	87.85	86.82	92.17	-6,212.63	530.60	659.48	486.04	173.44	3.802	
18,200.00	12,410.17	18,138.62	12,435.13	89.18	88.17	92.17	-6,312.63	531.50	659.48	483.35	176.13	3.744	
18,300.00	12,410.70	18,238.62	12,435.65	90.50	89.52	92.17	-6,412.62	532.41	659.48	480.66	178.81	3.688	
18,400.00	12,411.22	18,338.62	12,436.18	91.83	90.86	92.17	-6,512.62	533.32	659.48	477.98	181.50	3.633	
18,500.00	12,411.75	18,438.62	12,436.70	93.15	92.21	92.17	-6,612.61	534.23	659.48	475.29	184.19	3.580	
18,600.00	12,412.27	18,538.62	12,437.23	94.48	93.56	92.17	-6,712.61	535.14	659.48	472.60	186.88	3.529	
18,700.00	12,412.80	18,638.62	12,437.75	95.81	94.91	92.17	-6,812.60	536.05	659.48	469.90	189.57	3.479	
18,800.00	12,413.33	18,738.62	12,438.28	97.14	96.26	92.17	-6,912.59	536.96	659.48	467.21	192.27	3.430	
18,900.00	12,413.85	18,838.62	12,438.80	98.47	97.60	92.17	-7,012.59	537.87	659.48	464.52	194.96	3.383	
19,000.00	12,414.38	18,938.62	12,439.33	99.81	98.96	92.17	-7,112.58	538.77	659.48	461.82	197.66	3.336	
19,100.00	12,414.90	19,038.62	12,439.85	101.14	100.31	92.17	-7,212.58	539.68	659.48	459.12	200.35	3.292	
19,200.00	12,415.43	19,138.62	12,440.38	102.47	101.66	92.17	-7,312.57	540.59	659.48	456.42	203.05	3.248	
19,300.00	12,415.96	19,238.62	12,440.90	103.81	103.01	92.17	-7,412.57	541.50	659.48	453.73	205.75	3.205	
19,400.00	12,416.48	19,338.62	12,441.43	105.15	104.36	92.17	-7,512.56	542.41	659.48	451.03	208.45	3.164	
19,500.00	12,417.01	19,438.62	12,441.95	106.48	105.71	92.17	-7,612.56	543.32	659.48	448.32	211.15	3.123	
19,600.00	12,417.53	19,538.62	12,442.48	107.82	107.07	92.17	-7,712.55	544.23	659.48	445.62	213.85	3.084	
19,700.00	12,418.06	19,638.62	12,443.00	109.16	108.42	92.17	-7,812.54	545.13	659.48	442.92	216.56	3.045	
19,800.00	12,418.59	19,738.62	12,443.53	110.50	109.77	92.17	-7,912.54	546.04	659.48	440.22	219.26	3.008	
19,900.00	12,419.11	19,838.62	12,444.05	111.84	111.13	92.17	-8,012.53	546.95	659.48	437.51	221.97	2.971	
20,000.00	12,419.64	19,938.62	12,444.58	113.18	112.48	92.17	-8,112.53	547.86	659.48	434.80	224.67	2.935	
20,100.00	12,420.16	20,038.62	12,445.10	114.52	113.84	92.17	-8,212.52	548.77	659.48	432.10	227.38	2.900	
20,200.00	12,420.69	20,138.62	12,445.63	115.86	115.19	92.17	-8,312.52	549.68	659.48	429.39	230.08	2.866	
20,300.00	12,421.21	20,238.62	12,446.15	117.20	116.55	92.17	-8,412.51	550.59	659.48	426.68	232.79	2.833	
20,400.00	12,421.74	20,338.62	12,446.68	118.55	117.90	92.17	-8,512.51	551.50	659.48	423.98	235.50	2.800	
20,500.00	12,422.27	20,438.62	12,447.20	119.89	119.26	92.17	-8,612.50	552.40	659.48	421.27	238.21	2.768	
20,600.00	12,422.79	20,538.62	12,447.73	121.24	120.62	92.17	-8,712.49	553.31	659.47	418.56	240.92	2.737	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)		Ellipses (usft)			
20,700.00	12,423.32	20,638.62	12,448.25	122.58	121.97	92.17	-8,812.49	554.22	659.47	415.85	243.63	2.707	
20,800.00	12,423.84	20,738.62	12,448.78	123.93	123.33	92.17	-8,912.48	555.13	659.47	413.14	246.34	2.677	
20,900.00	12,424.37	20,838.62	12,449.30	125.27	124.69	92.17	-9,012.48	556.04	659.47	410.42	249.05	2.648	
21,000.00	12,424.90	20,938.62	12,449.83	126.62	126.05	92.17	-9,112.47	556.95	659.47	407.71	251.76	2.619	
21,100.00	12,425.42	21,038.62	12,450.35	127.97	127.40	92.17	-9,212.47	557.86	659.47	405.00	254.47	2.592	
21,200.00	12,425.95	21,138.62	12,450.88	129.31	128.76	92.17	-9,312.46	558.76	659.47	402.29	257.19	2.564	
21,300.00	12,426.47	21,238.62	12,451.40	130.66	130.12	92.17	-9,412.46	559.67	659.47	399.57	259.90	2.537	
21,400.00	12,427.00	21,338.62	12,451.93	132.01	131.48	92.17	-9,512.45	560.58	659.47	396.86	262.62	2.511	
21,500.00	12,427.52	21,438.62	12,452.45	133.36	132.84	92.17	-9,612.45	561.49	659.47	394.14	265.33	2.485	
21,600.00	12,428.05	21,538.62	12,452.98	134.71	134.20	92.17	-9,712.44	562.40	659.47	391.43	268.04	2.460	
21,700.00	12,428.58	21,638.62	12,453.50	136.06	135.56	92.17	-9,812.43	563.31	659.47	388.71	270.76	2.436	
21,800.00	12,429.10	21,738.62	12,454.03	137.41	136.92	92.17	-9,912.43	564.22	659.47	386.00	273.48	2.411	
21,900.00	12,429.63	21,838.62	12,454.55	138.76	138.28	92.17	-10,012.42	565.13	659.47	383.28	276.19	2.388	
22,000.00	12,430.15	21,938.62	12,455.08	140.11	139.64	92.17	-10,112.42	566.03	659.47	380.56	278.91	2.364	
22,100.00	12,430.68	22,038.62	12,455.60	141.46	141.00	92.17	-10,212.41	566.94	659.47	377.85	281.63	2.342	
22,200.00	12,431.21	22,138.62	12,456.13	142.81	142.36	92.17	-10,312.41	567.85	659.47	375.13	284.34	2.319	
22,300.00	12,431.73	22,238.62	12,456.65	144.16	143.72	92.17	-10,412.40	568.76	659.47	372.41	287.06	2.297	
22,400.00	12,432.26	22,338.62	12,457.18	145.51	145.08	92.17	-10,512.40	569.67	659.47	369.69	289.78	2.276	
22,500.00	12,432.78	22,438.62	12,457.70	146.87	146.44	92.17	-10,612.39	570.58	659.47	366.97	292.50	2.255	
22,600.00	12,433.31	22,538.62	12,458.23	148.22	147.80	92.17	-10,712.38	571.49	659.47	364.25	295.22	2.234	
22,700.00	12,433.83	22,638.62	12,458.75	149.57	149.10	92.17	-10,812.38	572.39	659.47	361.59	297.88	2.214	
22,766.62	12,434.19	22,705.24	12,459.10	150.51	149.92	92.17	-10,878.99	573.00	659.47	359.88	299.59	2.201	SF
22,770.20	12,434.20	22,705.25	12,459.10	150.56	149.92	92.17	-10,879.00	573.00	659.48	359.96	299.53	2.202	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	2.00	0.00	0.50	0.50	-6.07	235.00	-25.00	236.33				
100.00	100.00	102.00	100.00	0.98	0.99	-6.07	235.00	-25.00	236.33	234.35	1.97	119.772	
200.00	200.00	202.00	200.00	1.56	1.57	-6.07	235.00	-25.00	236.33	233.20	3.13	75.490	
300.00	300.00	302.00	300.00	1.98	1.99	-6.07	235.00	-25.00	236.33	232.36	3.97	59.539	CC
400.00	399.99	401.99	399.99	2.41	2.34	-113.56	235.00	-25.00	236.85	232.17	4.67	50.684	ES
500.00	499.91	501.91	499.91	2.78	2.64	-114.40	235.00	-25.00	238.44	233.16	5.29	45.101	
600.00	599.69	601.69	599.69	3.11	2.91	-115.77	235.00	-25.00	241.22	235.37	5.85	41.254	
700.00	699.27	701.35	699.35	3.42	3.17	-117.64	235.00	-25.00	245.35	238.97	6.37	38.497	
800.00	798.57	807.28	805.27	3.71	3.46	-120.20	233.50	-25.11	249.69	242.76	6.93	36.027	
900.00	897.62	912.15	910.04	3.84	3.72	-123.31	229.15	-25.44	253.02	245.70	7.32	34.542	
1,000.00	996.65	1,011.20	1,008.95	4.07	3.91	-126.29	223.98	-25.83	256.13	248.37	7.76	32.991	
1,100.00	1,095.67	1,110.25	1,107.87	4.29	4.10	-129.20	218.81	-26.22	259.94	251.74	8.19	31.727	
1,200.00	1,194.70	1,209.31	1,206.79	4.51	4.27	-132.01	213.64	-26.61	264.40	255.79	8.60	30.730	
1,300.00	1,293.73	1,311.50	1,308.82	4.73	4.38	-134.89	207.84	-27.15	269.14	260.21	8.94	30.118	
1,400.00	1,392.75	1,415.65	1,412.61	4.95	4.61	-138.09	199.44	-28.37	272.79	263.43	9.37	29.120	
1,500.00	1,491.78	1,516.91	1,513.32	5.17	4.74	-141.49	188.95	-30.21	275.66	265.95	9.71	28.392	
1,600.00	1,590.81	1,615.54	1,611.36	5.38	4.92	-144.78	178.39	-32.09	279.23	269.12	10.11	27.615	
1,700.00	1,689.83	1,714.16	1,709.40	5.59	5.11	-147.98	167.82	-33.97	283.73	273.22	10.51	26.998	
1,800.00	1,788.86	1,812.79	1,807.44	5.80	5.29	-151.07	157.26	-35.85	289.09	278.19	10.90	26.517	
1,900.00	1,887.89	1,911.42	1,905.48	6.01	5.48	-154.04	146.70	-37.73	295.29	284.00	11.29	26.151	
2,000.00	1,986.91	2,010.04	2,003.52	6.22	5.66	-156.89	136.13	-39.61	302.26	290.58	11.68	25.884	
2,100.00	2,085.94	2,108.67	2,101.56	6.43	5.85	-159.60	125.57	-41.49	309.96	297.90	12.06	25.699	
2,200.00	2,184.97	2,207.30	2,199.60	6.64	6.03	-162.18	115.01	-43.37	318.33	305.88	12.44	25.584	
2,300.00	2,283.86	2,305.80	2,297.52	6.84	6.21	-164.97	104.46	-45.25	328.23	315.42	12.81	25.632	
2,400.00	2,382.33	2,403.94	2,395.08	7.08	6.40	-167.64	93.95	-47.13	341.24	328.02	13.22	25.818	
2,500.00	2,480.31	2,501.64	2,492.20	7.32	6.58	-170.12	83.49	-48.99	357.38	343.75	13.63	26.221	
2,600.00	2,577.74	2,598.83	2,588.82	7.57	6.76	-172.40	73.08	-50.84	376.59	362.55	14.04	26.820	
2,700.00	2,674.78	2,695.67	2,685.08	7.79	6.94	-174.37	62.71	-52.69	397.91	383.51	14.40	27.633	
2,800.00	2,771.81	2,792.50	2,781.33	8.06	7.12	-176.12	52.34	-54.54	419.66	404.87	14.78	28.386	
2,900.00	2,868.84	2,889.32	2,877.59	8.35	7.30	-177.70	41.97	-56.38	441.75	426.58	15.17	29.123	
3,000.00	2,965.87	2,986.15	2,973.84	8.65	7.48	-179.13	31.59	-58.23	464.13	448.58	15.55	29.839	
3,100.00	3,062.90	3,082.98	3,070.09	8.95	7.66	-179.57	21.22	-60.08	486.77	470.83	15.94	30.536	
3,200.00	3,159.93	3,179.81	3,166.35	9.26	7.84	-178.38	10.85	-61.92	509.62	493.29	16.33	31.210	
3,300.00	3,256.96	3,276.64	3,262.60	9.57	8.02	-177.30	0.48	-63.77	532.67	515.95	16.72	31.862	
3,400.00	3,353.99	3,373.47	3,358.86	9.88	8.20	-176.30	-9.89	-65.62	555.89	538.78	17.11	32.491	
3,500.00	3,451.02	3,470.30	3,455.11	10.20	8.38	-175.39	-20.26	-67.47	579.25	561.75	17.50	33.099	
3,600.00	3,548.05	3,567.13	3,551.37	10.51	8.56	-174.54	-30.63	-69.31	602.74	584.85	17.89	33.685	
3,700.00	3,645.08	3,663.96	3,647.62	10.83	8.74	-173.76	-41.00	-71.16	626.35	608.06	18.29	34.250	
3,800.00	3,742.11	3,760.79	3,743.87	11.15	8.92	-173.04	-51.37	-73.01	650.06	631.37	18.68	34.794	
3,900.00	3,839.14	3,857.61	3,840.13	11.47	9.09	-172.36	-61.74	-74.85	673.86	654.78	19.08	35.318	
4,000.00	3,936.17	3,954.44	3,936.38	11.79	9.27	-171.73	-72.11	-76.70	697.74	678.27	19.48	35.823	
4,100.00	4,033.20	4,051.27	4,032.64	12.11	9.45	-171.15	-82.48	-78.55	721.70	701.83	19.88	36.310	
4,200.00	4,130.23	4,148.10	4,128.89	12.43	9.63	-170.60	-92.85	-80.39	745.73	725.45	20.28	36.779	
4,300.00	4,227.26	4,244.93	4,225.15	12.76	9.81	-170.08	-103.22	-82.24	769.82	749.14	20.68	37.231	
4,400.00	4,324.29	4,341.76	4,321.40	13.08	9.99	-169.60	-113.59	-84.09	793.96	772.88	21.08	37.667	
4,500.00	4,421.32	4,438.59	4,417.65	13.40	10.17	-169.14	-123.96	-85.94	818.15	796.67	21.48	38.088	
4,600.00	4,518.35	4,535.42	4,513.91	13.73	10.35	-168.71	-134.33	-87.78	842.39	820.51	21.88	38.493	
4,700.00	4,615.38	4,632.25	4,610.16	14.06	10.53	-168.31	-144.70	-89.63	866.67	844.38	22.29	38.885	
4,800.00	4,712.41	4,729.08	4,706.42	14.38	10.71	-167.92	-155.07	-91.48	890.99	868.30	22.69	39.262	
4,900.00	4,809.44	4,825.90	4,802.67	14.71	10.89	-167.56	-165.44	-93.32	915.35	892.25	23.10	39.627	
5,000.00	4,906.47	4,922.73	4,898.93	15.04	11.07	-167.22	-175.81	-95.17	939.74	916.23	23.51	39.979	
5,100.00	5,003.50	5,019.56	4,995.18	15.36	11.24	-166.89	-186.18	-97.02	964.16	940.24	23.91	40.320	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:
														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)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.00	5,100.53	5,116.39	5,091.43	15.69	11.42	166.58	-196.55	-98.86	988.60	964.28	24.32	40.649		
5,300.00	5,197.56	5,213.22	5,187.69	16.02	11.60	166.28	-206.92	-100.71	1,013.08	988.35	24.73	40.967		
5,400.00	5,294.59	5,310.05	5,283.94	16.35	11.78	166.00	-217.29	-102.56	1,037.57	1,012.44	25.14	41.275		
5,500.00	5,391.62	5,406.88	5,380.20	16.68	11.96	165.73	-227.66	-104.41	1,062.10	1,036.55	25.55	41.573		
5,600.00	5,488.65	5,503.71	5,476.45	17.01	12.14	165.47	-238.03	-106.25	1,086.64	1,060.68	25.96	41.862		
5,700.00	5,585.68	5,600.54	5,572.71	17.34	12.32	165.23	-248.40	-108.10	1,111.20	1,084.83	26.37	42.141		
5,800.00	5,682.71	5,697.37	5,668.96	17.67	12.50	164.99	-258.77	-109.95	1,135.78	1,109.00	26.78	42.412		
5,900.00	5,779.92	5,794.36	5,765.38	17.97	12.68	164.83	-269.16	-111.80	1,159.67	1,132.49	27.17	42.676		
6,000.00	5,877.69	5,891.88	5,862.32	18.27	12.86	164.66	-279.60	-113.66	1,181.19	1,153.60	27.59	42.811		
6,100.00	5,975.98	5,989.87	5,959.73	18.54	13.04	164.45	-290.10	-115.53	1,200.26	1,172.26	28.00	42.863		
6,200.00	6,074.72	6,088.26	6,057.54	18.77	13.22	164.21	-300.64	-117.40	1,216.88	1,188.47	28.41	42.837		
6,300.00	6,173.83	6,187.00	6,155.68	18.98	13.40	163.94	-311.21	-119.29	1,231.05	1,202.25	28.80	42.738		
6,400.00	6,273.26	6,286.00	6,254.10	19.16	13.59	163.62	-321.81	-121.17	1,242.78	1,213.58	29.19	42.571		
6,500.00	6,372.94	6,385.21	6,352.72	19.31	13.77	163.28	-332.44	-123.07	1,252.05	1,222.48	29.57	42.340		
6,600.00	6,472.79	6,484.55	6,451.47	19.42	13.96	162.89	-343.08	-124.96	1,258.89	1,228.96	29.94	42.052		
6,700.00	6,572.74	6,583.96	6,550.29	19.52	14.14	162.46	-353.73	-126.86	1,263.31	1,233.02	30.28	41.717		
6,800.00	6,672.74	6,687.40	6,653.19	19.54	14.32	-89.72	-364.16	-128.72	1,265.43	1,234.93	30.51	41.481		
6,900.00	6,772.74	6,793.22	6,758.69	19.58	14.52	-90.08	-372.12	-130.13	1,266.76	1,236.04	30.72	41.231		
7,000.00	6,872.74	6,899.40	6,864.75	19.62	14.70	-90.31	-377.22	-131.04	1,267.64	1,236.72	30.91	41.004		
7,100.00	6,972.74	7,005.80	6,971.11	19.66	14.86	-90.41	-379.42	-131.43	1,268.02	1,236.95	31.07	40.811		
7,200.00	7,072.74	7,107.42	7,072.74	19.70	14.88	-90.41	-379.51	-131.45	1,268.03	1,236.92	31.12	40.751		
7,300.00	7,172.74	7,207.42	7,172.74	19.74	14.90	-90.41	-379.51	-131.45	1,268.03	1,236.86	31.18	40.673		
7,400.00	7,272.74	7,307.42	7,272.74	19.77	14.93	-90.41	-379.51	-131.45	1,268.03	1,236.80	31.24	40.594		
7,500.00	7,372.74	7,407.42	7,372.74	19.81	14.96	-90.41	-379.51	-131.45	1,268.03	1,236.73	31.30	40.515		
7,600.00	7,472.74	7,507.42	7,472.74	19.85	14.98	-90.41	-379.51	-131.45	1,268.03	1,236.67	31.36	40.435		
7,700.00	7,572.74	7,607.42	7,572.74	19.89	15.01	-90.41	-379.51	-131.45	1,268.03	1,236.61	31.42	40.354		
7,800.00	7,672.74	7,707.42	7,672.74	19.93	15.04	-90.41	-379.51	-131.45	1,268.03	1,236.55	31.49	40.272		
7,900.00	7,772.74	7,807.42	7,772.74	19.97	15.06	-90.41	-379.51	-131.45	1,268.03	1,236.48	31.55	40.190		
8,000.00	7,872.74	7,907.42	7,872.74	20.01	15.09	-90.41	-379.51	-131.45	1,268.03	1,236.42	31.62	40.108		
8,100.00	7,972.74	8,007.42	7,972.74	20.05	15.12	-90.41	-379.51	-131.45	1,268.03	1,236.35	31.68	40.025		
8,200.00	8,072.74	8,107.42	8,072.74	20.10	15.15	-90.41	-379.51	-131.45	1,268.03	1,236.29	31.75	39.941		
8,300.00	8,172.74	8,207.42	8,172.74	20.14	15.18	-90.41	-379.51	-131.45	1,268.03	1,236.22	31.81	39.857		
8,400.00	8,272.74	8,307.42	8,272.74	20.18	15.21	-90.41	-379.51	-131.45	1,268.03	1,236.15	31.88	39.772		
8,500.00	8,372.74	8,407.42	8,372.74	20.22	15.24	-90.41	-379.51	-131.45	1,268.03	1,236.08	31.95	39.687		
8,600.00	8,472.74	8,507.42	8,472.74	20.26	15.27	-90.41	-379.51	-131.45	1,268.03	1,236.01	32.02	39.601		
8,700.00	8,572.74	8,607.42	8,572.74	20.30	15.30	-90.41	-379.51	-131.45	1,268.03	1,235.94	32.09	39.515		
8,800.00	8,672.74	8,707.42	8,672.74	20.35	15.33	-90.41	-379.51	-131.45	1,268.03	1,235.87	32.16	39.428		
8,900.00	8,772.74	8,807.42	8,772.74	20.39	15.36	-90.41	-379.51	-131.45	1,268.03	1,235.80	32.23	39.341		
9,000.00	8,872.74	8,907.42	8,872.74	20.43	15.40	-90.41	-379.51	-131.45	1,268.03	1,235.73	32.30	39.253		
9,100.00	8,972.74	9,007.42	8,972.74	20.48	15.43	-90.41	-379.51	-131.45	1,268.03	1,235.66	32.38	39.165		
9,200.00	9,072.74	9,107.42	9,072.74	20.52	15.46	-90.41	-379.51	-131.45	1,268.03	1,235.58	32.45	39.077		
9,300.00	9,172.74	9,207.42	9,172.74	20.56	15.49	-90.41	-379.51	-131.45	1,268.03	1,235.51	32.52	38.988		
9,400.00	9,272.74	9,307.42	9,272.74	20.61	15.53	-90.41	-379.51	-131.45	1,268.03	1,235.43	32.60	38.899		
9,500.00	9,372.74	9,407.42	9,372.74	20.65	15.56	-90.41	-379.51	-131.45	1,268.03	1,235.36	32.67	38.810		
9,600.00	9,472.74	9,507.42	9,472.74	20.70	15.60	-90.41	-379.51	-131.45	1,268.03	1,235.28	32.75	38.720		
9,700.00	9,572.74	9,607.42	9,572.74	20.74	15.63	-90.41	-379.51	-131.45	1,268.03	1,235.21	32.83	38.629		
9,800.00	9,672.74	9,707.42	9,672.74	20.79	15.67	-90.41	-379.51	-131.45	1,268.03	1,235.13	32.90	38.539		
9,900.00	9,772.74	9,807.42	9,772.74	20.83	15.70	-90.41	-379.51	-131.45	1,268.03	1,235.05	32.98	38.448		
10,000.00	9,872.74	9,907.42	9,872.74	20.88	15.74	-90.41	-379.51	-131.45	1,268.03	1,234.97	33.06	38.357		
10,100.00	9,972.74	10,007.42	9,972.74	20.92	15.77	-90.41	-379.51	-131.45	1,268.03	1,234.89	33.14	38.265		
10,200.00	10,072.74	10,107.42	10,072.74	20.97	15.81	-90.41	-379.51	-131.45	1,268.03	1,234.82	33.22	38.174		
10,300.00	10,172.74	10,207.42	10,172.74	21.01	15.85	-90.41	-379.51	-131.45	1,268.03	1,234.74	33.30	38.082		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,400.00	10,272.74	10,307.42	10,272.74	21.06	15.88	-90.41	-379.51	-131.45	1,268.03	1,234.65	33.38	37.989	
10,500.00	10,372.74	10,407.42	10,372.74	21.11	15.92	-90.41	-379.51	-131.45	1,268.03	1,234.57	33.46	37.897	
10,600.00	10,472.74	10,507.42	10,472.74	21.15	15.96	-90.41	-379.51	-131.45	1,268.03	1,234.49	33.54	37.804	
10,700.00	10,572.74	10,607.42	10,572.74	21.20	16.00	-90.41	-379.51	-131.45	1,268.03	1,234.41	33.62	37.711	
10,800.00	10,672.74	10,707.42	10,672.74	21.25	16.03	-90.41	-379.51	-131.45	1,268.03	1,234.32	33.71	37.618	
10,900.00	10,772.74	10,807.42	10,772.74	21.29	16.07	-90.41	-379.51	-131.45	1,268.03	1,234.24	33.79	37.524	
11,000.00	10,872.74	10,907.42	10,872.74	21.34	16.11	-90.41	-379.51	-131.45	1,268.03	1,234.16	33.88	37.431	
11,100.00	10,972.74	11,007.42	10,972.74	21.39	16.15	-90.41	-379.51	-131.45	1,268.03	1,234.07	33.96	37.337	
11,200.00	11,072.74	11,107.42	11,072.74	21.44	16.19	-90.41	-379.51	-131.45	1,268.03	1,233.99	34.05	37.243	
11,300.00	11,172.74	11,207.42	11,172.74	21.49	16.23	-90.41	-379.51	-131.45	1,268.03	1,233.90	34.13	37.149	
11,400.00	11,272.74	11,307.42	11,272.74	21.53	16.27	-90.41	-379.51	-131.45	1,268.03	1,233.81	34.22	37.055	
11,500.00	11,372.74	11,407.42	11,372.74	21.58	16.31	-90.41	-379.51	-131.45	1,268.03	1,233.73	34.31	36.961	
11,600.00	11,472.74	11,507.42	11,472.74	21.63	16.35	-90.41	-379.51	-131.45	1,268.03	1,233.64	34.40	36.866	
11,700.00	11,572.74	11,607.42	11,572.74	21.68	16.39	-90.41	-379.51	-131.45	1,268.03	1,233.55	34.48	36.772	
11,800.00	11,672.74	11,707.42	11,672.74	21.73	16.43	-90.41	-379.51	-131.45	1,268.03	1,233.46	34.57	36.677	
11,900.00	11,772.74	11,807.42	11,772.74	21.78	16.48	-90.41	-379.51	-131.45	1,268.03	1,233.37	34.66	36.583	
11,900.44	11,773.18	11,807.86	11,773.18	21.78	16.48	90.11	-379.51	-131.45	1,268.03	1,233.37	34.66	36.582	
12,000.00	11,872.61	11,907.46	11,872.78	21.84	16.53	90.26	-379.76	-131.45	1,268.04	1,233.33	34.71	36.531	
12,100.00	11,970.52	12,008.86	11,973.35	21.99	16.77	90.62	-391.65	-131.34	1,268.11	1,233.23	34.88	36.359	
12,200.00	12,063.53	12,111.74	12,071.62	22.19	17.05	90.97	-421.63	-131.07	1,268.21	1,232.97	35.24	35.983	
12,300.00	12,148.80	12,216.07	12,164.17	22.45	17.34	91.29	-469.44	-130.63	1,268.35	1,232.51	35.84	35.389	
12,400.00	12,223.74	12,321.73	12,247.53	22.78	17.62	91.57	-534.14	-130.04	1,268.51	1,231.81	36.69	34.571	
12,500.00	12,286.09	12,428.59	12,318.30	23.20	17.86	91.80	-613.99	-129.32	1,268.66	1,230.84	37.82	33.544	
12,600.00	12,333.93	12,536.41	12,373.46	23.71	18.41	91.98	-706.45	-128.48	1,268.78	1,229.56	39.22	32.347	
12,700.00	12,365.83	12,644.92	12,410.52	24.31	19.42	92.08	-808.26	-127.55	1,268.87	1,227.99	40.88	31.040	
12,800.00	12,380.81	12,753.80	12,427.77	24.99	20.53	92.13	-915.59	-126.58	1,268.90	1,226.17	42.73	29.698	
12,900.00	12,382.30	12,856.58	12,429.31	25.74	21.63	92.12	-1,018.34	-125.64	1,268.90	1,224.29	44.61	28.442	
13,000.00	12,382.83	12,956.58	12,429.84	26.54	22.74	92.12	-1,118.33	-124.73	1,268.90	1,222.35	46.55	27.257	
13,100.00	12,383.35	13,056.58	12,430.36	27.39	23.87	92.12	-1,218.33	-123.83	1,268.90	1,220.33	48.57	26.126	
13,200.00	12,383.88	13,156.58	12,430.89	28.28	25.03	92.12	-1,318.32	-122.92	1,268.90	1,218.25	50.65	25.052	
13,300.00	12,384.40	13,256.58	12,431.41	29.20	26.21	92.12	-1,418.32	-122.01	1,268.90	1,216.11	52.79	24.036	
13,400.00	12,384.93	13,356.58	12,431.94	30.16	27.41	92.12	-1,518.31	-121.10	1,268.90	1,213.91	54.98	23.078	
13,500.00	12,385.46	13,456.58	12,432.46	31.14	28.62	92.12	-1,618.31	-120.19	1,268.90	1,211.67	57.22	22.175	
13,600.00	12,385.98	13,556.58	12,432.99	32.15	29.84	92.12	-1,718.30	-119.28	1,268.90	1,209.39	59.50	21.325	
13,700.00	12,386.51	13,656.58	12,433.51	33.18	31.08	92.12	-1,818.30	-118.37	1,268.90	1,207.08	61.82	20.526	
13,800.00	12,387.03	13,756.58	12,434.04	34.23	32.33	92.12	-1,918.29	-117.46	1,268.90	1,204.73	64.17	19.774	
13,900.00	12,387.56	13,856.58	12,434.56	35.31	33.59	92.12	-2,018.28	-116.55	1,268.90	1,202.35	66.55	19.067	
14,000.00	12,388.09	13,956.58	12,435.09	36.40	34.85	92.12	-2,118.28	-115.65	1,268.90	1,199.94	68.96	18.402	
14,100.00	12,388.61	14,056.58	12,435.61	37.51	36.12	92.12	-2,218.27	-114.74	1,268.89	1,197.51	71.39	17.775	
14,200.00	12,389.14	14,156.58	12,436.14	38.63	37.40	92.12	-2,318.27	-113.83	1,268.89	1,195.06	73.84	17.185	
14,300.00	12,389.66	14,256.58	12,436.66	39.77	38.69	92.12	-2,418.26	-112.92	1,268.89	1,192.59	76.31	16.629	
14,400.00	12,390.19	14,356.58	12,437.19	40.92	39.98	92.12	-2,518.26	-112.01	1,268.89	1,190.10	78.79	16.104	
14,500.00	12,390.71	14,456.58	12,437.71	42.08	41.28	92.12	-2,618.25	-111.10	1,268.89	1,187.59	81.30	15.608	
14,600.00	12,391.24	14,556.58	12,438.24	43.26	42.58	92.12	-2,718.25	-110.19	1,268.89	1,185.07	83.82	15.139	
14,700.00	12,391.77	14,656.58	12,438.76	44.44	43.89	92.12	-2,818.24	-109.28	1,268.89	1,182.54	86.35	14.695	
14,800.00	12,392.29	14,756.58	12,439.29	45.64	45.19	92.12	-2,918.24	-108.38	1,268.89	1,180.00	88.89	14.274	
14,900.00	12,392.82	14,856.58	12,439.81	46.84	46.51	92.12	-3,018.23	-107.47	1,268.89	1,177.44	91.45	13.875	
15,000.00	12,393.34	14,956.58	12,440.34	48.05	47.82	92.12	-3,118.22	-106.56	1,268.89	1,174.88	94.02	13.497	
15,100.00	12,393.87	15,056.58	12,440.86	49.27	49.14	92.12	-3,218.22	-105.65	1,268.89	1,172.30	96.59	13.137	
15,200.00	12,394.40	15,156.58	12,441.39	50.50	50.46	92.12	-3,318.21	-104.74	1,268.89	1,169.72	99.17	12.795	
15,300.00	12,394.92	15,256.58	12,441.91	51.73	51.79	92.12	-3,418.21	-103.83	1,268.89	1,167.12	101.77	12.469	
15,400.00	12,395.45	15,356.58	12,442.44	52.97	53.11	92.12	-3,518.20	-102.92	1,268.89	1,164.52	104.37	12.158	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)		Rule Assigned:		Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)
15,500.00	12,395.97	15,456.58	12,442.96	54.21	54.44	92.12	-3,618.20	-102.01	1,268.89
15,600.00	12,396.50	15,556.58	12,443.49	55.47	55.77	92.12	-3,718.19	-101.10	1,268.89
15,700.00	12,397.03	15,656.58	12,444.01	56.72	57.10	92.12	-3,818.19	-100.20	1,268.89
15,800.00	12,397.55	15,756.58	12,444.54	57.98	58.44	92.12	-3,918.18	-99.29	1,268.89
15,900.00	12,398.08	15,856.58	12,445.06	59.25	59.77	92.12	-4,018.17	-98.38	1,268.89
16,000.00	12,398.60	15,956.58	12,445.59	60.52	61.11	92.12	-4,118.17	-97.47	1,268.89
16,100.00	12,399.13	16,056.58	12,446.11	61.79	62.45	92.12	-4,218.16	-96.56	1,268.89
16,200.00	12,399.65	16,156.58	12,446.64	63.07	63.79	92.12	-4,318.16	-95.65	1,268.89
16,300.00	12,400.18	16,256.58	12,447.16	64.35	65.13	92.12	-4,418.15	-94.74	1,268.89
16,400.00	12,400.71	16,356.58	12,447.69	65.63	66.47	92.12	-4,518.15	-93.83	1,268.89
16,500.00	12,401.23	16,456.58	12,448.21	66.92	67.81	92.12	-4,618.14	-92.92	1,268.89
16,600.00	12,401.76	16,556.58	12,448.74	68.21	69.16	92.12	-4,718.14	-92.02	1,268.89
16,700.00	12,402.28	16,656.58	12,449.26	69.51	70.50	92.12	-4,818.13	-91.11	1,268.88
16,800.00	12,402.81	16,756.58	12,449.79	70.80	71.85	92.12	-4,918.13	-90.20	1,268.88
16,900.00	12,403.34	16,856.58	12,450.31	72.10	73.20	92.12	-5,018.12	-89.29	1,268.88
17,000.00	12,403.86	16,956.58	12,450.84	73.40	74.55	92.12	-5,118.11	-88.38	1,268.88
17,100.00	12,404.39	17,056.58	12,451.36	74.71	75.89	92.12	-5,218.11	-87.47	1,268.88
17,200.00	12,404.91	17,156.58	12,451.89	76.01	77.24	92.12	-5,318.10	-86.56	1,268.88
17,300.00	12,405.44	17,256.58	12,452.41	77.32	78.59	92.12	-5,418.10	-85.65	1,268.88
17,400.00	12,405.96	17,356.58	12,452.94	78.63	79.94	92.12	-5,518.09	-84.74	1,268.88
17,500.00	12,406.49	17,456.58	12,453.47	79.94	81.30	92.12	-5,618.09	-83.84	1,268.88
17,600.00	12,407.02	17,556.58	12,453.99	81.26	82.65	92.12	-5,718.08	-82.93	1,268.88
17,700.00	12,407.54	17,656.58	12,454.52	82.57	84.00	92.12	-5,818.08	-82.02	1,268.88
17,800.00	12,408.07	17,756.58	12,455.04	83.89	85.35	92.12	-5,918.07	-81.11	1,268.88
17,900.00	12,408.59	17,856.58	12,455.57	85.21	86.71	92.12	-6,018.06	-80.20	1,268.88
18,000.00	12,409.12	17,956.58	12,456.09	86.53	88.06	92.12	-6,118.06	-79.29	1,268.88
18,100.00	12,409.65	18,056.58	12,456.62	87.85	89.42	92.12	-6,218.05	-78.38	1,268.88
18,200.00	12,410.17	18,156.58	12,457.14	89.18	90.77	92.12	-6,318.05	-77.47	1,268.88
18,300.00	12,410.70	18,256.58	12,457.67	90.50	92.13	92.12	-6,418.04	-76.56	1,268.88
18,400.00	12,411.22	18,356.58	12,458.19	91.83	93.48	92.12	-6,518.04	-75.66	1,268.88
18,500.00	12,411.75	18,456.58	12,458.72	93.15	94.84	92.12	-6,618.03	-74.75	1,268.88
18,600.00	12,412.27	18,556.58	12,459.24	94.48	96.19	92.12	-6,718.03	-73.84	1,268.88
18,700.00	12,412.80	18,656.58	12,459.77	95.81	97.55	92.12	-6,818.02	-72.93	1,268.88
18,800.00	12,413.33	18,756.58	12,460.29	97.14	98.91	92.12	-6,918.01	-72.02	1,268.88
18,900.00	12,413.85	18,856.58	12,460.82	98.47	100.27	92.12	-7,018.01	-71.11	1,268.88
19,000.00	12,414.38	18,956.58	12,461.34	99.81	101.62	92.12	-7,118.00	-70.20	1,268.88
19,100.00	12,414.90	19,056.58	12,461.87	101.14	102.98	92.12	-7,218.00	-69.29	1,268.88
19,200.00	12,415.43	19,156.58	12,462.39	102.47	104.34	92.12	-7,317.99	-68.38	1,268.88
19,300.00	12,415.96	19,256.58	12,462.92	103.81	105.70	92.12	-7,417.99	-67.48	1,268.87
19,400.00	12,416.48	19,356.58	12,463.44	105.15	107.06	92.12	-7,517.98	-66.57	1,268.87
19,500.00	12,417.01	19,456.58	12,463.97	106.48	108.42	92.12	-7,617.98	-65.66	1,268.87
19,600.00	12,417.53	19,556.58	12,464.49	107.82	109.78	92.12	-7,717.97	-64.75	1,268.87
19,700.00	12,418.06	19,656.58	12,465.02	109.16	111.14	92.12	-7,817.97	-63.84	1,268.87
19,800.00	12,418.59	19,756.58	12,465.54	110.50	112.50	92.12	-7,917.96	-62.93	1,268.87
19,900.00	12,419.11	19,856.58	12,466.07	111.84	113.86	92.12	-8,017.95	-62.02	1,268.87
20,000.00	12,419.64	19,956.58	12,466.59	113.18	115.22	92.12	-8,117.95	-61.11	1,268.87
20,100.00	12,420.16	20,056.58	12,467.12	114.52	116.58	92.12	-8,217.94	-60.21	1,268.87
20,200.00	12,420.69	20,156.58	12,467.64	115.86	117.94	92.12	-8,317.94	-59.30	1,268.87
20,300.00	12,421.21	20,256.58	12,468.17	117.20	119.30	92.12	-8,417.93	-58.39	1,268.87
20,400.00	12,421.74	20,356.58	12,468.69	118.55	120.66	92.12	-8,517.93	-57.48	1,268.87
20,500.00	12,422.27	20,456.58	12,469.22	119.89	122.02	92.12	-8,617.92	-56.57	1,268.87
20,600.00	12,422.79	20,556.58	12,469.74	121.24	123.39	92.12	-8,717.92	-55.66	1,268.87

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:		Offset Site Error:	0.00 usft
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)			
20,700.00	12,423.32	20,656.58	12,470.27	122.58	124.75	92.12	-8,817.91	-54.75	1,268.87	1,022.41	246.46	5.148	
20,800.00	12,423.84	20,756.58	12,470.79	123.93	126.11	92.12	-8,917.90	-53.84	1,268.87	1,019.69	249.18	5.092	
20,900.00	12,424.37	20,856.58	12,471.32	125.27	127.47	92.12	-9,017.90	-52.93	1,268.87	1,016.98	251.89	5.037	
21,000.00	12,424.90	20,956.58	12,471.84	126.62	128.83	92.12	-9,117.89	-52.03	1,268.87	1,014.26	254.61	4.984	
21,100.00	12,425.42	21,056.58	12,472.37	127.97	130.20	92.12	-9,217.89	-51.12	1,268.87	1,011.54	257.32	4.931	
21,200.00	12,425.95	21,156.58	12,472.89	129.31	131.56	92.12	-9,317.88	-50.21	1,268.87	1,008.83	260.04	4.880	
21,300.00	12,426.47	21,256.58	12,473.42	130.66	132.92	92.12	-9,417.88	-49.30	1,268.87	1,006.11	262.76	4.829	
21,400.00	12,427.00	21,356.58	12,473.94	132.01	134.29	92.12	-9,517.87	-48.39	1,268.87	1,003.39	265.47	4.780	
21,500.00	12,427.52	21,456.58	12,474.47	133.36	135.65	92.12	-9,617.87	-47.48	1,268.87	1,000.67	268.19	4.731	
21,600.00	12,428.05	21,556.58	12,474.99	134.71	137.01	92.12	-9,717.86	-46.57	1,268.87	997.96	270.91	4.684	
21,700.00	12,428.58	21,656.58	12,475.52	136.06	138.38	92.12	-9,817.86	-45.66	1,268.87	995.24	273.63	4.637	
21,800.00	12,429.10	21,756.58	12,476.04	137.41	139.74	92.12	-9,917.85	-44.75	1,268.87	992.52	276.35	4.592	
21,900.00	12,429.63	21,856.58	12,476.57	138.76	141.10	92.12	-10,017.84	-43.85	1,268.86	989.80	279.07	4.547	
22,000.00	12,430.15	21,956.58	12,477.09	140.11	142.47	92.12	-10,117.84	-42.94	1,268.86	987.08	281.79	4.503	
22,100.00	12,430.68	22,056.58	12,477.62	141.46	143.83	92.12	-10,217.83	-42.03	1,268.86	984.36	284.51	4.460	
22,200.00	12,431.21	22,156.58	12,478.14	142.81	145.19	92.12	-10,317.83	-41.12	1,268.86	981.64	287.23	4.418	
22,300.00	12,431.73	22,256.58	12,478.67	144.16	146.56	92.12	-10,417.82	-40.21	1,268.86	978.92	289.95	4.376	
22,400.00	12,432.26	22,356.58	12,479.19	145.51	147.92	92.12	-10,517.82	-39.30	1,268.86	976.20	292.67	4.336	
22,500.00	12,432.78	22,456.58	12,479.72	146.87	149.29	92.12	-10,617.81	-38.39	1,268.86	973.47	295.39	4.296	
22,600.00	12,433.31	22,556.58	12,480.24	148.22	150.65	92.12	-10,717.81	-37.48	1,268.86	970.75	298.11	4.256	
22,700.00	12,433.83	22,656.58	12,480.77	149.57	152.01	92.12	-10,817.80	-36.57	1,268.86	968.03	300.83	4.218	
22,761.09	12,434.16	22,717.67	12,481.09	150.43	152.82	92.12	-10,878.88	-36.02	1,268.86	966.40	302.47	4.195	
22,770.20	12,434.20	22,719.79	12,481.10	150.56	152.85	92.12	-10,881.00	-36.00	1,268.88	966.34	302.54	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	2.00	0.00	0.50	0.50	0.00	235.00	0.00	235.00				
100.00	100.00	102.00	100.00	0.98	0.99	0.00	235.00	0.00	235.00	233.03	1.97	119.100	
200.00	200.00	202.00	200.00	1.56	1.57	0.00	235.00	0.00	235.00	231.87	3.13	75.067	
300.00	300.00	302.00	300.00	1.98	1.99	0.00	235.00	0.00	235.00	231.03	3.97	59.205	CC
400.00	399.99	401.99	399.99	2.41	2.34	-107.50	235.00	0.00	235.39	230.72	4.67	50.437	ES
500.00	499.91	501.91	499.91	2.78	2.64	-108.39	235.00	0.00	236.60	231.33	5.28	44.849	
600.00	599.69	601.69	599.69	3.11	2.91	-109.84	235.00	0.00	238.75	232.92	5.83	40.945	
700.00	699.27	701.27	699.27	3.42	3.17	-111.83	235.00	0.00	242.01	235.66	6.35	38.106	
800.00	798.57	800.57	798.57	3.71	3.40	-114.29	235.00	0.00	246.65	239.80	6.85	36.014	
900.00	897.62	899.62	897.62	3.84	3.62	-117.09	235.00	0.00	252.66	245.45	7.22	35.014	
1,000.00	996.65	998.65	996.65	4.07	3.83	-119.81	235.00	0.00	259.34	251.67	7.68	33.780	
1,100.00	1,095.67	1,097.67	1,095.67	4.29	4.03	-122.38	235.00	0.00	266.59	258.46	8.12	32.816	
1,200.00	1,194.70	1,196.70	1,194.70	4.51	4.23	-124.82	235.00	0.00	274.34	265.79	8.56	32.062	
1,300.00	1,293.73	1,295.73	1,293.73	4.73	4.41	-127.13	235.00	0.00	282.57	273.59	8.98	31.473	
1,400.00	1,392.75	1,394.75	1,392.75	4.95	4.59	-129.30	235.00	0.00	291.23	281.84	9.39	31.016	
1,500.00	1,491.78	1,493.78	1,491.78	5.17	4.77	-131.34	235.00	0.00	300.29	290.50	9.79	30.667	
1,600.00	1,590.81	1,592.81	1,590.81	5.38	4.94	-133.26	235.00	0.00	309.71	299.52	10.19	30.404	
1,700.00	1,689.83	1,691.83	1,689.83	5.59	5.10	-135.07	235.00	0.00	319.46	308.88	10.57	30.212	
1,800.00	1,788.86	1,790.86	1,788.86	5.80	5.26	-136.78	235.00	0.00	329.50	318.55	10.95	30.078	
1,900.00	1,887.89	1,889.89	1,887.89	6.01	5.42	-138.38	235.00	0.00	339.82	328.49	11.33	29.993	
2,000.00	1,986.91	1,988.91	1,986.91	6.22	5.57	-139.88	235.00	0.00	350.39	338.69	11.70	29.949	
2,100.00	2,085.94	2,087.94	2,085.94	6.43	5.74	-141.49	234.23	-0.72	360.96	348.91	12.05	29.944	
2,200.00	2,184.97	2,186.97	2,184.97	6.64	5.89	-143.40	231.52	-3.23	371.30	358.92	12.38	29.985	
2,300.00	2,283.86	2,285.86	2,283.86	6.84	6.04	-145.92	226.92	-7.52	382.42	369.73	12.69	30.139	
2,400.00	2,382.33	2,384.33	2,382.33	7.08	6.19	-148.77	220.51	-13.49	396.05	383.00	13.04	30.362	
2,500.00	2,480.31	2,482.31	2,480.31	7.32	6.33	-151.83	212.38	-21.05	412.64	399.23	13.40	30.783	
2,600.00	2,577.74	2,579.74	2,577.74	7.57	6.48	-155.02	202.65	-30.10	432.60	418.83	13.77	31.418	
2,700.00	2,674.78	2,676.78	2,674.78	7.79	6.62	-158.23	191.41	-40.56	455.44	441.35	14.09	32.331	
2,800.00	2,771.81	2,773.81	2,771.81	8.06	6.77	-161.36	178.71	-52.37	479.88	465.45	14.43	33.253	
2,900.00	2,868.84	2,870.84	2,868.84	8.35	6.90	-164.40	164.76	-65.36	505.97	491.18	14.78	34.231	
3,000.00	2,965.87	2,967.87	2,965.87	8.65	7.02	-167.19	150.64	-78.50	533.39	518.25	15.14	35.236	
3,100.00	3,062.90	3,064.90	3,062.90	8.95	7.15	-169.71	136.51	-91.64	561.94	546.44	15.50	36.255	
3,200.00	3,159.93	3,161.93	3,159.93	9.26	7.28	-172.01	122.39	-104.78	591.45	575.59	15.87	37.275	
3,300.00	3,256.96	3,258.96	3,256.96	9.57	7.41	-174.09	108.26	-117.92	621.80	605.56	16.24	38.286	
3,400.00	3,353.99	3,355.99	3,353.99	9.88	7.55	-175.98	94.14	-131.06	652.85	636.23	16.62	39.282	
3,500.00	3,451.02	3,453.02	3,451.02	10.20	7.69	-177.71	80.02	-144.21	684.52	667.52	17.01	40.252	
3,600.00	3,548.05	3,550.05	3,548.05	10.51	7.86	-179.30	65.89	-157.35	716.73	699.34	17.39	41.209	
3,700.00	3,645.08	3,647.08	3,645.08	10.83	8.05	-179.26	51.77	-170.49	749.40	731.61	17.79	42.131	
3,800.00	3,742.11	3,744.11	3,742.11	11.15	8.24	-177.92	37.65	-183.63	782.48	764.29	18.19	43.024	
3,900.00	3,839.14	3,841.14	3,839.14	11.47	8.44	-176.70	23.52	-196.77	815.91	797.32	18.59	43.887	
4,000.00	3,936.17	3,938.17	3,936.17	11.79	8.65	-175.57	9.40	-209.91	849.66	830.66	19.00	44.720	
4,100.00	4,033.20	4,035.20	4,033.20	12.11	8.86	-174.52	-4.72	-223.06	883.69	864.28	19.41	45.522	
4,200.00	4,130.23	4,132.23	4,130.23	12.43	9.07	-173.55	-18.85	-236.20	917.97	898.14	19.83	46.295	
4,300.00	4,227.26	4,229.26	4,227.26	12.76	9.29	-172.65	-32.97	-249.34	952.47	932.22	20.25	47.039	
4,400.00	4,324.29	4,326.29	4,324.29	13.08	9.51	-171.80	-47.10	-262.48	987.16	966.49	20.67	47.755	
4,500.00	4,421.32	4,423.32	4,421.32	13.40	9.73	-171.02	-61.22	-275.62	1,022.04	1,000.94	21.10	48.443	
4,600.00	4,518.35	4,520.35	4,518.35	13.73	9.96	-170.29	-75.34	-288.76	1,057.07	1,035.55	21.53	49.104	
4,700.00	4,615.38	4,617.38	4,615.38	14.06	10.18	-169.60	-89.47	-301.91	1,092.25	1,070.29	21.96	49.740	
4,800.00	4,712.41	4,714.41	4,712.41	14.38	10.41	-168.95	-103.59	-315.05	1,127.56	1,105.17	22.39	50.351	
4,900.00	4,809.44	4,811.44	4,809.44	14.71	10.64	-168.35	-117.71	-328.19	1,162.99	1,140.16	22.83	50.938	
5,000.00	4,906.47	4,908.47	4,906.47	15.04	10.88	-167.78	-131.84	-341.33	1,198.53	1,175.26	23.27	51.503	
5,100.00	5,003.50	5,005.50	5,003.50	15.36	11.11	-167.24	-145.96	-354.47	1,234.17	1,210.46	23.71	52.046	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
5,200.00	5,100.53	4,994.72	4,938.95	15.69	11.35	166.73	-160.09	-367.61	1,269.90	1,245.74	24.16	52.568		
5,300.00	5,197.56	5,087.53	5,029.74	16.02	11.59	166.25	-174.21	-380.76	1,305.71	1,281.11	24.60	53.070		
5,400.00	5,294.59	5,180.35	5,120.52	16.35	11.83	165.79	-188.33	-393.90	1,341.60	1,316.55	25.05	53.553		
5,500.00	5,391.62	5,273.16	5,211.31	16.68	12.07	165.36	-202.46	-407.04	1,377.56	1,352.06	25.50	54.018		
5,600.00	5,488.65	5,365.98	5,302.10	17.01	12.32	164.95	-216.58	-420.18	1,413.59	1,387.64	25.95	54.466		
5,700.00	5,585.68	5,458.79	5,392.88	17.34	12.56	164.56	-230.70	-433.32	1,449.68	1,423.27	26.41	54.897		
5,800.00	5,682.71	5,551.60	5,483.67	17.67	12.81	164.19	-244.83	-446.46	1,485.82	1,458.96	26.86	55.312		
5,900.00	5,779.92	5,644.65	5,574.69	17.97	13.06	163.95	-258.99	-459.64	1,521.33	1,494.03	27.30	55.722		
6,000.00	5,877.69	5,738.47	5,666.46	18.27	13.31	163.72	-273.26	-472.92	1,554.61	1,526.85	27.76	55.994		
6,100.00	5,975.98	5,833.02	5,758.94	18.54	13.56	163.47	-287.65	-486.31	1,585.57	1,557.35	28.22	56.183		
6,200.00	6,074.72	5,928.22	5,852.06	18.77	13.82	163.20	-302.14	-499.79	1,614.20	1,585.53	28.67	56.296		
6,300.00	6,173.83	6,024.03	5,945.78	18.98	14.07	162.91	-316.72	-513.36	1,640.50	1,611.39	29.11	56.351		
6,400.00	6,273.26	6,146.28	6,065.56	19.16	14.37	162.50	-334.59	-529.98	1,663.98	1,634.34	29.64	56.141		
6,500.00	6,372.94	6,285.11	6,202.43	19.31	14.70	162.11	-351.60	-545.81	1,682.87	1,652.65	30.22	55.685		
6,600.00	6,472.79	6,426.28	6,342.37	19.42	14.97	161.79	-365.14	-558.41	1,696.91	1,666.16	30.75	55.188		
6,700.00	6,572.74	6,569.16	6,484.61	19.52	15.20	161.54	-374.99	-567.57	1,706.00	1,674.79	31.21	54.662		
6,800.00	6,672.74	6,713.09	6,628.30	19.54	15.38	-90.35	-380.96	-573.13	1,710.29	1,678.79	31.51	54.282		
6,900.00	6,772.74	6,857.45	6,772.63	19.58	15.48	-90.42	-382.97	-575.00	1,711.60	1,679.88	31.71	53.974		
7,000.00	6,872.74	6,957.57	6,872.74	19.62	15.51	-90.42	-382.97	-575.00	1,711.60	1,679.82	31.77	53.867		
7,100.00	6,972.74	7,057.57	6,972.74	19.66	15.55	-90.42	-382.97	-575.00	1,711.60	1,679.74	31.85	53.736		
7,200.00	7,072.74	7,157.57	7,072.74	19.70	15.59	-90.42	-382.97	-575.00	1,711.60	1,679.67	31.93	53.605		
7,300.00	7,172.74	7,257.57	7,172.74	19.74	15.63	-90.42	-382.97	-575.00	1,711.60	1,679.59	32.01	53.473		
7,400.00	7,272.74	7,357.57	7,272.74	19.77	15.67	-90.42	-382.97	-575.00	1,711.60	1,679.51	32.09	53.341		
7,500.00	7,372.74	7,457.57	7,372.74	19.81	15.71	-90.42	-382.97	-575.00	1,711.60	1,679.43	32.17	53.209		
7,600.00	7,472.74	7,557.57	7,472.74	19.85	15.76	-90.42	-382.97	-575.00	1,711.60	1,679.35	32.25	53.076		
7,700.00	7,572.74	7,657.57	7,572.74	19.89	15.80	-90.42	-382.97	-575.00	1,711.60	1,679.27	32.33	52.943		
7,800.00	7,672.74	7,757.57	7,672.74	19.93	15.84	-90.42	-382.97	-575.00	1,711.60	1,679.19	32.41	52.810		
7,900.00	7,772.74	7,857.57	7,772.74	19.97	15.88	-90.42	-382.97	-575.00	1,711.60	1,679.10	32.49	52.676		
8,000.00	7,872.74	7,957.57	7,872.74	20.01	15.93	-90.42	-382.97	-575.00	1,711.60	1,679.02	32.58	52.542		
8,100.00	7,972.74	8,057.57	7,972.74	20.05	15.97	-90.42	-382.97	-575.00	1,711.60	1,678.94	32.66	52.407		
8,200.00	8,072.74	8,157.57	8,072.74	20.10	16.02	-90.42	-382.97	-575.00	1,711.60	1,678.85	32.74	52.272		
8,300.00	8,172.74	8,257.57	8,172.74	20.14	16.06	-90.42	-382.97	-575.00	1,711.60	1,678.77	32.83	52.138		
8,400.00	8,272.74	8,357.57	8,272.74	20.18	16.10	-90.42	-382.97	-575.00	1,711.60	1,678.68	32.91	52.002		
8,500.00	8,372.74	8,457.57	8,372.74	20.22	16.15	-90.42	-382.97	-575.00	1,711.60	1,678.60	33.00	51.867		
8,600.00	8,472.74	8,557.57	8,472.74	20.26	16.19	-90.42	-382.97	-575.00	1,711.60	1,678.51	33.09	51.731		
8,700.00	8,572.74	8,657.57	8,572.74	20.30	16.24	-90.42	-382.97	-575.00	1,711.60	1,678.42	33.17	51.596		
8,800.00	8,672.74	8,757.57	8,672.74	20.35	16.29	-90.42	-382.97	-575.00	1,711.60	1,678.34	33.26	51.460		
8,900.00	8,772.74	8,857.57	8,772.74	20.39	16.33	-90.42	-382.97	-575.00	1,711.60	1,678.25	33.35	51.323		
9,000.00	8,872.74	8,957.57	8,872.74	20.43	16.38	-90.42	-382.97	-575.00	1,711.60	1,678.16	33.44	51.187		
9,100.00	8,972.74	9,057.57	8,972.74	20.48	16.42	-90.42	-382.97	-575.00	1,711.60	1,678.07	33.53	51.051		
9,200.00	9,072.74	9,157.57	9,072.74	20.52	16.47	-90.42	-382.97	-575.00	1,711.60	1,677.98	33.62	50.914		
9,300.00	9,172.74	9,257.57	9,172.74	20.56	16.52	-90.42	-382.97	-575.00	1,711.60	1,677.89	33.71	50.778		
9,400.00	9,272.74	9,357.57	9,272.74	20.61	16.57	-90.42	-382.97	-575.00	1,711.60	1,677.80	33.80	50.641		
9,500.00	9,372.74	9,457.57	9,372.74	20.65	16.61	-90.42	-382.97	-575.00	1,711.60	1,677.71	33.89	50.504		
9,600.00	9,472.74	9,557.57	9,472.74	20.70	16.66	-90.42	-382.97	-575.00	1,711.60	1,677.61	33.98	50.367		
9,700.00	9,572.74	9,657.57	9,572.74	20.74	16.71	-90.42	-382.97	-575.00	1,711.60	1,677.52	34.08	50.230		
9,800.00	9,672.74	9,757.57	9,672.74	20.79	16.76	-90.42	-382.97	-575.00	1,711.60	1,677.43	34.17	50.093		
9,900.00	9,772.74	9,857.57	9,772.74	20.83	16.81	-90.42	-382.97	-575.00	1,711.60	1,677.33	34.26	49.956		
10,000.00	9,872.74	9,957.57	9,872.74	20.88	16.86	-90.42	-382.97	-575.00	1,711.60	1,677.24	34.36	49.819		
10,100.00	9,972.74	10,057.57	9,972.74	20.92	16.91	-90.42	-382.97	-575.00	1,711.60	1,677.15	34.45	49.682		
10,200.00	10,072.74	10,157.57	10,072.74	20.97	16.96	-90.42	-382.97	-575.00	1,711.60	1,677.05	34.55	49.546		
10,300.00	10,172.74	10,257.57	10,172.74	21.01	17.01	-90.42	-382.97	-575.00	1,711.60	1,676.95	34.64	49.409		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
10,400.00	10,272.74	10,357.57	10,272.74	21.06	17.06	-90.42	-382.97	-575.00	1,711.60	1,676.86	34.74	49.272
10,500.00	10,372.74	10,457.57	10,372.74	21.11	17.11	-90.42	-382.97	-575.00	1,711.60	1,676.76	34.83	49.135
10,600.00	10,472.74	10,557.57	10,472.74	21.15	17.16	-90.42	-382.97	-575.00	1,711.60	1,676.66	34.93	48.998
10,700.00	10,572.74	10,657.57	10,572.74	21.20	17.21	-90.42	-382.97	-575.00	1,711.60	1,676.57	35.03	48.861
10,800.00	10,672.74	10,757.57	10,672.74	21.25	17.26	-90.42	-382.97	-575.00	1,711.60	1,676.47	35.13	48.725
10,900.00	10,772.74	10,857.57	10,772.74	21.29	17.31	-90.42	-382.97	-575.00	1,711.60	1,676.37	35.23	48.588
11,000.00	10,872.74	10,957.57	10,872.74	21.34	17.36	-90.42	-382.97	-575.00	1,711.60	1,676.27	35.33	48.452
11,100.00	10,972.74	11,057.57	10,972.74	21.39	17.41	-90.42	-382.97	-575.00	1,711.60	1,676.17	35.43	48.316
11,200.00	11,072.74	11,157.57	11,072.74	21.44	17.47	-90.42	-382.97	-575.00	1,711.60	1,676.07	35.53	48.180
11,300.00	11,172.74	11,257.57	11,172.74	21.49	17.52	-90.42	-382.97	-575.00	1,711.60	1,675.97	35.63	48.044
11,400.00	11,272.74	11,357.57	11,272.74	21.53	17.57	-90.42	-382.97	-575.00	1,711.60	1,675.87	35.73	47.908
11,500.00	11,372.74	11,457.57	11,372.74	21.58	17.62	-90.42	-382.97	-575.00	1,711.60	1,675.77	35.83	47.772
11,600.00	11,472.74	11,557.57	11,472.74	21.63	17.68	-90.42	-382.97	-575.00	1,711.60	1,675.67	35.93	47.636
11,700.00	11,572.74	11,657.57	11,572.74	21.68	17.73	-90.42	-382.97	-575.00	1,711.60	1,675.56	36.03	47.501
11,800.00	11,672.74	11,757.57	11,672.74	21.73	17.78	-90.42	-382.97	-575.00	1,711.60	1,675.46	36.14	47.366
11,900.00	11,772.74	11,857.57	11,772.74	21.78	17.84	-90.42	-382.97	-575.00	1,711.60	1,675.36	36.24	47.231
11,902.20	11,774.94	11,859.76	11,774.94	21.78	17.84	90.10	-382.97	-575.00	1,711.60	1,675.36	36.24	47.229
12,000.00	11,872.61	11,957.44	11,872.61	21.84	17.89	90.22	-382.97	-575.00	1,711.61	1,675.29	36.31	47.135
12,100.00	11,970.52	12,055.35	11,970.52	21.99	17.94	90.84	-382.97	-575.00	1,711.79	1,675.37	36.43	46.994
12,200.00	12,063.53	12,148.35	12,063.53	22.19	18.00	91.88	-382.97	-575.00	1,712.74	1,676.15	36.59	46.810
12,300.00	12,148.80	12,233.62	12,148.80	22.45	18.04	93.09	-382.97	-575.00	1,715.43	1,678.62	36.80	46.611
12,400.00	12,223.74	12,309.60	12,224.77	22.78	18.09	94.19	-382.97	-575.00	1,721.10	1,684.03	37.06	46.435
12,500.00	12,286.09	12,488.73	12,400.80	23.20	18.37	97.43	-411.52	-572.18	1,728.26	1,690.58	37.68	45.868
12,600.00	12,333.93	12,834.85	12,678.43	23.71	19.69	102.15	-607.93	-552.74	1,730.36	1,689.90	40.45	42.774
12,700.00	12,365.83	13,204.23	12,795.92	24.31	22.49	103.16	-949.56	-518.95	1,720.11	1,675.49	44.62	38.551
12,800.00	12,380.81	13,279.84	12,796.34	24.99	23.23	103.86	-1,024.90	-512.48	1,709.37	1,663.41	45.96	37.195
12,900.00	12,382.30	13,343.12	12,796.68	25.74	23.87	104.07	-1,088.05	-508.60	1,704.07	1,656.79	47.28	36.045
13,000.00	12,382.83	13,400.00	12,796.97	26.54	24.46	104.09	-1,144.89	-506.30	1,701.16	1,652.60	48.56	35.030
13,100.00	12,383.35	13,475.01	12,797.37	27.39	25.24	104.09	-1,219.88	-504.96	1,700.34	1,650.25	50.09	33.945
13,200.00	12,383.88	13,575.01	12,797.90	28.28	26.33	104.09	-1,319.88	-504.05	1,700.34	1,648.34	51.99	32.702
13,300.00	12,384.40	13,675.01	12,798.42	29.20	27.44	104.09	-1,419.87	-503.14	1,700.34	1,646.37	53.96	31.510
13,400.00	12,384.93	13,775.01	12,798.95	30.16	28.57	104.09	-1,519.87	-502.23	1,700.33	1,644.35	55.99	30.370
13,500.00	12,385.46	13,875.01	12,799.47	31.14	29.72	104.09	-1,619.86	-501.32	1,700.33	1,642.27	58.06	29.283
13,600.00	12,385.98	13,975.01	12,800.00	32.15	30.88	104.09	-1,719.86	-500.41	1,700.33	1,640.14	60.19	28.250
13,700.00	12,386.51	14,075.01	12,800.53	33.18	32.07	104.09	-1,819.85	-499.50	1,700.33	1,637.98	62.35	27.269
13,800.00	12,387.03	14,175.01	12,801.05	34.23	33.26	104.09	-1,919.85	-498.59	1,700.33	1,635.77	64.56	26.339
13,900.00	12,387.56	14,275.01	12,801.58	35.31	34.47	104.09	-2,019.84	-497.68	1,700.33	1,633.53	66.79	25.457
14,000.00	12,388.09	14,375.01	12,802.10	36.40	35.69	104.09	-2,119.83	-496.77	1,700.32	1,631.27	69.06	24.621
14,100.00	12,388.61	14,475.01	12,802.63	37.51	36.92	104.09	-2,219.83	-495.86	1,700.32	1,628.97	71.35	23.830
14,200.00	12,389.14	14,575.01	12,803.16	38.63	38.16	104.09	-2,319.82	-494.95	1,700.32	1,626.65	73.67	23.079
14,300.00	12,389.66	14,675.01	12,803.68	39.77	39.41	104.09	-2,419.82	-494.04	1,700.32	1,624.30	76.02	22.368
14,400.00	12,390.19	14,775.01	12,804.21	40.92	40.66	104.09	-2,519.81	-493.13	1,700.32	1,621.94	78.38	21.694
14,500.00	12,390.71	14,875.01	12,804.73	42.08	41.93	104.09	-2,619.81	-492.22	1,700.32	1,619.56	80.76	21.054
14,600.00	12,391.24	14,975.01	12,805.26	43.26	43.20	104.09	-2,719.80	-491.31	1,700.31	1,617.16	83.16	20.446
14,700.00	12,391.77	15,075.01	12,805.79	44.44	44.47	104.09	-2,819.80	-490.40	1,700.31	1,614.74	85.57	19.869
14,800.00	12,392.29	15,175.01	12,806.31	45.64	45.75	104.09	-2,919.79	-489.49	1,700.31	1,612.31	88.00	19.321
14,900.00	12,392.82	15,275.01	12,806.84	46.84	47.03	104.09	-3,019.79	-488.58	1,700.31	1,609.86	90.45	18.799
15,000.00	12,393.34	15,375.01	12,807.36	48.05	48.32	104.09	-3,119.78	-487.67	1,700.31	1,607.41	92.90	18.302
15,100.00	12,393.87	15,475.01	12,807.89	49.27	49.62	104.09	-3,219.77	-486.76	1,700.31	1,604.94	95.37	17.829
15,200.00	12,394.40	15,575.01	12,808.42	50.50	50.91	104.09	-3,319.77	-485.85	1,700.30	1,602.46	97.85	17.377
15,300.00	12,394.92	15,675.01	12,808.94	51.73	52.21	104.09	-3,419.76	-484.94	1,700.30	1,599.97	100.33	16.947
15,400.00	12,395.45	15,775.01	12,809.47	52.97	53.52	104.09	-3,519.76	-484.03	1,700.30	1,597.47	102.83	16.535

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,500.00	12,395.97	15,875.01	12,809.99	54.21	54.83	104.09	-3,619.75	-483.12	1,700.30	1,594.97	105.33	16.142		
15,600.00	12,396.50	15,975.01	12,810.52	55.47	56.14	104.09	-3,719.75	-482.21	1,700.30	1,592.45	107.84	15.766		
15,700.00	12,397.03	16,075.01	12,811.05	56.72	57.45	104.09	-3,819.74	-481.30	1,700.30	1,589.93	110.36	15.406		
15,800.00	12,397.55	16,175.01	12,811.57	57.98	58.76	104.09	-3,919.74	-480.39	1,700.29	1,587.41	112.89	15.062		
15,900.00	12,398.08	16,275.01	12,812.10	59.25	60.08	104.09	-4,019.73	-479.48	1,700.29	1,584.87	115.42	14.731		
16,000.00	12,398.60	16,375.01	12,812.62	60.52	61.40	104.09	-4,119.72	-478.57	1,700.29	1,582.33	117.96	14.414		
16,100.00	12,399.13	16,475.01	12,813.15	61.79	62.72	104.09	-4,219.72	-477.66	1,700.29	1,579.79	120.50	14.110		
16,200.00	12,399.65	16,575.01	12,813.68	63.07	64.05	104.09	-4,319.71	-476.75	1,700.29	1,577.24	123.05	13.818		
16,300.00	12,400.18	16,675.01	12,814.20	64.35	65.37	104.09	-4,419.71	-475.84	1,700.29	1,574.68	125.61	13.537		
16,400.00	12,400.71	16,775.01	12,814.73	65.63	66.70	104.09	-4,519.70	-474.92	1,700.28	1,572.12	128.16	13.266		
16,500.00	12,401.23	16,875.01	12,815.25	66.92	68.03	104.09	-4,619.70	-474.01	1,700.28	1,569.56	130.73	13.006		
16,600.00	12,401.76	16,975.01	12,815.78	68.21	69.36	104.09	-4,719.69	-473.10	1,700.28	1,566.99	133.29	12.756		
16,700.00	12,402.28	17,075.01	12,816.31	69.51	70.69	104.09	-4,819.69	-472.19	1,700.28	1,564.42	135.86	12.515		
16,800.00	12,402.81	17,175.01	12,816.83	70.80	72.02	104.09	-4,919.68	-471.28	1,700.28	1,561.84	138.44	12.282		
16,900.00	12,403.34	17,275.01	12,817.36	72.10	73.36	104.09	-5,019.67	-470.37	1,700.28	1,559.26	141.02	12.057		
17,000.00	12,403.86	17,375.01	12,817.88	73.40	74.70	104.09	-5,119.67	-469.46	1,700.28	1,556.68	143.60	11.841		
17,100.00	12,404.39	17,475.01	12,818.41	74.71	76.03	104.09	-5,219.66	-468.55	1,700.27	1,554.09	146.18	11.631		
17,200.00	12,404.91	17,575.01	12,818.94	76.01	77.37	104.09	-5,319.66	-467.64	1,700.27	1,551.50	148.77	11.429		
17,300.00	12,405.44	17,675.01	12,819.46	77.32	78.71	104.09	-5,419.65	-466.73	1,700.27	1,548.91	151.36	11.234		
17,400.00	12,405.96	17,775.01	12,819.99	78.63	80.05	104.09	-5,519.65	-465.82	1,700.27	1,546.32	153.95	11.044		
17,500.00	12,406.49	17,875.01	12,820.51	79.94	81.39	104.09	-5,619.64	-464.91	1,700.27	1,543.72	156.54	10.861		
17,600.00	12,407.02	17,975.01	12,821.04	81.26	82.73	104.09	-5,719.64	-464.00	1,700.27	1,541.12	159.14	10.684		
17,700.00	12,407.54	18,075.01	12,821.57	82.57	84.08	104.09	-5,819.63	-463.09	1,700.26	1,538.52	161.74	10.512		
17,800.00	12,408.07	18,175.01	12,822.09	83.89	85.42	104.09	-5,919.63	-462.18	1,700.26	1,535.92	164.34	10.346		
17,900.00	12,408.59	18,275.01	12,822.62	85.21	86.77	104.09	-6,019.62	-461.27	1,700.26	1,533.31	166.95	10.185		
18,000.00	12,409.12	18,375.01	12,823.14	86.53	88.11	104.09	-6,119.61	-460.36	1,700.26	1,530.71	169.55	10.028		
18,100.00	12,409.65	18,475.01	12,823.67	87.85	89.46	104.09	-6,219.61	-459.45	1,700.26	1,528.10	172.16	9.876		
18,200.00	12,410.17	18,575.01	12,824.20	89.18	90.80	104.09	-6,319.60	-458.54	1,700.26	1,525.49	174.77	9.729		
18,300.00	12,410.70	18,675.01	12,824.72	90.50	92.15	104.09	-6,419.60	-457.63	1,700.25	1,522.88	177.38	9.585		
18,400.00	12,411.22	18,775.01	12,825.25	91.83	93.50	104.09	-6,519.59	-456.72	1,700.25	1,520.26	179.99	9.446		
18,500.00	12,411.75	18,875.01	12,825.77	93.15	94.85	104.09	-6,619.59	-455.81	1,700.25	1,517.65	182.60	9.311		
18,600.00	12,412.27	18,975.01	12,826.30	94.48	96.20	104.09	-6,719.58	-454.90	1,700.25	1,515.03	185.22	9.180		
18,700.00	12,412.80	19,075.01	12,826.83	95.81	97.55	104.09	-6,819.58	-453.99	1,700.25	1,512.41	187.84	9.052		
18,800.00	12,413.33	19,175.01	12,827.35	97.14	98.90	104.09	-6,919.57	-453.08	1,700.25	1,509.79	190.46	8.927		
18,900.00	12,413.85	19,275.01	12,827.88	98.47	100.25	104.09	-7,019.56	-452.17	1,700.24	1,507.17	193.08	8.806		
19,000.00	12,414.38	19,375.01	12,828.40	99.81	101.60	104.09	-7,119.56	-451.26	1,700.24	1,504.55	195.70	8.688		
19,100.00	12,414.90	19,475.01	12,828.93	101.14	102.95	104.09	-7,219.55	-450.35	1,700.24	1,501.92	198.32	8.573		
19,200.00	12,415.43	19,575.01	12,829.46	102.47	104.30	104.09	-7,319.55	-449.44	1,700.24	1,499.30	200.94	8.461		
19,300.00	12,415.96	19,675.01	12,829.98	103.81	105.66	104.09	-7,419.54	-448.53	1,700.24	1,496.67	203.57	8.352		
19,400.00	12,416.48	19,775.01	12,830.51	105.15	107.01	104.09	-7,519.54	-447.62	1,700.24	1,494.04	206.19	8.246		
19,500.00	12,417.01	19,875.01	12,831.03	106.48	108.36	104.09	-7,619.53	-446.71	1,700.23	1,491.42	208.82	8.142		
19,600.00	12,417.53	19,975.01	12,831.56	107.82	109.72	104.09	-7,719.53	-445.80	1,700.23	1,488.79	211.45	8.041		
19,700.00	12,418.06	20,075.01	12,832.09	109.16	111.07	104.09	-7,819.52	-444.89	1,700.23	1,486.16	214.07	7.942		
19,800.00	12,418.59	20,175.01	12,832.61	110.50	112.43	104.09	-7,919.51	-443.98	1,700.23	1,483.53	216.70	7.846		
19,900.00	12,419.11	20,275.01	12,833.14	111.84	113.78	104.09	-8,019.51	-443.07	1,700.23	1,480.89	219.33	7.752		
20,000.00	12,419.64	20,375.01	12,833.66	113.18	115.14	104.09	-8,119.50	-442.16	1,700.23	1,478.26	221.97	7.660		
20,100.00	12,420.16	20,475.01	12,834.19	114.52	116.49	104.09	-8,219.50	-441.25	1,700.22	1,475.63	224.60	7.570		
20,200.00	12,420.69	20,575.01	12,834.72	115.86	117.85	104.09	-8,319.49	-440.34	1,700.22	1,472.99	227.23	7.482		
20,300.00	12,421.21	20,675.01	12,835.24	117.20	119.20	104.09	-8,419.49	-439.43	1,700.22	1,470.36	229.86	7.397		
20,400.00	12,421.74	20,775.01	12,835.77	118.55	120.56	104.09	-8,519.48	-438.52	1,700.22	1,467.72	232.50	7.313		
20,500.00	12,422.27	20,875.01	12,836.29	119.89	121.92	104.09	-8,619.48	-437.60	1,700.22	1,465.08	235.13	7.231		
20,600.00	12,422.79	20,975.01	12,836.82	121.24	123.27	104.09	-8,719.47	-436.69	1,700.22	1,462.45	237.77	7.151		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
20,700.00	12,423.32	21,075.01	12,837.35	122.58	124.63	104.09	-8,819.46	-435.78	1,700.21	1,459.81	240.40	7.072	
20,800.00	12,423.84	21,175.01	12,837.87	123.93	125.99	104.09	-8,919.46	-434.87	1,700.21	1,457.17	243.04	6.996	
20,900.00	12,424.37	21,275.01	12,838.40	125.27	127.35	104.09	-9,019.45	-433.96	1,700.21	1,454.53	245.68	6.920	
21,000.00	12,424.90	21,375.01	12,838.92	126.62	128.71	104.09	-9,119.45	-433.05	1,700.21	1,451.89	248.32	6.847	
21,100.00	12,425.42	21,475.01	12,839.45	127.97	130.06	104.09	-9,219.44	-432.14	1,700.21	1,449.25	250.96	6.775	
21,200.00	12,425.95	21,575.01	12,839.98	129.31	131.42	104.09	-9,319.44	-431.23	1,700.21	1,446.61	253.60	6.704	
21,300.00	12,426.47	21,675.01	12,840.50	130.66	132.78	104.09	-9,419.43	-430.32	1,700.20	1,443.97	256.24	6.635	
21,400.00	12,427.00	21,775.01	12,841.03	132.01	134.14	104.09	-9,519.43	-429.41	1,700.20	1,441.33	258.88	6.568	
21,500.00	12,427.52	21,875.01	12,841.55	133.36	135.50	104.09	-9,619.42	-428.50	1,700.20	1,438.68	261.52	6.501	
21,600.00	12,428.05	21,975.01	12,842.08	134.71	136.86	104.09	-9,719.42	-427.59	1,700.20	1,436.04	264.16	6.436	
21,700.00	12,428.58	22,075.01	12,842.61	136.06	138.22	104.09	-9,819.41	-426.68	1,700.20	1,433.40	266.80	6.373	
21,800.00	12,429.10	22,175.01	12,843.13	137.41	139.58	104.09	-9,919.40	-425.77	1,700.20	1,430.75	269.44	6.310	
21,900.00	12,429.63	22,275.01	12,843.66	138.76	140.94	104.09	-10,019.40	-424.86	1,700.19	1,428.11	272.09	6.249	
22,000.00	12,430.15	22,375.01	12,844.18	140.11	142.30	104.09	-10,119.39	-423.95	1,700.19	1,425.46	274.73	6.189	
22,100.00	12,430.68	22,475.01	12,844.71	141.46	143.66	104.09	-10,219.39	-423.04	1,700.19	1,422.82	277.37	6.130	
22,200.00	12,431.21	22,575.01	12,845.24	142.81	145.02	104.09	-10,319.38	-422.13	1,700.19	1,420.17	280.02	6.072	
22,300.00	12,431.73	22,675.01	12,845.76	144.16	146.38	104.09	-10,419.38	-421.22	1,700.19	1,417.52	282.66	6.015	
22,400.00	12,432.26	22,775.01	12,846.29	145.51	147.74	104.09	-10,519.37	-420.31	1,700.19	1,414.88	285.31	5.959	
22,500.00	12,432.78	22,875.01	12,846.81	146.87	149.10	104.09	-10,619.37	-419.40	1,700.18	1,412.23	287.95	5.904	
22,600.00	12,433.31	22,975.01	12,847.34	148.22	150.46	104.09	-10,719.36	-418.49	1,700.18	1,409.58	290.60	5.851	
22,700.00	12,433.83	23,075.01	12,847.87	149.57	151.83	104.09	-10,819.35	-417.58	1,700.18	1,406.93	293.25	5.798	
22,761.65	12,434.16	23,136.66	12,848.19	150.44	152.66	104.09	-10,881.00	-417.02	1,700.18	1,405.30	294.88	5.766	
22,770.20	12,434.20	23,139.21	12,848.20	150.56	152.71	104.09	-10,883.55	-417.00	1,700.19	1,405.20	294.99	5.763	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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)				
0.00	0.00	2.00	0.00	0.50	0.50	0.00	50.00	0.00	50.00					
100.00	100.00	102.00	100.00	0.98	0.99	0.00	50.00	0.00	50.00	48.03	1.97	25.340		
200.00	200.00	202.00	200.00	1.56	1.57	0.00	50.00	0.00	50.00	46.87	3.13	15.972		
300.00	300.00	302.00	300.00	1.98	1.99	0.00	50.00	0.00	50.00	46.03	3.97	12.597	CC	
400.00	399.99	401.99	399.99	2.41	2.34	-108.62	50.00	0.00	50.40	45.73	4.67	10.798	ES	
500.00	499.91	501.91	499.91	2.78	2.64	-112.71	50.00	0.00	51.79	46.51	5.28	9.802		
600.00	599.69	601.69	599.69	3.11	2.91	-119.00	50.00	0.00	54.65	48.79	5.86	9.330		
700.00	699.27	701.27	699.27	3.42	3.17	-126.63	50.00	0.00	59.64	53.23	6.41	9.302		
800.00	798.57	800.57	798.57	3.71	3.40	-134.57	50.00	0.00	67.34	60.38	6.95	9.685		
900.00	897.62	899.62	897.62	3.84	3.62	-141.77	50.00	0.00	77.66	70.32	7.35	10.573		
1,000.00	996.65	998.65	996.65	4.07	3.83	-147.31	50.00	0.00	89.05	81.23	7.81	11.396		
1,100.00	1,095.67	1,097.67	1,095.67	4.29	4.03	-151.56	50.00	0.00	101.07	92.81	8.26	12.237		
1,200.00	1,194.70	1,196.70	1,194.70	4.51	4.23	-154.90	50.00	0.00	113.53	104.84	8.69	13.067		
1,300.00	1,293.73	1,295.73	1,293.73	4.73	4.41	-157.58	50.00	0.00	126.29	117.18	9.10	13.874		
1,400.00	1,392.75	1,394.75	1,392.75	4.95	4.59	-159.76	50.00	0.00	139.27	129.76	9.51	14.651		
1,500.00	1,491.78	1,493.78	1,491.78	5.17	4.77	-161.57	50.00	0.00	152.42	142.52	9.90	15.395		
1,600.00	1,590.81	1,592.81	1,590.81	5.38	4.94	-163.09	50.00	0.00	165.69	155.40	10.29	16.107		
1,700.00	1,689.83	1,691.83	1,689.83	5.59	5.10	-164.38	50.00	0.00	179.06	168.40	10.67	16.787		
1,800.00	1,788.86	1,795.65	1,793.64	5.80	5.29	-165.52	49.44	1.06	191.38	180.30	11.08	17.278		
1,900.00	1,887.89	1,900.51	1,898.42	6.01	5.47	-166.49	47.56	4.66	201.04	189.58	11.47	17.532		
2,000.00	1,986.91	2,005.87	2,003.54	6.22	5.64	-167.33	44.32	10.84	208.02	196.17	11.85	17.552		
2,100.00	2,085.94	2,111.56	2,108.76	6.43	5.82	-168.10	39.73	19.62	212.28	200.05	12.23	17.356		
2,200.00	2,184.97	2,217.42	2,213.84	6.64	6.00	-168.83	33.77	31.00	213.80	201.19	12.60	16.962		
2,300.00	2,283.86	2,323.31	2,318.54	6.84	6.18	-169.92	26.47	44.96	213.51	200.55	12.96	16.479		
2,400.00	2,382.33	2,429.17	2,422.75	7.08	6.36	-171.07	17.82	61.47	213.06	199.70	13.36	15.952		
2,500.00	2,480.31	2,535.01	2,526.37	7.32	6.55	-172.26	7.84	80.54	212.47	198.72	13.75	15.447		
2,600.00	2,577.74	2,640.81	2,629.32	7.57	6.70	-173.50	-3.46	102.13	211.79	197.67	14.12	15.004		
2,700.00	2,674.78	2,741.12	2,726.57	7.79	6.82	-174.60	-14.89	123.95	211.28	196.85	14.43	14.642		
2,800.00	2,771.81	2,841.04	2,823.43	8.06	6.97	-175.68	-26.27	145.70	210.88	196.06	14.82	14.231		
2,900.00	2,868.84	2,940.96	2,920.29	8.35	7.12	-176.76	-37.66	167.44	210.54	195.34	15.21	13.843		
3,000.00	2,965.87	3,040.89	3,017.15	8.65	7.30	-177.84	-49.04	189.19	210.29	194.67	15.61	13.468		
3,100.00	3,062.90	3,140.81	3,114.00	8.95	7.54	-178.93	-60.42	210.93	210.11	194.09	16.01	13.121		
3,200.00	3,159.93	3,240.73	3,210.86	9.26	7.79	-179.99	-71.81	232.68	210.00	193.58	16.42	12.789		
3,289.54	3,246.81	3,330.19	3,297.59	9.54	8.02	-179.01	-82.00	252.15	209.97	193.18	16.79	12.505		
3,300.00	3,256.96	3,340.65	3,307.72	9.57	8.05	-178.90	-83.19	254.42	209.97	193.14	16.83	12.473		
3,400.00	3,353.99	3,440.57	3,404.58	9.88	8.31	-177.81	-94.57	276.17	210.02	192.76	17.25	12.173		
3,500.00	3,451.02	3,540.49	3,501.44	10.20	8.58	-176.72	-105.96	297.91	210.14	192.46	17.68	11.888		
3,600.00	3,548.05	3,640.41	3,598.30	10.51	8.86	-175.64	-117.34	319.66	210.34	192.23	18.11	11.616		
3,700.00	3,645.08	3,740.33	3,695.16	10.83	9.14	-174.55	-128.72	341.40	210.61	192.06	18.54	11.357		
3,800.00	3,742.11	3,840.25	3,792.02	11.15	9.42	-173.47	-140.11	363.15	210.96	191.97	18.99	11.110		
3,900.00	3,839.14	3,940.17	3,888.88	11.47	9.71	-172.40	-151.49	384.89	211.38	191.94	19.44	10.874		
4,000.00	3,936.17	4,040.09	3,985.74	11.79	10.00	-171.33	-162.87	406.63	211.88	191.98	19.90	10.649		
4,100.00	4,033.20	4,140.01	4,082.60	12.11	10.29	-170.26	-174.26	428.38	212.45	192.09	20.36	10.434		
4,200.00	4,130.23	4,239.93	4,179.45	12.43	10.59	-169.20	-185.64	450.12	213.09	192.26	20.83	10.229		
4,300.00	4,227.26	4,339.85	4,276.31	12.76	10.89	-168.15	-197.02	471.87	213.81	192.49	21.31	10.032		
4,400.00	4,324.29	4,439.77	4,373.17	13.08	11.19	-167.10	-208.40	493.61	214.60	192.80	21.80	9.844		
4,500.00	4,421.32	4,539.69	4,470.03	13.40	11.49	-166.07	-219.79	515.36	215.46	193.16	22.30	9.664		
4,600.00	4,518.35	4,639.61	4,566.89	13.73	11.80	-165.04	-231.17	537.10	216.38	193.59	22.80	9.491		
4,700.00	4,615.38	4,739.53	4,663.75	14.06	12.11	-164.02	-242.55	558.85	217.38	194.07	23.31	9.325		
4,800.00	4,712.41	4,839.45	4,760.61	14.38	12.42	-163.01	-253.94	580.59	218.45	194.62	23.83	9.167		
4,900.00	4,809.44	4,939.37	4,857.47	14.71	12.73	-162.01	-265.32	602.34	219.59	195.23	24.36	9.015		
5,000.00	4,906.47	5,039.29	4,954.33	15.04	13.04	-161.02	-276.70	624.08	220.79	195.89	24.89	8.869		

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	.Total Directional Production DB
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error: 0.50 usft		
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,003.50	5,139.21	5,051.19	15.36	13.36	160.04	-288.09	645.82	222.05	196.61	25.44	8.729	
5,200.00	5,100.53	5,239.13	5,148.04	15.69	13.68	159.07	-299.47	667.57	223.38	197.39	25.99	8.595	
5,300.00	5,197.56	5,339.05	5,244.90	16.02	14.00	158.11	-310.85	689.31	224.78	198.22	26.55	8.465	
5,400.00	5,294.59	5,437.39	5,340.26	16.35	14.31	157.20	-322.00	710.60	226.35	199.23	27.12	8.346	
5,500.00	5,391.62	5,532.51	5,432.92	16.68	14.59	156.58	-331.95	729.61	229.60	201.94	27.66	8.301	
5,600.00	5,488.65	5,627.50	5,525.97	17.01	14.85	156.30	-340.81	746.54	234.97	206.81	28.16	8.344	
5,700.00	5,585.68	5,722.24	5,619.22	17.34	15.09	156.33	-348.58	761.38	242.42	213.81	28.61	8.472	
5,800.00	5,682.71	5,816.64	5,712.51	17.67	15.30	156.64	-355.25	774.13	251.95	222.93	29.02	8.682	
5,900.00	5,779.92	5,910.65	5,805.74	17.97	15.48	157.20	-360.84	784.79	262.88	233.51	29.37	8.951	
6,000.00	5,877.69	6,004.44	5,899.03	18.27	15.64	157.78	-365.34	793.40	273.57	243.86	29.71	9.208	
6,100.00	5,975.98	6,100.00	5,994.29	18.54	15.78	158.39	-368.84	800.08	283.96	253.93	30.04	9.454	
6,200.00	6,074.72	6,191.37	6,085.52	18.77	15.89	158.99	-371.15	804.49	294.04	263.75	30.29	9.707	
6,300.00	6,173.83	6,284.53	6,178.63	18.98	15.98	159.61	-372.46	806.99	303.83	273.30	30.53	9.952	
6,400.00	6,273.26	6,379.16	6,273.26	19.16	16.02	160.25	-372.75	807.55	313.24	282.55	30.69	10.208	
6,500.00	6,372.94	6,478.84	6,372.94	19.31	16.06	160.77	-372.75	807.55	320.82	289.94	30.88	10.391	
6,600.00	6,472.79	6,578.69	6,472.79	19.42	16.11	161.11	-372.75	807.55	325.94	294.87	31.07	10.490	
6,700.00	6,572.74	6,678.64	6,572.74	19.52	16.16	161.28	-372.75	807.55	328.60	297.34	31.26	10.511	
6,800.00	6,672.74	6,778.64	6,672.74	19.54	16.21	-90.41	-372.75	807.55	329.01	297.66	31.35	10.495	
6,900.00	6,772.74	6,878.64	6,772.74	19.58	16.26	-90.41	-372.75	807.55	329.01	297.57	31.43	10.466	
7,000.00	6,872.74	6,978.64	6,872.74	19.62	16.31	-90.41	-372.75	807.55	329.01	297.49	31.52	10.437	
7,100.00	6,972.74	7,078.64	6,972.74	19.66	16.36	-90.41	-372.75	807.55	329.01	297.40	31.61	10.408	
7,200.00	7,072.74	7,178.64	7,072.74	19.70	16.41	-90.41	-372.75	807.55	329.01	297.31	31.70	10.379	
7,300.00	7,172.74	7,278.64	7,172.74	19.74	16.46	-90.41	-372.75	807.55	329.01	297.22	31.79	10.350	
7,400.00	7,272.74	7,378.64	7,272.74	19.77	16.51	-90.41	-372.75	807.55	329.01	297.13	31.88	10.321	
7,500.00	7,372.74	7,478.64	7,372.74	19.81	16.56	-90.41	-372.75	807.55	329.01	297.04	31.97	10.292	
7,600.00	7,472.74	7,578.64	7,472.74	19.85	16.61	-90.41	-372.75	807.55	329.01	296.95	32.06	10.263	
7,700.00	7,572.74	7,678.64	7,572.74	19.89	16.66	-90.41	-372.75	807.55	329.01	296.86	32.15	10.234	
7,800.00	7,672.74	7,778.64	7,672.74	19.93	16.71	-90.41	-372.75	807.55	329.01	296.77	32.24	10.205	
7,900.00	7,772.74	7,878.64	7,772.74	19.97	16.76	-90.41	-372.75	807.55	329.01	296.68	32.33	10.176	
8,000.00	7,872.74	7,978.64	7,872.74	20.01	16.82	-90.41	-372.75	807.55	329.01	296.58	32.43	10.146	
8,100.00	7,972.74	8,078.64	7,972.74	20.05	16.87	-90.41	-372.75	807.55	329.01	296.49	32.52	10.117	
8,200.00	8,072.74	8,178.64	8,072.74	20.10	16.92	-90.41	-372.75	807.55	329.01	296.39	32.61	10.088	
8,300.00	8,172.74	8,278.64	8,172.74	20.14	16.97	-90.41	-372.75	807.55	329.01	296.30	32.71	10.059	
8,400.00	8,272.74	8,378.64	8,272.74	20.18	17.03	-90.41	-372.75	807.55	329.01	296.21	32.80	10.030	
8,500.00	8,372.74	8,478.64	8,372.74	20.22	17.08	-90.41	-372.75	807.55	329.01	296.11	32.90	10.001	
8,600.00	8,472.74	8,578.64	8,472.74	20.26	17.13	-90.41	-372.75	807.55	329.01	296.01	32.99	9.971	
8,700.00	8,572.74	8,678.64	8,572.74	20.30	17.19	-90.41	-372.75	807.55	329.01	295.92	33.09	9.942	
8,800.00	8,672.74	8,778.64	8,672.74	20.35	17.24	-90.41	-372.75	807.55	329.01	295.82	33.19	9.913	
8,900.00	8,772.74	8,878.64	8,772.74	20.39	17.29	-90.41	-372.75	807.55	329.01	295.72	33.29	9.884	
9,000.00	8,872.74	8,978.64	8,872.74	20.43	17.35	-90.41	-372.75	807.55	329.01	295.62	33.38	9.855	
9,100.00	8,972.74	9,078.64	8,972.74	20.48	17.40	-90.41	-372.75	807.55	329.01	295.53	33.48	9.826	
9,200.00	9,072.74	9,178.64	9,072.74	20.52	17.46	-90.41	-372.75	807.55	329.01	295.43	33.58	9.797	
9,300.00	9,172.74	9,278.64	9,172.74	20.56	17.51	-90.41	-372.75	807.55	329.01	295.33	33.68	9.768	
9,400.00	9,272.74	9,378.64	9,272.74	20.61	17.57	-90.41	-372.75	807.55	329.01	295.23	33.78	9.739	
9,500.00	9,372.74	9,478.64	9,372.74	20.65	17.62	-90.41	-372.75	807.55	329.01	295.13	33.88	9.710	
9,600.00	9,472.74	9,578.64	9,472.74	20.70	17.68	-90.41	-372.75	807.55	329.01	295.02	33.98	9.681	
9,700.00	9,572.74	9,678.64	9,572.74	20.74	17.74	-90.41	-372.75	807.55	329.01	294.92	34.09	9.652	
9,800.00	9,672.74	9,778.64	9,672.74	20.79	17.79	-90.41	-372.75	807.55	329.01	294.82	34.19	9.624	
9,900.00	9,772.74	9,878.64	9,772.74	20.83	17.85	-90.41	-372.75	807.55	329.01	294.72	34.29	9.595	
10,000.00	9,872.74	9,978.64	9,872.74	20.88	17.90	-90.41	-372.75	807.55	329.01	294.62	34.39	9.566	
10,100.00	9,972.74	10,078.64	9,972.74	20.92	17.96	-90.41	-372.75	807.55	329.01	294.51	34.50	9.537	
10,200.00	10,072.74	10,178.64	10,072.74	20.97	18.02	-90.41	-372.75	807.55	329.01	294.41	34.60	9.509	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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	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
10,300.00	10,172.74	10,278.64	10,172.74	21.01	18.08	-90.41	-372.75	807.55	329.01	294.30	34.70	9.480	
10,400.00	10,272.74	10,378.64	10,272.74	21.06	18.13	-90.41	-372.75	807.55	329.01	294.20	34.81	9.452	
10,500.00	10,372.74	10,478.64	10,372.74	21.11	18.19	-90.41	-372.75	807.55	329.01	294.09	34.91	9.423	
10,600.00	10,472.74	10,578.64	10,472.74	21.15	18.25	-90.41	-372.75	807.55	329.01	293.99	35.02	9.395	
10,700.00	10,572.74	10,678.64	10,572.74	21.20	18.31	-90.41	-372.75	807.55	329.01	293.88	35.13	9.366	
10,800.00	10,672.74	10,778.64	10,672.74	21.25	18.36	-90.41	-372.75	807.55	329.01	293.78	35.23	9.338	
10,900.00	10,772.74	10,878.64	10,772.74	21.29	18.42	-90.41	-372.75	807.55	329.01	293.67	35.34	9.310	
11,000.00	10,872.74	10,978.64	10,872.74	21.34	18.48	-90.41	-372.75	807.55	329.01	293.56	35.45	9.282	
11,100.00	10,972.74	11,078.64	10,972.74	21.39	18.54	-90.41	-372.75	807.55	329.01	293.45	35.56	9.253	
11,200.00	11,072.74	11,178.64	11,072.74	21.44	18.60	-90.41	-372.75	807.55	329.01	293.35	35.66	9.225	
11,300.00	11,172.74	11,278.64	11,172.74	21.49	18.66	-90.41	-372.75	807.55	329.01	293.24	35.77	9.197	
11,400.00	11,272.74	11,378.64	11,272.74	21.53	18.72	-90.41	-372.75	807.55	329.01	293.13	35.88	9.169	
11,500.00	11,372.74	11,478.64	11,372.74	21.58	18.77	-90.41	-372.75	807.55	329.01	293.02	35.99	9.142	
11,600.00	11,472.74	11,578.64	11,472.74	21.63	18.83	-90.41	-372.75	807.55	329.01	292.91	36.10	9.114	
11,700.00	11,572.74	11,678.64	11,572.74	21.68	18.89	-90.41	-372.75	807.55	329.01	292.80	36.21	9.086	
11,800.00	11,672.74	11,778.64	11,672.74	21.73	18.95	-90.41	-372.75	807.55	329.01	292.69	36.32	9.058	
11,900.00	11,772.74	11,878.64	11,772.74	21.78	19.01	-90.41	-372.75	807.55	329.01	292.58	36.43	9.031	
11,901.78	11,774.52	11,880.42	11,774.52	21.78	19.01	90.11	-372.75	807.55	329.01	292.57	36.43	9.030	
12,000.00	11,872.61	11,978.51	11,872.61	21.84	19.07	90.72	-372.75	807.55	329.03	292.56	36.47	9.021	
12,100.00	11,970.52	12,076.42	11,970.52	21.99	19.13	93.98	-372.75	807.55	329.87	293.49	36.38	9.068	
12,200.00	12,063.53	12,169.43	12,063.53	22.19	19.19	99.32	-372.75	807.55	334.48	298.27	36.21	9.238	
12,300.00	12,148.80	12,254.70	12,148.80	22.45	19.23	105.36	-372.75	807.55	347.63	311.56	36.07	9.637	
12,400.00	12,223.74	12,354.29	12,248.12	22.78	19.31	112.57	-378.38	807.60	372.35	336.18	36.18	10.292	
12,500.00	12,286.09	12,478.41	12,368.20	23.20	19.53	120.05	-408.86	807.88	404.32	367.16	37.15	10.883	
12,600.00	12,333.93	12,633.18	12,504.19	23.71	19.94	127.25	-481.75	808.54	438.68	398.93	39.76	11.034	
12,700.00	12,365.83	12,832.09	12,641.99	24.31	20.73	133.53	-623.81	809.83	468.70	424.18	44.52	10.527	
12,800.00	12,380.81	13,078.92	12,733.10	24.99	22.23	137.20	-851.14	811.90	485.62	435.31	50.31	9.652	
12,900.00	12,382.30	13,236.38	12,741.29	25.74	23.46	137.50	-1,008.16	813.32	486.96	434.42	52.53	9.269	
13,000.00	12,382.83	13,336.38	12,741.82	26.54	24.33	137.50	-1,108.16	814.23	486.96	433.51	53.45	9.111	
13,100.00	12,383.35	13,436.38	12,742.35	27.39	25.23	137.50	-1,208.15	815.14	486.96	432.54	54.42	8.949	
13,200.00	12,383.88	13,536.38	12,742.87	28.28	26.18	137.50	-1,308.15	816.05	486.96	431.52	55.44	8.784	
13,300.00	12,384.40	13,636.38	12,743.40	29.20	27.17	137.50	-1,408.14	816.96	486.96	430.45	56.51	8.617	
13,400.00	12,384.93	13,736.38	12,743.92	30.16	28.18	137.50	-1,508.14	817.87	486.96	429.33	57.63	8.450	
13,500.00	12,385.46	13,836.38	12,744.45	31.14	29.23	137.50	-1,608.13	818.77	486.96	428.16	58.79	8.283	
13,600.00	12,385.98	13,936.38	12,744.98	32.15	30.30	137.50	-1,708.12	819.68	486.96	426.96	60.00	8.116	
13,700.00	12,386.51	14,036.38	12,745.50	33.18	31.39	137.50	-1,808.12	820.59	486.96	425.71	61.24	7.951	
13,800.00	12,387.03	14,136.38	12,746.03	34.23	32.50	137.50	-1,908.11	821.50	486.96	424.43	62.53	7.788	
13,900.00	12,387.56	14,236.38	12,746.55	35.31	33.63	137.50	-2,008.11	822.41	486.96	423.11	63.84	7.627	
14,000.00	12,388.09	14,336.38	12,747.08	36.40	34.78	137.50	-2,108.10	823.32	486.96	421.76	65.19	7.469	
14,100.00	12,388.61	14,436.38	12,747.61	37.51	35.95	137.50	-2,208.10	824.23	486.96	420.38	66.58	7.314	
14,200.00	12,389.14	14,536.38	12,748.13	38.63	37.12	137.50	-2,308.09	825.13	486.96	418.97	67.99	7.163	
14,300.00	12,389.66	14,636.38	12,748.66	39.77	38.31	137.50	-2,408.09	826.04	486.96	417.53	69.42	7.014	
14,400.00	12,390.19	14,736.38	12,749.18	40.92	39.51	137.50	-2,508.08	826.95	486.96	416.07	70.89	6.869	
14,500.00	12,390.71	14,836.38	12,749.71	42.08	40.72	137.50	-2,608.08	827.86	486.96	414.58	72.37	6.728	
14,600.00	12,391.24	14,936.38	12,750.23	43.26	41.94	137.50	-2,708.07	828.77	486.96	413.07	73.88	6.591	
14,700.00	12,391.77	15,036.38	12,750.76	44.44	43.17	137.50	-2,808.06	829.68	486.96	411.54	75.42	6.457	
14,800.00	12,392.29	15,136.38	12,751.29	45.64	44.40	137.50	-2,908.06	830.59	486.96	409.99	76.97	6.327	
14,900.00	12,392.82	15,236.38	12,751.81	46.84	45.65	137.50	-3,008.05	831.49	486.96	408.42	78.54	6.200	
15,000.00	12,393.34	15,336.38	12,752.34	48.05	46.90	137.50	-3,108.05	832.40	486.96	406.83	80.12	6.078	
15,100.00	12,393.87	15,436.38	12,752.86	49.27	48.16	137.50	-3,208.04	833.31	486.96	405.23	81.73	5.958	
15,200.00	12,394.40	15,536.38	12,753.39	50.50	49.42	137.50	-3,308.04	834.22	486.96	403.61	83.35	5.842	
15,300.00	12,394.92	15,636.38	12,753.92	51.73	50.69	137.50	-3,408.03	835.13	486.96	401.97	84.98	5.730	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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	12,395.45	15,736.38	12,754.44	52.97	51.96	137.50	-3,508.03	836.04	486.96	400.33	86.63	5.621	
15,500.00	12,395.97	15,836.38	12,754.97	54.21	53.24	137.50	-3,608.02	836.95	486.96	398.66	88.29	5.515	
15,600.00	12,396.50	15,936.38	12,755.49	55.47	54.52	137.50	-3,708.01	837.85	486.96	396.99	89.97	5.413	
15,700.00	12,397.03	16,036.38	12,756.02	56.72	55.81	137.50	-3,808.01	838.76	486.96	395.30	91.65	5.313	
15,800.00	12,397.55	16,136.38	12,756.54	57.98	57.09	137.50	-3,908.00	839.67	486.96	393.61	93.35	5.217	
15,900.00	12,398.08	16,236.38	12,757.07	59.25	58.39	137.50	-4,008.00	840.58	486.96	391.90	95.06	5.123	
16,000.00	12,398.60	16,336.38	12,757.60	60.52	59.68	137.50	-4,107.99	841.49	486.96	390.18	96.77	5.032	
16,100.00	12,399.13	16,436.38	12,758.12	61.79	60.98	137.50	-4,207.99	842.40	486.96	388.46	98.50	4.944	
16,200.00	12,399.65	16,536.38	12,758.65	63.07	62.29	137.50	-4,307.98	843.31	486.96	386.72	100.24	4.858	
16,300.00	12,400.18	16,636.38	12,759.17	64.35	63.59	137.50	-4,407.98	844.21	486.96	384.98	101.98	4.775	
16,400.00	12,400.71	16,736.38	12,759.70	65.63	64.90	137.50	-4,507.97	845.12	486.96	383.22	103.73	4.694	
16,500.00	12,401.23	16,836.38	12,760.23	66.92	66.21	137.50	-4,607.96	846.03	486.96	381.46	105.49	4.616	
16,600.00	12,401.76	16,936.38	12,760.75	68.21	67.52	137.50	-4,707.96	846.94	486.96	379.70	107.26	4.540	
16,700.00	12,402.28	17,036.38	12,761.28	69.51	68.84	137.50	-4,807.95	847.85	486.96	377.92	109.03	4.466	
16,800.00	12,402.81	17,136.38	12,761.80	70.80	70.16	137.50	-4,907.95	848.76	486.96	376.14	110.81	4.394	
16,900.00	12,403.34	17,236.38	12,762.33	72.10	71.47	137.50	-5,007.94	849.67	486.96	374.35	112.60	4.325	
17,000.00	12,403.86	17,336.38	12,762.86	73.40	72.79	137.50	-5,107.94	850.57	486.96	372.56	114.39	4.257	
17,100.00	12,404.39	17,436.38	12,763.38	74.71	74.12	137.50	-5,207.93	851.48	486.96	370.76	116.19	4.191	
17,200.00	12,404.91	17,536.38	12,763.91	76.01	75.44	137.50	-5,307.93	852.39	486.96	368.96	118.00	4.127	
17,300.00	12,405.44	17,636.38	12,764.43	77.32	76.77	137.50	-5,407.92	853.30	486.96	367.15	119.81	4.064	
17,400.00	12,405.96	17,736.38	12,764.96	78.63	78.09	137.50	-5,507.92	854.21	486.96	365.33	121.62	4.004	
17,500.00	12,406.49	17,836.38	12,765.48	79.94	79.42	137.50	-5,607.91	855.12	486.96	363.51	123.44	3.945	
17,600.00	12,407.02	17,936.38	12,766.01	81.26	80.75	137.50	-5,707.90	856.02	486.96	361.69	125.26	3.887	
17,700.00	12,407.54	18,036.38	12,766.54	82.57	82.08	137.50	-5,807.90	856.93	486.96	359.86	127.09	3.832	
17,800.00	12,408.07	18,136.38	12,767.06	83.89	83.42	137.50	-5,907.89	857.84	486.96	358.03	128.92	3.777	
17,900.00	12,408.59	18,236.38	12,767.59	85.21	84.75	137.50	-6,007.89	858.75	486.96	356.19	130.76	3.724	
18,000.00	12,409.12	18,336.38	12,768.11	86.53	86.08	137.50	-6,107.88	859.66	486.96	354.35	132.60	3.672	
18,100.00	12,409.65	18,436.38	12,768.64	87.85	87.42	137.50	-6,207.88	860.57	486.96	352.51	134.44	3.622	
18,200.00	12,410.17	18,536.38	12,769.17	89.18	88.76	137.50	-6,307.87	861.48	486.96	350.66	136.29	3.573	
18,300.00	12,410.70	18,636.38	12,769.69	90.50	90.09	137.50	-6,407.87	862.38	486.96	348.81	138.14	3.525	
18,400.00	12,411.22	18,736.38	12,770.22	91.83	91.43	137.50	-6,507.86	863.29	486.96	346.96	140.00	3.478	
18,500.00	12,411.75	18,836.38	12,770.74	93.15	92.77	137.50	-6,607.85	864.20	486.96	345.10	141.85	3.433	
18,600.00	12,412.27	18,936.38	12,771.27	94.48	94.11	137.50	-6,707.85	865.11	486.96	343.24	143.71	3.388	
18,700.00	12,412.80	19,036.38	12,771.80	95.81	95.45	137.50	-6,807.84	866.02	486.96	341.38	145.58	3.345	
18,800.00	12,413.33	19,136.38	12,772.32	97.14	96.79	137.50	-6,907.84	866.93	486.96	339.51	147.44	3.303	
18,900.00	12,413.85	19,236.38	12,772.85	98.47	98.14	137.50	-7,007.83	867.84	486.96	337.65	149.31	3.261	
19,000.00	12,414.38	19,336.38	12,773.37	99.81	99.48	137.50	-7,107.83	868.74	486.96	335.77	151.18	3.221	
19,100.00	12,414.90	19,436.38	12,773.90	101.14	100.82	137.50	-7,207.82	869.65	486.96	333.90	153.05	3.182	
19,200.00	12,415.43	19,536.38	12,774.42	102.47	102.17	137.50	-7,307.82	870.56	486.96	332.03	154.93	3.143	
19,300.00	12,415.96	19,636.38	12,774.95	103.81	103.51	137.50	-7,407.81	871.47	486.96	330.15	156.81	3.105	
19,400.00	12,416.48	19,736.38	12,775.48	105.15	104.86	137.50	-7,507.81	872.38	486.96	328.27	158.69	3.069	
19,500.00	12,417.01	19,836.38	12,776.00	106.48	106.21	137.50	-7,607.80	873.29	486.96	326.39	160.57	3.033	
19,600.00	12,417.53	19,936.38	12,776.53	107.82	107.55	137.50	-7,707.79	874.20	486.96	324.50	162.45	2.997	
19,700.00	12,418.06	20,036.38	12,777.05	109.16	108.90	137.50	-7,807.79	875.10	486.96	322.61	164.34	2.963	
19,800.00	12,418.59	20,136.38	12,777.58	110.50	110.25	137.50	-7,907.78	876.01	486.96	320.73	166.23	2.929	
19,900.00	12,419.11	20,236.38	12,778.11	111.84	111.60	137.50	-8,007.78	876.92	486.96	318.84	168.12	2.896	
20,000.00	12,419.64	20,336.38	12,778.63	113.18	112.95	137.50	-8,107.77	877.83	486.96	316.94	170.01	2.864	
20,100.00	12,420.16	20,436.38	12,779.16	114.52	114.30	137.50	-8,207.77	878.74	486.96	315.05	171.91	2.833	
20,200.00	12,420.69	20,536.38	12,779.68	115.86	115.65	137.50	-8,307.76	879.65	486.96	313.15	173.80	2.802	
20,300.00	12,421.21	20,636.38	12,780.21	117.20	117.00	137.50	-8,407.76	880.56	486.96	311.26	175.70	2.772	
20,400.00	12,421.74	20,736.38	12,780.74	118.55	118.35	137.50	-8,507.75	881.46	486.96	309.36	177.60	2.742	
20,500.00	12,422.27	20,836.38	12,781.26	119.89	119.70	137.50	-8,607.74	882.37	486.96	307.46	179.50	2.713	

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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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										Distance		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)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,600.00	12,422.79	20,936.38	12,781.79	121.24	121.05	137.50	-8,707.74	883.28	486.96	305.56	181.40	2.684	
20,700.00	12,423.32	21,036.38	12,782.31	122.58	122.41	137.50	-8,807.73	884.19	486.96	303.65	183.30	2.657	
20,800.00	12,423.84	21,136.38	12,782.84	123.93	123.76	137.50	-8,907.73	885.10	486.96	301.75	185.21	2.629	
20,900.00	12,424.37	21,236.38	12,783.36	125.27	125.11	137.50	-9,007.72	886.01	486.96	299.84	187.11	2.602	
21,000.00	12,424.90	21,336.38	12,783.89	126.62	126.46	137.50	-9,107.72	886.92	486.96	297.94	189.02	2.576	
21,100.00	12,425.42	21,436.38	12,784.42	127.97	127.82	137.50	-9,207.71	887.82	486.96	296.03	190.93	2.550	
21,200.00	12,425.95	21,536.38	12,784.94	129.31	129.17	137.50	-9,307.71	888.73	486.96	294.12	192.84	2.525	
21,300.00	12,426.47	21,636.38	12,785.47	130.66	130.53	137.50	-9,407.70	889.64	486.96	292.21	194.75	2.500	
21,400.00	12,427.00	21,736.38	12,785.99	132.01	131.88	137.50	-9,507.69	890.55	486.96	290.30	196.66	2.476	
21,500.00	12,427.52	21,836.38	12,786.52	133.36	133.24	137.50	-9,607.69	891.46	486.96	288.38	198.57	2.452	
21,600.00	12,428.05	21,936.38	12,787.05	134.71	134.59	137.50	-9,707.68	892.37	486.96	286.47	200.49	2.429	
21,700.00	12,428.58	22,036.38	12,787.57	136.06	135.95	137.50	-9,807.68	893.28	486.96	284.55	202.40	2.406	
21,800.00	12,429.10	22,136.38	12,788.10	137.41	137.30	137.50	-9,907.67	894.18	486.96	282.64	204.32	2.383	
21,900.00	12,429.63	22,236.38	12,788.62	138.76	138.66	137.50	-10,007.67	895.09	486.96	280.72	206.23	2.361	
22,000.00	12,430.15	22,336.38	12,789.15	140.11	140.01	137.50	-10,107.66	896.00	486.96	278.80	208.15	2.339	
22,100.00	12,430.68	22,436.38	12,789.67	141.46	141.37	137.50	-10,207.66	896.91	486.96	276.88	210.07	2.318	
22,200.00	12,431.21	22,536.38	12,790.20	142.81	142.73	137.50	-10,307.65	897.82	486.96	274.96	211.99	2.297	
22,300.00	12,431.73	22,636.38	12,790.73	144.16	144.09	137.50	-10,407.65	898.73	486.96	273.04	213.91	2.276	
22,400.00	12,432.26	22,736.38	12,791.25	145.51	145.44	137.50	-10,507.64	899.63	486.96	271.12	215.84	2.256	
22,500.00	12,432.78	22,836.38	12,791.78	146.87	146.80	137.50	-10,607.63	900.54	486.96	269.20	217.76	2.236	
22,600.00	12,433.31	22,936.38	12,792.30	148.22	148.16	137.50	-10,707.63	901.45	486.96	267.27	219.68	2.217	
22,700.00	12,433.83	23,036.38	12,792.83	149.57	149.52	137.50	-10,807.62	902.36	486.96	265.35	221.61	2.197	
22,770.20	12,434.20	23,106.58	12,793.20	150.56	150.47	137.50	-10,877.82	903.00	486.96	264.00	222.96	2.184	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 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 3220 + 26 @ 3246.00usft (26' KB)

Coordinates are relative to: Junior Mint Fed 218H

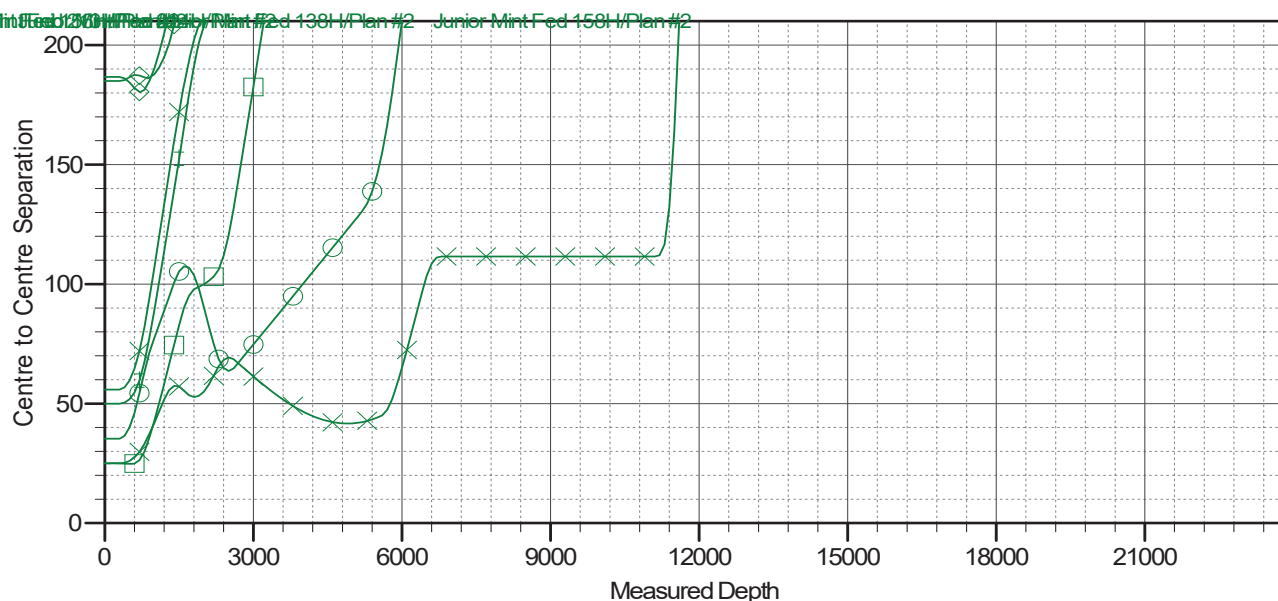
Offset Depths are relative to Offset Datum

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

Central Meridian is -104.3333333

Grid Convergence at Surface is: 0.52°

Ladder Plot



LEGEND

Junior Mint Fed 138H, OH, Plan#2 V0	Junior Mint Fed 214H, OH, Plan#2 V0	Junior Mint Fed 137H, OH, Plan#2 V0
Junior Mint Fed 158H, OH, Plan#2 V0	Junior Mint Fed 216H, OH, Plan#2 V0	Junior Mint Fed 224H, OH, Plan#2 V0
Junior Mint Fed 133H, OH, Plan#2 V0	Junior Mint Fed 156H, OH, Plan#2 V0	Junior Mint Fed 223H, OH, Plan#2 V0
Junior Mint Fed 213H, OH, Plan#2 V0	Junior Mint Fed 134H, OH, Plan#2 V0	

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 218H
Project:	Lea County, NM (NAD 83)	TVD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Reference Site:	Junior Mint Fed Pad	MD Reference:	GE 3220 + 26 @ 3246.00usft (26' KB)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Junior Mint Fed 218H	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 3220 + 26 @ 3246.00usft (26' KB)

Coordinates are relative to: Junior Mint Fed 218H

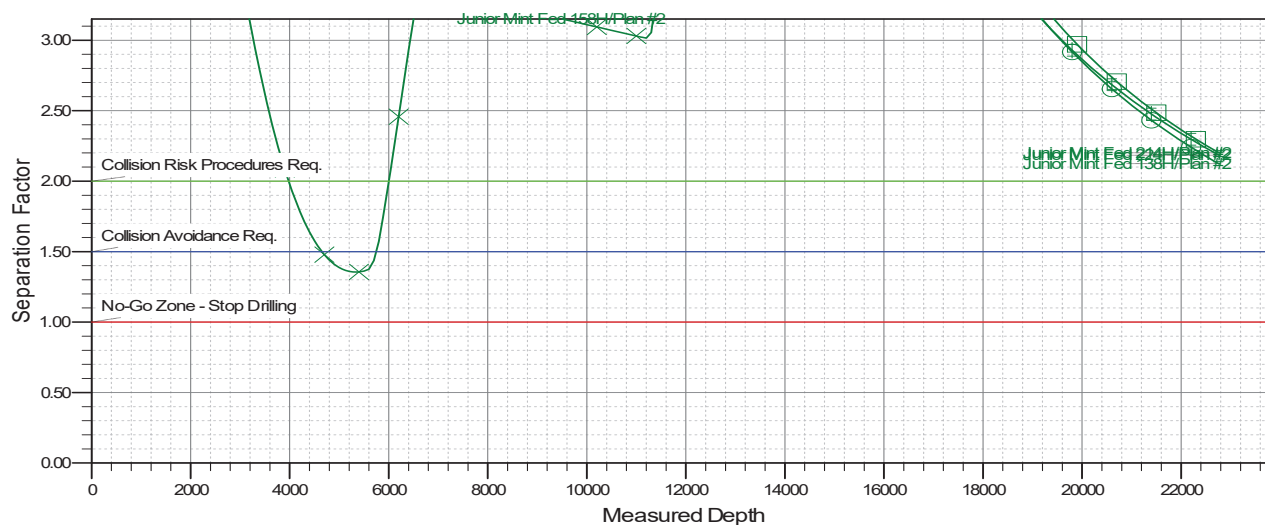
Offset Depths are relative to Offset Datum

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

Central Meridian is -104.3333333

Grid Convergence at Surface is: 0.52°

Separation Factor Plot



LEGEND

Junior Mint Fed 138H, OH, Plan#2 V0	Junior Mint Fed 214H, OH, Plan#2 V0	Junior Mint Fed 137H, OH, Plan#2 V0
Junior Mint Fed 158H, OH, Plan#2 V0	Junior Mint Fed 216H, OH, Plan#2 V0	Junior Mint Fed 224H, OH, Plan#2 V0
Junior Mint Fed 133H, OH, Plan#2 V0	Junior Mint Fed 156H, OH, Plan#2 V0	Junior Mint Fed 223H, OH, Plan#2 V0
Junior Mint Fed 213H, OH, Plan#2 V0	Junior Mint Fed 134H, OH, Plan#2 V0	

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

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> 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 218H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3224'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	10	25-S	35-E	-	549' S	1610' E	N 32.1391334	W 103.3520685	LEA

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	22	25-S	35-E	-	5' S	331' E	N 32.1085997	W 103.3479335	LEA

Dedicated Acres 1280.00	Infill or Defining Well Infill	Defining Well API 30-025-54739 (131H)	Overlapping Spacing Unit (Y/N) N	Consolidated Code N/A
Order Numbers NSP			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	15	25-S	35-E	-	100' N	331' E	N 32.1373419	W 103.3479290	LEA


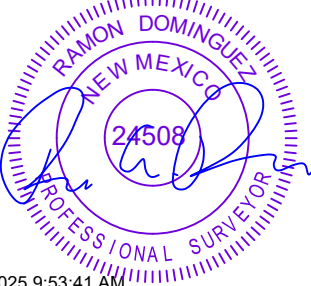
First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	15	25-S	35-E	-	100' N	331' E	N 32.1373419	W 103.3479290	LEA

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
P	22	25-S	35-E	-	100' S	331' E	N 32.1088609	W 103.3479334	LEA

Unitized Area or Area of Uniform Interest Y	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation 3224'
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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>  4/21/2025 9:53:41 AM	
Signature Cory Walk	Date	Signature and Seal of Professional Surveyor	Date
Print Name cory@permitswest.com	E-mail Address	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 218H

SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=845064
Y=415736
LAT.: N 32.1391334
LONG.: W 103.3520685
549' FSL 1610' FEL

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

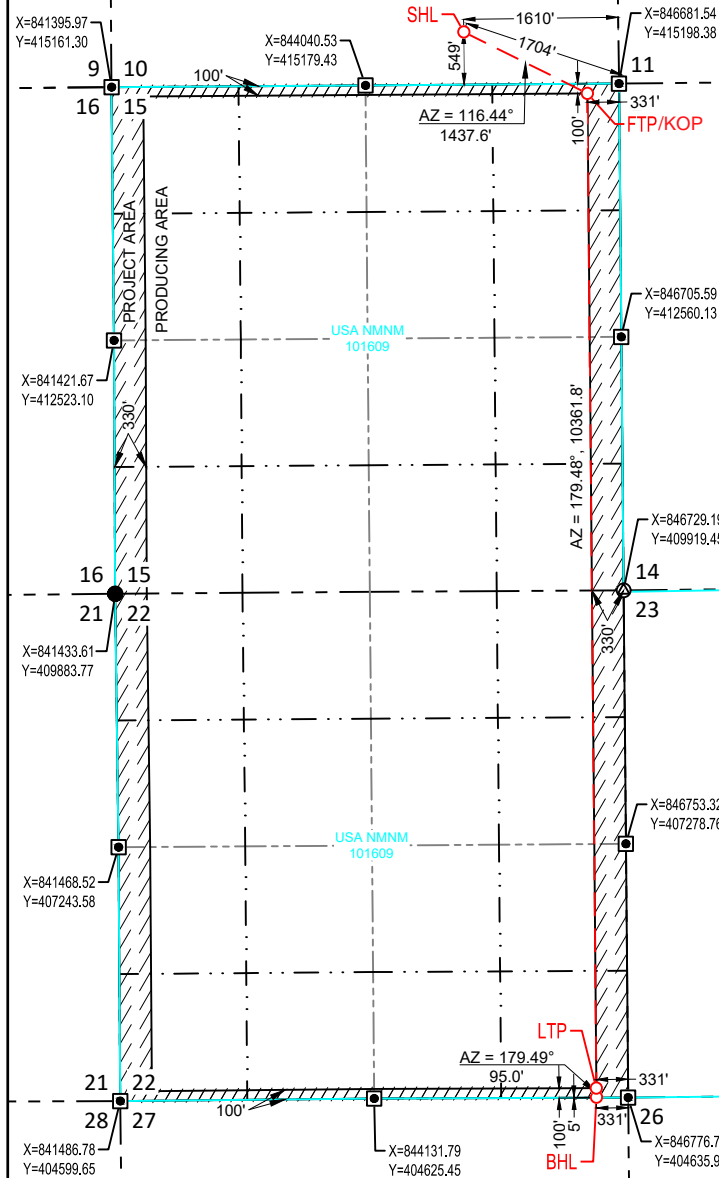
NEW MEXICO EAST
NAD 1983
X=846351
Y=415096
LAT.: N 32.1373419
LONG.: W 103.3479290
100' FNL 331' FEL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
NAD 1983
X=846445
Y=404735
LAT.: N 32.1088609
LONG.: W 103.3479334
100' FSL 331' FEL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
NAD 1983
X=846446
Y=404640
LAT.: N 32.1085997
LONG.: W 103.3479335
5' FSL 331' FEL



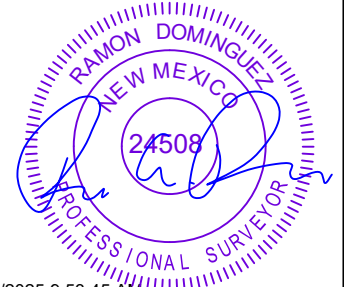
SURVEYORS CERTIFICATION

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: 10400086515

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: 218H

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
9894246	QUATERNARY	3224	0	0	OTHER : Caliche	NONE	N
9894247	RUSTLER	2564	660	660	SALT	OTHER : Salt	N
9894248	TOP SALT	2124	1100	1100	SALT	OTHER : Salt	N
9894249	BASE OF SALT	-1696	4920	4934	SALT	OTHER : Salt	N
9894250	DELAWARE	-1936	5160	5223	OTHER, SANDSTONE : Mountain Group	NONE	N
9894251	LAMAR	-1941	5165	5229	SANDSTONE	NATURAL GAS, OIL	N
9894252	BELL CANYON	-1961	5185	5249	SANDSTONE	NATURAL GAS, OIL	N
9894253	RAMSEY SAND	-1981	5205	5269	SANDSTONE	NATURAL GAS, OIL	N
9894254	CHERRY CANYON	-2926	6150	6234	OTHER : Carbonate	NATURAL GAS, OIL	N
9894255	BRUSHY CANYON	-4396	7620	7734	SANDSTONE	NATURAL GAS, OIL	N
9894256	BONE SPRING LIME	-5706	8930	9059	OTHER : Carbonate	NATURAL GAS, OIL	N
9894257	UPPER AVALON SHALE	-5731	8955	9084	OTHER : Carbonate	NATURAL GAS, OIL	N
9894258	AVALON SAND	-5961	9185	9314	OTHER : Middle Carbonate	NATURAL GAS, OIL	N
9894259	BONE SPRING 1ST	-6941	10165	10294	SANDSTONE	NATURAL GAS, OIL	N
9894260	BONE SPRING 2ND	-7106	10330	10459	OTHER : Carbonate	NATURAL GAS, OIL	N
9894261	BONE SPRING 2ND	-7491	10715	10844	SANDSTONE	NATURAL GAS, OIL	N
9894244	BONE SPRING 3RD	-8041	11265	11394	OTHER : Carbonate	NATURAL GAS, OIL	N

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 218H

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
9894245	BONE SPRING 3RD	-8671	11895	12024	SANDSTONE	NATURAL GAS, OIL	N
9894262	WOLFCAMP	-8986	12210	12383	OTHER : A	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

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

Equipment: At 22,921', 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_20220704113646.pdf

BOP Diagram Attachment:

10M_BOP_Stack_5M_Annular_Preventer_20220704113654.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	3224	2539	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: 218H

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	11637	0	11508	3221	-8284	11637	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	11837	0	11708	3221	-8484	11837	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	11637	22921	11508	12434	-8284	-9210	11284	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_20220704113723.pdf

Casing ID: 2StringPRODUCTION

Inspection Document:

Spec Document:

5.5in_TXP_Casing_Spec_20220704113806.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704113813.pdf

Operator Name: TAP ROCK OPERATING LLC

Well Name: JUNIOR MINT FED

Well Number: 218H

Casing Attachments

Casing ID: 3StringINTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704113745.pdf

Casing ID: 4StringPRODUCTION

Inspection Document:

Spec Document:

5.5in_W441_Casing_Spec_20220704113838.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220704113850.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		11637	22921	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	10837	894	4.29	10.5	3835	65	Class C	Bentonite + 1% CaCL2 + 8% NaCL+

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 218H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											LCM
INTERMEDIATE	Tail		1083 7	1183 7	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
685	1183 7	OTHER : Diesel Brine Emulsion	9.2	9.2							
1183 7	2292 1	OIL-BASED MUD	12.5	12.5							
0	685	OTHER : Fresh Water Spud Mud	8.4	8.4							

Operator Name: TAP ROCK OPERATING LLC**Well Name:** JUNIOR MINT FED**Well Number:** 218H

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: 8082**Anticipated Surface Pressure:** 5346**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_20221112103221.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

JM_218H_Horizontal_Plan_20220704114037.pdf

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

JM_218H_Drill_Plan_20220704114046.pdf

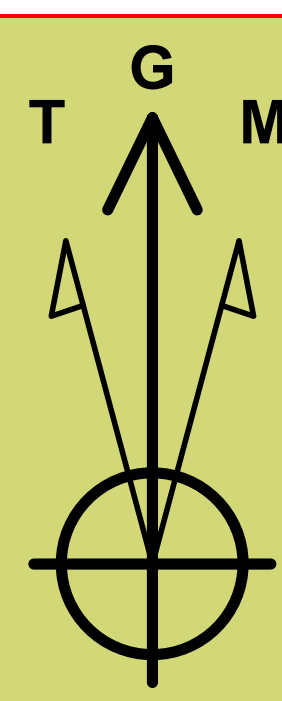
CoFlex_Certs_20220704114117.pdf

JM_218H_Anticollision_Report_20220704114128.pdf

Wellhead_3T_11.75_1.625_5.5_062922_20220704114137.pdf

Well_Control_Plan_10M_BOP_5M_Annular_20220704114137.pdf

Other Variance attachment:

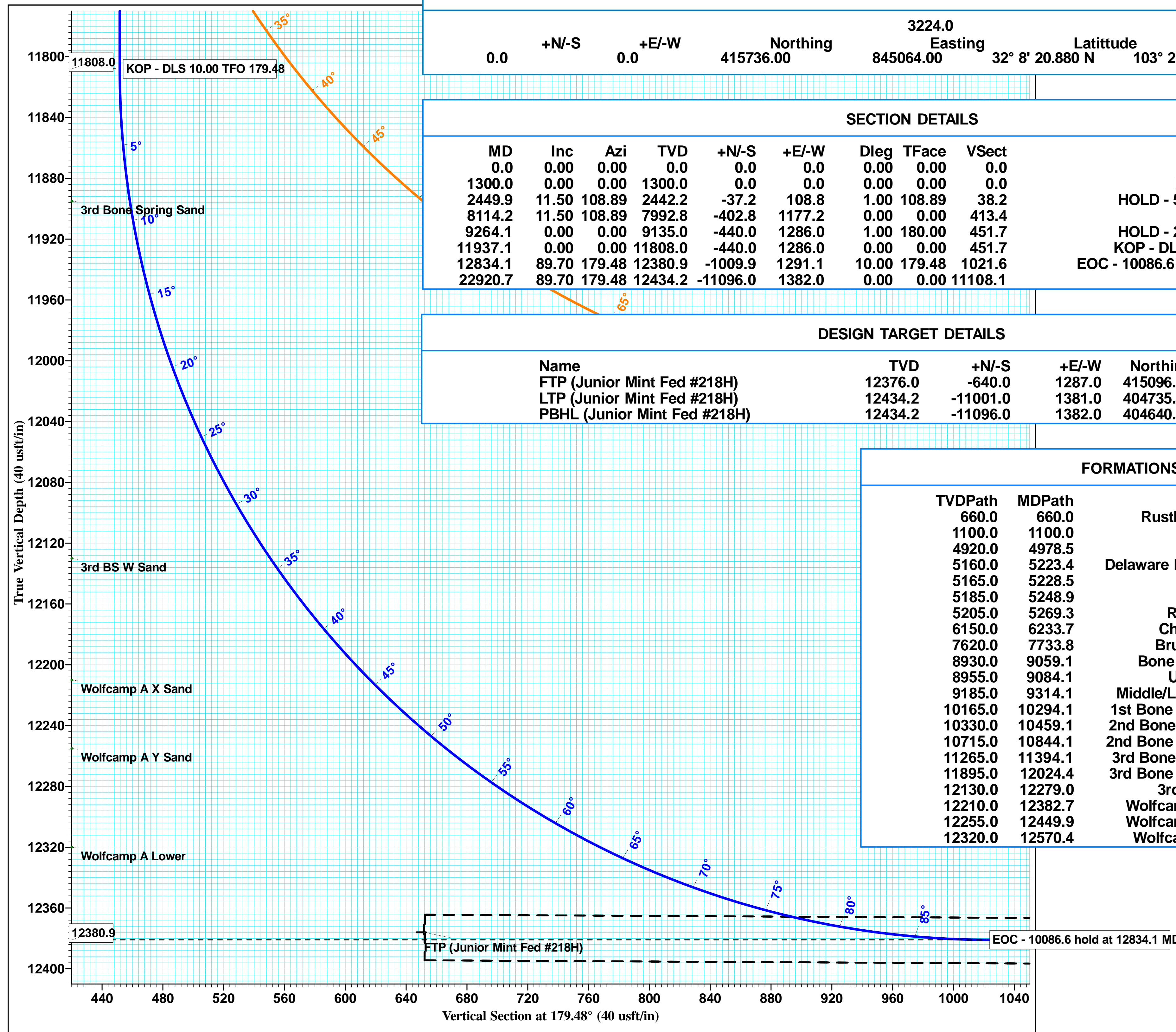
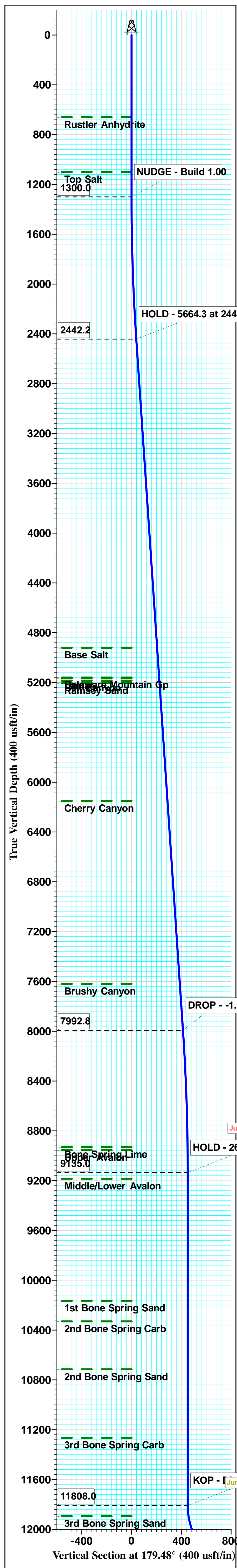


Azimuths to Grid North
True North: -0.52°
Magnetic North: 5.77°

Magnetic Field
Strength: 47396.5nT
Dip Angle: 59.95°
Date: 06/22/2022
Model: IGRF2015

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

Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Junior Mint Fed) Sec-15_T-25-S_R-35-E
Well: Junior Mint Fed #218H
Wellbore: OWB
Design: Plan #1
Lat: 32° 8' 20.880 N
Long: 103° 21' 7.448 W
Pad GL: 3224.0
KB: KB @ 3250.0usft



WELL DETAILS: Junior Mint Fed #218H

	+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.0	0.0	0.0	415736.00	845064.00	32° 8' 20.880 N	103° 21' 7.448 W

SECTION DETAILS

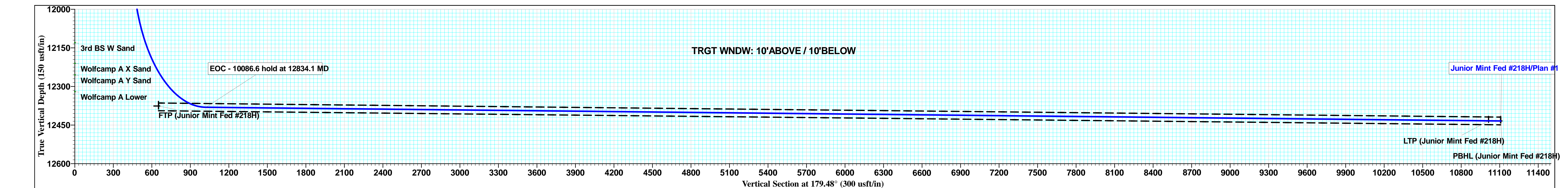
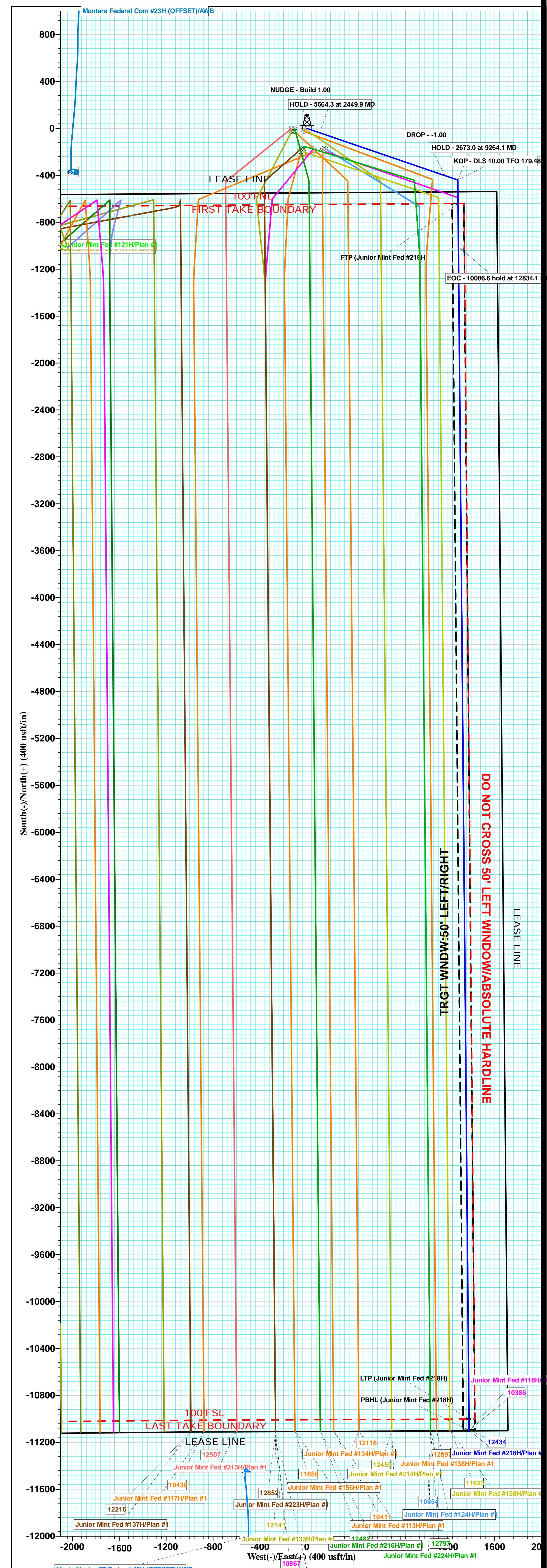
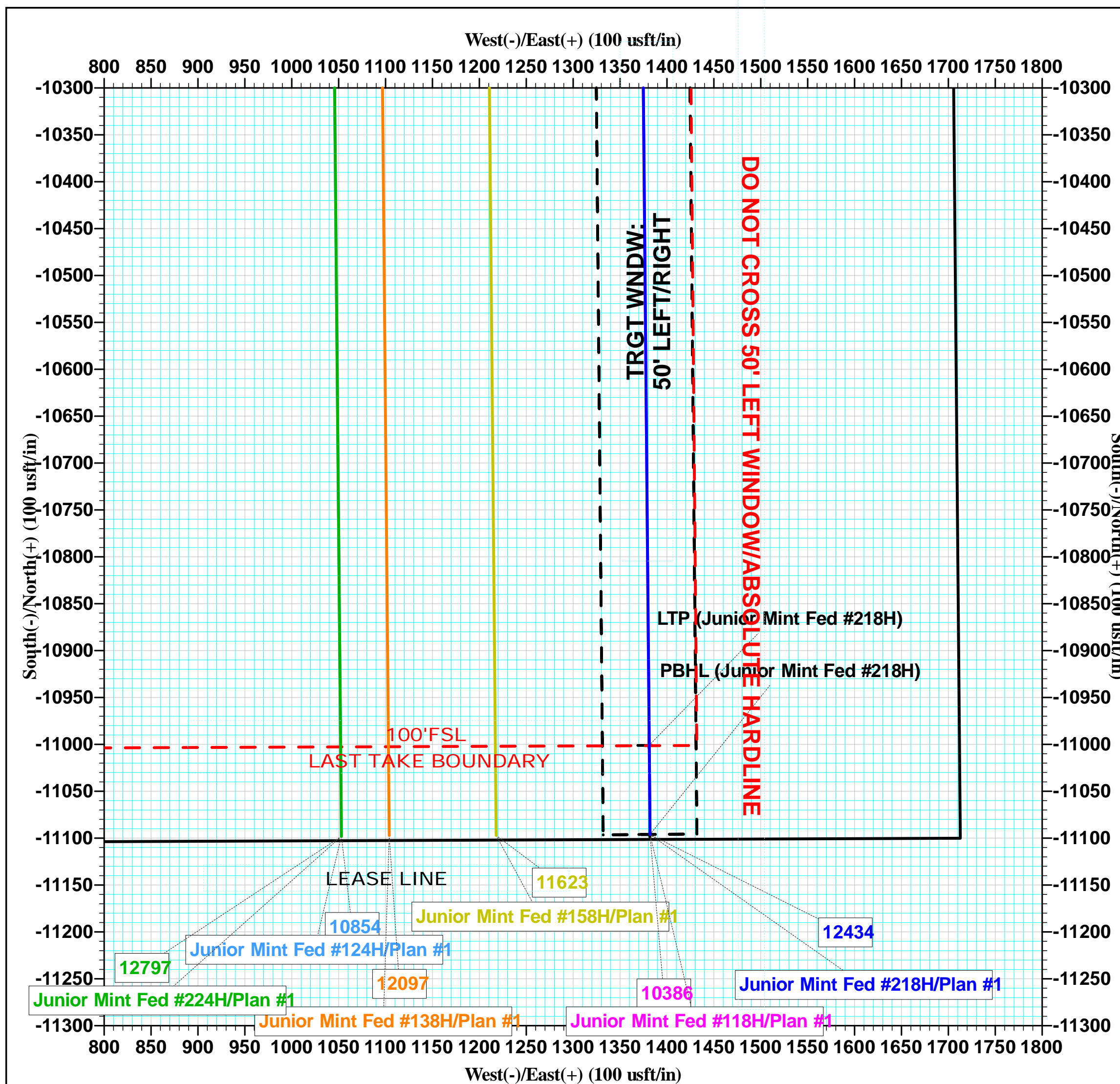
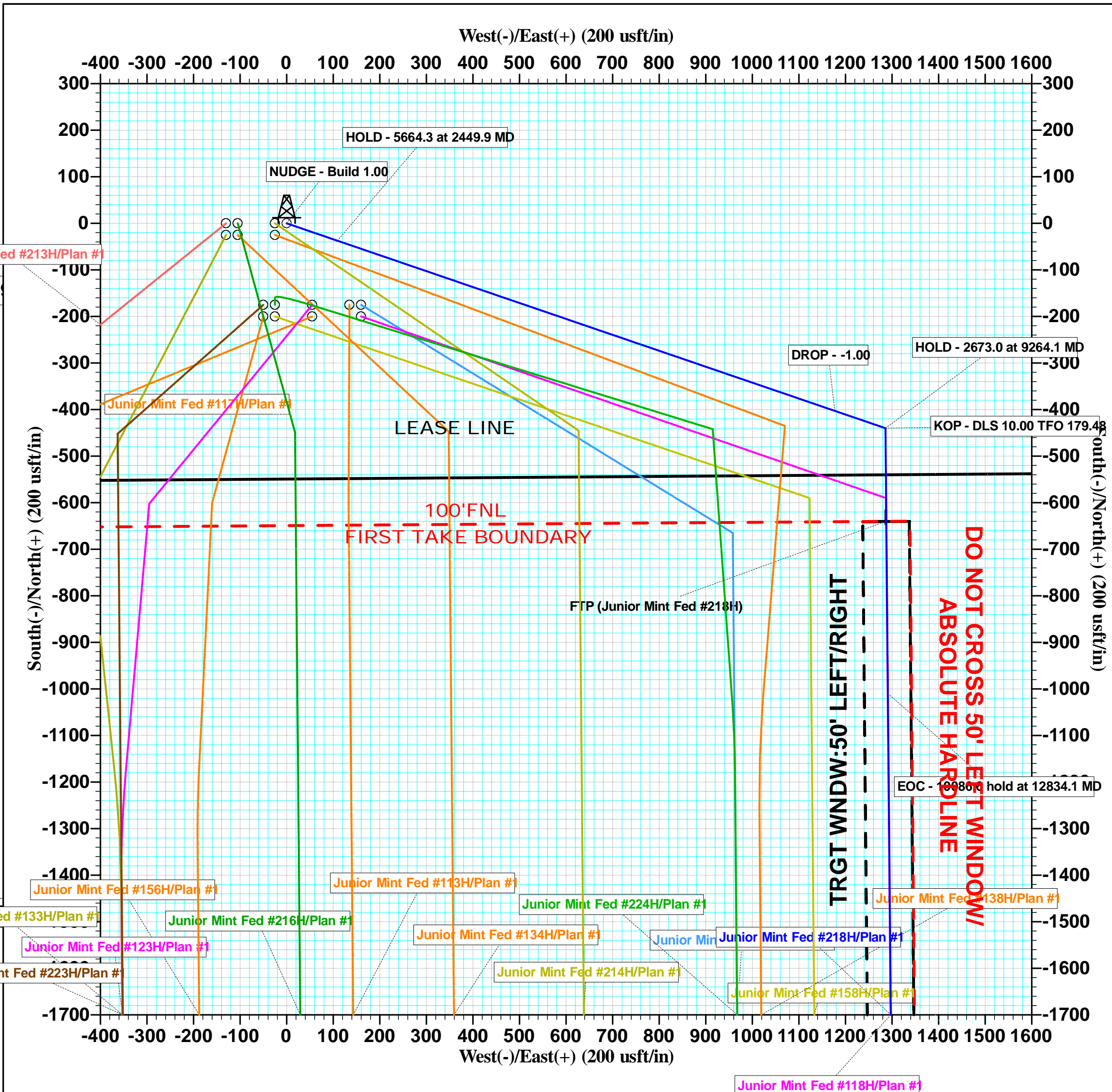
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	NUDGE - Build 1.00
1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	HOLD - 5664.3 at 2449.9 MD
2449.9	11.50	108.89	2442.2	-37.2	108.8	1.00	108.89	38.2	DROP - 1.00
8114.2	11.50	108.89	7992.8	-402.8	1177.2	0.00	0.00	413.4	HOLD - 2673.0 at 9264.1 MD
9264.1	0.00	0.00	9135.0	-440.0	1286.0	1.00	180.00	451.7	KOP - DLS 10.00 TFO 179.48
11937.1	0.00	0.00	11808.0	-440.0	1286.0	0.00	0.00	451.7	EOC - 10086.6 hold at 12834.1 MD
12834.1	89.70	179.48	12380.9	-1009.9	1291.1	10.00	179.48	1021.6	TD at 22920.7
22920.7	89.70	179.48	12434.2	-11096.0	1382.0	0.00	0.00	11108.1	

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting
FTP (Junior Mint Fed #218H)	12376.0	-640.0	1287.0	415096.00	846351.00
LTP (Junior Mint Fed #218H)	12434.2	-11001.0	1381.0	404735.00	846445.00
PBHL (Junior Mint Fed #218H)	12434.2	-11096.0	1382.0	404640.00	846446.00

FORMATIONS

TVDPath	MDPath	Formation
660.0	660.0	Rustler Anhydrite
1100.0	1100.0	Top Salt
4920.0	4978.5	Base Salt
5160.0	5223.4	Delaware Mountain Gp
5165.0	5228.5	Lamar
5185.0	5248.9	Bell Canyon
5205.0	5269.3	Ramsey Sand
6150.0	6233.7	Cherry Canyon
7620.0	7733.8	Brushy Canyon
8930.0	9059.1	Bone Spring Lime
8955.0	9084.1	Upper Avalon
9185.0	9314.1	Middle/Lower Avalon
10165.0	10294.1	1st Bone Spring Sand
10330.0	10459.1	2nd Bone Spring Carb
10715.0	10844.1	2nd Bone Spring Sand
11265.0	11394.1	3rd Bone Spring Carb
11895.0	12024.4	3rd Bone Spring Sand
12130.0	12279.0	3rd BS W Sand
12210.0	12382.7	Wolfcamp A X Sand
12255.0	12449.9	Wolfcamp A Y Sand
12320.0	12570.4	Wolfcamp A Lower



TRGT WNDW: 10' ABOVE / 10' BELOW

Vertical Section at 179.48° (300 usf/in)



Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)
(Junior Mint Fed) Sec-15_T-25-S_R-35-E
Junior Mint Fed #218H**

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 #218H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3250.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3250.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #218H	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 #218H					
Well Position	+N/-S	1,011.0 usft	Northing:	415,736.00 usft	Latitude:	32° 8' 20.880 N
	+E/-W	2,139.0 usft	Easting:	845,064.00 usft	Longitude:	103° 21' 7.448 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,224.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	06/22/22	6.29	59.95	47,396.49088066

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	22,920.4	Plan #1 (OWB)	MWD
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,449.9	11.50	108.89	2,442.2	-37.2	108.8	1.00	1.00	0.00	108.89	
8,114.2	11.50	108.89	7,992.8	-402.8	1,177.2	0.00	0.00	0.00	0.00	
9,264.1	0.00	0.01	9,135.0	-440.0	1,286.0	1.00	-1.00	0.00	180.00	
11,937.1	0.00	0.01	11,808.0	-440.0	1,286.0	0.00	0.00	0.00	0.01	
12,834.1	89.70	179.48	12,380.9	-1,009.9	1,291.1	10.00	10.00	20.01	179.48	
22,920.7	89.70	179.48	12,434.2	-11,096.0	1,382.0	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 #218H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #218H
TVD Reference: KB @ 3250.0usft
MD Reference: KB @ 3250.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 1.00									
1,400.0	1.00	108.89	1,400.0	-0.3	0.8	0.3	1.00	1.00	0.00
1,500.0	2.00	108.89	1,500.0	-1.1	3.3	1.2	1.00	1.00	0.00
1,600.0	3.00	108.89	1,599.9	-2.5	7.4	2.6	1.00	1.00	0.00
1,700.0	4.00	108.89	1,699.7	-4.5	13.2	4.6	1.00	1.00	0.00
1,800.0	5.00	108.89	1,799.4	-7.1	20.6	7.2	1.00	1.00	0.00
1,900.0	6.00	108.89	1,898.9	-10.2	29.7	10.4	1.00	1.00	0.00
2,000.0	7.00	108.89	1,998.3	-13.8	40.4	14.2	1.00	1.00	0.00
2,100.0	8.00	108.89	2,097.4	-18.1	52.8	18.5	1.00	1.00	0.00
2,200.0	9.00	108.89	2,196.3	-22.8	66.7	23.4	1.00	1.00	0.00
2,300.0	10.00	108.89	2,294.9	-28.2	82.4	28.9	1.00	1.00	0.00
2,400.0	11.00	108.89	2,393.3	-34.1	99.6	35.0	1.00	1.00	0.00
2,449.9	11.50	108.89	2,442.2	-37.2	108.8	38.2	1.00	1.00	0.00
HOLD - 5664.3 at 2449.9 MD									
2,500.0	11.50	108.89	2,491.3	-40.5	118.3	41.5	0.00	0.00	0.00
2,600.0	11.50	108.89	2,589.3	-46.9	137.1	48.2	0.00	0.00	0.00
2,700.0	11.50	108.89	2,687.3	-53.4	156.0	54.8	0.00	0.00	0.00
2,800.0	11.50	108.89	2,785.3	-59.8	174.8	61.4	0.00	0.00	0.00
2,900.0	11.50	108.89	2,883.3	-66.3	193.7	68.0	0.00	0.00	0.00
3,000.0	11.50	108.89	2,981.3	-72.7	212.6	74.7	0.00	0.00	0.00
3,100.0	11.50	108.89	3,079.2	-79.2	231.4	81.3	0.00	0.00	0.00
3,200.0	11.50	108.89	3,177.2	-85.6	250.3	87.9	0.00	0.00	0.00
3,300.0	11.50	108.89	3,275.2	-92.1	269.2	94.5	0.00	0.00	0.00
3,400.0	11.50	108.89	3,373.2	-98.5	288.0	101.2	0.00	0.00	0.00
3,500.0	11.50	108.89	3,471.2	-105.0	306.9	107.8	0.00	0.00	0.00
3,600.0	11.50	108.89	3,569.2	-111.4	325.7	114.4	0.00	0.00	0.00
3,700.0	11.50	108.89	3,667.2	-117.9	344.6	121.0	0.00	0.00	0.00
3,800.0	11.50	108.89	3,765.2	-124.4	363.5	127.7	0.00	0.00	0.00
3,900.0	11.50	108.89	3,863.2	-130.8	382.3	134.3	0.00	0.00	0.00
4,000.0	11.50	108.89	3,961.2	-137.3	401.2	140.9	0.00	0.00	0.00
4,100.0	11.50	108.89	4,059.2	-143.7	420.0	147.5	0.00	0.00	0.00
4,200.0	11.50	108.89	4,157.2	-150.2	438.9	154.1	0.00	0.00	0.00
4,300.0	11.50	108.89	4,255.2	-156.6	457.8	160.8	0.00	0.00	0.00
4,400.0	11.50	108.89	4,353.2	-163.1	476.6	167.4	0.00	0.00	0.00
4,500.0	11.50	108.89	4,451.1	-169.5	495.5	174.0	0.00	0.00	0.00
4,600.0	11.50	108.89	4,549.1	-176.0	514.4	180.6	0.00	0.00	0.00
4,700.0	11.50	108.89	4,647.1	-182.4	533.2	187.3	0.00	0.00	0.00
4,800.0	11.50	108.89	4,745.1	-188.9	552.1	193.9	0.00	0.00	0.00
4,900.0	11.50	108.89	4,843.1	-195.3	570.9	200.5	0.00	0.00	0.00



Intrepid Planning Report



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Project: Lea County, NM (NAD 83 NME)
Site: (Junior Mint Fed) Sec-15_T-25-S_R-35-E
Well: Junior Mint Fed #218H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #218H
TVD Reference: KB @ 3250.0usft
MD Reference: KB @ 3250.0usft
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)
5,000.0	11.50	108.89	4,941.1	-201.8	589.8	207.1	0.00	0.00	0.00
5,100.0	11.50	108.89	5,039.1	-208.3	608.7	213.8	0.00	0.00	0.00
5,200.0	11.50	108.89	5,137.1	-214.7	627.5	220.4	0.00	0.00	0.00
5,300.0	11.50	108.89	5,235.1	-221.2	646.4	227.0	0.00	0.00	0.00
5,400.0	11.50	108.89	5,333.1	-227.6	665.2	233.6	0.00	0.00	0.00
5,500.0	11.50	108.89	5,431.1	-234.1	684.1	240.3	0.00	0.00	0.00
5,600.0	11.50	108.89	5,529.1	-240.5	703.0	246.9	0.00	0.00	0.00
5,700.0	11.50	108.89	5,627.1	-247.0	721.8	253.5	0.00	0.00	0.00
5,800.0	11.50	108.89	5,725.1	-253.4	740.7	260.1	0.00	0.00	0.00
5,900.0	11.50	108.89	5,823.0	-259.9	759.6	266.8	0.00	0.00	0.00
6,000.0	11.50	108.89	5,921.0	-266.3	778.4	273.4	0.00	0.00	0.00
6,100.0	11.50	108.89	6,019.0	-272.8	797.3	280.0	0.00	0.00	0.00
6,200.0	11.50	108.89	6,117.0	-279.2	816.1	286.6	0.00	0.00	0.00
6,300.0	11.50	108.89	6,215.0	-285.7	835.0	293.3	0.00	0.00	0.00
6,400.0	11.50	108.89	6,313.0	-292.1	853.9	299.9	0.00	0.00	0.00
6,500.0	11.50	108.89	6,411.0	-298.6	872.7	306.5	0.00	0.00	0.00
6,600.0	11.50	108.89	6,509.0	-305.1	891.6	313.1	0.00	0.00	0.00
6,700.0	11.50	108.89	6,607.0	-311.5	910.4	319.8	0.00	0.00	0.00
6,800.0	11.50	108.89	6,705.0	-318.0	929.3	326.4	0.00	0.00	0.00
6,900.0	11.50	108.89	6,803.0	-324.4	948.2	333.0	0.00	0.00	0.00
7,000.0	11.50	108.89	6,901.0	-330.9	967.0	339.6	0.00	0.00	0.00
7,100.0	11.50	108.89	6,999.0	-337.3	985.9	346.3	0.00	0.00	0.00
7,200.0	11.50	108.89	7,097.0	-343.8	1,004.8	352.9	0.00	0.00	0.00
7,300.0	11.50	108.89	7,194.9	-350.2	1,023.6	359.5	0.00	0.00	0.00
7,400.0	11.50	108.89	7,292.9	-356.7	1,042.5	366.1	0.00	0.00	0.00
7,500.0	11.50	108.89	7,390.9	-363.1	1,061.3	372.8	0.00	0.00	0.00
7,600.0	11.50	108.89	7,488.9	-369.6	1,080.2	379.4	0.00	0.00	0.00
7,700.0	11.50	108.89	7,586.9	-376.0	1,099.1	386.0	0.00	0.00	0.00
7,800.0	11.50	108.89	7,684.9	-382.5	1,117.9	392.6	0.00	0.00	0.00
7,900.0	11.50	108.89	7,782.9	-388.9	1,136.8	399.2	0.00	0.00	0.00
8,000.0	11.50	108.89	7,880.9	-395.4	1,155.6	405.9	0.00	0.00	0.00
8,100.0	11.50	108.89	7,978.9	-401.9	1,174.5	412.5	0.00	0.00	0.00
8,114.2	11.50	108.89	7,992.8	-402.8	1,177.2	413.4	0.00	0.00	0.00
DROP - -1.00									
8,200.0	10.64	108.89	8,077.0	-408.1	1,192.8	418.9	1.00	-1.00	0.00
8,300.0	9.64	108.89	8,175.4	-413.8	1,209.4	424.8	1.00	-1.00	0.00
8,400.0	8.64	108.89	8,274.2	-418.9	1,224.5	430.0	1.00	-1.00	0.00
8,500.0	7.64	108.89	8,373.2	-423.5	1,237.9	434.7	1.00	-1.00	0.00
8,600.0	6.64	108.89	8,472.4	-427.6	1,249.6	438.9	1.00	-1.00	0.00
8,700.0	5.64	108.89	8,571.8	-431.0	1,259.7	442.4	1.00	-1.00	0.00
8,800.0	4.64	108.89	8,671.4	-433.9	1,268.2	445.4	1.00	-1.00	0.00
8,900.0	3.64	108.89	8,771.1	-436.3	1,275.1	447.8	1.00	-1.00	0.00
9,000.0	2.64	108.89	8,871.0	-438.0	1,280.2	449.6	1.00	-1.00	0.00
9,100.0	1.64	108.89	8,970.9	-439.2	1,283.8	450.9	1.00	-1.00	0.00
9,200.0	0.64	108.89	9,070.9	-439.9	1,285.7	451.5	1.00	-1.00	0.00
9,264.1	0.00	0.01	9,135.0	-440.0	1,286.0	451.7	1.00	-1.00	0.00
HOLD - 2673.0 at 9264.1 MD									
9,300.0	0.00	0.00	9,170.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
9,400.0	0.00	0.00	9,270.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
9,500.0	0.00	0.00	9,370.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
9,600.0	0.00	0.00	9,470.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
9,700.0	0.00	0.00	9,570.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
9,800.0	0.00	0.00	9,670.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
9,900.0	0.00	0.00	9,770.9	-440.0	1,286.0	451.7	0.00	0.00	0.00



Intrepid Planning Report



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Company: Tap Rock Resources, LLC
Project: Lea County, NM (NAD 83 NME)
Site: (Junior Mint Fed) Sec-15_T-25-S_R-35-E
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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)
10,000.0	0.00	0.00	9,870.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,100.0	0.00	0.00	9,970.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,200.0	0.00	0.00	10,070.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,300.0	0.00	0.00	10,170.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,400.0	0.00	0.00	10,270.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,500.0	0.00	0.00	10,370.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,600.0	0.00	0.00	10,470.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,700.0	0.00	0.00	10,570.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,670.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
10,900.0	0.00	0.00	10,770.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,000.0	0.00	0.00	10,870.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,100.0	0.00	0.00	10,970.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,200.0	0.00	0.00	11,070.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,300.0	0.00	0.00	11,170.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,400.0	0.00	0.00	11,270.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,500.0	0.00	0.00	11,370.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,600.0	0.00	0.00	11,470.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,700.0	0.00	0.00	11,570.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,800.0	0.00	0.00	11,670.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,900.0	0.00	0.00	11,770.9	-440.0	1,286.0	451.7	0.00	0.00	0.00
11,937.1	0.00	0.00	11,808.0	-440.0	1,286.0	451.7	0.00	0.00	0.00
KOP - DLS 10.00 TFO 179.48									
11,950.0	1.29	179.48	11,820.9	-440.1	1,286.0	451.8	10.00	10.00	0.00
12,000.0	6.29	179.48	11,870.8	-443.4	1,286.0	455.1	10.00	10.00	0.00
12,050.0	11.29	179.48	11,920.2	-451.1	1,286.1	462.7	10.00	10.00	0.00
12,100.0	16.29	179.48	11,968.7	-463.0	1,286.2	474.7	10.00	10.00	0.00
12,150.0	21.29	179.48	12,016.0	-479.1	1,286.4	490.8	10.00	10.00	0.00
12,200.0	26.29	179.48	12,061.8	-499.3	1,286.5	510.9	10.00	10.00	0.00
12,250.0	31.29	179.48	12,105.6	-523.3	1,286.8	535.0	10.00	10.00	0.00
12,300.0	36.29	179.48	12,147.1	-551.1	1,287.0	562.8	10.00	10.00	0.00
12,350.0	41.29	179.48	12,186.1	-582.4	1,287.3	594.1	10.00	10.00	0.00
12,400.0	46.29	179.48	12,222.2	-617.0	1,287.6	628.7	10.00	10.00	0.00
12,450.0	51.29	179.48	12,255.1	-654.6	1,287.9	666.3	10.00	10.00	0.00
12,500.0	56.29	179.48	12,284.6	-695.0	1,288.3	706.6	10.00	10.00	0.00
12,550.0	61.29	179.48	12,310.5	-737.7	1,288.7	749.4	10.00	10.00	0.00
12,600.0	66.29	179.48	12,332.6	-782.6	1,289.1	794.2	10.00	10.00	0.00
12,650.0	71.29	179.48	12,350.7	-829.1	1,289.5	840.8	10.00	10.00	0.00
12,700.0	76.29	179.48	12,364.6	-877.1	1,289.9	888.8	10.00	10.00	0.00
12,750.0	81.29	179.48	12,374.3	-926.2	1,290.4	937.8	10.00	10.00	0.00
12,800.0	86.29	179.48	12,379.8	-975.9	1,290.8	987.5	10.00	10.00	0.00
12,834.1	89.70	179.48	12,380.9	-1,009.9	1,291.1	1,021.6	10.00	10.00	0.00
EOC - 10086.6 hold at 12834.1 MD									
12,900.0	89.70	179.48	12,381.3	-1,075.8	1,291.7	1,087.5	0.00	0.00	0.00
13,000.0	89.70	179.48	12,381.8	-1,175.8	1,292.6	1,187.5	0.00	0.00	0.00
13,100.0	89.70	179.48	12,382.4	-1,275.8	1,293.5	1,287.5	0.00	0.00	0.00
13,200.0	89.70	179.48	12,382.9	-1,375.8	1,294.4	1,387.5	0.00	0.00	0.00
13,300.0	89.70	179.48	12,383.4	-1,475.8	1,295.3	1,487.5	0.00	0.00	0.00
13,400.0	89.70	179.48	12,383.9	-1,575.8	1,296.2	1,587.5	0.00	0.00	0.00
13,500.0	89.70	179.48	12,384.5	-1,675.8	1,297.1	1,687.5	0.00	0.00	0.00
13,600.0	89.70	179.48	12,385.0	-1,775.8	1,298.0	1,787.5	0.00	0.00	0.00
13,700.0	89.70	179.48	12,385.5	-1,875.8	1,298.9	1,887.5	0.00	0.00	0.00
13,800.0	89.70	179.48	12,386.0	-1,975.8	1,299.8	1,987.5	0.00	0.00	0.00
13,900.0	89.70	179.48	12,386.6	-2,075.8	1,300.7	2,087.5	0.00	0.00	0.00
14,000.0	89.70	179.48	12,387.1	-2,175.8	1,301.6	2,187.5	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 #218H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #218H
TVD Reference: KB @ 3250.0usft
MD Reference: KB @ 3250.0usft
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)
14,100.0	89.70	179.48	12,387.6	-2,275.8	1,302.5	2,287.5	0.00	0.00	0.00
14,200.0	89.70	179.48	12,388.2	-2,375.8	1,303.4	2,387.5	0.00	0.00	0.00
14,300.0	89.70	179.48	12,388.7	-2,475.8	1,304.3	2,487.5	0.00	0.00	0.00
14,400.0	89.70	179.48	12,389.2	-2,575.7	1,305.2	2,587.5	0.00	0.00	0.00
14,500.0	89.70	179.48	12,389.7	-2,675.7	1,306.1	2,687.5	0.00	0.00	0.00
14,600.0	89.70	179.48	12,390.3	-2,775.7	1,307.0	2,787.5	0.00	0.00	0.00
14,700.0	89.70	179.48	12,390.8	-2,875.7	1,307.9	2,887.5	0.00	0.00	0.00
14,800.0	89.70	179.48	12,391.3	-2,975.7	1,308.8	2,987.5	0.00	0.00	0.00
14,900.0	89.70	179.48	12,391.8	-3,075.7	1,309.7	3,087.5	0.00	0.00	0.00
15,000.0	89.70	179.48	12,392.4	-3,175.7	1,310.6	3,187.5	0.00	0.00	0.00
15,100.0	89.70	179.48	12,392.9	-3,275.7	1,311.5	3,287.5	0.00	0.00	0.00
15,200.0	89.70	179.48	12,393.4	-3,375.7	1,312.4	3,387.5	0.00	0.00	0.00
15,300.0	89.70	179.48	12,394.0	-3,475.7	1,313.3	3,487.5	0.00	0.00	0.00
15,400.0	89.70	179.48	12,394.5	-3,575.7	1,314.2	3,587.5	0.00	0.00	0.00
15,500.0	89.70	179.48	12,395.0	-3,675.7	1,315.2	3,687.5	0.00	0.00	0.00
15,600.0	89.70	179.48	12,395.5	-3,775.7	1,316.1	3,787.5	0.00	0.00	0.00
15,700.0	89.70	179.48	12,396.1	-3,875.7	1,317.0	3,887.5	0.00	0.00	0.00
15,800.0	89.70	179.48	12,396.6	-3,975.7	1,317.9	3,987.5	0.00	0.00	0.00
15,900.0	89.70	179.48	12,397.1	-4,075.7	1,318.8	4,087.5	0.00	0.00	0.00
16,000.0	89.70	179.48	12,397.7	-4,175.7	1,319.7	4,187.5	0.00	0.00	0.00
16,100.0	89.70	179.48	12,398.2	-4,275.7	1,320.6	4,287.5	0.00	0.00	0.00
16,200.0	89.70	179.48	12,398.7	-4,375.7	1,321.5	4,387.5	0.00	0.00	0.00
16,300.0	89.70	179.48	12,399.2	-4,475.6	1,322.4	4,487.5	0.00	0.00	0.00
16,400.0	89.70	179.48	12,399.8	-4,575.6	1,323.3	4,587.5	0.00	0.00	0.00
16,500.0	89.70	179.48	12,400.3	-4,675.6	1,324.2	4,687.5	0.00	0.00	0.00
16,600.0	89.70	179.48	12,400.8	-4,775.6	1,325.1	4,787.5	0.00	0.00	0.00
16,700.0	89.70	179.48	12,401.3	-4,875.6	1,326.0	4,887.5	0.00	0.00	0.00
16,800.0	89.70	179.48	12,401.9	-4,975.6	1,326.9	4,987.5	0.00	0.00	0.00
16,900.0	89.70	179.48	12,402.4	-5,075.6	1,327.8	5,087.5	0.00	0.00	0.00
17,000.0	89.70	179.48	12,402.9	-5,175.6	1,328.7	5,187.5	0.00	0.00	0.00
17,100.0	89.70	179.48	12,403.5	-5,275.6	1,329.6	5,287.5	0.00	0.00	0.00
17,200.0	89.70	179.48	12,404.0	-5,375.6	1,330.5	5,387.4	0.00	0.00	0.00
17,300.0	89.70	179.48	12,404.5	-5,475.6	1,331.4	5,487.4	0.00	0.00	0.00
17,400.0	89.70	179.48	12,405.0	-5,575.6	1,332.3	5,587.4	0.00	0.00	0.00
17,500.0	89.70	179.48	12,405.6	-5,675.6	1,333.2	5,687.4	0.00	0.00	0.00
17,600.0	89.70	179.48	12,406.1	-5,775.6	1,334.1	5,787.4	0.00	0.00	0.00
17,700.0	89.70	179.48	12,406.6	-5,875.6	1,335.0	5,887.4	0.00	0.00	0.00
17,800.0	89.70	179.48	12,407.1	-5,975.6	1,335.9	5,987.4	0.00	0.00	0.00
17,900.0	89.70	179.48	12,407.7	-6,075.6	1,336.8	6,087.4	0.00	0.00	0.00
18,000.0	89.70	179.48	12,408.2	-6,175.6	1,337.7	6,187.4	0.00	0.00	0.00
18,100.0	89.70	179.48	12,408.7	-6,275.5	1,338.6	6,287.4	0.00	0.00	0.00
18,200.0	89.70	179.48	12,409.3	-6,375.5	1,339.5	6,387.4	0.00	0.00	0.00
18,300.0	89.70	179.48	12,409.8	-6,475.5	1,340.4	6,487.4	0.00	0.00	0.00
18,400.0	89.70	179.48	12,410.3	-6,575.5	1,341.3	6,587.4	0.00	0.00	0.00
18,500.0	89.70	179.48	12,410.8	-6,675.5	1,342.2	6,687.4	0.00	0.00	0.00
18,600.0	89.70	179.48	12,411.4	-6,775.5	1,343.1	6,787.4	0.00	0.00	0.00
18,700.0	89.70	179.48	12,411.9	-6,875.5	1,344.0	6,887.4	0.00	0.00	0.00
18,800.0	89.70	179.48	12,412.4	-6,975.5	1,344.9	6,987.4	0.00	0.00	0.00
18,900.0	89.70	179.48	12,413.0	-7,075.5	1,345.8	7,087.4	0.00	0.00	0.00
19,000.0	89.70	179.48	12,413.5	-7,175.5	1,346.7	7,187.4	0.00	0.00	0.00
19,100.0	89.70	179.48	12,414.0	-7,275.5	1,347.6	7,287.4	0.00	0.00	0.00
19,200.0	89.70	179.48	12,414.5	-7,375.5	1,348.5	7,387.4	0.00	0.00	0.00
19,300.0	89.70	179.48	12,415.1	-7,475.5	1,349.4	7,487.4	0.00	0.00	0.00
19,400.0	89.70	179.48	12,415.6	-7,575.5	1,350.3	7,587.4	0.00	0.00	0.00



Intrepid Planning Report



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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 #218H
Wellbore: OWB
Design: Plan #1

Local Co-ordinate Reference: Well Junior Mint Fed #218H
TVD Reference: KB @ 3250.0usft
MD Reference: KB @ 3250.0usft
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)	
19,500.0	89.70	179.48	12,416.1	-7,675.5	1,351.2	7,687.4	0.00	0.00	0.00	
19,600.0	89.70	179.48	12,416.6	-7,775.5	1,352.1	7,787.4	0.00	0.00	0.00	
19,700.0	89.70	179.48	12,417.2	-7,875.5	1,353.0	7,887.4	0.00	0.00	0.00	
19,800.0	89.70	179.48	12,417.7	-7,975.5	1,353.9	7,987.4	0.00	0.00	0.00	
19,900.0	89.70	179.48	12,418.2	-8,075.4	1,354.8	8,087.4	0.00	0.00	0.00	
20,000.0	89.70	179.48	12,418.8	-8,175.4	1,355.7	8,187.4	0.00	0.00	0.00	
20,100.0	89.70	179.48	12,419.3	-8,275.4	1,356.6	8,287.4	0.00	0.00	0.00	
20,200.0	89.70	179.48	12,419.8	-8,375.4	1,357.5	8,387.4	0.00	0.00	0.00	
20,300.0	89.70	179.48	12,420.3	-8,475.4	1,358.4	8,487.4	0.00	0.00	0.00	
20,400.0	89.70	179.48	12,420.9	-8,575.4	1,359.3	8,587.4	0.00	0.00	0.00	
20,500.0	89.70	179.48	12,421.4	-8,675.4	1,360.2	8,687.4	0.00	0.00	0.00	
20,600.0	89.70	179.48	12,421.9	-8,775.4	1,361.1	8,787.4	0.00	0.00	0.00	
20,700.0	89.70	179.48	12,422.4	-8,875.4	1,362.0	8,887.4	0.00	0.00	0.00	
20,800.0	89.70	179.48	12,423.0	-8,975.4	1,362.9	8,987.4	0.00	0.00	0.00	
20,900.0	89.70	179.48	12,423.5	-9,075.4	1,363.8	9,087.4	0.00	0.00	0.00	
21,000.0	89.70	179.48	12,424.0	-9,175.4	1,364.7	9,187.4	0.00	0.00	0.00	
21,100.0	89.70	179.48	12,424.6	-9,275.4	1,365.6	9,287.4	0.00	0.00	0.00	
21,200.0	89.70	179.48	12,425.1	-9,375.4	1,366.5	9,387.4	0.00	0.00	0.00	
21,300.0	89.70	179.48	12,425.6	-9,475.4	1,367.4	9,487.4	0.00	0.00	0.00	
21,400.0	89.70	179.48	12,426.1	-9,575.4	1,368.3	9,587.4	0.00	0.00	0.00	
21,500.0	89.70	179.48	12,426.7	-9,675.4	1,369.2	9,687.4	0.00	0.00	0.00	
21,600.0	89.70	179.48	12,427.2	-9,775.4	1,370.1	9,787.4	0.00	0.00	0.00	
21,700.0	89.70	179.48	12,427.7	-9,875.4	1,371.0	9,887.4	0.00	0.00	0.00	
21,800.0	89.70	179.48	12,428.2	-9,975.3	1,371.9	9,987.4	0.00	0.00	0.00	
21,900.0	89.70	179.48	12,428.8	-10,075.3	1,372.8	10,087.4	0.00	0.00	0.00	
22,000.0	89.70	179.48	12,429.3	-10,175.3	1,373.7	10,187.4	0.00	0.00	0.00	
22,100.0	89.70	179.48	12,429.8	-10,275.3	1,374.6	10,287.4	0.00	0.00	0.00	
22,200.0	89.70	179.48	12,430.4	-10,375.3	1,375.5	10,387.4	0.00	0.00	0.00	
22,300.0	89.70	179.48	12,430.9	-10,475.3	1,376.4	10,487.4	0.00	0.00	0.00	
22,400.0	89.70	179.48	12,431.4	-10,575.3	1,377.3	10,587.4	0.00	0.00	0.00	
22,500.0	89.70	179.48	12,431.9	-10,675.3	1,378.2	10,687.4	0.00	0.00	0.00	
22,600.0	89.70	179.48	12,432.5	-10,775.3	1,379.1	10,787.4	0.00	0.00	0.00	
22,700.0	89.70	179.48	12,433.0	-10,875.3	1,380.0	10,887.4	0.00	0.00	0.00	
22,800.0	89.70	179.48	12,433.5	-10,975.3	1,380.9	10,987.4	0.00	0.00	0.00	
22,900.0	89.70	179.48	12,434.1	-11,075.3	1,381.8	11,087.4	0.00	0.00	0.00	
22,920.7	89.70	179.48	12,434.2	-11,096.0	1,382.0	11,108.1	0.00	0.00	0.00	
TD at 22920.7										



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Junior Mint Fed #218H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3250.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3250.0usft
Site:	(Junior Mint Fed) Sec-15_T-25-S_R-35-E	North Reference:	Grid
Well:	Junior Mint Fed #218H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
FTP (Junior Mint Fed # - plan misses target center by 106.6usft at 12500.3usft MD (12284.8 TVD, -695.2 N, 1288.3 E) - Point	0.00	0.00	12,376.0	-640.0	1,287.0	415,096.00	846,351.00	32° 8' 14.431 N	103° 20' 52.550 W
PBHL (Junior Mint Fed - plan hits target center - Rectangle (sides W100.0 H10,456.0 D30.0)	0.30	179.48	12,434.2	-11,096.0	1,382.0	404,640.00	846,446.00	32° 6' 30.963 N	103° 20' 52.557 W
LTP (Junior Mint Fed # - plan misses target center by 0.5usft at 22825.7usft MD (12433.7 TVD, -11001.0 N, 1381.1 E) - Point	0.00	0.00	12,434.2	-11,001.0	1,381.0	404,735.00	846,445.00	32° 6' 31.903 N	103° 20' 52.559 W

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				
4,978.5	4,920.0	Base Salt				
5,223.4	5,160.0	Delaware Mountain Gp				
5,228.5	5,165.0	Lamar				
5,248.9	5,185.0	Bell Canyon				
5,269.3	5,205.0	Ramsey Sand				
6,233.7	6,150.0	Cherry Canyon				
7,733.8	7,620.0	Brushy Canyon				
9,059.1	8,930.0	Bone Spring Lime				
9,084.1	8,955.0	Upper Avalon				
9,314.1	9,185.0	Middle/Lower Avalon				
10,294.1	10,165.0	1st Bone Spring Sand				
10,459.1	10,330.0	2nd Bone Spring Carb				
10,844.1	10,715.0	2nd Bone Spring Sand				
11,394.1	11,265.0	3rd Bone Spring Carb				
12,024.4	11,895.0	3rd Bone Spring Sand				
12,279.0	12,130.0	3rd BS W Sand				
12,382.7	12,210.0	Wolfcamp A X Sand				
12,449.9	12,255.0	Wolfcamp A Y Sand				
12,570.4	12,320.0	Wolfcamp A Lower				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,300.0	1,300.0	0.0	0.0	NUDGE - Build 1.00
2,449.9	2,442.2	-37.2	108.8	HOLD - 5664.3 at 2449.9 MD
8,114.2	7,992.8	-402.8	1,177.2	DROP - -1.00
9,264.1	9,135.0	-440.0	1,286.0	HOLD - 2673.0 at 9264.1 MD
11,937.1	11,808.0	-440.0	1,286.0	KOP - DLS 10.00 TFO 179.48
12,834.1	12,380.9	-1,009.9	1,291.1	EOC - 10086.6 hold at 12834.1 MD
22,920.7	12,434.2	-11,096.0	1,382.0	TD at 22920.7

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	Junior Mint Fed 218H
LOCATION:	Sec 10-24S-35E-NMP
COUNTY:	Lea County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input type="checkbox"/> 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

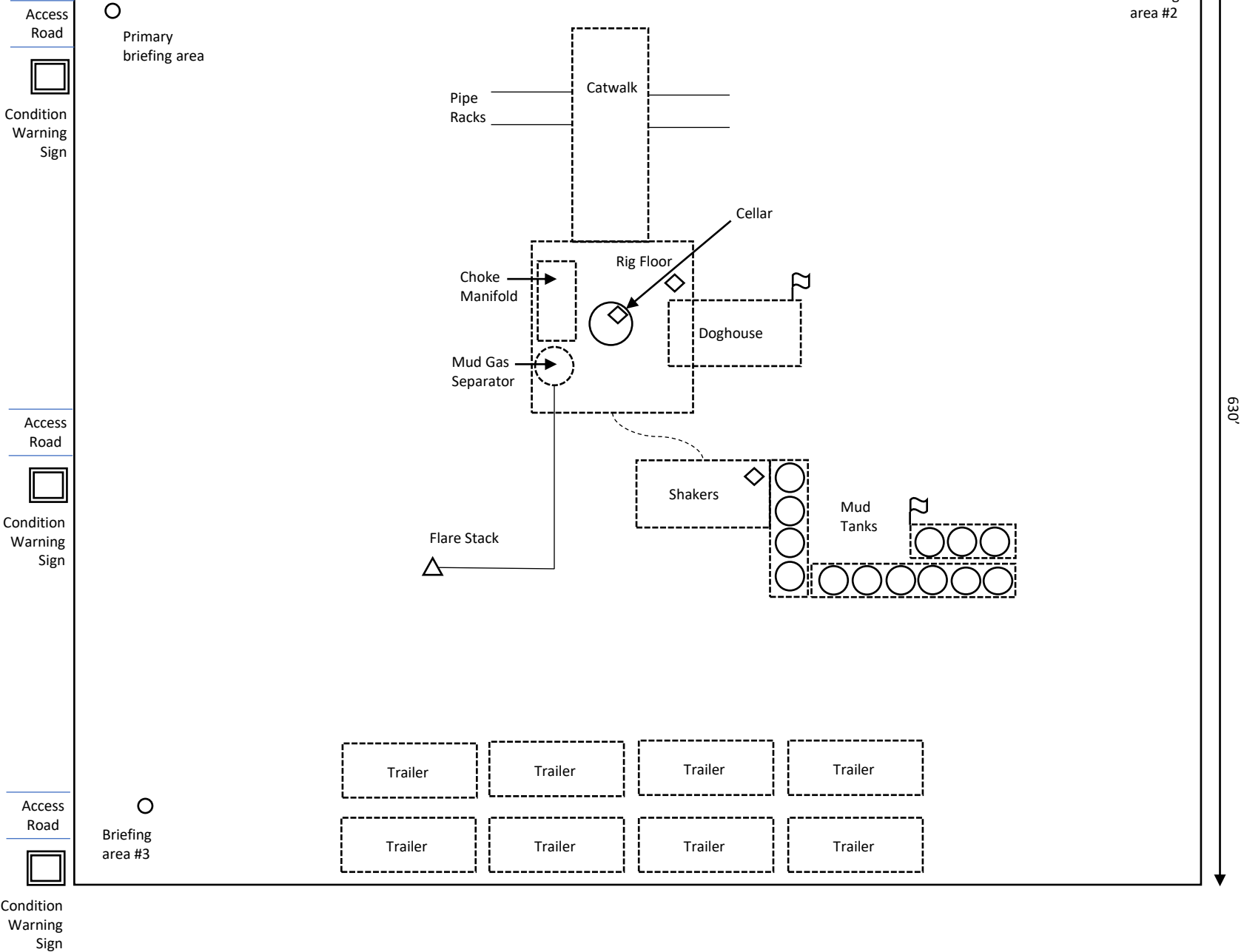
9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary

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

- N
↑
- Briefing Area
 - Current Well
 - △ Flare Stack
 - ◇ H2S Monitor
 - ⌚ Wind Indicator
 - Mud Gas Separator

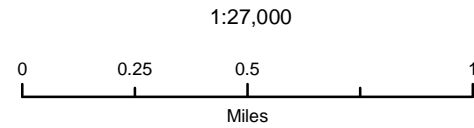


Tap Rock Operating LLC

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

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

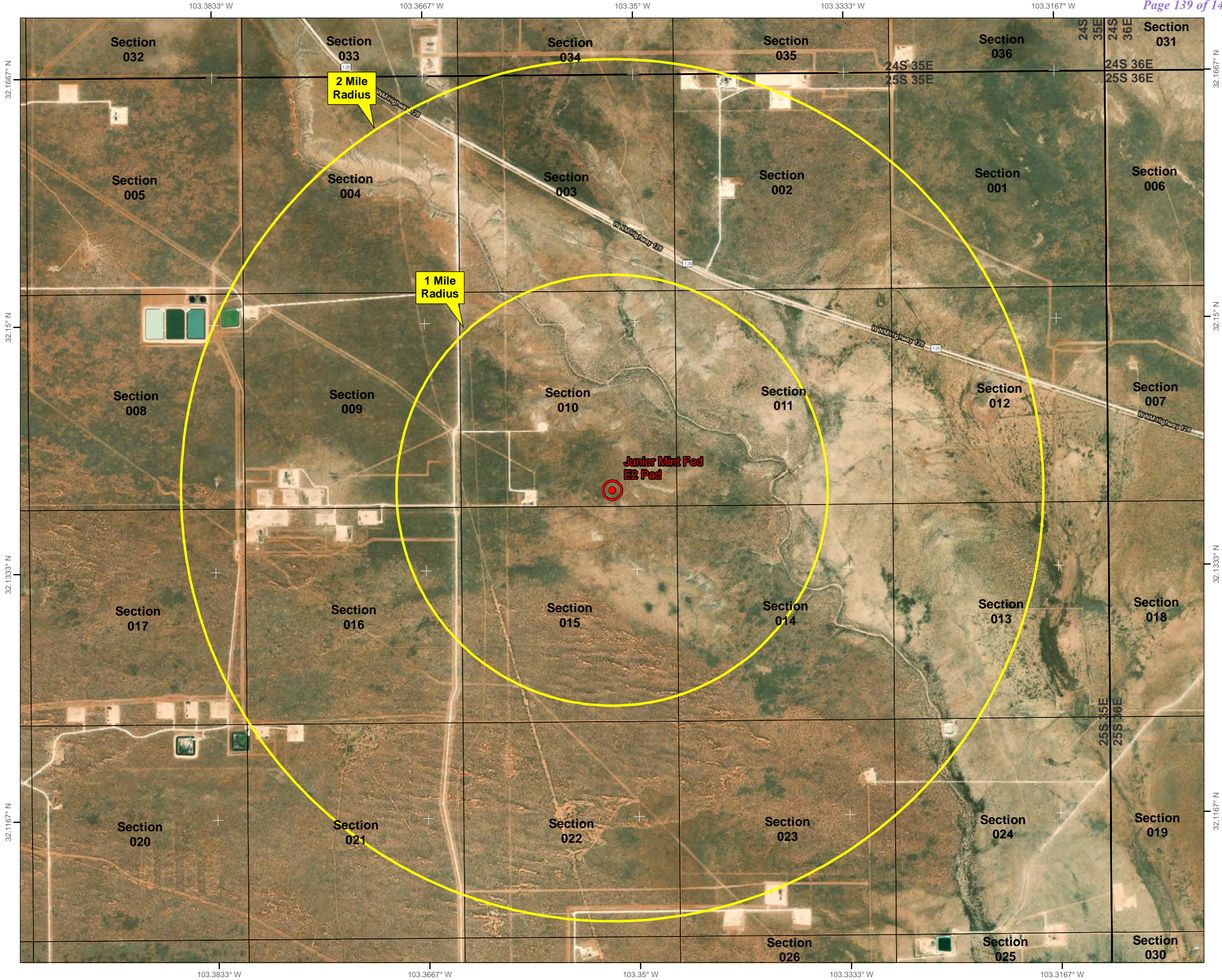
 Well Pad Location



NAD 1983 New Mexico State Plane East
FIPS 3001 Feet



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





Schematic Closed Loop Drilling Rig*

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

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



Above: Centrifugal Closed Loop System

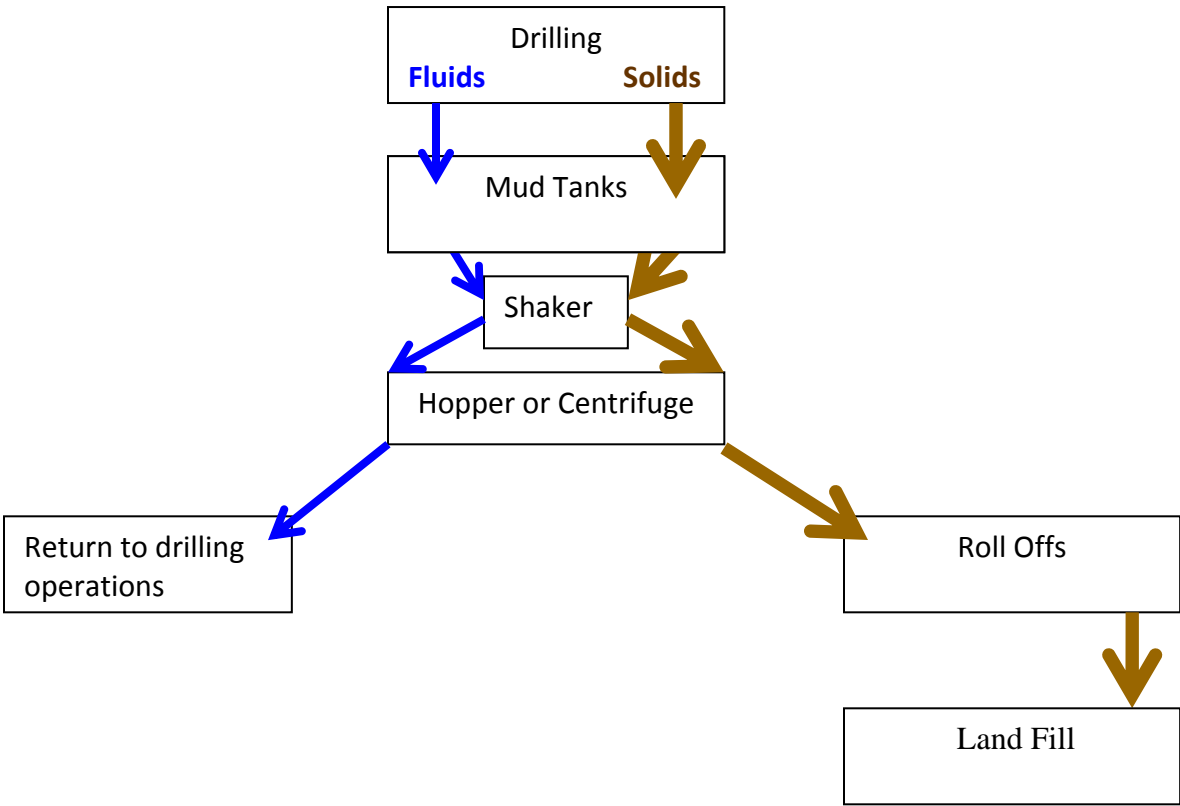


PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120



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

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil
Field Service



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

General Information
Phone: (505) 629-6116

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

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

ACKNOWLEDGMENTS

Action 526985

ACKNOWLEDGMENTS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 526985
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
-------------------------------------	--

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

General Information
Phone: (505) 629-6116

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

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

CONDITIONS

Action 526985

CONDITIONS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 526985
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
permitsw	Cement is required to circulate on both surface and intermediate 1 strings of casing.	11/17/2025
matthew.gomez	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing, if strata isolation is not achieved then remediation will be required before further operations may commence.	12/11/2025
matthew.gomez	All conducted logs must be submitted to the OCD.	12/11/2025
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.	12/11/2025
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