

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 <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM101609
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		8. Well Name and No. JUNIOR MINT FED/222H
2. Name of Operator CIVITAS PERMIAN OPERATING LLC		9. API Well No.
3a. Address 555 17TH STREET SUITE 3700, DENVER, CO 8	3b. Phone No. (include area code) (303) 293-1000	10. Field and Pool or Exploratory Area Dogie Draw; Wolfcamp
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 15/T25S/R35E/NMP		11. Country or Parish, State LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

Civitas Permian Operating, LLC requests the following changes to the previously approved surface hole location (SHL) and drill plan. Change SHL from 447 FNL & 1525 FWL, NENW, Sec. 15, T.25S, R.35E to 351 FNL & 1411 FWL, NENW, Sec. 15, T.25S, R.35E. Changes to the drill plan and other variance requests are detailed in the attached summary and supporting documents. Please see the attached revised C102 plat, directional plan, anticollision report, production casing spec sheets and wellhead diagram for additional information.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) BRIAN WOOD / Ph: (505) 466-8120	Title Permitting Agent
Signature (Electronic Submission)	Date 04/18/2025

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 05/27/2025
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)

Additional Information

Location of Well

0. SHL: NENW / 447 FNL / 1525 FWL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1364081 / LONG: -103.3590083 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 165 FNL / 1985 FWL / TWSP: 25S / RANGE: 35E / SECTION: 15 / LAT: 32.1371802 / LONG: -103.3575228 (TVD: 12635 feet, MD: 12703 feet)

BHL: SESW / 5 FSL / 1980 FWL / TWSP: 25S / RANGE: 35E / SECTION: 22 / LAT: 32.1086312 / LONG: -103.3575541 (TVD: 12944 feet, MD: 23155 feet)

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 54753	Pool Code 17980	Pool Name DOGIE DRAW; WOLFCAMP
Property Code	Property Name JUNIOR MINT FED	Well Number 222H
OGRID No. 332195	Operator Name CIVITAS PERMIAN OPERATING, LLC	Ground Level Elevation 3220'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or lot no. C	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 351' N	Feet from the E/W 1411' W	Latitude N 32.1366721	Longitude W 103.3593770	County LEA
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Bottom Hole Location

UL or lot no. N	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 5' S	Feet from the E/W 1980' W	Latitude N 32.1086312	Longitude W 103.3575541	County LEA
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Dedicated Acres 1280.00	Infill or Defining Well Infill	Defining Well API 30-025-54740	Overlapping Spacing Unit (Y/N) No	Consolidated Code N/A
Order Numbers N/A			Well Setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no. C	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 1980' W	Latitude N 32.1373590	Longitude W 103.3575382	County LEA
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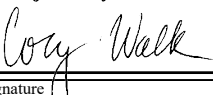
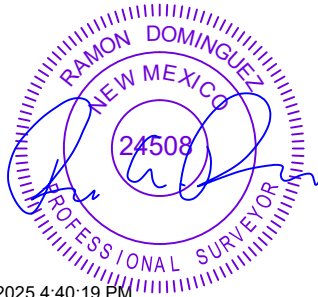
First Take Point (FTP)

UL or lot no. C	Section 15	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' N	Feet from the E/W 1980' W	Latitude N 32.1373590	Longitude W 103.3575382	County LEA
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Last Take Point (LTP)

UL or lot no. N	Section 22	Township 25-S	Range 35-E	Lot Idn -	Feet from the N/S 100' S	Feet from the E/W 1980' W	Latitude N 32.1088923	Longitude W 103.3575534	County LEA
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Unitized Area or Area of Uniform Intrest -	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation -
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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>  4-16-25		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>  2/6/2025 4:40:19 PM	
Signature Cory Walk		Signature and Seal of Professional Surveyor	
Date 4-16-25		Date	
Print Name cory@permitswest.com		Certificate Number	Date of Survey 01/30/2025
E-mail Address			

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024
	Submittal Type:	☐ Initial Submittal ☒ Amended Report ☐ As Drilled	
Property Name and Well Number JUNIOR MINT FED 222H			

SURFACE LOCATION (SHL)

NEW MEXICO EAST
 NAD 1983
 X=842810 Y=414820
 LAT.: N 32.1366721
 LONG.: W 103.3593770
 NAD 1927
 X=801623 Y=414762
 LAT.: N 32.1365457
 LONG.: W 103.3589120
 351' FNL 1411' FWL

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

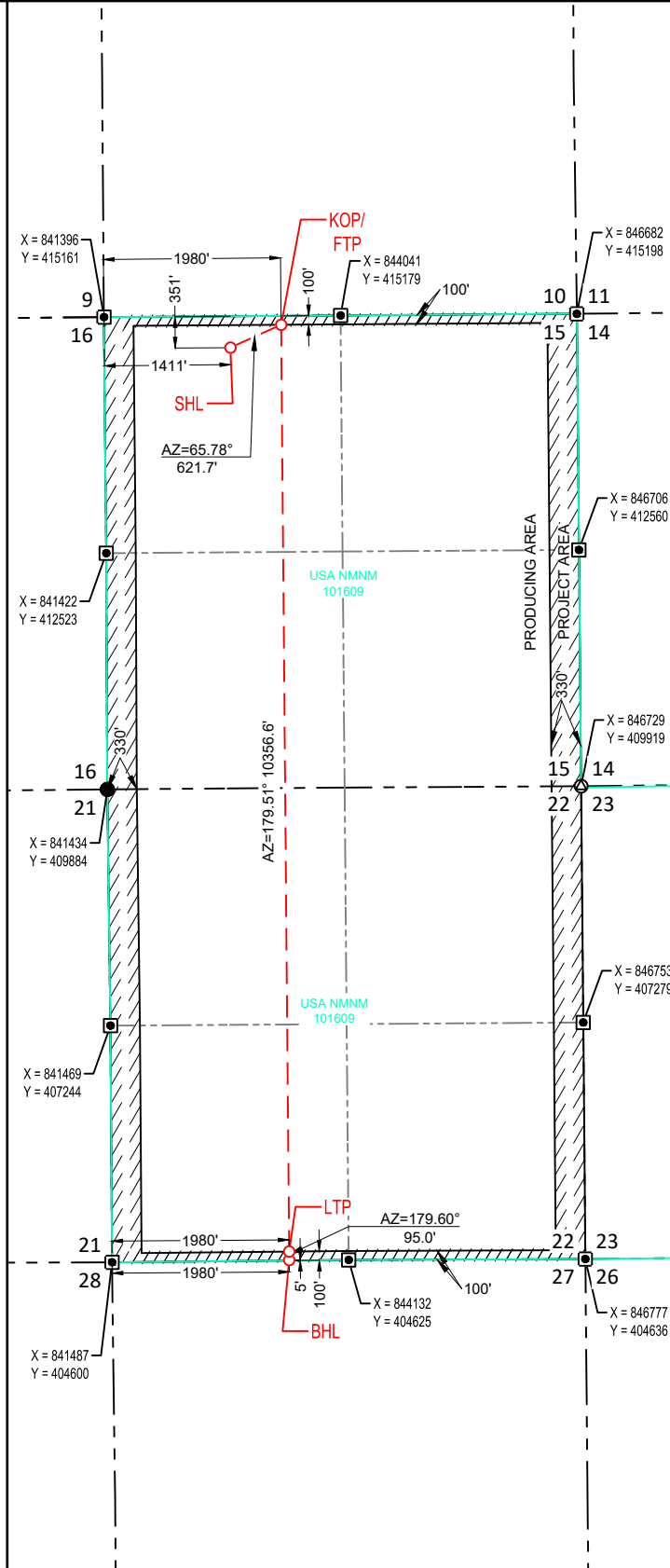
NEW MEXICO EAST
 NAD 1983
 X=843377 Y=415075
 LAT.: N 32.1373590
 LONG.: W 103.3575382
 NAD 1927
 X=802190 Y=415017
 LAT.: N 32.1372326
 LONG.: W 103.3570732
 100' FNL 1980' FWL

LAST TAKE POINT (LTP)

NEW MEXICO EAST
 NAD 1983
 X=843466 Y=404719
 LAT.: N 32.1088923
 LONG.: W 103.3575534
 NAD 1927
 X=802279 Y=404661
 LAT.: N 32.1087658
 LONG.: W 103.3570899
 100' FSL 1980' FWL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
 NAD 1983
 X=843467 Y=404624
 LAT.: N 32.1086312
 LONG.: W 103.3575541
 NAD 1927
 X=802280 Y=404566
 LAT.: N 32.1085047
 LONG.: W 103.3570906
 5' FSL 1980' FWL

**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.

01/30/2025

Date of Survey

Signature and Seal of Professional Surveyor:



2/6/2025 4:40:21 PM



Junior Mint Sundry Summary

4/3/2025

Civitas Resources is requesting sundries/variances for the upcoming Junior Mint drilling campaigns.

1. Cement Volumes and Design: Civitas Resources requests to sundry cement volumes to the following strings with comments noted below:

- Intermediate Cement: for all Junior Mint wells with deepset 7 5/8" intermediate strings, the following items are updated in the cement table:
 - i. Intermediate Lead/Tail Volumes: based of offset TapRock wells drilled in the previous two years, the lead and tail cement volumes are increased to improve assurance of cement to surface.
 - ii. Intermediate Yield: The lead cement yield for the 10.5 ppg slurry is updated to reflect recent labs from cement providers.
 - iii. Intermediate Contingency for no returns and/or lack of cement to surface: the goal is to ensure quality cement from shoe to surface
 - 1. No Returns at TD of 9 7/8" Hole: Civitas Resources requests to pump an intentional 2-stage cement job where stage 1 would be pumped to the mid/base of the Brushy Canyon and stage 2 would be pumped as a standard bradenhead squeeze to the mid/base of Brushy Canyon, thus cementing the entire string. To verify the TOC of stage 2, and Echo-meter will be used

Stage 1 Cement Details (conventional):
Single slurry: 15.6 ppg cement, Class H, Yield: 1.18 cuft/sk, 25% xs DBE Emulsion Spacer (weighted)

Stage 2 Cement Details (bradenhead):
Lead: 14.8 ppg, Class C Thixotropic + LCM, Yield: 1.44 cuft/sk, 100% xs DBE Spacer (weighted)

Tail: 14.8 ppg, Class C Thixotropic, Yield: 1.44 cuft/sk, 100% xs, shoot temp survey to determine TOC

Top Out (if necessary): 14.8 Class C Neat, Yield: 1.33 cuft/sk; if required, Civitas Resources will request BLM approval to top out after running a temp survey and report back to BLM the amount of volume to flush cement lines to wellhead.
 - 2. No Cement to Surface 7 5/8" cement Job: Civitas Resources requests to pump an intentional 2-stage cement job where stage 1 would be pumped to the

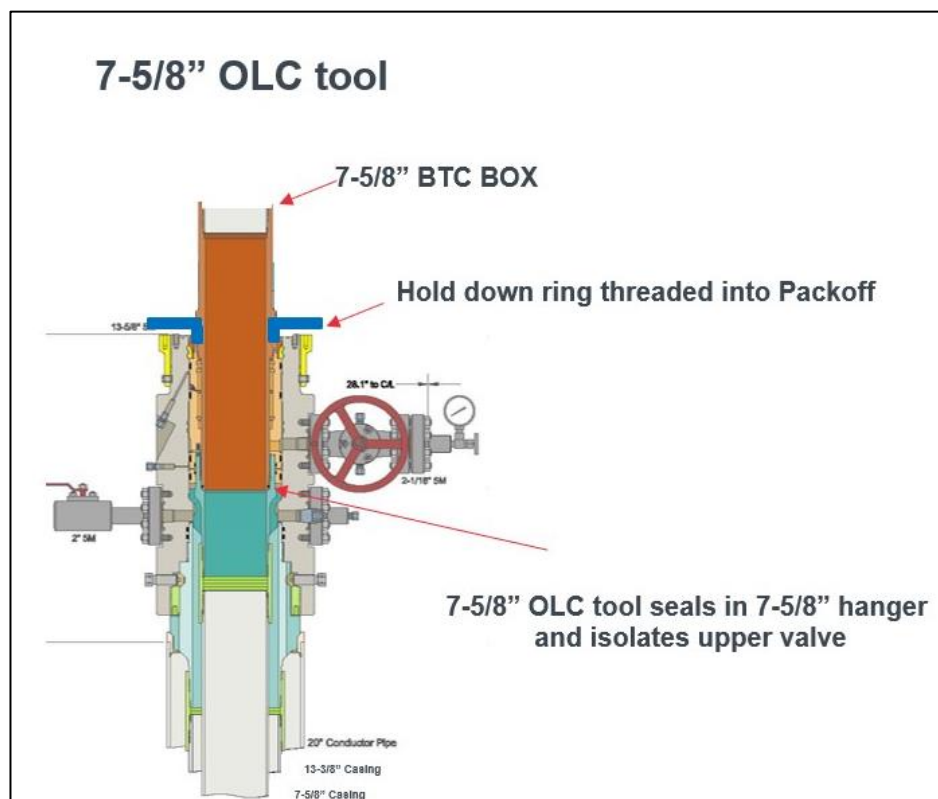


mid/base of the Brushy Canyon and stage 2 would be pumped as a standard bradenhead squeeze to the mid/base of Brushy Canyon (as described above), thus cementing the entire string. To verify the TOC of stage 2, and Echo-meter will be used and with BLM approval, top out the job as needed.

- Production Cement: the production tail volume has been increased from 200' to 500' to improve the overlap between intermediate and production casing



2. **Offline Cementing Intermediate Casing Only:** In addition to the batch drilling variance submitted in the original APD, Civitas Resources requests a variance for the option to offline cement intermediate casing strings set higher than the top of the WCA during the Junior Mint drilling campaign. To execute offline cement jobs safely, the following precautions and equipment are detailed below:
- During the drilling of the 9 7/8" and 10 5/8" hole sections (all 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/manifold. 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).





3. **BOPE Testing Procedure for Batch Drilling:** Civitas Resources requests a variance to adjust the BOPE testing procedure to accommodate batch drilling. Details of the request are below:
- In lieu of a full BOP test during batch intermediate drilling operations, Civitas Resources requests to "Break-Test" or only test BOP connection breaks that are separated during skids between intermediate casing strings set above 5M BOPE thresholds/Wolfcamp A top. Industry standards are adhered to in terms of timing of breaks as noted in API Standard 53 which will include test charts during each skid for the following: Top Pipe Rams or VBRs, HCR, Downstream Kill Line, QDC Adapter – wellhead quick connect, and the body/shell of the BOP stack to 5M for 10 minutes.
 - Depending on the length and position of the next batch drilled intermediate hole section, the flex hose that connects to the choke manifold might have to be broken out, at which point the break will also be tested. This is not expected with Civitas Resources' rig fleet but could occur.
 - All "Break Test" BOPE operations will follow a 14-day limit, such that, Civitas Resources can have a 7-day buffer to execute a full test as per Onshore Order 43 CFR 3172 (21-day limit).
 - After completion of batch drilling operations for all intermediate hole sections above the WCA, the BOP tests will follow Onshore Order 43 CFR 3172
 - In the event any part of the BOPE equipment is changed or fails a test, a full test BOPE test will be performed. If the "Break Test" is not performed during the proper timing interval, a full BOPE test will take place.
 - The BLM will be contacted in the event a well control event is encountered.
 - During all "Break Test" or full BOPE tests, the BLM will be notified 4 hours before the test.
 - Before drilling out intermediate shoes and commencing production hole drilling, a full BOP test will be performed for all targets requiring a 10M BOPE pressure test; this test will override a previous 14 day "Break Test" interval.
4. **Centralizer Variance:** Due to the design of the intermediate casing strings on the Third Bone Spring Sand, WCA, and WCB intervals on the Junior Mint development (11 3/4" x 7 5/8" x 5 1/2" casing design), a variance to waive the centralizers is requested due to the tight clearance between 6 3/4" hole and 5 1/2" casing and the risk of not getting casing to bottom.



- Junior Mint Fed 222, WCB Target

Estimated Tops:

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler	660	660	Salt	Salt
Top Salt	1,100	1,100	Salt	Salt
Base Salt	4,920	4,922	Salt	Salt
DMG	5,160	5,168	Sandstone	None
Lamar	5,165	5,173	Sandstone	Hydrocarbons
Bell Canyon	5,185	5,246	Sandstone	Hydrocarbons
Ramsey Sand	5,205	5,266	Sandstone	Hydrocarbons
Cherry Canyon	6,150	6,217	Limestone	Hydrocarbons
Brushy Canyon	7,620	7,687	Sandstone	Hydrocarbons
Bone Spring Lime	8,930	8,997	Carbonate	Hydrocarbons
Upper Avalon	8,955	9,022	Carbonate	Hydrocarbons
Middle Avalon	9,185	9,252	Carbonate	Hydrocarbons
1st BS Sand	10,165	10,232	Sandstone	Hydrocarbons
2nd BS Carb	10,330	10,397	Carbonate	Hydrocarbons
2nd BS Sand	10,715	10,782	Sandstone	Hydrocarbons
3rd BS Carb	11,265	11,332	Carbonate	Hydrocarbons
3rd BS Sand	11,895	11,962	Sandstone	Hydrocarbons
Wolfcamp A	12,210	12,277	Sandstone	Hydrocarbons
Wolfcamp B	12,635	12,702	Sandstone	Hydrocarbons
KOP	12285	12351	Carbonate	Hydrocarbons
TD	12944	23183	Carbonate	Hydrocarbons

Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	14 3/4	0	1,075	11 3/4	API	No	0	1,075	0	1,075	J-55	47	BTC	1.13	1.15	1.6
1st Intermediate	9 7/8	1,075	12,251	7 5/8	API	No	0	12,251	0	12,085	P-110	29.7	BTC	1.13	1.15	1.6
Production	6 3/4	12,251	12,351	5 1/2	NON API	No	0	12,351	0	12,285	P110RYS	23	Talon	1.13	1.15	1.6
	6 3/4	12,351	23,183	5 1/2	NON API	No	12,351	23,183	12,285	12,944	P110RY	23	Talon	1.13	1.15	1.6

Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	391	1.72	672	13.5	100%	C	Additives + LCM
	Tail	775	196	1.33	260	14.8	100%	C	Additives + LCM
Intermediate	Lead	0	1105	4.29	4740	10.5	200%	C	Contingency Bradenhead Squeeze, LCM Lead
	Tail	11251	129	1.67	215	13.2	100%	C	Additives + LCM
Production	Tail	11751	924	1.24	1146	13.2	20%	H	Fluid Loss + Dispersant + Retarder + LCM

Mud Program:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1,075	FW Spud Mud	8.40	28	NC
1st Intermediate	1,075	12,251	DBE	9.20	27-30	NC
Production	12,251	23,183	OBM	12.50	55-65	<16



U. S. Steel Tubular Products

2/25/2025 2:43:45 PM

5.500" 23.00lb/ft (0.415" Wall) P110 RY USS-TALON HTQ™ RD



MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	6.630	6.425	sq. in.	--
Joint Efficiency	--	96.9	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	14,540	14,540	psi	--
Minimum Internal Yield Pressure	14,520	14,520	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	707,000	lb	--
Compression Rating	--	707,000	lb	--
Reference Length	--	20,490	ft	[5]
Maximum Uniaxial Bend Rating	--	88.9	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	20,800	ft-lb	[4]
Maximum Make-Up Torque	--	23,800	ft-lb	[4]
Maximum Operating Torque	--	39,800	ft-lb	[4]

UNCONTROLLED

Notes

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

Legal Notice

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1-877-893-9461
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www.usstubular.com



U. S. Steel Tubular Products

2/25/2025 2:25:12 PM

5.500" 23.00lb/ft (0.415" Wall) USS RYS110 USS-TALON HTQ™ RD



MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	120,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	6.630	6.425	sq. in.	--
Joint Efficiency	--	96.9	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	14,540	14,540	psi	--
Minimum Internal Yield Pressure	14,520	14,520	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	707,000	lb	--
Compression Rating	--	707,000	lb	--
Reference Length	--	20,490	ft	[5]
Maximum Uniaxial Bend Rating	--	88.9	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	20,800	ft-lb	[4]
Maximum Make-Up Torque	--	23,800	ft-lb	[4]
Maximum Operating Torque	--	39,800	ft-lb	[4]

UNCONTROLLED

Notes

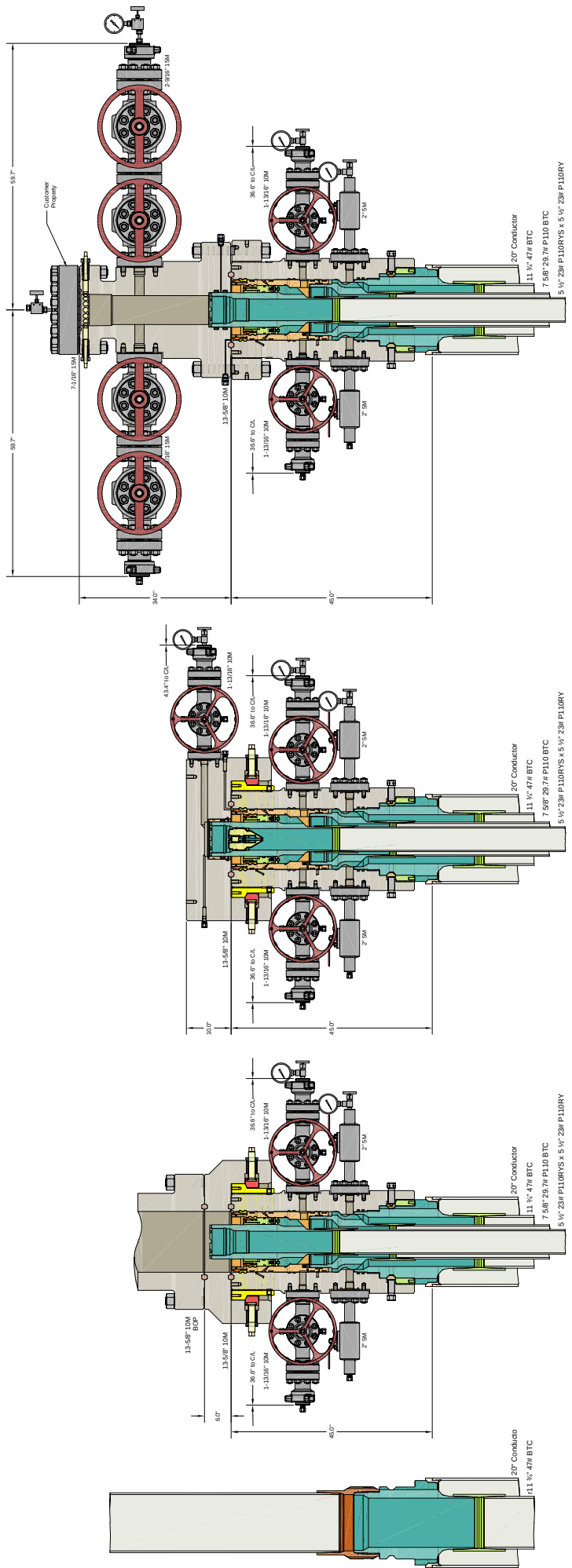
- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

Legal Notice

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U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

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connections@uss.com
www.usstubular.com



ALL DIMENSIONS APPROXIMATE

CIVITAS RESOURCES DELAWARE BASIN		DRAWING NO. REF: HBE0001444	
DRAWN	VJK	13FEB25	
APPRV			

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CACTUS WELLHEAD LLC

20" x 11-3/4" x 7-5/8" x 5-1/2" MBU-3T-SF Wellhead System
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head
And Quick Connect Drill Adapter & Quick Connect TA Cap

Project: Lea County, NM (NAD 83)
 Site: Junior Mint Fed Pad
 Well: Junior Mint Fed 222H
 Wellbore: OH
 Design: Plan 1
 Rig: 26' KB



Azimuths to Grid North
 True North: -0.52°
 Magnetic North: 5.55°
 Magnetic Field
 Strength: 47069.4nT
 Dip Angle: 59.57°
 Date: 7/15/2025
 Model: HDGM2025

Total Magnetic Correction: 5.55°

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)

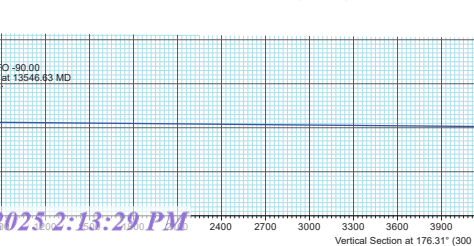
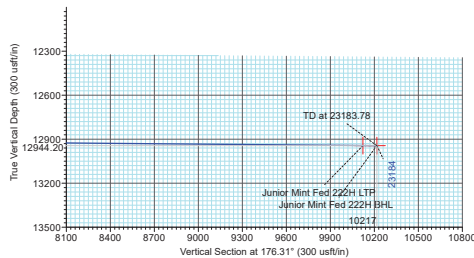
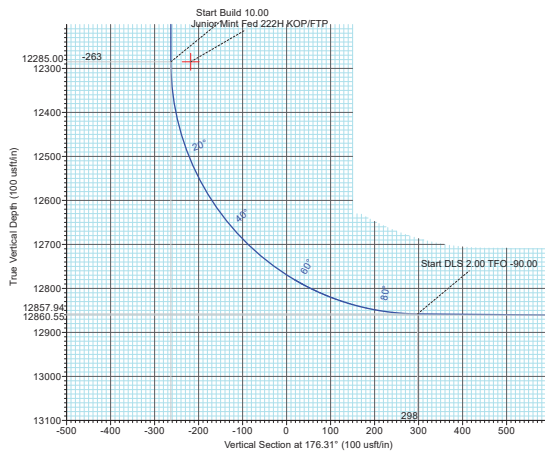
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	414820.00	842810.00	32.1366718	-103.3593770	

SECTION DETAILS

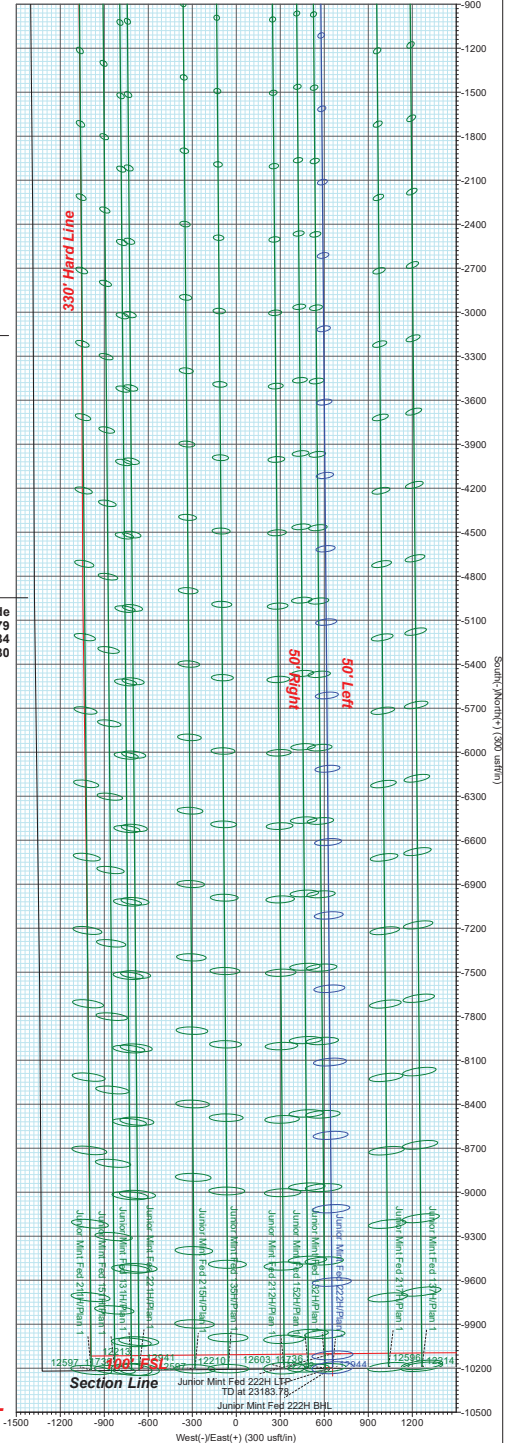
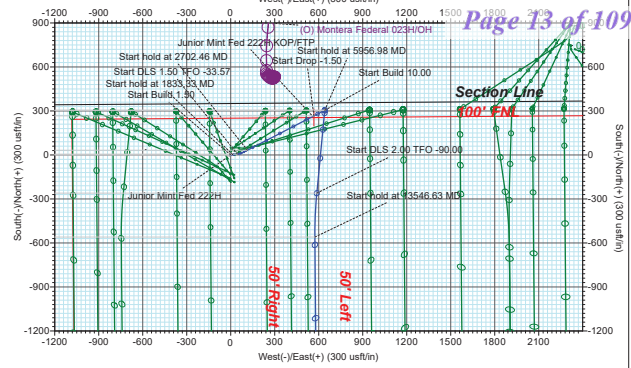
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	
1833.33	5.00	83.00	1832.91	1.77	14.43	1.50	83.00	-0.84	
2201.83	5.00	83.00	2200.00	5.69	46.30	0.00	0.00	-2.69	
2702.46	12.00	62.65	2694.92	32.28	114.27	1.50	-33.57	-24.86	
5157.21	12.00	62.65	5096.07	266.67	567.47	0.00	0.00	-229.59	
5956.98	0.00	0.00	5890.00	304.99	641.57	1.50	180.00	-263.07	
12351.98	0.00	0.00	12285.00	304.99	641.57	0.00	0.00	-263.07	
13246.98	89.50	185.50	12857.94	-260.35	587.13	10.00	185.50	297.60	
13546.63	89.50	179.51	12860.55	-559.57	574.05	2.00	-90.00	595.35	
23183.78	89.50	179.51	12944.20	-10196.00	657.00	0.00	0.00	10217.15	

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Junior Mint Fed 222H KOP/FTP	12285.00	255.00	567.00	415075.00	843377.00	32.1373586	-103.3575379
Junior Mint Fed 222H LTP	12943.80	-10101.00	656.00	404719.00	843466.00	32.1088924	-103.3575534
Junior Mint Fed 222H BHL	12944.20	-10196.00	657.00	404624.00	843467.00	32.1086313	-103.3575530



Do Not Cross SL



Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 222H

OH

Plan: Plan 1



Standard Plan Report

25 March, 2025

Total Report Version 1.70

COMPASS 5000.16 Build 97

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	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 222H					
Well Position	+N/-S	0.00 usft	Northing:	414,820.00 usft	Latitude:	32.1366718
	+E/-W	0.00 usft	Easting:	842,810.00 usft	Longitude:	-103.3593769
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	7/15/2025	6.07	59.57	47,069.40000000

Design	Plan 1				
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	176.31	

Survey Tool Program	Date	3/24/2025			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	23,183.56	Plan 1 (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 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	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	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,833.33	5.00	83.00	1,832.91	1.77	14.43	1.50	1.50	0.00	83.00	
2,201.83	5.00	83.00	2,200.00	5.69	46.30	0.00	0.00	0.00	0.00	
2,702.46	12.00	62.65	2,694.92	32.28	114.27	1.50	1.40	-4.06	-33.57	
5,157.21	12.00	62.65	5,096.07	266.67	567.47	0.00	0.00	0.00	0.00	
5,956.98	0.00	0.00	5,890.00	304.99	641.57	1.50	-1.50	0.00	180.00	
12,351.98	0.00	0.00	12,285.00	304.99	641.57	0.00	0.00	0.00	0.00	
13,246.98	89.50	185.50	12,857.94	-260.35	587.13	10.00	10.00	0.00	185.50	
13,546.63	89.50	179.51	12,860.55	-559.57	574.05	2.00	0.00	-2.00	-90.00	
23,183.78	89.50	179.51	12,944.20	-10,196.00	657.00	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	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	414,820.00	842,810.00	32.1366718	-103.3593769	0.00	0.00	0.00	0.00
1,600.00	1.50	83.00	1,599.99	0.16	1.30	414,820.16	842,811.30	32.1366723	-103.3593727	-0.08	1.50	1.50	0.00
1,700.00	3.00	83.00	1,699.91	0.64	5.20	414,820.64	842,815.20	32.1366735	-103.3593601	-0.30	1.50	1.50	0.00
1,800.00	4.50	83.00	1,799.69	1.44	11.69	414,821.44	842,821.69	32.1366755	-103.3593392	-0.68	1.50	1.50	0.00
1,833.33	5.00	83.00	1,832.91	1.77	14.43	414,821.77	842,824.43	32.1366764	-103.3593303	-0.84	1.50	1.50	0.00
1,900.00	5.00	83.00	1,899.32	2.48	20.19	414,822.48	842,830.19	32.1366782	-103.3593116	-1.17	0.00	0.00	0.00
2,000.00	5.00	83.00	1,998.94	3.54	28.84	414,823.54	842,838.84	32.1366809	-103.3592837	-1.68	0.00	0.00	0.00
2,100.00	5.00	83.00	2,098.56	4.60	37.50	414,824.60	842,847.50	32.1366836	-103.3592557	-2.18	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	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)
2,201.83	5.00	83.00	2,200.00	5.69	46.30	414,825.69	842,856.30	32.1366863	-103.3592272	-2.69	0.00	0.00	0.00
2,300.00	6.28	75.53	2,297.70	7.55	55.75	414,827.55	842,865.75	32.1366912	-103.3591966	-3.94	1.50	1.30	-7.60
2,400.00	7.65	70.57	2,396.96	11.13	67.33	414,831.13	842,877.33	32.1367008	-103.3591591	-6.77	1.50	1.38	-4.97
2,500.00	9.07	67.12	2,495.89	16.41	80.87	414,836.41	842,890.87	32.1367149	-103.3591152	-11.17	1.50	1.41	-3.44
2,600.00	10.51	64.61	2,594.44	23.38	96.37	414,843.38	842,906.37	32.1367337	-103.3590650	-17.13	1.50	1.44	-2.52
2,702.46	12.00	62.65	2,694.92	32.28	114.27	414,852.28	842,924.27	32.1367577	-103.3590069	-24.86	1.50	1.45	-1.91
2,800.00	12.00	62.65	2,790.33	41.60	132.28	414,861.60	842,942.28	32.1367829	-103.3589484	-33.00	0.00	0.00	0.00
2,900.00	12.00	62.65	2,888.15	51.14	150.74	414,871.14	842,960.74	32.1368087	-103.3588885	-41.34	0.00	0.00	0.00
3,000.00	12.00	62.65	2,985.97	60.69	169.20	414,880.69	842,979.20	32.1368345	-103.3588286	-49.68	0.00	0.00	0.00
3,100.00	12.00	62.65	3,083.78	70.24	187.66	414,890.24	842,997.66	32.1368602	-103.3587687	-58.02	0.00	0.00	0.00
3,200.00	12.00	62.65	3,181.60	79.79	206.13	414,899.79	843,016.13	32.1368860	-103.3587088	-66.36	0.00	0.00	0.00
3,300.00	12.00	62.65	3,279.41	89.34	224.59	414,909.34	843,034.59	32.1369118	-103.3586489	-74.70	0.00	0.00	0.00
3,400.00	12.00	62.65	3,377.23	98.89	243.05	414,918.89	843,053.05	32.1369376	-103.3585889	-83.04	0.00	0.00	0.00
3,500.00	12.00	62.65	3,475.05	108.43	261.51	414,928.43	843,071.51	32.1369634	-103.3585290	-91.38	0.00	0.00	0.00
3,600.00	12.00	62.65	3,572.86	117.98	279.98	414,937.98	843,089.98	32.1369892	-103.3584691	-99.72	0.00	0.00	0.00
3,700.00	12.00	62.65	3,670.68	127.53	298.44	414,947.53	843,108.44	32.1370150	-103.3584092	-108.06	0.00	0.00	0.00
3,800.00	12.00	62.65	3,768.49	137.08	316.90	414,957.08	843,126.90	32.1370407	-103.3583493	-116.40	0.00	0.00	0.00
3,900.00	12.00	62.65	3,866.31	146.63	335.36	414,966.63	843,145.36	32.1370665	-103.3582894	-124.74	0.00	0.00	0.00
4,000.00	12.00	62.65	3,964.13	156.18	353.82	414,976.18	843,163.82	32.1370923	-103.3582294	-133.08	0.00	0.00	0.00
4,100.00	12.00	62.65	4,061.94	165.72	372.29	414,985.72	843,182.29	32.1371181	-103.3581695	-141.42	0.00	0.00	0.00
4,200.00	12.00	62.65	4,159.76	175.27	390.75	414,995.27	843,200.75	32.1371439	-103.3581096	-149.76	0.00	0.00	0.00
4,300.00	12.00	62.65	4,257.57	184.82	409.21	415,004.82	843,219.21	32.1371697	-103.3580497	-158.10	0.00	0.00	0.00
4,400.00	12.00	62.65	4,355.39	194.37	427.67	415,014.37	843,237.67	32.1371954	-103.3579898	-166.44	0.00	0.00	0.00
4,500.00	12.00	62.65	4,453.21	203.92	446.14	415,023.92	843,256.14	32.1372212	-103.3579298	-174.78	0.00	0.00	0.00
4,600.00	12.00	62.65	4,551.02	213.46	464.60	415,033.46	843,274.60	32.1372470	-103.3578699	-183.12	0.00	0.00	0.00
4,700.00	12.00	62.65	4,648.84	223.01	483.06	415,043.01	843,293.06	32.1372728	-103.3578100	-191.46	0.00	0.00	0.00
4,800.00	12.00	62.65	4,746.65	232.56	501.52	415,052.56	843,311.52	32.1372986	-103.3577501	-199.80	0.00	0.00	0.00
4,900.00	12.00	62.65	4,844.47	242.11	519.98	415,062.11	843,329.98	32.1373244	-103.3576902	-208.14	0.00	0.00	0.00
5,000.00	12.00	62.65	4,942.29	251.66	538.45	415,071.66	843,348.45	32.1373501	-103.3576303	-216.48	0.00	0.00	0.00
5,100.00	12.00	62.65	5,040.10	261.21	556.91	415,081.21	843,366.91	32.1373759	-103.3575703	-224.82	0.00	0.00	0.00
5,157.21	12.00	62.65	5,096.07	266.67	567.47	415,086.67	843,377.47	32.1373907	-103.3575361	-229.59	0.00	0.00	0.00
5,200.00	11.35	62.65	5,137.97	270.65	575.16	415,090.65	843,385.16	32.1374014	-103.3575111	-233.07	1.50	-1.50	0.00
5,300.00	9.85	62.65	5,236.26	279.10	591.51	415,099.10	843,401.51	32.1374242	-103.3574580	-240.45	1.50	-1.50	0.00
5,400.00	8.35	62.65	5,334.99	286.37	605.56	415,106.37	843,415.56	32.1374439	-103.3574124	-246.80	1.50	-1.50	0.00
5,500.00	6.85	62.65	5,434.11	292.45	617.32	415,112.45	843,427.32	32.1374603	-103.3573743	-252.11	1.50	-1.50	0.00
5,600.00	5.35	62.65	5,533.54	297.33	626.76	415,117.33	843,436.76	32.1374735	-103.3573436	-256.38	1.50	-1.50	0.00
5,700.00	3.85	62.65	5,633.22	301.02	633.89	415,121.02	843,443.89	32.1374834	-103.3573205	-259.60	1.50	-1.50	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	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	2.35	62.65	5,733.07	303.51	638.71	415,123.51	843,448.71	32.1374902	-103.3573049	-261.77	1.50	-1.50	0.00
5,900.00	0.85	62.65	5,833.02	304.79	641.19	415,124.79	843,451.19	32.1374936	-103.3572968	-262.90	1.50	-1.50	0.00
5,956.98	0.00	0.00	5,890.00	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	1.50	-1.50	0.00
6,000.00	0.00	0.00	5,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,100.00	0.00	0.00	6,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,200.00	0.00	0.00	6,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,300.00	0.00	0.00	6,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,400.00	0.00	0.00	6,333.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,500.00	0.00	0.00	6,433.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,600.00	0.00	0.00	6,533.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,700.00	0.00	0.00	6,633.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,800.00	0.00	0.00	6,733.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
6,900.00	0.00	0.00	6,833.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,000.00	0.00	0.00	6,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,100.00	0.00	0.00	7,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,200.00	0.00	0.00	7,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,300.00	0.00	0.00	7,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,400.00	0.00	0.00	7,333.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,500.00	0.00	0.00	7,433.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,600.00	0.00	0.00	7,533.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,700.00	0.00	0.00	7,633.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,800.00	0.00	0.00	7,733.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
7,900.00	0.00	0.00	7,833.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,000.00	0.00	0.00	7,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,100.00	0.00	0.00	8,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,200.00	0.00	0.00	8,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,300.00	0.00	0.00	8,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,400.00	0.00	0.00	8,333.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,500.00	0.00	0.00	8,433.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,600.00	0.00	0.00	8,533.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,700.00	0.00	0.00	8,633.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,800.00	0.00	0.00	8,733.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
8,900.00	0.00	0.00	8,833.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,000.00	0.00	0.00	8,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,100.00	0.00	0.00	9,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,200.00	0.00	0.00	9,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,300.00	0.00	0.00	9,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,400.00	0.00	0.00	9,333.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Dogleg Section (usft)	Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.00	0.00	0.00	9,433.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,600.00	0.00	0.00	9,533.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,700.00	0.00	0.00	9,633.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,800.00	0.00	0.00	9,733.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
9,900.00	0.00	0.00	9,833.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,000.00	0.00	0.00	9,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,100.00	0.00	0.00	10,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,200.00	0.00	0.00	10,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,300.00	0.00	0.00	10,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,400.00	0.00	0.00	10,333.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,500.00	0.00	0.00	10,433.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,600.00	0.00	0.00	10,533.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,700.00	0.00	0.00	10,633.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,800.00	0.00	0.00	10,733.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
10,900.00	0.00	0.00	10,833.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,000.00	0.00	0.00	10,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,100.00	0.00	0.00	11,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,200.00	0.00	0.00	11,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,300.00	0.00	0.00	11,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,400.00	0.00	0.00	11,333.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,500.00	0.00	0.00	11,433.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,600.00	0.00	0.00	11,533.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,700.00	0.00	0.00	11,633.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,800.00	0.00	0.00	11,733.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
11,900.00	0.00	0.00	11,833.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
12,000.00	0.00	0.00	11,933.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
12,100.00	0.00	0.00	12,033.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
12,200.00	0.00	0.00	12,133.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
12,300.00	0.00	0.00	12,233.02	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
12,351.98	0.00	0.00	12,285.00	304.99	641.57	415,124.99	843,451.57	32.1374942	-103.3572956	-263.07	0.00	0.00	0.00
12,354.36	0.24	185.50	12,287.39	304.99	641.57	415,124.99	843,451.57	32.1374941	-103.3572956	-263.06	10.00	10.00	0.00
Junior Mint Fed 222H KOP/FTP													
12,400.00	4.80	185.50	12,332.97	302.99	641.38	415,122.99	843,451.38	32.1374887	-103.3572963	-261.08	10.00	10.00	0.00
12,450.00	9.80	185.50	12,382.55	296.66	640.77	415,116.66	843,450.77	32.1374713	-103.3572984	-254.81	10.00	10.00	0.00
12,500.00	14.80	185.50	12,431.38	286.06	639.75	415,106.06	843,449.75	32.1374422	-103.3573020	-244.30	10.00	10.00	0.00
12,550.00	19.80	185.50	12,479.10	271.27	638.32	415,091.27	843,448.32	32.1374016	-103.3573071	-229.62	10.00	10.00	0.00
12,600.00	24.80	185.50	12,525.35	252.38	636.50	415,072.38	843,446.50	32.1373497	-103.3573135	-210.90	10.00	10.00	0.00
12,650.00	29.80	185.50	12,569.76	229.56	634.31	415,049.56	843,444.31	32.1372870	-103.3573212	-188.26	10.00	10.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,700.00	34.80	185.50	12,612.01	202.98	631.75	415,022.98	843,441.75	32.1372140	-103.3573303	-161.90	10.00	10.00	0.00
12,750.00	39.80	185.50	12,651.77	172.82	628.84	414,992.82	843,438.84	32.1371312	-103.3573406	-131.99	10.00	10.00	0.00
12,800.00	44.80	185.50	12,688.74	139.34	625.62	414,959.34	843,435.62	32.1370393	-103.3573520	-98.78	10.00	10.00	0.00
12,850.00	49.80	185.50	12,722.64	102.77	622.10	414,922.77	843,432.10	32.1369388	-103.3573644	-62.52	10.00	10.00	0.00
12,900.00	54.80	185.50	12,753.20	63.40	618.31	414,883.40	843,428.31	32.1368307	-103.3573778	-23.48	10.00	10.00	0.00
12,950.00	59.80	185.50	12,780.20	21.53	614.28	414,841.53	843,424.28	32.1367157	-103.3573920	18.05	10.00	10.00	0.00
13,000.00	64.80	185.50	12,803.44	-22.52	610.03	414,797.48	843,420.03	32.1365948	-103.3574070	61.73	10.00	10.00	0.00
13,050.00	69.80	185.50	12,822.72	-68.42	605.61	414,751.58	843,415.61	32.1364687	-103.3574227	107.25	10.00	10.00	0.00
13,100.00	74.80	185.50	12,837.92	-115.82	601.05	414,704.18	843,411.05	32.1363386	-103.3574388	154.26	10.00	10.00	0.00
13,150.00	79.80	185.50	12,848.91	-164.36	596.38	414,655.64	843,406.38	32.1362053	-103.3574553	202.40	10.00	10.00	0.00
13,200.00	84.80	185.50	12,855.60	-213.66	591.63	414,606.34	843,401.63	32.1360699	-103.3574721	251.30	10.00	10.00	0.00
13,246.98	89.50	185.50	12,857.94	-260.35	587.13	414,559.65	843,397.13	32.1359416	-103.3574880	297.60	10.00	10.00	0.00
13,300.00	89.50	184.44	12,858.40	-313.17	582.54	414,506.83	843,392.54	32.1357966	-103.3575044	350.02	2.00	0.00	-2.00
13,400.00	89.50	182.44	12,859.27	-412.98	576.54	414,407.02	843,386.54	32.1355224	-103.3575267	449.23	2.00	0.00	-2.00
13,500.00	89.50	180.44	12,860.14	-512.94	574.03	414,307.06	843,384.03	32.1352477	-103.3575377	548.82	2.00	0.00	-2.00
13,546.63	89.50	179.51	12,860.55	-559.57	574.05	414,260.43	843,384.05	32.1351196	-103.3575390	595.35	2.00	0.00	-2.00
13,600.00	89.50	179.51	12,861.01	-612.94	574.51	414,207.06	843,384.51	32.1349729	-103.3575391	648.64	0.00	0.00	0.00
13,700.00	89.50	179.51	12,861.88	-712.93	575.37	414,107.07	843,385.37	32.1346980	-103.3575392	748.48	0.00	0.00	0.00
13,800.00	89.50	179.51	12,862.75	-812.92	576.23	414,007.08	843,386.23	32.1344232	-103.3575394	848.32	0.00	0.00	0.00
13,900.00	89.50	179.51	12,863.61	-912.92	577.09	413,907.08	843,387.09	32.1341483	-103.3575395	948.16	0.00	0.00	0.00
14,000.00	89.50	179.51	12,864.48	-1,012.91	577.95	413,807.09	843,387.95	32.1338734	-103.3575396	1,048.00	0.00	0.00	0.00
14,100.00	89.50	179.51	12,865.35	-1,112.90	578.81	413,707.10	843,388.81	32.1335986	-103.3575398	1,147.84	0.00	0.00	0.00
14,200.00	89.50	179.51	12,866.22	-1,212.89	579.68	413,607.11	843,389.68	32.1333237	-103.3575399	1,247.69	0.00	0.00	0.00
14,300.00	89.50	179.51	12,867.09	-1,312.89	580.54	413,507.11	843,390.54	32.1330489	-103.3575401	1,347.53	0.00	0.00	0.00
14,400.00	89.50	179.51	12,867.95	-1,412.88	581.40	413,407.12	843,391.40	32.1327740	-103.3575402	1,447.37	0.00	0.00	0.00
14,500.00	89.50	179.51	12,868.82	-1,512.87	582.26	413,307.13	843,392.26	32.1324992	-103.3575404	1,547.21	0.00	0.00	0.00
14,600.00	89.50	179.51	12,869.69	-1,612.86	583.12	413,207.14	843,393.12	32.1322243	-103.3575405	1,647.05	0.00	0.00	0.00
14,700.00	89.50	179.51	12,870.56	-1,712.86	583.98	413,107.14	843,393.98	32.1319495	-103.3575407	1,746.89	0.00	0.00	0.00
14,800.00	89.50	179.51	12,871.43	-1,812.85	584.84	413,007.15	843,394.84	32.1316746	-103.3575408	1,846.73	0.00	0.00	0.00
14,900.00	89.50	179.51	12,872.29	-1,912.84	585.70	412,907.16	843,395.70	32.1313997	-103.3575410	1,946.57	0.00	0.00	0.00
15,000.00	89.50	179.51	12,873.16	-2,012.83	586.56	412,807.17	843,396.56	32.1311249	-103.3575411	2,046.41	0.00	0.00	0.00
15,100.00	89.50	179.51	12,874.03	-2,112.83	587.42	412,707.17	843,397.42	32.1308500	-103.3575413	2,146.25	0.00	0.00	0.00
15,200.00	89.50	179.51	12,874.90	-2,212.82	588.28	412,607.18	843,398.28	32.1305752	-103.3575414	2,246.09	0.00	0.00	0.00
15,300.00	89.50	179.51	12,875.77	-2,312.81	589.14	412,507.19	843,399.14	32.1303003	-103.3575415	2,345.93	0.00	0.00	0.00
15,400.00	89.50	179.51	12,876.63	-2,412.80	590.00	412,407.20	843,400.00	32.1300255	-103.3575417	2,445.77	0.00	0.00	0.00
15,500.00	89.50	179.51	12,877.50	-2,512.80	590.86	412,307.20	843,400.86	32.1297506	-103.3575418	2,545.61	0.00	0.00	0.00
15,600.00	89.50	179.51	12,878.37	-2,612.79	591.73	412,207.21	843,401.73	32.1294758	-103.3575420	2,645.45	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Dogleg Section (usft)	Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.00	89.50	179.51	12,879.24	-2,712.78	592.59	412,107.22	843,402.59	32.1292009	-103.3575421	2,745.29	0.00	0.00	0.00
15,800.00	89.50	179.51	12,880.11	-2,812.77	593.45	412,007.23	843,403.45	32.1289260	-103.3575423	2,845.14	0.00	0.00	0.00
15,900.00	89.50	179.51	12,880.97	-2,912.77	594.31	411,907.23	843,404.31	32.1286512	-103.3575424	2,944.98	0.00	0.00	0.00
16,000.00	89.50	179.51	12,881.84	-3,012.76	595.17	411,807.24	843,405.17	32.1283763	-103.3575426	3,044.82	0.00	0.00	0.00
16,100.00	89.50	179.51	12,882.71	-3,112.75	596.03	411,707.25	843,406.03	32.1281015	-103.3575427	3,144.66	0.00	0.00	0.00
16,200.00	89.50	179.51	12,883.58	-3,212.74	596.89	411,607.26	843,406.89	32.1278266	-103.3575429	3,244.50	0.00	0.00	0.00
16,300.00	89.50	179.51	12,884.45	-3,312.74	597.75	411,507.26	843,407.75	32.1275518	-103.3575430	3,344.34	0.00	0.00	0.00
16,400.00	89.50	179.51	12,885.31	-3,412.73	598.61	411,407.27	843,408.61	32.1272769	-103.3575431	3,444.18	0.00	0.00	0.00
16,500.00	89.50	179.51	12,886.18	-3,512.72	599.47	411,307.28	843,409.47	32.1270021	-103.3575433	3,544.02	0.00	0.00	0.00
16,600.00	89.50	179.51	12,887.05	-3,612.71	600.33	411,207.29	843,410.33	32.1267272	-103.3575434	3,643.86	0.00	0.00	0.00
16,700.00	89.50	179.51	12,887.92	-3,712.71	601.19	411,107.29	843,411.19	32.1264523	-103.3575436	3,743.70	0.00	0.00	0.00
16,800.00	89.50	179.51	12,888.79	-3,812.70	602.05	411,007.30	843,412.05	32.1261775	-103.3575437	3,843.54	0.00	0.00	0.00
16,900.00	89.50	179.51	12,889.66	-3,912.69	602.91	410,907.31	843,412.91	32.1259026	-103.3575439	3,943.38	0.00	0.00	0.00
17,000.00	89.50	179.51	12,890.52	-4,012.68	603.78	410,807.32	843,413.78	32.1256278	-103.3575440	4,043.22	0.00	0.00	0.00
17,100.00	89.50	179.51	12,891.39	-4,112.68	604.64	410,707.32	843,414.64	32.1253529	-103.3575442	4,143.06	0.00	0.00	0.00
17,200.00	89.50	179.51	12,892.26	-4,212.67	605.50	410,607.33	843,415.50	32.1250781	-103.3575443	4,242.90	0.00	0.00	0.00
17,300.00	89.50	179.51	12,893.13	-4,312.66	606.36	410,507.34	843,416.36	32.1248032	-103.3575444	4,342.74	0.00	0.00	0.00
17,400.00	89.50	179.51	12,894.00	-4,412.65	607.22	410,407.35	843,417.22	32.1245284	-103.3575446	4,442.59	0.00	0.00	0.00
17,500.00	89.50	179.51	12,894.86	-4,512.65	608.08	410,307.35	843,418.08	32.1242535	-103.3575447	4,542.43	0.00	0.00	0.00
17,600.00	89.50	179.51	12,895.73	-4,612.64	608.94	410,207.36	843,418.94	32.1239786	-103.3575449	4,642.27	0.00	0.00	0.00
17,700.00	89.50	179.51	12,896.60	-4,712.63	609.80	410,107.37	843,419.80	32.1237038	-103.3575450	4,742.11	0.00	0.00	0.00
17,800.00	89.50	179.51	12,897.47	-4,812.62	610.66	410,007.38	843,420.66	32.1234289	-103.3575452	4,841.95	0.00	0.00	0.00
17,900.00	89.50	179.51	12,898.34	-4,912.62	611.52	409,907.38	843,421.52	32.1231541	-103.3575453	4,941.79	0.00	0.00	0.00
18,000.00	89.50	179.51	12,899.20	-5,012.61	612.38	409,807.39	843,422.38	32.1228792	-103.3575455	5,041.63	0.00	0.00	0.00
18,100.00	89.50	179.51	12,900.07	-5,112.60	613.24	409,707.40	843,423.24	32.1226044	-103.3575456	5,141.47	0.00	0.00	0.00
18,200.00	89.50	179.51	12,900.94	-5,212.59	614.10	409,607.41	843,424.10	32.1223295	-103.3575458	5,241.31	0.00	0.00	0.00
18,300.00	89.50	179.51	12,901.81	-5,312.59	614.96	409,507.41	843,424.96	32.1220546	-103.3575459	5,341.15	0.00	0.00	0.00
18,400.00	89.50	179.51	12,902.68	-5,412.58	615.83	409,407.42	843,425.83	32.1217798	-103.3575460	5,440.99	0.00	0.00	0.00
18,500.00	89.50	179.51	12,903.54	-5,512.57	616.69	409,307.43	843,426.69	32.1215049	-103.3575462	5,540.83	0.00	0.00	0.00
18,600.00	89.50	179.51	12,904.41	-5,612.56	617.55	409,207.44	843,427.55	32.1212301	-103.3575463	5,640.67	0.00	0.00	0.00
18,700.00	89.50	179.51	12,905.28	-5,712.56	618.41	409,107.44	843,428.41	32.1209552	-103.3575465	5,740.51	0.00	0.00	0.00
18,800.00	89.50	179.51	12,906.15	-5,812.55	619.27	409,007.45	843,429.27	32.1206804	-103.3575466	5,840.35	0.00	0.00	0.00
18,900.00	89.50	179.51	12,907.02	-5,912.54	620.13	408,907.46	843,430.13	32.1204055	-103.3575468	5,940.19	0.00	0.00	0.00
19,000.00	89.50	179.51	12,907.88	-6,012.53	620.99	408,807.47	843,430.99	32.1201307	-103.3575469	6,040.04	0.00	0.00	0.00
19,100.00	89.50	179.51	12,908.75	-6,112.53	621.85	408,707.47	843,431.85	32.1198558	-103.3575471	6,139.88	0.00	0.00	0.00
19,200.00	89.50	179.51	12,909.62	-6,212.52	622.71	408,607.48	843,432.71	32.1195809	-103.3575472	6,239.72	0.00	0.00	0.00
19,300.00	89.50	179.51	12,910.49	-6,312.51	623.57	408,507.49	843,433.57	32.1193061	-103.3575473	6,339.56	0.00	0.00	0.00
19,400.00	89.50	179.51	12,911.36	-6,412.50	624.43	408,407.50	843,434.43	32.1190312	-103.3575475	6,439.40	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	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)
19,500.00	89.50	179.51	12,912.22	-6,512.50	625.29	408,307.50	843,435.29	32.1187564	-103.3575476	6,539.24	0.00	0.00	0.00
19,600.00	89.50	179.51	12,913.09	-6,612.49	626.15	408,207.51	843,436.15	32.1184815	-103.3575478	6,639.08	0.00	0.00	0.00
19,700.00	89.50	179.51	12,913.96	-6,712.48	627.01	408,107.52	843,437.01	32.1182067	-103.3575479	6,738.92	0.00	0.00	0.00
19,800.00	89.50	179.51	12,914.83	-6,812.47	627.88	408,007.53	843,437.88	32.1179318	-103.3575481	6,838.76	0.00	0.00	0.00
19,900.00	89.50	179.51	12,915.70	-6,912.47	628.74	407,907.53	843,438.74	32.1176570	-103.3575482	6,938.60	0.00	0.00	0.00
20,000.00	89.50	179.51	12,916.56	-7,012.46	629.60	407,807.54	843,439.60	32.1173821	-103.3575484	7,038.44	0.00	0.00	0.00
20,100.00	89.50	179.51	12,917.43	-7,112.45	630.46	407,707.55	843,440.46	32.1171072	-103.3575485	7,138.28	0.00	0.00	0.00
20,200.00	89.50	179.51	12,918.30	-7,212.44	631.32	407,607.56	843,441.32	32.1168324	-103.3575486	7,238.12	0.00	0.00	0.00
20,300.00	89.50	179.51	12,919.17	-7,312.44	632.18	407,507.56	843,442.18	32.1165575	-103.3575488	7,337.96	0.00	0.00	0.00
20,400.00	89.50	179.51	12,920.04	-7,412.43	633.04	407,407.57	843,443.04	32.1162827	-103.3575489	7,437.80	0.00	0.00	0.00
20,500.00	89.50	179.51	12,920.90	-7,512.42	633.90	407,307.58	843,443.90	32.1160078	-103.3575491	7,537.64	0.00	0.00	0.00
20,600.00	89.50	179.51	12,921.77	-7,612.41	634.76	407,207.59	843,444.76	32.1157330	-103.3575492	7,637.49	0.00	0.00	0.00
20,700.00	89.50	179.51	12,922.64	-7,712.41	635.62	407,107.59	843,445.62	32.1154581	-103.3575494	7,737.33	0.00	0.00	0.00
20,800.00	89.50	179.51	12,923.51	-7,812.40	636.48	407,007.60	843,446.48	32.1151832	-103.3575495	7,837.17	0.00	0.00	0.00
20,900.00	89.50	179.51	12,924.38	-7,912.39	637.34	406,907.61	843,447.34	32.1149084	-103.3575497	7,937.01	0.00	0.00	0.00
21,000.00	89.50	179.51	12,925.24	-8,012.39	638.20	406,807.62	843,448.20	32.1146335	-103.3575498	8,036.85	0.00	0.00	0.00
21,100.00	89.50	179.51	12,926.11	-8,112.38	639.06	406,707.62	843,449.06	32.1143587	-103.3575499	8,136.69	0.00	0.00	0.00
21,200.00	89.50	179.51	12,926.98	-8,212.37	639.93	406,607.63	843,449.93	32.1140838	-103.3575501	8,236.53	0.00	0.00	0.00
21,300.00	89.50	179.51	12,927.85	-8,312.36	640.79	406,507.64	843,450.79	32.1138090	-103.3575502	8,336.37	0.00	0.00	0.00
21,400.00	89.50	179.51	12,928.72	-8,412.36	641.65	406,407.65	843,451.65	32.1135341	-103.3575504	8,436.21	0.00	0.00	0.00
21,500.00	89.50	179.51	12,929.58	-8,512.35	642.51	406,307.65	843,452.51	32.1132592	-103.3575505	8,536.05	0.00	0.00	0.00
21,600.00	89.50	179.51	12,930.45	-8,612.34	643.37	406,207.66	843,453.37	32.1129844	-103.3575507	8,635.89	0.00	0.00	0.00
21,700.00	89.50	179.51	12,931.32	-8,712.33	644.23	406,107.67	843,454.23	32.1127095	-103.3575508	8,735.73	0.00	0.00	0.00
21,800.00	89.50	179.51	12,932.19	-8,812.33	645.09	406,007.67	843,455.09	32.1124347	-103.3575510	8,835.57	0.00	0.00	0.00
21,900.00	89.50	179.51	12,933.06	-8,912.32	645.95	405,907.68	843,455.95	32.1121598	-103.3575511	8,935.41	0.00	0.00	0.00
22,000.00	89.50	179.51	12,933.92	-9,012.31	646.81	405,807.69	843,456.81	32.1118850	-103.3575512	9,035.25	0.00	0.00	0.00
22,100.00	89.50	179.51	12,934.79	-9,112.30	647.67	405,707.70	843,457.67	32.1116101	-103.3575514	9,135.09	0.00	0.00	0.00
22,200.00	89.50	179.51	12,935.66	-9,212.30	648.53	405,607.70	843,458.53	32.1113353	-103.3575515	9,234.94	0.00	0.00	0.00
22,300.00	89.50	179.51	12,936.53	-9,312.29	649.39	405,507.71	843,459.39	32.1110604	-103.3575517	9,334.78	0.00	0.00	0.00
22,400.00	89.50	179.51	12,937.40	-9,412.28	650.25	405,407.72	843,460.25	32.1107855	-103.3575518	9,434.62	0.00	0.00	0.00
22,500.00	89.50	179.51	12,938.26	-9,512.27	651.11	405,307.73	843,461.11	32.1105107	-103.3575520	9,534.46	0.00	0.00	0.00
22,600.00	89.50	179.51	12,939.13	-9,612.27	651.98	405,207.73	843,461.98	32.1102358	-103.3575521	9,634.30	0.00	0.00	0.00
22,700.00	89.50	179.51	12,940.00	-9,712.26	652.84	405,107.74	843,462.84	32.1099610	-103.3575523	9,734.14	0.00	0.00	0.00
22,800.00	89.50	179.51	12,940.87	-9,812.25	653.70	405,007.75	843,463.70	32.1096861	-103.3575524	9,833.98	0.00	0.00	0.00
22,900.00	89.50	179.51	12,941.74	-9,912.24	654.56	404,907.76	843,464.56	32.1094113	-103.3575525	9,933.82	0.00	0.00	0.00
23,000.00	89.50	179.51	12,942.61	-10,012.24	655.42	404,807.76	843,465.42	32.1091364	-103.3575527	10,033.66	0.00	0.00	0.00
23,088.77	89.50	179.51	12,943.38	-10,101.00	656.18	404,719.00	843,466.18	32.1088924	-103.3575528	10,122.29	0.00	0.00	0.00

Total Directional Planned Survey Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	.Total Directional Production DB

Planned Survey

Measured Depth	INC	AZI	Vertical Depth	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical Dogleg	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude (°)	Longituge (°)	(usft)	(°/100usft)	(°/100usft)
Junior Mint Fed 222H LTP												
23,100.00	89.50	179.51	12,943.47	-10,112.23	656.28	404,707.77	843,466.28	32.1088615	-103.3575528	10,133.50	0.00	0.00
23,183.78	89.50	179.51	12,944.20	-10,196.00	657.00	404,624.00	843,467.00	32.1086313	-103.3575530	10,217.15	0.00	0.00
Junior Mint Fed 222H BHL												

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Junior Mint Fed 222H - plan misses target center by 89.78usft at 12352.10usft MD (12285.12 TVD, 304.99 N, 641.57 E) - Point	0.00	0.00	12,285.00	255.00	567.00	415,075.00	843,377.00	32.1373586	-103.3575379
Junior Mint Fed 222H - plan misses target center by 0.46usft at 23088.77usft MD (12943.38 TVD, -10101.00 N, 656.18 E) - Point	0.00	0.00	12,943.80	-10,101.00	656.00	404,719.00	843,466.00	32.1088924	-103.3575534
Junior Mint Fed 222H - plan hits target center - Point	0.00	0.00	12,944.20	-10,196.00	657.00	404,624.00	843,467.00	32.1086313	-103.3575530

Checked By: _____ Approved By: _____ Date: _____

Civitas Resources

Lea County, NM (NAD 83)
Junior Mint Fed Pad
Junior Mint Fed 222H

OH
Plan 1



Anticollision Report

Minimum Magnetic Interference Warning level is 50' center to center

28 March, 2025

Total Report Version 1.60

COMPASS 5000.16 Build 97

Total Directional

Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Reference	Plan 1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum centre distance of 1,982.71usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Well	Junior Mint Fed 222H					
Well Position	+N/-S	0.00 usft	Northing:	414,820.00 usft	Latitude:	32.1366718
	+E/-W	0.00 usft	Easting:	842,810.00 usft	Longitude:	-103.3593769
Position Uncertainty		0.50 usft	Wellhead Elevation:	usft	Ground Level:	3,220.00 usft
Grid Convergence:		0.52 °				

Survey Tool Program		Date	3/24/2025	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	23,183.56	Plan 1 (OH)	MWD+HRGM+SAG+FDIF	OWSG MWD + HRGM + SAG + FDIR Correction

Offset Listing								
Site Name	Ground LevelKB Height		Map Coordinates		Geographical Coordinates		Surface Uncertainty	
Offset Well			Northing	Easting	Latitude	Longitude	Site	Well
Civitas Resources - Junior Mint Fed Pad								
(O) Montera Federal 023H -	3,221.00	3,250.00	415,363.56	843,044.05	32.1381600	-103.3586050	0.00	0.00
Junior Mint Fed 131H -	3,221.00	3,247.00	414,635.00	842,835.00	32.1361627	-103.3593016	0.00	0.50
Junior Mint Fed 132H -	3,220.00	3,246.00	414,820.00	842,835.00	32.1366712	-103.3592962	0.00	0.50
Junior Mint Fed 133H -	3,223.00	3,249.00	415,726.00	845,129.00	32.1391042	-103.3518593	0.00	0.50
Junior Mint Fed 134H -	3,221.00	3,247.00	415,566.00	845,129.00	32.1386644	-103.3518640	0.00	0.50
Junior Mint Fed 135H -	3,220.00	3,246.00	414,660.00	842,835.00	32.1362315	-103.3593009	0.00	0.50
Junior Mint Fed 137H -	3,220.00	3,246.00	414,845.00	842,835.00	32.1367399	-103.3592955	0.00	0.50
Junior Mint Fed 151H -	3,221.00	3,247.00	414,685.00	842,835.00	32.1363002	-103.3593001	0.00	0.50
Junior Mint Fed 152H -	3,220.00	3,246.00	414,870.00	842,835.00	32.1368087	-103.3592947	0.00	0.50
Junior Mint Fed 156H -	3,223.00	3,249.00	415,701.00	845,129.00	32.1390354	-103.3518600	0.00	0.50
Junior Mint Fed 211H -	3,221.00	3,247.00	414,660.00	842,810.00	32.1362321	-103.3593816	0.00	0.50
Junior Mint Fed 212H -	3,220.00	3,246.00	414,845.00	842,810.00	32.1367406	-103.3593762	0.00	0.50
Junior Mint Fed 213H -	3,222.00	3,248.00	415,701.00	845,154.00	32.1390348	-103.3517793	0.00	0.50
Junior Mint Fed 214H -	3,220.00	3,246.00	415,541.00	845,154.00	32.1385951	-103.3517840	0.00	0.50
Junior Mint Fed 215H -	3,220.00	3,246.00	414,685.00	842,810.00	32.1363008	-103.3593809	0.00	0.50
Junior Mint Fed 216H -	3,223.00	3,249.00	415,751.00	845,129.00	32.1391729	-103.3518586	0.00	0.50
Junior Mint Fed 217H -	3,221.00	3,247.00	414,870.00	842,810.00	32.1368093	-103.3593755	0.00	0.50
Junior Mint Fed 221H -	3,221.00	3,247.00	414,635.00	842,810.00	32.1361634	-103.3593824	0.00	0.50
Junior Mint Fed 223H -	3,223.00	3,249.00	415,751.00	845,154.00	32.1391723	-103.3517778	0.00	0.50

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
Junior Mint Fed Pad						
(O) Montera Federal 023H - OH - OH	4,518.47	4,475.00	382.36	356.13	14.58	CC
(O) Montera Federal 023H - OH - OH	10,100.00	10,040.83	406.15	354.82	7.91	ES
(O) Montera Federal 023H - OH - OH	11,100.00	11,029.13	422.91	367.41	7.62	SF
Junior Mint Fed 131H - OH - Plan 1	2,064.39	2,071.20	175.11	163.85	15.55	CC
Junior Mint Fed 131H - OH - Plan 1	2,100.00	2,106.39	175.22	163.84	15.40	ES
Junior Mint Fed 131H - OH - Plan 1	23,184.44	22,485.80	1,554.09	1,301.48	6.15	SF
Junior Mint Fed 132H - OH - Plan 1	800.00	800.00	25.00	18.20	3.68	CC, ES
Junior Mint Fed 132H - OH - Plan 1	5,000.00	4,988.76	56.67	32.96	2.39	SF
Junior Mint Fed 133H - OH - Plan 1	11,792.25	11,788.06	1,274.11	1,240.30	37.68	CC
Junior Mint Fed 133H - OH - Plan 1	11,800.00	11,795.13	1,274.12	1,240.28	37.65	ES
Junior Mint Fed 133H - OH - Plan 1	23,184.44	22,381.08	1,555.14	1,297.28	6.03	SF
Junior Mint Fed 134H - OH - Plan 1	5,999.98	5,968.18	1,960.74	1,935.94	79.05	CC
Junior Mint Fed 134H - OH - Plan 1	11,700.00	11,663.22	1,961.19	1,928.91	60.75	ES
Junior Mint Fed 134H - OH - Plan 1	12,100.00	11,950.00	1,974.59	1,941.04	58.85	SF
Junior Mint Fed 135H - OH - Plan 1	2,063.55	2,073.34	75.34	63.94	6.61	CC, ES
Junior Mint Fed 135H - OH - Plan 1	23,184.44	22,411.61	1,021.71	812.00	4.87	SF
Junior Mint Fed 137H - OH - Plan 1	300.00	300.00	35.36	31.39	8.92	CC, ES
Junior Mint Fed 137H - OH - Plan 1	23,184.44	22,512.90	951.24	746.65	4.65	SF
Junior Mint Fed 151H - OH - Plan 1	1,460.66	1,465.49	112.52	103.10	11.95	CC, ES
Junior Mint Fed 151H - OH - Plan 1	23,184.44	22,008.51	1,914.47	1,685.19	8.35	SF
Junior Mint Fed 152H - OH - Plan 1	300.00	300.00	55.90	51.94	14.11	CC, ES
Junior Mint Fed 152H - OH - Plan 1	4,529.35	4,512.22	108.79	87.61	5.14	SF
Junior Mint Fed 156H - OH - Plan 1	5,999.97	5,992.37	1,414.73	1,389.23	55.47	CC
Junior Mint Fed 156H - OH - Plan 1	11,200.00	11,190.73	1,415.07	1,383.00	44.12	ES
Junior Mint Fed 156H - OH - Plan 1	23,184.44	21,915.93	1,975.37	1,741.27	8.44	SF
Junior Mint Fed 211H - OH - Plan 1	1,173.87	1,177.37	147.52	139.19	17.72	CC
Junior Mint Fed 211H - OH - Plan 1	1,200.00	1,203.39	147.54	139.11	17.50	ES
Junior Mint Fed 211H - OH - Plan 1	23,184.44	22,897.27	1,682.36	1,406.95	6.11	SF
Junior Mint Fed 212H - OH - Plan 1	1,652.53	1,652.49	24.81	14.76	2.47	CC
Junior Mint Fed 212H - OH - Plan 1	1,700.00	1,699.91	24.91	14.71	2.44	ES
Junior Mint Fed 212H - OH - Plan 1	23,184.44	22,796.26	474.90	264.90	2.26	SF
Junior Mint Fed 213H - OH - Plan 1	5,999.97	6,048.47	920.73	893.07	33.30	CC
Junior Mint Fed 213H - OH - Plan 1	23,184.44	22,823.46	1,091.75	819.74	4.01	ES, SF
Junior Mint Fed 214H - OH - Plan 1						Out of range
Junior Mint Fed 215H - OH - Plan 1	1,502.05	1,507.11	88.02	78.46	9.21	CC, ES
Junior Mint Fed 215H - OH - Plan 1	23,184.44	22,806.75	1,001.28	735.93	3.77	SF
Junior Mint Fed 216H - OH - Plan 1	11,906.95	11,874.05	1,631.02	1,598.21	49.70	CC
Junior Mint Fed 216H - OH - Plan 1	23,184.44	22,716.73	1,772.86	1,487.32	6.21	ES, SF
Junior Mint Fed 217H - OH - Plan 1	1,094.44	1,095.46	49.97	42.00	6.27	CC
Junior Mint Fed 217H - OH - Plan 1	1,200.00	1,200.85	50.19	41.82	6.00	ES
Junior Mint Fed 217H - OH - Plan 1	23,184.44	22,875.30	516.37	291.04	2.29	SF
Junior Mint Fed 221H - OH - Plan 1	1,760.90	1,770.01	139.20	128.73	13.29	CC, ES
Junior Mint Fed 221H - OH - Plan 1	23,184.44	23,192.52	1,320.07	1,040.53	4.72	SF
Junior Mint Fed 223H - OH - Plan 1	12,212.54	12,222.33	1,150.01	1,115.16	33.00	CC
Junior Mint Fed 223H - OH - Plan 1	23,184.44	23,131.51	1,333.56	1,040.71	4.55	ES, SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Montera Federal 023H - OH - OH

Survey Program: 100-3_Gyro-NS-CT_OWGS, 11638-3_MWD
 Reference: 100-3_Gyro-NS-CT_OWGS, 11638-3_MWD
 Rule Assigned: CC
 Offset Site Error: 0.00 usft
 Offset Well Error: 0.00 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)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	4.11	0.11	0.50	0.01	23.30	543.56	234.06	591.81			
100.00	100.00	106.63	102.63	0.98	0.15	23.30	543.33	233.96	591.57	590.44	1.13	524.025
200.00	200.00	206.45	202.45	1.56	0.50	23.30	542.98	233.86	591.21	589.15	2.06	287.166
300.00	300.00	307.62	303.62	1.98	0.85	23.30	542.51	233.64	590.69	587.86	2.83	208.467
400.00	400.00	408.09	404.08	2.33	1.20	23.29	541.90	233.32	590.01	586.48	3.53	166.952
500.00	500.00	508.78	504.77	2.63	1.56	23.24	541.46	232.54	589.30	585.11	4.19	140.586
600.00	600.00	609.31	605.29	2.91	1.91	23.15	541.04	231.28	588.42	583.60	4.82	122.097
700.00	700.00	708.52	704.50	3.16	2.26	23.05	540.62	230.06	587.55	582.13	5.42	108.394
800.00	800.00	804.39	800.35	3.40	2.59	22.96	540.65	229.06	587.17	581.18	5.99	97.987
805.51	805.51	809.54	805.51	3.41	2.61	22.96	540.67	229.00	587.17	581.15	6.02	97.494
900.00	900.00	901.15	897.12	3.62	2.93	22.86	541.37	228.19	587.50	580.95	6.55	89.664
1,000.00	1,000.00	1,000.89	996.85	3.84	3.28	22.76	542.19	227.50	587.99	580.88	7.11	82.685
1,100.00	1,100.00	1,102.25	1,098.20	4.04	3.63	22.67	542.94	226.75	588.39	580.72	7.67	76.743
1,200.00	1,200.00	1,202.62	1,198.56	4.23	3.98	22.56	543.65	225.85	588.70	580.48	8.21	71.689
1,300.00	1,300.00	1,303.25	1,299.19	4.42	4.34	22.45	544.21	224.88	588.84	580.09	8.75	67.289
1,400.00	1,400.00	1,402.36	1,398.30	4.60	4.68	22.36	544.85	224.12	589.15	579.87	9.28	63.498
1,500.00	1,500.00	1,502.02	1,497.95	4.78	5.03	22.28	545.45	223.45	589.45	579.64	9.80	60.137
1,600.00	1,599.99	1,601.40	1,597.33	4.98	5.38	-60.90	546.05	222.95	589.18	578.86	10.32	57.089
1,700.00	1,699.91	1,700.23	1,696.15	5.17	5.72	-61.30	546.81	222.68	587.89	577.06	10.82	54.310
1,800.00	1,799.69	1,799.38	1,795.30	5.36	6.07	-61.92	547.60	222.68	585.52	574.19	11.33	51.686
1,900.00	1,899.32	1,898.65	1,894.56	5.44	6.42	-62.69	548.36	222.82	582.29	570.54	11.75	49.547
2,000.00	1,998.94	1,998.34	1,994.25	5.59	6.76	-63.44	549.10	223.21	579.17	566.92	12.25	47.275
2,100.00	2,098.56	2,097.20	2,093.11	5.75	7.11	-64.19	549.80	223.69	576.14	563.39	12.75	45.198
2,200.00	2,198.18	2,197.74	2,193.64	5.91	7.46	-64.95	550.48	224.21	573.20	559.94	13.25	43.253
2,300.00	2,297.70	2,295.77	2,291.67	6.08	7.80	-58.32	551.10	225.15	569.37	555.62	13.75	41.410
2,400.00	2,396.96	2,393.97	2,389.86	6.26	8.14	-54.34	551.84	226.42	563.67	549.41	14.26	39.529
2,500.00	2,495.89	2,491.83	2,487.70	6.45	8.49	-52.02	552.73	228.03	556.21	541.43	14.78	37.641
2,600.00	2,594.44	2,587.63	2,583.47	6.64	8.82	-50.77	553.97	230.09	547.28	531.99	15.29	35.787
2,700.00	2,692.52	2,683.67	2,679.46	6.84	9.16	-50.32	555.60	232.48	536.99	521.17	15.82	33.937
2,800.00	2,790.33	2,794.75	2,790.49	7.01	9.55	-51.97	557.23	235.30	525.83	509.43	16.39	32.073
2,900.00	2,888.15	2,875.68	2,871.37	7.18	9.84	-53.23	558.46	237.60	514.97	498.10	16.87	30.534
3,000.00	2,985.97	2,973.75	2,969.34	7.35	10.19	-54.78	561.27	240.84	505.95	488.54	17.41	29.067
3,100.00	3,083.78	3,082.32	3,077.82	7.53	10.57	-56.50	563.12	244.86	496.22	478.23	17.99	27.577
3,200.00	3,181.60	3,179.57	3,174.99	7.70	10.92	-58.09	563.98	248.47	486.08	467.53	18.55	26.211
3,300.00	3,279.41	3,277.93	3,273.28	7.88	11.26	-59.76	565.05	252.12	476.55	457.44	19.11	24.942
3,400.00	3,377.23	3,381.95	3,377.26	8.07	11.63	-61.73	565.58	254.91	466.85	447.16	19.69	23.712
3,500.00	3,475.05	3,479.85	3,475.15	8.29	11.97	-63.80	565.65	256.42	457.24	436.99	20.25	22.575
3,600.00	3,572.86	3,577.46	3,572.76	8.52	12.31	-66.03	565.66	257.29	448.25	427.42	20.82	21.527
3,700.00	3,670.68	3,675.06	3,670.36	8.75	12.65	-68.38	565.81	257.81	440.15	418.76	21.40	20.572
3,800.00	3,768.49	3,773.54	3,768.83	8.99	13.00	-70.86	565.83	258.18	432.76	410.78	21.98	19.693
3,900.00	3,866.31	3,870.89	3,866.18	9.23	13.34	-73.32	566.00	259.02	426.26	403.70	22.56	18.898
4,000.00	3,964.13	3,974.25	3,969.47	9.47	13.70	-75.65	566.05	262.65	419.93	396.77	23.16	18.131
4,100.00	4,061.94	4,075.82	4,070.84	9.71	14.07	-77.66	565.67	269.00	413.16	389.39	23.77	17.384
4,200.00	4,159.76	4,187.03	4,181.74	9.95	14.47	-79.82	564.09	277.12	405.68	381.29	24.39	16.635
4,300.00	4,257.57	4,290.14	4,284.49	10.20	14.84	-82.07	559.67	284.34	396.02	371.03	24.98	15.850
4,400.00	4,355.39	4,381.61	4,375.75	10.45	15.16	-84.83	554.06	286.52	386.94	361.37	25.57	15.132
4,500.00	4,453.21	4,460.90	4,454.91	10.70	15.44	-87.80	550.42	284.20	382.48	356.35	26.13	14.639
4,518.47	4,471.28	4,475.00	4,468.99	10.75	15.49	-88.35	550.10	283.52	382.36	356.13	26.22	14.581 CC
4,600.00	4,551.02	4,540.27	4,534.17	10.95	15.72	-90.80	550.35	280.19	384.43	357.80	26.63	14.436
4,700.00	4,648.84	4,637.65	4,631.40	11.21	16.07	-93.92	554.46	276.81	390.77	363.57	27.20	14.365
4,800.00	4,746.65	4,765.35	4,758.79	11.46	16.53	-96.63	559.16	283.28	392.99	365.06	27.93	14.072
4,900.00	4,844.47	4,879.96	4,872.78	11.72	16.96	-98.65	559.65	295.04	390.17	361.62	28.55	13.664

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Monter Federal 023H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-3_Gyro-NS-CT_OWSG, 11638-3_MWD												Rule Assigned:			
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)					
5,000.00	4,942.29	4,976.36	4,968.86	11.98	17.31	-101.13	555.85	301.69	386.39	357.25	29.13	13.263			
5,078.87	5,019.43	5,045.30	5,037.69	12.18	17.55	-103.18	552.88	304.40	385.22	355.65	29.57	13.027			
5,100.00	5,040.10	5,064.80	5,057.17	12.24	17.62	-103.79	552.08	304.82	385.29	355.60	29.69	12.978			
5,200.00	5,137.97	5,154.11	5,146.40	12.46	17.93	-106.67	548.60	305.91	387.07	356.89	30.18	12.824			
5,300.00	5,236.26	5,241.62	5,233.87	12.70	18.23	-109.37	546.20	304.71	391.92	361.24	30.68	12.775			
5,400.00	5,334.99	5,336.72	5,328.92	12.92	18.57	-111.88	545.06	302.02	398.87	367.69	31.18	12.792			
5,500.00	5,434.11	5,435.20	5,427.36	13.11	18.92	-114.04	544.21	299.21	405.74	374.05	31.68	12.806			
5,600.00	5,533.54	5,534.38	5,526.49	13.28	19.27	-115.79	543.45	296.41	412.02	379.84	32.18	12.805			
5,700.00	5,633.22	5,635.81	5,627.89	13.43	19.63	-117.15	542.67	293.94	417.12	384.45	32.67	12.768			
5,800.00	5,733.07	5,736.99	5,729.05	13.56	19.98	-118.09	541.95	292.06	420.75	387.61	33.14	12.695			
5,900.00	5,833.02	5,836.84	5,828.89	13.66	20.33	-118.67	541.17	290.37	423.04	389.45	33.60	12.591			
6,000.00	5,933.02	5,936.93	5,928.96	13.71	20.68	-56.26	540.53	288.89	424.12	390.12	33.99	12.477			
6,100.00	6,033.02	6,036.76	6,028.78	13.78	21.03	-56.43	539.97	287.44	425.01	390.60	34.41	12.352			
6,200.00	6,133.02	6,139.15	6,131.16	13.85	21.39	-56.63	539.14	286.04	425.71	390.87	34.84	12.219			
6,300.00	6,233.02	6,240.13	6,232.12	13.92	21.74	-56.83	538.10	284.88	426.11	390.84	35.26	12.083			
6,400.00	6,333.02	6,340.85	6,332.83	14.00	22.09	-57.03	536.96	283.96	426.25	390.57	35.69	11.944			
6,500.00	6,433.02	6,440.61	6,432.59	14.07	22.44	-57.19	536.01	283.21	426.37	390.27	36.10	11.810			
6,600.00	6,533.02	6,540.85	6,532.82	14.14	22.79	-57.34	535.14	282.58	426.43	389.90	36.52	11.675			
6,700.00	6,633.02	6,640.95	6,632.92	14.22	23.14	-57.46	534.42	282.01	426.52	389.58	36.94	11.545			
6,800.00	6,733.02	6,740.97	6,732.93	14.29	23.48	-57.58	533.67	281.49	426.56	389.19	37.36	11.417			
6,900.00	6,833.02	6,840.54	6,832.50	14.36	23.83	-57.69	533.01	280.99	426.63	388.85	37.78	11.293			
7,000.00	6,933.02	6,941.46	6,933.42	14.44	24.18	-57.80	532.31	280.60	426.58	388.38	38.20	11.166			
7,100.00	7,033.02	7,041.27	7,033.22	14.51	24.53	-57.87	531.79	280.43	426.45	387.83	38.62	11.042			
7,200.00	7,133.02	7,141.68	7,133.63	14.59	24.87	-57.95	531.23	280.28	426.28	387.24	39.04	10.918			
7,300.00	7,233.02	7,242.95	7,234.90	14.66	25.23	-58.04	530.49	280.20	425.96	386.50	39.47	10.793			
7,400.00	7,333.02	7,342.05	7,333.99	14.73	25.57	-58.09	529.98	280.25	425.65	385.77	39.88	10.672			
7,500.00	7,433.02	7,442.16	7,434.10	14.81	25.92	-58.12	529.64	280.37	425.36	385.06	40.30	10.554			
7,600.00	7,533.02	7,542.64	7,534.58	14.88	26.27	-58.13	529.35	280.71	424.92	384.20	40.73	10.434			
7,700.00	7,633.02	7,641.89	7,633.84	14.96	26.61	-58.12	529.25	280.93	424.68	383.53	41.14	10.322			
7,800.00	7,733.02	7,742.00	7,733.95	15.03	26.96	-58.10	529.30	281.24	424.44	382.87	41.57	10.211			
7,900.00	7,833.02	7,841.78	7,833.72	15.11	27.31	-58.03	529.60	281.65	424.25	382.27	41.99	10.104			
8,000.00	7,933.02	7,941.44	7,933.38	15.18	27.65	-57.95	530.11	282.05	424.18	381.77	42.41	10.002			
8,100.00	8,033.02	8,041.69	8,033.63	15.26	28.00	-57.83	530.70	282.68	423.96	381.13	42.83	9.898			
8,200.00	8,133.02	8,141.99	8,133.93	15.33	28.35	-57.70	531.45	283.38	423.78	380.52	43.26	9.796			
8,300.00	8,233.02	8,242.24	8,234.17	15.41	28.70	-57.56	532.19	284.16	423.51	379.83	43.69	9.694			
8,400.00	8,333.02	8,342.57	8,334.48	15.48	29.05	-57.40	533.06	284.95	423.32	379.20	44.11	9.596			
8,500.00	8,433.02	8,441.84	8,433.75	15.56	29.40	-57.23	533.97	285.81	423.08	378.54	44.54	9.499			
8,600.00	8,533.02	8,542.22	8,534.12	15.63	29.75	-57.05	534.98	286.77	422.82	377.86	44.97	9.403			
8,700.00	8,633.02	8,643.04	8,634.93	15.71	30.10	-56.85	536.01	287.80	422.53	377.13	45.40	9.308			
8,800.00	8,733.02	8,742.96	8,734.84	15.78	30.45	-56.69	536.81	288.78	422.15	376.33	45.82	9.213			
8,900.00	8,833.02	8,842.32	8,834.20	15.86	30.80	-56.53	537.66	289.71	421.83	375.59	46.25	9.121			
9,000.00	8,933.02	8,944.35	8,936.21	15.93	31.15	-56.33	538.58	290.96	421.32	374.63	46.68	9.025			
9,100.00	9,033.02	9,049.48	9,041.32	16.01	31.52	-56.10	539.20	293.04	419.99	372.87	47.13	8.912			
9,200.00	9,133.02	9,152.21	9,144.01	16.08	31.89	-55.89	539.01	296.04	417.46	369.90	47.56	8.777			
9,300.00	9,233.02	9,252.03	9,243.78	16.16	32.24	-55.68	538.80	299.02	414.87	366.88	47.99	8.645			
9,400.00	9,333.02	9,352.67	9,344.38	16.23	32.60	-55.51	538.32	301.95	412.21	363.79	48.42	8.514			
9,500.00	9,433.02	9,452.17	9,443.83	16.31	32.95	-55.39	537.43	304.72	409.41	360.57	48.84	8.383			
9,600.00	9,533.02	9,547.74	9,539.38	16.38	33.28	-55.43	535.95	306.43	407.07	357.82	49.25	8.265			
9,700.00	9,633.02	9,643.04	9,634.65	16.46	33.61	-55.71	533.89	305.84	406.34	356.69	49.65	8.183			
9,800.00	9,733.02	9,741.92	9,733.51	16.54	33.96	-56.04	531.88	304.71	406.14	356.07	50.07	8.111			
9,896.85	9,829.88	9,838.32	9,829.88	16.61	34.29	-56.37	529.90	303.49	406.06	355.59	50.48	8.044			
9,900.00	9,833.02	9,841.42	9,832.98	16.61	34.31	-56.38	529.84	303.44	406.06	355.57	50.49	8.042			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - (O) Monter Federal 023H - OH - OH

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-3_Gyro-NS-CT_OWSG, 11638-3_MWD										Rule Assigned:					
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)	Between Ellipses (usft)	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)							
10,000.00	9,933.02	9,941.52	9,933.03	16.69	34.66	-56.78	527.46	301.86	406.07	355.16	50.91	7.976			
10,017.02	9,950.05	9,958.54	9,950.05	16.70	34.72	-56.85	527.02	301.58	406.07	355.08	50.98	7.965			
10,100.00	10,033.02	10,040.83	10,032.30	16.76	35.01	-57.21	524.98	300.15	406.15	354.82	51.33	7.913	ES		
10,200.00	10,133.02	10,136.72	10,128.14	16.84	35.34	-57.62	522.88	298.02	406.85	355.12	51.73	7.864			
10,300.00	10,233.02	10,233.74	10,225.12	16.92	35.69	-57.94	521.79	295.46	408.48	356.34	52.14	7.834			
10,400.00	10,333.02	10,334.74	10,326.08	16.99	36.05	-58.22	521.10	292.82	410.34	357.77	52.57	7.806			
10,500.00	10,433.02	10,435.59	10,426.91	17.07	36.40	-58.45	520.53	290.54	411.97	358.98	52.99	7.774			
10,600.00	10,533.02	10,536.24	10,527.54	17.15	36.75	-58.59	520.41	288.84	413.34	359.92	53.42	7.738			
10,700.00	10,633.02	10,635.31	10,626.60	17.22	37.10	-58.62	520.97	287.47	414.82	360.99	53.84	7.705			
10,800.00	10,733.02	10,733.71	10,724.98	17.30	37.44	-58.71	521.30	285.65	416.58	362.33	54.25	7.679			
10,900.00	10,833.02	10,833.91	10,825.16	17.37	37.80	-58.85	521.43	283.49	418.48	363.81	54.67	7.654			
11,000.00	10,933.02	10,932.69	10,923.91	17.45	38.15	-59.00	521.51	281.26	420.46	365.37	55.09	7.632			
11,100.00	11,033.02	11,029.13	11,020.32	17.53	38.49	-59.16	521.72	278.64	422.91	367.41	55.50	7.620	SF		
11,200.00	11,133.02	11,117.88	11,108.98	17.60	38.80	-59.31	522.70	274.80	427.20	371.33	55.87	7.646			
11,300.00	11,233.02	11,206.32	11,197.19	17.68	39.12	-59.29	526.03	269.50	434.26	378.02	56.23	7.722			
11,400.00	11,333.02	11,308.24	11,298.74	17.76	39.48	-59.09	531.73	262.87	442.72	386.05	56.67	7.812			
11,500.00	11,433.02	11,411.60	11,401.82	17.83	39.84	-58.83	537.22	257.59	449.82	392.71	57.12	7.875			
11,600.00	11,533.02	11,512.06	11,502.01	17.91	40.20	-58.58	542.51	252.73	456.70	399.15	57.55	7.936			
11,700.00	11,633.02	11,617.58	11,607.30	17.99	40.50	-58.34	547.60	248.07	463.00	405.06	57.94	7.992			
11,800.00	11,733.02	11,725.63	11,715.23	18.06	40.55	-58.15	551.63	244.59	467.70	409.64	58.06	8.055			
11,900.00	11,833.02	11,827.66	11,817.15	18.14	40.55	-57.80	555.86	243.27	470.98	412.83	58.15	8.099			
12,000.00	11,933.02	11,898.00	11,887.09	18.22	40.56	-57.01	563.20	243.76	476.48	418.26	58.22	8.184			
12,100.00	12,033.02	11,960.00	11,947.47	18.30	40.57	-55.62	577.05	243.95	489.32	431.05	58.27	8.397			
12,200.00	12,133.02	12,023.00	12,006.61	18.37	40.58	-53.55	598.67	244.00	510.18	451.85	58.33	8.746			
12,300.00	12,233.02	12,086.00	12,062.95	18.45	40.60	-50.98	626.75	244.54	538.59	480.19	58.40	9.222			
12,400.00	12,332.97	12,118.00	12,090.06	18.52	40.61	123.18	643.75	244.44	576.78	518.44	58.34	9.886			
12,500.00	12,431.38	12,163.87	12,127.35	18.56	40.62	120.67	670.44	243.79	630.05	571.71	58.34	10.799			
12,600.00	12,525.35	12,193.79	12,150.63	18.58	40.63	115.14	689.22	243.29	697.03	638.70	58.34	11.949			
12,700.00	12,612.01	12,213.70	12,165.62	18.59	40.64	105.78	702.32	243.24	774.30	715.93	58.37	13.266			
12,800.00	12,688.74	12,226.14	12,174.83	18.62	40.64	92.03	710.68	243.38	858.27	799.81	58.46	14.681			
12,900.00	12,753.20	12,223.03	12,172.54	18.67	40.64	73.96	708.58	243.33	945.53	886.96	58.57	16.143			
13,000.00	12,803.44	12,212.00	12,164.36	18.75	40.64	56.59	701.18	243.23	1,032.82	974.10	58.72	17.589			
13,100.00	12,837.92	12,194.23	12,150.97	18.89	40.63	43.18	689.51	243.29	1,117.34	1,058.46	58.88	18.976			
13,200.00	12,855.60	12,180.00	12,140.01	19.08	40.63	34.24	680.43	243.49	1,196.94	1,137.88	59.06	20.265			
13,300.00	12,858.40	12,149.00	12,115.45	19.34	40.62	29.34	661.52	244.04	1,271.45	1,212.25	59.20	21.476			
13,400.00	12,859.27	12,135.03	12,104.10	19.70	40.61	26.83	653.38	244.24	1,348.27	1,288.90	59.37	22.710			
13,500.00	12,860.14	12,118.00	12,090.06	20.14	40.61	24.00	643.75	244.44	1,428.14	1,368.61	59.53	23.991			
13,600.00	12,861.01	12,102.09	12,076.70	20.65	40.60	22.43	635.09	244.55	1,510.49	1,450.81	59.68	25.310			
13,700.00	12,861.88	12,086.00	12,062.95	21.24	40.60	22.08	626.75	244.54	1,594.51	1,534.69	59.82	26.653			
13,800.00	12,862.75	12,086.00	12,062.95	21.90	40.60	22.08	626.75	244.54	1,679.98	1,620.02	59.96	28.019			
13,900.00	12,863.61	12,068.62	12,047.80	22.62	40.59	21.71	618.25	244.42	1,766.55	1,706.45	60.09	29.397			
14,000.00	12,864.48	12,055.00	12,035.69	23.39	40.59	21.43	612.01	244.27	1,854.34	1,794.12	60.22	30.791			
14,100.00	12,865.35	12,055.00	12,035.69	24.23	40.59	21.43	612.01	244.27	1,943.08	1,882.75	60.34	32.204			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
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	172.30	-185.00	25.00	186.68						
100.00	100.00	101.00	100.00	0.98	0.99	172.30	-185.00	25.00	186.68	184.71	1.97	94.875			
200.00	200.00	201.00	200.00	1.56	1.57	172.30	-185.00	25.00	186.68	183.56	3.13	59.711			
300.00	300.00	301.00	300.00	1.98	1.98	172.30	-185.00	25.00	186.68	182.72	3.97	47.073			
400.00	400.00	401.00	400.00	2.33	2.33	172.30	-185.00	25.00	186.68	182.02	4.66	40.044			
500.00	500.00	501.00	500.00	2.63	2.64	172.30	-185.00	25.00	186.68	181.41	5.27	35.411			
600.00	600.00	601.00	600.00	2.91	2.91	172.30	-185.00	25.00	186.68	180.86	5.82	32.061			
700.00	700.00	701.00	700.00	3.16	3.17	172.30	-185.00	25.00	186.68	180.35	6.33	29.492			
800.00	800.00	801.00	800.00	3.40	3.40	172.30	-185.00	25.00	186.68	179.88	6.80	27.439			
900.00	900.00	901.00	900.00	3.62	3.63	172.30	-185.00	25.00	186.68	179.43	7.25	25.750			
1,000.00	1,000.00	1,001.00	1,000.00	3.84	3.84	172.30	-185.00	25.00	186.68	179.01	7.67	24.328			
1,100.00	1,100.00	1,101.00	1,100.00	4.04	4.04	172.30	-185.00	25.00	186.68	178.60	8.08	23.109			
1,200.00	1,200.00	1,201.00	1,200.00	4.23	4.23	172.30	-185.00	25.00	186.68	178.21	8.47	22.048			
1,300.00	1,300.00	1,301.00	1,300.00	4.42	4.42	172.30	-185.00	25.00	186.68	177.84	8.84	21.114			
1,400.00	1,400.00	1,401.02	1,400.02	4.60	4.60	172.30	-185.00	25.00	186.68	177.48	9.20	20.283			
1,500.00	1,500.00	1,503.05	1,502.04	4.78	4.78	172.53	-184.54	24.20	186.13	176.57	9.55	19.483			
1,600.00	1,599.99	1,604.95	1,603.91	4.98	4.94	90.64	-183.16	21.83	184.51	174.63	9.88	18.674			
1,700.00	1,699.91	1,706.51	1,705.37	5.17	5.11	93.08	-180.89	17.91	182.06	171.86	10.19	17.861			
1,800.00	1,799.69	1,807.48	1,806.13	5.36	5.28	96.89	-177.74	12.47	179.30	168.79	10.50	17.070			
1,900.00	1,899.32	1,907.70	1,906.04	5.44	5.44	101.89	-173.74	5.55	176.95	166.21	10.74	16.473			
2,000.00	1,998.94	2,007.35	2,005.22	5.59	5.61	107.52	-168.89	-2.83	175.43	164.37	11.06	15.866			
2,064.39	2,063.09	2,071.20	2,068.67	5.69	5.71	111.43	-165.33	-8.99	175.11	163.85	11.26	15.549	CC		
2,100.00	2,098.56	2,106.39	2,103.60	5.75	5.77	113.68	-163.21	-12.64	175.22	163.84	11.38	15.403	ES		
2,200.00	2,198.18	2,204.77	2,201.12	5.91	5.94	120.29	-156.73	-23.83	176.86	165.16	11.70	15.114			
2,300.00	2,297.70	2,302.26	2,297.53	6.08	6.10	134.68	-149.48	-36.36	182.05	170.01	12.04	15.122			
2,400.00	2,296.96	2,398.58	2,392.53	6.26	6.27	146.68	-141.51	-50.12	192.65	180.25	12.40	15.540			
2,500.00	2,495.89	2,493.57	2,485.95	6.45	6.44	156.79	-132.87	-65.05	208.99	196.22	12.77	16.371			
2,600.00	2,594.44	2,587.11	2,577.64	6.64	6.61	165.32	-123.61	-81.05	231.01	217.88	13.13	17.588			
2,700.00	2,692.52	2,679.07	2,667.48	6.84	6.78	172.45	-113.77	-98.05	258.41	244.91	13.50	19.135			
2,800.00	2,790.33	2,770.80	2,756.80	7.01	6.93	176.94	-103.32	-116.09	289.50	275.70	13.80	20.972			
2,900.00	2,888.15	2,863.45	2,846.98	7.18	7.12	-179.38	-92.68	-134.47	322.07	307.93	14.14	22.783			
3,000.00	2,985.97	2,956.09	2,937.16	7.35	7.33	-176.37	-82.04	-152.86	355.64	341.15	14.48	24.552			
3,100.00	3,083.78	3,048.73	3,027.33	7.53	7.54	-173.87	-71.40	-171.24	389.95	375.11	14.84	26.283			
3,200.00	3,181.60	3,141.38	3,117.51	7.70	7.76	-171.77	-60.75	-189.62	424.83	409.64	15.19	27.963			
3,300.00	3,279.41	3,234.02	3,207.68	7.88	7.98	-169.98	-50.11	-208.01	460.14	444.59	15.55	29.586			
3,400.00	3,377.23	3,326.66	3,297.86	8.07	8.21	-168.44	-39.47	-226.39	495.80	479.88	15.92	31.149			
3,500.00	3,475.05	3,419.31	3,388.03	8.29	8.44	-167.11	-28.83	-244.77	531.73	515.45	16.29	32.651			
3,600.00	3,572.86	3,511.95	3,478.21	8.52	8.68	-165.94	-18.19	-263.16	567.88	551.23	16.66	34.091			
3,700.00	3,670.68	3,604.60	3,568.39	8.75	8.92	-164.92	-7.54	-281.54	604.22	587.19	17.03	35.471			
3,800.00	3,768.49	3,697.24	3,658.56	8.99	9.16	-164.00	3.10	-299.92	640.71	623.29	17.41	36.792			
3,900.00	3,866.31	3,789.88	3,748.74	9.23	9.41	-163.19	13.74	-318.31	677.32	659.52	17.80	38.056			
4,000.00	3,964.13	3,882.53	3,838.91	9.47	9.65	-162.46	24.38	-336.69	714.04	695.86	18.18	39.266			
4,100.00	4,061.94	3,975.17	3,929.09	9.71	9.90	-161.80	35.02	-355.07	750.86	732.28	18.57	40.424			
4,200.00	4,159.76	4,067.81	4,019.26	9.95	10.16	-161.20	45.67	-373.46	787.75	768.78	18.97	41.533			
4,300.00	4,257.57	4,160.46	4,109.44	10.20	10.41	-160.65	56.31	-391.84	824.71	805.34	19.36	42.594			
4,400.00	4,355.39	4,253.10	4,199.62	10.45	10.67	-160.15	66.95	-410.22	861.72	841.96	19.76	43.610			
4,500.00	4,453.21	4,345.74	4,289.79	10.70	10.92	-159.70	77.59	-428.60	898.80	878.64	20.16	44.583			
4,600.00	4,551.02	4,438.39	4,379.97	10.95	11.18	-159.27	88.23	-446.99	935.91	915.35	20.56	45.515			
4,700.00	4,648.84	4,531.03	4,470.14	11.21	11.44	-158.88	98.87	-465.37	973.07	952.10	20.97	46.409			
4,800.00	4,746.65	4,623.68	4,560.32	11.46	11.71	-158.52	109.52	-483.75	1,010.26	988.89	21.37	47.266			
4,900.00	4,844.47	4,716.32	4,650.49	11.72	11.97	-158.19	120.16	-502.14	1,047.49	1,025.71	21.78	48.088			
5,000.00	4,942.29	4,808.96	4,740.67	11.98	12.23	-157.87	130.80	-520.52	1,084.74	1,062.55	22.19	48.877			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,040.10	4,901.61	4,830.85	12.24	12.50	-157.58	141.44	-538.90	1,122.02	1,099.42	22.61	49.634	
5,200.00	5,137.97	4,994.33	4,921.10	12.46	12.77	-157.40	152.09	-557.30	1,159.12	1,136.13	22.99	50.423	
5,300.00	5,236.26	5,087.73	5,012.01	12.70	13.04	-157.32	162.82	-575.83	1,194.36	1,170.95	23.41	51.017	
5,400.00	5,334.99	5,181.88	5,103.65	12.92	13.31	-157.18	173.64	-594.52	1,227.36	1,203.53	23.83	51.506	
5,500.00	5,434.11	5,276.72	5,195.97	13.11	13.59	-157.00	184.53	-613.34	1,258.12	1,233.88	24.24	51.896	
5,600.00	5,533.54	5,372.19	5,288.89	13.28	13.86	-156.78	195.50	-632.28	1,286.63	1,261.98	24.65	52.197	
5,700.00	5,633.22	5,468.22	5,382.36	13.43	14.15	-156.51	206.53	-651.34	1,312.89	1,287.84	25.05	52.415	
5,800.00	5,733.07	5,564.74	5,476.31	13.56	14.42	-156.20	217.62	-670.49	1,336.89	1,311.47	25.42	52.587	
5,900.00	5,833.02	5,683.56	5,592.20	13.66	14.74	-155.76	230.75	-693.18	1,357.95	1,332.08	25.87	52.492	
6,000.00	5,933.02	5,806.17	5,712.33	13.71	15.07	-92.62	243.05	-714.42	1,375.23	1,348.99	26.23	52.421	
6,100.00	6,033.02	5,929.87	5,834.03	13.78	15.37	-92.12	254.15	-733.59	1,390.41	1,363.81	26.60	52.267	
6,200.00	6,133.02	6,054.50	5,957.09	13.85	15.65	-91.69	263.99	-750.60	1,403.84	1,376.88	26.96	52.079	
6,300.00	6,233.02	6,179.93	6,081.35	13.92	15.91	-91.32	272.54	-765.37	1,415.46	1,388.17	27.29	51.859	
6,400.00	6,333.02	6,306.06	6,206.65	14.00	16.14	-91.02	279.77	-777.85	1,425.26	1,397.64	27.62	51.609	
6,500.00	6,433.02	6,432.76	6,332.82	14.07	16.34	-90.78	285.63	-787.98	1,433.19	1,405.27	27.92	51.334	
6,600.00	6,533.02	6,559.93	6,459.67	14.14	16.51	-90.59	290.11	-795.72	1,439.23	1,411.03	28.20	51.032	
6,700.00	6,633.02	6,687.44	6,587.02	14.22	16.65	-90.47	293.18	-801.03	1,443.38	1,414.91	28.47	50.706	
6,800.00	6,733.02	6,815.15	6,714.69	14.29	16.77	-90.40	294.84	-803.88	1,445.61	1,416.91	28.70	50.370	
6,900.00	6,833.02	6,933.49	6,833.02	14.36	16.85	-90.39	295.15	-804.42	1,446.02	1,417.15	28.87	50.087	
7,000.00	6,933.02	7,033.49	6,933.02	14.44	16.92	-90.39	295.15	-804.42	1,446.02	1,417.02	29.01	49.849	
7,100.00	7,033.02	7,133.49	7,033.02	14.51	16.98	-90.39	295.15	-804.42	1,446.02	1,416.88	29.15	49.614	
7,200.00	7,133.02	7,233.49	7,133.02	14.59	17.05	-90.39	295.15	-804.42	1,446.02	1,416.74	29.28	49.381	
7,300.00	7,233.02	7,333.49	7,233.02	14.66	17.11	-90.39	295.15	-804.42	1,446.02	1,416.60	29.42	49.149	
7,400.00	7,333.02	7,433.49	7,333.02	14.73	17.17	-90.39	295.15	-804.42	1,446.02	1,416.46	29.56	48.919	
7,500.00	7,433.02	7,533.49	7,433.02	14.81	17.24	-90.39	295.15	-804.42	1,446.02	1,416.33	29.70	48.691	
7,600.00	7,533.02	7,633.49	7,533.02	14.88	17.30	-90.39	295.15	-804.42	1,446.02	1,416.19	29.84	48.464	
7,700.00	7,633.02	7,733.49	7,633.02	14.96	17.37	-90.39	295.15	-804.42	1,446.02	1,416.05	29.98	48.239	
7,800.00	7,733.02	7,833.49	7,733.02	15.03	17.43	-90.39	295.15	-804.42	1,446.02	1,415.91	30.12	48.016	
7,900.00	7,833.02	7,933.49	7,833.02	15.11	17.50	-90.39	295.15	-804.42	1,446.02	1,415.77	30.25	47.795	
8,000.00	7,933.02	8,033.49	7,933.02	15.18	17.56	-90.39	295.15	-804.42	1,446.02	1,415.63	30.39	47.575	
8,100.00	8,033.02	8,133.49	8,033.02	15.26	17.63	-90.39	295.15	-804.42	1,446.02	1,415.49	30.53	47.357	
8,200.00	8,133.02	8,233.49	8,133.02	15.33	17.70	-90.39	295.15	-804.42	1,446.02	1,415.35	30.67	47.141	
8,300.00	8,233.02	8,333.49	8,233.02	15.41	17.76	-90.39	295.15	-804.42	1,446.02	1,415.21	30.82	46.926	
8,400.00	8,333.02	8,433.49	8,333.02	15.48	17.83	-90.39	295.15	-804.42	1,446.02	1,415.07	30.96	46.713	
8,500.00	8,433.02	8,533.49	8,433.02	15.56	17.89	-90.39	295.15	-804.42	1,446.02	1,414.93	31.10	46.501	
8,600.00	8,533.02	8,633.49	8,533.02	15.63	17.96	-90.39	295.15	-804.42	1,446.02	1,414.79	31.24	46.291	
8,700.00	8,633.02	8,733.49	8,633.02	15.71	18.03	-90.39	295.15	-804.42	1,446.02	1,414.64	31.38	46.083	
8,800.00	8,733.02	8,833.49	8,733.02	15.78	18.09	-90.39	295.15	-804.42	1,446.02	1,414.50	31.52	45.876	
8,900.00	8,833.02	8,933.49	8,833.02	15.86	18.16	-90.39	295.15	-804.42	1,446.02	1,414.36	31.66	45.670	
9,000.00	8,933.02	9,033.49	8,933.02	15.93	18.22	-90.39	295.15	-804.42	1,446.02	1,414.22	31.80	45.467	
9,100.00	9,033.02	9,133.49	9,033.02	16.01	18.29	-90.39	295.15	-804.42	1,446.02	1,414.08	31.95	45.265	
9,200.00	9,133.02	9,233.49	9,133.02	16.08	18.36	-90.39	295.15	-804.42	1,446.02	1,413.94	32.09	45.064	
9,300.00	9,233.02	9,333.49	9,233.02	16.16	18.43	-90.39	295.15	-804.42	1,446.02	1,413.79	32.23	44.865	
9,400.00	9,333.02	9,433.49	9,333.02	16.23	18.49	-90.39	295.15	-804.42	1,446.02	1,413.65	32.37	44.667	
9,500.00	9,433.02	9,533.49	9,433.02	16.31	18.56	-90.39	295.15	-804.42	1,446.02	1,413.51	32.52	44.471	
9,600.00	9,533.02	9,633.49	9,533.02	16.38	18.63	-90.39	295.15	-804.42	1,446.02	1,413.36	32.66	44.276	
9,700.00	9,633.02	9,733.49	9,633.02	16.46	18.70	-90.39	295.15	-804.42	1,446.02	1,413.22	32.80	44.082	
9,800.00	9,733.02	9,833.49	9,733.02	16.54	18.76	-90.39	295.15	-804.42	1,446.02	1,413.08	32.95	43.891	
9,900.00	9,833.02	9,933.49	9,833.02	16.61	18.83	-90.39	295.15	-804.42	1,446.02	1,412.93	33.09	43.700	
10,000.00	9,933.02	10,033.49	9,933.02	16.69	18.90	-90.39	295.15	-804.42	1,446.02	1,412.79	33.23	43.511	
10,100.00	10,033.02	10,133.49	10,033.02	16.76	18.97	-90.39	295.15	-804.42	1,446.02	1,412.65	33.38	43.323	
10,200.00	10,133.02	10,233.49	10,133.02	16.84	19.03	-90.39	295.15	-804.42	1,446.02	1,412.50	33.52	43.137	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		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	10,233.02	10,333.49	10,233.02	16.92	19.10	-90.39	295.15	-804.42	1,446.02	1,412.36	33.67	42.952	
10,400.00	10,333.02	10,433.49	10,333.02	16.99	19.17	-90.39	295.15	-804.42	1,446.02	1,412.21	33.81	42.769	
10,500.00	10,433.02	10,533.49	10,433.02	17.07	19.24	-90.39	295.15	-804.42	1,446.02	1,412.07	33.95	42.587	
10,600.00	10,533.02	10,633.49	10,533.02	17.15	19.31	-90.39	295.15	-804.42	1,446.02	1,411.92	34.10	42.406	
10,700.00	10,633.02	10,733.49	10,633.02	17.22	19.38	-90.39	295.15	-804.42	1,446.02	1,411.78	34.24	42.226	
10,800.00	10,733.02	10,833.49	10,733.02	17.30	19.45	-90.39	295.15	-804.42	1,446.02	1,411.63	34.39	42.048	
10,900.00	10,833.02	10,933.49	10,833.02	17.37	19.51	-90.39	295.15	-804.42	1,446.02	1,411.49	34.54	41.871	
11,000.00	10,933.02	11,033.49	10,933.02	17.45	19.58	-90.39	295.15	-804.42	1,446.02	1,411.34	34.68	41.696	
11,100.00	11,033.02	11,133.49	11,033.02	17.53	19.65	-90.39	295.15	-804.42	1,446.02	1,411.20	34.83	41.521	
11,200.00	11,133.02	11,233.49	11,133.02	17.60	19.72	-90.39	295.15	-804.42	1,446.02	1,411.05	34.97	41.348	
11,300.00	11,233.02	11,333.49	11,233.02	17.68	19.79	-90.39	295.15	-804.42	1,446.02	1,410.91	35.12	41.177	
11,400.00	11,333.02	11,433.49	11,333.02	17.76	19.86	-90.39	295.15	-804.42	1,446.02	1,410.76	35.26	41.006	
11,500.00	11,433.02	11,533.49	11,433.02	17.83	19.93	-90.39	295.15	-804.42	1,446.02	1,410.61	35.41	40.837	
11,600.00	11,533.02	11,633.49	11,533.02	17.91	19.99	-90.39	295.15	-804.42	1,446.02	1,410.47	35.55	40.677	
11,674.57	11,607.60	11,708.14	11,607.60	17.97	20.04	-90.49	292.54	-804.40	1,446.02	1,410.41	35.61	40.608	
11,700.00	11,633.02	11,733.33	11,632.61	17.99	20.04	-90.61	289.59	-804.37	1,446.02	1,410.41	35.61	40.605	
11,800.00	11,733.02	11,828.64	11,725.46	18.06	20.04	-91.44	268.58	-804.19	1,446.24	1,410.65	35.59	40.634	
11,900.00	11,833.02	11,914.96	11,805.51	18.14	20.02	-92.71	236.51	-803.92	1,447.37	1,411.83	35.54	40.722	
12,000.00	11,933.02	11,990.22	11,870.70	18.22	19.98	-94.19	199.01	-803.59	1,450.38	1,414.88	35.51	40.848	
12,100.00	12,033.02	12,050.00	11,918.63	18.30	19.95	-95.60	163.33	-803.29	1,456.28	1,420.73	35.55	40.963	
12,200.00	12,133.02	12,108.28	11,961.53	18.37	19.93	-97.14	123.92	-802.95	1,465.89	1,430.22	35.67	41.099	
12,300.00	12,233.02	12,150.00	11,989.68	18.45	19.91	-98.35	93.14	-802.68	1,479.85	1,443.89	35.96	41.154	
12,400.00	12,332.97	12,200.00	12,020.34	18.52	19.91	73.77	53.67	-802.34	1,498.07	1,461.79	36.28	41.295	
12,500.00	12,431.38	12,232.26	12,038.26	18.56	19.91	71.08	26.84	-802.11	1,516.80	1,480.08	36.73	41.298	
12,600.00	12,525.35	12,273.11	12,058.72	18.58	19.91	68.41	-8.49	-801.81	1,534.45	1,497.27	37.18	41.269	
12,700.00	12,612.01	12,314.86	12,076.99	18.59	19.93	66.10	-46.02	-801.48	1,549.97	1,512.28	37.69	41.125	
12,800.00	12,688.74	12,350.00	12,090.21	18.62	19.96	64.33	-78.58	-801.20	1,562.55	1,524.29	38.26	40.839	
12,900.00	12,753.20	12,400.00	12,105.53	18.67	20.00	62.81	-126.16	-800.79	1,571.39	1,532.61	38.78	40.523	
13,000.00	12,803.44	12,450.00	12,116.64	18.75	20.07	61.84	-174.89	-800.37	1,576.12	1,536.82	39.30	40.106	
13,100.00	12,837.92	12,500.00	12,123.47	18.89	20.15	61.45	-224.40	-799.95	1,576.40	1,536.60	39.80	39.605	
13,200.00	12,855.60	12,530.54	12,125.50	19.08	20.21	61.72	-254.87	-799.69	1,571.78	1,531.52	40.27	39.035	
13,300.00	12,858.40	12,607.13	12,126.45	19.34	20.39	61.96	-331.44	-799.03	1,563.59	1,522.92	40.67	38.449	
13,400.00	12,859.27	12,706.88	12,127.32	19.70	20.68	61.91	-431.19	-798.17	1,557.53	1,516.33	41.20	37.801	
13,500.00	12,860.14	12,806.82	12,128.19	20.14	21.03	61.90	-531.13	-797.31	1,554.56	1,512.70	41.86	37.134	
13,596.62	12,860.98	12,903.44	12,129.03	20.63	21.43	61.90	-627.74	-796.48	1,553.84	1,511.25	42.59	36.485	
13,600.00	12,861.01	12,906.82	12,129.06	20.65	21.45	61.90	-631.12	-796.45	1,554.22	1,511.61	42.61	36.473	
13,700.00	12,861.88	13,006.82	12,129.93	21.24	21.93	61.90	-731.11	-795.59	1,554.22	1,510.72	43.50	35.732	
13,800.00	12,862.75	13,106.82	12,130.80	21.90	22.46	61.90	-831.10	-794.73	1,554.22	1,509.72	44.50	34.928	
13,900.00	12,863.61	13,206.82	12,131.67	22.62	23.06	61.90	-931.09	-793.86	1,554.22	1,508.61	45.61	34.077	
14,000.00	12,864.48	13,306.82	12,132.54	23.39	23.72	61.90	-1,031.09	-793.00	1,554.22	1,507.39	46.82	33.193	
14,100.00	12,865.35	13,406.82	12,133.41	24.23	24.43	61.90	-1,131.08	-792.14	1,554.22	1,506.08	48.13	32.291	
14,200.00	12,866.22	13,506.82	12,134.28	25.11	25.20	61.90	-1,231.07	-791.28	1,554.21	1,504.69	49.53	31.381	
14,300.00	12,867.09	13,606.82	12,135.16	26.03	26.01	61.90	-1,331.06	-790.42	1,554.21	1,503.21	51.00	30.474	
14,400.00	12,867.95	13,706.82	12,136.03	26.99	26.87	61.90	-1,431.06	-789.56	1,554.21	1,501.66	52.55	29.576	
14,500.00	12,868.82	13,806.82	12,136.90	27.99	27.77	61.90	-1,531.05	-788.70	1,554.21	1,500.04	54.17	28.694	
14,600.00	12,869.69	13,906.82	12,137.77	29.01	28.70	61.90	-1,631.04	-787.84	1,554.21	1,498.37	55.84	27.832	
14,700.00	12,870.56	14,006.82	12,138.64	30.07	29.67	61.90	-1,731.03	-786.98	1,554.21	1,496.63	57.57	26.995	
14,800.00	12,871.43	14,106.82	12,139.51	31.15	30.67	61.90	-1,831.03	-786.12	1,554.21	1,494.85	59.36	26.184	
14,900.00	12,872.29	14,206.82	12,140.38	32.25	31.70	61.90	-1,931.02	-785.26	1,554.20	1,493.02	61.19	25.401	
15,000.00	12,873.16	14,306.82	12,141.25	33.38	32.76	61.90	-2,031.01	-784.40	1,554.20	1,491.14	63.06	24.647	
15,100.00	12,874.03	14,406.82	12,142.12	34.52	33.84	61.90	-2,131.00	-783.54	1,554.20	1,489.23	64.97	23.922	
15,200.00	12,874.90	14,506.82	12,143.00	35.68	34.94	61.90	-2,231.00	-782.67	1,554.20	1,487.28	66.92	23.226	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Rule Assigned:													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Well Error:	0.50 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				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		
15,300.00	12,875.77	14,606.82	12,143.87	36.85	36.06	61.90	-2,330.99	-781.81	1,554.20	1,485.30	68.89	22.559		
15,400.00	12,876.63	14,706.82	12,144.74	38.04	37.19	61.91	-2,430.98	-780.95	1,554.20	1,483.29	70.90	21.920		
15,500.00	12,877.50	14,806.82	12,145.61	39.24	38.34	61.91	-2,530.97	-780.09	1,554.20	1,481.26	72.94	21.308		
15,600.00	12,878.37	14,906.82	12,146.48	40.45	39.51	61.91	-2,630.97	-779.23	1,554.19	1,479.19	75.00	20.723		
15,700.00	12,879.24	15,006.82	12,147.35	41.67	40.69	61.91	-2,730.96	-778.37	1,554.19	1,477.11	77.08	20.163		
15,800.00	12,880.11	15,106.82	12,148.22	42.90	41.88	61.91	-2,830.95	-777.51	1,554.19	1,475.00	79.19	19.627		
15,900.00	12,880.97	15,206.82	12,149.09	44.13	43.08	61.91	-2,930.94	-776.65	1,554.19	1,472.88	81.31	19.114		
16,000.00	12,881.84	15,306.82	12,149.97	45.38	44.29	61.91	-3,030.94	-775.79	1,554.19	1,470.73	83.45	18.623		
16,100.00	12,882.71	15,406.82	12,150.84	46.63	45.51	61.91	-3,130.93	-774.93	1,554.19	1,468.57	85.61	18.154		
16,200.00	12,883.58	15,506.82	12,151.71	47.89	46.74	61.91	-3,230.92	-774.07	1,554.18	1,466.40	87.79	17.704		
16,300.00	12,884.45	15,606.82	12,152.58	49.15	47.98	61.91	-3,330.91	-773.21	1,554.18	1,464.21	89.98	17.273		
16,400.00	12,885.31	15,706.82	12,153.45	50.43	49.22	61.91	-3,430.91	-772.35	1,554.18	1,462.00	92.18	16.860		
16,500.00	12,886.18	15,806.82	12,154.32	51.70	50.47	61.91	-3,530.90	-771.49	1,554.18	1,459.79	94.39	16.465		
16,600.00	12,887.05	15,906.82	12,155.19	52.98	51.73	61.91	-3,630.89	-770.62	1,554.18	1,457.56	96.62	16.085		
16,700.00	12,887.92	16,006.82	12,156.06	54.27	52.99	61.91	-3,730.88	-769.76	1,554.18	1,455.32	98.86	15.721		
16,800.00	12,888.79	16,106.82	12,156.93	55.55	54.26	61.91	-3,830.88	-768.90	1,554.18	1,453.07	101.10	15.372		
16,900.00	12,889.66	16,206.82	12,157.81	56.85	55.54	61.91	-3,930.87	-768.04	1,554.17	1,450.81	103.36	15.036		
17,000.00	12,890.52	16,306.82	12,158.68	58.14	56.81	61.91	-4,030.86	-767.18	1,554.17	1,448.55	105.63	14.714		
17,100.00	12,891.39	16,406.82	12,159.55	59.44	58.10	61.91	-4,130.85	-766.32	1,554.17	1,446.27	107.90	14.404		
17,200.00	12,892.26	16,506.82	12,160.42	60.75	59.38	61.91	-4,230.85	-765.46	1,554.17	1,443.99	110.18	14.106		
17,300.00	12,893.13	16,606.82	12,161.29	62.05	60.67	61.91	-4,330.84	-764.60	1,554.17	1,441.70	112.47	13.819		
17,400.00	12,894.00	16,706.82	12,162.16	63.36	61.96	61.91	-4,430.83	-763.74	1,554.17	1,439.40	114.77	13.542		
17,500.00	12,894.86	16,806.82	12,163.03	64.67	63.26	61.91	-4,530.82	-762.88	1,554.17	1,437.10	117.07	13.276		
17,600.00	12,895.73	16,906.82	12,163.90	65.99	64.56	61.91	-4,630.82	-762.02	1,554.16	1,434.79	119.37	13.019		
17,700.00	12,896.60	17,006.82	12,164.77	67.30	65.86	61.91	-4,730.81	-761.16	1,554.16	1,432.47	121.69	12.772		
17,800.00	12,897.47	17,106.82	12,165.65	68.62	67.17	61.91	-4,830.80	-760.30	1,554.16	1,430.15	124.01	12.533		
17,900.00	12,898.34	17,206.82	12,166.52	69.94	68.48	61.91	-4,930.79	-759.43	1,554.16	1,427.83	126.33	12.302		
18,000.00	12,899.20	17,306.82	12,167.39	71.26	69.79	61.91	-5,030.79	-758.57	1,554.16	1,425.50	128.66	12.080		
18,100.00	12,900.07	17,406.82	12,168.26	72.58	71.10	61.91	-5,130.78	-757.71	1,554.16	1,423.16	130.99	11.864		
18,200.00	12,900.94	17,506.82	12,169.13	73.91	72.41	61.91	-5,230.77	-756.85	1,554.16	1,420.82	133.33	11.656		
18,300.00	12,901.81	17,606.82	12,170.00	75.24	73.73	61.91	-5,330.76	-755.99	1,554.15	1,418.48	135.67	11.455		
18,400.00	12,902.68	17,706.82	12,170.87	76.56	75.05	61.91	-5,430.76	-755.13	1,554.15	1,416.13	138.02	11.260		
18,500.00	12,903.54	17,806.82	12,171.74	77.89	76.37	61.91	-5,530.75	-754.27	1,554.15	1,413.78	140.37	11.072		
18,600.00	12,904.41	17,906.82	12,172.61	79.23	77.69	61.91	-5,630.74	-753.41	1,554.15	1,411.43	142.72	10.889		
18,700.00	12,905.28	18,006.82	12,173.49	80.56	79.02	61.91	-5,730.73	-752.55	1,554.15	1,409.07	145.08	10.713		
18,800.00	12,906.15	18,106.82	12,174.36	81.89	80.34	61.91	-5,830.73	-751.69	1,554.15	1,406.71	147.44	10.541		
18,900.00	12,907.02	18,206.82	12,175.23	83.23	81.67	61.91	-5,930.72	-750.83	1,554.14	1,404.34	149.80	10.375		
19,000.00	12,907.88	18,306.82	12,176.10	84.56	83.00	61.91	-6,030.71	-749.97	1,554.14	1,401.98	152.17	10.214		
19,100.00	12,908.75	18,406.82	12,176.97	85.90	84.33	61.91	-6,130.70	-749.11	1,554.14	1,399.61	154.53	10.057		
19,200.00	12,909.62	18,506.82	12,177.84	87.24	85.66	61.91	-6,230.70	-748.25	1,554.14	1,397.24	156.90	9.905		
19,300.00	12,910.49	18,606.82	12,178.71	88.58	86.99	61.91	-6,330.69	-747.38	1,554.14	1,394.86	159.28	9.757		
19,400.00	12,911.36	18,706.82	12,179.58	89.92	88.32	61.91	-6,430.68	-746.52	1,554.14	1,392.48	161.65	9.614		
19,500.00	12,912.22	18,806.82	12,180.45	91.26	89.66	61.91	-6,530.67	-745.66	1,554.14	1,390.10	164.03	9.475		
19,600.00	12,913.09	18,906.82	12,181.33	92.60	90.99	61.91	-6,630.67	-744.80	1,554.13	1,387.72	166.41	9.339		
19,700.00	12,913.96	19,006.82	12,182.20	93.94	92.33	61.91	-6,730.66	-743.94	1,554.13	1,385.34	168.79	9.207		
19,800.00	12,914.83	19,106.82	12,183.07	95.29	93.67	61.91	-6,830.65	-743.08	1,554.13	1,382.95	171.18	9.079		
19,900.00	12,915.70	19,206.82	12,183.94	96.63	95.00	61.91	-6,930.64	-742.22	1,554.13	1,380.57	173.56	8.954		
20,000.00	12,916.56	19,306.82	12,184.81	97.98	96.34	61.91	-7,030.64	-741.36	1,554.13	1,378.18	175.95	8.833		
20,100.00	12,917.43	19,406.82	12,185.68	99.32	97.68	61.91	-7,130.63	-740.50	1,554.13	1,375.78	178.34	8.714		
20,200.00	12,918.30	19,506.82	12,186.55	100.67	99.02	61.91	-7,230.62	-739.64	1,554.13	1,373.39	180.73	8.599		
20,300.00	12,919.17	19,606.82	12,187.42	102.01	100.37	61.91	-7,330.61	-738.78	1,554.12	1,371.00	183.13	8.487		
20,400.00	12,920.04	19,706.82	12,188.29	103.36	101.71	61.91	-7,430.61	-737.92	1,554.12	1,368.60	185.52	8.377		

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:			Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
20,500.00	12,920.90	19,806.82	12,189.17	104.71	103.05	61.91	-7,530.60	-737.06	1,554.12	1,366.20	187.92	8.270
20,600.00	12,921.77	19,906.82	12,190.04	106.06	104.40	61.91	-7,630.59	-736.20	1,554.12	1,363.80	190.32	8.166
20,700.00	12,922.64	20,006.82	12,190.91	107.41	105.74	61.91	-7,730.58	-735.33	1,554.12	1,361.40	192.72	8.064
20,800.00	12,923.51	20,106.82	12,191.78	108.76	107.09	61.91	-7,830.58	-734.47	1,554.12	1,359.00	195.12	7.965
20,900.00	12,924.38	20,206.82	12,192.65	110.11	108.43	61.91	-7,930.57	-733.61	1,554.11	1,356.60	197.52	7.868
21,000.00	12,925.24	20,306.82	12,193.52	111.46	109.78	61.91	-8,030.56	-732.75	1,554.11	1,354.19	199.92	7.774
21,100.00	12,926.11	20,406.82	12,194.39	112.81	111.13	61.91	-8,130.55	-731.89	1,554.11	1,351.79	202.33	7.681
21,200.00	12,926.98	20,506.82	12,195.26	114.16	112.47	61.91	-8,230.55	-731.03	1,554.11	1,349.38	204.73	7.591
21,300.00	12,927.85	20,606.82	12,196.14	115.51	113.82	61.91	-8,330.54	-730.17	1,554.11	1,346.97	207.14	7.503
21,400.00	12,928.72	20,706.82	12,197.01	116.87	115.17	61.91	-8,430.53	-729.31	1,554.11	1,344.56	209.55	7.416
21,500.00	12,929.58	20,806.82	12,197.88	118.22	116.52	61.91	-8,530.52	-728.45	1,554.11	1,342.15	211.96	7.332
21,600.00	12,930.45	20,906.82	12,198.75	119.57	117.87	61.91	-8,630.52	-727.59	1,554.10	1,339.74	214.37	7.250
21,700.00	12,931.32	21,006.82	12,199.62	120.93	119.22	61.91	-8,730.51	-726.73	1,554.10	1,337.33	216.78	7.169
21,800.00	12,932.19	21,106.82	12,200.49	122.28	120.57	61.91	-8,830.50	-725.87	1,554.10	1,334.91	219.19	7.090
21,900.00	12,933.06	21,206.82	12,201.36	123.63	121.92	61.91	-8,930.49	-725.01	1,554.10	1,332.50	221.60	7.013
22,000.00	12,933.92	21,306.82	12,202.23	124.99	123.27	61.91	-9,030.49	-724.14	1,554.10	1,330.08	224.02	6.937
22,100.00	12,934.79	21,406.82	12,203.10	126.34	124.62	61.91	-9,130.48	-723.28	1,554.10	1,327.67	226.43	6.863
22,200.00	12,935.66	21,506.82	12,203.98	127.70	125.98	61.91	-9,230.47	-722.42	1,554.10	1,325.25	228.85	6.791
22,300.00	12,936.53	21,606.82	12,204.85	129.05	127.33	61.91	-9,330.46	-721.56	1,554.09	1,322.83	231.26	6.720
22,400.00	12,937.40	21,706.82	12,205.72	130.41	128.68	61.91	-9,430.46	-720.70	1,554.09	1,320.41	233.68	6.651
22,500.00	12,938.26	21,806.82	12,206.59	131.77	130.04	61.91	-9,530.45	-719.84	1,554.09	1,317.99	236.10	6.582
22,600.00	12,939.13	21,906.82	12,207.46	133.12	131.39	61.91	-9,630.44	-718.98	1,554.09	1,315.57	238.52	6.516
22,700.00	12,940.00	22,006.82	12,208.33	134.48	132.74	61.91	-9,730.43	-718.12	1,554.09	1,313.15	240.93	6.450
22,800.00	12,940.87	22,106.82	12,209.20	135.84	134.10	61.91	-9,830.43	-717.26	1,554.09	1,310.73	243.35	6.386
22,900.00	12,941.74	22,206.82	12,210.07	137.19	135.45	61.91	-9,930.42	-716.40	1,554.09	1,308.31	245.78	6.323
23,000.00	12,942.61	22,306.82	12,210.94	138.55	136.81	61.91	-10,030.41	-715.54	1,554.08	1,305.89	248.20	6.262
23,100.00	12,943.47	22,406.82	12,211.82	139.91	138.16	61.91	-10,130.40	-714.68	1,554.08	1,303.46	250.62	6.201
23,175.65	12,944.13	22,482.47	12,212.47	140.95	139.19	61.91	-10,206.05	-714.03	1,554.08	1,301.63	252.45	6.156
23,184.44	12,944.21	22,485.80	12,212.50	141.07	139.26	61.91	-10,209.37	-714.00	1,554.09	1,301.48	252.61	6.152
												SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
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		
0.00	0.00	0.00	0.00	0.50	0.50	90.00	0.00	25.00	25.00	25.00					
100.00	100.00	100.00	100.00	0.98	0.98	90.00	0.00	25.00	25.00	23.04	1.96	12.741			
200.00	200.00	200.00	200.00	1.56	1.56	90.00	0.00	25.00	25.00	21.88	3.12	8.007			
300.00	300.00	300.00	300.00	1.98	1.98	90.00	0.00	25.00	25.00	21.04	3.96	6.309			
400.00	400.00	400.00	400.00	2.33	2.33	90.00	0.00	25.00	25.00	20.34	4.66	5.366			
500.00	500.00	500.00	500.00	2.63	2.63	90.00	0.00	25.00	25.00	19.73	5.27	4.745			
600.00	600.00	600.00	600.00	2.91	2.91	90.00	0.00	25.00	25.00	19.18	5.82	4.295			
700.00	700.00	700.00	700.00	3.16	3.16	90.00	0.00	25.00	25.00	18.67	6.33	3.951			
800.00	800.00	800.00	800.00	3.40	3.40	90.00	0.00	25.00	25.00	18.20	6.80	3.676	CC, ES		
900.00	900.00	899.42	899.41	3.62	3.67	88.50	0.68	26.10	26.12	18.83	7.28	3.586			
1,000.00	1,000.00	998.71	998.62	3.84	3.93	84.71	2.72	29.39	29.55	21.81	7.74	3.818			
1,100.00	1,100.00	1,097.74	1,097.43	4.04	4.18	80.06	6.11	34.86	35.48	27.30	8.18	4.338			
1,200.00	1,200.00	1,197.05	1,196.38	4.23	4.29	75.88	10.59	42.07	43.53	35.05	8.48	5.132			
1,300.00	1,300.00	1,296.67	1,295.62	4.42	4.48	72.96	15.16	49.45	51.91	43.04	8.87	5.853			
1,400.00	1,400.00	1,396.29	1,394.86	4.60	4.67	70.85	19.74	56.83	60.38	51.13	9.25	6.531			
1,500.00	1,500.00	1,495.91	1,494.10	4.78	4.87	69.26	24.31	64.21	68.91	59.30	9.62	7.167			
1,600.00	1,599.99	1,595.62	1,593.44	4.98	5.06	-15.20	28.89	71.60	76.22	66.22	10.01	7.616			
1,700.00	1,699.91	1,695.47	1,692.91	5.17	5.25	-16.93	33.48	78.99	81.08	70.69	10.39	7.806			
1,800.00	1,799.69	1,795.39	1,792.45	5.36	5.44	-19.05	38.07	86.39	83.52	72.76	10.76	7.761			
1,900.00	1,899.32	1,895.32	1,892.00	5.44	5.63	-21.54	42.66	93.80	84.17	73.14	11.03	7.631			
2,000.00	1,998.94	1,995.25	1,991.55	5.59	5.81	-24.04	47.24	101.20	84.85	73.48	11.37	7.461			
2,100.00	2,098.56	2,095.18	2,091.10	5.75	6.00	-26.49	51.83	108.60	85.69	73.97	11.71	7.316			
2,200.00	2,198.18	2,195.11	2,190.65	5.91	6.19	-28.88	56.42	116.00	86.68	74.61	12.06	7.185			
2,300.00	2,297.70	2,293.70	2,288.80	6.08	6.37	-23.68	61.32	123.89	87.26	74.86	12.40	7.037			
2,400.00	2,396.96	2,392.17	2,386.65	6.26	6.56	-20.76	67.09	133.20	87.04	74.29	12.75	6.826			
2,500.00	2,495.89	2,490.65	2,484.32	6.45	6.75	-19.22	73.74	143.93	86.01	72.90	13.11	6.560			
2,600.00	2,594.44	2,589.16	2,581.79	6.64	6.94	-18.50	81.28	156.10	84.14	70.66	13.48	6.244			
2,700.00	2,692.52	2,687.71	2,679.02	6.84	7.13	-18.34	89.71	169.69	81.42	67.57	13.85	5.878			
2,800.00	2,790.33	2,786.32	2,776.04	7.01	7.32	-19.91	99.02	184.71	79.07	64.87	14.20	5.569			
2,887.68	2,876.10	2,872.84	2,860.89	7.16	7.50	-21.10	107.92	199.06	78.41	63.90	14.52	5.402			
2,900.00	2,888.15	2,885.00	2,872.80	7.18	7.53	-21.25	109.22	201.16	78.43	63.87	14.56	5.386			
3,000.00	2,985.97	2,984.73	2,970.36	7.35	7.72	-22.36	120.12	218.75	78.94	63.99	14.94	5.282			
3,100.00	3,083.78	3,084.72	3,068.17	7.53	7.92	-23.45	131.07	236.42	79.51	64.17	15.34	5.183			
3,200.00	3,181.60	3,184.71	3,165.97	7.70	8.12	-24.52	142.02	254.08	80.10	64.36	15.74	5.089			
3,300.00	3,279.41	3,284.70	3,263.78	7.88	8.33	-25.58	152.97	271.74	80.73	64.58	16.15	4.999			
3,400.00	3,377.23	3,384.68	3,361.58	8.07	8.53	-26.63	163.92	289.40	81.38	64.82	16.56	4.914			
3,500.00	3,475.05	3,484.67	3,459.38	8.29	8.74	-27.65	174.87	307.07	82.06	65.08	16.98	4.833			
3,600.00	3,572.86	3,584.66	3,557.19	8.52	8.96	-28.66	185.82	324.73	82.77	65.36	17.40	4.756			
3,700.00	3,670.68	3,684.64	3,654.99	8.75	9.18	-29.65	196.77	342.39	83.50	65.67	17.83	4.683			
3,800.00	3,768.49	3,784.63	3,752.79	8.99	9.40	-30.63	207.72	360.05	84.25	65.99	18.26	4.614			
3,900.00	3,866.31	3,884.62	3,850.60	9.23	9.64	-31.58	218.66	377.71	85.03	66.33	18.70	4.548			
4,000.00	3,964.13	3,984.60	3,948.40	9.47	9.88	-32.52	229.61	395.38	85.83	66.69	19.14	4.484			
4,100.00	4,061.94	4,084.88	4,046.49	9.71	10.09	-33.46	240.57	413.05	86.62	67.06	19.56	4.429			
4,200.00	4,159.76	4,186.19	4,145.85	9.95	10.33	-34.80	251.01	429.88	86.38	66.36	20.02	4.314			
4,300.00	4,257.57	4,287.42	4,245.46	10.20	10.56	-36.78	260.50	445.21	84.68	64.19	20.49	4.133			
4,400.00	4,355.39	4,388.52	4,345.24	10.45	10.78	-39.55	269.06	459.01	81.64	60.67	20.96	3.894			
4,500.00	4,453.21	4,489.41	4,445.10	10.70	10.99	-43.34	276.68	471.30	77.42	55.97	21.45	3.610			
4,600.00	4,551.02	4,590.05	4,544.93	10.95	11.18	-48.49	283.35	482.06	72.29	50.36	21.94	3.295			
4,700.00	4,648.84	4,690.36	4,644.65	11.21	11.36	-55.50	289.08	491.31	66.71	44.28	22.44	2.973			
4,800.00	4,746.65	4,790.29	4,744.16	11.46	11.53	-65.01	293.88	499.04	61.42	38.48	22.94	2.678			
4,900.00	4,844.47	4,889.77	4,843.38	11.72	11.68	-77.51	297.74	505.27	57.55	34.17	23.39	2.461			
4,973.73	4,916.59	4,962.81	4,916.29	11.91	11.78	-88.51	300.00	508.91	56.52	32.88	23.64	2.391			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Site Error:		0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:			Offset Well Error:		0.50 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,000.00	4,942.29	4,988.76	4,942.21	11.98	11.82	-92.69	300.68	510.02	56.67	32.96	23.71	2.390	SF		
5,100.00	5,040.10	5,087.20	5,040.57	12.24	11.95	-108.77	302.71	513.30	60.21	36.32	23.89	2.520			
5,200.00	5,137.97	5,185.08	5,138.42	12.46	12.07	-123.24	303.85	515.13	68.60	44.66	23.94	2.865			
5,300.00	5,236.26	5,282.92	5,236.26	12.70	12.14	-133.98	304.13	515.58	79.95	55.92	24.03	3.327			
5,400.00	5,334.99	5,381.66	5,334.99	12.92	12.21	-141.19	304.13	515.58	91.72	67.53	24.19	3.792			
5,500.00	5,434.11	5,480.77	5,434.11	13.11	12.29	-145.91	304.13	515.58	102.41	78.01	24.40	4.198			
5,600.00	5,533.54	5,580.20	5,533.54	13.28	12.37	-149.04	304.13	515.58	111.39	86.77	24.62	4.524			
5,700.00	5,633.22	5,679.88	5,633.22	13.43	12.45	-151.09	304.13	515.58	118.36	93.50	24.86	4.762			
5,800.00	5,733.07	5,779.73	5,733.07	13.56	12.53	-152.34	304.13	515.58	123.13	98.04	25.09	4.908			
5,900.00	5,833.02	5,879.69	5,833.02	13.66	12.61	-152.95	304.13	515.58	125.61	100.30	25.31	4.963			
6,000.00	5,933.02	5,979.68	5,933.02	13.71	12.69	-90.39	304.13	515.58	125.99	100.55	25.44	4.952			
6,100.00	6,033.02	6,079.68	6,033.02	13.78	12.78	-90.39	304.13	515.58	125.99	100.40	25.59	4.923			
6,200.00	6,133.02	6,179.68	6,133.02	13.85	12.86	-90.39	304.13	515.58	125.99	100.25	25.74	4.895			
6,300.00	6,233.02	6,279.68	6,233.02	13.92	12.94	-90.39	304.13	515.58	125.99	100.10	25.89	4.866			
6,400.00	6,333.02	6,379.68	6,333.02	14.00	13.02	-90.39	304.13	515.58	125.99	99.95	26.04	4.838			
6,500.00	6,433.02	6,479.68	6,433.02	14.07	13.10	-90.39	304.13	515.58	125.99	99.80	26.19	4.811			
6,600.00	6,533.02	6,579.68	6,533.02	14.14	13.18	-90.39	304.13	515.58	125.99	99.65	26.34	4.783			
6,700.00	6,633.02	6,679.68	6,633.02	14.22	13.26	-90.39	304.13	515.58	125.99	99.50	26.49	4.756			
6,800.00	6,733.02	6,779.68	6,733.02	14.29	13.34	-90.39	304.13	515.58	125.99	99.35	26.64	4.729			
6,900.00	6,833.02	6,879.68	6,833.02	14.36	13.42	-90.39	304.13	515.58	125.99	99.20	26.79	4.703			
7,000.00	6,933.02	6,979.68	6,933.02	14.44	13.50	-90.39	304.13	515.58	125.99	99.05	26.94	4.677			
7,100.00	7,033.02	7,079.68	7,033.02	14.51	13.58	-90.39	304.13	515.58	125.99	98.90	27.09	4.651			
7,200.00	7,133.02	7,179.68	7,133.02	14.59	13.67	-90.39	304.13	515.58	125.99	98.75	27.24	4.625			
7,300.00	7,233.02	7,279.68	7,233.02	14.66	13.75	-90.39	304.13	515.58	125.99	98.60	27.39	4.599			
7,400.00	7,333.02	7,379.68	7,333.02	14.73	13.83	-90.39	304.13	515.58	125.99	98.45	27.55	4.574			
7,500.00	7,433.02	7,479.68	7,433.02	14.81	13.91	-90.39	304.13	515.58	125.99	98.30	27.70	4.549			
7,600.00	7,533.02	7,579.68	7,533.02	14.88	13.99	-90.39	304.13	515.58	125.99	98.14	27.85	4.524			
7,700.00	7,633.02	7,679.68	7,633.02	14.96	14.07	-90.39	304.13	515.58	125.99	97.99	28.00	4.500			
7,800.00	7,733.02	7,779.68	7,733.02	15.03	14.15	-90.39	304.13	515.58	125.99	97.84	28.15	4.476			
7,900.00	7,833.02	7,879.68	7,833.02	15.11	14.23	-90.39	304.13	515.58	125.99	97.69	28.30	4.452			
8,000.00	7,933.02	7,979.68	7,933.02	15.18	14.31	-90.39	304.13	515.58	125.99	97.54	28.45	4.428			
8,100.00	8,033.02	8,079.68	8,033.02	15.26	14.39	-90.39	304.13	515.58	125.99	97.39	28.61	4.404			
8,200.00	8,133.02	8,179.68	8,133.02	15.33	14.48	-90.39	304.13	515.58	125.99	97.23	28.76	4.381			
8,300.00	8,233.02	8,279.68	8,233.02	15.41	14.56	-90.39	304.13	515.58	125.99	97.08	28.91	4.358			
8,400.00	8,333.02	8,379.68	8,333.02	15.48	14.64	-90.39	304.13	515.58	125.99	96.93	29.06	4.335			
8,500.00	8,433.02	8,479.68	8,433.02	15.56	14.72	-90.39	304.13	515.58	125.99	96.78	29.22	4.312			
8,600.00	8,533.02	8,579.68	8,533.02	15.63	14.80	-90.39	304.13	515.58	125.99	96.62	29.37	4.290			
8,700.00	8,633.02	8,679.68	8,633.02	15.71	14.88	-90.39	304.13	515.58	125.99	96.47	29.52	4.268			
8,800.00	8,733.02	8,779.68	8,733.02	15.78	14.96	-90.39	304.13	515.58	125.99	96.32	29.67	4.246			
8,900.00	8,833.02	8,879.68	8,833.02	15.86	15.04	-90.39	304.13	515.58	125.99	96.17	29.83	4.224			
9,000.00	8,933.02	8,979.68	8,933.02	15.93	15.12	-90.39	304.13	515.58	125.99	96.01	29.98	4.203			
9,100.00	9,033.02	9,079.68	9,033.02	16.01	15.21	-90.39	304.13	515.58	125.99	95.86	30.13	4.181			
9,200.00	9,133.02	9,179.68	9,133.02	16.08	15.29	-90.39	304.13	515.58	125.99	95.71	30.29	4.160			
9,300.00	9,233.02	9,279.68	9,233.02	16.16	15.37	-90.39	304.13	515.58	125.99	95.55	30.44	4.139			
9,400.00	9,333.02	9,379.68	9,333.02	16.23	15.45	-90.39	304.13	515.58	125.99	95.40	30.59	4.118			
9,500.00	9,433.02	9,479.68	9,433.02	16.31	15.53	-90.39	304.13	515.58	125.99	95.25	30.75	4.098			
9,600.00	9,533.02	9,579.68	9,533.02	16.38	15.61	-90.39	304.13	515.58	125.99	95.09	30.90	4.077			
9,700.00	9,633.02	9,679.68	9,633.02	16.46	15.69	-90.39	304.13	515.58	125.99	94.94	31.05	4.057			
9,800.00	9,733.02	9,779.68	9,733.02	16.54	15.77	-90.39	304.13	515.58	125.99	94.78	31.21	4.037			
9,900.00	9,833.02	9,879.68	9,833.02	16.61	15.85	-90.39	304.13	515.58	125.99	94.63	31.36	4.017			
10,000.00	9,933.02	9,979.68	9,933.02	16.69	15.94	-90.39	304.13	515.58	125.99	94.48	31.52	3.998			
10,100.00	10,033.02	10,079.68	10,033.02	16.76	16.02	-90.39	304.13	515.58	125.99	94.32	31.67	3.978			

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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		Minimum Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
10,200.00	10,133.02	10,179.68	10,133.02	16.84	16.10	-90.39	304.13	515.58	125.99	94.17	31.82	3.959	
10,300.00	10,233.02	10,279.68	10,233.02	16.92	16.18	-90.39	304.13	515.58	125.99	94.01	31.98	3.940	
10,400.00	10,333.02	10,379.68	10,333.02	16.99	16.26	-90.39	304.13	515.58	125.99	93.86	32.13	3.921	
10,500.00	10,433.02	10,479.68	10,433.02	17.07	16.34	-90.39	304.13	515.58	125.99	93.70	32.29	3.902	
10,600.00	10,533.02	10,579.68	10,533.02	17.15	16.42	-90.39	304.13	515.58	125.99	93.55	32.44	3.884	
10,700.00	10,633.02	10,679.68	10,633.02	17.22	16.50	-90.39	304.13	515.58	125.99	93.40	32.60	3.865	
10,800.00	10,733.02	10,779.68	10,733.02	17.30	16.59	-90.39	304.13	515.58	125.99	93.24	32.75	3.847	
10,900.00	10,833.02	10,879.68	10,833.02	17.37	16.67	-90.39	304.13	515.58	125.99	93.09	32.91	3.829	
11,000.00	10,933.02	10,979.68	10,933.02	17.45	16.75	-90.39	304.13	515.58	125.99	92.93	33.06	3.811	
11,100.00	11,033.02	11,079.68	11,033.02	17.53	16.83	-90.39	304.13	515.58	125.99	92.78	33.22	3.793	
11,200.00	11,133.02	11,179.68	11,133.02	17.60	16.91	-90.39	304.13	515.58	125.99	92.62	33.37	3.775	
11,300.00	11,233.02	11,279.68	11,233.02	17.68	16.99	-90.39	304.13	515.58	125.99	92.47	33.53	3.758	
11,400.00	11,333.02	11,379.68	11,333.02	17.76	17.07	-90.39	304.13	515.58	125.99	92.31	33.68	3.741	
11,500.00	11,433.02	11,479.68	11,433.02	17.83	17.15	-90.39	304.13	515.58	125.99	92.16	33.84	3.724	
11,600.00	11,533.02	11,579.68	11,533.02	17.91	17.23	-90.39	304.13	515.58	125.99	92.00	33.99	3.707	
11,636.02	11,569.05	11,615.71	11,569.05	17.94	17.27	-90.49	303.91	515.58	125.99	91.96	34.04	3.702	
11,700.00	11,633.02	11,679.20	11,632.28	17.99	17.33	-92.90	298.62	515.63	126.11	92.04	34.06	3.702	
11,800.00	11,733.02	11,774.15	11,724.81	18.06	17.39	-102.21	277.77	515.81	128.94	94.77	34.17	3.774	
11,900.00	11,833.02	11,860.21	11,804.66	18.14	17.44	-115.21	245.90	516.08	141.57	106.50	35.07	4.037	
12,000.00	11,933.02	11,935.31	11,869.78	18.22	17.48	-127.60	208.60	516.40	170.17	132.87	37.30	4.563	
12,100.00	12,033.02	12,000.00	11,921.55	18.30	17.53	-137.27	169.87	516.74	215.10	175.04	40.06	5.370	
12,200.00	12,133.02	12,050.00	11,958.38	18.37	17.57	-143.60	136.08	517.03	273.02	230.17	42.85	6.372	
12,300.00	12,233.02	12,100.00	11,992.13	18.45	17.61	-148.88	99.21	517.34	340.30	295.56	44.75	7.605	
12,400.00	12,332.97	12,137.72	12,015.39	18.52	17.65	20.48	69.53	517.60	413.14	366.56	46.57	8.871	
12,500.00	12,431.38	12,177.35	12,037.66	18.56	17.70	15.48	36.76	517.88	481.68	433.52	48.16	10.001	
12,600.00	12,525.35	12,218.21	12,058.21	18.58	17.75	12.21	1.45	518.19	543.31	493.67	49.64	10.944	
12,700.00	12,612.01	12,250.00	12,072.42	18.59	17.79	10.19	-26.98	518.43	597.40	546.18	51.21	11.665	
12,800.00	12,688.74	12,300.00	12,091.52	18.62	17.87	8.45	-73.17	518.83	642.83	590.53	52.30	12.291	
12,900.00	12,753.20	12,350.00	12,106.52	18.67	17.97	7.21	-120.85	519.24	679.67	626.37	53.31	12.750	
13,000.00	12,803.44	12,400.00	12,117.31	18.75	18.08	6.30	-169.65	519.66	707.52	653.32	54.20	13.054	
13,100.00	12,837.92	12,432.07	12,121.98	18.89	18.16	5.79	-201.37	519.93	725.59	670.49	55.09	13.170	
13,200.00	12,855.60	12,475.69	12,125.46	19.08	18.28	5.32	-244.84	520.31	734.28	678.60	55.69	13.186	
13,300.00	12,858.40	12,550.94	12,126.43	19.34	18.51	4.75	-320.08	520.95	734.59	678.62	55.97	13.125	
13,400.00	12,859.27	12,650.70	12,127.30	19.70	18.89	4.25	-419.83	521.81	734.05	677.93	56.12	13.080	
13,500.00	12,860.14	12,750.64	12,128.17	20.14	19.34	4.01	-519.77	522.67	733.81	677.53	56.27	13.040	
13,599.60	12,861.01	12,850.24	12,129.03	20.65	19.87	3.95	-619.35	523.53	733.75	677.32	56.42	13.004	
13,600.00	12,861.01	12,850.64	12,129.04	20.65	19.87	3.99	-619.76	523.54	733.78	677.36	56.42	13.005	
13,700.00	12,861.88	12,950.64	12,129.91	21.24	20.47	3.99	-719.75	524.40	733.77	677.19	56.59	12.967	
13,800.00	12,862.75	13,050.64	12,130.78	21.90	21.15	3.99	-819.74	525.26	733.77	677.00	56.77	12.926	
13,900.00	12,863.61	13,150.64	12,131.65	22.62	21.89	3.99	-919.73	526.12	733.77	676.80	56.96	12.881	
14,000.00	12,864.48	13,250.64	12,132.52	23.39	22.69	3.99	-1,019.73	526.98	733.76	676.59	57.17	12.834	
14,100.00	12,865.35	13,350.64	12,133.40	24.23	23.55	3.99	-1,119.72	527.84	733.76	676.36	57.40	12.784	
14,200.00	12,866.22	13,450.64	12,134.27	25.11	24.46	3.99	-1,219.71	528.70	733.76	676.12	57.63	12.731	
14,300.00	12,867.09	13,550.64	12,135.14	26.03	25.41	3.99	-1,319.70	529.56	733.75	675.87	57.89	12.676	
14,400.00	12,867.95	13,650.64	12,136.01	26.99	26.39	3.99	-1,419.70	530.42	733.75	675.60	58.15	12.618	
14,500.00	12,868.82	13,750.64	12,136.88	27.99	27.42	3.99	-1,519.69	531.28	733.75	675.31	58.43	12.557	
14,600.00	12,869.69	13,850.64	12,137.75	29.01	28.47	3.99	-1,619.68	532.14	733.74	675.02	58.72	12.495	
14,700.00	12,870.56	13,950.64	12,138.62	30.07	29.55	3.99	-1,719.67	533.01	733.74	674.71	59.03	12.430	
14,800.00	12,871.43	14,050.64	12,139.49	31.15	30.66	3.99	-1,819.67	533.87	733.74	674.39	59.35	12.363	
14,900.00	12,872.29	14,150.64	12,140.37	32.25	31.78	3.99	-1,919.66	534.73	733.73	674.05	59.68	12.295	
15,000.00	12,873.16	14,250.64	12,141.24	33.38	32.93	3.99	-2,019.65	535.59	733.73	673.71	60.02	12.224	
15,100.00	12,874.03	14,350.64	12,142.11	34.52	34.09	3.99	-2,119.64	536.45	733.73	673.35	60.38	12.152	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
15,200.00	12,874.90	14,450.64	12,142.98	35.68	35.27	3.99	-2,219.64	537.31	733.72	672.98	60.75	12.079		
15,300.00	12,875.77	14,550.64	12,143.85	36.85	36.46	3.99	-2,319.63	538.17	733.72	672.59	61.12	12.004		
15,400.00	12,876.63	14,650.64	12,144.72	38.04	37.66	3.99	-2,419.62	539.03	733.72	672.20	61.52	11.927		
15,500.00	12,877.50	14,750.64	12,145.59	39.24	38.88	3.99	-2,519.61	539.89	733.71	671.79	61.92	11.850		
15,600.00	12,878.37	14,850.64	12,146.47	40.45	40.10	3.99	-2,619.61	540.75	733.71	671.38	62.33	11.771		
15,700.00	12,879.24	14,950.64	12,147.34	41.67	41.34	3.99	-2,719.60	541.62	733.71	670.95	62.76	11.691		
15,800.00	12,880.11	15,050.64	12,148.21	42.90	42.58	3.99	-2,819.59	542.48	733.70	670.51	63.19	11.611		
15,900.00	12,880.97	15,150.64	12,149.08	44.13	43.83	3.99	-2,919.58	543.34	733.70	670.06	63.64	11.529		
16,000.00	12,881.84	15,250.64	12,149.95	45.38	45.09	3.99	-3,019.58	544.20	733.70	669.60	64.09	11.447		
16,100.00	12,882.71	15,350.64	12,150.82	46.63	46.35	3.99	-3,119.57	545.06	733.69	669.13	64.56	11.364		
16,200.00	12,883.58	15,450.64	12,151.69	47.89	47.63	3.99	-3,219.56	545.92	733.69	668.65	65.04	11.281		
16,300.00	12,884.45	15,550.64	12,152.57	49.15	48.90	3.99	-3,319.55	546.78	733.69	668.16	65.52	11.197		
16,400.00	12,885.31	15,650.64	12,153.44	50.43	50.18	3.99	-3,419.55	547.64	733.68	667.66	66.02	11.113		
16,500.00	12,886.18	15,750.64	12,154.31	51.70	51.47	3.99	-3,519.54	548.50	733.68	667.16	66.52	11.029		
16,600.00	12,887.05	15,850.64	12,155.18	52.98	52.76	3.99	-3,619.53	549.36	733.68	666.64	67.04	10.945		
16,700.00	12,887.92	15,950.64	12,156.05	54.27	54.05	3.99	-3,719.52	550.23	733.67	666.11	67.56	10.860		
16,800.00	12,888.79	16,050.64	12,156.92	55.55	55.35	3.99	-3,819.52	551.09	733.67	665.58	68.09	10.775		
16,900.00	12,889.66	16,150.64	12,157.79	56.85	56.65	3.99	-3,919.51	551.95	733.66	665.04	68.63	10.691		
17,000.00	12,890.52	16,250.64	12,158.67	58.14	57.95	3.99	-4,019.50	552.81	733.66	664.49	69.17	10.606		
17,100.00	12,891.39	16,350.64	12,159.54	59.44	59.26	3.99	-4,119.49	553.67	733.66	663.93	69.73	10.521		
17,200.00	12,892.26	16,450.64	12,160.41	60.75	60.57	3.99	-4,219.49	554.53	733.65	663.36	70.29	10.437		
17,300.00	12,893.13	16,550.64	12,161.28	62.05	61.88	3.99	-4,319.48	555.39	733.65	662.79	70.86	10.353		
17,400.00	12,894.00	16,650.64	12,162.15	63.36	63.20	3.99	-4,419.47	556.25	733.65	662.21	71.44	10.269		
17,500.00	12,894.86	16,750.64	12,163.02	64.67	64.52	3.99	-4,519.46	557.11	733.64	661.62	72.03	10.186		
17,600.00	12,895.73	16,850.64	12,163.89	65.99	65.84	3.99	-4,619.46	557.97	733.64	661.02	72.62	10.102		
17,700.00	12,896.60	16,950.64	12,164.77	67.30	67.16	3.99	-4,719.45	558.84	733.64	660.42	73.22	10.020		
17,800.00	12,897.47	17,050.64	12,165.64	68.62	68.48	3.99	-4,819.44	559.70	733.63	659.81	73.83	9.937		
17,900.00	12,898.34	17,150.64	12,166.51	69.94	69.81	3.99	-4,919.43	560.56	733.63	659.19	74.44	9.855		
18,000.00	12,899.20	17,250.64	12,167.38	71.26	71.13	3.99	-5,019.43	561.42	733.63	658.57	75.06	9.774		
18,100.00	12,900.07	17,350.64	12,168.25	72.58	72.46	3.99	-5,119.42	562.28	733.62	657.94	75.68	9.693		
18,200.00	12,900.94	17,450.64	12,169.12	73.91	73.79	3.99	-5,219.41	563.14	733.62	657.31	76.32	9.613		
18,300.00	12,901.81	17,550.64	12,169.99	75.24	75.12	3.99	-5,319.40	564.00	733.62	656.66	76.95	9.533		
18,400.00	12,902.68	17,650.64	12,170.87	76.56	76.46	3.99	-5,419.40	564.86	733.61	656.02	77.60	9.454		
18,500.00	12,903.54	17,750.64	12,171.74	77.89	77.79	3.99	-5,519.39	565.72	733.61	655.37	78.25	9.376		
18,600.00	12,904.41	17,850.64	12,172.61	79.23	79.13	3.99	-5,619.38	566.58	733.61	654.71	78.90	9.298		
18,700.00	12,905.28	17,950.64	12,173.48	80.56	80.46	3.99	-5,719.37	567.45	733.60	654.04	79.56	9.221		
18,800.00	12,906.15	18,050.64	12,174.35	81.89	81.80	3.99	-5,819.37	568.31	733.60	653.38	80.22	9.144		
18,900.00	12,907.02	18,150.64	12,175.22	83.23	83.14	3.99	-5,919.36	569.17	733.60	652.70	80.89	9.069		
19,000.00	12,907.88	18,250.64	12,176.09	84.56	84.48	3.99	-6,019.35	570.03	733.59	652.02	81.57	8.993		
19,100.00	12,908.75	18,350.64	12,176.97	85.90	85.82	3.99	-6,119.34	570.89	733.59	651.34	82.25	8.919		
19,200.00	12,909.62	18,450.64	12,177.84	87.24	87.16	3.99	-6,219.34	571.75	733.59	650.65	82.94	8.845		
19,300.00	12,910.49	18,550.64	12,178.71	88.58	88.51	3.99	-6,319.33	572.61	733.58	649.96	83.62	8.772		
19,400.00	12,911.36	18,650.64	12,179.58	89.92	89.85	3.99	-6,419.32	573.47	733.58	649.26	84.32	8.700		
19,500.00	12,912.22	18,750.64	12,180.45	91.26	91.19	3.99	-6,519.31	574.33	733.58	648.56	85.02	8.629		
19,600.00	12,913.09	18,850.64	12,181.32	92.60	92.54	3.99	-6,619.31	575.19	733.57	647.85	85.72	8.558		
19,700.00	12,913.96	18,950.64	12,182.19	93.94	93.88	3.99	-6,719.30	576.06	733.57	647.14	86.43	8.488		
19,800.00	12,914.83	19,050.64	12,183.06	95.29	95.23	3.99	-6,819.29	576.92	733.57	646.43	87.14	8.418		
19,900.00	12,915.70	19,150.64	12,183.94	96.63	96.58	3.99	-6,919.28	577.78	733.56	645.71	87.85	8.350		
20,000.00	12,916.56	19,250.64	12,184.81	97.98	97.93	3.99	-7,019.28	578.64	733.56	644.99	88.57	8.282		
20,100.00	12,917.43	19,350.64	12,185.68	99.32	99.27	3.99	-7,119.27	579.50	733.56	644.26	89.30	8.215		
20,200.00	12,918.30	19,450.64	12,186.55	100.67	100.62	3.99	-7,219.26	580.36	733.55	643.53	90.02	8.149		
20,300.00	12,919.17	19,550.64	12,187.42	102.01	101.97	3.99	-7,319.25	581.22	733.55	642.80	90.75	8.083		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 132H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)												Rule Assigned:		Warning	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor			
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)					
20,400.00	12,920.04	19,650.64	12,188.29	103.36	103.32	3.99	-7,419.25	582.08	733.55	642.06	91.49	8.018			
20,500.00	12,920.90	19,750.64	12,189.16	104.71	104.67	3.99	-7,519.24	582.94	733.54	641.32	92.22	7.954			
20,600.00	12,921.77	19,850.64	12,190.04	106.06	106.02	3.99	-7,619.23	583.80	733.54	640.58	92.96	7.891			
20,700.00	12,922.64	19,950.64	12,190.91	107.41	107.37	3.99	-7,719.22	584.67	733.54	639.83	93.71	7.828			
20,800.00	12,923.51	20,050.64	12,191.78	108.76	108.73	3.99	-7,819.22	585.53	733.53	639.08	94.45	7.766			
20,900.00	12,924.38	20,150.64	12,192.65	110.11	110.08	3.99	-7,919.21	586.39	733.53	638.33	95.20	7.705			
21,000.00	12,925.24	20,250.64	12,193.52	111.46	111.43	3.99	-8,019.20	587.25	733.53	637.57	95.96	7.644			
21,100.00	12,926.11	20,350.64	12,194.39	112.81	112.79	3.99	-8,119.19	588.11	733.52	636.81	96.71	7.584			
21,200.00	12,926.98	20,450.64	12,195.26	114.16	114.14	3.99	-8,219.19	588.97	733.52	636.05	97.47	7.525			
21,300.00	12,927.85	20,550.64	12,196.14	115.51	115.49	3.99	-8,319.18	589.83	733.52	635.28	98.24	7.467			
21,400.00	12,928.72	20,650.64	12,197.01	116.87	116.85	3.99	-8,419.17	590.69	733.51	634.51	99.00	7.409			
21,500.00	12,929.58	20,750.64	12,197.88	118.22	118.20	3.99	-8,519.16	591.55	733.51	633.74	99.77	7.352			
21,600.00	12,930.45	20,850.64	12,198.75	119.57	119.56	3.99	-8,619.16	592.41	733.51	632.97	100.54	7.296			
21,700.00	12,931.32	20,950.64	12,199.62	120.93	120.91	3.99	-8,719.15	593.27	733.50	632.19	101.31	7.240			
21,800.00	12,932.19	21,050.64	12,200.49	122.28	122.27	3.99	-8,819.14	594.14	733.50	631.41	102.09	7.185			
21,900.00	12,933.06	21,150.64	12,201.36	123.63	123.62	3.99	-8,919.13	595.00	733.50	630.63	102.86	7.131			
22,000.00	12,933.92	21,250.64	12,202.24	124.99	124.98	3.99	-9,019.13	595.86	733.49	629.85	103.64	7.077			
22,100.00	12,934.79	21,350.64	12,203.11	126.34	126.34	3.99	-9,119.12	596.72	733.49	629.06	104.43	7.024			
22,200.00	12,935.66	21,450.64	12,203.98	127.70	127.69	3.99	-9,219.11	597.58	733.49	628.27	105.21	6.971			
22,300.00	12,936.53	21,550.64	12,204.85	129.05	129.05	3.99	-9,319.10	598.44	733.48	627.48	106.00	6.920			
22,400.00	12,937.40	21,650.64	12,205.72	130.41	130.41	3.99	-9,419.10	599.30	733.48	626.69	106.79	6.868			
22,500.00	12,938.26	21,750.64	12,206.59	131.77	131.77	3.99	-9,519.09	600.16	733.48	625.90	107.58	6.818			
22,600.00	12,939.13	21,850.64	12,207.46	133.12	133.12	3.99	-9,619.08	601.02	733.47	625.10	108.37	6.768			
22,700.00	12,940.00	21,950.64	12,208.34	134.48	134.48	3.99	-9,719.07	601.88	733.47	624.30	109.17	6.719			
22,800.00	12,940.87	22,050.64	12,209.21	135.84	135.84	3.99	-9,819.07	602.75	733.47	623.50	109.97	6.670			
22,900.00	12,941.74	22,150.64	12,210.08	137.19	137.20	3.99	-9,919.06	603.61	733.46	622.69	110.77	6.622			
23,000.00	12,942.61	22,250.64	12,210.95	138.55	138.56	3.99	-10,019.05	604.47	733.46	621.89	111.57	6.574			
23,100.00	12,943.47	22,350.64	12,211.82	139.91	139.92	3.99	-10,119.04	605.33	733.46	621.08	112.37	6.527			
23,175.25	12,944.13	22,425.88	12,212.48	140.94	140.94	3.99	-10,194.28	605.98	733.45	620.48	112.98	6.492			
23,184.44	12,944.21	22,428.60	12,212.50	141.07	140.98	3.99	-10,197.00	606.00	733.48	620.31	113.17	6.481			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)	Semi Reference (usft)	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		
3,300.00	3,279.41	3,543.36	3,512.15	7.88	8.93	13.04	589.46	2,103.84	1,958.54	1,941.86	16.68	117.414			
3,400.00	3,377.23	3,637.12	3,604.75	8.07	9.14	13.48	577.34	2,095.60	1,926.81	1,909.75	17.06	112.957			
3,500.00	3,475.05	3,730.87	3,697.35	8.29	9.35	13.93	565.21	2,087.35	1,895.19	1,877.76	17.44	108.682			
3,600.00	3,572.86	3,824.63	3,789.96	8.52	9.57	14.40	553.09	2,079.11	1,863.69	1,845.87	17.82	104.580			
3,700.00	3,670.68	3,918.38	3,882.56	8.75	9.78	14.88	540.96	2,070.87	1,832.30	1,814.10	18.21	100.643			
3,800.00	3,768.49	4,012.14	3,975.16	8.99	9.99	15.38	528.84	2,062.63	1,801.04	1,782.45	18.59	96.862			
3,900.00	3,866.31	4,105.89	4,067.76	9.23	10.20	15.90	516.71	2,054.39	1,769.91	1,750.93	18.98	93.230			
4,000.00	3,964.13	4,199.65	4,160.36	9.47	10.41	16.44	504.59	2,046.15	1,738.92	1,719.55	19.38	89.740			
4,100.00	4,061.94	4,293.40	4,252.96	9.71	10.62	16.99	492.46	2,037.90	1,708.08	1,688.31	19.77	86.384			
4,200.00	4,159.76	4,387.16	4,345.57	9.95	10.84	17.56	480.34	2,029.66	1,677.39	1,657.22	20.17	83.157			
4,300.00	4,257.57	4,480.91	4,438.17	10.20	11.05	18.16	468.22	2,021.42	1,646.86	1,626.29	20.57	80.052			
4,400.00	4,355.39	4,574.67	4,530.77	10.45	11.26	18.77	456.09	2,013.18	1,616.50	1,595.53	20.98	77.065			
4,500.00	4,453.21	4,668.42	4,623.37	10.70	11.47	19.41	443.97	2,004.94	1,586.33	1,564.95	21.38	74.189			
4,600.00	4,551.02	4,762.18	4,715.97	10.95	11.69	20.08	431.84	1,996.70	1,556.35	1,534.56	21.79	71.420			
4,700.00	4,648.84	4,855.93	4,808.57	11.21	11.90	20.76	419.72	1,988.46	1,526.57	1,504.37	22.20	68.753			
4,800.00	4,746.65	4,949.69	4,901.18	11.46	12.11	21.48	407.59	1,980.21	1,497.01	1,474.39	22.62	66.184			
4,900.00	4,844.47	5,043.44	4,993.78	11.72	12.33	22.22	395.47	1,971.97	1,467.68	1,444.64	23.04	63.708			
5,000.00	4,942.29	5,137.20	5,086.38	11.98	12.54	22.99	383.34	1,963.73	1,438.59	1,415.13	23.46	61.323			
5,100.00	5,040.10	5,230.95	5,178.98	12.24	12.75	23.79	371.22	1,955.49	1,409.76	1,385.87	23.88	59.024			
5,200.00	5,137.97	5,324.79	5,271.66	12.46	12.96	24.54	359.08	1,947.24	1,381.41	1,357.14	24.27	56.907			
5,300.00	5,236.26	5,411.19	5,357.03	12.70	13.14	25.12	348.06	1,939.75	1,355.39	1,330.71	24.68	54.914			
5,400.00	5,334.99	5,490.33	5,435.43	12.92	13.30	25.58	339.14	1,933.68	1,332.96	1,307.87	25.09	53.127			
5,500.00	5,434.11	5,570.88	5,515.44	13.11	13.45	25.99	331.44	1,928.45	1,314.23	1,288.75	25.48	51.587			
5,600.00	5,533.54	5,652.63	5,596.82	13.28	13.59	26.34	325.05	1,924.11	1,299.18	1,273.34	25.84	50.283			
5,700.00	5,633.22	5,735.33	5,679.30	13.43	13.72	26.61	320.05	1,920.71	1,287.78	1,261.61	26.17	49.205			
5,800.00	5,733.07	5,818.74	5,762.60	13.56	13.82	26.81	316.51	1,918.30	1,280.01	1,253.53	26.48	48.348			
5,900.00	5,833.02	5,900.00	5,843.82	13.66	13.91	26.92	314.51	1,916.94	1,275.83	1,249.09	26.74	47.711			
6,000.00	5,933.02	5,989.21	5,933.02	13.71	13.95	26.92	313.93	1,916.55	1,275.01	1,248.17	26.84	47.510			
6,100.00	6,033.02	6,089.21	6,033.02	13.78	13.98	26.92	313.93	1,916.55	1,275.01	1,248.08	26.94	47.335			
6,200.00	6,133.02	6,189.21	6,133.02	13.85	14.01	26.92	313.93	1,916.55	1,275.01	1,247.97	27.04	47.153			
6,300.00	6,233.02	6,289.21	6,233.02	13.92	14.04	26.92	313.93	1,916.55	1,275.01	1,247.87	27.14	46.971			
6,400.00	6,333.02	6,389.21	6,333.02	14.00	14.08	26.92	313.93	1,916.55	1,275.01	1,247.76	27.25	46.790			
6,500.00	6,433.02	6,489.21	6,433.02	14.07	14.11	26.92	313.93	1,916.55	1,275.01	1,247.66	27.36	46.609			
6,600.00	6,533.02	6,589.21	6,533.02	14.14	14.15	26.92	313.93	1,916.55	1,275.01	1,247.55	27.46	46.429			
6,700.00	6,633.02	6,689.21	6,633.02	14.22	14.18	26.92	313.93	1,916.55	1,275.01	1,247.44	27.57	46.249			
6,800.00	6,733.02	6,789.21	6,733.02	14.29	14.22	26.92	313.93	1,916.55	1,275.01	1,247.34	27.68	46.070			
6,900.00	6,833.02	6,889.21	6,833.02	14.36	14.25	26.92	313.93	1,916.55	1,275.01	1,247.23	27.78	45.892			
7,000.00	6,933.02	6,989.21	6,933.02	14.44	14.29	26.92	313.93	1,916.55	1,275.01	1,247.12	27.89	45.714			
7,100.00	7,033.02	7,089.21	7,033.02	14.51	14.33	26.92	313.93	1,916.55	1,275.01	1,247.01	28.00	45.537			
7,200.00	7,133.02	7,189.21	7,133.02	14.59	14.36	26.92	313.93	1,916.55	1,275.01	1,246.90	28.11	45.360			
7,300.00	7,233.02	7,289.21	7,233.02	14.66	14.40	26.92	313.93	1,916.55	1,275.01	1,246.79	28.22	45.184			
7,400.00	7,333.02	7,389.21	7,333.02	14.73	14.44	26.92	313.93	1,916.55	1,275.01	1,246.68	28.33	45.008			
7,500.00	7,433.02	7,489.21	7,433.02	14.81	14.48	26.92	313.93	1,916.55	1,275.01	1,246.57	28.44	44.833			
7,600.00	7,533.02	7,589.21	7,533.02	14.88	14.52	26.92	313.93	1,916.55	1,275.01	1,246.46	28.55	44.659			
7,700.00	7,633.02	7,689.21	7,633.02	14.96	14.55	26.92	313.93	1,916.55	1,275.01	1,246.35	28.66	44.486			
7,800.00	7,733.02	7,789.21	7,733.02	15.03	14.59	26.92	313.93	1,916.55	1,275.01	1,246.24	28.77	44.313			
7,900.00	7,833.02	7,889.21	7,833.02	15.11	14.63	26.92	313.93	1,916.55	1,275.01	1,246.13	28.89	44.141			
8,000.00	7,933.02	7,989.21	7,933.02	15.18	14.67	26.92	313.93	1,916.55	1,275.01	1,246.01	29.00	43.969			
8,100.00	8,033.02	8,089.21	8,033.02	15.26	14.71	26.92	313.93	1,916.55	1,275.01	1,245.90	29.11	43.798			
8,200.00	8,133.02	8,189.21	8,133.02	15.33	14.76	26.92	313.93	1,916.55	1,275.01	1,245.79	29.22	43.628			
8,300.00	8,233.02	8,289.21	8,233.02	15.41	14.80	26.92	313.93	1,916.55	1,275.01	1,245.67	29.34	43.458			
8,400.00	8,333.02	8,389.21	8,333.02	15.48	14.84	26.92	313.93	1,916.55	1,275.01	1,245.56	29.45	43.290			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Major Axis Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
8,500.00	8,433.02	8,489.21	8,433.02	15.56	14.88	89.60	313.93	1,916.55	1,275.01	1,245.44	29.57	43.121		
8,600.00	8,533.02	8,589.21	8,533.02	15.63	14.92	89.60	313.93	1,916.55	1,275.01	1,245.33	29.68	42.954		
8,700.00	8,633.02	8,689.21	8,633.02	15.71	14.97	89.60	313.93	1,916.55	1,275.01	1,245.21	29.80	42.787		
8,800.00	8,733.02	8,789.21	8,733.02	15.78	15.01	89.60	313.93	1,916.55	1,275.01	1,245.10	29.92	42.621		
8,900.00	8,833.02	8,889.21	8,833.02	15.86	15.05	89.60	313.93	1,916.55	1,275.01	1,244.98	30.03	42.456		
9,000.00	8,933.02	8,989.21	8,933.02	15.93	15.10	89.60	313.93	1,916.55	1,275.01	1,244.86	30.15	42.291		
9,100.00	9,033.02	9,089.21	9,033.02	16.01	15.14	89.60	313.93	1,916.55	1,275.01	1,244.75	30.27	42.127		
9,200.00	9,133.02	9,189.21	9,133.02	16.08	15.19	89.60	313.93	1,916.55	1,275.01	1,244.63	30.38	41.964		
9,300.00	9,233.02	9,289.21	9,233.02	16.16	15.23	89.60	313.93	1,916.55	1,275.01	1,244.51	30.50	41.802		
9,400.00	9,333.02	9,389.21	9,333.02	16.23	15.28	89.60	313.93	1,916.55	1,275.01	1,244.39	30.62	41.640		
9,500.00	9,433.02	9,489.21	9,433.02	16.31	15.32	89.60	313.93	1,916.55	1,275.01	1,244.27	30.74	41.479		
9,600.00	9,533.02	9,589.21	9,533.02	16.38	15.37	89.60	313.93	1,916.55	1,275.01	1,244.15	30.86	41.319		
9,700.00	9,633.02	9,689.21	9,633.02	16.46	15.41	89.60	313.93	1,916.55	1,275.01	1,244.03	30.98	41.159		
9,800.00	9,733.02	9,789.21	9,733.02	16.54	15.46	89.60	313.93	1,916.55	1,275.01	1,243.91	31.10	41.000		
9,900.00	9,833.02	9,889.21	9,833.02	16.61	15.51	89.60	313.93	1,916.55	1,275.01	1,243.79	31.22	40.842		
10,000.00	9,933.02	9,989.21	9,933.02	16.69	15.56	89.60	313.93	1,916.55	1,275.01	1,243.67	31.34	40.685		
10,100.00	10,033.02	10,089.21	10,033.02	16.76	15.60	89.60	313.93	1,916.55	1,275.01	1,243.55	31.46	40.528		
10,200.00	10,133.02	10,189.21	10,133.02	16.84	15.65	89.60	313.93	1,916.55	1,275.01	1,243.43	31.58	40.373		
10,300.00	10,233.02	10,289.21	10,233.02	16.92	15.70	89.60	313.93	1,916.55	1,275.01	1,243.31	31.70	40.218		
10,400.00	10,333.02	10,389.21	10,333.02	16.99	15.75	89.60	313.93	1,916.55	1,275.01	1,243.19	31.82	40.063		
10,500.00	10,433.02	10,489.21	10,433.02	17.07	15.80	89.60	313.93	1,916.55	1,275.01	1,243.06	31.95	39.910		
10,600.00	10,533.02	10,589.21	10,533.02	17.15	15.85	89.60	313.93	1,916.55	1,275.01	1,242.94	32.07	39.757		
10,700.00	10,633.02	10,689.21	10,633.02	17.22	15.90	89.60	313.93	1,916.55	1,275.01	1,242.82	32.19	39.605		
10,800.00	10,733.02	10,789.21	10,733.02	17.30	15.95	89.60	313.93	1,916.55	1,275.01	1,242.69	32.32	39.453		
10,900.00	10,833.02	10,889.21	10,833.02	17.37	16.00	89.60	313.93	1,916.55	1,275.01	1,242.57	32.44	39.303		
11,000.00	10,933.02	10,989.21	10,933.02	17.45	16.05	89.60	313.93	1,916.55	1,275.01	1,242.45	32.56	39.153		
11,100.00	11,033.02	11,089.21	11,033.02	17.53	16.10	89.60	313.93	1,916.55	1,275.01	1,242.32	32.69	39.004		
11,200.00	11,133.02	11,189.21	11,133.02	17.60	16.15	89.60	313.93	1,916.55	1,275.01	1,242.20	32.81	38.856		
11,300.00	11,233.02	11,289.21	11,233.02	17.68	16.20	89.60	313.93	1,916.55	1,275.01	1,242.07	32.94	38.708		
11,400.00	11,333.02	11,389.21	11,333.02	17.76	16.25	89.60	313.93	1,916.55	1,275.01	1,241.95	33.06	38.561		
11,500.00	11,433.02	11,489.21	11,433.02	17.83	16.30	89.60	313.93	1,916.55	1,275.01	1,241.82	33.19	38.415		
11,600.00	11,533.02	11,592.52	11,536.30	17.91	16.37	89.66	312.51	1,916.51	1,274.96	1,241.66	33.30	38.283		
11,700.00	11,633.02	11,698.44	11,640.67	17.99	16.58	90.43	295.37	1,915.98	1,274.47	1,240.96	33.51	38.027		
11,792.25	11,725.27	11,788.06	11,725.27	18.06	16.82	91.75	266.08	1,915.09	1,274.11	1,240.30	33.81	37.682	CC	
11,800.00	11,733.02	11,795.13	11,731.73	18.06	16.85	91.88	263.21	1,915.00	1,274.12	1,240.28	33.84	37.653	ES	
11,900.00	11,833.02	11,879.13	11,805.49	18.14	17.13	93.68	223.20	1,913.78	1,275.13	1,240.89	34.25	37.235		
12,000.00	11,933.02	11,950.00	11,862.61	18.22	17.43	95.56	181.35	1,912.50	1,278.87	1,244.15	34.72	36.838		
12,100.00	12,033.02	12,008.62	11,905.67	18.30	17.73	97.33	141.62	1,911.29	1,286.50	1,251.23	35.27	36.476		
12,200.00	12,133.02	12,050.00	11,933.50	18.37	17.97	98.69	111.03	1,910.35	1,298.94	1,263.05	35.88	36.199		
12,300.00	12,233.02	12,100.00	11,964.08	18.45	18.29	100.44	71.51	1,909.14	1,316.66	1,279.98	36.68	35.900		
12,400.00	12,332.97	12,132.14	11,981.87	18.52	18.52	-82.71	44.75	1,908.33	1,339.82	1,302.33	37.49	35.742		
12,500.00	12,431.38	12,168.02	11,999.92	18.56	18.80	-78.81	13.77	1,907.38	1,366.45	1,328.14	38.31	35.664		
12,600.00	12,525.35	12,200.00	12,014.35	18.58	19.05	-75.01	-14.75	1,906.51	1,394.77	1,355.63	39.15	35.629		
12,700.00	12,612.01	12,250.00	12,033.65	18.59	19.48	-70.99	-60.84	1,905.10	1,423.21	1,383.17	40.04	35.544		
12,800.00	12,688.74	12,284.66	12,044.64	18.62	19.79	-67.68	-93.69	1,904.10	1,450.40	1,409.54	40.86	35.494		
12,900.00	12,753.20	12,325.37	12,054.98	18.67	20.17	-64.74	-133.04	1,902.89	1,475.22	1,433.55	41.67	35.401		
13,000.00	12,803.44	12,366.60	12,062.58	18.75	20.57	-62.33	-173.53	1,901.66	1,496.65	1,454.21	42.44	35.266		
13,100.00	12,837.92	12,400.00	12,066.58	18.89	20.90	-60.55	-206.67	1,900.64	1,513.99	1,470.88	43.11	35.119		
13,200.00	12,855.60	12,448.18	12,068.94	19.08	21.38	-59.28	-254.76	1,899.17	1,526.50	1,482.70	43.80	34.851		
13,300.00	12,858.40	12,519.53	12,069.44	19.34	22.12	-59.01	-326.10	1,897.88	1,533.87	1,489.30	44.56	34.420		
13,400.00	12,859.27	12,599.95	12,070.00	19.70	22.97	-59.15	-406.51	1,898.30	1,539.49	1,494.02	45.47	33.857		
13,500.00	12,860.14	12,699.89	12,070.70	20.14	24.06	-59.22	-506.44	1,899.21	1,542.52	1,495.90	46.62	33.090		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)												Offset Site Error: 0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre			Rule Assigned: 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
13,600.00	12,861.01	12,799.88	12,071.40	20.65	25.17	-59.22	-606.43	1,900.12	1,542.97	1,495.13	47.84	32.254	
13,700.00	12,861.88	12,899.88	12,072.10	21.24	26.31	-59.21	-706.42	1,901.02	1,543.10	1,493.94	49.15	31.393	
13,800.00	12,862.75	12,999.88	12,072.80	21.90	27.47	-59.21	-806.42	1,901.93	1,543.22	1,492.67	50.55	30.529	
13,900.00	12,863.61	13,099.88	12,073.49	22.62	28.64	-59.21	-906.41	1,902.84	1,543.35	1,491.33	52.02	29.669	
14,000.00	12,864.48	13,199.88	12,074.19	23.39	29.83	-59.20	-1,006.40	1,903.74	1,543.48	1,489.92	53.55	28.821	
14,100.00	12,865.35	13,299.88	12,074.89	24.23	31.04	-59.20	-1,106.40	1,904.65	1,543.60	1,488.45	55.15	27.990	
14,200.00	12,866.22	13,399.88	12,075.59	25.11	32.26	-59.19	-1,206.39	1,905.56	1,543.73	1,486.93	56.80	27.177	
14,300.00	12,867.09	13,499.88	12,076.29	26.03	33.49	-59.19	-1,306.38	1,906.46	1,543.86	1,485.35	58.51	26.388	
14,400.00	12,867.95	13,599.88	12,076.99	26.99	34.73	-59.18	-1,406.38	1,907.37	1,543.98	1,483.72	60.26	25.623	
14,500.00	12,868.82	13,699.88	12,077.68	27.99	35.98	-59.18	-1,506.37	1,908.28	1,544.11	1,482.05	62.05	24.883	
14,600.00	12,869.69	13,799.88	12,078.38	29.01	37.23	-59.17	-1,606.36	1,909.18	1,544.24	1,480.35	63.89	24.170	
14,700.00	12,870.56	13,899.88	12,079.08	30.07	38.50	-59.17	-1,706.36	1,910.09	1,544.36	1,478.60	65.76	23.484	
14,800.00	12,871.43	13,999.88	12,079.78	31.15	39.77	-59.16	-1,806.35	1,911.00	1,544.49	1,476.82	67.67	22.825	
14,900.00	12,872.29	14,099.88	12,080.48	32.25	41.05	-59.16	-1,906.34	1,911.91	1,544.62	1,475.01	69.60	22.192	
15,000.00	12,873.16	14,199.88	12,081.18	33.38	42.33	-59.16	-2,006.34	1,912.81	1,544.74	1,473.17	71.57	21.584	
15,100.00	12,874.03	14,299.88	12,081.87	34.52	43.62	-59.15	-2,106.33	1,913.72	1,544.87	1,471.31	73.56	21.002	
15,200.00	12,874.90	14,399.88	12,082.57	35.68	44.91	-59.15	-2,206.32	1,914.63	1,545.00	1,469.42	75.57	20.444	
15,300.00	12,875.77	14,499.88	12,083.27	36.85	46.21	-59.14	-2,306.32	1,915.53	1,545.12	1,467.51	77.61	19.909	
15,400.00	12,876.63	14,599.88	12,083.97	38.04	47.51	-59.14	-2,406.31	1,916.44	1,545.25	1,465.58	79.66	19.397	
15,500.00	12,877.50	14,699.88	12,084.67	39.24	48.81	-59.13	-2,506.30	1,917.35	1,545.38	1,463.64	81.74	18.906	
15,600.00	12,878.37	14,799.88	12,085.36	40.45	50.12	-59.13	-2,606.30	1,918.25	1,545.50	1,461.67	83.83	18.436	
15,700.00	12,879.24	14,899.88	12,086.06	41.67	51.43	-59.12	-2,706.29	1,919.16	1,545.63	1,459.69	85.94	17.985	
15,800.00	12,880.11	14,999.88	12,086.76	42.90	52.74	-59.12	-2,806.28	1,920.07	1,545.76	1,457.69	88.06	17.553	
15,900.00	12,880.97	15,099.88	12,087.46	44.13	54.06	-59.11	-2,906.28	1,920.97	1,545.88	1,455.68	90.20	17.139	
16,000.00	12,881.84	15,199.88	12,088.16	45.38	55.38	-59.11	-3,006.27	1,921.88	1,546.01	1,453.66	92.35	16.741	
16,100.00	12,882.71	15,299.88	12,088.86	46.63	56.70	-59.11	-3,106.26	1,922.79	1,546.14	1,451.63	94.51	16.360	
16,200.00	12,883.58	15,399.88	12,089.55	47.89	58.02	-59.10	-3,206.26	1,923.69	1,546.26	1,449.58	96.68	15.993	
16,300.00	12,884.45	15,499.88	12,090.25	49.15	59.35	-59.10	-3,306.25	1,924.60	1,546.39	1,447.52	98.86	15.642	
16,400.00	12,885.31	15,599.88	12,090.95	50.43	60.68	-59.09	-3,406.24	1,925.51	1,546.52	1,445.46	101.06	15.304	
16,500.00	12,886.18	15,699.88	12,091.65	51.70	62.01	-59.09	-3,506.24	1,926.41	1,546.64	1,443.39	103.26	14.979	
16,600.00	12,887.05	15,799.88	12,092.35	52.98	63.34	-59.08	-3,606.23	1,927.32	1,546.77	1,441.30	105.47	14.666	
16,700.00	12,887.92	15,899.88	12,093.05	54.27	64.67	-59.08	-3,706.22	1,928.23	1,546.90	1,439.21	107.68	14.365	
16,800.00	12,888.79	15,999.88	12,093.74	55.55	66.00	-59.07	-3,806.22	1,929.13	1,547.02	1,437.11	109.91	14.076	
16,900.00	12,889.66	16,099.88	12,094.44	56.85	67.34	-59.07	-3,906.21	1,930.04	1,547.15	1,435.01	112.14	13.797	
17,000.00	12,890.52	16,199.88	12,095.14	58.14	68.68	-59.07	-4,006.20	1,930.95	1,547.28	1,432.90	114.38	13.528	
17,100.00	12,891.39	16,299.88	12,095.84	59.44	70.01	-59.06	-4,106.20	1,931.86	1,547.40	1,430.78	116.62	13.269	
17,200.00	12,892.26	16,399.88	12,096.54	60.75	71.35	-59.06	-4,206.19	1,932.76	1,547.53	1,428.66	118.87	13.019	
17,300.00	12,893.13	16,499.88	12,097.23	62.05	72.69	-59.05	-4,306.18	1,933.67	1,547.66	1,426.53	121.13	12.777	
17,400.00	12,894.00	16,599.88	12,097.93	63.36	74.04	-59.05	-4,406.18	1,934.58	1,547.78	1,424.40	123.39	12.544	
17,500.00	12,894.86	16,699.88	12,098.63	64.67	75.38	-59.04	-4,506.17	1,935.48	1,547.91	1,422.26	125.65	12.319	
17,600.00	12,895.73	16,799.88	12,099.33	65.99	76.72	-59.04	-4,606.16	1,936.39	1,548.04	1,420.12	127.92	12.102	
17,700.00	12,896.60	16,899.88	12,100.03	67.30	78.06	-59.03	-4,706.16	1,937.30	1,548.16	1,417.97	130.19	11.891	
17,800.00	12,897.47	16,999.88	12,100.73	68.62	79.41	-59.03	-4,806.15	1,938.20	1,548.29	1,415.82	132.47	11.688	
17,900.00	12,898.34	17,099.88	12,101.42	69.94	80.76	-59.02	-4,906.14	1,939.11	1,548.42	1,413.67	134.75	11.491	
18,000.00	12,899.20	17,199.88	12,102.12	71.26	82.10	-59.02	-5,006.14	1,940.02	1,548.54	1,411.51	137.04	11.300	
18,100.00	12,900.07	17,299.88	12,102.82	72.58	83.45	-59.02	-5,106.13	1,940.92	1,548.67	1,409.35	139.33	11.115	
18,200.00	12,900.94	17,399.88	12,103.52	73.91	84.80	-59.01	-5,206.12	1,941.83	1,548.80	1,407.18	141.62	10.937	
18,300.00	12,901.81	17,499.88	12,104.22	75.24	86.15	-59.01	-5,306.12	1,942.74	1,548.93	1,405.01	143.91	10.763	
18,400.00	12,902.68	17,599.88	12,104.92	76.56	87.50	-59.00	-5,406.11	1,943.64	1,549.05	1,402.84	146.21	10.595	
18,500.00	12,903.54	17,699.88	12,105.61	77.89	88.85	-59.00	-5,506.10	1,944.55	1,549.18	1,400.67	148.51	10.432	
18,600.00	12,904.41	17,799.88	12,106.31	79.23	90.20	-58.99	-5,606.09	1,945.46	1,549.31	1,398.49	150.81	10.273	
18,700.00	12,905.28	17,899.88	12,107.01	80.56	91.55	-58.99	-5,706.09	1,946.36	1,549.43	1,396.32	153.12	10.119	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 133H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
18,800.00	12,906.15	17,999.88	12,107.71	81.89	92.90	-58.98	-5,806.08	1,947.27	1,549.56	1,394.13	155.43	9.970	
18,900.00	12,907.02	18,099.88	12,108.41	83.23	94.25	-58.98	-5,906.07	1,948.18	1,549.69	1,391.95	157.74	9.825	
19,000.00	12,907.88	18,199.88	12,109.11	84.56	95.60	-58.98	-6,006.07	1,949.08	1,549.81	1,389.77	160.05	9.683	
19,100.00	12,908.75	18,299.88	12,109.80	85.90	96.96	-58.97	-6,106.06	1,949.99	1,549.94	1,387.58	162.36	9.546	
19,200.00	12,909.62	18,399.88	12,110.50	87.24	98.31	-58.97	-6,206.05	1,950.90	1,550.07	1,385.39	164.68	9.413	
19,300.00	12,910.49	18,499.88	12,111.20	88.58	99.66	-58.96	-6,306.05	1,951.80	1,550.20	1,383.20	167.00	9.283	
19,400.00	12,911.36	18,599.88	12,111.90	89.92	101.02	-58.96	-6,406.04	1,952.71	1,550.32	1,381.01	169.32	9.156	
19,500.00	12,912.22	18,699.88	12,112.60	91.26	102.37	-58.95	-6,506.03	1,953.62	1,550.45	1,378.81	171.64	9.033	
19,600.00	12,913.09	18,799.88	12,113.29	92.60	103.73	-58.95	-6,606.03	1,954.53	1,550.58	1,376.62	173.96	8.913	
19,700.00	12,913.96	18,899.88	12,113.99	93.94	105.08	-58.94	-6,706.02	1,955.43	1,550.70	1,374.42	176.29	8.797	
19,800.00	12,914.83	18,999.87	12,114.69	95.29	106.44	-58.94	-6,806.01	1,956.34	1,550.83	1,372.22	178.61	8.683	
19,900.00	12,915.70	19,099.87	12,115.39	96.63	107.80	-58.93	-6,906.01	1,957.25	1,550.96	1,370.02	180.94	8.572	
20,000.00	12,916.56	19,199.87	12,116.09	97.98	109.15	-58.93	-7,006.00	1,958.15	1,551.08	1,367.82	183.27	8.463	
20,100.00	12,917.43	19,299.87	12,116.79	99.32	110.51	-58.93	-7,105.99	1,959.06	1,551.21	1,365.61	185.60	8.358	
20,200.00	12,918.30	19,399.87	12,117.48	100.67	111.87	-58.92	-7,205.99	1,959.97	1,551.34	1,363.41	187.93	8.255	
20,300.00	12,919.17	19,499.87	12,118.18	102.01	113.22	-58.92	-7,305.98	1,960.87	1,551.47	1,361.20	190.26	8.154	
20,400.00	12,920.04	19,599.87	12,118.88	103.36	114.58	-58.91	-7,405.97	1,961.78	1,551.59	1,359.00	192.60	8.056	
20,500.00	12,920.90	19,699.87	12,119.58	104.71	115.94	-58.91	-7,505.97	1,962.69	1,551.72	1,356.79	194.93	7.960	
20,600.00	12,921.77	19,799.87	12,120.28	106.06	117.30	-58.90	-7,605.96	1,963.59	1,551.85	1,354.58	197.27	7.867	
20,700.00	12,922.64	19,899.87	12,120.98	107.41	118.66	-58.90	-7,705.95	1,964.50	1,551.97	1,352.37	199.61	7.775	
20,800.00	12,923.51	19,999.87	12,121.67	108.76	120.02	-58.89	-7,805.95	1,965.41	1,552.10	1,350.16	201.94	7.686	
20,900.00	12,924.38	20,099.87	12,122.37	110.11	121.37	-58.89	-7,905.94	1,966.31	1,552.23	1,347.95	204.28	7.598	
21,000.00	12,925.24	20,199.87	12,123.07	111.46	122.73	-58.89	-8,005.93	1,967.22	1,552.36	1,345.73	206.62	7.513	
21,100.00	12,926.11	20,299.87	12,123.77	112.81	124.09	-58.88	-8,105.93	1,968.13	1,552.48	1,343.52	208.96	7.430	
21,200.00	12,926.98	20,399.87	12,124.47	114.16	125.45	-58.88	-8,205.92	1,969.03	1,552.61	1,341.31	211.30	7.348	
21,300.00	12,927.85	20,499.87	12,125.16	115.51	126.81	-58.87	-8,305.91	1,969.94	1,552.74	1,339.09	213.65	7.268	
21,400.00	12,928.72	20,599.87	12,125.86	116.87	128.17	-58.87	-8,405.91	1,970.85	1,552.87	1,336.88	215.99	7.190	
21,500.00	12,929.58	20,699.87	12,126.56	118.22	129.53	-58.86	-8,505.90	1,971.75	1,552.99	1,334.66	218.33	7.113	
21,600.00	12,930.45	20,799.87	12,127.26	119.57	130.89	-58.86	-8,605.89	1,972.66	1,553.12	1,332.44	220.68	7.038	
21,700.00	12,931.32	20,899.87	12,127.96	120.93	132.25	-58.85	-8,705.89	1,973.57	1,553.25	1,330.23	223.02	6.965	
21,800.00	12,932.19	20,999.87	12,128.66	122.28	133.62	-58.85	-8,805.88	1,974.48	1,553.37	1,328.01	225.37	6.893	
21,900.00	12,933.06	21,099.87	12,129.35	123.63	134.98	-58.84	-8,905.87	1,975.38	1,553.50	1,325.79	227.71	6.822	
22,000.00	12,933.92	21,199.87	12,130.05	124.99	136.34	-58.84	-9,005.87	1,976.29	1,553.63	1,323.57	230.06	6.753	
22,100.00	12,934.79	21,299.87	12,130.75	126.34	137.70	-58.84	-9,105.86	1,977.20	1,553.76	1,321.35	232.41	6.686	
22,200.00	12,935.66	21,399.87	12,131.45	127.70	139.06	-58.83	-9,205.85	1,978.10	1,553.88	1,319.13	234.75	6.619	
22,300.00	12,936.53	21,499.87	12,132.15	129.05	140.42	-58.83	-9,305.85	1,979.01	1,554.01	1,316.91	237.10	6.554	
22,400.00	12,937.40	21,599.87	12,132.85	130.41	141.78	-58.82	-9,405.84	1,979.92	1,554.14	1,314.69	239.45	6.490	
22,500.00	12,938.26	21,699.87	12,133.54	131.77	143.15	-58.82	-9,505.83	1,980.82	1,554.27	1,312.46	241.80	6.428	
22,600.00	12,939.13	21,799.87	12,134.24	133.12	144.51	-58.81	-9,605.83	1,981.73	1,554.39	1,310.24	244.15	6.367	
22,700.00	12,940.00	21,899.87	12,134.94	134.48	145.87	-58.81	-9,705.82	1,982.64	1,554.52	1,308.02	246.50	6.306	
22,800.00	12,940.87	21,999.87	12,135.64	135.84	147.23	-58.80	-9,805.81	1,983.54	1,554.65	1,305.80	248.85	6.247	
22,900.00	12,941.74	22,099.87	12,136.34	137.19	148.60	-58.80	-9,905.81	1,984.45	1,554.77	1,303.57	251.20	6.189	
23,000.00	12,942.61	22,199.87	12,137.03	138.55	149.96	-58.80	-10,005.80	1,985.36	1,554.90	1,301.35	253.55	6.132	
23,100.00	12,943.47	22,299.87	12,137.73	139.91	151.32	-58.79	-10,105.79	1,986.26	1,555.03	1,299.12	255.90	6.077	
23,184.44	12,944.21	22,381.08	12,138.30	141.07	152.43	-58.79	-10,187.00	1,987.00	1,555.14	1,297.28	257.86	6.031	SF

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error: 0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
5,600.00	5,533.54	5,545.50	5,510.32	13.28	11.61	26.78	319.53	2,602.08	1,975.58	1,951.53	24.05	82.160
5,700.00	5,633.22	5,668.40	5,633.22	13.43	11.71	26.88	318.87	2,602.55	1,968.74	1,944.44	24.29	81.041
5,800.00	5,733.07	5,768.26	5,733.07	13.56	11.76	26.92	318.87	2,602.55	1,963.90	1,939.40	24.50	80.154
5,900.00	5,833.02	5,868.21	5,833.02	13.66	11.81	26.94	318.87	2,602.55	1,961.41	1,936.71	24.70	79.410
5,999.98	5,933.00	5,968.18	5,933.00	13.71	11.86	89.60	318.87	2,602.55	1,960.74	1,935.94	24.80	79.054
6,000.00	5,933.02	5,968.21	5,933.02	13.71	11.86	89.59	318.87	2,602.55	1,961.03	1,936.23	24.80	79.065
6,100.00	6,033.02	6,068.21	6,033.02	13.78	11.91	89.59	318.87	2,602.55	1,961.03	1,936.11	24.92	78.684
6,200.00	6,133.02	6,168.21	6,133.02	13.85	11.97	89.59	318.87	2,602.55	1,961.03	1,935.99	25.04	78.305
6,300.00	6,233.02	6,268.21	6,233.02	13.92	12.02	89.59	318.87	2,602.55	1,961.03	1,935.86	25.16	77.928
6,400.00	6,333.02	6,368.21	6,333.02	14.00	12.08	89.59	318.87	2,602.55	1,961.03	1,935.74	25.29	77.553
6,500.00	6,433.02	6,468.21	6,433.02	14.07	12.13	89.59	318.87	2,602.55	1,961.03	1,935.62	25.41	77.181
6,600.00	6,533.02	6,568.21	6,533.02	14.14	12.19	89.59	318.87	2,602.55	1,961.03	1,935.50	25.53	76.810
6,700.00	6,633.02	6,668.21	6,633.02	14.22	12.24	89.59	318.87	2,602.55	1,961.03	1,935.38	25.65	76.442
6,800.00	6,733.02	6,768.21	6,733.02	14.29	12.30	89.59	318.87	2,602.55	1,961.03	1,935.25	25.78	76.076
6,900.00	6,833.02	6,868.21	6,833.02	14.36	12.35	89.59	318.87	2,602.55	1,961.03	1,935.13	25.90	75.712
7,000.00	6,933.02	6,968.21	6,933.02	14.44	12.41	89.59	318.87	2,602.55	1,961.03	1,935.00	26.03	75.351
7,100.00	7,033.02	7,068.21	7,033.02	14.51	12.46	89.59	318.87	2,602.55	1,961.03	1,934.88	26.15	74.992
7,200.00	7,133.02	7,168.21	7,133.02	14.59	12.52	89.59	318.87	2,602.55	1,961.03	1,934.75	26.28	74.635
7,300.00	7,233.02	7,268.21	7,233.02	14.66	12.58	89.59	318.87	2,602.55	1,961.03	1,934.63	26.40	74.280
7,400.00	7,333.02	7,368.21	7,333.02	14.73	12.64	89.59	318.87	2,602.55	1,961.03	1,934.50	26.53	73.927
7,500.00	7,433.02	7,468.21	7,433.02	14.81	12.69	89.59	318.87	2,602.55	1,961.03	1,934.38	26.65	73.577
7,600.00	7,533.02	7,568.21	7,533.02	14.88	12.75	89.59	318.87	2,602.55	1,961.03	1,934.25	26.78	73.229
7,700.00	7,633.02	7,668.21	7,633.02	14.96	12.81	89.59	318.87	2,602.55	1,961.03	1,934.12	26.91	72.883
7,800.00	7,733.02	7,768.21	7,733.02	15.03	12.87	89.59	318.87	2,602.55	1,961.03	1,934.00	27.03	72.539
7,900.00	7,833.02	7,868.21	7,833.02	15.11	12.93	89.59	318.87	2,602.55	1,961.03	1,933.87	27.16	72.197
8,000.00	7,933.02	7,968.21	7,933.02	15.18	12.98	89.59	318.87	2,602.55	1,961.03	1,933.74	27.29	71.858
8,100.00	8,033.02	8,068.21	8,033.02	15.26	13.04	89.59	318.87	2,602.55	1,961.03	1,933.61	27.42	71.521
8,200.00	8,133.02	8,168.21	8,133.02	15.33	13.10	89.59	318.87	2,602.55	1,961.03	1,933.48	27.55	71.186
8,300.00	8,233.02	8,268.21	8,233.02	15.41	13.16	89.59	318.87	2,602.55	1,961.03	1,933.35	27.68	70.854
8,400.00	8,333.02	8,368.21	8,333.02	15.48	13.22	89.59	318.87	2,602.55	1,961.03	1,933.22	27.81	70.523
8,500.00	8,433.02	8,468.21	8,433.02	15.56	13.28	89.59	318.87	2,602.55	1,961.03	1,933.09	27.94	70.195
8,600.00	8,533.02	8,568.21	8,533.02	15.63	13.34	89.59	318.87	2,602.55	1,961.03	1,932.96	28.07	69.869
8,700.00	8,633.02	8,668.21	8,633.02	15.71	13.40	89.59	318.87	2,602.55	1,961.03	1,932.83	28.20	69.545
8,800.00	8,733.02	8,768.21	8,733.02	15.78	13.46	89.59	318.87	2,602.55	1,961.03	1,932.70	28.33	69.223
8,900.00	8,833.02	8,868.21	8,833.02	15.86	13.52	89.59	318.87	2,602.55	1,961.03	1,932.57	28.46	68.903
9,000.00	8,933.02	8,968.21	8,933.02	15.93	13.58	89.59	318.87	2,602.55	1,961.03	1,932.44	28.59	68.586
9,100.00	9,033.02	9,068.21	9,033.02	16.01	13.65	89.59	318.87	2,602.55	1,961.03	1,932.30	28.72	68.271
9,200.00	9,133.02	9,168.21	9,133.02	16.08	13.71	89.59	318.87	2,602.55	1,961.03	1,932.17	28.86	67.957
9,300.00	9,233.02	9,268.21	9,233.02	16.16	13.77	89.59	318.87	2,602.55	1,961.03	1,932.04	28.99	67.646
9,400.00	9,333.02	9,368.21	9,333.02	16.23	13.83	89.59	318.87	2,602.55	1,961.03	1,931.91	29.12	67.337
9,500.00	9,433.02	9,468.21	9,433.02	16.31	13.89	89.59	318.87	2,602.55	1,961.03	1,931.77	29.26	67.031
9,600.00	9,533.02	9,568.21	9,533.02	16.38	13.95	89.59	318.87	2,602.55	1,961.03	1,931.64	29.39	66.726
9,700.00	9,633.02	9,668.21	9,633.02	16.46	14.02	89.59	318.87	2,602.55	1,961.03	1,931.51	29.52	66.423
9,800.00	9,733.02	9,768.21	9,733.02	16.54	14.08	89.59	318.87	2,602.55	1,961.03	1,931.37	29.66	66.123
9,900.00	9,833.02	9,868.21	9,833.02	16.61	14.14	89.59	318.87	2,602.55	1,961.03	1,931.24	29.79	65.824
10,000.00	9,933.02	9,968.21	9,933.02	16.69	14.21	89.59	318.87	2,602.55	1,961.03	1,931.10	29.93	65.528
10,100.00	10,033.02	10,068.21	10,033.02	16.76	14.27	89.59	318.87	2,602.55	1,961.03	1,930.97	30.06	65.233
10,200.00	10,133.02	10,168.21	10,133.02	16.84	14.33	89.59	318.87	2,602.55	1,961.03	1,930.83	30.20	64.941
10,300.00	10,233.02	10,268.21	10,233.02	16.92	14.40	89.59	318.87	2,602.55	1,961.03	1,930.70	30.33	64.651
10,400.00	10,333.02	10,368.21	10,333.02	16.99	14.46	89.59	318.87	2,602.55	1,961.03	1,930.56	30.47	64.362
10,500.00	10,433.02	10,468.21	10,433.02	17.07	14.52	89.59	318.87	2,602.55	1,961.03	1,930.42	30.60	64.076
10,600.00	10,533.02	10,568.21	10,533.02	17.15	14.59	89.59	318.87	2,602.55	1,961.03	1,930.29	30.74	63.791

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 134H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
10,700.00	10,633.02	10,668.21	10,633.02	17.22	14.65	89.59	318.87	2,602.55	1,961.03	1,930.15	30.88	63.509	
10,800.00	10,733.02	10,768.21	10,733.02	17.30	14.72	89.59	318.87	2,602.55	1,961.03	1,930.01	31.01	63.229	
10,900.00	10,833.02	10,868.21	10,833.02	17.37	14.78	89.59	318.87	2,602.55	1,961.03	1,929.88	31.15	62.950	
11,000.00	10,933.02	10,968.21	10,933.02	17.45	14.85	89.59	318.87	2,602.55	1,961.03	1,929.74	31.29	62.674	
11,100.00	11,033.02	11,068.21	11,033.02	17.53	14.91	89.59	318.87	2,602.55	1,961.03	1,929.60	31.43	62.399	
11,200.00	11,133.02	11,168.21	11,133.02	17.60	14.98	89.59	318.87	2,602.55	1,961.03	1,929.46	31.57	62.126	
11,300.00	11,233.02	11,268.21	11,233.02	17.68	15.04	89.59	318.87	2,602.55	1,961.03	1,929.33	31.70	61.855	
11,400.00	11,333.02	11,368.21	11,333.02	17.76	15.11	89.59	318.87	2,602.55	1,961.03	1,929.19	31.84	61.587	
11,500.00	11,433.02	11,468.21	11,433.02	17.83	15.18	89.59	318.87	2,602.55	1,961.03	1,929.04	31.98	61.311	
11,507.22	11,440.25	11,475.43	11,440.25	17.84	15.18	89.59	318.87	2,602.55	1,961.03	1,929.03	32.00	61.291	
11,600.00	11,533.02	11,567.59	11,532.29	17.91	15.30	89.68	315.79	2,602.58	1,961.04	1,928.92	32.11	61.065	
11,700.00	11,633.02	11,663.22	11,626.15	17.99	15.50	90.20	298.02	2,602.74	1,961.19	1,928.91	32.29	60.746	ES
11,800.00	11,733.02	11,750.00	11,707.70	18.06	15.71	91.06	268.60	2,603.01	1,961.94	1,929.42	32.52	60.327	
11,900.00	11,833.02	11,827.86	11,776.34	18.14	15.89	92.13	231.99	2,603.34	1,963.95	1,931.12	32.82	59.835	
12,000.00	11,933.02	11,893.88	11,830.22	18.22	16.06	93.24	193.89	2,603.69	1,967.95	1,934.78	33.16	59.340	
12,100.00	12,033.02	11,950.00	11,872.31	18.30	16.22	94.32	156.81	2,604.02	1,974.59	1,941.04	33.55	58.849	SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
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	171.12	-160.00	25.00	161.94	161.94					
100.00	100.00	100.00	100.00	0.98	0.98	171.12	-160.00	25.00	161.94	159.98	1.96	82.531			
200.00	200.00	200.00	200.00	1.56	1.56	171.12	-160.00	25.00	161.94	158.82	3.12	51.867			
300.00	300.00	300.00	300.00	1.98	1.98	171.12	-160.00	25.00	161.94	157.98	3.96	40.870			
400.00	400.00	400.00	400.00	2.33	2.33	171.12	-160.00	25.00	161.94	157.28	4.66	34.760			
500.00	500.00	500.00	500.00	2.63	2.63	171.12	-160.00	25.00	161.94	156.67	5.27	30.735			
600.00	600.00	600.00	600.00	2.91	2.91	171.12	-160.00	25.00	161.94	156.12	5.82	27.824			
700.00	700.00	700.00	700.00	3.16	3.16	171.12	-160.00	25.00	161.94	155.61	6.33	25.593			
800.00	800.00	800.00	800.00	3.40	3.40	171.12	-160.00	25.00	161.94	155.14	6.80	23.811			
900.00	900.00	904.31	904.30	3.62	3.69	171.22	-158.66	24.51	160.60	153.29	7.31	21.969			
1,000.00	1,000.00	1,008.13	1,008.02	3.84	3.96	171.53	-154.69	23.04	156.60	148.82	7.78	20.118			
1,100.00	1,100.00	1,107.99	1,107.75	4.04	4.16	171.93	-149.79	21.24	151.48	143.29	8.19	18.496			
1,200.00	1,200.00	1,207.85	1,207.48	4.23	4.36	172.36	-144.88	19.43	146.37	137.79	8.58	17.068			
1,300.00	1,300.00	1,309.85	1,309.31	4.42	4.48	172.88	-139.44	17.42	140.83	131.95	8.88	15.865			
1,400.00	1,400.00	1,413.12	1,412.23	4.60	4.73	173.70	-131.56	14.52	132.92	123.63	9.29	14.303			
1,500.00	1,500.00	1,515.86	1,514.37	4.78	4.95	174.96	-121.13	10.67	122.44	112.77	9.67	12.657			
1,600.00	1,599.99	1,616.03	1,613.70	4.98	5.08	94.61	-109.01	6.21	110.13	100.18	9.95	11.065			
1,700.00	1,699.91	1,714.98	1,711.80	5.17	5.28	99.38	-96.89	1.74	98.31	88.02	10.29	9.551			
1,800.00	1,799.69	1,813.71	1,809.69	5.36	5.47	106.93	-84.79	-2.72	87.99	77.37	10.63	8.281			
1,900.00	1,899.32	1,912.23	1,907.37	5.44	5.66	117.35	-72.73	-7.17	80.43	69.56	10.88	7.394			
2,000.00	1,998.94	2,010.74	2,005.03	5.59	5.86	129.42	-60.66	-11.62	76.13	64.93	11.20	6.799			
2,063.55	2,062.25	2,073.34	2,067.10	5.69	5.98	137.56	-53.00	-14.44	75.34	63.94	11.40	6.608	CC, ES		
2,100.00	2,098.56	2,109.25	2,102.70	5.75	6.05	142.25	-48.60	-16.06	75.60	64.08	11.52	6.563			
2,200.00	2,198.18	2,207.75	2,200.36	5.91	6.24	154.64	-36.53	-20.51	78.92	67.07	11.85	6.659			
2,300.00	2,297.70	2,306.22	2,297.98	6.08	6.43	172.78	-24.47	-24.96	86.83	74.62	12.21	7.113			
2,400.00	2,396.96	2,404.54	2,395.47	6.26	6.62	-174.19	-12.43	-29.39	99.56	86.98	12.58	7.915			
2,500.00	2,495.89	2,502.67	2,492.75	6.45	6.81	-165.23	-0.41	-33.82	115.96	103.01	12.95	8.953			
2,600.00	2,594.44	2,600.52	2,589.77	6.64	7.01	-159.17	11.57	-38.24	135.21	121.89	13.32	10.147			
2,700.00	2,692.52	2,698.04	2,686.45	6.84	7.19	-155.15	23.52	-42.65	156.81	143.11	13.70	11.445			
2,800.00	2,790.33	2,795.35	2,782.93	7.01	7.38	-153.91	35.44	-47.04	179.57	165.53	14.05	12.783			
2,900.00	2,888.15	2,892.67	2,879.41	7.18	7.57	-152.98	47.35	-51.43	202.40	188.00	14.40	14.055			
3,000.00	2,985.97	2,989.98	2,975.89	7.35	7.76	-152.25	59.27	-55.83	225.26	210.50	14.76	15.266			
3,100.00	3,083.78	3,087.30	3,072.38	7.53	7.95	-151.65	71.19	-60.22	248.15	233.03	15.11	16.418			
3,200.00	3,181.60	3,184.61	3,168.86	7.70	8.14	-151.15	83.11	-64.61	271.06	255.58	15.48	17.515			
3,300.00	3,279.41	3,281.93	3,265.34	7.88	8.33	-150.73	95.03	-69.01	293.99	278.15	15.84	18.560			
3,400.00	3,377.23	3,379.24	3,361.82	8.07	8.52	-150.36	106.95	-73.40	316.93	300.72	16.21	19.556			
3,500.00	3,475.05	3,476.56	3,458.31	8.29	8.71	-150.05	118.87	-77.79	339.88	323.31	16.57	20.506			
3,600.00	3,572.86	3,573.87	3,554.79	8.52	8.99	-149.78	130.79	-82.19	362.84	345.89	16.95	21.412			
3,700.00	3,670.68	3,671.19	3,651.27	8.75	9.08	-149.54	142.71	-86.58	385.81	368.49	17.32	22.276			
3,800.00	3,768.49	3,768.50	3,747.75	8.99	9.27	-149.33	154.63	-90.97	408.78	391.08	17.69	23.103			
3,900.00	3,866.31	3,865.82	3,844.24	9.23	9.46	-149.14	166.54	-95.37	431.76	413.68	18.07	23.892			
4,000.00	3,964.13	3,963.13	3,940.72	9.47	9.65	-148.97	178.46	-99.76	454.74	436.29	18.45	24.648			
4,100.00	4,061.94	4,060.45	4,037.20	9.71	9.84	-148.81	190.38	-104.16	477.72	458.89	18.83	25.371			
4,200.00	4,159.76	4,157.76	4,133.68	9.95	10.03	-148.67	202.30	-108.55	500.71	481.50	19.21	26.063			
4,300.00	4,257.57	4,255.08	4,230.16	10.20	10.21	-148.54	214.22	-112.94	523.70	504.10	19.59	26.727			
4,400.00	4,355.39	4,352.39	4,326.65	10.45	10.40	-148.43	226.14	-117.34	546.69	526.71	19.98	27.364			
4,500.00	4,453.21	4,449.71	4,423.13	10.70	10.59	-148.32	238.06	-121.73	569.69	549.32	20.36	27.974			
4,600.00	4,551.02	4,547.02	4,519.61	10.95	10.78	-148.22	249.98	-126.12	592.68	571.93	20.75	28.561			
4,700.00	4,648.84	4,644.34	4,616.09	11.21	10.97	-148.13	261.90	-130.52	615.68	594.54	21.14	29.123			
4,800.00	4,746.65	4,744.55	4,715.48	11.46	11.17	-148.06	273.95	-134.96	638.59	617.05	21.54	29.649			
4,900.00	4,844.47	4,849.35	4,819.69	11.72	11.38	-148.18	284.36	-138.80	660.60	638.66	21.94	30.113			
5,000.00	4,942.29	4,954.54	4,924.55	11.98	11.59	-148.53	292.11	-141.65	681.53	659.22	22.32	30.539			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		Offset		Semi Major Axis		Highside Tooltface (")	Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error:		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.00	5,040.10	5,059.95	5,029.82	12.24	11.78	-149.07	297.16	-143.51	701.42	678.75	22.67	30.939	
5,200.00	5,137.97	5,165.48	5,135.32	12.46	11.94	-149.85	299.47	-144.37	720.11	697.15	22.96	31.360	
5,300.00	5,236.26	5,266.42	5,236.26	12.70	12.05	-150.69	299.64	-144.43	736.23	712.96	23.26	31.649	
5,400.00	5,334.99	5,365.16	5,334.99	12.92	12.14	-151.38	299.64	-144.43	750.11	726.57	23.55	31.858	
5,500.00	5,434.11	5,464.28	5,434.11	13.11	12.22	-151.94	299.64	-144.43	761.78	737.96	23.82	31.975	
5,600.00	5,533.54	5,563.71	5,533.54	13.28	12.31	-152.38	299.64	-144.43	771.20	747.10	24.10	32.006	
5,700.00	5,633.22	5,663.38	5,633.22	13.43	12.40	-152.70	299.64	-144.43	778.33	753.97	24.36	31.954	
5,800.00	5,733.07	5,763.23	5,733.07	13.56	12.49	-152.92	299.64	-144.43	783.14	758.54	24.61	31.823	
5,900.00	5,833.02	5,863.19	5,833.02	13.66	12.57	-153.03	299.64	-144.43	785.64	760.79	24.85	31.620	
6,000.00	5,933.02	5,963.19	5,933.02	13.71	12.66	-90.39	299.64	-144.43	786.02	761.03	24.99	31.455	
6,100.00	6,033.02	6,063.19	6,033.02	13.78	12.75	-90.39	299.64	-144.43	786.02	760.87	25.15	31.255	
6,200.00	6,133.02	6,163.19	6,133.02	13.85	12.84	-90.39	299.64	-144.43	786.02	760.71	25.31	31.057	
6,300.00	6,233.02	6,263.19	6,233.02	13.92	12.92	-90.39	299.64	-144.43	786.02	760.55	25.47	30.863	
6,400.00	6,333.02	6,363.19	6,333.02	14.00	13.01	-90.39	299.64	-144.43	786.02	760.39	25.63	30.670	
6,500.00	6,433.02	6,463.19	6,433.02	14.07	13.10	-90.39	299.64	-144.43	786.02	760.23	25.79	30.480	
6,600.00	6,533.02	6,563.19	6,533.02	14.14	13.18	-90.39	299.64	-144.43	786.02	760.07	25.95	30.292	
6,700.00	6,633.02	6,663.19	6,633.02	14.22	13.27	-90.39	299.64	-144.43	786.02	759.91	26.11	30.106	
6,800.00	6,733.02	6,763.19	6,733.02	14.29	13.36	-90.39	299.64	-144.43	786.02	759.75	26.27	29.923	
6,900.00	6,833.02	6,863.19	6,833.02	14.36	13.44	-90.39	299.64	-144.43	786.02	759.59	26.43	29.742	
7,000.00	6,933.02	6,963.19	6,933.02	14.44	13.53	-90.39	299.64	-144.43	786.02	759.43	26.59	29.563	
7,100.00	7,033.02	7,063.19	7,033.02	14.51	13.62	-90.39	299.64	-144.43	786.02	759.27	26.75	29.386	
7,200.00	7,133.02	7,163.19	7,133.02	14.59	13.70	-90.39	299.64	-144.43	786.02	759.11	26.91	29.211	
7,300.00	7,233.02	7,263.19	7,233.02	14.66	13.79	-90.39	299.64	-144.43	786.02	758.95	27.07	29.039	
7,400.00	7,333.02	7,363.19	7,333.02	14.73	13.88	-90.39	299.64	-144.43	786.02	758.79	27.23	28.868	
7,500.00	7,433.02	7,463.19	7,433.02	14.81	13.96	-90.39	299.64	-144.43	786.02	758.63	27.39	28.699	
7,600.00	7,533.02	7,563.19	7,533.02	14.88	14.05	-90.39	299.64	-144.43	786.02	758.47	27.55	28.532	
7,700.00	7,633.02	7,663.19	7,633.02	14.96	14.14	-90.39	299.64	-144.43	786.02	758.31	27.71	28.367	
7,800.00	7,733.02	7,763.19	7,733.02	15.03	14.22	-90.39	299.64	-144.43	786.02	758.15	27.87	28.204	
7,900.00	7,833.02	7,863.19	7,833.02	15.11	14.31	-90.39	299.64	-144.43	786.02	757.99	28.03	28.043	
8,000.00	7,933.02	7,963.19	7,933.02	15.18	14.40	-90.39	299.64	-144.43	786.02	757.83	28.19	27.884	
8,100.00	8,033.02	8,063.19	8,033.02	15.26	14.48	-90.39	299.64	-144.43	786.02	757.67	28.35	27.726	
8,200.00	8,133.02	8,163.19	8,133.02	15.33	14.57	-90.39	299.64	-144.43	786.02	757.51	28.51	27.570	
8,300.00	8,233.02	8,263.19	8,233.02	15.41	14.65	-90.39	299.64	-144.43	786.02	757.35	28.67	27.416	
8,400.00	8,333.02	8,363.19	8,333.02	15.48	14.74	-90.39	299.64	-144.43	786.02	757.19	28.83	27.263	
8,500.00	8,433.02	8,463.19	8,433.02	15.56	14.83	-90.39	299.64	-144.43	786.02	757.03	28.99	27.113	
8,600.00	8,533.02	8,563.19	8,533.02	15.63	14.91	-90.39	299.64	-144.43	786.02	756.87	29.15	26.963	
8,700.00	8,633.02	8,663.19	8,633.02	15.71	15.00	-90.39	299.64	-144.43	786.02	756.71	29.31	26.816	
8,800.00	8,733.02	8,763.19	8,733.02	15.78	15.08	-90.39	299.64	-144.43	786.02	756.55	29.47	26.670	
8,900.00	8,833.02	8,863.19	8,833.02	15.86	15.17	-90.39	299.64	-144.43	786.02	756.39	29.63	26.526	
9,000.00	8,933.02	8,963.19	8,933.02	15.93	15.26	-90.39	299.64	-144.43	786.02	756.23	29.79	26.383	
9,100.00	9,033.02	9,063.19	9,033.02	16.01	15.34	-90.39	299.64	-144.43	786.02	756.06	29.95	26.241	
9,200.00	9,133.02	9,163.19	9,133.02	16.08	15.43	-90.39	299.64	-144.43	786.02	755.90	30.11	26.101	
9,300.00	9,233.02	9,263.19	9,233.02	16.16	15.51	-90.39	299.64	-144.43	786.02	755.74	30.27	25.963	
9,400.00	9,333.02	9,363.19	9,333.02	16.23	15.60	-90.39	299.64	-144.43	786.02	755.58	30.44	25.826	
9,500.00	9,433.02	9,463.19	9,433.02	16.31	15.68	-90.39	299.64	-144.43	786.02	755.42	30.60	25.691	
9,600.00	9,533.02	9,563.19	9,533.02	16.38	15.77	-90.39	299.64	-144.43	786.02	755.26	30.76	25.556	
9,700.00	9,633.02	9,663.19	9,633.02	16.46	15.85	-90.39	299.64	-144.43	786.02	755.10	30.92	25.424	
9,800.00	9,733.02	9,763.19	9,733.02	16.54	15.94	-90.39	299.64	-144.43	786.02	754.94	31.08	25.292	
9,900.00	9,833.02	9,863.19	9,833.02	16.61	16.02	-90.39	299.64	-144.43	786.02	754.78	31.24	25.162	
10,000.00	9,933.02	9,963.19	9,933.02	16.69	16.11	-90.39	299.64	-144.43	786.02	754.62	31.40	25.033	
10,100.00	10,033.02	10,063.19	10,033.02	16.76	16.20	-90.39	299.64	-144.43	786.02	754.46	31.56	24.906	
10,200.00	10,133.02	10,163.19	10,133.02	16.84	16.28	-90.39	299.64	-144.43	786.02	754.30	31.72	24.780	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		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	10,233.02	10,263.19	10,233.02	16.92	16.37	-90.39	299.64	-144.43	786.02	754.14	31.88	24.655	
10,400.00	10,333.02	10,363.19	10,333.02	16.99	16.45	-90.39	299.64	-144.43	786.02	753.98	32.04	24.531	
10,500.00	10,433.02	10,463.19	10,433.02	17.07	16.54	-90.39	299.64	-144.43	786.02	753.82	32.20	24.409	
10,600.00	10,533.02	10,563.19	10,533.02	17.15	16.62	-90.39	299.64	-144.43	786.02	753.65	32.36	24.287	
10,700.00	10,633.02	10,663.19	10,633.02	17.22	16.71	-90.39	299.64	-144.43	786.02	753.49	32.52	24.167	
10,800.00	10,733.02	10,763.19	10,733.02	17.30	16.79	-90.39	299.64	-144.43	786.02	753.33	32.69	24.048	
10,900.00	10,833.02	10,863.19	10,833.02	17.37	16.88	-90.39	299.64	-144.43	786.02	753.17	32.85	23.930	
11,000.00	10,933.02	10,963.19	10,933.02	17.45	16.96	-90.39	299.64	-144.43	786.02	753.01	33.01	23.814	
11,100.00	11,033.02	11,063.19	11,033.02	17.53	17.05	-90.39	299.64	-144.43	786.02	752.85	33.17	23.698	
11,200.00	11,133.02	11,163.19	11,133.02	17.60	17.13	-90.39	299.64	-144.43	786.02	752.69	33.33	23.584	
11,300.00	11,233.02	11,263.19	11,233.02	17.68	17.22	-90.39	299.64	-144.43	786.02	752.53	33.49	23.471	
11,400.00	11,333.02	11,363.19	11,333.02	17.76	17.30	-90.39	299.64	-144.43	786.02	752.37	33.65	23.358	
11,500.00	11,433.02	11,463.19	11,433.02	17.83	17.39	-90.39	299.64	-144.43	786.02	752.21	33.81	23.247	
11,600.00	11,533.02	11,563.19	11,533.02	17.91	17.46	-90.39	299.64	-144.43	786.02	752.05	33.97	23.142	
11,657.67	11,590.69	11,620.89	11,590.69	17.95	17.48	-90.49	298.26	-144.42	786.02	752.01	34.01	23.113	
11,700.00	11,633.02	11,662.83	11,632.39	17.99	17.50	-90.81	293.83	-144.38	786.03	752.02	34.01	23.114	
11,800.00	11,733.02	11,757.82	11,724.87	18.06	17.51	-92.36	272.62	-144.20	786.48	752.53	33.95	23.167	
11,900.00	11,833.02	11,843.80	11,804.54	18.14	17.52	-94.69	240.49	-143.92	788.65	754.78	33.87	23.284	
12,000.00	11,933.02	11,918.75	11,869.39	18.22	17.53	-97.40	203.03	-143.60	794.31	760.43	33.88	23.444	
12,100.00	12,033.02	11,982.60	11,920.39	18.30	17.53	-100.14	164.68	-143.27	805.20	771.09	34.11	23.608	
12,200.00	12,133.02	12,036.37	11,959.81	18.37	17.53	-102.70	128.13	-142.95	822.65	788.00	34.65	23.742	
12,300.00	12,233.02	12,081.53	11,990.15	18.45	17.53	-105.01	94.70	-142.67	847.49	811.94	35.55	23.837	
12,400.00	12,332.97	12,120.49	12,014.14	18.52	17.53	65.91	64.01	-142.40	879.24	842.51	36.73	23.936	
12,500.00	12,431.38	12,150.00	12,030.89	18.56	17.53	61.38	39.72	-142.19	912.42	874.27	38.14	23.920	
12,600.00	12,525.35	12,200.00	12,056.34	18.58	17.53	56.56	-3.29	-141.82	944.00	904.62	39.38	23.971	
12,700.00	12,612.01	12,250.00	12,077.95	18.59	17.54	52.55	-48.36	-141.43	972.73	932.08	40.65	23.932	
12,800.00	12,688.74	12,284.76	12,090.62	18.62	17.54	49.72	-80.73	-141.15	997.05	955.03	42.02	23.727	
12,900.00	12,753.20	12,327.60	12,103.50	18.67	17.55	47.38	-121.57	-140.80	1,016.16	972.95	43.21	23.517	
13,000.00	12,803.44	12,370.78	12,113.36	18.75	17.57	45.74	-163.60	-140.44	1,029.24	984.99	44.25	23.260	
13,100.00	12,837.92	12,414.20	12,120.05	18.89	17.58	44.76	-206.49	-140.07	1,035.77	990.66	45.11	22.960	
13,200.00	12,855.60	12,457.75	12,123.48	19.08	17.60	44.44	-249.89	-139.70	1,035.45	989.68	45.77	22.625	
13,300.00	12,858.40	12,533.65	12,124.44	19.34	17.64	44.37	-325.78	-139.04	1,029.34	983.17	46.17	22.294	
13,400.00	12,859.27	12,633.41	12,125.31	19.70	17.72	44.18	-425.53	-138.19	1,024.55	977.98	46.56	22.003	
13,500.00	12,860.14	12,733.35	12,126.18	20.14	17.84	44.09	-525.46	-137.33	1,022.20	975.21	46.99	21.753	
13,596.81	12,860.98	12,830.16	12,127.02	20.63	18.02	44.07	-622.27	-136.49	1,021.63	974.20	47.43	21.538	
13,600.00	12,861.01	12,833.35	12,127.05	20.65	18.03	44.09	-625.45	-136.46	1,021.93	974.49	47.44	21.540	
13,700.00	12,861.88	12,933.35	12,127.92	21.24	18.33	44.09	-725.45	-135.60	1,021.93	973.95	47.98	21.301	
13,800.00	12,862.75	13,033.35	12,128.79	21.90	18.79	44.09	-825.44	-134.74	1,021.93	973.34	48.59	21.032	
13,900.00	12,863.61	13,133.35	12,129.66	22.62	19.40	44.09	-925.43	-133.88	1,021.92	972.65	49.27	20.739	
14,000.00	12,864.48	13,233.35	12,130.53	23.39	20.13	44.09	-1,025.42	-133.02	1,021.92	971.89	50.03	20.425	
14,100.00	12,865.35	13,333.35	12,131.40	24.23	20.95	44.09	-1,125.42	-132.16	1,021.92	971.06	50.86	20.093	
14,200.00	12,866.22	13,433.35	12,132.28	25.11	21.83	44.09	-1,225.41	-131.30	1,021.92	970.16	51.75	19.747	
14,300.00	12,867.09	13,533.35	12,133.15	26.03	22.78	44.09	-1,325.40	-130.44	1,021.91	969.21	52.70	19.389	
14,400.00	12,867.95	13,633.35	12,134.02	26.99	23.77	44.09	-1,425.39	-129.58	1,021.91	968.19	53.72	19.024	
14,500.00	12,868.82	13,733.35	12,134.89	27.99	24.79	44.09	-1,525.39	-128.72	1,021.91	967.12	54.78	18.653	
14,600.00	12,869.69	13,833.35	12,135.76	29.01	25.86	44.09	-1,625.38	-127.86	1,021.91	966.00	55.90	18.280	
14,700.00	12,870.56	13,933.35	12,136.63	30.07	26.95	44.09	-1,725.37	-126.99	1,021.90	964.83	57.07	17.905	
14,800.00	12,871.43	14,033.35	12,137.50	31.15	28.07	44.09	-1,825.36	-126.13	1,021.90	963.61	58.29	17.532	
14,900.00	12,872.29	14,133.35	12,138.37	32.25	29.21	44.09	-1,925.36	-125.27	1,021.90	962.35	59.55	17.161	
15,000.00	12,873.16	14,233.35	12,139.25	33.38	30.37	44.09	-2,025.35	-124.41	1,021.90	961.05	60.85	16.795	
15,100.00	12,874.03	14,333.35	12,140.12	34.52	31.54	44.09	-2,125.34	-123.55	1,021.89	959.71	62.18	16.434	
15,200.00	12,874.90	14,433.35	12,140.99	35.68	32.74	44.09	-2,225.33	-122.69	1,021.89	958.34	63.55	16.079	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:			Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		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	12,875.77	14,533.35	12,141.86	36.85	33.94	44.09	-2,325.33	-121.83	1,021.89	956.93	64.96	15.731				
15,400.00	12,876.63	14,633.35	12,142.73	38.04	35.16	44.09	-2,425.32	-120.97	1,021.89	955.49	66.40	15.390				
15,500.00	12,877.50	14,733.35	12,143.60	39.24	36.39	44.09	-2,525.31	-120.11	1,021.88	954.02	67.86	15.058				
15,600.00	12,878.37	14,833.35	12,144.47	40.45	37.63	44.09	-2,625.30	-119.25	1,021.88	952.52	69.36	14.733				
15,700.00	12,879.24	14,933.35	12,145.34	41.67	38.88	44.09	-2,725.30	-118.38	1,021.88	951.00	70.88	14.417				
15,800.00	12,880.11	15,033.35	12,146.22	42.90	40.13	44.09	-2,825.29	-117.52	1,021.88	949.45	72.42	14.110				
15,900.00	12,880.97	15,133.35	12,147.09	44.13	41.39	44.09	-2,925.28	-116.66	1,021.87	947.89	73.99	13.811				
16,000.00	12,881.84	15,233.35	12,147.96	45.38	42.66	44.09	-3,025.27	-115.80	1,021.87	946.30	75.58	13.521				
16,100.00	12,882.71	15,333.35	12,148.83	46.63	43.94	44.09	-3,125.27	-114.94	1,021.87	944.69	77.18	13.240				
16,200.00	12,883.58	15,433.35	12,149.70	47.89	45.22	44.09	-3,225.26	-114.08	1,021.87	943.06	78.81	12.966				
16,300.00	12,884.45	15,533.35	12,150.57	49.15	46.51	44.09	-3,325.25	-113.22	1,021.86	941.41	80.45	12.701				
16,400.00	12,885.31	15,633.35	12,151.44	50.43	47.80	44.09	-3,425.24	-112.36	1,021.86	939.75	82.11	12.445				
16,500.00	12,886.18	15,733.35	12,152.31	51.70	49.10	44.09	-3,525.24	-111.50	1,021.86	938.07	83.79	12.196				
16,600.00	12,887.05	15,833.35	12,153.19	52.98	50.40	44.09	-3,625.23	-110.64	1,021.86	936.38	85.48	11.955				
16,700.00	12,887.92	15,933.35	12,154.06	54.27	51.70	44.09	-3,725.22	-109.78	1,021.85	934.67	87.18	11.721				
16,800.00	12,888.79	16,033.35	12,154.93	55.55	53.01	44.09	-3,825.21	-108.91	1,021.85	932.95	88.90	11.495				
16,900.00	12,889.66	16,133.35	12,155.80	56.85	54.31	44.09	-3,925.21	-108.05	1,021.85	931.22	90.63	11.275				
17,000.00	12,890.52	16,233.35	12,156.67	58.14	55.63	44.09	-4,025.20	-107.19	1,021.85	929.48	92.37	11.063				
17,100.00	12,891.39	16,333.35	12,157.54	59.44	56.94	44.09	-4,125.19	-106.33	1,021.84	927.72	94.12	10.857				
17,200.00	12,892.26	16,433.35	12,158.41	60.75	58.26	44.10	-4,225.18	-105.47	1,021.84	925.96	95.88	10.657				
17,300.00	12,893.13	16,533.35	12,159.29	62.05	59.58	44.10	-4,325.18	-104.61	1,021.84	924.19	97.65	10.464				
17,400.00	12,894.00	16,633.35	12,160.16	63.36	60.90	44.10	-4,425.17	-103.75	1,021.84	922.40	99.43	10.276				
17,500.00	12,894.86	16,733.35	12,161.03	64.67	62.23	44.10	-4,525.16	-102.89	1,021.83	920.61	101.22	10.095				
17,600.00	12,895.73	16,833.35	12,161.90	65.99	63.55	44.10	-4,625.15	-102.03	1,021.83	918.81	103.02	9.919				
17,700.00	12,896.60	16,933.35	12,162.77	67.30	64.88	44.10	-4,725.15	-101.17	1,021.83	917.00	104.83	9.748				
17,800.00	12,897.47	17,033.35	12,163.64	68.62	66.21	44.10	-4,825.14	-100.30	1,021.83	915.19	106.64	9.582				
17,900.00	12,898.34	17,133.35	12,164.51	69.94	67.54	44.10	-4,925.13	-99.44	1,021.82	913.36	108.46	9.421				
18,000.00	12,899.20	17,233.35	12,165.38	71.26	68.88	44.10	-5,025.12	-98.58	1,021.82	911.53	110.29	9.265				
18,100.00	12,900.07	17,333.35	12,166.26	72.58	70.21	44.10	-5,125.12	-97.72	1,021.82	909.70	112.12	9.114				
18,200.00	12,900.94	17,433.35	12,167.13	73.91	71.55	44.10	-5,225.11	-96.86	1,021.82	907.86	113.96	8.966				
18,300.00	12,901.81	17,533.35	12,168.00	75.24	72.88	44.10	-5,325.10	-96.00	1,021.81	906.01	115.81	8.823				
18,400.00	12,902.68	17,633.35	12,168.87	76.56	74.22	44.10	-5,425.09	-95.14	1,021.81	904.15	117.66	8.685				
18,500.00	12,903.54	17,733.35	12,169.74	77.89	75.56	44.10	-5,525.09	-94.28	1,021.81	902.30	119.51	8.550				
18,600.00	12,904.41	17,833.35	12,170.61	79.23	76.90	44.10	-5,625.08	-93.42	1,021.81	900.43	121.37	8.419				
18,700.00	12,905.28	17,933.35	12,171.48	80.56	78.24	44.10	-5,725.07	-92.56	1,021.80	898.56	123.24	8.291				
18,800.00	12,906.15	18,033.35	12,172.35	81.89	79.59	44.10	-5,825.06	-91.69	1,021.80	896.69	125.11	8.167				
18,900.00	12,907.02	18,133.35	12,173.23	83.23	80.93	44.10	-5,925.06	-90.83	1,021.80	894.81	126.99	8.047				
19,000.00	12,907.88	18,233.35	12,174.10	84.56	82.27	44.10	-6,025.05	-89.97	1,021.80	892.93	128.86	7.929				
19,100.00	12,908.75	18,333.35	12,174.97	85.90	83.62	44.10	-6,125.04	-89.11	1,021.79	891.05	130.75	7.815				
19,200.00	12,909.62	18,433.35	12,175.84	87.24	84.97	44.10	-6,225.03	-88.25	1,021.79	889.16	132.63	7.704				
19,300.00	12,910.49	18,533.35	12,176.71	88.58	86.31	44.10	-6,325.03	-87.39	1,021.79	887.26	134.53	7.595				
19,400.00	12,911.36	18,633.35	12,177.58	89.92	87.66	44.10	-6,425.02	-86.53	1,021.79	885.37	136.42	7.490				
19,500.00	12,912.22	18,733.35	12,178.45	91.26	89.01	44.10	-6,525.01	-85.67	1,021.78	883.47	138.32	7.387				
19,600.00	12,913.09	18,833.35	12,179.32	92.60	90.36	44.10	-6,625.00	-84.81	1,021.78	881.56	140.22	7.287				
19,700.00	12,913.96	18,933.35	12,180.20	93.94	91.71	44.10	-6,725.00	-83.95	1,021.78	879.66	142.12	7.189				
19,800.00	12,914.83	19,033.35	12,181.07	95.29	93.06	44.10	-6,824.99	-83.09	1,021.78	877.75	144.03	7.094				
19,900.00	12,915.70	19,133.35	12,181.94	96.63	94.41	44.10	-6,924.98	-82.22	1,021.77	875.83	145.94	7.001				
20,000.00	12,916.56	19,233.35	12,182.81	97.98	95.76	44.10	-7,024.97	-81.36	1,021.77	873.92	147.85	6.911				
20,100.00	12,917.43	19,333.35	12,183.68	99.32	97.11	44.10	-7,124.97	-80.50	1,021.77	872.00	149.77	6.822				
20,200.00	12,918.30	19,433.35	12,184.55	100.67	98.46	44.10	-7,224.96	-79.64	1,021.77	870.08	151.69	6.736				
20,300.00	12,919.17	19,533.35	12,185.42	102.01	99.81	44.10	-7,324.95	-78.78	1,021.76	868.16	153.61	6.652				
20,400.00	12,920.04	19,633.35	12,186.29	103.36	101.17	44.10	-7,424.94	-77.92	1,021.76	866.23	155.53	6.570				

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)			
20,500.00	12,920.90	19,733.35	12,187.17	104.71	102.52	104.71	102.52	44.10	-7,524.94	-77.06	1,021.76	864.31	157.45	6.489	
20,600.00	12,921.77	19,833.35	12,188.04	106.06	103.87	106.06	103.87	44.10	-7,624.93	-76.20	1,021.76	862.38	159.38	6.411	
20,700.00	12,922.64	19,933.35	12,188.91	107.41	105.23	107.41	105.23	44.10	-7,724.92	-75.34	1,021.75	860.44	161.31	6.334	
20,800.00	12,923.51	20,033.35	12,189.78	108.76	106.58	108.76	106.58	44.10	-7,824.91	-74.48	1,021.75	858.51	163.24	6.259	
20,900.00	12,924.38	20,133.35	12,190.65	110.11	107.94	110.11	107.94	44.10	-7,924.91	-73.61	1,021.75	856.57	165.18	6.186	
21,000.00	12,925.24	20,233.35	12,191.52	111.46	109.29	111.46	109.29	44.10	-8,024.90	-72.75	1,021.75	854.64	167.11	6.114	
21,100.00	12,926.11	20,333.35	12,192.39	112.81	110.65	112.81	110.65	44.10	-8,124.89	-71.89	1,021.74	852.70	169.05	6.044	
21,200.00	12,926.98	20,433.35	12,193.26	114.16	112.01	114.16	112.01	44.10	-8,224.88	-71.03	1,021.74	850.76	170.99	5.976	
21,300.00	12,927.85	20,533.35	12,194.14	115.51	113.36	115.51	113.36	44.10	-8,324.88	-70.17	1,021.74	848.81	172.93	5.908	
21,400.00	12,928.72	20,633.35	12,195.01	116.87	114.72	116.87	114.72	44.10	-8,424.87	-69.31	1,021.74	846.87	174.87	5.843	
21,500.00	12,929.58	20,733.35	12,195.88	118.22	116.08	118.22	116.08	44.10	-8,524.86	-68.45	1,021.73	844.92	176.81	5.779	
21,600.00	12,930.45	20,833.35	12,196.75	119.57	117.43	119.57	117.43	44.10	-8,624.85	-67.59	1,021.73	842.97	178.76	5.716	
21,700.00	12,931.32	20,933.35	12,197.62	120.93	118.79	120.93	118.79	44.10	-8,724.85	-66.73	1,021.73	841.02	180.71	5.654	
21,800.00	12,932.19	21,033.35	12,198.49	122.28	120.15	122.28	120.15	44.10	-8,824.84	-65.87	1,021.73	839.07	182.65	5.594	
21,900.00	12,933.06	21,133.35	12,199.36	123.63	121.51	123.63	121.51	44.10	-8,924.83	-65.01	1,021.72	837.12	184.60	5.535	
22,000.00	12,933.92	21,233.35	12,200.23	124.99	122.87	124.99	122.87	44.10	-9,024.82	-64.14	1,021.72	835.17	186.56	5.477	
22,100.00	12,934.79	21,333.35	12,201.11	126.34	124.23	126.34	124.23	44.10	-9,124.82	-63.28	1,021.72	833.21	188.51	5.420	
22,200.00	12,935.66	21,433.35	12,201.98	127.70	125.58	127.70	125.58	44.10	-9,224.81	-62.42	1,021.72	831.25	190.46	5.364	
22,300.00	12,936.53	21,533.35	12,202.85	129.05	126.94	129.05	126.94	44.10	-9,324.80	-61.56	1,021.71	829.30	192.42	5.310	
22,400.00	12,937.40	21,633.35	12,203.72	130.41	128.30	130.41	128.30	44.10	-9,424.79	-60.70	1,021.71	827.34	194.37	5.256	
22,500.00	12,938.26	21,733.35	12,204.59	131.77	129.66	131.77	129.66	44.10	-9,524.79	-59.84	1,021.71	825.38	196.33	5.204	
22,600.00	12,939.13	21,833.35	12,205.46	133.12	131.02	133.12	131.02	44.10	-9,624.78	-58.98	1,021.71	823.42	198.29	5.153	
22,700.00	12,940.00	21,933.35	12,206.33	134.48	132.38	134.48	132.38	44.10	-9,724.77	-58.12	1,021.70	821.45	200.25	5.102	
22,800.00	12,940.87	22,033.35	12,207.20	135.84	133.74	135.84	133.74	44.10	-9,824.76	-57.26	1,021.70	819.49	202.21	5.053	
22,900.00	12,941.74	22,133.35	12,208.08	137.19	135.10	137.19	135.10	44.10	-9,924.76	-56.40	1,021.70	817.53	204.17	5.004	
23,000.00	12,942.61	22,233.35	12,208.95	138.55	136.46	138.55	136.46	44.10	-10,024.75	-55.53	1,021.70	815.56	206.14	4.956	
23,100.00	12,943.47	22,333.35	12,209.82	139.91	137.82	139.91	137.82	44.10	-10,124.74	-54.67	1,021.69	813.59	208.10	4.910	
23,175.38	12,944.13	22,408.73	12,210.48	140.94	138.85	140.94	138.85	44.10	-10,200.11	-54.02	1,021.69	812.11	209.58	4.875	
23,184.44	12,944.21	22,411.61	12,210.50	141.07	138.89	141.07	138.89	44.10	-10,203.00	-54.00	1,021.71	812.00	209.71	4.872	SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
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	CC, ES	
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		
400.00	400.00	399.19	399.18	2.33	2.41	46.05	25.31	26.25	36.47	31.76	4.72	7.733		
500.00	500.00	498.25	498.16	2.63	2.77	48.83	26.23	29.99	39.89	34.51	5.38	7.421		
600.00	600.00	597.04	596.74	2.91	3.11	52.52	27.76	36.21	45.74	39.77	5.98	7.655		
700.00	700.00	696.26	695.60	3.16	3.25	56.16	29.79	44.44	53.68	47.31	6.37	8.422		
800.00	800.00	795.88	794.84	3.40	3.49	58.92	31.87	52.87	61.95	55.08	6.86	9.027		
900.00	900.00	895.50	894.08	3.62	3.73	61.02	33.95	61.30	70.32	62.99	7.33	9.594		
1,000.00	1,000.00	995.12	993.32	3.84	3.96	62.68	36.03	69.73	78.77	70.99	7.78	10.128		
1,100.00	1,100.00	1,094.74	1,092.56	4.04	4.19	64.01	38.11	78.16	87.27	79.06	8.21	10.630		
1,200.00	1,200.00	1,194.36	1,191.80	4.23	4.41	65.10	40.18	86.59	95.81	87.18	8.63	11.105		
1,300.00	1,300.00	1,293.98	1,291.04	4.42	4.63	66.02	42.26	95.02	104.38	95.34	9.03	11.553		
1,400.00	1,400.00	1,393.60	1,390.28	4.60	4.84	66.80	44.34	103.45	112.97	103.54	9.43	11.977		
1,500.00	1,500.00	1,493.22	1,489.52	4.78	5.05	67.47	46.42	111.88	121.58	111.76	9.82	12.380		
1,600.00	1,599.99	1,592.94	1,588.87	4.98	5.26	-15.08	48.50	120.32	128.94	118.71	10.23	12.605		
1,700.00	1,699.91	1,692.82	1,688.37	5.17	5.47	-14.96	50.58	128.77	133.78	123.16	10.62	12.593		
1,800.00	1,799.69	1,792.79	1,787.95	5.36	5.67	-15.14	52.67	137.23	136.10	125.08	11.02	12.356		
1,900.00	1,899.32	1,892.78	1,887.57	5.44	5.88	-15.56	54.76	145.69	136.46	125.16	11.30	12.076		
2,000.00	1,998.94	1,992.78	1,987.18	5.59	6.08	-15.98	56.84	154.15	136.68	125.02	11.66	11.727		
2,100.00	2,098.56	2,092.77	2,086.80	5.75	6.28	-16.41	58.93	162.61	136.91	124.90	12.01	11.399		
2,200.00	2,198.18	2,192.77	2,186.41	5.91	6.49	-16.83	61.01	171.07	137.15	124.77	12.38	11.079		
2,300.00	2,297.70	2,289.82	2,283.01	6.08	6.69	-9.60	63.26	180.17	137.11	124.36	12.75	10.756		
2,400.00	2,396.96	2,386.40	2,378.87	6.26	6.92	-4.38	66.06	191.56	137.03	123.89	13.14	10.429		
2,500.00	2,495.89	2,482.97	2,474.40	6.45	7.14	-0.21	69.45	205.29	136.95	123.42	13.54	10.118		
2,586.63	2,581.29	2,566.60	2,556.81	6.62	7.33	3.03	72.85	219.08	136.92	123.04	13.88	9.865		
2,600.00	2,594.44	2,579.50	2,569.49	6.64	7.36	3.52	73.41	221.36	136.92	122.99	13.93	9.828		
2,700.00	2,692.52	2,675.97	2,664.09	6.84	7.59	7.12	77.94	239.75	137.01	122.68	14.33	9.560		
2,800.00	2,790.33	2,772.38	2,758.11	7.01	7.82	9.17	83.04	260.43	138.49	123.80	14.69	9.426		
2,900.00	2,888.15	2,868.63	2,851.41	7.18	8.01	11.16	88.70	283.37	142.66	127.64	15.02	9.498		
3,000.00	2,985.97	2,968.17	2,947.55	7.35	8.21	13.11	94.86	308.39	148.38	132.99	15.39	9.640		
3,100.00	3,083.78	3,067.88	3,043.87	7.53	8.42	14.91	101.04	333.45	154.26	138.47	15.79	9.771		
3,200.00	3,181.60	3,167.59	3,140.18	7.70	8.64	16.58	107.22	358.51	160.28	144.09	16.19	9.902		
3,300.00	3,279.41	3,267.31	3,236.50	7.88	8.86	18.12	113.40	383.58	166.43	149.84	16.59	10.033		
3,400.00	3,377.23	3,367.02	3,332.81	8.07	9.09	19.56	119.58	408.64	172.69	155.69	16.99	10.162		
3,500.00	3,475.05	3,466.73	3,429.13	8.29	9.33	20.89	125.75	433.70	179.05	161.65	17.40	10.289		
3,600.00	3,572.86	3,566.45	3,525.44	8.52	9.60	22.13	131.93	458.77	185.50	167.68	17.82	10.412		
3,700.00	3,670.68	3,666.16	3,621.76	8.75	9.90	23.29	138.11	483.83	192.03	173.80	18.23	10.533		
3,800.00	3,768.49	3,765.88	3,718.07	8.99	10.20	24.37	144.29	508.89	198.64	179.98	18.65	10.649		
3,900.00	3,866.31	3,865.59	3,814.39	9.23	10.51	25.39	150.47	533.96	205.31	186.23	19.08	10.761		
4,000.00	3,964.13	3,965.30	3,910.70	9.47	10.82	26.33	156.64	559.02	212.04	192.53	19.51	10.869		
4,100.00	4,061.94	4,065.02	4,007.01	9.71	11.13	27.22	162.82	584.08	218.82	198.88	19.94	10.973		
4,200.00	4,159.76	4,164.73	4,103.33	9.95	11.45	28.06	169.00	609.15	225.66	205.28	20.38	11.073		
4,300.00	4,257.57	4,264.44	4,199.64	10.20	11.77	28.85	175.18	634.21	232.54	211.72	20.82	11.168		
4,400.00	4,355.39	4,364.16	4,295.96	10.45	12.10	29.59	181.36	659.27	239.46	218.19	21.27	11.260		
4,500.00	4,453.21	4,463.87	4,392.27	10.70	12.42	30.29	187.53	684.34	246.42	224.70	21.72	11.348		
4,600.00	4,551.02	4,563.58	4,488.59	10.95	12.75	30.95	193.71	709.40	253.41	231.24	22.17	11.432		
4,700.00	4,648.84	4,663.30	4,584.90	11.21	13.08	31.57	199.89	734.46	260.43	237.81	22.62	11.512		
4,800.00	4,746.65	4,763.01	4,681.22	11.46	13.41	32.17	206.07	759.53	267.49	244.41	23.08	11.589		
4,900.00	4,844.47	4,862.73	4,777.53	11.72	13.74	32.73	212.25	784.59	274.57	251.03	23.54	11.662		
5,000.00	4,942.29	4,962.44	4,873.84	11.98	14.07	33.26	218.42	809.65	281.68	257.67	24.01	11.732		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)
5,100.00	5,040.10	5,062.15	4,970.16	12.24	14.40	33.77	224.60	834.72	288.81	264.33	24.48	11.799	
5,200.00	5,137.97	5,161.86	5,066.46	12.46	14.73	34.26	230.78	859.78	296.15	271.24	24.91	11.888	
5,300.00	5,236.26	5,261.43	5,162.64	12.70	15.07	34.53	236.95	884.80	305.32	279.94	25.38	12.030	
5,400.00	5,334.99	5,360.78	5,258.61	12.92	15.40	34.55	243.10	909.78	316.63	290.80	25.83	12.259	
5,500.00	5,434.11	5,459.85	5,354.30	13.11	15.74	34.33	249.24	934.68	330.08	303.83	26.26	12.572	
5,600.00	5,533.54	5,558.57	5,449.65	13.28	16.07	33.91	255.36	959.49	345.70	319.03	26.66	12.965	
5,700.00	5,633.22	5,656.87	5,544.60	13.43	16.40	33.32	261.45	984.20	363.50	336.45	27.05	13.436	
5,800.00	5,733.07	5,754.68	5,639.07	13.56	16.73	32.60	267.51	1,008.78	383.52	356.10	27.42	13.985	
5,900.00	5,833.02	5,851.93	5,733.01	13.66	17.06	31.79	273.53	1,033.23	405.80	378.02	27.77	14.611	
6,000.00	5,933.02	5,952.66	5,830.36	13.71	17.39	31.79	279.73	1,058.38	430.01	401.96	28.05	15.331	
6,100.00	6,033.02	6,061.97	5,936.58	13.78	17.73	32.48	285.89	1,083.37	452.61	424.22	28.38	15.946	
6,200.00	6,133.02	6,172.71	6,044.92	13.85	18.05	31.68	291.39	1,105.67	472.59	443.88	28.71	16.459	
6,300.00	6,233.02	6,284.74	6,155.14	13.92	18.33	31.04	296.19	1,125.12	489.87	460.84	29.03	16.877	
6,400.00	6,333.02	6,397.87	6,266.99	14.00	18.58	30.54	300.24	1,141.57	504.37	475.05	29.32	17.203	
6,500.00	6,433.02	6,511.93	6,380.21	14.07	18.80	30.16	303.52	1,154.89	516.03	486.44	29.59	17.439	
6,600.00	6,533.02	6,626.70	6,494.51	14.14	18.98	29.89	306.01	1,164.98	524.82	494.99	29.84	17.589	
6,700.00	6,633.02	6,742.01	6,609.60	14.22	19.12	29.71	307.68	1,171.75	530.70	500.64	30.06	17.656	
6,800.00	6,733.02	6,857.63	6,725.16	14.29	19.22	29.62	308.52	1,175.14	533.64	503.40	30.24	17.645	
6,900.00	6,833.02	6,965.49	6,833.02	14.36	19.28	29.61	308.62	1,175.57	534.01	503.65	30.37	17.586	
7,000.00	6,933.02	7,065.49	6,933.02	14.44	19.33	29.61	308.62	1,175.57	534.01	503.53	30.49	17.516	
7,100.00	7,033.02	7,165.49	7,033.02	14.51	19.38	29.61	308.62	1,175.57	534.01	503.40	30.61	17.445	
7,200.00	7,133.02	7,265.49	7,133.02	14.59	19.43	29.61	308.62	1,175.57	534.01	503.28	30.73	17.375	
7,300.00	7,233.02	7,365.49	7,233.02	14.66	19.48	29.61	308.62	1,175.57	534.01	503.15	30.86	17.305	
7,400.00	7,333.02	7,465.49	7,333.02	14.73	19.53	29.61	308.62	1,175.57	534.01	503.03	30.98	17.235	
7,500.00	7,433.02	7,565.49	7,433.02	14.81	19.58	29.61	308.62	1,175.57	534.01	502.90	31.11	17.166	
7,600.00	7,533.02	7,665.49	7,533.02	14.88	19.64	29.61	308.62	1,175.57	534.01	502.78	31.23	17.097	
7,700.00	7,633.02	7,765.49	7,633.02	14.96	19.69	29.61	308.62	1,175.57	534.01	502.65	31.36	17.029	
7,800.00	7,733.02	7,865.49	7,733.02	15.03	19.74	29.61	308.62	1,175.57	534.01	502.53	31.49	16.961	
7,900.00	7,833.02	7,965.49	7,833.02	15.11	19.79	29.61	308.62	1,175.57	534.01	502.40	31.61	16.893	
8,000.00	7,933.02	8,065.49	7,933.02	15.18	19.85	29.61	308.62	1,175.57	534.01	502.27	31.74	16.825	
8,100.00	8,033.02	8,165.49	8,033.02	15.26	19.90	29.61	308.62	1,175.57	534.01	502.15	31.87	16.758	
8,200.00	8,133.02	8,265.49	8,133.02	15.33	19.95	29.61	308.62	1,175.57	534.01	502.02	31.99	16.692	
8,300.00	8,233.02	8,365.49	8,233.02	15.41	20.00	29.61	308.62	1,175.57	534.01	501.89	32.12	16.626	
8,400.00	8,333.02	8,465.49	8,333.02	15.48	20.06	29.61	308.62	1,175.57	534.01	501.76	32.25	16.560	
8,500.00	8,433.02	8,565.49	8,433.02	15.56	20.11	29.61	308.62	1,175.57	534.01	501.64	32.38	16.494	
8,600.00	8,533.02	8,665.49	8,533.02	15.63	20.16	29.61	308.62	1,175.57	534.01	501.51	32.50	16.429	
8,700.00	8,633.02	8,765.49	8,633.02	15.71	20.22	29.61	308.62	1,175.57	534.01	501.38	32.63	16.364	
8,800.00	8,733.02	8,865.49	8,733.02	15.78	20.27	29.61	308.62	1,175.57	534.01	501.25	32.76	16.300	
8,900.00	8,833.02	8,965.49	8,833.02	15.86	20.33	29.61	308.62	1,175.57	534.01	501.12	32.89	16.236	
9,000.00	8,933.02	9,065.49	8,933.02	15.93	20.38	29.61	308.62	1,175.57	534.01	500.99	33.02	16.172	
9,100.00	9,033.02	9,165.49	9,033.02	16.01	20.44	29.61	308.62	1,175.57	534.01	500.86	33.15	16.109	
9,200.00	9,133.02	9,265.49	9,133.02	16.08	20.49	29.61	308.62	1,175.57	534.01	500.73	33.28	16.046	
9,300.00	9,233.02	9,365.49	9,233.02	16.16	20.55	29.61	308.62	1,175.57	534.01	500.60	33.41	15.983	
9,400.00	9,333.02	9,465.49	9,333.02	16.23	20.60	29.61	308.62	1,175.57	534.01	500.47	33.54	15.921	
9,500.00	9,433.02	9,565.49	9,433.02	16.31	20.66	29.61	308.62	1,175.57	534.01	500.34	33.67	15.859	
9,600.00	9,533.02	9,665.49	9,533.02	16.38	20.71	29.61	308.62	1,175.57	534.01	500.21	33.80	15.798	
9,700.00	9,633.02	9,765.49	9,633.02	16.46	20.77	29.61	308.62	1,175.57	534.01	500.08	33.93	15.736	
9,800.00	9,733.02	9,865.49	9,733.02	16.54	20.82	29.61	308.62	1,175.57	534.01	499.95	34.07	15.676	
9,900.00	9,833.02	9,965.49	9,833.02	16.61	20.88	29.61	308.62	1,175.57	534.01	499.81	34.20	15.615	
10,000.00	9,933.02	10,065.49	9,933.02	16.69	20.94	29.61	308.62	1,175.57	534.01	499.68	34.33	15.555	
10,100.00	10,033.02	10,165.49	10,033.02	16.76	20.99	29.61	308.62	1,175.57	534.01	499.55	34.46	15.495	
10,200.00	10,133.02	10,265.49	10,133.02	16.84	21.05	29.61	308.62	1,175.57	534.01	499.42	34.60	15.436	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (")	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	10,233.02	10,365.49	10,233.02	16.92	21.10	89.61	308.62	1,175.57	534.01	499.28	34.73	15.377	
10,400.00	10,333.02	10,465.49	10,333.02	16.99	21.16	89.61	308.62	1,175.57	534.01	499.15	34.86	15.318	
10,500.00	10,433.02	10,565.49	10,433.02	17.07	21.22	89.61	308.62	1,175.57	534.01	499.02	35.00	15.260	
10,600.00	10,533.02	10,665.49	10,533.02	17.15	21.28	89.61	308.62	1,175.57	534.01	498.88	35.13	15.202	
10,700.00	10,633.02	10,765.49	10,633.02	17.22	21.33	89.61	308.62	1,175.57	534.01	498.75	35.26	15.144	
10,800.00	10,733.02	10,865.49	10,733.02	17.30	21.39	89.61	308.62	1,175.57	534.01	498.62	35.40	15.087	
10,900.00	10,833.02	10,965.49	10,833.02	17.37	21.45	89.61	308.62	1,175.57	534.01	498.48	35.53	15.029	
11,000.00	10,933.02	11,065.49	10,933.02	17.45	21.51	89.61	308.62	1,175.57	534.01	498.35	35.67	14.973	
11,100.00	11,033.02	11,165.49	11,033.02	17.53	21.56	89.61	308.62	1,175.57	534.01	498.21	35.80	14.916	
11,200.00	11,133.02	11,265.49	11,133.02	17.60	21.62	89.61	308.62	1,175.57	534.01	498.08	35.94	14.860	
11,300.00	11,233.02	11,365.49	11,233.02	17.68	21.68	89.61	308.62	1,175.57	534.01	497.94	36.07	14.805	
11,400.00	11,333.02	11,465.49	11,333.02	17.76	21.74	89.61	308.62	1,175.57	534.01	497.81	36.21	14.749	
11,500.00	11,433.02	11,565.49	11,433.02	17.83	21.80	89.61	308.62	1,175.57	534.01	497.67	36.34	14.694	
11,600.00	11,533.02	11,665.49	11,533.02	17.91	21.85	89.61	308.62	1,175.57	534.01	497.54	36.47	14.641	
11,608.58	11,541.60	11,674.07	11,541.60	17.92	21.86	89.61	308.62	1,175.57	534.01	497.53	36.48	14.637	
11,700.00	11,633.02	11,764.86	11,632.15	17.99	21.91	90.19	303.27	1,175.62	534.05	497.50	36.55	14.611	
11,800.00	11,733.02	11,859.71	11,724.61	18.06	21.95	92.40	282.63	1,175.79	534.76	498.14	36.62	14.605	
11,900.00	11,833.02	11,945.74	11,804.52	18.14	21.99	95.77	250.95	1,176.07	537.98	501.25	36.72	14.649	
12,000.00	11,933.02	12,020.88	11,869.74	18.22	22.01	99.68	213.77	1,176.39	546.22	509.24	36.98	14.771	
12,100.00	12,033.02	12,084.96	11,921.14	18.30	22.04	103.60	175.54	1,176.72	561.83	524.28	37.55	14.961	
12,200.00	12,133.02	12,139.00	11,960.93	18.37	22.08	107.22	139.02	1,177.03	586.41	547.92	38.49	15.235	
12,300.00	12,233.02	12,184.41	11,991.59	18.45	22.11	110.42	105.53	1,177.32	620.57	580.76	39.81	15.589	
12,400.00	12,332.97	12,223.60	12,015.84	18.52	22.15	-70.05	74.76	1,177.58	663.46	622.13	41.33	16.054	
12,500.00	12,431.38	12,263.30	12,038.21	18.56	22.21	-62.95	41.98	1,177.87	709.74	666.94	42.80	16.582	
12,600.00	12,525.35	12,300.00	12,056.82	18.58	22.26	-56.79	10.35	1,178.14	755.95	711.71	44.25	17.085	
12,700.00	12,612.01	12,350.00	12,078.85	18.59	22.35	-51.23	-34.51	1,178.53	799.77	754.35	45.42	17.607	
12,800.00	12,688.74	12,400.00	12,096.88	18.62	22.47	-46.90	-81.13	1,178.93	839.67	793.16	46.51	18.053	
12,900.00	12,753.20	12,431.48	12,106.12	18.67	22.55	-43.88	-111.21	1,179.19	873.95	826.28	47.67	18.332	
13,000.00	12,803.44	12,474.77	12,116.11	18.75	22.67	-41.53	-153.33	1,179.55	902.16	853.57	48.58	18.569	
13,100.00	12,837.92	12,518.30	12,122.91	18.89	22.82	-39.98	-196.31	1,179.92	923.48	874.11	49.37	18.706	
13,200.00	12,855.60	12,561.95	12,126.43	19.08	22.97	-39.13	-239.81	1,180.29	937.49	887.48	50.02	18.744	
13,300.00	12,858.40	12,636.55	12,127.42	19.34	23.27	-39.24	-314.39	1,180.94	944.68	894.26	50.42	18.738	
13,400.00	12,859.27	12,736.31	12,128.29	19.70	23.73	-39.61	-414.14	1,181.80	949.04	898.23	50.81	18.678	
13,500.00	12,860.14	12,836.24	12,129.16	20.14	24.25	-39.78	-514.07	1,182.66	951.19	899.87	51.32	18.535	
13,600.00	12,861.01	12,936.24	12,130.03	20.65	24.82	-39.80	-614.06	1,183.52	951.43	899.52	51.91	18.328	
13,700.00	12,861.88	13,036.24	12,130.90	21.24	25.45	-39.80	-714.06	1,184.38	951.43	898.85	52.58	18.096	
13,800.00	12,862.75	13,136.24	12,131.77	21.90	26.11	-39.80	-814.05	1,185.24	951.43	898.13	53.30	17.850	
13,900.00	12,863.61	13,236.24	12,132.64	22.62	26.83	-39.80	-914.04	1,186.10	951.43	897.34	54.08	17.592	
14,000.00	12,864.48	13,336.24	12,133.51	23.39	27.58	-39.80	-1,014.03	1,186.96	951.42	896.51	54.92	17.325	
14,100.00	12,865.35	13,436.24	12,134.39	24.23	28.37	-39.80	-1,114.03	1,187.82	951.42	895.62	55.80	17.050	
14,200.00	12,866.22	13,536.24	12,135.26	25.11	29.20	-39.80	-1,214.02	1,188.69	951.42	894.68	56.74	16.769	
14,300.00	12,867.09	13,636.24	12,136.13	26.03	30.07	-39.80	-1,314.01	1,189.55	951.42	893.70	57.72	16.484	
14,400.00	12,867.95	13,736.24	12,137.00	26.99	30.97	-39.80	-1,414.00	1,190.41	951.41	892.67	58.74	16.196	
14,500.00	12,868.82	13,836.24	12,137.87	27.99	31.89	-39.80	-1,514.00	1,191.27	951.41	891.60	59.81	15.907	
14,600.00	12,869.69	13,936.24	12,138.74	29.01	32.85	-39.80	-1,613.99	1,192.13	951.41	890.49	60.92	15.618	
14,700.00	12,870.56	14,036.24	12,139.62	30.07	33.83	-39.80	-1,713.98	1,192.99	951.41	889.34	62.06	15.329	
14,800.00	12,871.43	14,136.24	12,140.49	31.15	34.84	-39.80	-1,813.97	1,193.85	951.40	888.16	63.24	15.043	
14,900.00	12,872.29	14,236.24	12,141.36	32.25	35.86	-39.80	-1,913.97	1,194.71	951.40	886.94	64.46	14.760	
15,000.00	12,873.16	14,336.24	12,142.23	33.38	36.91	-39.80	-2,013.96	1,195.58	951.40	885.69	65.71	14.480	
15,100.00	12,874.03	14,436.24	12,143.10	34.52	37.98	-39.80	-2,113.95	1,196.44	951.40	884.41	66.98	14.204	
15,200.00	12,874.90	14,536.24	12,143.97	35.68	39.07	-39.80	-2,213.94	1,197.30	951.39	883.11	68.29	13.932	
15,300.00	12,875.77	14,636.24	12,144.85	36.85	40.17	-39.80	-2,313.94	1,198.16	951.39	881.77	69.62	13.666	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre				Distance		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	12,876.63	14,736.24	12,145.72	38.04	41.29	-39.80	-2,413.93	1,199.02	951.39	880.41	70.98	13.404					
15,500.00	12,877.50	14,836.24	12,146.59	39.24	42.42	-39.80	-2,513.92	1,199.88	951.39	879.03	72.36	13.149					
15,600.00	12,878.37	14,936.24	12,147.46	40.45	43.57	-39.80	-2,613.91	1,200.74	951.38	877.62	73.76	12.898					
15,700.00	12,879.24	15,036.24	12,148.33	41.67	44.73	-39.80	-2,713.91	1,201.60	951.38	876.20	75.18	12.654					
15,800.00	12,880.11	15,136.24	12,149.20	42.90	45.90	-39.80	-2,813.90	1,202.47	951.38	874.75	76.63	12.415					
15,900.00	12,880.97	15,236.24	12,150.08	44.13	47.08	-39.80	-2,913.89	1,203.33	951.38	873.28	78.09	12.183					
16,000.00	12,881.84	15,336.24	12,150.95	45.38	48.27	-39.80	-3,013.88	1,204.19	951.38	871.80	79.57	11.956					
16,100.00	12,882.71	15,436.24	12,151.82	46.63	49.47	-39.80	-3,113.88	1,205.05	951.37	870.30	81.07	11.735					
16,200.00	12,883.58	15,536.24	12,152.69	47.89	50.67	-39.80	-3,213.87	1,205.91	951.37	868.78	82.59	11.519					
16,300.00	12,884.45	15,636.24	12,153.56	49.15	51.89	-39.80	-3,313.86	1,206.77	951.37	867.25	84.12	11.310					
16,400.00	12,885.31	15,736.24	12,154.43	50.43	53.11	-39.80	-3,413.85	1,207.63	951.37	865.70	85.66	11.106					
16,500.00	12,886.18	15,836.24	12,155.31	51.70	54.34	-39.80	-3,513.85	1,208.49	951.36	864.14	87.22	10.908					
16,600.00	12,887.05	15,936.24	12,156.18	52.98	55.58	-39.80	-3,613.84	1,209.36	951.36	862.57	88.79	10.715					
16,700.00	12,887.92	16,036.24	12,157.05	54.27	56.82	-39.80	-3,713.83	1,210.22	951.36	860.99	90.37	10.527					
16,800.00	12,888.79	16,136.24	12,157.92	55.55	58.07	-39.80	-3,813.82	1,211.08	951.36	859.39	91.97	10.345					
16,900.00	12,889.66	16,236.24	12,158.79	56.85	59.32	-39.80	-3,913.82	1,211.94	951.35	857.78	93.57	10.167					
17,000.00	12,890.52	16,336.24	12,159.66	58.14	60.58	-39.80	-4,013.81	1,212.80	951.35	856.16	95.19	9.994					
17,100.00	12,891.39	16,436.24	12,160.54	59.44	61.84	-39.80	-4,113.80	1,213.66	951.35	854.54	96.81	9.827					
17,200.00	12,892.26	16,536.24	12,161.41	60.75	63.11	-39.80	-4,213.79	1,214.52	951.35	852.90	98.45	9.663					
17,300.00	12,893.13	16,636.24	12,162.28	62.05	64.38	-39.80	-4,313.79	1,215.39	951.34	851.25	100.09	9.505					
17,400.00	12,894.00	16,736.24	12,163.15	63.36	65.65	-39.80	-4,413.78	1,216.25	951.34	849.60	101.75	9.350					
17,500.00	12,894.86	16,836.24	12,164.02	64.67	66.93	-39.80	-4,513.77	1,217.11	951.34	847.93	103.41	9.200					
17,600.00	12,895.73	16,936.24	12,164.89	65.99	68.22	-39.80	-4,613.76	1,217.97	951.34	846.26	105.07	9.054					
17,700.00	12,896.60	17,036.24	12,165.76	67.30	69.50	-39.80	-4,713.76	1,218.83	951.33	844.58	106.75	8.912					
17,800.00	12,897.47	17,136.24	12,166.64	68.62	70.79	-39.80	-4,813.75	1,219.69	951.33	842.90	108.43	8.773					
17,900.00	12,898.34	17,236.24	12,167.51	69.94	72.08	-39.80	-4,913.74	1,220.55	951.33	841.21	110.12	8.639					
18,000.00	12,899.20	17,336.24	12,168.38	71.26	73.38	-39.80	-5,013.73	1,221.41	951.33	839.51	111.82	8.508					
18,100.00	12,900.07	17,436.24	12,169.25	72.58	74.68	-39.80	-5,113.73	1,222.28	951.33	837.81	113.52	8.380					
18,200.00	12,900.94	17,536.24	12,170.12	73.91	75.98	-39.80	-5,213.72	1,223.14	951.32	836.10	115.23	8.256					
18,300.00	12,901.81	17,636.24	12,170.99	75.24	77.28	-39.80	-5,313.71	1,224.00	951.32	834.38	116.94	8.135					
18,400.00	12,902.68	17,736.24	12,171.87	76.56	78.58	-39.80	-5,413.70	1,224.86	951.32	832.66	118.66	8.017					
18,500.00	12,903.54	17,836.24	12,172.74	77.89	79.89	-39.80	-5,513.70	1,225.72	951.32	830.93	120.38	7.902					
18,600.00	12,904.41	17,936.24	12,173.61	79.23	81.20	-39.80	-5,613.69	1,226.58	951.31	829.20	122.11	7.790					
18,700.00	12,905.28	18,036.24	12,174.48	80.56	82.51	-39.80	-5,713.68	1,227.44	951.31	827.46	123.85	7.681					
18,800.00	12,906.15	18,136.24	12,175.35	81.89	83.82	-39.80	-5,813.67	1,228.30	951.31	825.72	125.58	7.575					
18,900.00	12,907.02	18,236.24	12,176.22	83.23	85.14	-39.81	-5,913.67	1,229.17	951.31	823.98	127.33	7.471					
19,000.00	12,907.88	18,336.24	12,177.10	84.56	86.45	-39.81	-6,013.66	1,230.03	951.30	822.23	129.07	7.370					
19,100.00	12,908.75	18,436.24	12,177.97	85.90	87.77	-39.81	-6,113.65	1,230.89	951.30	820.48	130.82	7.272					
19,200.00	12,909.62	18,536.24	12,178.84	87.24	89.09	-39.81	-6,213.64	1,231.75	951.30	818.72	132.58	7.175					
19,300.00	12,910.49	18,636.24	12,179.71	88.58	90.41	-39.81	-6,313.64	1,232.61	951.30	816.96	134.34	7.082					
19,400.00	12,911.36	18,736.24	12,180.58	89.92	91.74	-39.81	-6,413.63	1,233.47	951.29	815.20	136.10	6.990					
19,500.00	12,912.22	18,836.24	12,181.45	91.26	93.06	-39.81	-6,513.62	1,234.33	951.29	813.43	137.86	6.900					
19,600.00	12,913.09	18,936.24	12,182.33	92.60	94.38	-39.81	-6,613.61	1,235.19	951.29	811.66	139.63	6.813					
19,700.00	12,913.96	19,036.24	12,183.20	93.94	95.71	-39.81	-6,713.61	1,236.06	951.29	809.89	141.40	6.728					
19,800.00	12,914.83	19,136.24	12,184.07	95.29	97.04	-39.81	-6,813.60	1,236.92	951.28	808.11	143.17	6.644					
19,900.00	12,915.70	19,236.24	12,184.94	96.63	98.37	-39.81	-6,913.59	1,237.78	951.28	806.33	144.95	6.563					
20,000.00	12,916.56	19,336.24	12,185.81	97.98	99.70	-39.81	-7,013.58	1,238.64	951.28	804.55	146.73	6.483					
20,100.00	12,917.43	19,436.24	12,186.68	99.32	101.03	-39.81	-7,113.58	1,239.50	951.28	802.76	148.51	6.405					
20,200.00	12,918.30	19,536.24	12,187.56	100.67	102.36	-39.81	-7,213.57	1,240.36	951.28	800.97	150.30	6.329					
20,300.00	12,919.17	19,636.24	12,188.43	102.01	103.69	-39.81	-7,313.56	1,241.22	951.27	799.18	152.09	6.255					
20,400.00	12,920.04	19,736.24	12,189.30	103.36	105.03	-39.81	-7,413.55	1,242.09	951.27	797.39	153.88	6.182					
20,500.00	12,920.90	19,836.24	12,190.17	104.71	106.36	-39.81	-7,513.55	1,242.95	951.27	795.60	155.67	6.111					

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 137H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		
20,600.00	12,921.77	19,936.24	12,191.04	106.06	107.70	-39.81	-7,613.54	1,243.81	951.27	793.80	157.47	6.041
20,700.00	12,922.64	20,036.24	12,191.91	107.41	109.03	-39.81	-7,713.53	1,244.67	951.26	792.00	159.26	5.973
20,800.00	12,923.51	20,136.24	12,192.78	108.76	110.37	-39.81	-7,813.52	1,245.53	951.26	790.20	161.06	5.906
20,900.00	12,924.38	20,236.24	12,193.66	110.11	111.71	-39.81	-7,913.52	1,246.39	951.26	788.39	162.86	5.841
21,000.00	12,925.24	20,336.24	12,194.53	111.46	113.05	-39.81	-8,013.51	1,247.25	951.26	786.59	164.67	5.777
21,100.00	12,926.11	20,436.24	12,195.40	112.81	114.39	-39.81	-8,113.50	1,248.11	951.25	784.78	166.47	5.714
21,200.00	12,926.98	20,536.24	12,196.27	114.16	115.73	-39.81	-8,213.49	1,248.98	951.25	782.97	168.28	5.653
21,300.00	12,927.85	20,636.24	12,197.14	115.51	117.07	-39.81	-8,313.49	1,249.84	951.25	781.16	170.09	5.593
21,400.00	12,928.72	20,736.24	12,198.01	116.87	118.41	-39.81	-8,413.48	1,250.70	951.25	779.35	171.90	5.534
21,500.00	12,929.58	20,836.24	12,198.89	118.22	119.75	-39.81	-8,513.47	1,251.56	951.24	777.53	173.71	5.476
21,600.00	12,930.45	20,936.24	12,199.76	119.57	121.10	-39.81	-8,613.46	1,252.42	951.24	775.72	175.52	5.419
21,700.00	12,931.32	21,036.24	12,200.63	120.93	122.44	-39.81	-8,713.46	1,253.28	951.24	773.90	177.34	5.364
21,800.00	12,932.19	21,136.24	12,201.50	122.28	123.79	-39.81	-8,813.45	1,254.14	951.24	772.08	179.16	5.310
21,900.00	12,933.06	21,236.24	12,202.37	123.63	125.13	-39.81	-8,913.44	1,255.00	951.23	770.26	180.98	5.256
22,000.00	12,933.92	21,336.24	12,203.24	124.99	126.48	-39.81	-9,013.43	1,255.87	951.23	768.44	182.80	5.204
22,100.00	12,934.79	21,436.24	12,204.12	126.34	127.82	-39.81	-9,113.43	1,256.73	951.23	766.61	184.62	5.152
22,200.00	12,935.66	21,536.24	12,204.99	127.70	129.17	-39.81	-9,213.42	1,257.59	951.23	764.79	186.44	5.102
22,300.00	12,936.53	21,636.24	12,205.86	129.05	130.51	-39.81	-9,313.41	1,258.45	951.22	762.96	188.26	5.053
22,400.00	12,937.40	21,736.24	12,206.73	130.41	131.86	-39.81	-9,413.40	1,259.31	951.22	761.13	190.09	5.004
22,500.00	12,938.26	21,836.24	12,207.60	131.77	133.21	-39.81	-9,513.40	1,260.17	951.22	759.30	191.92	4.956
22,600.00	12,939.13	21,936.24	12,208.47	133.12	134.56	-39.81	-9,613.39	1,261.03	951.22	757.47	193.74	4.910
22,700.00	12,940.00	22,036.24	12,209.35	134.48	135.91	-39.81	-9,713.38	1,261.89	951.22	755.64	195.57	4.864
22,800.00	12,940.87	22,136.24	12,210.22	135.84	137.26	-39.81	-9,813.37	1,262.76	951.21	753.81	197.40	4.819
22,900.00	12,941.74	22,236.24	12,211.09	137.19	138.60	-39.81	-9,913.37	1,263.62	951.21	751.98	199.23	4.774
23,000.00	12,942.61	22,336.24	12,211.96	138.55	139.95	-39.81	-10,013.36	1,264.48	951.21	750.14	201.07	4.731
23,100.00	12,943.47	22,436.24	12,212.83	139.91	141.30	-39.81	-10,113.35	1,265.34	951.21	748.31	202.90	4.688
23,174.69	12,944.12	22,510.93	12,213.48	140.93	142.31	-39.81	-10,188.03	1,265.98	951.20	746.94	204.27	4.657
23,184.44	12,944.21	22,512.90	12,213.50	141.07	142.34	-39.81	-10,190.00	1,266.00	951.24	746.65	204.58	4.650 SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
0.00	0.00	1.00	0.00	0.50	0.50	169.51	-135.00	25.00	137.30					
100.00	100.00	101.00	100.00	0.98	0.99	169.51	-135.00	25.00	137.30	135.33	1.97	69.776		
200.00	200.00	201.00	200.00	1.56	1.57	169.51	-135.00	25.00	137.30	134.17	3.13	43.915		
300.00	300.00	301.00	300.00	1.98	1.98	169.51	-135.00	25.00	137.30	133.33	3.97	34.620		
400.00	400.00	401.00	400.00	2.33	2.33	169.51	-135.00	25.00	137.30	132.63	4.66	29.451		
500.00	500.00	501.02	500.02	2.63	2.64	169.51	-135.00	25.00	137.30	132.02	5.27	26.043		
600.00	600.00	603.10	602.09	2.91	2.99	169.99	-134.42	23.73	136.52	130.67	5.85	23.348		
700.00	700.00	705.03	703.93	3.16	3.30	171.43	-132.72	19.99	134.28	127.91	6.37	21.081		
800.00	800.00	806.67	805.34	3.40	3.58	173.94	-129.90	13.80	130.74	123.90	6.84	19.110		
900.00	900.00	906.75	905.05	3.62	3.71	177.31	-126.33	5.95	126.57	119.39	7.18	17.618		
1,000.00	1,000.00	1,006.37	1,004.29	3.84	3.93	-179.09	-122.73	-1.96	122.82	115.21	7.61	16.141		
1,100.00	1,100.00	1,105.99	1,103.53	4.04	4.15	-175.27	-119.14	-9.86	119.60	111.58	8.02	14.914		
1,200.00	1,200.00	1,205.64	1,202.80	4.23	4.37	-171.26	-115.54	-17.77	116.93	108.51	8.42	13.889		
1,300.00	1,300.00	1,305.84	1,302.48	4.42	4.62	-166.37	-111.34	-26.99	114.59	105.79	8.80	13.019		
1,400.00	1,400.00	1,405.43	1,401.26	4.60	4.87	-160.04	-106.09	-38.52	112.88	103.69	9.18	12.293		
1,460.66	1,460.66	1,465.49	1,460.66	4.71	5.02	-155.53	-102.41	-46.61	112.52	103.10	9.41	11.953	CC, ES	
1,500.00	1,500.00	1,504.29	1,498.95	4.78	5.12	-152.36	-99.83	-52.28	112.70	103.13	9.57	11.782		
1,600.00	1,599.99	1,602.07	1,595.17	4.98	5.35	133.77	-92.61	-68.15	115.98	106.01	9.97	11.635		
1,700.00	1,699.91	1,699.11	1,690.28	5.17	5.49	143.62	-84.65	-85.62	124.96	114.64	10.32	12.108		
1,800.00	1,799.69	1,795.78	1,785.01	5.36	5.69	152.49	-76.67	-103.16	139.66	128.90	10.76	12.981		
1,900.00	1,899.32	1,891.95	1,879.26	5.44	5.89	159.88	-68.73	-120.60	159.05	147.96	11.09	14.336		
2,000.00	1,998.94	1,988.09	1,973.47	5.59	6.09	165.69	-60.80	-138.04	180.66	169.18	11.48	15.731		
2,100.00	2,098.56	2,084.23	2,067.68	5.75	6.29	170.25	-52.86	-155.48	203.70	191.84	11.86	17.169		
2,200.00	2,198.18	2,180.37	2,161.90	5.91	6.49	173.89	-44.92	-172.92	227.74	215.50	12.24	18.603		
2,300.00	2,297.70	2,276.31	2,255.90	6.08	6.70	-175.69	-37.01	-190.32	253.54	240.91	12.63	20.079		
2,400.00	2,396.96	2,371.77	2,349.45	6.26	6.90	-168.54	-29.12	-207.64	281.93	268.91	13.02	21.654		
2,500.00	2,495.89	2,466.70	2,442.48	6.45	7.12	-163.51	-21.29	-224.86	312.64	299.23	13.41	23.312		
2,600.00	2,594.44	2,561.03	2,534.92	6.64	7.34	-159.89	-13.50	-241.97	345.51	331.70	13.80	25.035		
2,700.00	2,692.52	2,654.69	2,626.70	6.84	7.57	-157.23	-5.77	-258.95	380.42	366.23	14.20	26.799		
2,800.00	2,790.33	2,747.99	2,718.13	7.01	7.81	-156.93	1.93	-275.88	416.39	401.83	14.56	28.597		
2,900.00	2,888.15	2,841.28	2,809.55	7.18	8.05	-156.71	9.63	-292.80	452.36	437.43	14.93	30.298		
3,000.00	2,985.97	2,934.57	2,900.97	7.35	8.29	-156.53	17.34	-309.72	488.34	473.03	15.30	31.911		
3,100.00	3,083.78	3,027.87	2,992.39	7.53	8.53	-156.37	25.04	-326.64	524.32	508.64	15.68	33.442		
3,200.00	3,181.60	3,121.16	3,083.81	7.70	8.78	-156.23	32.74	-343.57	560.30	544.24	16.06	34.895		
3,300.00	3,279.41	3,214.46	3,175.24	7.88	9.02	-156.11	40.44	-360.49	596.29	579.85	16.44	36.275		
3,400.00	3,377.23	3,307.75	3,266.66	8.07	9.27	-156.00	48.14	-377.41	632.28	615.45	16.82	37.587		
3,500.00	3,475.05	3,401.04	3,358.08	8.29	9.51	-155.90	55.84	-394.33	668.27	651.06	17.21	38.836		
3,600.00	3,572.86	3,494.34	3,449.50	8.52	9.76	-155.82	63.55	-411.25	704.26	686.66	17.60	40.024		
3,700.00	3,670.68	3,587.63	3,540.92	8.75	10.01	-155.74	71.25	-428.18	740.25	722.26	17.99	41.157		
3,800.00	3,768.49	3,680.92	3,632.35	8.99	10.26	-155.67	78.95	-445.10	776.24	757.87	18.38	42.237		
3,900.00	3,866.31	3,774.22	3,723.77	9.23	10.50	-155.60	86.65	-462.02	812.24	793.47	18.77	43.268		
4,000.00	3,964.13	3,867.51	3,815.19	9.47	10.75	-155.54	94.35	-478.94	848.24	829.07	19.17	44.252		
4,100.00	4,061.94	3,960.80	3,906.61	9.71	11.00	-155.49	102.05	-495.86	884.23	864.67	19.57	45.192		
4,200.00	4,159.76	4,054.10	3,998.03	9.95	11.25	-155.44	109.75	-512.79	920.23	900.26	19.97	46.091		
4,300.00	4,257.57	4,147.39	4,089.46	10.20	11.50	-155.39	117.46	-529.71	956.23	935.86	20.37	46.952		
4,400.00	4,355.39	4,240.68	4,180.88	10.45	11.75	-155.35	125.16	-546.63	992.23	971.46	20.77	47.776		
4,500.00	4,453.21	4,333.98	4,272.30	10.70	12.00	-155.31	132.86	-563.55	1,028.23	1,007.05	21.17	48.565		
4,600.00	4,551.02	4,427.27	4,363.72	10.95	12.25	-155.27	140.56	-580.47	1,064.22	1,042.65	21.58	49.322		
4,700.00	4,648.84	4,520.56	4,455.14	11.21	12.50	-155.24	148.26	-597.40	1,100.22	1,078.24	21.98	50.049		
4,800.00	4,746.65	4,613.86	4,546.57	11.46	12.75	-155.20	155.96	-614.32	1,136.22	1,113.83	22.39	50.746		
4,900.00	4,844.47	4,707.15	4,637.99	11.72	13.01	-155.17	163.67	-631.24	1,172.22	1,149.43	22.80	51.416		
5,000.00	4,942.29	4,800.44	4,729.41	11.98	13.26	-155.15	171.37	-648.16	1,208.22	1,185.02	23.21	52.059		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)		
5,100.00	5,040.10	4,893.74	4,820.83	12.24	13.51	-155.12	179.07	-665.09	1,244.23	1,220.61	23.62	52.678
5,200.00	5,137.97	4,987.11	4,912.33	12.46	13.76	-155.19	186.78	-682.02	1,280.02	1,256.02	24.00	53.337
5,300.00	5,236.26	5,081.16	5,004.49	12.70	14.02	-155.35	194.54	-699.08	1,313.96	1,289.54	24.42	53.810
5,400.00	5,334.99	5,175.96	5,097.40	12.92	14.27	-155.44	202.37	-716.28	1,345.65	1,320.82	24.83	54.187
5,500.00	5,434.11	5,271.46	5,190.98	13.11	14.53	-155.47	210.25	-733.60	1,375.08	1,349.84	25.24	54.474
5,600.00	5,533.54	5,367.59	5,285.18	13.28	14.79	-155.45	218.19	-751.04	1,402.24	1,376.60	25.65	54.678
5,700.00	5,633.22	5,464.27	5,379.93	13.43	15.05	-155.37	226.17	-768.57	1,427.12	1,401.08	26.04	54.806
5,800.00	5,733.07	5,561.46	5,475.16	13.56	15.32	-155.24	234.19	-786.20	1,449.72	1,423.29	26.42	54.866
5,900.00	5,833.02	5,659.06	5,570.81	13.66	15.58	-155.06	242.25	-803.90	1,470.03	1,443.24	26.79	54.871
6,000.00	5,933.02	5,757.00	5,666.78	13.71	15.85	-92.14	250.33	-821.67	1,488.27	1,461.20	27.06	54.989
6,100.00	6,033.02	5,855.00	5,762.81	13.78	16.12	-91.80	258.42	-839.44	1,506.18	1,478.82	27.36	55.050
6,200.00	6,133.02	5,979.44	5,884.90	13.85	16.44	-91.39	268.41	-861.39	1,523.74	1,495.99	27.75	54.906
6,300.00	6,233.02	6,134.21	6,037.64	13.92	16.80	-90.99	278.69	-883.99	1,538.24	1,510.02	28.22	54.501
6,400.00	6,333.02	6,290.76	6,193.06	14.00	17.10	-90.69	286.48	-901.10	1,549.11	1,520.46	28.65	54.065
6,500.00	6,433.02	6,448.62	6,350.41	14.07	17.33	-90.49	291.66	-912.47	1,556.29	1,527.26	29.03	53.615
6,600.00	6,533.02	6,607.24	6,508.91	14.14	17.49	-90.40	294.14	-917.93	1,559.72	1,530.38	29.34	53.162
6,700.00	6,633.02	6,731.36	6,633.02	14.22	17.56	-90.39	294.37	-918.43	1,560.04	1,530.56	29.48	52.923
6,800.00	6,733.02	6,831.36	6,733.02	14.29	17.61	-90.39	294.37	-918.43	1,560.04	1,530.43	29.61	52.691
6,900.00	6,833.02	6,931.36	6,833.02	14.36	17.67	-90.39	294.37	-918.43	1,560.04	1,530.30	29.74	52.460
7,000.00	6,933.02	7,031.36	6,933.02	14.44	17.73	-90.39	294.37	-918.43	1,560.04	1,530.17	29.87	52.230
7,100.00	7,033.02	7,131.36	7,033.02	14.51	17.79	-90.39	294.37	-918.43	1,560.04	1,530.04	30.00	52.002
7,200.00	7,133.02	7,231.36	7,133.02	14.59	17.85	-90.39	294.37	-918.43	1,560.04	1,529.91	30.13	51.775
7,300.00	7,233.02	7,331.36	7,233.02	14.66	17.91	-90.39	294.37	-918.43	1,560.04	1,529.77	30.26	51.550
7,400.00	7,333.02	7,431.36	7,333.02	14.73	17.97	-90.39	294.37	-918.43	1,560.04	1,529.64	30.39	51.327
7,500.00	7,433.02	7,531.36	7,433.02	14.81	18.03	-90.39	294.37	-918.43	1,560.04	1,529.51	30.53	51.104
7,600.00	7,533.02	7,631.36	7,533.02	14.88	18.09	-90.39	294.37	-918.43	1,560.04	1,529.38	30.66	50.884
7,700.00	7,633.02	7,731.36	7,633.02	14.96	18.15	-90.39	294.37	-918.43	1,560.04	1,529.24	30.79	50.664
7,800.00	7,733.02	7,831.36	7,733.02	15.03	18.21	-90.39	294.37	-918.43	1,560.04	1,529.11	30.92	50.446
7,900.00	7,833.02	7,931.36	7,833.02	15.11	18.27	-90.39	294.37	-918.43	1,560.04	1,528.98	31.06	50.230
8,000.00	7,933.02	8,031.36	7,933.02	15.18	18.33	-90.39	294.37	-918.43	1,560.04	1,528.84	31.19	50.015
8,100.00	8,033.02	8,131.36	8,033.02	15.26	18.39	-90.39	294.37	-918.43	1,560.04	1,528.71	31.33	49.801
8,200.00	8,133.02	8,231.36	8,133.02	15.33	18.45	-90.39	294.37	-918.43	1,560.04	1,528.58	31.46	49.589
8,300.00	8,233.02	8,331.36	8,233.02	15.41	18.52	-90.39	294.37	-918.43	1,560.04	1,528.44	31.59	49.378
8,400.00	8,333.02	8,431.36	8,333.02	15.48	18.58	-90.39	294.37	-918.43	1,560.04	1,528.31	31.73	49.169
8,500.00	8,433.02	8,531.36	8,433.02	15.56	18.64	-90.39	294.37	-918.43	1,560.04	1,528.17	31.86	48.961
8,600.00	8,533.02	8,631.36	8,533.02	15.63	18.70	-90.39	294.37	-918.43	1,560.04	1,528.04	32.00	48.754
8,700.00	8,633.02	8,731.36	8,633.02	15.71	18.76	-90.39	294.37	-918.43	1,560.04	1,527.90	32.13	48.549
8,800.00	8,733.02	8,831.36	8,733.02	15.78	18.82	-90.39	294.37	-918.43	1,560.04	1,527.77	32.27	48.345
8,900.00	8,833.02	8,931.36	8,833.02	15.86	18.89	-90.39	294.37	-918.43	1,560.04	1,527.63	32.40	48.142
9,000.00	8,933.02	9,031.36	8,933.02	15.93	18.95	-90.39	294.37	-918.43	1,560.04	1,527.50	32.54	47.941
9,100.00	9,033.02	9,131.36	9,033.02	16.01	19.01	-90.39	294.37	-918.43	1,560.04	1,527.36	32.68	47.741
9,200.00	9,133.02	9,231.36	9,133.02	16.08	19.07	-90.39	294.37	-918.43	1,560.04	1,527.22	32.81	47.542
9,300.00	9,233.02	9,331.36	9,233.02	16.16	19.14	-90.39	294.37	-918.43	1,560.04	1,527.09	32.95	47.345
9,400.00	9,333.02	9,431.36	9,333.02	16.23	19.20	-90.39	294.37	-918.43	1,560.04	1,526.95	33.09	47.148
9,500.00	9,433.02	9,531.36	9,433.02	16.31	19.26	-90.39	294.37	-918.43	1,560.04	1,526.81	33.22	46.954
9,600.00	9,533.02	9,631.36	9,533.02	16.38	19.32	-90.39	294.37	-918.43	1,560.04	1,526.67	33.36	46.760
9,700.00	9,633.02	9,731.36	9,633.02	16.46	19.39	-90.39	294.37	-918.43	1,560.04	1,526.54	33.50	46.568
9,800.00	9,733.02	9,831.36	9,733.02	16.54	19.45	-90.39	294.37	-918.43	1,560.04	1,526.40	33.64	46.377
9,900.00	9,833.02	9,931.36	9,833.02	16.61	19.51	-90.39	294.37	-918.43	1,560.04	1,526.26	33.78	46.188
10,000.00	9,933.02	10,031.36	9,933.02	16.69	19.58	-90.39	294.37	-918.43	1,560.04	1,526.12	33.91	45.999
10,100.00	10,033.02	10,131.36	10,033.02	16.76	19.64	-90.39	294.37	-918.43	1,560.04	1,525.98	34.05	45.812
10,200.00	10,133.02	10,231.36	10,133.02	16.84	19.71	-90.39	294.37	-918.43	1,560.04	1,525.84	34.19	45.626

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		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	10,233.02	10,331.36	10,233.02	16.92	19.77	-90.39	294.37	-918.43	1,560.04	1,525.71	34.33	45.441	
10,400.00	10,333.02	10,431.36	10,333.02	16.99	19.83	-90.39	294.37	-918.43	1,560.04	1,525.57	34.47	45.258	
10,500.00	10,433.02	10,531.36	10,433.02	17.07	19.90	-90.39	294.37	-918.43	1,560.04	1,525.43	34.61	45.076	
10,600.00	10,533.02	10,631.36	10,533.02	17.15	19.96	-90.39	294.37	-918.43	1,560.04	1,525.29	34.75	44.895	
10,700.00	10,633.02	10,731.36	10,633.02	17.22	20.03	-90.39	294.37	-918.43	1,560.04	1,525.15	34.89	44.715	
10,800.00	10,733.02	10,831.36	10,733.02	17.30	20.09	-90.39	294.37	-918.43	1,560.04	1,525.01	35.03	44.536	
10,900.00	10,833.02	10,931.36	10,833.02	17.37	20.16	-90.39	294.37	-918.43	1,560.04	1,524.87	35.17	44.359	
11,000.00	10,933.02	11,031.36	10,933.02	17.45	20.22	-90.39	294.37	-918.43	1,560.04	1,524.73	35.31	44.182	
11,100.00	11,033.02	11,131.36	11,033.02	17.53	20.28	-90.39	294.37	-918.43	1,560.04	1,524.59	35.45	44.012	
11,200.00	11,133.02	11,231.46	11,133.03	17.60	20.32	-90.49	291.62	-918.41	1,560.03	1,524.50	35.53	43.907	
11,200.64	11,133.66	11,232.10	11,133.66	17.60	20.32	-90.49	291.56	-918.41	1,560.03	1,524.50	35.53	43.907	
11,300.00	11,233.02	11,328.38	11,228.23	17.68	20.35	-91.14	274.05	-918.26	1,560.14	1,524.61	35.53	43.908	
11,400.00	11,333.02	11,417.16	11,311.71	17.76	20.35	-92.24	244.09	-918.00	1,560.90	1,525.40	35.50	43.971	
11,500.00	11,433.02	11,495.16	11,380.47	17.83	20.34	-93.58	207.41	-917.68	1,563.19	1,527.72	35.47	44.076	
11,600.00	11,533.02	11,561.88	11,434.88	17.91	20.33	-94.99	168.86	-917.35	1,567.93	1,532.46	35.47	44.206	
11,700.00	11,633.02	11,618.15	11,477.03	17.99	20.33	-96.35	131.61	-917.03	1,575.95	1,540.41	35.54	44.343	
11,800.00	11,733.02	11,665.40	11,509.46	18.06	20.34	-97.59	97.27	-916.73	1,587.90	1,552.18	35.72	44.452	
11,900.00	11,833.02	11,700.00	11,531.35	18.14	20.35	-98.56	70.48	-916.50	1,604.24	1,568.21	36.03	44.525	
12,000.00	11,933.02	11,738.69	11,553.87	18.22	20.37	-99.69	39.04	-916.23	1,625.19	1,588.77	36.42	44.627	
12,100.00	12,033.02	11,767.23	11,569.09	18.30	20.39	-100.55	14.89	-916.02	1,650.90	1,613.96	36.94	44.689	
12,200.00	12,133.02	11,800.00	11,585.06	18.37	20.42	-101.57	-13.71	-915.78	1,681.42	1,643.89	37.53	44.803	
12,300.00	12,233.02	11,800.00	11,585.06	18.45	20.42	-101.57	-13.71	-915.78	1,716.61	1,678.26	38.35	44.758	
12,400.00	12,332.97	11,831.94	11,599.03	18.52	20.46	69.97	-42.43	-915.53	1,755.54	1,716.50	39.05	44.957	
12,500.00	12,431.38	11,850.00	11,606.21	18.56	20.48	65.61	-59.00	-915.39	1,793.99	1,754.20	39.79	45.084	
12,600.00	12,525.35	11,878.69	11,616.54	18.58	20.52	61.48	-85.76	-915.16	1,829.74	1,789.23	40.50	45.175	
12,700.00	12,612.01	11,900.00	11,623.34	18.59	20.56	58.14	-105.96	-914.98	1,861.53	1,820.30	41.23	45.148	
12,800.00	12,688.74	11,950.00	11,636.30	18.62	20.66	55.00	-154.23	-914.57	1,888.38	1,846.53	41.85	45.123	
12,900.00	12,753.20	11,950.00	11,636.30	18.67	20.66	53.29	-154.23	-914.57	1,909.07	1,866.50	42.56	44.851	
13,000.00	12,803.44	12,000.00	11,645.01	18.75	20.77	51.64	-203.45	-914.14	1,922.97	1,879.85	43.12	44.601	
13,100.00	12,837.92	12,026.75	11,647.90	18.89	20.84	50.91	-230.03	-913.92	1,929.85	1,886.20	43.65	44.216	
13,200.00	12,855.60	12,058.61	11,649.71	19.08	20.94	50.80	-261.84	-913.64	1,929.33	1,885.24	44.09	43.758	
13,300.00	12,858.40	12,133.29	11,650.48	19.34	21.18	50.93	-336.51	-913.00	1,922.56	1,878.08	44.48	43.223	
13,400.00	12,859.27	12,233.04	11,651.35	19.70	21.55	50.88	-436.26	-912.14	1,917.24	1,872.28	44.96	42.645	
13,500.00	12,860.14	12,332.98	11,652.21	20.14	21.99	50.87	-536.19	-911.28	1,914.62	1,869.10	45.52	42.061	
13,596.28	12,860.98	12,429.26	11,653.04	20.63	22.46	50.87	-632.46	-910.45	1,914.00	1,867.87	46.12	41.497	
13,600.00	12,861.01	12,432.98	11,653.08	20.65	22.48	50.87	-636.18	-910.42	1,914.33	1,868.19	46.15	41.485	
13,700.00	12,861.88	12,532.98	11,653.94	21.24	23.02	50.87	-736.17	-909.56	1,914.33	1,867.46	46.87	40.841	
13,800.00	12,862.75	12,632.98	11,654.81	21.90	23.62	50.87	-836.17	-908.70	1,914.33	1,866.64	47.69	40.142	
13,900.00	12,863.61	12,732.98	11,655.67	22.62	24.27	50.87	-936.16	-907.84	1,914.33	1,865.74	48.59	39.396	
14,000.00	12,864.48	12,832.98	11,656.54	23.39	24.97	50.87	-1,036.15	-906.98	1,914.34	1,864.76	49.58	38.614	
14,100.00	12,865.35	12,932.98	11,657.41	24.23	25.71	50.87	-1,136.14	-906.12	1,914.34	1,863.70	50.64	37.805	
14,200.00	12,866.22	13,032.98	11,658.27	25.11	26.50	50.87	-1,236.14	-905.26	1,914.34	1,862.57	51.77	36.979	
14,300.00	12,867.09	13,132.98	11,659.14	26.03	27.33	50.87	-1,336.13	-904.39	1,914.34	1,861.37	52.97	36.142	
14,400.00	12,867.95	13,232.98	11,660.00	26.99	28.20	50.87	-1,436.12	-903.53	1,914.34	1,860.11	54.23	35.301	
14,500.00	12,868.82	13,332.98	11,660.87	27.99	29.10	50.87	-1,536.11	-902.67	1,914.34	1,858.79	55.55	34.462	
14,600.00	12,869.69	13,432.98	11,661.74	29.01	30.04	50.87	-1,636.11	-901.81	1,914.34	1,857.42	56.92	33.630	
14,700.00	12,870.56	13,532.98	11,662.60	30.07	31.01	50.87	-1,736.10	-900.95	1,914.35	1,856.00	58.35	32.809	
14,800.00	12,871.43	13,632.98	11,663.47	31.15	32.01	50.87	-1,836.09	-900.09	1,914.35	1,854.53	59.82	32.001	
14,900.00	12,872.29	13,732.98	11,664.33	32.25	33.03	50.87	-1,936.08	-899.23	1,914.35	1,853.01	61.34	31.211	
15,000.00	12,873.16	13,832.98	11,665.20	33.38	34.08	50.87	-2,036.08	-898.37	1,914.35	1,851.46	62.89	30.439	
15,100.00	12,874.03	13,932.98	11,666.07	34.52	35.15	50.87	-2,136.07	-897.51	1,914.35	1,849.86	64.49	29.686	
15,200.00	12,874.90	14,032.98	11,666.93	35.68	36.24	50.87	-2,236.06	-896.65	1,914.35	1,848.24	66.11	28.955	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Well Error:	0.50 usft
Reference		Offset		Reference	Semi Major Axis	Offset Wellbore Centre			Rule Assigned: 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)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
15,300.00	12,875.77	14,132.98	11,667.80	36.85	37.35	50.87	-2,336.05	-895.79	1,914.35	1,846.58	67.77	28.246		
15,400.00	12,876.63	14,232.98	11,668.66	38.04	38.47	50.87	-2,436.05	-894.93	1,914.35	1,844.89	69.47	27.559		
15,500.00	12,877.50	14,332.98	11,669.53	39.24	39.61	50.87	-2,536.04	-894.07	1,914.36	1,843.17	71.18	26.893		
15,600.00	12,878.37	14,432.98	11,670.40	40.45	40.77	50.87	-2,636.03	-893.21	1,914.36	1,841.43	72.93	26.250		
15,700.00	12,879.24	14,532.98	11,671.26	41.67	41.94	50.87	-2,736.02	-892.34	1,914.36	1,839.66	74.70	25.629		
15,800.00	12,880.11	14,632.98	11,672.13	42.90	43.12	50.87	-2,836.02	-891.48	1,914.36	1,837.87	76.49	25.029		
15,900.00	12,880.97	14,732.98	11,672.99	44.13	44.31	50.87	-2,936.01	-890.62	1,914.36	1,836.06	78.30	24.449		
16,000.00	12,881.84	14,832.98	11,673.86	45.38	45.51	50.87	-3,036.00	-889.76	1,914.36	1,834.23	80.13	23.891		
16,100.00	12,882.71	14,932.98	11,674.73	46.63	46.72	50.87	-3,136.00	-888.90	1,914.36	1,832.38	81.98	23.352		
16,200.00	12,883.58	15,032.98	11,675.59	47.89	47.94	50.87	-3,235.99	-888.04	1,914.36	1,830.52	83.85	22.832		
16,300.00	12,884.45	15,132.98	11,676.46	49.15	49.16	50.87	-3,335.98	-887.18	1,914.37	1,828.64	85.73	22.331		
16,400.00	12,885.31	15,232.98	11,677.32	50.43	50.40	50.87	-3,435.97	-886.32	1,914.37	1,826.74	87.62	21.847		
16,500.00	12,886.18	15,332.98	11,678.19	51.70	51.64	50.87	-3,535.97	-885.46	1,914.37	1,824.83	89.53	21.381		
16,600.00	12,887.05	15,432.98	11,679.06	52.98	52.89	50.87	-3,635.96	-884.60	1,914.37	1,822.91	91.46	20.931		
16,700.00	12,887.92	15,532.98	11,679.92	54.27	54.14	50.87	-3,735.95	-883.74	1,914.37	1,820.98	93.39	20.498		
16,800.00	12,888.79	15,632.98	11,680.79	55.55	55.40	50.87	-3,835.94	-882.88	1,914.37	1,819.03	95.34	20.079		
16,900.00	12,889.66	15,732.98	11,681.65	56.85	56.67	50.87	-3,935.94	-882.02	1,914.37	1,817.07	97.30	19.675		
17,000.00	12,890.52	15,832.98	11,682.52	58.14	57.93	50.87	-4,035.93	-881.15	1,914.37	1,815.11	99.27	19.285		
17,100.00	12,891.39	15,932.98	11,683.39	59.44	59.21	50.87	-4,135.92	-880.29	1,914.38	1,813.13	101.25	18.908		
17,200.00	12,892.26	16,032.98	11,684.25	60.75	60.49	50.87	-4,235.91	-879.43	1,914.38	1,811.14	103.23	18.544		
17,300.00	12,893.13	16,132.98	11,685.12	62.05	61.77	50.87	-4,335.91	-878.57	1,914.38	1,809.15	105.23	18.192		
17,400.00	12,894.00	16,232.98	11,685.98	63.36	63.06	50.87	-4,435.90	-877.71	1,914.38	1,807.15	107.23	17.853		
17,500.00	12,894.86	16,332.98	11,686.85	64.67	64.34	50.87	-4,535.89	-876.85	1,914.38	1,805.14	109.24	17.524		
17,600.00	12,895.73	16,432.98	11,687.72	65.99	65.64	50.87	-4,635.88	-875.99	1,914.38	1,803.12	111.26	17.206		
17,700.00	12,896.60	16,532.98	11,688.58	67.30	66.93	50.87	-4,735.88	-875.13	1,914.38	1,801.10	113.29	16.899		
17,800.00	12,897.47	16,632.98	11,689.45	68.62	68.23	50.87	-4,835.87	-874.27	1,914.38	1,799.07	115.32	16.601		
17,900.00	12,898.34	16,732.98	11,690.31	69.94	69.53	50.87	-4,935.86	-873.41	1,914.39	1,797.03	117.36	16.313		
18,000.00	12,899.20	16,832.98	11,691.18	71.26	70.84	50.87	-5,035.85	-872.55	1,914.39	1,794.99	119.40	16.034		
18,100.00	12,900.07	16,932.98	11,692.05	72.58	72.14	50.87	-5,135.85	-871.69	1,914.39	1,792.94	121.45	15.763		
18,200.00	12,900.94	17,032.98	11,692.91	73.91	73.45	50.87	-5,235.84	-870.83	1,914.39	1,790.89	123.50	15.501		
18,300.00	12,901.81	17,132.98	11,693.78	75.24	74.77	50.87	-5,335.83	-869.97	1,914.39	1,788.83	125.56	15.247		
18,400.00	12,902.68	17,232.98	11,694.64	76.56	76.08	50.87	-5,435.82	-869.10	1,914.39	1,786.77	127.62	15.000		
18,500.00	12,903.54	17,332.98	11,695.51	77.89	77.39	50.87	-5,535.82	-868.24	1,914.39	1,784.70	129.69	14.761		
18,600.00	12,904.41	17,432.98	11,696.38	79.23	78.71	50.87	-5,635.81	-867.38	1,914.39	1,782.63	131.76	14.529		
18,700.00	12,905.28	17,532.98	11,697.24	80.56	80.03	50.87	-5,735.80	-866.52	1,914.40	1,780.55	133.84	14.304		
18,800.00	12,906.15	17,632.98	11,698.11	81.89	81.35	50.87	-5,835.79	-865.66	1,914.40	1,778.48	135.92	14.085		
18,900.00	12,907.02	17,732.98	11,698.97	83.23	82.67	50.87	-5,935.79	-864.80	1,914.40	1,776.39	138.01	13.872		
19,000.00	12,907.88	17,832.98	11,699.84	84.56	84.00	50.87	-6,035.78	-863.94	1,914.40	1,774.31	140.09	13.665		
19,100.00	12,908.75	17,932.98	11,700.71	85.90	85.32	50.87	-6,135.77	-863.08	1,914.40	1,772.22	142.18	13.464		
19,200.00	12,909.62	18,032.98	11,701.57	87.24	86.65	50.87	-6,235.76	-862.22	1,914.40	1,770.12	144.28	13.269		
19,300.00	12,910.49	18,132.98	11,702.44	88.58	87.98	50.87	-6,335.76	-861.36	1,914.40	1,768.03	146.38	13.079		
19,400.00	12,911.36	18,232.98	11,703.30	89.92	89.31	50.87	-6,435.75	-860.50	1,914.40	1,765.93	148.48	12.894		
19,500.00	12,912.22	18,332.98	11,704.17	91.26	90.64	50.87	-6,535.74	-859.64	1,914.41	1,763.83	150.58	12.714		
19,600.00	12,913.09	18,432.98	11,705.04	92.60	91.97	50.87	-6,635.73	-858.78	1,914.41	1,761.72	152.69	12.538		
19,700.00	12,913.96	18,532.98	11,705.90	93.94	93.30	50.87	-6,735.73	-857.92	1,914.41	1,759.61	154.79	12.367		
19,800.00	12,914.83	18,632.98	11,706.77	95.29	94.64	50.87	-6,835.72	-857.05	1,914.41	1,757.51	156.90	12.201		
19,900.00	12,915.70	18,732.98	11,707.63	96.63	95.97	50.87	-6,935.71	-856.19	1,914.41	1,755.39	159.02	12.039		
20,000.00	12,916.56	18,832.98	11,708.50	97.98	97.31	50.87	-7,035.70	-855.33	1,914.41	1,753.28	161.13	11.881		
20,100.00	12,917.43	18,932.98	11,709.37	99.32	98.64	50.87	-7,135.70	-854.47	1,914.41	1,751.16	163.25	11.727		
20,200.00	12,918.30	19,032.98	11,710.23	100.67	99.98	50.87	-7,235.69	-853.61	1,914.41	1,749.04	165.37	11.576		
20,300.00	12,919.17	19,132.98	11,711.10	102.01	101.32	50.87	-7,335.68	-852.75	1,914.42	1,746.92	167.49	11.430		
20,400.00	12,920.04	19,232.98	11,711.96	103.36	102.66	50.87	-7,435.67	-851.89	1,914.42	1,744.80	169.62	11.287		

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 151H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Site Error: 0.00 usft	
Survey 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)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
20,500.00	12,920.90	19,332.98	11,712.83	104.71	104.00	50.87	-7,535.67	-851.03	1,914.42	1,742.67	171.74	11.147		
20,600.00	12,921.77	19,432.98	11,713.70	106.06	105.34	50.87	-7,635.66	-850.17	1,914.42	1,740.55	173.87	11.010		
20,700.00	12,922.64	19,532.98	11,714.56	107.41	106.68	50.87	-7,735.65	-849.31	1,914.42	1,738.42	176.00	10.877		
20,800.00	12,923.51	19,632.98	11,715.43	108.76	108.02	50.87	-7,835.64	-848.45	1,914.42	1,736.29	178.13	10.747		
20,900.00	12,924.38	19,732.98	11,716.29	110.11	109.37	50.87	-7,935.64	-847.59	1,914.42	1,734.16	180.27	10.620		
21,000.00	12,925.24	19,832.98	11,717.16	111.46	110.71	50.87	-8,035.63	-846.73	1,914.43	1,732.02	182.40	10.496		
21,100.00	12,926.11	19,932.98	11,718.03	112.81	112.06	50.87	-8,135.62	-845.86	1,914.43	1,729.89	184.54	10.374		
21,200.00	12,926.98	20,032.98	11,718.89	114.16	113.40	50.87	-8,235.62	-845.00	1,914.43	1,727.75	186.68	10.255		
21,300.00	12,927.85	20,132.98	11,719.76	115.51	114.75	50.87	-8,335.61	-844.14	1,914.43	1,725.61	188.81	10.139		
21,400.00	12,928.72	20,232.98	11,720.62	116.87	116.09	50.87	-8,435.60	-843.28	1,914.43	1,723.48	190.95	10.026		
21,500.00	12,929.58	20,332.98	11,721.49	118.22	117.44	50.87	-8,535.59	-842.42	1,914.43	1,721.33	193.10	9.914		
21,600.00	12,930.45	20,432.98	11,722.36	119.57	118.79	50.87	-8,635.59	-841.56	1,914.43	1,719.19	195.24	9.806		
21,700.00	12,931.32	20,532.98	11,723.22	120.93	120.13	50.87	-8,735.58	-840.70	1,914.43	1,717.05	197.38	9.699		
21,800.00	12,932.19	20,632.98	11,724.09	122.28	121.48	50.87	-8,835.57	-839.84	1,914.44	1,714.91	199.53	9.595		
21,900.00	12,933.06	20,732.98	11,724.95	123.63	122.83	50.87	-8,935.56	-838.98	1,914.44	1,712.76	201.68	9.493		
22,000.00	12,933.92	20,832.98	11,725.82	124.99	124.18	50.87	-9,035.56	-838.12	1,914.44	1,710.61	203.82	9.393		
22,100.00	12,934.79	20,932.98	11,726.69	126.34	125.53	50.87	-9,135.55	-837.26	1,914.44	1,708.47	205.97	9.295		
22,200.00	12,935.66	21,032.98	11,727.55	127.70	126.88	50.87	-9,235.54	-836.40	1,914.44	1,706.32	208.12	9.199		
22,300.00	12,936.53	21,132.98	11,728.42	129.05	128.23	50.87	-9,335.53	-835.54	1,914.44	1,704.17	210.27	9.104		
22,400.00	12,937.40	21,232.98	11,729.28	130.41	129.58	50.87	-9,435.53	-834.68	1,914.44	1,702.02	212.43	9.012		
22,500.00	12,938.26	21,332.98	11,730.15	131.77	130.93	50.87	-9,535.52	-833.81	1,914.44	1,699.86	214.58	8.922		
22,600.00	12,939.13	21,432.98	11,731.02	133.12	132.29	50.87	-9,635.51	-832.95	1,914.45	1,697.71	216.73	8.833		
22,700.00	12,940.00	21,532.98	11,731.88	134.48	133.64	50.87	-9,735.50	-832.09	1,914.45	1,695.56	218.89	8.746		
22,800.00	12,940.87	21,632.98	11,732.75	135.84	134.99	50.87	-9,835.50	-831.23	1,914.45	1,693.40	221.04	8.661		
22,900.00	12,941.74	21,732.98	11,733.61	137.19	136.34	50.87	-9,935.49	-830.37	1,914.45	1,691.25	223.20	8.577		
23,000.00	12,942.61	21,832.98	11,734.48	138.55	137.70	50.87	-10,035.48	-829.51	1,914.45	1,689.09	225.36	8.495		
23,100.00	12,943.47	21,932.98	11,735.35	139.91	139.05	50.87	-10,135.47	-828.65	1,914.45	1,686.93	227.52	8.415		
23,105.97	12,943.52	21,938.95	11,735.40	139.99	139.13	50.87	-10,141.45	-828.60	1,914.45	1,686.81	227.65	8.410		
23,184.44	12,944.21	22,008.51	11,736.00	141.07	140.07	50.87	-10,211.00	-828.00	1,914.47	1,685.19	229.29	8.350	SF	

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
0.00	0.00	0.00	0.00	0.50	0.50	26.57	50.00	25.00	55.90					
100.00	100.00	100.00	100.00	0.98	0.98	26.57	50.00	25.00	55.90	53.94	1.96	28.490	CC, ES	
200.00	200.00	200.00	200.00	1.56	1.56	26.57	50.00	25.00	55.90	52.78	3.12	17.904		
300.00	300.00	300.00	300.00	1.98	1.98	26.57	50.00	25.00	55.90	51.94	3.96	14.108		
400.00	400.00	398.72	398.71	2.33	2.41	27.20	50.71	26.06	57.03	52.31	4.72	12.090		
500.00	500.00	497.31	497.22	2.63	2.77	28.95	52.84	29.23	60.45	55.08	5.38	11.245		
600.00	600.00	595.64	595.34	2.91	3.11	31.45	56.38	34.49	66.26	60.28	5.97	11.091		
700.00	700.00	694.66	694.00	3.16	3.25	34.18	61.10	41.50	74.10	67.72	6.37	11.624		
800.00	800.00	794.28	793.24	3.40	3.50	36.45	65.94	48.70	82.25	75.39	6.86	11.987		
900.00	900.00	893.90	892.49	3.62	3.74	38.30	70.79	55.90	90.51	83.18	7.33	12.348		
1,000.00	1,000.00	993.52	991.73	3.84	3.97	39.84	75.64	63.11	98.85	91.07	7.78	12.706		
1,100.00	1,100.00	1,093.14	1,090.97	4.04	4.20	41.14	80.48	70.31	107.25	99.04	8.21	13.058		
1,200.00	1,200.00	1,192.76	1,190.21	4.23	4.42	42.25	85.33	77.51	115.70	107.06	8.63	13.401		
1,300.00	1,300.00	1,292.38	1,289.45	4.42	4.64	43.21	90.17	84.72	124.18	115.14	9.04	13.734		
1,400.00	1,400.00	1,392.00	1,388.69	4.60	4.85	44.05	95.02	91.92	132.69	123.25	9.44	14.057		
1,500.00	1,500.00	1,491.62	1,487.93	4.78	5.07	44.79	99.87	99.13	141.23	131.40	9.83	14.369		
1,600.00	1,599.99	1,591.33	1,587.26	4.98	5.28	-37.80	104.72	106.34	148.75	138.53	10.23	14.546		
1,700.00	1,699.91	1,691.17	1,686.72	5.17	5.48	-38.03	109.58	113.56	154.22	143.61	10.61	14.538		
1,800.00	1,799.69	1,791.08	1,786.25	5.36	5.69	-38.85	114.44	120.78	157.64	146.66	10.99	14.351		
1,900.00	1,899.32	1,891.00	1,885.79	5.44	5.89	-40.13	119.30	128.01	159.54	148.28	11.26	14.163		
2,000.00	1,998.94	1,990.92	1,985.33	5.59	6.09	-41.41	124.16	135.23	161.41	149.79	11.62	13.896		
2,100.00	2,098.56	2,090.84	2,084.87	5.75	6.29	-42.67	129.02	142.46	163.35	151.39	11.96	13.654		
2,200.00	2,198.18	2,190.75	2,184.40	5.91	6.50	-43.90	133.88	149.68	165.37	153.05	12.32	13.419		
2,300.00	2,297.70	2,287.32	2,280.53	6.08	6.71	-37.61	139.05	157.38	167.08	154.41	12.68	13.180		
2,400.00	2,396.96	2,383.27	2,375.77	6.26	6.93	-33.71	145.52	166.99	168.64	155.59	13.05	12.923		
2,500.00	2,495.89	2,479.22	2,470.69	6.45	7.15	-31.22	153.32	178.58	170.07	156.64	13.43	12.664		
2,600.00	2,594.44	2,576.65	2,566.72	6.64	7.32	-29.60	162.50	192.22	171.20	157.43	13.77	12.437		
2,700.00	2,692.52	2,676.59	2,665.15	6.84	7.51	-28.77	172.18	206.62	170.29	156.13	14.16	12.024		
2,800.00	2,790.33	2,776.51	2,763.55	7.01	7.72	-29.92	181.87	221.02	168.13	153.59	14.55	11.559		
2,900.00	2,888.15	2,876.42	2,861.94	7.18	7.92	-31.13	191.55	235.41	166.04	151.11	14.94	11.118		
3,000.00	2,985.97	2,976.34	2,960.34	7.35	8.13	-32.37	201.24	249.80	164.03	148.70	15.33	10.700		
3,100.00	3,083.78	3,076.26	3,058.74	7.53	8.33	-33.65	210.92	264.20	162.10	146.37	15.73	10.306		
3,200.00	3,181.60	3,176.17	3,157.14	7.70	8.54	-34.95	220.61	278.59	160.25	144.12	16.13	9.934		
3,300.00	3,279.41	3,276.09	3,255.53	7.88	8.75	-36.29	230.29	292.99	158.48	141.94	16.54	9.583		
3,400.00	3,377.23	3,376.00	3,353.93	8.07	8.95	-37.65	239.98	307.38	156.80	139.85	16.95	9.251		
3,500.00	3,475.05	3,475.92	3,452.33	8.29	9.16	-39.04	249.66	321.78	155.22	137.85	17.37	8.937		
3,600.00	3,572.86	3,575.83	3,550.73	8.52	9.37	-40.46	259.34	336.17	153.72	135.94	17.79	8.642		
3,700.00	3,670.68	3,675.75	3,649.13	8.75	9.57	-41.91	269.03	350.57	152.33	134.12	18.21	8.365		
3,800.00	3,768.49	3,778.26	3,750.23	8.99	9.79	-43.62	278.47	364.61	150.34	131.68	18.66	8.057		
3,900.00	3,866.31	3,881.14	3,852.11	9.23	10.02	-46.06	286.46	376.47	146.44	127.33	19.10	7.666		
4,000.00	3,964.13	3,983.56	3,953.88	9.47	10.23	-49.36	292.88	386.01	140.81	121.29	19.52	7.212		
4,100.00	4,061.94	4,085.39	4,055.33	9.71	10.44	-53.75	297.75	393.26	133.84	113.92	19.92	6.719		
4,200.00	4,159.76	4,186.48	4,156.24	9.95	10.64	-59.52	301.09	398.22	126.09	105.81	20.28	6.216		
4,300.00	4,257.57	4,286.70	4,256.40	10.20	10.82	-67.00	302.93	400.96	118.41	97.79	20.61	5.745		
4,400.00	4,355.39	4,385.69	4,355.39	10.45	10.90	-76.41	303.35	401.58	112.06	91.20	20.86	5.372		
4,500.00	4,453.21	4,483.51	4,453.21	10.70	10.98	-86.86	303.35	401.58	108.96	87.85	21.11	5.162		
4,529.35	4,481.92	4,512.22	4,481.92	10.78	11.00	-90.00	303.35	401.58	108.79	87.61	21.18	5.135	SF	
4,600.00	4,551.02	4,581.33	4,551.02	10.95	11.06	-97.52	303.35	401.58	109.78	88.41	21.36	5.138		
4,700.00	4,648.84	4,679.14	4,648.84	11.21	11.14	-107.69	303.35	401.58	114.43	92.81	21.62	5.293		
4,800.00	4,746.65	4,776.96	4,746.65	11.46	11.22	-116.83	303.35	401.58	122.47	100.59	21.88	5.597		
4,900.00	4,844.47	4,874.77	4,844.47	11.72	11.30	-124.71	303.35	401.58	133.30	111.16	22.15	6.018		
5,000.00	4,942.29	4,972.59	4,942.29	11.98	11.38	-131.33	303.35	401.58	146.30	123.88	22.42	6.525		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		Offset		Semi Major Axis		Highside Toolface (°)	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,040.10	5,070.41	5,040.10	12.24	11.47	-136.84	303.35	401.58	160.95	138.25	22.70	7.091	
5,200.00	5,137.97	5,168.27	5,137.97	12.46	11.55	-141.43	303.35	401.58	176.64	153.69	22.94	7.699	
5,300.00	5,236.26	5,266.56	5,236.26	12.70	11.63	-144.98	303.35	401.58	191.47	168.24	23.23	8.243	
5,400.00	5,334.99	5,365.30	5,334.99	12.92	11.71	-147.62	303.35	401.58	204.69	181.18	23.51	8.707	
5,500.00	5,434.11	5,464.42	5,434.11	13.11	11.79	-149.58	303.35	401.58	216.01	192.23	23.78	9.083	
5,600.00	5,533.54	5,563.85	5,533.54	13.28	11.88	-151.02	303.35	401.58	225.26	201.21	24.05	9.366	
5,700.00	5,633.22	5,663.52	5,633.22	13.43	11.96	-152.02	303.35	401.58	232.33	208.02	24.31	9.556	
5,800.00	5,733.07	5,763.37	5,733.07	13.56	12.04	-152.67	303.35	401.58	237.13	212.57	24.56	9.655	
5,900.00	5,833.02	5,863.33	5,833.02	13.66	12.12	-153.00	303.35	401.58	239.62	214.82	24.79	9.665	
6,000.00	5,933.02	5,963.33	5,933.02	13.71	12.21	-90.39	303.35	401.58	240.00	215.07	24.93	9.627	
6,100.00	6,033.02	6,063.33	6,033.02	13.78	12.29	-90.39	303.35	401.58	240.00	214.91	25.08	9.568	
6,200.00	6,133.02	6,163.33	6,133.02	13.85	12.37	-90.39	303.35	401.58	240.00	214.76	25.24	9.509	
6,300.00	6,233.02	6,263.33	6,233.02	13.92	12.46	-90.39	303.35	401.58	240.00	214.60	25.39	9.451	
6,400.00	6,333.02	6,363.33	6,333.02	14.00	12.54	-90.39	303.35	401.58	240.00	214.45	25.55	9.394	
6,500.00	6,433.02	6,463.33	6,433.02	14.07	12.62	-90.39	303.35	401.58	240.00	214.29	25.70	9.337	
6,600.00	6,533.02	6,563.33	6,533.02	14.14	12.71	-90.39	303.35	401.58	240.00	214.14	25.86	9.281	
6,700.00	6,633.02	6,663.33	6,633.02	14.22	12.79	-90.39	303.35	401.58	240.00	213.98	26.01	9.226	
6,800.00	6,733.02	6,763.33	6,733.02	14.29	12.87	-90.39	303.35	401.58	240.00	213.83	26.17	9.171	
6,900.00	6,833.02	6,863.33	6,833.02	14.36	12.96	-90.39	303.35	401.58	240.00	213.67	26.32	9.117	
7,000.00	6,933.02	6,963.33	6,933.02	14.44	13.04	-90.39	303.35	401.58	240.00	213.52	26.48	9.064	
7,100.00	7,033.02	7,063.33	7,033.02	14.51	13.12	-90.39	303.35	401.58	240.00	213.36	26.63	9.011	
7,200.00	7,133.02	7,163.33	7,133.02	14.59	13.20	-90.39	303.35	401.58	240.00	213.21	26.79	8.959	
7,300.00	7,233.02	7,263.33	7,233.02	14.66	13.29	-90.39	303.35	401.58	240.00	213.05	26.94	8.907	
7,400.00	7,333.02	7,363.33	7,333.02	14.73	13.37	-90.39	303.35	401.58	240.00	212.90	27.10	8.856	
7,500.00	7,433.02	7,463.33	7,433.02	14.81	13.45	-90.39	303.35	401.58	240.00	212.74	27.26	8.805	
7,600.00	7,533.02	7,563.33	7,533.02	14.88	13.54	-90.39	303.35	401.58	240.00	212.58	27.41	8.755	
7,700.00	7,633.02	7,663.33	7,633.02	14.96	13.62	-90.39	303.35	401.58	240.00	212.43	27.57	8.706	
7,800.00	7,733.02	7,763.33	7,733.02	15.03	13.70	-90.39	303.35	401.58	240.00	212.27	27.72	8.657	
7,900.00	7,833.02	7,863.33	7,833.02	15.11	13.79	-90.39	303.35	401.58	240.00	212.12	27.88	8.608	
8,000.00	7,933.02	7,963.33	7,933.02	15.18	13.87	-90.39	303.35	401.58	240.00	211.96	28.04	8.561	
8,100.00	8,033.02	8,063.33	8,033.02	15.26	13.95	-90.39	303.35	401.58	240.00	211.80	28.19	8.513	
8,200.00	8,133.02	8,163.33	8,133.02	15.33	14.04	-90.39	303.35	401.58	240.00	211.65	28.35	8.466	
8,300.00	8,233.02	8,263.33	8,233.02	15.41	14.12	-90.39	303.35	401.58	240.00	211.49	28.50	8.420	
8,400.00	8,333.02	8,363.33	8,333.02	15.48	14.20	-90.39	303.35	401.58	240.00	211.34	28.66	8.374	
8,500.00	8,433.02	8,463.33	8,433.02	15.56	14.28	-90.39	303.35	401.58	240.00	211.18	28.82	8.328	
8,600.00	8,533.02	8,563.33	8,533.02	15.63	14.37	-90.39	303.35	401.58	240.00	211.02	28.97	8.283	
8,700.00	8,633.02	8,663.33	8,633.02	15.71	14.45	-90.39	303.35	401.58	240.00	210.87	29.13	8.239	
8,800.00	8,733.02	8,763.33	8,733.02	15.78	14.53	-90.39	303.35	401.58	240.00	210.71	29.29	8.195	
8,900.00	8,833.02	8,863.33	8,833.02	15.86	14.62	-90.39	303.35	401.58	240.00	210.55	29.44	8.151	
9,000.00	8,933.02	8,963.33	8,933.02	15.93	14.70	-90.39	303.35	401.58	240.00	210.40	29.60	8.108	
9,100.00	9,033.02	9,063.33	9,033.02	16.01	14.78	-90.39	303.35	401.58	240.00	210.24	29.76	8.065	
9,200.00	9,133.02	9,163.33	9,133.02	16.08	14.86	-90.39	303.35	401.58	240.00	210.08	29.91	8.023	
9,300.00	9,233.02	9,263.33	9,233.02	16.16	14.95	-90.39	303.35	401.58	240.00	209.93	30.07	7.981	
9,400.00	9,333.02	9,363.33	9,333.02	16.23	15.03	-90.39	303.35	401.58	240.00	209.77	30.23	7.940	
9,500.00	9,433.02	9,463.33	9,433.02	16.31	15.11	-90.39	303.35	401.58	240.00	209.61	30.38	7.899	
9,600.00	9,533.02	9,563.33	9,533.02	16.38	15.20	-90.39	303.35	401.58	240.00	209.45	30.54	7.858	
9,700.00	9,633.02	9,663.33	9,633.02	16.46	15.28	-90.39	303.35	401.58	240.00	209.30	30.70	7.818	
9,800.00	9,733.02	9,763.33	9,733.02	16.54	15.36	-90.39	303.35	401.58	240.00	209.14	30.86	7.778	
9,900.00	9,833.02	9,863.33	9,833.02	16.61	15.45	-90.39	303.35	401.58	240.00	208.98	31.01	7.739	
10,000.00	9,933.02	9,963.33	9,933.02	16.69	15.53	-90.39	303.35	401.58	240.00	208.83	31.17	7.699	
10,100.00	10,033.02	10,063.33	10,033.02	16.76	15.61	-90.39	303.35	401.58	240.00	208.67	31.33	7.661	
10,200.00	10,133.02	10,163.33	10,133.02	16.84	15.69	-90.39	303.35	401.58	240.00	208.51	31.49	7.622	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre				Distance		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	10,233.02	10,263.33	10,233.02	16.92	15.78	-90.39	303.35	401.58	240.00	208.35	31.64	7.585					
10,400.00	10,333.02	10,363.33	10,333.02	16.99	15.86	-90.39	303.35	401.58	240.00	208.20	31.80	7.547					
10,500.00	10,433.02	10,463.33	10,433.02	17.07	15.94	-90.39	303.35	401.58	240.00	208.04	31.96	7.510					
10,600.00	10,533.02	10,563.33	10,533.02	17.15	16.03	-90.39	303.35	401.58	240.00	207.88	32.12	7.473					
10,700.00	10,633.02	10,663.33	10,633.02	17.22	16.11	-90.39	303.35	401.58	240.00	207.72	32.27	7.436					
10,800.00	10,733.02	10,763.33	10,733.02	17.30	16.19	-90.39	303.35	401.58	240.00	207.56	32.43	7.400					
10,900.00	10,833.02	10,863.33	10,833.02	17.37	16.27	-90.39	303.35	401.58	240.00	207.41	32.59	7.364					
11,000.00	10,933.02	10,963.33	10,933.02	17.45	16.36	-90.39	303.35	401.58	240.00	207.25	32.75	7.329					
11,100.00	11,033.02	11,063.33	11,033.02	17.53	16.44	-90.39	303.35	401.58	240.00	207.09	32.91	7.293					
11,165.08	11,098.10	11,128.41	11,098.10	17.58	16.49	-90.49	302.92	401.58	240.00	207.00	33.00	7.274					
11,200.00	11,133.02	11,163.18	11,132.78	17.60	16.51	-91.06	300.53	401.60	240.01	206.99	33.02	7.269					
11,300.00	11,233.02	11,259.67	11,227.54	17.68	16.55	-95.25	282.95	401.76	240.89	207.84	33.05	7.289					
11,400.00	11,333.02	11,350.00	11,312.42	17.76	16.60	-102.40	252.30	402.02	246.14	212.94	33.20	7.413					
11,500.00	11,433.02	11,425.77	11,379.17	17.83	16.65	-110.28	216.57	402.33	260.68	226.75	33.93	7.682					
11,600.00	11,533.02	11,492.29	11,433.45	17.91	16.70	-117.96	178.18	402.66	288.23	252.79	35.43	8.134					
11,700.00	11,633.02	11,550.00	11,476.66	17.99	16.75	-124.67	139.97	402.99	329.55	292.11	37.44	8.803					
11,800.00	11,733.02	11,600.00	11,510.83	18.06	16.80	-130.22	103.50	403.30	383.07	343.56	39.50	9.697					
11,900.00	11,833.02	11,635.30	11,532.98	18.14	16.84	-133.89	76.01	403.54	446.22	404.63	41.59	10.729					
12,000.00	11,933.02	11,668.86	11,552.43	18.22	16.88	-137.15	48.68	403.77	516.82	473.53	43.28	11.941					
12,100.00	12,033.02	11,700.00	11,569.01	18.30	16.91	-139.95	22.32	404.00	593.00	548.33	44.66	13.277					
12,200.00	12,133.02	11,721.88	11,579.80	18.37	16.95	-141.80	3.29	404.16	673.38	627.44	45.94	14.658					
12,300.00	12,233.02	11,750.00	11,592.58	18.45	16.99	-144.02	-21.75	404.38	757.09	710.19	46.90	16.141					
12,400.00	12,332.97	11,750.00	11,592.58	18.52	16.99	26.72	-21.75	404.38	842.49	794.40	48.10	17.517					
12,500.00	12,431.38	11,784.12	11,606.42	18.56	17.04	19.83	-52.94	404.65	922.37	873.50	48.86	18.876					
12,600.00	12,525.35	11,800.00	11,612.22	18.58	17.07	16.11	-67.72	404.78	994.98	945.14	49.84	19.963					
12,700.00	12,612.01	11,850.00	11,627.77	18.59	17.17	13.08	-115.22	405.18	1,058.92	1,008.41	50.51	20.965					
12,800.00	12,688.74	11,850.00	11,627.77	18.62	17.17	11.69	-115.22	405.18	1,113.13	1,061.62	51.50	21.613					
12,900.00	12,753.20	11,900.00	11,639.12	18.67	17.28	10.23	-163.90	405.60	1,156.75	1,104.64	52.11	22.199					
13,000.00	12,803.44	11,925.48	11,643.27	18.75	17.34	9.42	-189.03	405.82	1,189.72	1,136.95	52.77	22.546					
13,100.00	12,837.92	11,950.00	11,646.19	18.89	17.41	8.90	-213.38	406.03	1,211.51	1,158.19	53.32	22.721					
13,200.00	12,855.60	12,001.28	11,648.94	19.08	17.56	8.45	-264.57	406.47	1,221.85	1,168.13	53.72	22.744					
13,300.00	12,858.40	12,062.00	11,649.47	19.34	17.77	8.19	-325.28	406.99	1,221.67	1,167.71	53.96	22.638					
13,400.00	12,859.27	12,161.76	11,650.34	19.70	18.18	7.91	-425.03	407.85	1,220.70	1,166.59	54.11	22.559					
13,500.00	12,860.14	12,261.70	11,651.22	20.14	18.67	7.78	-524.96	408.71	1,220.23	1,165.97	54.26	22.488					
13,594.41	12,860.96	12,356.11	11,652.05	20.62	19.22	7.75	-619.36	409.52	1,220.12	1,165.71	54.40	22.427					
13,600.00	12,861.01	12,361.70	11,652.09	20.65	19.25	7.77	-624.95	409.57	1,220.17	1,165.76	54.41	22.425					
13,700.00	12,861.88	12,461.70	11,652.97	21.24	19.91	7.77	-724.95	410.43	1,220.17	1,165.58	54.58	22.355					
13,800.00	12,862.75	12,561.70	11,653.85	21.90	20.65	7.77	-824.94	411.29	1,220.16	1,165.39	54.77	22.279					
13,900.00	12,863.61	12,661.70	11,654.72	22.62	21.45	7.77	-924.93	412.16	1,220.15	1,165.18	54.97	22.196					
14,000.00	12,864.48	12,761.70	11,655.60	23.39	22.31	7.77	-1,024.92	413.02	1,220.14	1,164.95	55.19	22.107					
14,100.00	12,865.35	12,861.70	11,656.48	24.23	23.22	7.77	-1,124.92	413.88	1,220.13	1,164.70	55.43	22.013					
14,200.00	12,866.22	12,961.70	11,657.35	25.11	24.18	7.77	-1,224.91	414.74	1,220.12	1,164.44	55.68	21.913					
14,300.00	12,867.09	13,061.70	11,658.23	26.03	25.18	7.77	-1,324.90	415.60	1,220.12	1,164.17	55.95	21.807					
14,400.00	12,867.95	13,161.70	11,659.11	26.99	26.22	7.77	-1,424.89	416.46	1,220.11	1,163.87	56.23	21.697					
14,500.00	12,868.82	13,261.70	11,659.98	27.99	27.28	7.77	-1,524.89	417.32	1,220.10	1,163.57	56.53	21.582					
14,600.00	12,869.69	13,361.70	11,660.86	29.01	28.37	7.77	-1,624.88	418.18	1,220.09	1,163.24	56.85	21.462					
14,700.00	12,870.56	13,461.70	11,661.74	30.07	29.49	7.77	-1,724.87	419.04	1,220.08	1,162.90	57.18	21.338					
14,800.00	12,871.43	13,561.70	11,662.61	31.15	30.63	7.77	-1,824.86	419.90	1,220.07	1,162.55	57.52	21.210					
14,900.00	12,872.29	13,661.70	11,663.49	32.25	31.79	7.77	-1,924.86	420.77	1,220.07	1,162.18	57.88	21.079					
15,000.00	12,873.16	13,761.70	11,664.36	33.38	32.96	7.77	-2,024.85	421.63	1,220.06	1,161.80	58.25	20.944					
15,100.00	12,874.03	13,861.70	11,665.24	34.52	34.15	7.77	-2,124.84	422.49	1,220.05	1,161.41	58.64	20.806					
15,200.00	12,874.90	13,961.70	11,666.12	35.68	35.35	7.77	-2,224.83	423.35	1,220.04	1,161.00	59.04	20.665					

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Offset		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)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,300.00	12,875.77	14,061.70	11,666.99	36.85	36.57	7.77	-2,324.83	424.21	1,220.03	1,160.58	59.45	20.521		
15,400.00	12,876.63	14,161.70	11,667.87	38.04	37.79	7.77	-2,424.82	425.07	1,220.02	1,160.14	59.88	20.375		
15,500.00	12,877.50	14,261.70	11,668.75	39.24	39.03	7.77	-2,524.81	425.93	1,220.02	1,159.70	60.32	20.226		
15,600.00	12,878.37	14,361.70	11,669.62	40.45	40.27	7.77	-2,624.80	426.79	1,220.01	1,159.24	60.77	20.076		
15,700.00	12,879.24	14,461.70	11,670.50	41.67	41.52	7.77	-2,724.80	427.65	1,220.00	1,158.77	61.23	19.924		
15,800.00	12,880.11	14,561.70	11,671.38	42.90	42.78	7.77	-2,824.79	428.51	1,219.99	1,158.28	61.71	19.770		
15,900.00	12,880.97	14,661.70	11,672.25	44.13	44.05	7.77	-2,924.78	429.38	1,219.98	1,157.79	62.20	19.615		
16,000.00	12,881.84	14,761.70	11,673.13	45.38	45.32	7.77	-3,024.77	430.24	1,219.97	1,157.28	62.69	19.459		
16,100.00	12,882.71	14,861.70	11,674.01	46.63	46.60	7.77	-3,124.77	431.10	1,219.97	1,156.76	63.20	19.302		
16,200.00	12,883.58	14,961.70	11,674.88	47.89	47.88	7.77	-3,224.76	431.96	1,219.96	1,156.23	63.72	19.144		
16,300.00	12,884.45	15,061.70	11,675.76	49.15	49.17	7.77	-3,324.75	432.82	1,219.95	1,155.69	64.26	18.986		
16,400.00	12,885.31	15,161.70	11,676.63	50.43	50.46	7.77	-3,424.74	433.68	1,219.94	1,155.14	64.80	18.827		
16,500.00	12,886.18	15,261.70	11,677.51	51.70	51.76	7.77	-3,524.74	434.54	1,219.93	1,154.58	65.35	18.668		
16,600.00	12,887.05	15,361.70	11,678.39	52.98	53.06	7.77	-3,624.73	435.40	1,219.92	1,154.02	65.91	18.509		
16,700.00	12,887.92	15,461.70	11,679.26	54.27	54.36	7.77	-3,724.72	436.26	1,219.92	1,153.44	66.48	18.351		
16,800.00	12,888.79	15,561.70	11,680.14	55.55	55.67	7.77	-3,824.71	437.12	1,219.91	1,152.85	67.06	18.192		
16,900.00	12,889.66	15,661.70	11,681.02	56.85	56.98	7.77	-3,924.70	437.98	1,219.90	1,152.25	67.65	18.033		
17,000.00	12,890.52	15,761.70	11,681.89	58.14	58.29	7.77	-4,024.70	438.85	1,219.89	1,151.65	68.24	17.875		
17,100.00	12,891.39	15,861.70	11,682.77	59.44	59.61	7.77	-4,124.69	439.71	1,219.88	1,151.03	68.85	17.718		
17,200.00	12,892.26	15,961.70	11,683.65	60.75	60.92	7.77	-4,224.68	440.57	1,219.87	1,150.41	69.46	17.561		
17,300.00	12,893.13	16,061.70	11,684.52	62.05	62.24	7.77	-4,324.67	441.43	1,219.87	1,149.78	70.09	17.405		
17,400.00	12,894.00	16,161.70	11,685.40	63.36	63.57	7.77	-4,424.67	442.29	1,219.86	1,149.14	70.72	17.250		
17,500.00	12,894.86	16,261.70	11,686.27	64.67	64.89	7.78	-4,524.66	443.15	1,219.85	1,148.49	71.35	17.096		
17,600.00	12,895.73	16,361.70	11,687.15	65.99	66.22	7.78	-4,624.65	444.01	1,219.84	1,147.84	72.00	16.942		
17,700.00	12,896.60	16,461.70	11,688.03	67.30	67.54	7.78	-4,724.64	444.87	1,219.83	1,147.18	72.65	16.790		
17,800.00	12,897.47	16,561.70	11,688.90	68.62	68.87	7.78	-4,824.64	445.73	1,219.82	1,146.51	73.31	16.639		
17,900.00	12,898.34	16,661.70	11,689.78	69.94	70.20	7.78	-4,924.63	446.59	1,219.82	1,145.84	73.98	16.489		
18,000.00	12,899.20	16,761.70	11,690.66	71.26	71.54	7.78	-5,024.62	447.46	1,219.81	1,145.15	74.65	16.340		
18,100.00	12,900.07	16,861.70	11,691.53	72.58	72.87	7.78	-5,124.61	448.32	1,219.80	1,144.47	75.33	16.192		
18,200.00	12,900.94	16,961.70	11,692.41	73.91	74.21	7.78	-5,224.61	449.18	1,219.79	1,143.77	76.02	16.046		
18,300.00	12,901.81	17,061.70	11,693.29	75.24	75.54	7.78	-5,324.60	450.04	1,219.78	1,143.07	76.71	15.901		
18,400.00	12,902.68	17,161.70	11,694.16	76.56	76.88	7.78	-5,424.59	450.90	1,219.77	1,142.36	77.41	15.757		
18,500.00	12,903.54	17,261.70	11,695.04	77.89	78.22	7.78	-5,524.58	451.76	1,219.77	1,141.65	78.11	15.615		
18,600.00	12,904.41	17,361.70	11,695.92	79.23	79.56	7.78	-5,624.58	452.62	1,219.76	1,140.93	78.82	15.474		
18,700.00	12,905.28	17,461.70	11,696.79	80.56	80.90	7.78	-5,724.57	453.48	1,219.75	1,140.21	79.54	15.335		
18,800.00	12,906.15	17,561.70	11,697.67	81.89	82.24	7.78	-5,824.56	454.34	1,219.74	1,139.48	80.26	15.197		
18,900.00	12,907.02	17,661.70	11,698.54	83.23	83.58	7.78	-5,924.55	455.20	1,219.73	1,138.74	80.99	15.061		
19,000.00	12,907.88	17,761.70	11,699.42	84.56	84.93	7.78	-6,024.55	456.07	1,219.72	1,138.01	81.72	14.926		
19,100.00	12,908.75	17,861.70	11,700.30	85.90	86.27	7.78	-6,124.54	456.93	1,219.72	1,137.26	82.46	14.792		
19,200.00	12,909.62	17,961.70	11,701.17	87.24	87.62	7.78	-6,224.53	457.79	1,219.71	1,136.51	83.20	14.661		
19,300.00	12,910.49	18,061.70	11,702.05	88.58	88.96	7.78	-6,324.52	458.65	1,219.70	1,135.76	83.94	14.530		
19,400.00	12,911.36	18,161.70	11,702.93	89.92	90.31	7.78	-6,424.52	459.51	1,219.69	1,135.00	84.69	14.401		
19,500.00	12,912.22	18,261.70	11,703.80	91.26	91.66	7.78	-6,524.51	460.37	1,219.68	1,134.23	85.45	14.274		
19,600.00	12,913.09	18,361.70	11,704.68	92.60	93.00	7.78	-6,624.50	461.23	1,219.67	1,133.47	86.21	14.148		
19,700.00	12,913.96	18,461.70	11,705.56	93.94	94.35	7.78	-6,724.49	462.09	1,219.67	1,132.69	86.97	14.024		
19,800.00	12,914.83	18,561.70	11,706.43	95.29	95.70	7.78	-6,824.49	462.95	1,219.66	1,131.92	87.74	13.901		
19,900.00	12,915.70	18,661.70	11,707.31	96.63	97.05	7.78	-6,924.48	463.81	1,219.65	1,131.14	88.51	13.780		
20,000.00	12,916.56	18,761.70	11,708.19	97.98	98.40	7.78	-7,024.47	464.67	1,219.64	1,130.35	89.29	13.660		
20,100.00	12,917.43	18,861.70	11,709.06	99.32	99.75	7.78	-7,124.46	465.54	1,219.63	1,129.57	90.07	13.542		
20,200.00	12,918.30	18,961.70	11,709.94	100.67	101.10	7.78	-7,224.46	466.40	1,219.62	1,128.78	90.85	13.425		
20,300.00	12,919.17	19,061.70	11,710.81	102.01	102.46	7.78	-7,324.45	467.26	1,219.62	1,127.98	91.64	13.309		
20,400.00	12,920.04	19,161.70	11,711.69	103.36	103.81	7.78	-7,424.44	468.12	1,219.61	1,127.18	92.43	13.195		

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 152H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)												Rule Assigned:			
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)					
20,500.00	12,920.90	19,261.70	11,712.57	104.71	105.16	7.78	-7,524.43	468.98	1,219.60	1,126.38	93.22	13.083			
20,600.00	12,921.77	19,361.70	11,713.44	106.06	106.52	7.78	-7,624.43	469.84	1,219.59	1,125.57	94.02	12.972			
20,700.00	12,922.64	19,461.70	11,714.32	107.41	107.87	7.78	-7,724.42	470.70	1,219.58	1,124.76	94.82	12.862			
20,800.00	12,923.51	19,561.70	11,715.20	108.76	109.22	7.78	-7,824.41	471.56	1,219.57	1,123.95	95.62	12.754			
20,900.00	12,924.38	19,661.70	11,716.07	110.11	110.58	7.78	-7,924.40	472.42	1,219.57	1,123.14	96.43	12.647			
21,000.00	12,925.24	19,761.70	11,716.95	111.46	111.93	7.78	-8,024.40	473.28	1,219.56	1,122.32	97.24	12.542			
21,100.00	12,926.11	19,861.70	11,717.83	112.81	113.29	7.78	-8,124.39	474.15	1,219.55	1,121.50	98.05	12.438			
21,200.00	12,926.98	19,961.70	11,718.70	114.16	114.64	7.78	-8,224.38	475.01	1,219.54	1,120.67	98.87	12.335			
21,300.00	12,927.85	20,061.70	11,719.58	115.51	116.00	7.78	-8,324.37	475.87	1,219.53	1,119.85	99.68	12.234			
21,400.00	12,928.72	20,161.70	11,720.45	116.87	117.36	7.78	-8,424.37	476.73	1,219.52	1,119.02	100.51	12.134			
21,500.00	12,929.58	20,261.70	11,721.33	118.22	118.71	7.78	-8,524.36	477.59	1,219.52	1,118.19	101.33	12.035			
21,600.00	12,930.45	20,361.70	11,722.21	119.57	120.07	7.78	-8,624.35	478.45	1,219.51	1,117.35	102.16	11.938			
21,700.00	12,931.32	20,461.70	11,723.08	120.93	121.43	7.78	-8,724.34	479.31	1,219.50	1,116.51	102.99	11.841			
21,800.00	12,932.19	20,561.70	11,723.96	122.28	122.78	7.78	-8,824.34	480.17	1,219.49	1,115.67	103.82	11.747			
21,900.00	12,933.06	20,661.70	11,724.84	123.63	124.14	7.78	-8,924.33	481.03	1,219.48	1,114.83	104.65	11.653			
22,000.00	12,933.92	20,761.70	11,725.71	124.99	125.50	7.78	-9,024.32	481.89	1,219.47	1,113.99	105.49	11.560			
22,100.00	12,934.79	20,861.70	11,726.59	126.34	126.86	7.78	-9,124.31	482.76	1,219.47	1,113.14	106.33	11.469			
22,200.00	12,935.66	20,961.70	11,727.47	127.70	128.22	7.78	-9,224.30	483.62	1,219.46	1,112.29	107.17	11.379			
22,300.00	12,936.53	21,061.70	11,728.34	129.05	129.57	7.78	-9,324.30	484.48	1,219.45	1,111.44	108.01	11.290			
22,400.00	12,937.40	21,161.70	11,729.22	130.41	130.93	7.78	-9,424.29	485.34	1,219.44	1,110.58	108.86	11.202			
22,500.00	12,938.26	21,261.70	11,730.10	131.77	132.29	7.78	-9,524.28	486.20	1,219.43	1,109.73	109.70	11.116			
22,600.00	12,939.13	21,361.70	11,730.97	133.12	133.65	7.78	-9,624.27	487.06	1,219.42	1,108.87	110.55	11.030			
22,700.00	12,940.00	21,461.70	11,731.85	134.48	135.01	7.78	-9,724.27	487.92	1,219.42	1,108.01	111.40	10.946			
22,800.00	12,940.87	21,561.70	11,732.72	135.84	136.37	7.78	-9,824.26	488.78	1,219.41	1,107.15	112.26	10.863			
22,900.00	12,941.74	21,661.70	11,733.60	137.19	137.73	7.78	-9,924.25	489.64	1,219.40	1,106.29	113.11	10.780			
23,000.00	12,942.61	21,761.70	11,734.48	138.55	139.09	7.78	-10,024.24	490.50	1,219.39	1,105.42	113.97	10.699			
23,100.00	12,943.47	21,861.70	11,735.35	139.91	140.45	7.78	-10,124.24	491.36	1,219.38	1,104.55	114.83	10.619			
23,173.82	12,944.11	21,935.47	11,736.00	140.92	141.45	7.78	-10,198.00	492.00	1,219.38	1,103.91	115.46	10.561			
23,184.44	12,944.21	21,935.47	11,736.00	141.07	141.45	7.78	-10,198.00	492.00	1,219.42	1,103.80	115.62	10.547			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:				Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre				Distance		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				
3,100.00	3,083.78	3,375.60	3,328.23	7.53	9.75	17.17	443.99	2,116.39	1,979.75	1,962.74	17.01	116.376					
3,200.00	3,181.60	3,467.86	3,418.48	7.70	10.02	17.83	426.59	2,108.32	1,948.00	1,930.57	17.44	111.713					
3,300.00	3,279.41	3,560.13	3,508.73	7.88	10.28	18.50	409.19	2,100.25	1,916.51	1,898.64	17.87	107.260					
3,400.00	3,377.23	3,652.39	3,598.98	8.07	10.53	19.20	391.79	2,092.18	1,885.28	1,866.99	18.28	103.108					
3,500.00	3,475.05	3,726.37	3,671.46	8.29	10.71	19.76	378.38	2,085.96	1,854.74	1,836.08	18.66	99.393					
3,600.00	3,572.86	3,800.00	3,743.88	8.52	10.91	20.29	366.29	2,080.36	1,825.45	1,806.40	19.06	95.795					
3,700.00	3,670.68	3,874.71	3,817.61	8.75	11.09	20.81	355.32	2,075.27	1,797.39	1,777.95	19.44	92.457					
3,800.00	3,768.49	3,950.37	3,892.49	8.99	11.26	21.30	345.54	2,070.74	1,770.53	1,750.71	19.82	89.342					
3,900.00	3,866.31	4,026.97	3,968.51	9.23	11.42	21.76	337.02	2,066.79	1,744.86	1,724.67	20.19	86.438					
4,000.00	3,964.13	4,100.00	4,041.15	9.47	11.56	22.18	330.18	2,063.62	1,720.35	1,699.81	20.54	83.759					
4,100.00	4,061.94	4,182.79	4,123.65	9.71	11.70	22.61	323.96	2,060.73	1,696.96	1,676.07	20.89	81.232					
4,200.00	4,159.76	4,261.90	4,202.62	9.95	11.81	22.97	319.52	2,058.68	1,674.70	1,653.48	21.22	78.912					
4,300.00	4,257.57	4,341.75	4,282.40	10.20	11.92	23.30	316.56	2,057.30	1,653.53	1,631.99	21.54	76.760					
4,400.00	4,355.39	4,422.28	4,362.90	10.45	11.99	23.59	315.09	2,056.62	1,633.43	1,611.60	21.83	74.814					
4,500.00	4,453.21	4,512.58	4,453.21	10.70	12.01	23.87	314.94	2,056.55	1,614.24	1,592.18	22.06	73.179					
4,600.00	4,551.02	4,610.40	4,551.02	10.95	12.05	24.17	314.94	2,056.55	1,595.18	1,572.88	22.30	71.523					
4,700.00	4,648.84	4,708.21	4,648.84	11.21	12.08	24.48	314.94	2,056.55	1,576.17	1,553.62	22.55	69.898					
4,800.00	4,746.65	4,806.03	4,746.65	11.46	12.12	24.79	314.94	2,056.55	1,557.21	1,534.41	22.80	68.306					
4,900.00	4,844.47	4,903.85	4,844.47	11.72	12.16	25.12	314.94	2,056.55	1,538.29	1,515.24	23.05	66.744					
5,000.00	4,942.29	5,001.66	4,942.29	11.98	12.20	25.45	314.94	2,056.55	1,519.42	1,496.12	23.30	65.213					
5,100.00	5,040.10	5,099.48	5,040.10	12.24	12.24	25.79	314.94	2,056.55	1,500.60	1,477.05	23.55	63.711					
5,200.00	5,137.97	5,197.34	5,137.97	12.46	12.28	26.08	314.94	2,056.55	1,482.05	1,458.28	23.77	62.340					
5,300.00	5,236.26	5,295.63	5,236.26	12.70	12.32	26.28	314.94	2,056.55	1,465.48	1,441.44	24.04	60.969					
5,400.00	5,334.99	5,394.37	5,334.99	12.92	12.36	26.46	314.94	2,056.55	1,451.27	1,426.98	24.29	59.744					
5,500.00	5,434.11	5,493.49	5,434.11	13.11	12.41	26.62	314.94	2,056.55	1,439.41	1,414.87	24.54	58.662					
5,600.00	5,533.54	5,592.92	5,533.54	13.28	12.45	26.74	314.94	2,056.55	1,429.89	1,405.12	24.77	57.718					
5,700.00	5,633.22	5,692.59	5,633.22	13.43	12.49	26.84	314.94	2,056.55	1,422.72	1,397.72	25.00	56.912					
5,800.00	5,733.07	5,792.44	5,733.07	13.56	12.53	26.90	314.94	2,056.55	1,417.89	1,392.68	25.21	56.243					
5,900.00	5,833.02	5,892.40	5,833.02	13.66	12.58	26.94	314.94	2,056.55	1,415.39	1,389.99	25.40	55.715					
5,999.97	5,932.99	5,992.37	5,932.99	13.71	12.62	89.60	314.94	2,056.55	1,414.73	1,389.23	25.50	55.472	CC				
6,000.00	5,933.02	5,992.40	5,933.02	13.71	12.62	89.60	314.94	2,056.55	1,415.02	1,389.51	25.50	55.484					
6,100.00	6,033.02	6,092.40	6,033.02	13.78	12.67	89.60	314.94	2,056.55	1,415.02	1,389.40	25.62	55.233					
6,200.00	6,133.02	6,192.40	6,133.02	13.85	12.71	89.60	314.94	2,056.55	1,415.02	1,389.28	25.74	54.983					
6,300.00	6,233.02	6,292.40	6,233.02	13.92	12.76	89.60	314.94	2,056.55	1,415.02	1,389.16	25.85	54.734					
6,400.00	6,333.02	6,392.40	6,333.02	14.00	12.80	89.60	314.94	2,056.55	1,415.02	1,389.05	25.97	54.487					
6,500.00	6,433.02	6,492.40	6,433.02	14.07	12.85	89.60	314.94	2,056.55	1,415.02	1,388.93	26.09	54.241					
6,600.00	6,533.02	6,592.40	6,533.02	14.14	12.90	89.60	314.94	2,056.55	1,415.02	1,388.81	26.21	53.996					
6,700.00	6,633.02	6,692.40	6,633.02	14.22	12.94	89.60	314.94	2,056.55	1,415.02	1,388.69	26.32	53.753					
6,800.00	6,733.02	6,792.40	6,733.02	14.29	12.99	89.60	314.94	2,056.55	1,415.02	1,388.57	26.44	53.510					
6,900.00	6,833.02	6,892.40	6,833.02	14.36	13.04	89.60	314.94	2,056.55	1,415.02	1,388.45	26.56	53.269					
7,000.00	6,933.02	6,992.40	6,933.02	14.44	13.09	89.60	314.94	2,056.55	1,415.02	1,388.33	26.68	53.030					
7,100.00	7,033.02	7,092.40	7,033.02	14.51	13.13	89.60	314.94	2,056.55	1,415.02	1,388.21	26.80	52.791					
7,200.00	7,133.02	7,192.40	7,133.02	14.59	13.18	89.60	314.94	2,056.55	1,415.02	1,388.09	26.92	52.554					
7,300.00	7,233.02	7,292.40	7,233.02	14.66	13.23	89.60	314.94	2,056.55	1,415.02	1,387.97	27.05	52.318					
7,400.00	7,333.02	7,392.40	7,333.02	14.73	13.28	89.60	314.94	2,056.55	1,415.02	1,387.85	27.17	52.084					
7,500.00	7,433.02	7,492.40	7,433.02	14.81	13.33	89.60	314.94	2,056.55	1,415.02	1,387.72	27.29	51.850					
7,600.00	7,533.02	7,592.40	7,533.02	14.88	13.38	89.60	314.94	2,056.55	1,415.02	1,387.60	27.41	51.618					
7,700.00	7,633.02	7,692.40	7,633.02	14.96	13.43	89.60	314.94	2,056.55	1,415.02	1,387.48	27.54	51.388					
7,800.00	7,733.02	7,792.40	7,733.02	15.03	13.48	89.60	314.94	2,056.55	1,415.02	1,387.36	27.66	51.158					
7,900.00	7,833.02	7,892.40	7,833.02	15.11	13.53	89.60	314.94	2,056.55	1,415.02	1,387.23	27.78	50.930					
8,000.00	7,933.02	7,992.40	7,933.02	15.18	13.58	89.60	314.94	2,056.55	1,415.02	1,387.11	27.91	50.704					
8,100.00	8,033.02	8,092.40	8,033.02	15.26	13.63	89.60	314.94	2,056.55	1,415.02	1,386.98	28.03	50.478					

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan 1														Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Offset		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		
8,200.00	8,133.02	8,192.40	8,133.02	15.33	13.69	89.60	314.94	2,056.55	1,415.02	1,386.86	28.16	50.254			
8,300.00	8,233.02	8,292.40	8,233.02	15.41	13.74	89.60	314.94	2,056.55	1,415.02	1,386.73	28.28	50.031			
8,400.00	8,333.02	8,392.40	8,333.02	15.48	13.79	89.60	314.94	2,056.55	1,415.02	1,386.61	28.41	49.810			
8,500.00	8,433.02	8,492.40	8,433.02	15.56	13.84	89.60	314.94	2,056.55	1,415.02	1,386.48	28.53	49.590			
8,600.00	8,533.02	8,592.40	8,533.02	15.63	13.90	89.60	314.94	2,056.55	1,415.02	1,386.35	28.66	49.371			
8,700.00	8,633.02	8,692.40	8,633.02	15.71	13.95	89.60	314.94	2,056.55	1,415.02	1,386.23	28.79	49.153			
8,800.00	8,733.02	8,792.40	8,733.02	15.78	14.00	89.60	314.94	2,056.55	1,415.02	1,386.10	28.92	48.937			
8,900.00	8,833.02	8,892.40	8,833.02	15.86	14.06	89.60	314.94	2,056.55	1,415.02	1,385.97	29.04	48.722			
9,000.00	8,933.02	8,992.40	8,933.02	15.93	14.11	89.60	314.94	2,056.55	1,415.02	1,385.84	29.17	48.508			
9,100.00	9,033.02	9,092.40	9,033.02	16.01	14.17	89.60	314.94	2,056.55	1,415.02	1,385.72	29.30	48.296			
9,200.00	9,133.02	9,192.40	9,133.02	16.08	14.22	89.60	314.94	2,056.55	1,415.02	1,385.59	29.43	48.085			
9,300.00	9,233.02	9,292.40	9,233.02	16.16	14.28	89.60	314.94	2,056.55	1,415.02	1,385.46	29.56	47.875			
9,400.00	9,333.02	9,392.40	9,333.02	16.23	14.33	89.60	314.94	2,056.55	1,415.02	1,385.33	29.69	47.667			
9,500.00	9,433.02	9,492.40	9,433.02	16.31	14.39	89.60	314.94	2,056.55	1,415.02	1,385.20	29.82	47.459			
9,600.00	9,533.02	9,592.40	9,533.02	16.38	14.44	89.60	314.94	2,056.55	1,415.02	1,385.07	29.95	47.254			
9,700.00	9,633.02	9,692.40	9,633.02	16.46	14.50	89.60	314.94	2,056.55	1,415.02	1,384.94	30.08	47.049			
9,800.00	9,733.02	9,792.40	9,733.02	16.54	14.56	89.60	314.94	2,056.55	1,415.02	1,384.81	30.21	46.846			
9,900.00	9,833.02	9,892.40	9,833.02	16.61	14.61	89.60	314.94	2,056.55	1,415.02	1,384.68	30.34	46.644			
10,000.00	9,933.02	9,992.40	9,933.02	16.69	14.67	89.60	314.94	2,056.55	1,415.02	1,384.55	30.47	46.443			
10,100.00	10,033.02	10,092.40	10,033.02	16.76	14.73	89.60	314.94	2,056.55	1,415.02	1,384.42	30.60	46.243			
10,200.00	10,133.02	10,192.40	10,133.02	16.84	14.78	89.60	314.94	2,056.55	1,415.02	1,384.28	30.73	46.045			
10,300.00	10,233.02	10,292.40	10,233.02	16.92	14.84	89.60	314.94	2,056.55	1,415.02	1,384.15	30.86	45.848			
10,400.00	10,333.02	10,392.40	10,333.02	16.99	14.90	89.60	314.94	2,056.55	1,415.02	1,384.02	31.00	45.652			
10,500.00	10,433.02	10,492.40	10,433.02	17.07	14.96	89.60	314.94	2,056.55	1,415.02	1,383.89	31.13	45.457			
10,600.00	10,533.02	10,592.40	10,533.02	17.15	15.02	89.60	314.94	2,056.55	1,415.02	1,383.75	31.26	45.264			
10,700.00	10,633.02	10,692.40	10,633.02	17.22	15.07	89.60	314.94	2,056.55	1,415.02	1,383.62	31.39	45.072			
10,800.00	10,733.02	10,792.40	10,733.02	17.30	15.13	89.60	314.94	2,056.55	1,415.02	1,383.49	31.53	44.881			
10,900.00	10,833.02	10,892.40	10,833.02	17.37	15.19	89.60	314.94	2,056.55	1,415.02	1,383.35	31.66	44.692			
11,000.00	10,933.02	10,992.40	10,933.02	17.45	15.25	89.60	314.94	2,056.55	1,415.02	1,383.22	31.80	44.503			
11,014.91	10,947.93	11,007.31	10,947.93	17.46	15.26	89.60	314.94	2,056.55	1,415.02	1,383.20	31.82	44.476			
11,100.00	11,033.02	11,092.37	11,033.00	17.53	15.30	89.60	314.92	2,056.55	1,415.02	1,383.09	31.92	44.330			
11,200.00	11,133.02	11,190.73	11,130.80	17.60	15.43	89.97	305.64	2,056.63	1,415.07	1,383.00	32.07	44.124	ES		
11,300.00	11,233.02	11,283.34	11,220.17	17.68	15.64	90.94	281.75	2,056.85	1,415.53	1,383.21	32.33	43.790			
11,400.00	11,333.02	11,366.47	11,296.18	17.76	15.89	92.29	248.30	2,057.16	1,417.20	1,384.53	32.67	43.383			
11,500.00	11,433.02	11,438.57	11,357.61	17.83	16.15	93.81	210.64	2,057.50	1,421.07	1,387.99	33.08	42.961			
11,600.00	11,533.02	11,500.00	11,405.87	17.91	16.42	95.34	172.68	2,057.84	1,428.11	1,394.56	33.55	42.563			
11,700.00	11,633.02	11,550.00	11,441.97	17.99	16.68	96.72	138.11	2,058.16	1,439.12	1,405.03	34.09	42.215			
11,800.00	11,733.02	11,600.00	11,474.92	18.06	16.98	98.21	100.52	2,058.50	1,454.69	1,419.95	34.73	41.880			
11,900.00	11,833.02	11,631.60	11,494.00	18.14	17.19	99.20	75.34	2,058.73	1,475.13	1,439.72	35.41	41.662			
12,000.00	11,933.02	11,662.69	11,511.40	18.22	17.40	100.21	49.58	2,058.96	1,500.67	1,464.50	36.17	41.489			
12,100.00	12,033.02	11,700.00	11,530.39	18.30	17.68	101.46	17.47	2,059.25	1,531.38	1,494.35	37.04	41.348			
12,200.00	12,133.02	11,700.00	11,530.39	18.37	17.68	101.46	17.47	2,059.25	1,567.06	1,529.22	37.84	41.414			
12,300.00	12,233.02	11,731.95	11,544.96	18.45	17.94	102.56	-10.95	2,059.51	1,607.42	1,568.62	38.80	41.426			
12,400.00	12,332.97	11,750.00	11,552.49	18.52	18.08	-79.88	-27.36	2,059.66	1,652.21	1,612.50	39.72	41.599			
12,500.00	12,431.38	11,770.91	11,560.55	18.56	18.26	-74.12	-46.65	2,059.84	1,698.73	1,658.14	40.59	41.850			
12,600.00	12,525.35	11,800.00	11,570.59	18.58	18.52	-68.47	-73.95	2,060.08	1,744.89	1,703.45	41.44	42.105			
12,700.00	12,612.01	11,820.80	11,576.91	18.59	18.71	-63.57	-93.76	2,060.27	1,788.90	1,746.68	42.22	42.370			
12,800.00	12,688.74	11,850.00	11,584.57	18.62	18.98	-59.24	-121.94	2,060.52	1,829.32	1,786.36	42.96	42.578			
12,900.00	12,753.20	11,877.65	11,590.48	18.67	19.24	-55.73	-148.94	2,060.77	1,864.86	1,821.21	43.64	42.729			
13,000.00	12,803.44	11,900.00	11,594.31	18.75	19.46	-53.03	-170.96	2,060.97	1,894.53	1,850.28	44.24	42.822			
13,100.00	12,837.92	11,950.00	11,599.74	18.89	19.96	-50.99	-220.65	2,061.42	1,917.49	1,872.60	44.89	42.719			
13,200.00	12,855.60	11,969.30	11,600.67	19.08	20.15	-49.78	-239.92	2,061.59	1,932.96	1,887.62	45.34	42.634			

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Well Error: 0.50 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned: 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)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,300.00	12,858.40	12,035.71	11,601.22	19.34	20.84	-49.58	-306.33	2,062.20	1,941.63	1,895.69	45.94	42.266		
13,400.00	12,859.27	12,135.47	11,601.74	19.70	21.92	-49.75	-406.08	2,063.10	1,947.12	1,900.34	46.78	41.621		
13,500.00	12,860.14	12,235.40	11,602.27	20.14	23.02	-49.83	-506.01	2,064.01	1,949.96	1,902.23	47.72	40.859		
13,600.00	12,861.01	12,335.40	11,602.79	20.65	24.15	-49.83	-606.00	2,064.92	1,950.51	1,901.77	48.73	40.023		
13,700.00	12,861.88	12,435.40	11,603.32	21.24	25.31	-49.82	-705.99	2,065.83	1,950.77	1,900.94	49.83	39.152		
13,800.00	12,862.75	12,535.40	11,603.84	21.90	26.49	-49.82	-805.99	2,066.74	1,951.02	1,900.04	50.98	38.267		
13,900.00	12,863.61	12,635.40	11,604.37	22.62	27.68	-49.81	-905.98	2,067.65	1,951.28	1,899.08	52.21	37.377		
14,000.00	12,864.48	12,735.40	11,604.89	23.39	28.89	-49.80	-1,005.97	2,068.56	1,951.54	1,898.05	53.49	36.487		
14,100.00	12,865.35	12,835.40	11,605.42	24.23	30.11	-49.79	-1,105.97	2,069.47	1,951.80	1,896.98	54.82	35.603		
14,200.00	12,866.22	12,935.39	11,605.94	25.11	31.35	-49.79	-1,205.96	2,070.37	1,952.06	1,895.85	56.21	34.729		
14,300.00	12,867.09	13,035.39	11,606.47	26.03	32.59	-49.78	-1,305.95	2,071.28	1,952.31	1,894.67	57.64	33.869		
14,400.00	12,867.95	13,135.39	11,606.99	26.99	33.85	-49.77	-1,405.95	2,072.19	1,952.57	1,893.45	59.12	33.026		
14,500.00	12,868.82	13,235.39	11,607.52	27.99	35.11	-49.77	-1,505.94	2,073.10	1,952.83	1,892.19	60.64	32.203		
14,600.00	12,869.69	13,335.39	11,608.04	29.01	36.38	-49.76	-1,605.94	2,074.01	1,953.09	1,890.89	62.20	31.400		
14,700.00	12,870.56	13,435.39	11,608.57	30.07	37.66	-49.75	-1,705.93	2,074.92	1,953.35	1,889.55	63.79	30.620		
14,800.00	12,871.43	13,535.39	11,609.09	31.15	38.94	-49.75	-1,805.92	2,075.83	1,953.61	1,888.19	65.42	29.863		
14,900.00	12,872.29	13,635.39	11,609.62	32.25	40.23	-49.74	-1,905.92	2,076.74	1,953.86	1,886.79	67.08	29.129		
15,000.00	12,873.16	13,735.39	11,610.14	33.38	41.53	-49.73	-2,005.91	2,077.65	1,954.12	1,885.36	68.76	28.419		
15,100.00	12,874.03	13,835.39	11,610.67	34.52	42.82	-49.73	-2,105.91	2,078.55	1,954.38	1,883.91	70.47	27.733		
15,200.00	12,874.90	13,935.39	11,611.19	35.68	44.13	-49.72	-2,205.90	2,079.46	1,954.64	1,882.43	72.21	27.070		
15,300.00	12,875.77	14,035.39	11,611.72	36.85	45.43	-49.71	-2,305.89	2,080.37	1,954.90	1,880.93	73.96	26.430		
15,400.00	12,876.63	14,135.39	11,612.25	38.04	46.74	-49.71	-2,405.88	2,081.28	1,955.16	1,879.41	75.74	25.813		
15,500.00	12,877.50	14,235.39	11,612.77	39.24	48.06	-49.70	-2,505.89	2,082.19	1,955.41	1,877.87	77.54	25.218		
15,600.00	12,878.37	14,335.39	11,613.30	40.45	49.38	-49.69	-2,605.88	2,083.10	1,955.67	1,876.32	79.36	24.644		
15,700.00	12,879.24	14,435.39	11,613.82	41.67	50.70	-49.69	-2,705.87	2,084.01	1,955.93	1,874.74	81.19	24.090		
15,800.00	12,880.11	14,535.39	11,614.35	42.90	52.02	-49.68	-2,805.86	2,084.92	1,956.19	1,873.15	83.04	23.557		
15,900.00	12,880.97	14,635.38	11,614.87	44.13	53.34	-49.67	-2,905.86	2,085.83	1,956.45	1,871.54	84.90	23.043		
16,000.00	12,881.84	14,735.38	11,615.40	45.38	54.67	-49.67	-3,005.85	2,086.73	1,956.71	1,869.93	86.78	22.547		
16,100.00	12,882.71	14,835.38	11,615.92	46.63	56.00	-49.66	-3,105.84	2,087.64	1,956.97	1,868.29	88.67	22.069		
16,200.00	12,883.58	14,935.38	11,616.45	47.89	57.33	-49.65	-3,205.84	2,088.55	1,957.23	1,866.65	90.58	21.609		
16,300.00	12,884.45	15,035.38	11,616.97	49.15	58.66	-49.65	-3,305.83	2,089.46	1,957.48	1,864.99	92.49	21.164		
16,400.00	12,885.31	15,135.38	11,617.50	50.43	59.99	-49.64	-3,405.83	2,090.37	1,957.74	1,863.33	94.42	20.735		
16,500.00	12,886.18	15,235.38	11,618.02	51.70	61.33	-49.63	-3,505.82	2,091.28	1,958.00	1,861.65	96.35	20.322		
16,600.00	12,887.05	15,335.38	11,618.55	52.98	62.67	-49.63	-3,605.81	2,092.19	1,958.26	1,859.97	98.29	19.923		
16,700.00	12,887.92	15,435.38	11,619.07	54.27	64.01	-49.62	-3,705.81	2,093.10	1,958.52	1,858.27	100.25	19.537		
16,800.00	12,888.79	15,535.38	11,619.60	55.55	65.35	-49.61	-3,805.80	2,094.01	1,958.78	1,856.57	102.21	19.165		
16,900.00	12,889.66	15,635.38	11,620.12	56.85	66.69	-49.61	-3,905.80	2,094.92	1,959.04	1,854.86	104.18	18.805		
17,000.00	12,890.52	15,735.38	11,620.65	58.14	68.03	-49.60	-4,005.79	2,095.82	1,959.30	1,853.15	106.15	18.458		
17,100.00	12,891.39	15,835.38	11,621.17	59.44	69.37	-49.59	-4,105.78	2,096.73	1,959.56	1,851.42	108.13	18.122		
17,200.00	12,892.26	15,935.38	11,621.70	60.75	70.72	-49.59	-4,205.78	2,097.64	1,959.81	1,849.69	110.12	17.797		
17,300.00	12,893.13	16,035.38	11,622.22	62.05	72.06	-49.58	-4,305.77	2,098.55	1,960.07	1,847.96	112.12	17.482		
17,400.00	12,894.00	16,135.38	11,622.75	63.36	73.41	-49.57	-4,405.77	2,099.46	1,960.33	1,846.21	114.12	17.178		
17,500.00	12,894.86	16,235.38	11,623.27	64.67	74.75	-49.57	-4,505.76	2,100.37	1,960.59	1,844.47	116.12	16.883		
17,600.00	12,895.73	16,335.37	11,623.80	65.99	76.10	-49.56	-4,605.75	2,101.28	1,960.85	1,842.71	118.14	16.598		
17,700.00	12,896.60	16,435.37	11,624.32	67.30	77.45	-49.55	-4,705.75	2,102.19	1,961.11	1,840.96	120.15	16.322		
17,800.00	12,897.47	16,535.37	11,624.85	68.62	78.80	-49.55	-4,805.74	2,103.10	1,961.37	1,839.20	122.17	16.054		
17,900.00	12,898.34	16,635.37	11,625.37	69.94	80.15	-49.54	-4,905.74	2,104.00	1,961.63	1,837.43	124.20	15.794		
18,000.00	12,899.20	16,735.37	11,625.90	71.26	81.50	-49.53	-5,005.73	2,104.91	1,961.89	1,835.66	126.23	15.542		
18,100.00	12,900.07	16,835.37	11,626.42	72.58	82.85	-49.53	-5,105.72	2,105.82	1,962.15	1,833.89	128.26	15.298		
18,200.00	12,900.94	16,935.37	11,626.95	73.91	84.20	-49.52	-5,205.72	2,106.73	1,962.41	1,832.11	130.30	15.061		
18,300.00	12,901.81	17,035.37	11,627.47	75.24	85.55	-49.51	-5,305.71	2,107.64	1,962.67	1,830.33	132.34	14.831		
18,400.00	12,902.68	17,135.37	11,628.00	76.56	86.91	-49.51	-5,405.70	2,108.55	1,962.92	1,828.54	134.38	14.607		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 156H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		Offset		Semi Major Axis		Highside Toolface	Offset Wellbore Centre		Rule Assigned: Distance		Separation Factor	Warning	Offset Well Error: 0.50 usft
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)			
18,500.00	12,903.54	17,235.37	11,628.52	77.89	88.26	-49.50	-5,505.70	2,109.46	1,963.18	1,826.76	136.43	14.390	
18,600.00	12,904.41	17,335.37	11,629.05	79.23	89.61	-49.49	-5,605.69	2,110.37	1,963.44	1,824.97	138.48	14.179	
18,700.00	12,905.28	17,435.37	11,629.57	80.56	90.97	-49.48	-5,705.69	2,111.28	1,963.70	1,823.17	140.53	13.973	
18,800.00	12,906.15	17,535.37	11,630.10	81.89	92.32	-49.48	-5,805.68	2,112.18	1,963.96	1,821.38	142.59	13.774	
18,900.00	12,907.02	17,635.37	11,630.62	83.23	93.68	-49.47	-5,905.67	2,113.09	1,964.22	1,819.58	144.64	13.580	
19,000.00	12,907.88	17,735.37	11,631.15	84.56	95.03	-49.46	-6,005.67	2,114.00	1,964.48	1,817.78	146.70	13.391	
19,100.00	12,908.75	17,835.37	11,631.67	85.90	96.39	-49.46	-6,105.66	2,114.91	1,964.74	1,815.97	148.77	13.207	
19,200.00	12,909.62	17,935.36	11,632.20	87.24	97.74	-49.45	-6,205.66	2,115.82	1,965.00	1,814.17	150.83	13.028	
19,300.00	12,910.49	18,035.36	11,632.72	88.58	99.10	-49.44	-6,305.65	2,116.73	1,965.26	1,812.36	152.90	12.853	
19,400.00	12,911.36	18,135.36	11,633.25	89.92	100.46	-49.44	-6,405.64	2,117.64	1,965.52	1,810.55	154.97	12.683	
19,500.00	12,912.22	18,235.36	11,633.77	91.26	101.82	-49.43	-6,505.64	2,118.55	1,965.78	1,808.74	157.04	12.518	
19,600.00	12,913.09	18,335.36	11,634.30	92.60	103.17	-49.42	-6,605.63	2,119.46	1,966.04	1,806.93	159.11	12.356	
19,700.00	12,913.96	18,435.36	11,634.82	93.94	104.53	-49.42	-6,705.63	2,120.36	1,966.30	1,805.11	161.19	12.199	
19,800.00	12,914.83	18,535.36	11,635.35	95.29	105.89	-49.41	-6,805.62	2,121.27	1,966.56	1,803.29	163.26	12.045	
19,900.00	12,915.70	18,635.36	11,635.87	96.63	107.25	-49.40	-6,905.61	2,122.18	1,966.82	1,801.48	165.34	11.895	
20,000.00	12,916.56	18,735.36	11,636.40	97.98	108.61	-49.40	-7,005.61	2,123.09	1,967.08	1,799.66	167.42	11.749	
20,100.00	12,917.43	18,835.36	11,636.92	99.32	109.97	-49.39	-7,105.60	2,124.00	1,967.34	1,797.84	169.50	11.607	
20,200.00	12,918.30	18,935.36	11,637.45	100.67	111.33	-49.38	-7,205.59	2,124.91	1,967.60	1,796.01	171.58	11.467	
20,300.00	12,919.17	19,035.36	11,637.97	102.01	112.69	-49.38	-7,305.59	2,125.82	1,967.86	1,794.19	173.67	11.331	
20,400.00	12,920.04	19,135.36	11,638.50	103.36	114.04	-49.37	-7,405.58	2,126.73	1,968.12	1,792.36	175.75	11.198	
20,500.00	12,920.90	19,235.36	11,639.02	104.71	115.40	-49.36	-7,505.58	2,127.64	1,968.38	1,790.54	177.84	11.068	
20,600.00	12,921.77	19,335.36	11,639.55	106.06	116.77	-49.36	-7,605.57	2,128.54	1,968.64	1,788.71	179.93	10.941	
20,700.00	12,922.64	19,435.36	11,640.07	107.41	118.13	-49.35	-7,705.56	2,129.45	1,968.90	1,786.88	182.01	10.817	
20,800.00	12,923.51	19,535.36	11,640.60	108.76	119.49	-49.34	-7,805.56	2,130.36	1,969.16	1,785.05	184.10	10.696	
20,900.00	12,924.38	19,635.35	11,641.13	110.11	120.85	-49.34	-7,905.55	2,131.27	1,969.42	1,783.22	186.19	10.577	
21,000.00	12,925.24	19,735.35	11,641.65	111.46	122.21	-49.33	-8,005.55	2,132.18	1,969.68	1,781.39	188.28	10.461	
21,100.00	12,926.11	19,835.35	11,642.18	112.81	123.57	-49.32	-8,105.54	2,133.09	1,969.94	1,779.56	190.38	10.348	
21,200.00	12,926.98	19,935.35	11,642.70	114.16	124.93	-49.32	-8,205.53	2,134.00	1,970.20	1,777.73	192.47	10.236	
21,300.00	12,927.85	20,035.35	11,643.23	115.51	126.29	-49.31	-8,305.53	2,134.91	1,970.46	1,775.89	194.56	10.128	
21,400.00	12,928.72	20,135.35	11,643.75	116.87	127.65	-49.30	-8,405.52	2,135.82	1,970.72	1,774.06	196.66	10.021	
21,500.00	12,929.58	20,235.35	11,644.28	118.22	129.02	-49.30	-8,505.52	2,136.73	1,970.98	1,772.22	198.75	9.917	
21,600.00	12,930.45	20,335.35	11,644.80	119.57	130.38	-49.29	-8,605.51	2,137.63	1,971.24	1,770.39	200.85	9.814	
21,700.00	12,931.32	20,435.35	11,645.33	120.93	131.74	-49.28	-8,705.50	2,138.54	1,971.50	1,768.55	202.95	9.714	
21,800.00	12,932.19	20,535.35	11,645.85	122.28	133.10	-49.28	-8,805.50	2,139.45	1,971.76	1,766.71	205.04	9.616	
21,900.00	12,933.06	20,635.35	11,646.38	123.63	134.47	-49.27	-8,905.49	2,140.36	1,972.02	1,764.88	207.14	9.520	
22,000.00	12,933.92	20,735.35	11,646.90	124.99	135.83	-49.27	-9,005.48	2,141.27	1,972.28	1,763.04	209.24	9.426	
22,100.00	12,934.79	20,835.35	11,647.43	126.34	137.19	-49.26	-9,105.48	2,142.18	1,972.54	1,761.20	211.34	9.333	
22,200.00	12,935.66	20,935.35	11,647.95	127.70	138.55	-49.25	-9,205.47	2,143.09	1,972.80	1,759.36	213.44	9.243	
22,300.00	12,936.53	21,035.35	11,648.48	129.05	139.92	-49.25	-9,305.47	2,144.00	1,973.06	1,757.52	215.54	9.154	
22,400.00	12,937.40	21,135.35	11,649.00	130.41	141.28	-49.24	-9,405.46	2,144.91	1,973.32	1,755.68	217.64	9.067	
22,500.00	12,938.26	21,235.35	11,649.53	131.77	142.64	-49.23	-9,505.45	2,145.81	1,973.58	1,753.84	219.74	8.981	
22,600.00	12,939.13	21,335.34	11,650.05	133.12	144.01	-49.23	-9,605.45	2,146.72	1,973.84	1,752.00	221.84	8.897	
22,700.00	12,940.00	21,435.34	11,650.58	134.48	145.37	-49.22	-9,705.44	2,147.63	1,974.10	1,750.16	223.95	8.815	
22,800.00	12,940.87	21,535.34	11,651.10	135.84	146.73	-49.21	-9,805.44	2,148.54	1,974.36	1,748.31	226.05	8.734	
22,900.00	12,941.74	21,635.34	11,651.63	137.19	148.10	-49.21	-9,905.43	2,149.45	1,974.62	1,746.47	228.15	8.655	
23,000.00	12,942.61	21,735.34	11,652.15	138.55	149.46	-49.20	-10,005.42	2,150.36	1,974.88	1,744.63	230.25	8.577	
23,100.00	12,943.47	21,835.34	11,652.68	139.91	150.83	-49.19	-10,105.42	2,151.27	1,975.14	1,742.79	232.36	8.500	
23,184.44	12,944.21	21,915.93	11,653.10	141.07	151.93	-49.19	-10,186.00	2,152.00	1,975.37	1,741.27	234.10	8.438	SF

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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

Rule Assigned:

Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	0.00	0.50	0.50	180.00	-160.00	0.00	160.00				
100.00	100.00	101.00	100.00	0.98	0.99	180.00	-160.00	0.00	160.00	158.03	1.97	81.315	
200.00	200.00	201.00	200.00	1.56	1.57	180.00	-160.00	0.00	160.00	156.87	3.13	51.177	
300.00	300.00	301.02	300.02	1.98	1.99	-180.00	-160.00	0.00	160.00	156.03	3.97	40.343	
400.00	400.00	402.64	401.63	2.33	2.42	-179.54	-159.47	-1.27	159.48	154.80	4.68	34.099	
500.00	500.00	504.12	503.02	2.63	2.80	-178.18	-157.89	-5.03	158.00	152.70	5.29	29.843	
600.00	600.00	605.31	603.99	2.91	3.12	-175.86	-155.28	-11.24	155.74	149.90	5.84	26.669	
700.00	700.00	705.30	703.60	3.16	3.27	-172.80	-151.94	-19.18	153.19	146.96	6.23	24.592	
800.00	800.00	804.92	802.84	3.40	3.52	-169.63	-148.58	-27.19	151.08	144.36	6.71	22.509	
900.00	900.00	904.54	902.08	3.62	3.76	-166.38	-145.22	-35.19	149.44	142.27	7.17	20.844	
1,000.00	1,000.00	1,004.15	1,001.32	3.84	3.99	-163.06	-141.86	-43.20	148.30	140.69	7.61	19.496	
1,100.00	1,100.00	1,103.77	1,100.56	4.04	4.21	-159.71	-138.50	-51.20	147.66	139.63	8.03	18.395	
1,173.87	1,173.87	1,177.37	1,173.87	4.18	4.38	-157.22	-136.01	-57.12	147.52	139.19	8.33	17.715	CC
1,200.00	1,200.00	1,203.39	1,199.80	4.23	4.43	-156.34	-135.13	-59.21	147.54	139.11	8.43	17.501	ES
1,300.00	1,300.00	1,302.87	1,298.87	4.42	4.57	-152.85	-131.65	-67.50	147.95	139.22	8.73	16.947	
1,400.00	1,400.00	1,401.79	1,397.15	4.60	4.83	-148.57	-127.32	-77.82	149.25	140.12	9.13	16.351	
1,500.00	1,500.00	1,500.00	1,494.41	4.78	5.08	-143.48	-122.05	-90.38	151.97	142.44	9.53	15.951	
1,600.00	1,599.99	1,597.36	1,590.45	4.98	5.34	139.45	-115.87	-105.10	157.71	147.76	9.95	15.851	
1,700.00	1,699.91	1,693.21	1,684.57	5.17	5.58	146.04	-108.86	-121.79	168.37	157.99	10.38	16.219	
1,800.00	1,799.69	1,787.28	1,776.48	5.36	5.81	152.66	-101.09	-140.28	184.78	173.96	10.82	17.072	
1,900.00	1,899.32	1,881.55	1,868.17	5.44	5.99	158.89	-92.62	-160.45	206.51	195.39	11.13	18.559	
2,000.00	1,998.94	1,976.65	1,960.64	5.59	6.19	164.05	-84.02	-180.93	230.52	218.99	11.53	20.000	
2,100.00	2,098.56	2,071.75	2,053.11	5.75	6.39	168.25	-75.42	-201.40	256.01	244.09	11.92	21.476	
2,200.00	2,198.18	2,166.85	2,145.58	5.91	6.60	171.70	-66.83	-221.87	282.59	270.28	12.31	22.953	
2,300.00	2,297.70	2,261.71	2,237.83	6.08	6.81	-177.93	-58.25	-242.30	311.04	298.33	12.71	24.473	
2,400.00	2,396.96	2,356.06	2,329.57	6.26	7.04	-170.69	-49.72	-262.61	342.20	329.09	13.11	26.094	
2,500.00	2,495.89	2,449.82	2,420.74	6.45	7.27	-165.50	-41.24	-282.79	375.80	362.28	13.52	27.802	
2,600.00	2,594.44	2,542.94	2,511.28	6.64	7.53	-161.66	-32.83	-302.84	411.64	397.72	13.92	29.575	
2,700.00	2,692.52	2,635.33	2,601.12	6.84	7.80	-158.75	-24.47	-322.73	449.58	435.26	14.32	31.395	
2,800.00	2,790.33	2,727.34	2,690.58	7.01	8.07	-158.23	-16.16	-342.54	488.61	473.91	14.70	33.248	
2,900.00	2,888.15	2,819.34	2,780.04	7.18	8.34	-157.83	-7.84	-362.34	527.66	512.58	15.07	35.004	
3,000.00	2,985.97	2,911.34	2,869.49	7.35	8.61	-157.48	0.48	-382.15	566.73	551.27	15.46	36.669	
3,100.00	3,083.78	3,003.34	2,958.95	7.53	8.89	-157.18	8.79	-401.96	605.81	589.98	15.84	38.247	
3,200.00	3,181.60	3,095.34	3,048.41	7.70	9.17	-156.91	17.11	-421.76	644.91	628.69	16.23	39.744	
3,300.00	3,279.41	3,187.34	3,137.87	7.88	9.44	-156.68	25.43	-441.57	684.02	667.41	16.62	41.165	
3,400.00	3,377.23	3,279.34	3,227.32	8.07	9.72	-156.47	33.75	-461.38	723.14	706.13	17.01	42.516	
3,500.00	3,475.05	3,371.34	3,316.78	8.29	10.00	-156.28	42.06	-481.18	762.27	744.86	17.40	43.799	
3,600.00	3,572.86	3,463.34	3,406.24	8.52	10.29	-156.11	50.38	-500.99	801.40	783.60	17.80	45.021	
3,700.00	3,670.68	3,555.34	3,495.70	8.75	10.57	-155.95	58.70	-520.79	840.53	822.33	18.20	46.183	
3,800.00	3,768.49	3,647.34	3,585.15	8.99	10.85	-155.81	67.01	-540.60	879.68	861.07	18.60	47.291	
3,900.00	3,866.31	3,739.34	3,674.61	9.23	11.13	-155.68	75.33	-560.41	918.82	899.82	19.00	48.347	
4,000.00	3,964.13	3,831.34	3,764.07	9.47	11.42	-155.56	83.65	-580.21	957.97	938.56	19.41	49.355	
4,100.00	4,061.94	3,923.35	3,853.53	9.71	11.70	-155.46	91.97	-600.02	997.12	977.31	19.82	50.317	
4,200.00	4,159.76	4,015.35	3,942.99	9.95	11.99	-155.35	100.28	-619.83	1,036.28	1,016.05	20.23	51.236	
4,300.00	4,257.57	4,107.35	4,032.44	10.20	12.27	-155.26	108.60	-639.63	1,075.44	1,054.80	20.64	52.115	
4,400.00	4,355.39	4,199.35	4,121.90	10.45	12.56	-155.17	116.92	-659.44	1,114.60	1,093.55	21.05	52.956	
4,500.00	4,453.21	4,291.35	4,211.36	10.70	12.84	-155.09	125.24	-679.24	1,153.76	1,132.30	21.46	53.761	
4,600.00	4,551.02	4,383.35	4,300.82	10.95	13.13	-155.02	133.55	-699.05	1,192.92	1,171.05	21.88	54.533	
4,700.00	4,648.84	4,475.35	4,390.27	11.21	13.42	-154.95	141.87	-718.86	1,232.09	1,209.80	22.29	55.272	
4,800.00	4,746.65	4,567.35	4,479.73	11.46	13.71	-154.88	150.19	-738.66	1,271.26	1,248.55	22.71	55.981	
4,900.00	4,844.47	4,659.35	4,569.19	11.72	13.99	-154.82	158.50	-758.47	1,310.43	1,287.30	23.13	56.662	
5,000.00	4,942.29	4,751.35	4,658.65	11.98	14.28	-154.76	166.82	-778.28	1,349.59	1,326.05	23.55	57.315	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		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
5,100.00	5,040.10	4,843.35	4,748.11	12.24	14.57	-154.70	175.14	-798.08	1,388.77	1,364.80	23.97	57.943	
5,200.00	5,137.97	4,935.44	4,837.64	12.46	14.86	-154.76	183.46	-817.91	1,427.74	1,403.38	24.36	58.615	
5,300.00	5,236.26	5,028.25	4,927.89	12.70	15.15	-154.92	191.85	-837.89	1,464.88	1,440.09	24.79	59.098	
5,400.00	5,334.99	5,121.89	5,018.95	12.92	15.44	-155.03	200.32	-858.05	1,499.82	1,474.60	25.21	59.488	
5,500.00	5,434.11	5,216.29	5,110.73	13.11	15.74	-155.07	208.85	-878.37	1,532.53	1,506.90	25.63	59.792	
5,600.00	5,533.54	5,311.38	5,203.19	13.28	16.04	-155.07	217.45	-898.84	1,563.00	1,536.96	26.04	60.015	
5,700.00	5,633.22	5,407.10	5,296.27	13.43	16.34	-155.01	226.10	-919.45	1,591.23	1,564.78	26.45	60.167	
5,800.00	5,733.07	5,503.38	5,389.88	13.56	16.64	-154.91	234.81	-940.17	1,617.21	1,590.37	26.84	60.254	
5,900.00	5,833.02	5,600.15	5,483.99	13.66	16.95	-154.76	243.56	-961.01	1,640.92	1,613.70	27.22	60.289	
6,000.00	5,933.02	5,697.32	5,578.47	13.71	17.26	-91.86	252.34	-981.93	1,662.60	1,635.09	27.50	60.455	
6,100.00	6,033.02	5,859.83	5,737.23	13.78	17.73	-91.36	265.74	-1,013.83	1,682.07	1,654.02	28.05	59.956	
6,200.00	6,133.02	6,025.53	5,900.50	13.85	18.14	-90.96	276.69	-1,039.92	1,697.72	1,669.16	28.57	59.433	
6,300.00	6,233.02	6,193.44	6,067.02	13.92	18.47	-90.67	284.99	-1,059.67	1,709.43	1,680.41	29.02	58.900	
6,400.00	6,333.02	6,362.93	6,235.90	14.00	18.72	-90.49	290.48	-1,072.74	1,717.12	1,687.71	29.42	58.372	
6,500.00	6,433.02	6,533.35	6,406.18	14.07	18.90	-90.40	293.07	-1,078.91	1,720.73	1,691.01	29.73	57.887	
6,600.00	6,533.02	6,660.20	6,533.02	14.14	18.98	-90.39	293.28	-1,079.42	1,721.03	1,691.15	29.88	57.599	
6,700.00	6,633.02	6,760.20	6,633.02	14.22	19.03	-90.39	293.28	-1,079.42	1,721.03	1,691.02	30.01	57.355	
6,800.00	6,733.02	6,860.20	6,733.02	14.29	19.09	-90.39	293.28	-1,079.42	1,721.03	1,690.90	30.13	57.113	
6,900.00	6,833.02	6,960.20	6,833.02	14.36	19.14	-90.39	293.28	-1,079.42	1,721.03	1,690.77	30.26	56.872	
7,000.00	6,933.02	7,060.20	6,933.02	14.44	19.20	-90.39	293.28	-1,079.42	1,721.03	1,690.64	30.39	56.632	
7,100.00	7,033.02	7,160.20	7,033.02	14.51	19.25	-90.39	293.28	-1,079.42	1,721.03	1,690.51	30.52	56.394	
7,200.00	7,133.02	7,260.20	7,133.02	14.59	19.31	-90.39	293.28	-1,079.42	1,721.03	1,690.38	30.65	56.157	
7,300.00	7,233.02	7,360.20	7,233.02	14.66	19.36	-90.39	293.28	-1,079.42	1,721.03	1,690.25	30.78	55.922	
7,400.00	7,333.02	7,460.20	7,333.02	14.73	19.42	-90.39	293.28	-1,079.42	1,721.03	1,690.13	30.90	55.688	
7,500.00	7,433.02	7,560.20	7,433.02	14.81	19.47	-90.39	293.28	-1,079.42	1,721.03	1,690.00	31.03	55.456	
7,600.00	7,533.02	7,660.20	7,533.02	14.88	19.53	-90.39	293.28	-1,079.42	1,721.03	1,689.87	31.16	55.224	
7,700.00	7,633.02	7,760.20	7,633.02	14.96	19.58	-90.39	293.28	-1,079.42	1,721.03	1,689.74	31.29	54.995	
7,800.00	7,733.02	7,860.20	7,733.02	15.03	19.64	-90.39	293.28	-1,079.42	1,721.03	1,689.60	31.42	54.766	
7,900.00	7,833.02	7,960.20	7,833.02	15.11	19.69	-90.39	293.28	-1,079.42	1,721.03	1,689.47	31.56	54.540	
8,000.00	7,933.02	8,060.20	7,933.02	15.18	19.75	-90.39	293.28	-1,079.42	1,721.03	1,689.34	31.69	54.314	
8,100.00	8,033.02	8,160.20	8,033.02	15.26	19.81	-90.39	293.28	-1,079.42	1,721.03	1,689.21	31.82	54.090	
8,200.00	8,133.02	8,260.20	8,133.02	15.33	19.86	-90.39	293.28	-1,079.42	1,721.03	1,689.08	31.95	53.867	
8,300.00	8,233.02	8,360.20	8,233.02	15.41	19.92	-90.39	293.28	-1,079.42	1,721.03	1,688.95	32.08	53.646	
8,400.00	8,333.02	8,460.20	8,333.02	15.48	19.98	-90.39	293.28	-1,079.42	1,721.03	1,688.82	32.21	53.426	
8,500.00	8,433.02	8,560.20	8,433.02	15.56	20.03	-90.39	293.28	-1,079.42	1,721.03	1,688.68	32.35	53.207	
8,600.00	8,533.02	8,660.20	8,533.02	15.63	20.09	-90.39	293.28	-1,079.42	1,721.03	1,688.55	32.48	52.990	
8,700.00	8,633.02	8,760.20	8,633.02	15.71	20.15	-90.39	293.28	-1,079.42	1,721.03	1,688.42	32.61	52.774	
8,800.00	8,733.02	8,860.20	8,733.02	15.78	20.21	-90.39	293.28	-1,079.42	1,721.03	1,688.29	32.74	52.559	
8,900.00	8,833.02	8,960.20	8,833.02	15.86	20.26	-90.39	293.28	-1,079.42	1,721.03	1,688.15	32.88	52.346	
9,000.00	8,933.02	9,060.20	8,933.02	15.93	20.32	-90.39	293.28	-1,079.42	1,721.03	1,688.02	33.01	52.134	
9,100.00	9,033.02	9,160.20	9,033.02	16.01	20.38	-90.39	293.28	-1,079.42	1,721.03	1,687.88	33.15	51.923	
9,200.00	9,133.02	9,260.20	9,133.02	16.08	20.44	-90.39	293.28	-1,079.42	1,721.03	1,687.75	33.28	51.714	
9,300.00	9,233.02	9,360.20	9,233.02	16.16	20.50	-90.39	293.28	-1,079.42	1,721.03	1,687.62	33.41	51.506	
9,400.00	9,333.02	9,460.20	9,333.02	16.23	20.56	-90.39	293.28	-1,079.42	1,721.03	1,687.48	33.55	51.299	
9,500.00	9,433.02	9,560.20	9,433.02	16.31	20.61	-90.39	293.28	-1,079.42	1,721.03	1,687.35	33.68	51.094	
9,600.00	9,533.02	9,660.20	9,533.02	16.38	20.67	-90.39	293.28	-1,079.42	1,721.03	1,687.21	33.82	50.890	
9,700.00	9,633.02	9,760.20	9,633.02	16.46	20.73	-90.39	293.28	-1,079.42	1,721.03	1,687.08	33.95	50.687	
9,800.00	9,733.02	9,860.20	9,733.02	16.54	20.79	-90.39	293.28	-1,079.42	1,721.03	1,686.94	34.09	50.485	
9,900.00	9,833.02	9,960.20	9,833.02	16.61	20.85	-90.39	293.28	-1,079.42	1,721.03	1,686.80	34.23	50.285	
10,000.00	9,933.02	10,060.20	9,933.02	16.69	20.91	-90.39	293.28	-1,079.42	1,721.03	1,686.67	34.36	50.086	
10,100.00	10,033.02	10,160.20	10,033.02	16.76	20.97	-90.39	293.28	-1,079.42	1,721.03	1,686.53	34.50	49.888	
10,200.00	10,133.02	10,260.20	10,133.02	16.84	21.03	-90.39	293.28	-1,079.42	1,721.03	1,686.40	34.63	49.691	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		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	10,233.02	10,360.20	10,233.02	16.92	21.09	-90.39	293.28	-1,079.42	1,721.03	1,686.26	34.77	49.496	
10,400.00	10,333.02	10,460.20	10,333.02	16.99	21.15	-90.39	293.28	-1,079.42	1,721.03	1,686.12	34.91	49.302	
10,500.00	10,433.02	10,560.20	10,433.02	17.07	21.21	-90.39	293.28	-1,079.42	1,721.03	1,685.98	35.05	49.109	
10,600.00	10,533.02	10,660.20	10,533.02	17.15	21.27	-90.39	293.28	-1,079.42	1,721.03	1,685.85	35.18	48.917	
10,700.00	10,633.02	10,760.20	10,633.02	17.22	21.33	-90.39	293.28	-1,079.42	1,721.03	1,685.71	35.32	48.727	
10,800.00	10,733.02	10,860.20	10,733.02	17.30	21.39	-90.39	293.28	-1,079.42	1,721.03	1,685.57	35.46	48.537	
10,900.00	10,833.02	10,960.20	10,833.02	17.37	21.45	-90.39	293.28	-1,079.42	1,721.03	1,685.43	35.60	48.349	
11,000.00	10,933.02	11,060.20	10,933.02	17.45	21.51	-90.39	293.28	-1,079.42	1,721.03	1,685.30	35.73	48.162	
11,100.00	11,033.02	11,160.20	11,033.02	17.53	21.58	-90.39	293.28	-1,079.42	1,721.03	1,685.16	35.87	47.976	
11,200.00	11,133.02	11,260.20	11,133.02	17.60	21.64	-90.39	293.28	-1,079.42	1,721.03	1,685.02	36.01	47.792	
11,300.00	11,233.02	11,360.20	11,233.02	17.68	21.70	-90.39	293.28	-1,079.42	1,721.03	1,684.88	36.15	47.608	
11,400.00	11,333.02	11,460.20	11,333.02	17.76	21.76	-90.39	293.28	-1,079.42	1,721.03	1,684.74	36.29	47.426	
11,500.00	11,433.02	11,560.20	11,433.02	17.83	21.82	-90.39	293.28	-1,079.42	1,721.03	1,684.60	36.43	47.245	
11,600.00	11,533.02	11,660.20	11,533.02	17.91	21.88	-90.39	293.28	-1,079.42	1,721.03	1,684.46	36.57	47.065	
11,700.00	11,633.02	11,760.20	11,633.02	17.99	21.94	-90.39	293.28	-1,079.42	1,721.03	1,684.32	36.71	46.886	
11,800.00	11,733.02	11,860.20	11,733.02	18.06	22.01	-90.39	293.28	-1,079.42	1,721.03	1,684.18	36.85	46.708	
11,900.00	11,833.02	11,960.20	11,833.02	18.14	22.07	-90.39	293.28	-1,079.42	1,721.03	1,684.04	36.99	46.532	
12,000.00	11,933.02	12,060.20	11,933.02	18.22	22.12	-90.39	293.28	-1,079.42	1,721.03	1,683.91	37.12	46.369	
12,063.39	11,996.41	12,123.70	11,996.41	18.27	22.14	-90.49	290.19	-1,079.39	1,721.03	1,683.87	37.15	46.321	
12,100.00	12,033.02	12,159.83	12,032.20	18.30	22.15	-90.66	285.32	-1,079.35	1,721.03	1,683.87	37.16	46.312	
12,200.00	12,133.02	12,254.01	12,123.37	18.37	22.16	-91.43	262.12	-1,079.15	1,721.28	1,684.13	37.15	46.331	
12,300.00	12,233.02	12,338.69	12,201.12	18.45	22.14	-92.54	228.77	-1,078.86	1,722.42	1,685.30	37.12	46.398	
12,400.00	12,332.97	12,413.06	12,264.72	18.52	22.11	80.60	190.31	-1,078.53	1,724.95	1,687.89	37.06	46.544	
12,500.00	12,431.38	12,483.21	12,319.66	18.56	22.08	79.26	146.77	-1,078.16	1,727.16	1,690.25	36.92	46.785	
12,600.00	12,525.35	12,550.00	12,366.66	18.58	22.06	78.18	99.37	-1,077.75	1,728.37	1,691.60	36.77	46.999	
12,700.00	12,612.01	12,616.88	12,407.88	18.59	22.06	77.34	46.75	-1,077.30	1,728.27	1,691.61	36.66	47.143	
12,800.00	12,688.74	12,681.43	12,441.60	18.62	22.08	76.80	-8.26	-1,076.82	1,726.61	1,690.01	36.60	47.175	
12,900.00	12,753.20	12,750.00	12,470.39	18.67	22.12	76.51	-70.44	-1,076.29	1,723.24	1,686.63	36.61	47.076	
13,000.00	12,803.44	12,800.00	12,486.60	18.75	22.18	76.66	-117.72	-1,075.88	1,718.07	1,681.32	36.75	46.747	
13,100.00	12,837.92	12,870.02	12,502.24	18.89	22.29	76.98	-185.92	-1,075.30	1,711.06	1,674.11	36.96	46.301	
13,200.00	12,855.60	12,932.00	12,509.05	19.08	22.42	77.64	-247.49	-1,074.77	1,702.38	1,665.12	37.26	45.686	
13,300.00	12,858.40	13,015.00	12,510.42	19.34	22.64	78.05	-330.47	-1,074.05	1,692.83	1,655.15	37.69	44.920	
13,400.00	12,859.27	13,114.76	12,511.29	19.70	22.97	78.05	-430.22	-1,073.19	1,686.12	1,647.79	38.33	43.987	
13,500.00	12,860.14	13,214.70	12,512.17	20.14	23.35	78.06	-530.15	-1,072.33	1,682.82	1,643.67	39.15	42.983	
13,596.55	12,860.98	13,311.24	12,513.01	20.63	23.78	78.06	-626.69	-1,071.50	1,682.03	1,641.96	40.06	41.985	
13,600.00	12,861.01	13,314.69	12,513.04	20.65	23.80	78.06	-630.14	-1,071.47	1,682.45	1,642.35	40.10	41.960	
13,700.00	12,861.88	13,414.69	12,513.91	21.24	24.30	78.06	-730.14	-1,070.61	1,682.45	1,641.24	41.21	40.829	
13,800.00	12,862.75	13,514.69	12,514.79	21.90	24.85	78.06	-830.13	-1,069.75	1,682.45	1,639.99	42.46	39.626	
13,900.00	12,863.61	13,614.69	12,515.66	22.62	25.45	78.06	-930.12	-1,068.89	1,682.45	1,638.61	43.84	38.379	
14,000.00	12,864.48	13,714.69	12,516.53	23.39	26.10	78.06	-1,030.11	-1,068.03	1,682.45	1,637.11	45.33	37.112	
14,100.00	12,865.35	13,814.69	12,517.41	24.23	26.80	78.06	-1,130.11	-1,067.17	1,682.45	1,635.51	46.94	35.844	
14,200.00	12,866.22	13,914.70	12,518.28	25.11	27.54	78.06	-1,230.10	-1,066.31	1,682.44	1,633.81	48.64	34.592	
14,300.00	12,867.09	14,014.70	12,519.15	26.03	28.33	78.06	-1,330.09	-1,065.45	1,682.44	1,632.02	50.42	33.368	
14,400.00	12,867.95	14,114.70	12,520.02	26.99	29.15	78.06	-1,430.08	-1,064.59	1,682.44	1,630.16	52.28	32.180	
14,500.00	12,868.82	14,214.70	12,520.90	27.99	30.01	78.06	-1,530.08	-1,063.73	1,682.44	1,628.23	54.21	31.034	
14,600.00	12,869.69	14,314.70	12,521.77	29.01	30.91	78.06	-1,630.07	-1,062.87	1,682.44	1,626.23	56.21	29.934	
14,700.00	12,870.56	14,414.70	12,522.64	30.07	31.84	78.07	-1,730.06	-1,062.00	1,682.44	1,624.19	58.25	28.881	
14,800.00	12,871.43	14,514.70	12,523.52	31.15	32.79	78.07	-1,830.05	-1,061.14	1,682.44	1,622.09	60.35	27.877	
14,900.00	12,872.29	14,614.70	12,524.39	32.25	33.78	78.07	-1,930.05	-1,060.28	1,682.44	1,619.94	62.50	26.921	
15,000.00	12,873.16	14,714.70	12,525.26	33.38	34.79	78.07	-2,030.04	-1,059.42	1,682.44	1,617.76	64.68	26.011	
15,100.00	12,874.03	14,814.70	12,526.14	34.52	35.82	78.07	-2,130.03	-1,058.56	1,682.44	1,615.53	66.90	25.148	
15,200.00	12,874.90	14,914.70	12,527.01	35.68	36.87	78.07	-2,230.02	-1,057.70	1,682.44	1,613.28	69.15	24.329	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
15,300.00	12,875.77	15,014.70	12,527.88	36.85	37.95	78.07	-2,330.02	-1,056.84	1,682.43	1,611.00	71.44	23.551	
15,400.00	12,876.63	15,114.70	12,528.75	38.04	39.04	78.07	-2,430.01	-1,055.98	1,682.43	1,608.68	73.75	22.813	
15,500.00	12,877.50	15,214.70	12,529.63	39.24	40.15	78.07	-2,530.00	-1,055.12	1,682.43	1,606.35	76.08	22.113	
15,600.00	12,878.37	15,314.70	12,530.50	40.45	41.28	78.07	-2,629.99	-1,054.26	1,682.43	1,603.99	78.44	21.448	
15,700.00	12,879.24	15,414.70	12,531.37	41.67	42.42	78.07	-2,729.99	-1,053.40	1,682.43	1,601.61	80.82	20.817	
15,800.00	12,880.11	15,514.70	12,532.25	42.90	43.57	78.07	-2,829.98	-1,052.54	1,682.43	1,599.21	83.22	20.217	
15,900.00	12,880.97	15,614.70	12,533.12	44.13	44.73	78.07	-2,929.97	-1,051.68	1,682.43	1,596.80	85.63	19.647	
16,000.00	12,881.84	15,714.70	12,533.99	45.38	45.91	78.07	-3,029.96	-1,050.82	1,682.43	1,594.36	88.06	19.105	
16,100.00	12,882.71	15,814.70	12,534.87	46.63	47.10	78.07	-3,129.96	-1,049.96	1,682.43	1,591.92	90.51	18.589	
16,200.00	12,883.58	15,914.70	12,535.74	47.89	48.29	78.07	-3,229.95	-1,049.10	1,682.43	1,589.46	92.97	18.097	
16,300.00	12,884.45	16,014.70	12,536.61	49.15	49.50	78.07	-3,329.94	-1,048.23	1,682.42	1,586.99	95.44	17.629	
16,400.00	12,885.31	16,114.70	12,537.49	50.43	50.72	78.07	-3,429.93	-1,047.37	1,682.42	1,584.51	97.92	17.182	
16,500.00	12,886.18	16,214.70	12,538.36	51.70	51.94	78.07	-3,529.93	-1,046.51	1,682.42	1,582.01	100.41	16.756	
16,600.00	12,887.05	16,314.70	12,539.23	52.98	53.17	78.07	-3,629.92	-1,045.65	1,682.42	1,579.51	102.91	16.348	
16,700.00	12,887.92	16,414.70	12,540.10	54.27	54.40	78.07	-3,729.91	-1,044.79	1,682.42	1,577.00	105.42	15.959	
16,800.00	12,888.79	16,514.70	12,540.98	55.55	55.65	78.07	-3,829.90	-1,043.93	1,682.42	1,574.48	107.94	15.586	
16,900.00	12,889.66	16,614.70	12,541.85	56.85	56.89	78.07	-3,929.90	-1,043.07	1,682.42	1,571.95	110.47	15.230	
17,000.00	12,890.52	16,714.70	12,542.72	58.14	58.15	78.07	-4,029.89	-1,042.21	1,682.42	1,569.41	113.01	14.888	
17,100.00	12,891.39	16,814.70	12,543.60	59.44	59.41	78.07	-4,129.88	-1,041.35	1,682.42	1,566.87	115.55	14.560	
17,200.00	12,892.26	16,914.70	12,544.47	60.75	60.67	78.07	-4,229.87	-1,040.49	1,682.42	1,564.32	118.10	14.246	
17,300.00	12,893.13	17,014.70	12,545.34	62.05	61.94	78.07	-4,329.87	-1,039.63	1,682.41	1,561.77	120.65	13.945	
17,400.00	12,894.00	17,114.70	12,546.22	63.36	63.21	78.07	-4,429.86	-1,038.77	1,682.41	1,559.20	123.21	13.655	
17,500.00	12,894.86	17,214.70	12,547.09	64.67	64.49	78.07	-4,529.85	-1,037.91	1,682.41	1,556.64	125.77	13.376	
17,600.00	12,895.73	17,314.70	12,547.96	65.99	65.77	78.07	-4,629.84	-1,037.05	1,682.41	1,554.07	128.34	13.109	
17,700.00	12,896.60	17,414.70	12,548.83	67.30	67.05	78.07	-4,729.84	-1,036.19	1,682.41	1,551.49	130.92	12.851	
17,800.00	12,897.47	17,514.70	12,549.71	68.62	68.34	78.07	-4,829.83	-1,035.32	1,682.41	1,548.91	133.50	12.602	
17,900.00	12,898.34	17,614.70	12,550.58	69.94	69.63	78.07	-4,929.82	-1,034.46	1,682.41	1,546.33	136.08	12.363	
18,000.00	12,899.20	17,714.70	12,551.45	71.26	70.93	78.07	-5,029.81	-1,033.60	1,682.41	1,543.74	138.67	12.133	
18,100.00	12,900.07	17,814.70	12,552.33	72.58	72.22	78.07	-5,129.81	-1,032.74	1,682.41	1,541.15	141.26	11.910	
18,200.00	12,900.94	17,914.70	12,553.20	73.91	73.52	78.07	-5,229.80	-1,031.88	1,682.41	1,538.55	143.85	11.695	
18,300.00	12,901.81	18,014.70	12,554.07	75.24	74.82	78.07	-5,329.79	-1,031.02	1,682.40	1,535.95	146.45	11.488	
18,400.00	12,902.68	18,114.70	12,554.95	76.56	76.13	78.07	-5,429.78	-1,030.16	1,682.40	1,533.35	149.05	11.287	
18,500.00	12,903.54	18,214.70	12,555.82	77.89	77.43	78.07	-5,529.77	-1,029.30	1,682.40	1,530.75	151.66	11.093	
18,600.00	12,904.41	18,314.70	12,556.69	79.23	78.74	78.07	-5,629.77	-1,028.44	1,682.40	1,528.14	154.26	10.906	
18,700.00	12,905.28	18,414.70	12,557.57	80.56	80.05	78.07	-5,729.76	-1,027.58	1,682.40	1,525.53	156.87	10.725	
18,800.00	12,906.15	18,514.70	12,558.44	81.89	81.37	78.07	-5,829.75	-1,026.72	1,682.40	1,522.91	159.49	10.549	
18,900.00	12,907.02	18,614.70	12,559.31	83.23	82.68	78.07	-5,929.74	-1,025.86	1,682.40	1,520.30	162.10	10.379	
19,000.00	12,907.88	18,714.70	12,560.18	84.56	84.00	78.07	-6,029.74	-1,025.00	1,682.40	1,517.68	164.72	10.214	
19,100.00	12,908.75	18,814.70	12,561.06	85.90	85.31	78.07	-6,129.73	-1,024.14	1,682.40	1,515.06	167.34	10.054	
19,200.00	12,909.62	18,914.70	12,561.93	87.24	86.63	78.07	-6,229.72	-1,023.28	1,682.40	1,512.44	169.96	9.899	
19,300.00	12,910.49	19,014.70	12,562.80	88.58	87.96	78.07	-6,329.71	-1,022.42	1,682.40	1,509.81	172.58	9.748	
19,400.00	12,911.36	19,114.70	12,563.68	89.92	89.28	78.07	-6,429.71	-1,021.55	1,682.39	1,507.19	175.21	9.602	
19,500.00	12,912.22	19,214.70	12,564.55	91.26	90.60	78.07	-6,529.70	-1,020.69	1,682.39	1,504.56	177.83	9.461	
19,600.00	12,913.09	19,314.70	12,565.42	92.60	91.93	78.07	-6,629.69	-1,019.83	1,682.39	1,501.93	180.46	9.323	
19,700.00	12,913.96	19,414.70	12,566.30	93.94	93.26	78.07	-6,729.68	-1,018.97	1,682.39	1,499.30	183.09	9.189	
19,800.00	12,914.83	19,514.70	12,567.17	95.29	94.58	78.07	-6,829.68	-1,018.11	1,682.39	1,496.67	185.72	9.059	
19,900.00	12,915.70	19,614.70	12,568.04	96.63	95.91	78.07	-6,929.67	-1,017.25	1,682.39	1,494.03	188.36	8.932	
20,000.00	12,916.56	19,714.70	12,568.91	97.98	97.24	78.07	-7,029.66	-1,016.39	1,682.39	1,491.40	190.99	8.809	
20,100.00	12,917.43	19,814.70	12,569.79	99.32	98.57	78.07	-7,129.65	-1,015.53	1,682.39	1,488.76	193.63	8.689	
20,200.00	12,918.30	19,914.70	12,570.66	100.67	99.91	78.07	-7,229.65	-1,014.67	1,682.39	1,486.12	196.27	8.572	
20,300.00	12,919.17	20,014.70	12,571.53	102.01	101.24	78.07	-7,329.64	-1,013.81	1,682.39	1,483.48	198.91	8.458	
20,400.00	12,920.04	20,114.70	12,572.41	103.36	102.57	78.07	-7,429.63	-1,012.95	1,682.38	1,480.84	201.55	8.347	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 211H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)			
20,500.00	12,920.90	20,214.70	12,573.28	104.71	103.91	78.07	-7,529.62	-1,012.09	1,682.38	1,478.19	204.19	8.239			
20,600.00	12,921.77	20,314.70	12,574.15	106.06	105.25	78.08	-7,629.62	-1,011.23	1,682.38	1,475.55	206.83	8.134			
20,700.00	12,922.64	20,414.70	12,575.03	107.41	106.58	78.08	-7,729.61	-1,010.37	1,682.38	1,472.91	209.48	8.031			
20,800.00	12,923.51	20,514.70	12,575.90	108.76	107.92	78.08	-7,829.60	-1,009.51	1,682.38	1,470.26	212.12	7.931			
20,900.00	12,924.38	20,614.70	12,576.77	110.11	109.26	78.08	-7,929.59	-1,008.64	1,682.38	1,467.61	214.77	7.834			
21,000.00	12,925.24	20,714.70	12,577.65	111.46	110.60	78.08	-8,029.59	-1,007.78	1,682.38	1,464.97	217.41	7.738			
21,100.00	12,926.11	20,814.70	12,578.52	112.81	111.94	78.08	-8,129.58	-1,006.92	1,682.38	1,462.32	220.06	7.645			
21,200.00	12,926.98	20,914.70	12,579.39	114.16	113.28	78.08	-8,229.57	-1,006.06	1,682.38	1,459.67	222.71	7.554			
21,300.00	12,927.85	21,014.70	12,580.26	115.51	114.62	78.08	-8,329.56	-1,005.20	1,682.38	1,457.02	225.36	7.465			
21,400.00	12,928.72	21,114.70	12,581.14	116.87	115.97	78.08	-8,429.56	-1,004.34	1,682.37	1,454.36	228.01	7.378			
21,500.00	12,929.58	21,214.70	12,582.01	118.22	117.31	78.08	-8,529.55	-1,003.48	1,682.37	1,451.71	230.66	7.294			
21,600.00	12,930.45	21,314.70	12,582.88	119.57	118.65	78.08	-8,629.54	-1,002.62	1,682.37	1,449.06	233.32	7.211			
21,700.00	12,931.32	21,414.70	12,583.76	120.93	120.00	78.08	-8,729.53	-1,001.76	1,682.37	1,446.40	235.97	7.130			
21,800.00	12,932.19	21,514.70	12,584.63	122.28	121.34	78.08	-8,829.53	-1,000.90	1,682.37	1,443.75	238.62	7.050			
21,900.00	12,933.06	21,614.70	12,585.50	123.63	122.69	78.08	-8,929.52	-1,000.04	1,682.37	1,441.09	241.28	6.973			
22,000.00	12,933.92	21,714.70	12,586.38	124.99	124.03	78.08	-9,029.51	-999.18	1,682.37	1,438.44	243.93	6.897			
22,100.00	12,934.79	21,814.70	12,587.25	126.34	125.38	78.08	-9,129.50	-998.32	1,682.37	1,435.78	246.59	6.823			
22,200.00	12,935.66	21,914.70	12,588.12	127.70	126.73	78.08	-9,229.50	-997.46	1,682.37	1,433.12	249.25	6.750			
22,300.00	12,936.53	22,014.70	12,588.99	129.05	128.07	78.08	-9,329.49	-996.60	1,682.37	1,430.46	251.90	6.679			
22,400.00	12,937.40	22,114.70	12,589.87	130.41	129.42	78.08	-9,429.48	-995.74	1,682.37	1,427.80	254.56	6.609			
22,500.00	12,938.26	22,214.70	12,590.74	131.77	130.77	78.08	-9,529.47	-994.87	1,682.36	1,425.14	257.22	6.541			
22,600.00	12,939.13	22,314.70	12,591.61	133.12	132.12	78.08	-9,629.47	-994.01	1,682.36	1,422.48	259.88	6.474			
22,700.00	12,940.00	22,414.70	12,592.49	134.48	133.47	78.08	-9,729.46	-993.15	1,682.36	1,419.82	262.54	6.408			
22,800.00	12,940.87	22,514.70	12,593.36	135.84	134.82	78.08	-9,829.45	-992.29	1,682.36	1,417.16	265.20	6.344			
22,900.00	12,941.74	22,614.70	12,594.23	137.19	136.17	78.08	-9,929.44	-991.43	1,682.36	1,414.50	267.86	6.281			
23,000.00	12,942.61	22,714.70	12,595.11	138.55	137.52	78.08	-10,029.44	-990.57	1,682.36	1,411.84	270.52	6.219			
23,100.00	12,943.47	22,814.70	12,595.98	139.91	138.87	78.08	-10,129.43	-989.71	1,682.36	1,409.18	273.18	6.158			
23,181.37	12,944.18	22,896.07	12,596.69	141.02	139.97	78.08	-10,210.79	-989.01	1,682.36	1,407.01	275.35	6.110			
23,184.44	12,944.21	22,897.27	12,596.70	141.07	139.98	78.08	-10,212.00	-989.00	1,682.36	1,406.95	275.41	6.109	SF		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
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	400.00	400.00	400.00	2.33	2.33	0.00	25.00	0.00	25.00	20.34	4.66	5.366		
500.00	500.00	500.00	500.00	2.63	2.63	0.00	25.00	0.00	25.00	19.73	5.27	4.745		
600.00	600.00	600.00	600.00	2.91	2.91	0.00	25.00	0.00	25.00	19.18	5.82	4.295		
700.00	700.00	700.00	700.00	3.16	3.16	0.00	25.00	0.00	25.00	18.67	6.33	3.951		
800.00	800.00	800.00	800.00	3.40	3.40	0.00	25.00	0.00	25.00	18.20	6.80	3.676		
900.00	900.00	900.00	900.00	3.62	3.62	0.00	25.00	0.00	25.00	17.75	7.25	3.449		
1,000.00	1,000.00	1,000.00	1,000.00	3.84	3.84	0.00	25.00	0.00	25.00	17.33	7.67	3.259		
1,100.00	1,100.00	1,100.00	1,100.00	4.04	4.04	0.00	25.00	0.00	25.00	16.92	8.08	3.095		
1,200.00	1,200.00	1,200.00	1,200.00	4.23	4.23	0.00	25.00	0.00	25.00	16.53	8.47	2.953		
1,300.00	1,300.00	1,300.00	1,300.00	4.42	4.42	0.00	25.00	0.00	25.00	16.16	8.84	2.828		
1,400.00	1,400.00	1,400.00	1,400.00	4.60	4.60	0.00	25.00	0.00	25.00	15.80	9.20	2.717		
1,500.00	1,500.00	1,500.00	1,500.00	4.78	4.78	0.00	25.00	0.00	25.00	15.45	9.55	2.617		
1,600.00	1,599.99	1,599.99	1,599.99	4.98	4.95	-86.00	25.00	0.00	24.87	14.99	9.89	2.516		
1,652.53	1,652.49	1,652.49	1,652.49	5.08	5.03	-90.00	25.00	0.00	24.81	14.76	10.05	2.468	CC	
1,700.00	1,699.91	1,699.91	1,699.91	5.17	5.11	-95.03	25.00	0.00	24.91	14.71	10.20	2.441	ES	
1,800.00	1,799.69	1,799.69	1,799.69	5.36	5.28	-109.32	25.00	0.00	26.30	15.78	10.53	2.498		
1,900.00	1,899.32	1,899.32	1,899.32	5.44	5.43	-124.78	25.00	0.00	30.25	19.46	10.79	2.803		
2,000.00	1,998.94	1,998.94	1,998.94	5.59	5.59	-136.24	25.00	0.00	35.95	24.83	11.12	3.233		
2,100.00	2,098.56	2,098.56	2,098.56	5.75	5.74	-144.35	25.00	0.00	42.68	31.24	11.44	3.730		
2,200.00	2,198.18	2,198.18	2,198.18	5.91	5.89	-150.17	25.00	0.00	50.03	38.27	11.76	4.255		
2,300.00	2,297.70	2,298.27	2,298.26	6.08	6.07	-146.88	25.96	0.82	57.94	45.86	12.08	4.796		
2,400.00	2,396.96	2,398.50	2,398.42	6.26	6.24	-144.88	28.92	3.35	66.42	54.02	12.41	5.354		
2,500.00	2,495.89	2,498.89	2,498.58	6.45	6.41	-143.56	33.89	7.59	75.39	62.65	12.73	5.920		
2,600.00	2,594.44	2,599.41	2,598.68	6.64	6.59	-142.54	40.87	13.54	84.76	71.70	13.06	6.488		
2,700.00	2,692.52	2,700.08	2,698.65	6.84	6.76	-141.68	49.86	21.22	94.49	81.09	13.40	7.051		
2,800.00	2,790.33	2,800.03	2,797.65	7.01	6.85	-142.16	60.34	30.15	104.09	90.43	13.66	7.622		
2,900.00	2,888.15	2,899.57	2,896.22	7.18	7.00	-142.54	70.87	39.14	113.61	99.63	13.98	8.128		
3,000.00	2,985.97	2,999.11	2,994.79	7.35	7.15	-142.86	81.41	48.13	123.14	108.84	14.31	8.607		
3,100.00	3,083.78	3,098.65	3,093.37	7.53	7.30	-143.13	91.94	57.13	132.68	118.04	14.64	9.063		
3,200.00	3,181.60	3,198.20	3,191.94	7.70	7.45	-143.37	102.48	66.12	142.21	127.24	14.98	9.495		
3,300.00	3,279.41	3,297.74	3,290.52	7.88	7.61	-143.57	113.01	75.11	151.75	136.43	15.32	9.906		
3,400.00	3,377.23	3,397.28	3,389.09	8.07	7.76	-143.76	123.55	84.10	161.29	145.63	15.67	10.296		
3,500.00	3,475.05	3,496.82	3,487.67	8.29	7.92	-143.92	134.08	93.09	170.83	154.82	16.02	10.666		
3,600.00	3,572.86	3,596.37	3,586.24	8.52	8.08	-144.06	144.62	102.08	180.38	164.01	16.37	11.019		
3,700.00	3,670.68	3,695.91	3,684.82	8.75	8.25	-144.19	155.15	111.07	189.92	173.19	16.73	11.354		
3,800.00	3,768.49	3,795.45	3,783.39	8.99	8.41	-144.31	165.69	120.06	199.47	182.38	17.09	11.673		
3,900.00	3,866.31	3,894.99	3,881.96	9.23	8.57	-144.42	176.22	129.05	209.01	191.56	17.45	11.977		
4,000.00	3,964.13	3,994.54	3,980.54	9.47	8.74	-144.52	186.76	138.04	218.56	200.74	17.82	12.267		
4,100.00	4,061.94	4,094.08	4,079.11	9.71	8.91	-144.60	197.29	147.03	228.11	209.92	18.19	12.543		
4,200.00	4,159.76	4,193.62	4,177.69	9.95	9.08	-144.69	207.83	156.02	237.65	219.10	18.56	12.806		
4,300.00	4,257.57	4,293.16	4,276.26	10.20	9.25	-144.76	218.36	165.01	247.20	228.27	18.93	13.058		
4,400.00	4,355.39	4,392.71	4,374.84	10.45	9.42	-144.83	228.90	174.00	256.75	237.44	19.31	13.298		
4,500.00	4,453.21	4,492.25	4,473.41	10.70	9.59	-144.90	239.43	182.99	266.30	246.61	19.69	13.528		
4,600.00	4,551.02	4,591.79	4,571.99	10.95	9.76	-144.96	249.97	191.98	275.85	255.78	20.07	13.747		
4,700.00	4,648.84	4,691.34	4,670.56	11.21	9.93	-145.02	260.50	200.97	285.40	264.95	20.45	13.958		
4,800.00	4,746.65	4,790.88	4,769.13	11.46	10.11	-145.07	271.04	209.96	294.95	274.11	20.83	14.159		
4,900.00	4,844.47	4,887.40	4,864.80	11.72	10.26	-145.21	280.79	218.28	304.85	283.67	21.18	14.391		
5,000.00	4,942.29	4,982.46	4,959.29	11.98	10.44	-145.70	288.66	225.00	316.08	294.53	21.55	14.670		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)
5,100.00	5,040.10	5,077.05	5,053.55	12.24	10.61	-146.49	294.72	230.17	328.73	306.83	21.90	15.014	
5,200.00	5,137.97	5,171.11	5,147.43	12.46	10.77	-147.57	298.98	233.81	342.66	320.47	22.19	15.440	
5,300.00	5,236.26	5,264.86	5,241.12	12.70	10.93	-148.75	301.48	235.94	356.31	333.79	22.52	15.825	
5,400.00	5,334.99	5,358.74	5,334.99	12.92	11.03	-149.93	302.23	236.58	369.32	346.54	22.79	16.209	
5,500.00	5,434.11	5,457.86	5,434.11	13.11	11.11	-151.01	302.23	236.58	380.86	357.81	23.05	16.520	
5,600.00	5,533.54	5,557.29	5,533.54	13.28	11.20	-151.83	302.23	236.58	390.21	366.88	23.33	16.724	
5,700.00	5,633.22	5,656.96	5,633.22	13.43	11.29	-152.43	302.23	236.58	397.32	373.71	23.60	16.834	
5,800.00	5,733.07	5,756.81	5,733.07	13.56	11.39	-152.82	302.23	236.58	402.13	378.27	23.86	16.853	
5,900.00	5,833.02	5,856.77	5,833.02	13.66	11.48	-153.01	302.23	236.58	404.62	380.52	24.10	16.787	
6,000.00	5,933.02	5,956.77	5,933.02	13.71	11.57	-90.39	302.23	236.58	405.00	380.75	24.25	16.700	
6,100.00	6,033.02	6,056.77	6,033.02	13.78	11.67	-90.39	302.23	236.58	405.00	380.58	24.42	16.587	
6,200.00	6,133.02	6,156.77	6,133.02	13.85	11.76	-90.39	302.23	236.58	405.00	380.42	24.58	16.476	
6,300.00	6,233.02	6,256.77	6,233.02	13.92	11.85	-90.39	302.23	236.58	405.00	380.25	24.75	16.367	
6,400.00	6,333.02	6,356.77	6,333.02	14.00	11.95	-90.39	302.23	236.58	405.00	380.09	24.91	16.259	
6,500.00	6,433.02	6,456.77	6,433.02	14.07	12.04	-90.39	302.23	236.58	405.00	379.93	25.07	16.152	
6,600.00	6,533.02	6,556.77	6,533.02	14.14	12.13	-90.39	302.23	236.58	405.00	379.76	25.24	16.047	
6,700.00	6,633.02	6,656.77	6,633.02	14.22	12.22	-90.39	302.23	236.58	405.00	379.60	25.40	15.943	
6,800.00	6,733.02	6,756.77	6,733.02	14.29	12.32	-90.39	302.23	236.58	405.00	379.43	25.57	15.841	
6,900.00	6,833.02	6,856.77	6,833.02	14.36	12.41	-90.39	302.23	236.58	405.00	379.27	25.73	15.739	
7,000.00	6,933.02	6,956.77	6,933.02	14.44	12.50	-90.39	302.23	236.58	405.00	379.10	25.90	15.640	
7,100.00	7,033.02	7,056.77	7,033.02	14.51	12.59	-90.39	302.23	236.58	405.00	378.94	26.06	15.541	
7,200.00	7,133.02	7,156.77	7,133.02	14.59	12.68	-90.39	302.23	236.58	405.00	378.78	26.22	15.444	
7,300.00	7,233.02	7,256.77	7,233.02	14.66	12.77	-90.39	302.23	236.58	405.00	378.61	26.39	15.348	
7,400.00	7,333.02	7,356.77	7,333.02	14.73	12.86	-90.39	302.23	236.58	405.00	378.45	26.55	15.253	
7,500.00	7,433.02	7,456.77	7,433.02	14.81	12.96	-90.39	302.23	236.58	405.00	378.28	26.72	15.159	
7,600.00	7,533.02	7,556.77	7,533.02	14.88	13.05	-90.39	302.23	236.58	405.00	378.12	26.88	15.067	
7,700.00	7,633.02	7,656.77	7,633.02	14.96	13.14	-90.39	302.23	236.58	405.00	377.96	27.04	14.976	
7,800.00	7,733.02	7,756.77	7,733.02	15.03	13.23	-90.39	302.23	236.58	405.00	377.79	27.21	14.885	
7,900.00	7,833.02	7,856.77	7,833.02	15.11	13.32	-90.39	302.23	236.58	405.00	377.63	27.37	14.796	
8,000.00	7,933.02	7,956.77	7,933.02	15.18	13.41	-90.39	302.23	236.58	405.00	377.46	27.54	14.708	
8,100.00	8,033.02	8,056.77	8,033.02	15.26	13.50	-90.39	302.23	236.58	405.00	377.30	27.70	14.621	
8,200.00	8,133.02	8,156.77	8,133.02	15.33	13.59	-90.39	302.23	236.58	405.00	377.14	27.86	14.535	
8,300.00	8,233.02	8,256.77	8,233.02	15.41	13.68	-90.39	302.23	236.58	405.00	376.97	28.03	14.450	
8,400.00	8,333.02	8,356.77	8,333.02	15.48	13.77	-90.39	302.23	236.58	405.00	376.81	28.19	14.366	
8,500.00	8,433.02	8,456.77	8,433.02	15.56	13.86	-90.39	302.23	236.58	405.00	376.65	28.35	14.284	
8,600.00	8,533.02	8,556.77	8,533.02	15.63	13.95	-90.39	302.23	236.58	405.00	376.48	28.52	14.202	
8,700.00	8,633.02	8,656.77	8,633.02	15.71	14.04	-90.39	302.23	236.58	405.00	376.32	28.68	14.120	
8,800.00	8,733.02	8,756.77	8,733.02	15.78	14.13	-90.39	302.23	236.58	405.00	376.15	28.85	14.040	
8,900.00	8,833.02	8,856.77	8,833.02	15.86	14.22	-90.39	302.23	236.58	405.00	375.99	29.01	13.961	
9,000.00	8,933.02	8,956.77	8,933.02	15.93	14.31	-90.39	302.23	236.58	405.00	375.83	29.17	13.883	
9,100.00	9,033.02	9,056.77	9,033.02	16.01	14.40	-90.39	302.23	236.58	405.00	375.66	29.34	13.805	
9,200.00	9,133.02	9,156.77	9,133.02	16.08	14.49	-90.39	302.23	236.58	405.00	375.50	29.50	13.729	
9,300.00	9,233.02	9,256.77	9,233.02	16.16	14.58	-90.39	302.23	236.58	405.00	375.34	29.66	13.653	
9,400.00	9,333.02	9,356.77	9,333.02	16.23	14.67	-90.39	302.23	236.58	405.00	375.17	29.83	13.578	
9,500.00	9,433.02	9,456.77	9,433.02	16.31	14.76	-90.39	302.23	236.58	405.00	375.01	29.99	13.504	
9,600.00	9,533.02	9,556.77	9,533.02	16.38	14.85	-90.39	302.23	236.58	405.00	374.85	30.15	13.431	
9,700.00	9,633.02	9,656.77	9,633.02	16.46	14.94	-90.39	302.23	236.58	405.00	374.68	30.32	13.359	
9,800.00	9,733.02	9,756.77	9,733.02	16.54	15.02	-90.39	302.23	236.58	405.00	374.52	30.48	13.287	
9,900.00	9,833.02	9,856.77	9,833.02	16.61	15.11	-90.39	302.23	236.58	405.00	374.36	30.64	13.216	
10,000.00	9,933.02	9,956.77	9,933.02	16.69	15.20	-90.39	302.23	236.58	405.00	374.19	30.81	13.146	
10,100.00	10,033.02	10,056.77	10,033.02	16.76	15.29	-90.39	302.23	236.58	405.00	374.03	30.97	13.077	
10,200.00	10,133.02	10,156.77	10,133.02	16.84	15.38	-90.39	302.23	236.58	405.00	373.86	31.13	13.008	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,233.02	10,256.77	10,233.02	16.92	15.47	-90.39	302.23	236.58	405.00	373.70	31.30	12.940	
10,400.00	10,333.02	10,356.77	10,333.02	16.99	15.56	-90.39	302.23	236.58	405.00	373.54	31.46	12.873	
10,500.00	10,433.02	10,456.77	10,433.02	17.07	15.64	-90.39	302.23	236.58	405.00	373.37	31.62	12.806	
10,600.00	10,533.02	10,556.77	10,533.02	17.15	15.73	-90.39	302.23	236.58	405.00	373.21	31.79	12.741	
10,700.00	10,633.02	10,656.77	10,633.02	17.22	15.82	-90.39	302.23	236.58	405.00	373.05	31.95	12.676	
10,800.00	10,733.02	10,756.77	10,733.02	17.30	15.91	-90.39	302.23	236.58	405.00	372.88	32.11	12.611	
10,900.00	10,833.02	10,856.77	10,833.02	17.37	16.00	-90.39	302.23	236.58	405.00	372.72	32.28	12.547	
11,000.00	10,933.02	10,956.77	10,933.02	17.45	16.09	-90.39	302.23	236.58	405.00	372.56	32.44	12.484	
11,100.00	11,033.02	11,056.77	11,033.02	17.53	16.17	-90.39	302.23	236.58	405.00	372.39	32.60	12.422	
11,200.00	11,133.02	11,156.77	11,133.02	17.60	16.26	-90.39	302.23	236.58	405.00	372.23	32.77	12.360	
11,300.00	11,233.02	11,256.77	11,233.02	17.68	16.35	-90.39	302.23	236.58	405.00	372.07	32.93	12.298	
11,400.00	11,333.02	11,356.77	11,333.02	17.76	16.44	-90.39	302.23	236.58	405.00	371.90	33.09	12.238	
11,500.00	11,433.02	11,456.77	11,433.02	17.83	16.53	-90.39	302.23	236.58	405.00	371.74	33.26	12.178	
11,600.00	11,533.02	11,556.77	11,533.02	17.91	16.61	-90.39	302.23	236.58	405.00	371.58	33.42	12.118	
11,700.00	11,633.02	11,656.77	11,633.02	17.99	16.70	-90.39	302.23	236.58	405.00	371.42	33.58	12.059	
11,800.00	11,733.02	11,756.77	11,733.02	18.06	16.79	-90.39	302.23	236.58	405.00	371.25	33.75	12.001	
11,900.00	11,833.02	11,856.77	11,833.02	18.14	16.88	-90.39	302.23	236.58	405.00	371.09	33.91	11.943	
12,000.00	11,933.02	11,956.77	11,933.02	18.22	16.95	-90.39	302.23	236.58	405.00	370.94	34.06	11.890	
12,038.38	11,971.40	11,995.16	11,971.40	18.25	16.97	-90.49	301.53	236.59	405.00	370.90	34.10	11.877	
12,100.00	12,033.02	12,056.15	12,032.04	18.30	16.99	-91.38	295.27	236.64	405.05	370.93	34.11	11.874	
12,200.00	12,133.02	12,150.00	12,123.15	18.37	17.04	-94.49	273.17	236.83	406.11	371.98	34.13	11.900	
12,300.00	12,233.02	12,235.52	12,202.02	18.45	17.08	-99.08	240.34	237.11	410.76	376.50	34.27	11.987	
12,400.00	12,332.97	12,310.42	12,266.43	18.52	17.12	69.84	202.22	237.44	421.60	386.82	34.78	12.122	
12,500.00	12,431.38	12,381.07	12,322.15	18.56	17.15	64.19	158.84	237.81	435.51	399.78	35.72	12.191	
12,600.00	12,525.35	12,450.00	12,370.96	18.58	17.19	59.24	110.24	238.23	450.18	413.08	37.10	12.134	
12,700.00	12,612.01	12,515.68	12,411.73	18.59	17.23	55.12	58.79	238.68	464.12	425.30	38.82	11.955	
12,800.00	12,688.74	12,580.67	12,446.01	18.62	17.27	51.73	3.62	239.15	476.12	435.46	40.66	11.710	
12,900.00	12,753.20	12,650.00	12,475.45	18.67	17.32	48.93	-59.10	239.69	485.29	442.93	42.36	11.456	
13,000.00	12,803.44	12,700.00	12,491.87	18.75	17.37	47.29	-106.31	240.10	490.87	446.66	44.21	11.103	
13,100.00	12,837.92	12,770.48	12,507.89	18.89	17.45	45.83	-174.90	240.69	492.21	446.75	45.46	10.828	
13,200.00	12,855.60	12,832.86	12,514.96	19.08	17.54	45.18	-236.85	241.22	489.25	442.78	46.46	10.530	
13,300.00	12,858.40	12,915.13	12,516.40	19.34	17.70	44.74	-319.09	241.93	482.71	435.64	47.07	10.255	
13,400.00	12,859.27	13,014.89	12,517.27	19.70	17.97	44.24	-418.85	242.79	477.90	430.30	47.60	10.041	
13,500.00	12,860.14	13,114.83	12,518.15	20.14	18.36	44.00	-518.78	243.65	475.55	427.46	48.09	9.889	
13,597.04	12,860.98	13,211.87	12,518.99	20.63	18.84	43.94	-615.80	244.48	474.98	426.44	48.54	9.785	
13,600.00	12,861.01	13,214.83	12,519.02	20.65	18.86	43.98	-618.77	244.51	475.28	426.74	48.54	9.791	
13,700.00	12,861.88	13,314.83	12,519.89	21.24	19.47	43.98	-718.76	245.37	475.28	426.20	49.08	9.684	
13,800.00	12,862.75	13,414.83	12,520.77	21.90	20.17	43.98	-818.75	246.23	475.27	425.59	49.69	9.566	
13,900.00	12,863.61	13,514.83	12,521.64	22.62	20.95	43.98	-918.74	247.09	475.27	424.90	50.37	9.436	
14,000.00	12,864.48	13,614.83	12,522.51	23.39	21.80	43.98	-1,018.74	247.95	475.26	424.15	51.12	9.297	
14,100.00	12,865.35	13,714.83	12,523.39	24.23	22.70	43.98	-1,118.73	248.82	475.26	423.32	51.94	9.151	
14,200.00	12,866.22	13,814.83	12,524.26	25.11	23.66	43.98	-1,218.72	249.68	475.26	422.44	52.82	8.998	
14,300.00	12,867.09	13,914.83	12,525.13	26.03	24.65	43.98	-1,318.71	250.54	475.25	421.49	53.76	8.840	
14,400.00	12,867.95	14,014.83	12,526.01	26.99	25.68	43.98	-1,418.71	251.40	475.25	420.49	54.76	8.678	
14,500.00	12,868.82	14,114.83	12,526.88	27.99	26.75	43.98	-1,518.70	252.26	475.24	419.43	55.82	8.514	
14,600.00	12,869.69	14,214.83	12,527.75	29.01	27.84	43.98	-1,618.69	253.12	475.24	418.32	56.92	8.349	
14,700.00	12,870.56	14,314.83	12,528.63	30.07	28.95	43.98	-1,718.68	253.98	475.24	417.16	58.08	8.182	
14,800.00	12,871.43	14,414.83	12,529.50	31.15	30.09	43.99	-1,818.68	254.84	475.23	415.95	59.28	8.017	
14,900.00	12,872.29	14,514.83	12,530.37	32.25	31.25	43.99	-1,918.67	255.70	475.23	414.70	60.52	7.852	
15,000.00	12,873.16	14,614.83	12,531.25	33.38	32.42	43.99	-2,018.66	256.56	475.22	413.42	61.81	7.689	
15,100.00	12,874.03	14,714.83	12,532.12	34.52	33.61	43.99	-2,118.65	257.42	475.22	412.09	63.13	7.528	
15,200.00	12,874.90	14,814.83	12,532.99	35.68	34.81	43.99	-2,218.65	258.29	475.22	410.73	64.49	7.369	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)										Rule Assigned:			Offset Site Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance		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	12,875.77	14,914.83	12,533.87	36.85	36.03	43.99	-2,318.64	259.15	475.21	409.33	65.88	7.213				
15,400.00	12,876.63	15,014.83	12,534.74	38.04	37.25	43.99	-2,418.63	260.01	475.21	407.91	67.30	7.061				
15,500.00	12,877.50	15,114.83	12,535.61	39.24	38.49	43.99	-2,518.62	260.87	475.20	406.45	68.75	6.912				
15,600.00	12,878.37	15,214.83	12,536.49	40.45	39.73	43.99	-2,618.62	261.73	475.20	404.97	70.23	6.766				
15,700.00	12,879.24	15,314.83	12,537.36	41.67	40.99	43.99	-2,718.61	262.59	475.20	403.46	71.74	6.624				
15,800.00	12,880.11	15,414.83	12,538.23	42.90	42.24	43.99	-2,818.60	263.45	475.19	401.92	73.27	6.486				
15,900.00	12,880.97	15,514.83	12,539.11	44.13	43.51	43.99	-2,918.59	264.31	475.19	400.37	74.82	6.351				
16,000.00	12,881.84	15,614.83	12,539.98	45.38	44.78	43.99	-3,018.59	265.17	475.18	398.79	76.40	6.220				
16,100.00	12,882.71	15,714.83	12,540.86	46.63	46.06	43.99	-3,118.58	266.03	475.18	397.19	77.99	6.093				
16,200.00	12,883.58	15,814.83	12,541.73	47.89	47.35	43.99	-3,218.57	266.90	475.18	395.57	79.60	5.969				
16,300.00	12,884.45	15,914.83	12,542.60	49.15	48.63	43.99	-3,318.56	267.76	475.17	393.94	81.23	5.849				
16,400.00	12,885.31	16,014.83	12,543.48	50.43	49.93	43.99	-3,418.56	268.62	475.17	392.29	82.88	5.733				
16,500.00	12,886.18	16,114.83	12,544.35	51.70	51.22	43.99	-3,518.55	269.48	475.16	390.62	84.54	5.620				
16,600.00	12,887.05	16,214.83	12,545.22	52.98	52.52	43.99	-3,618.54	270.34	475.16	388.94	86.22	5.511				
16,700.00	12,887.92	16,314.83	12,546.10	54.27	53.83	43.99	-3,718.53	271.20	475.16	387.24	87.91	5.405				
16,800.00	12,888.79	16,414.83	12,546.97	55.55	55.14	43.99	-3,818.53	272.06	475.15	385.53	89.62	5.302				
16,900.00	12,889.66	16,514.83	12,547.84	56.85	56.45	43.99	-3,918.52	272.92	475.15	383.81	91.34	5.202				
17,000.00	12,890.52	16,614.83	12,548.72	58.14	57.76	43.99	-4,018.51	273.78	475.14	382.08	93.07	5.105				
17,100.00	12,891.39	16,714.83	12,549.59	59.44	59.07	44.00	-4,118.50	274.64	475.14	380.33	94.81	5.012				
17,200.00	12,892.26	16,814.83	12,550.46	60.75	60.39	44.00	-4,218.50	275.51	475.13	378.58	96.56	4.921				
17,300.00	12,893.13	16,914.83	12,551.34	62.05	61.71	44.00	-4,318.49	276.37	475.13	376.81	98.32	4.833				
17,400.00	12,894.00	17,014.83	12,552.21	63.36	63.03	44.00	-4,418.48	277.23	475.13	375.04	100.09	4.747				
17,500.00	12,894.86	17,114.83	12,553.08	64.67	64.36	44.00	-4,518.47	278.09	475.12	373.25	101.87	4.664				
17,600.00	12,895.73	17,214.83	12,553.96	65.99	65.68	44.00	-4,618.47	278.95	475.12	371.46	103.66	4.584				
17,700.00	12,896.60	17,314.83	12,554.83	67.30	67.01	44.00	-4,718.46	279.81	475.11	369.66	105.45	4.505				
17,800.00	12,897.47	17,414.83	12,555.70	68.62	68.34	44.00	-4,818.45	280.67	475.11	367.85	107.26	4.430				
17,900.00	12,898.34	17,514.83	12,556.58	69.94	69.67	44.00	-4,918.44	281.53	475.11	366.04	109.07	4.356				
18,000.00	12,899.20	17,614.83	12,557.45	71.26	71.01	44.00	-5,018.44	282.39	475.10	364.22	110.89	4.285				
18,100.00	12,900.07	17,714.83	12,558.32	72.58	72.34	44.00	-5,118.43	283.25	475.10	362.39	112.71	4.215				
18,200.00	12,900.94	17,814.83	12,559.20	73.91	73.68	44.00	-5,218.42	284.12	475.09	360.55	114.54	4.148				
18,300.00	12,901.81	17,914.83	12,560.07	75.24	75.01	44.00	-5,318.41	284.98	475.09	358.71	116.38	4.082				
18,400.00	12,902.68	18,014.83	12,560.94	76.56	76.35	44.00	-5,418.41	285.84	475.09	356.86	118.22	4.019				
18,500.00	12,903.54	18,114.83	12,561.82	77.89	77.69	44.00	-5,518.40	286.70	475.08	355.01	120.07	3.957				
18,600.00	12,904.41	18,214.83	12,562.69	79.23	79.03	44.00	-5,618.39	287.56	475.08	353.16	121.92	3.897				
18,700.00	12,905.28	18,314.83	12,563.56	80.56	80.37	44.00	-5,718.38	288.42	475.07	351.29	123.78	3.838				
18,800.00	12,906.15	18,414.83	12,564.44	81.89	81.71	44.00	-5,818.38	289.28	475.07	349.43	125.64	3.781				
18,900.00	12,907.02	18,514.83	12,565.31	83.23	83.05	44.00	-5,918.37	290.14	475.07	347.55	127.51	3.726				
19,000.00	12,907.88	18,614.83	12,566.18	84.56	84.40	44.00	-6,018.36	291.00	475.06	345.68	129.38	3.672				
19,100.00	12,908.75	18,714.83	12,567.06	85.90	85.74	44.00	-6,118.35	291.86	475.06	343.80	131.26	3.619				
19,200.00	12,909.62	18,814.83	12,567.93	87.24	87.09	44.00	-6,218.35	292.72	475.05	341.91	133.14	3.568				
19,300.00	12,910.49	18,914.83	12,568.80	88.58	88.43	44.00	-6,318.34	293.59	475.05	340.03	135.02	3.518				
19,400.00	12,911.36	19,014.83	12,569.68	89.92	89.78	44.00	-6,418.33	294.45	475.05	338.13	136.91	3.470				
19,500.00	12,912.22	19,114.83	12,570.55	91.26	91.13	44.01	-6,518.32	295.31	475.04	336.24	138.80	3.422				
19,600.00	12,913.09	19,214.83	12,571.42	92.60	92.48	44.01	-6,618.32	296.17	475.04	334.34	140.70	3.376				
19,700.00	12,913.96	19,314.83	12,572.30	93.94	93.83	44.01	-6,718.31	297.03	475.03	332.44	142.59	3.331				
19,800.00	12,914.83	19,414.83	12,573.17	95.29	95.18	44.01	-6,818.30	297.89	475.03	330.53	144.50	3.288				
19,900.00	12,915.70	19,514.83	12,574.04	96.63	96.53	44.01	-6,918.29	298.75	475.03	328.63	146.40	3.245				
20,000.00	12,916.56	19,614.83	12,574.92	97.98	97.88	44.01	-7,018.29	299.61	475.02	326.72	148.31	3.203				
20,100.00	12,917.43	19,714.83	12,575.79	99.32	99.23	44.01	-7,118.28	300.47	475.02	324.80	150.22	3.162				
20,200.00	12,918.30	19,814.83	12,576.66	100.67	100.58	44.01	-7,218.27	301.33	475.01	322.89	152.13	3.122				
20,300.00	12,919.17	19,914.83	12,577.54	102.01	101.93	44.01	-7,318.26	302.20	475.01	320.97	154.04	3.084				
20,400.00	12,920.04	20,014.83	12,578.41	103.36	103.28	44.01	-7,418.26	303.06	475.01	319.05	155.96	3.046				

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Offset Well Error: 0.50 usft							
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
20,500.00	12,920.90	20,114.83	12,579.28	104.71	104.64	44.01	-7,518.25	303.92	475.00	317.12	157.88	3.009	
20,600.00	12,921.77	20,214.83	12,580.16	106.06	105.99	44.01	-7,618.24	304.78	475.00	315.20	159.80	2.972	
20,700.00	12,922.64	20,314.83	12,581.03	107.41	107.34	44.01	-7,718.23	305.64	474.99	313.27	161.73	2.937	
20,800.00	12,923.51	20,414.83	12,581.91	108.76	108.70	44.01	-7,818.23	306.50	474.99	311.34	163.65	2.902	
20,900.00	12,924.38	20,514.83	12,582.78	110.11	110.05	44.01	-7,918.22	307.36	474.99	309.41	165.58	2.869	
21,000.00	12,925.24	20,614.83	12,583.65	111.46	111.41	44.01	-8,018.21	308.22	474.98	307.47	167.51	2.836	
21,100.00	12,926.11	20,714.83	12,584.53	112.81	112.76	44.01	-8,118.20	309.08	474.98	305.53	169.44	2.803	
21,200.00	12,926.98	20,814.83	12,585.40	114.16	114.12	44.01	-8,218.19	309.94	474.97	303.60	171.38	2.772	
21,300.00	12,927.85	20,914.83	12,586.27	115.51	115.47	44.01	-8,318.19	310.81	474.97	301.66	173.31	2.741	
21,400.00	12,928.72	21,014.83	12,587.15	116.87	116.83	44.01	-8,418.18	311.67	474.97	299.71	175.25	2.710	
21,500.00	12,929.58	21,114.83	12,588.02	118.22	118.19	44.01	-8,518.17	312.53	474.96	297.77	177.19	2.681	
21,600.00	12,930.45	21,214.83	12,588.89	119.57	119.54	44.01	-8,618.16	313.39	474.96	295.83	179.13	2.651	
21,700.00	12,931.32	21,314.83	12,589.77	120.93	120.90	44.01	-8,718.16	314.25	474.95	293.88	181.07	2.623	
21,800.00	12,932.19	21,414.83	12,590.64	122.28	122.26	44.02	-8,818.15	315.11	474.95	291.93	183.02	2.595	
21,900.00	12,933.06	21,514.83	12,591.51	123.63	123.62	44.02	-8,918.14	315.97	474.94	289.98	184.96	2.568	
22,000.00	12,933.92	21,614.83	12,592.39	124.99	124.98	44.02	-9,018.13	316.83	474.94	288.03	186.91	2.541	
22,100.00	12,934.79	21,714.83	12,593.26	126.34	126.33	44.02	-9,118.13	317.69	474.94	286.08	188.86	2.515	
22,200.00	12,935.66	21,814.83	12,594.13	127.70	127.69	44.02	-9,218.12	318.55	474.93	284.12	190.81	2.489	
22,300.00	12,936.53	21,914.83	12,595.01	129.05	129.05	44.02	-9,318.11	319.42	474.93	282.17	192.76	2.464	
22,400.00	12,937.40	22,014.83	12,595.88	130.41	130.41	44.02	-9,418.10	320.28	474.92	280.21	194.71	2.439	
22,500.00	12,938.26	22,114.83	12,596.75	131.77	131.77	44.02	-9,518.10	321.14	474.92	278.25	196.67	2.415	
22,600.00	12,939.13	22,214.83	12,597.63	133.12	133.13	44.02	-9,618.09	322.00	474.92	276.30	198.62	2.391	
22,700.00	12,940.00	22,314.83	12,598.50	134.48	134.49	44.02	-9,718.08	322.86	474.91	274.34	200.58	2.368	
22,800.00	12,940.87	22,414.83	12,599.37	135.84	135.85	44.02	-9,818.07	323.72	474.91	272.37	202.53	2.345	
22,900.00	12,941.74	22,514.83	12,600.25	137.19	137.21	44.02	-9,918.07	324.58	474.90	270.41	204.49	2.322	
23,000.00	12,942.61	22,614.83	12,601.12	138.55	138.57	44.02	-10,018.06	325.44	474.90	268.45	206.45	2.300	
23,100.00	12,943.47	22,714.83	12,601.99	139.91	139.93	44.02	-10,118.05	326.30	474.90	266.48	208.41	2.279	
23,180.87	12,944.18	22,795.70	12,602.70	141.02	141.03	44.02	-10,198.92	327.00	474.89	264.90	210.00	2.261	
23,184.44	12,944.21	22,796.26	12,602.70	141.07	141.04	44.02	-10,199.48	327.00	474.90	264.90	210.01	2.261	SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Offset			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 (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,800.00	2,790.33	3,334.47	3,273.45	7.01	9.91	12.27	561.06	1,945.71	1,947.25	1,931.56	15.68	124.162		
2,900.00	2,888.15	3,423.60	3,359.54	7.18	10.21	12.63	548.47	1,926.38	1,903.27	1,887.21	16.06	118.520		
3,000.00	2,985.97	3,512.73	3,445.64	7.35	10.51	13.01	535.87	1,907.05	1,859.36	1,842.92	16.44	113.109		
3,100.00	3,083.78	3,601.86	3,531.73	7.53	10.82	13.41	523.28	1,887.72	1,815.52	1,798.69	16.82	107.918		
3,200.00	3,181.60	3,690.99	3,617.82	7.70	11.12	13.83	510.68	1,868.39	1,771.75	1,754.54	17.21	102.937		
3,300.00	3,279.41	3,780.12	3,703.91	7.88	11.42	14.27	498.08	1,849.07	1,728.06	1,710.46	17.61	98.156		
3,400.00	3,377.23	3,869.25	3,790.01	8.07	11.73	14.73	485.49	1,829.74	1,684.47	1,666.46	18.00	93.566		
3,500.00	3,475.05	3,958.38	3,876.10	8.29	12.03	15.21	472.89	1,810.41	1,640.96	1,622.56	18.41	89.158		
3,600.00	3,572.86	4,047.50	3,962.19	8.52	12.34	15.72	460.30	1,791.08	1,597.56	1,578.75	18.81	84.922		
3,700.00	3,670.68	4,136.63	4,048.28	8.75	12.65	16.26	447.70	1,771.75	1,554.27	1,535.05	19.22	80.850		
3,800.00	3,768.49	4,225.76	4,134.38	8.99	12.96	16.83	435.11	1,752.43	1,511.10	1,491.46	19.64	76.936		
3,900.00	3,866.31	4,314.89	4,220.47	9.23	13.27	17.43	422.51	1,733.10	1,468.06	1,448.00	20.06	73.172		
4,000.00	3,964.13	4,404.02	4,306.56	9.47	13.58	18.06	409.92	1,713.77	1,425.17	1,404.68	20.49	69.550		
4,100.00	4,061.94	4,493.15	4,392.65	9.71	13.89	18.74	397.32	1,694.44	1,382.43	1,361.50	20.93	66.064		
4,200.00	4,159.76	4,582.28	4,478.75	9.95	14.20	19.45	384.73	1,675.11	1,339.86	1,318.49	21.37	62.712		
4,300.00	4,257.57	4,654.10	4,548.22	10.20	14.44	20.05	374.79	1,659.87	1,297.96	1,276.16	21.80	59.531		
4,400.00	4,355.39	4,723.19	4,615.35	10.45	14.67	20.64	365.89	1,646.21	1,257.71	1,235.47	22.24	56.542		
4,500.00	4,453.21	4,800.00	4,690.33	10.70	14.91	21.29	356.78	1,632.23	1,219.18	1,196.49	22.69	53.731		
4,600.00	4,551.02	4,864.91	4,753.94	10.95	15.09	21.84	349.72	1,621.39	1,182.33	1,159.21	23.12	51.135		
4,700.00	4,648.84	4,937.50	4,825.32	11.21	15.28	22.45	342.52	1,610.35	1,147.27	1,123.71	23.56	48.701		
4,800.00	4,746.65	5,011.22	4,898.06	11.46	15.46	23.06	335.98	1,600.31	1,113.98	1,089.99	23.99	46.435		
4,900.00	4,844.47	5,086.04	4,972.10	11.72	15.63	23.68	330.12	1,591.32	1,082.49	1,058.07	24.42	44.335		
5,000.00	4,942.29	5,161.91	5,047.38	11.98	15.78	24.30	324.99	1,583.44	1,052.82	1,027.99	24.83	42.393		
5,100.00	5,040.10	5,238.80	5,123.86	12.24	15.92	24.91	320.62	1,576.74	1,024.98	999.74	25.25	40.601		
5,200.00	5,137.97	5,316.73	5,201.51	12.46	16.04	25.43	317.05	1,571.26	999.20	973.59	25.61	39.012		
5,300.00	5,236.26	5,400.00	5,284.62	12.70	16.16	25.83	314.19	1,566.88	977.20	951.19	26.01	37.569		
5,400.00	5,334.99	5,476.55	5,361.09	12.92	16.24	26.13	312.44	1,564.19	959.34	932.97	26.37	36.383		
5,500.00	5,434.11	5,558.07	5,442.60	13.11	16.31	26.38	311.50	1,562.74	945.65	918.98	26.67	35.456		
5,600.00	5,533.54	5,649.02	5,533.54	13.28	16.36	26.59	311.38	1,562.56	935.90	908.98	26.93	34.758		
5,700.00	5,633.22	5,748.69	5,633.22	13.43	16.39	26.76	311.38	1,562.56	928.72	901.57	27.15	34.201		
5,800.00	5,733.07	5,848.54	5,733.07	13.56	16.43	26.88	311.38	1,562.56	923.89	896.52	27.37	33.759		
5,900.00	5,833.02	5,948.50	5,833.02	13.66	16.46	26.94	311.38	1,562.56	921.39	893.83	27.56	33.434		
5,999.97	5,932.99	6,048.47	5,932.99	13.71	16.50	89.61	311.38	1,562.56	920.73	893.07	27.65	33.297	CC	
6,000.00	5,933.02	6,048.50	5,933.02	13.71	16.50	89.60	311.38	1,562.56	921.01	893.36	27.65	33.308		
6,100.00	6,033.02	6,148.50	6,033.02	13.78	16.54	89.60	311.38	1,562.56	921.01	893.25	27.76	33.177		
6,200.00	6,133.02	6,248.50	6,133.02	13.85	16.58	89.60	311.38	1,562.56	921.01	893.14	27.87	33.046		
6,300.00	6,233.02	6,348.50	6,233.02	13.92	16.62	89.60	311.38	1,562.56	921.01	893.03	27.98	32.916		
6,400.00	6,333.02	6,448.50	6,333.02	14.00	16.65	89.60	311.38	1,562.56	921.01	892.92	28.09	32.786		
6,500.00	6,433.02	6,548.50	6,433.02	14.07	16.69	89.60	311.38	1,562.56	921.01	892.81	28.20	32.657		
6,600.00	6,533.02	6,648.50	6,533.02	14.14	16.73	89.60	311.38	1,562.56	921.01	892.70	28.31	32.528		
6,700.00	6,633.02	6,748.50	6,633.02	14.22	16.77	89.60	311.38	1,562.56	921.01	892.59	28.43	32.400		
6,800.00	6,733.02	6,848.50	6,733.02	14.29	16.81	89.60	311.38	1,562.56	921.01	892.47	28.54	32.272		
6,900.00	6,833.02	6,948.50	6,833.02	14.36	16.85	89.60	311.38	1,562.56	921.01	892.36	28.65	32.145		
7,000.00	6,933.02	7,048.50	6,933.02	14.44	16.89	89.60	311.38	1,562.56	921.01	892.25	28.77	32.018		
7,100.00	7,033.02	7,148.50	7,033.02	14.51	16.93	89.60	311.38	1,562.56	921.01	892.13	28.88	31.892		
7,200.00	7,133.02	7,248.50	7,133.02	14.59	16.97	89.60	311.38	1,562.56	921.01	892.02	28.99	31.766		
7,300.00	7,233.02	7,348.50	7,233.02	14.66	17.01	89.60	311.38	1,562.56	921.01	891.90	29.11	31.641		
7,400.00	7,333.02	7,448.50	7,333.02	14.73	17.06	89.60	311.38	1,562.56	921.01	891.79	29.22	31.516		
7,500.00	7,433.02	7,548.50	7,433.02	14.81	17.10	89.60	311.38	1,562.56	921.01	891.67	29.34	31.392		
7,600.00	7,533.02	7,648.50	7,533.02	14.88	17.14	89.60	311.38	1,562.56	921.01	891.56	29.46	31.268		
7,700.00	7,633.02	7,748.50	7,633.02	14.96	17.18	89.60	311.38	1,562.56	921.01	891.44	29.57	31.145		
7,800.00	7,733.02	7,848.50	7,733.02	15.03	17.23	89.60	311.38	1,562.56	921.01	891.32	29.69	31.023		

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

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Offset		Semi Major Axis			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)	Distance Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,900.00	7,833.02	7,948.50	7,833.02	15.11	17.27	89.60	311.38	1,562.56	921.01	891.21	29.81	30.901		
8,000.00	7,933.02	8,048.50	7,933.02	15.18	17.31	89.60	311.38	1,562.56	921.01	891.09	29.92	30.779		
8,100.00	8,033.02	8,148.50	8,033.02	15.26	17.36	89.60	311.38	1,562.56	921.01	890.97	30.04	30.658		
8,200.00	8,133.02	8,248.50	8,133.02	15.33	17.40	89.60	311.38	1,562.56	921.01	890.85	30.16	30.538		
8,300.00	8,233.02	8,348.50	8,233.02	15.41	17.44	89.60	311.38	1,562.56	921.01	890.73	30.28	30.418		
8,400.00	8,333.02	8,448.50	8,333.02	15.48	17.49	89.60	311.38	1,562.56	921.01	890.62	30.40	30.299		
8,500.00	8,433.02	8,548.50	8,433.02	15.56	17.53	89.60	311.38	1,562.56	921.01	890.50	30.52	30.181		
8,600.00	8,533.02	8,648.50	8,533.02	15.63	17.58	89.60	311.38	1,562.56	921.01	890.38	30.64	30.063		
8,700.00	8,633.02	8,748.50	8,633.02	15.71	17.62	89.60	311.38	1,562.56	921.01	890.26	30.76	29.945		
8,800.00	8,733.02	8,848.50	8,733.02	15.78	17.67	89.60	311.38	1,562.56	921.01	890.13	30.88	29.828		
8,900.00	8,833.02	8,948.50	8,833.02	15.86	17.71	89.60	311.38	1,562.56	921.01	890.01	31.00	29.712		
9,000.00	8,933.02	9,048.50	8,933.02	15.93	17.76	89.60	311.38	1,562.56	921.01	889.89	31.12	29.596		
9,100.00	9,033.02	9,148.50	9,033.02	16.01	17.81	89.60	311.38	1,562.56	921.01	889.77	31.24	29.481		
9,200.00	9,133.02	9,248.50	9,133.02	16.08	17.85	89.60	311.38	1,562.56	921.01	889.65	31.36	29.366		
9,300.00	9,233.02	9,348.50	9,233.02	16.16	17.90	89.60	311.38	1,562.56	921.01	889.53	31.49	29.252		
9,400.00	9,333.02	9,448.50	9,333.02	16.23	17.95	89.60	311.38	1,562.56	921.01	889.40	31.61	29.138		
9,500.00	9,433.02	9,548.50	9,433.02	16.31	17.99	89.60	311.38	1,562.56	921.01	889.28	31.73	29.025		
9,600.00	9,533.02	9,648.50	9,533.02	16.38	18.04	89.60	311.38	1,562.56	921.01	889.16	31.85	28.913		
9,700.00	9,633.02	9,748.50	9,633.02	16.46	18.09	89.60	311.38	1,562.56	921.01	889.03	31.98	28.801		
9,800.00	9,733.02	9,848.50	9,733.02	16.54	18.14	89.60	311.38	1,562.56	921.01	888.91	32.10	28.690		
9,900.00	9,833.02	9,948.50	9,833.02	16.61	18.19	89.60	311.38	1,562.56	921.01	888.79	32.23	28.579		
10,000.00	9,933.02	10,048.50	9,933.02	16.69	18.24	89.60	311.38	1,562.56	921.01	888.66	32.35	28.469		
10,100.00	10,033.02	10,148.50	10,033.02	16.76	18.28	89.60	311.38	1,562.56	921.01	888.54	32.48	28.360		
10,200.00	10,133.02	10,248.50	10,133.02	16.84	18.33	89.60	311.38	1,562.56	921.01	888.41	32.60	28.251		
10,300.00	10,233.02	10,348.50	10,233.02	16.92	18.38	89.60	311.38	1,562.56	921.01	888.29	32.73	28.142		
10,400.00	10,333.02	10,448.50	10,333.02	16.99	18.43	89.60	311.38	1,562.56	921.01	888.16	32.85	28.034		
10,500.00	10,433.02	10,548.50	10,433.02	17.07	18.48	89.60	311.38	1,562.56	921.01	888.03	32.98	27.927		
10,600.00	10,533.02	10,648.50	10,533.02	17.15	18.53	89.60	311.38	1,562.56	921.01	887.91	33.11	27.820		
10,700.00	10,633.02	10,748.50	10,633.02	17.22	18.58	89.60	311.38	1,562.56	921.01	887.78	33.23	27.714		
10,800.00	10,733.02	10,848.50	10,733.02	17.30	18.63	89.60	311.38	1,562.56	921.01	887.65	33.36	27.608		
10,900.00	10,833.02	10,948.50	10,833.02	17.37	18.68	89.60	311.38	1,562.56	921.01	887.53	33.49	27.503		
11,000.00	10,933.02	11,048.50	10,933.02	17.45	18.73	89.60	311.38	1,562.56	921.01	887.40	33.61	27.399		
11,100.00	11,033.02	11,148.50	11,033.02	17.53	18.79	89.60	311.38	1,562.56	921.01	887.27	33.74	27.295		
11,200.00	11,133.02	11,248.50	11,133.02	17.60	18.84	89.60	311.38	1,562.56	921.01	887.14	33.87	27.192		
11,300.00	11,233.02	11,348.50	11,233.02	17.68	18.89	89.60	311.38	1,562.56	921.01	887.01	34.00	27.089		
11,400.00	11,333.02	11,448.50	11,333.02	17.76	18.94	89.60	311.38	1,562.56	921.01	886.88	34.13	26.987		
11,500.00	11,433.02	11,548.50	11,433.02	17.83	18.99	89.60	311.38	1,562.56	921.01	886.75	34.26	26.885		
11,600.00	11,533.02	11,648.50	11,533.02	17.91	19.04	89.60	311.38	1,562.56	921.01	886.63	34.39	26.784		
11,700.00	11,633.02	11,748.50	11,633.02	17.99	19.10	89.60	311.38	1,562.56	921.01	886.50	34.52	26.683		
11,800.00	11,733.02	11,848.50	11,733.02	18.06	19.15	89.60	311.38	1,562.56	921.01	886.37	34.65	26.583		
11,900.00	11,833.02	11,948.50	11,833.02	18.14	19.20	89.60	311.38	1,562.56	921.01	886.24	34.78	26.484		
11,906.50	11,839.52	11,954.99	11,839.52	18.15	19.20	89.60	311.38	1,562.56	921.01	886.23	34.78	26.478		
12,000.00	11,933.02	12,048.18	11,932.64	18.22	19.28	89.75	309.05	1,562.58	921.02	886.12	34.90	26.392		
12,100.00	12,033.02	12,144.60	12,027.49	18.30	19.44	90.79	292.34	1,562.73	921.26	886.15	35.12	26.234		
12,200.00	12,133.02	12,233.21	12,111.05	18.37	19.66	92.60	263.17	1,562.99	922.63	887.17	35.46	26.017		
12,300.00	12,233.02	12,311.29	12,180.22	18.45	19.89	94.83	227.05	1,563.32	926.54	890.61	35.93	25.787		
12,400.00	12,332.97	12,379.20	12,235.89	18.52	20.14	-87.91	188.24	1,563.67	934.46	897.96	36.50	25.605		
12,500.00	12,431.38	12,450.00	12,288.63	18.56	20.43	-84.47	141.07	1,564.09	946.47	909.37	37.10	25.511		
12,600.00	12,525.35	12,500.00	12,322.17	18.58	20.67	-81.60	104.01	1,564.43	961.42	923.70	37.72	25.487		
12,700.00	12,612.01	12,567.47	12,362.06	18.59	21.03	-78.35	49.66	1,564.91	978.15	939.71	38.45	25.442		
12,800.00	12,688.74	12,627.72	12,392.08	18.62	21.39	-75.50	-2.56	1,565.38	995.64	956.46	39.19	25.408		
12,900.00	12,753.20	12,687.23	12,416.17	18.67	21.79	-72.99	-56.94	1,565.87	1,012.89	972.96	39.94	25.362		

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)													Offset Site Error: 0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre			Rule Assigned: 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	
13,000.00	12,803.44	12,750.00	12,435.34	18.75	22.25	-70.84	-116.68	1,566.41	1,029.09	988.39	40.70	25.286		
13,100.00	12,837.92	12,800.00	12,445.86	18.89	22.64	-69.20	-165.54	1,566.85	1,043.53	1,002.16	41.37	25.227		
13,200.00	12,855.60	12,863.20	12,452.99	19.08	23.17	-67.96	-228.30	1,567.41	1,055.68	1,013.61	42.07	25.092		
13,300.00	12,858.40	12,941.36	12,454.20	19.34	23.86	-67.67	-306.44	1,568.12	1,065.26	1,022.37	42.89	24.835		
13,400.00	12,859.27	13,041.11	12,454.73	19.70	24.78	-67.82	-406.19	1,569.01	1,071.78	1,027.73	44.04	24.335		
13,500.00	12,860.14	13,141.05	12,455.25	20.14	25.76	-67.88	-506.12	1,569.91	1,075.07	1,029.74	45.32	23.720		
13,600.00	12,861.01	13,241.05	12,455.78	20.65	26.77	-67.87	-606.11	1,570.81	1,075.58	1,028.89	46.69	23.038		
13,700.00	12,861.88	13,341.05	12,456.31	21.24	27.81	-67.85	-706.10	1,571.71	1,075.75	1,027.58	48.16	22.336		
13,800.00	12,862.75	13,441.05	12,456.83	21.90	28.88	-67.83	-806.10	1,572.61	1,075.91	1,026.19	49.72	21.638		
13,900.00	12,863.61	13,541.05	12,457.36	22.62	29.98	-67.82	-906.09	1,573.51	1,076.08	1,024.71	51.36	20.950		
14,000.00	12,864.48	13,641.04	12,457.88	23.39	31.09	-67.80	-1,006.08	1,574.41	1,076.24	1,023.16	53.08	20.276		
14,100.00	12,865.35	13,741.04	12,458.41	24.23	32.23	-67.79	-1,106.08	1,575.31	1,076.41	1,021.54	54.86	19.620		
14,200.00	12,866.22	13,841.04	12,458.94	25.11	33.38	-67.77	-1,206.07	1,576.21	1,076.57	1,019.87	56.70	18.986		
14,300.00	12,867.09	13,941.04	12,459.46	26.03	34.55	-67.75	-1,306.07	1,577.11	1,076.74	1,018.14	58.60	18.374		
14,400.00	12,867.95	14,041.04	12,459.99	26.99	35.73	-67.74	-1,406.06	1,578.01	1,076.90	1,016.36	60.55	17.787		
14,500.00	12,868.82	14,141.04	12,460.51	27.99	36.92	-67.72	-1,506.05	1,578.91	1,077.07	1,014.53	62.54	17.223		
14,600.00	12,869.69	14,241.04	12,461.04	29.01	38.13	-67.71	-1,606.05	1,579.81	1,077.23	1,012.67	64.57	16.684		
14,700.00	12,870.56	14,341.04	12,461.57	30.07	39.35	-67.69	-1,706.04	1,580.71	1,077.40	1,010.76	66.63	16.169		
14,800.00	12,871.43	14,441.04	12,462.09	31.15	40.57	-67.67	-1,806.04	1,581.61	1,077.56	1,008.83	68.73	15.678		
14,900.00	12,872.29	14,541.04	12,462.62	32.25	41.81	-67.66	-1,906.03	1,582.51	1,077.73	1,006.87	70.86	15.209		
15,000.00	12,873.16	14,641.04	12,463.15	33.38	43.05	-67.64	-2,006.02	1,583.40	1,077.89	1,004.87	73.02	14.761		
15,100.00	12,874.03	14,741.04	12,463.67	34.52	44.30	-67.63	-2,106.02	1,584.30	1,078.06	1,002.86	75.20	14.335		
15,200.00	12,874.90	14,841.04	12,464.20	35.68	45.55	-67.61	-2,206.01	1,585.20	1,078.23	1,000.82	77.41	13.929		
15,300.00	12,875.77	14,941.04	12,464.72	36.85	46.81	-67.59	-2,306.01	1,586.10	1,078.39	998.76	79.63	13.542		
15,400.00	12,876.63	15,041.04	12,465.25	38.04	48.08	-67.58	-2,406.00	1,587.00	1,078.56	996.68	81.88	13.173		
15,500.00	12,877.50	15,141.04	12,465.78	39.24	49.36	-67.56	-2,505.99	1,587.90	1,078.72	994.58	84.14	12.820		
15,600.00	12,878.37	15,241.03	12,466.30	40.45	50.63	-67.55	-2,605.99	1,588.80	1,078.89	992.47	86.42	12.484		
15,700.00	12,879.24	15,341.03	12,466.83	41.67	51.92	-67.53	-2,705.98	1,589.70	1,079.06	990.35	88.71	12.164		
15,800.00	12,880.11	15,441.03	12,467.36	42.90	53.20	-67.51	-2,805.98	1,590.60	1,079.22	988.21	91.02	11.857		
15,900.00	12,880.97	15,541.03	12,467.88	44.13	54.49	-67.50	-2,905.97	1,591.50	1,079.39	986.05	93.34	11.564		
16,000.00	12,881.84	15,641.03	12,468.41	45.38	55.79	-67.48	-3,005.96	1,592.40	1,079.56	983.89	95.67	11.285		
16,100.00	12,882.71	15,741.03	12,468.93	46.63	57.08	-67.47	-3,105.96	1,593.30	1,079.72	981.72	98.01	11.017		
16,200.00	12,883.58	15,841.03	12,469.46	47.89	58.38	-67.45	-3,205.95	1,594.20	1,079.89	979.53	100.36	10.760		
16,300.00	12,884.45	15,941.03	12,469.99	49.15	59.69	-67.43	-3,305.95	1,595.10	1,080.06	977.34	102.72	10.515		
16,400.00	12,885.31	16,041.03	12,470.51	50.43	60.99	-67.42	-3,405.94	1,596.00	1,080.22	975.14	105.08	10.280		
16,500.00	12,886.18	16,141.03	12,471.04	51.70	62.30	-67.40	-3,505.93	1,596.90	1,080.39	972.93	107.46	10.054		
16,600.00	12,887.05	16,241.03	12,471.56	52.98	63.61	-67.39	-3,605.93	1,597.80	1,080.56	970.72	109.84	9.837		
16,700.00	12,887.92	16,341.03	12,472.09	54.27	64.93	-67.37	-3,705.92	1,598.69	1,080.73	968.49	112.23	9.629		
16,800.00	12,888.79	16,441.03	12,472.62	55.55	66.24	-67.35	-3,805.92	1,599.59	1,080.89	966.27	114.63	9.430		
16,900.00	12,889.66	16,541.03	12,473.14	56.85	67.56	-67.34	-3,905.91	1,600.49	1,081.06	964.03	117.03	9.238		
17,000.00	12,890.52	16,641.03	12,473.67	58.14	68.88	-67.32	-4,005.90	1,601.39	1,081.23	961.79	119.43	9.053		
17,100.00	12,891.39	16,741.03	12,474.20	59.44	70.20	-67.31	-4,105.90	1,602.29	1,081.40	959.55	121.85	8.875		
17,200.00	12,892.26	16,841.03	12,474.72	60.75	71.53	-67.29	-4,205.89	1,603.19	1,081.56	957.30	124.26	8.704		
17,300.00	12,893.13	16,941.02	12,475.25	62.05	72.85	-67.28	-4,305.89	1,604.09	1,081.73	955.05	126.68	8.539		
17,400.00	12,894.00	17,041.02	12,475.77	63.36	74.18	-67.26	-4,405.88	1,604.99	1,081.90	952.79	129.11	8.380		
17,500.00	12,894.86	17,141.02	12,476.30	64.67	75.51	-67.24	-4,505.87	1,605.89	1,082.07	950.53	131.54	8.226		
17,600.00	12,895.73	17,241.02	12,476.83	65.99	76.84	-67.23	-4,605.87	1,606.79	1,082.23	948.26	133.97	8.078		
17,700.00	12,896.60	17,341.02	12,477.35	67.30	78.17	-67.21	-4,705.86	1,607.69	1,082.40	946.00	136.41	7.935		
17,800.00	12,897.47	17,441.02	12,477.88	68.62	79.50	-67.20	-4,805.86	1,608.59	1,082.57	943.73	138.85	7.797		
17,900.00	12,898.34	17,541.02	12,478.40	69.94	80.83	-67.18	-4,905.85	1,609.49	1,082.74	941.45	141.29	7.663		
18,000.00	12,899.20	17,641.02	12,478.93	71.26	82.17	-67.16	-5,005.84	1,610.39	1,082.91	939.17	143.73	7.534		
18,100.00	12,900.07	17,741.02	12,479.46	72.58	83.50	-67.15	-5,105.84	1,611.29	1,083.08	936.90	146.18	7.409		

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 213H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
18,200.00	12,900.94	17,841.02	12,479.98	73.91	84.84	-67.13	-5,205.83	1,612.19	1,083.24	934.61	148.63	7.288	
18,300.00	12,901.81	17,941.02	12,480.51	75.24	86.18	-67.12	-5,305.83	1,613.09	1,083.41	932.33	151.08	7.171	
18,400.00	12,902.68	18,041.02	12,481.04	76.56	87.52	-67.10	-5,405.82	1,613.99	1,083.58	930.04	153.54	7.057	
18,500.00	12,903.54	18,141.02	12,481.56	77.89	88.86	-67.08	-5,505.81	1,614.88	1,083.75	927.76	155.99	6.947	
18,600.00	12,904.41	18,241.02	12,482.09	79.23	90.20	-67.07	-5,605.81	1,615.78	1,083.92	925.47	158.45	6.841	
18,700.00	12,905.28	18,341.02	12,482.61	80.56	91.54	-67.05	-5,705.80	1,616.68	1,084.09	923.17	160.91	6.737	
18,800.00	12,906.15	18,441.02	12,483.14	81.89	92.88	-67.04	-5,805.80	1,617.58	1,084.26	920.88	163.38	6.637	
18,900.00	12,907.02	18,541.02	12,483.67	83.23	94.22	-67.02	-5,905.79	1,618.48	1,084.43	918.59	165.84	6.539	
19,000.00	12,907.88	18,641.01	12,484.19	84.56	95.57	-67.01	-6,005.78	1,619.38	1,084.59	916.29	168.30	6.444	
19,100.00	12,908.75	18,741.01	12,484.72	85.90	96.91	-66.99	-6,105.78	1,620.28	1,084.76	913.99	170.77	6.352	
19,200.00	12,909.62	18,841.01	12,485.25	87.24	98.26	-66.97	-6,205.77	1,621.18	1,084.93	911.69	173.24	6.263	
19,300.00	12,910.49	18,941.01	12,485.77	88.58	99.60	-66.96	-6,305.77	1,622.08	1,085.10	909.39	175.71	6.176	
19,400.00	12,911.36	19,041.01	12,486.30	89.92	100.95	-66.94	-6,405.76	1,622.98	1,085.27	907.09	178.18	6.091	
19,500.00	12,912.22	19,141.01	12,486.82	91.26	102.30	-66.93	-6,505.75	1,623.88	1,085.44	904.79	180.65	6.009	
19,600.00	12,913.09	19,241.01	12,487.35	92.60	103.64	-66.91	-6,605.75	1,624.78	1,085.61	902.49	183.12	5.928	
19,700.00	12,913.96	19,341.01	12,487.88	93.94	104.99	-66.89	-6,705.74	1,625.68	1,085.78	900.18	185.60	5.850	
19,800.00	12,914.83	19,441.01	12,488.40	95.29	106.34	-66.88	-6,805.74	1,626.58	1,085.95	897.88	188.07	5.774	
19,900.00	12,915.70	19,541.01	12,488.93	96.63	107.69	-66.86	-6,905.73	1,627.48	1,086.12	895.57	190.55	5.700	
20,000.00	12,916.56	19,641.01	12,489.45	97.98	109.04	-66.85	-7,005.72	1,628.38	1,086.29	893.27	193.02	5.628	
20,100.00	12,917.43	19,741.01	12,489.98	99.32	110.39	-66.83	-7,105.72	1,629.28	1,086.46	890.96	195.50	5.557	
20,200.00	12,918.30	19,841.01	12,490.51	100.67	111.74	-66.82	-7,205.71	1,630.17	1,086.63	888.65	197.98	5.489	
20,300.00	12,919.17	19,941.01	12,491.03	102.01	113.09	-66.80	-7,305.71	1,631.07	1,086.80	886.35	200.46	5.422	
20,400.00	12,920.04	20,041.01	12,491.56	103.36	114.44	-66.78	-7,405.70	1,631.97	1,086.97	884.04	202.93	5.356	
20,500.00	12,920.90	20,141.01	12,492.09	104.71	115.80	-66.77	-7,505.69	1,632.87	1,087.14	881.73	205.41	5.292	
20,600.00	12,921.77	20,241.01	12,492.61	106.06	117.15	-66.75	-7,605.69	1,633.77	1,087.31	879.42	207.89	5.230	
20,700.00	12,922.64	20,341.00	12,493.14	107.41	118.50	-66.74	-7,705.68	1,634.67	1,087.48	877.11	210.37	5.169	
20,800.00	12,923.51	20,441.00	12,493.66	108.76	119.85	-66.72	-7,805.68	1,635.57	1,087.65	874.80	212.86	5.110	
20,900.00	12,924.38	20,541.00	12,494.19	110.11	121.21	-66.71	-7,905.67	1,636.47	1,087.82	872.49	215.34	5.052	
21,000.00	12,925.24	20,641.00	12,494.72	111.46	122.56	-66.69	-8,005.66	1,637.37	1,087.99	870.18	217.82	4.995	
21,100.00	12,926.11	20,741.00	12,495.24	112.81	123.91	-66.67	-8,105.66	1,638.27	1,088.17	867.86	220.30	4.939	
21,200.00	12,926.98	20,841.00	12,495.77	114.16	125.27	-66.66	-8,205.65	1,639.17	1,088.34	865.55	222.78	4.885	
21,300.00	12,927.85	20,941.00	12,496.30	115.51	126.62	-66.64	-8,305.65	1,640.07	1,088.51	863.24	225.27	4.832	
21,400.00	12,928.72	21,041.00	12,496.82	116.87	127.98	-66.63	-8,405.64	1,640.97	1,088.68	860.93	227.75	4.780	
21,500.00	12,929.58	21,141.00	12,497.35	118.22	129.33	-66.61	-8,505.63	1,641.87	1,088.85	858.62	230.23	4.729	
21,600.00	12,930.45	21,241.00	12,497.87	119.57	130.69	-66.60	-8,605.63	1,642.77	1,089.02	856.31	232.72	4.680	
21,700.00	12,931.32	21,341.00	12,498.40	120.93	132.05	-66.58	-8,705.62	1,643.67	1,089.19	853.99	235.20	4.631	
21,800.00	12,932.19	21,441.00	12,498.93	122.28	133.40	-66.56	-8,805.62	1,644.57	1,089.36	851.68	237.68	4.583	
21,900.00	12,933.06	21,541.00	12,499.45	123.63	134.76	-66.55	-8,905.61	1,645.47	1,089.54	849.37	240.17	4.537	
22,000.00	12,933.92	21,641.00	12,499.98	124.99	136.11	-66.53	-9,005.60	1,646.36	1,089.71	847.06	242.65	4.491	
22,100.00	12,934.79	21,741.00	12,500.50	126.34	137.47	-66.52	-9,105.60	1,647.26	1,089.88	844.74	245.14	4.446	
22,200.00	12,935.66	21,841.00	12,501.03	127.70	138.83	-66.50	-9,205.59	1,648.16	1,090.05	842.43	247.62	4.402	
22,300.00	12,936.53	21,941.00	12,501.56	129.05	140.19	-66.49	-9,305.58	1,649.06	1,090.22	840.12	250.11	4.359	
22,400.00	12,937.40	22,040.99	12,502.08	130.41	141.54	-66.47	-9,405.58	1,649.96	1,090.39	837.80	252.59	4.317	
22,500.00	12,938.26	22,140.99	12,502.61	131.77	142.90	-66.45	-9,505.57	1,650.86	1,090.57	835.49	255.07	4.275	
22,600.00	12,939.13	22,240.99	12,503.14	133.12	144.26	-66.44	-9,605.57	1,651.76	1,090.74	833.18	257.56	4.235	
22,700.00	12,940.00	22,340.99	12,503.66	134.48	145.62	-66.42	-9,705.56	1,652.66	1,090.91	830.87	260.04	4.195	
22,800.00	12,940.87	22,440.99	12,504.19	135.84	146.98	-66.41	-9,805.55	1,653.56	1,091.08	828.56	262.53	4.156	
22,900.00	12,941.74	22,540.99	12,504.71	137.19	148.34	-66.39	-9,905.55	1,654.46	1,091.26	826.24	265.01	4.118	
23,000.00	12,942.61	22,640.99	12,505.24	138.55	149.69	-66.38	-10,005.54	1,655.36	1,091.43	823.93	267.50	4.080	
23,100.00	12,943.47	22,740.99	12,505.77	139.91	151.05	-66.36	-10,105.54	1,656.26	1,091.60	821.62	269.98	4.043	
23,184.44	12,944.21	22,823.46	12,506.20	141.07	152.16	-66.35	-10,188.00	1,657.00	1,091.75	819.74	272.01	4.014	ES, SF

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
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	180.00	-135.00	0.00	135.00	135.00					
100.00	100.00	100.00	100.00	0.98	0.98	180.00	-135.00	0.00	135.00	133.04	1.96	68.801			
200.00	200.00	200.00	200.00	1.56	1.56	180.00	-135.00	0.00	135.00	131.88	3.12	43.238			
300.00	300.00	300.00	300.00	1.98	1.98	180.00	-135.00	0.00	135.00	131.04	3.96	34.071			
400.00	400.00	402.73	402.72	2.33	2.42	-179.61	-133.95	-0.90	133.98	129.27	4.72	28.410			
500.00	500.00	505.31	505.21	2.63	2.81	-178.43	-130.82	-3.60	130.97	125.60	5.37	24.400			
600.00	600.00	607.59	607.26	2.91	3.13	-176.32	-125.61	-8.07	126.08	120.15	5.93	21.248			
700.00	700.00	707.82	707.12	3.16	3.28	-173.43	-119.06	-13.71	120.05	113.73	6.33	18.978			
800.00	800.00	807.44	806.36	3.40	3.53	-170.23	-112.47	-19.37	114.31	107.50	6.80	16.804			
900.00	900.00	907.06	905.60	3.62	3.77	-166.70	-105.89	-25.03	108.95	101.70	7.25	15.021			
1,000.00	1,000.00	1,006.68	1,004.84	3.84	4.01	-162.83	-99.31	-30.69	104.05	96.37	7.68	13.544			
1,100.00	1,100.00	1,106.30	1,104.08	4.04	4.23	-158.59	-92.72	-36.35	99.68	91.58	8.09	12.315			
1,200.00	1,200.00	1,205.95	1,203.35	4.23	4.47	-154.00	-86.14	-42.02	95.89	87.40	8.50	11.288			
1,300.00	1,300.00	1,306.31	1,303.19	4.42	4.72	-148.20	-78.44	-48.63	92.35	83.47	8.88	10.404			
1,400.00	1,400.00	1,406.07	1,402.13	4.60	4.97	-140.42	-68.83	-56.90	89.33	80.08	9.24	9.662			
1,500.00	1,500.00	1,505.09	1,500.08	4.78	5.12	-131.06	-57.81	-66.37	88.02	78.47	9.55	9.220			
1,502.05	1,502.05	1,507.11	1,502.09	4.78	5.12	146.14	-57.59	-66.56	88.02	78.46	9.55	9.212	CC, ES		
1,600.00	1,599.99	1,603.87	1,597.78	4.98	5.33	155.70	-46.74	-75.89	90.35	80.39	9.96	9.068			
1,700.00	1,699.91	1,702.37	1,695.20	5.17	5.55	165.09	-35.70	-85.39	97.71	87.32	10.39	9.404			
1,800.00	1,799.69	1,800.52	1,792.27	5.36	5.76	173.16	-24.70	-94.85	109.94	99.12	10.82	10.159			
1,900.00	1,899.32	1,898.35	1,889.03	5.44	5.96	179.58	-13.73	-104.28	125.95	114.80	11.14	11.302			
2,000.00	1,998.94	1,996.16	1,985.76	5.59	6.17	-175.48	-2.76	-113.71	143.30	131.78	11.53	12.433			
2,100.00	2,098.56	2,093.97	2,082.50	5.75	6.38	-171.61	8.20	-123.14	161.47	149.57	11.90	13.568			
2,200.00	2,198.18	2,191.78	2,179.23	5.91	6.58	-168.53	19.16	-132.57	180.22	167.94	12.28	14.680			
2,300.00	2,297.70	2,289.49	2,275.87	6.08	6.79	-158.66	30.12	-141.99	200.21	187.56	12.66	15.819			
2,400.00	2,396.96	2,386.95	2,372.25	6.26	6.99	-152.17	41.04	-151.38	222.12	209.08	13.04	17.033			
2,500.00	2,495.89	2,484.08	2,468.32	6.45	7.20	-147.89	51.93	-160.74	245.76	232.34	13.42	18.309			
2,600.00	2,594.44	2,580.83	2,564.00	6.64	7.40	-145.06	62.78	-170.07	271.05	257.25	13.80	19.635			
2,700.00	2,692.52	2,677.12	2,659.24	6.84	7.60	-143.23	73.57	-179.35	297.96	283.77	14.19	20.997			
2,800.00	2,790.33	2,773.15	2,754.21	7.01	7.80	-143.67	84.34	-188.61	325.73	311.18	14.55	22.380			
2,900.00	2,888.15	2,869.18	2,849.19	7.18	8.00	-144.09	95.10	-197.87	353.52	338.60	14.92	23.689			
3,000.00	2,985.97	2,965.21	2,944.16	7.35	8.20	-144.44	105.87	-207.13	381.33	366.03	15.29	24.932			
3,100.00	3,083.78	3,061.25	3,039.14	7.53	8.39	-144.75	116.63	-216.38	409.15	393.48	15.67	26.112			
3,200.00	3,181.60	3,157.28	3,134.12	7.70	8.59	-145.02	127.40	-225.64	436.97	420.93	16.05	27.233			
3,300.00	3,279.41	3,253.31	3,229.09	7.88	8.79	-145.25	138.16	-234.90	464.81	448.38	16.42	28.299			
3,400.00	3,377.23	3,349.34	3,324.07	8.07	8.99	-145.46	148.93	-244.16	492.65	475.84	16.81	29.313			
3,500.00	3,475.05	3,445.37	3,419.05	8.29	9.19	-145.65	159.69	-253.41	520.49	503.30	17.19	30.279			
3,600.00	3,572.86	3,541.40	3,514.02	8.52	9.38	-145.82	170.46	-262.67	548.34	530.77	17.58	31.200			
3,700.00	3,670.68	3,637.44	3,609.00	8.75	9.58	-145.97	181.22	-271.93	576.20	558.24	17.96	32.078			
3,800.00	3,768.49	3,733.47	3,703.97	8.99	9.78	-146.11	191.99	-281.19	604.06	585.71	18.35	32.916			
3,900.00	3,866.31	3,829.50	3,798.95	9.23	9.98	-146.23	202.75	-290.44	631.92	613.18	18.74	33.716			
4,000.00	3,964.13	3,925.53	3,893.93	9.47	10.17	-146.35	213.52	-299.70	659.78	640.65	19.13	34.482			
4,100.00	4,061.94	4,021.56	3,988.90	9.71	10.37	-146.45	224.28	-308.96	687.65	668.12	19.53	35.214			
4,200.00	4,159.76	4,117.59	4,083.88	9.95	10.57	-146.55	235.05	-318.22	715.52	695.59	19.92	35.915			
4,300.00	4,257.57	4,213.62	4,178.85	10.20	10.76	-146.64	245.81	-327.47	743.39	723.07	20.32	36.587			
4,400.00	4,355.39	4,309.66	4,273.83	10.45	10.96	-146.72	256.58	-336.73	771.26	750.54	20.72	37.231			
4,500.00	4,453.21	4,407.39	4,370.49	10.70	11.16	-146.80	267.52	-346.14	799.12	778.01	21.11	37.847			
4,600.00	4,551.02	4,502.98	4,463.12	10.95	11.40	-146.99	278.73	-355.78	825.77	804.19	21.58	38.271			
4,700.00	4,648.84	4,635.72	4,597.26	11.21	11.63	-147.33	287.48	-363.30	850.38	828.36	22.02	38.623			
4,800.00	4,746.65	4,751.39	4,712.65	11.46	11.86	-147.82	293.65	-368.61	872.94	850.51	22.43	38.916			
4,900.00	4,844.47	4,867.80	4,828.96	11.72	12.06	-148.45	297.19	-371.66	893.48	870.66	22.82	39.161			
5,000.00	4,942.29	4,981.14	4,942.29	11.98	12.18	-149.18	298.09	-372.43	912.06	888.94	23.12	39.456			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)		
5,100.00	5,040.10	5,078.96	5,040.10	12.24	12.25	-149.83	298.09	-372.43	930.07	906.69	23.39	39.771
5,200.00	5,137.97	5,176.82	5,137.97	12.46	12.33	-150.51	298.09	-372.43	947.99	924.36	23.63	40.120
5,300.00	5,236.26	5,275.11	5,236.26	12.70	12.41	-151.17	298.09	-372.43	964.13	940.21	23.91	40.316
5,400.00	5,334.99	5,373.85	5,334.99	12.92	12.49	-151.71	298.09	-372.43	978.06	953.87	24.19	40.427
5,500.00	5,434.11	5,472.96	5,434.11	13.11	12.58	-152.16	298.09	-372.43	989.76	965.30	24.47	40.455
5,600.00	5,533.54	5,572.39	5,533.54	13.28	12.66	-152.51	298.09	-372.43	999.19	974.46	24.73	40.404
5,700.00	5,633.22	5,672.07	5,633.22	13.43	12.74	-152.77	298.09	-372.43	1,006.33	981.34	24.99	40.276
5,800.00	5,733.07	5,771.92	5,733.07	13.56	12.82	-152.94	298.09	-372.43	1,011.15	985.92	25.23	40.077
5,900.00	5,833.02	5,871.88	5,833.02	13.66	12.90	-153.03	298.09	-372.43	1,013.64	988.19	25.46	39.814
6,000.00	5,933.02	5,971.88	5,933.02	13.71	12.98	-90.39	298.09	-372.43	1,014.02	988.43	25.59	39.618
6,100.00	6,033.02	6,071.88	6,033.02	13.78	13.07	-90.39	298.09	-372.43	1,014.02	988.28	25.75	39.384
6,200.00	6,133.02	6,171.88	6,133.02	13.85	13.15	-90.39	298.09	-372.43	1,014.02	988.12	25.90	39.152
6,300.00	6,233.02	6,271.88	6,233.02	13.92	13.23	-90.39	298.09	-372.43	1,014.02	987.97	26.05	38.923
6,400.00	6,333.02	6,371.88	6,333.02	14.00	13.31	-90.39	298.09	-372.43	1,014.02	987.82	26.20	38.697
6,500.00	6,433.02	6,471.88	6,433.02	14.07	13.39	-90.39	298.09	-372.43	1,014.02	987.67	26.36	38.472
6,600.00	6,533.02	6,571.88	6,533.02	14.14	13.48	-90.39	298.09	-372.43	1,014.02	987.51	26.51	38.251
6,700.00	6,633.02	6,671.88	6,633.02	14.22	13.56	-90.39	298.09	-372.43	1,014.02	987.36	26.66	38.031
6,800.00	6,733.02	6,771.88	6,733.02	14.29	13.64	-90.39	298.09	-372.43	1,014.02	987.21	26.82	37.814
6,900.00	6,833.02	6,871.88	6,833.02	14.36	13.72	-90.39	298.09	-372.43	1,014.02	987.05	26.97	37.599
7,000.00	6,933.02	6,971.88	6,933.02	14.44	13.80	-90.39	298.09	-372.43	1,014.02	986.90	27.12	37.387
7,100.00	7,033.02	7,071.88	7,033.02	14.51	13.89	-90.39	298.09	-372.43	1,014.02	986.75	27.28	37.176
7,200.00	7,133.02	7,171.88	7,133.02	14.59	13.97	-90.39	298.09	-372.43	1,014.02	986.59	27.43	36.968
7,300.00	7,233.02	7,271.88	7,233.02	14.66	14.05	-90.39	298.09	-372.43	1,014.02	986.44	27.58	36.763
7,400.00	7,333.02	7,371.88	7,333.02	14.73	14.13	-90.39	298.09	-372.43	1,014.02	986.29	27.74	36.559
7,500.00	7,433.02	7,471.88	7,433.02	14.81	14.21	-90.39	298.09	-372.43	1,014.02	986.13	27.89	36.357
7,600.00	7,533.02	7,571.88	7,533.02	14.88	14.30	-90.39	298.09	-372.43	1,014.02	985.98	28.04	36.158
7,700.00	7,633.02	7,671.88	7,633.02	14.96	14.38	-90.39	298.09	-372.43	1,014.02	985.82	28.20	35.960
7,800.00	7,733.02	7,771.88	7,733.02	15.03	14.46	-90.39	298.09	-372.43	1,014.02	985.67	28.35	35.765
7,900.00	7,833.02	7,871.88	7,833.02	15.11	14.54	-90.39	298.09	-372.43	1,014.02	985.52	28.51	35.571
8,000.00	7,933.02	7,971.88	7,933.02	15.18	14.62	-90.39	298.09	-372.43	1,014.02	985.36	28.66	35.379
8,100.00	8,033.02	8,071.88	8,033.02	15.26	14.71	-90.39	298.09	-372.43	1,014.02	985.21	28.82	35.190
8,200.00	8,133.02	8,171.88	8,133.02	15.33	14.79	-90.39	298.09	-372.43	1,014.02	985.05	28.97	35.002
8,300.00	8,233.02	8,271.88	8,233.02	15.41	14.87	-90.39	298.09	-372.43	1,014.02	984.90	29.12	34.816
8,400.00	8,333.02	8,371.88	8,333.02	15.48	14.95	-90.39	298.09	-372.43	1,014.02	984.74	29.28	34.632
8,500.00	8,433.02	8,471.88	8,433.02	15.56	15.03	-90.39	298.09	-372.43	1,014.02	984.59	29.43	34.450
8,600.00	8,533.02	8,571.88	8,533.02	15.63	15.12	-90.39	298.09	-372.43	1,014.02	984.43	29.59	34.270
8,700.00	8,633.02	8,671.88	8,633.02	15.71	15.20	-90.39	298.09	-372.43	1,014.02	984.28	29.74	34.091
8,800.00	8,733.02	8,771.88	8,733.02	15.78	15.28	-90.39	298.09	-372.43	1,014.02	984.12	29.90	33.915
8,900.00	8,833.02	8,871.88	8,833.02	15.86	15.36	-90.39	298.09	-372.43	1,014.02	983.97	30.05	33.740
9,000.00	8,933.02	8,971.88	8,933.02	15.93	15.44	-90.39	298.09	-372.43	1,014.02	983.81	30.21	33.566
9,100.00	9,033.02	9,071.88	9,033.02	16.01	15.53	-90.39	298.09	-372.43	1,014.02	983.66	30.36	33.395
9,200.00	9,133.02	9,171.88	9,133.02	16.08	15.61	-90.39	298.09	-372.43	1,014.02	983.50	30.52	33.225
9,300.00	9,233.02	9,271.88	9,233.02	16.16	15.69	-90.39	298.09	-372.43	1,014.02	983.35	30.68	33.056
9,400.00	9,333.02	9,371.88	9,333.02	16.23	15.77	-90.39	298.09	-372.43	1,014.02	983.19	30.83	32.889
9,500.00	9,433.02	9,471.88	9,433.02	16.31	15.86	-90.39	298.09	-372.43	1,014.02	983.04	30.99	32.724
9,600.00	9,533.02	9,571.88	9,533.02	16.38	15.94	-90.39	298.09	-372.43	1,014.02	982.88	31.14	32.561
9,700.00	9,633.02	9,671.88	9,633.02	16.46	16.02	-90.39	298.09	-372.43	1,014.02	982.73	31.30	32.399
9,800.00	9,733.02	9,771.88	9,733.02	16.54	16.10	-90.39	298.09	-372.43	1,014.02	982.57	31.45	32.238
9,900.00	9,833.02	9,871.88	9,833.02	16.61	16.18	-90.39	298.09	-372.43	1,014.02	982.41	31.61	32.079
10,000.00	9,933.02	9,971.88	9,933.02	16.69	16.27	-90.39	298.09	-372.43	1,014.02	982.26	31.77	31.922
10,100.00	10,033.02	10,071.88	10,033.02	16.76	16.35	-90.39	298.09	-372.43	1,014.02	982.10	31.92	31.766
10,200.00	10,133.02	10,171.88	10,133.02	16.84	16.43	-90.39	298.09	-372.43	1,014.02	981.95	32.08	31.611

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

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Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		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	10,233.02	10,271.88	10,233.02	16.92	16.51	-90.39	298.09	-372.43	1,014.02	981.79	32.23	31.458	
10,400.00	10,333.02	10,371.88	10,333.02	16.99	16.59	-90.39	298.09	-372.43	1,014.02	981.63	32.39	31.306	
10,500.00	10,433.02	10,471.88	10,433.02	17.07	16.68	-90.39	298.09	-372.43	1,014.02	981.48	32.55	31.156	
10,600.00	10,533.02	10,571.88	10,533.02	17.15	16.76	-90.39	298.09	-372.43	1,014.02	981.32	32.70	31.007	
10,700.00	10,633.02	10,671.88	10,633.02	17.22	16.84	-90.39	298.09	-372.43	1,014.02	981.16	32.86	30.859	
10,800.00	10,733.02	10,771.88	10,733.02	17.30	16.92	-90.39	298.09	-372.43	1,014.02	981.01	33.02	30.713	
10,900.00	10,833.02	10,871.88	10,833.02	17.37	17.01	-90.39	298.09	-372.43	1,014.02	980.85	33.17	30.568	
11,000.00	10,933.02	10,971.88	10,933.02	17.45	17.09	-90.39	298.09	-372.43	1,014.02	980.69	33.33	30.424	
11,100.00	11,033.02	11,071.88	11,033.02	17.53	17.17	-90.39	298.09	-372.43	1,014.02	980.54	33.49	30.282	
11,200.00	11,133.02	11,171.88	11,133.02	17.60	17.25	-90.39	298.09	-372.43	1,014.02	980.38	33.64	30.141	
11,300.00	11,233.02	11,271.88	11,233.02	17.68	17.33	-90.39	298.09	-372.43	1,014.02	980.22	33.80	30.001	
11,400.00	11,333.02	11,371.88	11,333.02	17.76	17.42	-90.39	298.09	-372.43	1,014.02	980.07	33.96	29.862	
11,500.00	11,433.02	11,471.88	11,433.02	17.83	17.50	-90.39	298.09	-372.43	1,014.02	979.91	34.11	29.725	
11,600.00	11,533.02	11,571.88	11,533.02	17.91	17.58	-90.39	298.09	-372.43	1,014.02	979.75	34.27	29.589	
11,700.00	11,633.02	11,671.88	11,633.02	17.99	17.66	-90.39	298.09	-372.43	1,014.02	979.60	34.43	29.454	
11,800.00	11,733.02	11,771.88	11,733.02	18.06	17.74	-90.39	298.09	-372.43	1,014.02	979.44	34.58	29.320	
11,900.00	11,833.02	11,871.88	11,833.02	18.14	17.83	-90.39	298.09	-372.43	1,014.02	979.28	34.74	29.187	
12,000.00	11,933.02	11,971.88	11,933.02	18.22	17.90	-90.39	298.09	-372.43	1,014.02	979.13	34.89	29.064	
12,049.73	11,982.76	12,021.66	11,982.76	18.26	17.91	-90.49	296.26	-372.41	1,014.02	979.11	34.92	29.042	
12,100.00	12,033.02	12,071.29	12,033.00	18.30	17.93	-90.84	290.16	-372.36	1,014.04	979.13	34.91	29.046	
12,200.00	12,133.02	12,165.29	12,123.00	18.37	17.95	-92.14	267.06	-372.16	1,014.49	979.63	34.86	29.103	
12,300.00	12,233.02	12,250.00	12,200.81	18.45	17.97	-94.02	233.75	-371.88	1,016.46	981.67	34.79	29.217	
12,400.00	12,332.97	12,324.13	12,264.22	18.52	17.99	78.16	195.46	-371.55	1,020.93	986.20	34.74	29.392	
12,500.00	12,431.38	12,394.22	12,319.17	18.56	18.00	75.80	152.02	-371.17	1,025.92	991.23	34.70	29.570	
12,600.00	12,525.35	12,461.93	12,366.83	18.58	18.02	73.74	103.99	-370.76	1,030.40	995.64	34.76	29.642	
12,700.00	12,612.01	12,527.82	12,407.47	18.59	18.05	72.03	52.16	-370.31	1,033.78	998.83	34.96	29.574	
12,800.00	12,688.74	12,600.00	12,444.83	18.62	18.09	70.56	-9.54	-369.78	1,035.61	1,000.39	35.21	29.408	
12,900.00	12,753.20	12,650.00	12,466.02	18.67	18.12	69.83	-54.81	-369.39	1,035.37	999.64	35.73	28.974	
13,000.00	12,803.44	12,718.63	12,488.52	18.75	18.18	69.23	-119.60	-368.83	1,032.85	996.67	36.18	28.547	
13,100.00	12,837.92	12,780.90	12,502.11	18.89	18.25	69.14	-180.33	-368.31	1,027.91	991.22	36.68	28.020	
13,200.00	12,855.60	12,850.00	12,509.37	19.08	18.34	69.47	-249.00	-367.72	1,020.53	983.37	37.16	27.464	
13,300.00	12,858.40	12,925.40	12,510.41	19.34	18.47	69.76	-324.39	-367.07	1,011.43	973.81	37.62	26.887	
13,400.00	12,859.27	13,025.16	12,511.28	19.70	18.68	69.69	-424.14	-366.21	1,004.99	966.75	38.24	26.282	
13,500.00	12,860.14	13,125.10	12,512.16	20.14	18.95	69.66	-524.07	-365.35	1,001.83	962.82	39.00	25.685	
13,596.67	12,860.98	13,221.76	12,513.00	20.63	19.29	69.66	-620.73	-364.52	1,001.06	961.21	39.85	25.121	
13,600.00	12,861.01	13,225.09	12,513.03	20.65	19.30	69.67	-624.06	-364.49	1,001.47	961.59	39.88	25.113	
13,700.00	12,861.88	13,325.09	12,513.90	21.24	19.73	69.67	-724.05	-363.63	1,001.47	960.56	40.90	24.483	
13,800.00	12,862.75	13,425.09	12,514.78	21.90	20.26	69.67	-824.05	-362.77	1,001.46	959.40	42.07	23.807	
13,900.00	12,863.61	13,525.09	12,515.65	22.62	20.86	69.67	-924.04	-361.91	1,001.46	958.11	43.35	23.102	
14,000.00	12,864.48	13,625.09	12,516.52	23.39	21.55	69.67	-1,024.03	-361.05	1,001.46	956.71	44.75	22.380	
14,100.00	12,865.35	13,725.09	12,517.40	24.23	22.32	69.67	-1,124.02	-360.19	1,001.46	955.21	46.25	21.654	
14,200.00	12,866.22	13,825.09	12,518.27	25.11	23.15	69.67	-1,224.02	-359.32	1,001.46	953.61	47.84	20.933	
14,300.00	12,867.09	13,925.09	12,519.14	26.03	24.03	69.67	-1,324.01	-358.46	1,001.45	951.94	49.52	20.224	
14,400.00	12,867.95	14,025.09	12,520.02	26.99	24.97	69.67	-1,424.00	-357.60	1,001.45	950.18	51.27	19.532	
14,500.00	12,868.82	14,125.09	12,520.89	27.99	25.95	69.67	-1,523.99	-356.74	1,001.45	948.36	53.09	18.862	
14,600.00	12,869.69	14,225.09	12,521.76	29.01	26.96	69.67	-1,623.99	-355.88	1,001.45	946.47	54.98	18.216	
14,700.00	12,870.56	14,325.09	12,522.64	30.07	28.01	69.67	-1,723.98	-355.02	1,001.45	944.53	56.92	17.595	
14,800.00	12,871.43	14,425.09	12,523.51	31.15	29.09	69.67	-1,823.97	-354.16	1,001.44	942.54	58.90	17.001	
14,900.00	12,872.29	14,525.09	12,524.38	32.25	30.20	69.67	-1,923.96	-353.30	1,001.44	940.50	60.94	16.434	
15,000.00	12,873.16	14,625.09	12,525.25	33.38	31.32	69.67	-2,023.96	-352.44	1,001.44	938.43	63.01	15.893	
15,100.00	12,874.03	14,725.09	12,526.13	34.52	32.47	69.67	-2,123.95	-351.58	1,001.44	936.32	65.12	15.378	
15,200.00	12,874.90	14,825.09	12,527.00	35.68	33.63	69.67	-2,223.94	-350.72	1,001.44	934.17	67.27	14.888	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: Reference		0-MWD+HRGM+SAG+FDIR (rev.5) Offset		Semi Major Axis		Highside Toolface (°)	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,300.00	12,875.77	14,925.09	12,527.87	36.85	34.81	69.67	-2,323.93	-349.85	1,001.43	931.99	69.44	14.421	
15,400.00	12,876.63	15,025.09	12,528.75	38.04	36.00	69.67	-2,423.93	-348.99	1,001.43	929.79	71.64	13.978	
15,500.00	12,877.50	15,125.09	12,529.62	39.24	37.21	69.67	-2,523.92	-348.13	1,001.43	927.56	73.87	13.557	
15,600.00	12,878.37	15,225.09	12,530.49	40.45	38.43	69.67	-2,623.91	-347.27	1,001.43	925.31	76.12	13.156	
15,700.00	12,879.24	15,325.09	12,531.37	41.67	39.66	69.67	-2,723.90	-346.41	1,001.43	923.04	78.39	12.775	
15,800.00	12,880.11	15,425.09	12,532.24	42.90	40.89	69.67	-2,823.90	-345.55	1,001.42	920.74	80.68	12.412	
15,900.00	12,880.97	15,525.09	12,533.11	44.13	42.14	69.67	-2,923.89	-344.69	1,001.42	918.43	82.99	12.067	
16,000.00	12,881.84	15,625.09	12,533.99	45.38	43.39	69.67	-3,023.88	-343.83	1,001.42	916.11	85.31	11.738	
16,100.00	12,882.71	15,725.09	12,534.86	46.63	44.65	69.67	-3,123.87	-342.97	1,001.42	913.77	87.65	11.425	
16,200.00	12,883.58	15,825.09	12,535.73	47.89	45.92	69.67	-3,223.87	-342.11	1,001.42	911.41	90.00	11.127	
16,300.00	12,884.45	15,925.09	12,536.61	49.15	47.19	69.67	-3,323.86	-341.25	1,001.41	909.05	92.37	10.842	
16,400.00	12,885.31	16,025.09	12,537.48	50.43	48.47	69.67	-3,423.85	-340.38	1,001.41	906.67	94.74	10.570	
16,500.00	12,886.18	16,125.09	12,538.35	51.70	49.75	69.67	-3,523.84	-339.52	1,001.41	904.28	97.13	10.310	
16,600.00	12,887.05	16,225.09	12,539.23	52.98	51.04	69.67	-3,623.84	-338.66	1,001.41	901.88	99.53	10.062	
16,700.00	12,887.92	16,325.09	12,540.10	54.27	52.33	69.68	-3,723.83	-337.80	1,001.41	899.47	101.93	9.824	
16,800.00	12,888.79	16,425.09	12,540.97	55.55	53.63	69.68	-3,823.82	-336.94	1,001.40	897.06	104.35	9.597	
16,900.00	12,889.66	16,525.09	12,541.85	56.85	54.93	69.68	-3,923.81	-336.08	1,001.40	894.63	106.77	9.379	
17,000.00	12,890.52	16,625.09	12,542.72	58.14	56.23	69.68	-4,023.81	-335.22	1,001.40	892.20	109.20	9.170	
17,100.00	12,891.39	16,725.09	12,543.59	59.44	57.54	69.68	-4,123.80	-334.36	1,001.40	889.76	111.64	8.970	
17,200.00	12,892.26	16,825.09	12,544.47	60.75	58.85	69.68	-4,223.79	-333.50	1,001.40	887.31	114.08	8.778	
17,300.00	12,893.13	16,925.09	12,545.34	62.05	60.16	69.68	-4,323.78	-332.64	1,001.39	884.86	116.54	8.593	
17,400.00	12,894.00	17,025.09	12,546.21	63.36	61.47	69.68	-4,423.78	-331.78	1,001.39	882.40	118.99	8.416	
17,500.00	12,894.86	17,125.09	12,547.09	64.67	62.79	69.68	-4,523.77	-330.91	1,001.39	879.94	121.45	8.245	
17,600.00	12,895.73	17,225.09	12,547.96	65.99	64.11	69.68	-4,623.76	-330.05	1,001.39	877.47	123.92	8.081	
17,700.00	12,896.60	17,325.09	12,548.83	67.30	65.43	69.68	-4,723.75	-329.19	1,001.39	874.99	126.39	7.923	
17,800.00	12,897.47	17,425.09	12,549.71	68.62	66.76	69.68	-4,823.75	-328.33	1,001.38	872.51	128.87	7.771	
17,900.00	12,898.34	17,525.09	12,550.58	69.94	68.08	69.68	-4,923.74	-327.47	1,001.38	870.03	131.35	7.624	
18,000.00	12,899.20	17,625.09	12,551.45	71.26	69.41	69.68	-5,023.73	-326.61	1,001.38	867.54	133.84	7.482	
18,100.00	12,900.07	17,725.09	12,552.33	72.58	70.74	69.68	-5,123.72	-325.75	1,001.38	865.05	136.32	7.346	
18,200.00	12,900.94	17,825.09	12,553.20	73.91	72.07	69.68	-5,223.72	-324.89	1,001.38	862.56	138.82	7.214	
18,300.00	12,901.81	17,925.09	12,554.07	75.24	73.40	69.68	-5,323.71	-324.03	1,001.37	860.06	141.31	7.086	
18,400.00	12,902.68	18,025.09	12,554.95	76.56	74.73	69.68	-5,423.70	-323.17	1,001.37	857.56	143.81	6.963	
18,500.00	12,903.54	18,125.09	12,555.82	77.89	76.06	69.68	-5,523.69	-322.31	1,001.37	855.06	146.31	6.844	
18,600.00	12,904.41	18,225.09	12,556.69	79.23	77.40	69.68	-5,623.69	-321.44	1,001.37	852.55	148.82	6.729	
18,700.00	12,905.28	18,325.09	12,557.56	80.56	78.74	69.68	-5,723.68	-320.58	1,001.37	850.04	151.33	6.617	
18,800.00	12,906.15	18,425.09	12,558.44	81.89	80.07	69.68	-5,823.67	-319.72	1,001.36	847.53	153.84	6.509	
18,900.00	12,907.02	18,525.09	12,559.31	83.23	81.41	69.68	-5,923.66	-318.86	1,001.36	845.01	156.35	6.405	
19,000.00	12,907.88	18,625.09	12,560.18	84.56	82.75	69.68	-6,023.66	-318.00	1,001.36	842.49	158.87	6.303	
19,100.00	12,908.75	18,725.09	12,561.06	85.90	84.09	69.68	-6,123.65	-317.14	1,001.36	839.97	161.38	6.205	
19,200.00	12,909.62	18,825.09	12,561.93	87.24	85.44	69.68	-6,223.64	-316.28	1,001.36	837.45	163.90	6.109	
19,300.00	12,910.49	18,925.09	12,562.80	88.58	86.78	69.68	-6,323.63	-315.42	1,001.35	834.93	166.43	6.017	
19,400.00	12,911.36	19,025.09	12,563.68	89.92	88.12	69.68	-6,423.63	-314.56	1,001.35	832.40	168.95	5.927	
19,500.00	12,912.22	19,125.09	12,564.55	91.26	89.47	69.68	-6,523.62	-313.70	1,001.35	829.87	171.48	5.840	
19,600.00	12,913.09	19,225.09	12,565.42	92.60	90.81	69.68	-6,623.61	-312.84	1,001.35	827.34	174.00	5.755	
19,700.00	12,913.96	19,325.09	12,566.30	93.94	92.16	69.68	-6,723.60	-311.97	1,001.35	824.81	176.53	5.672	
19,800.00	12,914.83	19,425.09	12,567.17	95.29	93.51	69.68	-6,823.60	-311.11	1,001.34	822.28	179.07	5.592	
19,900.00	12,915.70	19,525.09	12,568.04	96.63	94.85	69.68	-6,923.59	-310.25	1,001.34	819.74	181.60	5.514	
20,000.00	12,916.56	19,625.09	12,568.92	97.98	96.20	69.68	-7,023.58	-309.39	1,001.34	817.21	184.13	5.438	
20,100.00	12,917.43	19,725.09	12,569.79	99.32	97.55	69.68	-7,123.57	-308.53	1,001.34	814.67	186.67	5.364	
20,200.00	12,918.30	19,825.09	12,570.66	100.67	98.90	69.68	-7,223.57	-307.67	1,001.34	812.13	189.21	5.292	
20,300.00	12,919.17	19,925.09	12,571.54	102.01	100.25	69.68	-7,323.56	-306.81	1,001.33	809.59	191.74	5.222	
20,400.00	12,920.04	20,025.09	12,572.41	103.36	101.60	69.69	-7,423.55	-305.95	1,001.33	807.05	194.29	5.154	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)							Rule Assigned:				Offset Well Error:		0.50 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
20,500.00	12,920.90	20,125.09	12,573.28	104.71	102.95	69.69	-7,523.54	-305.09	1,001.33	804.50	196.83	5.087	
20,600.00	12,921.77	20,225.09	12,574.16	106.06	104.30	69.69	-7,623.54	-304.23	1,001.33	801.96	199.37	5.022	
20,700.00	12,922.64	20,325.09	12,575.03	107.41	105.65	69.69	-7,723.53	-303.37	1,001.33	799.41	201.91	4.959	
20,800.00	12,923.51	20,425.09	12,575.90	108.76	107.00	69.69	-7,823.52	-302.50	1,001.32	796.87	204.46	4.897	
20,900.00	12,924.38	20,525.09	12,576.78	110.11	108.36	69.69	-7,923.51	-301.64	1,001.32	794.32	207.00	4.837	
21,000.00	12,925.24	20,625.09	12,577.65	111.46	109.71	69.69	-8,023.51	-300.78	1,001.32	791.77	209.55	4.778	
21,100.00	12,926.11	20,725.09	12,578.52	112.81	111.06	69.69	-8,123.50	-299.92	1,001.32	789.22	212.10	4.721	
21,200.00	12,926.98	20,825.09	12,579.40	114.16	112.42	69.69	-8,223.49	-299.06	1,001.32	786.67	214.65	4.665	
21,300.00	12,927.85	20,925.09	12,580.27	115.51	113.77	69.69	-8,323.48	-298.20	1,001.31	784.12	217.20	4.610	
21,400.00	12,928.72	21,025.09	12,581.14	116.87	115.13	69.69	-8,423.48	-297.34	1,001.31	781.56	219.75	4.557	
21,500.00	12,929.58	21,125.09	12,582.02	118.22	116.48	69.69	-8,523.47	-296.48	1,001.31	779.01	222.30	4.504	
21,600.00	12,930.45	21,225.09	12,582.89	119.57	117.84	69.69	-8,623.46	-295.62	1,001.31	776.46	224.85	4.453	
21,700.00	12,931.32	21,325.09	12,583.76	120.93	119.19	69.69	-8,723.45	-294.76	1,001.31	773.90	227.41	4.403	
21,800.00	12,932.19	21,425.09	12,584.64	122.28	120.55	69.69	-8,823.44	-293.89	1,001.30	771.34	229.96	4.354	
21,900.00	12,933.06	21,525.09	12,585.51	123.63	121.90	69.69	-8,923.44	-293.03	1,001.30	768.79	232.51	4.306	
22,000.00	12,933.92	21,625.09	12,586.38	124.99	123.26	69.69	-9,023.43	-292.17	1,001.30	766.23	235.07	4.260	
22,100.00	12,934.79	21,725.09	12,587.25	126.34	124.62	69.69	-9,123.42	-291.31	1,001.30	763.67	237.63	4.214	
22,200.00	12,935.66	21,825.09	12,588.13	127.70	125.98	69.69	-9,223.41	-290.45	1,001.30	761.11	240.18	4.169	
22,300.00	12,936.53	21,925.09	12,589.00	129.05	127.33	69.69	-9,323.41	-289.59	1,001.29	758.55	242.74	4.125	
22,400.00	12,937.40	22,025.09	12,589.87	130.41	128.69	69.69	-9,423.40	-288.73	1,001.29	755.99	245.30	4.082	
22,500.00	12,938.26	22,125.09	12,590.75	131.77	130.05	69.69	-9,523.39	-287.87	1,001.29	753.43	247.86	4.040	
22,600.00	12,939.13	22,225.09	12,591.62	133.12	131.41	69.69	-9,623.38	-287.01	1,001.29	750.87	250.42	3.998	
22,700.00	12,940.00	22,325.09	12,592.49	134.48	132.77	69.69	-9,723.38	-286.15	1,001.29	748.31	252.98	3.958	
22,800.00	12,940.87	22,425.09	12,593.37	135.84	134.12	69.69	-9,823.37	-285.29	1,001.28	745.74	255.54	3.918	
22,900.00	12,941.74	22,525.09	12,594.24	137.19	135.48	69.69	-9,923.36	-284.42	1,001.28	743.18	258.10	3.879	
23,000.00	12,942.61	22,625.09	12,595.11	138.55	136.84	69.69	-10,023.35	-283.56	1,001.28	740.62	260.66	3.841	
23,100.00	12,943.47	22,725.09	12,595.99	139.91	138.20	69.69	-10,123.35	-282.70	1,001.28	738.05	263.23	3.804	
23,180.99	12,944.18	22,806.08	12,596.69	141.02	139.30	69.69	-10,204.33	-282.01	1,001.28	735.98	265.30	3.774	
23,184.44	12,944.21	22,806.75	12,596.70	141.07	139.31	69.69	-10,205.00	-282.00	1,001.28	735.93	265.35	3.773	SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		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
4,100.00	4,061.94	4,142.81	4,123.86	9.71	9.59	14.70	611.26	2,294.83	1,974.47	1,955.97	18.50	106.724	
4,200.00	4,159.76	4,238.95	4,219.47	9.95	9.77	15.14	601.24	2,294.07	1,951.32	1,932.47	18.86	103.472	
4,300.00	4,257.57	4,335.09	4,315.09	10.20	9.94	15.59	591.22	2,293.32	1,928.30	1,909.08	19.22	100.339	
4,400.00	4,355.39	4,431.23	4,410.70	10.45	10.12	16.06	581.21	2,292.56	1,905.39	1,885.81	19.58	97.321	
4,500.00	4,453.21	4,527.37	4,506.31	10.70	10.30	16.53	571.19	2,291.80	1,882.60	1,862.66	19.94	94.413	
4,600.00	4,551.02	4,623.51	4,601.93	10.95	10.47	17.01	561.17	2,291.05	1,859.95	1,839.64	20.30	91.608	
4,700.00	4,648.84	4,719.65	4,697.54	11.21	10.65	17.51	551.15	2,290.29	1,837.42	1,816.75	20.67	88.902	
4,800.00	4,746.65	4,815.79	4,793.15	11.46	10.83	18.02	541.13	2,289.53	1,815.03	1,794.00	21.03	86.291	
4,900.00	4,844.47	4,911.93	4,888.77	11.72	11.00	18.54	531.11	2,288.77	1,792.79	1,771.39	21.40	83.771	
5,000.00	4,942.29	5,008.07	4,984.38	11.98	11.18	19.07	521.09	2,288.02	1,770.69	1,748.92	21.77	81.337	
5,100.00	5,040.10	5,104.21	5,079.99	12.24	11.36	19.62	511.07	2,287.26	1,748.75	1,726.61	22.14	78.986	
5,200.00	5,137.97	5,200.41	5,175.67	12.46	11.53	20.13	501.04	2,286.50	1,727.19	1,704.71	22.48	76.842	
5,300.00	5,236.26	5,297.16	5,271.88	12.70	11.71	20.57	490.96	2,285.74	1,707.80	1,684.94	22.86	74.708	
5,400.00	5,334.99	5,394.48	5,368.67	12.92	11.89	21.01	480.82	2,284.97	1,690.96	1,667.73	23.24	72.771	
5,500.00	5,434.11	5,492.33	5,465.99	13.11	12.07	21.43	470.62	2,284.20	1,676.68	1,653.07	23.61	71.022	
5,600.00	5,533.54	5,590.63	5,563.75	13.28	12.25	21.85	460.38	2,283.43	1,664.94	1,640.97	23.97	69.457	
5,700.00	5,633.22	5,689.32	5,661.90	13.43	12.43	22.25	450.09	2,282.65	1,655.73	1,631.40	24.32	68.068	
5,800.00	5,733.07	5,788.33	5,760.36	13.56	12.61	22.64	439.77	2,281.87	1,649.03	1,624.36	24.67	66.854	
5,900.00	5,833.02	5,887.59	5,859.08	13.66	12.80	23.01	429.43	2,281.09	1,644.83	1,619.84	24.99	65.816	
6,000.00	5,933.02	5,987.01	5,957.96	13.71	12.98	86.02	419.07	2,280.30	1,642.89	1,617.67	25.22	65.146	
6,100.00	6,033.02	6,086.47	6,056.87	13.78	13.16	86.38	408.70	2,279.52	1,641.40	1,615.94	25.46	64.465	
6,200.00	6,133.02	6,185.92	6,155.77	13.85	13.34	86.74	398.34	2,278.74	1,639.98	1,614.28	25.71	63.799	
6,300.00	6,233.02	6,285.37	6,254.68	13.92	13.53	87.10	387.97	2,277.95	1,638.63	1,612.68	25.95	63.148	
6,400.00	6,333.02	6,384.82	6,353.59	14.00	13.71	87.46	377.61	2,277.17	1,637.34	1,611.15	26.19	62.511	
6,500.00	6,433.02	6,484.27	6,452.50	14.07	13.89	87.82	367.25	2,276.39	1,636.12	1,609.68	26.44	61.889	
6,600.00	6,533.02	6,583.73	6,551.40	14.14	14.07	88.18	356.88	2,275.60	1,634.96	1,608.28	26.68	61.280	
6,700.00	6,633.02	6,683.18	6,650.31	14.22	14.26	88.54	346.52	2,274.82	1,633.87	1,606.94	26.92	60.684	
6,800.00	6,733.02	6,782.18	6,748.78	14.29	14.42	88.90	336.21	2,274.04	1,632.85	1,605.70	27.15	60.145	
6,900.00	6,833.02	6,878.01	6,844.22	14.36	14.60	89.20	327.70	2,273.40	1,632.02	1,604.66	27.37	59.635	
7,000.00	6,933.02	6,974.21	6,940.22	14.44	14.77	89.42	321.55	2,272.93	1,631.46	1,603.89	27.57	59.167	
7,100.00	7,033.02	7,070.66	7,036.59	14.51	14.93	89.55	317.81	2,272.65	1,631.13	1,603.37	27.76	58.757	
7,200.00	7,133.02	7,167.24	7,133.16	14.59	15.03	89.60	316.49	2,272.55	1,631.02	1,603.13	27.89	58.471	
7,234.71	7,167.74	7,201.82	7,167.74	14.61	15.03	89.60	316.49	2,272.55	1,631.02	1,603.10	27.92	58.426	
7,300.00	7,233.02	7,267.10	7,233.02	14.66	15.04	89.60	316.49	2,272.55	1,631.02	1,603.04	27.98	58.298	
7,400.00	7,333.02	7,367.10	7,333.02	14.73	15.07	89.60	316.49	2,272.55	1,631.02	1,602.95	28.07	58.102	
7,500.00	7,433.02	7,467.10	7,433.02	14.81	15.09	89.60	316.49	2,272.55	1,631.02	1,602.85	28.17	57.907	
7,600.00	7,533.02	7,567.10	7,533.02	14.88	15.12	89.60	316.49	2,272.55	1,631.02	1,602.76	28.26	57.711	
7,700.00	7,633.02	7,667.10	7,633.02	14.96	15.14	89.60	316.49	2,272.55	1,631.02	1,602.66	28.36	57.516	
7,800.00	7,733.02	7,767.10	7,733.02	15.03	15.17	89.60	316.49	2,272.55	1,631.02	1,602.57	28.45	57.322	
7,900.00	7,833.02	7,867.10	7,833.02	15.11	15.20	89.60	316.49	2,272.55	1,631.02	1,602.47	28.55	57.127	
8,000.00	7,933.02	7,967.10	7,933.02	15.18	15.22	89.60	316.49	2,272.55	1,631.02	1,602.37	28.65	56.933	
8,100.00	8,033.02	8,067.10	8,033.02	15.26	15.25	89.60	316.49	2,272.55	1,631.02	1,602.27	28.75	56.739	
8,200.00	8,133.02	8,167.10	8,133.02	15.33	15.28	89.60	316.49	2,272.55	1,631.02	1,602.18	28.84	56.546	
8,300.00	8,233.02	8,267.10	8,233.02	15.41	15.31	89.60	316.49	2,272.55	1,631.02	1,602.08	28.94	56.353	
8,400.00	8,333.02	8,367.10	8,333.02	15.48	15.34	89.60	316.49	2,272.55	1,631.02	1,601.98	29.04	56.160	
8,500.00	8,433.02	8,467.10	8,433.02	15.56	15.36	89.60	316.49	2,272.55	1,631.02	1,601.88	29.14	55.967	
8,600.00	8,533.02	8,567.10	8,533.02	15.63	15.39	89.60	316.49	2,272.55	1,631.02	1,601.78	29.24	55.775	
8,700.00	8,633.02	8,667.10	8,633.02	15.71	15.42	89.60	316.49	2,272.55	1,631.02	1,601.68	29.34	55.583	
8,800.00	8,733.02	8,767.10	8,733.02	15.78	15.45	89.60	316.49	2,272.55	1,631.02	1,601.58	29.45	55.392	
8,900.00	8,833.02	8,867.10	8,833.02	15.86	15.48	89.60	316.49	2,272.55	1,631.02	1,601.47	29.55	55.201	
9,000.00	8,933.02	8,967.10	8,933.02	15.93	15.51	89.60	316.49	2,272.55	1,631.02	1,601.37	29.65	55.010	
9,100.00	9,033.02	9,067.10	9,033.02	16.01	15.54	89.60	316.49	2,272.55	1,631.02	1,601.27	29.75	54.820	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Offset		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
9,200.00	9,133.02	9,167.10	9,133.02	16.08	15.58	89.60	316.49	2,272.55	1,631.02	1,601.17	29.86	54.631	
9,300.00	9,233.02	9,267.10	9,233.02	16.16	15.61	89.60	316.49	2,272.55	1,631.02	1,601.06	29.96	54.441	
9,400.00	9,333.02	9,367.10	9,333.02	16.23	15.64	89.60	316.49	2,272.55	1,631.02	1,600.96	30.06	54.253	
9,500.00	9,433.02	9,467.10	9,433.02	16.31	15.67	89.60	316.49	2,272.55	1,631.02	1,600.85	30.17	54.064	
9,600.00	9,533.02	9,567.10	9,533.02	16.38	15.71	89.60	316.49	2,272.55	1,631.02	1,600.75	30.27	53.877	
9,700.00	9,633.02	9,667.10	9,633.02	16.46	15.74	89.60	316.49	2,272.55	1,631.02	1,600.64	30.38	53.689	
9,800.00	9,733.02	9,767.10	9,733.02	16.54	15.77	89.60	316.49	2,272.55	1,631.02	1,600.54	30.49	53.502	
9,900.00	9,833.02	9,867.10	9,833.02	16.61	15.81	89.60	316.49	2,272.55	1,631.02	1,600.43	30.59	53.316	
10,000.00	9,933.02	9,967.10	9,933.02	16.69	15.84	89.60	316.49	2,272.55	1,631.02	1,600.32	30.70	53.130	
10,100.00	10,033.02	10,067.10	10,033.02	16.76	15.88	89.60	316.49	2,272.55	1,631.02	1,600.21	30.81	52.945	
10,200.00	10,133.02	10,167.10	10,133.02	16.84	15.91	89.60	316.49	2,272.55	1,631.02	1,600.11	30.91	52.760	
10,300.00	10,233.02	10,267.10	10,233.02	16.92	15.95	89.60	316.49	2,272.55	1,631.02	1,600.00	31.02	52.576	
10,400.00	10,333.02	10,367.10	10,333.02	16.99	15.98	89.60	316.49	2,272.55	1,631.02	1,599.89	31.13	52.392	
10,500.00	10,433.02	10,467.10	10,433.02	17.07	16.02	89.60	316.49	2,272.55	1,631.02	1,599.78	31.24	52.209	
10,600.00	10,533.02	10,567.10	10,533.02	17.15	16.05	89.60	316.49	2,272.55	1,631.02	1,599.67	31.35	52.027	
10,700.00	10,633.02	10,667.10	10,633.02	17.22	16.09	89.60	316.49	2,272.55	1,631.02	1,599.56	31.46	51.845	
10,800.00	10,733.02	10,767.10	10,733.02	17.30	16.13	89.60	316.49	2,272.55	1,631.02	1,599.45	31.57	51.663	
10,900.00	10,833.02	10,867.10	10,833.02	17.37	16.16	89.60	316.49	2,272.55	1,631.02	1,599.34	31.68	51.483	
11,000.00	10,933.02	10,967.10	10,933.02	17.45	16.20	89.60	316.49	2,272.55	1,631.02	1,599.23	31.79	51.302	
11,100.00	11,033.02	11,067.10	11,033.02	17.53	16.24	89.60	316.49	2,272.55	1,631.02	1,599.12	31.90	51.123	
11,200.00	11,133.02	11,167.10	11,133.02	17.60	16.28	89.60	316.49	2,272.55	1,631.02	1,599.00	32.02	50.944	
11,300.00	11,233.02	11,267.10	11,233.02	17.68	16.32	89.60	316.49	2,272.55	1,631.02	1,598.89	32.13	50.766	
11,400.00	11,333.02	11,367.10	11,333.02	17.76	16.36	89.60	316.49	2,272.55	1,631.02	1,598.78	32.24	50.588	
11,500.00	11,433.02	11,467.10	11,433.02	17.83	16.40	89.60	316.49	2,272.55	1,631.02	1,598.67	32.35	50.411	
11,600.00	11,533.02	11,567.10	11,533.02	17.91	16.44	89.60	316.49	2,272.55	1,631.02	1,598.55	32.47	50.234	
11,700.00	11,633.02	11,667.10	11,633.02	17.99	16.47	89.60	316.49	2,272.55	1,631.02	1,598.44	32.58	50.058	
11,800.00	11,733.02	11,767.10	11,733.02	18.06	16.52	89.60	316.49	2,272.55	1,631.02	1,598.32	32.70	49.883	
11,900.00	11,833.02	11,867.10	11,833.02	18.14	16.55	89.60	316.49	2,272.55	1,631.02	1,598.21	32.81	49.716	
11,906.95	11,839.97	11,874.05	11,839.97	18.15	16.55	89.60	316.49	2,272.55	1,631.02	1,598.21	32.81	49.704	CC
12,000.00	11,933.02	11,966.18	11,931.87	18.22	16.72	89.78	311.31	2,272.60	1,631.04	1,598.09	32.95	49.502	
12,100.00	12,033.02	12,060.75	12,024.11	18.30	16.98	90.49	290.97	2,272.78	1,631.30	1,598.10	33.20	49.135	
12,200.00	12,133.02	12,146.63	12,103.96	18.37	17.22	91.59	259.58	2,273.07	1,632.39	1,598.85	33.54	48.667	
12,300.00	12,233.02	12,221.72	12,169.26	18.45	17.43	92.89	222.62	2,273.40	1,635.15	1,601.19	33.96	48.149	
12,400.00	12,332.97	12,286.78	12,221.53	18.52	17.60	-91.00	183.92	2,273.75	1,640.50	1,606.11	34.39	47.699	
12,500.00	12,431.38	12,350.00	12,267.79	18.56	17.76	-88.95	140.89	2,274.15	1,648.97	1,614.16	34.81	47.367	
12,600.00	12,525.35	12,409.09	12,306.50	18.58	17.90	-86.86	96.29	2,274.55	1,659.96	1,624.69	35.27	47.070	
12,700.00	12,612.01	12,468.36	12,340.51	18.59	18.02	-84.72	47.78	2,274.99	1,672.74	1,636.96	35.77	46.758	
12,800.00	12,688.74	12,526.79	12,368.96	18.62	18.29	-82.64	-3.23	2,275.46	1,686.58	1,650.24	36.34	46.409	
12,900.00	12,753.20	12,584.59	12,391.85	18.67	18.81	-80.69	-56.27	2,275.94	1,700.78	1,663.80	36.98	45.994	
13,000.00	12,803.44	12,650.00	12,411.16	18.75	19.43	-78.88	-118.73	2,276.51	1,714.72	1,676.98	37.74	45.431	
13,100.00	12,837.92	12,700.00	12,421.05	18.89	19.94	-77.41	-167.73	2,276.95	1,727.75	1,689.26	38.49	44.891	
13,200.00	12,855.60	12,750.00	12,426.63	19.08	20.46	-76.18	-217.40	2,277.40	1,739.50	1,700.21	39.29	44.269	
13,300.00	12,858.40	12,832.66	12,428.19	19.34	21.34	-75.75	-300.02	2,278.15	1,749.39	1,708.96	40.43	43.272	
13,400.00	12,859.27	12,932.41	12,428.72	19.70	22.44	-75.82	-399.77	2,279.06	1,756.17	1,714.31	41.86	41.957	
13,500.00	12,860.14	13,032.35	12,429.24	20.14	23.57	-75.83	-499.70	2,279.97	1,759.57	1,716.16	43.40	40.540	
13,600.00	12,861.01	13,132.35	12,429.77	20.65	24.73	-75.82	-599.69	2,280.88	1,760.07	1,715.04	45.02	39.093	
13,700.00	12,861.88	13,232.35	12,430.29	21.24	25.91	-75.81	-699.69	2,281.79	1,760.20	1,713.45	46.75	37.653	
13,800.00	12,862.75	13,332.35	12,430.82	21.90	27.10	-75.80	-799.68	2,282.70	1,760.33	1,711.77	48.56	36.252	
13,900.00	12,863.61	13,432.35	12,431.34	22.62	28.31	-75.79	-899.67	2,283.60	1,760.46	1,710.01	50.44	34.899	
14,000.00	12,864.48	13,532.35	12,431.87	23.39	29.54	-75.78	-999.67	2,284.51	1,760.59	1,708.19	52.40	33.598	
14,100.00	12,865.35	13,632.34	12,432.39	24.23	30.77	-75.77	-1,099.66	2,285.42	1,760.72	1,706.30	54.42	32.355	
14,200.00	12,866.22	13,732.34	12,432.92	25.11	32.02	-75.75	-1,199.66	2,286.33	1,760.85	1,704.36	56.49	31.170	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
14,300.00	12,867.09	13,832.34	12,433.44	26.03	33.28	-75.74	-1,299.65	2,287.24	1,760.98	1,702.37	58.61	30.043	
14,400.00	12,867.95	13,932.34	12,433.97	26.99	34.54	-75.73	-1,399.64	2,288.15	1,761.11	1,700.33	60.78	28.974	
14,500.00	12,868.82	14,032.34	12,434.49	27.99	35.82	-75.72	-1,499.64	2,289.06	1,761.24	1,698.26	62.99	27.961	
14,600.00	12,869.69	14,132.34	12,435.02	29.01	37.10	-75.71	-1,599.63	2,289.97	1,761.38	1,696.14	65.23	27.002	
14,700.00	12,870.56	14,232.34	12,435.54	30.07	38.38	-75.70	-1,699.63	2,290.87	1,761.51	1,694.00	67.50	26.094	
14,800.00	12,871.43	14,332.34	12,436.07	31.15	39.67	-75.69	-1,799.62	2,291.78	1,761.64	1,691.83	69.81	25.236	
14,900.00	12,872.29	14,432.34	12,436.59	32.25	40.97	-75.68	-1,899.61	2,292.69	1,761.77	1,689.63	72.14	24.423	
15,000.00	12,873.16	14,532.34	12,437.12	33.38	42.27	-75.67	-1,999.61	2,293.60	1,761.90	1,687.41	74.49	23.653	
15,100.00	12,874.03	14,632.34	12,437.64	34.52	43.58	-75.66	-2,099.60	2,294.51	1,762.03	1,685.17	76.86	22.925	
15,200.00	12,874.90	14,732.34	12,438.17	35.68	44.89	-75.65	-2,199.60	2,295.42	1,762.16	1,682.91	79.25	22.235	
15,300.00	12,875.77	14,832.34	12,438.69	36.85	46.20	-75.64	-2,299.59	2,296.33	1,762.30	1,680.63	81.66	21.580	
15,400.00	12,876.63	14,932.34	12,439.22	38.04	47.52	-75.63	-2,399.58	2,297.24	1,762.43	1,678.34	84.09	20.959	
15,500.00	12,877.50	15,032.34	12,439.74	39.24	48.84	-75.62	-2,499.58	2,298.15	1,762.56	1,676.03	86.53	20.370	
15,600.00	12,878.37	15,132.34	12,440.27	40.45	50.16	-75.61	-2,599.57	2,299.05	1,762.69	1,673.71	88.98	19.810	
15,700.00	12,879.24	15,232.34	12,440.79	41.67	51.48	-75.60	-2,699.56	2,299.96	1,762.82	1,671.38	91.44	19.278	
15,800.00	12,880.11	15,332.33	12,441.32	42.90	52.81	-75.59	-2,799.56	2,300.87	1,762.95	1,669.04	93.92	18.771	
15,900.00	12,880.97	15,432.33	12,441.84	44.13	54.14	-75.58	-2,899.55	2,301.78	1,763.09	1,666.68	96.40	18.288	
16,000.00	12,881.84	15,532.33	12,442.37	45.38	55.47	-75.57	-2,999.55	2,302.69	1,763.22	1,664.32	98.90	17.828	
16,100.00	12,882.71	15,632.33	12,442.89	46.63	56.80	-75.56	-3,099.54	2,303.60	1,763.35	1,661.95	101.40	17.390	
16,200.00	12,883.58	15,732.33	12,443.42	47.89	58.14	-75.55	-3,199.53	2,304.51	1,763.48	1,659.57	103.91	16.971	
16,300.00	12,884.45	15,832.33	12,443.95	49.15	59.47	-75.54	-3,299.53	2,305.42	1,763.62	1,657.18	106.43	16.570	
16,400.00	12,885.31	15,932.33	12,444.47	50.43	60.81	-75.53	-3,399.52	2,306.33	1,763.75	1,654.79	108.96	16.188	
16,500.00	12,886.18	16,032.33	12,445.00	51.70	62.15	-75.52	-3,499.52	2,307.23	1,763.88	1,652.39	111.49	15.821	
16,600.00	12,887.05	16,132.33	12,445.52	52.98	63.49	-75.50	-3,599.51	2,308.14	1,764.01	1,649.99	114.03	15.470	
16,700.00	12,887.92	16,232.33	12,446.05	54.27	64.83	-75.49	-3,699.50	2,309.05	1,764.15	1,647.58	116.57	15.134	
16,800.00	12,888.79	16,332.33	12,446.57	55.55	66.17	-75.48	-3,799.50	2,309.96	1,764.28	1,645.16	119.12	14.811	
16,900.00	12,889.66	16,432.33	12,447.10	56.85	67.52	-75.47	-3,899.49	2,310.87	1,764.41	1,642.74	121.67	14.502	
17,000.00	12,890.52	16,532.33	12,447.62	58.14	68.86	-75.46	-3,999.49	2,311.78	1,764.54	1,640.32	124.22	14.204	
17,100.00	12,891.39	16,632.33	12,448.15	59.44	70.21	-75.45	-4,099.48	2,312.69	1,764.68	1,637.89	126.79	13.919	
17,200.00	12,892.26	16,732.33	12,448.67	60.75	71.55	-75.44	-4,199.47	2,313.60	1,764.81	1,635.46	129.35	13.644	
17,300.00	12,893.13	16,832.33	12,449.20	62.05	72.90	-75.43	-4,299.47	2,314.51	1,764.94	1,633.02	131.92	13.379	
17,400.00	12,894.00	16,932.32	12,449.72	63.36	74.25	-75.42	-4,399.46	2,315.41	1,765.07	1,630.58	134.49	13.124	
17,500.00	12,894.86	17,032.32	12,450.25	64.67	75.60	-75.41	-4,499.45	2,316.32	1,765.21	1,628.14	137.06	12.879	
17,600.00	12,895.73	17,132.32	12,450.77	65.99	76.95	-75.40	-4,599.45	2,317.23	1,765.34	1,625.70	139.64	12.642	
17,700.00	12,896.60	17,232.32	12,451.30	67.30	78.30	-75.39	-4,699.44	2,318.14	1,765.47	1,623.25	142.22	12.414	
17,800.00	12,897.47	17,332.32	12,451.82	68.62	79.65	-75.38	-4,799.44	2,319.05	1,765.61	1,620.80	144.80	12.193	
17,900.00	12,898.34	17,432.32	12,452.35	69.94	81.00	-75.37	-4,899.43	2,319.96	1,765.74	1,618.35	147.39	11.980	
18,000.00	12,899.20	17,532.32	12,452.87	71.26	82.35	-75.36	-4,999.42	2,320.87	1,765.87	1,615.90	149.98	11.774	
18,100.00	12,900.07	17,632.32	12,453.40	72.58	83.70	-75.35	-5,099.42	2,321.78	1,766.01	1,613.44	152.57	11.575	
18,200.00	12,900.94	17,732.32	12,453.92	73.91	85.06	-75.34	-5,199.41	2,322.69	1,766.14	1,610.98	155.16	11.383	
18,300.00	12,901.81	17,832.32	12,454.45	75.24	86.41	-75.33	-5,299.41	2,323.59	1,766.27	1,608.52	157.75	11.196	
18,400.00	12,902.68	17,932.32	12,454.97	76.56	87.77	-75.32	-5,399.40	2,324.50	1,766.41	1,606.06	160.35	11.016	
18,500.00	12,903.54	18,032.32	12,455.50	77.89	89.12	-75.31	-5,499.39	2,325.41	1,766.54	1,603.59	162.95	10.841	
18,600.00	12,904.41	18,132.32	12,456.02	79.23	90.48	-75.30	-5,599.39	2,326.32	1,766.67	1,601.13	165.54	10.672	
18,700.00	12,905.28	18,232.32	12,456.55	80.56	91.83	-75.29	-5,699.38	2,327.23	1,766.81	1,598.66	168.14	10.508	
18,800.00	12,906.15	18,332.32	12,457.07	81.89	93.19	-75.28	-5,799.38	2,328.14	1,766.94	1,596.19	170.75	10.348	
18,900.00	12,907.02	18,432.32	12,457.60	83.23	94.54	-75.27	-5,899.37	2,329.05	1,767.07	1,593.72	173.35	10.194	
19,000.00	12,907.88	18,532.32	12,458.12	84.56	95.90	-75.26	-5,999.36	2,329.96	1,767.21	1,591.25	175.95	10.044	
19,100.00	12,908.75	18,632.31	12,458.65	85.90	97.26	-75.25	-6,099.36	2,330.86	1,767.34	1,588.78	178.56	9.898	
19,200.00	12,909.62	18,732.31	12,459.17	87.24	98.61	-75.24	-6,199.35	2,331.77	1,767.48	1,586.31	181.17	9.756	
19,300.00	12,910.49	18,832.31	12,459.70	88.58	99.97	-75.22	-6,299.34	2,332.68	1,767.61	1,583.84	183.77	9.618	
19,400.00	12,911.36	18,932.31	12,460.22	89.92	101.33	-75.21	-6,399.34	2,333.59	1,767.74	1,581.36	186.38	9.484	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 216H - OH - Plan 1

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)											Rule Assigned:			Offset Site Error: 0.00 usft	
Reference Offset				Semi Major Axis		Offset Wellbore Centre			Distance		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		
19,500.00	12,912.22	19,032.31	12,460.75	91.26	102.69	-75.20	-6,499.33	2,334.50	1,767.88	1,578.88	188.99	9.354			
19,600.00	12,913.09	19,132.31	12,461.27	92.60	104.05	-75.19	-6,599.33	2,335.41	1,768.01	1,576.41	191.61	9.227			
19,700.00	12,913.96	19,232.31	12,461.80	93.94	105.41	-75.18	-6,699.32	2,336.32	1,768.15	1,573.93	194.22	9.104			
19,800.00	12,914.83	19,332.31	12,462.32	95.29	106.77	-75.17	-6,799.31	2,337.23	1,768.28	1,571.45	196.83	8.984			
19,900.00	12,915.70	19,432.31	12,462.85	96.63	108.13	-75.16	-6,899.31	2,338.14	1,768.42	1,568.97	199.44	8.867			
20,000.00	12,916.56	19,532.31	12,463.37	97.98	109.49	-75.15	-6,999.30	2,339.04	1,768.55	1,566.49	202.06	8.753			
20,100.00	12,917.43	19,632.31	12,463.90	99.32	110.85	-75.14	-7,099.30	2,339.95	1,768.68	1,564.01	204.67	8.642			
20,200.00	12,918.30	19,732.31	12,464.42	100.67	112.21	-75.13	-7,199.29	2,340.86	1,768.82	1,561.53	207.29	8.533			
20,300.00	12,919.17	19,832.31	12,464.95	102.01	113.57	-75.12	-7,299.28	2,341.77	1,768.95	1,559.05	209.90	8.427			
20,400.00	12,920.04	19,932.31	12,465.47	103.36	114.93	-75.11	-7,399.28	2,342.68	1,769.09	1,556.57	212.52	8.324			
20,500.00	12,920.90	20,032.31	12,466.00	104.71	116.29	-75.10	-7,499.27	2,343.59	1,769.22	1,554.08	215.14	8.224			
20,600.00	12,921.77	20,132.31	12,466.52	106.06	117.65	-75.09	-7,599.27	2,344.50	1,769.36	1,551.60	217.76	8.125			
20,700.00	12,922.64	20,232.31	12,467.05	107.41	119.01	-75.08	-7,699.26	2,345.41	1,769.49	1,549.12	220.38	8.029			
20,800.00	12,923.51	20,332.30	12,467.57	108.76	120.37	-75.07	-7,799.25	2,346.32	1,769.63	1,546.63	223.00	7.936			
20,900.00	12,924.38	20,432.30	12,468.10	110.11	121.73	-75.06	-7,899.25	2,347.22	1,769.76	1,544.15	225.62	7.844			
21,000.00	12,925.24	20,532.30	12,468.62	111.46	123.10	-75.05	-7,999.24	2,348.13	1,769.90	1,541.66	228.24	7.755			
21,100.00	12,926.11	20,632.30	12,469.15	112.81	124.46	-75.04	-8,099.23	2,349.04	1,770.03	1,539.18	230.86	7.667			
21,200.00	12,926.98	20,732.30	12,469.67	114.16	125.82	-75.03	-8,199.23	2,349.95	1,770.17	1,536.69	233.48	7.582			
21,300.00	12,927.85	20,832.30	12,470.20	115.51	127.18	-75.02	-8,299.22	2,350.86	1,770.30	1,534.20	236.10	7.498			
21,400.00	12,928.72	20,932.30	12,470.72	116.87	128.54	-75.01	-8,399.22	2,351.77	1,770.44	1,531.72	238.72	7.416			
21,500.00	12,929.58	21,032.30	12,471.25	118.22	129.91	-75.00	-8,499.21	2,352.68	1,770.57	1,529.23	241.34	7.336			
21,600.00	12,930.45	21,132.30	12,471.77	119.57	131.27	-74.99	-8,599.20	2,353.59	1,770.71	1,526.74	243.96	7.258			
21,700.00	12,931.32	21,232.30	12,472.30	120.93	132.63	-74.98	-8,699.20	2,354.50	1,770.84	1,524.26	246.59	7.181			
21,800.00	12,932.19	21,332.30	12,472.82	122.28	134.00	-74.97	-8,799.19	2,355.40	1,770.98	1,521.77	249.21	7.106			
21,900.00	12,933.06	21,432.30	12,473.35	123.63	135.36	-74.96	-8,899.19	2,356.31	1,771.11	1,519.28	251.83	7.033			
22,000.00	12,933.92	21,532.30	12,473.87	124.99	136.72	-74.95	-8,999.18	2,357.22	1,771.25	1,516.79	254.46	6.961			
22,100.00	12,934.79	21,632.30	12,474.40	126.34	138.09	-74.94	-9,099.17	2,358.13	1,771.39	1,514.30	257.08	6.890			
22,200.00	12,935.66	21,732.30	12,474.92	127.70	139.45	-74.93	-9,199.17	2,359.04	1,771.52	1,511.82	259.70	6.821			
22,300.00	12,936.53	21,832.30	12,475.45	129.05	140.81	-74.91	-9,299.16	2,359.95	1,771.66	1,509.33	262.33	6.754			
22,400.00	12,937.40	21,932.30	12,475.97	130.41	142.18	-74.90	-9,399.16	2,360.86	1,771.79	1,506.84	264.95	6.687			
22,500.00	12,938.26	22,032.29	12,476.50	131.77	143.54	-74.89	-9,499.15	2,361.77	1,771.93	1,504.35	267.58	6.622			
22,600.00	12,939.13	22,132.29	12,477.02	133.12	144.90	-74.88	-9,599.14	2,362.68	1,772.06	1,501.86	270.20	6.558			
22,700.00	12,940.00	22,232.29	12,477.55	134.48	146.27	-74.87	-9,699.14	2,363.58	1,772.20	1,499.37	272.83	6.496			
22,800.00	12,940.87	22,332.29	12,478.07	135.84	147.63	-74.86	-9,799.13	2,364.49	1,772.34	1,496.88	275.45	6.434			
22,900.00	12,941.74	22,432.29	12,478.60	137.19	149.00	-74.85	-9,899.12	2,365.40	1,772.47	1,494.39	278.08	6.374			
23,000.00	12,942.61	22,532.29	12,479.12	138.55	150.36	-74.84	-9,999.12	2,366.31	1,772.61	1,491.91	280.70	6.315			
23,100.00	12,943.47	22,632.29	12,479.65	139.91	151.73	-74.83	-10,099.11	2,367.22	1,772.74	1,489.42	283.33	6.257			
23,184.44	12,944.21	22,716.73	12,480.09	141.07	152.88	-74.82	-10,183.55	2,367.99	1,772.86	1,487.32	285.54	6.209	ES, SF		

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)	
0.00	0.00	1.00	0.00	0.50	0.50	0.00	50.00	0.00	50.00					
100.00	100.00	101.00	100.00	0.98	0.99	0.00	50.00	0.00	50.00	48.03	1.97	25.411		
200.00	200.00	201.00	200.00	1.56	1.57	0.00	50.00	0.00	50.00	46.87	3.13	15.993		
300.00	300.00	301.00	300.00	1.98	1.98	0.00	50.00	0.00	50.00	46.03	3.97	12.608		
400.00	400.00	401.00	400.00	2.33	2.33	0.00	50.00	0.00	50.00	45.34	4.66	10.725		
500.00	500.00	501.00	500.00	2.63	2.64	0.00	50.00	0.00	50.00	44.73	5.27	9.484		
600.00	600.00	601.00	600.00	2.91	2.91	0.00	50.00	0.00	50.00	44.18	5.82	8.587		
700.00	700.00	701.00	700.00	3.16	3.17	0.00	50.00	0.00	50.00	43.67	6.33	7.899		
800.00	800.00	801.00	800.00	3.40	3.40	0.00	50.00	0.00	50.00	43.20	6.80	7.349		
900.00	900.00	901.00	900.00	3.62	3.63	0.00	50.00	0.00	50.00	42.75	7.25	6.897		
1,000.00	1,000.00	1,001.01	1,000.01	3.84	3.76	0.07	50.00	0.06	50.00	42.40	7.60	6.581		
1,094.44	1,094.44	1,095.46	1,094.44	4.03	3.99	2.00	49.94	1.74	49.97	42.00	7.97	6.271	CC	
1,100.00	1,100.00	1,101.01	1,099.99	4.04	4.00	2.20	49.93	1.92	49.97	41.98	7.99	6.254	ES	
1,200.00	1,200.00	1,200.85	1,199.73	4.23	4.24	7.30	49.78	6.38	50.19	41.82	8.37	5.996		
1,300.00	1,300.00	1,300.39	1,299.02	4.42	4.46	15.16	49.53	13.42	51.33	42.59	8.74	5.872		
1,400.00	1,400.00	1,399.97	1,398.22	4.60	4.60	24.15	49.23	22.07	53.98	44.91	9.07	5.953		
1,500.00	1,500.00	1,499.59	1,497.46	4.78	4.78	32.15	48.93	30.75	57.84	48.41	9.44	6.130		
1,600.00	1,599.99	1,599.31	1,596.80	4.98	4.96	-44.76	48.62	39.44	61.75	51.94	9.81	6.296		
1,700.00	1,699.91	1,699.19	1,696.30	5.17	5.14	-40.92	48.32	48.14	64.27	54.10	10.17	6.319		
1,800.00	1,799.69	1,799.16	1,795.89	5.36	5.31	-38.81	48.02	56.84	64.99	54.46	10.53	6.173		
1,900.00	1,899.32	1,899.15	1,895.50	5.44	5.49	-37.84	47.71	65.55	64.17	53.38	10.79	5.948		
2,000.00	1,998.94	1,999.14	1,995.11	5.59	5.67	-36.93	47.41	74.26	63.26	52.14	11.12	5.688		
2,100.00	2,098.56	2,099.13	2,094.72	5.75	5.85	-35.98	47.10	82.97	62.36	50.91	11.46	5.444		
2,200.00	2,198.18	2,199.12	2,194.33	5.91	6.03	-35.01	46.80	91.68	61.48	49.68	11.80	5.210		
2,300.00	2,297.70	2,297.66	2,292.39	6.08	6.22	-26.34	47.02	101.29	60.50	48.35	12.15	4.981		
2,400.00	2,396.96	2,396.13	2,390.13	6.26	6.43	-19.54	48.37	113.14	59.44	46.91	12.52	4.746		
2,500.00	2,495.89	2,494.59	2,487.55	6.45	6.63	-13.59	50.86	127.24	58.37	45.46	12.91	4.520		
2,600.00	2,594.44	2,593.06	2,584.58	6.64	6.84	-7.87	54.49	143.58	57.39	44.08	13.31	4.311		
2,700.00	2,692.52	2,691.51	2,681.15	6.84	7.05	-2.03	59.25	162.14	56.61	42.89	13.72	4.126		
2,722.33	2,714.36	2,713.49	2,702.64	6.88	7.10	-1.05	60.47	166.59	56.54	42.73	13.80	4.096		
2,800.00	2,790.33	2,789.95	2,777.18	7.01	7.26	2.34	65.14	182.91	57.37	43.28	14.09	4.072		
2,900.00	2,888.15	2,888.28	2,872.54	7.18	7.47	6.28	72.15	205.85	61.01	46.56	14.45	4.222		
3,000.00	2,985.97	2,987.90	2,968.77	7.35	7.66	9.58	79.93	230.42	66.44	51.60	14.83	4.480		
3,100.00	3,083.78	3,087.68	3,065.15	7.53	7.85	12.38	87.73	255.04	72.06	56.85	15.22	4.736		
3,200.00	3,181.60	3,187.47	3,161.54	7.70	8.04	14.77	95.52	279.67	77.83	62.23	15.60	4.988		
3,300.00	3,279.41	3,287.25	3,257.92	7.88	8.23	16.82	103.32	304.29	83.72	67.73	16.00	5.234		
3,400.00	3,377.23	3,387.04	3,354.31	8.07	8.48	18.61	111.12	328.91	89.71	73.31	16.39	5.473		
3,500.00	3,475.05	3,486.82	3,450.69	8.29	8.76	20.17	118.92	353.53	95.76	78.97	16.79	5.703		
3,600.00	3,572.86	3,586.61	3,547.07	8.52	9.05	21.54	126.72	378.16	101.89	84.69	17.20	5.925		
3,700.00	3,670.68	3,686.39	3,643.46	8.75	9.34	22.76	134.52	402.78	108.06	90.45	17.61	6.138		
3,800.00	3,768.49	3,786.18	3,739.84	8.99	9.63	23.85	142.32	427.40	114.27	96.26	18.02	6.342		
3,900.00	3,866.31	3,885.96	3,836.23	9.23	9.93	24.82	150.11	452.02	120.53	102.09	18.44	6.537		
4,000.00	3,964.13	3,985.74	3,932.61	9.47	10.24	25.70	157.91	476.64	126.81	107.95	18.86	6.724		
4,100.00	4,061.94	4,085.53	4,028.99	9.71	10.54	26.49	165.71	501.27	133.12	113.84	19.29	6.902		
4,200.00	4,159.76	4,185.31	4,125.38	9.95	10.85	27.21	173.51	525.89	139.46	119.74	19.72	7.073		
4,300.00	4,257.57	4,285.10	4,221.76	10.20	11.16	27.87	181.31	550.51	145.81	125.66	20.15	7.236		
4,400.00	4,355.39	4,384.88	4,318.15	10.45	11.47	28.48	189.11	575.13	152.18	131.59	20.59	7.391		
4,500.00	4,453.21	4,484.67	4,414.53	10.70	11.79	29.03	196.90	599.76	158.57	137.54	21.03	7.540		
4,600.00	4,551.02	4,584.45	4,510.91	10.95	12.11	29.55	204.70	624.38	164.97	143.49	21.48	7.682		
4,700.00	4,648.84	4,684.24	4,607.30	11.21	12.43	30.02	212.50	649.00	171.38	149.46	21.92	7.817		
4,800.00	4,746.65	4,784.02	4,703.68	11.46	12.75	30.46	220.30	673.62	177.81	155.43	22.37	7.947		
4,900.00	4,844.47	4,883.80	4,800.07	11.72	13.07	30.87	228.10	698.24	184.24	161.41	22.83	8.071		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)		
5,000.00	4,942.29	4,983.59	4,896.45	11.98	13.40	31.25	235.90	722.87	190.68	167.40	23.28	8.190
5,100.00	5,040.10	5,083.37	4,992.83	12.24	13.72	31.61	243.70	747.49	197.13	173.39	23.74	8.304
5,200.00	5,137.97	5,183.15	5,089.21	12.46	14.05	31.93	251.49	772.11	203.79	179.63	24.16	8.434
5,300.00	5,236.26	5,282.78	5,185.44	12.70	14.38	31.96	259.28	796.69	212.31	187.69	24.62	8.624
5,400.00	5,334.99	5,382.19	5,281.47	12.92	14.70	31.65	267.05	821.22	223.04	198.00	25.05	8.906
5,500.00	5,434.11	5,486.78	5,382.79	13.11	15.03	31.13	274.87	845.93	234.96	209.46	25.50	9.214
5,600.00	5,533.54	5,592.27	5,485.67	13.28	15.34	30.57	281.92	868.17	246.59	220.65	25.94	9.506
5,700.00	5,633.22	5,698.14	5,589.51	13.43	15.62	29.98	288.12	887.76	257.93	231.58	26.35	9.789
5,800.00	5,733.07	5,804.37	5,694.26	13.56	15.87	29.36	293.48	904.66	268.96	242.23	26.72	10.064
5,900.00	5,833.02	5,910.97	5,799.82	13.66	16.09	28.71	297.96	918.81	279.68	252.62	27.06	10.335
6,000.00	5,933.02	6,017.96	5,906.14	13.71	16.28	90.68	301.56	930.19	289.89	262.60	27.29	10.623
6,100.00	6,033.02	6,125.49	6,013.28	13.78	16.44	90.14	304.28	938.76	297.84	270.33	27.51	10.826
6,200.00	6,133.02	6,233.44	6,121.06	13.85	16.57	89.79	306.08	944.47	303.13	275.42	27.72	10.937
6,300.00	6,233.02	6,341.64	6,229.22	13.92	16.67	89.63	306.97	947.27	305.73	277.86	27.87	10.968
6,400.00	6,333.02	6,445.44	6,333.02	14.00	16.73	89.61	307.07	947.58	306.02	278.03	27.99	10.933
6,500.00	6,433.02	6,545.44	6,433.02	14.07	16.79	89.61	307.07	947.58	306.02	277.90	28.12	10.882
6,600.00	6,533.02	6,645.44	6,533.02	14.14	16.85	89.61	307.07	947.58	306.02	277.76	28.25	10.831
6,700.00	6,633.02	6,745.44	6,633.02	14.22	16.91	89.61	307.07	947.58	306.02	277.63	28.38	10.781
6,800.00	6,733.02	6,845.44	6,733.02	14.29	16.96	89.61	307.07	947.58	306.02	277.50	28.52	10.731
6,900.00	6,833.02	6,945.44	6,833.02	14.36	17.02	89.61	307.07	947.58	306.02	277.37	28.65	10.682
7,000.00	6,933.02	7,045.44	6,933.02	14.44	17.08	89.61	307.07	947.58	306.02	277.24	28.78	10.633
7,100.00	7,033.02	7,145.44	7,033.02	14.51	17.14	89.61	307.07	947.58	306.02	277.10	28.91	10.584
7,200.00	7,133.02	7,245.44	7,133.02	14.59	17.20	89.61	307.07	947.58	306.02	276.97	29.05	10.535
7,300.00	7,233.02	7,345.44	7,233.02	14.66	17.26	89.61	307.07	947.58	306.02	276.84	29.18	10.487
7,400.00	7,333.02	7,445.44	7,333.02	14.73	17.32	89.61	307.07	947.58	306.02	276.70	29.31	10.440
7,500.00	7,433.02	7,545.44	7,433.02	14.81	17.38	89.61	307.07	947.58	306.02	276.57	29.45	10.392
7,600.00	7,533.02	7,645.44	7,533.02	14.88	17.44	89.61	307.07	947.58	306.02	276.44	29.58	10.345
7,700.00	7,633.02	7,745.44	7,633.02	14.96	17.50	89.61	307.07	947.58	306.02	276.30	29.72	10.298
7,800.00	7,733.02	7,845.44	7,733.02	15.03	17.56	89.61	307.07	947.58	306.02	276.17	29.85	10.252
7,900.00	7,833.02	7,945.44	7,833.02	15.11	17.62	89.61	307.07	947.58	306.02	276.03	29.99	10.206
8,000.00	7,933.02	8,045.44	7,933.02	15.18	17.68	89.61	307.07	947.58	306.02	275.90	30.12	10.160
8,100.00	8,033.02	8,145.44	8,033.02	15.26	17.74	89.61	307.07	947.58	306.02	275.76	30.26	10.114
8,200.00	8,133.02	8,245.44	8,133.02	15.33	17.80	89.61	307.07	947.58	306.02	275.63	30.39	10.069
8,300.00	8,233.02	8,345.44	8,233.02	15.41	17.86	89.61	307.07	947.58	306.02	275.49	30.53	10.024
8,400.00	8,333.02	8,445.44	8,333.02	15.48	17.92	89.61	307.07	947.58	306.02	275.35	30.66	9.980
8,500.00	8,433.02	8,545.44	8,433.02	15.56	17.98	89.61	307.07	947.58	306.02	275.22	30.80	9.935
8,600.00	8,533.02	8,645.44	8,533.02	15.63	18.04	89.61	307.07	947.58	306.02	275.08	30.94	9.892
8,700.00	8,633.02	8,745.44	8,633.02	15.71	18.10	89.61	307.07	947.58	306.02	274.94	31.07	9.848
8,800.00	8,733.02	8,845.44	8,733.02	15.78	18.17	89.61	307.07	947.58	306.02	274.81	31.21	9.805
8,900.00	8,833.02	8,945.44	8,833.02	15.86	18.23	89.61	307.07	947.58	306.02	274.67	31.35	9.762
9,000.00	8,933.02	9,045.44	8,933.02	15.93	18.29	89.61	307.07	947.58	306.02	274.53	31.49	9.719
9,100.00	9,033.02	9,145.44	9,033.02	16.01	18.35	89.61	307.07	947.58	306.02	274.39	31.62	9.677
9,200.00	9,133.02	9,245.44	9,133.02	16.08	18.42	89.61	307.07	947.58	306.02	274.25	31.76	9.634
9,300.00	9,233.02	9,345.44	9,233.02	16.16	18.48	89.61	307.07	947.58	306.02	274.12	31.90	9.593
9,400.00	9,333.02	9,445.44	9,333.02	16.23	18.54	89.61	307.07	947.58	306.02	273.98	32.04	9.551
9,500.00	9,433.02	9,545.44	9,433.02	16.31	18.60	89.61	307.07	947.58	306.02	273.84	32.18	9.510
9,600.00	9,533.02	9,645.44	9,533.02	16.38	18.67	89.61	307.07	947.58	306.02	273.70	32.32	9.469
9,700.00	9,633.02	9,745.44	9,633.02	16.46	18.73	89.61	307.07	947.58	306.02	273.56	32.46	9.428
9,800.00	9,733.02	9,845.44	9,733.02	16.54	18.79	89.61	307.07	947.58	306.02	273.42	32.60	9.388
9,900.00	9,833.02	9,945.44	9,833.02	16.61	18.86	89.61	307.07	947.58	306.02	273.28	32.74	9.348
10,000.00	9,933.02	10,045.44	9,933.02	16.69	18.92	89.61	307.07	947.58	306.02	273.14	32.88	9.308
10,100.00	10,033.02	10,145.44	10,033.02	16.76	18.98	89.61	307.07	947.58	306.02	273.00	33.02	9.269

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Rule Assigned:		Offset Well Error:		0.50 usft		
Reference	Offset	Semi Major Axis	Distance		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
10,200.00	10,133.02	10,245.44	10,133.02	16.84 19.05 89.61	307.07 947.58 306.02	272.86	33.16	9.229
10,300.00	10,233.02	10,345.44	10,233.02	16.92 19.11 89.61	307.07 947.58 306.02	272.72	33.30	9.190
10,400.00	10,333.02	10,445.44	10,333.02	16.99 19.17 89.61	307.07 947.58 306.02	272.58	33.44	9.152
10,500.00	10,433.02	10,545.44	10,433.02	17.07 19.24 89.61	307.07 947.58 306.02	272.44	33.58	9.113
10,600.00	10,533.02	10,645.44	10,533.02	17.15 19.30 89.61	307.07 947.58 306.02	272.30	33.72	9.075
10,700.00	10,633.02	10,745.44	10,633.02	17.22 19.37 89.61	307.07 947.58 306.02	272.15	33.86	9.037
10,800.00	10,733.02	10,845.44	10,733.02	17.30 19.43 89.61	307.07 947.58 306.02	272.01	34.00	9.000
10,900.00	10,833.02	10,945.44	10,833.02	17.37 19.50 89.61	307.07 947.58 306.02	271.87	34.15	8.962
11,000.00	10,933.02	11,045.44	10,933.02	17.45 19.56 89.61	307.07 947.58 306.02	271.73	34.29	8.925
11,100.00	11,033.02	11,145.44	11,033.02	17.53 19.63 89.61	307.07 947.58 306.02	271.59	34.43	8.888
11,200.00	11,133.02	11,245.44	11,133.02	17.60 19.69 89.61	307.07 947.58 306.02	271.45	34.57	8.852
11,300.00	11,233.02	11,345.44	11,233.02	17.68 19.76 89.61	307.07 947.58 306.02	271.30	34.71	8.815
11,400.00	11,333.02	11,445.44	11,333.02	17.76 19.82 89.61	307.07 947.58 306.02	271.16	34.86	8.779
11,500.00	11,433.02	11,545.44	11,433.02	17.83 19.89 89.61	307.07 947.58 306.02	271.02	35.00	8.743
11,600.00	11,533.02	11,645.44	11,533.02	17.91 19.95 89.61	307.07 947.58 306.02	270.87	35.14	8.708
11,700.00	11,633.02	11,745.44	11,633.02	17.99 20.02 89.61	307.07 947.58 306.02	270.73	35.29	8.672
11,800.00	11,733.02	11,845.44	11,733.02	18.06 20.08 89.61	307.07 947.58 306.02	270.59	35.43	8.637
11,900.00	11,833.02	11,945.44	11,833.02	18.14 20.15 89.61	307.07 947.58 306.02	270.44	35.57	8.603
12,000.00	11,933.02	12,045.44	11,933.02	18.22 20.21 89.61	307.07 947.58 306.02	270.31	35.71	8.571
12,000.58	11,933.61	12,046.03	11,933.61	18.22 20.21 89.61	307.07 947.58 306.02	270.31	35.71	8.570
12,100.00	12,033.02	12,144.44	12,031.57	18.30 20.28 91.11	299.04 947.65 306.14	270.36	35.78	8.556
12,200.00	12,133.02	12,238.02	12,122.15	18.37 20.32 95.41	275.99 947.85 307.84	271.94	35.90	8.575
12,300.00	12,233.02	12,322.22	12,199.49	18.45 20.36 101.45	242.89 948.13 314.58	278.34	36.24	8.680
12,400.00	12,332.97	12,400.00	12,265.93	18.52 20.39 -76.46	202.55 948.48 329.99	292.98	37.01	8.915
12,500.00	12,431.38	12,466.14	12,317.69	18.56 20.42 -69.37	161.43 948.83 352.13	313.77	38.36	9.180
12,600.00	12,525.35	12,533.67	12,365.29	18.58 20.46 -63.01	113.59 949.25 377.75	337.84	39.91	9.465
12,700.00	12,612.01	12,600.00	12,406.24	18.59 20.52 -57.77	61.46 949.70 404.30	362.75	41.55	9.730
12,800.00	12,688.74	12,663.83	12,439.72	18.62 20.61 -53.68	7.15 950.16 429.90	386.71	43.19	9.953
12,900.00	12,753.20	12,727.24	12,466.79	18.67 20.72 -50.58	-50.14 950.66 453.19	408.51	44.67	10.145
13,000.00	12,803.44	12,789.92	12,487.17	18.75 20.86 -48.38	-109.38 951.17 473.22	427.27	45.95	10.298
13,100.00	12,837.92	12,850.00	12,500.53	18.89 21.02 -46.98	-167.93 951.67 489.37	442.35	47.02	10.407
13,200.00	12,855.60	12,914.00	12,507.92	19.08 21.23 -46.29	-231.47 952.22 501.22	453.45	47.77	10.492
13,300.00	12,858.40	12,995.59	12,509.39	19.34 21.54 -46.64	-313.03 952.92 508.91	460.77	48.14	10.571
13,400.00	12,859.27	13,095.35	12,510.26	19.70 21.98 -47.21	-412.78 953.78 513.92	465.41	48.51	10.594
13,500.00	12,860.14	13,195.29	12,511.14	20.14 22.50 -47.48	-512.72 954.64 516.40	467.33	49.07	10.524
13,600.00	12,861.01	13,295.29	12,512.01	20.65 23.07 -47.51	-612.71 955.50 516.68	466.91	49.76	10.383
13,700.00	12,861.88	13,395.29	12,512.88	21.24 23.70 -47.51	-712.70 956.36 516.67	466.12	50.55	10.220
13,800.00	12,862.75	13,495.29	12,513.76	21.90 24.38 -47.51	-812.69 957.22 516.67	465.25	51.42	10.048
13,900.00	12,863.61	13,595.29	12,514.63	22.62 25.11 -47.51	-912.68 958.08 516.67	464.31	52.36	9.868
14,000.00	12,864.48	13,695.29	12,515.50	23.39 25.90 -47.51	-1,012.68 958.95 516.66	463.30	53.36	9.682
14,100.00	12,865.35	13,795.29	12,516.38	24.23 26.72 -47.51	-1,112.67 959.81 516.66	462.23	54.43	9.492
14,200.00	12,866.22	13,895.29	12,517.25	25.11 27.59 -47.51	-1,212.66 960.67 516.66	461.10	55.56	9.299
14,300.00	12,867.09	13,995.29	12,518.13	26.03 28.49 -47.51	-1,312.65 961.53 516.65	459.91	56.74	9.105
14,400.00	12,867.95	14,095.29	12,519.00	26.99 29.42 -47.51	-1,412.65 962.39 516.65	458.67	57.98	8.911
14,500.00	12,868.82	14,195.29	12,519.87	27.99 30.39 -47.51	-1,512.64 963.25 516.65	457.38	59.26	8.718
14,600.00	12,869.69	14,295.29	12,520.75	29.01 31.39 -47.51	-1,612.63 964.11 516.64	456.04	60.60	8.526
14,700.00	12,870.56	14,395.29	12,521.62	30.07 32.41 -47.51	-1,712.62 964.97 516.64	454.67	61.97	8.336
14,800.00	12,871.43	14,495.29	12,522.49	31.15 33.46 -47.51	-1,812.62 965.84 516.64	453.25	63.39	8.150
14,900.00	12,872.29	14,595.29	12,523.37	32.25 34.53 -47.51	-1,912.61 966.70 516.63	451.79	64.84	7.967
15,000.00	12,873.16	14,695.29	12,524.24	33.38 35.62 -47.51	-2,012.60 967.56 516.63	450.29	66.33	7.788
15,100.00	12,874.03	14,795.29	12,525.11	34.52 36.72 -47.51	-2,112.59 968.42 516.62	448.77	67.86	7.613
15,200.00	12,874.90	14,895.29	12,525.99	35.68 37.85 -47.52	-2,212.59 969.28 516.62	447.21	69.41	7.443

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 217H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Offset		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)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,300.00	12,875.77	14,995.29	12,526.86	36.85	38.99	-47.52	-2,312.58	970.14	516.62	445.62	70.99	7.277		
15,400.00	12,876.63	15,095.29	12,527.73	38.04	40.14	-47.52	-2,412.57	971.00	516.61	444.01	72.60	7.115		
15,500.00	12,877.50	15,195.29	12,528.61	39.24	41.31	-47.52	-2,512.56	971.86	516.61	442.37	74.24	6.959		
15,600.00	12,878.37	15,295.29	12,529.48	40.45	42.49	-47.52	-2,612.56	972.72	516.61	440.71	75.90	6.807		
15,700.00	12,879.24	15,395.29	12,530.36	41.67	43.68	-47.52	-2,712.55	973.59	516.60	439.03	77.58	6.659		
15,800.00	12,880.11	15,495.29	12,531.23	42.90	44.88	-47.52	-2,812.54	974.45	516.60	437.32	79.28	6.516		
15,900.00	12,880.97	15,595.29	12,532.10	44.13	46.09	-47.52	-2,912.53	975.31	516.60	435.60	81.00	6.378		
16,000.00	12,881.84	15,695.29	12,532.98	45.38	47.31	-47.52	-3,012.53	976.17	516.59	433.85	82.74	6.244		
16,100.00	12,882.71	15,795.29	12,533.85	46.63	48.53	-47.52	-3,112.52	977.03	516.59	432.09	84.50	6.114		
16,200.00	12,883.58	15,895.29	12,534.72	47.89	49.77	-47.52	-3,212.51	977.89	516.59	430.32	86.27	5.988		
16,300.00	12,884.45	15,995.29	12,535.60	49.15	51.01	-47.52	-3,312.50	978.75	516.58	428.53	88.06	5.866		
16,400.00	12,885.31	16,095.29	12,536.47	50.43	52.26	-47.52	-3,412.50	979.61	516.58	426.72	89.86	5.749		
16,500.00	12,886.18	16,195.29	12,537.34	51.70	53.51	-47.52	-3,512.49	980.47	516.58	424.90	91.67	5.635		
16,600.00	12,887.05	16,295.29	12,538.22	52.98	54.77	-47.52	-3,612.48	981.34	516.57	423.07	93.50	5.525		
16,700.00	12,887.92	16,395.29	12,539.09	54.27	56.03	-47.52	-3,712.47	982.20	516.57	421.23	95.34	5.418		
16,800.00	12,888.79	16,495.29	12,539.97	55.55	57.30	-47.52	-3,812.46	983.06	516.57	419.38	97.19	5.315		
16,900.00	12,889.66	16,595.29	12,540.84	56.85	58.58	-47.52	-3,912.46	983.92	516.56	417.51	99.05	5.215		
17,000.00	12,890.52	16,695.29	12,541.71	58.14	59.85	-47.52	-4,012.45	984.78	516.56	415.64	100.92	5.118		
17,100.00	12,891.39	16,795.29	12,542.59	59.44	61.13	-47.52	-4,112.44	985.64	516.56	413.75	102.80	5.025		
17,200.00	12,892.26	16,895.29	12,543.46	60.75	62.42	-47.52	-4,212.43	986.50	516.55	411.86	104.69	4.934		
17,300.00	12,893.13	16,995.29	12,544.33	62.05	63.71	-47.53	-4,312.43	987.36	516.55	409.96	106.59	4.846		
17,400.00	12,894.00	17,095.29	12,545.21	63.36	65.00	-47.53	-4,412.42	988.23	516.55	408.05	108.50	4.761		
17,500.00	12,894.86	17,195.29	12,546.08	64.67	66.30	-47.53	-4,512.41	989.09	516.54	406.13	110.41	4.678		
17,600.00	12,895.73	17,295.29	12,546.95	65.99	67.60	-47.53	-4,612.40	989.95	516.54	404.21	112.33	4.598		
17,700.00	12,896.60	17,395.29	12,547.83	67.30	68.90	-47.53	-4,712.40	990.81	516.54	402.28	114.26	4.521		
17,800.00	12,897.47	17,495.29	12,548.70	68.62	70.20	-47.53	-4,812.39	991.67	516.53	400.34	116.19	4.446		
17,900.00	12,898.34	17,595.29	12,549.57	69.94	71.51	-47.53	-4,912.38	992.53	516.53	398.40	118.13	4.372		
18,000.00	12,899.20	17,695.29	12,550.45	71.26	72.81	-47.53	-5,012.37	993.39	516.53	396.45	120.08	4.302		
18,100.00	12,900.07	17,795.29	12,551.32	72.58	74.13	-47.53	-5,112.37	994.25	516.52	394.49	122.03	4.233		
18,200.00	12,900.94	17,895.29	12,552.20	73.91	75.44	-47.53	-5,212.36	995.11	516.52	392.53	123.99	4.166		
18,300.00	12,901.81	17,995.29	12,553.07	75.24	76.75	-47.53	-5,312.35	995.98	516.52	390.57	125.95	4.101		
18,400.00	12,902.68	18,095.29	12,553.94	76.56	78.07	-47.53	-5,412.34	996.84	516.51	388.60	127.91	4.038		
18,500.00	12,903.54	18,195.29	12,554.82	77.89	79.39	-47.53	-5,512.34	997.70	516.51	386.62	129.89	3.977		
18,600.00	12,904.41	18,295.29	12,555.69	79.23	80.71	-47.53	-5,612.33	998.56	516.50	384.64	131.86	3.917		
18,700.00	12,905.28	18,395.29	12,556.56	80.56	82.03	-47.53	-5,712.32	999.42	516.50	382.66	133.84	3.859		
18,800.00	12,906.15	18,495.29	12,557.44	81.89	83.35	-47.53	-5,812.31	1,000.28	516.50	380.67	135.83	3.803		
18,900.00	12,907.02	18,595.29	12,558.31	83.23	84.68	-47.53	-5,912.31	1,001.14	516.49	378.68	137.81	3.748		
19,000.00	12,907.88	18,695.29	12,559.18	84.56	86.00	-47.53	-6,012.30	1,002.00	516.49	376.68	139.81	3.694		
19,100.00	12,908.75	18,795.29	12,560.06	85.90	87.33	-47.53	-6,112.29	1,002.86	516.49	374.69	141.80	3.642		
19,200.00	12,909.62	18,895.29	12,560.93	87.24	88.66	-47.53	-6,212.28	1,003.73	516.48	372.68	143.80	3.592		
19,300.00	12,910.49	18,995.29	12,561.80	88.58	89.99	-47.54	-6,312.28	1,004.59	516.48	370.68	145.80	3.542		
19,400.00	12,911.36	19,095.29	12,562.68	89.92	91.32	-47.54	-6,412.27	1,005.45	516.48	368.67	147.81	3.494		
19,500.00	12,912.22	19,195.29	12,563.55	91.26	92.66	-47.54	-6,512.26	1,006.31	516.47	366.66	149.82	3.447		
19,600.00	12,913.09	19,295.29	12,564.43	92.60	93.99	-47.54	-6,612.25	1,007.17	516.47	364.64	151.83	3.402		
19,700.00	12,913.96	19,395.29	12,565.30	93.94	95.32	-47.54	-6,712.25	1,008.03	516.47	362.63	153.84	3.357		
19,800.00	12,914.83	19,495.29	12,566.17	95.29	96.66	-47.54	-6,812.24	1,008.89	516.46	360.61	155.86	3.314		
19,900.00	12,915.70	19,595.29	12,567.05	96.63	98.00	-47.54	-6,912.23	1,009.75	516.46	358.58	157.88	3.271		
20,000.00	12,916.56	19,695.29	12,567.92	97.98	99.33	-47.54	-7,012.22	1,010.62	516.46	356.56	159.90	3.230		
20,100.00	12,917.43	19,795.29	12,568.79	99.32	100.67	-47.54	-7,112.22	1,011.48	516.45	354.53	161.92	3.190		
20,200.00	12,918.30	19,895.29	12,569.67	100.67	102.01	-47.54	-7,212.21	1,012.34	516.45	352.50	163.95	3.150		
20,300.00	12,919.17	19,995.29	12,570.54	102.01	103.35	-47.54	-7,312.20	1,013.20	516.45	350.47	165.98	3.112		
20,400.00	12,920.04	20,095.29	12,571.41	103.36	104.69	-47.54	-7,412.19	1,014.06	516.44	348.43	168.01	3.074		

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)												Rule Assigned:			
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)					
20,500.00	12,920.90	20,195.29	12,572.29	104.71	106.03	-47.54	-7,512.19	1,014.92	516.44	346.40	170.04	3.037			
20,600.00	12,921.77	20,295.29	12,573.16	106.06	107.37	-47.54	-7,612.18	1,015.78	516.44	344.36	172.08	3.001			
20,700.00	12,922.64	20,395.29	12,574.04	107.41	108.72	-47.54	-7,712.17	1,016.64	516.43	342.32	174.11	2.966			
20,800.00	12,923.51	20,495.29	12,574.91	108.76	110.06	-47.54	-7,812.16	1,017.50	516.43	340.28	176.15	2.932			
20,900.00	12,924.38	20,595.29	12,575.78	110.11	111.41	-47.54	-7,912.16	1,018.37	516.43	338.23	178.19	2.898			
21,000.00	12,925.24	20,695.29	12,576.66	111.46	112.75	-47.54	-8,012.15	1,019.23	516.42	336.19	180.23	2.865			
21,100.00	12,926.11	20,795.29	12,577.53	112.81	114.10	-47.54	-8,112.14	1,020.09	516.42	334.14	182.28	2.833			
21,200.00	12,926.98	20,895.29	12,578.40	114.16	115.44	-47.54	-8,212.13	1,020.95	516.42	332.09	184.32	2.802			
21,300.00	12,927.85	20,995.29	12,579.28	115.51	116.79	-47.54	-8,312.13	1,021.81	516.41	330.04	186.37	2.771			
21,400.00	12,928.72	21,095.29	12,580.15	116.87	118.14	-47.55	-8,412.12	1,022.67	516.41	327.99	188.42	2.741			
21,500.00	12,929.58	21,195.29	12,581.02	118.22	119.48	-47.55	-8,512.11	1,023.53	516.41	325.94	190.47	2.711			
21,600.00	12,930.45	21,295.29	12,581.90	119.57	120.83	-47.55	-8,612.10	1,024.39	516.40	323.88	192.52	2.682			
21,700.00	12,931.32	21,395.29	12,582.77	120.93	122.18	-47.55	-8,712.10	1,025.25	516.40	321.83	194.57	2.654			
21,800.00	12,932.19	21,495.29	12,583.64	122.28	123.53	-47.55	-8,812.09	1,026.12	516.40	319.77	196.63	2.626			
21,900.00	12,933.06	21,595.29	12,584.52	123.63	124.88	-47.55	-8,912.08	1,026.98	516.39	317.71	198.68	2.599			
22,000.00	12,933.92	21,695.29	12,585.39	124.99	126.23	-47.55	-9,012.07	1,027.84	516.39	315.65	200.74	2.572			
22,100.00	12,934.79	21,795.29	12,586.27	126.34	127.58	-47.55	-9,112.07	1,028.70	516.38	313.59	202.80	2.546			
22,200.00	12,935.66	21,895.29	12,587.14	127.70	128.93	-47.55	-9,212.06	1,029.56	516.38	311.53	204.86	2.521			
22,300.00	12,936.53	21,995.29	12,588.01	129.05	130.28	-47.55	-9,312.05	1,030.42	516.38	309.46	206.92	2.496			
22,400.00	12,937.40	22,095.29	12,588.89	130.41	131.63	-47.55	-9,412.04	1,031.28	516.37	307.40	208.98	2.471			
22,500.00	12,938.26	22,195.29	12,589.76	131.77	132.98	-47.55	-9,512.04	1,032.14	516.37	305.33	211.04	2.447			
22,600.00	12,939.13	22,295.29	12,590.63	133.12	134.34	-47.55	-9,612.03	1,033.01	516.37	303.27	213.10	2.423			
22,700.00	12,940.00	22,395.29	12,591.51	134.48	135.69	-47.55	-9,712.02	1,033.87	516.36	301.20	215.17	2.400			
22,800.00	12,940.87	22,495.29	12,592.38	135.84	137.04	-47.55	-9,812.01	1,034.73	516.36	299.13	217.23	2.377			
22,900.00	12,941.74	22,595.29	12,593.25	137.19	138.39	-47.55	-9,912.01	1,035.59	516.36	297.06	219.30	2.355			
23,000.00	12,942.61	22,695.29	12,594.13	138.55	139.75	-47.55	-10,012.00	1,036.45	516.35	294.99	221.37	2.333			
23,100.00	12,943.47	22,795.29	12,595.00	139.91	141.10	-47.55	-10,111.99	1,037.31	516.35	292.92	223.43	2.311			
23,180.00	12,944.17	22,875.29	12,595.70	141.01	142.19	-47.55	-10,191.98	1,038.00	516.35	291.26	225.09	2.294			
23,184.44	12,944.21	22,875.30	12,595.70	141.07	142.19	-47.55	-10,192.00	1,038.00	516.37	291.04	225.33	2.292	SF		

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)														Rule Assigned:	
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		
0.00	0.00	1.00	0.00	0.50	0.50	180.00	-185.00	0.00	185.00	183.03	1.97	94.021			
100.00	100.00	101.00	100.00	0.98	0.99	180.00	-185.00	0.00	185.00	181.87	3.13	59.173			
200.00	200.00	201.00	200.00	1.56	1.57	180.00	-185.00	0.00	185.00	181.03	3.97	46.649			
300.00	300.00	301.00	300.00	1.98	1.98	180.00	-185.00	0.00	185.00	180.34	4.66	39.684			
400.00	400.00	401.00	400.00	2.33	2.33	180.00	-185.00	0.00	185.00	179.73	5.27	35.092			
500.00	500.00	501.00	500.00	2.63	2.64	180.00	-185.00	0.00	185.00	179.18	5.82	31.772			
600.00	600.00	601.00	600.00	2.91	2.91	180.00	-185.00	0.00	185.00	178.67	6.33	29.224			
700.00	700.00	701.04	700.04	3.16	3.17	-180.00	-185.00	0.00	185.00	177.09	6.85	26.869			
800.00	800.00	804.87	803.85	3.40	3.47	-179.71	-183.90	-0.93	183.94	173.50	7.33	24.684			
900.00	900.00	908.54	907.43	3.62	3.76	-178.84	-180.64	-3.66	180.83	168.00	7.76	22.654			
1,000.00	1,000.00	1,011.90	1,010.56	3.84	4.01	-177.33	-175.25	-8.18	175.76	161.40	8.08	20.969			
1,100.00	1,100.00	1,112.25	1,110.53	4.04	4.14	-175.33	-168.60	-13.76	169.48	154.91	8.48	19.276			
1,200.00	1,200.00	1,211.87	1,209.77	4.23	4.34	-173.19	-161.95	-19.35	163.39	148.68	8.86	17.784			
1,300.00	1,300.00	1,311.49	1,309.01	4.42	4.55	-170.88	-155.29	-24.93	157.54	142.74	9.23	16.465			
1,400.00	1,400.00	1,411.11	1,408.25	4.60	4.75	-168.40	-148.64	-30.51	151.97	137.11	9.59	15.296			
1,500.00	1,500.00	1,510.73	1,507.49	4.78	4.94	-165.74	-141.99	-36.09	146.70	132.37	9.94	14.318			
1,600.00	1,599.99	1,610.27	1,606.65	4.98	5.14	114.65	-135.35	-41.66	142.31	129.41	10.27	13.597			
1,700.00	1,699.91	1,709.63	1,705.63	5.17	5.33	119.14	-128.71	-47.23	139.69	128.73	10.48	13.287	CC, ES		
1,760.90	1,760.70	1,770.01	1,765.78	5.29	5.45	122.36	-124.68	-50.61	139.20	128.81	10.61	13.143			
1,800.00	1,799.69	1,808.72	1,804.35	5.36	5.53	124.60	-122.10	-52.78	139.42	130.90	10.86	13.053			
1,900.00	1,899.32	1,907.56	1,902.81	5.44	5.72	130.63	-115.50	-58.32	141.76	134.56	11.19	13.029			
2,000.00	1,998.94	2,006.39	2,001.27	5.59	5.91	136.45	-108.90	-63.86	145.75	139.66	11.51	13.130			
2,100.00	2,098.56	2,105.22	2,099.72	5.75	6.10	141.91	-102.30	-69.39	151.18	146.05	11.86	13.319			
2,200.00	2,198.18	2,204.04	2,198.17	5.91	6.29	146.96	-95.70	-74.93	157.91	155.52	12.19	13.760			
2,300.00	2,297.70	2,300.00	2,293.66	6.08	6.48	159.19	-88.88	-81.41	167.71	170.16	12.55	14.554			
2,400.00	2,396.96	2,395.59	2,388.54	6.26	6.69	168.86	-81.24	-90.09	182.71	190.02	12.93	15.700			
2,500.00	2,495.89	2,489.30	2,481.27	6.45	6.89	176.60	-72.94	-100.76	202.95	214.97	13.30	17.164			
2,600.00	2,594.44	2,581.32	2,571.99	6.64	7.09	-177.13	-64.01	-113.31	228.27	244.78	13.67	18.906			
2,700.00	2,692.52	2,671.45	2,660.47	6.84	7.29	-172.05	-54.52	-127.59	258.45	277.69	14.02	20.805			
2,800.00	2,790.33	2,763.62	2,750.64	7.01	7.47	-169.41	-44.26	-143.67	291.71	311.11	14.38	22.628			
2,900.00	2,888.15	2,857.12	2,842.11	7.18	7.66	-167.30	-33.83	-160.08	325.50	344.85	14.75	24.377			
3,000.00	2,985.97	2,950.63	2,933.57	7.35	7.84	-165.58	-23.39	-176.48	359.60	378.82	15.12	26.053			
3,100.00	3,083.78	3,044.13	3,025.03	7.53	8.03	-164.17	-12.95	-192.88	393.94	412.97	15.49	27.655			
3,200.00	3,181.60	3,137.64	3,116.49	7.70	8.22	-162.97	-2.52	-209.28	428.46	447.25	15.87	29.185			
3,300.00	3,279.41	3,231.15	3,207.95	7.88	8.42	-161.96	7.92	-225.69	463.12	481.65	16.25	30.645			
3,400.00	3,377.23	3,324.65	3,299.42	8.07	8.62	-161.08	18.36	-242.09	497.90	516.13	16.63	32.038			
3,500.00	3,475.05	3,418.16	3,390.88	8.29	8.82	-160.32	28.79	-258.49	532.76	550.68	17.01	33.368			
3,600.00	3,572.86	3,511.66	3,482.34	8.52	9.02	-159.65	39.23	-274.89	567.69	585.29	17.40	34.637			
3,700.00	3,670.68	3,605.17	3,573.80	8.75	9.23	-159.06	49.67	-291.30	602.69	619.94	17.79	35.849			
3,800.00	3,768.49	3,698.67	3,665.27	8.99	9.44	-158.53	60.10	-307.70	637.73	654.64	18.18	37.006			
3,900.00	3,866.31	3,792.18	3,756.73	9.23	9.66	-158.06	70.54	-324.10	672.82	689.37	18.58	38.111			
4,000.00	3,964.13	3,885.68	3,848.19	9.47	9.88	-157.64	80.98	-340.50	707.95	724.13	18.97	39.169			
4,100.00	4,061.94	3,979.19	3,939.65	9.71	10.11	-157.25	91.41	-356.91	743.10	758.91	19.37	40.179			
4,200.00	4,159.76	4,072.70	4,031.11	9.95	10.34	-156.90	101.85	-373.31	778.28	793.72	19.77	41.145			
4,300.00	4,257.57	4,166.20	4,122.58	10.20	10.57	-156.58	112.29	-389.71	813.49	828.54	20.17	42.070			
4,400.00	4,355.39	4,259.71	4,214.04	10.45	10.81	-156.29	122.73	-406.11	848.71	863.38	20.58	42.956			
4,500.00	4,453.21	4,353.21	4,305.50	10.70	11.04	-156.02	133.16	-422.51	883.96	898.23	20.98	43.805			
4,600.00	4,551.02	4,446.72	4,396.96	10.95	11.28	-155.77	143.60	-438.92	919.21	933.10	21.39	44.619			
4,700.00	4,648.84	4,540.22	4,488.43	11.21	11.52	-155.54	154.04	-455.32	954.49	967.97	21.80	45.400			
4,800.00	4,746.65	4,633.73	4,579.89	11.46	11.76	-155.33	164.47	-471.72	989.77	1,002.86	22.21	46.149			
4,900.00	4,844.47	4,727.24	4,671.35	11.72	12.01	-155.13	174.91	-488.12	1,025.07						
5,000.00	4,942.29	4,820.74	4,762.81	11.98	12.25	-154.94	185.35	-504.53	1,060.38	1,037.75	22.62	46.869			

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)
5,100.00	5,040.10	4,914.25	4,854.27	12.24	12.50	-154.76	195.78	-520.93	1,095.70	1,072.66	23.04	47.560	
5,200.00	5,137.97	5,007.82	4,945.81	12.46	12.75	-154.70	206.23	-537.34	1,130.82	1,107.40	23.42	48.283	
5,300.00	5,236.26	5,102.04	5,037.97	12.70	12.99	-154.72	216.74	-553.87	1,164.09	1,140.25	23.84	48.821	
5,400.00	5,334.99	5,196.97	5,130.82	12.92	13.25	-154.67	227.34	-570.52	1,195.14	1,170.87	24.26	49.259	
5,500.00	5,434.11	5,292.54	5,224.30	13.11	13.50	-154.57	238.01	-587.29	1,223.95	1,199.28	24.68	49.602	
5,600.00	5,533.54	5,388.68	5,318.34	13.28	13.76	-154.41	248.74	-604.15	1,250.53	1,225.45	25.08	49.859	
5,700.00	5,633.22	5,513.99	5,441.19	13.43	14.07	-154.12	261.99	-624.98	1,274.03	1,248.44	25.59	49.791	
5,800.00	5,733.07	5,650.12	5,575.48	13.56	14.38	-153.83	273.96	-643.79	1,292.48	1,266.37	26.11	49.500	
5,900.00	5,833.02	5,788.33	5,712.54	13.66	14.65	-153.55	283.48	-658.75	1,305.69	1,279.10	26.59	49.111	
6,000.00	5,933.02	5,927.99	5,851.59	13.71	14.88	-90.64	290.39	-669.61	1,313.79	1,286.86	26.93	48.788	
6,100.00	6,033.02	6,068.44	5,991.82	13.78	15.06	-90.45	294.58	-676.20	1,318.45	1,291.21	27.24	48.393	
6,200.00	6,133.02	6,209.28	6,132.62	13.85	15.19	-90.39	296.00	-678.43	1,320.03	1,292.53	27.50	48.003	
6,300.00	6,233.02	6,309.68	6,233.02	13.92	15.25	-90.39	296.00	-678.43	1,320.03	1,292.40	27.63	47.773	
6,400.00	6,333.02	6,409.68	6,333.02	14.00	15.32	-90.39	296.00	-678.43	1,320.03	1,292.26	27.77	47.533	
6,500.00	6,433.02	6,509.68	6,433.02	14.07	15.39	-90.39	296.00	-678.43	1,320.03	1,292.12	27.91	47.295	
6,600.00	6,533.02	6,609.68	6,533.02	14.14	15.46	-90.39	296.00	-678.43	1,320.03	1,291.98	28.05	47.059	
6,700.00	6,633.02	6,709.68	6,633.02	14.22	15.53	-90.39	296.00	-678.43	1,320.03	1,291.84	28.19	46.825	
6,800.00	6,733.02	6,809.68	6,733.02	14.29	15.60	-90.39	296.00	-678.43	1,320.03	1,291.70	28.33	46.592	
6,900.00	6,833.02	6,909.68	6,833.02	14.36	15.67	-90.39	296.00	-678.43	1,320.03	1,291.56	28.47	46.362	
7,000.00	6,933.02	7,009.68	6,933.02	14.44	15.74	-90.39	296.00	-678.43	1,320.03	1,291.42	28.61	46.133	
7,100.00	7,033.02	7,109.68	7,033.02	14.51	15.81	-90.39	296.00	-678.43	1,320.03	1,291.28	28.75	45.907	
7,200.00	7,133.02	7,209.68	7,133.02	14.59	15.88	-90.39	296.00	-678.43	1,320.03	1,291.13	28.90	45.682	
7,300.00	7,233.02	7,309.68	7,233.02	14.66	15.95	-90.39	296.00	-678.43	1,320.03	1,290.99	29.04	45.459	
7,400.00	7,333.02	7,409.68	7,333.02	14.73	16.02	-90.39	296.00	-678.43	1,320.03	1,290.85	29.18	45.238	
7,500.00	7,433.02	7,509.68	7,433.02	14.81	16.09	-90.39	296.00	-678.43	1,320.03	1,290.71	29.32	45.018	
7,600.00	7,533.02	7,609.68	7,533.02	14.88	16.16	-90.39	296.00	-678.43	1,320.03	1,290.57	29.46	44.801	
7,700.00	7,633.02	7,709.68	7,633.02	14.96	16.23	-90.39	296.00	-678.43	1,320.03	1,290.42	29.61	44.585	
7,800.00	7,733.02	7,809.68	7,733.02	15.03	16.31	-90.39	296.00	-678.43	1,320.03	1,290.28	29.75	44.371	
7,900.00	7,833.02	7,909.68	7,833.02	15.11	16.38	-90.39	296.00	-678.43	1,320.03	1,290.14	29.89	44.159	
8,000.00	7,933.02	8,009.68	7,933.02	15.18	16.45	-90.39	296.00	-678.43	1,320.03	1,289.99	30.04	43.948	
8,100.00	8,033.02	8,109.68	8,033.02	15.26	16.52	-90.39	296.00	-678.43	1,320.03	1,289.85	30.18	43.739	
8,200.00	8,133.02	8,209.68	8,133.02	15.33	16.59	-90.39	296.00	-678.43	1,320.03	1,289.71	30.32	43.532	
8,300.00	8,233.02	8,309.68	8,233.02	15.41	16.66	-90.39	296.00	-678.43	1,320.03	1,289.56	30.47	43.327	
8,400.00	8,333.02	8,409.68	8,333.02	15.48	16.73	-90.39	296.00	-678.43	1,320.03	1,289.42	30.61	43.123	
8,500.00	8,433.02	8,509.68	8,433.02	15.56	16.81	-90.39	296.00	-678.43	1,320.03	1,289.28	30.76	42.921	
8,600.00	8,533.02	8,609.68	8,533.02	15.63	16.88	-90.39	296.00	-678.43	1,320.03	1,289.13	30.90	42.720	
8,700.00	8,633.02	8,709.68	8,633.02	15.71	16.95	-90.39	296.00	-678.43	1,320.03	1,288.99	31.04	42.521	
8,800.00	8,733.02	8,809.68	8,733.02	15.78	17.02	-90.39	296.00	-678.43	1,320.03	1,288.84	31.19	42.324	
8,900.00	8,833.02	8,909.68	8,833.02	15.86	17.09	-90.39	296.00	-678.43	1,320.03	1,288.70	31.33	42.128	
9,000.00	8,933.02	9,009.68	8,933.02	15.93	17.17	-90.39	296.00	-678.43	1,320.03	1,288.55	31.48	41.934	
9,100.00	9,033.02	9,109.68	9,033.02	16.01	17.24	-90.39	296.00	-678.43	1,320.03	1,288.41	31.62	41.741	
9,200.00	9,133.02	9,209.68	9,133.02	16.08	17.31	-90.39	296.00	-678.43	1,320.03	1,288.26	31.77	41.550	
9,300.00	9,233.02	9,309.68	9,233.02	16.16	17.38	-90.39	296.00	-678.43	1,320.03	1,288.12	31.92	41.361	
9,400.00	9,333.02	9,409.68	9,333.02	16.23	17.46	-90.39	296.00	-678.43	1,320.03	1,287.97	32.06	41.173	
9,500.00	9,433.02	9,509.68	9,433.02	16.31	17.53	-90.39	296.00	-678.43	1,320.03	1,287.82	32.21	40.986	
9,600.00	9,533.02	9,609.68	9,533.02	16.38	17.60	-90.39	296.00	-678.43	1,320.03	1,287.68	32.35	40.801	
9,700.00	9,633.02	9,709.68	9,633.02	16.46	17.67	-90.39	296.00	-678.43	1,320.03	1,287.53	32.50	40.617	
9,800.00	9,733.02	9,809.68	9,733.02	16.54	17.75	-90.39	296.00	-678.43	1,320.03	1,287.38	32.65	40.435	
9,900.00	9,833.02	9,909.68	9,833.02	16.61	17.82	-90.39	296.00	-678.43	1,320.03	1,287.24	32.79	40.254	
10,000.00	9,933.02	10,009.68	9,933.02	16.69	17.89	-90.39	296.00	-678.43	1,320.03	1,287.09	32.94	40.075	
10,100.00	10,033.02	10,109.68	10,033.02	16.76	17.97	-90.39	296.00	-678.43	1,320.03	1,286.94	33.09	39.897	
10,200.00	10,133.02	10,209.68	10,133.02	16.84	18.04	-90.39	296.00	-678.43	1,320.03	1,286.80	33.23	39.720	

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)		Reference		Offset		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	10,233.02	10,309.68	10,233.02	16.92	18.11	-90.39	296.00	-678.43	1,320.03	1,286.65	33.38	39.545	
10,400.00	10,333.02	10,409.68	10,333.02	16.99	18.19	-90.39	296.00	-678.43	1,320.03	1,286.50	33.53	39.372	
10,500.00	10,433.02	10,509.68	10,433.02	17.07	18.26	-90.39	296.00	-678.43	1,320.03	1,286.36	33.68	39.199	
10,600.00	10,533.02	10,609.68	10,533.02	17.15	18.33	-90.39	296.00	-678.43	1,320.03	1,286.21	33.82	39.028	
10,700.00	10,633.02	10,709.68	10,633.02	17.22	18.41	-90.39	296.00	-678.43	1,320.03	1,286.06	33.97	38.858	
10,800.00	10,733.02	10,809.68	10,733.02	17.30	18.48	-90.39	296.00	-678.43	1,320.03	1,285.91	34.12	38.690	
10,900.00	10,833.02	10,909.68	10,833.02	17.37	18.55	-90.39	296.00	-678.43	1,320.03	1,285.76	34.27	38.523	
11,000.00	10,933.02	11,009.68	10,933.02	17.45	18.63	-90.39	296.00	-678.43	1,320.03	1,285.62	34.41	38.357	
11,100.00	11,033.02	11,109.68	11,033.02	17.53	18.70	-90.39	296.00	-678.43	1,320.03	1,285.47	34.56	38.192	
11,200.00	11,133.02	11,209.68	11,133.02	17.60	18.78	-90.39	296.00	-678.43	1,320.03	1,285.32	34.71	38.029	
11,300.00	11,233.02	11,309.68	11,233.02	17.68	18.85	-90.39	296.00	-678.43	1,320.03	1,285.17	34.86	37.867	
11,400.00	11,333.02	11,409.68	11,333.02	17.76	18.92	-90.39	296.00	-678.43	1,320.03	1,285.02	35.01	37.706	
11,500.00	11,433.02	11,509.68	11,433.02	17.83	19.00	-90.39	296.00	-678.43	1,320.03	1,284.87	35.16	37.546	
11,600.00	11,533.02	11,609.68	11,533.02	17.91	19.07	-90.39	296.00	-678.43	1,320.03	1,284.72	35.31	37.388	
11,700.00	11,633.02	11,709.68	11,633.02	17.99	19.15	-90.39	296.00	-678.43	1,320.03	1,284.58	35.46	37.231	
11,800.00	11,733.02	11,809.68	11,733.02	18.06	19.22	-90.39	296.00	-678.43	1,320.03	1,284.43	35.60	37.075	
11,900.00	11,833.02	11,909.68	11,833.02	18.14	19.29	-90.39	296.00	-678.43	1,320.03	1,284.28	35.75	36.920	
12,000.00	11,933.02	12,009.68	11,933.02	18.22	19.37	-90.39	296.00	-678.43	1,320.03	1,284.13	35.90	36.766	
12,100.00	12,033.02	12,109.68	12,033.02	18.30	19.44	-90.39	296.00	-678.43	1,320.03	1,283.98	36.05	36.613	
12,200.00	12,133.02	12,209.68	12,133.02	18.37	19.52	-90.39	296.00	-678.43	1,320.03	1,283.83	36.20	36.462	
12,300.00	12,233.02	12,309.68	12,233.02	18.45	19.59	-90.39	296.00	-678.43	1,320.03	1,283.68	36.35	36.314	
12,400.00	12,332.97	12,400.00	12,323.31	18.52	19.64	84.11	294.44	-678.58	1,320.02	1,283.61	36.41	36.259	
12,500.00	12,431.38	12,480.71	12,403.11	18.56	19.67	84.24	282.90	-679.69	1,319.75	1,283.47	36.27	36.383	
12,600.00	12,525.35	12,562.07	12,481.11	18.58	19.69	84.51	260.09	-681.89	1,319.16	1,283.10	36.05	36.587	
12,700.00	12,612.01	12,644.13	12,555.68	18.59	19.71	84.92	226.19	-685.15	1,318.31	1,282.54	35.77	36.855	
12,800.00	12,688.74	12,727.19	12,625.44	18.62	19.73	85.46	181.44	-689.46	1,317.28	1,281.83	35.45	37.158	
12,900.00	12,753.20	12,811.62	12,688.93	18.67	19.76	86.12	126.16	-694.78	1,316.16	1,281.02	35.14	37.453	
13,000.00	12,803.44	12,900.00	12,745.91	18.75	19.82	86.90	59.02	-701.25	1,315.07	1,280.18	34.89	37.692	
13,100.00	12,837.92	12,986.11	12,790.80	18.89	19.91	87.74	-14.03	-708.28	1,314.13	1,279.36	34.77	37.794	
13,200.00	12,855.60	13,077.05	12,825.73	19.08	20.04	88.66	-97.51	-716.32	1,313.44	1,278.62	34.81	37.727	
13,222.44	12,857.43	13,097.91	12,831.83	19.14	20.08	88.88	-117.36	-718.23	1,313.38	1,278.52	34.86	37.677	
13,300.00	12,858.40	13,171.54	12,847.50	19.34	20.23	89.53	-188.92	-725.12	1,313.60	1,278.53	35.07	37.461	
13,400.00	12,859.27	13,285.10	12,854.22	19.70	20.53	89.80	-301.65	-735.79	1,317.06	1,281.45	35.61	36.990	
13,500.00	12,860.14	13,470.31	12,855.84	20.14	21.14	89.82	-486.57	-745.48	1,319.78	1,283.12	36.66	35.997	
13,600.00	12,861.01	13,608.08	12,857.05	20.65	21.67	89.83	-624.33	-745.47	1,320.03	1,282.27	37.76	34.956	
13,700.00	12,861.88	13,708.08	12,857.93	21.24	22.12	89.83	-724.32	-744.61	1,320.03	1,281.11	38.93	33.911	
13,800.00	12,862.75	13,808.08	12,858.81	21.90	22.63	89.83	-824.31	-743.75	1,320.04	1,279.79	40.24	32.801	
13,900.00	12,863.61	13,908.08	12,859.68	22.62	23.20	89.83	-924.31	-742.89	1,320.04	1,278.34	41.70	31.657	
14,000.00	12,864.48	14,008.08	12,860.56	23.39	23.82	89.83	-1,024.30	-742.03	1,320.04	1,276.76	43.28	30.501	
14,100.00	12,865.35	14,108.08	12,861.44	24.23	24.51	89.83	-1,124.29	-741.17	1,320.04	1,275.07	44.97	29.354	
14,200.00	12,866.22	14,208.08	12,862.32	25.11	25.24	89.83	-1,224.28	-740.31	1,320.04	1,273.28	46.76	28.230	
14,300.00	12,867.09	14,308.08	12,863.20	26.03	26.03	89.83	-1,324.28	-739.45	1,320.04	1,271.40	48.64	27.140	
14,400.00	12,867.95	14,408.08	12,864.07	26.99	26.87	89.83	-1,424.27	-738.59	1,320.04	1,269.44	50.60	26.089	
14,500.00	12,868.82	14,508.08	12,864.95	27.99	27.74	89.83	-1,524.26	-737.73	1,320.04	1,267.41	52.62	25.084	
14,600.00	12,869.69	14,608.08	12,865.83	29.01	28.66	89.83	-1,624.25	-736.86	1,320.04	1,265.32	54.71	24.126	
14,700.00	12,870.56	14,708.08	12,866.71	30.07	29.62	89.83	-1,724.25	-736.00	1,320.04	1,263.18	56.86	23.216	
14,800.00	12,871.43	14,808.08	12,867.59	31.15	30.60	89.83	-1,824.24	-735.14	1,320.04	1,260.98	59.05	22.353	
14,900.00	12,872.29	14,908.08	12,868.46	32.25	31.62	89.83	-1,924.23	-734.28	1,320.04	1,258.75	61.29	21.537	
15,000.00	12,873.16	15,008.08	12,869.34	33.38	32.67	89.83	-2,024.22	-733.42	1,320.04	1,256.47	63.57	20.765	
15,100.00	12,874.03	15,108.08	12,870.22	34.52	33.73	89.83	-2,124.22	-732.56	1,320.04	1,254.16	65.88	20.036	
15,200.00	12,874.90	15,208.08	12,871.10	35.68	34.82	89.84	-2,224.21	-731.70	1,320.04	1,251.81	68.23	19.348	
15,300.00	12,875.77	15,308.08	12,871.98	36.85	35.93	89.84	-2,324.20	-730.84	1,320.04	1,249.44	70.60	18.697	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 221H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)				Offset		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)	Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,400.00	12,876.63	15,408.08	12,872.85	38.04	37.06	89.84	-2,424.19	-729.98	1,320.04	1,247.04	73.00	18.083		
15,500.00	12,877.50	15,508.08	12,873.73	39.24	38.21	89.84	-2,524.19	-729.12	1,320.04	1,244.62	75.42	17.502		
15,600.00	12,878.37	15,608.08	12,874.61	40.45	39.37	89.84	-2,624.18	-728.26	1,320.04	1,242.18	77.87	16.953		
15,700.00	12,879.24	15,708.08	12,875.49	41.67	40.54	89.84	-2,724.17	-727.40	1,320.04	1,239.71	80.33	16.433		
15,800.00	12,880.11	15,808.08	12,876.36	42.90	41.73	89.84	-2,824.16	-726.54	1,320.04	1,237.23	82.81	15.941		
15,900.00	12,880.97	15,908.08	12,877.24	44.13	42.92	89.84	-2,924.16	-725.68	1,320.04	1,234.74	85.30	15.475		
16,000.00	12,881.84	16,008.08	12,878.12	45.38	44.13	89.84	-3,024.15	-724.82	1,320.04	1,232.23	87.81	15.032		
16,100.00	12,882.71	16,108.08	12,879.00	46.63	45.35	89.84	-3,124.14	-723.96	1,320.04	1,229.71	90.34	14.612		
16,200.00	12,883.58	16,208.08	12,879.88	47.89	46.58	89.84	-3,224.13	-723.10	1,320.04	1,227.17	92.87	14.213		
16,300.00	12,884.45	16,308.08	12,880.75	49.15	47.81	89.84	-3,324.13	-722.24	1,320.04	1,224.62	95.42	13.834		
16,400.00	12,885.31	16,408.08	12,881.63	50.43	49.05	89.84	-3,424.12	-721.38	1,320.04	1,222.07	97.98	13.473		
16,500.00	12,886.18	16,508.08	12,882.51	51.70	50.30	89.84	-3,524.11	-720.52	1,320.04	1,219.50	100.55	13.129		
16,600.00	12,887.05	16,608.08	12,883.39	52.98	51.56	89.84	-3,624.10	-719.66	1,320.04	1,216.92	103.12	12.801		
16,700.00	12,887.92	16,708.08	12,884.27	54.27	52.82	89.84	-3,724.10	-718.80	1,320.04	1,214.34	105.71	12.488		
16,800.00	12,888.79	16,808.08	12,885.14	55.55	54.08	89.84	-3,824.09	-717.94	1,320.05	1,211.75	108.30	12.189		
16,900.00	12,889.66	16,908.08	12,886.02	56.85	55.35	89.84	-3,924.08	-717.08	1,320.05	1,209.15	110.90	11.903		
17,000.00	12,890.52	17,008.08	12,886.90	58.14	56.63	89.84	-4,024.07	-716.22	1,320.05	1,206.54	113.50	11.630		
17,100.00	12,891.39	17,108.08	12,887.78	59.44	57.91	89.84	-4,124.07	-715.36	1,320.05	1,203.93	116.11	11.368		
17,200.00	12,892.26	17,208.08	12,888.66	60.75	59.20	89.84	-4,224.06	-714.50	1,320.05	1,201.31	118.73	11.118		
17,300.00	12,893.13	17,308.08	12,889.53	62.05	60.48	89.84	-4,324.05	-713.64	1,320.05	1,198.69	121.36	10.878		
17,400.00	12,894.00	17,408.08	12,890.41	63.36	61.78	89.84	-4,424.04	-712.77	1,320.05	1,196.06	123.98	10.647		
17,500.00	12,894.86	17,508.08	12,891.29	64.67	63.07	89.84	-4,524.04	-711.91	1,320.05	1,193.43	126.62	10.426		
17,600.00	12,895.73	17,608.08	12,892.17	65.99	64.37	89.85	-4,624.03	-711.05	1,320.05	1,190.79	129.25	10.213		
17,700.00	12,896.60	17,708.08	12,893.04	67.30	65.67	89.85	-4,724.02	-710.19	1,320.05	1,188.15	131.90	10.008		
17,800.00	12,897.47	17,808.08	12,893.92	68.62	66.98	89.85	-4,824.01	-709.33	1,320.05	1,185.51	134.54	9.812		
17,900.00	12,898.34	17,908.08	12,894.80	69.94	68.28	89.85	-4,924.01	-708.47	1,320.05	1,182.86	137.19	9.622		
18,000.00	12,899.20	18,008.08	12,895.68	71.26	69.59	89.85	-5,024.00	-707.61	1,320.05	1,180.21	139.84	9.440		
18,100.00	12,900.07	18,108.08	12,896.56	72.58	70.91	89.85	-5,123.99	-706.75	1,320.05	1,177.55	142.50	9.264		
18,200.00	12,900.94	18,208.08	12,897.43	73.91	72.22	89.85	-5,223.98	-705.89	1,320.05	1,174.89	145.16	9.094		
18,300.00	12,901.81	18,308.08	12,898.31	75.24	73.54	89.85	-5,323.97	-705.03	1,320.05	1,172.23	147.82	8.930		
18,400.00	12,902.68	18,408.08	12,899.19	76.56	74.85	89.85	-5,423.97	-704.17	1,320.05	1,169.57	150.48	8.772		
18,500.00	12,903.54	18,508.08	12,900.07	77.89	76.17	89.85	-5,523.96	-703.31	1,320.05	1,166.90	153.15	8.619		
18,600.00	12,904.41	18,608.08	12,900.95	79.23	77.50	89.85	-5,623.95	-702.45	1,320.05	1,164.23	155.82	8.472		
18,700.00	12,905.28	18,708.08	12,901.82	80.56	78.82	89.85	-5,723.94	-701.59	1,320.05	1,161.56	158.49	8.329		
18,800.00	12,906.15	18,808.08	12,902.70	81.89	80.14	89.85	-5,823.94	-700.73	1,320.05	1,158.88	161.17	8.191		
18,900.00	12,907.02	18,908.08	12,903.58	83.23	81.47	89.85	-5,923.93	-699.87	1,320.05	1,156.21	163.84	8.057		
19,000.00	12,907.88	19,008.08	12,904.46	84.56	82.80	89.85	-6,023.92	-699.01	1,320.05	1,153.53	166.52	7.927		
19,100.00	12,908.75	19,108.08	12,905.34	85.90	84.13	89.85	-6,123.91	-698.15	1,320.05	1,150.85	169.20	7.802		
19,200.00	12,909.62	19,208.08	12,906.21	87.24	85.46	89.85	-6,223.91	-697.29	1,320.05	1,148.17	171.89	7.680		
19,300.00	12,910.49	19,308.08	12,907.09	88.58	86.79	89.85	-6,323.90	-696.43	1,320.05	1,145.48	174.57	7.562		
19,400.00	12,911.36	19,408.08	12,907.97	89.92	88.12	89.85	-6,423.89	-695.57	1,320.05	1,142.80	177.26	7.447		
19,500.00	12,912.22	19,508.08	12,908.85	91.26	89.46	89.85	-6,523.88	-694.71	1,320.05	1,140.11	179.94	7.336		
19,600.00	12,913.09	19,608.08	12,909.72	92.60	90.79	89.85	-6,623.88	-693.85	1,320.05	1,137.42	182.63	7.228		
19,700.00	12,913.96	19,708.08	12,910.60	93.94	92.13	89.85	-6,723.87	-692.99	1,320.05	1,134.73	185.32	7.123		
19,800.00	12,914.83	19,808.08	12,911.48	95.29	93.47	89.85	-6,823.86	-692.13	1,320.06	1,132.04	188.02	7.021		
19,900.00	12,915.70	19,908.08	12,912.36	96.63	94.80	89.86	-6,923.85	-691.27	1,320.06	1,129.35	190.71	6.922		
20,000.00	12,916.56	20,008.08	12,913.24	97.98	96.14	89.86	-7,023.85	-690.41	1,320.06	1,126.65	193.40	6.825		
20,100.00	12,917.43	20,108.08	12,914.11	99.32	97.48	89.86	-7,123.84	-689.55	1,320.06	1,123.96	196.10	6.732		
20,200.00	12,918.30	20,208.08	12,914.99	100.67	98.82	89.86	-7,223.83	-688.68	1,320.06	1,121.26	198.80	6.640		
20,300.00	12,919.17	20,308.08	12,915.87	102.01	100.17	89.86	-7,323.82	-687.82	1,320.06	1,118.56	201.50	6.551		
20,400.00	12,920.04	20,408.08	12,916.75	103.36	101.51	89.86	-7,423.82	-686.96	1,320.06	1,115.86	204.20	6.465		
20,500.00	12,920.90	20,508.08	12,917.63	104.71	102.85	89.86	-7,523.81	-686.10	1,320.06	1,113.16	206.90	6.380		

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

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

Survey Program: 0-MWD+HRGM+SAG+FDIR (rev.5)						Rule Assigned:				Offset Well Error:		0.50 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
20,600.00	12,921.77	20,608.08	12,918.50	106.06	104.19	89.86	-7,623.80	-685.24	1,320.06	1,110.46	209.60	6.298	
20,700.00	12,922.64	20,708.08	12,919.38	107.41	105.54	89.86	-7,723.79	-684.38	1,320.06	1,107.76	212.30	6.218	
20,800.00	12,923.51	20,808.08	12,920.26	108.76	106.88	89.86	-7,823.79	-683.52	1,320.06	1,105.06	215.00	6.140	
20,900.00	12,924.38	20,908.08	12,921.14	110.11	108.23	89.86	-7,923.78	-682.66	1,320.06	1,102.35	217.71	6.063	
21,000.00	12,925.24	21,008.08	12,922.01	111.46	109.58	89.86	-8,023.77	-681.80	1,320.06	1,099.65	220.41	5.989	
21,100.00	12,926.11	21,108.08	12,922.89	112.81	110.92	89.86	-8,123.76	-680.94	1,320.06	1,096.94	223.12	5.916	
21,200.00	12,926.98	21,208.08	12,923.77	114.16	112.27	89.86	-8,223.76	-680.08	1,320.06	1,094.23	225.83	5.845	
21,300.00	12,927.85	21,308.08	12,924.65	115.51	113.62	89.86	-8,323.75	-679.22	1,320.06	1,091.53	228.53	5.776	
21,400.00	12,928.72	21,408.08	12,925.53	116.87	114.97	89.86	-8,423.74	-678.36	1,320.06	1,088.82	231.24	5.709	
21,500.00	12,929.58	21,508.08	12,926.40	118.22	116.32	89.86	-8,523.73	-677.50	1,320.06	1,086.11	233.95	5.642	
21,600.00	12,930.45	21,608.08	12,927.28	119.57	117.67	89.86	-8,623.73	-676.64	1,320.06	1,083.40	236.66	5.578	
21,700.00	12,931.32	21,708.08	12,928.16	120.93	119.02	89.86	-8,723.72	-675.78	1,320.06	1,080.69	239.37	5.515	
21,800.00	12,932.19	21,808.08	12,929.04	122.28	120.37	89.86	-8,823.71	-674.92	1,320.06	1,077.98	242.08	5.453	
21,900.00	12,933.06	21,908.08	12,929.92	123.63	121.72	89.86	-8,923.70	-674.06	1,320.06	1,075.27	244.79	5.393	
22,000.00	12,933.92	22,008.08	12,930.79	124.99	123.07	89.86	-9,023.70	-673.20	1,320.06	1,072.56	247.51	5.333	
22,100.00	12,934.79	22,108.08	12,931.67	126.34	124.42	89.86	-9,123.69	-672.34	1,320.06	1,069.84	250.22	5.276	
22,200.00	12,935.66	22,208.08	12,932.55	127.70	125.77	89.86	-9,223.68	-671.48	1,320.06	1,067.13	252.93	5.219	
22,300.00	12,936.53	22,308.08	12,933.43	129.05	127.13	89.87	-9,323.67	-670.62	1,320.06	1,064.42	255.65	5.164	
22,400.00	12,937.40	22,408.08	12,934.31	130.41	128.48	89.87	-9,423.67	-669.76	1,320.06	1,061.70	258.36	5.109	
22,500.00	12,938.26	22,508.08	12,935.18	131.77	129.83	89.87	-9,523.66	-668.90	1,320.06	1,058.99	261.08	5.056	
22,600.00	12,939.13	22,608.08	12,936.06	133.12	131.19	89.87	-9,623.65	-668.04	1,320.06	1,056.27	263.79	5.004	
22,700.00	12,940.00	22,708.08	12,936.94	134.48	132.54	89.87	-9,723.64	-667.18	1,320.06	1,053.56	266.51	4.953	
22,800.00	12,940.87	22,808.08	12,937.82	135.84	133.89	89.87	-9,823.64	-666.32	1,320.07	1,050.84	269.23	4.903	
22,900.00	12,941.74	22,908.08	12,938.69	137.19	135.25	89.87	-9,923.63	-665.46	1,320.07	1,048.12	271.94	4.854	
23,000.00	12,942.61	23,008.08	12,939.57	138.55	136.60	89.87	-10,023.62	-664.60	1,320.07	1,045.41	274.66	4.806	
23,100.00	12,943.47	23,108.08	12,940.45	139.91	137.95	89.87	-10,123.61	-663.73	1,320.07	1,042.70	277.37	4.759	
23,184.44	12,944.21	23,192.52	12,941.19	141.07	138.99	89.87	-10,208.05	-663.01	1,320.07	1,040.53	279.53	4.722	SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan 1													Offset Site Error: 0.00 usft	
Survey Program:		0-MWD+HRGM+SAG+FDIR (rev.5)				Rule Assigned:				Offset Well Error: 0.50 usft				
Reference	Offset	Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Distance	Minimum Separation	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Ellipses (usft)	Factor			
3,700.00	3,670.68	4,014.50	3,984.53	8.75	8.74	10.63	700.56	2,137.99	1,952.14	1,935.08	17.05	114.478		
3,800.00	3,768.49	4,106.98	4,075.39	8.99	8.94	11.03	687.70	2,126.50	1,916.25	1,898.85	17.40	110.109		
3,900.00	3,866.31	4,199.46	4,166.24	9.23	9.13	11.44	674.84	2,115.00	1,880.45	1,862.69	17.76	105.891		
4,000.00	3,964.13	4,291.94	4,257.10	9.47	9.33	11.87	661.98	2,103.51	1,844.74	1,826.62	18.12	101.820		
4,100.00	4,061.94	4,384.41	4,347.95	9.71	9.53	12.31	649.13	2,092.01	1,809.12	1,790.64	18.48	97.890		
4,200.00	4,159.76	4,476.89	4,438.81	9.95	9.74	12.78	636.27	2,080.52	1,773.61	1,754.76	18.85	94.097		
4,300.00	4,257.57	4,569.37	4,529.66	10.20	9.95	13.26	623.41	2,069.02	1,738.20	1,718.98	19.22	90.436		
4,400.00	4,355.39	4,661.84	4,620.51	10.45	10.15	13.76	610.55	2,057.52	1,702.91	1,683.32	19.60	86.902		
4,500.00	4,453.21	4,754.32	4,711.37	10.70	10.36	14.28	597.69	2,046.03	1,667.74	1,647.77	19.98	83.491		
4,600.00	4,551.02	4,846.80	4,802.22	10.95	10.58	14.82	584.83	2,034.53	1,632.70	1,612.34	20.36	80.197		
4,700.00	4,648.84	4,939.27	4,893.08	11.21	10.79	15.39	571.97	2,023.04	1,597.80	1,577.05	20.75	77.016		
4,800.00	4,746.65	5,031.75	4,983.93	11.46	11.00	15.98	559.11	2,011.54	1,563.04	1,541.90	21.14	73.945		
4,900.00	4,844.47	5,124.23	5,074.78	11.72	11.22	16.60	546.25	2,000.05	1,528.44	1,506.91	21.53	70.978		
5,000.00	4,942.29	5,216.71	5,165.64	11.98	11.44	17.24	533.40	1,988.55	1,494.01	1,472.08	21.93	68.113		
5,100.00	5,040.10	5,309.18	5,256.49	12.24	11.66	17.92	520.54	1,977.06	1,459.76	1,437.42	22.34	65.345		
5,200.00	5,137.97	5,401.75	5,347.43	12.46	11.88	18.55	507.67	1,965.55	1,425.91	1,403.20	22.72	62.771		
5,300.00	5,236.26	5,495.11	5,439.15	12.70	12.10	19.09	494.68	1,953.94	1,394.23	1,371.09	23.14	60.252		
5,400.00	5,334.99	5,589.35	5,531.75	12.92	12.33	19.64	481.58	1,942.23	1,365.10	1,341.54	23.56	57.935		
5,500.00	5,434.11	5,684.42	5,625.15	13.11	12.55	20.19	468.36	1,930.41	1,338.53	1,314.54	23.98	55.811		
5,600.00	5,533.54	5,780.26	5,719.30	13.28	12.79	20.74	455.03	1,918.50	1,314.52	1,290.12	24.40	53.872		
5,700.00	5,633.22	5,876.78	5,814.13	13.43	13.02	21.28	441.61	1,906.50	1,293.07	1,268.25	24.81	52.114		
5,800.00	5,733.07	5,973.94	5,909.58	13.56	13.26	21.82	428.10	1,894.42	1,274.17	1,248.95	25.21	50.532		
5,900.00	5,833.02	6,071.65	6,005.58	13.66	13.50	22.34	414.52	1,882.28	1,257.82	1,232.21	25.60	49.125		
6,000.00	5,933.02	6,169.82	6,102.03	13.71	13.74	85.54	400.87	1,870.07	1,243.77	1,217.88	25.90	48.024		
6,100.00	6,033.02	6,268.07	6,198.55	13.78	13.98	86.13	387.20	1,857.86	1,230.25	1,204.04	26.21	46.931		
6,200.00	6,133.02	6,366.31	6,295.07	13.85	14.23	86.74	373.54	1,845.65	1,216.87	1,190.34	26.53	45.866		
6,300.00	6,233.02	6,460.48	6,387.59	13.92	14.44	87.34	360.48	1,833.97	1,203.66	1,176.83	26.83	44.868		
6,400.00	6,333.02	6,541.21	6,467.13	14.00	14.62	87.81	350.17	1,824.75	1,191.61	1,164.50	27.11	43.950		
6,500.00	6,433.02	6,622.50	6,547.50	14.07	14.79	88.24	341.05	1,816.60	1,181.14	1,153.74	27.40	43.109		
6,600.00	6,533.02	6,700.00	6,624.34	14.14	14.95	88.60	333.54	1,809.89	1,172.23	1,144.57	27.66	42.374		
6,700.00	6,633.02	6,786.49	6,710.32	14.22	15.09	88.94	326.54	1,803.63	1,164.83	1,136.91	27.92	41.722		
6,800.00	6,733.02	6,869.05	6,792.56	14.29	15.22	89.20	321.22	1,798.87	1,158.94	1,130.79	28.15	41.169		
6,900.00	6,833.02	6,951.87	6,875.21	14.36	15.33	89.39	317.21	1,795.28	1,154.55	1,126.18	28.37	40.703		
7,000.00	6,933.02	7,034.89	6,958.15	14.44	15.42	89.53	314.53	1,792.89	1,151.63	1,123.07	28.56	40.322		
7,100.00	7,033.02	7,118.03	7,041.26	14.51	15.48	89.59	313.19	1,791.69	1,150.18	1,121.46	28.73	40.038		
7,165.33	7,098.35	7,175.11	7,098.35	14.56	15.50	89.60	313.03	1,791.55	1,150.01	1,121.21	28.80	39.938		
7,200.00	7,133.02	7,209.79	7,133.02	14.59	15.51	89.60	313.03	1,791.55	1,150.01	1,121.18	28.83	39.896		
7,300.00	7,233.02	7,309.79	7,233.02	14.66	15.55	89.60	313.03	1,791.55	1,150.01	1,121.07	28.94	39.743		
7,400.00	7,333.02	7,409.79	7,333.02	14.73	15.58	89.60	313.03	1,791.55	1,150.01	1,120.96	29.05	39.591		
7,500.00	7,433.02	7,509.79	7,433.02	14.81	15.62	89.60	313.03	1,791.55	1,150.01	1,120.85	29.16	39.439		
7,600.00	7,533.02	7,609.79	7,533.02	14.88	15.66	89.60	313.03	1,791.55	1,150.01	1,120.74	29.27	39.288		
7,700.00	7,633.02	7,709.79	7,633.02	14.96	15.70	89.60	313.03	1,791.55	1,150.01	1,120.62	29.38	39.138		
7,800.00	7,733.02	7,809.79	7,733.02	15.03	15.74	89.60	313.03	1,791.55	1,150.01	1,120.51	29.50	38.988		
7,900.00	7,833.02	7,909.79	7,833.02	15.11	15.79	89.60	313.03	1,791.55	1,150.01	1,120.40	29.61	38.839		
8,000.00	7,933.02	8,009.79	7,933.02	15.18	15.83	89.60	313.03	1,791.55	1,150.01	1,120.28	29.72	38.690		
8,100.00	8,033.02	8,109.79	8,033.02	15.26	15.87	89.60	313.03	1,791.55	1,150.01	1,120.17	29.84	38.542		
8,200.00	8,133.02	8,209.79	8,133.02	15.33	15.91	89.60	313.03	1,791.55	1,150.01	1,120.06	29.95	38.394		
8,300.00	8,233.02	8,309.79	8,233.02	15.41	15.95	89.60	313.03	1,791.55	1,150.01	1,119.94	30.07	38.247		
8,400.00	8,333.02	8,409.79	8,333.02	15.48	15.99	89.60	313.03	1,791.55	1,150.01	1,119.83	30.18	38.101		
8,500.00	8,433.02	8,509.79	8,433.02	15.56	16.04	89.60	313.03	1,791.55	1,150.01	1,119.71	30.30	37.955		
8,600.00	8,533.02	8,609.79	8,533.02	15.63	16.08	89.60	313.03	1,791.55	1,150.01	1,119.59	30.42	37.810		
8,700.00	8,633.02	8,709.79	8,633.02	15.71	16.12	89.60	313.03	1,791.55	1,150.01	1,119.48	30.53	37.666		

Total Directional Anticollision Report



Company:	Civitas Resources	Local Co-ordinate Reference:	Well Junior Mint Fed 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
8,800.00	8,733.02	8,809.79	8,733.02	15.78	16.17	89.60	313.03	1,791.55	1,150.01	1,119.36	30.65	37.522	
8,900.00	8,833.02	8,909.79	8,833.02	15.86	16.21	89.60	313.03	1,791.55	1,150.01	1,119.24	30.77	37.379	
9,000.00	8,933.02	9,009.79	8,933.02	15.93	16.26	89.60	313.03	1,791.55	1,150.01	1,119.12	30.88	37.236	
9,100.00	9,033.02	9,109.79	9,033.02	16.01	16.30	89.60	313.03	1,791.55	1,150.01	1,119.01	31.00	37.094	
9,200.00	9,133.02	9,209.79	9,133.02	16.08	16.34	89.60	313.03	1,791.55	1,150.01	1,118.89	31.12	36.953	
9,300.00	9,233.02	9,309.79	9,233.02	16.16	16.39	89.60	313.03	1,791.55	1,150.01	1,118.77	31.24	36.813	
9,400.00	9,333.02	9,409.79	9,333.02	16.23	16.44	89.60	313.03	1,791.55	1,150.01	1,118.65	31.36	36.673	
9,500.00	9,433.02	9,509.79	9,433.02	16.31	16.48	89.60	313.03	1,791.55	1,150.01	1,118.53	31.48	36.533	
9,600.00	9,533.02	9,609.79	9,533.02	16.38	16.53	89.60	313.03	1,791.55	1,150.01	1,118.41	31.60	36.394	
9,700.00	9,633.02	9,709.79	9,633.02	16.46	16.57	89.60	313.03	1,791.55	1,150.01	1,118.29	31.72	36.256	
9,800.00	9,733.02	9,809.79	9,733.02	16.54	16.62	89.60	313.03	1,791.55	1,150.01	1,118.17	31.84	36.119	
9,900.00	9,833.02	9,909.79	9,833.02	16.61	16.67	89.60	313.03	1,791.55	1,150.01	1,118.05	31.96	35.982	
10,000.00	9,933.02	10,009.79	9,933.02	16.69	16.71	89.60	313.03	1,791.55	1,150.01	1,117.93	32.08	35.846	
10,100.00	10,033.02	10,109.79	10,033.02	16.76	16.76	89.60	313.03	1,791.55	1,150.01	1,117.80	32.20	35.710	
10,200.00	10,133.02	10,209.79	10,133.02	16.84	16.81	89.60	313.03	1,791.55	1,150.01	1,117.68	32.33	35.576	
10,300.00	10,233.02	10,309.79	10,233.02	16.92	16.86	89.60	313.03	1,791.55	1,150.01	1,117.56	32.45	35.441	
10,400.00	10,333.02	10,409.79	10,333.02	16.99	16.91	89.60	313.03	1,791.55	1,150.01	1,117.44	32.57	35.308	
10,500.00	10,433.02	10,509.79	10,433.02	17.07	16.95	89.60	313.03	1,791.55	1,150.01	1,117.31	32.69	35.175	
10,600.00	10,533.02	10,609.79	10,533.02	17.15	17.00	89.60	313.03	1,791.55	1,150.01	1,117.19	32.82	35.043	
10,700.00	10,633.02	10,709.79	10,633.02	17.22	17.05	89.60	313.03	1,791.55	1,150.01	1,117.07	32.94	34.911	
10,800.00	10,733.02	10,809.79	10,733.02	17.30	17.10	89.60	313.03	1,791.55	1,150.01	1,116.94	33.07	34.780	
10,900.00	10,833.02	10,909.79	10,833.02	17.37	17.15	89.60	313.03	1,791.55	1,150.01	1,116.82	33.19	34.650	
11,000.00	10,933.02	11,009.79	10,933.02	17.45	17.20	89.60	313.03	1,791.55	1,150.01	1,116.69	33.31	34.520	
11,100.00	11,033.02	11,109.79	11,033.02	17.53	17.25	89.60	313.03	1,791.55	1,150.01	1,116.57	33.44	34.391	
11,200.00	11,133.02	11,209.79	11,133.02	17.60	17.30	89.60	313.03	1,791.55	1,150.01	1,116.44	33.56	34.263	
11,300.00	11,233.02	11,309.79	11,233.02	17.68	17.35	89.60	313.03	1,791.55	1,150.01	1,116.32	33.69	34.135	
11,400.00	11,333.02	11,409.79	11,333.02	17.76	17.40	89.60	313.03	1,791.55	1,150.01	1,116.19	33.82	34.008	
11,500.00	11,433.02	11,509.79	11,433.02	17.83	17.45	89.60	313.03	1,791.55	1,150.01	1,116.07	33.94	33.881	
11,600.00	11,533.02	11,609.79	11,533.02	17.91	17.51	89.60	313.03	1,791.55	1,150.01	1,115.94	34.07	33.756	
11,700.00	11,633.02	11,709.79	11,633.02	17.99	17.56	89.60	313.03	1,791.55	1,150.01	1,115.81	34.20	33.631	
11,800.00	11,733.02	11,809.79	11,733.02	18.06	17.61	89.60	313.03	1,791.55	1,150.01	1,115.69	34.32	33.506	
11,900.00	11,833.02	11,909.79	11,833.02	18.14	17.66	89.60	313.03	1,791.55	1,150.01	1,115.56	34.45	33.382	
12,000.00	11,933.02	12,009.79	11,933.02	18.22	17.71	89.60	313.03	1,791.55	1,150.01	1,115.43	34.58	33.259	
12,100.00	12,033.02	12,109.79	12,033.02	18.30	17.77	89.60	313.03	1,791.55	1,150.01	1,115.30	34.71	33.136	
12,200.00	12,133.02	12,209.79	12,133.02	18.37	17.82	89.60	313.03	1,791.55	1,150.01	1,115.17	34.83	33.014	
12,212.54	12,145.56	12,222.33	12,145.56	18.38	17.83	89.60	313.03	1,791.55	1,150.01	1,115.16	34.85	32.999	CC
12,300.00	12,233.02	12,307.45	12,230.69	18.45	17.87	89.60	312.96	1,791.56	1,150.02	1,115.06	34.96	32.897	
12,400.00	12,332.97	12,385.78	12,308.68	18.52	17.98	-95.55	306.50	1,792.48	1,151.36	1,116.32	35.04	32.857	
12,500.00	12,431.38	12,463.39	12,384.37	18.56	18.13	-94.90	289.78	1,794.86	1,156.07	1,120.98	35.09	32.945	
12,600.00	12,525.35	12,540.55	12,456.67	18.58	18.32	-94.07	263.27	1,798.63	1,164.21	1,129.04	35.17	33.104	
12,700.00	12,612.01	12,617.42	12,524.48	18.59	18.55	-93.07	227.54	1,803.72	1,175.49	1,140.20	35.29	33.305	
12,800.00	12,688.74	12,694.23	12,586.80	18.62	18.83	-91.94	183.20	1,810.03	1,189.60	1,154.10	35.49	33.517	
12,900.00	12,753.20	12,771.21	12,642.70	18.67	19.17	-90.71	130.87	1,817.47	1,206.14	1,170.34	35.80	33.695	
13,000.00	12,803.44	12,850.00	12,692.05	18.75	19.59	-89.43	70.14	1,826.12	1,224.69	1,188.45	36.23	33.802	
13,100.00	12,837.92	12,927.07	12,731.74	18.89	20.07	-88.12	4.81	1,835.42	1,244.78	1,207.96	36.82	33.805	
13,200.00	12,855.60	13,006.81	12,763.10	19.08	20.65	-86.84	-67.71	1,845.74	1,265.96	1,228.37	37.58	33.683	
13,300.00	12,858.40	13,089.07	12,784.49	19.34	21.31	-86.74	-146.27	1,856.92	1,287.38	1,248.84	38.54	33.403	
13,400.00	12,859.27	13,175.96	12,794.50	19.70	22.08	-87.20	-231.64	1,869.07	1,306.79	1,267.03	39.76	32.867	
13,500.00	12,860.14	13,337.81	12,795.70	20.14	23.67	-87.24	-392.30	1,888.38	1,321.45	1,279.53	41.91	31.529	
13,600.00	12,861.01	13,523.32	12,796.67	20.65	25.66	-87.23	-577.45	1,899.39	1,326.92	1,282.47	44.45	29.852	
13,700.00	12,861.88	13,647.13	12,797.32	21.24	27.03	-87.21	-701.25	1,900.98	1,327.23	1,280.77	46.46	28.569	
13,800.00	12,862.75	13,747.13	12,797.85	21.90	28.16	-87.20	-801.24	1,901.88	1,327.29	1,278.97	48.32	27.471	

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)		
13,900.00	12,863.61	13,847.13	12,798.37	22.62	29.32	-87.18	-901.24	1,902.79	1,327.35	1,277.09	50.26	26.411
14,000.00	12,864.48	13,947.13	12,798.90	23.39	30.49	-87.17	-1,001.23	1,903.70	1,327.41	1,275.14	52.27	25.394
14,100.00	12,865.35	14,047.13	12,799.43	24.23	31.68	-87.15	-1,101.22	1,904.60	1,327.48	1,273.12	54.36	24.422
14,200.00	12,866.22	14,147.13	12,799.95	25.11	32.88	-87.14	-1,201.22	1,905.51	1,327.54	1,271.04	56.50	23.497
14,300.00	12,867.09	14,247.13	12,800.48	26.03	34.09	-87.12	-1,301.21	1,906.42	1,327.60	1,268.91	58.69	22.620
14,400.00	12,867.95	14,347.13	12,801.00	26.99	35.32	-87.11	-1,401.21	1,907.32	1,327.67	1,266.74	60.93	21.790
14,500.00	12,868.82	14,447.12	12,801.53	27.99	36.55	-87.10	-1,501.20	1,908.23	1,327.73	1,264.52	63.21	21.004
14,600.00	12,869.69	14,547.12	12,802.05	29.01	37.79	-87.08	-1,601.19	1,909.14	1,327.79	1,262.26	65.53	20.262
14,700.00	12,870.56	14,647.12	12,802.58	30.07	39.04	-87.07	-1,701.19	1,910.04	1,327.86	1,259.98	67.88	19.561
14,800.00	12,871.43	14,747.12	12,803.11	31.15	40.30	-87.05	-1,801.18	1,910.95	1,327.92	1,257.66	70.26	18.900
14,900.00	12,872.29	14,847.12	12,803.63	32.25	41.57	-87.04	-1,901.18	1,911.86	1,327.98	1,255.32	72.67	18.274
15,000.00	12,873.16	14,947.12	12,804.16	33.38	42.84	-87.02	-2,001.17	1,912.76	1,328.05	1,252.95	75.10	17.684
15,100.00	12,874.03	15,047.12	12,804.68	34.52	44.11	-87.01	-2,101.16	1,913.67	1,328.11	1,250.56	77.55	17.126
15,200.00	12,874.90	15,147.12	12,805.21	35.68	45.40	-86.99	-2,201.16	1,914.58	1,328.18	1,248.15	80.02	16.597
15,300.00	12,875.77	15,247.12	12,805.73	36.85	46.68	-86.98	-2,301.15	1,915.48	1,328.24	1,245.73	82.51	16.098
15,400.00	12,876.63	15,347.12	12,806.26	38.04	47.98	-86.96	-2,401.14	1,916.39	1,328.30	1,243.29	85.02	15.624
15,500.00	12,877.50	15,447.12	12,806.79	39.24	49.27	-86.95	-2,501.14	1,917.30	1,328.37	1,240.83	87.54	15.175
15,600.00	12,878.37	15,547.12	12,807.31	40.45	50.57	-86.93	-2,601.13	1,918.21	1,328.43	1,238.37	90.07	14.749
15,700.00	12,879.24	15,647.12	12,807.84	41.67	51.87	-86.92	-2,701.13	1,919.11	1,328.50	1,235.89	92.61	14.345
15,800.00	12,880.11	15,747.12	12,808.36	42.90	53.18	-86.90	-2,801.12	1,920.02	1,328.56	1,233.39	95.17	13.960
15,900.00	12,880.97	15,847.12	12,808.89	44.13	54.49	-86.89	-2,901.11	1,920.93	1,328.63	1,230.89	97.73	13.595
16,000.00	12,881.84	15,947.12	12,809.42	45.38	55.80	-86.88	-3,001.11	1,921.83	1,328.69	1,228.38	100.31	13.246
16,100.00	12,882.71	16,047.12	12,809.94	46.63	57.12	-86.86	-3,101.10	1,922.74	1,328.76	1,225.87	102.89	12.914
16,200.00	12,883.58	16,147.11	12,810.47	47.89	58.43	-86.85	-3,201.10	1,923.65	1,328.82	1,223.34	105.48	12.598
16,300.00	12,884.45	16,247.11	12,810.99	49.15	59.75	-86.83	-3,301.09	1,924.55	1,328.89	1,220.81	108.08	12.296
16,400.00	12,885.31	16,347.11	12,811.52	50.43	61.07	-86.82	-3,401.08	1,925.46	1,328.95	1,218.27	110.68	12.007
16,500.00	12,886.18	16,447.11	12,812.04	51.70	62.40	-86.80	-3,501.08	1,926.37	1,329.02	1,215.72	113.29	11.731
16,600.00	12,887.05	16,547.11	12,812.57	52.98	63.72	-86.79	-3,601.07	1,927.27	1,329.08	1,213.17	115.91	11.466
16,700.00	12,887.92	16,647.11	12,813.10	54.27	65.05	-86.77	-3,701.07	1,928.18	1,329.15	1,210.61	118.53	11.213
16,800.00	12,888.79	16,747.11	12,813.62	55.55	66.38	-86.76	-3,801.06	1,929.09	1,329.21	1,208.05	121.16	10.971
16,900.00	12,889.66	16,847.11	12,814.15	56.85	67.71	-86.74	-3,901.05	1,929.99	1,329.28	1,205.48	123.79	10.738
17,000.00	12,890.52	16,947.11	12,814.67	58.14	69.04	-86.73	-4,001.05	1,930.90	1,329.34	1,202.91	126.43	10.514
17,100.00	12,891.39	17,047.11	12,815.20	59.44	70.37	-86.71	-4,101.04	1,931.81	1,329.41	1,200.34	129.07	10.300
17,200.00	12,892.26	17,147.11	12,815.72	60.75	71.71	-86.70	-4,201.04	1,932.71	1,329.47	1,197.76	131.72	10.094
17,300.00	12,893.13	17,247.11	12,816.25	62.05	73.04	-86.69	-4,301.03	1,933.62	1,329.54	1,195.18	134.36	9.895
17,400.00	12,894.00	17,347.11	12,816.78	63.36	74.38	-86.67	-4,401.02	1,934.53	1,329.60	1,192.59	137.02	9.704
17,500.00	12,894.86	17,447.11	12,817.30	64.67	75.72	-86.66	-4,501.02	1,935.43	1,329.67	1,190.00	139.67	9.520
17,600.00	12,895.73	17,547.11	12,817.83	65.99	77.06	-86.64	-4,601.01	1,936.34	1,329.74	1,187.41	142.33	9.343
17,700.00	12,896.60	17,647.11	12,818.35	67.30	78.40	-86.63	-4,701.00	1,937.25	1,329.80	1,184.81	144.99	9.172
17,800.00	12,897.47	17,747.11	12,818.88	68.62	79.74	-86.61	-4,801.00	1,938.16	1,329.87	1,182.22	147.65	9.007
17,900.00	12,898.34	17,847.10	12,819.41	69.94	81.08	-86.60	-4,900.99	1,939.06	1,329.94	1,179.62	150.32	8.848
18,000.00	12,899.20	17,947.10	12,819.93	71.26	82.43	-86.58	-5,000.99	1,939.97	1,330.00	1,177.02	152.98	8.694
18,100.00	12,900.07	18,047.10	12,820.46	72.58	83.77	-86.57	-5,100.98	1,940.88	1,330.07	1,174.41	155.66	8.545
18,200.00	12,900.94	18,147.10	12,820.98	73.91	85.12	-86.55	-5,200.97	1,941.78	1,330.13	1,171.81	158.33	8.401
18,300.00	12,901.81	18,247.10	12,821.51	75.24	86.46	-86.54	-5,300.97	1,942.69	1,330.20	1,169.20	161.00	8.262
18,400.00	12,902.68	18,347.10	12,822.03	76.56	87.81	-86.52	-5,400.96	1,943.60	1,330.27	1,166.59	163.68	8.127
18,500.00	12,903.54	18,447.10	12,822.56	77.89	89.15	-86.51	-5,500.96	1,944.50	1,330.33	1,163.98	166.36	7.997
18,600.00	12,904.41	18,547.10	12,823.09	79.23	90.50	-86.50	-5,600.95	1,945.41	1,330.40	1,161.37	169.04	7.871
18,700.00	12,905.28	18,647.10	12,823.61	80.56	91.85	-86.48	-5,700.94	1,946.32	1,330.47	1,158.75	171.72	7.748
18,800.00	12,906.15	18,747.10	12,824.14	81.89	93.20	-86.47	-5,800.94	1,947.22	1,330.54	1,156.14	174.40	7.629
18,900.00	12,907.02	18,847.10	12,824.66	83.23	94.55	-86.45	-5,900.93	1,948.13	1,330.60	1,153.52	177.08	7.514
19,000.00	12,907.88	18,947.10	12,825.19	84.56	95.90	-86.44	-6,000.93	1,949.04	1,330.67	1,150.90	179.77	7.402

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Offset Design: Junior Mint Fed Pad - Junior Mint Fed 223H - OH - Plan 1

Offset Site Error: 0.00 usft

Offset Well Error: 0.50 usft

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)			
19,100.00	12,908.75	19,047.10	12,825.71	85.90	97.25	-86.42	-6,100.92	1,949.94	1,330.74	1,148.28	182.46	7.293	
19,200.00	12,909.62	19,147.10	12,826.24	87.24	98.60	-86.41	-6,200.91	1,950.85	1,330.81	1,145.66	185.15	7.188	
19,300.00	12,910.49	19,247.10	12,826.77	88.58	99.95	-86.39	-6,300.91	1,951.76	1,330.87	1,143.04	187.84	7.085	
19,400.00	12,911.36	19,347.10	12,827.29	89.92	101.30	-86.38	-6,400.90	1,952.66	1,330.94	1,140.41	190.53	6.986	
19,500.00	12,912.22	19,447.09	12,827.82	91.26	102.66	-86.36	-6,500.89	1,953.57	1,331.01	1,137.79	193.22	6.889	
19,600.00	12,913.09	19,547.09	12,828.34	92.60	104.01	-86.35	-6,600.89	1,954.48	1,331.08	1,135.16	195.91	6.794	
19,700.00	12,913.96	19,647.09	12,828.87	93.94	105.36	-86.34	-6,700.88	1,955.39	1,331.14	1,132.54	198.60	6.702	
19,800.00	12,914.83	19,747.09	12,829.40	95.29	106.72	-86.32	-6,800.88	1,956.29	1,331.21	1,129.91	201.30	6.613	
19,900.00	12,915.70	19,847.09	12,829.92	96.63	108.07	-86.31	-6,900.87	1,957.20	1,331.28	1,127.28	204.00	6.526	
20,000.00	12,916.56	19,947.09	12,830.45	97.98	109.42	-86.29	-7,000.86	1,958.11	1,331.35	1,124.66	206.69	6.441	
20,100.00	12,917.43	20,047.09	12,830.97	99.32	110.78	-86.28	-7,100.86	1,959.01	1,331.42	1,122.03	209.39	6.359	
20,200.00	12,918.30	20,147.09	12,831.50	100.67	112.13	-86.26	-7,200.85	1,959.92	1,331.48	1,119.40	212.09	6.278	
20,300.00	12,919.17	20,247.09	12,832.02	102.01	113.49	-86.25	-7,300.85	1,960.83	1,331.55	1,116.77	214.79	6.199	
20,400.00	12,920.04	20,347.09	12,832.55	103.36	114.85	-86.23	-7,400.84	1,961.73	1,331.62	1,114.13	217.49	6.123	
20,500.00	12,920.90	20,447.09	12,833.08	104.71	116.20	-86.22	-7,500.83	1,962.64	1,331.69	1,111.50	220.19	6.048	
20,600.00	12,921.77	20,547.09	12,833.60	106.06	117.56	-86.20	-7,600.83	1,963.55	1,331.76	1,108.87	222.89	5.975	
20,700.00	12,922.64	20,647.09	12,834.13	107.41	118.92	-86.19	-7,700.82	1,964.45	1,331.83	1,106.24	225.59	5.904	
20,800.00	12,923.51	20,747.09	12,834.65	108.76	120.27	-86.17	-7,800.82	1,965.36	1,331.90	1,103.60	228.29	5.834	
20,900.00	12,924.38	20,847.09	12,835.18	110.11	121.63	-86.16	-7,900.81	1,966.27	1,331.96	1,100.97	230.99	5.766	
21,000.00	12,925.24	20,947.09	12,835.70	111.46	122.99	-86.15	-8,000.80	1,967.17	1,332.03	1,098.34	233.70	5.700	
21,100.00	12,926.11	21,047.09	12,836.23	112.81	124.35	-86.13	-8,100.80	1,968.08	1,332.10	1,095.70	236.40	5.635	
21,200.00	12,926.98	21,147.08	12,836.76	114.16	125.70	-86.12	-8,200.79	1,968.99	1,332.17	1,093.06	239.11	5.571	
21,300.00	12,927.85	21,247.08	12,837.28	115.51	127.06	-86.10	-8,300.79	1,969.89	1,332.24	1,090.43	241.81	5.509	
21,400.00	12,928.72	21,347.08	12,837.81	116.87	128.42	-86.09	-8,400.78	1,970.80	1,332.31	1,087.79	244.52	5.449	
21,500.00	12,929.58	21,447.08	12,838.33	118.22	129.78	-86.07	-8,500.77	1,971.71	1,332.38	1,085.16	247.22	5.389	
21,600.00	12,930.45	21,547.08	12,838.86	119.57	131.14	-86.06	-8,600.77	1,972.61	1,332.45	1,082.52	249.93	5.331	
21,700.00	12,931.32	21,647.08	12,839.39	120.93	132.50	-86.04	-8,700.76	1,973.52	1,332.52	1,079.88	252.64	5.274	
21,800.00	12,932.19	21,747.08	12,839.91	122.28	133.86	-86.03	-8,800.75	1,974.43	1,332.59	1,077.24	255.34	5.219	
21,900.00	12,933.06	21,847.08	12,840.44	123.63	135.22	-86.01	-8,900.75	1,975.34	1,332.66	1,074.61	258.05	5.164	
22,000.00	12,933.92	21,947.08	12,840.96	124.99	136.58	-86.00	-9,000.74	1,976.24	1,332.73	1,071.97	260.76	5.111	
22,100.00	12,934.79	22,047.08	12,841.49	126.34	137.94	-85.99	-9,100.74	1,977.15	1,332.80	1,069.33	263.47	5.059	
22,200.00	12,935.66	22,147.08	12,842.01	127.70	139.30	-85.97	-9,200.73	1,978.06	1,332.87	1,066.69	266.18	5.007	
22,300.00	12,936.53	22,247.08	12,842.54	129.05	140.66	-85.96	-9,300.72	1,978.96	1,332.94	1,064.05	268.88	4.957	
22,400.00	12,937.40	22,347.08	12,843.07	130.41	142.02	-85.94	-9,400.72	1,979.87	1,333.01	1,061.41	271.59	4.908	
22,500.00	12,938.26	22,447.08	12,843.59	131.77	143.38	-85.93	-9,500.71	1,980.78	1,333.08	1,058.77	274.30	4.860	
22,600.00	12,939.13	22,547.08	12,844.12	133.12	144.74	-85.91	-9,600.71	1,981.68	1,333.15	1,056.13	277.01	4.813	
22,700.00	12,940.00	22,647.08	12,844.64	134.48	146.10	-85.90	-9,700.70	1,982.59	1,333.22	1,053.49	279.72	4.766	
22,800.00	12,940.87	22,747.08	12,845.17	135.84	147.46	-85.88	-9,800.69	1,983.50	1,333.29	1,050.85	282.43	4.721	
22,900.00	12,941.74	22,847.07	12,845.69	137.19	148.82	-85.87	-9,900.69	1,984.40	1,333.36	1,048.21	285.14	4.676	
23,000.00	12,942.61	22,947.07	12,846.22	138.55	150.19	-85.86	-10,000.68	1,985.31	1,333.43	1,045.57	287.86	4.632	
23,100.00	12,943.47	23,047.07	12,846.75	139.91	151.55	-85.84	-10,100.68	1,986.22	1,333.50	1,042.93	290.57	4.589	
23,184.44	12,944.21	23,131.51	12,847.19	141.07	152.70	-85.83	-10,185.11	1,986.98	1,333.56	1,040.71	292.85	4.554	ES, SF

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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3220 + 26 @ 3246.00usft (26' KB) Coordinates are relative to: Junior Mint Fed 222H

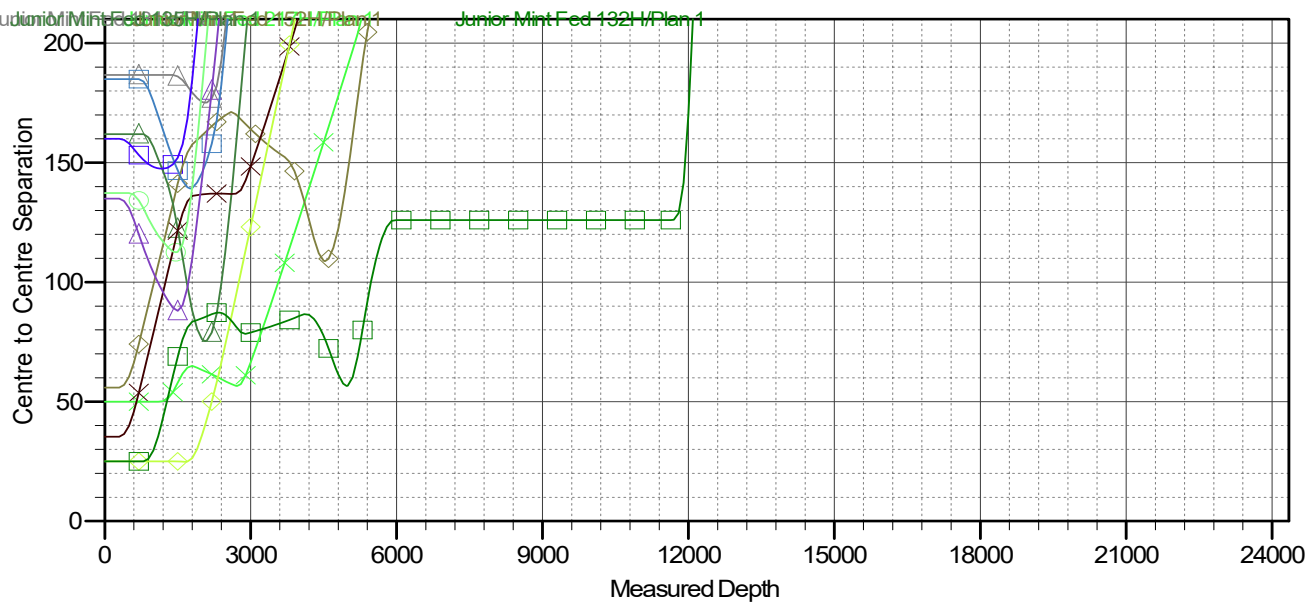
Offset Depths are relative to Offset Datum

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

Central Meridian is -104.3333333

Grid Convergence at Surface is: 0.52°

Ladder Plot



LEGEND

Junior Mint Fed 217H, OH, Plan 1 V0	Junior Mint Fed 223H, OH, Plan 1 V0	Junior Mint Fed 211H, OH, Plan 1 V0
Junior Mint Fed 131H, OH, Plan 1 V0	Junior Mint Fed 156H, OH, Plan 1 V0	Junior Mint Fed 151H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan 1 V0	Junior Mint Fed 134H, OH, Plan 1 V0	Junior Mint Fed 212H, OH, Plan 1 V0
Junior Mint Fed 133H, OH, Plan 1 V0	Junior Mint Fed 135H, OH, Plan 1 V0	Junior Mint Fed 215H, OH, Plan 1 V0
Junior Mint Fed 213H, OH, Plan 1 V0	(O) Montera Federal 023H, OH, OH V0	Junior Mint Fed 216H, OH, Plan 1 V0
Junior Mint Fed 221H, OH, Plan 1 V0	Junior Mint Fed 137H, OH, Plan 1 V0	Junior Mint Fed 132H, OH, Plan 1 V0

CC - Min centre to center distance or covergent 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 222H
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 222H	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 1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GE 3220 + 26 @ 3246.00usft (26' KB)Coordinates are relative to: Junior Mint Fed 222H

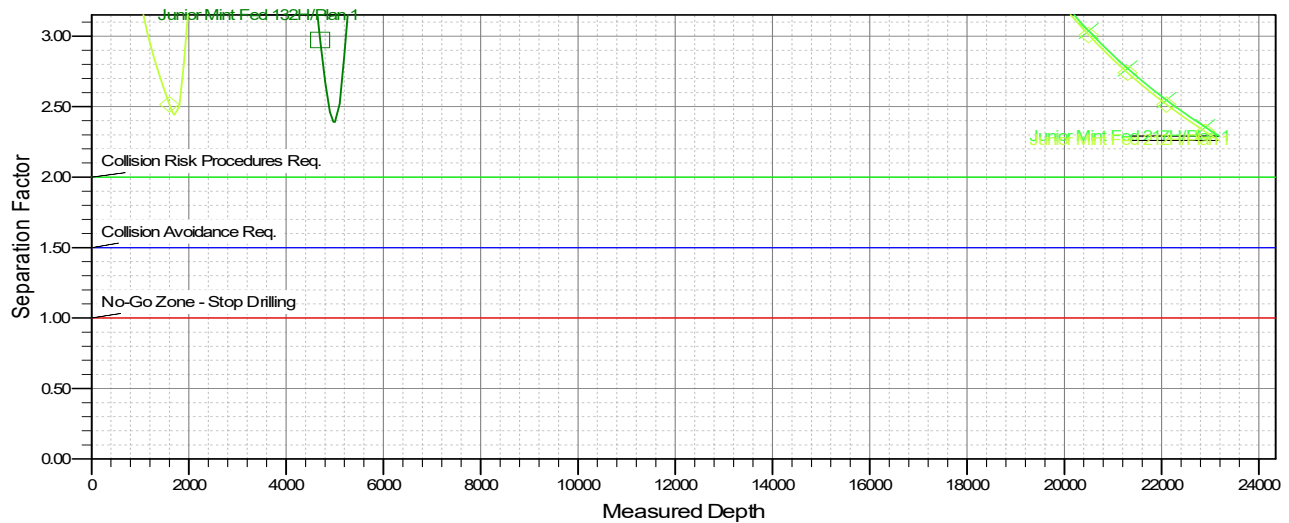
Offset Depths are relative to Offset Datum

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 217H, OH, Plan 1 V0	Junior Mint Fed 223H, OH, Plan 1 V0	Junior Mint Fed 211H, OH, Plan 1 V0
Junior Mint Fed 131H, OH, Plan 1 V0	Junior Mint Fed 156H, OH, Plan 1 V0	Junior Mint Fed 151H, OH, Plan 1 V0
Junior Mint Fed 152H, OH, Plan 1 V0	Junior Mint Fed 134H, OH, Plan 1 V0	Junior Mint Fed 212H, OH, Plan 1 V0
Junior Mint Fed 133H, OH, Plan 1 V0	Junior Mint Fed 135H, OH, Plan 1 V0	Junior Mint Fed 215H, OH, Plan 1 V0
Junior Mint Fed 213H, OH, Plan 1 V0	(O) Montera Federal 023H, OH, OH V0	Junior Mint Fed 216H, OH, Plan 1 V0
Junior Mint Fed 221H, OH, Plan 1 V0	Junior Mint Fed 137H, OH, Plan 1 V0	Junior Mint Fed 132H, OH, Plan 1 V0

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

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

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Phone: (505) 629-6116

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

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

CONDITIONS

Action 475461

CONDITIONS

Operator: Civitas Permian Operating, LLC 555 17th Street Denver, CO 80202	OGRID: 332195
	Action Number: 475461
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	Any previous COA's not addressed within the updated COA's still apply.	6/25/2025