

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

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

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. [320841]	
2. Name of Operator [228937]		9. API Well No. 30-025-51190	
3a. Address		3b. Phone No. (include area code) 10. Field and Pool, or Exploratory [98166]	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish 13. State	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		16. No of acres in lease 17. Spacing Unit dedicated to this well	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		19. Proposed Depth 20. BLM/BIA Bond No. in file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work will start* 23. Estimated duration	
24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the BLM.			
25. Signature		Name (Printed/Typed)	
Title		Date	
Approved by (Signature)		Name (Printed/Typed)	
Title		Office	
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

NGMP Rec 03/06/2023

SL

(Continued on page 2)



Approval Date: 02/28/2023

KZ

 03/09/2023

*(Instructions on page 2)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-51190		² Pool Code 98166	³ Pool Name WC-025 G-09 S233216K, UPR WOLFCAMP
⁴ Property Code 320841	⁵ Property Name NINA CORTELL FED COM		⁶ Well Number 221H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY		⁹ Elevation 3790'

¹⁰Surface Location

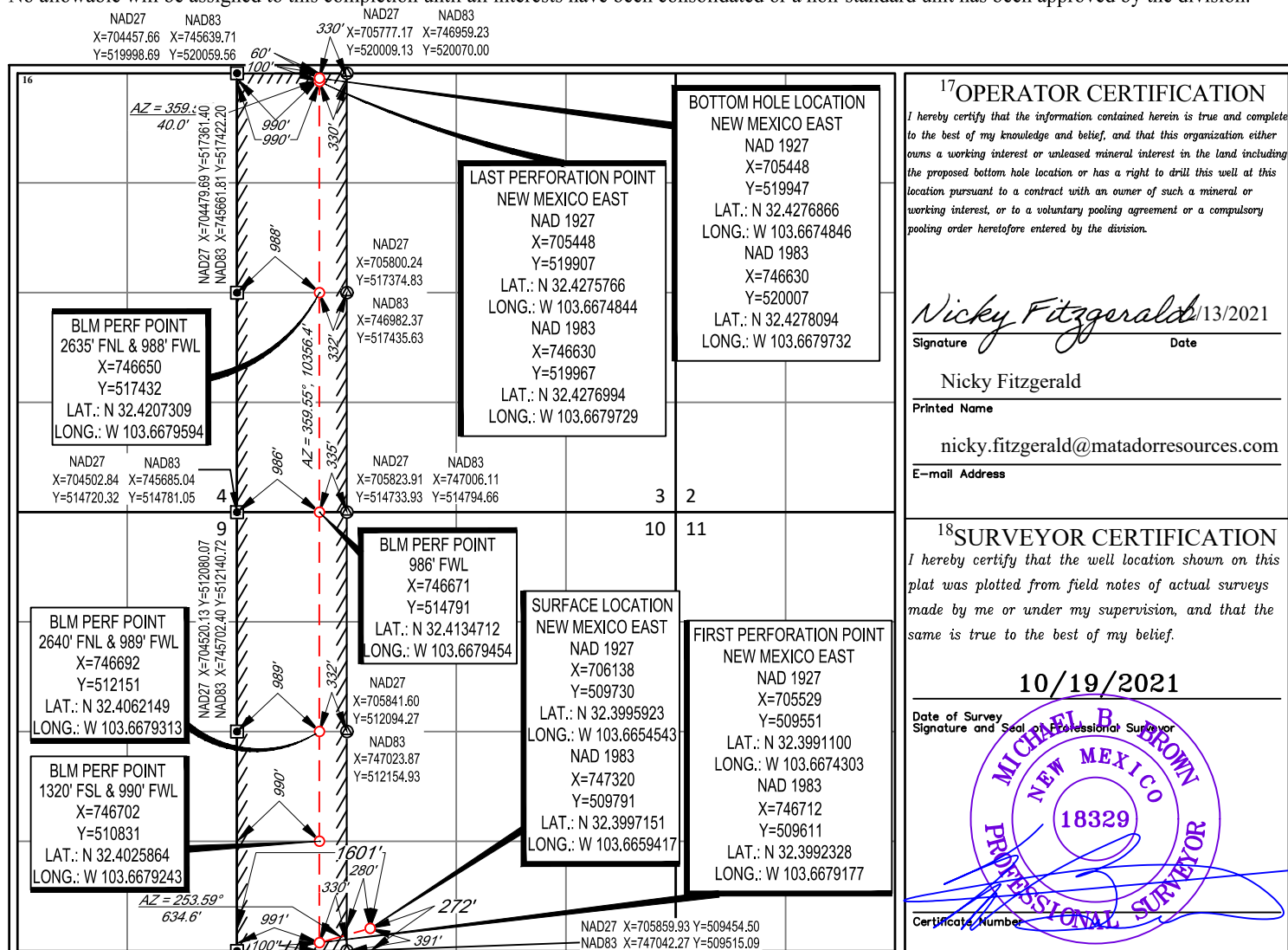
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	10	22-S	32-E	-	272'	SOUTH	1601'	WEST	LEA

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	3	22-S	32-E	-	60'	NORTH	990'	WEST	LEA

¹² Dedicated Acres 319.92	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Nicky Fitzgerald 13/2021
Signature Date

Nicky Fitzgerald

Printed Name

nicky.fitzgerald@matadorresources.com

E-mail Address

¹⁸SURVEYOR 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 to the best of my belief.

10/19/2021

Date of Survey
Signature and Seal of Professional Surveyor

Michael B. Brown
MICHAEL B. BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR
Certificate Number

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Matador Production Company **OGRID:** 228937 **Date:** 03/01/2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Nina Cortell Fed Com 126H	TBD	N 10-22S-32E	242' FSL 1,681' FWL	1,300	1,300	3,000
Nina Cortell Fed Com 222H	TBD	N 10-22S-32E	242' FSL 1,601' FWL	1,000	3,500	4,000
Nina Cortell Fed Com 221H	TBD	N 10-22S-32E	272' FSL 1,601' FWL	1,000	3,500	4,000
Nina Cortell Fed Com 132H	TBD	N 10-22S-32E	242' FSL 1,571' FWL	1,400	2,500	3,500

IV. Central Delivery Point Name: Nina Cortell South TB [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Nina Cortell Fed Com 126H	TBD	08/10/2023	09/05/2023	11/20/2023	12/20/2023	12/20/2023
Nina Cortell Fed Com 222H	TBD	09/06/2023	10/02/2023	11/20/2023	12/20/2023	12/20/2023
Nina Cortell Fed Com 221H	TBD	10/03/2023	10/23/2023	11/20/2023	12/20/2023	12/20/2023
Nina Cortell Fed Com 132H	TBD	10/24/2023	11/18/2023	11/20/2023	12/20/2023	12/20/2023

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

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

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

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

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:
Printed Name: Omar Enriquez
Title: Sr. Production Engineer
E-mail Address: oenriquez@matadorresources.com
Date: 03/01/2023
Phone: (972) 587-4638
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Addendum to Natural Gas Management Plan for Matador's

Nina Cortell Fed Com 126H, Nina Cortell Fed Com 221H, Nina Cortell Fed Com 222H and Nina Cortell Fed Com 132H

VI. Separation Equipment

Flow from the wells will be routed via a flowline to a 48"x15' three phase separator dedicated to the well. The first stage separators are sized with input from BRE ProMax and API 12J. Anticipated production rates can be seen in the below table. Liquid retention times at expected maximum rates will be >3 minutes. Gas will be routed from the first stage separator to sales. Hydrocarbon liquids are dumped from the first stage separator and commingled to one or more heater treaters. The flash gas from the heater treater(s) could either be sent to sales or routed to a compressor if the sales line pressure is higher than the MAWP of the heater treater (125 psi). From the heater treaters, hydrocarbon liquid will be routed to the tanks where vapor is compressed by a VRU if technically feasible to either sales or a compressor if the sales line pressure is higher than the VRU's maximum discharge pressure (~150 psi). Therefore, Matador has sized our separation equipment to optimize gas capture and our separation equipment is of sufficient size to handle the expected volumes of gas.

Well Name	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Nina Cortell Fed Com 126H	1,300	1,300	3,000
Nina Cortell Fed Com 222H	1,000	3,500	4,000
Nina Cortell Fed Com 221H	1,000	3,500	4,000
Nina Cortell Fed Com 132H	1,400	2,500	3,500

VII. Operation Practices

Although not a complete recitation of all our efforts to comply with a subsection A through F of 19.15.27.8 NMAC, a summary is as follows. During drilling, Matador will have a properly sized flare stack at least 100 feet from the nearest surface hole. During initial flowback we will route the flowback fluids into completion or storage tanks and, to the extent possible, flare rather than vent any gas. We will commence operation of a separator as soon as technically feasible, and have instructed our team that we want to connect the gas to sales as soon as possible but not later than 30 days after initial flowback.

Regarding production operations, we have designed our production facilities to be compliant with the requirements of Part E of 19.15.27.8 NMAC. We will instruct our team to perform the AVOs on the frequency required under the rules. While the well is producing, we will take steps to minimize flaring during maintenance, as set forth below, and we have a process in place for the measuring of any flared gas and the reporting of any reportable flaring events.

VII. Best Management Practices

Steps are taken to minimize venting during active or planned maintenance when technically feasible including:

- Isolating the affected component and reducing pressure through process piping
- Blowing down the equipment being maintained to a control device
- Performing preventative maintenance and minimizing the duration of maintenance activities
- Shutting in sources of supply as possible
- Other steps that are available depending on the maintenance being performed

Nina Cortell Fed Com 221H
 SHL: 272 FSL & 1601' FWL Section 10
 BHL: 60' FNL & 990' FWL Section 3
 Township/Range: 22S 32E
 Elevation Above Sea Level: 3790

Drilling Operation Plan

Proposed Drilling Depth: 22787' MD / 12398' TVD

Type of well: Horizontal well, no pilot hole

Permitted Well Type: Oil

Geologic Name of Surface Formation: Quaternary Deposits

KOP Lat/Long (NAD83): 32.39909452344052 N / -103.6675955918041 W

TD Lat/Long (NAD83): 32.42780938026717 N / -103.66797314744198 W

1. Estimated Tops

Formation	MD (ft)	TVD (ft)	Thickness (ft)	Lithology	Resource
Rustler	803	803	372	Anhydrite	Barren
Salado (Top of Salt)	1,175	1,175	3,731	Salt	Barren
Lamar (Base of Salt)	4,937	4,906	38	Dolomite	Barren
Bell Canyon	4,975	4,944	888	Sandstone	Oil/Natural Gas
Cherry Canyon	5,872	5,832	1,131	Sandstone	Oil/Natural Gas
Brushy Canyon	7,003	6,963	1,849	Sandstone	Oil/Natural Gas
Bone Spring Lime	8,852	8,812	840	Limestone	Oil/Natural Gas
1st Bone Spring Carb	9,692	9,652	221	Carbonate	Oil/Natural Gas
1st Bone Spring Sand	9,913	9,873	298	Sandstone	Oil/Natural Gas
2nd Bone Spring Carb	10,211	10,171	407	Carbonate	Oil/Natural Gas
2nd Bone Spring Sand	10,618	10,578	1,008	Sandstone	Oil/Natural Gas
3rd Bone Spring Sand	11,626	11,586	410	Sandstone	Oil/Natural Gas
KOP	12,007	11,970	-	Sandstone	Oil/Natural Gas
Wolfcamp A	12,036	11,996	277	Sandstone	Oil/Natural Gas
Wolfcamp B	12,329	12,273	-	Shale	Oil/Natural Gas
TD	22,787	12,398		Shale	Oil/Natural Gas

2. Notable Zones

Wolfcamp B is the goal. All perforations will be within the setback requirements as prescribed or permitted by the New Mexico Oil Conservation Division. OSE estimated ground water depth at this location is 375'.

3. Pressure Control

Equipment

Drill Plan

A 18,000' 10,000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and one annular preventer will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams.

An accumulator complying with Onshore Order #2 requirements for the pressure rating of the BOP stack will be present. A rotating head will also be installed as needed.

Testing Procedure

BOP will be inspected and operated as required in Onshore Order #2. Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position.

A third party company will test the BOPs.

After setting surface casing, a minimum 10M BOPE system will be installed. Test pressures will be 250 psi low and 10,000 psi high with the annular preventer being tested to 250 psi low and 5000 psi high before drilling below surface shoe. In the event that the rig drills multiple wells on the pad and any seal subject to test pressures are broken, a full BOP test will be performed when the rig returns and the 10M BOPE system is re-installed.

Variance Request

Matador requests a variance to have the option of running a multi-bowl wellhead assembly for setting the Intermediate 1, and Production Strings. The BOPs will not be tested again unless any flanges are separated.

Matador requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Matador requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, the wellbore will be secured with a blind flange of like pressure. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test.

Matador requests a variance to drill this well using a 5M annular preventer with a 10M BOP ram stack. The "Well Control Plan For 10M MASP Section of Wellbore" is attached.

4. Casing & Cement

All casing will be API and new. See attached casing assumption worksheet.

String	Hole Size (in)	Set MD (ft)	Set TVD (ft)	Casing Size (in)	Wt. (lb/ft)	Grade	Joint	Collapse	Burst	Tension
Surface	17.5	0 - 828	0 - 828	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	9.875	0 - 11857	0 - 11857	7.625	29.7	P-110	BUTT	1.125	1.125	1.8
Production	6.75	0 - 22787	0 - 12398	5.5	20	P-110	Hunting TLW-SC	1.125	1.125	1.8

- All casing strings will be tested in accordance with Onshore Order #2 - III.B.1.h
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed
- All non-API joint connections will be of like or greater quality and as run specification sheets will be on location for review
- Request option to deepen Intermediate 1 set depth into curve, no changes in pipe weight or grade is necessary.

Drill PlanVariance Request

Matador request a variance to wave the centralizer requirement for the 7-5/8" casing and the 5-1/2" SF/Flush casing in the 6-3/4" hole.

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above the current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Matador request option to perform a bradenhead cement squeeze on Intermediate 1 string.

Matador request a variance to utilize a surface setting rig. If this is used, Matador request the option to drill either 17.5" or 20" surface hole.

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement	Class	Blend
Surface	Lead	360	1.72	622	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	528	C	5% NaCl + LCM
Intermediate 1	Lead	960	3.66	3524	10.3	35%	0	A/C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	230	1.38	311	13.2	35%	10857	A/C	5% NaCl + LCM
Production	Lead	20	1.71	32	12.5	10%	11657	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	690	1.44	1000	13.2	10%	12007	A/C	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

An electronic Pason mud monitoring system complying with Onshore Order 2 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

Hole Section	Hole Size (in)	Mud Type	Interval MD (ft)	Density (lb/gal)	Viscosity	Fluid Loss
Surface	17.5	Spud Mud	0 - 828	8.4 - 8.8	28-30	NC
Intermediate 1	9.875	Diesel Bine Emulsion	828 - 11857	8.7 - 9.4	28-30	NC
Production	6.75	OBM	11857 - 22787	11 - 13	30-50	<20

6. Cores, Test, & Logs

No core or drill stem test is planned.

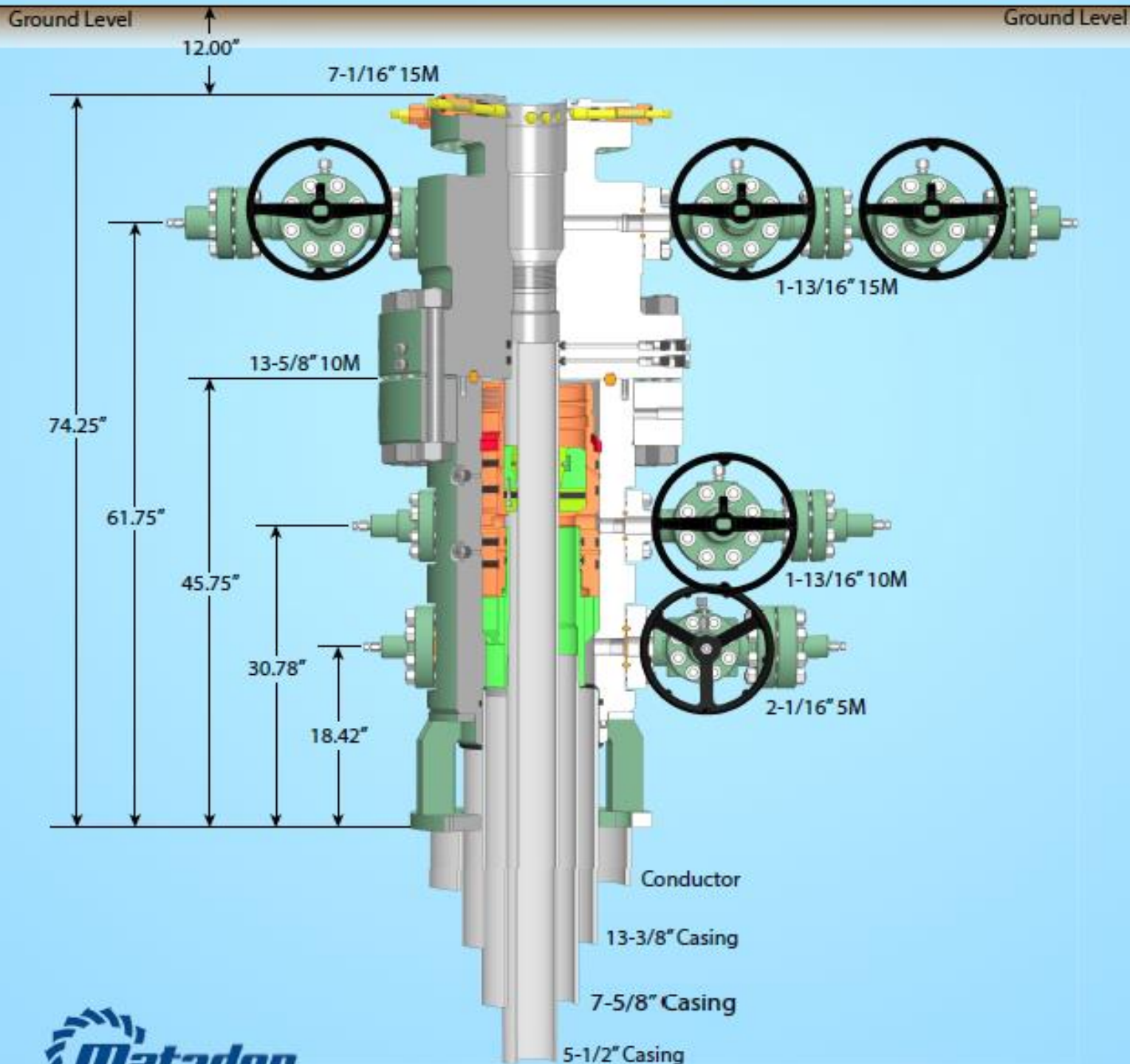
No electric logs are planned at this time. GR will be collected through the MWD tools from Intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to top of curve.

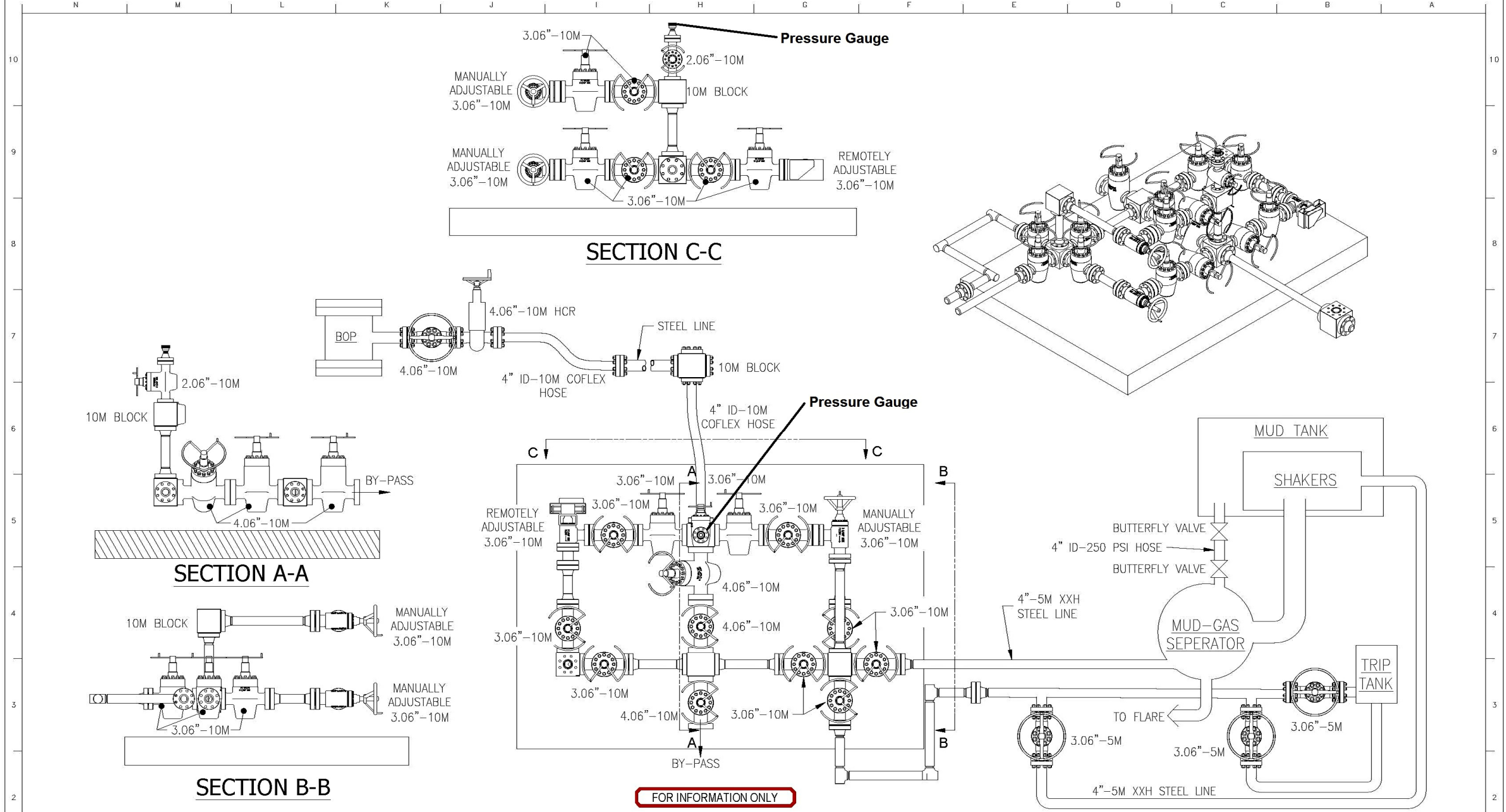
7. Down Hole Conditions

Drill Plan

No abnormal pressure or temperature is expected. Bottom hole pressure is 8381 psi. Maximum anticipated surface pressure is 5653 psi. Expected bottom hole temperature is 179 F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of a "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have a H₂S safety package on all wells, attached is a "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of the equipment being used.

**13-5/8" 10M MN-DS Wellhead**2018-083-01
Rev 01



FOR INFORMATION ONLY

WELDING NOTE & TOLERANCES UNLESS OTHERWISE SPECIFIED.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</
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Well Control Plan For 10M MASP Section of Wellbore

Component and Preventer Compatibility Table:

The table below covers the drilling and casing of the 10M MASP portion of the well and outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Component	OD	Preventer	RWP
Drill pipe	4"	Lower 3.5-5.5" VBR Upper 3.5-5.5" VBR	10M
HWDP	4"		
Jars/Agitator	4.75-5"		
Drill collars and MWD tools	4.75-5.25"		
Mud Motor	4.75-5.25"		
Production casing	4.5-5.5"		
ALL	0-13.625"	Annular	5M
Open-hole	-	Blind Rams	10M

VBR = Variable Bore Ram with compatible range listed in chart

HWDP = Heavy Weight Drill Pipe

MWD = Measurement While Drilling

Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the Bottom Hole Assembly (BHA) through the Blowout Preventers (BOP). The maximum pressure at which well control is transferred from the annular to another compatible ram is 3,000 psi.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps and stop rotary
4. Shut-in well with the annular preventer (The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher and company representative
7. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
8. Regroup and identify forward plan
9. If pressure has increased or is anticipated to increase above 3,000 psi, confirm spacing and close the upper pipe rams

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string



Well Control Plan For 10M MASP Section of Wellbore

4. Shut-in well with annular preventer (The HCR valve and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher and company representative
7. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
8. Regroup and identify forward plan
9. If pressure has increased or is anticipated to increase above 3,000 psi, confirm spacing and close the upper pipe rams

General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in well with annular preventer (The HCR valve and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher and company representative
7. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
8. Regroup and identify forward plan
9. If pressure has increased or is anticipated to increase above 3,000 psi, confirm spacing and close the upper pipe rams

General Procedure with No Pipe In Hole

1. At any point when the BOP stack is clear of pipe or BHA, the well will be shut in with blind rams, the HCR valve will be open, and choke will be closed. If pressure increase is observed:
2. Sound alarm (alert crew)
3. Confirm shut-in
4. Notify tool pusher and company representative
5. Read and record the following:
 - SICP
 - Time of shut in
6. Regroup and identify forward plan

General Procedure While Pulling BHA through Stack

1. Prior to pulling last joint/stand of drill pipe through the stack, perform flow check. If flowing:
 - a. Sound alarm (alert crew)
 - b. Stab full opening safety valve and close
 - c. Space out drill string
 - d. Shut-in well with annular preventer (The HCR valve and choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify tool pusher and company representative
 - g. Read and record the following:
 - SIDPP and SICP



Well Control Plan For 10M MASP Section of Wellbore

- Pit gain
 - Time of shut in
 - h. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combo immediately available:
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with the upset just beneath the compatible pipe ram
 - d. Shut-in well using compatible pipe rams (The HCR valve and choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify tool pusher and company representative
 - g. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
 - h. Regroup and identify forward plan
 3. With BHA in the stack and no compatible ram preventer and pipe combo immediately available:
 - a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull BHA clear of the stack
 - i. Follow "No Pipe in Hole" procedure above
 - c. If impossible to pick up high enough to pull string clear of the stack:
 - i. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
 - ii. Space out drill string with the upset just beneath the compatible pipe ram
 - iii. Shut-in well using compatible pipe rams (The HCR valve and choke will already be in the closed position)
 - iv. Confirm shut-in
 - v. Notify tool pusher and company representative
 - vi. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
 - vii. Regroup and identify forward plan

Well Control Drills

Well control drills are specific to the rig equipment, personnel, and operations. Each crew will execute one drill weekly relevant to ongoing operations, but will make a reasonable attempt to vary the type of drills. The drills will be recorded in the daily drilling log.



GATES ENGINEERING & SERVICES NORTH AMERICA
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10K CHOKE & KILL ASSEMBLY PRESSURE TEST CERTIFICATE

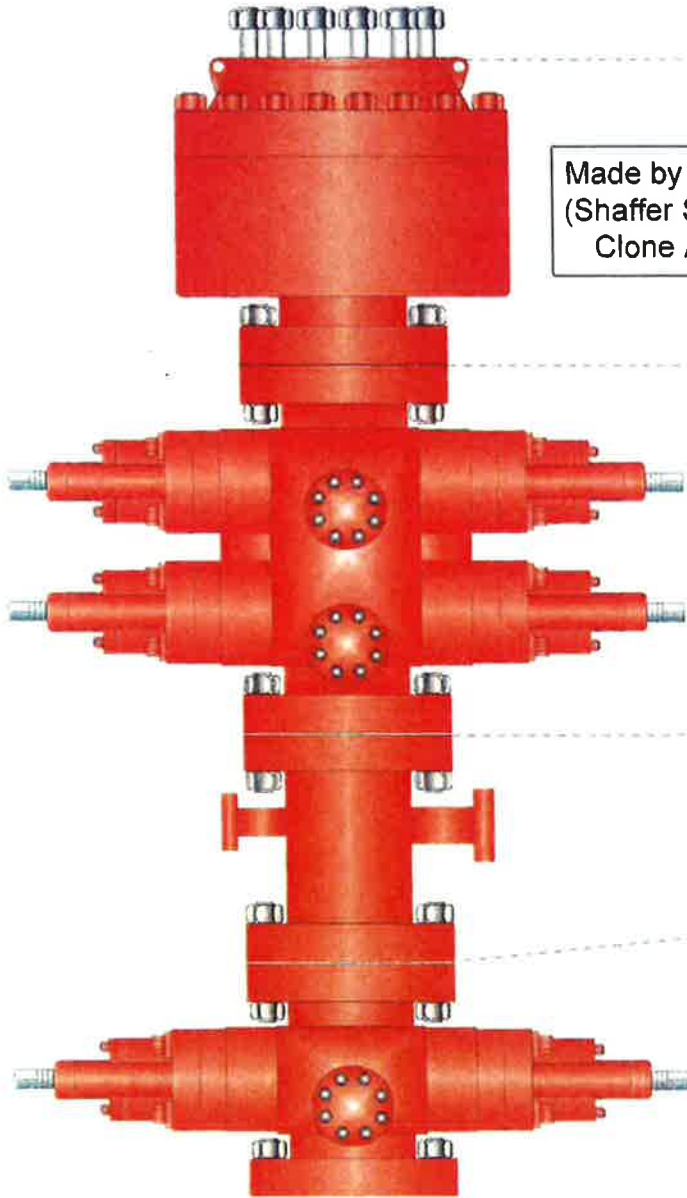
Customer:	A-7 AUSTIN INC DBA AUSTIN HOSE	Test Date:	1/21/2019
Customer Ref.:	4110435	Hose Serial No.:	H3-012119-5
Invoice No.:	513755	Created By:	Cristian Rivera
Product Description: 10KF3.035.0CK41/1610KFLGFXFLT LE HT SSA			
End Fitting 1:	4 1/16 10K FLANGES FIXED	End Fitting 2:	4 1/16 10K FLANGES FLOAT
Gates Part No.:	68503010-9721632	Assembly Code:	L41422010819H3-012119-5
Working Pressure:	10,000 psi.	Test Pressure:	15,000 psi.

Gates Engineering & Services North America certifies that the following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements

Quality:	QUALITY	Production:	PRODUCTION
Date :	1/21/2019	Date :	1/21/2019
Signature :		Signature :	

Form PTC - 01 Rev.0 2



**PATTERSON-UTI****Well Control****RIG:** 297

Made by Cameron
(Shaffer Spherical)
Clone Annular

PATTERSON-UTI # PS2-628**STYLE:** New Shaffer Spherical**BORE** 13 5/8" **PRESSURE** 5,000**HEIGHT:** 48 1/2" **WEIGHT:** 13,800 lbs**PATTERSON-UTI #** PC2-128**STYLE:** New Cameron Type U**BORE** 13 5/8" **PRESSURE** 10,000**RAMS:** TOP 5" Pipe BTM Blinds**HEIGHT:** 66 5/8" **WEIGHT:** 24,000 lbs**Length** 40" **Outlets** 4" 10M**DSA** 4" 10M x 2" 10M**PATTERSON-UTI #** PC2-228**STYLE:** New Cameron Type U**BORE** 13 5/8" **PRESSURE** 10,000**RAMS:** 5" Pipe**HEIGHT:** 41 5/8" **WEIGHT:** 13,000 lbs**WING VALVES**

2" Check Valve



2" Manual Valve



2" Manual Valve



4" Manual Valve



4" Hydraulic Valve



TEC-LOCK WEDGE

5.500" 20 LB/FT (.361"Wall) with 5.875" SPECIAL CLEARANCE OD
BEN P110 CY

Pipe Body Data

Nominal OD:	5.500	in
Nominal Wall:	.361	in
Nominal Weight:	20.00	lb/ft
Plain End Weight:	19.83	lb/ft
Material Grade:	P110 CY	
Mill/Specification:	BEN	
Yield Strength:	125,000	psi
Tensile Strength:	135,000	psi
Nominal ID:	4.778	in
API Drift Diameter:	4.653	in
Special Drift Diameter:	None	in
RBW:	87.5 %	
Body Yield:	729,000	lbf
Burst:	14,360	psi
Collapse:	13,010	psi

Connection Data

Standard OD:	5.875	in
Pin Bored ID:	4.778	in
Critical Section Area:	5.656	in ²
Tensile Efficiency:	97 %	
Compressive Efficiency:	100 %	
Longitudinal Yield Strength:	707,000	lbf
Compressive Limit:	729,000	lbf
Internal Pressure Rating:	14,360	psi
External Pressure Rating:	13,010	psi
Maximum Bend:	101.2	°/100ft

Operational Data

Minimum Makeup Torque:	15,000	ft*lbf
Optimum Makeup Torque:	18,700	ft*lbf
Maximum Makeup Torque:	41,200	ft*lbf
Minimum Yield:	45,800	ft*lbf
Makeup Loss:	5.97	in

Notes Operational Torque is equivalent to the Maximum Make-Up Torque

Generated on Sep 03, 2019



Casing Design Criteria and Load Case Assumptions

Surface Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

Intermediate #1 Casing

Collapse: $DF_c=1.125$

- Partial Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that. External force will be equal to the mud gradient in which the casing will be run, which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy.

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run. The effects of axial load on collapse will be considered.

- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst: $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run, which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.50 psi/ft with an external force equal to the mud gradient in which the casing will be run, which is a more conservative backup force than pore pressure.

Tensile: $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy.



SURVEY PROGRAM

WELL DETAILS: Nina Cortell Fed Com #221H

Depth From	Depth To	Survey/Plan	Tool			GL @ 3790.0	KB @ 3818.5usft	(Original Well Elev)				
0.0	22786.6	BLM Plan #1 (Wellbore #1)	MWD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		Slot	
				0.0	0.0	509729.98	706138.05	32° 23' 58.532 N	103° 39' 55.635 W			

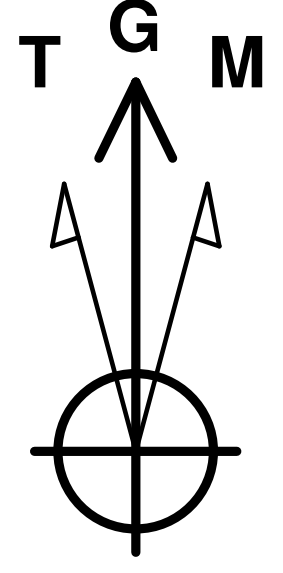
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP - Nina Cortell Fed Com #221H	11970.0	-229.0	-509.1	509501.00	705629.00	32° 23' 56.298 N	103° 40' 1.589 W
BHL - Nina Cortell Fed Com #221H	12397.5	10216.3	-690.3	519946.52	705447.72	32° 25' 39.645 N	103° 40' 2.945 W
Enter NMNM 055952 - Nina Cortell Fed Com #221H	12513.2	2359.4	-628.8	512089.29	705509.30	32° 24' 21.917 N	103° 40' 2.797 W
Enter NMNM 135247 - Nina Cortell Fed Com #221H	12435.4	7639.2	-670.0	517369.22	705468.02	32° 25' 14.167 N	103° 40' 2.895 W
Exit NMNM 055952 - Nina Cortell Fed Com #221H	12474.3	4998.8	-649.4	514728.70	705488.66	32° 24' 48.037 N	103° 40' 2.846 W
Exit NMNM 086147 - Nina Cortell Fed Com #221H	12532.7	1039.8	-618.5	510769.65	705519.63	32° 24' 8.858 N	103° 40' 2.773 W

1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	Start Build 1.00
2300.0	8.00	245.78	2297.4	-22.9	-50.9	1.00	245.78	-22.5	Start 3343.3 hold at 2300.0 MD
5643.3	8.00	245.78	5608.2	-213.8	-475.2	0.00	0.00	-210.0	Start Drop -1.50
6176.7	0.00	0.00	6139.8	-229.0	-509.1	1.50	180.00	-225.0	Start 5830.2 hold at 6176.7 MD
12006.9	0.00	0.00	11970.0	-229.0	-509.1	0.00	0.00	-225.0	Start Build 10.00
12915.3	90.84	352.10	12542.9	346.8	-589.0	10.00	352.10	351.5	Start DLS 2.00 TFO 89.92
13287.8	90.84	359.55	12537.4	718.1	-616.1	2.00	89.92	722.9	Start 9499.5 hold at 13287.8 MD
22787.3	90.84	359.55	12397.5	10216.3	-690.3	0.00	0.00	10221.4	TD at 22787.3

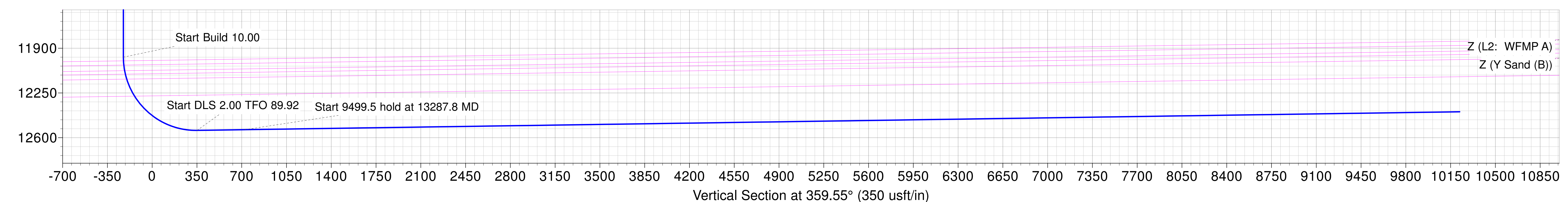
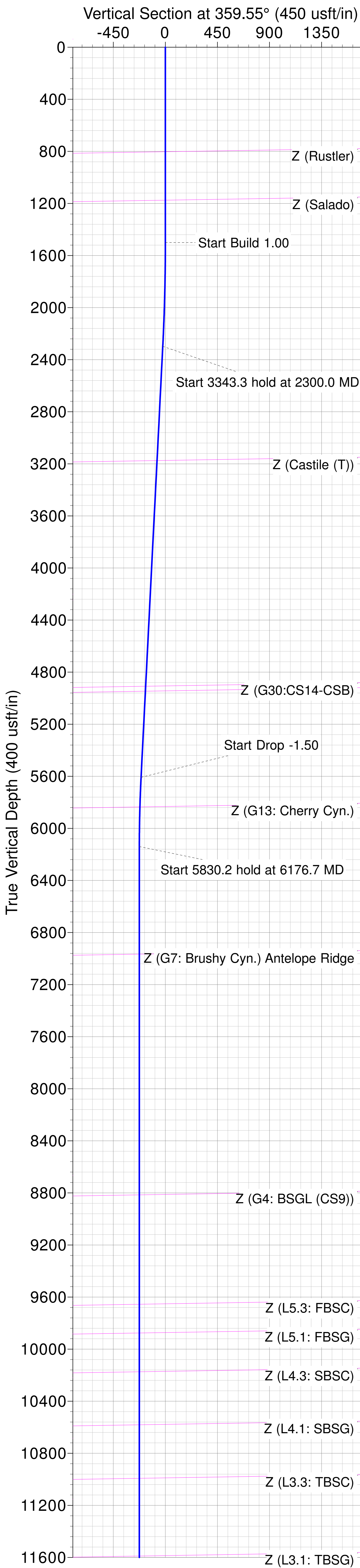
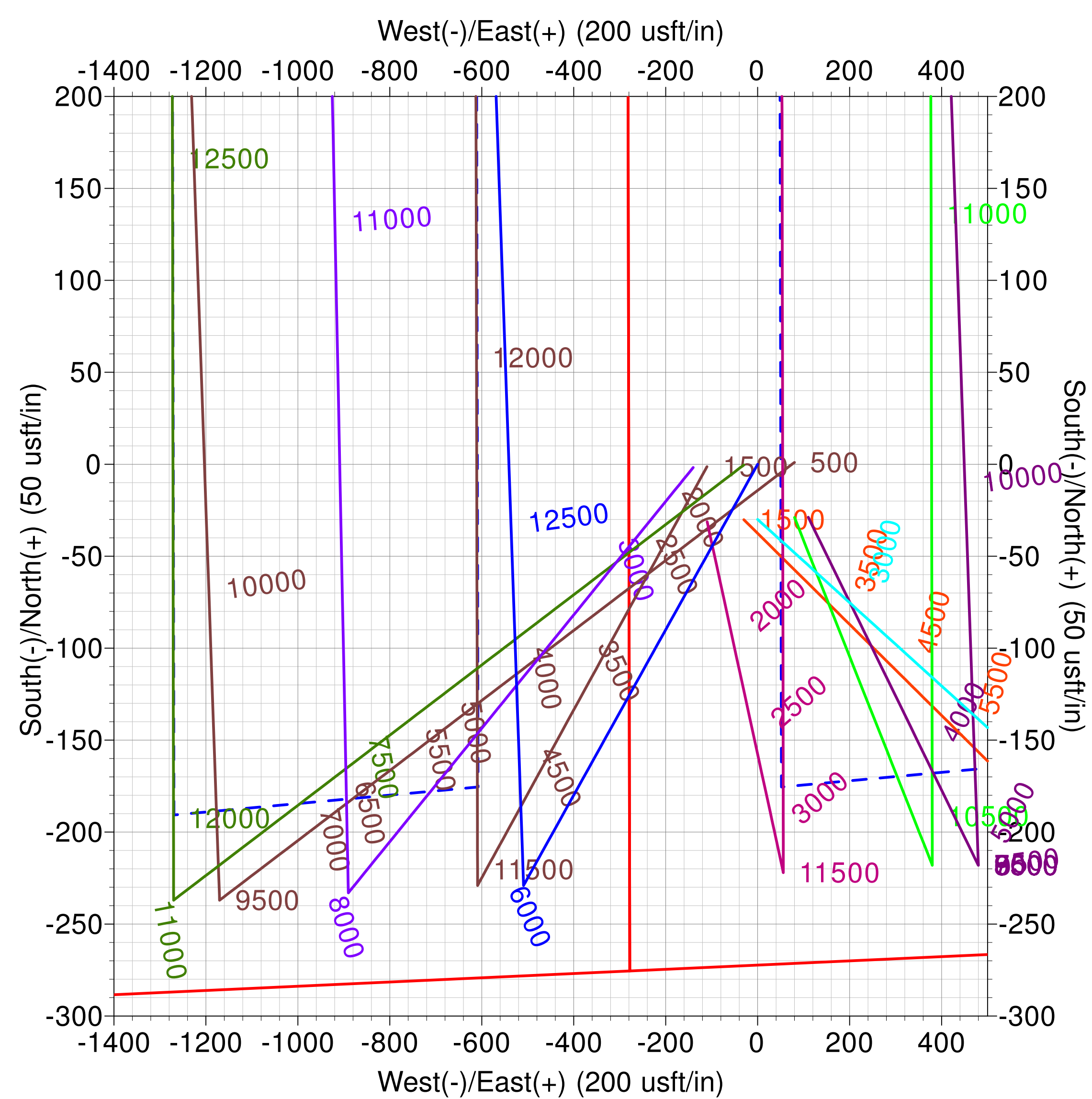
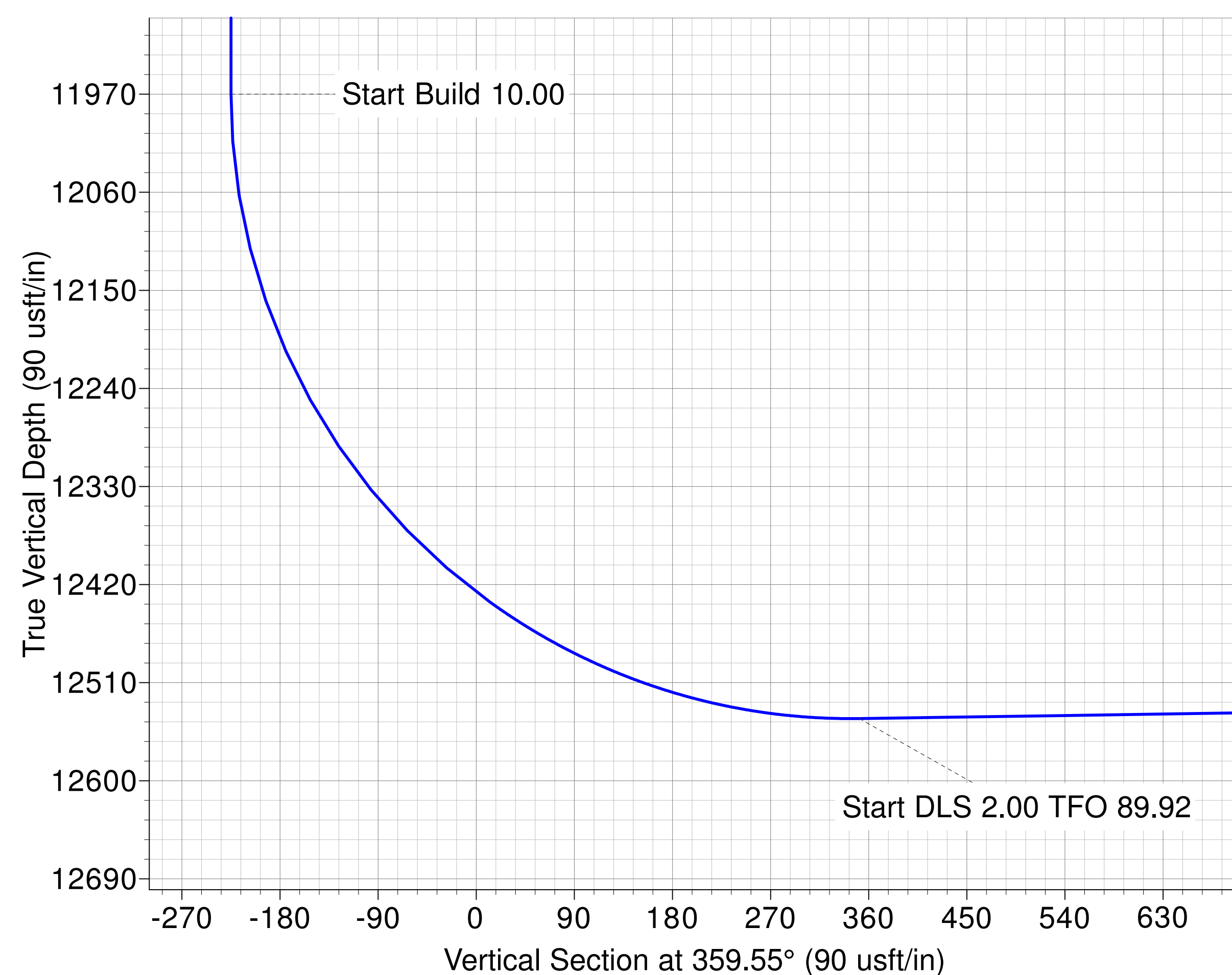
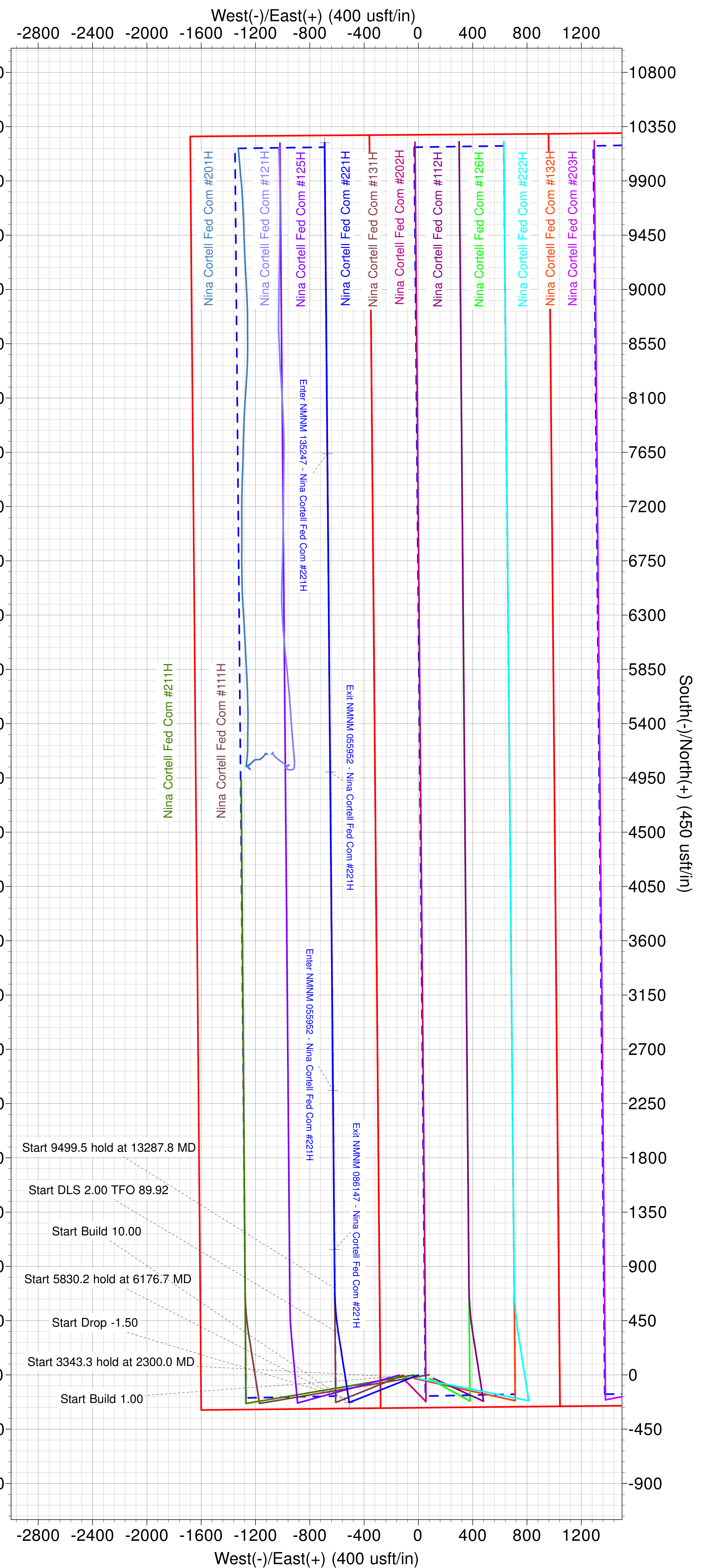
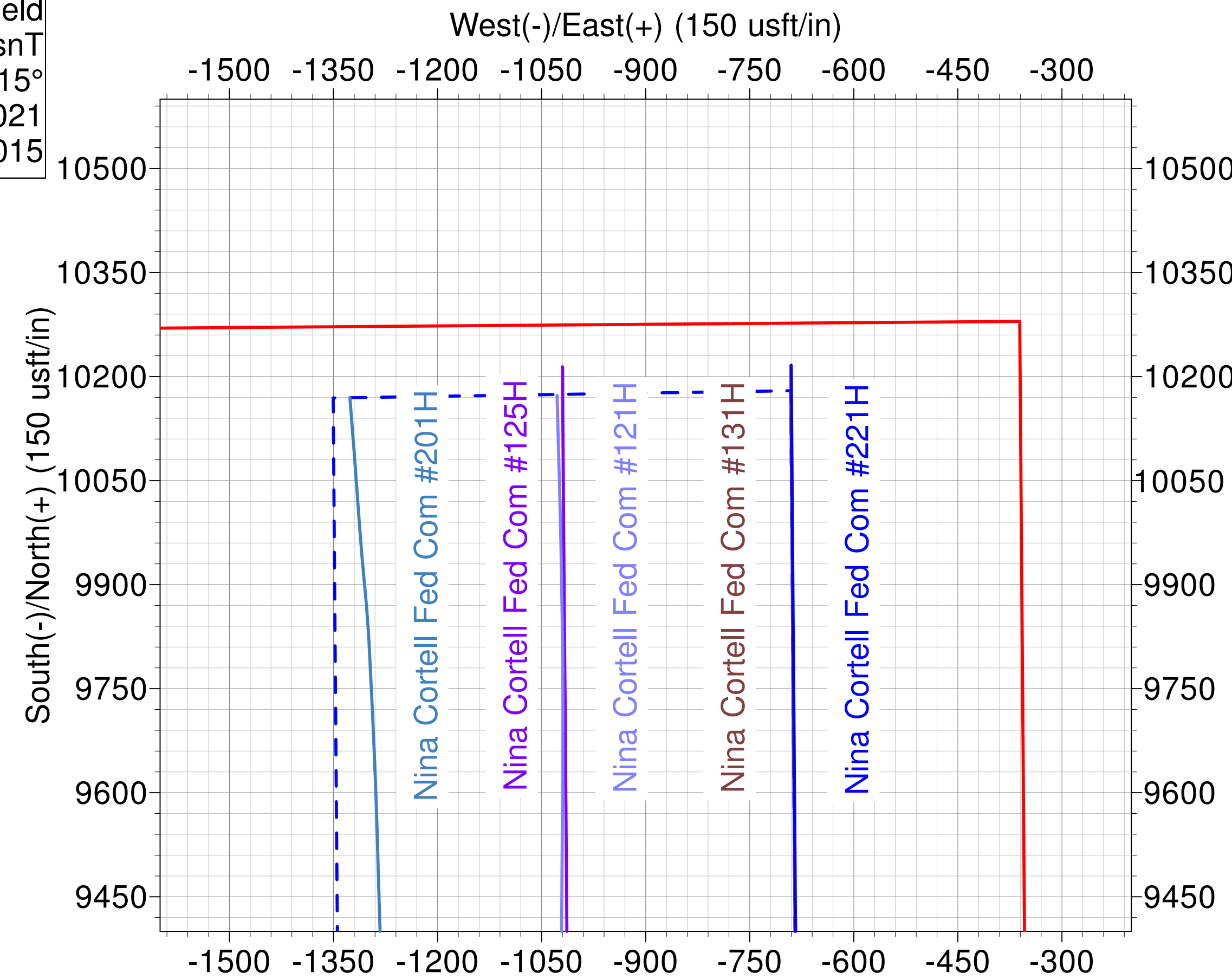
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

To convert a Magnetic Direction to a Grid Direction, Add 6.17°
To convert a Magnetic Direction to a True Direction, Add 6.53° East
To convert a True Direction to a Grid Direction, Subtract 0.36°



Azimuths to Grid North
True North: -0.36°
Magnetic North: 6.18°

Magnetic Field
Strength: 47578.0nT
Dip Angle: 60.15°
Date: 11/5/2021
Model: IGRF2015



Matador Production Company

Antelope Ridge

Nina Cortell

Nina Cortell Fed Com #221H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

09 November, 2021

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Antelope Ridge		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site		Nina Cortell			
Site Position:		Northing:	509,698.48 usft	Latitude:	32° 23' 58.229 N
From:	Lat/Long	Easting:	705,998.14 usft	Longitude:	103° 39' 57.270 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well	Nina Cortell Fed Com #221H					
Well Position	+N/-S	31.5 usft	Northing:	509,729.98 usft	Latitude:	32° 23' 58.532 N
	+E/-W	139.9 usft	Easting:	706,138.05 usft	Longitude:	103° 39' 55.635 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,790.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/5/2021	6.53	60.15	47,578.01935950

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.55

Plan Survey Tool Program	Date	11/9/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	22,786.6	BLM Plan #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	245.78	2,297.4	-22.9	-50.9	1.00	1.00	0.00	245.78	
5,643.3	8.00	245.78	5,608.2	-213.8	-475.2	0.00	0.00	0.00	0.00	
6,176.7	0.00	0.00	6,139.8	-229.0	-509.1	1.50	-1.50	0.00	180.00	
12,006.9	0.00	0.00	11,970.0	-229.0	-509.1	0.00	0.00	0.00	0.00	VP - Nina Cortell Fe
12,915.3	90.84	352.10	12,542.9	346.8	-589.0	10.00	10.00	0.00	352.10	
13,287.8	90.84	359.55	12,537.4	718.1	-616.1	2.00	0.00	2.00	89.92	
22,787.3	90.84	359.55	12,397.5	10,216.3	-690.3	0.00	0.00	0.00	0.00	BHL - Nina Cortell F

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
803.0	0.00	0.00	803.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (Rustler)									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,175.0	0.00	0.00	1,175.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (Salado)									
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,600.0	1.00	245.78	1,600.0	-0.4	-0.8	-0.4	1.00	1.00	0.00
1,700.0	2.00	245.78	1,700.0	-1.4	-3.2	-1.4	1.00	1.00	0.00
1,800.0	3.00	245.78	1,799.9	-3.2	-7.2	-3.2	1.00	1.00	0.00
1,900.0	4.00	245.78	1,899.7	-5.7	-12.7	-5.6	1.00	1.00	0.00
2,000.0	5.00	245.78	1,999.4	-8.9	-19.9	-8.8	1.00	1.00	0.00
2,100.0	6.00	245.78	2,098.9	-12.9	-28.6	-12.7	1.00	1.00	0.00
2,200.0	7.00	245.78	2,198.3	-17.5	-38.9	-17.2	1.00	1.00	0.00
2,300.0	8.00	245.78	2,297.4	-22.9	-50.9	-22.5	1.00	1.00	0.00
Start 3343.3 hold at 2300.0 MD									
2,400.0	8.00	245.78	2,396.4	-28.6	-63.5	-28.1	0.00	0.00	0.00
2,500.0	8.00	245.78	2,495.5	-34.3	-76.2	-33.7	0.00	0.00	0.00
2,600.0	8.00	245.78	2,594.5	-40.0	-88.9	-39.3	0.00	0.00	0.00
2,700.0	8.00	245.78	2,693.5	-45.7	-101.6	-44.9	0.00	0.00	0.00
2,800.0	8.00	245.78	2,792.5	-51.4	-114.3	-50.5	0.00	0.00	0.00
2,900.0	8.00	245.78	2,891.6	-57.1	-127.0	-56.1	0.00	0.00	0.00
3,000.0	8.00	245.78	2,990.6	-62.8	-139.7	-61.7	0.00	0.00	0.00
3,100.0	8.00	245.78	3,089.6	-68.5	-152.4	-67.3	0.00	0.00	0.00
3,186.3	8.00	245.78	3,175.1	-73.5	-163.3	-72.2	0.00	0.00	0.00
Z (Castile (T))									
3,200.0	8.00	245.78	3,188.6	-74.3	-165.1	-73.0	0.00	0.00	0.00
3,300.0	8.00	245.78	3,287.7	-80.0	-177.8	-78.6	0.00	0.00	0.00
3,400.0	8.00	245.78	3,386.7	-85.7	-190.5	-84.2	0.00	0.00	0.00
3,500.0	8.00	245.78	3,485.7	-91.4	-203.2	-89.8	0.00	0.00	0.00
3,600.0	8.00	245.78	3,584.8	-97.1	-215.9	-95.4	0.00	0.00	0.00
3,700.0	8.00	245.78	3,683.8	-102.8	-228.5	-101.0	0.00	0.00	0.00
3,800.0	8.00	245.78	3,782.8	-108.5	-241.2	-106.6	0.00	0.00	0.00
3,900.0	8.00	245.78	3,881.8	-114.2	-253.9	-112.2	0.00	0.00	0.00
4,000.0	8.00	245.78	3,980.9	-119.9	-266.6	-117.8	0.00	0.00	0.00
4,100.0	8.00	245.78	4,079.9	-125.6	-279.3	-123.4	0.00	0.00	0.00
4,200.0	8.00	245.78	4,178.9	-131.4	-292.0	-129.1	0.00	0.00	0.00
4,300.0	8.00	245.78	4,277.9	-137.1	-304.7	-134.7	0.00	0.00	0.00
4,400.0	8.00	245.78	4,377.0	-142.8	-317.4	-140.3	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.0	8.00	245.78	4,476.0	-148.5	-330.1	-145.9	0.00	0.00	0.00
4,600.0	8.00	245.78	4,575.0	-154.2	-342.8	-151.5	0.00	0.00	0.00
4,700.0	8.00	245.78	4,674.0	-159.9	-355.5	-157.1	0.00	0.00	0.00
4,800.0	8.00	245.78	4,773.1	-165.6	-368.2	-162.7	0.00	0.00	0.00
4,900.0	8.00	245.78	4,872.1	-171.3	-380.9	-168.3	0.00	0.00	0.00
4,936.8	8.00	245.78	4,908.5	-173.4	-385.5	-170.4	0.00	0.00	0.00
Z (G30:CS14-CSB)									
4,975.2	8.00	245.78	4,946.5	-175.6	-390.4	-172.5	0.00	0.00	0.00
Z (G26: Bell Cyn.)									
5,000.0	8.00	245.78	4,971.1	-177.0	-393.5	-173.9	0.00	0.00	0.00
5,100.0	8.00	245.78	5,070.2	-182.7	-406.2	-179.5	0.00	0.00	0.00
5,200.0	8.00	245.78	5,169.2	-188.4	-418.9	-185.1	0.00	0.00	0.00
5,300.0	8.00	245.78	5,268.2	-194.2	-431.6	-190.8	0.00	0.00	0.00
5,400.0	8.00	245.78	5,367.2	-199.9	-444.3	-196.4	0.00	0.00	0.00
5,500.0	8.00	245.78	5,466.3	-205.6	-457.0	-202.0	0.00	0.00	0.00
5,600.0	8.00	245.78	5,565.3	-211.3	-469.7	-207.6	0.00	0.00	0.00
5,643.3	8.00	245.78	5,608.2	-213.8	-475.2	-210.0	0.00	0.00	0.00
Start Drop -1.50									
5,700.0	7.15	245.78	5,664.4	-216.8	-482.0	-213.0	1.50	-1.50	0.00
5,800.0	5.65	245.78	5,763.7	-221.4	-492.2	-217.5	1.50	-1.50	0.00
5,871.8	4.57	245.78	5,835.2	-224.0	-498.0	-220.1	1.50	-1.50	0.00
Z (G13: Cherry Cyn.)									
5,900.0	4.15	245.78	5,863.4	-224.9	-500.0	-221.0	1.50	-1.50	0.00
6,000.0	2.65	245.78	5,963.2	-227.3	-505.4	-223.4	1.50	-1.50	0.00
6,100.0	1.15	245.78	6,063.1	-228.7	-508.4	-224.7	1.50	-1.50	0.00
6,176.7	0.00	0.00	6,139.8	-229.0	-509.1	-225.0	1.50	-1.50	0.00
Start 5830.2 hold at 6176.7 MD									
6,200.0	0.00	0.00	6,163.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,263.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,363.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,463.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,563.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,663.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,763.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,863.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,963.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,003.2	0.00	0.00	6,966.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (G7: Brushy Cyn.) Antelope Ridge									
7,100.0	0.00	0.00	7,063.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,163.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,263.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,363.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,463.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,563.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,663.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,763.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,863.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,963.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,063.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,163.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,263.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,363.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,463.1	-229.0	-509.1	-225.0	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.0	0.00	0.00	8,563.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,663.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,763.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
8,852.2	0.00	0.00	8,815.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (G4: BSG) (CS9))									
8,900.0	0.00	0.00	8,863.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,000.0	0.00	0.00	8,963.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,063.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,163.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,263.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,363.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,463.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,563.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,692.2	0.00	0.00	9,655.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (L5.3: FBSC)									
9,700.0	0.00	0.00	9,663.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,800.0	0.00	0.00	9,763.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,900.0	0.00	0.00	9,863.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
9,913.2	0.00	0.00	9,876.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (L5.1: FBSC)									
10,000.0	0.00	0.00	9,963.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,100.0	0.00	0.00	10,063.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,200.0	0.00	0.00	10,163.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,211.2	0.00	0.00	10,174.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (L4.3: SBSC)									
10,300.0	0.00	0.00	10,263.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,400.0	0.00	0.00	10,363.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,500.0	0.00	0.00	10,463.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,563.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,618.2	0.00	0.00	10,581.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (L4.1: SBSC)									
10,700.0	0.00	0.00	10,663.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,763.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,863.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,000.0	0.00	0.00	10,963.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,029.2	0.00	0.00	10,992.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (L3.3: TBSC)									
11,100.0	0.00	0.00	11,063.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,163.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,300.0	0.00	0.00	11,263.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,400.0	0.00	0.00	11,363.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,500.0	0.00	0.00	11,463.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,600.0	0.00	0.00	11,563.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,626.2	0.00	0.00	11,589.3	-229.0	-509.1	-225.0	0.00	0.00	0.00
Z (L3.1: TBSC)									
11,700.0	0.00	0.00	11,663.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,800.0	0.00	0.00	11,763.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
11,900.0	0.00	0.00	11,863.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
12,000.0	0.00	0.00	11,963.1	-229.0	-509.1	-225.0	0.00	0.00	0.00
12,006.9	0.00	0.00	11,970.0	-229.0	-509.1	-225.0	0.00	0.00	0.00
Start Build 10.00 - VP - Nina Cortell Fed Com #221H									
12,036.2	2.93	352.10	11,999.3	-228.3	-509.2	-224.3	10.00	10.00	0.00
Z (L2: WFMP A)									

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,069.2	6.24	352.10	12,032.2	-225.6	-509.6	-221.6	10.00	10.00	0.00
Z (X Sand (T))									
12,100.0	9.31	352.10	12,062.7	-221.5	-510.1	-217.5	10.00	10.00	0.00
12,113.6	10.68	352.10	12,076.2	-219.2	-510.5	-215.2	10.00	10.00	0.00
Z (X Sand (B))									
12,141.2	13.43	352.10	12,103.1	-213.5	-511.3	-209.5	10.00	10.00	0.00
Z (Y Sand (T))									
12,181.5	17.46	352.10	12,141.9	-202.9	-512.7	-198.8	10.00	10.00	0.00
Z (Y Sand (B))									
12,200.0	19.31	352.10	12,159.5	-197.1	-513.5	-193.0	10.00	10.00	0.00
12,300.0	29.31	352.10	12,250.5	-156.3	-519.2	-152.3	10.00	10.00	0.00
12,328.5	32.17	352.10	12,275.0	-141.9	-521.2	-137.8	10.00	10.00	0.00
Z (WFMP B)									
12,400.0	39.31	352.10	12,333.0	-100.6	-526.9	-96.4	10.00	10.00	0.00
12,500.0	49.31	352.10	12,404.5	-31.5	-536.5	-27.2	10.00	10.00	0.00
12,600.0	59.31	352.10	12,462.7	48.9	-547.7	53.2	10.00	10.00	0.00
12,700.0	69.31	352.10	12,506.0	138.0	-560.0	142.4	10.00	10.00	0.00
12,800.0	79.31	352.10	12,533.0	233.3	-573.2	237.8	10.00	10.00	0.00
12,900.0	89.31	352.10	12,542.9	331.7	-586.9	336.3	10.00	10.00	0.00
12,915.3	90.84	352.10	12,542.9	346.8	-589.0	351.5	10.00	10.00	0.00
Start DLS 2.00 TFO 89.92									
13,000.0	90.84	353.79	12,541.7	430.9	-599.4	435.6	2.00	0.00	2.00
13,100.0	90.84	355.80	12,540.2	530.5	-608.5	535.3	2.00	0.00	2.00
13,200.0	90.84	357.80	12,538.7	630.3	-614.1	635.1	2.00	0.00	2.00
13,287.8	90.84	359.55	12,537.4	718.1	-616.1	722.9	2.00	0.00	2.00
Start 9499.5 hold at 13287.8 MD									
13,300.0	90.84	359.55	12,537.2	730.3	-616.2	735.1	0.00	0.00	0.00
13,400.0	90.84	359.55	12,535.8	830.3	-617.0	835.1	0.00	0.00	0.00
13,500.0	90.84	359.55	12,534.3	930.2	-617.8	935.1	0.00	0.00	0.00
13,600.0	90.84	359.55	12,532.8	1,030.2	-618.5	1,035.1	0.00	0.00	0.00
13,609.5	90.84	359.55	12,532.7	1,039.8	-618.6	1,044.6	0.00	0.00	0.00
Exit NMNM 086147 - Nina Cortell Fed Com #221H									
13,700.0	90.84	359.55	12,531.3	1,130.2	-619.3	1,135.1	0.00	0.00	0.00
13,800.0	90.84	359.55	12,529.9	1,230.2	-620.1	1,235.0	0.00	0.00	0.00
13,900.0	90.84	359.55	12,528.4	1,330.2	-620.9	1,335.0	0.00	0.00	0.00
14,000.0	90.84	359.55	12,526.9	1,430.2	-621.7	1,435.0	0.00	0.00	0.00
14,100.0	90.84	359.55	12,525.5	1,530.2	-622.4	1,535.0	0.00	0.00	0.00
14,200.0	90.84	359.55	12,524.0	1,630.2	-623.2	1,635.0	0.00	0.00	0.00
14,300.0	90.84	359.55	12,522.5	1,730.1	-624.0	1,735.0	0.00	0.00	0.00
14,400.0	90.84	359.55	12,521.0	1,830.1	-624.8	1,835.0	0.00	0.00	0.00
14,500.0	90.84	359.55	12,519.6	1,930.1	-625.6	1,935.0	0.00	0.00	0.00
14,600.0	90.84	359.55	12,518.1	2,030.1	-626.4	2,035.0	0.00	0.00	0.00
14,700.0	90.84	359.55	12,516.6	2,130.1	-627.1	2,134.9	0.00	0.00	0.00
14,800.0	90.84	359.55	12,515.1	2,230.1	-627.9	2,234.9	0.00	0.00	0.00
14,900.0	90.84	359.55	12,513.7	2,330.1	-628.7	2,334.9	0.00	0.00	0.00
14,929.4	90.84	359.55	12,513.2	2,359.4	-628.9	2,364.3	0.00	0.00	0.00
Enter NMNM 055952 - Nina Cortell Fed Com #221H									
15,000.0	90.84	359.55	12,512.2	2,430.0	-629.5	2,434.9	0.00	0.00	0.00
15,100.0	90.84	359.55	12,510.7	2,530.0	-630.3	2,534.9	0.00	0.00	0.00
15,200.0	90.84	359.55	12,509.3	2,630.0	-631.0	2,634.9	0.00	0.00	0.00
15,300.0	90.84	359.55	12,507.8	2,730.0	-631.8	2,734.9	0.00	0.00	0.00
15,400.0	90.84	359.55	12,506.3	2,830.0	-632.6	2,834.9	0.00	0.00	0.00
15,500.0	90.84	359.55	12,504.8	2,930.0	-633.4	2,934.9	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,600.0	90.84	359.55	12,503.4	3,030.0	-634.2	3,034.8	0.00	0.00	0.00
15,700.0	90.84	359.55	12,501.9	3,129.9	-634.9	3,134.8	0.00	0.00	0.00
15,800.0	90.84	359.55	12,500.4	3,229.9	-635.7	3,234.8	0.00	0.00	0.00
15,900.0	90.84	359.55	12,498.9	3,329.9	-636.5	3,334.8	0.00	0.00	0.00
16,000.0	90.84	359.55	12,497.5	3,429.9	-637.3	3,434.8	0.00	0.00	0.00
16,100.0	90.84	359.55	12,496.0	3,529.9	-638.1	3,534.8	0.00	0.00	0.00
16,200.0	90.84	359.55	12,494.5	3,629.9	-638.9	3,634.8	0.00	0.00	0.00
16,300.0	90.84	359.55	12,493.0	3,729.9	-639.6	3,734.8	0.00	0.00	0.00
16,400.0	90.84	359.55	12,491.6	3,829.8	-640.4	3,834.8	0.00	0.00	0.00
16,500.0	90.84	359.55	12,490.1	3,929.8	-641.2	3,934.7	0.00	0.00	0.00
16,600.0	90.84	359.55	12,488.6	4,029.8	-642.0	4,034.7	0.00	0.00	0.00
16,700.0	90.84	359.55	12,487.2	4,129.8	-642.8	4,134.7	0.00	0.00	0.00
16,800.0	90.84	359.55	12,485.7	4,229.8	-643.5	4,234.7	0.00	0.00	0.00
16,900.0	90.84	359.55	12,484.2	4,329.8	-644.3	4,334.7	0.00	0.00	0.00
17,000.0	90.84	359.55	12,482.7	4,429.8	-645.1	4,434.7	0.00	0.00	0.00
17,100.0	90.84	359.55	12,481.3	4,529.7	-645.9	4,534.7	0.00	0.00	0.00
17,200.0	90.84	359.55	12,479.8	4,629.7	-646.7	4,634.7	0.00	0.00	0.00
17,300.0	90.84	359.55	12,478.3	4,729.7	-647.4	4,734.7	0.00	0.00	0.00
17,400.0	90.84	359.55	12,476.8	4,829.7	-648.2	4,834.6	0.00	0.00	0.00
17,500.0	90.84	359.55	12,475.4	4,929.7	-649.0	4,934.6	0.00	0.00	0.00
17,569.1	90.84	359.55	12,474.4	4,998.8	-649.5	5,003.8	0.00	0.00	0.00
Exit NMNM 055952 - Nina Cortell Fed Com #221H									
17,600.0	90.84	359.55	12,473.9	5,029.7	-649.8	5,034.6	0.00	0.00	0.00
17,700.0	90.84	359.55	12,472.4	5,129.7	-650.6	5,134.6	0.00	0.00	0.00
17,800.0	90.84	359.55	12,471.0	5,229.7	-651.3	5,234.6	0.00	0.00	0.00
17,900.0	90.84	359.55	12,469.5	5,329.6	-652.1	5,334.6	0.00	0.00	0.00
18,000.0	90.84	359.55	12,468.0	5,429.6	-652.9	5,434.6	0.00	0.00	0.00
18,100.0	90.84	359.55	12,466.5	5,529.6	-653.7	5,534.6	0.00	0.00	0.00
18,200.0	90.84	359.55	12,465.1	5,629.6	-654.5	5,634.6	0.00	0.00	0.00
18,300.0	90.84	359.55	12,463.6	5,729.6	-655.3	5,734.6	0.00	0.00	0.00
18,400.0	90.84	359.55	12,462.1	5,829.6	-656.0	5,834.5	0.00	0.00	0.00
18,500.0	90.84	359.55	12,460.6	5,929.6	-656.8	5,934.5	0.00	0.00	0.00
18,600.0	90.84	359.55	12,459.2	6,029.5	-657.6	6,034.5	0.00	0.00	0.00
18,700.0	90.84	359.55	12,457.7	6,129.5	-658.4	6,134.5	0.00	0.00	0.00
18,800.0	90.84	359.55	12,456.2	6,229.5	-659.2	6,234.5	0.00	0.00	0.00
18,900.0	90.84	359.55	12,454.8	6,329.5	-659.9	6,334.5	0.00	0.00	0.00
19,000.0	90.84	359.55	12,453.3	6,429.5	-660.7	6,434.5	0.00	0.00	0.00
19,100.0	90.84	359.55	12,451.8	6,529.5	-661.5	6,534.5	0.00	0.00	0.00
19,200.0	90.84	359.55	12,450.3	6,629.5	-662.3	6,634.5	0.00	0.00	0.00
19,300.0	90.84	359.55	12,448.9	6,729.4	-663.1	6,734.4	0.00	0.00	0.00
19,400.0	90.84	359.55	12,447.4	6,829.4	-663.8	6,834.4	0.00	0.00	0.00
19,500.0	90.84	359.55	12,445.9	6,929.4	-664.6	6,934.4	0.00	0.00	0.00
19,600.0	90.84	359.55	12,444.4	7,029.4	-665.4	7,034.4	0.00	0.00	0.00
19,700.0	90.84	359.55	12,443.0	7,129.4	-666.2	7,134.4	0.00	0.00	0.00
19,800.0	90.84	359.55	12,441.5	7,229.4	-667.0	7,234.4	0.00	0.00	0.00
19,900.0	90.84	359.55	12,440.0	7,329.4	-667.8	7,334.4	0.00	0.00	0.00
20,000.0	90.84	359.55	12,438.6	7,429.3	-668.5	7,434.4	0.00	0.00	0.00
20,100.0	90.84	359.55	12,437.1	7,529.3	-669.3	7,534.4	0.00	0.00	0.00
20,200.0	90.84	359.55	12,435.6	7,629.3	-670.1	7,634.3	0.00	0.00	0.00
20,209.9	90.84	359.55	12,435.5	7,639.2	-670.2	7,644.2	0.00	0.00	0.00
Enter NMNM 135247 - Nina Cortell Fed Com #221H									
20,300.0	90.84	359.55	12,434.1	7,729.3	-670.9	7,734.3	0.00	0.00	0.00
20,400.0	90.84	359.55	12,432.7	7,829.3	-671.7	7,834.3	0.00	0.00	0.00
20,500.0	90.84	359.55	12,431.2	7,929.3	-672.4	7,934.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
20,600.0	90.84	359.55	12,429.7	8,029.3	-673.2	8,034.3	0.00	0.00	0.00
20,700.0	90.84	359.55	12,428.2	8,129.2	-674.0	8,134.3	0.00	0.00	0.00
20,800.0	90.84	359.55	12,426.8	8,229.2	-674.8	8,234.3	0.00	0.00	0.00
20,900.0	90.84	359.55	12,425.3	8,329.2	-675.6	8,334.3	0.00	0.00	0.00
21,000.0	90.84	359.55	12,423.8	8,429.2	-676.3	8,434.3	0.00	0.00	0.00
21,100.0	90.84	359.55	12,422.4	8,529.2	-677.1	8,534.2	0.00	0.00	0.00
21,200.0	90.84	359.55	12,420.9	8,629.2	-677.9	8,634.2	0.00	0.00	0.00
21,300.0	90.84	359.55	12,419.4	8,729.2	-678.7	8,734.2	0.00	0.00	0.00
21,400.0	90.84	359.55	12,417.9	8,829.2	-679.5	8,834.2	0.00	0.00	0.00
21,500.0	90.84	359.55	12,416.5	8,929.1	-680.3	8,934.2	0.00	0.00	0.00
21,600.0	90.84	359.55	12,415.0	9,029.1	-681.0	9,034.2	0.00	0.00	0.00
21,700.0	90.84	359.55	12,413.5	9,129.1	-681.8	9,134.2	0.00	0.00	0.00
21,800.0	90.84	359.55	12,412.0	9,229.1	-682.6	9,234.2	0.00	0.00	0.00
21,900.0	90.84	359.55	12,410.6	9,329.1	-683.4	9,334.2	0.00	0.00	0.00
22,000.0	90.84	359.55	12,409.1	9,429.1	-684.2	9,434.2	0.00	0.00	0.00
22,100.0	90.84	359.55	12,407.6	9,529.1	-684.9	9,534.1	0.00	0.00	0.00
22,200.0	90.84	359.55	12,406.1	9,629.0	-685.7	9,634.1	0.00	0.00	0.00
22,300.0	90.84	359.55	12,404.7	9,729.0	-686.5	9,734.1	0.00	0.00	0.00
22,400.0	90.84	359.55	12,403.2	9,829.0	-687.3	9,834.1	0.00	0.00	0.00
22,500.0	90.84	359.55	12,401.7	9,929.0	-688.1	9,934.1	0.00	0.00	0.00
22,600.0	90.84	359.55	12,400.3	10,029.0	-688.8	10,034.1	0.00	0.00	0.00
22,700.0	90.84	359.55	12,398.8	10,129.0	-689.6	10,134.1	0.00	0.00	0.00
22,787.3	90.84	359.55	12,397.5	10,216.3	-690.3	10,221.4	0.00	0.00	0.00
TD at 22787.3 - BHL - Nina Cortell Fed Com #221H									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
VP - Nina Cortell Fed - hit/miss target - Shape - Point	0.00	0.00	11,970.0	-229.0	-509.1	509,501.00	705,629.00	32° 23' 56.298 N	103° 40' 1.589 W
BHL - Nina Cortell Fed - plan hits target center - Point	0.00	0.00	12,397.5	10,216.3	-690.3	519,946.52	705,447.72	32° 25' 39.672 N	103° 40' 2.945 W
Enter NMNM 135247 - plan misses target center by 0.1usft at 20209.9usft MD (12435.5 TVD, 7639.2 N, -670.2 E) - Point	0.00	0.00	12,435.4	7,639.2	-670.0	517,369.22	705,468.01	32° 25' 14.167 N	103° 40' 2.895 W
Exit NMNM 055952 - I - plan misses target center by 0.1usft at 17569.1usft MD (12474.4 TVD, 4998.8 N, -649.5 E) - Point	0.00	0.00	12,474.3	4,998.8	-649.4	514,728.70	705,488.66	32° 24' 48.037 N	103° 40' 2.846 W
Enter NMNM 055952 - plan misses target center by 0.1usft at 14929.4usft MD (12513.2 TVD, 2359.4 N, -628.9 E) - Point	0.00	0.00	12,513.2	2,359.4	-628.8	512,089.29	705,509.30	32° 24' 21.917 N	103° 40' 2.797 W
Exit NMNM 086147 - I - plan misses target center by 0.1usft at 13609.5usft MD (12532.7 TVD, 1039.8 N, -618.6 E) - Point	0.00	0.00	12,532.7	1,039.8	-618.5	510,769.65	705,519.62	32° 24' 8.858 N	103° 40' 2.773 W

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Company:	Matador Production Company	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Project:	Antelope Ridge	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site:	Nina Cortell	North Reference:	Grid
Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
803.0	803.0	Z (Rustler)		-0.84	359.55	
1,175.0	1,175.0	Z (Salado)		-0.84	359.55	
3,186.3	3,175.1	Z (Castile (T))		-0.84	359.55	
4,936.8	4,908.5	Z (G30: CS14-CSB)		-0.84	359.55	
4,975.2	4,946.5	Z (G26: Bell Cyn.)		-0.84	359.55	
5,871.8	5,835.2	Z (G13: Cherry Cyn.)		-0.84	359.55	
7,003.2	6,966.3	Z (G7: Brushy Cyn.)	Antelope Ridge	-0.84	359.55	
8,852.2	8,815.3	Z (G4: BSG L (CS9))		-0.84	359.55	
9,692.2	9,655.3	Z (L5.3: FBSC)		-0.84	359.55	
9,913.2	9,876.3	Z (L5.1: FBSC)		-0.84	359.55	
10,211.2	10,174.3	Z (L4.3: SBSC)		-0.84	359.55	
10,618.2	10,581.3	Z (L4.1: SBSC)		-0.84	359.55	
11,029.2	10,992.3	Z (L3.3: TBSC)		-0.84	359.55	
11,626.2	11,589.3	Z (L3.1: TBSC)		-0.84	359.55	
12,036.2	11,999.3	Z (L2: WFMP A)		-0.84	359.55	
12,069.2	12,032.2	Z (X Sand (T))		-0.84	359.55	
12,113.6	12,076.2	Z (X Sand (B))		-0.84	359.55	
12,141.2	12,103.1	Z (Y Sand (T))		-0.84	359.55	
12,181.5	12,141.9	Z (Y Sand (B))		-0.84	359.55	
12,328.5	12,275.0	Z (WFMP B)		-0.84	359.55	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00	
2,300.0	2,297.4	-22.9	-50.9	Start 3343.3 hold at 2300.0 MD	
5,643.3	5,608.2	-213.8	-475.2	Start Drop -1.50	
6,176.7	6,139.8	-229.0	-509.1	Start 5830.2 hold at 6176.7 MD	
12,006.9	11,970.0	-229.0	-509.1	Start Build 10.00	
12,915.3	12,542.9	346.8	-589.0	Start DLS 2.00 TFO 89.92	
13,287.8	12,537.4	718.1	-616.1	Start 9499.5 hold at 13287.8 MD	
22,787.3	12,397.5	10,216.3	-690.3	TD at 22787.3	

Matador Production Company

Antelope Ridge

Nina Cortell

Nina Cortell Fed Com #221H

Wellbore #1

BLM Plan #1

Anticollision Report

09 November, 2021

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference	BLM Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	11/9/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	22,786.6	BLM Plan #1 (Wellbore #1)	MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Nina Cortell						
Nina Cortell Fed Com #111H - Wellbore #1 - BLM Plan #	1,110.6	1,116.3	13.9	6.3	1.815	CC, ES, SF
Nina Cortell Fed Com #112H - Wellbore #1 - BLM Plan #	1,500.0	1,500.0	113.8	103.5	11.055	CC, ES
Nina Cortell Fed Com #112H - Wellbore #1 - BLM Plan #	1,700.0	1,696.0	119.9	108.2	10.300	SF
Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #	10,003.1	10,126.0	2,294.0	2,223.5	32.527	CC, ES
Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #	22,787.3	20,277.0	3,332.1	3,065.5	12.497	SF
Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #	1,500.0	1,499.0	2,533.3	2,523.0	246.192	CC, ES
Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #	22,787.3	20,269.8	4,357.6	4,052.9	14.302	SF
Nina Cortell Fed Com #121H - Wellbore #1 - Actual Surv	20,400.0	20,400.0	2,455.9	2,308.0	16.605	ES, SF
Nina Cortell Fed Com #121H - Wellbore #1 - Actual Surv	21,333.5	13,466.2	2,434.2	2,326.7	22.646	CC
Nina Cortell Fed Com #125H - Wellbore #1 - BLM Plan #	2,463.2	2,448.3	117.0	100.2	6.950	CC
Nina Cortell Fed Com #125H - Wellbore #1 - BLM Plan #	2,500.0	2,484.4	117.1	100.0	6.854	ES
Nina Cortell Fed Com #125H - Wellbore #1 - BLM Plan #	5,700.0	5,683.7	151.7	109.8	3.620	SF
Nina Cortell Fed Com #126H - Wellbore #1 - BLM Plan #	1,200.0	1,200.0	85.3	77.1	10.473	CC, ES
Nina Cortell Fed Com #126H - Wellbore #1 - BLM Plan #	22,700.0	25,444.2	1,836.3	1,555.4	6.538	SF
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	10,307.7	10,322.0	2,213.2	2,140.4	30.422	CC
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	10,500.0	10,508.9	2,213.3	2,139.3	29.908	ES
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	22,787.3	21,130.4	2,781.7	2,479.3	9.199	SF
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	1,500.0	1,501.0	2,453.3	2,443.1	238.256	CC, ES
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	22,787.3	21,191.5	3,916.4	3,586.8	11.880	SF
Nina Cortell Fed Com #131H - Wellbore #1 - BLM Plan #	11,406.4	11,405.7	100.0	19.8	1.247	Level 2, CC
Nina Cortell Fed Com #131H - Wellbore #1 - BLM Plan #	11,500.0	11,498.2	100.5	19.5	1.240	Level 2, ES, SF
Nina Cortell Fed Com #132H - Wellbore #1 - BLM Plan #	1,943.6	1,943.9	27.3	14.0	2.050	CC, ES, SF
Nina Cortell Fed Com #133H - Wellbore #1 - BLM Plan #	2,239.8	2,514.9	2,330.7	2,314.4	143.307	CC
Nina Cortell Fed Com #133H - Wellbore #1 - BLM Plan #	2,300.0	2,575.1	2,331.0	2,314.3	139.640	ES
Nina Cortell Fed Com #133H - Wellbore #1 - BLM Plan #	22,787.3	22,164.8	2,687.8	2,342.5	7.784	SF
Nina Cortell Fed Com #134H - Wellbore #1 - BLM Plan #	1,500.0	1,500.0	2,343.3	2,333.0	227.646	CC, ES
Nina Cortell Fed Com #134H - Wellbore #1 - BLM Plan #	22,787.3	22,216.6	3,992.5	3,643.7	11.449	SF
Nina Cortell Fed Com #201H - Wellbore #1 - Actual Surv	21,386.1	15,646.1	638.8	426.0	3.002	CC
Nina Cortell Fed Com #201H - Wellbore #1 - Actual Surv	22,700.0	16,939.3	664.3	406.0	2.572	ES
Nina Cortell Fed Com #201H - Wellbore #1 - Actual Surv	22,787.3	17,013.0	667.8	406.6	2.557	SF
Nina Cortell Fed Com #202H - Wellbore #1 - BLM Plan #	2,003.4	2,001.4	92.4	78.6	6.721	CC, ES
Nina Cortell Fed Com #202H - Wellbore #1 - BLM Plan #	22,787.3	22,331.7	742.2	419.7	2.301	SF
Nina Cortell Fed Com #203H - Wellbore #1 - BLM Plan #	11,515.6	11,543.5	1,887.2	1,805.7	23.174	CC
Nina Cortell Fed Com #203H - Wellbore #1 - BLM Plan #	22,787.3	22,389.7	2,010.6	1,664.0	5.800	ES, SF
Nina Cortell Fed Com #204H - Wellbore #1 - BLM Plan #	1,500.0	1,500.0	2,313.2	2,302.9	224.728	CC, ES
Nina Cortell Fed Com #204H - Wellbore #1 - BLM Plan #	22,787.3	22,360.2	3,322.9	2,973.7	9.515	SF
Nina Cortell Fed Com #211H - Wellbore #1 - BLM Plan #	1,500.0	1,501.0	30.1	19.8	2.923	CC

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Nina Cortell						
Nina Cortell Fed Com #211H - Wellbore #1 - BLM Plan #	1,900.0	1,898.9	31.2	18.2	2.399	ES
Nina Cortell Fed Com #211H - Wellbore #1 - BLM Plan #	2,200.0	2,197.3	34.2	19.2	2.276	SF
Nina Cortell Fed Com #222H - Wellbore #1 - BLM Plan #	1,000.0	1,000.0	30.0	23.3	4.468	CC
Nina Cortell Fed Com #222H - Wellbore #1 - BLM Plan #	1,100.0	1,099.9	30.2	22.8	4.071	ES
Nina Cortell Fed Com #222H - Wellbore #1 - BLM Plan #	1,300.0	1,299.4	32.6	23.8	3.704	SF
Nina Cortell Fed Com #223H - Wellbore #1 - BLM Plan #	2,223.7	2,501.2	2,411.6	2,395.5	149.230	CC
Nina Cortell Fed Com #223H - Wellbore #1 - BLM Plan #	22,787.3	22,781.3	2,641.1	2,289.6	7.513	ES, SF
Nina Cortell Fed Com #224H - Wellbore #1 - BLM Plan #	1,500.0	1,500.0	2,423.3	2,413.0	235.416	CC, ES
Nina Cortell Fed Com #224H - Wellbore #1 - BLM Plan #	22,787.3	22,833.6	3,962.5	3,611.2	11.278	SF

Offset Design

Nina Cortell - Nina Cortell Fed Com #111H - Wellbore #1 - BLM Plan #1

Offset Site Error: 0.0 usft

Survey Program: 0-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.25	1.0	80.1	80.1				
100.0	100.0	100.0	100.0	0.1	0.1	89.25	1.0	80.1	80.1	79.8	0.26	312.402	
200.0	200.0	200.0	200.0	0.5	0.5	89.25	1.0	80.1	80.1	79.1	0.97	82.272	
300.0	300.0	300.0	300.0	0.8	0.8	89.25	1.0	80.1	80.1	78.4	1.69	47.374	
400.0	400.0	400.0	400.0	1.2	1.2	89.25	1.0	80.1	80.1	77.7	2.41	33.264	
500.0	500.0	500.0	500.0	1.6	1.6	89.25	1.0	80.1	80.1	76.9	3.12	25.630	
600.0	600.0	605.6	605.5	1.9	1.9	89.76	0.3	76.2	76.4	72.6	3.89	19.666	
700.0	700.0	710.1	709.4	2.3	2.3	91.62	-1.8	65.0	65.6	61.0	4.67	14.054	
800.0	800.0	809.6	807.6	2.6	2.7	95.43	-4.7	49.7	50.5	45.2	5.36	9.423	
900.0	900.0	908.3	905.2	3.0	3.1	102.43	-7.6	34.6	35.8	29.7	6.06	5.903	
1,000.0	1,000.0	1,007.1	1,002.7	3.4	3.5	118.45	-10.5	19.4	22.2	15.4	6.79	3.274	
1,100.0	1,100.0	1,105.9	1,100.3	3.7	3.9	162.55	-13.4	4.2	14.0	6.4	7.60	1.848	
1,110.6	1,110.6	1,116.3	1,110.6	3.8	3.9	169.22	-13.7	2.6	13.9	6.3	7.68	1.815	CC, ES, SF
1,200.0	1,200.0	1,204.6	1,197.8	4.1	4.3	-146.04	-16.3	-11.0	19.8	11.5	8.26	2.392	
1,300.0	1,300.0	1,303.4	1,295.4	4.4	4.7	-126.26	-19.2	-26.1	32.8	23.8	8.91	3.676	
1,400.0	1,400.0	1,402.2	1,392.9	4.8	5.1	-118.10	-22.1	-41.3	47.4	37.8	9.60	4.935	
1,500.0	1,500.0	1,500.9	1,490.5	5.1	5.6	-113.83	-25.0	-56.5	62.5	52.2	10.30	6.066	
1,600.0	1,600.0	1,600.2	1,588.1	5.5	6.0	3.02	-27.9	-71.7	77.0	66.0	11.00	6.996	
1,700.0	1,700.0	1,701.0	1,686.1	5.8	6.4	4.90	-30.8	-86.9	89.8	78.1	11.70	7.678	
1,800.0	1,799.9	1,801.7	1,784.2	6.2	6.9	6.42	-33.7	-102.2	101.0	88.6	12.40	8.147	
1,900.0	1,899.7	1,897.8	1,882.5	6.5	7.3	7.75	-36.6	-117.5	110.6	97.5	13.09	8.447	
2,000.0	1,999.4	1,997.5	1,980.9	6.9	7.7	9.00	-39.5	-132.8	118.4	104.6	13.80	8.584	
2,100.0	2,098.9	2,102.7	2,079.4	7.2	8.2	10.23	-42.4	-148.1	124.6	110.1	14.53	8.579	
2,200.0	2,198.3	2,197.1	2,178.1	7.6	8.6	11.50	-45.3	-163.5	129.2	114.0	15.22	8.487	
2,300.0	2,297.4	2,297.0	2,276.7	7.9	9.0	12.84	-48.3	-178.8	132.1	116.2	15.94	8.286	
2,400.0	2,396.4	2,403.1	2,375.4	8.3	9.5	14.23	-51.2	-194.2	134.2	117.5	16.69	8.043	
2,500.0	2,495.5	2,496.9	2,474.1	8.7	9.9	15.57	-54.1	-209.5	136.5	119.1	17.40	7.843	
2,600.0	2,594.5	2,603.2	2,572.8	9.1	10.3	16.87	-57.0	-224.9	138.7	120.6	18.16	7.641	
2,700.0	2,693.5	2,703.3	2,671.5	9.5	10.8	18.13	-59.9	-240.3	141.1	122.2	18.90	7.467	
2,800.0	2,792.5	2,803.4	2,770.2	9.8	11.2	19.35	-62.9	-255.6	143.5	123.9	19.64	7.308	
2,900.0	2,891.6	2,903.4	2,868.9	10.2	11.7	20.52	-65.8	-271.0	146.0	125.6	20.39	7.162	
3,000.0	2,990.6	3,003.5	2,967.6	10.6	12.1	21.65	-68.7	-286.3	148.5	127.4	21.14	7.027	
3,100.0	3,089.6	3,096.4	3,066.3	11.0	12.5	22.75	-71.6	-301.7	151.1	129.3	21.87	6.912	
3,200.0	3,188.6	3,203.7	3,165.0	11.4	13.0	23.81	-74.6	-317.0	153.8	131.1	22.65	6.789	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
3,300.0	3,287.7	3,296.3	3,263.7	11.8	13.4	24.83	-77.5	-332.4	156.5	133.1	23.39	6.691	
3,400.0	3,386.7	3,396.2	3,362.4	12.2	13.8	25.82	-80.4	-347.8	159.2	135.1	24.15	6.593	
3,500.0	3,485.7	3,503.9	3,461.1	12.6	14.3	26.77	-83.3	-363.1	162.0	137.1	24.95	6.493	
3,600.0	3,584.8	3,604.0	3,559.8	13.0	14.7	27.69	-86.3	-378.5	164.9	139.1	25.73	6.409	
3,700.0	3,683.8	3,704.0	3,658.5	13.4	15.2	28.58	-89.2	-393.8	167.8	141.3	26.50	6.329	
3,800.0	3,782.8	3,804.1	3,757.2	13.8	15.6	29.44	-92.1	-409.2	170.7	143.4	27.28	6.255	
3,900.0	3,881.8	3,895.8	3,855.9	14.3	16.0	30.27	-95.0	-424.5	173.6	145.6	28.04	6.193	
4,000.0	3,980.9	4,004.3	3,954.6	14.7	16.5	31.07	-98.0	-439.9	176.6	147.8	28.85	6.121	
4,100.0	4,079.9	4,104.3	4,053.2	15.1	16.9	31.85	-100.9	-455.2	179.6	150.0	29.64	6.060	
4,200.0	4,178.9	4,195.6	4,151.9	15.5	17.3	32.60	-103.8	-470.6	182.7	152.3	30.40	6.010	
4,300.0	4,277.9	4,295.5	4,250.6	15.9	17.8	33.32	-106.7	-486.0	185.8	154.6	31.19	5.956	
4,400.0	4,377.0	4,404.6	4,349.3	16.3	18.2	34.02	-109.7	-501.3	188.9	156.9	32.02	5.899	
4,500.0	4,476.0	4,504.6	4,448.0	16.7	18.7	34.70	-112.6	-516.7	192.1	159.2	32.82	5.851	
4,600.0	4,575.0	4,604.7	4,546.7	17.1	19.1	35.36	-115.5	-532.0	195.2	161.6	33.62	5.806	
4,700.0	4,674.0	4,695.2	4,645.4	17.5	19.5	35.99	-118.4	-547.4	198.4	164.0	34.39	5.770	
4,800.0	4,773.1	4,804.9	4,744.1	18.0	20.0	36.61	-121.3	-562.7	201.6	166.4	35.23	5.723	
4,900.0	4,872.1	4,904.9	4,842.8	18.4	20.4	37.21	-124.3	-578.1	204.9	168.8	36.04	5.685	
5,000.0	4,971.1	5,005.0	4,941.5	18.8	20.9	37.78	-127.2	-593.4	208.1	171.3	36.84	5.649	
5,100.0	5,070.2	5,094.9	5,040.2	19.2	21.3	38.34	-130.1	-608.8	211.4	173.8	37.62	5.621	
5,200.0	5,169.2	5,194.8	5,138.9	19.6	21.7	38.88	-133.0	-624.2	214.7	176.3	38.43	5.588	
5,300.0	5,268.2	5,305.2	5,237.6	20.0	22.2	39.41	-136.0	-639.5	218.0	178.8	39.28	5.551	
5,400.0	5,367.2	5,405.3	5,336.3	20.5	22.6	39.92	-138.9	-654.9	221.4	181.3	40.09	5.522	
5,500.0	5,466.3	5,505.4	5,435.0	20.9	23.1	40.41	-141.8	-670.2	224.7	183.8	40.91	5.494	
5,600.0	5,565.3	5,605.5	5,533.7	21.3	23.5	40.89	-144.7	-685.6	228.1	186.4	41.72	5.467	
5,643.3	5,608.2	5,637.9	5,576.5	21.5	23.7	41.10	-146.0	-692.2	229.6	187.5	42.04	5.461	
5,700.0	5,664.4	5,694.5	5,632.4	21.7	23.9	41.31	-147.7	-700.9	231.8	189.3	42.49	5.455	
5,800.0	5,763.7	5,805.7	5,731.0	22.1	24.4	41.37	-150.6	-716.3	237.3	194.0	43.31	5.479	
5,900.0	5,863.4	5,906.0	5,829.5	22.5	24.8	41.04	-153.5	-731.6	244.7	200.7	44.04	5.557	
6,000.0	5,963.2	6,006.5	5,927.7	22.8	25.3	40.37	-156.4	-746.9	254.2	209.5	44.74	5.682	
6,100.0	6,063.1	6,107.3	6,025.7	23.2	25.7	39.41	-159.3	-762.1	265.7	220.3	45.40	5.852	
6,176.7	6,139.8	6,168.6	6,100.6	23.4	26.0	-75.70	-161.5	-773.8	276.0	230.1	45.82	6.022	
6,200.0	6,163.1	6,191.6	6,123.4	23.5	26.1	-76.02	-162.2	-777.3	279.3	233.3	45.96	6.076	
6,300.0	6,263.1	6,309.6	6,220.9	23.8	26.6	-77.29	-165.1	-792.5	293.6	246.9	46.65	6.293	
6,400.0	6,363.1	6,389.1	6,318.5	24.2	27.0	-78.45	-168.0	-807.7	308.0	260.8	47.20	6.526	
6,500.0	6,463.1	6,487.9	6,416.0	24.5	27.4	-79.50	-170.9	-822.9	322.6	274.7	47.83	6.744	
6,600.0	6,563.1	6,586.7	6,513.6	24.8	27.8	-80.47	-173.8	-838.0	337.2	288.7	48.47	6.958	
6,700.0	6,663.1	6,685.5	6,611.1	25.1	28.3	-81.35	-176.7	-853.2	351.9	302.8	49.11	7.166	
6,800.0	6,763.1	6,784.2	6,708.7	25.4	28.7	-82.16	-179.5	-868.4	366.7	317.0	49.77	7.370	
6,900.0	6,863.1	6,883.0	6,806.2	25.8	29.1	-82.91	-182.4	-883.6	381.6	331.2	50.42	7.568	
7,000.0	6,963.1	6,981.8	6,903.8	26.1	29.6	-83.60	-185.3	-898.8	396.6	345.5	51.09	7.762	
7,100.0	7,063.1	7,080.5	7,001.4	26.4	30.0	-84.25	-188.2	-913.9	411.5	359.8	51.75	7.952	
7,200.0	7,163.1	7,179.3	7,098.9	26.7	30.4	-84.84	-191.1	-929.1	426.6	374.2	52.43	8.137	
7,300.0	7,263.1	7,278.1	7,196.5	27.1	30.9	-85.40	-194.0	-944.3	441.7	388.6	53.10	8.317	
7,400.0	7,363.1	7,376.8	7,294.0	27.4	31.3	-85.92	-196.9	-959.5	456.8	403.0	53.78	8.494	
7,500.0	7,463.1	7,475.6	7,391.6	27.7	31.7	-86.41	-199.8	-974.6	471.9	417.5	54.46	8.666	
7,600.0	7,563.1	7,574.4	7,489.1	28.1	32.2	-86.86	-202.7	-989.8	487.1	432.0	55.14	8.833	
7,700.0	7,663.1	7,673.1	7,586.7	28.4	32.6	-87.29	-205.6	-1,005.0	502.3	446.5	55.83	8.997	
7,800.0	7,763.1	7,771.9	7,684.2	28.7	33.0	-87.70	-208.4	-1,020.2	517.5	461.0	56.52	9.157	
7,900.0	7,863.1	7,870.7	7,781.8	29.0	33.5	-88.08	-211.3	-1,035.4	532.8	475.6	57.21	9.314	
8,000.0	7,963.1	7,969.4	7,879.3	29.4	33.9	-88.44	-214.2	-1,050.5	548.1	490.2	57.90	9.466	
8,100.0	8,063.1	8,068.2	7,976.9	29.7	34.3	-88.78	-217.1	-1,065.7	563.4	504.8	58.59	9.615	
8,200.0	8,163.1	8,167.0	8,074.4	30.0	34.8	-89.10	-220.0	-1,080.9	578.7	519.4	59.29	9.761	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,300.0	8,263.1	8,265.8	8,172.0	30.4	35.2	-89.40	-222.9	-1,096.1	594.0	534.1	59.98	9.903	
8,400.0	8,363.1	8,364.5	8,269.5	30.7	35.6	-89.69	-225.8	-1,111.3	609.4	548.7	60.68	10.043	
8,500.0	8,463.1	8,463.3	8,367.1	31.0	36.1	-89.97	-228.7	-1,126.4	624.8	563.4	61.38	10.179	
8,600.0	8,563.1	8,562.1	8,464.6	31.4	36.5	-90.23	-231.6	-1,141.6	640.1	578.1	62.08	10.311	
8,700.0	8,663.1	8,673.9	8,575.1	31.7	37.0	-90.51	-234.8	-1,158.5	655.4	592.5	62.88	10.423	
8,800.0	8,763.1	8,862.4	8,763.1	32.1	37.7	-90.69	-237.0	-1,170.2	661.2	597.6	63.61	10.394	
8,900.0	8,863.1	8,962.4	8,863.1	32.4	37.9	-90.69	-237.0	-1,170.2	661.2	596.9	64.27	10.287	
9,000.0	8,963.1	9,062.4	8,963.1	32.7	38.2	-90.69	-237.0	-1,170.2	661.2	596.2	64.94	10.181	
9,100.0	9,063.1	9,162.4	9,063.1	33.1	38.5	-90.69	-237.0	-1,170.2	661.2	595.6	65.61	10.078	
9,200.0	9,163.1	9,262.4	9,163.1	33.4	38.8	-90.69	-237.0	-1,170.2	661.2	594.9	66.27	9.976	
9,300.0	9,263.1	9,362.4	9,263.1	33.7	39.1	-90.69	-237.0	-1,170.2	661.2	594.2	66.94	9.877	
9,400.0	9,363.1	9,462.4	9,363.1	34.1	39.4	-90.69	-237.0	-1,170.2	661.2	593.6	67.61	9.779	
9,409.8	9,372.9	9,472.2	9,372.9	34.1	39.4	-90.69	-237.0	-1,170.2	661.2	593.5	67.68	9.769	
9,500.0	9,463.1	9,560.3	9,461.0	34.4	39.7	-90.68	-236.8	-1,170.3	661.2	592.9	68.30	9.681	
9,600.0	9,563.1	9,646.5	9,546.7	34.8	39.9	-89.93	-228.2	-1,171.5	662.6	593.5	69.06	9.594	
9,700.0	9,663.1	9,728.5	9,626.1	35.1	40.1	-88.21	-208.3	-1,174.2	666.5	596.6	69.84	9.543	
9,800.0	9,763.1	9,803.3	9,695.4	35.4	40.3	-85.85	-180.4	-1,178.1	674.2	603.6	70.55	9.556	
9,900.0	9,863.1	9,869.8	9,753.5	35.8	40.5	-83.17	-148.4	-1,182.5	687.0	616.0	71.05	9.670	
10,000.0	9,963.1	9,927.8	9,800.7	36.1	40.6	-80.47	-115.2	-1,187.1	706.4	635.3	71.18	9.924	
10,100.0	10,063.1	9,977.9	9,838.6	36.5	40.7	-77.91	-82.8	-1,191.6	733.2	662.4	70.83	10.352	
10,200.0	10,163.1	10,020.8	9,868.8	36.8	40.8	-75.59	-52.5	-1,195.8	767.7	697.7	69.97	10.972	
10,300.0	10,263.1	10,050.0	9,887.9	37.1	40.8	-73.96	-30.7	-1,198.9	809.9	741.4	68.45	11.831	
10,400.0	10,363.1	10,089.6	9,912.0	37.5	40.9	-71.71	0.4	-1,203.2	859.0	792.0	67.00	12.820	
10,500.0	10,463.1	10,117.1	9,927.5	37.8	40.9	-70.13	22.9	-1,206.3	914.6	849.4	65.13	14.042	
10,600.0	10,563.1	10,150.0	9,944.5	38.2	41.0	-68.24	50.8	-1,210.2	975.9	912.5	63.42	15.389	
10,700.0	10,663.1	10,150.0	9,944.5	38.5	41.0	-68.24	50.8	-1,210.2	1,042.2	981.3	60.86	17.124	
10,800.0	10,763.1	10,180.6	9,958.9	38.9	41.0	-66.49	77.5	-1,213.9	1,112.4	1,053.1	59.28	18.765	
10,900.0	10,863.1	10,200.0	9,967.2	39.2	41.0	-65.39	94.9	-1,216.3	1,186.4	1,128.9	57.56	20.613	
11,000.0	10,963.1	10,200.0	9,967.2	39.6	41.0	-65.39	94.9	-1,216.3	1,263.7	1,208.2	55.50	22.769	
11,100.0	11,063.1	10,224.5	9,976.9	39.9	41.1	-64.01	117.2	-1,219.4	1,343.2	1,288.9	54.26	24.756	
11,200.0	11,163.1	10,250.0	9,986.0	40.2	41.1	-62.61	140.8	-1,222.7	1,425.3	1,372.2	53.15	26.818	
11,300.0	11,263.1	10,250.0	9,986.0	40.6	41.1	-62.61	140.8	-1,222.7	1,509.0	1,457.3	51.62	29.232	
11,400.0	11,363.1	10,250.0	9,986.0	40.9	41.1	-62.61	140.8	-1,222.7	1,594.5	1,544.2	50.26	31.723	
11,500.0	11,463.1	10,250.0	9,986.0	41.3	41.1	-62.61	140.8	-1,222.7	1,681.6	1,632.6	49.06	34.275	
11,600.0	11,563.1	10,273.2	9,993.3	41.6	41.1	-61.35	162.6	-1,225.7	1,769.5	1,721.1	48.46	36.515	
11,700.0	11,663.1	10,280.5	9,995.4	42.0	41.2	-60.95	169.5	-1,226.6	1,858.7	1,811.1	47.65	39.011	
11,800.0	11,763.1	10,300.0	10,000.6	42.3	41.2	-59.92	188.1	-1,229.2	1,949.1	1,901.9	47.15	41.335	
11,900.0	11,863.1	10,300.0	10,000.6	42.7	41.2	-59.92	188.1	-1,229.2	2,040.0	1,993.6	46.41	43.959	
12,006.9	11,970.0	10,300.0	10,000.6	43.0	41.2	-59.92	188.1	-1,229.2	2,138.0	2,092.3	45.71	46.769	
12,050.0	12,013.1	10,300.0	10,000.6	43.2	41.2	-44.80	188.1	-1,229.2	2,177.4	2,131.9	45.44	47.915	
12,100.0	12,062.7	10,300.0	10,000.6	43.3	41.2	-38.26	188.1	-1,229.2	2,222.0	2,176.9	45.10	49.265	
12,150.0	12,111.7	10,300.0	10,000.6	43.5	41.2	-33.24	188.1	-1,229.2	2,265.2	2,220.4	44.74	50.627	
12,200.0	12,159.5	10,300.0	10,000.6	43.7	41.2	-29.34	188.1	-1,229.2	2,306.8	2,262.4	44.37	51.990	
12,250.0	12,205.9	10,321.6	10,005.7	43.8	41.2	-25.99	209.0	-1,232.1	2,346.1	2,301.8	44.29	52.969	
12,300.0	12,250.5	10,328.0	10,007.0	43.9	41.2	-23.55	215.1	-1,233.0	2,383.5	2,339.5	43.98	54.193	
12,350.0	12,293.0	10,350.0	10,011.1	44.1	41.3	-21.47	236.5	-1,235.9	2,418.7	2,374.9	43.87	55.135	
12,400.0	12,333.0	10,350.0	10,011.1	44.2	41.3	-19.97	236.5	-1,235.9	2,451.1	2,407.6	43.47	56.384	
12,450.0	12,370.3	10,350.0	10,011.1	44.3	41.3	-18.75	236.5	-1,235.9	2,480.8	2,437.8	43.09	57.574	
12,500.0	12,404.5	10,350.0	10,011.1	44.3	41.3	-17.74	236.5	-1,235.9	2,507.9	2,465.1	42.73	58.689	
12,550.0	12,435.4	10,350.0	10,011.1	44.4	41.3	-16.91	236.5	-1,235.9	2,532.1	2,489.7	42.41	59.710	
12,600.0	12,462.7	10,374.4	10,014.6	44.5	41.3	-16.18	260.4	-1,239.3	2,552.7	2,510.4	42.35	60.277	
12,650.0	12,486.3	10,400.0	10,017.2	44.5	41.4	-15.60	285.7	-1,242.8	2,570.8	2,528.5	42.32	60.752	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
12,700.0	12,506.0	10,400.0	10,017.2	44.6	41.4	-15.21	285.7	-1,242.8	2,585.0	2,542.9	42.08	61.426	
12,750.0	12,521.6	10,400.0	10,017.2	44.7	41.4	-14.91	285.7	-1,242.8	2,596.1	2,554.2	41.91	61.948	
12,800.0	12,533.0	10,400.0	10,017.2	44.7	41.4	-14.71	285.7	-1,242.8	2,603.9	2,562.1	41.79	62.305	
12,850.0	12,540.1	10,419.4	10,018.4	44.9	41.4	-14.59	304.9	-1,245.4	2,608.2	2,566.3	41.85	62.318	
12,900.0	12,542.9	10,446.0	10,019.0	45.0	41.5	-14.56	331.2	-1,249.1	2,609.4	2,567.4	41.98	62.154	
12,915.3	12,542.9	10,446.0	10,019.0	45.0	41.5	-14.58	331.2	-1,249.1	2,608.9	2,566.9	41.99	62.131	
13,000.0	12,541.7	10,454.3	10,018.9	45.3	41.5	-14.59	339.4	-1,250.2	2,606.9	2,564.7	42.18	61.798	
13,100.0	12,540.2	10,584.1	10,018.8	45.6	41.9	-14.65	468.4	-1,264.8	2,606.1	2,563.2	42.93	60.706	
13,200.0	12,538.7	10,714.1	10,018.6	46.0	42.3	-14.68	598.1	-1,273.5	2,605.1	2,561.4	43.72	59.588	
13,287.8	12,537.4	10,826.7	10,018.5	46.4	42.8	-14.69	710.7	-1,276.2	2,604.0	2,559.6	44.44	58.600	
13,300.0	12,537.2	10,838.9	10,018.5	46.5	42.8	-14.69	722.8	-1,276.3	2,603.8	2,559.3	44.53	58.473	
13,400.0	12,535.8	10,938.8	10,018.4	47.0	43.3	-14.69	822.8	-1,277.0	2,602.5	2,557.2	45.33	57.418	
13,500.0	12,534.3	11,038.8	10,018.2	47.5	43.8	-14.70	922.8	-1,277.7	2,601.2	2,555.0	46.17	56.338	
13,600.0	12,532.8	11,138.8	10,018.1	48.1	44.4	-14.70	1,022.8	-1,278.4	2,599.8	2,552.8	47.06	55.241	
13,700.0	12,531.3	11,238.8	10,018.0	48.7	45.1	-14.71	1,122.8	-1,279.0	2,598.5	2,550.5	48.00	54.132	
13,800.0	12,529.9	11,338.8	10,017.9	49.4	45.8	-14.72	1,222.8	-1,279.7	2,597.1	2,548.2	48.98	53.020	
13,900.0	12,528.4	11,438.8	10,017.8	50.2	46.6	-14.72	1,322.7	-1,280.4	2,595.8	2,545.8	50.01	51.909	
14,000.0	12,526.9	11,538.8	10,017.7	51.0	47.4	-14.73	1,422.7	-1,281.1	2,594.5	2,543.4	51.07	50.804	
14,100.0	12,525.5	11,638.8	10,017.5	51.8	48.2	-14.73	1,522.7	-1,281.8	2,593.1	2,541.0	52.16	49.710	
14,200.0	12,524.0	11,738.8	10,017.4	52.6	49.2	-14.74	1,622.7	-1,282.4	2,591.8	2,538.5	53.30	48.631	
14,300.0	12,522.5	11,838.8	10,017.3	53.5	50.1	-14.74	1,722.7	-1,283.1	2,590.5	2,536.0	54.46	47.568	
14,400.0	12,521.0	11,938.8	10,017.2	54.5	51.1	-14.75	1,822.7	-1,283.8	2,589.1	2,533.5	55.65	46.525	
14,500.0	12,519.6	12,038.7	10,017.1	55.4	52.1	-14.75	1,922.7	-1,284.5	2,587.8	2,530.9	56.87	45.504	
14,600.0	12,518.1	12,138.7	10,016.9	56.4	53.2	-14.76	2,022.7	-1,285.2	2,586.5	2,528.3	58.12	44.505	
14,700.0	12,516.6	12,238.7	10,016.8	57.4	54.3	-14.76	2,122.6	-1,285.8	2,585.1	2,525.7	59.39	43.530	
14,800.0	12,515.1	12,338.7	10,016.7	58.5	55.4	-14.77	2,222.6	-1,286.5	2,583.8	2,523.1	60.68	42.580	
14,900.0	12,513.7	12,438.7	10,016.6	59.6	56.5	-14.78	2,322.6	-1,287.2	2,582.5	2,520.5	62.00	41.655	
15,000.0	12,512.2	12,538.7	10,016.5	60.7	57.7	-14.78	2,422.6	-1,287.9	2,581.1	2,517.8	63.33	40.755	
15,100.0	12,510.7	12,638.7	10,016.4	61.8	58.9	-14.79	2,522.6	-1,288.5	2,579.8	2,515.1	64.69	39.881	
15,200.0	12,509.3	12,738.7	10,016.2	63.0	60.1	-14.79	2,622.6	-1,289.2	2,578.4	2,512.4	66.06	39.031	
15,300.0	12,507.8	12,838.7	10,016.1	64.2	61.3	-14.80	2,722.6	-1,289.9	2,577.1	2,509.7	67.45	38.207	
15,400.0	12,506.3	12,938.7	10,016.0	65.4	62.6	-14.80	2,822.6	-1,290.6	2,575.8	2,506.9	68.86	37.408	
15,500.0	12,504.8	13,038.7	10,015.9	66.6	63.9	-14.81	2,922.6	-1,291.3	2,574.4	2,504.2	70.28	36.632	
15,600.0	12,503.4	13,138.6	10,015.8	67.8	65.1	-14.81	3,022.5	-1,291.9	2,573.1	2,501.4	71.71	35.880	
15,700.0	12,501.9	13,238.6	10,015.6	69.1	66.4	-14.82	3,122.5	-1,292.6	2,571.8	2,498.6	73.16	35.152	
15,800.0	12,500.4	13,338.6	10,015.5	70.3	67.8	-14.82	3,222.5	-1,293.3	2,570.4	2,495.8	74.62	34.445	
15,900.0	12,498.9	13,438.6	10,015.4	71.6	69.1	-14.83	3,322.5	-1,294.0	2,569.1	2,493.0	76.10	33.761	
16,000.0	12,497.5	13,538.6	10,015.3	72.9	70.5	-14.84	3,422.5	-1,294.7	2,567.8	2,490.2	77.58	33.098	
16,100.0	12,496.0	13,638.6	10,015.2	74.3	71.8	-14.84	3,522.5	-1,295.3	2,566.4	2,487.4	79.08	32.455	
16,200.0	12,494.5	13,738.6	10,015.1	75.6	73.2	-14.85	3,622.5	-1,296.0	2,565.1	2,484.5	80.58	31.832	
16,300.0	12,493.0	13,838.6	10,014.9	76.9	74.6	-14.85	3,722.5	-1,296.7	2,563.8	2,481.7	82.10	31.229	
16,400.0	12,491.6	13,938.6	10,014.8	78.3	76.0	-14.86	3,822.5	-1,297.4	2,562.4	2,478.8	83.62	30.644	
16,500.0	12,490.1	14,038.6	10,014.7	79.6	77.4	-14.86	3,922.4	-1,298.1	2,561.1	2,475.9	85.15	30.077	
16,600.0	12,488.6	14,138.6	10,014.6	81.0	78.8	-14.87	4,022.4	-1,298.7	2,559.8	2,473.1	86.69	29.527	
16,700.0	12,487.2	14,238.5	10,014.5	82.4	80.2	-14.87	4,122.4	-1,299.4	2,558.4	2,470.2	88.24	28.994	
16,800.0	12,485.7	14,338.5	10,014.3	83.8	81.7	-14.88	4,222.4	-1,300.1	2,557.1	2,467.3	89.80	28.476	
16,900.0	12,484.2	14,438.5	10,014.2	85.2	83.1	-14.89	4,322.4	-1,300.8	2,555.7	2,464.4	91.36	27.975	
17,000.0	12,482.7	14,538.5	10,014.1	86.6	84.6	-14.89	4,422.4	-1,301.5	2,554.4	2,461.5	92.93	27.488	
17,100.0	12,481.3	14,638.5	10,014.0	88.1	86.0	-14.90	4,522.4	-1,302.1	2,553.1	2,458.6	94.50	27.016	
17,200.0	12,479.8	14,738.5	10,013.9	89.5	87.5	-14.90	4,622.4	-1,302.8	2,551.7	2,455.7	96.09	26.557	
17,300.0	12,478.3	14,838.5	10,013.8	90.9	89.0	-14.91	4,722.3	-1,303.5	2,550.4	2,452.7	97.67	26.112	
17,400.0	12,476.8	14,938.5	10,013.6	92.4	90.4	-14.91	4,822.3	-1,304.2	2,549.1	2,449.8	99.27	25.679	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
17,500.0	12,475.4	15,038.5	10,013.5	93.8	91.9	-14.92	4,922.3	-1,304.9	2,547.7	2,447.0	100.73	25.292	
17,545.9	12,474.7	15,050.3	10,013.5	94.5	92.1	-14.92	4,934.2	-1,304.9	2,547.3	2,446.0	101.34	25.137	
17,600.0	12,473.9	15,050.3	10,013.5	95.3	92.1	-14.92	4,934.2	-1,304.9	2,547.9	2,445.9	102.06	24.965	
17,700.0	12,472.4	15,050.3	10,013.5	96.7	92.1	-14.92	4,934.2	-1,304.9	2,552.0	2,448.6	103.36	24.690	
17,800.0	12,471.0	15,050.3	10,013.5	98.2	92.1	-14.92	4,934.2	-1,304.9	2,560.0	2,455.4	104.62	24.469	
17,900.0	12,469.5	15,050.3	10,013.5	99.7	92.1	-14.92	4,934.2	-1,304.9	2,571.8	2,466.0	105.83	24.302	
18,000.0	12,468.0	15,050.3	10,013.5	101.2	92.1	-14.92	4,934.2	-1,304.9	2,587.5	2,480.5	106.97	24.189	
18,100.0	12,466.5	15,050.3	10,013.5	102.7	92.1	-14.92	4,934.2	-1,304.9	2,606.9	2,498.9	108.05	24.127	
18,200.0	12,465.1	15,050.3	10,013.5	104.2	92.1	-14.92	4,934.2	-1,304.9	2,630.0	2,520.9	109.06	24.116	
18,300.0	12,463.6	15,050.3	10,013.5	105.7	92.1	-14.92	4,934.2	-1,304.9	2,656.6	2,546.7	109.99	24.154	
18,400.0	12,462.1	15,050.3	10,013.5	107.2	92.1	-14.92	4,934.2	-1,304.9	2,686.7	2,575.9	110.85	24.238	
18,500.0	12,460.6	15,050.3	10,013.5	108.7	92.1	-14.92	4,934.2	-1,304.9	2,720.2	2,608.6	111.63	24.368	
18,600.0	12,459.2	15,050.3	10,013.5	110.2	92.1	-14.92	4,934.2	-1,304.9	2,756.8	2,644.5	112.34	24.541	
18,700.0	12,457.7	15,050.3	10,013.5	111.7	92.1	-14.92	4,934.2	-1,304.9	2,796.6	2,683.6	112.97	24.755	
18,800.0	12,456.2	15,050.3	10,013.5	113.2	92.1	-14.92	4,934.2	-1,304.9	2,839.3	2,725.8	113.54	25.008	
18,900.0	12,454.8	15,050.3	10,013.5	114.8	92.1	-14.92	4,934.2	-1,304.9	2,884.9	2,770.9	114.04	25.298	
19,000.0	12,453.3	15,050.3	10,013.5	116.3	92.1	-14.92	4,934.2	-1,304.9	2,933.2	2,818.7	114.47	25.624	
19,100.0	12,451.8	15,050.3	10,013.5	117.8	92.1	-14.92	4,934.2	-1,304.9	2,984.0	2,869.2	114.85	25.982	
19,200.0	12,450.3	15,050.3	10,013.5	119.3	92.1	-14.92	4,934.2	-1,304.9	3,037.3	2,922.1	115.17	26.372	
19,300.0	12,448.9	15,050.3	10,013.5	120.9	92.1	-14.92	4,934.2	-1,304.9	3,092.9	2,977.5	115.44	26.792	
19,400.0	12,447.4	15,050.3	10,013.5	122.4	92.1	-14.92	4,934.2	-1,304.9	3,150.7	3,035.0	115.67	27.239	
19,500.0	12,445.9	15,050.3	10,013.5	124.0	92.1	-14.92	4,934.2	-1,304.9	3,210.6	3,094.7	115.85	27.712	
19,600.0	12,444.4	15,050.3	10,013.5	125.5	92.1	-14.92	4,934.2	-1,304.9	3,272.4	3,156.4	116.00	28.210	
19,700.0	12,443.0	15,050.3	10,013.5	127.1	92.1	-14.92	4,934.2	-1,304.9	3,336.1	3,220.0	116.11	28.732	
19,800.0	12,441.5	15,050.3	10,013.5	128.6	92.1	-14.92	4,934.2	-1,304.9	3,401.5	3,285.3	116.19	29.275	
19,900.0	12,440.0	15,050.3	10,013.5	130.2	92.1	-14.92	4,934.2	-1,304.9	3,468.6	3,352.3	116.25	29.838	
20,000.0	12,438.6	15,050.3	10,013.5	131.7	92.1	-14.92	4,934.2	-1,304.9	3,537.2	3,420.9	116.28	30.420	
20,100.0	12,437.1	15,050.3	10,013.5	133.3	92.1	-14.92	4,934.2	-1,304.9	3,607.3	3,491.0	116.29	31.021	
20,200.0	12,435.6	15,050.3	10,013.5	134.9	92.1	-14.92	4,934.2	-1,304.9	3,678.8	3,562.5	116.28	31.638	
20,300.0	12,434.1	15,050.3	10,013.5	136.4	92.1	-14.92	4,934.2	-1,304.9	3,751.6	3,635.3	116.25	32.270	
20,400.0	12,432.7	15,050.3	10,013.5	138.0	92.1	-14.92	4,934.2	-1,304.9	3,825.6	3,709.4	116.22	32.918	
20,500.0	12,431.2	15,050.3	10,013.5	139.6	92.1	-14.92	4,934.2	-1,304.9	3,900.8	3,784.6	116.17	33.579	
20,600.0	12,429.7	15,050.3	10,013.5	141.1	92.1	-14.92	4,934.2	-1,304.9	3,977.0	3,860.9	116.10	34.254	
20,700.0	12,428.2	15,050.3	10,013.5	142.7	92.1	-14.92	4,934.2	-1,304.9	4,054.3	3,938.3	116.04	34.940	
20,800.0	12,426.8	15,050.3	10,013.5	144.3	92.1	-14.92	4,934.2	-1,304.9	4,132.6	4,016.6	115.96	35.638	
20,900.0	12,425.3	15,050.3	10,013.5	145.9	92.1	-14.92	4,934.2	-1,304.9	4,211.8	4,095.9	115.88	36.347	
21,000.0	12,423.8	15,050.3	10,013.5	147.4	92.1	-14.92	4,934.2	-1,304.9	4,291.9	4,176.1	115.79	37.065	
21,100.0	12,422.4	15,050.3	10,013.5	149.0	92.1	-14.92	4,934.2	-1,304.9	4,372.8	4,257.0	115.70	37.793	
21,200.0	12,420.9	15,050.3	10,013.5	150.6	92.1	-14.92	4,934.2	-1,304.9	4,454.4	4,338.8	115.61	38.529	
21,300.0	12,419.4	15,050.3	10,013.5	152.2	92.1	-14.92	4,934.2	-1,304.9	4,536.8	4,421.3	115.52	39.274	
21,400.0	12,417.9	15,050.3	10,013.5	153.8	92.1	-14.92	4,934.2	-1,304.9	4,619.9	4,504.5	115.42	40.026	
21,500.0	12,416.5	15,050.3	10,013.5	155.3	92.1	-14.92	4,934.2	-1,304.9	4,703.6	4,588.3	115.33	40.785	
21,600.0	12,415.0	15,050.3	10,013.5	156.9	92.1	-14.92	4,934.2	-1,304.9	4,788.0	4,672.8	115.23	41.551	
21,700.0	12,413.5	15,050.3	10,013.5	158.5	92.1	-14.92	4,934.2	-1,304.9	4,873.0	4,757.8	115.14	42.324	
21,800.0	12,412.0	15,050.3	10,013.5	160.1	92.1	-14.92	4,934.2	-1,304.9	4,958.5	4,843.5	115.04	43.102	
21,900.0	12,410.6	15,050.3	10,013.5	161.7	92.1	-14.92	4,934.2	-1,304.9	5,044.6	4,929.6	114.95	43.885	
22,000.0	12,409.1	15,050.3	10,013.5	163.3	92.1	-14.92	4,934.2	-1,304.9	5,131.1	5,016.3	114.86	44.674	
22,100.0	12,407.6	15,050.3	10,013.5	164.9	92.1	-14.92	4,934.2	-1,304.9	5,218.2	5,103.4	114.77	45.467	
22,200.0	12,406.1	15,050.3	10,013.5	166.5	92.1	-14.92	4,934.2	-1,304.9	5,305.7	5,191.0	114.68	46.265	
22,300.0	12,404.7	15,050.3	10,013.5	168.1	92.1	-14.92	4,934.2	-1,304.9	5,393.6	5,279.0	114.59	47.067	
22,400.0	12,403.2	15,050.3	10,013.5	169.7	92.1	-14.92	4,934.2	-1,304.9	5,481.9	5,367.4	114.51	47.872	
22,500.0	12,401.7	15,050.3	10,013.5	171.3	92.1	-14.92	4,934.2	-1,304.9	5,570.7	5,456.3	114.43	48.681	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #111H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
22,600.0	12,400.3	15,050.3	10,013.5	172.9	92.1	-14.92	4,934.2	-1,304.9	5,659.8	5,545.5	114.35	49.494	
22,700.0	12,398.8	15,050.3	10,013.5	174.5	92.1	-14.92	4,934.2	-1,304.9	5,749.3	5,635.0	114.28	50.309	
22,787.3	12,397.5	15,050.3	10,013.5	175.7	92.1	-14.92	4,934.2	-1,304.9	5,827.7	5,712.1	115.55	50.434	

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	104.65	-28.8	110.1	113.8				
100.0	100.0	100.0	100.0	0.1	0.1	104.65	-28.8	110.1	113.8	113.5	0.26	443.996	
200.0	200.0	200.0	200.0	0.5	0.5	104.65	-28.8	110.1	113.8	112.8	0.97	116.927	
300.0	300.0	300.0	300.0	0.8	0.8	104.65	-28.8	110.1	113.8	112.1	1.69	67.329	
400.0	400.0	400.0	400.0	1.2	1.2	104.65	-28.8	110.1	113.8	111.4	2.41	47.276	
500.0	500.0	500.0	500.0	1.6	1.6	104.65	-28.8	110.1	113.8	110.7	3.12	36.427	
600.0	600.0	600.0	600.0	1.9	1.9	104.65	-28.8	110.1	113.8	110.0	3.84	29.627	
700.0	700.0	700.0	700.0	2.3	2.3	104.65	-28.8	110.1	113.8	109.2	4.56	24.967	
800.0	800.0	800.0	800.0	2.6	2.6	104.65	-28.8	110.1	113.8	108.5	5.27	21.574	
900.0	900.0	900.0	900.0	3.0	3.0	104.65	-28.8	110.1	113.8	107.8	5.99	18.992	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	104.65	-28.8	110.1	113.8	107.1	6.71	16.963	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	104.65	-28.8	110.1	113.8	106.4	7.43	15.325	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	104.65	-28.8	110.1	113.8	105.7	8.14	13.976	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	104.65	-28.8	110.1	113.8	104.9	8.86	12.845	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	104.65	-28.8	110.1	113.8	104.2	9.58	11.883	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	104.65	-28.8	110.1	113.8	103.5	10.29	11.055 CC, ES	
1,600.0	1,600.0	1,598.1	1,598.1	5.5	5.5	-141.30	-29.2	110.8	115.3	104.3	10.98	10.505	
1,700.0	1,700.0	1,696.0	1,696.0	5.8	5.8	-141.77	-30.3	113.1	119.9	108.2	11.64	10.300 SF	
1,800.0	1,799.9	1,793.7	1,793.5	6.2	6.1	-142.49	-32.2	116.8	127.5	115.2	12.30	10.364	
1,900.0	1,899.7	1,890.9	1,890.6	6.5	6.5	-143.35	-34.9	122.0	138.1	125.1	12.96	10.657	
2,000.0	1,999.4	1,987.5	1,987.0	6.9	6.8	-144.28	-38.2	128.6	151.8	138.2	13.62	11.148	
2,100.0	2,098.9	2,083.5	2,082.5	7.2	7.2	-145.20	-42.3	136.5	168.6	154.3	14.27	11.808	
2,200.0	2,198.3	2,178.7	2,177.1	7.6	7.5	-146.06	-47.1	145.8	188.3	173.4	14.93	12.616	
2,300.0	2,297.4	2,272.9	2,270.5	7.9	7.8	-146.83	-52.5	156.4	211.1	195.5	15.58	13.553	
2,400.0	2,396.4	2,368.8	2,365.5	8.3	8.2	-147.60	-58.5	168.3	235.8	219.5	16.25	14.508	
2,500.0	2,495.5	2,465.6	2,461.4	8.7	8.6	-148.22	-64.7	180.3	260.5	243.6	16.94	15.378	
2,600.0	2,594.5	2,562.5	2,557.3	9.1	8.9	-148.73	-70.8	192.3	285.3	267.7	17.64	16.178	
2,700.0	2,693.5	2,659.3	2,653.2	9.5	9.3	-149.17	-77.0	204.3	310.1	291.8	18.33	16.915	
2,800.0	2,792.5	2,756.2	2,749.1	9.8	9.7	-149.53	-83.1	216.3	334.9	315.9	19.03	17.595	
2,900.0	2,891.6	2,853.0	2,845.1	10.2	10.0	-149.85	-89.2	228.3	359.7	340.0	19.74	18.225	
3,000.0	2,990.6	2,949.9	2,941.0	10.6	10.4	-150.13	-95.4	240.3	384.6	364.1	20.45	18.809	
3,100.0	3,089.6	3,046.7	3,036.9	11.0	10.8	-150.37	-101.5	252.3	409.4	388.3	21.16	19.352	
3,200.0	3,188.6	3,143.6	3,132.8	11.4	11.2	-150.59	-107.6	264.3	434.3	412.4	21.87	19.858	
3,300.0	3,287.7	3,240.4	3,228.7	11.8	11.6	-150.78	-113.8	276.3	459.1	436.5	22.58	20.330	
3,400.0	3,386.7	3,337.3	3,324.6	12.2	12.0	-150.95	-119.9	288.3	484.0	460.7	23.30	20.772	
3,500.0	3,485.7	3,434.2	3,420.5	12.6	12.4	-151.11	-126.1	300.3	508.8	484.8	24.02	21.186	
3,600.0	3,584.8	3,531.0	3,516.4	13.0	12.7	-151.25	-132.2	312.3	533.7	508.9	24.74	21.575	
3,700.0	3,683.8	3,627.9	3,612.3	13.4	13.1	-151.37	-138.3	324.3	558.5	533.1	25.46	21.940	
3,800.0	3,782.8	3,724.7	3,708.2	13.8	13.5	-151.49	-144.5	336.3	583.4	557.2	26.18	22.285	
3,900.0	3,881.8	3,821.6	3,804.2	14.3	13.9	-151.60	-150.6	348.3	608.3	581.4	26.90	22.610	
4,000.0	3,980.9	3,918.4	3,900.1	14.7	14.3	-151.70	-156.8	360.3	633.1	605.5	27.63	22.917	
4,100.0	4,079.9	4,015.3	3,996.0	15.1	14.7	-151.79	-162.9	372.3	658.0	629.7	28.35	23.208	
4,200.0	4,178.9	4,112.1	4,091.9	15.5	15.1	-151.88	-169.0	384.3	682.9	653.8	29.08	23.483	
4,300.0	4,277.9	4,209.0	4,187.8	15.9	15.5	-151.95	-175.2	396.3	707.8	678.0	29.81	23.744	
4,400.0	4,377.0	4,305.8	4,283.7	16.3	15.9	-152.03	-181.3	408.3	732.6	702.1	30.54	23.993	
4,500.0	4,476.0	4,402.7	4,379.6	16.7	16.3	-152.10	-187.4	420.3	757.5	726.3	31.27	24.229	
4,600.0	4,575.0	4,499.5	4,475.5	17.1	16.7	-152.16	-193.6	432.3	782.4	750.4	32.00	24.453	
4,700.0	4,674.0	4,596.4	4,571.4	17.5	17.1	-152.22	-199.7	444.3	807.3	774.5	32.73	24.668	
4,800.0	4,773.1	4,711.9	4,686.0	18.0	17.6	-152.32	-206.5	457.6	831.3	797.7	33.61	24.732	
4,900.0	4,872.1	4,834.2	4,807.7	18.4	18.0	-152.53	-212.0	468.3	852.6	818.1	34.52	24.699	
5,000.0	4,971.1	4,957.8	4,931.0	18.8	18.5	-152.83	-215.8	475.7	871.0	835.6	35.40	24.604	
5,100.0	5,070.2	5,082.6	5,055.7	19.2	18.9	-153.23	-217.7	479.5	886.5	850.3	36.25	24.456	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,203.9	5,169.2	19.6	19.3	-153.67	-218.0	480.0	899.4	862.4	37.04	24.280	
5,300.0	5,268.2	5,304.9	5,268.2	20.0	19.7	-154.06	-218.0	480.0	912.0	874.2	37.76	24.153	
5,400.0	5,367.2	5,405.9	5,367.2	20.5	20.0	-154.44	-218.0	480.0	924.5	886.0	38.47	24.031	
5,500.0	5,466.3	5,506.9	5,466.3	20.9	20.3	-154.80	-218.0	480.0	937.1	897.9	39.19	23.914	
5,600.0	5,565.3	5,607.8	5,565.3	21.3	20.7	-155.16	-218.0	480.0	949.7	909.8	39.90	23.803	
5,643.3	5,608.2	5,635.1	5,608.2	21.5	20.8	-155.31	-218.0	480.0	955.2	915.1	40.15	23.789	
5,700.0	5,664.4	5,708.7	5,664.4	21.7	21.0	-155.54	-218.0	480.0	962.0	921.4	40.61	23.687	
5,800.0	5,763.7	5,809.4	5,763.7	22.1	21.3	-155.88	-218.0	480.0	972.2	930.9	41.32	23.526	
5,900.0	5,863.4	5,909.7	5,863.4	22.5	21.7	-156.13	-218.0	480.0	980.0	938.0	42.03	23.318	
6,000.0	5,963.2	6,009.9	5,963.2	22.8	22.0	-156.30	-218.0	480.0	985.4	942.7	42.73	23.064	
6,100.0	6,063.1	6,110.0	6,063.1	23.2	22.3	-156.40	-218.0	480.0	988.5	945.1	43.42	22.765	
6,176.7	6,139.8	6,166.7	6,139.8	23.4	22.5	89.36	-218.0	480.0	989.2	945.3	43.88	22.545	
6,200.0	6,163.1	6,210.0	6,163.1	23.5	22.7	89.36	-218.0	480.0	989.2	945.1	44.10	22.430	
6,300.0	6,263.1	6,310.0	6,263.1	23.8	23.0	89.36	-218.0	480.0	989.2	944.4	44.77	22.092	
6,400.0	6,363.1	6,410.0	6,363.1	24.2	23.3	89.36	-218.0	480.0	989.2	943.7	45.45	21.764	
6,500.0	6,463.1	6,510.0	6,463.1	24.5	23.7	89.36	-218.0	480.0	989.2	943.1	46.13	21.445	
6,600.0	6,563.1	6,610.0	6,563.1	24.8	24.0	89.36	-218.0	480.0	989.2	942.4	46.80	21.134	
6,700.0	6,663.1	6,710.0	6,663.1	25.1	24.3	89.36	-218.0	480.0	989.2	941.7	47.48	20.832	
6,800.0	6,763.1	6,810.0	6,763.1	25.4	24.7	89.36	-218.0	480.0	989.2	941.0	48.16	20.538	
6,900.0	6,863.1	6,910.0	6,863.1	25.8	25.0	89.36	-218.0	480.0	989.2	940.3	48.84	20.252	
7,000.0	6,963.1	7,010.0	6,963.1	26.1	25.3	89.36	-218.0	480.0	989.2	939.7	49.53	19.973	
7,100.0	7,063.1	7,110.0	7,063.1	26.4	25.7	89.36	-218.0	480.0	989.2	939.0	50.21	19.701	
7,200.0	7,163.1	7,210.0	7,163.1	26.7	26.0	89.36	-218.0	480.0	989.2	938.3	50.89	19.436	
7,300.0	7,263.1	7,310.0	7,263.1	27.1	26.4	89.36	-218.0	480.0	989.2	937.6	51.58	19.178	
7,400.0	7,363.1	7,410.0	7,363.1	27.4	26.7	89.36	-218.0	480.0	989.2	936.9	52.26	18.927	
7,500.0	7,463.1	7,510.0	7,463.1	27.7	27.0	89.36	-218.0	480.0	989.2	936.2	52.95	18.681	
7,600.0	7,563.1	7,610.0	7,563.1	28.1	27.4	89.36	-218.0	480.0	989.2	935.5	53.64	18.442	
7,700.0	7,663.1	7,710.0	7,663.1	28.4	27.7	89.36	-218.0	480.0	989.2	934.9	54.33	18.208	
7,800.0	7,763.1	7,810.0	7,763.1	28.7	28.1	89.36	-218.0	480.0	989.2	934.2	55.01	17.980	
7,900.0	7,863.1	7,910.0	7,863.1	29.0	28.4	89.36	-218.0	480.0	989.2	933.5	55.70	17.758	
8,000.0	7,963.1	8,010.0	7,963.1	29.4	28.8	89.36	-218.0	480.0	989.2	932.8	56.39	17.540	
8,100.0	8,063.1	8,110.0	8,063.1	29.7	29.1	89.36	-218.0	480.0	989.2	932.1	57.09	17.328	
8,200.0	8,163.1	8,210.0	8,163.1	30.0	29.4	89.36	-218.0	480.0	989.2	931.4	57.78	17.121	
8,300.0	8,263.1	8,310.0	8,263.1	30.4	29.8	89.36	-218.0	480.0	989.2	930.7	58.47	16.918	
8,400.0	8,363.1	8,410.0	8,363.1	30.7	30.1	89.36	-218.0	480.0	989.2	930.0	59.16	16.720	
8,500.0	8,463.1	8,510.0	8,463.1	31.0	30.5	89.36	-218.0	480.0	989.2	929.3	59.85	16.526	
8,600.0	8,563.1	8,610.0	8,563.1	31.4	30.8	89.36	-218.0	480.0	989.2	928.6	60.55	16.337	
8,700.0	8,663.1	8,710.0	8,663.1	31.7	31.2	89.36	-218.0	480.0	989.2	927.9	61.24	16.152	
8,800.0	8,763.1	8,810.0	8,763.1	32.1	31.5	89.36	-218.0	480.0	989.2	927.2	61.94	15.971	
8,900.0	8,863.1	8,910.0	8,863.1	32.4	31.9	89.36	-218.0	480.0	989.2	926.5	62.63	15.793	
9,000.0	8,963.1	9,010.0	8,963.1	32.7	32.2	89.36	-218.0	480.0	989.2	925.9	63.33	15.620	
9,100.0	9,063.1	9,110.0	9,063.1	33.1	32.5	89.36	-218.0	480.0	989.2	925.2	64.03	15.450	
9,200.0	9,163.1	9,210.0	9,163.1	33.4	32.9	89.36	-218.0	480.0	989.2	924.5	64.72	15.283	
9,300.0	9,263.1	9,310.0	9,263.1	33.7	33.2	89.36	-218.0	480.0	989.2	923.8	65.42	15.121	
9,400.0	9,363.1	9,390.0	9,363.1	34.1	33.5	89.36	-218.0	480.0	989.2	923.1	66.05	14.977	
9,500.0	9,463.1	9,490.0	9,463.1	34.4	33.9	89.36	-218.0	480.0	989.2	922.4	66.74	14.820	
9,600.0	9,563.1	9,615.8	9,588.0	34.8	34.3	88.60	-204.9	478.2	987.9	920.4	67.50	14.635	
9,700.0	9,663.1	9,731.3	9,697.5	35.1	34.6	86.53	-169.4	473.2	984.7	916.5	68.17	14.445	
9,800.0	9,763.1	9,829.4	9,783.5	35.4	34.8	83.78	-122.6	466.6	981.7	912.9	68.79	14.272	
9,861.8	9,824.9	9,880.9	9,824.9	35.7	34.9	82.00	-92.5	462.4	981.0	911.9	69.13	14.192	
9,900.0	9,863.1	9,909.5	9,846.7	35.8	35.0	80.92	-74.2	459.8	981.3	912.0	69.31	14.159	
10,000.0	9,963.1	9,973.6	9,892.1	36.1	35.1	78.29	-29.4	453.5	985.7	916.0	69.62	14.158	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,024.9	9,924.6	36.5	35.2	75.98	9.9	448.0	996.1	926.5	69.60	14.313	
10,200.0	10,163.1	10,066.4	9,948.2	36.8	35.2	74.02	43.7	443.2	1,013.7	944.5	69.18	14.652	
10,300.0	10,263.1	10,100.0	9,965.5	37.1	35.2	72.38	72.2	439.2	1,038.6	970.2	68.36	15.193	
10,400.0	10,363.1	10,128.1	9,978.6	37.5	35.3	70.97	96.8	435.8	1,070.9	1,003.7	67.18	15.942	
10,500.0	10,463.1	10,150.0	9,987.9	37.8	35.3	69.86	116.4	433.0	1,110.3	1,044.6	65.68	16.905	
10,600.0	10,563.1	10,171.2	9,996.3	38.2	35.3	68.78	135.7	430.3	1,156.2	1,092.2	64.01	18.062	
10,700.0	10,663.1	10,188.1	10,002.4	38.5	35.3	67.91	151.3	428.1	1,208.1	1,145.9	62.21	19.420	
10,800.0	10,763.1	10,200.0	10,006.5	38.9	35.3	67.30	162.4	426.6	1,265.4	1,205.1	60.33	20.975	
10,900.0	10,863.1	10,215.3	10,011.3	39.2	35.4	66.51	176.8	424.5	1,327.4	1,268.9	58.53	22.679	
11,000.0	10,963.1	10,226.5	10,014.6	39.6	35.4	65.93	187.4	423.0	1,393.5	1,336.8	56.75	24.555	
11,100.0	11,063.1	10,250.0	10,020.9	39.9	35.4	64.72	209.8	419.9	1,463.5	1,408.3	55.24	26.492	
11,200.0	11,163.1	10,250.0	10,020.9	40.2	35.4	64.72	209.8	419.9	1,536.4	1,482.8	53.54	28.694	
11,300.0	11,263.1	10,250.0	10,020.9	40.6	35.4	64.72	209.8	419.9	1,612.1	1,560.1	51.97	31.018	
11,400.0	11,363.1	10,250.0	10,020.9	40.9	35.4	64.72	209.8	419.9	1,690.4	1,639.8	50.54	33.447	
11,500.0	11,463.1	10,250.0	10,020.9	41.3	35.4	64.72	209.8	419.9	1,770.8	1,721.6	49.24	35.964	
11,600.0	11,563.1	10,272.3	10,025.9	41.6	35.5	63.57	231.3	416.9	1,852.7	1,804.3	48.32	38.339	
11,700.0	11,663.1	10,277.6	10,027.0	42.0	35.5	63.29	236.5	416.1	1,936.4	1,889.1	47.32	40.918	
11,800.0	11,763.1	10,300.0	10,031.0	42.3	35.6	62.15	258.3	413.1	2,021.9	1,975.3	46.62	43.373	
11,900.0	11,863.1	10,300.0	10,031.0	42.7	35.6	62.15	258.3	413.1	2,108.2	2,062.4	45.77	46.065	
12,006.9	11,970.0	10,300.0	10,031.0	43.0	35.6	62.15	258.3	413.1	2,201.7	2,156.7	44.96	48.965	
12,050.0	12,013.1	10,300.0	10,031.0	43.2	35.6	62.87	258.3	413.1	2,239.5	2,194.8	44.66	50.145	
12,100.0	12,062.7	10,300.0	10,031.0	43.3	35.6	55.55	258.3	413.1	2,282.6	2,238.3	44.31	51.520	
12,150.0	12,111.7	10,300.0	10,031.0	43.5	35.6	49.34	258.3	413.1	2,324.8	2,280.8	43.95	52.893	
12,200.0	12,159.5	10,300.0	10,031.0	43.7	35.6	44.16	258.3	413.1	2,365.7	2,322.1	43.60	54.253	
12,250.0	12,205.9	10,300.0	10,031.0	43.8	35.6	39.88	258.3	413.1	2,405.1	2,361.8	43.26	55.591	
12,300.0	12,250.5	10,300.0	10,031.0	43.9	35.6	36.33	258.3	413.1	2,442.8	2,399.8	42.94	56.892	
12,350.0	12,293.0	10,322.5	10,034.2	44.1	35.7	33.11	280.4	410.0	2,478.1	2,435.3	42.80	57.904	
12,400.0	12,333.0	10,329.4	10,035.0	44.2	35.7	30.66	287.1	409.0	2,511.4	2,468.9	42.55	59.029	
12,450.0	12,370.3	10,350.0	10,036.9	44.3	35.7	28.53	307.4	406.2	2,542.5	2,500.1	42.40	59.959	
12,500.0	12,404.5	10,350.0	10,036.9	44.3	35.7	26.93	307.4	406.2	2,570.8	2,528.6	42.15	60.997	
12,550.0	12,435.4	10,350.0	10,036.9	44.4	35.7	25.61	307.4	406.2	2,596.4	2,554.5	41.92	61.934	
12,600.0	12,462.7	10,350.0	10,036.9	44.5	35.7	24.51	307.4	406.2	2,619.4	2,577.7	41.74	62.755	
12,650.0	12,486.3	10,369.3	10,038.0	44.5	35.8	23.54	326.6	403.5	2,639.2	2,597.5	41.69	63.312	
12,700.0	12,506.0	10,393.0	10,038.5	44.6	35.9	22.76	350.0	400.2	2,656.3	2,614.6	41.67	63.741	
12,750.0	12,521.6	10,393.0	10,038.5	44.7	35.9	22.23	350.0	400.2	2,669.8	2,628.2	41.61	64.161	
12,800.0	12,533.0	10,405.9	10,038.4	44.7	35.9	21.80	362.7	398.4	2,680.3	2,638.6	41.64	64.366	
12,850.0	12,540.1	10,442.7	10,038.4	44.9	36.1	21.51	399.3	393.7	2,687.1	2,645.3	41.78	64.313	
12,900.0	12,542.9	10,479.9	10,038.4	45.0	36.2	21.40	436.2	389.4	2,690.1	2,648.2	41.96	64.113	
12,915.3	12,542.9	10,491.3	10,038.4	45.0	36.2	21.40	447.5	388.2	2,690.3	2,648.3	42.02	64.022	
13,000.0	12,541.7	10,554.3	10,038.3	45.3	36.5	21.47	510.3	382.2	2,690.1	2,647.7	42.41	63.437	
13,100.0	12,540.2	10,628.7	10,038.2	45.6	36.9	21.52	584.5	377.0	2,689.6	2,646.7	42.90	62.699	
13,200.0	12,538.7	10,700.0	10,038.1	46.0	37.2	21.56	655.7	373.8	2,688.8	2,645.3	43.42	61.931	
13,287.8	12,537.4	10,771.2	10,038.1	46.4	37.6	21.58	726.8	372.4	2,687.7	2,643.8	43.94	61.168	
13,300.0	12,537.2	10,779.6	10,038.1	46.5	37.7	21.58	735.3	372.3	2,687.6	2,643.6	44.01	61.067	
13,400.0	12,535.8	10,879.6	10,038.0	47.0	38.3	21.59	835.3	371.6	2,686.3	2,641.6	44.75	60.028	
13,500.0	12,534.3	10,979.6	10,037.9	47.5	39.0	21.61	935.3	370.8	2,685.0	2,639.5	45.56	58.938	
13,600.0	12,532.8	11,079.6	10,037.8	48.1	39.7	21.62	1,035.3	370.0	2,683.8	2,637.3	46.43	57.806	
13,700.0	12,531.3	11,179.6	10,037.7	48.7	40.5	21.63	1,135.2	369.3	2,682.5	2,635.1	47.36	56.643	
13,800.0	12,529.9	11,279.6	10,037.6	49.4	41.3	21.64	1,235.2	368.5	2,681.2	2,632.9	48.35	55.460	
13,900.0	12,528.4	11,379.6	10,037.5	50.2	42.2	21.65	1,335.2	367.8	2,680.0	2,630.6	49.39	54.265	
14,000.0	12,526.9	11,479.5	10,037.4	51.0	43.1	21.66	1,435.2	367.0	2,678.7	2,628.2	50.48	53.066	
14,100.0	12,525.5	11,579.5	10,037.3	51.8	44.1	21.67	1,535.2	366.2	2,677.4	2,625.8	51.62	51.871	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	11,679.5	10,037.2	52.6	45.1	21.68	1,635.2	365.5	2,676.2	2,623.4	52.80	50.685	
14,300.0	12,522.5	11,779.5	10,037.1	53.5	46.2	21.69	1,735.2	364.7	2,674.9	2,620.9	54.02	49.512	
14,400.0	12,521.0	11,879.5	10,037.0	54.5	47.3	21.71	1,835.2	364.0	2,673.6	2,618.3	55.29	48.358	
14,500.0	12,519.6	11,979.5	10,036.9	55.4	48.4	21.72	1,935.1	363.2	2,672.4	2,615.8	56.59	47.225	
14,600.0	12,518.1	12,079.5	10,036.8	56.4	49.5	21.73	2,035.1	362.4	2,671.1	2,613.2	57.92	46.116	
14,700.0	12,516.6	12,179.5	10,036.6	57.4	50.7	21.74	2,135.1	361.7	2,669.8	2,610.5	59.29	45.032	
14,800.0	12,515.1	12,279.5	10,036.5	58.5	51.9	21.75	2,235.1	360.9	2,668.6	2,607.9	60.68	43.976	
14,900.0	12,513.7	12,379.5	10,036.4	59.6	53.1	21.76	2,335.1	360.1	2,667.3	2,605.2	62.10	42.949	
15,000.0	12,512.2	12,479.5	10,036.3	60.7	54.4	21.77	2,435.1	359.4	2,666.0	2,602.5	63.55	41.950	
15,100.0	12,510.7	12,579.4	10,036.2	61.8	55.7	21.79	2,535.1	358.6	2,664.8	2,599.7	65.03	40.980	
15,200.0	12,509.3	12,679.4	10,036.1	63.0	57.0	21.80	2,635.1	357.9	2,663.5	2,597.0	66.52	40.040	
15,300.0	12,507.8	12,779.4	10,036.0	64.2	58.3	21.81	2,735.0	357.1	2,662.2	2,594.2	68.04	39.128	
15,400.0	12,506.3	12,879.4	10,035.9	65.4	59.6	21.82	2,835.0	356.3	2,661.0	2,591.4	69.58	38.246	
15,500.0	12,504.8	12,979.4	10,035.8	66.6	60.9	21.83	2,935.0	355.6	2,659.7	2,588.6	71.13	37.392	
15,600.0	12,503.4	13,079.4	10,035.7	67.8	62.3	21.84	3,035.0	354.8	2,658.4	2,585.7	72.70	36.565	
15,700.0	12,501.9	13,179.4	10,035.6	69.1	63.7	21.85	3,135.0	354.1	2,657.2	2,582.9	74.29	35.765	
15,800.0	12,500.4	13,279.4	10,035.5	70.3	65.0	21.86	3,235.0	353.3	2,655.9	2,580.0	75.90	34.992	
15,900.0	12,498.9	13,379.4	10,035.4	71.6	66.4	21.88	3,335.0	352.5	2,654.6	2,577.1	77.52	34.244	
16,000.0	12,497.5	13,479.4	10,035.3	72.9	67.9	21.89	3,435.0	351.8	2,653.4	2,574.2	79.15	33.522	
16,100.0	12,496.0	13,579.3	10,035.2	74.3	69.3	21.90	3,534.9	351.0	2,652.1	2,571.3	80.80	32.823	
16,200.0	12,494.5	13,679.3	10,035.1	75.6	70.7	21.91	3,634.9	350.2	2,650.8	2,568.4	82.46	32.147	
16,300.0	12,493.0	13,779.3	10,035.0	76.9	72.1	21.92	3,734.9	349.5	2,649.6	2,565.4	84.13	31.493	
16,400.0	12,491.6	13,879.3	10,034.9	78.3	73.6	21.93	3,834.9	348.7	2,648.3	2,562.5	85.81	30.861	
16,500.0	12,490.1	13,979.3	10,034.8	79.6	75.0	21.95	3,934.9	348.0	2,647.0	2,559.5	87.51	30.250	
16,600.0	12,488.6	14,079.3	10,034.7	81.0	76.5	21.96	4,034.9	347.2	2,645.8	2,556.6	89.21	29.658	
16,700.0	12,487.2	14,179.3	10,034.6	82.4	78.0	21.97	4,134.9	346.4	2,644.5	2,553.6	90.92	29.086	
16,800.0	12,485.7	14,279.3	10,034.5	83.8	79.5	21.98	4,234.9	345.7	2,643.2	2,550.6	92.64	28.532	
16,900.0	12,484.2	14,379.3	10,034.4	85.2	81.0	21.99	4,334.8	344.9	2,642.0	2,547.6	94.37	27.996	
17,000.0	12,482.7	14,479.3	10,034.3	86.6	82.5	22.00	4,434.8	344.2	2,640.7	2,544.6	96.11	27.477	
17,100.0	12,481.3	14,579.3	10,034.2	88.1	84.0	22.01	4,534.8	343.4	2,639.4	2,541.6	97.85	26.974	
17,200.0	12,479.8	14,679.2	10,034.1	89.5	85.5	22.03	4,634.8	342.6	2,638.2	2,538.6	99.60	26.487	
17,300.0	12,478.3	14,779.2	10,034.0	90.9	87.0	22.04	4,734.8	341.9	2,636.9	2,535.5	101.36	26.014	
17,400.0	12,476.8	14,879.2	10,033.9	92.4	88.5	22.05	4,834.8	341.1	2,635.6	2,532.5	103.13	25.557	
17,500.0	12,475.4	14,979.2	10,033.8	93.8	90.0	22.06	4,934.8	340.3	2,634.4	2,529.5	104.90	25.113	
17,600.0	12,473.9	15,079.2	10,033.7	95.3	91.5	22.07	5,034.8	339.6	2,633.1	2,526.4	106.68	24.682	
17,700.0	12,472.4	15,179.2	10,033.6	96.7	93.1	22.08	5,134.7	338.8	2,631.9	2,523.4	108.46	24.265	
17,800.0	12,471.0	15,279.2	10,033.5	98.2	94.6	22.10	5,234.7	338.1	2,630.6	2,520.3	110.25	23.860	
17,900.0	12,469.5	15,379.2	10,033.4	99.7	96.1	22.11	5,334.7	337.3	2,629.3	2,517.3	112.05	23.466	
18,000.0	12,468.0	15,479.2	10,033.3	101.2	97.7	22.12	5,434.7	336.5	2,628.1	2,514.2	113.85	23.084	
18,100.0	12,466.5	15,579.2	10,033.2	102.7	99.2	22.13	5,534.7	335.8	2,626.8	2,511.1	115.65	22.713	
18,200.0	12,465.1	15,679.1	10,033.1	104.2	100.8	22.14	5,634.7	335.0	2,625.5	2,508.1	117.46	22.352	
18,300.0	12,463.6	15,779.1	10,033.0	105.7	102.3	22.15	5,734.7	334.3	2,624.3	2,505.0	119.28	22.002	
18,400.0	12,462.1	15,879.1	10,032.9	107.2	103.9	22.17	5,834.7	333.5	2,623.0	2,501.9	121.10	21.661	
18,500.0	12,460.6	15,979.1	10,032.8	108.7	105.4	22.18	5,934.6	332.7	2,621.7	2,498.8	122.92	21.329	
18,600.0	12,459.2	16,079.1	10,032.7	110.2	107.0	22.19	6,034.6	332.0	2,620.5	2,495.7	124.74	21.007	
18,700.0	12,457.7	16,179.1	10,032.6	111.7	108.6	22.20	6,134.6	331.2	2,619.2	2,492.6	126.58	20.693	
18,800.0	12,456.2	16,279.1	10,032.5	113.2	110.1	22.21	6,234.6	330.4	2,618.0	2,489.5	128.41	20.387	
18,900.0	12,454.8	16,379.1	10,032.4	114.8	111.7	22.22	6,334.6	329.7	2,616.7	2,486.4	130.25	20.090	
19,000.0	12,453.3	16,479.1	10,032.3	116.3	113.3	22.24	6,434.6	328.9	2,615.4	2,483.3	132.09	19.800	
19,100.0	12,451.8	16,579.1	10,032.2	117.8	114.9	22.25	6,534.6	328.2	2,614.2	2,480.2	133.93	19.518	
19,200.0	12,450.3	16,679.1	10,032.1	119.3	116.4	22.26	6,634.6	327.4	2,612.9	2,477.1	135.78	19.243	
19,300.0	12,448.9	16,779.0	10,032.0	120.9	118.0	22.27	6,734.5	326.6	2,611.6	2,474.0	137.63	18.975	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #112H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.0	12,447.4	16,879.0	10,031.9	122.4	119.6	22.28	6,834.5	325.9	2,610.4	2,470.9	139.49	18.714	
19,500.0	12,445.9	16,979.0	10,031.8	124.0	121.2	22.29	6,934.5	325.1	2,609.1	2,467.8	141.35	18.459	
19,600.0	12,444.4	17,079.0	10,031.7	125.5	122.8	22.31	7,034.5	324.4	2,607.9	2,464.6	143.21	18.210	
19,700.0	12,443.0	17,179.0	10,031.6	127.1	124.4	22.32	7,134.5	323.6	2,606.6	2,461.5	145.07	17.968	
19,800.0	12,441.5	17,279.0	10,031.5	128.6	126.0	22.33	7,234.5	322.8	2,605.3	2,458.4	146.94	17.731	
19,900.0	12,440.0	17,379.0	10,031.4	130.2	127.5	22.34	7,334.5	322.1	2,604.1	2,455.3	148.81	17.500	
20,000.0	12,438.6	17,479.0	10,031.3	131.7	129.1	22.35	7,434.5	321.3	2,602.8	2,452.1	150.68	17.274	
20,100.0	12,437.1	17,579.0	10,031.2	133.3	130.7	22.37	7,534.4	320.5	2,601.5	2,449.0	152.55	17.054	
20,200.0	12,435.6	17,679.0	10,031.1	134.9	132.3	22.38	7,634.4	319.8	2,600.3	2,445.9	154.43	16.838	
20,300.0	12,434.1	17,779.0	10,031.0	136.4	133.9	22.39	7,734.4	319.0	2,599.0	2,442.7	156.31	16.628	
20,400.0	12,432.7	17,878.9	10,030.9	138.0	135.5	22.40	7,834.4	318.3	2,597.8	2,439.6	158.19	16.422	
20,500.0	12,431.2	17,978.9	10,030.8	139.6	137.1	22.41	7,934.4	317.5	2,596.5	2,436.4	160.07	16.221	
20,600.0	12,429.7	18,078.9	10,030.7	141.1	138.7	22.43	8,034.4	316.7	2,595.2	2,433.3	161.96	16.024	
20,700.0	12,428.2	18,178.9	10,030.6	142.7	140.3	22.44	8,134.4	316.0	2,594.0	2,430.1	163.84	15.832	
20,800.0	12,426.8	18,278.9	10,030.5	144.3	141.9	22.45	8,234.4	315.2	2,592.7	2,427.0	165.73	15.644	
20,900.0	12,425.3	18,378.9	10,030.4	145.9	143.5	22.46	8,334.3	314.4	2,591.5	2,423.8	167.63	15.460	
21,000.0	12,423.8	18,478.9	10,030.3	147.4	145.1	22.47	8,434.3	313.7	2,590.2	2,420.7	169.52	15.279	
21,100.0	12,422.4	18,578.9	10,030.2	149.0	146.8	22.49	8,534.3	312.9	2,588.9	2,417.5	171.42	15.103	
21,200.0	12,420.9	18,678.9	10,030.1	150.6	148.4	22.50	8,634.3	312.2	2,587.7	2,414.4	173.32	14.930	
21,300.0	12,419.4	18,778.9	10,030.0	152.2	150.0	22.51	8,734.3	311.4	2,586.4	2,411.2	175.22	14.761	
21,400.0	12,417.9	18,878.8	10,029.9	153.8	151.6	22.52	8,834.3	310.6	2,585.2	2,408.0	177.12	14.596	
21,500.0	12,416.5	18,978.8	10,029.8	155.3	153.2	22.53	8,934.3	309.9	2,583.9	2,404.9	179.02	14.433	
21,600.0	12,415.0	19,078.8	10,029.7	156.9	154.8	22.55	9,034.3	309.1	2,582.6	2,401.7	180.93	14.274	
21,700.0	12,413.5	19,178.8	10,029.6	158.5	156.4	22.56	9,134.3	308.4	2,581.4	2,398.5	182.83	14.119	
21,800.0	12,412.0	19,278.8	10,029.5	160.1	158.0	22.57	9,234.2	307.6	2,580.1	2,395.4	184.74	13.966	
21,900.0	12,410.6	19,378.8	10,029.4	161.7	159.6	22.58	9,334.2	306.8	2,578.9	2,392.2	186.65	13.816	
22,000.0	12,409.1	19,478.8	10,029.3	163.3	161.3	22.59	9,434.2	306.1	2,577.6	2,389.0	188.57	13.669	
22,100.0	12,407.6	19,578.8	10,029.2	164.9	162.9	22.61	9,534.2	305.3	2,576.3	2,385.9	190.48	13.525	
22,200.0	12,406.1	19,678.8	10,029.1	166.5	164.5	22.62	9,634.2	304.5	2,575.1	2,382.7	192.40	13.384	
22,300.0	12,404.7	19,778.8	10,029.0	168.1	166.1	22.63	9,734.2	303.8	2,573.8	2,379.5	194.31	13.246	
22,400.0	12,403.2	19,878.8	10,028.9	169.7	167.7	22.64	9,834.2	303.0	2,572.6	2,376.3	196.23	13.110	
22,500.0	12,401.7	19,978.7	10,028.8	171.3	169.4	22.65	9,934.2	302.3	2,571.3	2,373.2	198.15	12.976	
22,600.0	12,400.3	20,078.7	10,028.7	172.9	171.0	22.67	10,034.1	301.5	2,570.0	2,370.0	200.08	12.845	
22,700.0	12,398.8	20,178.7	10,028.6	174.5	172.6	22.68	10,134.1	300.7	2,568.8	2,366.8	202.00	12.717	
22,787.3	12,397.5	20,266.0	10,028.5	175.7	173.9	22.69	10,221.4	300.1	2,567.7	2,364.5	203.23	12.635	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	-1.0	0.0	0.0	90.03	-1.3	2,533.3	2,533.3				
100.0	100.0	101.0	99.0	0.1	0.1	90.03	-1.3	2,533.3	2,533.3	2,533.0	0.26	9,747.352	
200.0	200.0	201.0	199.0	0.5	0.5	90.03	-1.3	2,533.3	2,533.3	2,532.3	0.98	2,593.335	
300.0	300.0	301.0	299.0	0.8	0.8	90.03	-1.3	2,533.3	2,533.3	2,531.6	1.69	1,495.627	
400.0	400.0	401.0	399.0	1.2	1.2	90.03	-1.3	2,533.3	2,533.3	2,530.9	2.41	1,050.831	
500.0	500.0	501.0	499.0	1.6	1.6	90.03	-1.3	2,533.3	2,533.3	2,530.1	3.13	809.953	
600.0	600.0	601.0	599.0	1.9	1.9	90.03	-1.3	2,533.3	2,533.3	2,529.4	3.84	658.913	
700.0	700.0	701.0	699.0	2.3	2.3	90.03	-1.3	2,533.3	2,533.3	2,528.7	4.56	555.351	
800.0	800.0	801.0	799.0	2.6	2.6	90.03	-1.3	2,533.3	2,533.3	2,528.0	5.28	479.921	
900.0	900.0	901.0	899.0	3.0	3.0	90.03	-1.3	2,533.3	2,533.3	2,527.3	6.00	422.531	
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	90.03	-1.3	2,533.3	2,533.3	2,526.5	6.71	377.401	
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	90.03	-1.3	2,533.3	2,533.3	2,525.8	7.43	340.981	
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	90.03	-1.3	2,533.3	2,533.3	2,525.1	8.15	310.972	
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	90.03	-1.3	2,533.3	2,533.3	2,524.4	8.86	285.818	
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	90.03	-1.3	2,533.3	2,533.3	2,523.7	9.58	264.428	
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	90.03	-1.3	2,533.3	2,533.3	2,523.0	10.29	246.188	
1,600.0	1,600.0	1,672.4	1,672.4	5.5	5.7	-155.75	-2.0	2,530.8	2,532.6	2,521.4	11.23	225.568	
1,700.0	1,700.0	1,846.5	1,846.3	5.8	6.3	-155.75	-4.1	2,523.2	2,530.6	2,518.5	12.14	208.386	
1,800.0	1,799.9	2,020.4	2,019.7	6.2	6.9	-155.76	-7.6	2,510.5	2,527.3	2,514.3	13.06	193.538	
1,900.0	1,899.7	2,194.0	2,192.3	6.5	7.6	-155.76	-12.6	2,492.8	2,522.7	2,508.7	13.97	180.578	
2,000.0	1,999.4	2,338.8	2,335.8	6.9	8.1	-155.78	-17.7	2,474.3	2,517.0	2,502.2	14.79	170.123	
2,100.0	2,098.9	2,438.6	2,434.7	7.2	8.5	-155.80	-21.4	2,460.9	2,512.3	2,496.8	15.49	162.164	
2,200.0	2,198.3	2,538.6	2,533.7	7.6	8.9	-155.83	-25.1	2,447.5	2,509.2	2,493.0	16.19	154.937	
2,300.0	2,297.4	2,638.6	2,632.7	7.9	9.2	-155.88	-28.9	2,434.1	2,507.6	2,490.7	16.90	148.360	
2,400.0	2,396.4	2,738.5	2,731.7	8.3	9.6	-155.92	-32.6	2,420.7	2,506.9	2,489.3	17.61	142.321	
2,500.0	2,495.5	2,838.5	2,830.7	8.7	10.0	-155.97	-36.3	2,407.3	2,506.2	2,487.9	18.33	136.722	
2,600.0	2,594.5	2,938.5	2,929.7	9.1	10.4	-156.01	-40.0	2,393.9	2,505.5	2,486.5	19.05	131.522	
2,700.0	2,693.5	3,038.5	3,028.7	9.5	10.8	-156.06	-43.8	2,380.5	2,504.8	2,485.0	19.77	126.681	
2,800.0	2,792.5	3,138.4	3,127.7	9.8	11.2	-156.10	-47.5	2,367.1	2,504.1	2,483.6	20.50	122.165	
2,900.0	2,891.6	3,238.4	3,226.7	10.2	11.6	-156.15	-51.2	2,353.7	2,503.4	2,482.2	21.22	117.946	
3,000.0	2,990.6	3,338.4	3,325.7	10.6	12.0	-156.19	-55.0	2,340.3	2,502.7	2,480.7	21.95	113.995	
3,100.0	3,089.6	3,438.4	3,424.7	11.0	12.4	-156.24	-58.7	2,326.9	2,502.0	2,479.3	22.69	110.290	
3,200.0	3,188.6	3,538.4	3,523.7	11.4	12.8	-156.28	-62.4	2,313.5	2,501.3	2,477.9	23.42	106.808	
3,300.0	3,287.7	3,638.3	3,622.7	11.8	13.2	-156.33	-66.1	2,300.1	2,500.6	2,476.4	24.15	103.531	
3,400.0	3,386.7	3,738.3	3,721.7	12.2	13.6	-156.38	-69.9	2,286.7	2,499.9	2,475.0	24.89	100.442	
3,500.0	3,485.7	3,838.3	3,820.7	12.6	14.0	-156.42	-73.6	2,273.3	2,499.2	2,473.6	25.63	97.526	
3,600.0	3,584.8	3,938.3	3,919.7	13.0	14.4	-156.47	-77.3	2,259.9	2,498.5	2,472.1	26.36	94.769	
3,700.0	3,683.8	4,038.2	4,018.7	13.4	14.8	-156.51	-81.0	2,246.5	2,497.8	2,470.7	27.10	92.159	
3,800.0	3,782.8	4,138.2	4,117.7	13.8	15.3	-156.56	-84.8	2,233.0	2,497.1	2,469.3	27.84	89.684	
3,900.0	3,881.8	4,238.2	4,216.7	14.3	15.7	-156.60	-88.5	2,219.6	2,496.4	2,467.8	28.58	87.335	
4,000.0	3,980.9	4,338.2	4,315.7	14.7	16.1	-156.65	-92.2	2,206.2	2,495.7	2,466.4	29.33	85.103	
4,100.0	4,079.9	4,438.2	4,414.8	15.1	16.5	-156.70	-95.9	2,192.8	2,495.0	2,465.0	30.07	82.979	
4,200.0	4,178.9	4,538.1	4,513.8	15.5	16.9	-156.74	-99.7	2,179.4	2,494.3	2,463.5	30.81	80.955	
4,300.0	4,277.9	4,638.1	4,612.8	15.9	17.3	-156.79	-103.4	2,166.0	2,493.7	2,462.1	31.55	79.026	
4,400.0	4,377.0	4,738.1	4,711.8	16.3	17.7	-156.83	-107.1	2,152.6	2,493.0	2,460.7	32.30	77.184	
4,500.0	4,476.0	4,838.1	4,810.8	16.7	18.1	-156.88	-110.8	2,139.2	2,492.3	2,459.3	33.04	75.424	
4,600.0	4,575.0	4,938.0	4,909.8	17.1	18.6	-156.92	-114.6	2,125.8	2,491.6	2,457.8	33.79	73.740	
4,700.0	4,674.0	5,038.0	5,008.8	17.5	19.0	-156.97	-118.3	2,112.4	2,490.9	2,456.4	34.53	72.129	
4,800.0	4,773.1	5,138.0	5,107.8	18.0	19.4	-157.02	-122.0	2,099.0	2,490.3	2,455.0	35.28	70.585	
4,900.0	4,872.1	5,238.0	5,206.8	18.4	19.8	-157.06	-125.7	2,085.6	2,489.6	2,453.6	36.03	69.104	
5,000.0	4,971.1	5,338.0	5,305.8	18.8	20.2	-157.11	-129.5	2,072.2	2,488.9	2,452.1	36.77	67.682	
5,100.0	5,070.2	5,437.9	5,404.8	19.2	20.6	-157.15	-133.2	2,058.8	2,488.2	2,450.7	37.52	66.317	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,537.9	5,503.8	19.6	21.1	-157.20	-136.9	2,045.4	2,487.6	2,449.3	38.27	65.005	
5,300.0	5,268.2	5,637.9	5,602.8	20.0	21.5	-157.25	-140.6	2,032.0	2,486.9	2,447.9	39.02	63.742	
5,400.0	5,367.2	5,737.9	5,701.8	20.5	21.9	-157.29	-144.4	2,018.5	2,486.2	2,446.5	39.76	62.527	
5,500.0	5,466.3	5,837.8	5,800.8	20.9	22.3	-157.34	-148.1	2,005.1	2,485.6	2,445.1	40.51	61.356	
5,600.0	5,565.3	5,937.8	5,899.8	21.3	22.7	-157.38	-151.8	1,991.7	2,484.9	2,443.7	41.26	60.228	
5,643.3	5,608.2	5,981.2	5,942.7	21.5	22.9	-157.40	-153.4	1,985.9	2,484.6	2,443.0	41.58	59.751	
5,700.0	5,664.4	6,037.8	5,998.8	21.7	23.1	-157.42	-155.5	1,978.3	2,483.9	2,441.9	42.01	59.131	
5,800.0	5,763.7	6,137.7	6,097.8	22.1	23.6	-157.43	-159.3	1,964.9	2,480.6	2,437.9	42.75	58.027	
5,900.0	5,863.4	6,237.6	6,196.7	22.5	24.0	-157.39	-163.0	1,951.5	2,475.0	2,431.5	43.49	56.912	
6,000.0	5,963.2	6,337.2	6,295.4	22.8	24.4	-157.32	-166.7	1,938.2	2,466.9	2,422.7	44.22	55.788	
6,100.0	6,063.1	6,436.7	6,393.8	23.2	24.8	-157.21	-170.4	1,924.8	2,456.4	2,411.5	44.94	54.655	
6,176.7	6,139.8	6,512.7	6,469.1	23.4	25.1	88.68	-173.2	1,914.7	2,446.8	2,401.3	45.49	53.786	
6,200.0	6,163.1	6,535.8	6,492.0	23.5	25.2	88.70	-174.1	1,911.6	2,443.6	2,398.0	45.65	53.524	
6,300.0	6,263.1	6,634.8	6,590.0	23.8	25.6	88.78	-177.8	1,898.3	2,430.1	2,383.8	46.36	52.422	
6,400.0	6,363.1	6,733.9	6,688.1	24.2	26.1	88.86	-181.5	1,885.0	2,416.7	2,369.6	47.06	51.352	
6,500.0	6,463.1	6,832.9	6,786.2	24.5	26.5	88.95	-185.2	1,871.7	2,403.2	2,355.4	47.76	50.313	
6,600.0	6,563.1	6,931.9	6,884.2	24.8	26.9	89.03	-188.9	1,858.4	2,389.7	2,341.2	48.47	49.303	
6,700.0	6,663.1	7,030.9	6,982.3	25.1	27.3	89.11	-192.6	1,845.2	2,376.2	2,327.0	49.18	48.321	
6,800.0	6,763.1	7,100.0	7,050.7	25.4	27.6	89.17	-195.1	1,836.0	2,363.0	2,313.2	49.79	47.456	
6,900.0	6,863.1	7,170.1	7,120.3	25.8	27.9	89.23	-197.4	1,827.7	2,351.3	2,300.8	50.41	46.645	
7,000.0	6,963.1	7,232.5	7,182.3	26.1	28.1	89.27	-199.2	1,821.4	2,341.1	2,290.1	50.99	45.916	
7,100.0	7,063.1	7,300.0	7,249.6	26.4	28.4	89.30	-200.8	1,815.6	2,332.5	2,280.9	51.57	45.227	
7,200.0	7,163.1	7,357.8	7,307.2	26.7	28.6	89.33	-201.9	1,811.6	2,325.4	2,273.3	52.11	44.628	
7,300.0	7,263.1	7,420.7	7,370.0	27.1	28.8	89.35	-202.8	1,808.2	2,320.0	2,267.3	52.65	44.066	
7,400.0	7,363.1	7,483.7	7,433.0	27.4	29.0	89.37	-203.5	1,805.8	2,316.1	2,262.9	53.17	43.557	
7,500.0	7,463.1	7,546.7	7,496.0	27.7	29.3	89.38	-203.9	1,804.4	2,313.8	2,260.2	53.68	43.101	
7,600.0	7,563.1	7,612.9	7,562.1	28.1	29.5	89.38	-204.0	1,803.9	2,313.2	2,259.0	54.19	42.683	
7,700.0	7,663.1	7,712.9	7,662.1	28.4	29.8	89.38	-204.0	1,803.9	2,313.2	2,258.3	54.87	42.160	
7,800.0	7,763.1	7,812.9	7,762.1	28.7	30.1	89.38	-204.0	1,803.9	2,313.2	2,257.6	55.54	41.648	
7,900.0	7,863.1	7,912.9	7,862.1	29.0	30.4	89.38	-204.0	1,803.9	2,313.2	2,257.0	56.22	41.147	
8,000.0	7,963.1	8,012.9	7,962.1	29.4	30.7	89.38	-204.0	1,803.9	2,313.2	2,256.3	56.89	40.658	
8,100.0	8,063.1	8,112.9	8,062.1	29.7	31.0	89.38	-204.0	1,803.9	2,313.2	2,255.6	57.57	40.180	
8,200.0	8,163.1	8,212.9	8,162.1	30.0	31.4	89.38	-204.0	1,803.9	2,313.2	2,254.9	58.25	39.712	
8,300.0	8,263.1	8,312.9	8,262.1	30.4	31.7	89.38	-204.0	1,803.9	2,313.2	2,254.3	58.93	39.254	
8,400.0	8,363.1	8,412.9	8,362.1	30.7	32.0	89.38	-204.0	1,803.9	2,313.2	2,253.6	59.61	38.806	
8,500.0	8,463.1	8,512.9	8,462.1	31.0	32.3	89.38	-204.0	1,803.9	2,313.2	2,252.9	60.29	38.368	
8,600.0	8,563.1	8,612.9	8,562.1	31.4	32.6	89.38	-204.0	1,803.9	2,313.2	2,252.2	60.97	37.939	
8,700.0	8,663.1	8,712.9	8,662.1	31.7	33.0	89.38	-204.0	1,803.9	2,313.2	2,251.5	61.65	37.519	
8,800.0	8,763.1	8,812.9	8,762.1	32.1	33.3	89.38	-204.0	1,803.9	2,313.2	2,250.8	62.34	37.108	
8,900.0	8,863.1	8,912.9	8,862.1	32.4	33.6	89.38	-204.0	1,803.9	2,313.2	2,250.2	63.02	36.705	
9,000.0	8,963.1	9,012.9	8,962.1	32.7	33.9	89.38	-204.0	1,803.9	2,313.2	2,249.5	63.71	36.310	
9,100.0	9,063.1	9,112.9	9,062.1	33.1	34.3	89.38	-204.0	1,803.9	2,313.2	2,248.8	64.39	35.924	
9,200.0	9,163.1	9,212.9	9,162.1	33.4	34.6	89.38	-204.0	1,803.9	2,313.2	2,248.1	65.08	35.545	
9,300.0	9,263.1	9,312.9	9,262.1	33.7	34.9	89.38	-204.0	1,803.9	2,313.2	2,247.4	65.76	35.174	
9,400.0	9,363.1	9,412.9	9,362.1	34.1	35.2	89.38	-204.0	1,803.9	2,313.2	2,246.7	66.45	34.810	
9,500.0	9,463.1	9,512.9	9,462.1	34.4	35.6	89.38	-204.0	1,803.9	2,313.2	2,246.0	67.14	34.453	
9,600.0	9,563.1	9,711.5	9,656.8	34.8	36.2	88.55	-170.6	1,799.2	2,311.0	2,242.8	68.21	33.882	
9,700.0	9,663.1	9,872.1	9,798.4	35.1	36.6	86.70	-96.6	1,788.8	2,305.8	2,236.8	68.97	33.430	
9,800.0	9,763.1	9,987.0	9,884.2	35.4	36.8	84.81	-21.2	1,778.3	2,300.0	2,230.4	69.59	33.050	
9,900.0	9,863.1	10,067.3	9,934.4	35.8	36.9	83.25	40.8	1,769.5	2,295.7	2,225.6	70.11	32.744	
10,000.0	9,963.1	10,124.5	9,964.5	36.1	37.0	82.03	89.0	1,762.8	2,294.0	2,223.5	70.52	32.532	
10,003.1	9,966.2	10,126.0	9,965.2	36.1	37.0	82.00	90.3	1,762.6	2,294.0	2,223.5	70.53	32.527 CC, ES	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,166.6	9,983.5	36.5	37.1	81.10	126.1	1,757.5	2,295.6	2,224.8	70.80	32.424	
10,200.0	10,163.1	10,200.0	9,996.5	36.8	37.1	80.33	156.6	1,753.3	2,301.0	2,230.0	70.97	32.423	
10,300.0	10,263.1	10,223.4	10,004.6	37.1	37.2	79.78	178.3	1,750.2	2,310.1	2,239.1	70.99	32.542	
10,400.0	10,363.1	10,243.2	10,010.8	37.5	37.2	79.31	197.0	1,747.6	2,323.3	2,252.4	70.89	32.771	
10,500.0	10,463.1	10,259.4	10,015.3	37.8	37.3	78.92	212.4	1,745.4	2,340.4	2,269.7	70.68	33.110	
10,600.0	10,563.1	10,272.9	10,018.7	38.2	37.3	78.60	225.3	1,743.6	2,361.4	2,291.1	70.37	33.559	
10,700.0	10,663.1	10,284.2	10,021.4	38.5	37.3	78.32	236.2	1,742.1	2,386.4	2,316.4	69.95	34.116	
10,800.0	10,763.1	10,300.0	10,024.7	38.9	37.3	77.94	251.5	1,739.9	2,415.1	2,345.6	69.48	34.760	
10,900.0	10,863.1	10,300.0	10,024.7	39.2	37.3	77.94	251.5	1,739.9	2,447.5	2,378.7	68.85	35.548	
11,000.0	10,963.1	10,300.0	10,024.7	39.6	37.3	77.94	251.5	1,739.9	2,483.5	2,415.3	68.16	36.436	
11,100.0	11,063.1	10,315.9	10,027.6	39.9	37.4	77.55	266.9	1,737.8	2,522.8	2,455.3	67.52	37.366	
11,200.0	11,163.1	10,321.6	10,028.6	40.2	37.4	77.41	272.5	1,737.0	2,565.4	2,498.6	66.77	38.420	
11,300.0	11,263.1	10,326.6	10,029.3	40.6	37.4	77.29	277.4	1,736.3	2,611.1	2,545.1	66.00	39.565	
11,400.0	11,363.1	10,331.1	10,030.0	40.9	37.4	77.18	281.8	1,735.7	2,659.8	2,594.6	65.19	40.798	
11,500.0	11,463.1	10,350.0	10,032.4	41.3	37.5	76.72	300.4	1,733.1	2,711.4	2,646.9	64.46	42.061	
11,600.0	11,563.1	10,350.0	10,032.4	41.6	37.5	76.72	300.4	1,733.1	2,765.4	2,701.8	63.62	43.467	
11,700.0	11,663.1	10,350.0	10,032.4	42.0	37.5	76.72	300.4	1,733.1	2,822.0	2,759.2	62.78	44.950	
11,800.0	11,763.1	10,350.0	10,032.4	42.3	37.5	76.72	300.4	1,733.1	2,880.9	2,818.9	61.95	46.504	
11,900.0	11,863.1	10,350.0	10,032.4	42.7	37.5	76.72	300.4	1,733.1	2,942.0	2,880.9	61.13	48.125	
12,006.9	11,970.0	10,350.0	10,032.4	43.0	37.5	76.72	300.4	1,733.1	3,009.6	2,949.3	60.28	49.927	
12,050.0	12,013.1	10,350.0	10,032.4	43.2	37.5	81.01	300.4	1,733.1	3,037.4	2,977.5	59.94	50.674	
12,100.0	12,062.7	10,350.0	10,032.4	43.3	37.5	76.89	300.4	1,733.1	3,069.6	3,010.0	59.55	51.551	
12,150.0	12,111.7	10,350.0	10,032.4	43.5	37.5	72.89	300.4	1,733.1	3,101.5	3,042.3	59.15	52.432	
12,200.0	12,159.5	10,350.0	10,032.4	43.7	37.5	69.08	300.4	1,733.1	3,132.9	3,074.1	58.77	53.310	
12,250.0	12,205.9	10,350.0	10,032.4	43.8	37.5	65.50	300.4	1,733.1	3,163.5	3,105.1	58.39	54.178	
12,300.0	12,250.5	10,372.2	10,034.5	43.9	37.5	61.83	322.3	1,730.0	3,192.8	3,134.7	58.13	54.922	
12,350.0	12,293.0	10,378.1	10,034.9	44.1	37.5	58.75	328.1	1,729.2	3,221.2	3,163.4	57.81	55.719	
12,400.0	12,333.0	10,400.0	10,035.8	44.2	37.6	55.77	349.7	1,726.1	3,248.3	3,190.7	57.57	56.420	
12,450.0	12,370.3	10,400.0	10,035.8	44.3	37.6	53.39	349.7	1,726.1	3,273.5	3,216.3	57.27	57.163	
12,500.0	12,404.5	10,400.0	10,035.8	44.3	37.6	51.28	349.7	1,726.1	3,297.1	3,240.1	56.99	57.854	
12,550.0	12,435.4	10,406.6	10,035.9	44.4	37.6	49.37	356.3	1,725.2	3,318.7	3,262.0	56.77	58.462	
12,600.0	12,462.7	10,416.0	10,036.0	44.5	37.6	47.70	365.5	1,723.9	3,338.4	3,281.8	56.59	58.994	
12,650.0	12,486.3	10,436.6	10,035.9	44.5	37.7	46.22	386.0	1,721.1	3,355.7	3,299.2	56.48	59.410	
12,700.0	12,506.0	10,462.1	10,035.8	44.6	37.8	44.98	411.3	1,717.8	3,370.5	3,314.1	56.43	59.725	
12,750.0	12,521.6	10,500.0	10,035.6	44.7	37.9	43.97	448.9	1,713.4	3,382.8	3,326.3	56.47	59.905	
12,800.0	12,533.0	10,500.0	10,035.6	44.7	37.9	43.31	448.9	1,713.4	3,392.2	3,335.8	56.42	60.127	
12,850.0	12,540.1	10,542.8	10,035.5	44.9	38.1	42.79	491.5	1,709.0	3,398.8	3,342.3	56.58	60.075	
12,900.0	12,542.9	10,570.4	10,035.4	45.0	38.2	42.53	519.0	1,706.5	3,402.6	3,345.9	56.72	59.986	
12,915.3	12,542.9	10,578.9	10,035.3	45.0	38.2	42.49	527.4	1,705.8	3,403.2	3,346.4	56.78	59.939	
13,000.0	12,541.7	10,625.8	10,035.1	45.3	38.5	42.58	574.2	1,702.3	3,405.3	3,348.2	57.12	59.618	
13,100.0	12,540.2	10,681.1	10,034.9	45.6	38.7	42.66	629.4	1,699.2	3,406.8	3,349.3	57.55	59.193	
13,200.0	12,538.7	10,736.4	10,034.7	46.0	39.0	42.72	684.7	1,697.1	3,407.3	3,349.2	58.03	58.719	
13,287.8	12,537.4	10,793.6	10,034.5	46.4	39.3	42.75	741.9	1,696.1	3,406.8	3,348.3	58.51	58.228	
13,300.0	12,537.2	10,793.6	10,034.5	46.5	39.3	42.75	741.9	1,696.1	3,407.3	3,348.2	58.53	58.199	
13,400.0	12,535.8	10,890.3	10,034.1	47.0	39.9	42.76	838.5	1,695.3	3,405.9	3,346.6	59.33	57.401	
13,500.0	12,534.3	11,009.7	10,033.7	47.5	40.6	42.77	938.5	1,694.6	3,405.1	3,344.8	60.35	56.422	
13,600.0	12,532.8	11,109.8	10,033.3	48.1	41.3	42.79	1,038.5	1,693.8	3,404.3	3,342.9	61.37	55.476	
13,700.0	12,531.3	11,190.2	10,032.9	48.7	41.9	42.80	1,138.5	1,693.0	3,403.5	3,341.2	62.35	54.591	
13,800.0	12,529.9	11,309.8	10,032.6	49.4	42.9	42.81	1,238.5	1,692.2	3,402.7	3,339.1	63.65	53.458	
13,900.0	12,528.4	11,409.8	10,032.2	50.2	43.8	42.82	1,338.5	1,691.5	3,401.9	3,337.0	64.91	52.406	
14,000.0	12,526.9	11,490.2	10,031.8	51.0	44.5	42.84	1,438.5	1,690.7	3,401.1	3,335.0	66.11	51.450	
14,100.0	12,525.5	11,609.8	10,031.4	51.8	45.6	42.85	1,538.5	1,689.9	3,400.3	3,332.7	67.66	50.260	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	11,709.8	10,031.0	52.6	46.6	42.86	1,638.5	1,689.1	3,399.6	3,330.4	69.13	49.179	
14,300.0	12,522.5	11,809.8	10,030.6	53.5	47.6	42.87	1,738.5	1,688.3	3,398.8	3,328.1	70.66	48.103	
14,400.0	12,521.0	11,909.8	10,030.2	54.5	48.7	42.88	1,838.4	1,687.6	3,398.0	3,325.7	72.24	47.035	
14,500.0	12,519.6	12,009.8	10,029.8	55.4	49.8	42.90	1,938.4	1,686.8	3,397.2	3,323.3	73.88	45.979	
14,600.0	12,518.1	12,109.8	10,029.4	56.4	50.9	42.91	2,038.4	1,686.0	3,396.4	3,320.8	75.58	44.940	
14,700.0	12,516.6	12,209.8	10,029.1	57.4	52.1	42.92	2,138.4	1,685.2	3,395.6	3,318.3	77.31	43.920	
14,800.0	12,515.1	12,309.8	10,028.7	58.5	53.2	42.93	2,238.4	1,684.4	3,394.8	3,315.7	79.09	42.921	
14,900.0	12,513.7	12,409.8	10,028.3	59.6	54.4	42.95	2,338.4	1,683.7	3,394.0	3,313.1	80.92	41.945	
15,000.0	12,512.2	12,509.8	10,027.9	60.7	55.7	42.96	2,438.4	1,682.9	3,393.2	3,310.4	82.78	40.993	
15,100.0	12,510.7	12,609.8	10,027.5	61.8	56.9	42.97	2,538.4	1,682.1	3,392.4	3,307.8	84.67	40.065	
15,200.0	12,509.3	12,709.8	10,027.1	63.0	58.2	42.98	2,638.4	1,681.3	3,391.6	3,305.0	86.60	39.164	
15,300.0	12,507.8	12,809.9	10,026.7	64.2	59.5	43.00	2,738.4	1,680.5	3,390.8	3,302.3	88.56	38.288	
15,400.0	12,506.3	12,909.9	10,026.3	65.4	60.8	43.01	2,838.3	1,679.8	3,390.1	3,299.5	90.55	37.437	
15,500.0	12,504.8	12,990.1	10,025.9	66.6	61.8	43.02	2,938.3	1,679.0	3,389.3	3,296.9	92.36	36.696	
15,600.0	12,503.4	13,109.9	10,025.5	67.8	63.4	43.03	3,038.3	1,678.2	3,388.5	3,293.9	94.61	35.814	
15,700.0	12,501.9	13,209.9	10,025.2	69.1	64.8	43.05	3,138.3	1,677.4	3,387.7	3,291.0	96.68	35.039	
15,800.0	12,500.4	13,309.9	10,024.8	70.3	66.2	43.06	3,238.3	1,676.7	3,386.9	3,288.1	98.77	34.290	
15,900.0	12,498.9	13,409.9	10,024.4	71.6	67.5	43.07	3,338.3	1,675.9	3,386.1	3,285.2	100.89	33.564	
16,000.0	12,497.5	13,509.9	10,024.0	72.9	68.9	43.09	3,438.3	1,675.1	3,385.3	3,282.3	103.02	32.861	
16,100.0	12,496.0	13,590.1	10,023.6	74.3	70.0	43.10	3,538.3	1,674.3	3,384.5	3,279.6	104.95	32.249	
16,200.0	12,494.5	13,709.9	10,023.2	75.6	71.7	43.11	3,638.3	1,673.5	3,383.7	3,276.4	107.34	31.524	
16,300.0	12,493.0	13,809.9	10,022.8	76.9	73.2	43.12	3,738.3	1,672.8	3,382.9	3,273.4	109.53	30.887	
16,400.0	12,491.6	13,909.9	10,022.4	78.3	74.6	43.14	3,838.2	1,672.0	3,382.2	3,270.4	111.73	30.271	
16,500.0	12,490.1	14,009.9	10,022.0	79.6	76.0	43.15	3,938.2	1,671.2	3,381.4	3,267.4	113.95	29.675	
16,600.0	12,488.6	14,090.1	10,021.6	81.0	77.2	43.16	4,038.2	1,670.4	3,380.6	3,264.6	115.95	29.155	
16,700.0	12,487.2	14,209.9	10,021.3	82.4	78.9	43.17	4,138.2	1,669.6	3,379.8	3,261.4	118.42	28.540	
16,800.0	12,485.7	14,309.9	10,020.9	83.8	80.4	43.19	4,238.2	1,668.9	3,379.0	3,258.3	120.68	27.999	
16,900.0	12,484.2	14,390.1	10,020.5	85.2	81.6	43.20	4,338.2	1,668.1	3,378.2	3,255.5	122.72	27.527	
17,000.0	12,482.7	14,510.0	10,020.1	86.6	83.4	43.21	4,438.2	1,667.3	3,377.4	3,252.2	125.24	26.968	
17,100.0	12,481.3	14,610.0	10,019.7	88.1	84.9	43.22	4,538.2	1,666.5	3,376.6	3,249.1	127.53	26.477	
17,200.0	12,479.8	14,690.0	10,019.3	89.5	86.1	43.24	4,638.2	1,665.7	3,375.8	3,246.2	129.60	26.048	
17,300.0	12,478.3	14,790.0	10,018.9	90.9	87.6	43.25	4,738.2	1,665.0	3,375.1	3,243.1	131.91	25.585	
17,400.0	12,476.8	14,910.0	10,018.5	92.4	89.4	43.26	4,838.2	1,664.2	3,374.3	3,239.8	134.47	25.093	
17,500.0	12,475.4	14,990.0	10,018.1	93.8	90.6	43.27	4,938.1	1,663.4	3,373.5	3,236.9	136.57	24.702	
17,600.0	12,473.9	15,090.0	10,017.8	95.3	92.1	43.29	5,038.1	1,662.6	3,372.7	3,233.8	138.91	24.280	
17,700.0	12,472.4	15,210.0	10,017.4	96.7	93.9	43.30	5,138.1	1,661.8	3,371.9	3,230.4	141.50	23.830	
17,800.0	12,471.0	15,290.0	10,017.0	98.2	95.1	43.31	5,238.1	1,661.1	3,371.1	3,227.5	143.62	23.473	
17,900.0	12,469.5	15,390.0	10,016.6	99.7	96.7	43.32	5,338.1	1,660.3	3,370.3	3,224.4	145.98	23.088	
18,000.0	12,468.0	15,490.0	10,016.2	101.2	98.2	43.34	5,438.1	1,659.5	3,369.5	3,221.2	148.35	22.713	
18,100.0	12,466.5	15,590.0	10,015.8	102.7	99.7	43.35	5,538.1	1,658.7	3,368.8	3,218.0	150.73	22.349	
18,200.0	12,465.1	15,690.0	10,015.4	104.2	101.3	43.36	5,638.1	1,658.0	3,368.0	3,214.9	153.12	21.996	
18,300.0	12,463.6	15,790.0	10,015.0	105.7	102.8	43.38	5,738.1	1,657.2	3,367.2	3,211.7	155.51	21.653	
18,400.0	12,462.1	15,890.0	10,014.6	107.2	104.4	43.39	5,838.1	1,656.4	3,366.4	3,208.5	157.91	21.319	
18,500.0	12,460.6	15,990.0	10,014.2	108.7	105.9	43.40	5,938.0	1,655.6	3,365.6	3,205.3	160.31	20.994	
18,600.0	12,459.2	16,090.0	10,013.9	110.2	107.5	43.41	6,038.0	1,654.8	3,364.8	3,202.1	162.72	20.678	
18,700.0	12,457.7	16,189.9	10,013.5	111.7	109.0	43.43	6,138.0	1,654.1	3,364.0	3,198.9	165.14	20.371	
18,800.0	12,456.2	16,289.9	10,013.1	113.2	110.6	43.44	6,238.0	1,653.3	3,363.3	3,195.7	167.56	20.072	
18,900.0	12,454.8	16,389.9	10,012.7	114.8	112.1	43.45	6,338.0	1,652.5	3,362.5	3,192.5	169.99	19.781	
19,000.0	12,453.3	16,489.9	10,012.3	116.3	113.7	43.46	6,438.0	1,651.7	3,361.7	3,189.3	172.42	19.498	
19,100.0	12,451.8	16,589.9	10,011.9	117.8	115.3	43.48	6,538.0	1,650.9	3,360.9	3,186.1	174.85	19.221	
19,200.0	12,450.3	16,689.9	10,011.5	119.3	116.8	43.49	6,638.0	1,650.2	3,360.1	3,182.8	177.29	18.952	
19,300.0	12,448.9	16,789.9	10,011.1	120.9	118.4	43.50	6,738.0	1,649.4	3,359.3	3,179.6	179.74	18.690	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,400.0	12,447.4	16,889.9	10,010.7	122.4	120.0	43.52	6,838.0	1,648.6	3,358.6	3,176.4	182.19	18.435	
19,500.0	12,445.9	16,989.9	10,010.4	124.0	121.6	43.53	6,937.9	1,647.8	3,357.8	3,173.1	184.64	18.186	
19,600.0	12,444.4	17,089.9	10,010.0	125.5	123.1	43.54	7,037.9	1,647.0	3,357.0	3,169.9	187.10	17.942	
19,700.0	12,443.0	17,189.9	10,009.6	127.1	124.7	43.55	7,137.9	1,646.3	3,356.2	3,166.6	189.56	17.705	
19,800.0	12,441.5	17,289.9	10,009.2	128.6	126.3	43.57	7,237.9	1,645.5	3,355.4	3,163.4	192.02	17.474	
19,900.0	12,440.0	17,389.9	10,008.8	130.2	127.9	43.58	7,337.9	1,644.7	3,354.6	3,160.1	194.49	17.248	
20,000.0	12,438.6	17,489.9	10,008.4	131.7	129.5	43.59	7,437.9	1,643.9	3,353.9	3,156.9	196.96	17.028	
20,100.0	12,437.1	17,589.9	10,008.0	133.3	131.1	43.60	7,537.9	1,643.2	3,353.1	3,153.6	199.44	16.812	
20,200.0	12,435.6	17,689.9	10,007.6	134.9	132.7	43.62	7,637.9	1,642.4	3,352.3	3,150.4	201.92	16.602	
20,300.0	12,434.1	17,789.9	10,007.2	136.4	134.2	43.63	7,737.9	1,641.6	3,351.5	3,147.1	204.40	16.397	
20,400.0	12,432.7	17,889.8	10,006.8	138.0	135.8	43.64	7,837.9	1,640.8	3,350.7	3,143.8	206.89	16.196	
20,500.0	12,431.2	17,989.8	10,006.5	139.6	137.4	43.66	7,937.9	1,640.0	3,349.9	3,140.6	209.38	16.000	
20,600.0	12,429.7	18,089.8	10,006.1	141.1	139.0	43.67	8,037.8	1,639.3	3,349.2	3,137.3	211.87	15.808	
20,700.0	12,428.2	18,189.8	10,005.7	142.7	140.6	43.68	8,137.8	1,638.5	3,348.4	3,134.0	214.36	15.620	
20,800.0	12,426.8	18,289.8	10,005.3	144.3	142.2	43.69	8,237.8	1,637.7	3,347.6	3,130.7	216.86	15.437	
20,900.0	12,425.3	18,389.8	10,004.9	145.9	143.8	43.71	8,337.8	1,636.9	3,346.8	3,127.4	219.36	15.257	
21,000.0	12,423.8	18,489.8	10,004.5	147.4	145.4	43.72	8,437.8	1,636.1	3,346.0	3,124.2	221.86	15.082	
21,100.0	12,422.4	18,589.8	10,004.1	149.0	147.0	43.73	8,537.8	1,635.4	3,345.2	3,120.9	224.37	14.910	
21,200.0	12,420.9	18,689.8	10,003.7	150.6	148.6	43.75	8,637.8	1,634.6	3,344.5	3,117.6	226.88	14.741	
21,300.0	12,419.4	18,789.8	10,003.3	152.2	150.2	43.76	8,737.8	1,633.8	3,343.7	3,114.3	229.39	14.577	
21,400.0	12,417.9	18,889.8	10,003.0	153.8	151.8	43.77	8,837.8	1,633.0	3,342.9	3,111.0	231.90	14.415	
21,500.0	12,416.5	18,989.8	10,002.6	155.3	153.5	43.78	8,937.8	1,632.2	3,342.1	3,107.7	234.42	14.257	
21,600.0	12,415.0	19,089.8	10,002.2	156.9	155.1	43.80	9,037.7	1,631.5	3,341.3	3,104.4	236.94	14.102	
21,700.0	12,413.5	19,189.8	10,001.8	158.5	156.7	43.81	9,137.7	1,630.7	3,340.6	3,101.1	239.46	13.951	
21,800.0	12,412.0	19,289.8	10,001.4	160.1	158.3	43.82	9,237.7	1,629.9	3,339.8	3,097.8	241.98	13.802	
21,900.0	12,410.6	19,389.8	10,001.0	161.7	159.9	43.84	9,337.7	1,629.1	3,339.0	3,094.5	244.50	13.656	
22,000.0	12,409.1	19,489.8	10,000.6	163.3	161.5	43.85	9,437.7	1,628.3	3,338.2	3,091.2	247.03	13.513	
22,100.0	12,407.6	19,589.7	10,000.2	164.9	163.1	43.86	9,537.7	1,627.6	3,337.4	3,087.9	249.56	13.373	
22,200.0	12,406.1	19,689.7	9,999.8	166.5	164.7	43.87	9,637.7	1,626.8	3,336.7	3,084.6	252.09	13.236	
22,300.0	12,404.7	19,789.7	9,999.4	168.1	166.3	43.89	9,737.7	1,626.0	3,335.9	3,081.3	254.63	13.101	
22,400.0	12,403.2	19,889.7	9,999.1	169.7	168.0	43.90	9,837.7	1,625.2	3,335.1	3,077.9	257.16	12.969	
22,500.0	12,401.7	19,989.7	9,998.7	171.3	169.6	43.91	9,937.7	1,624.5	3,334.3	3,074.6	259.70	12.839	
22,600.0	12,400.3	20,089.7	9,998.3	172.9	171.2	43.93	10,037.6	1,623.7	3,333.5	3,071.3	262.24	12.712	
22,700.0	12,398.8	20,189.7	9,997.9	174.5	172.8	43.94	10,137.6	1,622.9	3,332.8	3,068.0	264.78	12.587	
22,787.3	12,397.5	20,277.0	9,997.5	175.7	174.1	43.95	10,224.9	1,622.2	3,332.1	3,065.5	266.63	12.497 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	-1.0	0.0	0.0	89.35	28.7	2,533.1	2,533.3				
100.0	100.0	101.0	99.0	0.1	0.1	89.35	28.7	2,533.1	2,533.3	2,533.0	0.26	9,747.483	
200.0	200.0	201.0	199.0	0.5	0.5	89.35	28.7	2,533.1	2,533.3	2,532.3	0.98	2,593.370	
300.0	300.0	301.0	299.0	0.8	0.8	89.35	28.7	2,533.1	2,533.3	2,531.6	1.69	1,495.647	
400.0	400.0	401.0	399.0	1.2	1.2	89.35	28.7	2,533.1	2,533.3	2,530.9	2.41	1,050.845	
500.0	500.0	501.0	499.0	1.6	1.6	89.35	28.7	2,533.1	2,533.3	2,530.2	3.13	809.964	
600.0	600.0	601.0	599.0	1.9	1.9	89.35	28.7	2,533.1	2,533.3	2,529.5	3.84	658.922	
700.0	700.0	701.0	699.0	2.3	2.3	89.35	28.7	2,533.1	2,533.3	2,528.7	4.56	555.358	
800.0	800.0	801.0	799.0	2.6	2.6	89.35	28.7	2,533.1	2,533.3	2,528.0	5.28	479.928	
900.0	900.0	901.0	899.0	3.0	3.0	89.35	28.7	2,533.1	2,533.3	2,527.3	6.00	422.537	
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	89.35	28.7	2,533.1	2,533.3	2,526.6	6.71	377.406	
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	89.35	28.7	2,533.1	2,533.3	2,525.9	7.43	340.986	
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	89.35	28.7	2,533.1	2,533.3	2,525.1	8.15	310.976	
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	89.35	28.7	2,533.1	2,533.3	2,524.4	8.86	285.821	
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	89.35	28.7	2,533.1	2,533.3	2,523.7	9.58	264.432	
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	89.35	28.7	2,533.1	2,533.3	2,523.0	10.29	246.192 CC, ES	
1,600.0	1,600.0	1,570.4	1,570.4	5.5	5.4	-156.43	28.6	2,533.5	2,534.7	2,523.8	10.88	232.910	
1,700.0	1,700.0	1,641.5	1,641.5	5.8	5.6	-156.42	28.0	2,534.7	2,538.7	2,527.3	11.46	221.566	
1,800.0	1,799.9	1,712.4	1,712.4	6.2	5.9	-156.40	27.2	2,536.8	2,545.6	2,533.5	12.03	211.571	
1,900.0	1,899.7	1,783.1	1,783.0	6.5	6.1	-156.37	26.0	2,539.6	2,555.1	2,542.5	12.61	202.682	
2,000.0	1,999.4	1,853.5	1,853.3	6.9	6.4	-156.33	24.5	2,543.2	2,567.4	2,554.2	13.18	194.772	
2,100.0	2,098.9	1,923.5	1,923.1	7.2	6.6	-156.29	22.6	2,547.5	2,582.3	2,568.6	13.76	187.735	
2,200.0	2,198.3	2,000.0	1,999.4	7.6	6.9	-156.24	20.3	2,553.2	2,600.0	2,585.6	14.35	181.132	
2,300.0	2,297.4	2,062.2	2,061.3	7.9	7.1	-156.18	18.0	2,558.5	2,620.3	2,605.4	14.90	175.870	
2,400.0	2,396.4	2,130.8	2,129.5	8.3	7.3	-156.20	15.3	2,565.1	2,642.4	2,627.0	15.47	170.840	
2,500.0	2,495.5	2,200.0	2,198.3	8.7	7.6	-156.22	12.1	2,572.5	2,665.6	2,649.6	16.04	166.220	
2,600.0	2,594.5	2,267.0	2,264.8	9.1	7.8	-156.23	8.8	2,580.4	2,689.9	2,673.3	16.60	162.063	
2,700.0	2,693.5	2,349.6	2,346.5	9.5	8.1	-156.23	4.4	2,590.9	2,715.1	2,697.9	17.23	157.618	
2,800.0	2,792.5	2,446.4	2,442.3	9.8	8.5	-156.23	-0.8	2,603.3	2,740.4	2,722.5	17.92	152.938	
2,900.0	2,891.6	2,543.1	2,538.1	10.2	8.9	-156.23	-6.1	2,615.7	2,765.7	2,747.1	18.61	148.576	
3,000.0	2,990.6	2,639.9	2,634.0	10.6	9.2	-156.23	-11.3	2,628.1	2,791.0	2,771.7	19.31	144.504	
3,100.0	3,089.6	2,736.6	2,729.8	11.0	9.6	-156.23	-16.5	2,640.5	2,816.3	2,796.3	20.02	140.696	
3,200.0	3,188.6	2,833.3	2,825.6	11.4	10.0	-156.23	-21.8	2,652.9	2,841.7	2,820.9	20.72	137.128	
3,300.0	3,287.7	2,930.1	2,921.4	11.8	10.4	-156.23	-27.0	2,665.3	2,867.0	2,845.5	21.43	133.781	
3,400.0	3,386.7	3,026.8	3,017.2	12.2	10.7	-156.23	-32.2	2,677.7	2,892.3	2,870.1	22.14	130.634	
3,500.0	3,485.7	3,123.6	3,113.0	12.6	11.1	-156.23	-37.4	2,690.1	2,917.6	2,894.7	22.85	127.672	
3,600.0	3,584.8	3,220.3	3,208.8	13.0	11.5	-156.23	-42.7	2,702.5	2,942.9	2,919.3	23.57	124.879	
3,700.0	3,683.8	3,317.1	3,304.6	13.4	11.9	-156.23	-47.9	2,715.0	2,968.2	2,943.9	24.28	122.243	
3,800.0	3,782.8	3,413.8	3,400.4	13.8	12.3	-156.23	-53.1	2,727.4	2,993.5	2,968.5	25.00	119.749	
3,900.0	3,881.8	3,510.5	3,496.2	14.3	12.7	-156.23	-58.4	2,739.8	3,018.8	2,993.1	25.72	117.389	
4,000.0	3,980.9	3,607.3	3,592.0	14.7	13.1	-156.23	-63.6	2,752.2	3,044.1	3,017.7	26.44	115.152	
4,100.0	4,079.9	3,704.0	3,687.8	15.1	13.5	-156.23	-68.8	2,764.6	3,069.4	3,042.3	27.16	113.028	
4,200.0	4,178.9	3,800.8	3,783.6	15.5	13.8	-156.23	-74.0	2,777.0	3,094.8	3,066.9	27.88	111.009	
4,300.0	4,277.9	3,902.5	3,879.4	15.9	14.3	-156.23	-79.3	2,789.4	3,120.1	3,091.4	28.62	109.018	
4,400.0	4,377.0	4,005.7	3,975.2	16.3	14.7	-156.23	-84.5	2,801.8	3,145.4	3,116.0	29.37	107.103	
4,500.0	4,476.0	4,109.0	4,071.0	16.7	15.1	-156.23	-89.7	2,814.2	3,170.7	3,140.6	30.12	105.280	
4,600.0	4,575.0	4,187.8	4,166.8	17.1	15.4	-156.23	-95.0	2,826.6	3,196.0	3,165.2	30.77	103.851	
4,700.0	4,674.0	4,284.5	4,262.6	17.5	15.8	-156.23	-100.2	2,839.0	3,221.3	3,189.8	31.50	102.261	
4,800.0	4,773.1	4,381.2	4,358.4	18.0	16.2	-156.23	-105.4	2,851.4	3,246.6	3,214.4	32.23	100.740	
4,900.0	4,872.1	4,478.0	4,454.2	18.4	16.6	-156.23	-110.7	2,863.8	3,271.9	3,239.0	32.96	99.284	
5,000.0	4,971.1	4,574.7	4,550.0	18.8	17.0	-156.23	-115.9	2,876.2	3,297.2	3,263.6	33.68	97.889	
5,100.0	5,070.2	4,671.5	4,645.8	19.2	17.4	-156.23	-121.1	2,888.7	3,322.5	3,288.1	34.41	96.552	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	4,768.2	4,741.6	19.6	17.8	-156.23	-126.3	2,901.1	3,347.9	3,312.7	35.14	95.268	
5,300.0	5,268.2	4,865.0	4,837.4	20.0	18.2	-156.23	-131.6	2,913.5	3,373.2	3,337.3	35.87	94.036	
5,400.0	5,367.2	4,961.7	4,933.2	20.5	18.6	-156.23	-136.8	2,925.9	3,398.5	3,361.9	36.60	92.851	
5,500.0	5,466.3	5,058.5	5,029.0	20.9	19.0	-156.23	-142.0	2,938.3	3,423.8	3,386.5	37.33	91.711	
5,600.0	5,565.3	5,155.2	5,124.8	21.3	19.4	-156.23	-147.3	2,950.7	3,449.1	3,411.0	38.06	90.615	
5,643.3	5,608.2	5,202.9	5,166.3	21.5	19.6	-156.23	-149.5	2,956.1	3,460.1	3,421.7	38.40	90.101	
5,700.0	5,664.4	5,252.0	5,220.7	21.7	19.8	-156.32	-152.5	2,963.1	3,474.0	3,435.2	38.79	89.550	
5,800.0	5,763.7	5,349.4	5,317.1	22.1	20.2	-156.44	-157.8	2,975.6	3,496.9	3,457.3	39.52	88.475	
5,900.0	5,863.4	5,447.2	5,414.0	22.5	20.6	-156.53	-163.0	2,988.1	3,517.4	3,477.1	40.25	87.385	
6,000.0	5,963.2	5,545.5	5,511.3	22.8	21.1	-156.59	-168.4	3,000.7	3,535.5	3,494.5	40.98	86.281	
6,100.0	6,063.1	5,644.2	5,609.0	23.2	21.5	-156.61	-173.7	3,013.4	3,551.3	3,509.6	41.70	85.165	
6,176.7	6,139.8	5,961.0	5,924.0	23.4	22.7	89.32	-186.8	3,044.5	3,560.4	3,517.0	43.40	82.037	
6,200.0	6,163.1	6,200.0	6,023.2	23.5	23.6	89.35	-188.7	3,049.1	3,561.1	3,516.7	44.37	80.251	
6,300.0	6,263.1	6,300.7	6,262.1	23.8	23.9	89.37	-190.0	3,052.1	3,561.5	3,516.4	45.07	79.025	
6,400.0	6,363.1	6,400.7	6,362.1	24.2	24.2	89.37	-190.0	3,052.1	3,561.5	3,515.7	45.73	77.875	
6,500.0	6,463.1	6,500.7	6,462.1	24.5	24.5	89.37	-190.0	3,052.1	3,561.5	3,515.1	46.40	76.755	
6,600.0	6,563.1	6,600.7	6,562.1	24.8	24.8	89.37	-190.0	3,052.1	3,561.5	3,514.4	47.07	75.665	
6,700.0	6,663.1	6,700.7	6,662.1	25.1	25.2	89.37	-190.0	3,052.1	3,561.5	3,513.7	47.74	74.603	
6,800.0	6,763.1	6,800.7	6,762.1	25.4	25.5	89.37	-190.0	3,052.1	3,561.5	3,513.0	48.41	73.568	
6,900.0	6,863.1	6,900.7	6,862.1	25.8	25.8	89.37	-190.0	3,052.1	3,561.5	3,512.4	49.08	72.560	
7,000.0	6,963.1	7,000.7	6,962.1	26.1	26.1	89.37	-190.0	3,052.1	3,561.5	3,511.7	49.76	71.577	
7,100.0	7,063.1	7,100.7	7,062.1	26.4	26.4	89.37	-190.0	3,052.1	3,561.5	3,511.0	50.43	70.619	
7,200.0	7,163.1	7,200.7	7,162.1	26.7	26.8	89.37	-190.0	3,052.1	3,561.5	3,510.4	51.11	69.684	
7,300.0	7,263.1	7,300.7	7,262.1	27.1	27.1	89.37	-190.0	3,052.1	3,561.5	3,509.7	51.79	68.773	
7,400.0	7,363.1	7,400.7	7,362.1	27.4	27.4	89.37	-190.0	3,052.1	3,561.5	3,509.0	52.46	67.884	
7,500.0	7,463.1	7,500.7	7,462.1	27.7	27.8	89.37	-190.0	3,052.1	3,561.5	3,508.3	53.14	67.016	
7,600.0	7,563.1	7,600.7	7,562.1	28.1	28.1	89.37	-190.0	3,052.1	3,561.5	3,507.6	53.82	66.169	
7,700.0	7,663.1	7,700.7	7,662.1	28.4	28.4	89.37	-190.0	3,052.1	3,561.5	3,507.0	54.51	65.342	
7,800.0	7,763.1	7,800.7	7,762.1	28.7	28.7	89.37	-190.0	3,052.1	3,561.5	3,506.3	55.19	64.534	
7,900.0	7,863.1	7,900.7	7,862.1	29.0	29.1	89.37	-190.0	3,052.1	3,561.5	3,505.6	55.87	63.745	
8,000.0	7,963.1	8,000.7	7,962.1	29.4	29.4	89.37	-190.0	3,052.1	3,561.5	3,504.9	56.55	62.974	
8,100.0	8,063.1	8,100.7	8,062.1	29.7	29.7	89.37	-190.0	3,052.1	3,561.5	3,504.2	57.24	62.221	
8,200.0	8,163.1	8,200.7	8,162.1	30.0	30.1	89.37	-190.0	3,052.1	3,561.5	3,503.5	57.92	61.484	
8,300.0	8,263.1	8,300.7	8,262.1	30.4	30.4	89.37	-190.0	3,052.1	3,561.5	3,502.8	58.61	60.764	
8,400.0	8,363.1	8,400.7	8,362.1	30.7	30.7	89.37	-190.0	3,052.1	3,561.5	3,502.2	59.30	60.060	
8,500.0	8,463.1	8,500.7	8,462.1	31.0	31.1	89.37	-190.0	3,052.1	3,561.5	3,501.5	59.99	59.372	
8,600.0	8,563.1	8,600.7	8,562.1	31.4	31.4	89.37	-190.0	3,052.1	3,561.5	3,500.8	60.67	58.698	
8,700.0	8,663.1	8,700.7	8,662.1	31.7	31.8	89.37	-190.0	3,052.1	3,561.5	3,500.1	61.36	58.039	
8,800.0	8,763.1	8,800.7	8,762.1	32.1	32.1	89.37	-190.0	3,052.1	3,561.5	3,499.4	62.05	57.394	
8,900.0	8,863.1	8,900.7	8,862.1	32.4	32.4	89.37	-190.0	3,052.1	3,561.5	3,498.7	62.74	56.763	
9,000.0	8,963.1	9,000.7	8,962.1	32.7	32.8	89.37	-190.0	3,052.1	3,561.5	3,498.0	63.43	56.145	
9,100.0	9,063.1	9,100.7	9,062.1	33.1	33.1	89.37	-190.0	3,052.1	3,561.5	3,497.3	64.13	55.539	
9,200.0	9,163.1	9,200.7	9,162.1	33.4	33.4	89.37	-190.0	3,052.1	3,561.5	3,496.6	64.82	54.946	
9,300.0	9,263.1	9,300.7	9,262.1	33.7	33.8	89.37	-190.0	3,052.1	3,561.5	3,495.9	65.51	54.365	
9,400.0	9,363.1	9,400.7	9,362.1	34.1	34.1	89.37	-190.0	3,052.1	3,561.5	3,495.3	66.20	53.796	
9,500.0	9,463.1	9,500.7	9,462.1	34.4	34.5	89.37	-190.0	3,052.1	3,561.5	3,494.6	66.90	53.239	
9,600.0	9,563.1	9,623.2	9,585.5	34.8	34.9	89.23	-181.3	3,051.7	3,561.2	3,493.5	67.65	52.640	
9,700.0	9,663.1	9,745.2	9,702.4	35.1	35.2	88.69	-147.6	3,050.0	3,560.3	3,491.9	68.36	52.082	
9,800.0	9,763.1	9,849.2	9,794.7	35.4	35.4	87.92	-99.8	3,047.6	3,559.2	3,490.2	68.98	51.596	
9,900.0	9,863.1	9,933.9	9,862.4	35.8	35.6	87.10	-49.2	3,045.0	3,558.7	3,489.1	69.53	51.178	
9,900.6	9,863.7	9,934.3	9,862.7	35.8	35.6	87.10	-49.0	3,045.0	3,558.7	3,489.1	69.54	51.176	
10,000.0	9,963.1	10,001.2	9,910.5	36.1	35.7	86.35	-2.2	3,042.6	3,559.3	3,489.3	70.03	50.826	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,054.8	9,944.5	36.5	35.7	85.68	39.1	3,040.5	3,561.7	3,491.2	70.47	50.542	
10,200.0	10,163.1	10,100.0	9,970.2	36.8	35.8	85.08	76.3	3,038.7	3,566.0	3,495.2	70.86	50.323	
10,300.0	10,263.1	10,132.4	9,986.7	37.1	35.8	84.63	104.0	3,037.2	3,572.6	3,501.4	71.19	50.184	
10,400.0	10,363.1	10,160.9	9,999.9	37.5	35.8	84.23	129.3	3,036.0	3,581.5	3,510.0	71.47	50.112	
10,500.0	10,463.1	10,184.6	10,010.0	37.8	35.8	83.88	150.8	3,034.9	3,592.8	3,521.1	71.70	50.112	
10,600.0	10,563.1	10,200.0	10,016.0	38.2	35.8	83.66	164.9	3,034.2	3,606.7	3,534.8	71.86	50.194	
10,700.0	10,663.1	10,221.6	10,023.9	38.5	35.8	83.33	185.0	3,033.1	3,623.0	3,551.0	71.99	50.326	
10,800.0	10,763.1	10,236.3	10,028.7	38.9	35.8	83.11	198.8	3,032.4	3,641.9	3,569.8	72.07	50.534	
10,900.0	10,863.1	10,250.0	10,033.0	39.2	35.8	82.90	211.8	3,031.8	3,663.3	3,591.2	72.10	50.805	
11,000.0	10,963.1	10,250.0	10,033.0	39.6	35.8	82.90	211.8	3,031.8	3,687.2	3,615.2	72.05	51.175	
11,100.0	11,063.1	10,270.0	10,038.6	39.9	35.9	82.60	231.0	3,030.8	3,713.5	3,641.5	72.04	51.551	
11,200.0	11,163.1	10,278.8	10,040.8	40.2	35.9	82.46	239.5	3,030.4	3,742.3	3,670.3	71.94	52.018	
11,300.0	11,263.1	10,300.0	10,045.8	40.6	35.9	82.13	260.1	3,029.3	3,773.5	3,701.6	71.86	52.513	
11,400.0	11,363.1	10,300.0	10,045.8	40.9	35.9	82.13	260.1	3,029.3	3,806.9	3,735.2	71.67	53.116	
11,500.0	11,463.1	10,300.0	10,045.8	41.3	35.9	82.13	260.1	3,029.3	3,842.6	3,771.2	71.45	53.777	
11,600.0	11,563.1	10,300.0	10,045.8	41.6	35.9	82.13	260.1	3,029.3	3,880.6	3,809.4	71.21	54.493	
11,700.0	11,663.1	10,300.0	10,045.8	42.0	35.9	82.13	260.1	3,029.3	3,920.8	3,849.8	70.95	55.262	
11,800.0	11,763.1	10,300.0	10,045.8	42.3	35.9	82.13	260.1	3,029.3	3,963.0	3,892.4	70.66	56.083	
11,900.0	11,863.1	10,320.2	10,049.7	42.7	35.9	81.81	279.9	3,028.3	4,007.2	3,936.7	70.44	56.885	
12,006.9	11,970.0	10,324.6	10,050.5	43.0	35.9	81.74	284.2	3,028.1	4,056.6	3,986.5	70.12	57.851	
12,050.0	12,013.1	10,326.6	10,050.8	43.2	35.9	87.28	286.2	3,028.0	4,077.1	4,007.2	69.99	58.255	
12,100.0	12,062.7	10,329.7	10,051.3	43.3	35.9	84.49	289.2	3,027.9	4,101.2	4,031.4	69.83	58.729	
12,150.0	12,111.7	10,350.0	10,054.3	43.5	35.9	81.46	309.3	3,026.8	4,125.5	4,055.8	69.74	59.158	
12,200.0	12,159.5	10,350.0	10,054.3	43.7	35.9	78.77	309.3	3,026.8	4,149.5	4,079.9	69.57	59.649	
12,250.0	12,205.9	10,350.0	10,054.3	43.8	35.9	76.14	309.3	3,026.8	4,173.2	4,103.8	69.40	60.137	
12,300.0	12,250.5	10,350.0	10,054.3	43.9	35.9	73.61	309.3	3,026.8	4,196.4	4,127.2	69.23	60.617	
12,350.0	12,293.0	10,350.0	10,054.3	44.1	35.9	71.19	309.3	3,026.8	4,219.1	4,150.0	69.07	61.084	
12,400.0	12,333.0	10,350.0	10,054.3	44.2	35.9	68.91	309.3	3,026.8	4,240.9	4,172.0	68.92	61.533	
12,450.0	12,370.3	10,369.8	10,056.5	44.3	36.0	66.62	329.0	3,025.9	4,261.6	4,192.7	68.86	61.891	
12,500.0	12,404.5	10,377.5	10,057.1	44.3	36.0	64.62	336.6	3,025.5	4,281.2	4,212.4	68.76	62.260	
12,550.0	12,435.4	10,400.0	10,058.5	44.4	36.1	62.72	359.0	3,024.3	4,299.6	4,230.9	68.74	62.552	
12,600.0	12,462.7	10,400.0	10,058.5	44.5	36.1	61.15	359.0	3,024.3	4,316.4	4,247.7	68.66	62.868	
12,650.0	12,486.3	10,400.0	10,058.5	44.5	36.1	59.75	359.0	3,024.3	4,331.6	4,263.0	68.60	63.141	
12,700.0	12,506.0	10,411.3	10,058.8	44.6	36.1	58.49	370.4	3,023.8	4,345.3	4,276.7	68.61	63.332	
12,750.0	12,521.6	10,427.2	10,058.9	44.7	36.1	57.41	386.2	3,023.0	4,357.2	4,288.5	68.66	63.459	
12,800.0	12,533.0	10,427.2	10,058.9	44.7	36.1	56.56	386.2	3,023.0	4,367.2	4,298.5	68.69	63.574	
12,850.0	12,540.1	10,454.3	10,058.8	44.9	36.2	55.85	413.3	3,021.7	4,375.2	4,306.3	68.85	63.551	
12,900.0	12,542.9	10,476.3	10,058.6	45.0	36.3	55.36	435.2	3,020.9	4,381.1	4,312.1	69.01	63.481	
12,915.3	12,542.9	10,500.0	10,058.4	45.0	36.4	55.27	458.9	3,020.2	4,382.5	4,313.4	69.13	63.398	
13,000.0	12,541.7	10,520.2	10,058.3	45.3	36.5	55.38	479.2	3,019.8	4,388.9	4,319.5	69.43	63.212	
13,100.0	12,540.2	10,582.9	10,057.9	45.6	36.7	55.52	541.8	3,019.1	4,395.1	4,325.1	69.98	62.805	
13,200.0	12,538.7	10,682.8	10,057.1	46.0	37.2	55.64	641.7	3,018.3	4,398.6	4,327.8	70.76	62.166	
13,287.8	12,537.4	10,770.6	10,056.5	46.4	37.7	55.69	729.5	3,017.6	4,399.3	4,327.8	71.51	61.521	
13,300.0	12,537.2	10,782.7	10,056.4	46.5	37.7	55.69	741.6	3,017.5	4,399.3	4,327.6	71.62	61.428	
13,400.0	12,535.8	10,882.7	10,055.7	47.0	38.3	55.70	841.6	3,016.7	4,398.8	4,326.2	72.58	60.610	
13,500.0	12,534.3	10,982.7	10,055.0	47.5	39.0	55.71	941.6	3,015.9	4,398.4	4,324.7	73.63	59.733	
13,600.0	12,532.8	11,082.7	10,054.3	48.1	39.7	55.71	1,041.6	3,015.1	4,397.9	4,323.1	74.79	58.805	
13,700.0	12,531.3	11,182.7	10,053.6	48.7	40.4	55.72	1,141.6	3,014.4	4,397.5	4,321.4	76.03	57.835	
13,800.0	12,529.9	11,282.7	10,052.9	49.4	41.3	55.73	1,241.6	3,013.6	4,397.0	4,319.7	77.37	56.832	
13,900.0	12,528.4	11,382.7	10,052.2	50.2	42.1	55.74	1,341.6	3,012.8	4,396.6	4,317.8	78.78	55.805	
14,000.0	12,526.9	11,482.7	10,051.5	51.0	43.0	55.75	1,441.6	3,012.0	4,396.1	4,315.9	80.28	54.761	
14,100.0	12,525.5	11,582.7	10,050.8	51.8	44.0	55.75	1,541.6	3,011.2	4,395.7	4,313.9	81.85	53.706	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	11,682.7	10,050.1	52.6	45.0	55.76	1,641.6	3,010.4	4,395.3	4,311.8	83.49	52.646	
14,300.0	12,522.5	11,782.7	10,049.4	53.5	46.0	55.77	1,741.6	3,009.6	4,394.8	4,309.6	85.19	51.587	
14,400.0	12,521.0	11,882.7	10,048.7	54.5	47.1	55.78	1,841.6	3,008.8	4,394.4	4,307.4	86.96	50.534	
14,500.0	12,519.6	11,982.7	10,048.0	55.4	48.2	55.79	1,941.5	3,008.0	4,393.9	4,305.2	88.78	49.490	
14,600.0	12,518.1	12,082.7	10,047.3	56.4	49.3	55.80	2,041.5	3,007.2	4,393.5	4,302.8	90.66	48.459	
14,700.0	12,516.6	12,182.7	10,046.6	57.4	50.5	55.80	2,141.5	3,006.4	4,393.1	4,300.5	92.60	47.443	
14,800.0	12,515.1	12,282.7	10,045.9	58.5	51.6	55.81	2,241.5	3,005.6	4,392.6	4,298.0	94.58	46.445	
14,900.0	12,513.7	12,382.7	10,045.2	59.6	52.8	55.82	2,341.5	3,004.8	4,392.2	4,295.6	96.60	45.466	
15,000.0	12,512.2	12,482.7	10,044.5	60.7	54.1	55.83	2,441.5	3,004.0	4,391.7	4,293.1	98.67	44.508	
15,100.0	12,510.7	12,582.7	10,043.8	61.8	55.3	55.84	2,541.5	3,003.2	4,391.3	4,290.5	100.78	43.573	
15,200.0	12,509.3	12,682.7	10,043.1	63.0	56.6	55.84	2,641.5	3,002.5	4,390.8	4,287.9	102.93	42.659	
15,300.0	12,507.8	12,782.7	10,042.4	64.2	57.9	55.85	2,741.5	3,001.7	4,390.4	4,285.3	105.11	41.769	
15,400.0	12,506.3	12,882.7	10,041.7	65.4	59.2	55.86	2,841.5	3,000.9	4,390.0	4,282.6	107.33	40.903	
15,500.0	12,504.8	12,982.7	10,041.0	66.6	60.6	55.87	2,941.5	3,000.1	4,389.5	4,279.9	109.57	40.060	
15,600.0	12,503.4	13,082.7	10,040.3	67.8	61.9	55.88	3,041.5	2,999.3	4,389.1	4,277.2	111.85	39.240	
15,700.0	12,501.9	13,182.7	10,039.6	69.1	63.3	55.89	3,141.4	2,998.5	4,388.6	4,274.5	114.16	38.444	
15,800.0	12,500.4	13,282.7	10,038.8	70.3	64.6	55.89	3,241.4	2,997.7	4,388.2	4,271.7	116.49	37.671	
15,900.0	12,498.9	13,382.7	10,038.1	71.6	66.0	55.90	3,341.4	2,996.9	4,387.8	4,268.9	118.84	36.921	
16,000.0	12,497.5	13,482.7	10,037.4	72.9	67.4	55.91	3,441.4	2,996.1	4,387.3	4,266.1	121.22	36.193	
16,100.0	12,496.0	13,582.7	10,036.7	74.3	68.8	55.92	3,541.4	2,995.3	4,386.9	4,263.2	123.62	35.486	
16,200.0	12,494.5	13,682.7	10,036.0	75.6	70.3	55.93	3,641.4	2,994.5	4,386.4	4,260.4	126.04	34.801	
16,300.0	12,493.0	13,782.6	10,035.3	76.9	71.7	55.94	3,741.4	2,993.7	4,386.0	4,257.5	128.49	34.136	
16,400.0	12,491.6	13,882.6	10,034.6	78.3	73.1	55.94	3,841.4	2,992.9	4,385.5	4,254.6	130.95	33.491	
16,500.0	12,490.1	13,982.6	10,033.9	79.6	74.6	55.95	3,941.4	2,992.1	4,385.1	4,251.7	133.42	32.866	
16,600.0	12,488.6	14,082.6	10,033.2	81.0	76.0	55.96	4,041.4	2,991.3	4,384.7	4,248.7	135.92	32.260	
16,700.0	12,487.2	14,182.6	10,032.5	82.4	77.5	55.97	4,141.4	2,990.6	4,384.2	4,245.8	138.43	31.671	
16,800.0	12,485.7	14,282.6	10,031.8	83.8	79.0	55.98	4,241.3	2,989.8	4,383.8	4,242.8	140.95	31.101	
16,900.0	12,484.2	14,382.6	10,031.1	85.2	80.5	55.98	4,341.3	2,989.0	4,383.3	4,239.9	143.49	30.548	
17,000.0	12,482.7	14,482.6	10,030.4	86.6	81.9	55.99	4,441.3	2,988.2	4,382.9	4,236.9	146.05	30.011	
17,100.0	12,481.3	14,582.6	10,029.7	88.1	83.4	56.00	4,541.3	2,987.4	4,382.5	4,233.9	148.61	29.489	
17,200.0	12,479.8	14,682.6	10,029.0	89.5	84.9	56.01	4,641.3	2,986.6	4,382.0	4,230.8	151.19	28.984	
17,300.0	12,478.3	14,782.6	10,028.3	90.9	86.4	56.02	4,741.3	2,985.8	4,381.6	4,227.8	153.78	28.493	
17,400.0	12,476.8	14,882.6	10,027.6	92.4	88.0	56.03	4,841.3	2,985.0	4,381.1	4,224.8	156.38	28.016	
17,500.0	12,475.4	14,982.6	10,026.9	93.8	89.5	56.03	4,941.3	2,984.2	4,380.7	4,221.7	158.99	27.553	
17,600.0	12,473.9	15,082.6	10,026.2	95.3	91.0	56.04	5,041.3	2,983.4	4,380.3	4,218.7	161.61	27.104	
17,700.0	12,472.4	15,182.6	10,025.5	96.7	92.5	56.05	5,141.3	2,982.6	4,379.8	4,215.6	164.24	26.667	
17,800.0	12,471.0	15,282.6	10,024.8	98.2	94.0	56.06	5,241.3	2,981.8	4,379.4	4,212.5	166.88	26.243	
17,900.0	12,469.5	15,382.6	10,024.1	99.7	95.6	56.07	5,341.3	2,981.0	4,378.9	4,209.4	169.53	25.830	
18,000.0	12,468.0	15,482.6	10,023.4	101.2	97.1	56.08	5,441.2	2,980.2	4,378.5	4,206.3	172.19	25.429	
18,100.0	12,466.5	15,582.6	10,022.7	102.7	98.7	56.08	5,541.2	2,979.4	4,378.1	4,203.2	174.85	25.039	
18,200.0	12,465.1	15,682.6	10,022.0	104.2	100.2	56.09	5,641.2	2,978.7	4,377.6	4,200.1	177.52	24.659	
18,300.0	12,463.6	15,782.6	10,021.3	105.7	101.8	56.10	5,741.2	2,977.9	4,377.2	4,197.0	180.20	24.290	
18,400.0	12,462.1	15,882.6	10,020.6	107.2	103.3	56.11	5,841.2	2,977.1	4,376.8	4,193.9	182.89	23.931	
18,500.0	12,460.6	15,982.6	10,019.8	108.7	104.9	56.12	5,941.2	2,976.3	4,376.3	4,190.7	185.58	23.581	
18,600.0	12,459.2	16,082.6	10,019.1	110.2	106.4	56.13	6,041.2	2,975.5	4,375.9	4,187.6	188.28	23.241	
18,700.0	12,457.7	16,182.6	10,018.4	111.7	108.0	56.13	6,141.2	2,974.7	4,375.4	4,184.4	190.99	22.909	
18,800.0	12,456.2	16,282.6	10,017.7	113.2	109.6	56.14	6,241.2	2,973.9	4,375.0	4,181.3	193.70	22.586	
18,900.0	12,454.8	16,382.6	10,017.0	114.8	111.1	56.15	6,341.2	2,973.1	4,374.6	4,178.1	196.42	22.271	
19,000.0	12,453.3	16,482.6	10,016.3	116.3	112.7	56.16	6,441.2	2,972.3	4,374.1	4,175.0	199.15	21.964	
19,100.0	12,451.8	16,582.6	10,015.6	117.8	114.3	56.17	6,541.2	2,971.5	4,373.7	4,171.8	201.87	21.665	
19,200.0	12,450.3	16,682.6	10,014.9	119.3	115.8	56.17	6,641.1	2,970.7	4,373.2	4,168.6	204.61	21.374	
19,300.0	12,448.9	16,782.6	10,014.2	120.9	117.4	56.18	6,741.1	2,969.9	4,372.8	4,165.5	207.35	21.089	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,400.0	12,447.4	16,882.6	10,013.5	122.4	119.0	56.19	6,841.1	2,969.1	4,372.4	4,162.3	210.09	20.812	
19,500.0	12,445.9	16,982.6	10,012.8	124.0	120.6	56.20	6,941.1	2,968.3	4,371.9	4,159.1	212.84	20.541	
19,600.0	12,444.4	17,082.6	10,012.1	125.5	122.2	56.21	7,041.1	2,967.6	4,371.5	4,155.9	215.59	20.277	
19,700.0	12,443.0	17,182.5	10,011.4	127.1	123.8	56.22	7,141.1	2,966.8	4,371.1	4,152.7	218.35	20.019	
19,800.0	12,441.5	17,282.5	10,010.7	128.6	125.3	56.22	7,241.1	2,966.0	4,370.6	4,149.5	221.11	19.767	
19,900.0	12,440.0	17,382.5	10,010.0	130.2	126.9	56.23	7,341.1	2,965.2	4,370.2	4,146.3	223.88	19.520	
20,000.0	12,438.6	17,482.5	10,009.3	131.7	128.5	56.24	7,441.1	2,964.4	4,369.7	4,143.1	226.65	19.280	
20,100.0	12,437.1	17,582.5	10,008.6	133.3	130.1	56.25	7,541.1	2,963.6	4,369.3	4,139.9	229.42	19.045	
20,200.0	12,435.6	17,682.5	10,007.9	134.9	131.7	56.26	7,641.1	2,962.8	4,368.9	4,136.7	232.20	18.815	
20,300.0	12,434.1	17,782.5	10,007.2	136.4	133.3	56.27	7,741.0	2,962.0	4,368.4	4,133.5	234.98	18.591	
20,400.0	12,432.7	17,882.5	10,006.5	138.0	134.9	56.27	7,841.0	2,961.2	4,368.0	4,130.2	237.76	18.371	
20,500.0	12,431.2	17,982.5	10,005.8	139.6	136.5	56.28	7,941.0	2,960.4	4,367.6	4,127.0	240.55	18.157	
20,600.0	12,429.7	18,082.5	10,005.1	141.1	138.1	56.29	8,041.0	2,959.6	4,367.1	4,123.8	243.34	17.947	
20,700.0	12,428.2	18,182.5	10,004.4	142.7	139.7	56.30	8,141.0	2,958.8	4,366.7	4,120.6	246.13	17.741	
20,800.0	12,426.8	18,282.5	10,003.7	144.3	141.3	56.31	8,241.0	2,958.0	4,366.2	4,117.3	248.93	17.540	
20,900.0	12,425.3	18,382.5	10,003.0	145.9	142.9	56.32	8,341.0	2,957.2	4,365.8	4,114.1	251.72	17.344	
21,000.0	12,423.8	18,482.5	10,002.3	147.4	144.5	56.32	8,441.0	2,956.4	4,365.4	4,110.8	254.53	17.151	
21,100.0	12,422.4	18,582.5	10,001.5	149.0	146.1	56.33	8,541.0	2,955.7	4,364.9	4,107.6	257.33	16.962	
21,200.0	12,420.9	18,682.5	10,000.8	150.6	147.7	56.34	8,641.0	2,954.9	4,364.5	4,104.4	260.14	16.778	
21,300.0	12,419.4	18,782.5	10,000.1	152.2	149.3	56.35	8,741.0	2,954.1	4,364.1	4,101.1	262.95	16.597	
21,400.0	12,417.9	18,882.5	9,999.4	153.8	150.9	56.36	8,841.0	2,953.3	4,363.6	4,097.9	265.76	16.419	
21,500.0	12,416.5	18,982.5	9,998.7	155.3	152.6	56.37	8,940.9	2,952.5	4,363.2	4,094.6	268.58	16.246	
21,600.0	12,415.0	19,082.5	9,998.0	156.9	154.2	56.37	9,040.9	2,951.7	4,362.8	4,091.4	271.39	16.075	
21,700.0	12,413.5	19,182.5	9,997.3	158.5	155.8	56.38	9,140.9	2,950.9	4,362.3	4,088.1	274.21	15.908	
21,800.0	12,412.0	19,282.5	9,996.6	160.1	157.4	56.39	9,240.9	2,950.1	4,361.9	4,084.8	277.04	15.745	
21,900.0	12,410.6	19,382.5	9,995.9	161.7	159.0	56.40	9,340.9	2,949.3	4,361.4	4,081.6	279.86	15.584	
22,000.0	12,409.1	19,482.5	9,995.2	163.3	160.6	56.41	9,440.9	2,948.5	4,361.0	4,078.3	282.69	15.427	
22,100.0	12,407.6	19,582.5	9,994.5	164.9	162.2	56.42	9,540.9	2,947.7	4,360.6	4,075.1	285.52	15.273	
22,200.0	12,406.1	19,682.5	9,993.8	166.5	163.9	56.42	9,640.9	2,946.9	4,360.1	4,071.8	288.35	15.121	
22,300.0	12,404.7	19,782.5	9,993.1	168.1	165.5	56.43	9,740.9	2,946.1	4,359.7	4,068.5	291.18	14.973	
22,400.0	12,403.2	19,882.5	9,992.4	169.7	167.1	56.44	9,840.9	2,945.3	4,359.3	4,065.3	294.02	14.827	
22,500.0	12,401.7	19,982.5	9,991.7	171.3	168.7	56.45	9,940.9	2,944.5	4,358.8	4,062.0	296.85	14.684	
22,600.0	12,400.3	20,082.5	9,991.0	172.9	170.3	56.46	10,040.9	2,943.8	4,358.4	4,058.7	299.69	14.543	
22,700.0	12,398.8	20,182.5	9,990.3	174.5	171.9	56.47	10,140.8	2,943.0	4,358.0	4,055.4	302.53	14.405	
22,787.3	12,397.5	20,269.8	9,989.7	175.7	173.2	56.47	10,228.1	2,942.3	4,357.6	4,052.9	304.69	14.302 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 206-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	13.0	13.0	0.0	0.0	-11.87	5,146.2	-1,081.2	5,258.5				
100.0	100.0	94.6	94.6	0.1	0.1	-11.86	5,146.4	-1,081.0	5,258.8	5,258.5	0.28	N/A	
200.0	200.0	176.1	176.1	0.5	0.3	-11.85	5,147.0	-1,080.4	5,259.4	5,258.6	0.76	6,916.334	
300.0	300.0	263.1	263.1	0.8	0.5	-11.84	5,148.0	-1,079.5	5,260.3	5,258.9	1.37	3,837.844	
400.0	400.0	353.1	353.1	1.2	0.8	-11.83	5,149.2	-1,078.6	5,261.4	5,259.3	2.05	2,564.487	
500.0	500.0	449.6	449.5	1.6	1.2	-11.82	5,150.7	-1,077.7	5,262.6	5,259.9	2.76	1,909.565	
600.0	600.0	548.8	548.7	1.9	1.5	-11.80	5,152.1	-1,076.8	5,263.9	5,260.4	3.47	1,516.956	
700.0	700.0	638.9	638.8	2.3	1.9	-11.79	5,153.5	-1,076.0	5,265.2	5,261.1	4.15	1,268.186	
800.0	800.0	727.1	727.0	2.6	2.2	-11.78	5,155.1	-1,075.3	5,266.8	5,262.0	4.83	1,091.199	
900.0	900.0	820.6	820.5	3.0	2.5	-11.77	5,157.0	-1,074.6	5,268.6	5,263.1	5.52	954.381	
1,000.0	1,000.0	916.7	916.6	3.4	2.9	-11.76	5,158.9	-1,073.9	5,270.4	5,264.2	6.22	846.877	
1,100.0	1,100.0	1,012.8	1,012.7	3.7	3.2	-11.75	5,160.9	-1,073.2	5,272.4	5,265.4	6.93	761.217	
1,200.0	1,200.0	1,485.7	1,485.3	4.1	4.8	-11.76	5,153.2	-1,072.9	5,270.6	5,261.7	8.88	593.779	
1,300.0	1,300.0	1,650.3	1,649.7	4.4	5.4	-11.74	5,144.3	-1,068.7	5,264.7	5,254.9	9.80	537.457	
1,400.0	1,400.0	1,768.2	1,767.3	4.8	5.8	-11.71	5,137.3	-1,064.5	5,258.2	5,247.6	10.56	497.943	
1,500.0	1,500.0	1,878.1	1,876.9	5.1	6.2	-11.67	5,130.6	-1,060.0	5,251.4	5,240.1	11.30	464.658	
1,600.0	1,600.0	1,987.7	1,986.1	5.5	6.6	102.67	5,124.0	-1,054.3	5,244.6	5,232.6	12.03	435.894	
1,700.0	1,700.0	2,102.0	2,100.0	5.8	7.0	102.83	5,117.1	-1,047.2	5,238.0	5,225.2	12.77	410.099	
1,800.0	1,799.9	2,208.0	2,205.6	6.2	7.4	103.00	5,110.6	-1,039.8	5,231.5	5,218.0	13.49	387.805	
1,900.0	1,899.7	2,306.1	2,303.2	6.5	7.7	103.19	5,104.5	-1,032.9	5,225.5	5,211.3	14.19	368.365	
2,000.0	1,999.4	2,402.7	2,399.4	6.9	8.1	103.38	5,098.6	-1,026.3	5,219.9	5,205.0	14.88	350.755	
2,100.0	2,098.9	2,498.3	2,494.6	7.2	8.5	103.59	5,092.7	-1,019.8	5,214.8	5,199.2	15.58	334.705	
2,200.0	2,198.3	2,584.7	2,580.6	7.6	8.8	103.79	5,087.5	-1,014.0	5,210.2	5,194.0	16.25	320.560	
2,300.0	2,297.4	2,664.9	2,660.5	7.9	9.1	103.99	5,083.0	-1,008.5	5,206.5	5,189.5	16.91	307.836	
2,400.0	2,396.4	2,750.3	2,745.6	8.3	9.4	104.17	5,078.4	-1,002.5	5,203.3	5,185.7	17.60	295.683	
2,500.0	2,495.5	2,851.9	2,846.8	8.7	9.8	104.38	5,073.1	-995.5	5,200.3	5,181.9	18.34	283.484	
2,600.0	2,594.5	2,948.4	2,942.9	9.1	10.2	104.59	5,068.0	-988.8	5,197.3	5,178.2	19.08	272.432	
2,700.0	2,693.5	3,037.3	3,031.5	9.5	10.5	104.78	5,063.4	-982.8	5,194.5	5,174.7	19.79	262.510	
2,800.0	2,792.5	3,120.8	3,114.8	9.8	10.8	104.96	5,059.2	-977.2	5,192.0	5,171.5	20.48	253.497	
2,900.0	2,891.6	3,189.4	3,183.2	10.2	11.1	105.09	5,055.9	-973.4	5,189.9	5,168.8	21.12	245.717	
3,000.0	2,990.6	3,258.4	3,252.0	10.6	11.3	105.22	5,052.8	-970.8	5,188.5	5,166.8	21.77	238.389	
3,100.0	3,089.6	3,292.0	3,285.6	11.0	11.4	105.27	5,051.4	-969.9	5,187.9	5,165.6	22.28	232.806	
3,132.9	3,122.2	3,332.4	3,326.0	11.2	11.6	105.34	5,049.9	-969.0	5,187.8	5,165.2	22.56	229.974	
3,140.3	3,129.5	3,336.0	3,329.5	11.2	11.6	105.35	5,049.8	-968.9	5,187.8	5,165.2	22.60	229.547	
3,200.0	3,188.6	3,364.6	3,358.1	11.4	11.7	105.40	5,048.9	-968.2	5,188.0	5,165.1	22.94	226.168	
3,300.0	3,287.7	3,412.4	3,405.9	11.8	11.9	105.48	5,047.9	-967.2	5,189.3	5,165.8	23.51	220.762	
3,400.0	3,386.7	3,482.0	3,475.5	12.2	12.1	105.59	5,047.3	-965.6	5,191.7	5,167.5	24.15	214.965	
3,500.0	3,485.7	3,515.3	3,508.8	12.6	12.2	105.65	5,047.3	-964.8	5,194.8	5,170.1	24.66	210.620	
3,600.0	3,584.8	3,576.3	3,569.7	13.0	12.4	105.76	5,047.7	-963.0	5,198.8	5,173.6	25.28	205.673	
3,700.0	3,683.8	3,637.1	3,630.5	13.4	12.7	105.88	5,048.6	-960.9	5,203.6	5,177.8	25.89	200.999	
3,800.0	3,782.8	3,719.8	3,713.1	13.8	12.9	106.04	5,050.4	-957.8	5,209.1	5,182.5	26.58	195.975	
3,900.0	3,881.8	3,830.9	3,824.2	14.3	13.3	106.23	5,052.5	-954.9	5,214.6	5,187.2	27.38	190.468	
4,000.0	3,980.9	3,949.1	3,942.4	14.7	13.7	106.43	5,054.2	-953.3	5,219.8	5,191.6	28.20	185.108	
4,100.0	4,079.9	4,069.8	4,063.1	15.1	14.2	106.62	5,055.3	-952.3	5,224.6	5,195.6	29.03	179.987	
4,200.0	4,178.9	4,181.0	4,174.3	15.5	14.5	106.78	5,055.9	-952.3	5,229.2	5,199.4	29.81	175.412	
4,300.0	4,277.9	4,272.1	4,265.3	15.9	14.8	106.91	5,056.2	-952.9	5,233.6	5,203.1	30.52	171.458	
4,400.0	4,377.0	4,341.7	4,334.9	16.3	15.1	107.01	5,056.7	-953.1	5,238.5	5,207.4	31.16	168.115	
4,500.0	4,476.0	4,426.0	4,419.2	16.7	15.4	107.13	5,058.0	-953.0	5,244.1	5,212.2	31.85	164.653	
4,600.0	4,575.0	4,707.2	4,700.3	17.1	16.3	107.50	5,055.5	-956.7	5,246.8	5,213.6	33.23	157.900	
4,700.0	4,674.0	4,811.9	4,805.0	17.5	16.7	107.62	5,052.9	-959.2	5,248.9	5,214.9	33.99	154.433	
4,800.0	4,773.1	4,902.9	4,896.0	18.0	17.0	107.72	5,050.8	-961.4	5,251.1	5,216.4	34.70	151.310	
4,900.0	4,872.1	5,003.3	4,996.2	18.4	17.3	107.84	5,048.5	-963.6	5,253.4	5,217.9	35.45	148.184	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 206-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,971.1	5,117.7	5,110.6	18.8	17.7	107.98	5,045.6	-966.0	5,255.4	5,219.1	36.25	144.979	
5,100.0	5,070.2	5,212.8	5,205.6	19.2	18.0	108.09	5,043.2	-968.0	5,257.4	5,220.4	36.98	142.160	
5,200.0	5,169.2	5,277.0	5,269.8	19.6	18.2	108.17	5,041.6	-969.4	5,259.6	5,222.0	37.61	139.848	
5,300.0	5,268.2	5,361.3	5,354.1	20.0	18.5	108.27	5,040.0	-970.8	5,262.3	5,224.0	38.31	137.358	
5,400.0	5,367.2	5,424.7	5,417.5	20.5	18.7	108.36	5,039.3	-971.1	5,265.7	5,226.7	38.94	135.236	
5,500.0	5,466.3	5,499.5	5,492.3	20.9	19.0	108.47	5,039.1	-970.9	5,269.8	5,230.2	39.60	133.060	
5,600.0	5,565.3	5,596.1	5,588.9	21.3	19.3	108.61	5,038.9	-970.6	5,274.1	5,233.7	40.35	130.694	
5,643.3	5,608.2	5,638.0	5,630.8	21.5	19.5	108.67	5,038.9	-970.5	5,275.9	5,235.3	40.68	129.696	
5,700.0	5,664.4	5,694.0	5,686.8	21.7	19.7	108.78	5,038.8	-970.4	5,278.3	5,237.2	41.10	128.410	
5,800.0	5,763.7	5,794.1	5,786.9	22.1	20.0	108.95	5,038.7	-970.4	5,281.8	5,239.9	41.85	126.214	
5,900.0	5,863.4	5,897.0	5,889.8	22.5	20.4	109.07	5,038.5	-970.5	5,284.4	5,241.8	42.58	124.092	
6,000.0	5,963.2	6,002.4	5,995.2	22.8	20.8	109.16	5,038.3	-970.5	5,286.1	5,242.8	43.31	122.040	
6,100.0	6,063.1	6,093.1	6,085.8	23.2	21.1	109.20	5,038.0	-970.7	5,287.0	5,243.0	43.97	120.228	
6,176.7	6,139.8	6,158.4	6,151.2	23.4	21.3	-5.01	5,038.0	-970.8	5,287.2	5,242.7	44.45	118.946	
6,200.0	6,163.1	6,178.3	6,171.0	23.5	21.4	-5.01	5,038.0	-970.9	5,287.2	5,242.6	44.59	118.567	
6,300.0	6,263.1	6,270.9	6,263.7	23.8	21.7	-5.02	5,038.2	-971.3	5,287.5	5,242.3	45.23	116.907	
6,400.0	6,363.1	6,370.3	6,363.1	24.2	22.0	-5.02	5,038.5	-971.8	5,287.8	5,241.9	45.89	115.232	
6,500.0	6,463.1	6,469.0	6,461.8	24.5	22.4	-5.02	5,038.7	-972.2	5,288.1	5,241.5	46.55	113.608	
6,600.0	6,563.1	6,567.3	6,560.1	24.8	22.7	-5.03	5,039.0	-972.8	5,288.4	5,241.2	47.21	112.031	
6,700.0	6,663.1	6,667.4	6,660.2	25.1	23.0	-5.04	5,039.3	-973.4	5,288.8	5,240.9	47.87	110.477	
6,800.0	6,763.1	6,768.4	6,761.1	25.4	23.4	-5.04	5,039.7	-973.9	5,289.2	5,240.6	48.54	108.958	
6,900.0	6,863.1	6,874.4	6,867.2	25.8	23.7	-5.05	5,039.9	-974.3	5,289.4	5,240.2	49.23	107.433	
7,000.0	6,963.1	6,986.3	6,979.0	26.1	24.1	-5.05	5,040.0	-974.9	5,289.6	5,239.7	49.95	105.901	
7,100.0	7,063.1	7,162.5	7,155.3	26.4	24.7	-5.07	5,038.7	-976.1	5,288.9	5,238.0	50.90	103.917	
7,200.0	7,163.1	7,301.6	7,294.3	26.7	25.2	-5.08	5,036.1	-976.8	5,287.1	5,235.4	51.71	102.243	
7,300.0	7,263.1	7,426.5	7,419.2	27.1	25.7	-5.08	5,033.0	-976.7	5,284.6	5,232.1	52.48	100.703	
7,400.0	7,363.1	7,543.6	7,536.3	27.4	26.1	-5.08	5,029.7	-976.3	5,281.8	5,228.6	53.22	99.250	
7,500.0	7,463.1	7,598.0	7,590.6	27.7	26.3	-5.08	5,028.4	-976.1	5,279.3	5,225.5	53.74	98.234	
7,600.0	7,563.1	7,654.3	7,646.9	28.1	26.5	-5.08	5,027.4	-975.9	5,277.6	5,223.3	54.27	97.246	
7,700.0	7,663.1	7,729.0	7,721.6	28.4	26.7	-5.07	5,026.9	-975.7	5,276.8	5,221.9	54.86	96.180	
7,800.0	7,763.1	7,818.6	7,811.2	28.7	27.0	-5.07	5,026.6	-975.3	5,276.3	5,220.8	55.51	95.051	
7,900.0	7,863.1	7,951.8	7,944.4	29.0	27.5	-5.06	5,025.4	-974.5	5,275.4	5,219.1	56.32	93.676	
8,000.0	7,963.1	8,044.8	8,037.4	29.4	27.8	-5.06	5,024.5	-973.8	5,274.3	5,217.4	56.98	92.568	
8,100.0	8,063.1	8,131.0	8,123.6	29.7	28.1	-5.05	5,023.6	-973.0	5,273.3	5,215.7	57.61	91.526	
8,200.0	8,163.1	8,194.5	8,187.1	30.0	28.4	-5.04	5,023.4	-972.6	5,272.8	5,214.6	58.17	90.649	
8,221.9	8,185.0	8,208.4	8,201.0	30.1	28.4	-5.04	5,023.4	-972.5	5,272.8	5,214.5	58.29	90.461	
8,300.0	8,263.1	8,258.0	8,250.6	30.4	28.6	-5.04	5,023.5	-972.2	5,273.0	5,214.3	58.72	89.804	
8,400.0	8,363.1	8,346.6	8,339.2	30.7	28.9	-5.03	5,024.3	-971.8	5,273.8	5,214.4	59.36	88.846	
8,500.0	8,463.1	8,470.3	8,462.9	31.0	29.3	-5.03	5,025.0	-971.2	5,274.3	5,214.2	60.13	87.715	
8,600.0	8,563.1	8,879.8	8,871.8	31.4	30.8	-4.84	5,016.0	-952.9	5,271.9	5,210.0	61.88	85.190	
8,700.0	8,663.1	8,872.0	8,863.9	31.7	30.8	-4.83	5,016.9	-952.1	5,267.8	5,205.6	62.23	84.651	
8,800.0	8,763.1	8,928.0	8,918.8	32.1	31.0	-4.72	5,016.4	-941.8	5,265.1	5,202.3	62.78	83.869	
8,900.0	8,863.1	8,928.0	8,918.8	32.4	31.0	-4.72	5,016.4	-941.8	5,263.4	5,200.2	63.12	83.393	
8,974.1	8,937.3	8,946.6	8,937.0	32.6	31.0	-4.67	5,016.6	-937.9	5,263.1	5,199.7	63.42	82.982	
9,000.0	8,963.1	8,950.8	8,941.1	32.7	31.0	-4.66	5,016.7	-937.1	5,263.3	5,199.7	63.52	82.857	
9,100.0	9,063.1	8,973.0	8,963.0	33.1	31.1	-4.62	5,017.4	-933.4	5,264.8	5,200.9	63.91	82.372	
9,200.0	9,163.1	8,992.0	8,981.8	33.4	31.2	-4.59	5,018.2	-930.7	5,267.8	5,203.6	64.28	81.950	
9,300.0	9,263.1	9,022.0	9,011.5	33.7	31.3	-4.55	5,019.8	-926.8	5,272.2	5,207.6	64.68	81.512	
9,400.0	9,363.1	9,062.0	9,051.1	34.1	31.4	-4.50	5,022.4	-922.4	5,277.9	5,212.8	65.11	81.057	
9,500.0	9,463.1	9,401.0	9,389.4	34.4	32.6	-4.41	5,038.5	-915.2	5,283.9	5,217.1	66.78	79.128	
9,600.0	9,563.1	9,401.0	9,389.4	34.8	32.6	-4.41	5,038.5	-915.2	5,286.5	5,219.5	67.07	78.821	
9,700.0	9,663.1	9,401.0	9,389.4	35.1	32.6	-4.41	5,038.5	-915.2	5,291.1	5,223.7	67.34	78.570	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 206-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.0	9,763.1	9,441.9	9,430.3	35.4	32.7	-4.41	5,040.1	-915.2	5,296.2	5,228.5	67.77	78.147	
9,900.0	9,863.1	9,454.4	9,442.8	35.8	32.8	-4.41	5,041.0	-915.2	5,303.6	5,235.6	68.07	77.917	
10,000.0	9,963.1	9,495.0	9,483.1	36.1	32.9	-4.40	5,045.5	-914.8	5,313.3	5,244.8	68.48	77.590	
10,100.0	10,063.1	9,495.0	9,483.1	36.5	32.9	-4.40	5,045.5	-914.8	5,323.5	5,254.9	68.69	77.506	
10,200.0	10,163.1	9,495.0	9,483.1	36.8	32.9	-4.40	5,045.5	-914.8	5,335.7	5,266.8	68.87	77.473	
10,300.0	10,263.1	9,495.0	9,483.1	37.1	32.9	-4.40	5,045.5	-914.8	5,349.6	5,280.6	69.04	77.490	
10,400.0	10,363.1	9,495.0	9,483.1	37.5	32.9	-4.40	5,045.5	-914.8	5,365.4	5,296.2	69.18	77.557	
10,500.0	10,463.1	9,495.0	9,483.1	37.8	32.9	-4.40	5,045.5	-914.8	5,383.0	5,313.7	69.30	77.672	
10,600.0	10,563.1	9,542.0	9,529.2	38.2	33.1	-4.38	5,054.6	-913.8	5,402.1	5,332.5	69.68	77.524	
10,700.0	10,663.1	9,542.0	9,529.2	38.5	33.1	-4.38	5,054.6	-913.8	5,422.5	5,352.7	69.78	77.711	
10,800.0	10,763.1	9,542.0	9,529.2	38.9	33.1	-4.38	5,054.6	-913.8	5,444.5	5,374.7	69.85	77.942	
10,900.0	10,863.1	9,542.0	9,529.2	39.2	33.1	-4.38	5,054.6	-913.8	5,468.4	5,398.5	69.91	78.219	
11,000.0	10,963.1	9,562.3	9,548.7	39.6	33.1	-4.37	5,059.9	-913.2	5,493.8	5,423.7	70.08	78.390	
11,100.0	11,063.1	9,589.0	9,574.5	39.9	33.2	-4.36	5,067.1	-912.7	5,520.4	5,450.1	70.29	78.542	
11,200.0	11,163.1	9,589.0	9,574.5	40.2	33.2	-4.36	5,067.1	-912.7	5,548.5	5,478.2	70.30	78.924	
11,300.0	11,263.1	9,589.0	9,574.5	40.6	33.2	-4.36	5,067.1	-912.7	5,578.3	5,508.0	70.30	79.348	
11,400.0	11,363.1	9,589.0	9,574.5	40.9	33.2	-4.36	5,067.1	-912.7	5,609.6	5,539.3	70.29	79.811	
11,500.0	11,463.1	9,636.0	9,618.9	41.3	33.3	-4.34	5,082.5	-912.5	5,642.3	5,571.7	70.59	79.926	
11,600.0	11,563.1	9,636.0	9,618.9	41.6	33.3	-4.34	5,082.5	-912.5	5,676.0	5,605.4	70.56	80.444	
11,700.0	11,663.1	9,636.0	9,618.9	42.0	33.3	-4.34	5,082.5	-912.5	5,711.3	5,640.8	70.51	80.999	
11,800.0	11,763.1	9,636.0	9,618.9	42.3	33.3	-4.34	5,082.5	-912.5	5,748.1	5,677.7	70.45	81.590	
11,900.0	11,863.1	9,636.0	9,618.9	42.7	33.3	-4.34	5,082.5	-912.5	5,786.5	5,716.1	70.38	82.216	
12,006.9	11,970.0	9,675.3	9,654.9	43.0	33.5	-4.34	5,098.0	-913.2	5,828.7	5,758.1	70.60	82.564	
12,050.0	12,013.1	9,675.3	9,654.9	43.2	33.5	3.46	5,098.0	-913.2	5,844.6	5,774.1	70.56	82.835	
12,100.0	12,062.7	9,675.3	9,654.9	43.3	33.5	3.36	5,098.0	-913.2	5,859.6	5,789.1	70.50	83.110	
12,150.0	12,111.7	9,683.0	9,662.0	43.5	33.5	3.30	5,101.2	-913.5	5,870.7	5,800.2	70.50	83.271	
12,200.0	12,159.5	9,683.0	9,662.0	43.7	33.5	3.26	5,101.2	-913.5	5,877.9	5,807.5	70.43	83.459	
12,250.0	12,205.9	9,683.0	9,662.0	43.8	33.5	3.24	5,101.2	-913.5	5,881.2	5,810.8	70.35	83.604	
12,300.0	12,250.5	9,683.0	9,662.0	43.9	33.5	3.24	5,101.2	-913.5	5,880.6	5,810.3	70.25	83.707	
12,350.0	12,293.0	9,704.7	9,681.5	44.1	33.5	3.28	5,110.6	-914.1	5,875.7	5,805.3	70.32	83.554	
12,400.0	12,333.0	9,730.0	9,703.9	44.2	33.6	3.34	5,122.3	-915.0	5,867.3	5,796.9	70.41	83.329	
12,450.0	12,370.3	9,730.0	9,703.9	44.3	33.6	3.41	5,122.3	-915.0	5,854.6	5,784.3	70.29	83.294	
12,500.0	12,404.5	9,730.0	9,703.9	44.3	33.6	3.52	5,122.3	-915.0	5,838.1	5,768.0	70.15	83.218	
12,550.0	12,435.4	9,730.0	9,703.9	44.4	33.6	3.66	5,122.3	-915.0	5,818.0	5,748.0	70.01	83.099	
12,600.0	12,462.7	9,730.0	9,703.9	44.5	33.6	3.83	5,122.3	-915.0	5,794.3	5,724.4	69.86	82.938	
12,650.0	12,486.3	9,730.0	9,703.9	44.5	33.6	4.06	5,122.3	-915.0	5,767.1	5,697.4	69.71	82.734	
12,700.0	12,506.0	9,730.0	9,703.9	44.6	33.6	4.34	5,122.3	-915.0	5,736.7	5,667.2	69.55	82.486	
12,750.0	12,521.6	9,730.0	9,703.9	44.7	33.6	4.69	5,122.3	-915.0	5,703.3	5,633.9	69.39	82.195	
12,800.0	12,533.0	9,730.0	9,703.9	44.7	33.6	5.15	5,122.3	-915.0	5,666.9	5,597.7	69.23	81.860	
12,850.0	12,540.1	9,730.0	9,703.9	44.9	33.6	5.74	5,122.3	-915.0	5,627.9	5,558.8	69.07	81.481	
12,900.0	12,542.9	9,730.0	9,703.9	45.0	33.6	6.53	5,122.3	-915.0	5,586.4	5,517.5	68.92	81.057	
12,915.3	12,542.9	9,730.0	9,703.9	45.0	33.6	6.83	5,122.3	-915.0	5,573.3	5,504.4	68.88	80.916	
13,000.0	12,541.7	9,753.2	9,724.1	45.3	33.7	4.01	5,133.7	-916.0	5,499.6	5,430.8	68.83	79.897	
13,100.0	12,540.2	9,777.0	9,744.2	45.6	33.7	0.64	5,146.4	-917.1	5,413.8	5,345.1	68.74	78.757	
13,200.0	12,538.7	9,777.0	9,744.2	46.0	33.7	-2.69	5,146.4	-917.1	5,327.8	5,259.4	68.42	77.872	
13,287.8	12,537.4	9,777.0	9,744.2	46.4	33.7	-5.55	5,146.4	-917.1	5,252.8	5,184.7	68.12	77.111	
13,300.0	12,537.2	9,777.0	9,744.2	46.5	33.7	-5.55	5,146.4	-917.1	5,242.5	5,174.4	68.08	77.006	
13,400.0	12,535.8	9,777.0	9,744.2	47.0	33.7	-5.55	5,146.4	-917.1	5,157.7	5,090.0	67.73	76.153	
13,500.0	12,534.3	9,777.0	9,744.2	47.5	33.7	-5.55	5,146.4	-917.1	5,073.4	5,006.1	67.37	75.310	
13,600.0	12,532.8	9,777.0	9,744.2	48.1	33.7	-5.55	5,146.4	-917.1	4,989.8	4,922.8	67.00	74.476	
13,700.0	12,531.3	9,777.0	9,744.2	48.7	33.7	-5.55	5,146.4	-917.1	4,906.7	4,840.1	66.62	73.653	
13,800.0	12,529.9	9,804.5	9,766.9	49.4	33.8	-5.62	5,161.9	-918.5	4,823.9	4,757.4	66.51	72.525	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 206-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,900.0	12,528.4	9,824.0	9,782.7	50.2	33.9	-5.67	5,173.2	-919.4	4,741.8	4,675.5	66.32	71.496	
14,000.0	12,526.9	9,824.0	9,782.7	51.0	33.9	-5.67	5,173.2	-919.4	4,660.2	4,594.3	65.93	70.690	
14,100.0	12,525.5	9,824.0	9,782.7	51.8	33.9	-5.67	5,173.2	-919.4	4,579.4	4,513.9	65.52	69.895	
14,200.0	12,524.0	9,843.6	9,798.3	52.6	33.9	-5.72	5,184.9	-920.3	4,499.0	4,433.7	65.32	68.882	
14,300.0	12,522.5	9,871.0	9,819.8	53.5	34.0	-5.79	5,202.0	-921.4	4,419.6	4,354.4	65.19	67.793	
14,400.0	12,521.0	9,871.0	9,819.8	54.5	34.0	-5.79	5,202.0	-921.4	4,340.6	4,275.8	64.77	67.018	
14,500.0	12,519.6	9,871.0	9,819.8	55.4	34.0	-5.79	5,202.0	-921.4	4,262.4	4,198.0	64.33	66.255	
14,600.0	12,518.1	9,871.0	9,819.8	56.4	34.0	-5.79	5,202.0	-921.4	4,185.1	4,121.2	63.89	65.505	
14,700.0	12,516.6	9,871.0	9,819.8	57.4	34.0	-5.79	5,202.0	-921.4	4,108.8	4,045.4	63.44	64.768	
14,800.0	12,515.1	9,895.1	9,838.1	58.5	34.1	-5.84	5,217.6	-922.4	4,032.9	3,969.6	63.27	63.741	
14,900.0	12,513.7	9,918.0	9,854.8	59.6	34.1	-5.90	5,233.3	-923.3	3,958.5	3,895.5	63.08	62.758	
15,000.0	12,512.2	9,918.0	9,854.8	60.7	34.1	-5.90	5,233.3	-923.3	3,884.7	3,822.1	62.62	62.041	
15,100.0	12,510.7	9,918.0	9,854.8	61.8	34.1	-5.90	5,233.3	-923.3	3,812.1	3,750.0	62.15	61.338	
15,200.0	12,509.3	9,918.0	9,854.8	63.0	34.1	-5.90	5,233.3	-923.3	3,740.8	3,679.1	61.68	60.646	
15,300.0	12,507.8	9,944.9	9,873.7	64.2	34.2	-5.97	5,252.3	-924.7	3,670.2	3,608.7	61.54	59.642	
15,400.0	12,506.3	9,966.0	9,888.2	65.4	34.3	-6.03	5,267.7	-925.9	3,601.0	3,539.7	61.34	58.710	
15,500.0	12,504.8	9,966.0	9,888.2	66.6	34.3	-6.03	5,267.7	-925.9	3,532.9	3,472.1	60.87	58.037	
15,600.0	12,503.4	9,966.0	9,888.2	67.8	34.3	-6.03	5,267.7	-925.9	3,466.4	3,406.0	60.42	57.375	
15,700.0	12,501.9	9,992.4	9,905.5	69.1	34.4	-6.10	5,287.6	-927.6	3,400.8	3,340.5	60.29	56.407	
15,800.0	12,500.4	10,013.0	9,918.4	70.3	34.5	-6.16	5,303.6	-928.9	3,337.0	3,276.9	60.11	55.518	
15,900.0	12,498.9	10,013.0	9,918.4	71.6	34.5	-6.16	5,303.6	-928.9	3,274.6	3,214.9	59.68	54.871	
16,000.0	12,497.5	10,013.0	9,918.4	72.9	34.5	-6.16	5,303.6	-928.9	3,214.0	3,154.8	59.26	54.232	
16,100.0	12,496.0	10,036.5	9,932.4	74.3	34.5	-6.22	5,322.4	-930.4	3,154.9	3,095.7	59.15	53.334	
16,200.0	12,494.5	10,060.0	9,945.4	75.6	34.6	-6.28	5,341.9	-931.8	3,097.9	3,038.8	59.06	52.452	
16,300.0	12,493.0	10,060.0	9,945.4	76.9	34.6	-6.28	5,341.9	-931.8	3,042.4	2,983.7	58.71	51.824	
16,400.0	12,491.6	10,060.0	9,945.4	78.3	34.6	-6.28	5,341.9	-931.8	2,989.3	2,931.0	58.38	51.202	
16,500.0	12,490.1	10,107.0	9,969.3	79.6	34.8	-6.40	5,382.3	-934.5	2,937.9	2,879.2	58.63	50.107	
16,600.0	12,488.6	10,113.8	9,972.5	81.0	34.8	-6.41	5,388.2	-934.9	2,888.3	2,829.9	58.44	49.422	
16,700.0	12,487.2	10,125.0	9,977.8	82.4	34.8	-6.44	5,398.1	-935.5	2,841.0	2,782.7	58.34	48.699	
16,800.0	12,485.7	10,155.0	9,991.1	83.8	35.0	-6.51	5,424.9	-937.2	2,796.0	2,737.6	58.47	47.816	
16,900.0	12,484.2	10,155.0	9,991.1	85.2	35.0	-6.51	5,424.9	-937.2	2,753.4	2,695.0	58.33	47.205	
17,000.0	12,482.7	10,155.0	9,991.1	86.6	35.0	-6.51	5,424.9	-937.2	2,713.7	2,655.5	58.23	46.600	
17,100.0	12,481.3	10,202.0	10,008.5	88.1	35.1	-6.61	5,468.5	-940.0	2,676.1	2,617.4	58.65	45.628	
17,200.0	12,479.8	10,202.0	10,008.5	89.5	35.1	-6.61	5,468.5	-940.0	2,641.2	2,582.5	58.66	45.027	
17,300.0	12,478.3	10,202.0	10,008.5	90.9	35.1	-6.61	5,468.5	-940.0	2,609.7	2,550.9	58.74	44.431	
17,400.0	12,476.8	10,229.4	10,016.7	92.4	35.2	-6.67	5,494.5	-941.7	2,580.6	2,521.5	59.11	43.660	
17,500.0	12,475.4	10,249.0	10,021.5	93.8	35.3	-6.71	5,513.5	-943.0	2,555.0	2,495.5	59.47	42.961	
17,600.0	12,473.9	10,266.8	10,025.2	95.3	35.4	-6.74	5,530.8	-944.1	2,532.3	2,472.4	59.89	42.283	
17,700.0	12,472.4	10,296.0	10,030.9	96.7	35.5	-6.79	5,559.5	-945.7	2,512.2	2,451.8	60.44	41.564	
17,800.0	12,471.0	10,344.0	10,039.0	98.2	35.7	-6.86	5,606.7	-948.1	2,494.6	2,433.4	61.16	40.786	
17,900.0	12,469.5	10,364.2	10,041.9	99.7	35.8	-6.90	5,626.7	-949.4	2,479.5	2,417.7	61.79	40.129	
18,000.0	12,468.0	10,391.0	10,044.8	101.2	35.9	-6.95	5,653.2	-951.6	2,467.5	2,405.0	62.53	39.464	
18,100.0	12,466.5	10,412.0	10,046.6	102.7	36.0	-7.00	5,674.1	-953.5	2,458.6	2,395.3	63.32	38.829	
18,200.0	12,465.1	10,438.0	10,048.0	104.2	36.1	-7.05	5,699.9	-955.8	2,452.7	2,388.5	64.20	38.202	
18,300.0	12,463.6	10,490.4	10,049.6	105.7	36.4	-7.15	5,752.1	-960.2	2,449.2	2,384.0	65.22	37.553	
18,400.0	12,462.1	10,547.2	10,050.1	107.2	36.7	-7.25	5,808.7	-964.9	2,447.7	2,381.4	66.28	36.931	
18,474.9	12,461.0	10,605.0	10,050.0	108.3	37.0	-7.36	5,866.3	-969.7	2,447.4	2,380.3	67.13	36.460	
18,500.0	12,460.6	10,626.0	10,049.9	108.7	37.1	-7.39	5,887.2	-971.5	2,447.4	2,380.0	67.42	36.303	
18,600.0	12,459.2	10,704.8	10,049.0	110.2	37.6	-7.54	5,965.7	-978.5	2,448.1	2,379.5	68.60	35.687	
18,700.0	12,457.7	10,816.7	10,047.5	111.7	38.4	-7.73	6,077.2	-987.6	2,449.0	2,379.1	69.88	35.046	
18,800.0	12,456.2	10,903.9	10,046.3	113.2	39.0	-7.87	6,164.2	-994.2	2,449.9	2,378.7	71.13	34.441	
18,900.0	12,454.8	10,983.0	10,044.5	114.8	39.6	-7.98	6,243.1	-999.5	2,451.4	2,379.0	72.38	33.868	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 206-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,000.0	12,453.3	11,080.8	10,041.5	116.3	40.4	-8.06	6,340.7	-1,003.9	2,453.5	2,379.8	73.67	33.306	
19,100.0	12,451.8	11,212.8	10,038.0	117.8	41.6	-8.11	6,472.6	-1,007.3	2,454.9	2,379.9	75.04	32.715	
19,200.0	12,450.3	11,319.3	10,035.6	119.3	42.6	-8.04	6,579.1	-1,005.3	2,455.3	2,379.0	76.31	32.177	
19,300.0	12,448.9	11,397.4	10,033.4	120.9	43.4	-7.98	6,657.2	-1,003.3	2,456.2	2,378.7	77.51	31.687	
19,400.0	12,447.4	11,562.0	10,028.4	122.4	45.0	-7.86	6,821.6	-999.8	2,458.1	2,379.1	78.97	31.126	
19,500.0	12,445.9	11,633.9	10,027.6	124.0	45.8	-7.81	6,893.5	-998.4	2,457.4	2,377.1	80.21	30.638	
19,600.0	12,444.4	11,793.5	10,027.0	125.5	47.6	-7.73	7,053.1	-995.7	2,455.9	2,374.2	81.74	30.044	
19,700.0	12,443.0	11,881.0	10,027.5	127.1	48.6	-7.70	7,140.6	-994.8	2,453.6	2,370.5	83.07	29.535	
19,800.0	12,441.5	11,966.7	10,027.5	128.6	49.6	-7.67	7,226.3	-994.2	2,451.9	2,367.5	84.41	29.049	
19,900.0	12,440.0	12,058.2	10,027.2	130.2	50.6	-7.64	7,317.7	-993.4	2,450.6	2,364.8	85.77	28.572	
20,000.0	12,438.6	12,140.1	10,026.4	131.7	51.6	-7.61	7,399.7	-992.6	2,449.9	2,362.8	87.10	28.126	
20,049.3	12,437.8	12,180.8	10,025.8	132.5	52.1	-7.59	7,440.4	-992.1	2,449.8	2,362.0	87.76	27.914	
20,100.0	12,437.1	12,219.0	10,025.0	133.3	52.6	-7.57	7,478.5	-991.6	2,449.9	2,361.4	88.42	27.706	
20,200.0	12,435.6	12,294.7	10,023.0	134.9	53.5	-7.53	7,554.2	-990.7	2,450.8	2,361.1	89.74	27.310	
20,300.0	12,434.1	12,361.2	10,020.5	136.4	54.4	-7.50	7,620.7	-990.2	2,453.0	2,361.9	91.02	26.949	
20,400.0	12,432.7	20,400.0	10,013.8	138.0	160.2	-7.50	7,808.2	-991.9	2,455.9	2,308.0	147.90	16.605 ES, SF	
20,500.0	12,431.2	12,716.5	10,016.5	139.6	59.1	-7.61	7,975.6	-997.5	2,452.8	2,358.0	94.72	25.895	
20,600.0	12,429.7	12,804.8	10,018.5	141.1	60.3	-7.70	8,063.8	-1,001.6	2,449.6	2,353.4	96.23	25.456	
20,700.0	12,428.2	12,903.6	10,020.5	142.7	61.6	-7.81	8,162.5	-1,006.6	2,446.7	2,348.8	97.81	25.015	
20,800.0	12,426.8	12,996.0	10,022.4	144.3	62.9	-7.92	8,254.7	-1,011.6	2,443.8	2,344.4	99.37	24.594	
20,900.0	12,425.3	13,079.5	10,023.7	145.9	64.0	-8.03	8,338.0	-1,016.7	2,441.6	2,340.7	100.90	24.199	
21,000.0	12,423.8	13,187.0	10,024.9	147.4	65.6	-8.13	8,445.4	-1,021.2	2,439.5	2,337.0	102.52	23.795	
21,100.0	12,422.4	13,284.8	10,026.1	149.0	66.9	-8.20	8,543.1	-1,024.9	2,437.2	2,333.1	104.10	23.412	
21,200.0	12,420.9	13,369.1	10,026.8	150.6	68.1	-8.27	8,627.4	-1,028.1	2,435.4	2,329.8	105.61	23.060	
21,300.0	12,419.4	13,439.0	10,026.7	152.2	69.1	-8.28	8,697.3	-1,029.1	2,434.3	2,327.3	107.01	22.748	
21,333.5	12,418.9	13,466.2	10,026.3	152.7	69.5	-8.28	8,724.4	-1,029.0	2,434.2	2,326.7	107.49	22.646 CC	
21,400.0	12,417.9	13,503.4	10,025.5	153.8	70.1	-8.26	8,761.6	-1,028.8	2,434.6	2,326.2	108.35	22.469	
21,500.0	12,416.5	13,571.6	10,022.9	155.3	71.0	-8.23	8,829.8	-1,028.1	2,436.6	2,326.9	109.68	22.214	
21,600.0	12,415.0	13,655.5	10,019.0	156.9	72.3	-8.18	8,913.6	-1,027.2	2,439.4	2,328.3	111.09	21.960	
21,700.0	12,413.5	13,863.9	10,012.5	158.5	75.3	-8.09	9,121.8	-1,025.1	2,441.3	2,328.2	113.07	21.592	
21,800.0	12,412.0	13,955.7	10,012.0	160.1	76.6	-8.04	9,213.7	-1,023.7	2,440.1	2,325.6	114.52	21.307	
21,900.0	12,410.6	14,034.4	10,011.0	161.7	77.8	-8.00	9,292.4	-1,022.5	2,439.5	2,323.6	115.92	21.045	
21,905.2	12,410.5	14,038.1	10,010.9	161.8	77.9	-7.99	9,296.0	-1,022.4	2,439.5	2,323.5	115.99	21.032	
22,000.0	12,409.1	14,105.8	10,009.4	163.3	78.9	-7.96	9,363.7	-1,021.5	2,440.1	2,322.8	117.28	20.805	
22,100.0	12,407.6	14,182.8	10,006.8	164.9	80.0	-7.93	9,440.7	-1,020.8	2,441.6	2,323.0	118.67	20.575	
22,200.0	12,406.1	14,386.3	10,004.5	166.5	83.0	-7.86	9,644.2	-1,019.4	2,440.6	2,319.9	120.66	20.227	
22,300.0	12,404.7	14,462.3	10,004.6	168.1	84.2	-7.84	9,720.1	-1,019.3	2,438.9	2,316.8	122.09	19.977	
22,370.5	12,403.6	14,503.5	10,004.2	169.2	84.8	-7.84	9,761.3	-1,019.4	2,438.4	2,315.4	123.04	19.819	
22,400.0	12,403.2	14,518.7	10,004.0	169.7	85.0	-7.84	9,776.5	-1,019.5	2,438.5	2,315.1	123.42	19.758	
22,500.0	12,401.7	14,571.0	10,002.4	171.3	85.8	-7.84	9,828.8	-1,020.0	2,440.1	2,315.4	124.72	19.565	
22,600.0	12,400.3	14,629.4	9,999.6	172.9	86.7	-7.84	9,887.1	-1,020.9	2,443.5	2,317.5	126.03	19.388	
22,700.0	12,398.8	14,699.1	9,995.1	174.5	87.8	-7.85	9,956.7	-1,022.2	2,448.5	2,321.1	127.40	19.220	
22,787.3	12,397.5	14,770.7	9,990.1	175.7	88.9	-7.86	10,028.0	-1,023.9	2,453.5	2,325.3	128.21	19.137	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	-90.70	-1.7	-140.0	140.0				
100.0	100.0	101.0	101.0	0.1	0.1	-90.70	-1.7	-140.0	140.0	139.8	0.26	538.745	
200.0	200.0	201.0	201.0	0.5	0.5	-90.70	-1.7	-140.0	140.0	139.0	0.98	143.336	
300.0	300.0	301.0	301.0	0.8	0.8	-90.70	-1.7	-140.0	140.0	138.3	1.69	82.665	
400.0	400.0	401.0	401.0	1.2	1.2	-90.70	-1.7	-140.0	140.0	137.6	2.41	58.080	
500.0	500.0	501.0	501.0	1.6	1.6	-90.70	-1.7	-140.0	140.0	136.9	3.13	44.767	
600.0	600.0	601.0	601.0	1.9	1.9	-90.70	-1.7	-140.0	140.0	136.2	3.84	36.419	
700.0	700.0	701.0	701.0	2.3	2.3	-90.70	-1.7	-140.0	140.0	135.5	4.56	30.695	
800.0	800.0	801.0	801.0	2.6	2.6	-90.70	-1.7	-140.0	140.0	134.7	5.28	26.526	
900.0	900.0	901.0	901.0	3.0	3.0	-90.70	-1.7	-140.0	140.0	134.0	6.00	23.354	
1,000.0	1,000.0	1,001.0	1,001.0	3.4	3.4	-90.70	-1.7	-140.0	140.0	133.3	6.71	20.859	
1,100.0	1,100.0	1,101.0	1,101.0	3.7	3.7	-90.70	-1.7	-140.0	140.0	132.6	7.43	18.846	
1,200.0	1,200.0	1,201.0	1,201.0	4.1	4.1	-90.70	-1.7	-140.0	140.0	131.9	8.15	17.188	
1,300.0	1,300.0	1,301.0	1,301.0	4.4	4.4	-90.70	-1.7	-140.0	140.0	131.2	8.86	15.797	
1,400.0	1,400.0	1,401.0	1,401.0	4.8	4.8	-90.70	-1.7	-140.0	140.0	130.4	9.58	14.615	
1,500.0	1,500.0	1,501.0	1,501.0	5.1	5.2	-90.70	-1.7	-140.0	140.0	129.7	10.30	13.598	
1,600.0	1,600.0	1,601.0	1,601.0	5.5	5.5	23.67	-1.7	-140.0	139.2	128.2	11.00	12.654	
1,700.0	1,700.0	1,701.0	1,701.0	5.8	5.9	24.12	-1.7	-140.0	136.8	125.1	11.70	11.699	
1,800.0	1,799.9	1,798.7	1,798.7	6.2	6.2	24.77	-2.0	-140.8	133.7	121.3	12.37	10.806	
1,900.0	1,899.7	1,896.5	1,896.4	6.5	6.5	25.54	-2.7	-143.2	130.6	117.6	13.04	10.018	
2,000.0	1,999.4	1,994.3	1,994.2	6.9	6.9	26.45	-3.9	-147.2	127.6	113.9	13.71	9.310	
2,100.0	2,098.9	2,092.2	2,091.9	7.2	7.2	27.49	-5.7	-152.8	124.7	110.3	14.38	8.672	
2,200.0	2,198.3	2,190.2	2,189.6	7.6	7.5	28.68	-7.9	-160.0	121.8	106.8	15.05	8.097	
2,300.0	2,297.4	2,288.2	2,287.2	7.9	7.9	30.02	-10.6	-168.8	119.1	103.4	15.72	7.577	
2,400.0	2,396.4	2,386.3	2,384.6	8.3	8.2	31.29	-13.8	-179.2	117.3	100.9	16.40	7.152	
2,463.2	2,459.0	2,448.3	2,446.2	8.5	8.5	31.93	-16.1	-186.6	117.0	100.2	16.84	6.950 CC	
2,500.0	2,495.5	2,484.4	2,482.0	8.7	8.6	32.24	-17.5	-191.2	117.1	100.0	17.09	6.854 ES	
2,600.0	2,594.5	2,584.1	2,580.7	9.1	9.0	32.98	-21.6	-204.5	117.9	100.1	17.80	6.625	
2,700.0	2,693.5	2,684.1	2,679.7	9.5	9.3	33.70	-25.7	-217.8	118.8	100.3	18.53	6.412	
2,800.0	2,792.5	2,784.1	2,778.8	9.8	9.7	34.41	-29.8	-231.1	119.7	100.4	19.25	6.215	
2,900.0	2,891.6	2,884.1	2,877.8	10.2	10.1	35.11	-33.9	-244.4	120.6	100.6	19.99	6.031	
3,000.0	2,990.6	2,984.1	2,976.8	10.6	10.5	35.80	-38.0	-257.7	121.5	100.7	20.73	5.860	
3,100.0	3,089.6	3,084.1	3,075.8	11.0	10.9	36.48	-42.1	-271.0	122.4	100.9	21.47	5.700	
3,200.0	3,188.6	3,184.1	3,174.8	11.4	11.3	37.15	-46.2	-284.3	123.3	101.1	22.22	5.550	
3,300.0	3,287.7	3,284.0	3,273.8	11.8	11.7	37.81	-50.3	-297.6	124.3	101.3	22.97	5.410	
3,400.0	3,386.7	3,384.0	3,372.8	12.2	12.1	38.46	-54.4	-310.9	125.3	101.5	23.73	5.279	
3,500.0	3,485.7	3,484.0	3,471.8	12.6	12.5	39.10	-58.5	-324.2	126.3	101.8	24.49	5.156	
3,600.0	3,584.8	3,584.0	3,570.8	13.0	12.9	39.73	-62.6	-337.5	127.3	102.0	25.26	5.040	
3,700.0	3,683.8	3,684.0	3,669.9	13.4	13.3	40.35	-66.7	-350.8	128.3	102.3	26.02	4.930	
3,800.0	3,782.8	3,784.0	3,768.9	13.8	13.7	40.96	-70.8	-364.0	129.3	102.5	26.79	4.827	
3,900.0	3,881.8	3,884.0	3,867.9	14.3	14.1	41.56	-74.9	-377.3	130.4	102.8	27.57	4.730	
4,000.0	3,980.9	3,983.9	3,966.9	14.7	14.5	42.15	-79.0	-390.6	131.5	103.1	28.34	4.638	
4,100.0	4,079.9	4,083.9	4,065.9	15.1	14.9	42.73	-83.1	-403.9	132.5	103.4	29.12	4.551	
4,200.0	4,178.9	4,183.9	4,164.9	15.5	15.3	43.30	-87.2	-417.2	133.6	103.7	29.91	4.468	
4,300.0	4,277.9	4,283.9	4,263.9	15.9	15.7	43.86	-91.3	-430.5	134.7	104.0	30.69	4.390	
4,400.0	4,377.0	4,383.9	4,362.9	16.3	16.1	44.42	-95.4	-443.8	135.9	104.4	31.48	4.316	
4,500.0	4,476.0	4,483.9	4,462.0	16.7	16.5	44.96	-99.5	-457.1	137.0	104.7	32.27	4.245	
4,600.0	4,575.0	4,583.8	4,561.0	17.1	16.9	45.49	-103.6	-470.4	138.1	105.1	33.06	4.178	
4,700.0	4,674.0	4,683.8	4,660.0	17.5	17.3	46.02	-107.7	-483.7	139.3	105.4	33.86	4.114	
4,800.0	4,773.1	4,783.8	4,759.0	18.0	17.7	46.54	-111.8	-497.0	140.5	105.8	34.66	4.053	
4,900.0	4,872.1	4,883.8	4,858.0	18.4	18.1	47.04	-115.9	-510.3	141.6	106.2	35.46	3.995	
5,000.0	4,971.1	4,983.8	4,957.0	18.8	18.6	47.54	-120.0	-523.6	142.8	106.6	36.26	3.939	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.2	5,083.8	5,056.0	19.2	19.0	48.04	-124.1	-536.9	144.0	107.0	37.06	3.886	
5,200.0	5,169.2	5,183.8	5,155.0	19.6	19.4	48.52	-128.2	-550.2	145.2	107.4	37.87	3.836	
5,300.0	5,268.2	5,283.7	5,254.1	20.0	19.8	48.99	-132.3	-563.5	146.5	107.8	38.67	3.787	
5,400.0	5,367.2	5,383.7	5,353.1	20.5	20.2	49.46	-136.4	-576.8	147.7	108.2	39.48	3.741	
5,500.0	5,466.3	5,483.7	5,452.1	20.9	20.6	49.92	-140.5	-590.1	148.9	108.6	40.29	3.696	
5,600.0	5,565.3	5,583.7	5,551.1	21.3	21.0	50.37	-144.6	-603.4	150.2	109.1	41.11	3.654	
5,643.3	5,608.2	5,627.0	5,594.0	21.5	21.2	50.57	-146.4	-609.2	150.7	109.3	41.46	3.636	
5,700.0	5,664.4	5,683.7	5,650.1	21.7	21.5	50.71	-148.7	-616.7	151.7	109.8	41.91	3.620 SF	
5,800.0	5,763.7	5,783.6	5,749.1	22.1	21.9	50.37	-152.8	-630.0	154.7	112.1	42.67	3.626	
5,900.0	5,863.4	5,883.5	5,847.9	22.5	22.3	49.35	-156.9	-643.3	159.5	116.1	43.38	3.676	
6,000.0	5,963.2	5,983.1	5,946.6	22.8	22.7	47.74	-161.0	-656.5	166.0	122.0	44.05	3.769	
6,100.0	6,063.1	6,082.6	6,045.1	23.2	23.1	45.66	-165.1	-669.8	174.5	129.8	44.67	3.906	
6,176.7	6,139.8	6,158.6	6,120.4	23.4	23.4	-70.39	-168.2	-679.9	182.4	137.3	45.12	4.043	
6,200.0	6,163.1	6,181.7	6,143.3	23.5	23.5	-70.99	-169.1	-682.9	185.0	139.8	45.25	4.089	
6,300.0	6,263.1	6,280.7	6,241.3	23.8	23.9	-73.38	-173.2	-696.1	196.5	150.7	45.82	4.288	
6,400.0	6,363.1	6,379.7	6,339.4	24.2	24.4	-75.50	-177.2	-709.3	208.2	161.8	46.41	4.486	
6,500.0	6,463.1	6,478.8	6,437.5	24.5	24.8	-77.40	-181.3	-722.4	220.2	173.2	47.02	4.684	
6,600.0	6,563.1	6,577.8	6,535.5	24.8	25.2	-79.09	-185.4	-735.6	232.4	184.8	47.63	4.880	
6,700.0	6,663.1	6,676.8	6,633.6	25.1	25.6	-80.62	-189.4	-748.8	244.8	196.6	48.26	5.073	
6,800.0	6,763.1	6,775.9	6,731.6	25.4	26.0	-82.00	-193.5	-762.0	257.4	208.5	48.90	5.264	
6,900.0	6,863.1	6,874.9	6,829.7	25.8	26.4	-83.26	-197.5	-775.1	270.1	220.5	49.54	5.452	
7,000.0	6,963.1	6,973.9	6,927.8	26.1	26.8	-84.39	-201.6	-788.3	282.9	232.7	50.19	5.636	
7,100.0	7,063.1	7,072.9	7,025.8	26.4	27.3	-85.44	-205.7	-801.5	295.8	244.9	50.85	5.817	
7,200.0	7,163.1	7,172.0	7,123.9	26.7	27.7	-86.39	-209.7	-814.6	308.8	257.3	51.51	5.994	
7,300.0	7,263.1	7,271.0	7,222.0	27.1	28.1	-87.27	-213.8	-827.8	321.8	269.7	52.18	6.168	
7,400.0	7,363.1	7,370.0	7,320.0	27.4	28.5	-88.07	-217.8	-841.0	335.0	282.1	52.85	6.338	
7,500.0	7,463.1	7,469.0	7,418.1	27.7	28.9	-88.82	-221.9	-854.1	348.2	294.6	53.52	6.505	
7,600.0	7,563.1	7,577.5	7,525.7	28.1	29.4	-89.51	-225.9	-867.2	360.2	305.9	54.29	6.635	
7,700.0	7,663.1	7,687.0	7,634.7	28.4	29.8	-90.01	-229.1	-877.4	369.5	314.5	55.02	6.715	
7,800.0	7,763.1	7,797.1	7,744.4	28.7	30.2	-90.35	-231.3	-884.7	376.1	320.4	55.73	6.749	
7,900.0	7,863.1	7,907.4	7,854.7	29.0	30.6	-90.55	-232.6	-888.9	380.0	323.6	56.39	6.738	
8,000.0	7,963.1	8,018.0	7,965.3	29.4	30.9	-90.60	-233.0	-890.1	381.1	324.1	57.01	6.684	
8,004.6	7,967.7	8,023.1	7,970.4	29.4	31.0	-90.60	-233.0	-890.1	381.0	324.0	57.04	6.681	
8,100.0	8,063.1	8,116.9	8,064.1	29.7	31.3	-90.60	-233.0	-890.2	381.1	323.4	57.69	6.606	
8,200.0	8,163.1	8,216.9	8,164.1	30.0	31.6	-90.60	-233.0	-890.2	381.1	322.7	58.37	6.529	
8,300.0	8,263.1	8,316.9	8,264.1	30.4	31.9	-90.60	-233.0	-890.2	381.1	322.0	59.04	6.454	
8,400.0	8,363.1	8,416.9	8,364.1	30.7	32.2	-90.60	-233.0	-890.2	381.1	321.4	59.72	6.381	
8,500.0	8,463.1	8,516.9	8,464.1	31.0	32.5	-90.60	-233.0	-890.2	381.1	320.7	60.40	6.309	
8,600.0	8,563.1	8,616.9	8,564.1	31.4	32.8	-90.60	-233.0	-890.2	381.1	320.0	61.08	6.239	
8,700.0	8,663.1	8,716.9	8,664.1	31.7	33.2	-90.60	-233.0	-890.2	381.1	319.3	61.76	6.170	
8,800.0	8,763.1	8,816.9	8,764.1	32.1	33.5	-90.60	-233.0	-890.2	381.1	318.6	62.44	6.103	
8,900.0	8,863.1	8,916.9	8,864.1	32.4	33.8	-90.60	-233.0	-890.2	381.1	318.0	63.12	6.037	
9,000.0	8,963.1	9,016.9	8,964.1	32.7	34.1	-90.60	-233.0	-890.2	381.1	317.3	63.81	5.972	
9,100.0	9,063.1	9,116.9	9,064.1	33.1	34.4	-90.60	-233.0	-890.2	381.1	316.6	64.49	5.909	
9,200.0	9,163.1	9,216.9	9,164.1	33.4	34.8	-90.60	-233.0	-890.2	381.1	315.9	65.17	5.847	
9,300.0	9,263.1	9,316.9	9,264.1	33.7	35.1	-90.60	-233.0	-890.2	381.1	315.2	65.86	5.786	
9,400.0	9,363.1	9,416.9	9,364.1	34.1	35.4	-90.60	-233.0	-890.2	381.1	314.5	66.54	5.727	
9,500.0	9,463.1	9,516.9	9,464.1	34.4	35.7	-90.60	-233.0	-890.2	381.1	313.8	67.23	5.668	
9,600.0	9,563.1	9,616.9	9,564.1	34.8	36.1	-90.60	-233.0	-890.2	381.1	313.2	67.92	5.611	
9,700.0	9,663.1	9,716.9	9,664.1	35.1	36.4	-90.60	-233.0	-890.2	381.1	312.5	68.61	5.555	
9,800.0	9,763.1	9,816.9	9,764.1	35.4	36.7	-90.60	-233.0	-890.2	381.1	311.8	69.29	5.499	
9,900.0	9,863.1	9,916.9	9,864.1	35.8	37.0	-90.60	-233.0	-890.2	381.1	311.1	69.98	5.445	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,000.0	9,963.1	10,016.9	9,964.1	36.1	37.4	-90.60	-233.0	-890.2	381.1	310.4	70.67	5.392	
10,100.0	10,063.1	10,116.9	10,064.1	36.5	37.7	-90.60	-233.0	-890.2	381.1	309.7	71.36	5.340	
10,200.0	10,163.1	10,216.9	10,164.1	36.8	38.0	-90.60	-233.0	-890.2	381.1	309.0	72.05	5.289	
10,214.5	10,177.6	10,231.3	10,178.6	36.9	38.1	-90.60	-233.0	-890.2	381.1	308.9	72.15	5.282	
10,300.0	10,263.1	10,316.6	10,263.9	37.1	38.4	-90.60	-233.0	-890.2	381.1	308.3	72.74	5.239	
10,400.0	10,363.1	10,411.1	10,357.9	37.5	38.7	-89.29	-224.3	-890.9	381.8	308.3	73.50	5.195	
10,500.0	10,463.1	10,500.5	10,444.3	37.8	38.9	-85.97	-202.0	-892.7	385.0	310.7	74.30	5.182	
10,600.0	10,563.1	10,581.2	10,518.6	38.2	39.1	-81.39	-170.5	-895.2	393.1	318.2	74.94	5.246	
10,700.0	10,663.1	10,651.9	10,579.3	38.5	39.3	-76.38	-134.7	-898.1	409.1	334.1	74.99	5.455	
10,800.0	10,763.1	10,712.4	10,627.6	38.9	39.4	-71.55	-98.3	-901.0	435.1	361.0	74.11	5.871	
10,900.0	10,863.1	10,763.9	10,665.4	39.2	39.5	-67.25	-63.5	-903.8	471.9	399.7	72.22	6.535	
11,000.0	10,963.1	10,807.4	10,694.8	39.6	39.5	-63.57	-31.5	-906.4	519.0	449.4	69.57	7.460	
11,100.0	11,063.1	10,850.0	10,721.1	39.9	39.6	-60.01	1.8	-909.1	575.2	508.4	66.82	8.609	
11,200.0	11,163.1	10,875.8	10,735.8	40.2	39.6	-57.90	23.0	-910.8	638.9	575.5	63.45	10.070	
11,300.0	11,263.1	10,900.0	10,748.7	40.6	39.7	-55.97	43.3	-912.4	708.8	648.4	60.38	11.740	
11,400.0	11,363.1	10,926.1	10,761.7	40.9	39.7	-53.94	66.0	-914.2	783.6	725.8	57.83	13.550	
11,500.0	11,463.1	10,950.0	10,772.7	41.3	39.7	-52.15	87.1	-915.9	862.3	806.7	55.60	15.508	
11,600.0	11,563.1	10,964.2	10,778.7	41.6	39.7	-51.12	99.9	-916.9	944.1	890.8	53.36	17.692	
11,700.0	11,663.1	10,979.8	10,785.1	42.0	39.7	-50.01	114.1	-918.1	1,028.5	976.9	51.57	19.944	
11,800.0	11,763.1	11,000.0	10,792.6	42.3	39.8	-48.61	132.8	-919.6	1,115.0	1,064.7	50.23	22.199	
11,900.0	11,863.1	11,000.0	10,792.6	42.7	39.8	-48.61	132.8	-919.6	1,203.1	1,154.6	48.49	24.809	
12,006.9	11,970.0	11,017.8	10,798.8	43.0	39.8	-47.42	149.4	-920.9	1,298.8	1,251.3	47.48	27.354	
12,050.0	12,013.1	11,022.7	10,800.4	43.2	39.8	-34.14	154.0	-921.3	1,337.3	1,290.2	47.03	28.437	
12,100.0	12,062.7	11,029.2	10,802.4	43.3	39.8	-29.30	160.2	-921.8	1,380.6	1,334.1	46.48	29.705	
12,150.0	12,111.7	11,050.0	10,808.6	43.5	39.8	-25.19	180.0	-923.4	1,422.5	1,376.2	46.26	30.752	
12,200.0	12,159.5	11,050.0	10,808.6	43.7	39.8	-22.55	180.0	-923.4	1,462.1	1,416.7	45.46	32.162	
12,250.0	12,205.9	11,050.0	10,808.6	43.8	39.8	-20.43	180.0	-923.4	1,500.0	1,455.3	44.67	33.582	
12,300.0	12,250.5	11,050.0	10,808.6	43.9	39.8	-18.71	180.0	-923.4	1,535.8	1,491.9	43.88	34.999	
12,350.0	12,293.0	11,072.8	10,814.4	44.1	39.8	-17.04	201.9	-925.2	1,568.9	1,525.3	43.59	35.993	
12,400.0	12,333.0	11,100.0	10,820.3	44.2	39.9	-15.66	228.4	-927.3	1,600.0	1,556.6	43.36	36.902	
12,450.0	12,370.3	11,100.0	10,820.3	44.3	39.9	-14.77	228.4	-927.3	1,627.8	1,585.2	42.59	38.218	
12,500.0	12,404.5	11,100.0	10,820.3	44.3	39.9	-14.04	228.4	-927.3	1,653.2	1,611.3	41.88	39.470	
12,550.0	12,435.4	11,100.0	10,820.3	44.4	39.9	-13.43	228.4	-927.3	1,676.0	1,634.8	41.24	40.636	
12,600.0	12,462.7	11,128.3	10,825.0	44.5	39.9	-12.79	256.2	-929.5	1,695.3	1,654.3	41.06	41.285	
12,650.0	12,486.3	11,150.0	10,827.7	44.5	40.0	-12.31	277.7	-931.3	1,712.0	1,671.2	40.81	41.956	
12,700.0	12,506.0	11,150.0	10,827.7	44.6	40.0	-12.01	277.7	-931.3	1,725.5	1,685.1	40.34	42.770	
12,750.0	12,521.6	11,150.0	10,827.7	44.7	40.0	-11.79	277.7	-931.3	1,736.1	1,696.1	39.99	43.410	
12,800.0	12,533.0	11,177.1	10,830.0	44.7	40.0	-11.56	304.6	-933.4	1,743.2	1,703.2	39.94	43.639	
12,850.0	12,540.1	11,200.0	10,830.9	44.9	40.1	-11.42	327.4	-935.3	1,747.4	1,707.5	39.91	43.787	
12,900.0	12,542.9	11,200.0	10,830.9	45.0	40.1	-11.40	327.4	-935.3	1,748.1	1,708.3	39.83	43.890	
12,915.3	12,542.9	11,205.9	10,830.9	45.0	40.1	-11.40	333.3	-935.7	1,747.7	1,707.9	39.85	43.858	
13,000.0	12,541.7	11,272.8	10,830.6	45.3	40.2	-11.31	400.0	-940.5	1,746.0	1,705.9	40.12	43.517	
13,100.0	12,540.2	11,386.1	10,829.9	45.6	40.6	-11.14	513.2	-945.0	1,744.2	1,703.6	40.57	42.994	
13,200.0	12,538.7	11,509.8	10,829.3	46.0	41.1	-10.99	617.3	-946.1	1,742.4	1,701.3	41.14	42.354	
13,287.8	12,537.4	11,578.0	10,828.7	46.4	41.4	-10.95	705.1	-946.7	1,741.4	1,699.8	41.61	41.847	
13,300.0	12,537.2	11,609.8	10,828.6	46.5	41.6	-10.95	717.3	-946.8	1,741.3	1,699.5	41.77	41.687	
13,400.0	12,535.8	11,709.8	10,828.0	47.0	42.1	-10.95	817.3	-947.6	1,740.5	1,698.0	42.49	40.965	
13,500.0	12,534.3	11,809.8	10,827.4	47.5	42.7	-10.96	917.2	-948.4	1,739.6	1,696.4	43.26	40.218	
13,600.0	12,532.8	11,909.9	10,826.8	48.1	43.4	-10.96	1,017.2	-949.1	1,738.8	1,694.7	44.07	39.452	
13,700.0	12,531.3	12,009.9	10,826.2	48.7	44.1	-10.97	1,117.2	-949.9	1,737.9	1,693.0	44.94	38.675	
13,800.0	12,529.9	12,090.1	10,825.6	49.4	44.7	-10.97	1,217.2	-950.7	1,737.1	1,691.3	45.75	37.973	
13,900.0	12,528.4	12,190.1	10,825.0	50.2	45.5	-10.98	1,317.2	-951.4	1,736.2	1,689.5	46.69	37.185	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,000.0	12,526.9	12,309.9	10,824.4	51.0	46.5	-10.98	1,417.2	-952.2	1,735.4	1,687.6	47.78	36.317	
14,100.0	12,525.5	12,409.9	10,823.7	51.8	47.4	-10.99	1,517.2	-953.0	1,734.5	1,685.7	48.81	35.536	
14,200.0	12,524.0	12,509.9	10,823.1	52.6	48.4	-10.99	1,617.2	-953.8	1,733.7	1,683.8	49.87	34.763	
14,300.0	12,522.5	12,609.9	10,822.5	53.5	49.3	-11.00	1,717.2	-954.5	1,732.8	1,681.9	50.96	34.002	
14,400.0	12,521.0	12,709.9	10,821.9	54.5	50.4	-11.00	1,817.2	-955.3	1,732.0	1,679.9	52.09	33.252	
14,500.0	12,519.6	12,809.9	10,821.3	55.4	51.4	-11.01	1,917.2	-956.1	1,731.2	1,677.9	53.24	32.517	
14,600.0	12,518.1	12,909.9	10,820.7	56.4	52.5	-11.01	2,017.2	-956.8	1,730.3	1,675.9	54.42	31.798	
14,700.0	12,516.6	13,009.9	10,820.1	57.4	53.6	-11.02	2,117.1	-957.6	1,729.5	1,673.8	55.62	31.095	
14,800.0	12,515.1	13,109.9	10,819.5	58.5	54.7	-11.02	2,217.1	-958.4	1,728.6	1,671.8	56.84	30.409	
14,900.0	12,513.7	13,209.9	10,818.9	59.6	55.9	-11.03	2,317.1	-959.1	1,727.8	1,669.7	58.09	29.741	
15,000.0	12,512.2	13,309.9	10,818.2	60.7	57.1	-11.03	2,417.1	-959.9	1,726.9	1,667.6	59.36	29.091	
15,100.0	12,510.7	13,409.9	10,817.6	61.8	58.3	-11.04	2,517.1	-960.7	1,726.1	1,665.4	60.65	28.460	
15,200.0	12,509.3	13,509.9	10,817.0	63.0	59.5	-11.05	2,617.1	-961.5	1,725.2	1,663.3	61.96	27.846	
15,300.0	12,507.8	13,609.9	10,816.4	64.2	60.8	-11.05	2,717.1	-962.2	1,724.4	1,661.1	63.28	27.250	
15,400.0	12,506.3	13,690.1	10,815.8	65.4	61.8	-11.06	2,817.1	-963.0	1,723.5	1,659.0	64.48	26.730	
15,500.0	12,504.8	13,809.9	10,815.2	66.6	63.3	-11.06	2,917.1	-963.8	1,722.7	1,656.7	65.97	26.112	
15,600.0	12,503.4	13,909.9	10,814.6	67.8	64.6	-11.07	3,017.1	-964.5	1,721.8	1,654.5	67.34	25.569	
15,700.0	12,501.9	14,009.9	10,814.0	69.1	65.9	-11.07	3,117.1	-965.3	1,721.0	1,652.3	68.72	25.043	
15,800.0	12,500.4	14,109.9	10,813.3	70.3	67.3	-11.08	3,217.1	-966.1	1,720.1	1,650.0	70.12	24.533	
15,900.0	12,498.9	14,209.9	10,812.7	71.6	68.6	-11.08	3,317.0	-966.8	1,719.3	1,647.8	71.52	24.038	
16,000.0	12,497.5	14,290.1	10,812.1	72.9	69.7	-11.09	3,417.0	-967.6	1,718.4	1,645.7	72.79	23.607	
16,100.0	12,496.0	14,390.1	10,811.5	74.3	71.1	-11.09	3,517.0	-968.4	1,717.6	1,643.4	74.22	23.142	
16,200.0	12,494.5	14,509.9	10,810.9	75.6	72.8	-11.10	3,617.0	-969.2	1,716.8	1,640.9	75.81	22.647	
16,300.0	12,493.0	14,610.0	10,810.3	76.9	74.1	-11.10	3,717.0	-969.9	1,715.9	1,638.7	77.25	22.212	
16,400.0	12,491.6	14,710.0	10,809.7	78.3	75.6	-11.11	3,817.0	-970.7	1,715.1	1,636.4	78.71	21.790	
16,500.0	12,490.1	14,810.0	10,809.1	79.6	77.0	-11.11	3,917.0	-971.5	1,714.2	1,634.0	80.17	21.381	
16,600.0	12,488.6	14,910.0	10,808.4	81.0	78.4	-11.12	4,017.0	-972.2	1,713.4	1,631.7	81.65	20.985	
16,700.0	12,487.2	15,010.0	10,807.8	82.4	79.8	-11.12	4,117.0	-973.0	1,712.5	1,629.4	83.13	20.601	
16,800.0	12,485.7	15,110.0	10,807.2	83.8	81.3	-11.13	4,217.0	-973.8	1,711.7	1,627.1	84.61	20.229	
16,900.0	12,484.2	15,210.0	10,806.6	85.2	82.7	-11.13	4,317.0	-974.5	1,710.8	1,624.7	86.11	19.868	
17,000.0	12,482.7	15,310.0	10,806.0	86.6	84.2	-11.14	4,416.9	-975.3	1,710.0	1,622.4	87.61	19.518	
17,100.0	12,481.3	15,410.0	10,805.4	88.1	85.7	-11.14	4,516.9	-976.1	1,709.1	1,620.0	89.12	19.179	
17,200.0	12,479.8	15,510.0	10,804.8	89.5	87.1	-11.15	4,616.9	-976.9	1,708.3	1,617.7	90.63	18.849	
17,300.0	12,478.3	15,610.0	10,804.2	90.9	88.6	-11.15	4,716.9	-977.6	1,707.4	1,615.3	92.15	18.529	
17,400.0	12,476.8	15,710.0	10,803.5	92.4	90.1	-11.16	4,816.9	-978.4	1,706.6	1,612.9	93.67	18.219	
17,500.0	12,475.4	15,810.0	10,802.9	93.8	91.6	-11.16	4,916.9	-979.2	1,705.7	1,610.5	95.20	17.917	
17,600.0	12,473.9	15,890.0	10,802.3	95.3	92.8	-11.17	5,016.9	-979.9	1,704.9	1,608.3	96.58	17.653	
17,700.0	12,472.4	15,990.0	10,801.7	96.7	94.3	-11.17	5,116.9	-980.7	1,704.1	1,605.9	98.12	17.368	
17,800.0	12,471.0	16,090.0	10,801.1	98.2	95.8	-11.18	5,216.9	-981.5	1,703.2	1,603.5	99.66	17.090	
17,900.0	12,469.5	16,190.0	10,800.5	99.7	97.3	-11.18	5,316.9	-982.2	1,702.4	1,601.2	101.21	16.821	
18,000.0	12,468.0	16,290.0	10,799.9	101.2	98.8	-11.19	5,416.9	-983.0	1,701.5	1,598.8	102.76	16.559	
18,100.0	12,466.5	16,390.0	10,799.3	102.7	100.3	-11.20	5,516.9	-983.8	1,700.7	1,596.4	104.31	16.304	
18,200.0	12,465.1	16,490.0	10,798.6	104.2	101.9	-11.20	5,616.8	-984.6	1,699.8	1,593.9	105.87	16.056	
18,300.0	12,463.6	16,590.0	10,798.0	105.7	103.4	-11.21	5,716.8	-985.3	1,699.0	1,591.5	107.43	15.814	
18,400.0	12,462.1	16,690.0	10,797.4	107.2	104.9	-11.21	5,816.8	-986.1	1,698.1	1,589.1	109.00	15.579	
18,500.0	12,460.6	16,790.0	10,796.8	108.7	106.5	-11.22	5,916.8	-986.9	1,697.3	1,586.7	110.57	15.350	
18,600.0	12,459.2	16,890.0	10,796.2	110.2	108.0	-11.22	6,016.8	-987.6	1,696.4	1,584.3	112.14	15.128	
18,700.0	12,457.7	16,990.0	10,795.6	111.7	109.6	-11.23	6,116.8	-988.4	1,695.6	1,581.9	113.72	14.911	
18,800.0	12,456.2	17,090.0	10,795.0	113.2	111.1	-11.23	6,216.8	-989.2	1,694.7	1,579.4	115.30	14.699	
18,900.0	12,454.8	17,190.0	10,794.4	114.8	112.7	-11.24	6,316.8	-989.9	1,693.9	1,577.0	116.88	14.493	
19,000.0	12,453.3	17,289.9	10,793.7	116.3	114.2	-11.24	6,416.8	-990.7	1,693.0	1,574.6	118.46	14.292	
19,100.0	12,451.8	17,389.9	10,793.1	117.8	115.8	-11.25	6,516.8	-991.5	1,692.2	1,572.2	120.05	14.096	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,200.0	12,450.3	17,489.9	10,792.5	119.3	117.3	-11.25	6,616.8	-992.2	1,691.4	1,569.7	121.64	13.905		
19,300.0	12,448.9	17,589.9	10,791.9	120.9	118.9	-11.26	6,716.8	-993.0	1,690.5	1,567.3	123.23	13.718		
19,400.0	12,447.4	17,689.9	10,791.3	122.4	120.4	-11.26	6,816.7	-993.8	1,689.7	1,564.8	124.82	13.537		
19,500.0	12,445.9	17,789.9	10,790.7	124.0	122.0	-11.27	6,916.7	-994.6	1,688.8	1,562.4	126.42	13.359		
19,600.0	12,444.4	17,889.9	10,790.1	125.5	123.6	-11.27	7,016.7	-995.3	1,688.0	1,560.0	128.02	13.185		
19,700.0	12,443.0	17,989.9	10,789.5	127.1	125.2	-11.28	7,116.7	-996.1	1,687.1	1,557.5	129.62	13.016		
19,800.0	12,441.5	18,089.9	10,788.9	128.6	126.7	-11.29	7,216.7	-996.9	1,686.3	1,555.1	131.22	12.851		
19,900.0	12,440.0	18,189.9	10,788.2	130.2	128.3	-11.29	7,316.7	-997.6	1,685.4	1,552.6	132.83	12.689		
20,000.0	12,438.6	18,289.9	10,787.6	131.7	129.9	-11.30	7,416.7	-998.4	1,684.6	1,550.2	134.43	12.531		
20,100.0	12,437.1	18,389.9	10,787.0	133.3	131.5	-11.30	7,516.7	-999.2	1,683.7	1,547.7	136.04	12.377		
20,200.0	12,435.6	18,489.9	10,786.4	134.9	133.0	-11.31	7,616.7	-999.9	1,682.9	1,545.2	137.65	12.226		
20,300.0	12,434.1	18,589.9	10,785.8	136.4	134.6	-11.31	7,716.7	-1,000.7	1,682.0	1,542.8	139.26	12.078		
20,400.0	12,432.7	18,689.9	10,785.2	138.0	136.2	-11.32	7,816.7	-1,001.5	1,681.2	1,540.3	140.88	11.934		
20,500.0	12,431.2	18,789.9	10,784.6	139.6	137.8	-11.32	7,916.6	-1,002.3	1,680.4	1,537.9	142.49	11.792		
20,600.0	12,429.7	18,889.9	10,784.0	141.1	139.4	-11.33	8,016.6	-1,003.0	1,679.5	1,535.4	144.11	11.654		
20,700.0	12,428.2	18,989.9	10,783.3	142.7	141.0	-11.33	8,116.6	-1,003.8	1,678.7	1,532.9	145.73	11.519		
20,800.0	12,426.8	19,089.9	10,782.7	144.3	142.6	-11.34	8,216.6	-1,004.6	1,677.8	1,530.5	147.35	11.387		
20,900.0	12,425.3	19,189.9	10,782.1	145.9	144.2	-11.34	8,316.6	-1,005.3	1,677.0	1,528.0	148.97	11.257		
21,000.0	12,423.8	19,289.9	10,781.5	147.4	145.7	-11.35	8,416.6	-1,006.1	1,676.1	1,525.5	150.60	11.130		
21,100.0	12,422.4	19,389.9	10,780.9	149.0	147.3	-11.36	8,516.6	-1,006.9	1,675.3	1,523.1	152.22	11.006		
21,200.0	12,420.9	19,489.9	10,780.3	150.6	148.9	-11.36	8,616.6	-1,007.6	1,674.4	1,520.6	153.85	10.884		
21,300.0	12,419.4	19,589.9	10,779.7	152.2	150.5	-11.37	8,716.6	-1,008.4	1,673.6	1,518.1	155.47	10.764		
21,400.0	12,417.9	19,689.9	10,779.1	153.8	152.1	-11.37	8,816.6	-1,009.2	1,672.7	1,515.6	157.10	10.648		
21,500.0	12,416.5	19,789.9	10,778.4	155.3	153.7	-11.38	8,916.6	-1,010.0	1,671.9	1,513.2	158.73	10.533		
21,600.0	12,415.0	19,889.9	10,777.8	156.9	155.3	-11.38	9,016.6	-1,010.7	1,671.0	1,510.7	160.36	10.420		
21,700.0	12,413.5	19,989.9	10,777.2	158.5	156.9	-11.39	9,116.5	-1,011.5	1,670.2	1,508.2	161.99	10.310		
21,800.0	12,412.0	20,089.9	10,776.6	160.1	158.6	-11.39	9,216.5	-1,012.3	1,669.4	1,505.7	163.63	10.202		
21,900.0	12,410.6	20,189.9	10,776.0	161.7	160.2	-11.40	9,316.5	-1,013.0	1,668.5	1,503.2	165.26	10.096		
22,000.0	12,409.1	20,289.9	10,775.4	163.3	161.8	-11.40	9,416.5	-1,013.8	1,667.7	1,500.8	166.90	9.992		
22,100.0	12,407.6	20,389.9	10,774.8	164.9	163.4	-11.41	9,516.5	-1,014.6	1,666.8	1,498.3	168.54	9.890		
22,200.0	12,406.1	20,489.9	10,774.2	166.5	165.0	-11.42	9,616.5	-1,015.3	1,666.0	1,495.8	170.17	9.790		
22,300.0	12,404.7	20,589.9	10,773.5	168.1	166.6	-11.42	9,716.5	-1,016.1	1,665.1	1,493.3	171.81	9.692		
22,400.0	12,403.2	20,689.9	10,772.9	169.7	168.2	-11.43	9,816.5	-1,016.9	1,664.3	1,490.8	173.45	9.595		
22,500.0	12,401.7	20,789.9	10,772.3	171.3	169.8	-11.43	9,916.5	-1,017.7	1,663.4	1,488.3	175.09	9.500		
22,600.0	12,400.3	20,889.9	10,771.7	172.9	171.4	-11.44	10,016.5	-1,018.4	1,662.6	1,485.9	176.73	9.407		
22,700.0	12,398.8	20,989.9	10,771.1	174.5	173.0	-11.44	10,116.5	-1,019.2	1,661.7	1,483.4	178.38	9.316		
22,787.3	12,397.5	21,077.1	10,770.6	175.7	174.3	-11.45	10,203.8	-1,019.9	1,661.0	1,481.8	179.24	9.267		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	109.83	-28.9	80.2	85.3				
100.0	100.0	100.0	100.0	0.1	0.1	109.83	-28.9	80.2	85.3	85.0	0.26	332.719	
200.0	200.0	200.0	200.0	0.5	0.5	109.83	-28.9	80.2	85.3	84.3	0.97	87.622	
300.0	300.0	300.0	300.0	0.8	0.8	109.83	-28.9	80.2	85.3	83.6	1.69	50.455	
400.0	400.0	400.0	400.0	1.2	1.2	109.83	-28.9	80.2	85.3	82.9	2.41	35.427	
500.0	500.0	500.0	500.0	1.6	1.6	109.83	-28.9	80.2	85.3	82.2	3.12	27.297	
600.0	600.0	600.0	600.0	1.9	1.9	109.83	-28.9	80.2	85.3	81.4	3.84	22.202	
700.0	700.0	700.0	700.0	2.3	2.3	109.83	-28.9	80.2	85.3	80.7	4.56	18.710	
800.0	800.0	800.0	800.0	2.6	2.6	109.83	-28.9	80.2	85.3	80.0	5.27	16.167	
900.0	900.0	900.0	900.0	3.0	3.0	109.83	-28.9	80.2	85.3	79.3	5.99	14.232	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	109.83	-28.9	80.2	85.3	78.6	6.71	12.711	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	109.83	-28.9	80.2	85.3	77.9	7.43	11.484	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	109.83	-28.9	80.2	85.3	77.1	8.14	10.473	CC, ES
1,300.0	1,300.0	1,298.6	1,298.6	4.4	4.4	109.95	-29.4	80.9	86.1	77.3	8.84	9.741	
1,400.0	1,400.0	1,397.1	1,397.0	4.8	4.7	110.30	-30.7	83.1	88.6	79.1	9.53	9.305	
1,500.0	1,500.0	1,495.4	1,495.3	5.1	5.1	110.84	-33.0	86.7	92.8	82.6	10.21	9.092	
1,600.0	1,600.0	1,593.6	1,593.3	5.5	5.4	-134.57	-36.1	91.7	99.4	88.5	10.88	9.128	
1,700.0	1,700.0	1,691.4	1,690.8	5.8	5.8	-134.70	-40.2	98.0	108.8	97.2	11.54	9.421	
1,800.0	1,799.9	1,788.7	1,787.7	6.2	6.1	-135.20	-45.1	105.8	121.1	108.8	12.20	9.919	
1,900.0	1,899.7	1,885.4	1,883.8	6.5	6.4	-135.94	-50.8	114.9	136.2	123.4	12.86	10.592	
2,000.0	1,999.4	1,981.4	1,979.0	6.9	6.8	-136.78	-57.3	125.2	154.3	140.8	13.52	11.415	
2,100.0	2,098.9	2,078.7	2,075.4	7.2	7.2	-137.72	-64.5	136.7	174.7	160.6	14.20	12.308	
2,200.0	2,198.3	2,176.3	2,172.0	7.6	7.5	-138.77	-71.8	148.1	196.6	181.7	14.89	13.201	
2,300.0	2,297.4	2,273.4	2,268.2	7.9	7.9	-139.88	-79.0	159.6	219.7	204.1	15.58	14.099	
2,400.0	2,396.4	2,370.4	2,364.2	8.3	8.3	-141.04	-86.2	171.0	243.6	227.4	16.28	14.963	
2,500.0	2,495.5	2,467.4	2,460.3	8.7	8.7	-141.99	-93.4	182.4	267.6	250.6	16.98	15.757	
2,600.0	2,594.5	2,564.4	2,556.3	9.1	9.1	-142.78	-100.6	193.8	291.7	274.0	17.69	16.488	
2,700.0	2,693.5	2,661.4	2,652.4	9.5	9.4	-143.45	-107.8	205.2	315.8	297.4	18.40	17.162	
2,800.0	2,792.5	2,758.4	2,748.4	9.8	9.8	-144.03	-115.0	216.7	339.9	320.8	19.11	17.785	
2,900.0	2,891.6	2,855.4	2,844.5	10.2	10.2	-144.53	-122.2	228.1	364.1	344.2	19.83	18.362	
3,000.0	2,990.6	2,952.4	2,940.5	10.6	10.6	-144.97	-129.4	239.5	388.2	367.7	20.54	18.898	
3,100.0	3,089.6	3,049.4	3,036.6	11.0	11.0	-145.35	-136.6	250.9	412.4	391.2	21.26	19.396	
3,200.0	3,188.6	3,146.4	3,132.6	11.4	11.4	-145.70	-143.8	262.3	436.6	414.7	21.99	19.861	
3,300.0	3,287.7	3,243.4	3,228.7	11.8	11.8	-146.00	-151.0	273.7	460.9	438.2	22.71	20.295	
3,400.0	3,386.7	3,340.4	3,324.7	12.2	12.2	-146.28	-158.2	285.2	485.1	461.7	23.43	20.701	
3,500.0	3,485.7	3,437.4	3,420.8	12.6	12.6	-146.53	-165.4	296.6	509.3	485.2	24.16	21.082	
3,600.0	3,584.8	3,534.3	3,516.8	13.0	13.0	-146.76	-172.6	308.0	533.6	508.7	24.89	21.440	
3,700.0	3,683.8	3,631.3	3,612.9	13.4	13.4	-146.97	-179.8	319.4	557.9	532.2	25.62	21.776	
3,800.0	3,782.8	3,728.3	3,708.9	13.8	13.8	-147.16	-187.0	330.8	582.1	555.8	26.35	22.094	
3,900.0	3,881.8	3,825.3	3,805.0	14.3	14.2	-147.33	-194.2	342.3	606.4	579.3	27.08	22.393	
4,000.0	3,980.9	3,930.0	3,908.7	14.7	14.6	-147.52	-201.8	354.3	630.4	602.5	27.88	22.613	
4,100.0	4,079.9	4,045.1	4,023.1	15.1	15.1	-147.82	-208.6	365.1	652.2	623.5	28.75	22.687	
4,200.0	4,178.9	4,161.5	4,139.0	15.5	15.5	-148.23	-213.6	373.0	671.3	641.7	29.60	22.681	
4,300.0	4,277.9	4,278.9	4,256.3	15.9	15.9	-148.74	-216.8	378.0	687.7	657.3	30.43	22.603	
4,400.0	4,377.0	4,397.1	4,374.5	16.3	16.3	-149.36	-218.0	380.0	701.4	670.2	31.23	22.461	
4,500.0	4,476.0	4,501.4	4,476.0	16.7	16.7	-149.95	-218.0	380.0	713.5	681.5	31.95	22.329	
4,600.0	4,575.0	4,602.4	4,575.0	17.1	17.0	-150.49	-218.0	380.0	725.6	692.9	32.67	22.212	
4,700.0	4,674.0	4,703.3	4,674.0	17.5	17.3	-151.03	-218.0	380.0	737.8	704.4	33.38	22.102	
4,800.0	4,773.1	4,804.3	4,773.1	18.0	17.7	-151.54	-218.0	380.0	750.0	715.9	34.09	21.997	
4,900.0	4,872.1	4,905.3	4,872.1	18.4	18.0	-152.04	-218.0	380.0	762.3	727.5	34.81	21.899	
5,000.0	4,971.1	5,006.3	4,971.1	18.8	18.3	-152.52	-218.0	380.0	774.6	739.1	35.52	21.806	
5,100.0	5,070.2	5,107.2	5,070.2	19.2	18.6	-152.99	-218.0	380.0	787.0	750.8	36.24	21.717	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,208.2	5,169.2	19.6	19.0	-153.44	-218.0	380.0	799.5	762.5	36.95	21.634	
5,300.0	5,268.2	5,309.2	5,268.2	20.0	19.3	-153.88	-218.0	380.0	812.0	774.3	37.67	21.554	
5,400.0	5,367.2	5,389.8	5,367.2	20.5	19.6	-154.30	-218.0	380.0	824.5	786.2	38.32	21.518	
5,500.0	5,466.3	5,488.9	5,466.3	20.9	19.9	-154.71	-218.0	380.0	837.1	798.1	39.03	21.449	
5,600.0	5,565.3	5,587.9	5,565.3	21.3	20.2	-155.11	-218.0	380.0	849.7	810.0	39.74	21.383	
5,643.3	5,608.2	5,630.8	5,608.2	21.5	20.4	-155.28	-218.0	380.0	855.2	815.2	40.05	21.356	
5,700.0	5,664.4	5,687.0	5,664.4	21.7	20.6	-155.53	-218.0	380.0	862.0	821.6	40.45	21.312	
5,800.0	5,763.7	5,786.4	5,763.7	22.1	20.9	-155.90	-218.0	380.0	872.2	831.0	41.15	21.193	
5,900.0	5,863.4	5,886.0	5,863.4	22.5	21.2	-156.17	-218.0	380.0	880.0	838.1	41.86	21.023	
6,000.0	5,963.2	5,985.8	5,963.2	22.8	21.6	-156.36	-218.0	380.0	885.4	842.9	42.56	20.805	
6,100.0	6,063.1	6,085.8	6,063.1	23.2	21.9	-156.47	-218.0	380.0	888.5	845.2	43.25	20.540	
6,176.7	6,139.8	6,162.4	6,139.8	23.4	22.2	89.29	-218.0	380.0	889.2	845.4	43.78	20.310	
6,200.0	6,163.1	6,185.7	6,163.1	23.5	22.3	89.29	-218.0	380.0	889.2	845.2	43.94	20.237	
6,300.0	6,263.1	6,285.7	6,263.1	23.8	22.6	89.29	-218.0	380.0	889.2	844.6	44.61	19.930	
6,400.0	6,363.1	6,385.7	6,363.1	24.2	22.9	89.29	-218.0	380.0	889.2	843.9	45.29	19.632	
6,500.0	6,463.1	6,485.7	6,463.1	24.5	23.3	89.29	-218.0	380.0	889.2	843.2	45.97	19.342	
6,600.0	6,563.1	6,585.7	6,563.1	24.8	23.6	89.29	-218.0	380.0	889.2	842.5	46.65	19.060	
6,700.0	6,663.1	6,685.7	6,663.1	25.1	24.0	89.29	-218.0	380.0	889.2	841.8	47.33	18.786	
6,800.0	6,763.1	6,785.7	6,763.1	25.4	24.3	89.29	-218.0	380.0	889.2	841.2	48.01	18.519	
6,900.0	6,863.1	6,885.7	6,863.1	25.8	24.6	89.29	-218.0	380.0	889.2	840.5	48.70	18.259	
7,000.0	6,963.1	6,985.7	6,963.1	26.1	25.0	89.29	-218.0	380.0	889.2	839.8	49.38	18.006	
7,100.0	7,063.1	7,085.7	7,063.1	26.4	25.3	89.29	-218.0	380.0	889.2	839.1	50.07	17.759	
7,200.0	7,163.1	7,185.7	7,163.1	26.7	25.7	89.29	-218.0	380.0	889.2	838.4	50.75	17.519	
7,300.0	7,263.1	7,285.7	7,263.1	27.1	26.0	89.29	-218.0	380.0	889.2	837.7	51.44	17.286	
7,400.0	7,363.1	7,385.7	7,363.1	27.4	26.4	89.29	-218.0	380.0	889.2	837.0	52.13	17.057	
7,500.0	7,463.1	7,485.7	7,463.1	27.7	26.7	89.29	-218.0	380.0	889.2	836.4	52.82	16.835	
7,600.0	7,563.1	7,585.7	7,563.1	28.1	27.1	89.29	-218.0	380.0	889.2	835.7	53.51	16.618	
7,700.0	7,663.1	7,685.7	7,663.1	28.4	27.4	89.29	-218.0	380.0	889.2	835.0	54.20	16.407	
7,800.0	7,763.1	7,785.7	7,763.1	28.7	27.7	89.29	-218.0	380.0	889.2	834.3	54.89	16.200	
7,900.0	7,863.1	7,885.7	7,863.1	29.0	28.1	89.29	-218.0	380.0	889.2	833.6	55.58	15.999	
8,000.0	7,963.1	7,985.7	7,963.1	29.4	28.4	89.29	-218.0	380.0	889.2	832.9	56.27	15.802	
8,100.0	8,063.1	8,085.7	8,063.1	29.7	28.8	89.29	-218.0	380.0	889.2	832.2	56.96	15.610	
8,200.0	8,163.1	8,185.7	8,163.1	30.0	29.1	89.29	-218.0	380.0	889.2	831.5	57.65	15.422	
8,300.0	8,263.1	8,285.7	8,263.1	30.4	29.5	89.29	-218.0	380.0	889.2	830.8	58.35	15.239	
8,400.0	8,363.1	8,385.7	8,363.1	30.7	29.8	89.29	-218.0	380.0	889.2	830.1	59.04	15.060	
8,500.0	8,463.1	8,485.7	8,463.1	31.0	30.2	89.29	-218.0	380.0	889.2	829.4	59.74	14.885	
8,600.0	8,563.1	8,585.7	8,563.1	31.4	30.5	89.29	-218.0	380.0	889.2	828.7	60.43	14.713	
8,700.0	8,663.1	8,685.7	8,663.1	31.7	30.9	89.29	-218.0	380.0	889.2	828.0	61.13	14.546	
8,800.0	8,763.1	8,785.7	8,763.1	32.1	31.2	89.29	-218.0	380.0	889.2	827.3	61.82	14.382	
8,900.0	8,863.1	8,885.7	8,863.1	32.4	31.6	89.29	-218.0	380.0	889.2	826.6	62.52	14.222	
9,000.0	8,963.1	8,985.7	8,963.1	32.7	31.9	89.29	-218.0	380.0	889.2	826.0	63.22	14.065	
9,100.0	9,063.1	9,085.7	9,063.1	33.1	32.3	89.29	-218.0	380.0	889.2	825.3	63.92	13.911	
9,200.0	9,163.1	9,185.7	9,163.1	33.4	32.6	89.29	-218.0	380.0	889.2	824.6	64.61	13.761	
9,300.0	9,263.1	9,285.7	9,263.1	33.7	33.0	89.29	-218.0	380.0	889.2	823.9	65.31	13.614	
9,400.0	9,363.1	9,385.7	9,363.1	34.1	33.3	89.29	-218.0	380.0	889.2	823.2	66.01	13.470	
9,500.0	9,463.1	9,485.7	9,463.1	34.4	33.7	89.29	-218.0	380.0	889.2	822.5	66.71	13.329	
9,600.0	9,563.1	9,585.7	9,563.1	34.8	34.0	89.29	-218.0	380.0	889.2	821.8	67.41	13.190	
9,700.0	9,663.1	9,685.7	9,663.1	35.1	34.4	89.29	-218.0	380.0	889.2	821.1	68.11	13.055	
9,800.0	9,763.1	9,785.7	9,763.1	35.4	34.7	89.29	-218.0	380.0	889.2	820.4	68.81	12.922	
9,900.0	9,863.1	9,885.7	9,863.1	35.8	35.1	89.29	-218.0	380.0	889.2	819.7	69.51	12.792	
10,000.0	9,963.1	9,985.7	9,963.1	36.1	35.4	89.29	-218.0	380.0	889.2	819.0	70.21	12.664	
10,100.0	10,063.1	10,085.7	10,063.1	36.5	35.8	89.29	-218.0	380.0	889.2	818.3	70.91	12.539	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,163.1	10,185.7	10,163.1	36.8	36.1	89.29	-218.0	380.0	889.2	817.6	71.62	12.416	
10,300.0	10,263.1	10,285.7	10,263.1	37.1	36.5	89.29	-218.0	380.0	889.2	816.9	72.32	12.295	
10,305.7	10,268.8	10,291.4	10,268.8	37.2	36.5	89.29	-218.0	380.0	889.2	816.8	72.36	12.289	
10,400.0	10,363.1	10,385.1	10,362.3	37.5	36.8	89.08	-214.8	380.0	889.2	816.2	73.01	12.179	
10,500.0	10,463.1	10,480.6	10,456.0	37.8	37.1	87.92	-196.8	379.8	889.6	815.9	73.65	12.077	
10,600.0	10,563.1	10,568.0	10,538.1	38.2	37.4	86.00	-166.9	379.6	891.2	817.0	74.22	12.009	
10,700.0	10,663.1	10,644.8	10,605.7	38.5	37.6	83.68	-130.6	379.3	895.7	821.1	74.63	12.002	
10,800.0	10,763.1	10,710.7	10,659.4	38.9	37.7	81.26	-92.5	379.0	904.5	829.7	74.80	12.093	
10,900.0	10,863.1	10,766.3	10,701.1	39.2	37.8	78.95	-55.7	378.8	919.0	844.4	74.64	12.313	
11,000.0	10,963.1	10,813.1	10,733.3	39.6	37.9	76.85	-21.7	378.5	940.0	865.9	74.07	12.691	
11,100.0	11,063.1	10,850.0	10,756.6	39.9	37.9	75.12	6.8	378.3	968.0	894.9	73.06	13.250	
11,200.0	11,163.1	10,886.0	10,777.5	40.2	38.0	73.36	36.1	378.0	1,003.0	931.2	71.76	13.977	
11,300.0	11,263.1	10,914.4	10,792.8	40.6	38.0	71.95	60.1	377.9	1,044.8	974.6	70.14	14.896	
11,400.0	11,363.1	10,938.8	10,804.9	40.9	38.0	70.71	81.3	377.7	1,092.9	1,024.5	68.32	15.997	
11,500.0	11,463.1	10,950.0	10,810.1	41.3	38.0	70.15	91.2	377.6	1,146.8	1,080.6	66.20	17.325	
11,600.0	11,563.1	10,978.3	10,822.5	41.6	38.1	68.70	116.6	377.4	1,205.8	1,141.3	64.43	18.714	
11,700.0	11,663.1	11,000.0	10,831.2	42.0	38.1	67.59	136.5	377.3	1,269.4	1,206.8	62.62	20.273	
11,800.0	11,763.1	11,000.0	10,831.2	42.3	38.1	67.59	136.5	377.3	1,337.1	1,276.6	60.50	22.100	
11,900.0	11,863.1	11,021.3	10,838.9	42.7	38.2	66.50	156.3	377.1	1,408.1	1,349.2	58.93	23.896	
12,006.9	11,970.0	11,033.3	10,843.0	43.0	38.2	65.89	167.6	377.0	1,487.5	1,430.3	57.20	26.004	
12,050.0	12,013.1	11,050.0	10,848.2	43.2	38.3	68.29	183.5	376.9	1,520.3	1,463.5	56.74	26.792	
12,100.0	12,062.7	11,050.0	10,848.2	43.3	38.3	63.19	183.5	376.9	1,557.5	1,501.7	55.90	27.865	
12,150.0	12,111.7	11,050.0	10,848.2	43.5	38.3	58.48	183.5	376.9	1,594.2	1,539.2	55.07	28.949	
12,200.0	12,159.5	11,050.0	10,848.2	43.7	38.3	54.20	183.5	376.9	1,630.1	1,575.8	54.28	30.034	
12,250.0	12,205.9	11,069.5	10,853.7	43.8	38.3	49.90	202.2	376.8	1,664.5	1,610.7	53.81	30.933	
12,300.0	12,250.5	11,079.0	10,856.2	43.9	38.3	46.41	211.4	376.7	1,697.6	1,644.4	53.22	31.899	
12,350.0	12,293.0	11,100.0	10,861.1	44.1	38.4	43.21	231.8	376.5	1,729.2	1,676.4	52.82	32.739	
12,400.0	12,333.0	11,100.0	10,861.1	44.2	38.4	40.76	231.8	376.5	1,758.8	1,706.6	52.17	33.710	
12,450.0	12,370.3	11,100.0	10,861.1	44.3	38.4	38.63	231.8	376.5	1,786.6	1,735.0	51.59	34.628	
12,500.0	12,404.5	11,121.9	10,865.4	44.3	38.5	36.62	253.2	376.4	1,812.0	1,760.7	51.32	35.307	
12,550.0	12,435.4	11,150.0	10,869.7	44.4	38.5	34.93	281.0	376.2	1,835.5	1,784.4	51.15	35.886	
12,600.0	12,462.7	11,150.0	10,869.7	44.5	38.5	33.65	281.0	376.2	1,856.1	1,805.4	50.75	36.573	
12,650.0	12,486.3	11,150.0	10,869.7	44.5	38.5	32.57	281.0	376.2	1,874.5	1,824.1	50.44	37.160	
12,700.0	12,506.0	11,169.8	10,871.9	44.6	38.6	31.65	300.7	376.0	1,890.2	1,839.9	50.37	37.527	
12,750.0	12,521.6	11,182.2	10,872.9	44.7	38.6	30.94	313.1	375.9	1,903.4	1,853.1	50.31	37.831	
12,800.0	12,533.0	11,200.0	10,874.0	44.7	38.7	30.42	330.8	375.8	1,913.8	1,863.5	50.36	38.003	
12,850.0	12,540.1	11,200.0	10,874.0	44.9	38.7	30.02	330.8	375.8	1,921.5	1,871.1	50.41	38.120	
12,900.0	12,542.9	11,225.4	10,874.5	45.0	38.8	29.85	356.2	375.6	1,926.3	1,875.7	50.63	38.045	
12,915.3	12,542.9	11,231.2	10,874.5	45.0	38.8	29.79	350.4	375.6	1,927.2	1,876.5	50.71	38.005	
13,000.0	12,541.7	11,303.8	10,874.3	45.3	39.0	30.15	434.6	375.0	1,931.2	1,880.0	51.26	37.672	
13,100.0	12,540.2	11,403.4	10,874.1	45.6	39.4	30.46	534.3	374.2	1,934.3	1,882.4	51.96	37.225	
13,200.0	12,538.7	11,503.3	10,873.8	46.0	39.9	30.65	634.1	373.5	1,935.7	1,883.1	52.67	36.753	
13,287.8	12,537.4	11,608.9	10,873.6	46.4	40.4	30.73	721.9	372.8	1,935.5	1,882.1	53.36	36.269	
13,300.0	12,537.2	11,603.3	10,873.6	46.5	40.4	30.73	734.1	372.7	1,935.4	1,882.0	53.38	36.257	
13,400.0	12,535.8	11,703.3	10,873.4	47.0	40.9	30.75	834.1	371.9	1,934.3	1,880.2	54.14	35.730	
13,500.0	12,534.3	11,803.3	10,873.1	47.5	41.6	30.77	934.1	371.2	1,933.2	1,878.3	54.97	35.170	
13,600.0	12,532.8	11,903.3	10,872.9	48.1	42.2	30.79	1,034.1	370.4	1,932.2	1,876.3	55.87	34.582	
13,700.0	12,531.3	12,003.3	10,872.7	48.7	43.0	30.81	1,134.1	369.6	1,931.1	1,874.3	56.85	33.970	
13,800.0	12,529.9	12,103.3	10,872.5	49.4	43.7	30.83	1,234.0	368.8	1,930.0	1,872.1	57.89	33.341	
13,900.0	12,528.4	12,203.2	10,872.2	50.2	44.6	30.85	1,334.0	368.1	1,929.0	1,870.0	58.99	32.700	
14,000.0	12,526.9	12,303.2	10,872.0	51.0	45.5	30.86	1,434.0	367.3	1,927.9	1,867.8	60.15	32.051	
14,100.0	12,525.5	12,403.2	10,871.8	51.8	46.4	30.88	1,534.0	366.5	1,926.8	1,865.5	61.37	31.398	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	12,503.2	10,871.6	52.6	47.3	30.90	1,634.0	365.8	1,925.8	1,863.1	62.64	30.745	
14,300.0	12,522.5	12,603.2	10,871.3	53.5	48.3	30.92	1,734.0	365.0	1,924.7	1,860.8	63.96	30.094	
14,400.0	12,521.0	12,703.2	10,871.1	54.5	49.4	30.94	1,834.0	364.2	1,923.7	1,858.3	65.32	29.448	
14,500.0	12,519.6	12,803.2	10,870.9	55.4	50.4	30.96	1,934.0	363.5	1,922.6	1,855.9	66.73	28.810	
14,600.0	12,518.1	12,903.2	10,870.6	56.4	51.5	30.98	2,034.0	362.7	1,921.5	1,853.4	68.18	28.181	
14,700.0	12,516.6	13,003.2	10,870.4	57.4	52.6	31.00	2,133.9	361.9	1,920.5	1,850.8	69.67	27.564	
14,800.0	12,515.1	13,103.2	10,870.2	58.5	53.8	31.02	2,233.9	361.2	1,919.4	1,848.2	71.20	26.957	
14,900.0	12,513.7	13,203.2	10,870.0	59.6	55.0	31.04	2,333.9	360.4	1,918.4	1,845.6	72.76	26.364	
15,000.0	12,512.2	13,303.2	10,869.7	60.7	56.2	31.06	2,433.9	359.6	1,917.3	1,842.9	74.36	25.785	
15,100.0	12,510.7	13,403.2	10,869.5	61.8	57.4	31.08	2,533.9	358.9	1,916.2	1,840.3	75.98	25.220	
15,200.0	12,509.3	13,503.1	10,869.3	63.0	58.6	31.10	2,633.9	358.1	1,915.2	1,837.5	77.64	24.669	
15,300.0	12,507.8	13,603.1	10,869.1	64.2	59.9	31.12	2,733.9	357.3	1,914.1	1,834.8	79.32	24.133	
15,400.0	12,506.3	13,703.1	10,868.8	65.4	61.2	31.14	2,833.9	356.6	1,913.1	1,832.0	81.02	23.612	
15,500.0	12,504.8	13,803.1	10,868.6	66.6	62.5	31.16	2,933.9	355.8	1,912.0	1,829.2	82.75	23.106	
15,600.0	12,503.4	13,903.1	10,868.4	67.8	63.8	31.18	3,033.8	355.0	1,910.9	1,826.4	84.50	22.614	
15,700.0	12,501.9	14,003.1	10,868.2	69.1	65.1	31.20	3,133.8	354.3	1,909.9	1,823.6	86.28	22.137	
15,800.0	12,500.4	14,103.1	10,867.9	70.3	66.5	31.22	3,233.8	353.5	1,908.8	1,820.7	88.07	21.674	
15,900.0	12,498.9	14,203.1	10,867.7	71.6	67.8	31.24	3,333.8	352.7	1,907.8	1,817.9	89.88	21.225	
16,000.0	12,497.5	14,303.1	10,867.5	72.9	69.2	31.26	3,433.8	352.0	1,906.7	1,815.0	91.71	20.790	
16,100.0	12,496.0	14,403.1	10,867.2	74.3	70.6	31.28	3,533.8	351.2	1,905.6	1,812.1	93.56	20.368	
16,200.0	12,494.5	14,503.1	10,867.0	75.6	72.0	31.29	3,633.8	350.4	1,904.6	1,809.2	95.42	19.959	
16,300.0	12,493.0	14,603.1	10,866.8	76.9	73.4	31.31	3,733.8	349.7	1,903.5	1,806.2	97.30	19.563	
16,400.0	12,491.6	14,703.1	10,866.6	78.3	74.8	31.33	3,833.8	348.9	1,902.5	1,803.3	99.20	19.179	
16,500.0	12,490.1	14,803.0	10,866.3	79.6	76.3	31.35	3,933.7	348.1	1,901.4	1,800.3	101.10	18.807	
16,600.0	12,488.6	14,903.0	10,866.1	81.0	77.7	31.37	4,033.7	347.3	1,900.4	1,797.3	103.02	18.446	
16,700.0	12,487.2	15,003.0	10,865.9	82.4	79.1	31.39	4,133.7	346.6	1,899.3	1,794.3	104.96	18.096	
16,800.0	12,485.7	15,103.0	10,865.7	83.8	80.6	31.41	4,233.7	345.8	1,898.2	1,791.3	106.90	17.757	
16,900.0	12,484.2	15,203.0	10,865.4	85.2	82.1	31.43	4,333.7	345.0	1,897.2	1,788.3	108.86	17.428	
17,000.0	12,482.7	15,303.0	10,865.2	86.6	83.5	31.45	4,433.7	344.3	1,896.1	1,785.3	110.82	17.110	
17,100.0	12,481.3	15,403.0	10,865.0	88.1	85.0	31.47	4,533.7	343.5	1,895.1	1,782.3	112.80	16.800	
17,200.0	12,479.8	15,503.0	10,864.7	89.5	86.5	31.49	4,633.7	342.7	1,894.0	1,779.2	114.79	16.500	
17,300.0	12,478.3	15,603.0	10,864.5	90.9	88.0	31.51	4,733.7	342.0	1,893.0	1,776.2	116.78	16.209	
17,400.0	12,476.8	15,703.0	10,864.3	92.4	89.5	31.53	4,833.6	341.2	1,891.9	1,773.1	118.79	15.927	
17,500.0	12,475.4	15,803.0	10,864.1	93.8	91.0	31.55	4,933.6	340.4	1,890.9	1,770.0	120.80	15.653	
17,600.0	12,473.9	15,903.0	10,863.8	95.3	92.5	31.57	5,033.6	339.7	1,889.8	1,767.0	122.82	15.386	
17,700.0	12,472.4	16,003.0	10,863.6	96.7	94.0	31.59	5,133.6	338.9	1,888.7	1,763.9	124.85	15.128	
17,800.0	12,471.0	16,102.9	10,863.4	98.2	95.5	31.61	5,233.6	338.1	1,887.7	1,760.8	126.89	14.876	
17,900.0	12,469.5	16,202.9	10,863.2	99.7	97.0	31.63	5,333.6	337.4	1,886.6	1,757.7	128.94	14.632	
18,000.0	12,468.0	16,302.9	10,862.9	101.2	98.6	31.66	5,433.6	336.6	1,885.6	1,754.6	130.99	14.395	
18,100.0	12,466.5	16,402.9	10,862.7	102.7	100.1	31.68	5,533.6	335.8	1,884.5	1,751.5	133.05	14.164	
18,200.0	12,465.1	16,502.9	10,862.5	104.2	101.6	31.70	5,633.6	335.1	1,883.5	1,748.4	135.11	13.940	
18,300.0	12,463.6	16,602.9	10,862.3	105.7	103.2	31.72	5,733.5	334.3	1,882.4	1,745.2	137.18	13.722	
18,400.0	12,462.1	16,702.9	10,862.0	107.2	104.7	31.74	5,833.5	333.5	1,881.4	1,742.1	139.26	13.510	
18,500.0	12,460.6	16,802.9	10,861.8	108.7	106.2	31.76	5,933.5	332.8	1,880.3	1,739.0	141.34	13.303	
18,600.0	12,459.2	16,902.9	10,861.6	110.2	107.8	31.78	6,033.5	332.0	1,879.3	1,735.8	143.43	13.102	
18,700.0	12,457.7	17,002.9	10,861.3	111.7	109.3	31.80	6,133.5	331.2	1,878.2	1,732.7	145.53	12.906	
18,800.0	12,456.2	17,102.9	10,861.1	113.2	110.9	31.82	6,233.5	330.5	1,877.2	1,729.5	147.63	12.715	
18,900.0	12,454.8	17,202.9	10,860.9	114.8	112.4	31.84	6,333.5	329.7	1,876.1	1,726.4	149.73	12.530	
19,000.0	12,453.3	17,302.8	10,860.7	116.3	114.0	31.86	6,433.5	328.9	1,875.1	1,723.2	151.84	12.349	
19,100.0	12,451.8	17,402.8	10,860.4	117.8	115.6	31.88	6,533.5	328.2	1,874.0	1,720.0	153.96	12.172	
19,200.0	12,450.3	17,502.8	10,860.2	119.3	117.1	31.90	6,633.4	327.4	1,873.0	1,716.9	156.08	12.000	
19,300.0	12,448.9	17,602.8	10,860.0	120.9	118.7	31.92	6,733.4	326.6	1,871.9	1,713.7	158.20	11.832	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #126H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.0	12,447.4	17,702.8	10,859.8	122.4	120.3	31.94	6,833.4	325.8	1,870.9	1,710.5	160.33	11.669	
19,500.0	12,445.9	17,802.8	10,859.5	124.0	121.8	31.96	6,933.4	325.1	1,869.8	1,707.3	162.47	11.509	
19,600.0	12,444.4	17,902.8	10,859.3	125.5	123.4	31.98	7,033.4	324.3	1,868.8	1,704.1	164.60	11.353	
19,700.0	12,443.0	18,002.8	10,859.1	127.1	125.0	32.00	7,133.4	323.5	1,867.7	1,701.0	166.74	11.201	
19,800.0	12,441.5	18,102.8	10,858.9	128.6	126.6	32.02	7,233.4	322.8	1,866.7	1,697.8	168.89	11.052	
19,900.0	12,440.0	18,202.8	10,858.6	130.2	128.2	32.04	7,333.4	322.0	1,865.6	1,694.6	171.04	10.907	
20,000.0	12,438.6	18,302.8	10,858.4	131.7	129.7	32.06	7,433.4	321.2	1,864.6	1,691.4	173.19	10.766	
20,100.0	12,437.1	18,402.8	10,858.2	133.3	131.3	32.08	7,533.4	320.5	1,863.5	1,688.2	175.35	10.627	
20,200.0	12,435.6	18,502.8	10,857.9	134.9	132.9	32.11	7,633.3	319.7	1,862.5	1,684.9	177.51	10.492	
20,300.0	12,434.1	18,602.7	10,857.7	136.4	134.5	32.13	7,733.3	318.9	1,861.4	1,681.7	179.68	10.360	
20,400.0	12,432.7	18,702.7	10,857.5	138.0	136.1	32.15	7,833.3	318.2	1,860.4	1,678.5	181.84	10.231	
20,500.0	12,431.2	18,802.7	10,857.3	139.6	137.7	32.17	7,933.3	317.4	1,859.3	1,675.3	184.02	10.104	
20,600.0	12,429.7	18,902.7	10,857.0	141.1	139.3	32.19	8,033.3	316.6	1,858.3	1,672.1	186.19	9.980	
20,700.0	12,428.2	19,002.7	10,856.8	142.7	140.9	32.21	8,133.3	315.9	1,857.2	1,668.8	188.37	9.860	
20,800.0	12,426.8	19,102.7	10,856.6	144.3	142.5	32.23	8,233.3	315.1	1,856.2	1,665.6	190.55	9.741	
20,900.0	12,425.3	19,202.7	10,856.4	145.9	144.1	32.25	8,333.3	314.3	1,855.1	1,662.4	192.73	9.625	
21,000.0	12,423.8	19,302.7	10,856.1	147.4	145.7	32.27	8,433.3	313.6	1,854.1	1,659.2	194.92	9.512	
21,100.0	12,422.4	19,402.7	10,855.9	149.0	147.2	32.29	8,533.2	312.8	1,853.0	1,655.9	197.11	9.401	
21,200.0	12,420.9	19,502.7	10,855.7	150.6	148.9	32.31	8,633.2	312.0	1,852.0	1,652.7	199.31	9.292	
21,300.0	12,419.4	19,602.7	10,855.4	152.2	150.5	32.33	8,733.2	311.3	1,850.9	1,649.4	201.50	9.186	
21,400.0	12,417.9	19,702.7	10,855.2	153.8	152.1	32.36	8,833.2	310.5	1,849.9	1,646.2	203.70	9.081	
21,500.0	12,416.5	19,802.7	10,855.0	155.3	153.7	32.38	8,933.2	309.7	1,848.8	1,642.9	205.90	8.979	
21,600.0	12,415.0	19,902.6	10,854.8	156.9	155.3	32.40	9,033.2	309.0	1,847.8	1,639.7	208.11	8.879	
21,700.0	12,413.5	20,002.6	10,854.5	158.5	156.9	32.42	9,133.2	308.2	1,846.8	1,636.4	210.32	8.781	
21,800.0	12,412.0	20,102.6	10,854.3	160.1	158.5	32.44	9,233.2	307.4	1,845.7	1,633.2	212.53	8.685	
21,900.0	12,410.6	20,202.6	10,854.1	161.7	160.1	32.46	9,333.2	306.6	1,844.7	1,629.9	214.74	8.590	
22,000.0	12,409.1	20,302.6	10,853.9	163.3	161.7	32.48	9,433.1	305.9	1,843.6	1,626.7	216.96	8.498	
22,100.0	12,407.6	20,402.6	10,853.6	164.9	163.3	32.50	9,533.1	305.1	1,842.6	1,623.4	219.17	8.407	
22,200.0	12,406.1	20,502.6	10,853.4	166.5	164.9	32.52	9,633.1	304.3	1,841.5	1,620.1	221.40	8.318	
22,300.0	12,404.7	20,602.6	10,853.2	168.1	166.5	32.55	9,733.1	303.6	1,840.5	1,616.9	223.62	8.230	
22,400.0	12,403.2	20,702.6	10,853.0	169.7	168.1	32.57	9,833.1	302.8	1,839.5	1,613.6	225.85	8.145	
22,500.0	12,401.7	20,802.6	10,852.7	171.3	169.8	32.59	9,933.1	302.0	1,838.4	1,610.3	228.07	8.061	
22,600.0	12,400.3	20,902.6	10,852.5	172.9	171.4	32.61	10,033.1	301.3	1,837.4	1,607.1	230.31	7.978	
22,700.0	12,398.8	25,444.2	10,852.4	174.5	244.8	32.63	10,121.3	300.6	1,836.3	1,555.4	280.88	6.538 SF	
22,787.3	12,397.5	21,078.1	10,851.6	175.7	174.2	32.64	10,208.6	300.1	1,836.0	1,601.8	234.13	7.842	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	-1.0	0.0	0.0	90.05	-2.1	2,453.4	2,453.4				
100.0	100.0	101.0	99.0	0.1	0.1	90.05	-2.1	2,453.4	2,453.4	2,453.1	0.26	9,439.992	
200.0	200.0	201.0	199.0	0.5	0.5	90.05	-2.1	2,453.4	2,453.4	2,452.4	0.98	2,511.560	
300.0	300.0	301.0	299.0	0.8	0.8	90.05	-2.1	2,453.4	2,453.4	2,451.7	1.69	1,448.466	
400.0	400.0	401.0	399.0	1.2	1.2	90.05	-2.1	2,453.4	2,453.4	2,451.0	2.41	1,017.696	
500.0	500.0	501.0	499.0	1.6	1.6	90.05	-2.1	2,453.4	2,453.4	2,450.3	3.13	784.413	
600.0	600.0	601.0	599.0	1.9	1.9	90.05	-2.1	2,453.4	2,453.4	2,449.5	3.84	638.135	
700.0	700.0	701.0	699.0	2.3	2.3	90.05	-2.1	2,453.4	2,453.4	2,448.8	4.56	537.839	
800.0	800.0	801.0	799.0	2.6	2.6	90.05	-2.1	2,453.4	2,453.4	2,448.1	5.28	464.788	
900.0	900.0	901.0	899.0	3.0	3.0	90.05	-2.1	2,453.4	2,453.4	2,447.4	6.00	409.208	
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	90.05	-2.1	2,453.4	2,453.4	2,446.7	6.71	365.501	
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	90.05	-2.1	2,453.4	2,453.4	2,446.0	7.43	330.229	
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	90.05	-2.1	2,453.4	2,453.4	2,445.2	8.15	301.166	
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	90.05	-2.1	2,453.4	2,453.4	2,444.5	8.86	276.805	
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	90.05	-2.1	2,453.4	2,453.4	2,443.8	9.58	256.090	
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	90.05	-2.1	2,453.4	2,453.4	2,443.1	10.29	238.425	
1,600.0	1,600.0	1,668.7	1,668.7	5.5	5.7	-155.73	-2.7	2,451.0	2,452.8	2,441.6	11.22	218.694	
1,700.0	1,700.0	1,839.1	1,838.9	5.8	6.3	-155.74	-4.7	2,443.7	2,450.9	2,438.8	12.12	202.224	
1,800.0	1,799.9	2,009.3	2,008.6	6.2	6.9	-155.75	-8.0	2,431.5	2,447.7	2,434.7	13.02	187.966	
1,900.0	1,899.7	2,179.2	2,177.6	6.5	7.5	-155.76	-12.5	2,414.6	2,443.3	2,429.3	13.92	175.499	
2,000.0	1,999.4	2,328.7	2,325.8	6.9	8.1	-155.77	-17.6	2,395.7	2,437.7	2,422.9	14.76	165.157	
2,100.0	2,098.9	2,428.6	2,424.8	7.2	8.4	-155.80	-21.2	2,382.3	2,433.0	2,417.5	15.46	157.405	
2,200.0	2,198.3	2,528.6	2,523.7	7.6	8.8	-155.83	-24.9	2,368.8	2,429.8	2,413.7	16.16	150.370	
2,300.0	2,297.4	2,628.5	2,622.7	7.9	9.2	-155.88	-28.5	2,355.4	2,428.3	2,411.4	16.87	143.972	
2,400.0	2,396.4	2,728.5	2,721.7	8.3	9.6	-155.93	-32.1	2,342.0	2,427.5	2,410.0	17.58	138.098	
2,500.0	2,495.5	2,828.5	2,820.7	8.7	10.0	-155.98	-35.7	2,328.5	2,426.8	2,408.5	18.29	132.654	
2,600.0	2,594.5	2,928.4	2,919.7	9.1	10.4	-156.03	-39.3	2,315.1	2,426.1	2,407.0	19.01	127.597	
2,700.0	2,693.5	3,028.4	3,018.7	9.5	10.8	-156.08	-43.0	2,301.7	2,425.3	2,405.6	19.74	122.891	
2,800.0	2,792.5	3,128.4	3,117.7	9.8	11.2	-156.13	-46.6	2,288.2	2,424.6	2,404.1	20.46	118.502	
2,900.0	2,891.6	3,228.4	3,216.7	10.2	11.6	-156.18	-50.2	2,274.8	2,423.8	2,402.7	21.19	114.401	
3,000.0	2,990.6	3,328.4	3,315.7	10.6	12.0	-156.23	-53.8	2,261.3	2,423.1	2,401.2	21.92	110.562	
3,100.0	3,089.6	3,428.3	3,414.7	11.0	12.4	-156.28	-57.4	2,247.9	2,422.4	2,399.7	22.65	106.961	
3,200.0	3,188.6	3,528.3	3,513.8	11.4	12.8	-156.33	-61.1	2,234.5	2,421.7	2,398.3	23.38	103.578	
3,300.0	3,287.7	3,628.3	3,612.8	11.8	13.2	-156.38	-64.7	2,221.0	2,420.9	2,396.8	24.11	100.395	
3,400.0	3,386.7	3,728.3	3,711.8	12.2	13.6	-156.43	-68.3	2,207.6	2,420.2	2,395.4	24.85	97.394	
3,500.0	3,485.7	3,828.2	3,810.8	12.6	14.0	-156.48	-71.9	2,194.2	2,419.5	2,393.9	25.59	94.561	
3,600.0	3,584.8	3,928.2	3,909.8	13.0	14.4	-156.52	-75.5	2,180.7	2,418.8	2,392.4	26.32	91.883	
3,700.0	3,683.8	4,028.2	4,008.8	13.4	14.8	-156.57	-79.2	2,167.3	2,418.0	2,391.0	27.06	89.348	
3,800.0	3,782.8	4,128.2	4,107.8	13.8	15.2	-156.62	-82.8	2,153.9	2,417.3	2,389.5	27.80	86.945	
3,900.0	3,881.8	4,228.1	4,206.8	14.3	15.6	-156.67	-86.4	2,140.4	2,416.6	2,388.1	28.54	84.664	
4,000.0	3,980.9	4,328.1	4,305.8	14.7	16.0	-156.72	-90.0	2,127.0	2,415.9	2,386.6	29.28	82.496	
4,100.0	4,079.9	4,428.1	4,404.8	15.1	16.4	-156.77	-93.6	2,113.6	2,415.2	2,385.2	30.03	80.434	
4,200.0	4,178.9	4,528.1	4,503.8	15.5	16.9	-156.82	-97.3	2,100.1	2,414.5	2,383.7	30.77	78.469	
4,300.0	4,277.9	4,628.0	4,602.8	15.9	17.3	-156.87	-100.9	2,086.7	2,413.8	2,382.3	31.51	76.596	
4,400.0	4,377.0	4,728.0	4,701.8	16.3	17.7	-156.92	-104.5	2,073.3	2,413.1	2,380.8	32.26	74.808	
4,500.0	4,476.0	4,828.0	4,800.8	16.7	18.1	-156.97	-108.1	2,059.8	2,412.4	2,379.4	33.00	73.099	
4,600.0	4,575.0	4,928.0	4,899.8	17.1	18.5	-157.02	-111.7	2,046.4	2,411.6	2,377.9	33.75	71.465	
4,700.0	4,674.0	5,027.9	4,998.8	17.5	18.9	-157.07	-115.4	2,033.0	2,410.9	2,376.5	34.49	69.901	
4,800.0	4,773.1	5,127.9	5,097.8	18.0	19.3	-157.12	-119.0	2,019.5	2,410.2	2,375.0	35.24	68.402	
4,900.0	4,872.1	5,227.9	5,196.8	18.4	19.8	-157.17	-122.6	2,006.1	2,409.6	2,373.6	35.98	66.965	
5,000.0	4,971.1	5,327.9	5,295.8	18.8	20.2	-157.22	-126.2	1,992.7	2,408.9	2,372.1	36.73	65.586	
5,100.0	5,070.2	5,427.8	5,394.8	19.2	20.6	-157.27	-129.8	1,979.2	2,408.2	2,370.7	37.47	64.261	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,527.8	5,493.8	19.6	21.0	-157.32	-133.5	1,965.8	2,407.5	2,369.2	38.22	62.987	
5,300.0	5,268.2	5,627.8	5,592.8	20.0	21.4	-157.37	-137.1	1,952.3	2,406.8	2,367.8	38.97	61.762	
5,400.0	5,367.2	5,727.8	5,691.8	20.5	21.8	-157.42	-140.7	1,938.9	2,406.1	2,366.4	39.72	60.583	
5,500.0	5,466.3	5,827.7	5,790.8	20.9	22.3	-157.47	-144.3	1,925.5	2,405.4	2,364.9	40.46	59.447	
5,600.0	5,565.3	5,927.7	5,889.8	21.3	22.7	-157.52	-147.9	1,912.0	2,404.7	2,363.5	41.21	58.352	
5,643.3	5,608.2	5,971.0	5,932.7	21.5	22.9	-157.55	-149.5	1,906.2	2,404.4	2,362.9	41.53	57.889	
5,700.0	5,664.4	6,027.7	5,988.8	21.7	23.1	-157.57	-151.6	1,898.6	2,403.7	2,361.7	41.96	57.287	
5,800.0	5,763.7	6,127.6	6,087.8	22.1	23.5	-157.57	-155.2	1,885.2	2,400.4	2,357.7	42.70	56.214	
5,900.0	5,863.4	6,227.5	6,186.6	22.5	23.9	-157.54	-158.8	1,871.8	2,394.7	2,351.3	43.44	55.129	
6,000.0	5,963.2	6,327.1	6,285.3	22.8	24.3	-157.47	-162.4	1,858.4	2,386.6	2,342.4	44.17	54.033	
6,100.0	6,063.1	6,426.5	6,383.8	23.2	24.8	-157.36	-166.0	1,845.0	2,376.1	2,331.2	44.89	52.926	
6,176.7	6,139.8	6,502.6	6,459.1	23.4	25.1	88.53	-168.8	1,834.8	2,366.4	2,321.0	45.44	52.078	
6,200.0	6,163.1	6,525.7	6,482.0	23.5	25.2	88.55	-169.6	1,831.7	2,363.3	2,317.7	45.60	51.821	
6,300.0	6,263.1	6,624.7	6,580.0	23.8	25.6	88.63	-173.2	1,818.4	2,349.8	2,303.5	46.31	50.744	
6,400.0	6,363.1	6,723.7	6,678.1	24.2	26.0	88.71	-176.8	1,805.1	2,336.2	2,289.2	47.01	49.697	
6,500.0	6,463.1	6,822.8	6,776.1	24.5	26.4	88.79	-180.3	1,791.8	2,322.7	2,275.0	47.71	48.681	
6,600.0	6,563.1	6,921.8	6,874.2	24.8	26.8	88.87	-183.9	1,778.5	2,309.2	2,260.8	48.42	47.693	
6,700.0	6,663.1	7,020.8	6,972.3	25.1	27.3	88.95	-187.5	1,765.2	2,295.7	2,246.6	49.12	46.733	
6,800.0	6,763.1	7,119.8	7,070.3	25.4	27.7	89.04	-191.1	1,751.8	2,282.2	2,232.3	49.83	45.800	
6,900.0	6,863.1	7,218.9	7,168.4	25.8	28.1	89.13	-194.7	1,738.5	2,268.7	2,218.1	50.54	44.892	
7,000.0	6,963.1	7,278.3	7,227.3	26.1	28.3	89.17	-196.7	1,731.2	2,256.1	2,205.0	51.13	44.127	
7,100.0	7,063.1	7,341.5	7,290.2	26.4	28.6	89.22	-198.5	1,724.3	2,245.2	2,193.5	51.72	43.413	
7,200.0	7,163.1	7,400.0	7,348.4	26.7	28.8	89.25	-200.0	1,718.8	2,235.8	2,183.5	52.28	42.769	
7,300.0	7,263.1	7,468.6	7,416.8	27.1	29.1	89.29	-201.5	1,713.4	2,228.1	2,175.2	52.86	42.152	
7,400.0	7,363.1	7,532.4	7,480.4	27.4	29.3	89.32	-202.5	1,709.5	2,221.9	2,168.5	53.41	41.603	
7,500.0	7,463.1	7,600.0	7,547.9	27.7	29.6	89.34	-203.3	1,706.5	2,217.4	2,163.5	53.96	41.092	
7,600.0	7,563.1	7,660.4	7,608.3	28.1	29.8	89.35	-203.8	1,704.8	2,214.5	2,160.1	54.47	40.659	
7,700.0	7,663.1	7,724.4	7,672.3	28.4	30.0	89.35	-204.0	1,704.0	2,213.3	2,158.3	54.97	40.262	
7,746.5	7,709.6	7,760.7	7,708.6	28.5	30.1	89.35	-204.0	1,703.9	2,213.2	2,158.0	55.23	40.070	
7,800.0	7,763.1	7,814.2	7,762.1	28.7	30.3	89.35	-204.0	1,703.9	2,213.2	2,157.6	55.59	39.810	
7,900.0	7,863.1	7,914.2	7,862.1	29.0	30.6	89.35	-204.0	1,703.9	2,213.2	2,156.9	56.27	39.333	
8,000.0	7,963.1	8,014.2	7,962.1	29.4	30.9	89.35	-204.0	1,703.9	2,213.2	2,156.3	56.94	38.867	
8,100.0	8,063.1	8,114.2	8,062.1	29.7	31.2	89.35	-204.0	1,703.9	2,213.2	2,155.6	57.62	38.411	
8,200.0	8,163.1	8,214.2	8,162.1	30.0	31.5	89.35	-204.0	1,703.9	2,213.2	2,154.9	58.30	37.964	
8,300.0	8,263.1	8,314.2	8,262.1	30.4	31.8	89.35	-204.0	1,703.9	2,213.2	2,154.2	58.97	37.528	
8,400.0	8,363.1	8,414.2	8,362.1	30.7	32.1	89.35	-204.0	1,703.9	2,213.2	2,153.5	59.65	37.100	
8,500.0	8,463.1	8,514.2	8,462.1	31.0	32.5	89.35	-204.0	1,703.9	2,213.2	2,152.9	60.33	36.682	
8,600.0	8,563.1	8,614.2	8,562.1	31.4	32.8	89.35	-204.0	1,703.9	2,213.2	2,152.2	61.01	36.273	
8,700.0	8,663.1	8,714.2	8,662.1	31.7	33.1	89.35	-204.0	1,703.9	2,213.2	2,151.5	61.70	35.872	
8,800.0	8,763.1	8,814.2	8,762.1	32.1	33.4	89.35	-204.0	1,703.9	2,213.2	2,150.8	62.38	35.480	
8,900.0	8,863.1	8,914.2	8,862.1	32.4	33.7	89.35	-204.0	1,703.9	2,213.2	2,150.1	63.06	35.095	
9,000.0	8,963.1	9,014.2	8,962.1	32.7	34.1	89.35	-204.0	1,703.9	2,213.2	2,149.4	63.75	34.719	
9,100.0	9,063.1	9,114.2	9,062.1	33.1	34.4	89.35	-204.0	1,703.9	2,213.2	2,148.8	64.43	34.350	
9,200.0	9,163.1	9,214.2	9,162.1	33.4	34.7	89.35	-204.0	1,703.9	2,213.2	2,148.1	65.12	33.988	
9,300.0	9,263.1	9,314.2	9,262.1	33.7	35.0	89.35	-204.0	1,703.9	2,213.2	2,147.4	65.80	33.634	
9,400.0	9,363.1	9,414.2	9,362.1	34.1	35.4	89.35	-204.0	1,703.9	2,213.2	2,146.7	66.49	33.287	
9,500.0	9,463.1	9,514.2	9,462.1	34.4	35.7	89.35	-204.0	1,703.9	2,213.2	2,146.0	67.18	32.946	
9,600.0	9,563.1	9,614.2	9,562.1	34.8	36.0	89.35	-204.0	1,703.9	2,213.2	2,145.3	67.86	32.612	
9,700.0	9,663.1	9,714.2	9,662.1	35.1	36.3	89.35	-204.0	1,703.9	2,213.2	2,144.6	68.55	32.284	
9,800.0	9,763.1	9,814.2	9,762.1	35.4	36.7	89.35	-204.0	1,703.9	2,213.2	2,144.0	69.24	31.963	
9,900.0	9,863.1	9,914.2	9,862.1	35.8	37.0	89.35	-204.0	1,703.9	2,213.2	2,143.3	69.93	31.648	
10,000.0	9,963.1	10,014.2	9,962.1	36.1	37.3	89.35	-204.0	1,703.9	2,213.2	2,142.6	70.62	31.339	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,114.2	10,062.1	36.5	37.7	89.35	-204.0	1,703.9	2,213.2	2,141.9	71.31	31.035	
10,200.0	10,163.1	10,214.2	10,162.1	36.8	38.0	89.35	-204.0	1,703.9	2,213.2	2,141.2	72.00	30.737	
10,300.0	10,263.1	10,314.2	10,262.1	37.1	38.3	89.35	-204.0	1,703.9	2,213.2	2,140.5	72.70	30.445	
10,307.7	10,270.9	10,322.0	10,269.9	37.2	38.3	89.35	-204.0	1,703.9	2,213.2	2,140.4	72.75	30.422 CC	
10,400.0	10,363.1	10,413.4	10,361.2	37.5	38.6	89.29	-201.7	1,703.9	2,213.2	2,139.8	73.38	30.162	
10,500.0	10,463.1	10,508.9	10,455.2	37.8	38.9	88.87	-185.2	1,703.8	2,213.3	2,139.3	74.01	29.908 ES	
10,600.0	10,563.1	10,596.8	10,538.1	38.2	39.2	88.12	-156.4	1,703.6	2,214.0	2,139.4	74.56	29.695	
10,700.0	10,663.1	10,674.3	10,606.9	38.5	39.3	87.20	-120.8	1,703.3	2,215.7	2,140.7	75.02	29.535	
10,800.0	10,763.1	10,741.0	10,661.8	38.9	39.5	86.22	-82.9	1,703.0	2,219.2	2,143.8	75.39	29.435	
10,900.0	10,863.1	10,800.0	10,706.4	39.2	39.6	85.23	-44.3	1,702.7	2,225.0	2,149.3	75.68	29.400	
11,000.0	10,963.1	10,850.0	10,740.9	39.6	39.6	84.30	-8.2	1,702.4	2,233.5	2,157.6	75.86	29.444	
11,100.0	11,063.1	10,885.1	10,763.2	39.9	39.7	83.60	19.0	1,702.2	2,245.2	2,169.3	75.88	29.589	
11,200.0	11,163.1	10,919.1	10,783.1	40.2	39.7	82.90	46.5	1,702.0	2,260.2	2,184.4	75.81	29.813	
11,300.0	11,263.1	10,950.0	10,799.8	40.6	39.8	82.24	72.5	1,701.8	2,278.7	2,203.1	75.64	30.124	
11,400.0	11,363.1	10,972.8	10,811.2	40.9	39.8	81.73	92.2	1,701.6	2,300.9	2,225.5	75.34	30.538	
11,500.0	11,463.1	11,000.0	10,823.8	41.3	39.8	81.12	116.3	1,701.4	2,326.6	2,251.6	74.99	31.026	
11,600.0	11,563.1	11,012.9	10,829.3	41.6	39.8	80.83	128.0	1,701.3	2,356.0	2,281.5	74.46	31.641	
11,700.0	11,663.1	11,029.3	10,836.0	42.0	39.8	80.45	143.0	1,701.2	2,388.8	2,314.9	73.89	32.330	
11,800.0	11,763.1	11,050.0	10,843.8	42.3	39.8	79.96	162.1	1,701.1	2,425.1	2,351.8	73.30	33.084	
11,900.0	11,863.1	11,050.0	10,843.8	42.7	39.8	79.96	162.1	1,701.1	2,464.7	2,392.2	72.51	33.993	
12,006.9	11,970.0	11,068.8	10,850.3	43.0	39.9	79.52	179.7	1,700.9	2,510.5	2,438.8	71.75	34.988	
12,050.0	12,013.1	11,073.8	10,852.0	43.2	39.9	85.14	184.5	1,700.9	2,530.0	2,458.5	71.42	35.424	
12,100.0	12,062.7	11,080.5	10,854.1	43.3	39.9	82.43	190.8	1,700.8	2,552.8	2,481.8	71.03	35.940	
12,150.0	12,111.7	11,100.0	10,859.8	43.5	39.9	79.46	209.5	1,700.7	2,576.0	2,505.3	70.73	36.419	
12,200.0	12,159.5	11,100.0	10,859.8	43.7	39.9	76.93	209.5	1,700.7	2,599.0	2,528.7	70.29	36.975	
12,250.0	12,205.9	11,100.0	10,859.8	43.8	39.9	74.43	209.5	1,700.7	2,621.8	2,552.0	69.85	37.533	
12,300.0	12,250.5	11,100.0	10,859.8	43.9	39.9	72.01	209.5	1,700.7	2,644.4	2,575.0	69.43	38.087	
12,350.0	12,293.0	11,125.0	10,866.3	44.1	39.9	69.35	233.7	1,700.5	2,666.1	2,596.9	69.19	38.531	
12,400.0	12,333.0	11,150.0	10,871.6	44.2	39.9	66.87	258.0	1,700.3	2,687.4	2,618.4	68.97	38.966	
12,450.0	12,370.3	11,150.0	10,871.6	44.3	39.9	64.88	258.0	1,700.3	2,707.4	2,638.8	68.61	39.462	
12,500.0	12,404.5	11,150.0	10,871.6	44.3	39.9	63.02	258.0	1,700.3	2,726.5	2,658.2	68.28	39.930	
12,550.0	12,435.4	11,169.7	10,875.1	44.4	40.0	61.17	277.4	1,700.2	2,744.3	2,676.2	68.11	40.295	
12,600.0	12,462.7	11,181.6	10,876.9	44.5	40.0	59.58	289.2	1,700.1	2,760.8	2,692.8	67.92	40.645	
12,650.0	12,486.3	11,200.0	10,879.1	44.5	40.0	58.14	307.4	1,699.9	2,775.8	2,708.0	67.81	40.933	
12,700.0	12,506.0	11,200.0	10,879.1	44.6	40.0	56.97	307.4	1,699.9	2,789.2	2,721.5	67.66	41.221	
12,750.0	12,521.6	11,218.7	10,880.8	44.7	40.0	55.91	326.0	1,699.8	2,800.9	2,733.3	67.65	41.403	
12,800.0	12,533.0	11,231.3	10,881.7	44.7	40.0	55.06	338.6	1,699.7	2,810.9	2,743.2	67.66	41.545	
12,850.0	12,540.1	11,250.0	10,882.3	44.9	40.1	54.38	357.3	1,699.5	2,819.1	2,751.3	67.74	41.617	
12,900.0	12,542.9	11,256.7	10,882.4	45.0	40.1	53.88	364.0	1,699.5	2,825.3	2,757.5	67.84	41.649	
12,915.3	12,542.9	11,263.5	10,882.5	45.0	40.1	53.77	370.8	1,699.4	2,826.9	2,759.0	67.89	41.639	
13,000.0	12,541.7	11,336.2	10,882.2	45.3	40.3	53.99	443.5	1,698.9	2,834.2	2,765.9	68.32	41.483	
13,100.0	12,540.2	11,435.8	10,881.9	45.6	40.6	54.21	543.1	1,698.1	2,840.2	2,771.3	68.95	41.195	
13,200.0	12,538.7	11,535.7	10,881.6	46.0	41.0	54.35	643.0	1,697.3	2,843.5	2,773.8	69.65	40.826	
13,287.8	12,537.4	11,623.5	10,881.3	46.4	41.4	54.41	730.8	1,696.6	2,844.0	2,773.7	70.33	40.441	
13,300.0	12,537.2	11,635.6	10,881.2	46.5	41.5	54.41	743.0	1,696.5	2,843.9	2,773.5	70.43	40.382	
13,400.0	12,535.8	11,735.6	10,880.9	47.0	42.0	54.43	842.9	1,695.7	2,843.2	2,772.0	71.30	39.880	
13,500.0	12,534.3	11,835.6	10,880.6	47.5	42.6	54.45	942.9	1,694.9	2,842.6	2,770.3	72.27	39.333	
13,600.0	12,532.8	11,935.6	10,880.2	48.1	43.3	54.47	1,042.9	1,694.2	2,841.9	2,768.6	73.34	38.749	
13,700.0	12,531.3	12,035.6	10,879.9	48.7	44.0	54.49	1,142.9	1,693.4	2,841.2	2,766.7	74.51	38.134	
13,800.0	12,529.9	12,135.6	10,879.6	49.4	44.7	54.51	1,242.9	1,692.6	2,840.6	2,764.8	75.76	37.492	
13,900.0	12,528.4	12,235.6	10,879.2	50.2	45.6	54.53	1,342.9	1,691.8	2,839.9	2,762.8	77.11	36.831	
14,000.0	12,526.9	12,335.6	10,878.9	51.0	46.4	54.54	1,442.9	1,691.0	2,839.2	2,760.7	78.53	36.154	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	12,525.5	12,435.6	10,878.6	51.8	47.3	54.56	1,542.9	1,690.2	2,838.6	2,758.6	80.03	35.467	
14,200.0	12,524.0	12,535.6	10,878.2	52.6	48.2	54.58	1,642.9	1,689.4	2,837.9	2,756.3	81.61	34.775	
14,300.0	12,522.5	12,635.6	10,877.9	53.5	49.2	54.60	1,742.9	1,688.7	2,837.3	2,754.0	83.25	34.080	
14,400.0	12,521.0	12,735.6	10,877.6	54.5	50.2	54.62	1,842.8	1,687.9	2,836.6	2,751.6	84.96	33.387	
14,500.0	12,519.6	12,835.6	10,877.2	55.4	51.3	54.64	1,942.8	1,687.1	2,835.9	2,749.2	86.73	32.698	
14,600.0	12,518.1	12,935.6	10,876.9	56.4	52.4	54.66	2,042.8	1,686.3	2,835.3	2,746.7	88.56	32.016	
14,700.0	12,516.6	13,035.5	10,876.6	57.4	53.5	54.68	2,142.8	1,685.5	2,834.6	2,744.2	90.44	31.342	
14,800.0	12,515.1	13,135.5	10,876.2	58.5	54.6	54.69	2,242.8	1,684.7	2,833.9	2,741.6	92.37	30.679	
14,900.0	12,513.7	13,235.5	10,875.9	59.6	55.8	54.71	2,342.8	1,683.9	2,833.3	2,738.9	94.35	30.028	
15,000.0	12,512.2	13,335.5	10,875.6	60.7	56.9	54.73	2,442.8	1,683.2	2,832.6	2,736.2	96.38	29.390	
15,100.0	12,510.7	13,435.5	10,875.3	61.8	58.1	54.75	2,542.8	1,682.4	2,831.9	2,733.5	98.45	28.766	
15,200.0	12,509.3	13,535.5	10,874.9	63.0	59.4	54.77	2,642.8	1,681.6	2,831.3	2,730.7	100.56	28.157	
15,300.0	12,507.8	13,635.5	10,874.6	64.2	60.6	54.79	2,742.8	1,680.8	2,830.6	2,727.9	102.70	27.562	
15,400.0	12,506.3	13,735.5	10,874.3	65.4	61.9	54.81	2,842.7	1,680.0	2,830.0	2,725.1	104.88	26.983	
15,500.0	12,504.8	13,835.5	10,873.9	66.6	63.2	54.83	2,942.7	1,679.2	2,829.3	2,722.2	107.09	26.419	
15,600.0	12,503.4	13,935.5	10,873.6	67.8	64.5	54.85	3,042.7	1,678.5	2,828.6	2,719.3	109.34	25.870	
15,700.0	12,501.9	14,035.5	10,873.3	69.1	65.8	54.86	3,142.7	1,677.7	2,828.0	2,716.4	111.61	25.337	
15,800.0	12,500.4	14,135.5	10,872.9	70.3	67.1	54.88	3,242.7	1,676.9	2,827.3	2,713.4	113.92	24.819	
15,900.0	12,498.9	14,235.5	10,872.6	71.6	68.5	54.90	3,342.7	1,676.1	2,826.7	2,710.4	116.24	24.317	
16,000.0	12,497.5	14,335.5	10,872.3	72.9	69.8	54.92	3,442.7	1,675.3	2,826.0	2,707.4	118.60	23.829	
16,100.0	12,496.0	14,435.5	10,871.9	74.3	71.2	54.94	3,542.7	1,674.5	2,825.3	2,704.4	120.97	23.355	
16,200.0	12,494.5	14,535.5	10,871.6	75.6	72.6	54.96	3,642.7	1,673.7	2,824.7	2,701.3	123.37	22.896	
16,300.0	12,493.0	14,635.4	10,871.3	76.9	74.0	54.98	3,742.6	1,673.0	2,824.0	2,698.2	125.79	22.450	
16,400.0	12,491.6	14,735.4	10,870.9	78.3	75.4	55.00	3,842.6	1,672.2	2,823.4	2,695.1	128.23	22.018	
16,500.0	12,490.1	14,835.4	10,870.6	79.6	76.8	55.02	3,942.6	1,671.4	2,822.7	2,692.0	130.68	21.599	
16,600.0	12,488.6	14,935.4	10,870.3	81.0	78.2	55.03	4,042.6	1,670.6	2,822.1	2,688.9	133.16	21.193	
16,700.0	12,487.2	15,035.4	10,869.9	82.4	79.7	55.05	4,142.6	1,669.8	2,821.4	2,685.7	135.65	20.799	
16,800.0	12,485.7	15,135.4	10,869.6	83.8	81.1	55.07	4,242.6	1,669.0	2,820.7	2,682.6	138.16	20.417	
16,900.0	12,484.2	15,235.4	10,869.3	85.2	82.6	55.09	4,342.6	1,668.2	2,820.1	2,679.4	140.68	20.046	
17,000.0	12,482.7	15,335.4	10,869.0	86.6	84.0	55.11	4,442.6	1,667.5	2,819.4	2,676.2	143.22	19.686	
17,100.0	12,481.3	15,435.4	10,868.6	88.1	85.5	55.13	4,542.6	1,666.7	2,818.8	2,673.0	145.77	19.337	
17,200.0	12,479.8	15,535.4	10,868.3	89.5	87.0	55.15	4,642.6	1,665.9	2,818.1	2,669.8	148.33	18.998	
17,300.0	12,478.3	15,635.4	10,868.0	90.9	88.4	55.17	4,742.5	1,665.1	2,817.5	2,666.5	150.91	18.670	
17,400.0	12,476.8	15,735.4	10,867.6	92.4	89.9	55.19	4,842.5	1,664.3	2,816.8	2,663.3	153.50	18.351	
17,500.0	12,475.4	15,835.4	10,867.3	93.8	91.4	55.20	4,942.5	1,663.5	2,816.1	2,660.0	156.10	18.041	
17,600.0	12,473.9	15,935.4	10,867.0	95.3	92.9	55.22	5,042.5	1,662.7	2,815.5	2,656.8	158.71	17.740	
17,700.0	12,472.4	16,035.4	10,866.6	96.7	94.4	55.24	5,142.5	1,662.0	2,814.8	2,653.5	161.33	17.448	
17,800.0	12,471.0	16,135.3	10,866.3	98.2	95.9	55.26	5,242.5	1,661.2	2,814.2	2,650.2	163.96	17.164	
17,900.0	12,469.5	16,235.3	10,866.0	99.7	97.4	55.28	5,342.5	1,660.4	2,813.5	2,646.9	166.60	16.888	
18,000.0	12,468.0	16,335.3	10,865.6	101.2	99.0	55.30	5,442.5	1,659.6	2,812.9	2,643.6	169.25	16.620	
18,100.0	12,466.5	16,435.3	10,865.3	102.7	100.5	55.32	5,542.5	1,658.8	2,812.2	2,640.3	171.91	16.359	
18,200.0	12,465.1	16,535.3	10,865.0	104.2	102.0	55.34	5,642.5	1,658.0	2,811.6	2,637.0	174.58	16.105	
18,300.0	12,463.6	16,635.3	10,864.6	105.7	103.5	55.36	5,742.4	1,657.2	2,810.9	2,633.7	177.25	15.858	
18,400.0	12,462.1	16,735.3	10,864.3	107.2	105.1	55.38	5,842.4	1,656.5	2,810.3	2,630.3	179.93	15.618	
18,500.0	12,460.6	16,835.3	10,864.0	108.7	106.6	55.40	5,942.4	1,655.7	2,809.6	2,627.0	182.62	15.385	
18,600.0	12,459.2	16,935.3	10,863.6	110.2	108.1	55.41	6,042.4	1,654.9	2,809.0	2,623.6	185.32	15.157	
18,700.0	12,457.7	17,035.3	10,863.3	111.7	109.7	55.43	6,142.4	1,654.1	2,808.3	2,620.3	188.02	14.936	
18,800.0	12,456.2	17,135.3	10,863.0	113.2	111.2	55.45	6,242.4	1,653.3	2,807.7	2,616.9	190.73	14.720	
18,900.0	12,454.8	17,235.3	10,862.7	114.8	112.8	55.47	6,342.4	1,652.5	2,807.0	2,613.6	193.45	14.510	
19,000.0	12,453.3	17,335.3	10,862.3	116.3	114.3	55.49	6,442.4	1,651.7	2,806.4	2,610.2	196.17	14.306	
19,100.0	12,451.8	17,435.3	10,862.0	117.8	115.9	55.51	6,542.4	1,651.0	2,805.7	2,606.8	198.90	14.106	
19,200.0	12,450.3	17,535.3	10,861.7	119.3	117.5	55.53	6,642.4	1,650.2	2,805.1	2,603.4	201.64	13.911	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,300.0	12,448.9	17,635.2	10,861.3	120.9	119.0	55.55	6,742.3	1,649.4	2,804.4	2,600.0	204.38	13.722		
19,400.0	12,447.4	17,735.2	10,861.0	122.4	120.6	55.57	6,842.3	1,648.6	2,803.8	2,596.6	207.12	13.537		
19,500.0	12,445.9	17,835.2	10,860.7	124.0	122.2	55.59	6,942.3	1,647.8	2,803.1	2,593.2	209.87	13.356		
19,600.0	12,444.4	17,935.2	10,860.3	125.5	123.7	55.61	7,042.3	1,647.0	2,802.5	2,589.8	212.63	13.180		
19,700.0	12,443.0	18,035.2	10,860.0	127.1	125.3	55.63	7,142.3	1,646.3	2,801.8	2,586.4	215.39	13.008		
19,800.0	12,441.5	18,135.2	10,859.7	128.6	126.9	55.64	7,242.3	1,645.5	2,801.2	2,583.0	218.16	12.840		
19,900.0	12,440.0	18,235.2	10,859.3	130.2	128.4	55.66	7,342.3	1,644.7	2,800.5	2,579.6	220.93	12.676		
20,000.0	12,438.6	18,335.2	10,859.0	131.7	130.0	55.68	7,442.3	1,643.9	2,799.9	2,576.2	223.70	12.516		
20,100.0	12,437.1	18,435.2	10,858.7	133.3	131.6	55.70	7,542.3	1,643.1	2,799.2	2,572.7	226.48	12.360		
20,200.0	12,435.6	18,535.2	10,858.3	134.9	133.2	55.72	7,642.3	1,642.3	2,798.6	2,569.3	229.26	12.207		
20,300.0	12,434.1	18,635.2	10,858.0	136.4	134.8	55.74	7,742.2	1,641.5	2,797.9	2,565.9	232.05	12.057		
20,400.0	12,432.7	18,735.2	10,857.7	138.0	136.4	55.76	7,842.2	1,640.8	2,797.3	2,562.4	234.84	11.911		
20,500.0	12,431.2	18,835.2	10,857.3	139.6	137.9	55.78	7,942.2	1,640.0	2,796.6	2,559.0	237.64	11.769		
20,600.0	12,429.7	18,935.2	10,857.0	141.1	139.5	55.80	8,042.2	1,639.2	2,796.0	2,555.6	240.44	11.629		
20,700.0	12,428.2	19,035.2	10,856.7	142.7	141.1	55.82	8,142.2	1,638.4	2,795.4	2,552.1	243.24	11.492		
20,800.0	12,426.8	19,135.2	10,856.4	144.3	142.7	55.84	8,242.2	1,637.6	2,794.7	2,548.7	246.05	11.359		
20,900.0	12,425.3	19,235.1	10,856.0	145.9	144.3	55.86	8,342.2	1,636.8	2,794.1	2,545.2	248.86	11.228		
21,000.0	12,423.8	19,335.1	10,855.7	147.4	145.9	55.88	8,442.2	1,636.0	2,793.4	2,541.8	251.67	11.100		
21,100.0	12,422.4	19,435.1	10,855.4	149.0	147.5	55.90	8,542.2	1,635.3	2,792.8	2,538.3	254.49	10.974		
21,200.0	12,420.9	19,535.1	10,855.0	150.6	149.1	55.91	8,642.2	1,634.5	2,792.1	2,534.8	257.30	10.851		
21,300.0	12,419.4	19,635.1	10,854.7	152.2	150.7	55.93	8,742.1	1,633.7	2,791.5	2,531.4	260.13	10.731		
21,400.0	12,417.9	19,735.1	10,854.4	153.8	152.3	55.95	8,842.1	1,632.9	2,790.8	2,527.9	262.95	10.613		
21,500.0	12,416.5	19,835.1	10,854.0	155.3	153.9	55.97	8,942.1	1,632.1	2,790.2	2,524.4	265.78	10.498		
21,600.0	12,415.0	19,935.1	10,853.7	156.9	155.5	55.99	9,042.1	1,631.3	2,789.6	2,520.9	268.62	10.385		
21,700.0	12,413.5	20,035.1	10,853.4	158.5	157.1	56.01	9,142.1	1,630.5	2,788.9	2,517.5	271.45	10.274		
21,800.0	12,412.0	20,135.1	10,853.0	160.1	158.7	56.03	9,242.1	1,629.8	2,788.3	2,514.0	274.29	10.165		
21,900.0	12,410.6	20,235.1	10,852.7	161.7	160.3	56.05	9,342.1	1,629.0	2,787.6	2,510.5	277.13	10.059		
22,000.0	12,409.1	20,335.1	10,852.4	163.3	161.9	56.07	9,442.1	1,628.2	2,787.0	2,507.0	279.97	9.955		
22,100.0	12,407.6	20,435.1	10,852.0	164.9	163.5	56.09	9,542.1	1,627.4	2,786.4	2,503.5	282.82	9.852		
22,200.0	12,406.1	20,535.1	10,851.7	166.5	165.1	56.11	9,642.1	1,626.6	2,785.7	2,500.1	285.67	9.752		
22,300.0	12,404.7	20,635.1	10,851.4	168.1	166.7	56.13	9,742.0	1,625.8	2,785.1	2,496.6	288.52	9.653		
22,400.0	12,403.2	20,735.0	10,851.0	169.7	168.3	56.15	9,842.0	1,625.0	2,784.4	2,493.1	291.37	9.556		
22,500.0	12,401.7	20,835.0	10,850.7	171.3	170.0	56.17	9,942.0	1,624.3	2,783.8	2,489.6	294.23	9.461		
22,600.0	12,400.3	20,935.0	10,850.4	172.9	171.6	56.19	10,042.0	1,623.5	2,783.2	2,486.1	297.09	9.368		
22,700.0	12,398.8	21,035.0	10,850.1	174.5	173.2	56.21	10,142.0	1,622.7	2,782.5	2,482.6	299.95	9.277		
22,787.3	12,397.5	21,130.4	10,850.5	175.7	174.7	56.24	10,237.4	1,622.1	2,781.7	2,479.3	302.41	9.199 SF		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	-1.0	0.0	0.0	89.35	28.0	2,453.2	2,453.3				
100.0	100.0	101.0	99.0	0.1	0.1	89.35	28.0	2,453.2	2,453.3	2,453.1	0.26	9,439.871	
200.0	200.0	201.0	199.0	0.5	0.5	89.35	28.0	2,453.2	2,453.3	2,452.4	0.98	2,511.528	
300.0	300.0	301.0	299.0	0.8	0.8	89.35	28.0	2,453.2	2,453.3	2,451.7	1.69	1,448.447	
400.0	400.0	401.0	399.0	1.2	1.2	89.35	28.0	2,453.2	2,453.3	2,450.9	2.41	1,017.683	
500.0	500.0	501.0	499.0	1.6	1.6	89.35	28.0	2,453.2	2,453.3	2,450.2	3.13	784.403	
600.0	600.0	601.0	599.0	1.9	1.9	89.35	28.0	2,453.2	2,453.3	2,449.5	3.84	638.127	
700.0	700.0	701.0	699.0	2.3	2.3	89.35	28.0	2,453.2	2,453.3	2,448.8	4.56	537.832	
800.0	800.0	801.0	799.0	2.6	2.6	89.35	28.0	2,453.2	2,453.3	2,448.1	5.28	464.782	
900.0	900.0	901.0	899.0	3.0	3.0	89.35	28.0	2,453.2	2,453.3	2,447.4	6.00	409.203	
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	89.35	28.0	2,453.2	2,453.3	2,446.6	6.71	365.496	
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	89.35	28.0	2,453.2	2,453.3	2,445.9	7.43	330.225	
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	89.35	28.0	2,453.2	2,453.3	2,445.2	8.15	301.162	
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	89.35	28.0	2,453.2	2,453.3	2,444.5	8.86	276.801	
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	89.35	28.0	2,453.2	2,453.3	2,443.8	9.58	256.087	
1,500.0	1,500.0	1,501.0	1,499.0	5.1	5.2	89.35	28.0	2,453.2	2,453.3	2,443.1	10.30	238.256 CC, ES	
1,600.0	1,600.0	1,601.0	1,599.0	5.5	5.5	-156.44	28.0	2,453.2	2,454.1	2,443.1	11.00	223.077	
1,700.0	1,700.0	1,701.0	1,699.0	5.8	5.9	-156.45	28.0	2,453.2	2,456.5	2,444.9	11.70	210.044	
1,800.0	1,799.9	1,801.1	1,798.9	6.2	6.2	-156.48	28.0	2,453.2	2,460.5	2,448.2	12.39	198.554	
1,900.0	1,899.7	1,901.3	1,898.7	6.5	6.6	-156.51	28.0	2,453.2	2,466.1	2,453.1	13.09	188.371	
2,000.0	1,999.4	1,998.4	1,998.4	6.9	6.9	-156.56	28.0	2,453.2	2,473.3	2,459.6	13.78	179.455	
2,100.0	2,098.9	2,071.0	2,071.0	7.2	7.2	-156.58	27.8	2,453.6	2,482.7	2,468.3	14.38	172.683	
2,200.0	2,198.3	2,142.9	2,142.9	7.6	7.4	-156.59	27.1	2,454.8	2,494.7	2,479.7	14.96	166.716	
2,300.0	2,297.4	2,214.5	2,214.4	7.9	7.7	-156.59	26.1	2,456.7	2,509.4	2,493.9	15.55	161.419	
2,400.0	2,396.4	2,285.7	2,285.6	8.3	7.9	-156.65	24.6	2,459.5	2,526.0	2,509.8	16.13	156.632	
2,500.0	2,495.5	2,356.7	2,356.5	8.7	8.1	-156.69	22.7	2,463.0	2,543.6	2,526.9	16.71	152.254	
2,600.0	2,594.5	2,427.4	2,427.0	9.1	8.4	-156.73	20.5	2,467.3	2,562.3	2,545.0	17.28	148.240	
2,700.0	2,693.5	2,500.0	2,499.4	9.5	8.6	-156.75	17.7	2,472.4	2,582.1	2,564.2	17.87	144.489	
2,800.0	2,792.5	2,568.0	2,567.1	9.8	8.9	-156.77	14.7	2,478.0	2,602.9	2,584.4	18.44	141.173	
2,900.0	2,891.6	2,637.9	2,636.5	10.2	9.1	-156.77	11.3	2,484.5	2,624.7	2,605.7	19.01	138.064	
3,000.0	2,990.6	2,707.4	2,705.6	10.6	9.4	-156.77	7.5	2,491.7	2,647.6	2,628.0	19.58	135.208	
3,100.0	3,089.6	2,776.5	2,774.1	11.0	9.6	-156.76	3.3	2,499.5	2,671.5	2,651.3	20.15	132.578	
3,200.0	3,188.6	2,863.8	2,860.6	11.4	9.9	-156.73	-2.4	2,510.2	2,696.2	2,675.4	20.80	129.618	
3,300.0	3,287.7	2,960.7	2,956.5	11.8	10.3	-156.70	-8.8	2,522.1	2,720.9	2,699.4	21.50	126.565	
3,400.0	3,386.7	3,057.6	3,052.5	12.2	10.7	-156.67	-15.1	2,534.0	2,745.7	2,723.5	22.20	123.686	
3,500.0	3,485.7	3,154.4	3,148.4	12.6	11.0	-156.65	-21.5	2,545.9	2,770.5	2,747.6	22.90	120.968	
3,600.0	3,584.8	3,251.3	3,244.3	13.0	11.4	-156.62	-27.8	2,557.8	2,795.2	2,771.6	23.61	118.399	
3,700.0	3,683.8	3,348.2	3,340.3	13.4	11.8	-156.59	-34.2	2,569.7	2,820.0	2,795.7	24.32	115.967	
3,800.0	3,782.8	3,445.1	3,436.2	13.8	12.1	-156.57	-40.5	2,581.6	2,844.7	2,819.7	25.03	113.663	
3,900.0	3,881.8	3,542.0	3,532.1	14.3	12.5	-156.54	-46.8	2,593.5	2,869.5	2,843.8	25.74	111.478	
4,000.0	3,980.9	3,638.8	3,628.1	14.7	12.9	-156.52	-53.2	2,605.4	2,894.3	2,867.8	26.46	109.402	
4,100.0	4,079.9	3,735.7	3,724.0	15.1	13.3	-156.49	-59.5	2,617.3	2,919.0	2,891.9	27.17	107.429	
4,200.0	4,178.9	3,832.6	3,819.9	15.5	13.6	-156.47	-65.9	2,629.2	2,943.8	2,915.9	27.89	105.551	
4,300.0	4,277.9	3,929.5	3,915.9	15.9	14.0	-156.45	-72.2	2,641.1	2,968.6	2,940.0	28.61	103.763	
4,400.0	4,377.0	4,026.4	4,011.8	16.3	14.4	-156.42	-78.5	2,653.0	2,993.3	2,964.0	29.33	102.057	
4,500.0	4,476.0	4,123.2	4,107.8	16.7	14.8	-156.40	-84.9	2,664.9	3,018.1	2,988.0	30.05	100.429	
4,600.0	4,575.0	4,220.1	4,203.7	17.1	15.2	-156.38	-91.2	2,676.8	3,042.9	3,012.1	30.78	98.873	
4,700.0	4,674.0	4,317.0	4,299.6	17.5	15.6	-156.36	-97.6	2,688.7	3,067.6	3,036.1	31.50	97.386	
4,800.0	4,773.1	4,413.9	4,395.6	18.0	16.0	-156.33	-103.9	2,700.6	3,092.4	3,060.2	32.23	95.962	
4,900.0	4,872.1	4,510.7	4,491.5	18.4	16.4	-156.31	-110.3	2,712.5	3,117.2	3,084.2	32.95	94.598	
5,000.0	4,971.1	4,607.6	4,587.4	18.8	16.7	-156.29	-116.6	2,724.4	3,141.9	3,108.2	33.68	93.291	
5,100.0	5,070.2	4,704.5	4,683.4	19.2	17.1	-156.27	-122.9	2,736.3	3,166.7	3,132.3	34.41	92.036	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	4,801.4	4,779.3	19.6	17.5	-156.25	-129.3	2,748.2	3,191.5	3,156.3	35.14	90.832	
5,300.0	5,268.2	4,898.3	4,875.2	20.0	17.9	-156.23	-135.6	2,760.1	3,216.2	3,180.4	35.87	89.675	
5,400.0	5,367.2	5,004.9	4,971.2	20.5	18.4	-156.21	-142.0	2,772.0	3,241.0	3,204.4	36.63	88.473	
5,500.0	5,466.3	5,108.0	5,067.1	20.9	18.8	-156.19	-148.3	2,783.9	3,265.8	3,228.4	37.39	87.350	
5,600.0	5,565.3	5,188.9	5,163.0	21.3	19.1	-156.17	-154.7	2,795.8	3,290.5	3,252.5	38.06	86.460	
5,643.3	5,608.2	5,230.9	5,204.6	21.5	19.3	-156.16	-157.4	2,800.9	3,301.3	3,262.9	38.38	86.024	
5,700.0	5,664.4	5,285.9	5,259.1	21.7	19.5	-156.23	-161.0	2,807.7	3,314.9	3,276.1	38.79	85.458	
5,800.0	5,763.7	5,383.3	5,355.6	22.1	19.9	-156.33	-167.4	2,819.7	3,337.2	3,297.7	39.52	84.443	
5,900.0	5,863.4	5,486.5	5,457.3	22.5	20.6	-156.36	-177.6	2,838.9	3,357.0	3,316.4	40.59	82.710	
6,000.0	5,963.2	5,583.0	5,552.8	22.8	22.2	-156.39	-190.0	2,862.1	3,367.7	3,324.9	42.76	78.749	
6,100.0	6,063.1	6,107.6	6,062.1	23.2	22.6	-156.43	-190.0	2,862.1	3,370.7	3,327.2	43.54	77.417	
6,176.7	6,139.8	6,169.1	6,138.8	23.4	22.8	89.34	-190.0	2,862.1	3,371.4	3,327.4	44.01	76.609	
6,200.0	6,163.1	6,207.6	6,162.1	23.5	22.9	89.34	-190.0	2,862.1	3,371.4	3,327.2	44.22	76.249	
6,300.0	6,263.1	6,307.6	6,262.1	23.8	23.2	89.34	-190.0	2,862.1	3,371.4	3,326.6	44.89	75.111	
6,400.0	6,363.1	6,407.6	6,362.1	24.2	23.6	89.34	-190.0	2,862.1	3,371.4	3,325.9	45.56	74.004	
6,500.0	6,463.1	6,507.6	6,462.1	24.5	23.9	89.34	-190.0	2,862.1	3,371.4	3,325.2	46.23	72.927	
6,600.0	6,563.1	6,607.6	6,562.1	24.8	24.2	89.34	-190.0	2,862.1	3,371.4	3,324.5	46.90	71.878	
6,700.0	6,663.1	6,707.6	6,662.1	25.1	24.6	89.34	-190.0	2,862.1	3,371.4	3,323.9	47.58	70.858	
6,800.0	6,763.1	6,807.6	6,762.1	25.4	24.9	89.34	-190.0	2,862.1	3,371.4	3,323.2	48.26	69.864	
6,900.0	6,863.1	6,907.6	6,862.1	25.8	25.2	89.34	-190.0	2,862.1	3,371.4	3,322.5	48.93	68.897	
7,000.0	6,963.1	7,007.6	6,962.1	26.1	25.6	89.34	-190.0	2,862.1	3,371.4	3,321.8	49.61	67.954	
7,100.0	7,063.1	7,107.6	7,062.1	26.4	25.9	89.34	-190.0	2,862.1	3,371.4	3,321.1	50.29	67.035	
7,200.0	7,163.1	7,207.6	7,162.1	26.7	26.2	89.34	-190.0	2,862.1	3,371.4	3,320.5	50.97	66.140	
7,300.0	7,263.1	7,307.6	7,262.1	27.1	26.6	89.34	-190.0	2,862.1	3,371.4	3,319.8	51.66	65.266	
7,400.0	7,363.1	7,407.6	7,362.1	27.4	26.9	89.34	-190.0	2,862.1	3,371.4	3,319.1	52.34	64.415	
7,500.0	7,463.1	7,507.6	7,462.1	27.7	27.2	89.34	-190.0	2,862.1	3,371.4	3,318.4	53.02	63.584	
7,600.0	7,563.1	7,607.6	7,562.1	28.1	27.6	89.34	-190.0	2,862.1	3,371.4	3,317.7	53.71	62.774	
7,700.0	7,663.1	7,707.6	7,662.1	28.4	27.9	89.34	-190.0	2,862.1	3,371.4	3,317.0	54.39	61.982	
7,800.0	7,763.1	7,807.6	7,762.1	28.7	28.2	89.34	-190.0	2,862.1	3,371.4	3,316.4	55.08	61.210	
7,900.0	7,863.1	7,907.6	7,862.1	29.0	28.6	89.34	-190.0	2,862.1	3,371.4	3,315.7	55.77	60.456	
8,000.0	7,963.1	8,007.6	7,962.1	29.4	28.9	89.34	-190.0	2,862.1	3,371.4	3,315.0	56.45	59.720	
8,100.0	8,063.1	8,107.6	8,062.1	29.7	29.3	89.34	-190.0	2,862.1	3,371.4	3,314.3	57.14	59.000	
8,200.0	8,163.1	8,207.6	8,162.1	30.0	29.6	89.34	-190.0	2,862.1	3,371.4	3,313.6	57.83	58.297	
8,300.0	8,263.1	8,307.6	8,262.1	30.4	29.9	89.34	-190.0	2,862.1	3,371.4	3,312.9	58.52	57.610	
8,400.0	8,363.1	8,407.6	8,362.1	30.7	30.3	89.34	-190.0	2,862.1	3,371.4	3,312.2	59.21	56.938	
8,500.0	8,463.1	8,507.6	8,462.1	31.0	30.6	89.34	-190.0	2,862.1	3,371.4	3,311.5	59.90	56.281	
8,600.0	8,563.1	8,607.6	8,562.1	31.4	31.0	89.34	-190.0	2,862.1	3,371.4	3,310.8	60.60	55.638	
8,700.0	8,663.1	8,707.6	8,662.1	31.7	31.3	89.34	-190.0	2,862.1	3,371.4	3,310.2	61.29	55.010	
8,800.0	8,763.1	8,807.6	8,762.1	32.1	31.7	89.34	-190.0	2,862.1	3,371.4	3,309.5	61.98	54.395	
8,900.0	8,863.1	8,907.6	8,862.1	32.4	32.0	89.34	-190.0	2,862.1	3,371.4	3,308.8	62.67	53.793	
9,000.0	8,963.1	9,007.6	8,962.1	32.7	32.3	89.34	-190.0	2,862.1	3,371.4	3,308.1	63.37	53.204	
9,100.0	9,063.1	9,107.6	9,062.1	33.1	32.7	89.34	-190.0	2,862.1	3,371.4	3,307.4	64.06	52.627	
9,200.0	9,163.1	9,207.6	9,162.1	33.4	33.0	89.34	-190.0	2,862.1	3,371.4	3,306.7	64.76	52.063	
9,300.0	9,263.1	9,307.6	9,262.1	33.7	33.4	89.34	-190.0	2,862.1	3,371.4	3,306.0	65.45	51.509	
9,400.0	9,363.1	9,407.6	9,362.1	34.1	33.7	89.34	-190.0	2,862.1	3,371.4	3,305.3	66.15	50.968	
9,500.0	9,463.1	9,507.6	9,462.1	34.4	34.1	89.34	-190.0	2,862.1	3,371.4	3,304.6	66.85	50.437	
9,600.0	9,563.1	9,607.6	9,562.1	34.8	34.4	89.34	-190.0	2,862.1	3,371.4	3,303.9	67.54	49.916	
9,700.0	9,663.1	9,707.6	9,662.1	35.1	34.8	89.34	-190.0	2,862.1	3,371.4	3,303.2	68.24	49.406	
9,800.0	9,763.1	9,807.6	9,762.1	35.4	35.1	89.34	-190.0	2,862.1	3,371.4	3,302.5	68.94	48.906	
9,900.0	9,863.1	9,907.6	9,862.1	35.8	35.4	89.34	-190.0	2,862.1	3,371.4	3,301.8	69.63	48.416	
10,000.0	9,963.1	10,007.6	9,962.1	36.1	35.8	89.34	-190.0	2,862.1	3,371.4	3,301.1	70.33	47.935	
10,100.0	10,063.1	10,107.6	10,062.1	36.5	36.1	89.34	-190.0	2,862.1	3,371.4	3,300.4	71.03	47.464	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,163.1	10,207.6	10,162.1	36.8	36.5	89.34	-190.0	2,862.1	3,371.4	3,299.7	71.73	47.001	
10,300.0	10,263.1	10,307.6	10,262.1	37.1	36.8	89.34	-190.0	2,862.1	3,371.4	3,299.0	72.43	46.548	
10,400.0	10,363.1	10,392.4	10,362.1	37.5	37.1	89.34	-190.0	2,862.1	3,371.4	3,298.4	73.08	46.136	
10,407.7	10,370.9	10,400.1	10,369.9	37.5	37.2	89.34	-190.0	2,862.1	3,371.4	3,298.3	73.13	46.102	
10,500.0	10,463.1	10,450.0	10,419.8	37.8	37.3	89.33	-189.3	2,862.2	3,371.8	3,298.2	73.62	45.802	
10,600.0	10,563.1	10,500.0	10,469.5	38.2	37.5	89.25	-184.8	2,863.1	3,373.7	3,299.6	74.11	45.523	
10,700.0	10,663.1	10,550.0	10,518.7	38.5	37.7	89.10	-176.0	2,864.7	3,377.3	3,302.7	74.58	45.282	
10,800.0	10,763.1	10,600.0	10,566.9	38.9	37.8	88.88	-163.0	2,867.1	3,382.5	3,307.5	75.03	45.081	
10,900.0	10,863.1	10,631.8	10,596.9	39.2	37.9	88.70	-152.6	2,869.1	3,389.4	3,314.0	75.38	44.967	
11,000.0	10,963.1	10,671.4	10,633.3	39.6	38.0	88.45	-137.4	2,871.9	3,398.2	3,322.4	75.73	44.875	
11,100.0	11,063.1	10,700.0	10,659.0	39.9	38.1	88.24	-124.9	2,874.2	3,408.8	3,332.8	75.99	44.856	
11,200.0	11,163.1	10,750.0	10,702.1	40.2	38.2	87.82	-100.1	2,878.8	3,421.4	3,345.1	76.33	44.822	
11,300.0	11,263.1	10,775.6	10,723.3	40.6	38.3	87.58	-85.9	2,881.4	3,436.0	3,359.5	76.52	44.902	
11,400.0	11,363.1	10,800.0	10,742.9	40.9	38.3	87.34	-71.6	2,884.1	3,452.8	3,376.1	76.67	45.034	
11,500.0	11,463.1	10,833.1	10,768.4	41.3	38.4	87.00	-50.9	2,887.9	3,471.7	3,394.8	76.83	45.186	
11,600.0	11,563.1	10,850.0	10,781.0	41.6	38.4	86.81	-39.8	2,889.9	3,492.8	3,415.9	76.87	45.438	
11,700.0	11,663.1	10,882.1	10,803.9	42.0	38.5	86.45	-17.8	2,894.0	3,516.0	3,439.1	76.96	45.689	
11,800.0	11,763.1	10,900.0	10,816.1	42.3	38.5	86.23	-4.9	2,896.4	3,541.6	3,464.6	76.93	46.035	
11,900.0	11,863.1	10,923.6	10,831.6	42.7	38.6	85.94	12.7	2,899.7	3,569.3	3,492.4	76.91	46.410	
12,006.9	11,970.0	10,950.0	10,848.0	43.0	38.6	85.61	33.0	2,903.4	3,601.5	3,524.6	76.86	46.859	
12,050.0	12,013.1	10,950.0	10,848.0	43.2	38.6	92.06	33.0	2,903.4	3,615.2	3,538.4	76.76	47.096	
12,100.0	12,062.7	10,950.0	10,848.0	43.3	38.6	90.30	33.0	2,903.4	3,631.8	3,555.2	76.64	47.387	
12,150.0	12,111.7	10,970.6	10,860.2	43.5	38.6	88.26	49.3	2,906.5	3,648.9	3,572.3	76.64	47.611	
12,200.0	12,159.5	10,981.0	10,866.1	43.7	38.6	86.29	57.7	2,908.0	3,666.4	3,589.8	76.57	47.883	
12,250.0	12,205.9	11,000.0	10,876.5	43.8	38.7	84.25	73.4	2,910.9	3,684.1	3,607.6	76.55	48.128	
12,300.0	12,250.5	11,000.0	10,876.5	43.9	38.7	82.37	73.4	2,910.9	3,701.8	3,625.4	76.41	48.446	
12,350.0	12,293.0	11,000.0	10,876.5	44.1	38.7	80.49	73.4	2,910.9	3,719.6	3,643.4	76.28	48.765	
12,400.0	12,333.0	11,025.7	10,889.7	44.2	38.7	78.52	95.0	2,914.9	3,737.0	3,660.7	76.30	48.976	
12,450.0	12,370.3	11,050.0	10,901.2	44.3	38.7	76.66	116.1	2,918.8	3,754.2	3,677.8	76.33	49.183	
12,500.0	12,404.5	11,050.0	10,901.2	44.3	38.7	74.96	116.1	2,918.8	3,770.7	3,694.5	76.23	49.467	
12,550.0	12,435.4	11,050.0	10,901.2	44.4	38.7	73.34	116.1	2,918.8	3,786.7	3,710.6	76.14	49.735	
12,600.0	12,462.7	11,073.1	10,911.3	44.5	38.8	71.80	136.5	2,922.6	3,801.9	3,725.7	76.21	49.890	
12,650.0	12,486.3	11,100.0	10,922.1	44.5	38.8	70.41	160.7	2,927.1	3,816.4	3,740.1	76.31	50.011	
12,700.0	12,506.0	11,100.0	10,922.1	44.6	38.8	69.11	160.7	2,927.1	3,829.7	3,753.4	76.29	50.198	
12,750.0	12,521.6	11,100.0	10,922.1	44.7	38.8	67.92	160.7	2,927.1	3,842.1	3,765.8	76.30	50.355	
12,800.0	12,533.0	11,120.9	10,929.6	44.7	38.8	66.92	179.9	2,930.7	3,853.3	3,776.9	76.45	50.403	
12,850.0	12,540.1	11,150.0	10,938.9	44.9	38.9	66.12	207.0	2,935.7	3,863.5	3,786.9	76.67	50.392	
12,900.0	12,542.9	11,150.0	10,938.9	45.0	38.9	65.32	207.0	2,935.7	3,872.2	3,795.4	76.77	50.441	
12,915.3	12,542.9	11,150.0	10,938.9	45.0	38.9	65.10	207.0	2,935.7	3,874.6	3,797.8	76.80	50.449	
13,000.0	12,541.7	11,167.4	10,943.8	45.3	38.9	65.33	223.5	2,938.7	3,887.4	3,810.2	77.12	50.407	
13,100.0	12,540.2	11,200.0	10,951.6	45.6	39.0	65.64	254.6	2,944.5	3,901.3	3,823.7	77.58	50.287	
13,200.0	12,538.7	11,200.0	10,951.6	46.0	39.0	65.77	254.6	2,944.5	3,914.1	3,836.2	77.93	50.229	
13,287.8	12,537.4	11,250.0	10,960.0	46.4	39.1	66.07	303.0	2,953.5	3,924.2	3,845.7	78.48	50.005	
13,300.0	12,537.2	11,250.0	10,960.0	46.5	39.1	66.07	303.0	2,953.5	3,925.5	3,847.0	78.52	49.992	
13,400.0	12,535.8	11,267.4	10,961.9	47.0	39.2	66.12	320.0	2,956.6	3,937.6	3,858.6	79.01	49.834	
13,500.0	12,534.3	11,300.0	10,964.0	47.5	39.3	66.19	352.0	2,962.6	3,951.7	3,872.1	79.60	49.641	
13,600.0	12,532.8	12,004.8	10,962.2	48.1	42.7	66.63	1,053.5	3,013.7	3,956.9	3,873.3	83.62	47.320	
13,700.0	12,531.3	12,104.8	10,961.9	48.7	43.4	66.65	1,153.4	3,012.9	3,956.5	3,871.6	84.90	46.603	
13,800.0	12,529.9	12,204.8	10,961.6	49.4	44.2	66.66	1,253.4	3,012.2	3,956.0	3,869.8	86.26	45.860	
13,900.0	12,528.4	12,304.8	10,961.3	50.2	45.0	66.68	1,353.4	3,011.4	3,955.6	3,867.9	87.72	45.092	
14,000.0	12,526.9	12,404.8	10,960.9	51.0	45.8	66.69	1,453.4	3,010.6	3,955.1	3,865.9	89.26	44.308	
14,100.0	12,525.5	12,504.8	10,960.6	51.8	46.7	66.71	1,553.4	3,009.8	3,954.7	3,863.8	90.88	43.513	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	12,604.8	10,960.3	52.6	47.6	66.72	1,653.4	3,009.0	3,954.2	3,861.6	92.59	42.709	
14,300.0	12,522.5	12,704.8	10,960.0	53.5	48.6	66.74	1,753.4	3,008.3	3,953.8	3,859.4	94.36	41.903	
14,400.0	12,521.0	12,804.8	10,959.6	54.5	49.6	66.75	1,853.4	3,007.5	3,953.3	3,857.1	96.20	41.097	
14,500.0	12,519.6	12,904.8	10,959.3	55.4	50.6	66.77	1,953.4	3,006.7	3,952.9	3,854.8	98.10	40.294	
14,600.0	12,518.1	13,004.7	10,959.0	56.4	51.6	66.78	2,053.4	3,005.9	3,952.4	3,852.4	100.06	39.499	
14,700.0	12,516.6	13,104.7	10,958.7	57.4	52.7	66.80	2,153.3	3,005.1	3,952.0	3,849.9	102.09	38.712	
14,800.0	12,515.1	13,204.7	10,958.3	58.5	53.9	66.82	2,253.3	3,004.4	3,951.5	3,847.4	104.16	37.936	
14,900.0	12,513.7	13,304.7	10,958.0	59.6	55.0	66.83	2,353.3	3,003.6	3,951.1	3,844.8	106.29	37.173	
15,000.0	12,512.2	13,404.7	10,957.7	60.7	56.2	66.85	2,453.3	3,002.8	3,950.6	3,842.2	108.47	36.423	
15,100.0	12,510.7	13,504.7	10,957.4	61.8	57.4	66.86	2,553.3	3,002.0	3,950.2	3,839.5	110.69	35.688	
15,200.0	12,509.3	13,604.7	10,957.1	63.0	58.6	66.88	2,653.3	3,001.3	3,949.7	3,836.8	112.95	34.969	
15,300.0	12,507.8	13,704.7	10,956.7	64.2	59.9	66.89	2,753.3	3,000.5	3,949.3	3,834.0	115.25	34.266	
15,400.0	12,506.3	13,804.7	10,956.4	65.4	61.1	66.91	2,853.3	2,999.7	3,948.8	3,831.2	117.60	33.580	
15,500.0	12,504.8	13,904.7	10,956.1	66.6	62.4	66.92	2,953.3	2,998.9	3,948.4	3,828.4	119.97	32.910	
15,600.0	12,503.4	14,004.7	10,955.8	67.8	63.7	66.94	3,053.3	2,998.1	3,947.9	3,825.5	122.38	32.258	
15,700.0	12,501.9	14,104.7	10,955.4	69.1	65.0	66.95	3,153.2	2,997.4	3,947.5	3,822.6	124.83	31.624	
15,800.0	12,500.4	14,204.7	10,955.1	70.3	66.3	66.97	3,253.2	2,996.6	3,947.0	3,819.7	127.30	31.006	
15,900.0	12,498.9	14,304.7	10,954.8	71.6	67.7	66.98	3,353.2	2,995.8	3,946.6	3,816.8	129.80	30.405	
16,000.0	12,497.5	14,404.7	10,954.5	72.9	69.0	67.00	3,453.2	2,995.0	3,946.1	3,813.8	132.33	29.821	
16,100.0	12,496.0	14,504.6	10,954.1	74.3	70.4	67.01	3,553.2	2,994.2	3,945.7	3,810.8	134.88	29.253	
16,200.0	12,494.5	14,604.6	10,953.8	75.6	71.8	67.03	3,653.2	2,993.5	3,945.2	3,807.8	137.46	28.702	
16,300.0	12,493.0	14,704.6	10,953.5	76.9	73.2	67.05	3,753.2	2,992.7	3,944.8	3,804.7	140.06	28.166	
16,400.0	12,491.6	14,804.6	10,953.2	78.3	74.6	67.06	3,853.2	2,991.9	3,944.3	3,801.7	142.68	27.645	
16,500.0	12,490.1	14,904.6	10,952.9	79.6	76.0	67.08	3,953.2	2,991.1	3,943.9	3,798.6	145.32	27.140	
16,600.0	12,488.6	15,004.6	10,952.5	81.0	77.4	67.09	4,053.2	2,990.3	3,943.5	3,795.5	147.98	26.649	
16,700.0	12,487.2	15,104.6	10,952.2	82.4	78.9	67.11	4,153.1	2,989.6	3,943.0	3,792.4	150.66	26.172	
16,800.0	12,485.7	15,204.6	10,951.9	83.8	80.3	67.12	4,253.1	2,988.8	3,942.6	3,789.2	153.35	25.709	
16,900.0	12,484.2	15,304.6	10,951.6	85.2	81.7	67.14	4,353.1	2,988.0	3,942.1	3,786.1	156.07	25.259	
17,000.0	12,482.7	15,404.6	10,951.2	86.6	83.2	67.15	4,453.1	2,987.2	3,941.7	3,782.9	158.79	24.823	
17,100.0	12,481.3	15,504.6	10,950.9	88.1	84.7	67.17	4,553.1	2,986.5	3,941.2	3,779.7	161.54	24.398	
17,200.0	12,479.8	15,604.6	10,950.6	89.5	86.1	67.18	4,653.1	2,985.7	3,940.8	3,776.5	164.29	23.986	
17,300.0	12,478.3	15,704.6	10,950.3	90.9	87.6	67.20	4,753.1	2,984.9	3,940.3	3,773.3	167.06	23.586	
17,400.0	12,476.8	15,804.6	10,949.9	92.4	89.1	67.21	4,853.1	2,984.1	3,939.9	3,770.1	169.85	23.197	
17,500.0	12,475.4	15,904.6	10,949.6	93.8	90.6	67.23	4,953.1	2,983.3	3,939.5	3,766.8	172.64	22.818	
17,600.0	12,473.9	16,004.5	10,949.3	95.3	92.1	67.25	5,053.1	2,982.6	3,939.0	3,763.6	175.45	22.451	
17,700.0	12,472.4	16,104.5	10,949.0	96.7	93.6	67.26	5,153.0	2,981.8	3,938.6	3,760.3	178.27	22.093	
17,800.0	12,471.0	16,204.5	10,948.7	98.2	95.1	67.28	5,253.0	2,981.0	3,938.1	3,757.0	181.10	21.746	
17,900.0	12,469.5	16,304.5	10,948.3	99.7	96.6	67.29	5,353.0	2,980.2	3,937.7	3,753.7	183.94	21.408	
18,000.0	12,468.0	16,404.5	10,948.0	101.2	98.1	67.31	5,453.0	2,979.4	3,937.2	3,750.5	186.79	21.079	
18,100.0	12,466.5	16,504.5	10,947.7	102.7	99.7	67.32	5,553.0	2,978.7	3,936.8	3,747.2	189.65	20.759	
18,200.0	12,465.1	16,604.5	10,947.4	104.2	101.2	67.34	5,653.0	2,977.9	3,936.4	3,743.8	192.51	20.447	
18,300.0	12,463.6	16,704.5	10,947.0	105.7	102.7	67.35	5,753.0	2,977.1	3,935.9	3,740.5	195.39	20.144	
18,400.0	12,462.1	16,804.5	10,946.7	107.2	104.2	67.37	5,853.0	2,976.3	3,935.5	3,737.2	198.28	19.849	
18,500.0	12,460.6	16,904.5	10,946.4	108.7	105.8	67.38	5,953.0	2,975.5	3,935.0	3,733.9	201.17	19.561	
18,600.0	12,459.2	17,004.5	10,946.1	110.2	107.3	67.40	6,052.9	2,974.8	3,934.6	3,730.5	204.07	19.281	
18,700.0	12,457.7	17,104.5	10,945.7	111.7	108.9	67.42	6,152.9	2,974.0	3,934.2	3,727.2	206.98	19.008	
18,800.0	12,456.2	17,204.5	10,945.4	113.2	110.4	67.43	6,252.9	2,973.2	3,933.7	3,723.8	209.89	18.742	
18,900.0	12,454.8	17,304.5	10,945.1	114.8	112.0	67.45	6,352.9	2,972.4	3,933.3	3,720.5	212.81	18.482	
19,000.0	12,453.3	17,404.5	10,944.8	116.3	113.5	67.46	6,452.9	2,971.7	3,932.8	3,717.1	215.74	18.230	
19,100.0	12,451.8	17,504.4	10,944.5	117.8	115.1	67.48	6,552.9	2,970.9	3,932.4	3,713.7	218.67	17.983	
19,200.0	12,450.3	17,604.4	10,944.1	119.3	116.6	67.49	6,652.9	2,970.1	3,932.0	3,710.4	221.61	17.742	
19,300.0	12,448.9	17,704.4	10,943.8	120.9	118.2	67.51	6,752.9	2,969.3	3,931.5	3,707.0	224.56	17.508	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,400.0	12,447.4	17,804.4	10,943.5	122.4	119.8	67.52	6,852.9	2,968.5	3,931.1	3,703.6	227.51	17.279	
19,500.0	12,445.9	17,904.4	10,943.2	124.0	121.3	67.54	6,952.9	2,967.8	3,930.7	3,700.2	230.47	17.055	
19,600.0	12,444.4	18,004.4	10,942.8	125.5	122.9	67.56	7,052.8	2,967.0	3,930.2	3,696.8	233.43	16.837	
19,700.0	12,443.0	18,104.4	10,942.5	127.1	124.5	67.57	7,152.8	2,966.2	3,929.8	3,693.4	236.40	16.624	
19,800.0	12,441.5	18,204.4	10,942.2	128.6	126.0	67.59	7,252.8	2,965.4	3,929.3	3,690.0	239.37	16.415	
19,900.0	12,440.0	18,304.4	10,941.9	130.2	127.6	67.60	7,352.8	2,964.6	3,928.9	3,686.6	242.35	16.212	
20,000.0	12,438.6	18,404.4	10,941.5	131.7	129.2	67.62	7,452.8	2,963.9	3,928.5	3,683.1	245.33	16.013	
20,100.0	12,437.1	18,504.4	10,941.2	133.3	130.8	67.63	7,552.8	2,963.1	3,928.0	3,679.7	248.32	15.819	
20,200.0	12,435.6	18,604.4	10,940.9	134.9	132.4	67.65	7,652.8	2,962.3	3,927.6	3,676.3	251.31	15.629	
20,300.0	12,434.1	18,704.4	10,940.6	136.4	133.9	67.66	7,752.8	2,961.5	3,927.2	3,672.9	254.30	15.443	
20,400.0	12,432.7	18,804.4	10,940.3	138.0	135.5	67.68	7,852.8	2,960.8	3,926.7	3,669.4	257.30	15.261	
20,500.0	12,431.2	18,904.4	10,939.9	139.6	137.1	67.69	7,952.8	2,960.0	3,926.3	3,666.0	260.30	15.084	
20,600.0	12,429.7	19,004.3	10,939.6	141.1	138.7	67.71	8,052.7	2,959.2	3,925.9	3,662.6	263.31	14.910	
20,700.0	12,428.2	19,104.3	10,939.3	142.7	140.3	67.73	8,152.7	2,958.4	3,925.4	3,659.1	266.32	14.740	
20,800.0	12,426.8	19,204.3	10,939.0	144.3	141.9	67.74	8,252.7	2,957.6	3,925.0	3,655.7	269.33	14.573	
20,900.0	12,425.3	19,304.3	10,938.6	145.9	143.5	67.76	8,352.7	2,956.9	3,924.6	3,652.2	272.35	14.410	
21,000.0	12,423.8	19,404.3	10,938.3	147.4	145.1	67.77	8,452.7	2,956.1	3,924.1	3,648.8	275.37	14.250	
21,100.0	12,422.4	19,504.3	10,938.0	149.0	146.7	67.79	8,552.7	2,955.3	3,923.7	3,645.3	278.39	14.094	
21,200.0	12,420.9	19,604.3	10,937.7	150.6	148.3	67.80	8,652.7	2,954.5	3,923.3	3,641.8	281.42	13.941	
21,300.0	12,419.4	19,704.3	10,937.3	152.2	149.9	67.82	8,752.7	2,953.7	3,922.8	3,638.4	284.45	13.791	
21,400.0	12,417.9	19,804.3	10,937.0	153.8	151.5	67.83	8,852.7	2,953.0	3,922.4	3,634.9	287.48	13.644	
21,500.0	12,416.5	19,904.3	10,936.7	155.3	153.1	67.85	8,952.7	2,952.2	3,922.0	3,631.5	290.52	13.500	
21,600.0	12,415.0	20,004.3	10,936.4	156.9	154.7	67.87	9,052.6	2,951.4	3,921.5	3,628.0	293.56	13.359	
21,700.0	12,413.5	20,104.3	10,936.1	158.5	156.3	67.88	9,152.6	2,950.6	3,921.1	3,624.5	296.60	13.220	
21,800.0	12,412.0	20,204.3	10,935.7	160.1	157.9	67.90	9,252.6	2,949.8	3,920.7	3,621.0	299.64	13.084	
21,900.0	12,410.6	20,304.3	10,935.4	161.7	159.5	67.91	9,352.6	2,949.1	3,920.2	3,617.6	302.69	12.951	
22,000.0	12,409.1	20,404.3	10,935.1	163.3	161.1	67.93	9,452.6	2,948.3	3,919.8	3,614.1	305.74	12.821	
22,100.0	12,407.6	20,504.2	10,934.8	164.9	162.7	67.94	9,552.6	2,947.5	3,919.4	3,610.6	308.79	12.693	
22,200.0	12,406.1	20,604.2	10,934.4	166.5	164.3	67.96	9,652.6	2,946.7	3,919.0	3,607.1	311.85	12.567	
22,300.0	12,404.7	20,704.2	10,934.1	168.1	165.9	67.98	9,752.6	2,946.0	3,918.5	3,603.6	314.91	12.443	
22,400.0	12,403.2	20,804.2	10,933.8	169.7	167.5	67.99	9,852.6	2,945.2	3,918.1	3,600.1	317.97	12.322	
22,500.0	12,401.7	20,904.2	10,933.5	171.3	169.1	68.01	9,952.6	2,944.4	3,917.7	3,596.6	321.03	12.204	
22,600.0	12,400.3	21,004.2	10,933.1	172.9	170.7	68.02	10,052.5	2,943.6	3,917.2	3,593.2	324.09	12.087	
22,700.0	12,398.8	21,104.2	10,932.8	174.5	172.4	68.04	10,152.5	2,942.8	3,916.8	3,589.7	327.16	11.972	
22,787.3	12,397.5	21,191.5	10,932.5	175.7	173.8	68.05	10,239.8	2,942.2	3,916.4	3,586.8	329.67	11.880 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.66	-1.3	-110.2	110.2				
100.0	100.0	100.0	100.0	0.1	0.1	-90.66	-1.3	-110.2	110.2	109.9	0.26	429.820	
200.0	200.0	200.0	200.0	0.5	0.5	-90.66	-1.3	-110.2	110.2	109.2	0.97	113.194	
300.0	300.0	300.0	300.0	0.8	0.8	-90.66	-1.3	-110.2	110.2	108.5	1.69	65.180	
400.0	400.0	400.0	400.0	1.2	1.2	-90.66	-1.3	-110.2	110.2	107.8	2.41	45.766	
500.0	500.0	500.0	500.0	1.6	1.6	-90.66	-1.3	-110.2	110.2	107.0	3.12	35.264	
600.0	600.0	600.0	600.0	1.9	1.9	-90.66	-1.3	-110.2	110.2	106.3	3.84	28.681	
700.0	700.0	700.0	700.0	2.3	2.3	-90.66	-1.3	-110.2	110.2	105.6	4.56	24.170	
800.0	800.0	800.0	800.0	2.6	2.6	-90.66	-1.3	-110.2	110.2	104.9	5.27	20.885	
900.0	900.0	900.0	900.0	3.0	3.0	-90.66	-1.3	-110.2	110.2	104.2	5.99	18.386	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-90.66	-1.3	-110.2	110.2	103.5	6.71	16.421	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-90.66	-1.3	-110.2	110.2	102.7	7.43	14.836	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	-90.66	-1.3	-110.2	110.2	102.0	8.14	13.529	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-90.66	-1.3	-110.2	110.2	101.3	8.86	12.435	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	-90.66	-1.3	-110.2	110.2	100.6	9.58	11.504	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	-90.66	-1.3	-110.2	110.2	99.9	10.29	10.702	
1,600.0	1,600.0	1,598.3	1,598.3	5.5	5.5	23.56	-1.6	-110.9	110.2	99.2	10.98	10.034	
1,700.0	1,700.0	1,696.5	1,696.5	5.8	5.8	23.56	-2.7	-113.2	110.1	98.5	11.64	9.459	
1,800.0	1,799.9	1,794.8	1,794.7	6.2	6.2	23.57	-4.4	-117.1	110.0	97.7	12.30	8.942	
1,900.0	1,899.7	1,893.1	1,892.8	6.5	6.5	23.57	-6.9	-122.4	109.9	96.9	12.97	8.474	
2,000.0	1,999.4	1,991.4	1,990.8	6.9	6.8	23.58	-10.0	-129.3	109.8	96.1	13.64	8.049	
2,100.0	2,098.9	2,089.7	2,088.6	7.2	7.2	23.59	-13.9	-137.7	109.6	95.3	14.31	7.660	
2,200.0	2,198.3	2,187.9	2,186.3	7.6	7.5	23.61	-18.4	-147.7	109.4	94.4	14.98	7.303	
2,300.0	2,297.4	2,286.2	2,283.8	7.9	7.9	23.62	-23.6	-159.2	109.2	93.5	15.65	6.973	
2,349.5	2,346.4	2,335.5	2,332.5	8.1	8.1	23.60	-26.5	-165.4	109.1	93.1	16.00	6.821	
2,400.0	2,396.4	2,386.0	2,382.5	8.3	8.3	23.59	-29.4	-171.8	109.1	92.8	16.36	6.671	
2,500.0	2,495.5	2,486.0	2,481.6	8.7	8.6	23.55	-35.2	-184.4	109.1	92.0	17.07	6.391	
2,600.0	2,594.5	2,586.0	2,580.6	9.1	9.0	23.51	-40.9	-197.1	109.1	91.3	17.78	6.132	
2,700.0	2,693.5	2,686.0	2,679.6	9.5	9.4	23.48	-46.7	-209.8	109.0	90.5	18.50	5.892	
2,800.0	2,792.5	2,786.0	2,778.7	9.8	9.8	23.44	-52.5	-222.4	109.0	89.8	19.23	5.669	
2,900.0	2,891.6	2,886.0	2,877.7	10.2	10.2	23.40	-58.3	-235.1	109.0	89.0	19.95	5.461	
3,000.0	2,990.6	2,986.0	2,976.7	10.6	10.6	23.37	-64.1	-247.7	108.9	88.2	20.68	5.267	
3,100.0	3,089.6	3,086.0	3,075.7	11.0	11.0	23.33	-69.8	-260.4	108.9	87.5	21.41	5.086	
3,200.0	3,188.6	3,186.0	3,174.8	11.4	11.4	23.29	-75.6	-273.1	108.9	86.7	22.15	4.916	
3,300.0	3,287.7	3,286.0	3,273.8	11.8	11.8	23.26	-81.4	-285.7	108.8	86.0	22.88	4.757	
3,400.0	3,386.7	3,386.0	3,372.8	12.2	12.2	23.22	-87.2	-298.4	108.8	85.2	23.62	4.607	
3,500.0	3,485.7	3,486.0	3,471.8	12.6	12.6	23.18	-93.0	-311.0	108.8	84.4	24.36	4.466	
3,600.0	3,584.8	3,586.0	3,570.9	13.0	13.0	23.14	-98.7	-323.7	108.8	83.7	25.10	4.333	
3,700.0	3,683.8	3,686.0	3,669.9	13.4	13.4	23.11	-104.5	-336.4	108.7	82.9	25.84	4.208	
3,800.0	3,782.8	3,786.0	3,768.9	13.8	13.8	23.07	-110.3	-349.0	108.7	82.1	26.58	4.089	
3,900.0	3,881.8	3,886.0	3,867.9	14.3	14.2	23.03	-116.1	-361.7	108.7	81.3	27.32	3.977	
4,000.0	3,980.9	3,986.0	3,967.0	14.7	14.6	23.00	-121.9	-374.3	108.6	80.6	28.07	3.870	
4,100.0	4,079.9	4,086.0	4,066.0	15.1	15.0	22.96	-127.6	-387.0	108.6	79.8	28.81	3.769	
4,200.0	4,178.9	4,186.0	4,165.0	15.5	15.4	22.92	-133.4	-399.7	108.6	79.0	29.56	3.673	
4,300.0	4,277.9	4,286.0	4,264.1	15.9	15.8	22.89	-139.2	-412.3	108.5	78.2	30.31	3.581	
4,400.0	4,377.0	4,386.0	4,363.1	16.3	16.2	22.85	-145.0	-425.0	108.5	77.5	31.05	3.494	
4,500.0	4,476.0	4,486.0	4,462.1	16.7	16.7	22.81	-150.7	-437.6	108.5	76.7	31.80	3.411	
4,600.0	4,575.0	4,586.0	4,561.1	17.1	17.1	22.77	-156.5	-450.3	108.5	75.9	32.55	3.332	
4,700.0	4,674.0	4,686.0	4,660.2	17.5	17.5	22.74	-162.3	-463.0	108.4	75.1	33.30	3.256	
4,800.0	4,773.1	4,786.0	4,759.2	18.0	17.9	22.70	-168.1	-475.6	108.4	74.3	34.05	3.183	
4,900.0	4,872.1	4,886.0	4,858.2	18.4	18.3	22.66	-173.9	-488.3	108.4	73.6	34.80	3.114	
5,000.0	4,971.1	4,986.0	4,957.2	18.8	18.7	22.63	-179.6	-501.0	108.3	72.8	35.55	3.047	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.2	5,086.0	5,056.3	19.2	19.1	22.59	-185.4	-513.6	108.3	72.0	36.30	2.983	
5,200.0	5,169.2	5,186.0	5,155.3	19.6	19.6	22.55	-191.2	-526.3	108.3	71.2	37.05	2.922	
5,300.0	5,268.2	5,286.0	5,254.3	20.0	20.0	22.51	-197.0	-538.9	108.2	70.4	37.81	2.863	
5,400.0	5,367.2	5,386.0	5,353.3	20.5	20.4	22.48	-202.8	-551.6	108.2	69.7	38.56	2.807	
5,500.0	5,466.3	5,486.0	5,452.4	20.9	20.8	22.44	-208.5	-564.3	108.2	68.9	39.31	2.752	
5,600.0	5,565.3	5,586.3	5,551.7	21.3	21.2	22.41	-214.3	-576.9	108.1	68.1	40.07	2.699	
5,643.3	5,608.2	5,630.8	5,595.9	21.5	21.4	22.47	-216.7	-582.2	107.8	67.3	40.41	2.666	
5,700.0	5,664.4	5,689.0	5,653.6	21.7	21.6	22.63	-219.5	-588.4	106.9	66.1	40.86	2.617	
5,800.0	5,763.7	5,791.6	5,755.8	22.1	22.0	22.94	-223.6	-597.3	105.5	63.8	41.63	2.534	
5,900.0	5,863.4	5,894.2	5,858.1	22.5	22.4	23.27	-226.6	-603.7	103.9	61.6	42.35	2.454	
6,000.0	5,963.2	5,996.7	5,960.5	22.8	22.8	23.64	-228.4	-607.7	102.3	59.3	43.05	2.377	
6,100.0	6,063.1	6,099.1	6,063.0	23.2	23.1	24.04	-229.0	-609.1	100.7	57.0	43.70	2.305	
6,176.7	6,139.8	6,176.0	6,139.8	23.4	23.4	-90.00	-229.0	-609.1	100.0	55.8	44.22	2.262	
6,200.0	6,163.1	6,200.7	6,163.1	23.5	23.5	-90.00	-229.0	-609.1	100.0	55.6	44.38	2.254	
6,300.0	6,263.1	6,300.7	6,263.1	23.8	23.8	-90.00	-229.0	-609.1	100.0	55.0	45.04	2.220	
6,400.0	6,363.1	6,400.7	6,363.1	24.2	24.1	-90.00	-229.0	-609.1	100.0	54.3	45.71	2.188	
6,500.0	6,463.1	6,500.7	6,463.1	24.5	24.4	-90.00	-229.0	-609.1	100.0	53.6	46.38	2.157	
6,600.0	6,563.1	6,600.7	6,563.1	24.8	24.7	-90.00	-229.0	-609.1	100.0	53.0	47.04	2.126	
6,700.0	6,663.1	6,700.7	6,663.1	25.1	25.1	-90.00	-229.0	-609.1	100.0	52.3	47.72	2.096	
6,800.0	6,763.1	6,800.7	6,763.1	25.4	25.4	-90.00	-229.0	-609.1	100.0	51.6	48.39	2.067	
6,900.0	6,863.1	6,900.7	6,863.1	25.8	25.7	-90.00	-229.0	-609.1	100.0	51.0	49.06	2.039	
7,000.0	6,963.1	7,000.7	6,963.1	26.1	26.0	-90.00	-229.0	-609.1	100.0	50.3	49.73	2.011	
7,100.0	7,063.1	7,100.7	7,063.1	26.4	26.4	-90.00	-229.0	-609.1	100.0	49.6	50.41	1.984	
7,200.0	7,163.1	7,200.7	7,163.1	26.7	26.7	-90.00	-229.0	-609.1	100.0	48.9	51.09	1.958	
7,300.0	7,263.1	7,300.7	7,263.1	27.1	27.0	-90.00	-229.0	-609.1	100.0	48.2	51.76	1.932	
7,400.0	7,363.1	7,400.7	7,363.1	27.4	27.3	-90.00	-229.0	-609.1	100.0	47.6	52.44	1.907	
7,500.0	7,463.1	7,500.7	7,463.1	27.7	27.7	-90.00	-229.0	-609.1	100.0	46.9	53.12	1.883	
7,600.0	7,563.1	7,600.7	7,563.1	28.1	28.0	-90.00	-229.0	-609.1	100.0	46.2	53.80	1.859	
7,700.0	7,663.1	7,700.7	7,663.1	28.4	28.3	-90.00	-229.0	-609.1	100.0	45.5	54.49	1.836	
7,800.0	7,763.1	7,800.7	7,763.1	28.7	28.7	-90.00	-229.0	-609.1	100.0	44.8	55.17	1.813	
7,900.0	7,863.1	7,900.7	7,863.1	29.0	29.0	-90.00	-229.0	-609.1	100.0	44.2	55.85	1.791	
8,000.0	7,963.1	8,000.7	7,963.1	29.4	29.3	-90.00	-229.0	-609.1	100.0	43.5	56.54	1.769	
8,100.0	8,063.1	8,100.7	8,063.1	29.7	29.7	-90.00	-229.0	-609.1	100.0	42.8	57.22	1.748	
8,200.0	8,163.1	8,200.7	8,163.1	30.0	30.0	-90.00	-229.0	-609.1	100.0	42.1	57.91	1.727	
8,300.0	8,263.1	8,300.7	8,263.1	30.4	30.3	-90.00	-229.0	-609.1	100.0	41.4	58.59	1.707	
8,400.0	8,363.1	8,400.7	8,363.1	30.7	30.7	-90.00	-229.0	-609.1	100.0	40.7	59.28	1.687	
8,500.0	8,463.1	8,500.7	8,463.1	31.0	31.0	-90.00	-229.0	-609.1	100.0	40.0	59.97	1.668	
8,600.0	8,563.1	8,600.7	8,563.1	31.4	31.3	-90.00	-229.0	-609.1	100.0	39.4	60.66	1.649	
8,700.0	8,663.1	8,700.7	8,663.1	31.7	31.7	-90.00	-229.0	-609.1	100.0	38.7	61.35	1.630	
8,800.0	8,763.1	8,800.7	8,763.1	32.1	32.0	-90.00	-229.0	-609.1	100.0	38.0	62.04	1.612	
8,900.0	8,863.1	8,900.7	8,863.1	32.4	32.3	-90.00	-229.0	-609.1	100.0	37.3	62.73	1.594	
9,000.0	8,963.1	9,000.7	8,963.1	32.7	32.7	-90.00	-229.0	-609.1	100.0	36.6	63.42	1.577	
9,100.0	9,063.1	9,100.7	9,063.1	33.1	33.0	-90.00	-229.0	-609.1	100.0	35.9	64.11	1.560	
9,200.0	9,163.1	9,200.7	9,163.1	33.4	33.4	-90.00	-229.0	-609.1	100.0	35.2	64.80	1.543	
9,300.0	9,263.1	9,300.7	9,263.1	33.7	33.7	-90.00	-229.0	-609.1	100.0	34.5	65.49	1.527	
9,400.0	9,363.1	9,400.7	9,363.1	34.1	34.0	-90.00	-229.0	-609.1	100.0	33.8	66.19	1.511	
9,500.0	9,463.1	9,500.7	9,463.1	34.4	34.4	-90.00	-229.0	-609.1	100.0	33.1	66.88	1.495 Level 3	
9,600.0	9,563.1	9,600.7	9,563.1	34.8	34.7	-90.00	-229.0	-609.1	100.0	32.4	67.58	1.480 Level 3	
9,700.0	9,663.1	9,700.7	9,663.1	35.1	35.1	-90.00	-229.0	-609.1	100.0	31.7	68.27	1.465 Level 3	
9,800.0	9,763.1	9,800.7	9,763.1	35.4	35.4	-90.00	-229.0	-609.1	100.0	31.0	68.97	1.450 Level 3	
9,900.0	9,863.1	9,900.7	9,863.1	35.8	35.7	-90.00	-229.0	-609.1	100.0	30.3	69.66	1.436 Level 3	
10,000.0	9,963.1	10,000.7	9,963.1	36.1	36.1	-90.00	-229.0	-609.1	100.0	29.7	70.36	1.421 Level 3	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.0	10,063.1	10,100.7	10,063.1	36.5	36.4	-90.00	-229.0	-609.1	100.0	29.0	71.05	1.408	Level 3
10,200.0	10,163.1	10,200.7	10,163.1	36.8	36.8	-90.00	-229.0	-609.1	100.0	28.3	71.75	1.394	Level 3
10,300.0	10,263.1	10,300.7	10,263.1	37.1	37.1	-90.00	-229.0	-609.1	100.0	27.6	72.45	1.380	Level 3
10,400.0	10,363.1	10,400.7	10,363.1	37.5	37.5	-90.00	-229.0	-609.1	100.0	26.9	73.15	1.367	Level 3
10,500.0	10,463.1	10,500.7	10,463.1	37.8	37.8	-90.00	-229.0	-609.1	100.0	26.2	73.84	1.354	Level 3
10,600.0	10,563.1	10,600.7	10,563.1	38.2	38.1	-90.00	-229.0	-609.1	100.0	25.5	74.54	1.342	Level 3
10,700.0	10,663.1	10,700.7	10,663.1	38.5	38.5	-90.00	-229.0	-609.1	100.0	24.8	75.24	1.329	Level 3
10,800.0	10,763.1	10,800.7	10,763.1	38.9	38.8	-90.00	-229.0	-609.1	100.0	24.1	75.94	1.317	Level 3
10,900.0	10,863.1	10,900.7	10,863.1	39.2	39.2	-90.00	-229.0	-609.1	100.0	23.4	76.64	1.305	Level 3
11,000.0	10,963.1	11,000.7	10,963.1	39.6	39.5	-90.00	-229.0	-609.1	100.0	22.7	77.34	1.293	Level 3
11,100.0	11,063.1	11,100.7	11,063.1	39.9	39.9	-90.00	-229.0	-609.1	100.0	22.0	78.04	1.282	Level 3
11,200.0	11,163.1	11,200.7	11,163.1	40.2	40.2	-90.00	-229.0	-609.1	100.0	21.3	78.74	1.270	Level 3
11,300.0	11,263.1	11,300.7	11,263.1	40.6	40.6	-90.00	-229.0	-609.1	100.0	20.6	79.44	1.259	Level 3
11,400.0	11,363.1	11,399.3	11,363.1	40.9	40.9	-90.00	-229.0	-609.1	100.0	19.9	80.14	1.248	Level 2
11,406.4	11,369.5	11,405.7	11,369.5	41.0	40.9	-90.00	-229.0	-609.1	100.0	19.8	80.18	1.247	Level 2, CC
11,500.0	11,463.1	11,498.2	11,461.5	41.3	41.2	-85.13	-220.5	-609.2	100.5	19.5	80.99	1.240	Level 2, ES, SF
11,600.0	11,563.1	11,591.5	11,551.7	41.6	41.5	-72.32	-197.0	-609.4	105.9	24.0	81.88	1.293	Level 3
11,700.0	11,663.1	11,675.3	11,628.6	42.0	41.7	-57.01	-163.7	-609.6	124.7	43.8	80.90	1.542	
11,800.0	11,763.1	11,748.1	11,690.8	42.3	41.9	-44.39	-126.0	-609.9	161.3	84.1	77.13	2.091	
11,900.0	11,863.1	11,810.0	11,739.5	42.7	42.0	-35.64	-88.0	-610.2	213.1	140.9	72.22	2.950	
12,006.9	11,970.0	11,865.3	11,779.4	43.0	42.1	-29.48	-49.6	-610.5	280.7	213.5	67.20	4.177	
12,050.0	12,013.1	11,885.7	11,793.1	43.2	42.1	-18.49	-34.6	-610.6	309.6	244.2	65.32	4.739	
12,100.0	12,062.7	11,909.4	11,808.4	43.3	42.2	-15.65	-16.5	-610.8	341.8	278.7	63.18	5.411	
12,150.0	12,111.7	11,933.1	11,822.9	43.5	42.2	-13.41	2.3	-610.9	372.7	311.6	61.05	6.104	
12,200.0	12,159.5	11,950.0	11,832.8	43.7	42.2	-11.88	16.0	-611.0	402.0	343.9	58.13	6.916	
12,250.0	12,205.9	11,980.8	11,849.8	43.8	42.2	-10.14	41.7	-611.2	429.5	372.7	56.83	7.558	
12,300.0	12,250.5	12,000.0	11,859.6	43.9	42.2	-9.06	58.2	-611.4	455.3	401.1	54.25	8.392	
12,350.0	12,293.0	12,028.7	11,873.3	44.1	42.3	-7.91	83.4	-611.6	479.2	426.5	52.68	9.097	
12,400.0	12,333.0	12,050.0	11,882.6	44.2	42.3	-7.10	102.5	-611.7	501.3	450.9	50.43	9.940	
12,450.0	12,370.3	12,076.7	11,893.3	44.3	42.3	-6.30	127.0	-611.9	521.4	472.6	48.71	10.703	
12,500.0	12,404.5	12,100.0	11,901.7	44.3	42.3	-5.67	148.7	-612.1	539.4	492.6	46.79	11.529	
12,550.0	12,435.4	12,124.7	11,909.6	44.4	42.3	-5.09	172.1	-612.3	555.4	510.4	45.07	12.323	
12,600.0	12,462.7	12,150.0	11,916.6	44.5	42.3	-4.57	196.4	-612.5	569.4	525.8	43.52	13.084	
12,650.0	12,486.3	12,172.8	11,922.1	44.5	42.4	-4.14	218.6	-612.6	581.2	539.2	41.97	13.849	
12,700.0	12,506.0	12,200.0	11,927.4	44.6	42.4	-3.70	245.2	-612.8	590.8	550.0	40.83	14.471	
12,750.0	12,521.6	12,220.9	11,930.6	44.7	42.4	-3.37	265.9	-613.0	598.3	558.7	39.63	15.097	
12,800.0	12,533.0	12,250.0	11,933.8	44.7	42.5	-2.97	294.8	-613.2	603.6	564.7	38.96	15.494	
12,850.0	12,540.1	12,269.1	11,935.2	44.9	42.5	-2.71	313.8	-613.4	606.7	568.4	38.31	15.838	
12,900.0	12,542.9	12,303.4	11,935.9	45.0	42.6	-2.29	348.1	-613.6	607.8	569.6	38.14	15.937	
12,915.3	12,542.9	12,309.3	11,936.0	45.0	42.6	-2.36	342.2	-613.6	607.4	569.3	38.10	15.942	
13,000.0	12,541.7	12,381.6	11,935.4	45.3	42.8	-1.44	426.4	-614.3	606.5	568.3	38.17	15.888	
13,100.0	12,540.2	12,481.3	11,934.6	45.6	43.2	-0.65	526.0	-615.0	605.6	567.2	38.44	15.756	
13,200.0	12,538.7	12,581.1	11,933.9	46.0	43.6	-0.18	625.9	-615.8	604.8	566.0	38.84	15.573	
13,287.8	12,537.4	12,669.0	11,933.3	46.4	44.0	-0.04	713.7	-616.5	604.2	564.9	39.29	15.378	
13,300.0	12,537.2	12,681.1	11,933.2	46.5	44.0	-0.04	725.8	-616.6	604.1	564.7	39.36	15.349	
13,400.0	12,535.8	12,781.1	11,932.4	47.0	44.5	-0.04	825.8	-617.4	603.3	563.4	39.95	15.101	
13,500.0	12,534.3	12,881.1	11,931.7	47.5	45.1	-0.04	925.8	-618.2	602.6	562.0	40.60	14.842	
13,600.0	12,532.8	12,981.1	11,931.0	48.1	45.7	-0.04	1,025.8	-619.0	601.9	560.6	41.30	14.573	
13,700.0	12,531.3	13,081.1	11,930.2	48.7	46.4	-0.04	1,125.8	-619.8	601.1	559.1	42.04	14.298	
13,800.0	12,529.9	13,181.1	11,929.5	49.4	47.1	-0.04	1,225.8	-620.5	600.4	557.5	42.83	14.017	
13,900.0	12,528.4	13,281.1	11,928.8	50.2	47.9	-0.05	1,325.8	-621.3	599.6	556.0	43.66	13.733	
14,000.0	12,526.9	13,381.1	11,928.0	51.0	48.7	-0.05	1,425.8	-622.1	598.9	554.4	44.53	13.448	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	12,525.5	13,481.1	11,927.3	51.8	49.5	-0.05	1,525.8	-622.9	598.2	552.7	45.44	13.163	
14,200.0	12,524.0	13,581.1	11,926.6	52.6	50.4	-0.05	1,625.8	-623.7	597.4	551.0	46.39	12.879	
14,300.0	12,522.5	13,681.1	11,925.8	53.5	51.3	-0.05	1,725.8	-624.5	596.7	549.3	47.36	12.598	
14,400.0	12,521.0	13,781.1	11,925.1	54.5	52.3	-0.05	1,825.8	-625.2	595.9	547.6	48.37	12.320	
14,500.0	12,519.6	13,881.1	11,924.4	55.4	53.3	-0.05	1,925.7	-626.0	595.2	545.8	49.41	12.046	
14,600.0	12,518.1	13,981.1	11,923.6	56.4	54.3	-0.05	2,025.7	-626.8	594.5	544.0	50.48	11.777	
14,700.0	12,516.6	14,081.1	11,922.9	57.4	55.4	-0.05	2,125.7	-627.6	593.7	542.2	51.57	11.514	
14,800.0	12,515.1	14,181.1	11,922.2	58.5	56.5	-0.05	2,225.7	-628.4	593.0	540.3	52.68	11.256	
14,900.0	12,513.7	14,281.1	11,921.4	59.6	57.6	-0.05	2,325.7	-629.2	592.2	538.4	53.82	11.004	
15,000.0	12,512.2	14,381.1	11,920.7	60.7	58.7	-0.05	2,425.7	-630.0	591.5	536.5	54.98	10.759	
15,100.0	12,510.7	14,481.1	11,920.0	61.8	59.9	-0.05	2,525.7	-630.7	590.8	534.6	56.16	10.520	
15,200.0	12,509.3	14,581.1	11,919.2	63.0	61.1	-0.05	2,625.7	-631.5	590.0	532.7	57.35	10.287	
15,300.0	12,507.8	14,681.1	11,918.5	64.2	62.3	-0.05	2,725.7	-632.3	589.3	530.7	58.57	10.061	
15,400.0	12,506.3	14,781.1	11,917.8	65.4	63.5	-0.05	2,825.7	-633.1	588.5	528.7	59.80	9.842	
15,500.0	12,504.8	14,881.1	11,917.0	66.6	64.7	-0.05	2,925.7	-633.9	587.8	526.8	61.05	9.629	
15,600.0	12,503.4	14,981.1	11,916.3	67.8	66.0	-0.05	3,025.7	-634.7	587.1	524.8	62.31	9.422	
15,700.0	12,501.9	15,081.1	11,915.6	69.1	67.3	-0.05	3,125.6	-635.5	586.3	522.7	63.58	9.221	
15,800.0	12,500.4	15,181.1	11,914.8	70.3	68.6	-0.05	3,225.6	-636.2	585.6	520.7	64.87	9.027	
15,900.0	12,498.9	15,281.0	11,914.1	71.6	69.9	-0.05	3,325.6	-637.0	584.8	518.7	66.17	8.838	
16,000.0	12,497.5	15,381.0	11,913.4	72.9	71.2	-0.05	3,425.6	-637.8	584.1	516.6	67.48	8.655	
16,100.0	12,496.0	15,481.0	11,912.6	74.3	72.6	-0.06	3,525.6	-638.6	583.4	514.6	68.81	8.478	
16,200.0	12,494.5	15,581.0	11,911.9	75.6	73.9	-0.06	3,625.6	-639.4	582.6	512.5	70.14	8.307	
16,300.0	12,493.0	15,681.0	11,911.2	76.9	75.3	-0.06	3,725.6	-640.2	581.9	510.4	71.48	8.140	
16,400.0	12,491.6	15,781.0	11,910.4	78.3	76.7	-0.06	3,825.6	-641.0	581.1	508.3	72.83	7.979	
16,500.0	12,490.1	15,881.0	11,909.7	79.6	78.1	-0.06	3,925.6	-641.7	580.4	506.2	74.19	7.823	
16,600.0	12,488.6	15,981.0	11,909.0	81.0	79.5	-0.06	4,025.6	-642.5	579.7	504.1	75.56	7.671	
16,700.0	12,487.2	16,081.0	11,908.3	82.4	80.9	-0.06	4,125.6	-643.3	578.9	502.0	76.94	7.525	
16,800.0	12,485.7	16,181.0	11,907.5	83.8	82.3	-0.06	4,225.5	-644.1	578.2	499.9	78.32	7.382	
16,900.0	12,484.2	16,281.0	11,906.8	85.2	83.7	-0.06	4,325.5	-644.9	577.4	497.7	79.71	7.244	
17,000.0	12,482.7	16,381.0	11,906.1	86.6	85.1	-0.06	4,425.5	-645.7	576.7	495.6	81.11	7.110	
17,100.0	12,481.3	16,481.0	11,905.3	88.1	86.6	-0.06	4,525.5	-646.5	576.0	493.5	82.51	6.981	
17,200.0	12,479.8	16,581.0	11,904.6	89.5	88.0	-0.06	4,625.5	-647.2	575.2	491.3	83.92	6.855	
17,300.0	12,478.3	16,681.0	11,903.9	90.9	89.5	-0.06	4,725.5	-648.0	574.5	489.2	85.33	6.732	
17,400.0	12,476.8	16,781.0	11,903.1	92.4	91.0	-0.06	4,825.5	-648.8	573.7	487.0	86.75	6.614	
17,500.0	12,475.4	16,881.0	11,902.4	93.8	92.4	-0.06	4,925.5	-649.6	573.0	484.8	88.18	6.498	
17,600.0	12,473.9	16,981.0	11,901.7	95.3	93.9	-0.06	5,025.5	-650.4	572.3	482.7	89.61	6.386	
17,700.0	12,472.4	17,081.0	11,900.9	96.7	95.4	-0.06	5,125.5	-651.2	571.5	480.5	91.04	6.278	
17,800.0	12,471.0	17,181.0	11,900.2	98.2	96.9	-0.06	5,225.5	-652.0	570.8	478.3	92.48	6.172	
17,900.0	12,469.5	17,281.0	11,899.5	99.7	98.4	-0.06	5,325.5	-652.7	570.0	476.1	93.92	6.069	
18,000.0	12,468.0	17,381.0	11,898.7	101.2	99.9	-0.06	5,425.4	-653.5	569.3	473.9	95.37	5.970	
18,100.0	12,466.5	17,481.0	11,898.0	102.7	101.4	-0.07	5,525.4	-654.3	568.6	471.7	96.82	5.873	
18,200.0	12,465.1	17,581.0	11,897.3	104.2	102.9	-0.07	5,625.4	-655.1	567.8	469.6	98.27	5.778	
18,300.0	12,463.6	17,681.0	11,896.5	105.7	104.4	-0.07	5,725.4	-655.9	567.1	467.4	99.73	5.686	
18,400.0	12,462.1	17,781.0	11,895.8	107.2	105.9	-0.07	5,825.4	-656.7	566.3	465.2	101.19	5.597	
18,500.0	12,460.6	17,881.0	11,895.1	108.7	107.4	-0.07	5,925.4	-657.4	565.6	463.0	102.65	5.510	
18,600.0	12,459.2	17,981.0	11,894.3	110.2	108.9	-0.07	6,025.4	-658.2	564.9	460.7	104.12	5.425	
18,700.0	12,457.7	18,081.0	11,893.6	111.7	110.5	-0.07	6,125.4	-659.0	564.1	458.5	105.59	5.343	
18,800.0	12,456.2	18,181.0	11,892.9	113.2	112.0	-0.07	6,225.4	-659.8	563.4	456.3	107.06	5.262	
18,900.0	12,454.8	18,281.0	11,892.1	114.8	113.5	-0.07	6,325.4	-660.6	562.6	454.1	108.54	5.184	
19,000.0	12,453.3	18,381.0	11,891.4	116.3	115.1	-0.07	6,425.4	-661.4	561.9	451.9	110.02	5.107	
19,100.0	12,451.8	18,481.0	11,890.7	117.8	116.6	-0.07	6,525.4	-662.2	561.2	449.7	111.50	5.033	
19,200.0	12,450.3	18,581.0	11,889.9	119.3	118.2	-0.07	6,625.3	-662.9	560.4	447.4	112.98	4.960	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,300.0	12,448.9	18,681.0	11,889.2	120.9	119.7	-0.07	6,725.3	-663.7	559.7	445.2	114.47	4.889	
19,400.0	12,447.4	18,781.0	11,888.5	122.4	121.3	-0.07	6,825.3	-664.5	558.9	443.0	115.96	4.820	
19,500.0	12,445.9	18,880.9	11,887.7	124.0	122.8	-0.07	6,925.3	-665.3	558.2	440.8	117.45	4.753	
19,600.0	12,444.4	18,980.9	11,887.0	125.5	124.4	-0.07	7,025.3	-666.1	557.5	438.5	118.94	4.687	
19,700.0	12,443.0	19,080.9	11,886.3	127.1	125.9	-0.07	7,125.3	-666.9	556.7	436.3	120.43	4.623	
19,800.0	12,441.5	19,180.9	11,885.5	128.6	127.5	-0.07	7,225.3	-667.7	556.0	434.1	121.93	4.560	
19,900.0	12,440.0	19,280.9	11,884.8	130.2	129.1	-0.07	7,325.3	-668.4	555.2	431.8	123.42	4.499	
20,000.0	12,438.6	19,380.9	11,884.1	131.7	130.6	-0.08	7,425.3	-669.2	554.5	429.6	124.92	4.439	
20,100.0	12,437.1	19,480.9	11,883.3	133.3	132.2	-0.08	7,525.3	-670.0	553.8	427.3	126.43	4.380	
20,200.0	12,435.6	19,580.9	11,882.6	134.9	133.8	-0.08	7,625.3	-670.8	553.0	425.1	127.93	4.323	
20,300.0	12,434.1	19,680.9	11,881.9	136.4	135.4	-0.08	7,725.3	-671.6	552.3	422.9	129.43	4.267	
20,400.0	12,432.7	19,780.9	11,881.1	138.0	136.9	-0.08	7,825.2	-672.4	551.5	420.6	130.94	4.212	
20,500.0	12,431.2	19,880.9	11,880.4	139.6	138.5	-0.08	7,925.2	-673.2	550.8	418.4	132.45	4.159	
20,600.0	12,429.7	19,980.9	11,879.7	141.1	140.1	-0.08	8,025.2	-673.9	550.1	416.1	133.95	4.106	
20,700.0	12,428.2	20,080.9	11,878.9	142.7	141.7	-0.08	8,125.2	-674.7	549.3	413.9	135.46	4.055	
20,800.0	12,426.8	20,180.9	11,878.2	144.3	143.3	-0.08	8,225.2	-675.5	548.6	411.6	136.98	4.005	
20,900.0	12,425.3	20,280.9	11,877.5	145.9	144.8	-0.08	8,325.2	-676.3	547.8	409.4	138.49	3.956	
21,000.0	12,423.8	20,380.9	11,876.7	147.4	146.4	-0.08	8,425.2	-677.1	547.1	407.1	140.00	3.908	
21,100.0	12,422.4	20,480.9	11,876.0	149.0	148.0	-0.08	8,525.2	-677.9	546.4	404.9	141.52	3.861	
21,200.0	12,420.9	20,580.9	11,875.3	150.6	149.6	-0.08	8,625.2	-678.7	545.6	402.6	143.03	3.815	
21,300.0	12,419.4	20,680.9	11,874.5	152.2	151.2	-0.08	8,725.2	-679.4	544.9	400.3	144.55	3.770	
21,400.0	12,417.9	20,780.9	11,873.8	153.8	152.8	-0.08	8,825.2	-680.2	544.1	398.1	146.07	3.725	
21,500.0	12,416.5	20,880.9	11,873.1	155.3	154.4	-0.08	8,925.1	-681.0	543.4	395.8	147.59	3.682	
21,600.0	12,415.0	20,980.9	11,872.3	156.9	156.0	-0.08	9,025.1	-681.8	542.7	393.6	149.11	3.639	
21,700.0	12,413.5	21,080.9	11,871.6	158.5	157.6	-0.08	9,125.1	-682.6	541.9	391.3	150.63	3.598	
21,800.0	12,412.0	21,180.9	11,870.9	160.1	159.2	-0.08	9,225.1	-683.4	541.2	389.0	152.15	3.557	
21,900.0	12,410.6	21,280.9	11,870.1	161.7	160.8	-0.09	9,325.1	-684.1	540.4	386.8	153.68	3.517	
22,000.0	12,409.1	21,380.9	11,869.4	163.3	162.4	-0.09	9,425.1	-684.9	539.7	384.5	155.20	3.477	
22,100.0	12,407.6	21,480.9	11,868.7	164.9	164.0	-0.09	9,525.1	-685.7	539.0	382.2	156.73	3.439	
22,200.0	12,406.1	21,580.9	11,867.9	166.5	165.6	-0.09	9,625.1	-686.5	538.2	380.0	158.25	3.401	
22,300.0	12,404.7	21,680.9	11,867.2	168.1	167.2	-0.09	9,725.1	-687.3	537.5	377.7	159.78	3.364	
22,400.0	12,403.2	21,780.9	11,866.5	169.7	168.8	-0.09	9,825.1	-688.1	536.8	375.4	161.31	3.327	
22,500.0	12,401.7	21,880.9	11,865.7	171.3	170.4	-0.09	9,925.1	-688.9	536.0	373.2	162.84	3.292	
22,600.0	12,400.3	21,980.9	11,865.0	172.9	172.0	-0.09	10,025.1	-689.6	535.3	370.9	164.37	3.257	
22,700.0	12,398.8	22,080.9	11,864.3	174.5	173.6	-0.09	10,125.0	-690.4	534.5	368.6	165.90	3.222	
22,787.3	12,397.5	22,167.4	11,863.5	175.7	175.0	-0.01	10,211.6	-690.3	534.0	367.1	166.91	3.199	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-135.24	-30.1	-29.9	42.4				
100.0	100.0	101.0	101.0	0.1	0.1	-135.24	-30.1	-29.9	42.4	42.2	0.26	163.264	
200.0	200.0	201.0	201.0	0.5	0.5	-135.24	-30.1	-29.9	42.4	41.5	0.98	43.437	
300.0	300.0	301.0	301.0	0.8	0.8	-135.24	-30.1	-29.9	42.4	40.7	1.69	25.051	
400.0	400.0	401.0	401.0	1.2	1.2	-135.24	-30.1	-29.9	42.4	40.0	2.41	17.601	
500.0	500.0	501.0	501.0	1.6	1.6	-135.24	-30.1	-29.9	42.4	39.3	3.13	13.566	
600.0	600.0	601.0	601.0	1.9	1.9	-135.24	-30.1	-29.9	42.4	38.6	3.84	11.036	
700.0	700.0	701.0	701.0	2.3	2.3	-135.24	-30.1	-29.9	42.4	37.9	4.56	9.302	
800.0	800.0	801.0	801.0	2.6	2.6	-135.24	-30.1	-29.9	42.4	37.2	5.28	8.038	
900.0	900.0	901.0	901.0	3.0	3.0	-135.24	-30.1	-29.9	42.4	36.4	6.00	7.077	
1,000.0	1,000.0	1,001.0	1,001.0	3.4	3.4	-135.24	-30.1	-29.9	42.4	35.7	6.71	6.321	
1,100.0	1,100.0	1,101.0	1,101.0	3.7	3.7	-135.24	-30.1	-29.9	42.4	35.0	7.43	5.711	
1,200.0	1,200.0	1,201.0	1,201.0	4.1	4.1	-135.24	-30.1	-29.9	42.4	34.3	8.15	5.209	
1,300.0	1,300.0	1,301.0	1,301.0	4.4	4.4	-135.24	-30.1	-29.9	42.4	33.6	8.86	4.787	
1,400.0	1,400.0	1,401.0	1,401.0	4.8	4.8	-135.24	-30.1	-29.9	42.4	32.9	9.58	4.429	
1,500.0	1,500.0	1,501.0	1,501.0	5.1	5.2	-135.24	-30.1	-29.9	42.4	32.1	10.30	4.121	
1,600.0	1,600.0	1,601.4	1,601.4	5.5	5.5	-22.53	-30.3	-29.0	41.2	30.2	10.99	3.746	
1,700.0	1,700.0	1,701.5	1,701.5	5.8	5.8	-27.61	-31.0	-26.4	37.6	25.9	11.67	3.223	
1,800.0	1,799.9	1,801.4	1,801.3	6.2	6.2	-38.31	-32.0	-22.2	32.5	20.1	12.35	2.632	
1,900.0	1,899.7	1,900.8	1,900.4	6.5	6.5	-58.54	-33.5	-16.3	28.0	15.0	13.04	2.148	
1,943.6	1,943.1	1,943.9	1,943.4	6.7	6.7	-70.88	-34.3	-13.2	27.3	14.0	13.33	2.050 CC, ES, SF	
2,000.0	1,999.4	1,999.5	1,998.9	6.9	6.9	-88.37	-35.4	-8.8	28.7	15.0	13.71	2.093	
2,100.0	2,098.9	2,097.4	2,096.3	7.2	7.2	-114.65	-37.6	0.3	38.2	23.9	14.36	2.664	
2,200.0	2,198.3	2,194.4	2,192.7	7.6	7.6	-130.45	-40.2	10.9	55.2	40.2	15.00	3.679	
2,300.0	2,297.4	2,309.8	2,287.7	7.9	8.0	-139.37	-43.2	22.9	77.3	61.6	15.71	4.919	
2,400.0	2,396.4	2,386.7	2,383.3	8.3	8.3	-144.70	-46.4	36.0	102.1	85.8	16.32	6.255	
2,500.0	2,495.5	2,483.2	2,478.9	8.7	8.6	-147.95	-49.7	49.0	127.4	110.4	17.00	7.493	
2,600.0	2,594.5	2,579.8	2,574.5	9.1	9.0	-150.11	-52.9	62.0	153.0	135.3	17.69	8.647	
2,700.0	2,693.5	2,676.3	2,670.1	9.5	9.4	-151.66	-56.1	75.1	178.7	160.3	18.38	9.720	
2,800.0	2,792.5	2,772.9	2,765.7	9.8	9.8	-152.81	-59.3	88.1	204.5	185.4	19.08	10.719	
2,900.0	2,891.6	2,869.4	2,861.3	10.2	10.1	-153.71	-62.6	101.2	230.4	210.6	19.78	11.649	
3,000.0	2,990.6	2,965.9	2,956.9	10.6	10.5	-154.43	-65.8	114.2	256.3	235.8	20.48	12.516	
3,100.0	3,089.6	3,062.5	3,052.5	11.0	10.9	-155.01	-69.0	127.3	282.2	261.1	21.18	13.326	
3,200.0	3,188.6	3,159.0	3,148.1	11.4	11.3	-155.50	-72.2	140.3	308.2	286.3	21.88	14.083	
3,300.0	3,287.7	3,255.5	3,243.7	11.8	11.7	-155.91	-75.5	153.3	334.2	311.6	22.59	14.793	
3,400.0	3,386.7	3,352.1	3,339.3	12.2	12.1	-156.26	-78.7	166.4	360.2	336.9	23.30	15.459	
3,500.0	3,485.7	3,448.6	3,434.9	12.6	12.4	-156.56	-81.9	179.4	386.2	362.2	24.01	16.086	
3,600.0	3,584.8	3,545.2	3,530.4	13.0	12.8	-156.83	-85.2	192.5	412.2	387.5	24.72	16.676	
3,700.0	3,683.8	3,641.7	3,626.0	13.4	13.2	-157.06	-88.4	205.5	438.2	412.8	25.43	17.232	
3,800.0	3,782.8	3,738.2	3,721.6	13.8	13.6	-157.27	-91.6	218.6	464.3	438.1	26.15	17.757	
3,900.0	3,881.8	3,834.8	3,817.2	14.3	14.0	-157.46	-94.8	231.6	490.3	463.5	26.86	18.254	
4,000.0	3,980.9	3,931.3	3,912.8	14.7	14.4	-157.62	-98.1	244.6	516.4	488.8	27.58	18.725	
4,100.0	4,079.9	4,027.9	4,008.4	15.1	14.8	-157.77	-101.3	257.7	542.4	514.1	28.29	19.171	
4,200.0	4,178.9	4,124.4	4,104.0	15.5	15.2	-157.91	-104.5	270.7	568.5	539.4	29.01	19.595	
4,300.0	4,277.9	4,220.9	4,199.6	15.9	15.6	-158.04	-107.8	283.8	594.5	564.8	29.73	19.998	
4,400.0	4,377.0	4,317.5	4,295.2	16.3	16.0	-158.15	-111.0	296.8	620.6	590.1	30.45	20.382	
4,500.0	4,476.0	4,414.0	4,390.8	16.7	16.4	-158.26	-114.2	309.8	646.6	615.4	31.17	20.747	
4,600.0	4,575.0	4,510.6	4,486.4	17.1	16.8	-158.35	-117.4	322.9	672.7	640.8	31.89	21.096	
4,700.0	4,674.0	4,607.1	4,582.0	17.5	17.2	-158.44	-120.7	335.9	698.7	666.1	32.61	21.429	
4,800.0	4,773.1	4,703.6	4,677.6	18.0	17.6	-158.53	-123.9	349.0	724.8	691.5	33.33	21.747	
4,900.0	4,872.1	4,800.2	4,773.2	18.4	18.0	-158.60	-127.1	362.0	750.9	716.8	34.05	22.051	
5,000.0	4,971.1	4,896.7	4,868.8	18.8	18.4	-158.68	-130.4	375.1	776.9	742.1	34.77	22.343	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.2	4,993.3	4,964.4	19.2	18.8	-158.75	-133.6	388.1	803.0	767.5	35.50	22.622	
5,200.0	5,169.2	5,089.8	5,060.0	19.6	19.2	-158.81	-136.8	401.1	829.0	792.8	36.22	22.890	
5,300.0	5,268.2	5,186.3	5,155.6	20.0	19.6	-158.87	-140.0	414.2	855.1	818.2	36.94	23.147	
5,400.0	5,367.2	5,282.9	5,251.2	20.5	20.0	-158.92	-143.3	427.2	881.2	843.5	37.67	23.394	
5,500.0	5,466.3	5,379.4	5,346.8	20.9	20.4	-158.98	-146.5	440.3	907.2	868.9	38.39	23.631	
5,600.0	5,565.3	5,476.0	5,442.4	21.3	20.8	-159.03	-149.7	453.3	933.3	894.2	39.12	23.860	
5,643.3	5,608.2	5,517.8	5,483.9	21.5	21.0	-159.05	-151.1	459.0	944.6	905.2	39.43	23.956	
5,700.0	5,664.4	5,572.6	5,538.1	21.7	21.2	-159.14	-153.0	466.4	959.0	919.2	39.84	24.070	
5,800.0	5,763.7	5,669.8	5,634.4	22.1	21.6	-159.26	-156.2	479.5	982.5	942.0	40.57	24.221	
5,900.0	5,863.4	5,767.5	5,731.2	22.5	22.0	-159.31	-159.5	492.7	1,003.7	962.4	41.29	24.310	
6,000.0	5,963.2	5,865.7	5,828.4	22.8	22.4	-159.29	-162.8	506.0	1,022.5	980.4	42.01	24.339	
6,100.0	6,063.1	5,964.3	5,926.1	23.2	22.8	-159.21	-166.0	519.3	1,038.8	996.1	42.73	24.312	
6,176.7	6,139.8	6,040.2	6,001.2	23.4	23.1	86.67	-168.6	529.5	1,049.7	1,006.5	43.27	24.259	
6,200.0	6,163.1	6,063.2	6,024.0	23.5	23.2	86.72	-169.4	532.7	1,052.8	1,009.4	43.43	24.239	
6,300.0	6,263.1	6,162.3	6,122.1	23.8	23.6	86.94	-172.7	546.0	1,066.1	1,022.0	44.14	24.156	
6,400.0	6,363.1	6,261.3	6,220.2	24.2	24.1	87.16	-176.0	559.4	1,079.5	1,034.6	44.84	24.075	
6,500.0	6,463.1	6,360.3	6,318.2	24.5	24.5	87.37	-179.3	572.8	1,092.8	1,047.3	45.54	23.996	
6,600.0	6,563.1	6,459.4	6,416.3	24.8	24.9	87.57	-182.6	586.2	1,106.2	1,059.9	46.24	23.920	
6,700.0	6,663.1	6,558.4	6,514.3	25.1	25.3	87.77	-185.9	599.5	1,119.5	1,072.6	46.95	23.846	
6,800.0	6,763.1	6,657.4	6,612.4	25.4	25.7	87.97	-189.2	612.9	1,132.9	1,085.3	47.65	23.775	
6,900.0	6,863.1	6,756.4	6,710.5	25.8	26.1	88.16	-192.5	626.3	1,146.3	1,098.0	48.36	23.705	
7,000.0	6,963.1	6,855.5	6,808.5	26.1	26.5	88.35	-195.8	639.7	1,159.7	1,110.7	49.06	23.638	
7,100.0	7,063.1	6,954.5	6,906.6	26.4	27.0	88.53	-199.2	653.1	1,173.2	1,123.4	49.77	23.572	
7,200.0	7,163.1	7,053.5	7,004.7	26.7	27.4	88.71	-202.5	666.4	1,186.6	1,136.1	50.48	23.508	
7,300.0	7,263.1	7,161.8	7,111.9	27.1	27.8	88.90	-206.1	680.9	1,200.0	1,148.7	51.26	23.409	
7,400.0	7,363.1	7,304.8	7,254.0	27.4	28.4	89.09	-209.9	696.6	1,210.9	1,158.6	52.30	23.154	
7,500.0	7,463.1	7,448.8	7,397.6	27.7	28.9	89.22	-212.5	707.1	1,218.1	1,164.9	53.26	22.871	
7,600.0	7,563.1	7,593.4	7,542.1	28.1	29.4	89.29	-213.8	712.4	1,221.8	1,167.6	54.16	22.561	
7,700.0	7,663.1	7,715.5	7,664.1	28.4	29.8	89.30	-214.0	713.0	1,222.2	1,167.3	54.90	22.262	
7,800.0	7,763.1	7,815.5	7,764.1	28.7	30.1	89.30	-214.0	713.0	1,222.2	1,166.7	55.58	21.991	
7,900.0	7,863.1	7,915.5	7,864.1	29.0	30.5	89.30	-214.0	713.0	1,222.2	1,166.0	56.25	21.727	
8,000.0	7,963.1	8,015.5	7,964.1	29.4	30.8	89.30	-214.0	713.0	1,222.2	1,165.3	56.93	21.469	
8,100.0	8,063.1	8,115.5	8,064.1	29.7	31.1	89.30	-214.0	713.0	1,222.2	1,164.6	57.61	21.217	
8,200.0	8,163.1	8,215.5	8,164.1	30.0	31.4	89.30	-214.0	713.0	1,222.2	1,163.9	58.28	20.970	
8,300.0	8,263.1	8,315.5	8,264.1	30.4	31.7	89.30	-214.0	713.0	1,222.2	1,163.3	58.96	20.728	
8,400.0	8,363.1	8,415.5	8,364.1	30.7	32.1	89.30	-214.0	713.0	1,222.2	1,162.6	59.64	20.492	
8,500.0	8,463.1	8,515.5	8,464.1	31.0	32.4	89.30	-214.0	713.0	1,222.2	1,161.9	60.33	20.261	
8,600.0	8,563.1	8,615.5	8,564.1	31.4	32.7	89.30	-214.0	713.0	1,222.2	1,161.2	61.01	20.034	
8,700.0	8,663.1	8,715.5	8,664.1	31.7	33.0	89.30	-214.0	713.0	1,222.2	1,160.5	61.69	19.813	
8,800.0	8,763.1	8,815.5	8,764.1	32.1	33.3	89.30	-214.0	713.0	1,222.2	1,159.9	62.37	19.596	
8,900.0	8,863.1	8,915.5	8,864.1	32.4	33.7	89.30	-214.0	713.0	1,222.2	1,159.2	63.06	19.383	
9,000.0	8,963.1	9,015.5	8,964.1	32.7	34.0	89.30	-214.0	713.0	1,222.2	1,158.5	63.74	19.175	
9,100.0	9,063.1	9,115.5	9,064.1	33.1	34.3	89.30	-214.0	713.0	1,222.2	1,157.8	64.43	18.971	
9,200.0	9,163.1	9,215.5	9,164.1	33.4	34.6	89.30	-214.0	713.0	1,222.2	1,157.1	65.11	18.771	
9,300.0	9,263.1	9,315.5	9,264.1	33.7	35.0	89.30	-214.0	713.0	1,222.2	1,156.4	65.80	18.575	
9,400.0	9,363.1	9,415.5	9,364.1	34.1	35.3	89.30	-214.0	713.0	1,222.2	1,155.7	66.49	18.383	
9,500.0	9,463.1	9,515.5	9,464.1	34.4	35.6	89.30	-214.0	713.0	1,222.2	1,155.1	67.18	18.195	
9,600.0	9,563.1	9,615.5	9,564.1	34.8	35.9	89.30	-214.0	713.0	1,222.2	1,154.4	67.86	18.010	
9,700.0	9,663.1	9,715.5	9,664.1	35.1	36.3	89.30	-214.0	713.0	1,222.2	1,153.7	68.55	17.829	
9,800.0	9,763.1	9,815.5	9,764.1	35.4	36.6	89.30	-214.0	713.0	1,222.2	1,153.0	69.24	17.651	
9,900.0	9,863.1	9,915.5	9,864.1	35.8	36.9	89.30	-214.0	713.0	1,222.2	1,152.3	69.93	17.477	
10,000.0	9,963.1	10,015.5	9,964.1	36.1	37.3	89.30	-214.0	713.0	1,222.2	1,151.6	70.62	17.306	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.0	10,063.1	10,115.5	10,064.1	36.5	37.6	89.30	-214.0	713.0	1,222.2	1,150.9	71.32	17.138		
10,200.0	10,163.1	10,215.5	10,164.1	36.8	37.9	89.30	-214.0	713.0	1,222.2	1,150.2	72.01	16.974		
10,300.0	10,263.1	10,315.5	10,264.1	37.1	38.2	89.30	-214.0	713.0	1,222.2	1,149.5	72.70	16.812		
10,400.0	10,363.1	10,415.5	10,364.1	37.5	38.6	89.30	-214.0	713.0	1,222.2	1,148.8	73.39	16.653		
10,500.0	10,463.1	10,515.5	10,464.1	37.8	38.9	89.30	-214.0	713.0	1,222.2	1,148.1	74.09	16.497		
10,600.0	10,563.1	10,615.5	10,564.1	38.2	39.2	89.30	-214.0	713.0	1,222.2	1,147.4	74.78	16.344		
10,700.0	10,663.1	10,715.5	10,664.1	38.5	39.6	89.30	-214.0	713.0	1,222.2	1,146.8	75.47	16.194		
10,800.0	10,763.1	10,815.5	10,764.1	38.9	39.9	89.30	-214.0	713.0	1,222.2	1,146.1	76.17	16.046		
10,900.0	10,863.1	10,915.5	10,864.1	39.2	40.2	89.30	-214.0	713.0	1,222.2	1,145.4	76.86	15.901		
11,000.0	10,963.1	11,015.5	10,964.1	39.6	40.6	89.30	-214.0	713.0	1,222.2	1,144.7	77.56	15.759		
11,100.0	11,063.1	11,115.5	11,064.1	39.9	40.9	89.30	-214.0	713.0	1,222.2	1,144.0	78.26	15.619		
11,200.0	11,163.1	11,215.5	11,164.1	40.2	41.3	89.30	-214.0	713.0	1,222.2	1,143.3	78.95	15.481		
11,300.0	11,263.1	11,315.5	11,264.1	40.6	41.6	89.30	-214.0	713.0	1,222.2	1,142.6	79.65	15.345		
11,400.0	11,363.1	11,415.5	11,364.1	40.9	41.9	89.30	-214.0	713.0	1,222.2	1,141.9	80.34	15.212		
11,403.0	11,366.2	11,418.5	11,367.2	40.9	41.9	89.30	-214.0	713.0	1,222.2	1,141.9	80.37	15.208		
11,500.0	11,463.1	11,513.9	11,462.2	41.3	42.2	88.96	-206.9	713.0	1,222.3	1,141.3	81.03	15.084		
11,600.0	11,563.1	11,607.2	11,552.7	41.6	42.5	87.93	-184.8	712.8	1,222.8	1,141.1	81.68	14.970		
11,700.0	11,663.1	11,691.4	11,630.4	42.0	42.8	86.41	-152.4	712.5	1,224.5	1,142.2	82.27	14.885		
11,800.0	11,763.1	11,764.8	11,693.6	42.3	42.9	84.68	-115.2	712.2	1,228.7	1,145.9	82.75	14.848		
11,900.0	11,863.1	11,827.4	11,743.4	42.7	43.0	82.92	-77.3	711.9	1,236.3	1,153.3	83.07	14.882		
12,006.9	11,970.0	11,883.5	11,784.3	43.0	43.1	81.15	-39.0	711.6	1,249.5	1,166.3	83.17	15.023		
12,050.0	12,013.1	11,900.0	11,795.5	43.2	43.2	87.82	-26.9	711.5	1,256.4	1,173.3	83.10	15.119		
12,100.0	12,062.7	11,928.1	11,814.0	43.3	43.2	86.04	-5.7	711.4	1,265.3	1,182.3	83.04	15.237		
12,150.0	12,111.7	11,950.0	11,827.6	43.5	43.2	84.41	11.5	711.2	1,275.2	1,192.3	82.88	15.386		
12,200.0	12,159.5	11,976.3	11,843.0	43.7	43.2	82.63	32.7	711.1	1,285.8	1,203.1	82.71	15.545		
12,250.0	12,205.9	12,000.0	11,856.1	43.8	43.3	80.92	52.5	710.9	1,296.9	1,214.4	82.49	15.721		
12,300.0	12,250.5	12,024.5	11,868.8	43.9	43.3	79.20	73.5	710.7	1,308.4	1,226.2	82.25	15.907		
12,350.0	12,293.0	12,050.0	11,881.0	44.1	43.3	77.50	95.8	710.5	1,320.2	1,238.2	82.01	16.097		
12,400.0	12,333.0	12,072.9	11,891.1	44.2	43.3	75.90	116.4	710.4	1,332.0	1,250.2	81.74	16.295		
12,450.0	12,370.3	12,100.0	11,902.0	44.3	43.3	74.30	141.2	710.2	1,343.7	1,262.2	81.51	16.484		
12,500.0	12,404.5	12,121.3	11,909.7	44.3	43.4	72.88	161.0	710.0	1,355.2	1,274.0	81.25	16.679		
12,550.0	12,435.4	12,150.0	11,918.9	44.4	43.4	71.45	188.2	709.8	1,366.5	1,285.4	81.08	16.852		
12,600.0	12,462.7	12,169.7	11,924.5	44.5	43.4	70.23	207.1	709.7	1,377.2	1,296.3	80.88	17.028		
12,650.0	12,486.3	12,200.0	11,931.7	44.5	43.4	69.02	236.5	709.4	1,387.4	1,306.6	80.80	17.171		
12,700.0	12,506.0	12,218.2	11,935.3	44.6	43.4	68.02	254.4	709.3	1,397.0	1,316.3	80.69	17.313		
12,750.0	12,521.6	12,250.0	11,940.3	44.7	43.5	67.07	285.8	709.0	1,405.8	1,325.1	80.72	17.416		
12,800.0	12,533.0	12,266.6	11,942.2	44.7	43.5	66.30	302.3	708.9	1,413.8	1,333.1	80.73	17.513		
12,850.0	12,540.1	12,300.0	11,944.5	44.9	43.6	65.63	335.6	708.6	1,421.1	1,340.2	80.88	17.569		
12,900.0	12,542.9	12,315.1	11,944.9	45.0	43.6	65.09	350.7	708.5	1,427.3	1,346.3	81.04	17.614		
12,915.3	12,542.9	12,326.5	11,944.9	45.0	43.6	64.96	362.1	708.4	1,429.1	1,348.0	81.12	17.618		
13,000.0	12,541.7	12,402.5	11,944.5	45.3	43.8	65.23	438.1	707.8	1,437.6	1,355.9	81.64	17.608		
13,100.0	12,540.2	12,502.1	11,944.0	45.6	44.1	65.49	537.7	707.0	1,444.7	1,362.3	82.36	17.540		
13,200.0	12,538.7	12,602.0	11,943.4	46.0	44.4	65.66	637.6	706.2	1,448.7	1,365.5	83.17	17.419		
13,287.8	12,537.4	12,689.8	11,942.9	46.4	44.8	65.75	725.4	705.5	1,449.6	1,365.6	83.94	17.270		
13,300.0	12,537.2	12,702.0	11,942.9	46.5	44.9	65.75	737.6	705.4	1,449.5	1,365.5	84.04	17.247		
13,400.0	12,535.8	12,802.0	11,942.3	47.0	45.4	65.78	837.6	704.6	1,449.1	1,364.1	85.01	17.046		
13,500.0	12,534.3	12,902.0	11,941.7	47.5	46.0	65.81	937.5	703.8	1,448.7	1,362.7	86.08	16.829		
13,600.0	12,532.8	13,002.0	11,941.2	48.1	46.6	65.85	1,037.5	703.0	1,448.3	1,361.1	87.25	16.600		
13,700.0	12,531.3	13,102.0	11,940.6	48.7	47.2	65.88	1,137.5	702.2	1,448.0	1,359.4	88.51	16.359		
13,800.0	12,529.9	13,202.0	11,940.1	49.4	48.0	65.91	1,237.5	701.4	1,447.6	1,357.7	89.86	16.108		
13,900.0	12,528.4	13,302.0	11,939.5	50.2	48.7	65.95	1,337.5	700.6	1,447.2	1,355.9	91.30	15.851		
14,000.0	12,526.9	13,402.0	11,938.9	51.0	49.5	65.98	1,437.5	699.8	1,446.8	1,354.0	92.82	15.587		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	12,525.5	13,502.0	11,938.4	51.8	50.4	66.01	1,537.5	699.0	1,446.4	1,352.0	94.42	15.319	
14,200.0	12,524.0	13,602.0	11,937.8	52.6	51.3	66.04	1,637.5	698.2	1,446.0	1,349.9	96.09	15.049	
14,300.0	12,522.5	13,701.9	11,937.3	53.5	52.2	66.08	1,737.5	697.4	1,445.6	1,347.8	97.83	14.777	
14,400.0	12,521.0	13,801.9	11,936.7	54.5	53.2	66.11	1,837.5	696.6	1,445.2	1,345.6	99.64	14.505	
14,500.0	12,519.6	13,901.9	11,936.2	55.4	54.1	66.14	1,937.5	695.8	1,444.8	1,343.3	101.51	14.233	
14,600.0	12,518.1	14,001.9	11,935.6	56.4	55.2	66.17	2,037.4	695.0	1,444.4	1,341.0	103.44	13.964	
14,700.0	12,516.6	14,101.9	11,935.0	57.4	56.2	66.21	2,137.4	694.2	1,444.0	1,338.6	105.43	13.696	
14,800.0	12,515.1	14,201.9	11,934.5	58.5	57.3	66.24	2,237.4	693.4	1,443.7	1,336.2	107.48	13.432	
14,900.0	12,513.7	14,301.9	11,933.9	59.6	58.4	66.27	2,337.4	692.5	1,443.3	1,333.7	109.57	13.172	
15,000.0	12,512.2	14,401.9	11,933.4	60.7	59.6	66.31	2,437.4	691.7	1,442.9	1,331.2	111.71	12.916	
15,100.0	12,510.7	14,501.9	11,932.8	61.8	60.7	66.34	2,537.4	690.9	1,442.5	1,328.6	113.90	12.664	
15,200.0	12,509.3	14,601.9	11,932.2	63.0	61.9	66.37	2,637.4	690.1	1,442.1	1,326.0	116.13	12.418	
15,300.0	12,507.8	14,701.9	11,931.7	64.2	63.1	66.40	2,737.4	689.3	1,441.7	1,323.3	118.41	12.176	
15,400.0	12,506.3	14,801.9	11,931.1	65.4	64.3	66.44	2,837.4	688.5	1,441.3	1,320.6	120.72	11.940	
15,500.0	12,504.8	14,901.9	11,930.6	66.6	65.6	66.47	2,937.4	687.7	1,440.9	1,317.9	123.06	11.709	
15,600.0	12,503.4	15,001.9	11,930.0	67.8	66.8	66.50	3,037.4	686.9	1,440.6	1,315.1	125.45	11.483	
15,700.0	12,501.9	15,101.9	11,929.5	69.1	68.1	66.54	3,137.3	686.1	1,440.2	1,312.3	127.86	11.264	
15,800.0	12,500.4	15,201.9	11,928.9	70.3	69.4	66.57	3,237.3	685.3	1,439.8	1,309.5	130.31	11.049	
15,900.0	12,498.9	15,301.9	11,928.3	71.6	70.7	66.60	3,337.3	684.5	1,439.4	1,306.6	132.78	10.840	
16,000.0	12,497.5	15,401.9	11,927.8	72.9	72.0	66.64	3,437.3	683.7	1,439.0	1,303.7	135.29	10.637	
16,100.0	12,496.0	15,501.9	11,927.2	74.3	73.4	66.67	3,537.3	682.9	1,438.6	1,300.8	137.81	10.439	
16,200.0	12,494.5	15,601.9	11,926.7	75.6	74.7	66.70	3,637.3	682.1	1,438.3	1,297.9	140.37	10.246	
16,300.0	12,493.0	15,701.9	11,926.1	76.9	76.1	66.74	3,737.3	681.3	1,437.9	1,294.9	142.95	10.059	
16,400.0	12,491.6	15,801.9	11,925.5	78.3	77.4	66.77	3,837.3	680.5	1,437.5	1,292.0	145.55	9.877	
16,500.0	12,490.1	15,901.9	11,925.0	79.6	78.8	66.80	3,937.3	679.7	1,437.1	1,289.0	148.17	9.699	
16,600.0	12,488.6	16,001.9	11,924.4	81.0	80.2	66.83	4,037.3	678.9	1,436.7	1,285.9	150.81	9.527	
16,700.0	12,487.2	16,101.8	11,923.9	82.4	81.6	66.87	4,137.3	678.1	1,436.4	1,282.9	153.47	9.359	
16,800.0	12,485.7	16,201.8	11,923.3	83.8	83.0	66.90	4,237.2	677.3	1,436.0	1,279.8	156.15	9.196	
16,900.0	12,484.2	16,301.8	11,922.7	85.2	84.5	66.93	4,337.2	676.5	1,435.6	1,276.8	158.85	9.037	
17,000.0	12,482.7	16,401.8	11,922.2	86.6	85.9	66.97	4,437.2	675.7	1,435.2	1,273.7	161.57	8.883	
17,100.0	12,481.3	16,501.8	11,921.6	88.1	87.3	67.00	4,537.2	674.9	1,434.9	1,270.6	164.30	8.733	
17,200.0	12,479.8	16,601.8	11,921.1	89.5	88.8	67.03	4,637.2	674.1	1,434.5	1,267.4	167.04	8.588	
17,300.0	12,478.3	16,701.8	11,920.5	90.9	90.2	67.07	4,737.2	673.3	1,434.1	1,264.3	169.80	8.446	
17,400.0	12,476.8	16,801.8	11,920.0	92.4	91.7	67.10	4,837.2	672.5	1,433.7	1,261.1	172.58	8.308	
17,500.0	12,475.4	16,901.8	11,919.4	93.8	93.1	67.13	4,937.2	671.7	1,433.3	1,258.0	175.36	8.174	
17,600.0	12,473.9	17,001.8	11,918.8	95.3	94.6	67.17	5,037.2	670.9	1,433.0	1,254.8	178.16	8.043	
17,700.0	12,472.4	17,101.8	11,918.3	96.7	96.1	67.20	5,137.2	670.1	1,432.6	1,251.6	180.98	7.916	
17,800.0	12,471.0	17,201.8	11,917.7	98.2	97.6	67.23	5,237.2	669.3	1,432.2	1,248.4	183.80	7.792	
17,900.0	12,469.5	17,301.8	11,917.2	99.7	99.1	67.27	5,337.2	668.5	1,431.8	1,245.2	186.64	7.672	
18,000.0	12,468.0	17,401.8	11,916.6	101.2	100.6	67.30	5,437.1	667.7	1,431.5	1,242.0	189.48	7.555	
18,100.0	12,466.5	17,501.8	11,916.0	102.7	102.1	67.33	5,537.1	666.9	1,431.1	1,238.8	192.34	7.440	
18,200.0	12,465.1	17,601.8	11,915.5	104.2	103.6	67.37	5,637.1	666.1	1,430.7	1,235.5	195.21	7.329	
18,300.0	12,463.6	17,701.8	11,914.9	105.7	105.1	67.40	5,737.1	665.3	1,430.4	1,232.3	198.09	7.221	
18,400.0	12,462.1	17,801.8	11,914.4	107.2	106.6	67.43	5,837.1	664.5	1,430.0	1,229.0	200.97	7.115	
18,500.0	12,460.6	17,901.8	11,913.8	108.7	108.1	67.47	5,937.1	663.6	1,429.6	1,225.8	203.87	7.013	
18,600.0	12,459.2	18,001.8	11,913.3	110.2	109.6	67.50	6,037.1	662.8	1,429.2	1,222.5	206.77	6.912	
18,700.0	12,457.7	18,101.8	11,912.7	111.7	111.2	67.54	6,137.1	662.0	1,428.9	1,219.2	209.68	6.815	
18,800.0	12,456.2	18,201.8	11,912.1	113.2	112.7	67.57	6,237.1	661.2	1,428.5	1,215.9	212.60	6.719	
18,900.0	12,454.8	18,301.8	11,911.6	114.8	114.2	67.60	6,337.1	660.4	1,428.1	1,212.6	215.53	6.626	
19,000.0	12,453.3	18,401.8	11,911.0	116.3	115.8	67.64	6,437.1	659.6	1,427.8	1,209.3	218.46	6.536	
19,100.0	12,451.8	18,501.7	11,910.5	117.8	117.3	67.67	6,537.0	658.8	1,427.4	1,206.0	221.40	6.447	
19,200.0	12,450.3	18,601.7	11,909.9	119.3	118.8	67.70	6,637.0	658.0	1,427.0	1,202.7	224.35	6.361	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #132H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,300.0	12,448.9	18,701.7	11,909.3	120.9	120.4	67.74	6,737.0	657.2	1,426.7	1,199.4	227.31	6.276	
19,400.0	12,447.4	18,801.7	11,908.8	122.4	121.9	67.77	6,837.0	656.4	1,426.3	1,196.0	230.27	6.194	
19,500.0	12,445.9	18,901.7	11,908.2	124.0	123.5	67.80	6,937.0	655.6	1,425.9	1,192.7	233.24	6.114	
19,600.0	12,444.4	19,001.7	11,907.7	125.5	125.0	67.84	7,037.0	654.8	1,425.6	1,189.4	236.21	6.035	
19,700.0	12,443.0	19,101.7	11,907.1	127.1	126.6	67.87	7,137.0	654.0	1,425.2	1,186.0	239.19	5.958	
19,800.0	12,441.5	19,201.7	11,906.6	128.6	128.2	67.91	7,237.0	653.2	1,424.8	1,182.7	242.18	5.883	
19,900.0	12,440.0	19,301.7	11,906.0	130.2	129.7	67.94	7,337.0	652.4	1,424.5	1,179.3	245.17	5.810	
20,000.0	12,438.6	19,401.7	11,905.4	131.7	131.3	67.97	7,437.0	651.6	1,424.1	1,175.9	248.17	5.739	
20,100.0	12,437.1	19,501.7	11,904.9	133.3	132.9	68.01	7,537.0	650.8	1,423.8	1,172.6	251.17	5.668	
20,200.0	12,435.6	19,601.7	11,904.3	134.9	134.4	68.04	7,636.9	650.0	1,423.4	1,169.2	254.18	5.600	
20,300.0	12,434.1	19,701.7	11,903.8	136.4	136.0	68.07	7,736.9	649.2	1,423.0	1,165.8	257.19	5.533	
20,400.0	12,432.7	19,801.7	11,903.2	138.0	137.6	68.11	7,836.9	648.4	1,422.7	1,162.5	260.21	5.467	
20,500.0	12,431.2	19,901.7	11,902.6	139.6	139.1	68.14	7,936.9	647.6	1,422.3	1,159.1	263.23	5.403	
20,600.0	12,429.7	20,001.7	11,902.1	141.1	140.7	68.18	8,036.9	646.8	1,421.9	1,155.7	266.26	5.341	
20,700.0	12,428.2	20,101.7	11,901.5	142.7	142.3	68.21	8,136.9	646.0	1,421.6	1,152.3	269.29	5.279	
20,800.0	12,426.8	20,201.7	11,901.0	144.3	143.9	68.24	8,236.9	645.2	1,421.2	1,148.9	272.32	5.219	
20,900.0	12,425.3	20,301.7	11,900.4	145.9	145.5	68.28	8,336.9	644.4	1,420.9	1,145.5	275.36	5.160	
21,000.0	12,423.8	20,401.7	11,899.9	147.4	147.0	68.31	8,436.9	643.6	1,420.5	1,142.1	278.41	5.102	
21,100.0	12,422.4	20,501.7	11,899.3	149.0	148.6	68.35	8,536.9	642.8	1,420.2	1,138.7	281.45	5.046	
21,200.0	12,420.9	20,601.7	11,898.7	150.6	150.2	68.38	8,636.9	642.0	1,419.8	1,135.3	284.51	4.990	
21,300.0	12,419.4	20,701.7	11,898.2	152.2	151.8	68.41	8,736.8	641.2	1,419.4	1,131.9	287.56	4.936	
21,400.0	12,417.9	20,801.7	11,897.6	153.8	153.4	68.45	8,836.8	640.4	1,419.1	1,128.5	290.62	4.883	
21,500.0	12,416.5	20,901.6	11,897.1	155.3	155.0	68.48	8,936.8	639.6	1,418.7	1,125.0	293.68	4.831	
21,600.0	12,415.0	21,001.6	11,896.5	156.9	156.6	68.52	9,036.8	638.8	1,418.4	1,121.6	296.75	4.780	
21,700.0	12,413.5	21,101.6	11,895.9	158.5	158.2	68.55	9,136.8	638.0	1,418.0	1,118.2	299.82	4.730	
21,800.0	12,412.0	21,201.6	11,895.4	160.1	159.8	68.58	9,236.8	637.2	1,417.7	1,114.8	302.89	4.680	
21,900.0	12,410.6	21,301.6	11,894.8	161.7	161.4	68.62	9,336.8	636.4	1,417.3	1,111.3	305.97	4.632	
22,000.0	12,409.1	21,401.6	11,894.3	163.3	163.0	68.65	9,436.8	635.6	1,417.0	1,107.9	309.05	4.585	
22,100.0	12,407.6	21,501.6	11,893.7	164.9	164.6	68.69	9,536.8	634.7	1,416.6	1,104.5	312.13	4.538	
22,200.0	12,406.1	21,601.6	11,893.1	166.5	166.2	68.72	9,636.8	633.9	1,416.3	1,101.0	315.22	4.493	
22,300.0	12,404.7	21,701.6	11,892.6	168.1	167.8	68.75	9,736.8	633.1	1,415.9	1,097.6	318.31	4.448	
22,400.0	12,403.2	21,801.6	11,892.0	169.7	169.4	68.79	9,836.7	632.3	1,415.5	1,094.1	321.40	4.404	
22,500.0	12,401.7	21,901.6	11,891.5	171.3	171.0	68.82	9,936.7	631.5	1,415.2	1,090.7	324.50	4.361	
22,600.0	12,400.3	22,001.6	11,890.9	172.9	172.6	68.86	10,036.7	630.7	1,414.8	1,087.3	327.60	4.319	
22,700.0	12,398.8	22,105.4	11,890.4	174.5	174.2	68.89	10,140.5	629.9	1,414.5	1,083.7	330.75	4.277	
22,787.3	12,397.5	22,192.7	11,890.5	175.7	175.6	68.95	10,227.8	629.2	1,413.9	1,080.6	333.33	4.242	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	90.08	-3.2	2,343.4	2,343.4				
100.0	100.0	100.0	100.0	0.1	0.1	90.08	-3.2	2,343.4	2,343.4	2,343.1	0.26	9,142.830	
200.0	200.0	200.0	200.0	0.5	0.5	90.08	-3.2	2,343.4	2,343.4	2,342.4	0.97	2,407.783	
300.0	300.0	300.0	300.0	0.8	0.8	90.08	-3.2	2,343.4	2,343.4	2,341.7	1.69	1,386.454	
400.0	400.0	400.0	400.0	1.2	1.2	90.08	-3.2	2,343.4	2,343.4	2,341.0	2.41	973.512	
500.0	500.0	500.0	500.0	1.6	1.6	90.08	-3.2	2,343.4	2,343.4	2,340.3	3.12	750.101	
600.0	600.0	600.0	600.0	1.9	1.9	90.08	-3.2	2,343.4	2,343.4	2,339.5	3.84	610.092	
700.0	700.0	700.0	700.0	2.3	2.3	90.08	-3.2	2,343.4	2,343.4	2,338.8	4.56	514.128	
800.0	800.0	800.0	800.0	2.6	2.6	90.08	-3.2	2,343.4	2,343.4	2,338.1	5.27	444.250	
900.0	900.0	900.0	900.0	3.0	3.0	90.08	-3.2	2,343.4	2,343.4	2,337.4	5.99	391.094	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	90.08	-3.2	2,343.4	2,343.4	2,336.7	6.71	349.299	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	90.08	-3.2	2,343.4	2,343.4	2,336.0	7.43	315.575	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	90.08	-3.2	2,343.4	2,343.4	2,335.2	8.14	287.789	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	90.08	-3.2	2,343.4	2,343.4	2,334.5	8.86	264.501	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	90.08	-3.2	2,343.4	2,343.4	2,333.8	9.58	244.699	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	90.08	-3.2	2,343.4	2,343.4	2,333.1	10.29	227.656	
1,600.0	1,600.0	1,652.7	1,652.7	5.5	5.7	-155.69	-4.3	2,341.7	2,343.0	2,331.9	11.16	209.998	
1,700.0	1,700.0	1,805.3	1,805.2	5.8	6.2	-155.66	-7.5	2,336.5	2,342.1	2,330.1	12.00	195.207	
1,800.0	1,799.9	1,957.8	1,957.4	6.2	6.7	-155.60	-13.0	2,327.9	2,340.4	2,327.6	12.84	182.246	
1,900.0	1,899.7	2,110.2	2,109.1	6.5	7.2	-155.51	-20.6	2,316.0	2,338.1	2,324.4	13.69	170.806	
2,000.0	1,999.4	2,262.4	2,260.1	6.9	7.8	-155.40	-30.3	2,300.6	2,335.2	2,320.7	14.54	160.619	
2,100.0	2,098.9	2,375.2	2,371.9	7.2	8.2	-155.32	-38.6	2,287.4	2,332.2	2,317.0	15.28	152.674	
2,200.0	2,198.3	2,475.1	2,470.8	7.6	8.6	-155.26	-46.1	2,275.7	2,330.8	2,314.8	15.98	145.847	
2,239.8	2,237.7	2,514.9	2,510.2	7.7	8.7	-155.23	-49.1	2,271.0	2,330.7	2,314.4	16.26	143.307 CC	
2,300.0	2,297.4	2,575.1	2,569.8	7.9	9.0	-155.20	-53.5	2,264.0	2,331.0	2,314.3	16.69	139.640 ES	
2,400.0	2,396.4	2,675.1	2,668.8	8.3	9.3	-155.16	-61.0	2,252.2	2,331.9	2,314.5	17.41	133.945	
2,500.0	2,495.5	2,775.1	2,767.8	8.7	9.7	-155.12	-68.5	2,240.4	2,332.9	2,314.8	18.13	128.667	
2,600.0	2,594.5	2,875.0	2,866.9	9.1	10.1	-155.08	-75.9	2,228.7	2,333.9	2,315.0	18.86	123.766	
2,700.0	2,693.5	2,975.0	2,965.9	9.5	10.5	-155.03	-83.4	2,216.9	2,334.8	2,315.2	19.59	119.206	
2,800.0	2,792.5	3,075.0	3,064.9	9.8	10.9	-154.99	-90.8	2,205.2	2,335.8	2,315.5	20.32	114.954	
2,900.0	2,891.6	3,175.0	3,163.9	10.2	11.3	-154.95	-98.3	2,193.4	2,336.7	2,315.7	21.05	110.983	
3,000.0	2,990.6	3,275.0	3,262.9	10.6	11.7	-154.91	-105.7	2,181.7	2,337.7	2,315.9	21.79	107.266	
3,100.0	3,089.6	3,374.9	3,361.9	11.0	12.1	-154.86	-113.2	2,169.9	2,338.7	2,316.1	22.53	103.782	
3,200.0	3,188.6	3,474.9	3,460.9	11.4	12.5	-154.82	-120.6	2,158.2	2,339.6	2,316.4	23.28	100.510	
3,300.0	3,287.7	3,574.9	3,559.9	11.8	12.9	-154.78	-128.1	2,146.4	2,340.6	2,316.6	24.02	97.432	
3,400.0	3,386.7	3,674.9	3,658.9	12.2	13.3	-154.74	-135.5	2,134.7	2,341.6	2,316.8	24.77	94.533	
3,500.0	3,485.7	3,774.9	3,757.9	12.6	13.7	-154.69	-143.0	2,122.9	2,342.5	2,317.0	25.52	91.797	
3,600.0	3,584.8	3,874.8	3,856.9	13.0	14.1	-154.65	-150.4	2,111.2	2,343.5	2,317.2	26.27	89.212	
3,700.0	3,683.8	3,974.8	3,955.9	13.4	14.5	-154.61	-157.9	2,099.4	2,344.5	2,317.5	27.02	86.765	
3,800.0	3,782.8	4,074.8	4,054.9	13.8	14.9	-154.57	-165.3	2,087.7	2,345.5	2,317.7	27.77	84.447	
3,900.0	3,881.8	4,174.8	4,153.9	14.3	15.4	-154.53	-172.8	2,075.9	2,346.4	2,317.9	28.53	82.248	
4,000.0	3,980.9	4,274.8	4,253.0	14.7	15.8	-154.48	-180.2	2,064.2	2,347.4	2,318.1	29.28	80.159	
4,100.0	4,079.9	4,340.3	4,317.9	15.1	16.0	-154.46	-184.8	2,057.0	2,349.1	2,319.2	29.92	78.504	
4,200.0	4,178.9	4,400.0	4,377.2	15.5	16.3	-154.46	-188.4	2,051.2	2,352.3	2,321.8	30.54	77.036	
4,300.0	4,277.9	4,472.4	4,449.3	15.9	16.5	-154.47	-192.2	2,045.3	2,356.9	2,325.7	31.18	75.589	
4,400.0	4,377.0	4,538.3	4,515.0	16.3	16.8	-154.50	-195.0	2,040.9	2,362.9	2,331.2	31.79	74.321	
4,500.0	4,476.0	4,600.0	4,576.6	16.7	17.0	-154.54	-197.0	2,037.7	2,370.4	2,338.0	32.38	73.203	
4,600.0	4,575.0	4,669.6	4,646.1	17.1	17.3	-154.59	-198.7	2,035.1	2,379.3	2,346.3	32.99	72.127	
4,700.0	4,674.0	4,734.9	4,711.4	17.5	17.5	-154.66	-199.6	2,033.6	2,389.7	2,356.1	33.57	71.194	
4,800.0	4,773.1	4,806.3	4,782.7	18.0	17.7	-154.76	-200.0	2,033.0	2,401.4	2,367.3	34.16	70.304	
4,900.0	4,872.1	4,904.4	4,872.1	18.4	18.1	-154.89	-200.0	2,033.0	2,414.0	2,379.2	34.85	69.276	
5,000.0	4,971.1	5,005.3	4,971.1	18.8	18.4	-155.02	-200.0	2,033.0	2,426.7	2,391.1	35.56	68.251	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.2	5,106.3	5,070.2	19.2	18.7	-155.16	-200.0	2,033.0	2,439.3	2,403.0	36.26	67.264	
5,200.0	5,169.2	5,207.3	5,169.2	19.6	19.0	-155.30	-200.0	2,033.0	2,452.0	2,415.0	36.98	66.313	
5,300.0	5,268.2	5,308.3	5,268.2	20.0	19.4	-155.43	-200.0	2,033.0	2,464.6	2,427.0	37.69	65.397	
5,400.0	5,367.2	5,409.2	5,367.2	20.5	19.7	-155.57	-200.0	2,033.0	2,477.3	2,438.9	38.40	64.514	
5,500.0	5,466.3	5,489.8	5,466.3	20.9	20.0	-155.70	-200.0	2,033.0	2,490.0	2,451.0	39.04	63.775	
5,600.0	5,565.3	5,588.8	5,565.3	21.3	20.3	-155.83	-200.0	2,033.0	2,502.7	2,463.0	39.75	62.960	
5,643.3	5,608.2	5,631.7	5,608.2	21.5	20.5	-155.89	-200.0	2,033.0	2,508.3	2,468.2	40.06	62.615	
5,700.0	5,664.4	5,687.9	5,664.4	21.7	20.6	-156.00	-200.0	2,033.0	2,515.1	2,474.6	40.46	62.164	
5,800.0	5,763.7	5,787.3	5,763.7	22.1	21.0	-156.16	-200.0	2,033.0	2,525.3	2,484.1	41.16	61.346	
5,900.0	5,863.4	5,886.9	5,863.4	22.5	21.3	-156.29	-200.0	2,033.0	2,533.1	2,491.2	41.87	60.504	
6,000.0	5,963.2	5,986.7	5,963.2	22.8	21.6	-156.37	-200.0	2,033.0	2,538.5	2,496.0	42.57	59.637	
6,100.0	6,063.1	6,086.7	6,063.1	23.2	22.0	-156.42	-200.0	2,033.0	2,541.6	2,498.3	43.26	58.749	
6,176.7	6,139.8	6,163.3	6,139.8	23.4	22.2	89.35	-200.0	2,033.0	2,542.3	2,498.5	43.79	58.061	
6,200.0	6,163.1	6,186.7	6,163.1	23.5	22.3	89.35	-200.0	2,033.0	2,542.3	2,498.3	43.94	57.854	
6,300.0	6,263.1	6,286.7	6,263.1	23.8	22.7	89.35	-200.0	2,033.0	2,542.3	2,497.7	44.62	56.977	
6,400.0	6,363.1	6,386.7	6,363.1	24.2	23.0	89.35	-200.0	2,033.0	2,542.3	2,497.0	45.30	56.125	
6,500.0	6,463.1	6,486.7	6,463.1	24.5	23.3	89.35	-200.0	2,033.0	2,542.3	2,496.3	45.98	55.297	
6,600.0	6,563.1	6,586.7	6,563.1	24.8	23.7	89.35	-200.0	2,033.0	2,542.3	2,495.6	46.65	54.491	
6,700.0	6,663.1	6,686.7	6,663.1	25.1	24.0	89.35	-200.0	2,033.0	2,542.3	2,494.9	47.34	53.708	
6,800.0	6,763.1	6,786.7	6,763.1	25.4	24.3	89.35	-200.0	2,033.0	2,542.3	2,494.3	48.02	52.945	
6,900.0	6,863.1	6,886.7	6,863.1	25.8	24.7	89.35	-200.0	2,033.0	2,542.3	2,493.6	48.70	52.203	
7,000.0	6,963.1	6,986.7	6,963.1	26.1	25.0	89.35	-200.0	2,033.0	2,542.3	2,492.9	49.38	51.480	
7,100.0	7,063.1	7,086.7	7,063.1	26.4	25.4	89.35	-200.0	2,033.0	2,542.3	2,492.2	50.07	50.776	
7,200.0	7,163.1	7,186.7	7,163.1	26.7	25.7	89.35	-200.0	2,033.0	2,542.3	2,491.5	50.75	50.090	
7,300.0	7,263.1	7,286.7	7,263.1	27.1	26.1	89.35	-200.0	2,033.0	2,542.3	2,490.8	51.44	49.422	
7,400.0	7,363.1	7,386.7	7,363.1	27.4	26.4	89.35	-200.0	2,033.0	2,542.3	2,490.2	52.13	48.770	
7,500.0	7,463.1	7,486.7	7,463.1	27.7	26.7	89.35	-200.0	2,033.0	2,542.3	2,489.5	52.82	48.135	
7,600.0	7,563.1	7,586.7	7,563.1	28.1	27.1	89.35	-200.0	2,033.0	2,542.3	2,488.8	53.50	47.515	
7,700.0	7,663.1	7,686.7	7,663.1	28.4	27.4	89.35	-200.0	2,033.0	2,542.3	2,488.1	54.19	46.911	
7,800.0	7,763.1	7,786.7	7,763.1	28.7	27.8	89.35	-200.0	2,033.0	2,542.3	2,487.4	54.88	46.321	
7,900.0	7,863.1	7,886.7	7,863.1	29.0	28.1	89.35	-200.0	2,033.0	2,542.3	2,486.7	55.57	45.745	
8,000.0	7,963.1	7,986.7	7,963.1	29.4	28.5	89.35	-200.0	2,033.0	2,542.3	2,486.0	56.27	45.183	
8,100.0	8,063.1	8,086.7	8,063.1	29.7	28.8	89.35	-200.0	2,033.0	2,542.3	2,485.3	56.96	44.634	
8,200.0	8,163.1	8,186.7	8,163.1	30.0	29.2	89.35	-200.0	2,033.0	2,542.3	2,484.6	57.65	44.097	
8,300.0	8,263.1	8,286.7	8,263.1	30.4	29.5	89.35	-200.0	2,033.0	2,542.3	2,483.9	58.34	43.573	
8,400.0	8,363.1	8,386.7	8,363.1	30.7	29.9	89.35	-200.0	2,033.0	2,542.3	2,483.2	59.04	43.061	
8,500.0	8,463.1	8,486.7	8,463.1	31.0	30.2	89.35	-200.0	2,033.0	2,542.3	2,482.5	59.73	42.561	
8,600.0	8,563.1	8,586.7	8,563.1	31.4	30.5	89.35	-200.0	2,033.0	2,542.3	2,481.9	60.43	42.071	
8,700.0	8,663.1	8,686.7	8,663.1	31.7	30.9	89.35	-200.0	2,033.0	2,542.3	2,481.2	61.12	41.593	
8,800.0	8,763.1	8,786.7	8,763.1	32.1	31.2	89.35	-200.0	2,033.0	2,542.3	2,480.5	61.82	41.124	
8,900.0	8,863.1	8,886.7	8,863.1	32.4	31.6	89.35	-200.0	2,033.0	2,542.3	2,479.8	62.52	40.666	
9,000.0	8,963.1	8,986.7	8,963.1	32.7	31.9	89.35	-200.0	2,033.0	2,542.3	2,479.1	63.21	40.218	
9,100.0	9,063.1	9,086.7	9,063.1	33.1	32.3	89.35	-200.0	2,033.0	2,542.3	2,478.4	63.91	39.779	
9,200.0	9,163.1	9,186.7	9,163.1	33.4	32.6	89.35	-200.0	2,033.0	2,542.3	2,477.7	64.61	39.349	
9,300.0	9,263.1	9,286.7	9,263.1	33.7	33.0	89.35	-200.0	2,033.0	2,542.3	2,477.0	65.31	38.929	
9,400.0	9,363.1	9,386.7	9,363.1	34.1	33.3	89.35	-200.0	2,033.0	2,542.3	2,476.3	66.00	38.517	
9,500.0	9,463.1	9,486.7	9,463.1	34.4	33.7	89.35	-200.0	2,033.0	2,542.3	2,475.6	66.70	38.113	
9,600.0	9,563.1	9,586.7	9,563.1	34.8	34.0	89.35	-200.0	2,033.0	2,542.3	2,474.9	67.40	37.718	
9,700.0	9,663.1	9,686.7	9,663.1	35.1	34.4	89.35	-200.0	2,033.0	2,542.3	2,474.2	68.10	37.330	
9,800.0	9,763.1	9,786.7	9,763.1	35.4	34.7	89.35	-200.0	2,033.0	2,542.3	2,473.5	68.80	36.950	
9,900.0	9,863.1	9,886.7	9,863.1	35.8	35.1	89.35	-200.0	2,033.0	2,542.3	2,472.8	69.50	36.578	
10,000.0	9,963.1	9,986.7	9,963.1	36.1	35.4	89.35	-200.0	2,033.0	2,542.3	2,472.1	70.20	36.213	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,086.7	10,063.1	36.5	35.8	89.35	-200.0	2,033.0	2,542.3	2,471.4	70.90	35.855	
10,200.0	10,163.1	10,186.7	10,163.1	36.8	36.1	89.35	-200.0	2,033.0	2,542.3	2,470.7	71.61	35.504	
10,300.0	10,263.1	10,286.7	10,263.1	37.1	36.5	89.35	-200.0	2,033.0	2,542.3	2,470.0	72.31	35.159	
10,400.0	10,363.1	10,386.7	10,363.1	37.5	36.8	89.35	-200.0	2,033.0	2,542.3	2,469.3	73.01	34.821	
10,500.0	10,463.1	10,486.7	10,463.1	37.8	37.2	89.35	-200.0	2,033.0	2,542.3	2,468.6	73.71	34.489	
10,600.0	10,563.1	10,586.7	10,563.1	38.2	37.5	89.35	-200.0	2,033.0	2,542.3	2,467.9	74.41	34.164	
10,700.0	10,663.1	10,686.7	10,663.1	38.5	37.9	89.35	-200.0	2,033.0	2,542.3	2,467.2	75.12	33.844	
10,800.0	10,763.1	10,786.7	10,763.1	38.9	38.2	89.35	-200.0	2,033.0	2,542.3	2,466.5	75.82	33.530	
10,900.0	10,863.1	10,886.7	10,863.1	39.2	38.6	89.35	-200.0	2,033.0	2,542.3	2,465.8	76.52	33.222	
11,000.0	10,963.1	10,986.7	10,963.1	39.6	38.9	89.35	-200.0	2,033.0	2,542.3	2,465.1	77.23	32.919	
11,100.0	11,063.1	11,086.7	11,063.1	39.9	39.3	89.35	-200.0	2,033.0	2,542.3	2,464.3	77.93	32.622	
11,200.0	11,163.1	11,186.7	11,163.1	40.2	39.6	89.35	-200.0	2,033.0	2,542.3	2,463.6	78.64	32.330	
11,300.0	11,263.1	11,286.7	11,263.1	40.6	40.0	89.35	-200.0	2,033.0	2,542.3	2,462.9	79.34	32.043	
11,400.0	11,363.1	11,386.7	11,363.1	40.9	40.4	89.35	-200.0	2,033.0	2,542.3	2,462.2	80.04	31.761	
11,500.0	11,463.1	11,483.9	11,460.1	41.3	40.7	89.22	-194.2	2,033.0	2,542.3	2,461.6	80.72	31.494	
11,600.0	11,563.1	11,576.2	11,550.1	41.6	41.0	88.76	-173.9	2,032.9	2,542.6	2,461.3	81.35	31.254	
11,700.0	11,663.1	11,660.2	11,628.1	42.0	41.2	88.06	-143.0	2,032.7	2,543.5	2,461.6	81.91	31.052	
11,800.0	11,763.1	11,733.8	11,692.1	42.3	41.4	87.25	-106.9	2,032.5	2,545.5	2,463.2	82.39	30.895	
11,900.0	11,863.1	11,796.9	11,742.9	42.7	41.5	86.41	-69.6	2,032.3	2,549.3	2,466.5	82.80	30.789	
12,006.9	11,970.0	11,850.0	11,782.4	43.0	41.6	85.61	-34.0	2,032.1	2,555.6	2,472.5	83.11	30.748	
12,050.0	12,013.1	11,874.6	11,799.4	43.2	41.7	92.78	-16.3	2,032.0	2,559.1	2,475.8	83.24	30.744	
12,100.0	12,062.7	11,900.0	11,816.3	43.3	41.7	91.93	2.7	2,031.9	2,563.8	2,480.5	83.35	30.759	
12,150.0	12,111.7	11,923.2	11,830.9	43.5	41.7	91.05	20.7	2,031.9	2,569.4	2,485.9	83.44	30.794	
12,200.0	12,159.5	11,950.0	11,846.9	43.7	41.8	90.07	42.2	2,031.7	2,575.5	2,492.0	83.52	30.836	
12,250.0	12,205.9	11,971.9	11,859.2	43.8	41.8	89.12	60.4	2,031.6	2,582.3	2,498.7	83.57	30.898	
12,300.0	12,250.5	12,000.0	11,873.9	43.9	41.8	88.06	84.3	2,031.5	2,589.6	2,505.9	83.64	30.961	
12,350.0	12,293.0	12,020.7	11,884.0	44.1	41.8	87.08	102.3	2,031.4	2,597.2	2,513.5	83.66	31.043	
12,400.0	12,333.0	12,050.0	11,897.2	44.2	41.9	85.99	128.5	2,031.3	2,605.2	2,521.4	83.72	31.117	
12,450.0	12,370.3	12,069.4	11,905.2	44.3	41.9	85.01	146.2	2,031.2	2,613.3	2,529.6	83.73	31.211	
12,500.0	12,404.5	12,100.0	11,916.5	44.3	42.0	83.94	174.6	2,031.0	2,621.6	2,537.8	83.79	31.287	
12,550.0	12,435.4	12,118.2	11,922.6	44.4	42.0	82.98	191.8	2,031.0	2,629.9	2,546.1	83.80	31.382	
12,600.0	12,462.7	12,150.0	11,931.8	44.5	42.1	81.98	222.2	2,030.8	2,638.3	2,554.4	83.88	31.451	
12,650.0	12,486.3	12,167.0	11,936.0	44.5	42.1	81.08	238.7	2,030.7	2,646.4	2,562.5	83.91	31.537	
12,700.0	12,506.0	12,200.0	11,942.8	44.6	42.2	80.17	271.0	2,030.5	2,654.4	2,570.4	84.02	31.591	
12,750.0	12,521.6	12,215.8	11,945.4	44.7	42.3	79.37	286.6	2,030.5	2,662.1	2,578.0	84.09	31.659	
12,800.0	12,533.0	12,250.0	11,949.6	44.7	42.4	78.59	320.5	2,030.3	2,669.5	2,585.3	84.24	31.691	
12,850.0	12,540.1	12,264.6	11,950.7	44.9	42.4	77.89	335.0	2,030.2	2,676.5	2,592.2	84.34	31.735	
12,900.0	12,542.9	12,289.0	11,951.8	45.0	42.5	77.26	359.4	2,030.1	2,683.1	2,598.6	84.50	31.753	
12,915.3	12,542.9	12,300.0	11,952.0	45.0	42.5	77.08	370.4	2,030.0	2,685.0	2,600.4	84.56	31.752	
13,000.0	12,541.7	12,378.5	11,951.6	45.3	42.7	77.21	448.9	2,029.4	2,694.3	2,609.3	85.01	31.695	
13,100.0	12,540.2	12,478.1	11,951.0	45.6	43.1	77.33	548.5	2,028.6	2,702.2	2,616.5	85.66	31.546	
13,200.0	12,538.7	12,578.0	11,950.5	46.0	43.5	77.42	648.4	2,027.8	2,706.6	2,620.2	86.42	31.321	
13,287.8	12,537.4	12,665.8	11,950.0	46.4	43.9	77.47	736.2	2,027.1	2,707.8	2,620.6	87.17	31.062	
13,300.0	12,537.2	12,678.0	11,949.9	46.5	43.9	77.47	748.4	2,027.0	2,707.7	2,620.4	87.28	31.022	
13,400.0	12,535.8	12,778.0	11,949.4	47.0	44.5	77.49	848.3	2,026.2	2,707.5	2,619.2	88.26	30.677	
13,500.0	12,534.3	12,877.9	11,948.8	47.5	45.0	77.51	948.3	2,025.4	2,707.3	2,617.9	89.34	30.303	
13,600.0	12,532.8	12,977.9	11,948.3	48.1	45.6	77.53	1,048.3	2,024.6	2,707.1	2,616.5	90.53	29.903	
13,700.0	12,531.3	13,077.9	11,947.8	48.7	46.3	77.55	1,148.3	2,023.8	2,706.8	2,615.0	91.82	29.481	
13,800.0	12,529.9	13,177.9	11,947.2	49.4	47.0	77.57	1,248.3	2,023.0	2,706.6	2,613.4	93.20	29.040	
13,900.0	12,528.4	13,277.9	11,946.7	50.2	47.8	77.59	1,348.3	2,022.2	2,706.4	2,611.7	94.68	28.585	
14,000.0	12,526.9	13,377.9	11,946.1	51.0	48.6	77.61	1,448.3	2,021.4	2,706.2	2,609.9	96.24	28.118	
14,100.0	12,525.5	13,477.9	11,945.6	51.8	49.5	77.63	1,548.3	2,020.6	2,705.9	2,608.1	97.89	27.642	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	13,577.9	11,945.1	52.6	50.4	77.65	1,648.3	2,019.8	2,705.7	2,606.1	99.62	27.161	
14,300.0	12,522.5	13,677.9	11,944.5	53.5	51.3	77.67	1,748.3	2,019.0	2,705.5	2,604.1	101.42	26.676	
14,400.0	12,521.0	13,777.9	11,944.0	54.5	52.3	77.68	1,848.3	2,018.2	2,705.3	2,602.0	103.30	26.189	
14,500.0	12,519.6	13,877.9	11,943.4	55.4	53.3	77.70	1,948.2	2,017.4	2,705.1	2,599.8	105.24	25.704	
14,600.0	12,518.1	13,977.9	11,942.9	56.4	54.3	77.72	2,048.2	2,016.6	2,704.8	2,597.6	107.25	25.221	
14,700.0	12,516.6	14,077.9	11,942.3	57.4	55.4	77.74	2,148.2	2,015.8	2,704.6	2,595.3	109.31	24.742	
14,800.0	12,515.1	14,177.9	11,941.8	58.5	56.5	77.76	2,248.2	2,014.9	2,704.4	2,593.0	111.44	24.268	
14,900.0	12,513.7	14,277.9	11,941.3	59.6	57.6	77.78	2,348.2	2,014.1	2,704.2	2,590.6	113.62	23.801	
15,000.0	12,512.2	14,377.9	11,940.7	60.7	58.7	77.80	2,448.2	2,013.3	2,704.0	2,588.1	115.85	23.341	
15,100.0	12,510.7	14,477.9	11,940.2	61.8	59.9	77.82	2,548.2	2,012.5	2,703.7	2,585.6	118.13	22.889	
15,200.0	12,509.3	14,577.9	11,939.6	63.0	61.1	77.84	2,648.2	2,011.7	2,703.5	2,583.1	120.45	22.445	
15,300.0	12,507.8	14,677.9	11,939.1	64.2	62.3	77.86	2,748.2	2,010.9	2,703.3	2,580.5	122.82	22.011	
15,400.0	12,506.3	14,777.9	11,938.6	65.4	63.5	77.88	2,848.2	2,010.1	2,703.1	2,577.9	125.22	21.586	
15,500.0	12,504.8	14,877.9	11,938.0	66.6	64.8	77.90	2,948.2	2,009.3	2,702.9	2,575.2	127.67	21.171	
15,600.0	12,503.4	14,977.9	11,937.5	67.8	66.0	77.91	3,048.1	2,008.5	2,702.6	2,572.5	130.15	20.765	
15,700.0	12,501.9	15,077.9	11,936.9	69.1	67.3	77.93	3,148.1	2,007.7	2,702.4	2,569.8	132.67	20.370	
15,800.0	12,500.4	15,177.8	11,936.4	70.3	68.6	77.95	3,248.1	2,006.9	2,702.2	2,567.0	135.22	19.984	
15,900.0	12,498.9	15,277.8	11,935.8	71.6	69.9	77.97	3,348.1	2,006.1	2,702.0	2,564.2	137.80	19.609	
16,000.0	12,497.5	15,377.8	11,935.3	72.9	71.3	77.99	3,448.1	2,005.3	2,701.8	2,561.4	140.40	19.243	
16,100.0	12,496.0	15,477.8	11,934.8	74.3	72.6	78.01	3,548.1	2,004.5	2,701.6	2,558.5	143.04	18.887	
16,200.0	12,494.5	15,577.8	11,934.2	75.6	74.0	78.03	3,648.1	2,003.7	2,701.3	2,555.6	145.70	18.541	
16,300.0	12,493.0	15,677.8	11,933.7	76.9	75.3	78.05	3,748.1	2,002.9	2,701.1	2,552.7	148.38	18.204	
16,400.0	12,491.6	15,777.8	11,933.1	78.3	76.7	78.07	3,848.1	2,002.1	2,700.9	2,549.8	151.09	17.876	
16,500.0	12,490.1	15,877.8	11,932.6	79.6	78.1	78.09	3,948.1	2,001.3	2,700.7	2,546.9	153.82	17.557	
16,600.0	12,488.6	15,977.8	11,932.1	81.0	79.5	78.11	4,048.1	2,000.5	2,700.5	2,543.9	156.58	17.247	
16,700.0	12,487.2	16,077.8	11,931.5	82.4	80.9	78.13	4,148.0	1,999.7	2,700.3	2,540.9	159.35	16.946	
16,800.0	12,485.7	16,177.8	11,931.0	83.8	82.3	78.14	4,248.0	1,998.9	2,700.1	2,537.9	162.14	16.653	
16,900.0	12,484.2	16,277.8	11,930.4	85.2	83.8	78.16	4,348.0	1,998.1	2,699.8	2,534.9	164.94	16.368	
17,000.0	12,482.7	16,377.8	11,929.9	86.6	85.2	78.18	4,448.0	1,997.3	2,699.6	2,531.9	167.77	16.091	
17,100.0	12,481.3	16,477.8	11,929.3	88.1	86.7	78.20	4,548.0	1,996.5	2,699.4	2,528.8	170.61	15.822	
17,200.0	12,479.8	16,577.8	11,928.8	89.5	88.1	78.22	4,648.0	1,995.6	2,699.2	2,525.7	173.47	15.560	
17,300.0	12,478.3	16,677.8	11,928.3	90.9	89.6	78.24	4,748.0	1,994.8	2,699.0	2,522.7	176.34	15.306	
17,400.0	12,476.8	16,777.8	11,927.7	92.4	91.0	78.26	4,848.0	1,994.0	2,698.8	2,519.6	179.22	15.058	
17,500.0	12,475.4	16,877.8	11,927.2	93.8	92.5	78.28	4,948.0	1,993.2	2,698.6	2,516.4	182.12	14.817	
17,600.0	12,473.9	16,977.8	11,926.6	95.3	94.0	78.30	5,048.0	1,992.4	2,698.4	2,513.3	185.03	14.583	
17,700.0	12,472.4	17,077.8	11,926.1	96.7	95.5	78.32	5,148.0	1,991.6	2,698.1	2,510.2	187.96	14.355	
17,800.0	12,471.0	17,177.8	11,925.6	98.2	97.0	78.34	5,247.9	1,990.8	2,697.9	2,507.0	190.89	14.133	
17,900.0	12,469.5	17,277.8	11,925.0	99.7	98.5	78.36	5,347.9	1,990.0	2,697.7	2,503.9	193.84	13.917	
18,000.0	12,468.0	17,377.8	11,924.5	101.2	100.0	78.38	5,447.9	1,989.2	2,697.5	2,500.7	196.79	13.707	
18,100.0	12,466.5	17,477.7	11,923.9	102.7	101.5	78.40	5,547.9	1,988.4	2,697.3	2,497.5	199.76	13.503	
18,200.0	12,465.1	17,577.7	11,923.4	104.2	103.0	78.41	5,647.9	1,987.6	2,697.1	2,494.4	202.74	13.303	
18,300.0	12,463.6	17,677.7	11,922.8	105.7	104.5	78.43	5,747.9	1,986.8	2,696.9	2,491.2	205.72	13.109	
18,400.0	12,462.1	17,777.7	11,922.3	107.2	106.0	78.45	5,847.9	1,986.0	2,696.7	2,488.0	208.72	12.920	
18,500.0	12,460.6	17,877.7	11,921.8	108.7	107.5	78.47	5,947.9	1,985.2	2,696.5	2,484.7	211.72	12.736	
18,600.0	12,459.2	17,977.7	11,921.2	110.2	109.1	78.49	6,047.9	1,984.4	2,696.3	2,481.5	214.73	12.556	
18,700.0	12,457.7	18,077.7	11,920.7	111.7	110.6	78.51	6,147.9	1,983.6	2,696.1	2,478.3	217.75	12.381	
18,800.0	12,456.2	18,177.7	11,920.1	113.2	112.1	78.53	6,247.9	1,982.8	2,695.8	2,475.1	220.78	12.211	
18,900.0	12,454.8	18,277.7	11,919.6	114.8	113.7	78.55	6,347.8	1,982.0	2,695.6	2,471.8	223.81	12.044	
19,000.0	12,453.3	18,377.7	11,919.1	116.3	115.2	78.57	6,447.8	1,981.2	2,695.4	2,468.6	226.85	11.882	
19,100.0	12,451.8	18,477.7	11,918.5	117.8	116.7	78.59	6,547.8	1,980.4	2,695.2	2,465.3	229.90	11.723	
19,200.0	12,450.3	18,577.7	11,918.0	119.3	118.3	78.61	6,647.8	1,979.6	2,695.0	2,462.1	232.96	11.569	
19,300.0	12,448.9	18,677.7	11,917.4	120.9	119.8	78.63	6,747.8	1,978.8	2,694.8	2,458.8	236.02	11.418	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,400.0	12,447.4	18,777.7	11,916.9	122.4	121.4	78.65	6,847.8	1,978.0	2,694.6	2,455.5	239.09	11.270	
19,500.0	12,445.9	18,877.7	11,916.3	124.0	123.0	78.67	6,947.8	1,977.1	2,694.4	2,452.2	242.16	11.127	
19,600.0	12,444.4	18,977.7	11,915.8	125.5	124.5	78.68	7,047.8	1,976.3	2,694.2	2,449.0	245.24	10.986	
19,700.0	12,443.0	19,077.7	11,915.3	127.1	126.1	78.70	7,147.8	1,975.5	2,694.0	2,445.7	248.32	10.849	
19,800.0	12,441.5	19,177.7	11,914.7	128.6	127.6	78.72	7,247.8	1,974.7	2,693.8	2,442.4	251.41	10.715	
19,900.0	12,440.0	19,277.7	11,914.2	130.2	129.2	78.74	7,347.8	1,973.9	2,693.6	2,439.1	254.50	10.584	
20,000.0	12,438.6	19,377.7	11,913.6	131.7	130.8	78.76	7,447.7	1,973.1	2,693.4	2,435.8	257.60	10.456	
20,100.0	12,437.1	19,477.7	11,913.1	133.3	132.3	78.78	7,547.7	1,972.3	2,693.2	2,432.5	260.71	10.330	
20,200.0	12,435.6	19,577.7	11,912.5	134.9	133.9	78.80	7,647.7	1,971.5	2,693.0	2,429.2	263.81	10.208	
20,300.0	12,434.1	19,677.7	11,912.0	136.4	135.5	78.82	7,747.7	1,970.7	2,692.8	2,425.8	266.93	10.088	
20,400.0	12,432.7	19,777.6	11,911.5	138.0	137.1	78.84	7,847.7	1,969.9	2,692.6	2,422.5	270.04	9.971	
20,500.0	12,431.2	19,877.6	11,910.9	139.6	138.6	78.86	7,947.7	1,969.1	2,692.4	2,419.2	273.16	9.856	
20,600.0	12,429.7	19,977.6	11,910.4	141.1	140.2	78.88	8,047.7	1,968.3	2,692.2	2,415.9	276.29	9.744	
20,700.0	12,428.2	20,077.6	11,909.8	142.7	141.8	78.90	8,147.7	1,967.5	2,692.0	2,412.5	279.42	9.634	
20,800.0	12,426.8	20,177.6	11,909.3	144.3	143.4	78.92	8,247.7	1,966.7	2,691.7	2,409.2	282.55	9.527	
20,900.0	12,425.3	20,277.6	11,908.8	145.9	145.0	78.94	8,347.7	1,965.9	2,691.5	2,405.9	285.69	9.421	
21,000.0	12,423.8	20,377.6	11,908.2	147.4	146.6	78.96	8,447.7	1,965.1	2,691.3	2,402.5	288.83	9.318	
21,100.0	12,422.4	20,477.6	11,907.7	149.0	148.1	78.97	8,547.7	1,964.3	2,691.1	2,399.2	291.97	9.217	
21,200.0	12,420.9	20,577.6	11,907.1	150.6	149.7	78.99	8,647.6	1,963.5	2,690.9	2,395.8	295.12	9.118	
21,300.0	12,419.4	20,677.6	11,906.6	152.2	151.3	79.01	8,747.6	1,962.7	2,690.7	2,392.5	298.27	9.021	
21,400.0	12,417.9	20,777.6	11,906.0	153.8	152.9	79.03	8,847.6	1,961.9	2,690.5	2,389.1	301.42	8.926	
21,500.0	12,416.5	20,877.6	11,905.5	155.3	154.5	79.05	8,947.6	1,961.1	2,690.3	2,385.8	304.57	8.833	
21,600.0	12,415.0	20,977.6	11,905.0	156.9	156.1	79.07	9,047.6	1,960.3	2,690.1	2,382.4	307.73	8.742	
21,700.0	12,413.5	21,077.6	11,904.4	158.5	157.7	79.09	9,147.6	1,959.5	2,689.9	2,379.1	310.90	8.652	
21,800.0	12,412.0	21,177.6	11,903.9	160.1	159.3	79.11	9,247.6	1,958.7	2,689.7	2,375.7	314.06	8.564	
21,900.0	12,410.6	21,277.6	11,903.3	161.7	160.9	79.13	9,347.6	1,957.8	2,689.5	2,372.3	317.23	8.478	
22,000.0	12,409.1	21,377.6	11,902.8	163.3	162.5	79.15	9,447.6	1,957.0	2,689.4	2,369.0	320.40	8.394	
22,100.0	12,407.6	21,477.6	11,902.3	164.9	164.1	79.17	9,547.6	1,956.2	2,689.2	2,365.6	323.57	8.311	
22,200.0	12,406.1	21,577.6	11,901.7	166.5	165.7	79.19	9,647.6	1,955.4	2,689.0	2,362.2	326.74	8.230	
22,300.0	12,404.7	21,677.6	11,901.2	168.1	167.3	79.21	9,747.5	1,954.6	2,688.8	2,358.8	329.92	8.150	
22,400.0	12,403.2	21,777.6	11,900.6	169.7	168.9	79.23	9,847.5	1,953.8	2,688.6	2,355.5	333.10	8.071	
22,500.0	12,401.7	21,877.6	11,900.1	171.3	170.5	79.25	9,947.5	1,953.0	2,688.4	2,352.1	336.28	7.994	
22,600.0	12,400.3	21,977.6	11,899.5	172.9	172.1	79.27	10,047.5	1,952.2	2,688.2	2,348.7	339.47	7.919	
22,700.0	12,398.8	22,077.5	11,899.0	174.5	173.7	79.29	10,147.5	1,951.4	2,688.0	2,345.3	342.66	7.845	
22,787.3	12,397.5	22,164.8	11,898.5	175.7	175.1	79.30	10,234.8	1,950.7	2,687.8	2,342.5	345.28	7.784 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	89.34	26.9	2,343.1	2,343.3				
100.0	100.0	100.0	100.0	0.1	0.1	89.34	26.9	2,343.1	2,343.3	2,343.0	0.26	9,142.442	
200.0	200.0	200.0	200.0	0.5	0.5	89.34	26.9	2,343.1	2,343.3	2,342.3	0.97	2,407.681	
300.0	300.0	300.0	300.0	0.8	0.8	89.34	26.9	2,343.1	2,343.3	2,341.6	1.69	1,386.395	
400.0	400.0	400.0	400.0	1.2	1.2	89.34	26.9	2,343.1	2,343.3	2,340.9	2.41	973.470	
500.0	500.0	500.0	500.0	1.6	1.6	89.34	26.9	2,343.1	2,343.3	2,340.2	3.12	750.069	
600.0	600.0	600.0	600.0	1.9	1.9	89.34	26.9	2,343.1	2,343.3	2,339.4	3.84	610.066	
700.0	700.0	700.0	700.0	2.3	2.3	89.34	26.9	2,343.1	2,343.3	2,338.7	4.56	514.106	
800.0	800.0	800.0	800.0	2.6	2.6	89.34	26.9	2,343.1	2,343.3	2,338.0	5.27	444.231	
900.0	900.0	900.0	900.0	3.0	3.0	89.34	26.9	2,343.1	2,343.3	2,337.3	5.99	391.077	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	89.34	26.9	2,343.1	2,343.3	2,336.6	6.71	349.284	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	89.34	26.9	2,343.1	2,343.3	2,335.9	7.43	315.561	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	89.34	26.9	2,343.1	2,343.3	2,335.1	8.14	287.777	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	89.34	26.9	2,343.1	2,343.3	2,334.4	8.86	264.489	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	89.34	26.9	2,343.1	2,343.3	2,333.7	9.58	244.689	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	89.34	26.9	2,343.1	2,343.3	2,333.0	10.29	227.646 CC, ES	
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	-156.44	26.9	2,343.1	2,344.1	2,333.1	11.00	213.141	
1,700.0	1,700.0	1,700.0	1,700.0	5.8	5.9	-156.46	26.9	2,343.1	2,346.5	2,334.8	11.69	200.694	
1,800.0	1,799.9	1,800.1	1,799.9	6.2	6.2	-156.49	26.9	2,343.1	2,350.5	2,338.1	12.39	189.727	
1,900.0	1,899.7	1,900.3	1,899.7	6.5	6.6	-156.52	26.9	2,343.1	2,356.1	2,343.0	13.09	180.013	
2,000.0	1,999.4	1,999.4	1,999.4	6.9	6.9	-156.57	26.9	2,343.1	2,363.3	2,349.5	13.79	171.424	
2,100.0	2,098.9	2,070.5	2,070.5	7.2	7.2	-156.60	26.8	2,343.5	2,372.7	2,358.3	14.38	165.034	
2,200.0	2,198.3	2,141.2	2,141.1	7.6	7.4	-156.62	26.5	2,344.8	2,384.9	2,369.9	14.96	159.402	
2,300.0	2,297.4	2,211.4	2,211.4	7.9	7.7	-156.63	26.1	2,346.9	2,399.8	2,384.3	15.54	154.419	
2,400.0	2,396.4	2,281.3	2,281.2	8.3	7.9	-156.71	25.4	2,349.9	2,416.8	2,400.6	16.12	149.935	
2,500.0	2,495.5	2,350.9	2,350.7	8.7	8.1	-156.78	24.6	2,353.6	2,434.9	2,418.2	16.69	145.854	
2,600.0	2,594.5	2,420.3	2,419.9	9.1	8.4	-156.84	23.6	2,358.2	2,454.1	2,436.9	17.27	142.128	
2,700.0	2,693.5	2,489.3	2,488.7	9.5	8.6	-156.90	22.4	2,363.5	2,474.6	2,456.7	17.84	138.725	
2,800.0	2,792.5	2,558.0	2,557.1	9.8	8.9	-156.95	21.1	2,369.6	2,496.1	2,477.7	18.41	135.616	
2,900.0	2,891.6	2,626.3	2,625.1	10.2	9.1	-157.00	19.5	2,376.5	2,518.8	2,499.9	18.97	132.775	
3,000.0	2,990.6	2,700.0	2,698.3	10.6	9.4	-157.05	17.7	2,384.8	2,542.7	2,523.1	19.56	130.012	
3,100.0	3,089.6	2,761.9	2,759.6	11.0	9.6	-157.08	16.0	2,392.5	2,567.6	2,547.5	20.09	127.809	
3,200.0	3,188.6	2,841.8	2,838.8	11.4	9.9	-157.12	13.6	2,403.3	2,593.5	2,572.8	20.70	125.275	
3,300.0	3,287.7	2,938.3	2,934.4	11.8	10.2	-157.16	10.7	2,416.4	2,619.7	2,598.3	21.40	122.440	
3,400.0	3,386.7	3,034.9	3,030.0	12.2	10.6	-157.20	7.8	2,429.5	2,645.8	2,623.7	22.09	119.768	
3,500.0	3,485.7	3,131.4	3,125.5	12.6	11.0	-157.25	4.9	2,442.6	2,671.9	2,649.1	22.79	117.248	
3,600.0	3,584.8	3,227.9	3,221.1	13.0	11.3	-157.29	2.1	2,455.7	2,698.0	2,674.5	23.49	114.868	
3,700.0	3,683.8	3,324.4	3,316.7	13.4	11.7	-157.33	-0.8	2,468.8	2,724.2	2,700.0	24.19	112.615	
3,800.0	3,782.8	3,420.9	3,412.3	13.8	12.1	-157.37	-3.7	2,482.0	2,750.3	2,725.4	24.89	110.483	
3,900.0	3,881.8	3,517.4	3,507.8	14.3	12.5	-157.41	-6.6	2,495.1	2,776.4	2,750.8	25.60	108.460	
4,000.0	3,980.9	3,613.9	3,603.4	14.7	12.8	-157.45	-9.5	2,508.2	2,802.5	2,776.2	26.31	106.540	
4,100.0	4,079.9	3,710.4	3,699.0	15.1	13.2	-157.48	-12.4	2,521.3	2,828.7	2,801.7	27.01	104.714	
4,200.0	4,178.9	3,806.9	3,794.5	15.5	13.6	-157.52	-15.3	2,534.4	2,854.8	2,827.1	27.72	102.978	
4,300.0	4,277.9	3,903.4	3,890.1	15.9	14.0	-157.56	-18.2	2,547.5	2,880.9	2,852.5	28.43	101.324	
4,400.0	4,377.0	4,000.0	3,985.7	16.3	14.4	-157.59	-21.1	2,560.6	2,907.1	2,877.9	29.14	99.745	
4,500.0	4,476.0	4,103.5	4,081.2	16.7	14.8	-157.63	-24.0	2,573.8	2,933.2	2,903.3	29.88	98.156	
4,600.0	4,575.0	4,193.0	4,176.8	17.1	15.1	-157.66	-26.9	2,586.9	2,959.3	2,928.8	30.57	96.802	
4,700.0	4,674.0	4,289.5	4,272.4	17.5	15.5	-157.69	-29.8	2,600.0	2,985.5	2,954.2	31.29	95.427	
4,800.0	4,773.1	4,386.0	4,368.0	18.0	15.9	-157.73	-32.7	2,613.1	3,011.6	2,979.6	32.00	94.111	
4,900.0	4,872.1	4,482.5	4,463.5	18.4	16.3	-157.76	-35.6	2,626.2	3,037.7	3,005.0	32.72	92.849	
5,000.0	4,971.1	4,579.0	4,559.1	18.8	16.7	-157.79	-38.5	2,639.3	3,063.9	3,030.4	33.43	91.640	
5,100.0	5,070.2	4,675.5	4,654.7	19.2	17.1	-157.82	-41.4	2,652.5	3,090.0	3,055.9	34.15	90.480	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - BLM Plan #1		Offset Site Error:		0.0 usft
Survey Program: 0-MWD															Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
5,200.0	5,169.2	4,772.0	4,750.2	19.6	17.5	-157.85	-44.3	2,665.6	3,116.2	3,081.3	34.87	89.366					
5,300.0	5,268.2	4,868.5	4,845.8	20.0	17.9	-157.88	-47.2	2,678.7	3,142.3	3,106.7	35.59	88.296					
5,400.0	5,367.2	4,965.0	4,941.4	20.5	18.2	-157.91	-50.1	2,691.8	3,168.4	3,132.1	36.31	87.266					
5,500.0	5,466.3	5,061.6	5,037.0	20.9	18.6	-157.94	-53.0	2,704.9	3,194.6	3,157.6	37.03	86.275					
5,600.0	5,565.3	5,158.1	5,132.5	21.3	19.0	-157.97	-55.9	2,718.0	3,220.7	3,183.0	37.75	85.321					
5,643.3	5,608.2	5,200.1	5,174.0	21.5	19.2	-157.98	-57.1	2,723.7	3,232.1	3,194.0	38.06	84.917					
5,700.0	5,664.4	5,254.7	5,228.2	21.7	19.4	-158.08	-58.8	2,731.2	3,246.5	3,208.0	38.47	84.393					
5,800.0	5,763.7	5,351.8	5,324.4	22.1	19.8	-158.23	-61.7	2,744.4	3,270.1	3,230.9	39.19	83.447					
5,900.0	5,863.4	5,449.5	5,421.2	22.5	20.2	-158.34	-64.6	2,757.6	3,291.4	3,251.5	39.91	82.477					
6,000.0	5,963.2	5,547.7	5,518.4	22.8	20.6	-158.42	-67.5	2,771.0	3,310.3	3,269.7	40.62	81.487					
6,100.0	6,063.1	5,646.3	5,616.0	23.2	21.0	-158.47	-70.5	2,784.4	3,326.8	3,285.4	41.34	80.477					
6,176.7	6,139.8	5,722.2	5,691.1	23.4	21.4	87.29	-72.8	2,794.7	3,337.8	3,295.9	41.88	79.701					
6,200.0	6,163.1	5,745.3	5,714.0	23.5	21.4	87.31	-73.5	2,797.8	3,340.9	3,298.9	42.04	79.468					
6,300.0	6,263.1	5,844.3	5,812.1	23.8	21.9	87.37	-76.4	2,811.3	3,354.4	3,311.6	42.74	78.485					
6,400.0	6,363.1	5,943.3	5,910.1	24.2	22.3	87.43	-79.4	2,824.8	3,367.8	3,324.4	43.44	77.531					
6,500.0	6,463.1	6,042.4	6,008.2	24.5	22.7	87.49	-82.4	2,838.2	3,381.3	3,337.1	44.14	76.606					
6,600.0	6,563.1	6,141.4	6,106.3	24.8	23.1	87.55	-85.4	2,851.7	3,394.7	3,349.9	44.84	75.709					
6,700.0	6,663.1	6,240.4	6,204.3	25.1	23.5	87.61	-88.3	2,865.1	3,408.2	3,362.6	45.54	74.839					
6,800.0	6,763.1	6,339.4	6,302.4	25.4	23.9	87.67	-91.3	2,878.6	3,421.6	3,375.4	46.24	73.993					
6,900.0	6,863.1	6,438.5	6,400.5	25.8	24.3	87.73	-94.3	2,892.0	3,435.1	3,388.2	46.95	73.172					
7,000.0	6,963.1	6,537.5	6,498.5	26.1	24.7	87.79	-97.2	2,905.5	3,448.6	3,400.9	47.65	72.374					
7,100.0	7,063.1	6,636.5	6,596.6	26.4	25.1	87.85	-100.2	2,919.0	3,462.1	3,413.7	48.35	71.599					
7,200.0	7,163.1	6,735.5	6,694.6	26.7	25.5	87.91	-103.2	2,932.4	3,475.5	3,426.5	49.06	70.845					
7,300.0	7,263.1	6,834.6	6,792.7	27.1	26.0	87.96	-106.1	2,945.9	3,489.0	3,439.3	49.76	70.111					
7,400.0	7,363.1	6,933.6	6,890.8	27.4	26.4	88.02	-109.1	2,959.3	3,502.5	3,452.0	50.47	69.397					
7,500.0	7,463.1	7,032.6	6,988.8	27.7	26.8	88.08	-112.1	2,972.8	3,516.0	3,464.8	51.18	68.703					
7,600.0	7,563.1	7,131.6	7,086.9	28.1	27.2	88.13	-115.1	2,986.2	3,529.5	3,477.6	51.88	68.026					
7,700.0	7,663.1	7,230.7	7,185.0	28.4	27.6	88.19	-118.0	2,999.7	3,543.0	3,490.4	52.59	67.367					
7,800.0	7,763.1	7,329.7	7,283.0	28.7	28.0	88.24	-121.0	3,013.2	3,556.5	3,503.2	53.30	66.725					
7,900.0	7,863.1	7,428.7	7,381.1	29.0	28.4	88.30	-124.0	3,026.6	3,570.0	3,516.0	54.01	66.100					
8,000.0	7,963.1	7,527.8	7,479.1	29.4	28.8	88.35	-126.9	3,040.1	3,583.5	3,528.8	54.72	65.490					
8,100.0	8,063.1	7,626.8	7,577.2	29.7	29.3	88.41	-129.9	3,053.5	3,597.0	3,541.6	55.43	64.895					
8,200.0	8,163.1	7,725.8	7,675.3	30.0	29.7	88.46	-132.9	3,067.0	3,610.5	3,554.4	56.14	64.315					
8,300.0	8,263.1	7,824.8	7,773.3	30.4	30.1	88.51	-135.9	3,080.5	3,624.0	3,567.2	56.85	63.749					
8,400.0	8,363.1	7,923.9	7,871.4	30.7	30.5	88.57	-138.8	3,093.9	3,637.5	3,580.0	57.56	63.197					
8,500.0	8,463.1	8,022.9	7,969.5	31.0	30.9	88.62	-141.8	3,107.4	3,651.1	3,592.8	58.27	62.658					
8,600.0	8,563.1	8,121.9	8,067.5	31.4	31.3	88.67	-144.8	3,120.8	3,664.6	3,605.6	58.98	62.131					
8,700.0	8,663.1	8,220.9	8,165.6	31.7	31.7	88.72	-147.7	3,134.3	3,678.1	3,618.4	59.69	61.617					
8,800.0	8,763.1	8,320.0	8,263.7	32.1	32.2	88.77	-150.7	3,147.7	3,691.6	3,631.2	60.41	61.114					
8,900.0	8,863.1	8,419.0	8,361.7	32.4	32.6	88.82	-153.7	3,161.2	3,705.2	3,644.0	61.12	60.623					
9,000.0	8,963.1	8,518.0	8,459.8	32.7	33.0	88.87	-156.7	3,174.7	3,718.7	3,656.9	61.83	60.143					
9,100.0	9,063.1	8,617.0	8,557.8	33.1	33.4	88.92	-159.6	3,188.1	3,732.2	3,669.7	62.54	59.673					
9,200.0	9,163.1	8,716.1	8,655.9	33.4	33.8	88.97	-162.6	3,201.6	3,745.8	3,682.5	63.26	59.214					
9,300.0	9,263.1	8,815.1	8,754.0	33.7	34.2	89.02	-165.6	3,215.0	3,759.3	3,695.3	63.97	58.765					
9,400.0	9,363.1	8,914.1	8,852.0	34.1	34.6	89.07	-168.5	3,228.5	3,772.9	3,708.2	64.69	58.326					
9,500.0	9,463.1	9,013.2	8,950.1	34.4	35.1	89.12	-171.5	3,241.9	3,786.4	3,721.0	65.40	57.896					
9,600.0	9,563.1	9,112.2	9,048.2	34.8	35.5	89.17	-174.5	3,255.4	3,800.0	3,733.8	66.11	57.475					
9,700.0	9,663.1	9,211.2	9,146.2	35.1	35.9	89.22	-177.4	3,268.9	3,813.5	3,746.7	66.83	57.063					
9,800.0	9,763.1	9,310.4	9,245.1	35.4	38.2	89.37	-187.0	3,312.2	3,821.5	3,751.7	69.78	54.767					
9,900.0	9,863.1	9,410.4	9,345.1	35.8	38.5	89.37	-187.0	3,312.2	3,821.5	3,751.0	70.46	54.238					
10,000.0	9,963.1	10,030.4	9,963.1	36.1	38.8	89.37	-187.0	3,312.2	3,821.5	3,750.3	71.14	53.718					
10,100.0	10,063.1	10,130.4	10,063.1	36.5	39.1	89.37	-187.0	3,312.2	3,821.5	3,749.7	71.82	53.207					

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,163.1	10,230.4	10,163.1	36.8	39.4	89.37	-187.0	3,312.2	3,821.5	3,749.0	72.51	52.706	
10,300.0	10,263.1	10,330.4	10,263.1	37.1	39.8	89.37	-187.0	3,312.2	3,821.5	3,748.3	73.19	52.213	
10,400.0	10,363.1	10,430.4	10,363.1	37.5	40.1	89.37	-187.0	3,312.2	3,821.5	3,747.6	73.87	51.729	
10,500.0	10,463.1	10,530.4	10,463.1	37.8	40.4	89.37	-187.0	3,312.2	3,821.5	3,746.9	74.56	51.254	
10,600.0	10,563.1	10,630.4	10,563.1	38.2	40.7	89.37	-187.0	3,312.2	3,821.5	3,746.2	75.25	50.787	
10,700.0	10,663.1	10,730.4	10,663.1	38.5	41.0	89.37	-187.0	3,312.2	3,821.5	3,745.6	75.93	50.328	
10,800.0	10,763.1	10,830.4	10,763.1	38.9	41.3	89.37	-187.0	3,312.2	3,821.5	3,744.9	76.62	49.876	
10,900.0	10,863.1	10,930.4	10,863.1	39.2	41.7	89.37	-187.0	3,312.2	3,821.5	3,744.2	77.31	49.433	
11,000.0	10,963.1	11,030.4	10,963.1	39.6	42.0	89.37	-187.0	3,312.2	3,821.5	3,743.5	77.99	48.997	
11,100.0	11,063.1	11,130.4	11,063.1	39.9	42.3	89.37	-187.0	3,312.2	3,821.5	3,742.8	78.68	48.568	
11,200.0	11,163.1	11,230.4	11,163.1	40.2	42.6	89.37	-187.0	3,312.2	3,821.5	3,742.1	79.37	48.147	
11,300.0	11,263.1	11,330.4	11,263.1	40.6	43.0	89.37	-187.0	3,312.2	3,821.5	3,741.4	80.06	47.732	
11,400.0	11,363.1	11,430.4	11,363.1	40.9	43.3	89.37	-187.0	3,312.2	3,821.5	3,740.7	80.75	47.324	
11,500.0	11,463.1	11,507.9	11,440.6	41.3	43.5	89.34	-184.7	3,312.3	3,821.7	3,740.3	81.37	46.967	
11,600.0	11,563.1	11,576.1	11,508.0	41.6	43.7	89.19	-174.6	3,312.8	3,822.7	3,740.8	81.95	46.650	
11,700.0	11,663.1	11,640.9	11,570.6	42.0	43.9	88.93	-157.7	3,313.7	3,824.6	3,742.1	82.50	46.362	
11,800.0	11,763.1	11,700.0	11,625.5	42.3	44.1	88.61	-136.2	3,314.9	3,827.6	3,744.6	83.01	46.110	
11,900.0	11,863.1	11,750.0	11,670.1	42.7	44.2	88.27	-113.7	3,316.1	3,831.8	3,748.4	83.48	45.904	
12,006.9	11,970.0	11,809.2	11,720.1	43.0	44.3	87.80	-82.1	3,317.8	3,837.9	3,753.9	83.97	45.707	
12,050.0	12,013.1	11,829.3	11,736.3	43.2	44.4	95.22	-70.3	3,318.5	3,841.0	3,756.9	84.14	45.649	
12,100.0	12,062.7	11,850.0	11,752.6	43.3	44.4	94.63	-57.4	3,319.2	3,845.4	3,761.0	84.33	45.600	
12,150.0	12,111.7	11,876.0	11,772.3	43.5	44.4	93.93	-40.5	3,320.1	3,850.4	3,765.9	84.52	45.557	
12,200.0	12,159.5	11,900.0	11,789.9	43.7	44.5	93.20	-24.2	3,321.0	3,856.2	3,771.5	84.69	45.533	
12,250.0	12,205.9	11,922.9	11,805.9	43.8	44.5	92.42	-7.9	3,321.9	3,862.5	3,777.7	84.84	45.524	
12,300.0	12,250.5	11,950.0	11,824.1	43.9	44.6	91.59	12.2	3,322.9	3,869.4	3,784.4	85.01	45.519	
12,350.0	12,293.0	11,969.8	11,836.7	44.1	44.6	90.75	27.5	3,323.8	3,876.8	3,791.6	85.13	45.538	
12,400.0	12,333.0	12,000.0	11,855.0	44.2	44.6	89.85	51.5	3,325.1	3,884.5	3,799.2	85.29	45.546	
12,450.0	12,370.3	12,016.7	11,864.5	44.3	44.6	88.98	65.2	3,325.8	3,892.6	3,807.2	85.39	45.585	
12,500.0	12,404.5	12,050.0	11,882.3	44.3	44.7	88.06	93.3	3,327.3	3,901.0	3,815.4	85.55	45.598	
12,550.0	12,435.4	12,063.6	11,889.1	44.4	44.7	87.18	105.0	3,328.0	3,909.5	3,823.8	85.64	45.648	
12,600.0	12,462.7	12,087.0	11,900.1	44.5	44.7	86.28	125.6	3,329.1	3,918.1	3,832.3	85.77	45.680	
12,650.0	12,486.3	12,100.0	11,905.9	44.5	44.7	85.39	137.3	3,329.7	3,926.8	3,841.0	85.87	45.729	
12,700.0	12,506.0	12,133.8	11,919.6	44.6	44.8	84.52	168.1	3,331.4	3,935.5	3,849.4	86.05	45.736	
12,750.0	12,521.6	12,150.0	11,925.6	44.7	44.8	83.67	183.1	3,332.2	3,944.1	3,857.9	86.17	45.769	
12,800.0	12,533.0	12,180.4	11,935.5	44.7	44.8	82.87	211.8	3,333.8	3,952.5	3,866.1	86.35	45.771	
12,850.0	12,540.1	12,200.0	11,941.2	44.9	44.8	82.09	230.6	3,334.8	3,960.7	3,874.2	86.51	45.784	
12,900.0	12,542.9	12,226.9	11,947.8	45.0	44.8	81.38	256.6	3,336.2	3,968.7	3,882.0	86.70	45.777	
12,915.3	12,542.9	12,234.0	11,949.4	45.0	44.8	81.17	263.5	3,336.6	3,971.1	3,884.3	86.75	45.775	
13,000.0	12,541.7	12,274.0	11,956.5	45.3	44.9	81.35	302.8	3,338.7	3,983.4	3,896.3	87.09	45.738	
13,100.0	12,540.2	12,322.6	11,961.4	45.6	45.0	81.52	351.1	3,341.3	3,996.0	3,908.4	87.54	45.647	
13,200.0	12,538.7	12,629.7	11,961.0	46.0	45.7	81.67	658.0	3,346.7	4,002.8	3,913.8	88.95	45.001	
13,287.8	12,537.4	12,717.5	11,960.5	46.4	46.0	81.72	745.9	3,346.0	4,004.0	3,914.3	89.71	44.633	
13,300.0	12,537.2	12,729.7	11,960.5	46.5	46.1	81.72	758.0	3,345.9	4,004.0	3,914.1	89.82	44.576	
13,400.0	12,535.8	12,829.7	11,959.9	47.0	46.5	81.73	858.0	3,345.1	4,003.8	3,913.0	90.81	44.092	
13,500.0	12,534.3	12,929.7	11,959.4	47.5	47.0	81.74	958.0	3,344.4	4,003.7	3,911.8	91.90	43.566	
13,600.0	12,532.8	13,029.7	11,958.9	48.1	47.6	81.76	1,058.0	3,343.6	4,003.6	3,910.5	93.09	43.005	
13,700.0	12,531.3	13,129.7	11,958.3	48.7	48.2	81.77	1,158.0	3,342.8	4,003.4	3,909.1	94.39	42.414	
13,800.0	12,529.9	13,229.7	11,957.8	49.4	48.9	81.78	1,258.0	3,342.0	4,003.3	3,907.5	95.78	41.797	
13,900.0	12,528.4	13,329.7	11,957.2	50.2	49.6	81.80	1,358.0	3,341.2	4,003.2	3,905.9	97.26	41.159	
14,000.0	12,526.9	13,429.7	11,956.7	51.0	50.4	81.81	1,457.9	3,340.5	4,003.1	3,904.2	98.83	40.504	
14,100.0	12,525.5	13,529.7	11,956.2	51.8	51.2	81.82	1,557.9	3,339.7	4,002.9	3,902.4	100.48	39.837	
14,200.0	12,524.0	13,629.7	11,955.6	52.6	52.1	81.84	1,657.9	3,338.9	4,002.8	3,900.6	102.22	39.160	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,300.0	12,522.5	13,729.7	11,955.1	53.5	52.9	81.85	1,757.9	3,338.1	4,002.7	3,898.6	104.02	38.479	
14,400.0	12,521.0	13,829.7	11,954.6	54.5	53.9	81.86	1,857.9	3,337.4	4,002.5	3,896.6	105.90	37.795	
14,500.0	12,519.6	13,929.7	11,954.0	55.4	54.8	81.88	1,957.9	3,336.6	4,002.4	3,894.6	107.85	37.112	
14,600.0	12,518.1	14,029.6	11,953.5	56.4	55.8	81.89	2,057.9	3,335.8	4,002.3	3,892.4	109.86	36.431	
14,700.0	12,516.6	14,129.6	11,952.9	57.4	56.9	81.90	2,157.9	3,335.0	4,002.1	3,890.2	111.93	35.756	
14,800.0	12,515.1	14,229.6	11,952.4	58.5	57.9	81.92	2,257.9	3,334.2	4,002.0	3,888.0	114.06	35.087	
14,900.0	12,513.7	14,329.6	11,951.9	59.6	59.0	81.93	2,357.9	3,333.5	4,001.9	3,885.6	116.24	34.427	
15,000.0	12,512.2	14,429.6	11,951.3	60.7	60.1	81.94	2,457.9	3,332.7	4,001.8	3,883.3	118.48	33.777	
15,100.0	12,510.7	14,529.6	11,950.8	61.8	61.3	81.96	2,557.8	3,331.9	4,001.6	3,880.9	120.76	33.137	
15,200.0	12,509.3	14,629.6	11,950.3	63.0	62.4	81.97	2,657.8	3,331.1	4,001.5	3,878.4	123.09	32.509	
15,300.0	12,507.8	14,729.6	11,949.7	64.2	63.6	81.98	2,757.8	3,330.4	4,001.4	3,875.9	125.46	31.894	
15,400.0	12,506.3	14,829.6	11,949.2	65.4	64.8	82.00	2,857.8	3,329.6	4,001.3	3,873.4	127.87	31.291	
15,500.0	12,504.8	14,929.6	11,948.7	66.6	66.0	82.01	2,957.8	3,328.8	4,001.1	3,870.8	130.32	30.701	
15,600.0	12,503.4	15,029.6	11,948.1	67.8	67.3	82.02	3,057.8	3,328.0	4,001.0	3,868.2	132.81	30.125	
15,700.0	12,501.9	15,129.6	11,947.6	69.1	68.5	82.04	3,157.8	3,327.2	4,000.9	3,865.5	135.33	29.563	
15,800.0	12,500.4	15,229.6	11,947.0	70.3	69.8	82.05	3,257.8	3,326.5	4,000.7	3,862.9	137.89	29.014	
15,900.0	12,498.9	15,329.6	11,946.5	71.6	71.1	82.06	3,357.8	3,325.7	4,000.6	3,860.1	140.47	28.479	
16,000.0	12,497.5	15,429.6	11,946.0	72.9	72.4	82.08	3,457.8	3,324.9	4,000.5	3,857.4	143.09	27.958	
16,100.0	12,496.0	15,529.6	11,945.4	74.3	73.7	82.09	3,557.8	3,324.1	4,000.4	3,854.6	145.73	27.450	
16,200.0	12,494.5	15,629.6	11,944.9	75.6	75.0	82.10	3,657.7	3,323.4	4,000.2	3,851.8	148.40	26.956	
16,300.0	12,493.0	15,729.6	11,944.4	76.9	76.4	82.12	3,757.7	3,322.6	4,000.1	3,849.0	151.09	26.474	
16,400.0	12,491.6	15,829.6	11,943.8	78.3	77.7	82.13	3,857.7	3,321.8	4,000.0	3,846.2	153.81	26.006	
16,500.0	12,490.1	15,929.6	11,943.3	79.6	79.1	82.14	3,957.7	3,321.0	3,999.9	3,843.3	156.55	25.550	
16,600.0	12,488.6	16,029.6	11,942.8	81.0	80.5	82.16	4,057.7	3,320.2	3,999.7	3,840.4	159.31	25.107	
16,700.0	12,487.2	16,129.6	11,942.2	82.4	81.9	82.17	4,157.7	3,319.5	3,999.6	3,837.5	162.09	24.675	
16,800.0	12,485.7	16,229.6	11,941.7	83.8	83.3	82.18	4,257.7	3,318.7	3,999.5	3,834.6	164.89	24.255	
16,900.0	12,484.2	16,329.5	11,941.1	85.2	84.7	82.20	4,357.7	3,317.9	3,999.4	3,831.7	167.71	23.847	
17,000.0	12,482.7	16,429.5	11,940.6	86.6	86.1	82.21	4,457.7	3,317.1	3,999.2	3,828.7	170.54	23.450	
17,100.0	12,481.3	16,529.5	11,940.1	88.1	87.5	82.22	4,557.7	3,316.4	3,999.1	3,825.7	173.39	23.064	
17,200.0	12,479.8	16,629.5	11,939.5	89.5	88.9	82.24	4,657.7	3,315.6	3,999.0	3,822.7	176.26	22.688	
17,300.0	12,478.3	16,729.5	11,939.0	90.9	90.4	82.25	4,757.7	3,314.8	3,998.9	3,819.7	179.14	22.322	
17,400.0	12,476.8	16,829.5	11,938.5	92.4	91.8	82.26	4,857.6	3,314.0	3,998.8	3,816.7	182.04	21.967	
17,500.0	12,475.4	16,929.5	11,937.9	93.8	93.3	82.28	4,957.6	3,313.2	3,998.6	3,813.7	184.95	21.620	
17,600.0	12,473.9	17,029.5	11,937.4	95.3	94.8	82.29	5,057.6	3,312.5	3,998.5	3,810.6	187.87	21.283	
17,700.0	12,472.4	17,129.5	11,936.9	96.7	96.2	82.30	5,157.6	3,311.7	3,998.4	3,807.6	190.80	20.956	
17,800.0	12,471.0	17,229.5	11,936.3	98.2	97.7	82.32	5,257.6	3,310.9	3,998.3	3,804.5	193.75	20.636	
17,900.0	12,469.5	17,329.5	11,935.8	99.7	99.2	82.33	5,357.6	3,310.1	3,998.1	3,801.4	196.71	20.325	
18,000.0	12,468.0	17,429.5	11,935.2	101.2	100.7	82.34	5,457.6	3,309.4	3,998.0	3,798.3	199.68	20.023	
18,100.0	12,466.5	17,529.5	11,934.7	102.7	102.1	82.36	5,557.6	3,308.6	3,997.9	3,795.2	202.65	19.728	
18,200.0	12,465.1	17,629.5	11,934.2	104.2	103.6	82.37	5,657.6	3,307.8	3,997.8	3,792.1	205.64	19.440	
18,300.0	12,463.6	17,729.5	11,933.6	105.7	105.1	82.38	5,757.6	3,307.0	3,997.7	3,789.0	208.64	19.161	
18,400.0	12,462.1	17,829.5	11,933.1	107.2	106.6	82.40	5,857.6	3,306.2	3,997.5	3,785.9	211.65	18.888	
18,500.0	12,460.6	17,929.5	11,932.6	108.7	108.2	82.41	5,957.5	3,305.5	3,997.4	3,782.8	214.66	18.622	
18,600.0	12,459.2	18,029.5	11,932.0	110.2	109.7	82.42	6,057.5	3,304.7	3,997.3	3,779.6	217.69	18.363	
18,700.0	12,457.7	18,129.5	11,931.5	111.7	111.2	82.44	6,157.5	3,303.9	3,997.2	3,776.5	220.72	18.110	
18,800.0	12,456.2	18,229.5	11,931.0	113.2	112.7	82.45	6,257.5	3,303.1	3,997.1	3,773.3	223.76	17.863	
18,900.0	12,454.8	18,329.5	11,930.4	114.8	114.2	82.46	6,357.5	3,302.4	3,996.9	3,770.1	226.80	17.623	
19,000.0	12,453.3	18,429.5	11,929.9	116.3	115.8	82.48	6,457.5	3,301.6	3,996.8	3,767.0	229.86	17.388	
19,100.0	12,451.8	18,529.4	11,929.3	117.8	117.3	82.49	6,557.5	3,300.8	3,996.7	3,763.8	232.92	17.159	
19,200.0	12,450.3	18,629.4	11,928.8	119.3	118.8	82.50	6,657.5	3,300.0	3,996.6	3,760.6	235.98	16.936	
19,300.0	12,448.9	18,729.4	11,928.3	120.9	120.4	82.52	6,757.5	3,299.2	3,996.5	3,757.4	239.06	16.718	
19,400.0	12,447.4	18,829.4	11,927.7	122.4	121.9	82.53	6,857.5	3,298.5	3,996.3	3,754.2	242.14	16.505	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,500.0	12,445.9	18,929.4	11,927.2	124.0	123.5	82.54	6,957.5	3,297.7	3,996.2	3,751.0	245.22	16.296	
19,600.0	12,444.4	19,029.4	11,926.7	125.5	125.0	82.56	7,057.4	3,296.9	3,996.1	3,747.8	248.31	16.093	
19,700.0	12,443.0	19,129.4	11,926.1	127.1	126.6	82.57	7,157.4	3,296.1	3,996.0	3,744.6	251.41	15.894	
19,800.0	12,441.5	19,229.4	11,925.6	128.6	128.1	82.58	7,257.4	3,295.4	3,995.9	3,741.4	254.51	15.700	
19,900.0	12,440.0	19,329.4	11,925.1	130.2	129.7	82.60	7,357.4	3,294.6	3,995.8	3,738.1	257.61	15.511	
20,000.0	12,438.6	19,429.4	11,924.5	131.7	131.2	82.61	7,457.4	3,293.8	3,995.6	3,734.9	260.73	15.325	
20,100.0	12,437.1	19,529.4	11,924.0	133.3	132.8	82.62	7,557.4	3,293.0	3,995.5	3,731.7	263.84	15.144	
20,200.0	12,435.6	19,629.4	11,923.4	134.9	134.4	82.64	7,657.4	3,292.2	3,995.4	3,728.4	266.96	14.966	
20,300.0	12,434.1	19,729.4	11,922.9	136.4	135.9	82.65	7,757.4	3,291.5	3,995.3	3,725.2	270.09	14.793	
20,400.0	12,432.7	19,829.4	11,922.4	138.0	137.5	82.66	7,857.4	3,290.7	3,995.2	3,721.9	273.22	14.623	
20,500.0	12,431.2	19,929.4	11,921.8	139.6	139.1	82.68	7,957.4	3,289.9	3,995.0	3,718.7	276.35	14.457	
20,600.0	12,429.7	20,029.4	11,921.3	141.1	140.6	82.69	8,057.4	3,289.1	3,994.9	3,715.4	279.49	14.294	
20,700.0	12,428.2	20,129.4	11,920.8	142.7	142.2	82.70	8,157.4	3,288.4	3,994.8	3,712.2	282.63	14.135	
20,800.0	12,426.8	20,229.4	11,920.2	144.3	143.8	82.72	8,257.3	3,287.6	3,994.7	3,708.9	285.77	13.979	
20,900.0	12,425.3	20,329.4	11,919.7	145.9	145.4	82.73	8,357.3	3,286.8	3,994.6	3,705.7	288.92	13.826	
21,000.0	12,423.8	20,429.4	11,919.2	147.4	146.9	82.74	8,457.3	3,286.0	3,994.5	3,702.4	292.07	13.676	
21,100.0	12,422.4	20,529.4	11,918.6	149.0	148.5	82.76	8,557.3	3,285.2	3,994.4	3,699.1	295.23	13.530	
21,200.0	12,420.9	20,629.4	11,918.1	150.6	150.1	82.77	8,657.3	3,284.5	3,994.2	3,695.9	298.39	13.386	
21,300.0	12,419.4	20,729.4	11,917.5	152.2	151.7	82.78	8,757.3	3,283.7	3,994.1	3,692.6	301.55	13.245	
21,400.0	12,417.9	20,829.3	11,917.0	153.8	153.3	82.80	8,857.3	3,282.9	3,994.0	3,689.3	304.71	13.108	
21,500.0	12,416.5	20,929.3	11,916.5	155.3	154.9	82.81	8,957.3	3,282.1	3,993.9	3,686.0	307.88	12.972	
21,600.0	12,415.0	21,029.3	11,915.9	156.9	156.4	82.82	9,057.3	3,281.4	3,993.8	3,682.7	311.05	12.840	
21,700.0	12,413.5	21,129.3	11,915.4	158.5	158.0	82.84	9,157.3	3,280.6	3,993.7	3,679.4	314.22	12.710	
21,800.0	12,412.0	21,229.3	11,914.9	160.1	159.6	82.85	9,257.3	3,279.8	3,993.6	3,676.2	317.40	12.582	
21,900.0	12,410.6	21,329.3	11,914.3	161.7	161.2	82.86	9,357.2	3,279.0	3,993.4	3,672.9	320.58	12.457	
22,000.0	12,409.1	21,429.3	11,913.8	163.3	162.8	82.88	9,457.2	3,278.2	3,993.3	3,669.6	323.76	12.334	
22,100.0	12,407.6	21,529.3	11,913.2	164.9	164.4	82.89	9,557.2	3,277.5	3,993.2	3,666.3	326.94	12.214	
22,200.0	12,406.1	21,629.3	11,912.7	166.5	166.0	82.90	9,657.2	3,276.7	3,993.1	3,663.0	330.13	12.096	
22,300.0	12,404.7	21,729.3	11,912.2	168.1	167.6	82.92	9,757.2	3,275.9	3,993.0	3,659.7	333.32	11.980	
22,400.0	12,403.2	21,829.3	11,911.6	169.7	169.2	82.93	9,857.2	3,275.1	3,992.9	3,656.4	336.51	11.866	
22,500.0	12,401.7	21,929.3	11,911.1	171.3	170.8	82.94	9,957.2	3,274.3	3,992.8	3,653.1	339.70	11.754	
22,600.0	12,400.3	22,029.3	11,910.6	172.9	172.4	82.96	10,057.2	3,273.6	3,992.7	3,649.8	342.90	11.644	
22,700.0	12,398.8	22,129.3	11,910.0	174.5	174.0	82.97	10,157.2	3,272.8	3,992.5	3,646.5	346.10	11.536	
22,787.3	12,397.5	22,216.6	11,909.6	175.7	175.4	82.98	10,244.5	3,272.1	3,992.5	3,643.7	348.73	11.449 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 199-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	13.8	13.8	0.0	0.0	-12.19	5,146.0	-1,111.3	5,264.6				
100.0	100.0	95.0	95.0	0.1	0.2	-12.19	5,146.1	-1,111.8	5,264.9	5,264.6	0.28	N/A	
200.0	200.0	176.2	176.2	0.5	0.3	-12.21	5,146.3	-1,113.3	5,265.5	5,264.7	0.76	6,922.149	
300.0	300.0	268.2	268.1	0.8	0.6	-12.23	5,146.6	-1,115.5	5,266.3	5,264.9	1.40	3,752.615	
400.0	400.0	364.3	364.2	1.2	0.9	-12.25	5,147.1	-1,117.5	5,267.3	5,265.2	2.11	2,499.295	
500.0	500.0	461.6	461.5	1.6	1.3	-12.27	5,147.8	-1,119.2	5,268.3	5,265.5	2.82	1,871.458	
600.0	600.0	559.1	559.0	1.9	1.6	-12.28	5,148.5	-1,120.6	5,269.4	5,265.9	3.52	1,495.568	
700.0	700.0	657.2	657.1	2.3	2.0	-12.29	5,149.4	-1,122.0	5,270.5	5,266.3	4.23	1,244.978	
800.0	800.0	755.3	755.1	2.6	2.3	-12.31	5,150.2	-1,123.4	5,271.7	5,266.7	4.94	1,066.363	
900.0	900.0	847.9	847.7	3.0	2.6	-12.32	5,151.1	-1,124.8	5,272.9	5,267.3	5.63	935.827	
1,000.0	1,000.0	945.7	945.5	3.4	3.0	-12.33	5,152.1	-1,126.3	5,274.3	5,268.0	6.34	831.607	
1,100.0	1,100.0	1,131.1	1,131.0	3.7	3.6	-12.34	5,153.0	-1,127.1	5,274.9	5,267.5	7.33	719.269	
1,200.0	1,200.0	1,360.1	1,359.9	4.1	4.4	-12.34	5,149.7	-1,126.2	5,273.3	5,264.8	8.46	623.282	
1,300.0	1,300.0	1,542.1	1,541.7	4.4	5.0	-12.39	5,142.3	-1,129.8	5,269.7	5,260.3	9.45	557.611	
1,400.0	1,400.0	1,685.7	1,684.9	4.8	5.5	-12.48	5,134.1	-1,135.9	5,265.0	5,254.7	10.32	510.311	
1,500.0	1,500.0	1,781.9	1,780.8	5.1	5.9	-12.54	5,127.9	-1,141.0	5,260.0	5,249.0	11.02	477.201	
1,600.0	1,600.0	1,876.6	1,875.2	5.5	6.2	101.66	5,122.0	-1,146.3	5,255.2	5,243.5	11.71	448.717	
1,700.0	1,700.0	1,979.7	1,977.8	5.8	6.6	101.65	5,115.4	-1,152.4	5,250.8	5,238.4	12.42	422.631	
1,800.0	1,799.9	2,083.0	2,080.7	6.2	7.0	101.65	5,108.6	-1,159.0	5,246.7	5,233.5	13.14	399.241	
1,900.0	1,899.7	2,068.0	2,065.8	6.5	6.9	101.68	5,109.6	-1,158.0	5,244.1	5,230.7	13.44	390.274	
2,000.0	1,999.4	2,154.7	2,152.2	6.9	7.3	101.70	5,105.0	-1,163.5	5,242.0	5,227.9	14.10	371.678	
2,055.5	2,054.6	2,177.1	2,174.6	7.1	7.3	101.70	5,104.2	-1,164.9	5,241.8	5,227.4	14.38	364.447	
2,100.0	2,098.9	2,195.1	2,192.5	7.2	7.4	101.71	5,103.6	-1,166.1	5,242.0	5,227.3	14.61	358.877	
2,200.0	2,198.3	2,257.0	2,254.3	7.6	7.6	101.73	5,102.4	-1,169.8	5,243.5	5,228.3	15.19	345.130	
2,300.0	2,297.4	2,294.4	2,291.7	7.9	7.8	101.73	5,102.0	-1,172.1	5,246.2	5,230.5	15.69	334.285	
2,400.0	2,396.4	2,374.6	2,371.7	8.3	8.1	101.80	5,101.5	-1,176.7	5,249.7	5,233.3	16.36	320.933	
2,500.0	2,495.5	2,454.6	2,451.6	8.7	8.4	101.87	5,101.4	-1,181.1	5,253.5	5,236.5	17.02	308.588	
2,600.0	2,594.5	2,533.6	2,530.5	9.1	8.6	101.95	5,101.6	-1,185.3	5,257.8	5,240.1	17.69	297.221	
2,700.0	2,693.5	2,612.5	2,609.3	9.5	8.9	102.02	5,102.1	-1,189.3	5,262.5	5,244.1	18.36	286.656	
2,800.0	2,792.5	2,800.0	2,949.1	9.8	9.6	102.31	5,096.0	-1,208.2	5,264.2	5,244.8	19.44	270.858	
2,900.0	2,891.6	3,116.3	3,112.0	10.2	10.8	102.46	5,088.5	-1,215.6	5,263.4	5,242.4	20.98	250.914	
3,000.0	2,990.6	3,198.5	3,194.1	10.6	11.1	102.54	5,084.7	-1,218.5	5,262.7	5,241.1	21.67	242.869	
3,100.0	3,089.6	3,326.4	3,321.7	11.0	11.6	102.66	5,078.7	-1,223.7	5,261.9	5,239.4	22.53	233.579	
3,200.0	3,188.6	3,435.0	3,430.0	11.4	12.0	102.75	5,072.7	-1,229.7	5,260.7	5,237.4	23.32	225.563	
3,300.0	3,287.7	3,522.8	3,517.5	11.8	12.3	102.81	5,067.8	-1,235.4	5,259.6	5,235.6	24.05	218.703	
3,400.0	3,386.7	3,604.0	3,598.4	12.2	12.6	102.86	5,063.4	-1,241.0	5,258.8	5,234.0	24.75	212.457	
3,500.0	3,485.7	3,672.5	3,666.7	12.6	12.9	102.90	5,060.2	-1,245.3	5,258.5	5,233.1	25.41	206.952	
3,501.7	3,487.4	3,673.7	3,667.8	12.6	12.9	102.91	5,060.1	-1,245.4	5,258.5	5,233.1	25.42	206.863	
3,600.0	3,584.8	3,740.9	3,735.0	13.0	13.1	102.96	5,057.5	-1,248.8	5,258.8	5,232.7	26.07	201.749	
3,700.0	3,683.8	3,816.0	3,809.9	13.4	13.4	103.04	5,055.2	-1,251.7	5,259.6	5,232.9	26.74	196.668	
3,800.0	3,782.8	3,895.4	3,889.2	13.8	13.7	103.12	5,053.1	-1,254.5	5,260.9	5,233.5	27.44	191.754	
3,900.0	3,881.8	3,974.0	3,967.9	14.3	14.0	103.21	5,051.5	-1,256.8	5,262.6	5,234.5	28.12	187.119	
4,000.0	3,980.9	4,050.3	4,044.0	14.7	14.2	103.30	5,050.3	-1,258.5	5,264.7	5,235.9	28.80	182.798	
4,100.0	4,079.9	4,126.3	4,120.0	15.1	14.5	103.40	5,049.6	-1,259.4	5,267.3	5,237.8	29.48	178.696	
4,200.0	4,178.9	4,224.8	4,218.5	15.5	14.8	103.54	5,049.1	-1,259.8	5,270.2	5,239.9	30.22	174.382	
4,300.0	4,277.9	4,330.6	4,324.3	15.9	15.2	103.70	5,048.7	-1,259.6	5,273.0	5,242.0	30.99	170.146	
4,400.0	4,377.0	4,413.0	4,406.7	16.3	15.5	103.83	5,048.4	-1,258.9	5,275.9	5,244.2	31.67	166.606	
4,500.0	4,476.0	4,494.1	4,487.9	16.7	15.7	103.96	5,048.6	-1,257.7	5,279.2	5,246.9	32.34	163.250	
4,600.0	4,575.0	4,579.3	4,573.0	17.1	16.0	104.11	5,049.1	-1,255.8	5,282.9	5,249.8	33.02	159.986	
4,700.0	4,674.0	4,666.8	4,660.5	17.5	16.3	104.26	5,049.9	-1,253.8	5,286.8	5,253.1	33.71	156.828	
4,800.0	4,773.1	4,757.2	4,750.9	18.0	16.6	104.41	5,050.9	-1,251.7	5,290.9	5,256.5	34.41	153.753	
4,900.0	4,872.1	4,851.3	4,844.9	18.4	16.9	104.57	5,051.9	-1,249.9	5,295.2	5,260.1	35.13	150.745	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 199-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.0	4,971.1	4,954.7	4,948.3	18.8	17.2	104.74	5,053.1	-1,248.4	5,299.6	5,263.8	35.88	147.720	
5,100.0	5,070.2	5,056.6	5,050.3	19.2	17.6	104.90	5,054.0	-1,247.2	5,304.0	5,267.3	36.62	144.824	
5,200.0	5,169.2	5,157.1	5,150.7	19.6	17.9	105.06	5,054.9	-1,245.9	5,308.3	5,270.9	37.37	142.059	
5,300.0	5,268.2	5,256.8	5,250.4	20.0	18.2	105.22	5,055.8	-1,244.6	5,312.6	5,274.5	38.11	139.409	
5,400.0	5,367.2	5,350.0	5,343.6	20.5	18.5	105.37	5,056.6	-1,243.5	5,317.0	5,278.2	38.83	136.934	
5,500.0	5,466.3	5,441.4	5,435.0	20.9	18.8	105.51	5,057.5	-1,242.7	5,321.6	5,282.1	39.54	134.574	
5,600.0	5,565.3	5,540.4	5,534.0	21.3	19.2	105.66	5,058.5	-1,242.1	5,326.3	5,286.0	40.29	132.202	
5,643.3	5,608.2	5,584.8	5,578.3	21.5	19.3	105.73	5,058.9	-1,241.9	5,328.3	5,287.7	40.62	131.182	
5,700.0	5,664.4	5,642.8	5,636.4	21.7	19.5	105.85	5,059.5	-1,241.8	5,330.9	5,289.8	41.05	129.878	
5,800.0	5,763.7	5,755.8	5,749.4	22.1	19.9	106.04	5,060.3	-1,241.6	5,334.7	5,292.9	41.83	127.542	
5,900.0	5,863.4	5,870.8	5,864.4	22.5	20.3	106.18	5,060.9	-1,241.3	5,337.5	5,294.9	42.60	125.294	
6,000.0	5,963.2	5,966.9	5,960.5	22.8	20.6	106.28	5,061.3	-1,240.9	5,339.6	5,296.3	43.29	123.345	
6,100.0	6,063.1	6,066.8	6,060.4	23.2	21.0	106.33	5,061.7	-1,240.3	5,340.9	5,296.9	43.98	121.444	
6,176.7	6,139.8	6,144.1	6,137.7	23.4	21.2	-7.86	5,062.1	-1,239.8	5,341.4	5,296.9	44.49	120.048	
6,200.0	6,163.1	6,167.6	6,161.1	23.5	21.3	-7.86	5,062.2	-1,239.6	5,341.4	5,296.8	44.65	119.635	
6,300.0	6,263.1	6,288.0	6,281.5	23.8	21.7	-7.85	5,062.7	-1,238.3	5,341.7	5,296.3	45.38	117.709	
6,400.0	6,363.1	6,431.5	6,425.0	24.2	22.2	-7.83	5,062.3	-1,237.0	5,341.3	5,295.1	46.20	115.624	
6,500.0	6,463.1	6,540.7	6,534.3	24.5	22.6	-7.84	5,061.1	-1,238.0	5,340.4	5,293.5	46.90	113.864	
6,600.0	6,563.1	6,642.1	6,635.6	24.8	23.0	-7.88	5,059.6	-1,241.1	5,339.3	5,291.7	47.58	112.212	
6,700.0	6,663.1	6,730.3	6,723.7	25.1	23.3	-7.91	5,058.4	-1,244.0	5,338.4	5,290.2	48.22	110.708	
6,800.0	6,763.1	6,825.6	6,819.0	25.4	23.6	-7.95	5,057.3	-1,247.0	5,337.7	5,288.8	48.88	109.188	
6,900.0	6,863.1	6,934.4	6,927.7	25.8	24.0	-7.98	5,055.9	-1,250.1	5,336.8	5,287.2	49.60	107.599	
7,000.0	6,963.1	7,082.5	7,075.7	26.1	24.5	-8.03	5,053.5	-1,254.1	5,335.6	5,285.2	50.45	105.752	
7,100.0	7,063.1	7,243.1	7,236.2	26.4	25.1	-8.08	5,049.0	-1,258.2	5,333.2	5,281.9	51.35	103.867	
7,200.0	7,163.1	7,391.9	7,384.9	26.7	25.6	-8.10	5,043.8	-1,259.1	5,329.8	5,277.7	52.19	102.121	
7,300.0	7,263.1	7,426.6	7,419.6	27.1	25.7	-8.10	5,040.0	-1,259.1	5,326.9	5,274.2	52.65	101.178	
7,400.0	7,363.1	7,484.0	7,477.0	27.4	25.9	-8.10	5,041.7	-1,258.9	5,324.7	5,271.5	53.18	100.125	
7,500.0	7,463.1	7,543.0	7,536.0	27.7	26.1	-8.09	5,040.9	-1,258.4	5,323.2	5,269.5	53.71	99.102	
7,600.0	7,563.1	7,637.0	7,630.0	28.1	26.5	-8.08	5,040.1	-1,257.5	5,322.3	5,267.9	54.37	97.894	
7,700.0	7,663.1	7,734.0	7,727.0	28.4	26.8	-8.07	5,039.4	-1,256.3	5,321.4	5,266.3	55.03	96.697	
7,800.0	7,763.1	7,840.4	7,833.4	28.7	27.2	-8.06	5,038.6	-1,254.8	5,320.4	5,264.7	55.73	95.471	
7,900.0	7,863.1	7,949.0	7,941.9	29.0	27.5	-8.04	5,037.7	-1,253.1	5,319.4	5,262.9	56.43	94.259	
8,000.0	7,963.1	8,064.0	8,057.0	29.4	27.9	-8.03	5,036.4	-1,251.5	5,318.1	5,260.9	57.16	93.033	
8,100.0	8,063.1	8,178.4	8,171.3	29.7	28.3	-8.01	5,034.8	-1,249.9	5,316.5	5,258.6	57.89	91.836	
8,200.0	8,163.1	8,292.3	8,285.1	30.0	28.7	-7.99	5,032.9	-1,248.1	5,314.6	5,256.0	58.62	90.665	
8,300.0	8,263.1	8,405.4	8,398.3	30.4	29.1	-7.98	5,030.8	-1,246.2	5,312.5	5,253.2	59.34	89.521	
8,400.0	8,363.1	8,518.6	8,511.4	30.7	29.5	-7.96	5,028.4	-1,244.2	5,310.2	5,250.1	60.07	88.401	
8,500.0	8,463.1	8,621.7	8,614.4	31.0	29.9	-7.94	5,026.1	-1,242.4	5,307.7	5,246.9	60.76	87.351	
8,600.0	8,563.1	8,714.7	8,707.4	31.4	30.2	-7.93	5,023.9	-1,240.8	5,305.2	5,243.8	61.42	86.371	
8,700.0	8,663.1	8,795.5	8,788.2	31.7	30.5	-7.92	5,022.3	-1,239.6	5,303.0	5,240.9	62.04	85.472	
8,800.0	8,763.1	8,862.0	8,854.7	32.1	30.7	-7.91	5,021.1	-1,238.8	5,301.1	5,238.5	62.61	84.664	
8,900.0	8,863.1	8,919.6	8,912.3	32.4	30.9	-7.91	5,020.5	-1,238.4	5,300.0	5,236.9	63.15	83.927	
8,963.1	8,926.2	8,950.5	8,943.2	32.6	31.0	-7.91	5,020.4	-1,238.4	5,299.8	5,236.4	63.47	83.505	
9,000.0	8,963.1	8,968.6	8,961.3	32.7	31.1	-7.91	5,020.4	-1,238.4	5,299.9	5,236.3	63.65	83.264	
9,100.0	9,063.1	9,051.0	9,043.7	33.1	31.4	-7.92	5,021.3	-1,239.1	5,301.0	5,236.7	64.27	82.475	
9,200.0	9,163.1	9,097.8	9,090.4	33.4	31.5	-7.92	5,022.1	-1,239.8	5,302.5	5,237.7	64.76	81.877	
9,300.0	9,263.1	9,245.1	9,237.7	33.7	32.0	-7.94	5,023.7	-1,241.8	5,303.7	5,238.1	65.63	80.815	
9,400.0	9,363.1	9,309.8	9,302.4	34.1	32.3	-7.95	5,024.3	-1,242.8	5,304.9	5,238.7	66.18	80.154	
9,500.0	9,463.1	9,377.3	9,369.9	34.4	32.5	-7.96	5,025.4	-1,243.8	5,306.6	5,239.9	66.75	79.502	
9,600.0	9,563.1	9,449.1	9,441.6	34.8	32.7	-7.97	5,026.9	-1,244.9	5,309.0	5,241.7	67.33	78.853	
9,700.0	9,663.1	9,533.6	9,526.1	35.1	33.0	-7.99	5,029.0	-1,246.8	5,311.8	5,243.8	67.96	78.164	
9,800.0	9,763.1	9,618.7	9,611.2	35.4	33.3	-8.01	5,031.3	-1,249.5	5,314.8	5,246.2	68.59	77.488	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 199-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,900.0	9,863.1	9,754.3	9,746.6	35.8	33.8	-8.04	5,034.7	-1,252.8	5,317.6	5,248.2	69.42	76.602	
10,000.0	9,963.1	9,859.4	9,851.8	36.1	34.2	-8.05	5,037.1	-1,253.6	5,320.0	5,249.9	70.13	75.861	
10,100.0	10,063.1	9,946.4	9,938.7	36.5	34.5	-8.05	5,039.3	-1,253.9	5,322.5	5,251.8	70.77	75.213	
10,200.0	10,163.1	10,044.4	10,036.6	36.8	34.8	-8.05	5,041.9	-1,254.2	5,325.3	5,253.8	71.45	74.535	
10,300.0	10,263.1	10,155.7	10,148.0	37.1	35.2	-8.04	5,044.8	-1,254.4	5,327.9	5,255.7	72.18	73.814	
10,400.0	10,363.1	10,261.0	10,253.2	37.5	35.5	-8.04	5,047.3	-1,254.7	5,330.3	5,257.4	72.89	73.128	
10,500.0	10,463.1	10,364.2	10,356.4	37.8	35.9	-8.05	5,049.7	-1,255.5	5,332.6	5,259.0	73.59	72.461	
10,600.0	10,563.1	10,466.1	10,458.3	38.2	36.3	-8.06	5,051.9	-1,256.5	5,334.9	5,260.6	74.29	71.810	
10,700.0	10,663.1	10,601.0	10,593.1	38.5	36.7	-8.06	5,054.7	-1,257.4	5,337.2	5,262.1	75.12	71.049	
10,800.0	10,763.1	10,846.9	10,839.0	38.9	37.6	-8.09	5,054.2	-1,259.9	5,336.6	5,260.3	76.35	69.897	
10,900.0	10,863.1	10,977.6	10,969.6	39.2	38.0	-8.11	5,052.1	-1,261.7	5,335.2	5,258.1	77.15	69.151	
11,000.0	10,963.1	11,060.2	11,052.3	39.6	38.3	-8.12	5,050.8	-1,262.9	5,333.8	5,256.0	77.79	68.566	
11,100.0	11,063.1	11,157.7	11,149.7	39.9	38.7	-8.14	5,049.4	-1,264.1	5,332.5	5,254.1	78.48	67.947	
11,200.0	11,163.1	11,273.5	11,265.5	40.2	39.1	-8.16	5,047.5	-1,265.6	5,331.1	5,251.9	79.23	67.283	
11,300.0	11,263.1	11,381.5	11,373.5	40.6	39.5	-8.18	5,045.4	-1,266.8	5,329.4	5,249.4	79.96	66.651	
11,400.0	11,363.1	11,483.8	11,475.7	40.9	39.8	-8.19	5,043.4	-1,267.8	5,327.6	5,246.9	80.67	66.046	
11,500.0	11,463.1	11,549.0	11,540.9	41.3	40.1	-8.20	5,042.4	-1,268.3	5,326.2	5,244.9	81.24	65.558	
11,560.8	11,523.9	11,549.0	11,540.9	41.5	40.1	-8.20	5,042.4	-1,268.3	5,325.8	5,244.4	81.45	65.387	
11,600.0	11,563.1	11,549.0	11,540.9	41.6	40.1	-8.20	5,042.4	-1,268.3	5,326.0	5,244.4	81.58	65.285	
11,700.0	11,663.1	11,549.0	11,540.9	42.0	40.1	-8.20	5,042.4	-1,268.3	5,327.6	5,245.7	81.89	65.056	
11,800.0	11,763.1	11,549.0	11,540.9	42.3	40.1	-8.20	5,042.4	-1,268.3	5,331.2	5,249.0	82.18	64.871	
11,900.0	11,863.1	11,549.0	11,540.9	42.7	40.1	-8.20	5,042.4	-1,268.3	5,336.6	5,254.2	82.45	64.728	
12,006.9	11,970.0	11,593.9	11,585.8	43.0	40.2	-8.19	5,043.9	-1,268.3	5,342.3	5,259.4	82.91	64.437	
12,050.0	12,013.1	11,597.7	11,589.6	43.2	40.2	-0.29	5,044.2	-1,268.2	5,344.1	5,261.1	83.02	64.368	
12,100.0	12,062.7	11,643.0	11,634.5	43.3	40.4	-0.28	5,050.0	-1,267.5	5,344.3	5,260.9	83.34	64.123	
12,150.0	12,111.7	11,643.0	11,634.5	43.5	40.4	-0.28	5,050.0	-1,267.5	5,338.4	5,254.9	83.45	63.971	
12,200.0	12,159.5	11,643.0	11,634.5	43.7	40.4	-0.28	5,050.0	-1,267.5	5,328.6	5,245.1	83.54	63.783	
12,250.0	12,205.9	11,643.0	11,634.5	43.8	40.4	-0.29	5,050.0	-1,267.5	5,315.1	5,231.5	83.62	63.559	
12,300.0	12,250.5	11,643.0	11,634.5	43.9	40.4	-0.30	5,050.0	-1,267.5	5,297.8	5,214.1	83.69	63.301	
12,350.0	12,293.0	11,643.0	11,634.5	44.1	40.4	-0.31	5,050.0	-1,267.5	5,277.0	5,193.2	83.75	63.011	
12,400.0	12,333.0	11,643.0	11,634.5	44.2	40.4	-0.33	5,050.0	-1,267.5	5,252.5	5,168.8	83.79	62.689	
12,450.0	12,370.3	11,643.0	11,634.5	44.3	40.4	-0.35	5,050.0	-1,267.5	5,224.8	5,141.0	83.81	62.337	
12,500.0	12,404.5	11,643.0	11,634.5	44.3	40.4	-0.37	5,050.0	-1,267.5	5,193.8	5,110.0	83.83	61.957	
12,550.0	12,435.4	11,643.0	11,634.5	44.4	40.4	-0.40	5,050.0	-1,267.5	5,159.8	5,075.9	83.83	61.550	
12,600.0	12,462.7	11,643.0	11,634.5	44.5	40.4	-0.44	5,050.0	-1,267.5	5,122.9	5,039.1	83.82	61.117	
12,650.0	12,486.3	11,643.0	11,634.5	44.5	40.4	-0.50	5,050.0	-1,267.5	5,083.4	4,999.6	83.80	60.659	
12,700.0	12,506.0	11,643.0	11,634.5	44.6	40.4	-0.57	5,050.0	-1,267.5	5,041.6	4,957.8	83.78	60.178	
12,750.0	12,521.6	11,643.0	11,634.5	44.7	40.4	-0.67	5,050.0	-1,267.5	4,997.7	4,913.9	83.75	59.675	
12,800.0	12,533.0	11,643.0	11,634.5	44.7	40.4	-0.81	5,050.0	-1,267.5	4,951.9	4,868.2	83.71	59.152	
12,850.0	12,540.1	11,643.0	11,634.5	44.9	40.4	-1.05	5,050.0	-1,267.5	4,904.6	4,821.0	83.68	58.611	
12,900.0	12,542.9	11,643.0	11,634.5	45.0	40.4	-1.49	5,050.0	-1,267.5	4,856.2	4,772.5	83.65	58.052	
12,915.3	12,542.9	11,643.0	11,634.5	45.0	40.4	-1.72	5,050.0	-1,267.5	4,841.2	4,757.5	83.64	57.878	
13,000.0	12,541.7	11,643.0	11,634.5	45.3	40.4	-10.91	5,050.0	-1,267.5	4,757.8	4,674.2	83.59	56.916	
13,100.0	12,540.2	11,643.0	11,634.5	45.6	40.4	-20.85	5,050.0	-1,267.5	4,659.6	4,576.1	83.52	55.787	
13,200.0	12,538.7	11,643.0	11,634.5	46.0	40.4	-29.44	5,050.0	-1,267.5	4,561.8	4,478.3	83.44	54.668	
13,287.8	12,537.4	11,643.0	11,634.5	46.4	40.4	-35.81	5,050.0	-1,267.5	4,476.2	4,392.8	83.37	53.693	
13,300.0	12,537.2	11,643.0	11,634.5	46.5	40.4	-35.81	5,050.0	-1,267.5	4,464.4	4,381.0	83.35	53.559	
13,400.0	12,535.8	11,643.0	11,634.5	47.0	40.4	-35.81	5,050.0	-1,267.5	4,367.3	4,284.0	83.26	52.454	
13,500.0	12,534.3	11,643.0	11,634.5	47.5	40.4	-35.81	5,050.0	-1,267.5	4,270.3	4,187.1	83.16	51.350	
13,600.0	12,532.8	11,643.0	11,634.5	48.1	40.4	-35.81	5,050.0	-1,267.5	4,173.5	4,090.4	83.06	50.245	
13,700.0	12,531.3	11,643.0	11,634.5	48.7	40.4	-35.81	5,050.0	-1,267.5	4,076.8	3,993.8	82.96	49.142	
13,800.0	12,529.9	11,664.8	11,655.8	49.4	40.5	-36.48	5,054.5	-1,267.0	3,979.6	3,896.6	83.01	47.939	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 199-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,900.0	12,528.4	11,666.7	11,657.7	50.2	40.5	-36.54	5,054.9	-1,267.0	3,883.2	3,800.2	82.93	46.827	
14,000.0	12,526.9	11,668.8	11,659.7	51.0	40.5	-36.60	5,055.4	-1,266.9	3,786.9	3,704.0	82.84	45.715	
14,100.0	12,525.5	11,690.0	11,680.1	51.8	40.5	-37.27	5,061.1	-1,266.5	3,691.3	3,608.4	82.89	44.531	
14,200.0	12,524.0	11,690.0	11,680.1	52.6	40.5	-37.27	5,061.1	-1,266.5	3,595.3	3,512.5	82.79	43.428	
14,300.0	12,522.5	11,690.0	11,680.1	53.5	40.5	-37.27	5,061.1	-1,266.5	3,499.5	3,416.8	82.68	42.325	
14,400.0	12,521.0	11,690.0	11,680.1	54.5	40.5	-37.27	5,061.1	-1,266.5	3,403.9	3,321.4	82.57	41.223	
14,500.0	12,519.6	11,690.0	11,680.1	55.4	40.5	-37.27	5,061.1	-1,266.5	3,308.6	3,226.2	82.46	40.122	
14,600.0	12,518.1	11,690.0	11,680.1	56.4	40.5	-37.27	5,061.1	-1,266.5	3,213.6	3,131.3	82.35	39.023	
14,700.0	12,516.6	11,690.0	11,680.1	57.4	40.5	-37.27	5,061.1	-1,266.5	3,119.0	3,036.7	82.24	37.924	
14,800.0	12,515.1	11,690.0	11,680.1	58.5	40.5	-37.27	5,061.1	-1,266.5	3,024.6	2,942.5	82.13	36.827	
14,900.0	12,513.7	11,690.0	11,680.1	59.6	40.5	-37.27	5,061.1	-1,266.5	2,930.6	2,848.6	82.02	35.731	
15,000.0	12,512.2	11,690.0	11,680.1	60.7	40.5	-37.27	5,061.1	-1,266.5	2,837.1	2,755.2	81.91	34.637	
15,100.0	12,510.7	11,690.0	11,680.1	61.8	40.5	-37.27	5,061.1	-1,266.5	2,744.0	2,662.2	81.80	33.545	
15,200.0	12,509.3	11,690.0	11,680.1	63.0	40.5	-37.27	5,061.1	-1,266.5	2,651.4	2,569.7	81.70	32.454	
15,300.0	12,507.8	11,709.8	11,698.9	64.2	40.6	-37.89	5,067.4	-1,266.0	2,558.8	2,477.0	81.81	31.277	
15,400.0	12,506.3	11,714.8	11,703.6	65.4	40.6	-38.05	5,069.1	-1,265.9	2,467.1	2,385.3	81.78	30.167	
15,500.0	12,504.8	11,738.0	11,725.1	66.6	40.7	-38.80	5,077.8	-1,265.2	2,376.4	2,294.4	81.97	28.990	
15,600.0	12,503.4	11,738.0	11,725.1	67.8	40.7	-38.80	5,077.8	-1,265.2	2,285.7	2,203.8	81.93	27.899	
15,700.0	12,501.9	11,738.0	11,725.1	69.1	40.7	-38.80	5,077.8	-1,265.2	2,195.8	2,113.9	81.90	26.810	
15,800.0	12,500.4	11,738.0	11,725.1	70.3	40.7	-38.80	5,077.8	-1,265.2	2,106.8	2,024.9	81.90	25.723	
15,900.0	12,498.9	11,751.8	11,737.7	71.6	40.7	-39.25	5,083.4	-1,264.8	2,018.7	1,936.6	82.11	24.585	
16,000.0	12,497.5	11,765.3	11,749.9	72.9	40.8	-39.69	5,089.1	-1,264.3	1,931.5	1,849.1	82.37	23.451	
16,100.0	12,496.0	11,777.4	11,760.7	74.3	40.8	-40.08	5,094.4	-1,263.9	1,845.3	1,762.6	82.66	22.323	
16,200.0	12,494.5	11,795.4	11,776.8	75.6	40.8	-40.68	5,102.5	-1,263.1	1,760.2	1,677.1	83.11	21.178	
16,300.0	12,493.0	11,812.1	11,791.6	76.9	40.9	-41.24	5,110.4	-1,262.4	1,676.2	1,592.6	83.64	20.042	
16,400.0	12,491.6	11,832.0	11,808.9	78.3	41.0	-41.91	5,120.1	-1,261.4	1,593.7	1,509.4	84.31	18.902	
16,500.0	12,490.1	11,832.0	11,808.9	79.6	41.0	-41.91	5,120.1	-1,261.4	1,512.9	1,428.0	84.85	17.829	
16,600.0	12,488.6	11,832.0	11,808.9	81.0	41.0	-41.91	5,120.1	-1,261.4	1,434.5	1,349.0	85.53	16.771	
16,700.0	12,487.2	11,876.1	11,846.2	82.4	41.1	-43.44	5,143.4	-1,259.4	1,356.7	1,269.6	87.02	15.590	
16,800.0	12,485.7	11,894.0	11,860.9	83.8	41.1	-44.07	5,153.7	-1,258.8	1,282.2	1,193.8	88.36	14.511	
16,900.0	12,484.2	11,927.0	11,887.1	85.2	41.2	-45.25	5,173.7	-1,257.8	1,210.7	1,120.5	90.15	13.430	
17,000.0	12,482.7	11,927.0	11,887.1	86.6	41.2	-45.25	5,173.7	-1,257.8	1,142.0	1,050.2	91.77	12.444	
17,100.0	12,481.3	11,961.7	11,913.4	88.1	41.3	-46.51	5,196.2	-1,257.0	1,076.9	982.7	94.18	11.434	
17,200.0	12,479.8	11,989.7	11,934.0	89.5	41.4	-47.54	5,215.3	-1,256.8	1,015.8	919.0	96.84	10.490	
17,300.0	12,478.3	12,021.0	11,955.9	90.9	41.5	-48.70	5,237.6	-1,256.7	959.2	859.3	99.90	9.602	
17,400.0	12,476.8	12,060.2	11,982.2	92.4	41.6	-50.16	5,266.7	-1,256.9	907.3	803.9	103.40	8.775	
17,500.0	12,475.4	12,116.0	12,017.2	93.8	41.8	-52.19	5,310.2	-1,257.1	860.5	753.1	107.37	8.014	
17,600.0	12,473.9	12,158.3	12,041.7	95.3	41.9	-53.68	5,344.5	-1,256.9	818.2	706.8	111.41	7.344	
17,700.0	12,472.4	12,211.0	12,070.1	96.7	42.1	-55.45	5,389.0	-1,255.8	780.6	664.9	115.65	6.750	
17,800.0	12,471.0	12,256.8	12,092.0	98.2	42.2	-56.87	5,429.2	-1,254.9	748.9	629.0	119.87	6.248	
17,900.0	12,469.5	12,305.0	12,111.4	99.7	42.4	-58.23	5,473.3	-1,255.2	724.5	600.6	123.98	5.844	
18,000.0	12,468.0	12,348.0	12,124.7	101.2	42.5	-59.21	5,514.1	-1,256.0	707.5	579.8	127.74	5.539	
18,100.0	12,466.5	12,419.6	12,139.8	102.7	42.8	-60.39	5,584.0	-1,257.3	696.7	565.7	130.99	5.319	
18,200.0	12,465.1	12,493.0	12,151.2	104.2	43.1	-61.32	5,656.5	-1,258.7	689.4	555.4	133.93	5.147	
18,300.0	12,463.6	12,564.3	12,158.1	105.7	43.3	-61.98	5,727.5	-1,261.0	686.3	549.7	136.56	5.025	
18,384.6	12,462.3	12,641.8	12,162.5	106.9	43.7	-62.49	5,804.8	-1,264.2	685.9	547.3	138.58	4.949	
18,400.0	12,462.1	12,656.1	12,163.3	107.2	43.8	-62.58	5,819.1	-1,264.8	685.9	547.0	138.95	4.936	
18,500.0	12,460.6	12,752.8	12,168.1	108.7	44.2	-63.19	5,915.5	-1,269.3	686.4	545.0	141.35	4.856	
18,600.0	12,459.2	12,841.3	12,170.6	110.2	44.7	-63.59	6,003.9	-1,273.3	687.9	544.2	143.66	4.788	
18,700.0	12,457.7	12,936.1	12,170.4	111.7	45.3	-63.81	6,098.7	-1,277.6	690.7	544.9	145.81	4.737	
18,800.0	12,456.2	13,034.6	12,169.8	113.2	45.9	-64.02	6,197.0	-1,282.4	693.9	545.9	147.99	4.689	
18,900.0	12,454.8	13,130.4	12,168.8	114.8	46.5	-64.20	6,292.7	-1,287.2	697.5	547.3	150.20	4.644	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 199-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,000.0	12,453.3	13,225.4	12,167.6	116.3	47.2	-64.37	6,387.5	-1,292.5	701.8	549.4	152.45	4.604	
19,100.0	12,451.8	13,347.9	12,166.0	117.8	48.2	-64.54	6,509.9	-1,297.8	704.9	550.2	154.73	4.556	
19,200.0	12,450.3	13,457.7	12,165.5	119.3	49.1	-64.66	6,619.6	-1,299.7	705.3	548.3	156.99	4.493	
19,300.0	12,448.9	13,560.0	12,164.6	120.9	50.0	-64.72	6,722.0	-1,300.9	705.4	546.2	159.27	4.429	
19,400.0	12,447.4	13,665.3	12,163.3	122.4	51.0	-64.71	6,827.2	-1,300.9	704.6	543.1	161.51	4.363	
19,500.0	12,445.9	13,765.8	12,161.9	124.0	51.9	-64.67	6,927.8	-1,300.5	703.5	539.8	163.78	4.296	
19,600.0	12,444.4	13,864.7	12,160.7	125.5	52.9	-64.65	7,026.6	-1,300.2	702.5	536.3	166.12	4.229	
19,700.0	12,443.0	13,969.5	12,161.4	127.1	54.0	-64.82	7,131.4	-1,300.9	701.4	532.8	168.63	4.159	
19,800.0	12,441.5	14,074.3	12,162.9	128.6	55.1	-65.01	7,236.2	-1,300.7	699.3	528.1	171.21	4.085	
19,900.0	12,440.0	14,183.2	12,162.7	130.2	56.2	-65.01	7,345.1	-1,298.8	696.5	522.9	173.58	4.012	
20,000.0	12,438.6	14,291.9	12,163.8	131.7	57.4	-65.09	7,453.7	-1,295.9	692.3	516.2	176.03	3.933	
20,100.0	12,437.1	14,392.2	12,166.2	133.3	58.6	-65.25	7,554.0	-1,292.8	687.2	508.5	178.69	3.846	
20,200.0	12,435.6	14,474.5	12,166.5	134.9	59.5	-65.27	7,636.2	-1,290.9	683.6	502.2	181.42	3.768	
20,300.0	12,434.1	14,571.1	12,164.5	136.4	60.6	-65.14	7,732.8	-1,289.2	681.5	497.7	183.86	3.707	
20,400.0	12,432.7	14,680.9	12,162.3	138.0	62.0	-64.97	7,842.6	-1,286.6	678.9	492.8	186.17	3.647	
20,500.0	12,431.2	14,788.2	12,160.1	139.6	63.3	-64.74	7,949.7	-1,282.5	675.0	486.6	188.43	3.582	
20,600.0	12,429.7	14,893.2	12,157.4	141.1	64.6	-64.44	8,054.6	-1,277.4	670.4	479.8	190.62	3.517	
20,700.0	12,428.2	14,998.7	12,154.5	142.7	65.9	-64.07	8,159.8	-1,271.0	664.8	472.0	192.73	3.449	
20,800.0	12,426.8	15,103.9	12,155.1	144.3	67.2	-63.99	8,264.9	-1,265.5	658.5	463.3	195.17	3.374	
20,900.0	12,425.3	15,202.8	12,157.3	145.9	68.5	-64.06	8,363.7	-1,260.5	651.6	453.7	197.91	3.292	
21,000.0	12,423.8	15,284.6	12,159.9	147.4	69.6	-64.24	8,445.3	-1,257.9	646.1	445.0	201.05	3.214	
21,100.0	12,422.4	15,372.0	12,161.7	149.0	70.7	-64.46	8,532.7	-1,257.8	643.6	439.5	204.12	3.153	
21,200.0	12,420.9	15,471.9	12,163.4	150.6	72.0	-64.69	8,632.7	-1,258.1	641.8	434.7	207.10	3.099	
21,300.0	12,419.4	15,572.3	12,165.2	152.2	73.4	-64.93	8,733.0	-1,258.2	639.9	429.8	210.12	3.045	
21,386.1	12,418.1	15,646.1	12,166.7	153.5	74.4	-65.15	8,806.8	-1,258.9	638.8	426.0	212.80	3.002 CC	
21,400.0	12,417.9	15,656.9	12,166.8	153.8	74.6	-65.17	8,817.5	-1,259.1	638.8	425.6	213.21	2.996	
21,500.0	12,416.5	15,744.0	12,165.6	155.3	75.8	-65.25	8,904.6	-1,261.8	640.7	424.7	216.04	2.966	
21,600.0	12,415.0	15,842.6	12,165.1	156.9	77.1	-65.45	9,003.1	-1,265.8	643.3	424.3	219.04	2.937	
21,700.0	12,413.5	15,938.4	12,165.0	158.5	78.5	-65.69	9,098.9	-1,270.2	646.3	424.2	222.09	2.910	
21,800.0	12,412.0	16,038.1	12,164.2	160.1	79.9	-65.90	9,198.4	-1,275.3	649.9	424.7	225.15	2.886	
21,900.0	12,410.6	16,142.0	12,162.1	161.7	81.3	-65.98	9,302.2	-1,279.3	652.9	424.9	228.08	2.863	
22,000.0	12,409.1	16,254.0	12,161.7	163.3	82.9	-66.18	9,414.2	-1,283.3	655.0	423.8	231.21	2.833	
22,100.0	12,407.6	16,368.8	12,166.2	164.9	84.6	-66.77	9,528.7	-1,286.7	654.9	420.1	234.77	2.789	
22,200.0	12,406.1	16,462.2	12,171.8	166.5	85.9	-67.41	9,622.0	-1,289.8	654.3	415.8	238.47	2.744	
22,229.2	12,405.7	16,490.2	12,173.6	167.0	86.4	-67.62	9,649.9	-1,290.9	654.2	414.7	239.57	2.731	
22,300.0	12,404.7	16,558.5	12,178.5	168.1	87.3	-68.18	9,718.0	-1,294.0	654.4	412.1	242.31	2.701	
22,400.0	12,403.2	16,657.6	12,186.8	169.7	88.8	-69.11	9,816.6	-1,298.8	654.7	408.4	246.33	2.658	
22,500.0	12,401.7	16,738.0	12,195.0	171.3	90.0	-70.04	9,896.3	-1,304.9	657.0	406.7	250.23	2.625	
22,600.0	12,400.3	16,840.2	12,203.9	172.9	91.5	-71.11	9,997.7	-1,313.4	660.7	406.3	254.40	2.597	
22,700.0	12,398.8	16,939.3	12,210.7	174.5	93.0	-71.97	10,096.3	-1,320.6	664.3	406.0	258.28	2.572 ES	
22,787.3	12,397.5	17,013.0	12,216.1	175.7	94.1	-72.63	10,169.6	-1,326.3	667.8	406.6	261.19	2.557 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-105.89	-31.2	-109.8	114.1				
100.0	100.0	100.0	100.0	0.1	0.1	-105.89	-31.2	-109.8	114.1	113.9	0.26	445.234	
200.0	200.0	200.0	200.0	0.5	0.5	-105.89	-31.2	-109.8	114.1	113.1	0.97	117.253	
300.0	300.0	300.0	300.0	0.8	0.8	-105.89	-31.2	-109.8	114.1	112.4	1.69	67.517	
400.0	400.0	400.0	400.0	1.2	1.2	-105.89	-31.2	-109.8	114.1	111.7	2.41	47.408	
500.0	500.0	500.0	500.0	1.6	1.6	-105.89	-31.2	-109.8	114.1	111.0	3.12	36.528	
600.0	600.0	600.0	600.0	1.9	1.9	-105.89	-31.2	-109.8	114.1	110.3	3.84	29.710	
700.0	700.0	700.0	700.0	2.3	2.3	-105.89	-31.2	-109.8	114.1	109.6	4.56	25.037	
800.0	800.0	800.0	800.0	2.6	2.6	-105.89	-31.2	-109.8	114.1	108.8	5.27	21.634	
900.0	900.0	900.0	900.0	3.0	3.0	-105.89	-31.2	-109.8	114.1	108.1	5.99	19.045	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-105.89	-31.2	-109.8	114.1	107.4	6.71	17.010	
1,100.0	1,100.0	1,100.8	1,100.8	3.7	3.7	-106.30	-31.9	-109.2	113.7	106.3	7.41	15.344	
1,200.0	1,200.0	1,201.6	1,201.6	4.1	4.0	-107.53	-33.9	-107.4	112.7	104.6	8.11	13.901	
1,300.0	1,300.0	1,302.3	1,302.1	4.4	4.4	-109.62	-37.3	-104.5	111.0	102.2	8.80	12.609	
1,400.0	1,400.0	1,402.7	1,402.4	4.8	4.7	-112.65	-41.9	-100.5	108.9	99.4	9.50	11.458	
1,500.0	1,500.0	1,503.0	1,502.3	5.1	5.1	-116.69	-47.9	-95.3	106.7	96.5	10.21	10.446	
1,600.0	1,600.0	1,602.8	1,601.7	5.5	5.4	-7.65	-55.2	-89.0	103.8	92.9	10.91	9.515	
1,700.0	1,700.0	1,702.3	1,700.5	5.8	5.8	-14.25	-63.7	-81.6	100.1	88.5	11.61	8.621	
1,800.0	1,799.9	1,801.1	1,798.5	6.2	6.2	-22.60	-73.5	-73.1	96.3	84.0	12.32	7.821	
1,900.0	1,899.7	1,900.3	1,896.1	6.5	6.5	-32.43	-83.8	-64.1	93.5	80.5	13.03	7.180	
2,000.0	1,999.4	2,001.9	1,993.6	6.9	6.9	-43.22	-94.2	-55.1	92.4	78.6	13.74	6.726	
2,003.4	2,002.7	2,001.4	1,996.9	6.9	6.9	-43.59	-94.5	-54.8	92.4	78.6	13.75	6.721 CC, ES	
2,100.0	2,098.9	2,103.7	2,090.8	7.2	7.3	-54.67	-104.5	-46.1	93.6	79.2	14.43	6.485	
2,200.0	2,198.3	2,205.8	2,187.8	7.6	7.7	-66.27	-114.8	-37.2	97.8	82.7	15.12	6.468	
2,300.0	2,297.4	2,308.1	2,284.5	7.9	8.1	-77.39	-125.0	-28.3	105.4	89.6	15.81	6.665	
2,400.0	2,396.4	2,389.4	2,381.0	8.3	8.4	-87.22	-135.3	-19.4	116.5	100.0	16.44	7.087	
2,500.0	2,495.5	2,486.9	2,477.6	8.7	8.8	-95.21	-145.5	-10.5	130.4	113.3	17.13	7.613	
2,600.0	2,594.5	2,584.4	2,574.2	9.1	9.2	-101.60	-155.8	-1.6	146.4	128.6	17.84	8.208	
2,700.0	2,693.5	2,681.9	2,670.7	9.5	9.6	-106.71	-166.0	7.3	163.9	145.3	18.56	8.831	
2,800.0	2,792.5	2,779.4	2,767.3	9.8	10.0	-110.82	-176.2	16.2	182.4	163.1	19.28	9.457	
2,900.0	2,891.6	2,876.9	2,863.8	10.2	10.4	-114.17	-186.5	25.1	201.6	181.6	20.01	10.073	
3,000.0	2,990.6	2,976.0	2,962.0	10.6	10.8	-116.99	-196.8	34.1	221.3	200.5	20.77	10.656	
3,100.0	3,089.6	3,080.0	3,065.2	11.0	11.2	-119.56	-206.1	42.2	239.5	217.9	21.58	11.101	
3,200.0	3,188.6	3,184.8	3,169.6	11.4	11.6	-121.94	-213.3	48.4	255.5	233.1	22.37	11.420	
3,300.0	3,287.7	3,290.3	3,274.9	11.8	12.0	-124.23	-218.4	52.8	269.3	246.1	23.16	11.626	
3,400.0	3,386.7	3,396.3	3,380.8	12.2	12.4	-126.49	-221.3	55.3	280.8	256.9	23.93	11.733	
3,500.0	3,485.7	3,501.2	3,485.7	12.6	12.8	-128.76	-222.0	56.0	290.2	265.5	24.67	11.761	
3,600.0	3,584.8	3,600.3	3,584.8	13.0	13.1	-130.82	-222.0	56.0	299.1	273.8	25.39	11.782	
3,700.0	3,683.8	3,700.7	3,683.8	13.4	13.4	-132.77	-222.0	56.0	308.5	282.4	26.11	11.813	
3,800.0	3,782.8	3,801.7	3,782.8	13.8	13.7	-134.60	-222.0	56.0	318.1	291.3	26.83	11.856	
3,900.0	3,881.8	3,902.7	3,881.8	14.3	14.1	-136.32	-222.0	56.0	328.1	300.5	27.55	11.907	
4,000.0	3,980.9	4,003.6	3,980.9	14.7	14.4	-137.94	-222.0	56.0	338.4	310.1	28.27	11.967	
4,100.0	4,079.9	4,104.6	4,079.9	15.1	14.7	-139.47	-222.0	56.0	348.9	319.9	28.99	12.032	
4,200.0	4,178.9	4,205.6	4,178.9	15.5	15.1	-140.90	-222.0	56.0	359.6	329.9	29.71	12.102	
4,300.0	4,277.9	4,306.6	4,277.9	15.9	15.4	-142.26	-222.0	56.0	370.5	340.1	30.43	12.177	
4,400.0	4,377.0	4,407.5	4,377.0	16.3	15.7	-143.53	-222.0	56.0	381.7	350.5	31.15	12.254	
4,500.0	4,476.0	4,508.5	4,476.0	16.7	16.1	-144.73	-222.0	56.0	393.0	361.1	31.86	12.333	
4,600.0	4,575.0	4,609.5	4,575.0	17.1	16.4	-145.87	-222.0	56.0	404.5	371.9	32.58	12.414	
4,700.0	4,674.0	4,689.5	4,674.0	17.5	16.7	-146.94	-222.0	56.0	416.1	382.9	33.23	12.523	
4,800.0	4,773.1	4,788.6	4,773.1	18.0	17.0	-147.95	-222.0	56.0	427.9	393.9	33.93	12.608	
4,900.0	4,872.1	4,887.6	4,872.1	18.4	17.4	-148.91	-222.0	56.0	439.7	405.1	34.64	12.693	
5,000.0	4,971.1	4,986.6	4,971.1	18.8	17.7	-149.82	-222.0	56.0	451.8	416.4	35.35	12.778	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.2	5,085.7	5,070.2	19.2	18.0	-150.69	-222.0	56.0	463.9	427.8	36.06	12.863	
5,200.0	5,169.2	5,184.7	5,169.2	19.6	18.4	-151.50	-222.0	56.0	476.1	439.3	36.77	12.947	
5,300.0	5,268.2	5,283.7	5,268.2	20.0	18.7	-152.28	-222.0	56.0	488.4	450.9	37.48	13.030	
5,400.0	5,367.2	5,382.7	5,367.2	20.5	19.1	-153.02	-222.0	56.0	500.8	462.6	38.19	13.113	
5,500.0	5,466.3	5,481.8	5,466.3	20.9	19.4	-153.72	-222.0	56.0	513.2	474.3	38.90	13.194	
5,600.0	5,565.3	5,580.8	5,565.3	21.3	19.7	-154.39	-222.0	56.0	525.8	486.2	39.61	13.274	
5,643.3	5,608.2	5,623.7	5,608.2	21.5	19.9	-154.67	-222.0	56.0	531.2	491.3	39.92	13.308	
5,700.0	5,664.4	5,679.9	5,664.4	21.7	20.1	-155.06	-222.0	56.0	538.0	497.7	40.32	13.344	
5,800.0	5,763.7	5,779.2	5,763.7	22.1	20.4	-155.61	-222.0	56.0	548.1	507.1	41.03	13.361	
5,900.0	5,863.4	5,878.9	5,863.4	22.5	20.8	-156.02	-222.0	56.0	555.9	514.2	41.73	13.322	
6,000.0	5,963.2	5,978.7	5,963.2	22.8	21.1	-156.30	-222.0	56.0	561.4	518.9	42.43	13.229	
6,100.0	6,063.1	6,078.6	6,063.1	23.2	21.5	-156.46	-222.0	56.0	564.4	521.3	43.13	13.085	
6,176.7	6,139.8	6,155.3	6,139.8	23.4	21.7	89.29	-222.0	56.0	565.1	521.5	43.66	12.943	
6,200.0	6,163.1	6,178.6	6,163.1	23.5	21.8	89.29	-222.0	56.0	565.1	521.3	43.82	12.897	
6,300.0	6,263.1	6,278.6	6,263.1	23.8	22.2	89.29	-222.0	56.0	565.1	520.6	44.50	12.699	
6,400.0	6,363.1	6,378.6	6,363.1	24.2	22.5	89.29	-222.0	56.0	565.1	519.9	45.18	12.508	
6,500.0	6,463.1	6,478.6	6,463.1	24.5	22.8	89.29	-222.0	56.0	565.1	519.2	45.86	12.321	
6,600.0	6,563.1	6,578.6	6,563.1	24.8	23.2	89.29	-222.0	56.0	565.1	518.6	46.55	12.140	
6,700.0	6,663.1	6,678.6	6,663.1	25.1	23.5	89.29	-222.0	56.0	565.1	517.9	47.23	11.964	
6,800.0	6,763.1	6,778.6	6,763.1	25.4	23.9	89.29	-222.0	56.0	565.1	517.2	47.92	11.793	
6,900.0	6,863.1	6,878.6	6,863.1	25.8	24.2	89.29	-222.0	56.0	565.1	516.5	48.61	11.627	
7,000.0	6,963.1	6,978.6	6,963.1	26.1	24.6	89.29	-222.0	56.0	565.1	515.8	49.29	11.464	
7,100.0	7,063.1	7,078.6	7,063.1	26.4	24.9	89.29	-222.0	56.0	565.1	515.1	49.98	11.306	
7,200.0	7,163.1	7,178.6	7,163.1	26.7	25.3	89.29	-222.0	56.0	565.1	514.4	50.67	11.153	
7,300.0	7,263.1	7,278.6	7,263.1	27.1	25.6	89.29	-222.0	56.0	565.1	513.8	51.36	11.003	
7,400.0	7,363.1	7,378.6	7,363.1	27.4	26.0	89.29	-222.0	56.0	565.1	513.1	52.05	10.857	
7,500.0	7,463.1	7,478.6	7,463.1	27.7	26.3	89.29	-222.0	56.0	565.1	512.4	52.74	10.715	
7,600.0	7,563.1	7,578.6	7,563.1	28.1	26.7	89.29	-222.0	56.0	565.1	511.7	53.43	10.576	
7,700.0	7,663.1	7,678.6	7,663.1	28.4	27.0	89.29	-222.0	56.0	565.1	511.0	54.13	10.441	
7,800.0	7,763.1	7,778.6	7,763.1	28.7	27.4	89.29	-222.0	56.0	565.1	510.3	54.82	10.309	
7,900.0	7,863.1	7,878.6	7,863.1	29.0	27.7	89.29	-222.0	56.0	565.1	509.6	55.51	10.180	
8,000.0	7,963.1	7,978.6	7,963.1	29.4	28.1	89.29	-222.0	56.0	565.1	508.9	56.21	10.054	
8,100.0	8,063.1	8,078.6	8,063.1	29.7	28.4	89.29	-222.0	56.0	565.1	508.2	56.90	9.931	
8,200.0	8,163.1	8,178.6	8,163.1	30.0	28.8	89.29	-222.0	56.0	565.1	507.5	57.60	9.811	
8,300.0	8,263.1	8,278.6	8,263.1	30.4	29.1	89.29	-222.0	56.0	565.1	506.8	58.29	9.694	
8,400.0	8,363.1	8,378.6	8,363.1	30.7	29.5	89.29	-222.0	56.0	565.1	506.1	58.99	9.580	
8,500.0	8,463.1	8,478.6	8,463.1	31.0	29.9	89.29	-222.0	56.0	565.1	505.4	59.69	9.468	
8,600.0	8,563.1	8,578.6	8,563.1	31.4	30.2	89.29	-222.0	56.0	565.1	504.7	60.39	9.358	
8,700.0	8,663.1	8,678.6	8,663.1	31.7	30.6	89.29	-222.0	56.0	565.1	504.0	61.08	9.251	
8,800.0	8,763.1	8,778.6	8,763.1	32.1	30.9	89.29	-222.0	56.0	565.1	503.3	61.78	9.147	
8,900.0	8,863.1	8,878.6	8,863.1	32.4	31.3	89.29	-222.0	56.0	565.1	502.6	62.48	9.045	
9,000.0	8,963.1	8,978.6	8,963.1	32.7	31.6	89.29	-222.0	56.0	565.1	501.9	63.18	8.944	
9,100.0	9,063.1	9,078.6	9,063.1	33.1	32.0	89.29	-222.0	56.0	565.1	501.2	63.88	8.847	
9,200.0	9,163.1	9,178.6	9,163.1	33.4	32.3	89.29	-222.0	56.0	565.1	500.5	64.58	8.751	
9,300.0	9,263.1	9,278.6	9,263.1	33.7	32.7	89.29	-222.0	56.0	565.1	499.8	65.28	8.657	
9,400.0	9,363.1	9,378.6	9,363.1	34.1	33.0	89.29	-222.0	56.0	565.1	499.1	65.98	8.565	
9,500.0	9,463.1	9,478.6	9,463.1	34.4	33.4	89.29	-222.0	56.0	565.1	498.4	66.68	8.475	
9,600.0	9,563.1	9,578.6	9,563.1	34.8	33.7	89.29	-222.0	56.0	565.1	497.7	67.38	8.387	
9,700.0	9,663.1	9,678.6	9,663.1	35.1	34.1	89.29	-222.0	56.0	565.1	497.0	68.08	8.300	
9,800.0	9,763.1	9,778.6	9,763.1	35.4	34.4	89.29	-222.0	56.0	565.1	496.3	68.79	8.215	
9,900.0	9,863.1	9,878.6	9,863.1	35.8	34.8	89.29	-222.0	56.0	565.1	495.6	69.49	8.132	
10,000.0	9,963.1	9,978.6	9,963.1	36.1	35.2	89.29	-222.0	56.0	565.1	494.9	70.19	8.051	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,078.6	10,063.1	36.5	35.5	89.29	-222.0	56.0	565.1	494.2	70.89	7.971	
10,200.0	10,163.1	10,178.6	10,163.1	36.8	35.9	89.29	-222.0	56.0	565.1	493.5	71.60	7.893	
10,300.0	10,263.1	10,278.6	10,263.1	37.1	36.2	89.29	-222.0	56.0	565.1	492.8	72.30	7.816	
10,400.0	10,363.1	10,378.6	10,363.1	37.5	36.6	89.29	-222.0	56.0	565.1	492.1	73.00	7.741	
10,500.0	10,463.1	10,478.6	10,463.1	37.8	36.9	89.29	-222.0	56.0	565.1	491.4	73.71	7.667	
10,600.0	10,563.1	10,578.6	10,563.1	38.2	37.3	89.29	-222.0	56.0	565.1	490.7	74.41	7.594	
10,700.0	10,663.1	10,678.6	10,663.1	38.5	37.6	89.29	-222.0	56.0	565.1	490.0	75.12	7.523	
10,800.0	10,763.1	10,778.6	10,763.1	38.9	38.0	89.29	-222.0	56.0	565.1	489.3	75.82	7.453	
10,900.0	10,863.1	10,878.6	10,863.1	39.2	38.3	89.29	-222.0	56.0	565.1	488.6	76.53	7.385	
11,000.0	10,963.1	10,978.6	10,963.1	39.6	38.7	89.29	-222.0	56.0	565.1	487.9	77.23	7.317	
11,100.0	11,063.1	11,078.6	11,063.1	39.9	39.1	89.29	-222.0	56.0	565.1	487.2	77.94	7.251	
11,200.0	11,163.1	11,178.6	11,163.1	40.2	39.4	89.29	-222.0	56.0	565.1	486.5	78.64	7.186	
11,300.0	11,263.1	11,278.6	11,263.1	40.6	39.8	89.29	-222.0	56.0	565.1	485.8	79.35	7.122	
11,400.0	11,363.1	11,378.6	11,363.1	40.9	40.1	89.29	-222.0	56.0	565.1	485.1	80.05	7.059	
11,500.0	11,463.1	11,478.6	11,463.1	41.3	40.5	89.29	-222.0	56.0	565.1	484.4	80.76	6.997	
11,510.5	11,473.6	11,489.1	11,473.6	41.3	40.5	89.29	-222.0	56.0	565.1	484.3	80.83	6.991	
11,600.0	11,563.1	11,578.6	11,563.1	41.6	40.8	89.27	-221.8	56.0	565.1	483.6	81.47	6.937	
11,700.0	11,663.1	11,678.6	11,663.1	42.0	41.2	88.14	-210.7	55.9	565.3	483.2	82.13	6.883	
11,800.0	11,763.1	11,778.6	11,763.1	42.3	41.4	85.59	-185.5	55.7	566.7	484.0	82.71	6.852	
11,900.0	11,863.1	11,878.6	11,863.1	42.7	41.7	82.17	-151.3	55.5	571.3	488.3	83.07	6.878	
12,006.9	11,970.0	11,985.4	11,970.0	43.0	41.9	78.17	-110.9	55.2	582.6	499.6	82.99	7.020	
12,050.0	12,013.1	12,028.6	12,013.1	43.2	41.9	83.84	-94.0	55.1	589.4	506.6	82.77	7.121	
12,100.0	12,062.7	12,077.7	12,062.7	43.3	42.0	81.25	-73.4	54.9	598.6	516.2	82.40	7.265	
12,150.0	12,111.7	12,126.7	12,111.7	43.5	42.1	78.70	-51.9	54.8	609.0	527.1	81.91	7.435	
12,200.0	12,159.5	12,174.5	12,159.5	43.7	42.1	76.06	-26.8	54.6	620.3	538.9	81.41	7.620	
12,250.0	12,205.9	12,220.9	12,205.9	43.8	42.2	73.81	-6.4	54.5	632.2	551.6	80.64	7.840	
12,300.0	12,250.5	12,265.5	12,250.5	43.9	42.2	71.53	17.6	54.3	644.6	564.7	79.92	8.066	
12,350.0	12,293.0	12,308.0	12,293.0	44.1	42.3	69.37	42.2	54.1	657.2	578.0	79.16	8.302	
12,400.0	12,333.0	12,348.0	12,333.0	44.2	42.4	67.37	67.5	53.9	669.8	591.4	78.41	8.543	
12,450.0	12,370.3	12,385.3	12,370.3	44.3	42.4	65.42	97.5	53.7	682.3	604.5	77.79	8.770	
12,500.0	12,404.5	12,419.5	12,404.5	44.3	42.5	63.83	119.7	53.6	694.3	617.4	76.98	9.019	
12,550.0	12,435.4	12,450.4	12,435.4	44.4	42.6	62.36	143.3	53.4	706.0	629.7	76.29	9.255	
12,600.0	12,462.7	12,477.7	12,462.7	44.5	42.6	60.97	173.7	53.2	717.1	641.2	75.83	9.456	
12,650.0	12,486.3	12,501.3	12,486.3	44.5	42.7	59.79	201.3	53.0	727.4	652.0	75.41	9.646	
12,700.0	12,506.0	12,521.0	12,506.0	44.6	42.8	58.78	229.1	52.8	737.0	661.9	75.11	9.813	
12,750.0	12,521.6	12,536.6	12,521.6	44.7	42.9	57.93	257.3	52.6	745.8	670.8	74.93	9.953	
12,800.0	12,533.0	12,548.0	12,533.0	44.7	42.9	57.25	288.6	52.4	753.6	678.7	74.93	10.058	
12,850.0	12,540.1	12,555.1	12,540.1	44.9	43.0	56.73	314.0	52.2	760.5	685.5	75.00	10.139	
12,900.0	12,542.9	12,557.9	12,542.9	45.0	43.1	56.36	342.4	52.0	766.4	691.1	75.25	10.184	
12,915.3	12,542.9	12,557.9	12,542.9	45.0	43.1	56.28	351.2	52.0	767.9	692.6	75.36	10.191	
13,000.0	12,541.7	12,556.7	12,541.7	45.3	43.3	56.83	433.8	51.3	775.7	699.6	76.06	10.198	
13,100.0	12,540.2	12,555.2	12,540.2	45.6	43.7	57.32	533.4	50.5	782.1	705.2	76.90	10.170	
13,200.0	12,538.7	12,553.7	12,538.7	46.0	44.1	57.63	633.3	49.8	785.7	707.9	77.75	10.105	
13,287.8	12,537.4	12,552.4	12,537.4	46.4	44.5	57.77	721.1	49.1	786.4	707.9	78.50	10.017	
13,300.0	12,537.2	12,552.2	12,537.2	46.5	44.5	57.78	733.3	49.0	786.3	707.7	78.60	10.003	
13,400.0	12,535.8	12,550.8	12,535.8	47.0	45.0	57.84	833.3	48.2	785.8	706.3	79.53	9.881	
13,500.0	12,534.3	12,549.3	12,534.3	47.5	45.6	57.90	933.3	47.4	785.3	704.7	80.54	9.750	
13,600.0	12,532.8	12,547.8	12,532.8	48.1	46.2	57.95	1,033.3	46.6	784.8	703.1	81.66	9.611	
13,700.0	12,531.3	12,546.3	12,531.3	48.7	46.9	58.01	1,133.2	45.9	784.3	701.4	82.86	9.465	
13,800.0	12,529.9	12,544.9	12,529.9	49.4	47.6	58.07	1,233.2	45.1	783.8	699.6	84.15	9.314	
13,900.0	12,528.4	12,543.4	12,528.4	50.2	48.4	58.13	1,333.2	44.3	783.3	697.7	85.53	9.158	
14,000.0	12,526.9	12,541.9	12,526.9	51.0	49.2	58.19	1,433.2	43.5	782.8	695.8	86.98	8.999	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	12,525.5	13,644.8	12,113.8	51.8	50.0	58.25	1,533.2	42.8	782.3	693.8	88.51	8.838	
14,200.0	12,524.0	13,744.8	12,113.3	52.6	50.9	58.31	1,633.2	42.0	781.8	691.7	90.11	8.675	
14,300.0	12,522.5	13,844.8	12,112.8	53.5	51.9	58.37	1,733.2	41.2	781.3	689.5	91.79	8.512	
14,400.0	12,521.0	13,944.8	12,112.2	54.5	52.8	58.43	1,833.2	40.4	780.8	687.3	93.52	8.348	
14,500.0	12,519.6	14,044.8	12,111.7	55.4	53.8	58.49	1,933.2	39.6	780.3	685.0	95.32	8.186	
14,600.0	12,518.1	14,144.8	12,111.2	56.4	54.8	58.55	2,033.2	38.9	779.8	682.6	97.18	8.024	
14,700.0	12,516.6	14,244.8	12,110.7	57.4	55.9	58.61	2,133.2	38.1	779.3	680.2	99.10	7.864	
14,800.0	12,515.1	14,344.8	12,110.2	58.5	57.0	58.67	2,233.1	37.3	778.8	677.7	101.07	7.706	
14,900.0	12,513.7	14,444.8	12,109.6	59.6	58.1	58.73	2,333.1	36.5	778.3	675.2	103.08	7.550	
15,000.0	12,512.2	14,544.8	12,109.1	60.7	59.2	58.79	2,433.1	35.7	777.8	672.7	105.15	7.397	
15,100.0	12,510.7	14,644.8	12,108.6	61.8	60.4	58.85	2,533.1	35.0	777.3	670.1	107.26	7.247	
15,200.0	12,509.3	14,744.8	12,108.1	63.0	61.6	58.91	2,633.1	34.2	776.8	667.4	109.41	7.100	
15,300.0	12,507.8	14,844.8	12,107.5	64.2	62.8	58.97	2,733.1	33.4	776.3	664.7	111.61	6.956	
15,400.0	12,506.3	14,944.8	12,107.0	65.4	64.0	59.03	2,833.1	32.6	775.9	662.0	113.84	6.815	
15,500.0	12,504.8	15,044.8	12,106.5	66.6	65.3	59.09	2,933.1	31.8	775.4	659.3	116.11	6.678	
15,600.0	12,503.4	15,144.8	12,106.0	67.8	66.5	59.15	3,033.1	31.1	774.9	656.5	118.41	6.544	
15,700.0	12,501.9	15,244.7	12,105.5	69.1	67.8	59.21	3,133.1	30.3	774.4	653.6	120.75	6.413	
15,800.0	12,500.4	15,344.7	12,104.9	70.3	69.1	59.27	3,233.1	29.5	773.9	650.8	123.11	6.286	
15,900.0	12,498.9	15,444.7	12,104.4	71.6	70.4	59.33	3,333.0	28.7	773.4	647.9	125.51	6.162	
16,000.0	12,497.5	15,544.7	12,103.9	72.9	71.8	59.39	3,433.0	27.9	772.9	645.0	127.93	6.042	
16,100.0	12,496.0	15,644.7	12,103.4	74.3	73.1	59.45	3,533.0	27.2	772.5	642.1	130.38	5.924	
16,200.0	12,494.5	15,744.7	12,102.9	75.6	74.4	59.51	3,633.0	26.4	772.0	639.1	132.86	5.810	
16,300.0	12,493.0	15,844.7	12,102.3	76.9	75.8	59.57	3,733.0	25.6	771.5	636.1	135.36	5.700	
16,400.0	12,491.6	15,944.7	12,101.8	78.3	77.2	59.63	3,833.0	24.8	771.0	633.1	137.88	5.592	
16,500.0	12,490.1	16,044.7	12,101.3	79.6	78.6	59.70	3,933.0	24.0	770.5	630.1	140.43	5.487	
16,600.0	12,488.6	16,144.7	12,100.8	81.0	80.0	59.76	4,033.0	23.3	770.1	627.1	142.99	5.385	
16,700.0	12,487.2	16,244.7	12,100.2	82.4	81.4	59.82	4,133.0	22.5	769.6	624.0	145.58	5.286	
16,800.0	12,485.7	16,344.7	12,099.7	83.8	82.8	59.88	4,233.0	21.7	769.1	620.9	148.18	5.190	
16,900.0	12,484.2	16,444.7	12,099.2	85.2	84.2	59.94	4,333.0	20.9	768.6	617.8	150.80	5.097	
17,000.0	12,482.7	16,544.7	12,098.7	86.6	85.7	60.00	4,432.9	20.1	768.1	614.7	153.44	5.006	
17,100.0	12,481.3	16,644.7	12,098.2	88.1	87.1	60.06	4,532.9	19.4	767.7	611.6	156.10	4.918	
17,200.0	12,479.8	16,744.7	12,097.6	89.5	88.5	60.13	4,632.9	18.6	767.2	608.4	158.77	4.832	
17,300.0	12,478.3	16,844.7	12,097.1	90.9	90.0	60.19	4,732.9	17.8	766.7	605.3	161.46	4.749	
17,400.0	12,476.8	16,944.7	12,096.6	92.4	91.5	60.25	4,832.9	17.0	766.3	602.1	164.16	4.668	
17,500.0	12,475.4	17,044.7	12,096.1	93.8	92.9	60.31	4,932.9	16.2	765.8	598.9	166.88	4.589	
17,600.0	12,473.9	17,144.7	12,095.6	95.3	94.4	60.37	5,032.9	15.5	765.3	595.7	169.61	4.512	
17,700.0	12,472.4	17,244.7	12,095.0	96.7	95.9	60.43	5,132.9	14.7	764.8	592.5	172.35	4.438	
17,800.0	12,471.0	17,344.7	12,094.5	98.2	97.4	60.50	5,232.9	13.9	764.4	589.3	175.11	4.365	
17,900.0	12,469.5	17,444.6	12,094.0	99.7	98.9	60.56	5,332.9	13.1	763.9	586.0	177.88	4.295	
18,000.0	12,468.0	17,544.6	12,093.5	101.2	100.4	60.62	5,432.9	12.3	763.4	582.8	180.66	4.226	
18,100.0	12,466.5	17,644.6	12,092.9	102.7	101.9	60.68	5,532.8	11.6	763.0	579.5	183.45	4.159	
18,200.0	12,465.1	17,744.6	12,092.4	104.2	103.4	60.75	5,632.8	10.8	762.5	576.3	186.25	4.094	
18,300.0	12,463.6	17,844.6	12,091.9	105.7	104.9	60.81	5,732.8	10.0	762.1	573.0	189.06	4.031	
18,400.0	12,462.1	17,944.6	12,091.4	107.2	106.4	60.87	5,832.8	9.2	761.6	569.7	191.89	3.969	
18,500.0	12,460.6	18,044.6	12,090.9	108.7	107.9	60.93	5,932.8	8.4	761.1	566.4	194.72	3.909	
18,600.0	12,459.2	18,144.6	12,090.3	110.2	109.5	61.00	6,032.8	7.7	760.7	563.1	197.56	3.850	
18,700.0	12,457.7	18,244.6	12,089.8	111.7	111.0	61.06	6,132.8	6.9	760.2	559.8	200.41	3.793	
18,800.0	12,456.2	18,344.6	12,089.3	113.2	112.5	61.12	6,232.8	6.1	759.8	556.5	203.27	3.738	
18,900.0	12,454.8	18,444.6	12,088.8	114.8	114.0	61.18	6,332.8	5.3	759.3	553.2	206.14	3.683	
19,000.0	12,453.3	18,544.6	12,088.3	116.3	115.6	61.25	6,432.8	4.5	758.8	549.8	209.02	3.630	
19,100.0	12,451.8	18,644.6	12,087.7	117.8	117.1	61.31	6,532.8	3.8	758.4	546.5	211.91	3.579	
19,200.0	12,450.3	18,744.6	12,087.2	119.3	118.7	61.37	6,632.8	3.0	757.9	543.1	214.80	3.528	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,300.0	12,448.9	18,844.6	12,086.7	120.9	120.2	61.44	6,732.7	2.2	757.5	539.8	217.71	3.479	
19,400.0	12,447.4	18,944.6	12,086.2	122.4	121.8	61.50	6,832.7	1.4	757.0	536.4	220.62	3.431	
19,500.0	12,445.9	19,044.6	12,085.6	124.0	123.3	61.56	6,932.7	0.6	756.6	533.0	223.53	3.385	
19,600.0	12,444.4	19,144.6	12,085.1	125.5	124.9	61.63	7,032.7	-0.1	756.1	529.7	226.46	3.339	
19,700.0	12,443.0	19,244.6	12,084.6	127.1	126.4	61.69	7,132.7	-0.9	755.7	526.3	229.39	3.294	
19,800.0	12,441.5	19,344.6	12,084.1	128.6	128.0	61.75	7,232.7	-1.7	755.2	522.9	232.33	3.251	
19,900.0	12,440.0	19,444.6	12,083.6	130.2	129.6	61.82	7,332.7	-2.5	754.8	519.5	235.28	3.208	
20,000.0	12,438.6	19,544.6	12,083.0	131.7	131.1	61.88	7,432.7	-3.3	754.3	516.1	238.23	3.166	
20,100.0	12,437.1	19,644.5	12,082.5	133.3	132.7	61.95	7,532.7	-4.0	753.9	512.7	241.19	3.126	
20,200.0	12,435.6	19,744.5	12,082.0	134.9	134.3	62.01	7,632.7	-4.8	753.4	509.3	244.15	3.086	
20,300.0	12,434.1	19,844.5	12,081.5	136.4	135.8	62.07	7,732.7	-5.6	753.0	505.9	247.12	3.047	
20,400.0	12,432.7	19,944.5	12,081.0	138.0	137.4	62.14	7,832.6	-6.4	752.5	502.4	250.10	3.009	
20,500.0	12,431.2	20,044.5	12,080.4	139.6	139.0	62.20	7,932.6	-7.1	752.1	499.0	253.08	2.972	
20,600.0	12,429.7	20,144.5	12,079.9	141.1	140.6	62.27	8,032.6	-7.9	751.7	495.6	256.07	2.935	
20,700.0	12,428.2	20,244.5	12,079.4	142.7	142.2	62.33	8,132.6	-8.7	751.2	492.1	259.07	2.900	
20,800.0	12,426.8	20,344.5	12,078.9	144.3	143.7	62.39	8,232.6	-9.5	750.8	488.7	262.07	2.865	
20,900.0	12,425.3	20,444.5	12,078.3	145.9	145.3	62.46	8,332.6	-10.3	750.3	485.3	265.07	2.831	
21,000.0	12,423.8	20,544.5	12,077.8	147.4	146.9	62.52	8,432.6	-11.0	749.9	481.8	268.08	2.797	
21,100.0	12,422.4	20,644.5	12,077.3	149.0	148.5	62.59	8,532.6	-11.8	749.5	478.4	271.10	2.765	
21,200.0	12,420.9	20,744.5	12,076.8	150.6	150.1	62.65	8,632.6	-12.6	749.0	474.9	274.12	2.732	
21,300.0	12,419.4	20,844.5	12,076.3	152.2	151.7	62.72	8,732.6	-13.4	748.6	471.4	277.15	2.701	
21,400.0	12,417.9	20,944.5	12,075.7	153.8	153.3	62.78	8,832.6	-14.2	748.2	468.0	280.18	2.670	
21,500.0	12,416.5	21,044.5	12,075.2	155.3	154.9	62.85	8,932.5	-14.9	747.7	464.5	283.22	2.640	
21,600.0	12,415.0	21,144.5	12,074.7	156.9	156.5	62.91	9,032.5	-15.7	747.3	461.0	286.26	2.611	
21,700.0	12,413.5	21,244.5	12,074.2	158.5	158.0	62.98	9,132.5	-16.5	746.9	457.6	289.31	2.582	
21,800.0	12,412.0	21,344.5	12,073.7	160.1	159.6	63.04	9,232.5	-17.3	746.4	454.1	292.36	2.553	
21,900.0	12,410.6	21,444.5	12,073.1	161.7	161.2	63.11	9,332.5	-18.1	746.0	450.6	295.41	2.525	
22,000.0	12,409.1	21,544.5	12,072.6	163.3	162.8	63.17	9,432.5	-18.8	745.6	447.1	298.47	2.498	
22,100.0	12,407.6	21,644.5	12,072.1	164.9	164.4	63.24	9,532.5	-19.6	745.1	443.6	301.54	2.471	
22,200.0	12,406.1	21,744.5	12,071.6	166.5	166.0	63.30	9,632.5	-20.4	744.7	440.1	304.61	2.445	
22,300.0	12,404.7	21,844.4	12,071.1	168.1	167.6	63.37	9,732.5	-21.2	744.3	436.6	307.68	2.419	
22,400.0	12,403.2	21,944.4	12,070.5	169.7	169.2	63.43	9,832.5	-22.0	743.9	433.1	310.76	2.394	
22,500.0	12,401.7	22,044.4	12,070.0	171.3	170.9	63.50	9,932.5	-22.7	743.4	429.6	313.84	2.369	
22,600.0	12,400.3	22,144.4	12,069.5	172.9	172.5	63.57	10,032.4	-23.5	743.0	426.1	316.93	2.344	
22,700.0	12,398.8	22,244.4	12,069.0	174.5	174.1	63.63	10,132.4	-24.3	742.6	422.6	320.02	2.320	
22,787.3	12,397.5	22,331.7	12,068.5	175.7	175.5	63.69	10,219.7	-25.0	742.2	419.7	322.55	2.301 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	90.09	-3.5	2,313.3	2,313.3				
100.0	100.0	100.0	100.0	0.1	0.1	90.09	-3.5	2,313.3	2,313.3	2,313.1	0.26	9,025.539	
200.0	200.0	200.0	200.0	0.5	0.5	90.09	-3.5	2,313.3	2,313.3	2,312.3	0.97	2,376.894	
300.0	300.0	300.0	300.0	0.8	0.8	90.09	-3.5	2,313.3	2,313.3	2,311.6	1.69	1,368.668	
400.0	400.0	400.0	400.0	1.2	1.2	90.09	-3.5	2,313.3	2,313.3	2,310.9	2.41	961.023	
500.0	500.0	500.0	500.0	1.6	1.6	90.09	-3.5	2,313.3	2,313.3	2,310.2	3.12	740.478	
600.0	600.0	600.0	600.0	1.9	1.9	90.09	-3.5	2,313.3	2,313.3	2,309.5	3.84	602.265	
700.0	700.0	700.0	700.0	2.3	2.3	90.09	-3.5	2,313.3	2,313.3	2,308.8	4.56	507.532	
800.0	800.0	800.0	800.0	2.6	2.6	90.09	-3.5	2,313.3	2,313.3	2,308.0	5.27	438.550	
900.0	900.0	900.0	900.0	3.0	3.0	90.09	-3.5	2,313.3	2,313.3	2,307.3	5.99	386.077	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	90.09	-3.5	2,313.3	2,313.3	2,306.6	6.71	344.818	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	90.09	-3.5	2,313.3	2,313.3	2,305.9	7.43	311.526	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	90.09	-3.5	2,313.3	2,313.3	2,305.2	8.14	284.097	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	90.09	-3.5	2,313.3	2,313.3	2,304.5	8.86	261.107	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	90.09	-3.5	2,313.3	2,313.3	2,303.7	9.58	241.560	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	90.09	-3.5	2,313.3	2,313.3	2,303.0	10.29	224.735	
1,600.0	1,600.0	1,665.1	1,665.1	5.5	5.7	-155.70	-4.0	2,311.0	2,312.7	2,301.5	11.20	206.412	
1,700.0	1,700.0	1,830.1	1,830.0	5.8	6.3	-155.71	-5.5	2,304.0	2,310.9	2,298.8	12.09	191.115	
1,800.0	1,799.9	1,995.0	1,994.4	6.2	6.9	-155.74	-8.1	2,292.4	2,307.8	2,294.8	12.98	177.840	
1,900.0	1,899.7	2,159.6	2,158.2	6.5	7.4	-155.77	-11.6	2,276.2	2,303.5	2,289.7	13.86	166.205	
2,000.0	1,999.4	2,314.6	2,311.8	6.9	8.0	-155.81	-15.8	2,256.8	2,298.1	2,283.4	14.71	156.216	
2,100.0	2,098.9	2,414.4	2,410.7	7.2	8.4	-155.85	-18.8	2,243.3	2,293.2	2,277.8	15.41	148.839	
2,200.0	2,198.3	2,514.4	2,509.7	7.6	8.8	-155.91	-21.7	2,229.7	2,289.9	2,273.8	16.11	142.151	
2,300.0	2,297.4	2,614.3	2,608.7	7.9	9.2	-155.97	-24.7	2,216.1	2,288.2	2,271.4	16.82	136.077	
2,400.0	2,396.4	2,714.3	2,707.6	8.3	9.5	-156.04	-27.6	2,202.5	2,287.3	2,269.8	17.53	130.504	
2,500.0	2,495.5	2,814.2	2,806.6	8.7	9.9	-156.11	-30.6	2,188.9	2,286.4	2,268.2	18.24	125.340	
2,600.0	2,594.5	2,914.2	2,905.6	9.1	10.3	-156.18	-33.5	2,175.3	2,285.5	2,266.6	18.96	120.545	
2,700.0	2,693.5	3,014.2	3,004.6	9.5	10.7	-156.25	-36.5	2,161.7	2,284.6	2,264.9	19.68	116.083	
2,800.0	2,792.5	3,114.1	3,103.6	9.8	11.1	-156.32	-39.5	2,148.1	2,283.7	2,263.3	20.40	111.923	
2,900.0	2,891.6	3,214.1	3,202.6	10.2	11.5	-156.39	-42.4	2,134.5	2,282.9	2,261.7	21.13	108.036	
3,000.0	2,990.6	3,314.0	3,301.6	10.6	11.9	-156.46	-45.4	2,120.9	2,282.0	2,260.1	21.86	104.398	
3,100.0	3,089.6	3,414.0	3,400.5	11.0	12.3	-156.53	-48.3	2,107.3	2,281.1	2,258.5	22.59	100.987	
3,200.0	3,188.6	3,513.9	3,499.5	11.4	12.7	-156.60	-51.3	2,093.7	2,280.2	2,256.9	23.32	97.783	
3,300.0	3,287.7	3,613.9	3,598.5	11.8	13.1	-156.67	-54.2	2,080.1	2,279.4	2,255.3	24.05	94.768	
3,400.0	3,386.7	3,713.9	3,697.5	12.2	13.5	-156.74	-57.2	2,066.6	2,278.5	2,253.7	24.79	91.926	
3,500.0	3,485.7	3,813.8	3,796.5	12.6	13.9	-156.80	-60.2	2,053.0	2,277.6	2,252.1	25.52	89.244	
3,600.0	3,584.8	3,913.8	3,895.5	13.0	14.3	-156.87	-63.1	2,039.4	2,276.8	2,250.5	26.26	86.709	
3,700.0	3,683.8	4,013.7	3,994.5	13.4	14.8	-156.94	-66.1	2,025.8	2,275.9	2,248.9	26.99	84.309	
3,800.0	3,782.8	4,113.7	4,093.4	13.8	15.2	-157.01	-69.0	2,012.2	2,275.1	2,247.3	27.73	82.035	
3,900.0	3,881.8	4,213.6	4,192.4	14.3	15.6	-157.08	-72.0	1,998.6	2,274.2	2,245.7	28.47	79.876	
4,000.0	3,980.9	4,313.6	4,291.4	14.7	16.0	-157.15	-74.9	1,985.0	2,273.4	2,244.2	29.21	77.825	
4,100.0	4,079.9	4,413.6	4,390.4	15.1	16.4	-157.22	-77.9	1,971.4	2,272.5	2,242.6	29.95	75.873	
4,200.0	4,178.9	4,513.5	4,489.4	15.5	16.8	-157.29	-80.9	1,957.8	2,271.7	2,241.0	30.69	74.014	
4,300.0	4,277.9	4,613.5	4,588.4	15.9	17.2	-157.36	-83.8	1,944.2	2,270.9	2,239.4	31.43	72.242	
4,400.0	4,377.0	4,713.4	4,687.4	16.3	17.6	-157.43	-86.8	1,930.6	2,270.0	2,237.8	32.18	70.551	
4,500.0	4,476.0	4,813.4	4,786.3	16.7	18.0	-157.50	-89.7	1,917.0	2,269.2	2,236.3	32.92	68.934	
4,600.0	4,575.0	4,913.4	4,885.3	17.1	18.5	-157.57	-92.7	1,903.4	2,268.4	2,234.7	33.66	67.389	
4,700.0	4,674.0	5,013.3	4,984.3	17.5	18.9	-157.64	-95.6	1,889.8	2,267.6	2,233.1	34.40	65.909	
4,800.0	4,773.1	5,113.3	5,083.3	18.0	19.3	-157.71	-98.6	1,876.2	2,266.7	2,231.6	35.15	64.492	
4,900.0	4,872.1	5,213.2	5,182.3	18.4	19.7	-157.78	-101.6	1,862.6	2,265.9	2,230.0	35.89	63.133	
5,000.0	4,971.1	5,313.2	5,281.3	18.8	20.1	-157.85	-104.5	1,849.1	2,265.1	2,228.5	36.64	61.829	
5,100.0	5,070.2	5,413.1	5,380.3	19.2	20.5	-157.92	-107.5	1,835.5	2,264.3	2,226.9	37.38	60.576	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,513.1	5,479.2	19.6	21.0	-157.99	-110.4	1,821.9	2,263.5	2,225.4	38.12	59.372	
5,300.0	5,268.2	5,613.1	5,578.2	20.0	21.4	-158.06	-113.4	1,808.3	2,262.7	2,223.8	38.87	58.214	
5,400.0	5,367.2	5,713.0	5,677.2	20.5	21.8	-158.14	-116.3	1,794.7	2,261.9	2,222.3	39.61	57.099	
5,500.0	5,466.3	5,813.0	5,776.2	20.9	22.2	-158.21	-119.3	1,781.1	2,261.1	2,220.7	40.36	56.025	
5,600.0	5,565.3	5,912.9	5,875.2	21.3	22.6	-158.28	-122.3	1,767.5	2,260.3	2,219.2	41.10	54.990	
5,643.3	5,608.2	5,956.3	5,918.1	21.5	22.8	-158.31	-123.5	1,761.6	2,260.0	2,218.5	41.43	54.553	
5,700.0	5,664.4	6,012.9	5,974.2	21.7	23.0	-158.34	-125.2	1,753.9	2,259.1	2,217.3	41.85	53.984	
5,800.0	5,763.7	6,112.8	6,073.1	22.1	23.5	-158.36	-128.2	1,740.3	2,255.8	2,213.2	42.59	52.966	
5,900.0	5,863.4	6,212.6	6,172.0	22.5	23.9	-158.35	-131.1	1,726.7	2,249.9	2,206.6	43.32	51.933	
6,000.0	5,963.2	6,312.3	6,270.7	22.8	24.3	-158.30	-134.1	1,713.2	2,241.7	2,197.7	44.05	50.886	
6,100.0	6,063.1	6,411.7	6,369.1	23.2	24.7	-158.21	-137.0	1,699.7	2,231.0	2,186.3	44.78	49.827	
6,176.7	6,139.8	6,487.8	6,444.4	23.4	25.0	87.66	-139.3	1,689.3	2,221.2	2,175.9	45.32	49.012	
6,200.0	6,163.1	6,510.8	6,467.3	23.5	25.1	87.68	-139.9	1,686.2	2,218.0	2,172.6	45.48	48.766	
6,300.0	6,263.1	6,609.9	6,565.3	23.8	25.5	87.74	-142.9	1,672.7	2,204.3	2,158.1	46.18	47.730	
6,400.0	6,363.1	6,708.9	6,663.4	24.2	26.0	87.80	-145.8	1,659.2	2,190.6	2,143.7	46.88	46.725	
6,500.0	6,463.1	6,807.9	6,761.5	24.5	26.4	87.87	-148.7	1,645.8	2,176.9	2,129.3	47.58	45.748	
6,600.0	6,563.1	6,907.0	6,859.5	24.8	26.8	87.93	-151.7	1,632.3	2,163.2	2,114.9	48.29	44.799	
6,700.0	6,663.1	7,006.0	6,957.6	25.1	27.2	88.00	-154.6	1,618.8	2,149.5	2,100.5	48.99	43.876	
6,800.0	6,763.1	7,105.0	7,055.6	25.4	27.6	88.06	-157.5	1,605.4	2,135.8	2,086.1	49.69	42.979	
6,900.0	6,863.1	7,204.0	7,153.7	25.8	28.0	88.13	-160.5	1,591.9	2,122.1	2,071.7	50.40	42.107	
7,000.0	6,963.1	7,303.1	7,251.8	26.1	28.4	88.20	-163.4	1,578.4	2,108.4	2,057.3	51.10	41.258	
7,100.0	7,063.1	7,402.1	7,349.8	26.4	28.9	88.27	-166.3	1,565.0	2,094.7	2,042.9	51.81	40.431	
7,200.0	7,163.1	7,501.1	7,447.9	26.7	29.3	88.34	-169.2	1,551.5	2,081.1	2,028.5	52.52	39.626	
7,300.0	7,263.1	7,600.1	7,546.0	27.1	29.7	88.41	-172.2	1,538.0	2,067.4	2,014.2	53.22	38.843	
7,400.0	7,363.1	7,700.8	7,644.0	27.4	30.1	88.48	-175.1	1,524.6	2,053.7	1,999.8	53.94	38.075	
7,500.0	7,463.1	7,801.8	7,742.1	27.7	30.5	88.55	-178.0	1,511.1	2,040.0	1,985.4	54.65	37.326	
7,600.0	7,563.1	7,902.8	7,840.2	28.1	31.0	88.63	-181.0	1,497.6	2,026.3	1,971.0	55.37	36.596	
7,700.0	7,663.1	7,996.2	7,938.2	28.4	31.4	88.70	-183.9	1,484.2	2,012.7	1,956.6	56.06	35.902	
7,800.0	7,763.1	8,104.7	8,036.3	28.7	31.8	88.78	-186.8	1,470.7	1,999.0	1,942.2	56.81	35.190	
7,900.0	7,863.1	8,205.7	8,134.3	29.0	32.2	88.86	-189.8	1,457.2	1,985.4	1,927.8	57.52	34.513	
8,000.0	7,963.1	8,306.7	8,232.4	29.4	32.7	88.93	-192.7	1,443.8	1,971.7	1,913.4	58.24	33.852	
8,100.0	8,063.1	8,407.6	8,330.5	29.7	33.1	89.01	-195.6	1,430.3	1,958.0	1,899.1	58.96	33.208	
8,200.0	8,163.1	8,491.4	8,428.5	30.0	33.4	89.09	-198.5	1,416.8	1,944.4	1,884.8	59.62	32.613	
8,300.0	8,263.1	8,563.9	8,500.4	30.4	33.7	89.15	-200.6	1,407.4	1,931.3	1,871.0	60.27	32.046	
8,400.0	8,363.1	8,630.3	8,566.4	30.7	34.0	89.20	-202.3	1,399.8	1,919.9	1,859.0	60.89	31.532	
8,500.0	8,463.1	8,700.0	8,635.7	31.0	34.3	89.24	-203.7	1,393.0	1,910.1	1,848.6	61.50	31.060	
8,600.0	8,563.1	8,764.0	8,699.5	31.4	34.5	89.27	-204.8	1,387.9	1,902.1	1,840.0	62.07	30.644	
8,700.0	8,663.1	8,831.1	8,766.4	31.7	34.8	89.30	-205.7	1,383.7	1,895.8	1,833.1	62.64	30.265	
8,800.0	8,763.1	8,900.0	8,835.3	32.1	35.0	89.32	-206.4	1,380.6	1,891.2	1,828.0	63.20	29.926	
8,900.0	8,863.1	8,965.7	8,900.9	32.4	35.2	89.33	-206.8	1,378.7	1,888.3	1,824.6	63.72	29.636	
9,000.0	8,963.1	9,033.0	8,968.3	32.7	35.5	89.33	-207.0	1,378.0	1,887.2	1,823.0	64.23	29.384	
9,039.6	9,002.7	9,067.5	9,002.7	32.9	35.6	89.33	-207.0	1,377.9	1,887.2	1,822.7	64.46	29.275	
9,100.0	9,063.1	9,127.9	9,063.1	33.1	35.8	89.33	-207.0	1,377.9	1,887.2	1,822.3	64.87	29.090	
9,200.0	9,163.1	9,227.9	9,163.1	33.4	36.1	89.33	-207.0	1,377.9	1,887.2	1,821.6	65.55	28.789	
9,300.0	9,263.1	9,327.9	9,263.1	33.7	36.4	89.33	-207.0	1,377.9	1,887.2	1,821.0	66.23	28.494	
9,400.0	9,363.1	9,427.9	9,363.1	34.1	36.7	89.33	-207.0	1,377.9	1,887.2	1,820.3	66.91	28.205	
9,500.0	9,463.1	9,527.9	9,463.1	34.4	37.0	89.33	-207.0	1,377.9	1,887.2	1,819.6	67.59	27.921	
9,600.0	9,563.1	9,627.9	9,563.1	34.8	37.3	89.33	-207.0	1,377.9	1,887.2	1,818.9	68.27	27.643	
9,700.0	9,663.1	9,727.9	9,663.1	35.1	37.6	89.33	-207.0	1,377.9	1,887.2	1,818.2	68.95	27.369	
9,800.0	9,763.1	9,827.9	9,763.1	35.4	37.9	89.33	-207.0	1,377.9	1,887.2	1,817.5	69.63	27.101	
9,900.0	9,863.1	9,927.9	9,863.1	35.8	38.3	89.33	-207.0	1,377.9	1,887.2	1,816.9	70.32	26.838	
10,000.0	9,963.1	10,027.9	9,963.1	36.1	38.6	89.33	-207.0	1,377.9	1,887.2	1,816.2	71.00	26.579	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,127.9	10,063.1	36.5	38.9	89.33	-207.0	1,377.9	1,887.2	1,815.5	71.69	26.326	
10,200.0	10,163.1	10,227.9	10,163.1	36.8	39.2	89.33	-207.0	1,377.9	1,887.2	1,814.8	72.37	26.076	
10,300.0	10,263.1	10,327.9	10,263.1	37.1	39.5	89.33	-207.0	1,377.9	1,887.2	1,814.1	73.06	25.832	
10,400.0	10,363.1	10,427.9	10,363.1	37.5	39.9	89.33	-207.0	1,377.9	1,887.2	1,813.4	73.74	25.591	
10,500.0	10,463.1	10,527.9	10,463.1	37.8	40.2	89.33	-207.0	1,377.9	1,887.2	1,812.8	74.43	25.355	
10,600.0	10,563.1	10,627.9	10,563.1	38.2	40.5	89.33	-207.0	1,377.9	1,887.2	1,812.1	75.12	25.123	
10,700.0	10,663.1	10,727.9	10,663.1	38.5	40.8	89.33	-207.0	1,377.9	1,887.2	1,811.4	75.81	24.895	
10,800.0	10,763.1	10,827.9	10,763.1	38.9	41.1	89.33	-207.0	1,377.9	1,887.2	1,810.7	76.49	24.671	
10,900.0	10,863.1	10,927.9	10,863.1	39.2	41.5	89.33	-207.0	1,377.9	1,887.2	1,810.0	77.18	24.451	
11,000.0	10,963.1	11,027.9	10,963.1	39.6	41.8	89.33	-207.0	1,377.9	1,887.2	1,809.3	77.87	24.234	
11,100.0	11,063.1	11,127.9	11,063.1	39.9	42.1	89.33	-207.0	1,377.9	1,887.2	1,808.6	78.56	24.021	
11,200.0	11,163.1	11,227.9	11,163.1	40.2	42.4	89.33	-207.0	1,377.9	1,887.2	1,807.9	79.25	23.812	
11,300.0	11,263.1	11,327.9	11,263.1	40.6	42.8	89.33	-207.0	1,377.9	1,887.2	1,807.2	79.94	23.606	
11,400.0	11,363.1	11,427.9	11,363.1	40.9	43.1	89.33	-207.0	1,377.9	1,887.2	1,806.5	80.63	23.404	
11,500.0	11,463.1	11,527.9	11,463.1	41.3	43.4	89.33	-207.0	1,377.9	1,887.2	1,805.9	81.33	23.205	
11,515.6	11,478.7	11,543.5	11,478.7	41.3	43.5	89.33	-207.0	1,377.9	1,887.2	1,805.7	81.43	23.174 CC	
11,600.0	11,563.1	11,627.9	11,563.1	41.6	43.7	89.33	-207.0	1,377.9	1,887.2	1,805.2	82.02	23.009	
11,700.0	11,663.1	11,725.3	11,660.0	42.0	44.0	89.06	-198.2	1,377.9	1,887.2	1,804.6	82.67	22.827	
11,800.0	11,763.1	11,817.2	11,748.9	42.3	44.3	88.36	-175.0	1,377.7	1,887.7	1,804.4	83.26	22.673	
11,900.0	11,863.1	11,900.0	11,824.8	42.7	44.5	87.36	-142.2	1,377.5	1,889.0	1,805.2	83.75	22.556	
12,006.9	11,970.0	11,976.5	11,890.1	43.0	44.7	86.16	-102.4	1,377.2	1,892.3	1,808.1	84.15	22.486	
12,050.0	12,013.1	12,004.6	11,912.7	43.2	44.7	93.36	-85.6	1,377.1	1,894.4	1,810.1	84.28	22.477	
12,100.0	12,062.7	12,036.7	11,937.4	43.3	44.8	92.51	-65.2	1,377.0	1,897.7	1,813.3	84.41	22.482	
12,150.0	12,111.7	12,068.3	11,960.6	43.5	44.8	91.61	-43.7	1,376.8	1,901.8	1,817.3	84.52	22.502	
12,200.0	12,159.5	12,100.0	11,982.6	43.7	44.9	90.67	-21.0	1,376.7	1,906.6	1,822.0	84.61	22.535	
12,250.0	12,205.9	12,130.3	12,002.5	43.8	44.9	89.71	1.9	1,376.5	1,912.0	1,827.4	84.67	22.582	
12,300.0	12,250.5	12,160.8	12,021.2	43.9	44.9	88.72	26.0	1,376.3	1,918.0	1,833.3	84.72	22.640	
12,350.0	12,293.0	12,191.0	12,038.4	44.1	45.0	87.72	50.7	1,376.2	1,924.5	1,839.7	84.75	22.707	
12,400.0	12,333.0	12,220.9	12,054.3	44.2	45.0	86.71	76.1	1,376.0	1,931.3	1,846.5	84.78	22.781	
12,450.0	12,370.3	12,250.0	12,068.3	44.3	45.0	85.72	101.6	1,375.8	1,938.4	1,853.7	84.79	22.861	
12,500.0	12,404.5	12,280.2	12,081.6	44.3	45.0	84.72	128.7	1,375.6	1,945.8	1,861.0	84.82	22.942	
12,550.0	12,435.4	12,309.6	12,093.0	44.4	45.1	83.76	155.8	1,375.4	1,953.3	1,868.5	84.84	23.023	
12,600.0	12,462.7	12,338.9	12,103.1	44.5	45.1	82.82	183.3	1,375.2	1,960.8	1,876.0	84.87	23.104	
12,650.0	12,486.3	12,368.0	12,111.6	44.5	45.1	81.92	211.1	1,375.0	1,968.4	1,883.5	84.92	23.180	
12,700.0	12,506.0	12,400.0	12,119.4	44.6	45.1	81.05	242.2	1,374.8	1,975.8	1,890.8	84.99	23.247	
12,750.0	12,521.6	12,426.1	12,124.5	44.7	45.2	80.25	267.7	1,374.6	1,983.1	1,898.1	85.06	23.313	
12,800.0	12,533.0	12,450.0	12,128.1	44.7	45.2	79.50	291.4	1,374.5	1,990.2	1,905.1	85.15	23.373	
12,850.0	12,540.1	12,483.9	12,131.5	44.9	45.2	78.81	325.1	1,374.2	1,997.0	1,911.7	85.30	23.411	
12,900.0	12,542.9	12,512.8	12,132.8	45.0	45.3	78.18	354.0	1,374.0	2,003.5	1,918.0	85.46	23.444	
12,915.3	12,542.9	12,521.6	12,132.9	45.0	45.3	78.00	362.8	1,374.0	2,005.4	1,919.9	85.51	23.451	
13,000.0	12,541.7	12,603.3	12,132.6	45.3	45.4	78.14	444.5	1,373.3	2,014.8	1,928.8	85.96	23.438	
13,100.0	12,540.2	12,703.0	12,132.0	45.6	45.7	78.28	544.2	1,372.5	2,022.7	1,936.1	86.60	23.357	
13,200.0	12,538.7	12,802.9	12,131.5	46.0	46.0	78.38	644.0	1,371.7	2,027.2	1,939.8	87.35	23.208	
13,287.8	12,537.4	12,909.3	12,131.1	46.4	46.4	78.44	731.9	1,371.0	2,028.3	1,940.1	88.18	23.002	
13,300.0	12,537.2	12,902.8	12,131.0	46.5	46.4	78.45	744.0	1,370.9	2,028.3	1,940.1	88.20	22.996	
13,400.0	12,535.8	13,002.8	12,130.5	47.0	46.8	78.47	844.0	1,370.1	2,028.1	1,938.9	89.16	22.745	
13,500.0	12,534.3	13,102.8	12,130.0	47.5	47.4	78.50	944.0	1,369.3	2,027.9	1,937.6	90.23	22.473	
13,600.0	12,532.8	13,202.8	12,129.4	48.1	48.0	78.53	1,044.0	1,368.5	2,027.7	1,936.3	91.41	22.182	
13,700.0	12,531.3	13,302.8	12,128.9	48.7	48.6	78.55	1,144.0	1,367.7	2,027.5	1,934.8	92.69	21.875	
13,800.0	12,529.9	13,402.8	12,128.4	49.4	49.3	78.58	1,244.0	1,367.0	2,027.3	1,933.2	94.06	21.553	
13,900.0	12,528.4	13,502.8	12,127.9	50.2	50.0	78.60	1,344.0	1,366.2	2,027.1	1,931.5	95.52	21.221	
14,000.0	12,526.9	13,602.8	12,127.3	51.0	50.8	78.63	1,443.9	1,365.4	2,026.8	1,929.8	97.07	20.879	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	12,525.5	13,702.8	12,126.8	51.8	51.6	78.66	1,543.9	1,364.6	2,026.6	1,927.9	98.71	20.531	
14,200.0	12,524.0	13,802.8	12,126.3	52.6	52.5	78.68	1,643.9	1,363.8	2,026.4	1,926.0	100.43	20.178	
14,300.0	12,522.5	13,902.8	12,125.8	53.5	53.4	78.71	1,743.9	1,363.0	2,026.2	1,924.0	102.22	19.822	
14,400.0	12,521.0	14,002.8	12,125.3	54.5	54.3	78.74	1,843.9	1,362.2	2,026.0	1,922.0	104.09	19.465	
14,500.0	12,519.6	14,102.8	12,124.7	55.4	55.3	78.76	1,943.9	1,361.4	2,025.8	1,919.8	106.02	19.108	
14,600.0	12,518.1	14,202.8	12,124.2	56.4	56.3	78.79	2,043.9	1,360.6	2,025.6	1,917.6	108.02	18.753	
14,700.0	12,516.6	14,302.8	12,123.7	57.4	57.3	78.81	2,143.9	1,359.8	2,025.4	1,915.4	110.08	18.400	
14,800.0	12,515.1	14,402.8	12,123.2	58.5	58.4	78.84	2,243.9	1,359.0	2,025.2	1,913.0	112.20	18.051	
14,900.0	12,513.7	14,502.8	12,122.6	59.6	59.5	78.87	2,343.9	1,358.2	2,025.0	1,910.7	114.37	17.706	
15,000.0	12,512.2	14,602.8	12,122.1	60.7	60.6	78.89	2,443.9	1,357.4	2,024.8	1,908.2	116.59	17.367	
15,100.0	12,510.7	14,702.8	12,121.6	61.8	61.7	78.92	2,543.8	1,356.6	2,024.6	1,905.8	118.87	17.033	
15,200.0	12,509.3	14,802.8	12,121.1	63.0	62.9	78.95	2,643.8	1,355.8	2,024.4	1,903.2	121.19	16.705	
15,300.0	12,507.8	14,902.8	12,120.6	64.2	64.1	78.97	2,743.8	1,355.0	2,024.2	1,900.7	123.55	16.384	
15,400.0	12,506.3	15,002.8	12,120.0	65.4	65.3	79.00	2,843.8	1,354.2	2,024.0	1,898.1	125.95	16.070	
15,500.0	12,504.8	15,102.7	12,119.5	66.6	66.5	79.03	2,943.8	1,353.4	2,023.8	1,895.4	128.40	15.762	
15,600.0	12,503.4	15,202.7	12,119.0	67.8	67.7	79.05	3,043.8	1,352.6	2,023.6	1,892.8	130.88	15.462	
15,700.0	12,501.9	15,302.7	12,118.5	69.1	69.0	79.08	3,143.8	1,351.8	2,023.4	1,890.1	133.39	15.169	
15,800.0	12,500.4	15,402.7	12,118.0	70.3	70.3	79.10	3,243.8	1,351.0	2,023.3	1,887.3	135.94	14.883	
15,900.0	12,498.9	15,502.7	12,117.4	71.6	71.6	79.13	3,343.8	1,350.2	2,023.1	1,884.5	138.52	14.605	
16,000.0	12,497.5	15,602.7	12,116.9	72.9	72.9	79.16	3,443.8	1,349.4	2,022.9	1,881.7	141.13	14.334	
16,100.0	12,496.0	15,702.7	12,116.4	74.3	74.2	79.18	3,543.8	1,348.6	2,022.7	1,878.9	143.76	14.069	
16,200.0	12,494.5	15,802.7	12,115.9	75.6	75.5	79.21	3,643.7	1,347.8	2,022.5	1,876.0	146.42	13.812	
16,300.0	12,493.0	15,902.7	12,115.3	76.9	76.9	79.24	3,743.7	1,347.0	2,022.3	1,873.2	149.11	13.562	
16,400.0	12,491.6	16,002.7	12,114.8	78.3	78.2	79.26	3,843.7	1,346.2	2,022.1	1,870.3	151.82	13.319	
16,500.0	12,490.1	16,102.7	12,114.3	79.6	79.6	79.29	3,943.7	1,345.4	2,021.9	1,867.3	154.56	13.082	
16,600.0	12,488.6	16,202.7	12,113.8	81.0	81.0	79.32	4,043.7	1,344.6	2,021.7	1,864.4	157.31	12.852	
16,700.0	12,487.2	16,302.7	12,113.3	82.4	82.4	79.34	4,143.7	1,343.8	2,021.5	1,861.4	160.09	12.628	
16,800.0	12,485.7	16,402.7	12,112.7	83.8	83.7	79.37	4,243.7	1,343.0	2,021.3	1,858.4	162.88	12.410	
16,900.0	12,484.2	16,502.7	12,112.2	85.2	85.2	79.39	4,343.7	1,342.2	2,021.1	1,855.4	165.69	12.198	
17,000.0	12,482.7	16,602.7	12,111.7	86.6	86.6	79.42	4,443.7	1,341.4	2,020.9	1,852.4	168.52	11.992	
17,100.0	12,481.3	16,702.7	12,111.2	88.1	88.0	79.45	4,543.7	1,340.6	2,020.7	1,849.4	171.37	11.792	
17,200.0	12,479.8	16,802.7	12,110.7	89.5	89.4	79.47	4,643.7	1,339.8	2,020.6	1,846.3	174.23	11.597	
17,300.0	12,478.3	16,902.7	12,110.1	90.9	90.9	79.50	4,743.6	1,339.0	2,020.4	1,843.3	177.11	11.408	
17,400.0	12,476.8	17,002.7	12,109.6	92.4	92.3	79.53	4,843.6	1,338.2	2,020.2	1,840.2	180.00	11.223	
17,500.0	12,475.4	17,102.7	12,109.1	93.8	93.8	79.55	4,943.6	1,337.4	2,020.0	1,837.1	182.90	11.044	
17,600.0	12,473.9	17,202.7	12,108.6	95.3	95.2	79.58	5,043.6	1,336.6	2,019.8	1,834.0	185.82	10.870	
17,700.0	12,472.4	17,302.6	12,108.0	96.7	96.7	79.61	5,143.6	1,335.9	2,019.6	1,830.9	188.75	10.700	
17,800.0	12,471.0	17,402.6	12,107.5	98.2	98.2	79.63	5,243.6	1,335.1	2,019.4	1,827.7	191.69	10.535	
17,900.0	12,469.5	17,502.6	12,107.0	99.7	99.7	79.66	5,343.6	1,334.3	2,019.2	1,824.6	194.65	10.374	
18,000.0	12,468.0	17,602.6	12,106.5	101.2	101.1	79.69	5,443.6	1,333.5	2,019.0	1,821.4	197.61	10.217	
18,100.0	12,466.5	17,702.6	12,106.0	102.7	102.6	79.71	5,543.6	1,332.7	2,018.9	1,818.3	200.59	10.065	
18,200.0	12,465.1	17,802.6	12,105.4	104.2	104.1	79.74	5,643.6	1,331.9	2,018.7	1,815.1	203.57	9.916	
18,300.0	12,463.6	17,902.6	12,104.9	105.7	105.6	79.76	5,743.6	1,331.1	2,018.5	1,811.9	206.57	9.772	
18,400.0	12,462.1	18,002.6	12,104.4	107.2	107.1	79.79	5,843.5	1,330.3	2,018.3	1,808.7	209.57	9.631	
18,500.0	12,460.6	18,102.6	12,103.9	108.7	108.6	79.82	5,943.5	1,329.5	2,018.1	1,805.5	212.58	9.493	
18,600.0	12,459.2	18,202.6	12,103.4	110.2	110.2	79.84	6,043.5	1,328.7	2,017.9	1,802.3	215.60	9.360	
18,700.0	12,457.7	18,302.6	12,102.8	111.7	111.7	79.87	6,143.5	1,327.9	2,017.8	1,799.1	218.63	9.229	
18,800.0	12,456.2	18,402.6	12,102.3	113.2	113.2	79.90	6,243.5	1,327.1	2,017.6	1,795.9	221.67	9.102	
18,900.0	12,454.8	18,502.6	12,101.8	114.8	114.7	79.92	6,343.5	1,326.3	2,017.4	1,792.7	224.71	8.978	
19,000.0	12,453.3	18,602.6	12,101.3	116.3	116.3	79.95	6,443.5	1,325.5	2,017.2	1,789.4	227.76	8.857	
19,100.0	12,451.8	18,702.6	12,100.7	117.8	117.8	79.98	6,543.5	1,324.7	2,017.0	1,786.2	230.82	8.738	
19,200.0	12,450.3	18,802.6	12,100.2	119.3	119.3	80.00	6,643.5	1,323.9	2,016.8	1,783.0	233.89	8.623	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.0	12,448.9	18,902.6	12,099.7	120.9	120.9	80.03	6,743.5	1,323.1	2,016.7	1,779.7	236.96	8.511	
19,400.0	12,447.4	19,002.6	12,099.2	122.4	122.4	80.06	6,843.5	1,322.3	2,016.5	1,776.4	240.04	8.401	
19,500.0	12,445.9	19,102.6	12,098.7	124.0	123.9	80.08	6,943.4	1,321.5	2,016.3	1,773.2	243.12	8.293	
19,600.0	12,444.4	19,202.6	12,098.1	125.5	125.5	80.11	7,043.4	1,320.7	2,016.1	1,769.9	246.21	8.189	
19,700.0	12,443.0	19,302.6	12,097.6	127.1	127.0	80.14	7,143.4	1,319.9	2,015.9	1,766.6	249.30	8.086	
19,800.0	12,441.5	19,402.6	12,097.1	128.6	128.6	80.16	7,243.4	1,319.1	2,015.8	1,763.4	252.40	7.986	
19,900.0	12,440.0	19,502.5	12,096.6	130.2	130.2	80.19	7,343.4	1,318.3	2,015.6	1,760.1	255.51	7.888	
20,000.0	12,438.6	19,602.5	12,096.1	131.7	131.7	80.22	7,443.4	1,317.5	2,015.4	1,756.8	258.62	7.793	
20,100.0	12,437.1	19,702.5	12,095.5	133.3	133.3	80.24	7,543.4	1,316.7	2,015.2	1,753.5	261.74	7.699	
20,200.0	12,435.6	19,802.5	12,095.0	134.9	134.8	80.27	7,643.4	1,315.9	2,015.1	1,750.2	264.86	7.608	
20,300.0	12,434.1	19,902.5	12,094.5	136.4	136.4	80.30	7,743.4	1,315.1	2,014.9	1,746.9	267.98	7.519	
20,400.0	12,432.7	20,002.5	12,094.0	138.0	138.0	80.32	7,843.4	1,314.3	2,014.7	1,743.6	271.11	7.431	
20,500.0	12,431.2	20,102.5	12,093.4	139.6	139.5	80.35	7,943.4	1,313.5	2,014.5	1,740.3	274.24	7.346	
20,600.0	12,429.7	20,202.5	12,092.9	141.1	141.1	80.38	8,043.3	1,312.7	2,014.4	1,737.0	277.38	7.262	
20,700.0	12,428.2	20,302.5	12,092.4	142.7	142.7	80.40	8,143.3	1,311.9	2,014.2	1,733.7	280.52	7.180	
20,800.0	12,426.8	20,402.5	12,091.9	144.3	144.3	80.43	8,243.3	1,311.1	2,014.0	1,730.3	283.67	7.100	
20,900.0	12,425.3	20,502.5	12,091.4	145.9	145.8	80.46	8,343.3	1,310.3	2,013.8	1,727.0	286.82	7.021	
21,000.0	12,423.8	20,602.5	12,090.8	147.4	147.4	80.48	8,443.3	1,309.5	2,013.7	1,723.7	289.97	6.944	
21,100.0	12,422.4	20,702.5	12,090.3	149.0	149.0	80.51	8,543.3	1,308.7	2,013.5	1,720.4	293.13	6.869	
21,200.0	12,420.9	20,802.5	12,089.8	150.6	150.6	80.54	8,643.3	1,307.9	2,013.3	1,717.0	296.29	6.795	
21,300.0	12,419.4	20,902.5	12,089.3	152.2	152.2	80.56	8,743.3	1,307.1	2,013.1	1,713.7	299.45	6.723	
21,400.0	12,417.9	21,002.5	12,088.7	153.8	153.7	80.59	8,843.3	1,306.3	2,013.0	1,710.3	302.62	6.652	
21,500.0	12,416.5	21,102.5	12,088.2	155.3	155.3	80.62	8,943.3	1,305.5	2,012.8	1,707.0	305.78	6.582	
21,600.0	12,415.0	21,202.5	12,087.7	156.9	156.9	80.64	9,043.3	1,304.8	2,012.6	1,703.7	308.96	6.514	
21,700.0	12,413.5	21,302.5	12,087.2	158.5	158.5	80.67	9,143.2	1,304.0	2,012.5	1,700.3	312.13	6.447	
21,800.0	12,412.0	21,402.5	12,086.7	160.1	160.1	80.70	9,243.2	1,303.2	2,012.3	1,697.0	315.31	6.382	
21,900.0	12,410.6	21,502.5	12,086.1	161.7	161.7	80.72	9,343.2	1,302.4	2,012.1	1,693.6	318.49	6.318	
22,000.0	12,409.1	21,602.5	12,085.6	163.3	163.3	80.75	9,443.2	1,301.6	2,011.9	1,690.3	321.68	6.255	
22,100.0	12,407.6	21,702.5	12,085.1	164.9	164.9	80.78	9,543.2	1,300.8	2,011.8	1,686.9	324.86	6.193	
22,200.0	12,406.1	21,802.4	12,084.6	166.5	166.5	80.80	9,643.2	1,300.0	2,011.6	1,683.6	328.05	6.132	
22,300.0	12,404.7	21,902.4	12,084.1	168.1	168.1	80.83	9,743.2	1,299.2	2,011.4	1,680.2	331.24	6.072	
22,400.0	12,403.2	22,002.4	12,083.5	169.7	169.7	80.86	9,843.2	1,298.4	2,011.3	1,676.8	334.44	6.014	
22,500.0	12,401.7	22,102.4	12,083.0	171.3	171.3	80.88	9,943.2	1,297.6	2,011.1	1,673.5	337.64	5.956	
22,600.0	12,400.3	22,202.4	12,082.5	172.9	172.9	80.91	10,043.2	1,296.8	2,010.9	1,670.1	340.83	5.900	
22,700.0	12,398.8	22,302.4	12,082.0	174.5	174.5	80.94	10,143.2	1,296.0	2,010.8	1,666.7	344.04	5.845	
22,787.3	12,397.5	22,389.7	12,081.5	175.7	175.9	80.96	10,230.4	1,295.3	2,010.6	1,664.0	346.67	5.800 ES, SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	89.34	26.5	2,313.1	2,313.2				
100.0	100.0	100.0	100.0	0.1	0.1	89.34	26.5	2,313.1	2,313.2	2,313.0	0.26	9,025.261	
200.0	200.0	200.0	200.0	0.5	0.5	89.34	26.5	2,313.1	2,313.2	2,312.3	0.97	2,376.821	
300.0	300.0	300.0	300.0	0.8	0.8	89.34	26.5	2,313.1	2,313.2	2,311.6	1.69	1,368.625	
400.0	400.0	400.0	400.0	1.2	1.2	89.34	26.5	2,313.1	2,313.2	2,310.8	2.41	960.993	
500.0	500.0	500.0	500.0	1.6	1.6	89.34	26.5	2,313.1	2,313.2	2,310.1	3.12	740.456	
600.0	600.0	600.0	600.0	1.9	1.9	89.34	26.5	2,313.1	2,313.2	2,309.4	3.84	602.246	
700.0	700.0	700.0	700.0	2.3	2.3	89.34	26.5	2,313.1	2,313.2	2,308.7	4.56	507.516	
800.0	800.0	800.0	800.0	2.6	2.6	89.34	26.5	2,313.1	2,313.2	2,308.0	5.27	438.537	
900.0	900.0	900.0	900.0	3.0	3.0	89.34	26.5	2,313.1	2,313.2	2,307.3	5.99	386.065	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	89.34	26.5	2,313.1	2,313.2	2,306.5	6.71	344.807	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	89.34	26.5	2,313.1	2,313.2	2,305.8	7.43	311.517	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	89.34	26.5	2,313.1	2,313.2	2,305.1	8.14	284.088	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	89.34	26.5	2,313.1	2,313.2	2,304.4	8.86	261.099	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	89.34	26.5	2,313.1	2,313.2	2,303.7	9.58	241.552	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	89.34	26.5	2,313.1	2,313.2	2,302.9	10.29	224.728 CC, ES	
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	-156.44	26.5	2,313.1	2,314.0	2,303.0	11.00	210.410	
1,700.0	1,700.0	1,700.0	1,700.0	5.8	5.9	-156.46	26.5	2,313.1	2,316.4	2,304.7	11.69	198.125	
1,800.0	1,799.9	1,800.1	1,799.9	6.2	6.2	-156.49	26.5	2,313.1	2,320.4	2,308.1	12.39	187.302	
1,900.0	1,899.7	1,900.3	1,899.7	6.5	6.6	-156.52	26.5	2,313.1	2,326.0	2,313.0	13.09	177.718	
2,000.0	1,999.4	2,000.6	1,999.4	6.9	6.9	-156.57	26.5	2,313.1	2,333.2	2,319.5	13.79	169.190	
2,100.0	2,098.9	2,101.1	2,098.9	7.2	7.3	-156.63	26.5	2,313.1	2,342.0	2,327.6	14.50	161.569	
2,200.0	2,198.3	2,201.7	2,198.3	7.6	7.7	-156.70	26.5	2,313.1	2,352.5	2,337.2	15.20	154.731	
2,300.0	2,297.4	2,302.6	2,297.4	7.9	8.0	-156.77	26.5	2,313.1	2,364.5	2,348.5	15.91	148.575	
2,400.0	2,396.4	2,403.6	2,396.4	8.3	8.4	-156.91	26.5	2,313.1	2,377.3	2,360.6	16.63	142.975	
2,500.0	2,495.5	2,495.5	2,495.5	8.7	8.7	-157.04	26.5	2,313.1	2,390.1	2,372.8	17.31	138.082	
2,600.0	2,594.5	2,569.5	2,569.5	9.1	9.0	-157.13	26.3	2,313.5	2,403.4	2,385.5	17.92	134.147	
2,700.0	2,693.5	2,642.3	2,642.2	9.5	9.2	-157.21	25.6	2,314.6	2,417.8	2,399.3	18.51	130.612	
2,800.0	2,792.5	2,714.8	2,714.7	9.8	9.5	-157.27	24.5	2,316.6	2,433.3	2,414.2	19.10	127.393	
2,900.0	2,891.6	2,787.1	2,787.0	10.2	9.7	-157.33	22.9	2,319.3	2,449.9	2,430.2	19.69	124.431	
3,000.0	2,990.6	2,859.1	2,858.9	10.6	9.9	-157.37	20.9	2,322.9	2,467.5	2,447.2	20.27	121.705	
3,100.0	3,089.6	2,930.9	2,930.5	11.0	10.2	-157.40	18.5	2,327.2	2,486.2	2,465.3	20.86	119.196	
3,200.0	3,188.6	3,000.0	2,999.4	11.4	10.4	-157.41	15.7	2,332.0	2,505.9	2,484.5	21.43	116.945	
3,300.0	3,287.7	3,073.6	3,072.7	11.8	10.7	-157.42	12.3	2,338.0	2,526.6	2,504.6	22.02	114.763	
3,400.0	3,386.7	3,144.5	3,143.2	12.2	10.9	-157.42	8.6	2,344.6	2,548.4	2,525.8	22.59	112.807	
3,500.0	3,485.7	3,215.0	3,213.2	12.6	11.2	-157.40	4.4	2,351.8	2,571.2	2,548.1	23.16	111.009	
3,600.0	3,584.8	3,285.2	3,282.8	13.0	11.4	-157.38	-0.1	2,359.8	2,595.1	2,571.3	23.73	109.355	
3,700.0	3,683.8	3,376.4	3,373.1	13.4	11.8	-157.34	-6.4	2,370.8	2,619.6	2,595.2	24.40	107.363	
3,800.0	3,782.8	3,473.3	3,469.1	13.8	12.1	-157.30	-13.0	2,382.5	2,644.2	2,619.1	25.10	105.352	
3,900.0	3,881.8	3,570.3	3,565.0	14.3	12.5	-157.26	-19.7	2,394.2	2,668.7	2,642.9	25.80	103.438	
4,000.0	3,980.9	3,667.2	3,661.0	14.7	12.8	-157.22	-26.4	2,405.9	2,693.3	2,666.8	26.50	101.616	
4,100.0	4,079.9	3,764.1	3,757.0	15.1	13.2	-157.18	-33.1	2,417.7	2,717.8	2,690.6	27.21	99.879	
4,200.0	4,178.9	3,861.0	3,853.0	15.5	13.5	-157.14	-39.8	2,429.4	2,742.4	2,714.4	27.92	98.223	
4,300.0	4,277.9	3,958.0	3,949.0	15.9	13.9	-157.10	-46.4	2,441.1	2,766.9	2,738.3	28.63	96.642	
4,400.0	4,377.0	4,054.9	4,044.9	16.3	14.3	-157.06	-53.1	2,452.8	2,791.5	2,762.1	29.34	95.131	
4,500.0	4,476.0	4,151.8	4,140.9	16.7	14.7	-157.02	-59.8	2,464.5	2,816.0	2,786.0	30.06	93.687	
4,600.0	4,575.0	4,248.7	4,236.9	17.1	15.0	-156.99	-66.5	2,476.3	2,840.6	2,809.8	30.77	92.304	
4,700.0	4,674.0	4,345.6	4,332.9	17.5	15.4	-156.95	-73.1	2,488.0	2,865.2	2,833.7	31.49	90.980	
4,800.0	4,773.1	4,442.6	4,428.8	18.0	15.8	-156.92	-79.8	2,499.7	2,889.7	2,857.5	32.21	89.712	
4,900.0	4,872.1	4,539.5	4,524.8	18.4	16.2	-156.88	-86.5	2,511.4	2,914.3	2,881.3	32.93	88.495	
5,000.0	4,971.1	4,636.4	4,620.8	18.8	16.5	-156.85	-93.2	2,523.1	2,938.8	2,905.2	33.65	87.327	
5,100.0	5,070.2	4,733.3	4,716.8	19.2	16.9	-156.82	-99.9	2,534.9	2,963.4	2,929.0	34.38	86.205	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	4,830.2	4,812.8	19.6	17.3	-156.78	-106.5	2,546.6	2,988.0	2,952.9	35.10	85.127	
5,300.0	5,268.2	4,927.2	4,908.7	20.0	17.7	-156.75	-113.2	2,558.3	3,012.5	2,976.7	35.83	84.090	
5,400.0	5,367.2	5,024.1	5,004.7	20.5	18.1	-156.72	-119.9	2,570.0	3,037.1	3,000.6	36.55	83.092	
5,500.0	5,466.3	5,121.0	5,100.7	20.9	18.5	-156.69	-126.6	2,581.7	3,061.7	3,024.4	37.28	82.130	
5,600.0	5,565.3	5,217.9	5,196.7	21.3	18.9	-156.66	-133.2	2,593.5	3,086.2	3,048.2	38.01	81.204	
5,643.3	5,608.2	5,260.0	5,238.3	21.5	19.0	-156.64	-136.1	2,598.5	3,096.9	3,058.6	38.32	80.813	
5,700.0	5,664.4	5,314.9	5,292.7	21.7	19.2	-156.71	-139.9	2,605.2	3,110.4	3,071.7	38.73	80.302	
5,800.0	5,763.7	5,412.4	5,389.3	22.1	19.6	-156.79	-146.6	2,617.0	3,132.5	3,093.1	39.46	79.383	
5,900.0	5,863.4	5,510.4	5,486.3	22.5	20.0	-156.84	-153.4	2,628.8	3,152.2	3,112.1	40.19	78.441	
6,000.0	5,963.2	5,608.8	5,583.7	22.8	20.4	-156.86	-160.2	2,640.7	3,169.6	3,128.7	40.91	77.479	
6,100.0	6,063.1	5,707.5	5,681.4	23.2	20.8	-156.84	-167.0	2,652.7	3,184.6	3,143.0	41.63	76.499	
6,176.7	6,139.8	5,783.3	5,756.6	23.4	21.1	88.97	-172.2	2,661.8	3,194.5	3,152.3	42.17	75.747	
6,200.0	6,163.1	5,806.4	5,779.4	23.5	21.2	89.00	-173.8	2,664.6	3,197.3	3,155.0	42.34	75.520	
6,300.0	6,263.1	6,097.3	6,068.5	23.8	22.4	89.29	-189.3	2,691.9	3,207.1	3,163.1	44.00	72.885	
6,400.0	6,363.1	6,407.9	6,363.1	24.2	23.5	89.38	-194.0	2,700.1	3,209.4	3,163.9	45.54	70.481	
6,500.0	6,463.1	6,507.9	6,463.1	24.5	23.8	89.38	-194.0	2,700.1	3,209.4	3,163.2	46.21	69.454	
6,600.0	6,563.1	6,607.9	6,563.1	24.8	24.1	89.38	-194.0	2,700.1	3,209.4	3,162.5	46.88	68.454	
6,700.0	6,663.1	6,707.9	6,663.1	25.1	24.5	89.38	-194.0	2,700.1	3,209.4	3,161.8	47.56	67.481	
6,800.0	6,763.1	6,807.9	6,763.1	25.4	24.8	89.38	-194.0	2,700.1	3,209.4	3,161.1	48.24	66.533	
6,900.0	6,863.1	6,907.9	6,863.1	25.8	25.1	89.38	-194.0	2,700.1	3,209.4	3,160.5	48.92	65.610	
7,000.0	6,963.1	7,007.9	6,963.1	26.1	25.5	89.38	-194.0	2,700.1	3,209.4	3,159.8	49.60	64.712	
7,100.0	7,063.1	7,107.9	7,063.1	26.4	25.8	89.38	-194.0	2,700.1	3,209.4	3,159.1	50.28	63.836	
7,200.0	7,163.1	7,207.9	7,163.1	26.7	26.1	89.38	-194.0	2,700.1	3,209.4	3,158.4	50.96	62.982	
7,300.0	7,263.1	7,307.9	7,263.1	27.1	26.5	89.38	-194.0	2,700.1	3,209.4	3,157.7	51.64	62.149	
7,400.0	7,363.1	7,407.9	7,363.1	27.4	26.8	89.38	-194.0	2,700.1	3,209.4	3,157.1	52.32	61.338	
7,500.0	7,463.1	7,507.9	7,463.1	27.7	27.1	89.38	-194.0	2,700.1	3,209.4	3,156.4	53.01	60.546	
7,600.0	7,563.1	7,607.9	7,563.1	28.1	27.5	89.38	-194.0	2,700.1	3,209.4	3,155.7	53.69	59.773	
7,700.0	7,663.1	7,707.9	7,663.1	28.4	27.8	89.38	-194.0	2,700.1	3,209.4	3,155.0	54.38	59.019	
7,800.0	7,763.1	7,807.9	7,763.1	28.7	28.2	89.38	-194.0	2,700.1	3,209.4	3,154.3	55.07	58.283	
7,900.0	7,863.1	7,907.9	7,863.1	29.0	28.5	89.38	-194.0	2,700.1	3,209.4	3,153.6	55.75	57.564	
8,000.0	7,963.1	8,007.9	7,963.1	29.4	28.8	89.38	-194.0	2,700.1	3,209.4	3,152.9	56.44	56.862	
8,100.0	8,063.1	8,107.9	8,063.1	29.7	29.2	89.38	-194.0	2,700.1	3,209.4	3,152.3	57.13	56.177	
8,200.0	8,163.1	8,207.9	8,163.1	30.0	29.5	89.38	-194.0	2,700.1	3,209.4	3,151.6	57.82	55.507	
8,300.0	8,263.1	8,307.9	8,263.1	30.4	29.9	89.38	-194.0	2,700.1	3,209.4	3,150.9	58.51	54.852	
8,400.0	8,363.1	8,407.9	8,363.1	30.7	30.2	89.38	-194.0	2,700.1	3,209.4	3,150.2	59.20	54.212	
8,500.0	8,463.1	8,507.9	8,463.1	31.0	30.5	89.38	-194.0	2,700.1	3,209.4	3,149.5	59.89	53.586	
8,600.0	8,563.1	8,607.9	8,563.1	31.4	30.9	89.38	-194.0	2,700.1	3,209.4	3,148.8	60.58	52.973	
8,700.0	8,663.1	8,707.9	8,663.1	31.7	31.2	89.38	-194.0	2,700.1	3,209.4	3,148.1	61.28	52.375	
8,800.0	8,763.1	8,807.9	8,763.1	32.1	31.6	89.38	-194.0	2,700.1	3,209.4	3,147.4	61.97	51.789	
8,900.0	8,863.1	8,907.9	8,863.1	32.4	31.9	89.38	-194.0	2,700.1	3,209.4	3,146.7	62.66	51.215	
9,000.0	8,963.1	9,007.9	8,963.1	32.7	32.3	89.38	-194.0	2,700.1	3,209.4	3,146.0	63.36	50.654	
9,100.0	9,063.1	9,107.9	9,063.1	33.1	32.6	89.38	-194.0	2,700.1	3,209.4	3,145.3	64.05	50.105	
9,200.0	9,163.1	9,207.9	9,163.1	33.4	33.0	89.38	-194.0	2,700.1	3,209.4	3,144.6	64.75	49.567	
9,300.0	9,263.1	9,307.9	9,263.1	33.7	33.3	89.38	-194.0	2,700.1	3,209.4	3,143.9	65.44	49.040	
9,400.0	9,363.1	9,407.9	9,363.1	34.1	33.6	89.38	-194.0	2,700.1	3,209.4	3,143.2	66.14	48.524	
9,500.0	9,463.1	9,507.9	9,463.1	34.4	34.0	89.38	-194.0	2,700.1	3,209.4	3,142.5	66.84	48.018	
9,600.0	9,563.1	9,607.9	9,563.1	34.8	34.3	89.38	-194.0	2,700.1	3,209.4	3,141.9	67.53	47.522	
9,700.0	9,663.1	9,707.9	9,663.1	35.1	34.7	89.38	-194.0	2,700.1	3,209.4	3,141.2	68.23	47.036	
9,800.0	9,763.1	9,807.9	9,763.1	35.4	35.0	89.38	-194.0	2,700.1	3,209.4	3,140.5	68.93	46.560	
9,900.0	9,863.1	9,907.9	9,863.1	35.8	35.4	89.38	-194.0	2,700.1	3,209.4	3,139.8	69.63	46.093	
10,000.0	9,963.1	10,007.9	9,963.1	36.1	35.7	89.38	-194.0	2,700.1	3,209.4	3,139.1	70.33	45.635	
10,100.0	10,063.1	10,107.9	10,063.1	36.5	36.1	89.38	-194.0	2,700.1	3,209.4	3,138.4	71.03	45.186	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,163.1	10,207.9	10,163.1	36.8	36.4	89.38	-194.0	2,700.1	3,209.4	3,137.7	71.73	44.746	
10,300.0	10,263.1	10,307.9	10,263.1	37.1	36.8	89.38	-194.0	2,700.1	3,209.4	3,137.0	72.42	44.313	
10,400.0	10,363.1	10,407.9	10,363.1	37.5	37.1	89.38	-194.0	2,700.1	3,209.4	3,136.3	73.12	43.889	
10,500.0	10,463.1	10,507.9	10,463.1	37.8	37.5	89.38	-194.0	2,700.1	3,209.4	3,135.6	73.83	43.473	
10,600.0	10,563.1	10,607.9	10,563.1	38.2	37.8	89.38	-194.0	2,700.1	3,209.4	3,134.9	74.53	43.064	
10,700.0	10,663.1	10,707.9	10,663.1	38.5	38.2	89.38	-194.0	2,700.1	3,209.4	3,134.2	75.23	42.663	
10,800.0	10,763.1	10,807.9	10,763.1	38.9	38.5	89.38	-194.0	2,700.1	3,209.4	3,133.5	75.93	42.269	
10,900.0	10,863.1	10,907.9	10,863.1	39.2	38.9	89.38	-194.0	2,700.1	3,209.4	3,132.8	76.63	41.882	
11,000.0	10,963.1	11,007.9	10,963.1	39.6	39.2	89.38	-194.0	2,700.1	3,209.4	3,132.1	77.33	41.502	
11,100.0	11,063.1	11,107.9	11,063.1	39.9	39.6	89.38	-194.0	2,700.1	3,209.4	3,131.4	78.03	41.128	
11,200.0	11,163.1	11,207.9	11,163.1	40.2	39.9	89.38	-194.0	2,700.1	3,209.4	3,130.7	78.74	40.761	
11,300.0	11,263.1	11,307.9	11,263.1	40.6	40.3	89.38	-194.0	2,700.1	3,209.4	3,129.9	79.44	40.401	
11,400.0	11,363.1	11,407.9	11,363.1	40.9	40.6	89.38	-194.0	2,700.1	3,209.4	3,129.2	80.14	40.046	
11,500.0	11,463.1	11,507.9	11,463.1	41.3	41.0	89.38	-194.0	2,700.1	3,209.4	3,128.5	80.84	39.698	
11,600.0	11,563.1	11,592.1	11,563.1	41.6	41.2	89.38	-194.0	2,700.1	3,209.4	3,127.9	81.49	39.383	
11,700.0	11,663.1	11,689.3	11,659.9	42.0	41.6	89.25	-186.7	2,700.0	3,209.4	3,127.3	82.17	39.056	
11,800.0	11,763.1	11,781.4	11,749.3	42.3	41.9	88.86	-164.9	2,699.9	3,209.7	3,126.9	82.81	38.759	
11,900.0	11,863.1	11,864.7	11,826.2	42.7	42.1	88.29	-133.0	2,699.7	3,210.4	3,127.0	83.39	38.497	
12,006.9	11,970.0	11,942.0	11,892.7	43.0	42.3	87.59	-93.8	2,699.4	3,212.3	3,128.3	83.95	38.263	
12,050.0	12,013.1	11,970.5	11,915.8	43.2	42.3	95.07	-77.1	2,699.3	3,213.6	3,129.4	84.16	38.185	
12,100.0	12,062.7	12,003.0	11,941.1	43.3	42.4	94.55	-56.7	2,699.1	3,215.8	3,131.4	84.38	38.109	
12,150.0	12,111.7	12,034.9	11,964.8	43.5	42.5	93.97	-35.3	2,699.0	3,218.7	3,134.1	84.59	38.049	
12,200.0	12,159.5	12,066.5	11,987.0	43.7	42.5	93.35	-12.9	2,698.8	3,222.3	3,137.5	84.79	38.002	
12,250.0	12,205.9	12,100.0	12,009.2	43.8	42.6	92.66	12.2	2,698.7	3,226.4	3,141.4	84.98	37.966	
12,300.0	12,250.5	12,128.4	12,026.8	43.9	42.6	91.98	34.4	2,698.5	3,231.1	3,145.9	85.14	37.949	
12,350.0	12,293.0	12,158.9	12,044.5	44.1	42.6	91.26	59.3	2,698.3	3,236.3	3,151.0	85.30	37.938	
12,400.0	12,333.0	12,189.1	12,060.7	44.2	42.6	90.50	84.8	2,698.1	3,241.9	3,156.4	85.45	37.937	
12,450.0	12,370.3	12,219.1	12,075.4	44.3	42.7	89.74	111.0	2,698.0	3,247.8	3,162.2	85.60	37.942	
12,500.0	12,404.5	12,250.0	12,089.1	44.3	42.7	88.95	138.6	2,697.8	3,254.1	3,168.3	85.74	37.952	
12,550.0	12,435.4	12,278.6	12,100.5	44.4	42.7	88.17	164.9	2,697.6	3,260.6	3,174.7	85.88	37.968	
12,600.0	12,462.7	12,308.2	12,110.8	44.5	42.7	87.39	192.6	2,697.4	3,267.2	3,181.2	86.02	37.984	
12,650.0	12,486.3	12,337.6	12,119.7	44.5	42.7	86.61	220.6	2,697.2	3,274.0	3,187.9	86.16	38.000	
12,700.0	12,506.0	12,366.9	12,127.0	44.6	42.8	85.85	249.0	2,697.0	3,280.9	3,194.6	86.31	38.015	
12,750.0	12,521.6	12,400.0	12,133.6	44.7	42.9	85.10	281.4	2,696.8	3,287.7	3,201.3	86.47	38.021	
12,800.0	12,533.0	12,425.4	12,137.4	44.7	42.9	84.39	306.5	2,696.6	3,294.5	3,207.9	86.62	38.033	
12,850.0	12,540.1	12,450.0	12,140.0	44.9	43.0	83.71	331.0	2,696.4	3,301.2	3,214.4	86.78	38.041	
12,900.0	12,542.9	12,483.7	12,141.8	45.0	43.1	83.07	364.6	2,696.2	3,307.7	3,220.7	86.97	38.032	
12,915.3	12,542.9	12,492.6	12,141.9	45.0	43.1	82.88	373.5	2,696.1	3,309.6	3,222.6	87.03	38.029	
13,000.0	12,541.7	12,573.8	12,141.5	45.3	43.4	82.96	454.7	2,695.5	3,319.2	3,231.7	87.48	37.943	
13,100.0	12,540.2	12,673.4	12,140.9	45.6	43.7	83.04	554.4	2,694.7	3,327.3	3,239.2	88.12	37.758	
13,200.0	12,538.7	12,773.3	12,140.3	46.0	44.1	83.10	654.3	2,693.9	3,332.0	3,243.1	88.88	37.488	
13,287.8	12,537.4	12,861.1	12,139.8	46.4	44.5	83.15	742.1	2,693.2	3,333.2	3,243.6	89.64	37.184	
13,300.0	12,537.2	12,873.3	12,139.7	46.5	44.5	83.15	754.2	2,693.1	3,333.2	3,243.4	89.75	37.139	
13,400.0	12,535.8	12,973.3	12,139.1	47.0	45.0	83.17	854.2	2,692.3	3,333.1	3,242.3	90.73	36.737	
13,500.0	12,534.3	13,073.3	12,138.5	47.5	45.6	83.18	954.2	2,691.5	3,332.9	3,241.1	91.82	36.300	
13,600.0	12,532.8	13,173.3	12,137.9	48.1	46.2	83.20	1,054.2	2,690.7	3,332.8	3,239.8	93.01	35.834	
13,700.0	12,531.3	13,273.3	12,137.3	48.7	46.9	83.21	1,154.2	2,689.9	3,332.7	3,238.4	94.30	35.342	
13,800.0	12,529.9	13,373.3	12,136.7	49.4	47.6	83.22	1,254.2	2,689.1	3,332.6	3,236.9	95.69	34.828	
13,900.0	12,528.4	13,473.3	12,136.1	50.2	48.3	83.24	1,354.2	2,688.3	3,332.5	3,235.3	97.17	34.296	
14,000.0	12,526.9	13,573.3	12,135.5	51.0	49.1	83.25	1,454.2	2,687.5	3,332.4	3,233.6	98.74	33.750	
14,100.0	12,525.5	13,673.3	12,134.9	51.8	49.9	83.27	1,554.2	2,686.7	3,332.2	3,231.9	100.39	33.193	
14,200.0	12,524.0	13,773.3	12,134.3	52.6	50.8	83.28	1,654.2	2,685.9	3,332.1	3,230.0	102.12	32.629	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,300.0	12,522.5	13,873.3	12,133.7	53.5	51.7	83.30	1,754.1	2,685.1	3,332.0	3,228.1	103.93	32.060	
14,400.0	12,521.0	13,973.2	12,133.1	54.5	52.7	83.31	1,854.1	2,684.4	3,331.9	3,226.1	105.81	31.489	
14,500.0	12,519.6	14,073.2	12,132.5	55.4	53.7	83.33	1,954.1	2,683.6	3,331.8	3,224.0	107.76	30.918	
14,600.0	12,518.1	14,173.2	12,131.9	56.4	54.7	83.34	2,054.1	2,682.8	3,331.7	3,221.9	109.77	30.350	
14,700.0	12,516.6	14,273.2	12,131.3	57.4	55.7	83.36	2,154.1	2,682.0	3,331.5	3,219.7	111.85	29.786	
14,800.0	12,515.1	14,373.2	12,130.7	58.5	56.8	83.37	2,254.1	2,681.2	3,331.4	3,217.4	113.98	29.228	
14,900.0	12,513.7	14,473.2	12,130.1	59.6	57.9	83.39	2,354.1	2,680.4	3,331.3	3,215.1	116.17	28.677	
15,000.0	12,512.2	14,573.2	12,129.5	60.7	59.0	83.40	2,454.1	2,679.6	3,331.2	3,212.8	118.41	28.133	
15,100.0	12,510.7	14,673.2	12,128.9	61.8	60.2	83.42	2,554.1	2,678.8	3,331.1	3,210.4	120.70	27.599	
15,200.0	12,509.3	14,773.2	12,128.3	63.0	61.4	83.43	2,654.1	2,678.0	3,331.0	3,207.9	123.03	27.075	
15,300.0	12,507.8	14,873.2	12,127.7	64.2	62.6	83.45	2,754.1	2,677.2	3,330.9	3,205.4	125.41	26.560	
15,400.0	12,506.3	14,973.2	12,127.1	65.4	63.8	83.46	2,854.0	2,676.4	3,330.7	3,202.9	127.82	26.057	
15,500.0	12,504.8	15,073.2	12,126.5	66.6	65.0	83.48	2,954.0	2,675.6	3,330.6	3,200.3	130.28	25.565	
15,600.0	12,503.4	15,173.2	12,125.8	67.8	66.3	83.49	3,054.0	2,674.8	3,330.5	3,197.7	132.78	25.084	
15,700.0	12,501.9	15,273.2	12,125.2	69.1	67.6	83.51	3,154.0	2,674.0	3,330.4	3,195.1	135.30	24.614	
15,800.0	12,500.4	15,373.2	12,124.6	70.3	68.8	83.52	3,254.0	2,673.2	3,330.3	3,192.4	137.87	24.156	
15,900.0	12,498.9	15,473.2	12,124.0	71.6	70.1	83.54	3,354.0	2,672.4	3,330.2	3,189.7	140.46	23.709	
16,000.0	12,497.5	15,573.2	12,123.4	72.9	71.5	83.55	3,454.0	2,671.6	3,330.1	3,187.0	143.08	23.274	
16,100.0	12,496.0	15,673.2	12,122.8	74.3	72.8	83.57	3,554.0	2,670.8	3,329.9	3,184.2	145.73	22.850	
16,200.0	12,494.5	15,773.2	12,122.2	75.6	74.1	83.58	3,654.0	2,670.0	3,329.8	3,181.4	148.41	22.437	
16,300.0	12,493.0	15,873.2	12,121.6	76.9	75.5	83.60	3,754.0	2,669.2	3,329.7	3,178.6	151.11	22.036	
16,400.0	12,491.6	15,973.2	12,121.0	78.3	76.9	83.61	3,854.0	2,668.4	3,329.6	3,175.8	153.83	21.645	
16,500.0	12,490.1	16,073.2	12,120.4	79.6	78.3	83.63	3,954.0	2,667.6	3,329.5	3,172.9	156.58	21.264	
16,600.0	12,488.6	16,173.2	12,119.8	81.0	79.7	83.64	4,053.9	2,666.8	3,329.4	3,170.0	159.34	20.894	
16,700.0	12,487.2	16,273.2	12,119.2	82.4	81.1	83.66	4,153.9	2,666.0	3,329.3	3,167.1	162.13	20.534	
16,800.0	12,485.7	16,373.2	12,118.6	83.8	82.5	83.67	4,253.9	2,665.2	3,329.2	3,164.2	164.94	20.184	
16,900.0	12,484.2	16,473.2	12,118.0	85.2	83.9	83.68	4,353.9	2,664.4	3,329.1	3,161.3	167.76	19.844	
17,000.0	12,482.7	16,573.1	12,117.4	86.6	85.3	83.70	4,453.9	2,663.7	3,328.9	3,158.3	170.61	19.512	
17,100.0	12,481.3	16,673.1	12,116.8	88.1	86.8	83.71	4,553.9	2,662.9	3,328.8	3,155.4	173.47	19.190	
17,200.0	12,479.8	16,773.1	12,116.2	89.5	88.2	83.73	4,653.9	2,662.1	3,328.7	3,152.4	176.34	18.877	
17,300.0	12,478.3	16,873.1	12,115.6	90.9	89.6	83.74	4,753.9	2,661.3	3,328.6	3,149.4	179.23	18.572	
17,400.0	12,476.8	16,973.1	12,115.0	92.4	91.1	83.76	4,853.9	2,660.5	3,328.5	3,146.4	182.13	18.275	
17,500.0	12,475.4	17,073.1	12,114.4	93.8	92.6	83.77	4,953.9	2,659.7	3,328.4	3,143.3	185.05	17.986	
17,600.0	12,473.9	17,173.1	12,113.8	95.3	94.0	83.79	5,053.9	2,658.9	3,328.3	3,140.3	187.98	17.706	
17,700.0	12,472.4	17,273.1	12,113.2	96.7	95.5	83.80	5,153.8	2,658.1	3,328.2	3,137.3	190.92	17.432	
17,800.0	12,471.0	17,373.1	12,112.6	98.2	97.0	83.82	5,253.8	2,657.3	3,328.1	3,134.2	193.88	17.166	
17,900.0	12,469.5	17,473.1	12,112.0	99.7	98.5	83.83	5,353.8	2,656.5	3,328.0	3,131.1	196.84	16.907	
18,000.0	12,468.0	17,573.1	12,111.4	101.2	100.0	83.85	5,453.8	2,655.7	3,327.9	3,128.0	199.82	16.654	
18,100.0	12,466.5	17,673.1	12,110.8	102.7	101.5	83.86	5,553.8	2,654.9	3,327.7	3,124.9	202.80	16.409	
18,200.0	12,465.1	17,773.1	12,110.2	104.2	103.0	83.88	5,653.8	2,654.1	3,327.6	3,121.8	205.80	16.169	
18,300.0	12,463.6	17,873.1	12,109.6	105.7	104.5	83.89	5,753.8	2,653.3	3,327.5	3,118.7	208.81	15.936	
18,400.0	12,462.1	17,973.1	12,109.0	107.2	106.0	83.91	5,853.8	2,652.5	3,327.4	3,115.6	211.82	15.709	
18,500.0	12,460.6	18,073.1	12,108.4	108.7	107.5	83.92	5,953.8	2,651.7	3,327.3	3,112.5	214.84	15.487	
18,600.0	12,459.2	18,173.1	12,107.8	110.2	109.1	83.94	6,053.8	2,650.9	3,327.2	3,109.3	217.88	15.271	
18,700.0	12,457.7	18,273.1	12,107.2	111.7	110.6	83.95	6,153.8	2,650.1	3,327.1	3,106.2	220.91	15.061	
18,800.0	12,456.2	18,373.1	12,106.6	113.2	112.1	83.97	6,253.8	2,649.3	3,327.0	3,103.0	223.96	14.855	
18,900.0	12,454.8	18,473.1	12,106.0	114.8	113.6	83.98	6,353.7	2,648.5	3,326.9	3,099.9	227.02	14.655	
19,000.0	12,453.3	18,573.1	12,105.4	116.3	115.2	84.00	6,453.7	2,647.7	3,326.8	3,096.7	230.08	14.459	
19,100.0	12,451.8	18,673.1	12,104.8	117.8	116.7	84.01	6,553.7	2,646.9	3,326.7	3,093.5	233.15	14.269	
19,200.0	12,450.3	18,773.1	12,104.2	119.3	118.3	84.03	6,653.7	2,646.1	3,326.6	3,090.3	236.22	14.082	
19,300.0	12,448.9	18,873.1	12,103.6	120.9	119.8	84.04	6,753.7	2,645.3	3,326.5	3,087.2	239.30	13.901	
19,400.0	12,447.4	18,973.1	12,103.0	122.4	121.4	84.06	6,853.7	2,644.5	3,326.4	3,084.0	242.39	13.723	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,500.0	12,445.9	19,073.1	12,102.4	124.0	122.9	84.07	6,953.7	2,643.7	3,326.3	3,080.8	245.48	13.550	
19,600.0	12,444.4	19,173.1	12,101.7	125.5	124.5	84.09	7,053.7	2,642.9	3,326.1	3,077.6	248.58	13.381	
19,700.0	12,443.0	19,273.0	12,101.1	127.1	126.0	84.10	7,153.7	2,642.2	3,326.0	3,074.4	251.69	13.215	
19,800.0	12,441.5	19,373.0	12,100.5	128.6	127.6	84.12	7,253.7	2,641.4	3,325.9	3,071.1	254.79	13.053	
19,900.0	12,440.0	19,473.0	12,099.9	130.2	129.2	84.13	7,353.7	2,640.6	3,325.8	3,067.9	257.91	12.895	
20,000.0	12,438.6	19,573.0	12,099.3	131.7	130.7	84.15	7,453.6	2,639.8	3,325.7	3,064.7	261.03	12.741	
20,100.0	12,437.1	19,673.0	12,098.7	133.3	132.3	84.16	7,553.6	2,639.0	3,325.6	3,061.5	264.15	12.590	
20,200.0	12,435.6	19,773.0	12,098.1	134.9	133.9	84.18	7,653.6	2,638.2	3,325.5	3,058.2	267.28	12.442	
20,300.0	12,434.1	19,873.0	12,097.5	136.4	135.4	84.19	7,753.6	2,637.4	3,325.4	3,055.0	270.41	12.298	
20,400.0	12,432.7	19,973.0	12,096.9	138.0	137.0	84.21	7,853.6	2,636.6	3,325.3	3,051.8	273.55	12.156	
20,500.0	12,431.2	20,073.0	12,096.3	139.6	138.6	84.22	7,953.6	2,635.8	3,325.2	3,048.5	276.69	12.018	
20,600.0	12,429.7	20,173.0	12,095.7	141.1	140.1	84.24	8,053.6	2,635.0	3,325.1	3,045.3	279.83	11.882	
20,700.0	12,428.2	20,273.0	12,095.1	142.7	141.7	84.25	8,153.6	2,634.2	3,325.0	3,042.0	282.98	11.750	
20,800.0	12,426.8	20,373.0	12,094.5	144.3	143.3	84.27	8,253.6	2,633.4	3,324.9	3,038.8	286.14	11.620	
20,900.0	12,425.3	20,473.0	12,093.9	145.9	144.9	84.28	8,353.6	2,632.6	3,324.8	3,035.5	289.29	11.493	
21,000.0	12,423.8	20,573.0	12,093.3	147.4	146.5	84.30	8,453.6	2,631.8	3,324.7	3,032.3	292.45	11.368	
21,100.0	12,422.4	20,673.0	12,092.7	149.0	148.1	84.31	8,553.5	2,631.0	3,324.6	3,029.0	295.61	11.246	
21,200.0	12,420.9	20,773.0	12,092.1	150.6	149.6	84.32	8,653.5	2,630.2	3,324.5	3,025.7	298.78	11.127	
21,300.0	12,419.4	20,873.0	12,091.5	152.2	151.2	84.34	8,753.5	2,629.4	3,324.4	3,022.5	301.95	11.010	
21,400.0	12,417.9	20,973.0	12,090.9	153.8	152.8	84.35	8,853.5	2,628.6	3,324.3	3,019.2	305.12	10.895	
21,500.0	12,416.5	21,073.0	12,090.3	155.3	154.4	84.37	8,953.5	2,627.8	3,324.2	3,015.9	308.30	10.782	
21,600.0	12,415.0	21,173.0	12,089.7	156.9	156.0	84.38	9,053.5	2,627.0	3,324.1	3,012.6	311.48	10.672	
21,700.0	12,413.5	21,273.0	12,089.1	158.5	157.6	84.40	9,153.5	2,626.2	3,324.0	3,009.3	314.66	10.564	
21,800.0	12,412.0	21,373.0	12,088.5	160.1	159.2	84.41	9,253.5	2,625.4	3,323.9	3,006.1	317.84	10.458	
21,900.0	12,410.6	21,473.0	12,087.9	161.7	160.8	84.43	9,353.5	2,624.6	3,323.8	3,002.8	321.03	10.354	
22,000.0	12,409.1	21,573.0	12,087.3	163.3	162.4	84.44	9,453.5	2,623.8	3,323.7	2,999.5	324.21	10.252	
22,100.0	12,407.6	21,673.0	12,086.7	164.9	164.0	84.46	9,553.5	2,623.0	3,323.6	2,996.2	327.41	10.151	
22,200.0	12,406.1	21,773.0	12,086.1	166.5	165.6	84.47	9,653.5	2,622.2	3,323.5	2,992.9	330.60	10.053	
22,300.0	12,404.7	21,872.9	12,085.5	168.1	167.2	84.49	9,753.4	2,621.5	3,323.4	2,989.6	333.80	9.956	
22,400.0	12,403.2	21,972.9	12,084.9	169.7	168.8	84.50	9,853.4	2,620.7	3,323.3	2,986.3	336.99	9.862	
22,500.0	12,401.7	22,072.9	12,084.3	171.3	170.4	84.52	9,953.4	2,619.9	3,323.2	2,983.0	340.20	9.769	
22,600.0	12,400.3	22,172.9	12,083.7	172.9	172.0	84.53	10,053.4	2,619.1	3,323.1	2,979.7	343.40	9.677	
22,700.0	12,398.8	22,272.9	12,083.1	174.5	173.6	84.55	10,153.4	2,618.3	3,323.0	2,976.4	346.60	9.587	
22,787.3	12,397.5	22,360.2	12,082.5	175.7	175.0	84.56	10,240.7	2,617.6	3,322.9	2,973.7	349.24	9.515 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	-90.70	-0.4	-30.1	30.1				
100.0	100.0	101.0	101.0	0.1	0.1	-90.70	-0.4	-30.1	30.1	29.8	0.26	115.802	
200.0	200.0	201.0	201.0	0.5	0.5	-90.70	-0.4	-30.1	30.1	29.1	0.98	30.810	
300.0	300.0	301.0	301.0	0.8	0.8	-90.70	-0.4	-30.1	30.1	28.4	1.69	17.769	
400.0	400.0	401.0	401.0	1.2	1.2	-90.70	-0.4	-30.1	30.1	27.7	2.41	12.484	
500.0	500.0	501.0	501.0	1.6	1.6	-90.70	-0.4	-30.1	30.1	27.0	3.13	9.623	
600.0	600.0	601.0	601.0	1.9	1.9	-90.70	-0.4	-30.1	30.1	26.3	3.84	7.828	
700.0	700.0	701.0	701.0	2.3	2.3	-90.70	-0.4	-30.1	30.1	25.5	4.56	6.598	
800.0	800.0	801.0	801.0	2.6	2.6	-90.70	-0.4	-30.1	30.1	24.8	5.28	5.702	
900.0	900.0	901.0	901.0	3.0	3.0	-90.70	-0.4	-30.1	30.1	24.1	6.00	5.020	
1,000.0	1,000.0	1,001.0	1,001.0	3.4	3.4	-90.70	-0.4	-30.1	30.1	23.4	6.71	4.484	
1,100.0	1,100.0	1,101.0	1,101.0	3.7	3.7	-90.70	-0.4	-30.1	30.1	22.7	7.43	4.051	
1,200.0	1,200.0	1,201.0	1,201.0	4.1	4.1	-90.70	-0.4	-30.1	30.1	21.9	8.15	3.694	
1,300.0	1,300.0	1,301.0	1,301.0	4.4	4.4	-90.70	-0.4	-30.1	30.1	21.2	8.86	3.396	
1,400.0	1,400.0	1,401.0	1,401.0	4.8	4.8	-90.70	-0.4	-30.1	30.1	20.5	9.58	3.141	
1,500.0	1,500.0	1,501.0	1,501.0	5.1	5.2	-90.70	-0.4	-30.1	30.1	19.8	10.30	2.923 CC	
1,600.0	1,600.0	1,600.5	1,600.5	5.5	5.5	23.88	-0.5	-31.0	30.2	19.2	10.99	2.746	
1,700.0	1,700.0	1,700.0	1,699.9	5.8	5.8	24.97	-1.0	-33.5	30.4	18.7	11.66	2.604	
1,800.0	1,799.9	1,799.4	1,799.3	6.2	6.2	26.77	-1.8	-37.8	30.7	18.4	12.33	2.489	
1,900.0	1,899.7	1,898.9	1,898.6	6.5	6.5	29.22	-3.0	-43.7	31.2	18.2	13.00	2.399 ES	
2,000.0	1,999.4	1,998.4	1,997.7	6.9	6.9	32.26	-4.4	-51.4	31.9	18.2	13.68	2.334	
2,100.0	2,098.9	2,097.8	2,096.7	7.2	7.2	35.77	-6.2	-60.7	32.9	18.6	14.36	2.293	
2,200.0	2,198.3	2,197.3	2,195.5	7.6	7.6	39.64	-8.3	-71.7	34.2	19.2	15.04	2.276 SF	
2,300.0	2,297.4	2,303.3	2,294.1	7.9	8.0	43.72	-10.7	-84.4	35.9	20.2	15.76	2.280	
2,400.0	2,396.4	2,403.4	2,393.1	8.3	8.3	47.63	-13.3	-98.1	38.0	21.5	16.50	2.303	
2,500.0	2,495.5	2,503.5	2,492.0	8.7	8.7	51.13	-15.9	-111.7	40.2	23.0	17.25	2.331	
2,600.0	2,594.5	2,603.5	2,591.0	9.1	9.1	54.26	-18.6	-125.4	42.5	24.5	18.00	2.363	
2,700.0	2,693.5	2,703.6	2,690.0	9.5	9.5	57.05	-21.2	-139.1	45.0	26.2	18.77	2.397	
2,800.0	2,792.5	2,796.4	2,789.0	9.8	9.9	59.54	-23.8	-152.7	47.5	28.0	19.52	2.436	
2,900.0	2,891.6	2,903.7	2,887.9	10.2	10.3	61.78	-26.4	-166.4	50.2	29.9	20.32	2.469	
3,000.0	2,990.6	3,003.7	2,986.9	10.6	10.7	63.80	-29.0	-180.1	52.9	31.8	21.11	2.505	
3,100.0	3,089.6	3,103.8	3,085.9	11.0	11.1	65.61	-31.6	-193.7	55.6	33.7	21.90	2.540	
3,200.0	3,188.6	3,203.8	3,184.9	11.4	11.5	67.25	-34.2	-207.4	58.5	35.7	22.70	2.575	
3,300.0	3,287.7	3,296.1	3,283.8	11.8	11.8	68.75	-36.8	-221.0	61.3	37.8	23.47	2.612	
3,400.0	3,386.7	3,403.9	3,382.8	12.2	12.3	70.10	-39.4	-234.7	64.2	39.9	24.31	2.641	
3,500.0	3,485.7	3,504.0	3,481.8	12.6	12.7	71.34	-42.0	-248.4	67.1	42.0	25.12	2.672	
3,600.0	3,584.8	3,596.0	3,580.8	13.0	13.1	72.48	-44.6	-262.0	70.1	44.2	25.90	2.706	
3,700.0	3,683.8	3,704.1	3,679.7	13.4	13.5	73.52	-47.2	-275.7	73.1	46.3	26.74	2.731	
3,800.0	3,782.8	3,804.1	3,778.7	13.8	13.9	74.48	-49.8	-289.4	76.1	48.5	27.56	2.759	
3,900.0	3,881.8	3,904.2	3,877.7	14.3	14.3	75.37	-52.5	-303.0	79.1	50.7	28.38	2.786	
4,000.0	3,980.9	4,004.2	3,976.7	14.7	14.7	76.20	-55.1	-316.7	82.1	52.9	29.20	2.812	
4,100.0	4,079.9	4,104.3	4,075.6	15.1	15.1	76.96	-57.7	-330.3	85.2	55.1	30.02	2.837	
4,200.0	4,178.9	4,204.3	4,174.6	15.5	15.5	77.67	-60.3	-344.0	88.2	57.4	30.85	2.860	
4,300.0	4,277.9	4,304.4	4,273.6	15.9	15.9	78.33	-62.9	-357.7	91.3	59.6	31.67	2.883	
4,400.0	4,377.0	4,404.5	4,372.6	16.3	16.4	78.95	-65.5	-371.3	94.4	61.9	32.50	2.905	
4,500.0	4,476.0	4,504.5	4,471.5	16.7	16.8	79.53	-68.1	-385.0	97.5	64.2	33.32	2.926	
4,600.0	4,575.0	4,604.6	4,570.5	17.1	17.2	80.08	-70.7	-398.7	100.6	66.5	34.15	2.946	
4,700.0	4,674.0	4,704.6	4,669.5	17.5	17.6	80.59	-73.3	-412.3	103.7	68.8	34.98	2.965	
4,800.0	4,773.1	4,804.7	4,768.5	18.0	18.0	81.07	-75.9	-426.0	106.9	71.1	35.81	2.984	
4,900.0	4,872.1	4,904.7	4,867.4	18.4	18.4	81.53	-78.5	-439.7	110.0	73.4	36.64	3.002	
5,000.0	4,971.1	4,995.2	4,966.4	18.8	18.8	81.96	-81.1	-453.3	113.1	75.7	37.44	3.022	
5,100.0	5,070.2	5,104.8	5,065.4	19.2	19.3	82.36	-83.7	-467.0	116.3	78.0	38.31	3.036	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,204.9	5,164.3	19.6	19.7	82.75	-86.3	-480.6	119.4	80.3	39.14	3.052	
5,300.0	5,268.2	5,304.9	5,263.3	20.0	20.1	83.11	-89.0	-494.3	122.6	82.6	39.98	3.067	
5,400.0	5,367.2	5,405.0	5,362.3	20.5	20.5	83.46	-91.6	-508.0	125.8	85.0	40.81	3.082	
5,500.0	5,466.3	5,505.0	5,461.3	20.9	20.9	83.79	-94.2	-521.6	128.9	87.3	41.65	3.096	
5,600.0	5,565.3	5,605.1	5,560.2	21.3	21.3	84.10	-96.8	-535.3	132.1	89.6	42.48	3.110	
5,643.3	5,608.2	5,638.2	5,603.2	21.5	21.5	84.23	-97.9	-541.2	133.5	90.7	42.80	3.119	
5,700.0	5,664.4	5,705.1	5,659.2	21.7	21.8	84.25	-99.4	-549.0	135.3	92.0	43.31	3.124	
5,800.0	5,763.7	5,805.2	5,758.2	22.1	22.2	83.44	-102.0	-562.6	138.8	94.7	44.11	3.147	
5,900.0	5,863.4	5,905.4	5,857.0	22.5	22.6	81.64	-104.6	-576.3	142.7	97.8	44.86	3.180	
6,000.0	5,963.2	5,994.2	5,955.7	22.8	23.0	78.95	-107.2	-589.9	147.1	101.6	45.52	3.232	
6,100.0	6,063.1	6,093.7	6,054.1	23.2	23.4	75.50	-109.8	-603.5	152.6	106.4	46.16	3.305	
6,176.7	6,139.8	6,169.7	6,129.4	23.4	23.7	-41.79	-111.8	-613.9	157.6	111.0	46.60	3.383	
6,200.0	6,163.1	6,192.8	6,152.3	23.5	23.8	-42.78	-112.4	-617.0	159.4	112.6	46.73	3.410	
6,300.0	6,263.1	6,291.8	6,250.4	23.8	24.2	-46.80	-115.0	-630.6	167.2	119.9	47.27	3.537	
6,400.0	6,363.1	6,409.2	6,348.4	24.2	24.7	-50.46	-117.5	-644.1	175.8	127.9	47.88	3.671	
6,500.0	6,463.1	6,489.9	6,446.5	24.5	25.0	-53.76	-120.1	-657.6	185.0	136.7	48.35	3.827	
6,600.0	6,563.1	6,588.9	6,544.6	24.8	25.5	-56.74	-122.7	-671.2	194.8	145.9	48.89	3.984	
6,700.0	6,663.1	6,687.9	6,642.6	25.1	25.9	-59.43	-125.3	-684.7	205.1	155.6	49.45	4.147	
6,800.0	6,763.1	6,786.9	6,740.7	25.4	26.3	-61.87	-127.9	-698.3	215.8	165.8	50.02	4.314	
6,900.0	6,863.1	6,886.0	6,838.7	25.8	26.7	-64.07	-130.5	-711.8	226.8	176.2	50.60	4.482	
7,000.0	6,963.1	6,985.0	6,936.8	26.1	27.1	-66.07	-133.0	-725.3	238.1	187.0	51.19	4.652	
7,100.0	7,063.1	7,084.0	7,034.9	26.4	27.5	-67.88	-135.6	-738.9	249.7	197.9	51.80	4.822	
7,200.0	7,163.1	7,183.1	7,132.9	26.7	27.9	-69.53	-138.2	-752.4	261.6	209.2	52.41	4.991	
7,300.0	7,263.1	7,282.1	7,231.0	27.1	28.4	-71.04	-140.8	-765.9	273.6	220.6	53.03	5.159	
7,400.0	7,363.1	7,381.1	7,329.1	27.4	28.8	-72.43	-143.4	-779.5	285.8	232.1	53.66	5.326	
7,500.0	7,463.1	7,480.1	7,427.1	27.7	29.2	-73.69	-146.0	-793.0	298.1	243.8	54.29	5.491	
7,600.0	7,563.1	7,579.2	7,525.2	28.1	29.6	-74.86	-148.5	-806.6	310.6	255.7	54.94	5.654	
7,700.0	7,663.1	7,678.2	7,623.3	28.4	30.0	-75.94	-151.1	-820.1	323.2	267.6	55.58	5.815	
7,800.0	7,763.1	7,777.2	7,721.3	28.7	30.4	-76.94	-153.7	-833.6	335.9	279.7	56.24	5.973	
7,900.0	7,863.1	7,876.2	7,819.4	29.0	30.9	-77.86	-156.3	-847.2	348.7	291.8	56.90	6.128	
8,000.0	7,963.1	7,975.3	7,917.4	29.4	31.3	-78.72	-158.9	-860.7	361.6	304.0	57.56	6.281	
8,100.0	8,063.1	8,074.3	8,015.5	29.7	31.7	-79.52	-161.5	-874.2	374.5	316.3	58.23	6.432	
8,200.0	8,163.1	8,173.3	8,113.6	30.0	32.1	-80.26	-164.0	-887.8	387.5	328.6	58.90	6.580	
8,300.0	8,263.1	8,272.4	8,211.6	30.4	32.5	-80.96	-166.6	-901.3	400.6	341.0	59.57	6.725	
8,400.0	8,363.1	8,371.4	8,309.7	30.7	32.9	-81.62	-169.2	-914.9	413.7	353.5	60.25	6.867	
8,500.0	8,463.1	8,470.4	8,407.8	31.0	33.4	-82.23	-171.8	-928.4	426.9	366.0	60.93	7.007	
8,600.0	8,563.1	8,569.4	8,505.8	31.4	33.8	-82.81	-174.4	-941.9	440.1	378.5	61.61	7.144	
8,700.0	8,663.1	8,668.5	8,603.9	31.7	34.2	-83.35	-177.0	-955.5	453.4	391.1	62.30	7.278	
8,800.0	8,763.1	8,767.5	8,701.9	32.1	34.6	-83.86	-179.5	-969.0	466.7	403.7	62.99	7.410	
8,900.0	8,863.1	8,866.5	8,800.0	32.4	35.0	-84.34	-182.1	-982.5	480.1	416.4	63.67	7.539	
9,000.0	8,963.1	8,965.5	8,898.1	32.7	35.4	-84.80	-184.7	-996.1	493.4	429.1	64.36	7.666	
9,100.0	9,063.1	9,064.6	8,996.1	33.1	35.9	-85.24	-187.3	-1,009.6	506.8	441.8	65.06	7.791	
9,200.0	9,163.1	9,163.6	9,094.2	33.4	36.3	-85.65	-189.9	-1,023.2	520.3	454.5	65.75	7.913	
9,300.0	9,263.1	9,262.6	9,192.3	33.7	36.7	-86.04	-192.5	-1,036.7	533.7	467.3	66.45	8.032	
9,400.0	9,363.1	9,361.6	9,290.3	34.1	37.1	-86.41	-195.0	-1,050.2	547.2	480.1	67.14	8.150	
9,500.0	9,463.1	9,460.7	9,388.4	34.4	37.5	-86.76	-197.6	-1,063.8	560.7	492.9	67.84	8.265	
9,600.0	9,563.1	9,559.7	9,486.5	34.8	38.0	-87.10	-200.2	-1,077.3	574.2	505.7	68.54	8.378	
9,700.0	9,663.1	9,658.7	9,584.5	35.1	38.4	-87.42	-202.8	-1,090.9	587.8	518.5	69.24	8.489	
9,800.0	9,763.1	9,757.8	9,682.6	35.4	38.8	-87.73	-205.4	-1,104.4	601.3	531.4	69.94	8.598	
9,900.0	9,863.1	9,856.8	9,780.6	35.8	39.2	-88.02	-208.0	-1,117.9	614.9	544.2	70.64	8.704	
10,000.0	9,963.1	9,955.8	9,878.7	36.1	39.6	-88.30	-210.5	-1,131.5	628.5	557.1	71.34	8.809	
10,100.0	10,063.1	10,054.8	9,976.8	36.5	40.0	-88.57	-213.1	-1,145.0	642.1	570.0	72.05	8.912	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,163.1	10,153.9	10,074.8	36.8	40.5	-88.83	-215.7	-1,158.5	655.7	582.9	72.75	9.013	
10,300.0	10,263.1	10,252.9	10,172.9	37.1	40.9	-89.07	-218.3	-1,172.1	669.3	595.9	73.46	9.112	
10,400.0	10,363.1	10,351.9	10,271.0	37.5	41.3	-89.31	-220.9	-1,185.6	682.9	608.8	74.16	9.209	
10,500.0	10,463.1	10,450.9	10,369.0	37.8	41.7	-89.54	-223.5	-1,199.2	696.6	621.7	74.87	9.304	
10,600.0	10,563.1	10,550.0	10,467.1	38.2	42.1	-89.76	-226.0	-1,212.7	710.3	634.7	75.58	9.398	
10,700.0	10,663.1	10,649.0	10,565.1	38.5	42.5	-89.97	-228.6	-1,226.2	723.9	647.6	76.28	9.490	
10,800.0	10,763.1	10,758.5	10,673.6	38.9	43.0	-90.19	-231.4	-1,240.8	737.3	660.2	77.08	9.566	
10,900.0	10,863.1	10,881.4	10,795.8	39.2	43.5	-90.38	-233.9	-1,254.0	748.0	670.1	77.93	9.599	
11,000.0	10,963.1	11,005.0	10,919.1	39.6	44.0	-90.51	-235.7	-1,263.3	755.5	676.8	78.71	9.599	
11,100.0	11,063.1	11,129.2	11,043.1	39.9	44.4	-90.58	-236.7	-1,268.7	759.9	680.5	79.42	9.569	
11,200.0	11,163.1	11,250.2	11,164.1	40.2	44.8	-90.60	-237.0	-1,270.2	761.1	681.1	80.06	9.507	
11,300.0	11,263.1	11,350.2	11,264.1	40.6	45.1	-90.60	-237.0	-1,270.2	761.1	680.4	80.74	9.427	
11,400.0	11,363.1	11,450.2	11,364.1	40.9	45.4	-90.60	-237.0	-1,270.2	761.1	679.7	81.42	9.348	
11,500.0	11,463.1	11,550.2	11,464.1	41.3	45.7	-90.60	-237.0	-1,270.2	761.1	679.0	82.10	9.271	
11,600.0	11,563.1	11,650.2	11,564.1	41.6	46.0	-90.60	-237.0	-1,270.2	761.1	678.3	82.78	9.194	
11,700.0	11,663.1	11,750.2	11,664.1	42.0	46.3	-90.60	-237.0	-1,270.2	761.1	677.6	83.46	9.119	
11,783.7	11,746.9	11,834.1	11,747.9	42.3	46.6	-90.35	-233.7	-1,270.2	761.1	677.1	84.04	9.056	
11,800.0	11,763.1	11,850.2	11,763.9	42.3	46.6	-90.20	-231.7	-1,270.2	761.1	676.9	84.16	9.044	
11,900.0	11,863.1	11,945.8	11,857.0	42.7	46.9	-88.64	-210.9	-1,270.3	761.5	676.6	84.91	8.968	
12,006.9	11,970.0	12,037.9	11,942.4	43.0	47.1	-86.05	-176.4	-1,270.5	763.8	678.0	85.75	8.907	
12,050.0	12,013.1	12,072.2	11,972.6	43.2	47.2	-76.86	-160.2	-1,270.6	765.4	679.3	86.07	8.893	
12,100.0	12,062.7	12,111.1	12,005.6	43.3	47.2	-75.45	-139.6	-1,270.8	767.2	680.8	86.39	8.881	
12,150.0	12,111.7	12,149.1	12,036.4	43.5	47.3	-74.13	-117.4	-1,270.9	768.9	682.3	86.65	8.874	
12,200.0	12,159.5	12,186.4	12,065.1	43.7	47.4	-72.90	-93.6	-1,271.0	770.5	683.6	86.85	8.872	
12,250.0	12,205.9	12,223.0	12,091.8	43.8	47.4	-71.77	-68.5	-1,271.2	771.7	684.8	86.96	8.874	
12,300.0	12,250.5	12,259.1	12,116.4	43.9	47.4	-70.74	-42.2	-1,271.4	772.7	685.7	87.01	8.880	
12,350.0	12,293.0	12,294.6	12,139.0	44.1	47.5	-69.82	-14.8	-1,271.5	773.2	686.3	86.99	8.888	
12,400.0	12,333.0	12,329.7	12,159.6	44.2	47.5	-69.00	13.6	-1,271.7	773.4	686.5	86.92	8.898	
12,450.0	12,370.3	12,364.4	12,178.3	44.3	47.5	-68.30	42.8	-1,271.9	773.0	686.2	86.80	8.906	
12,500.0	12,404.5	12,400.0	12,195.5	44.3	47.6	-67.68	74.0	-1,272.1	772.2	685.5	86.66	8.911	
12,550.0	12,435.4	12,432.8	12,209.7	44.4	47.6	-67.22	103.6	-1,272.3	770.7	684.3	86.46	8.914	
12,600.0	12,462.7	12,466.7	12,222.5	44.5	47.6	-66.86	134.9	-1,272.4	768.7	682.4	86.29	8.909	
12,650.0	12,486.3	12,500.0	12,233.3	44.5	47.6	-66.62	166.4	-1,272.6	766.1	679.9	86.13	8.895	
12,700.0	12,506.0	12,533.7	12,242.3	44.6	47.6	-66.49	198.9	-1,272.8	762.8	676.8	86.00	8.870	
12,750.0	12,521.6	12,567.0	12,249.3	44.7	47.6	-66.48	231.4	-1,273.0	758.9	673.0	85.91	8.833	
12,800.0	12,533.0	12,600.0	12,254.4	44.7	47.7	-66.60	264.0	-1,273.2	754.4	668.5	85.89	8.783	
12,850.0	12,540.1	12,633.4	12,257.6	44.9	47.7	-66.83	297.2	-1,273.4	749.2	663.3	85.94	8.718	
12,900.0	12,542.9	12,666.5	12,258.9	45.0	47.7	-67.20	330.3	-1,273.6	743.5	657.4	86.07	8.639	
12,915.3	12,542.9	12,679.5	12,258.9	45.0	47.7	-67.32	343.3	-1,273.7	741.7	655.5	86.12	8.611	
13,000.0	12,541.7	12,758.8	12,257.9	45.3	47.8	-67.10	422.7	-1,274.3	732.5	646.0	86.52	8.467	
13,100.0	12,540.2	12,858.5	12,256.6	45.6	48.0	-66.89	522.3	-1,274.9	724.7	637.6	87.11	8.319	
13,200.0	12,538.7	12,958.3	12,255.3	46.0	48.3	-66.75	622.1	-1,275.6	720.1	632.3	87.85	8.197	
13,287.8	12,537.4	13,046.2	12,254.2	46.4	48.6	-66.70	710.0	-1,276.2	718.7	630.1	88.61	8.111	
13,300.0	12,537.2	13,058.3	12,254.0	46.5	48.6	-66.70	722.1	-1,276.3	718.7	630.0	88.73	8.100	
13,400.0	12,535.8	13,158.3	12,252.7	47.0	49.0	-66.71	822.1	-1,277.0	718.6	628.8	89.72	8.009	
13,500.0	12,534.3	13,258.3	12,251.4	47.5	49.5	-66.72	922.1	-1,277.6	718.4	627.6	90.81	7.911	
13,600.0	12,532.8	13,358.3	12,250.1	48.1	50.0	-66.73	1,022.1	-1,278.3	718.2	626.2	92.00	7.807	
13,700.0	12,531.3	13,458.3	12,248.8	48.7	50.6	-66.74	1,122.1	-1,279.0	718.1	624.8	93.27	7.699	
13,800.0	12,529.9	13,558.3	12,247.5	49.4	51.2	-66.75	1,222.1	-1,279.7	717.9	623.3	94.62	7.587	
13,900.0	12,528.4	13,658.3	12,246.2	50.2	51.9	-66.76	1,322.1	-1,280.4	717.7	621.7	96.06	7.472	
14,000.0	12,526.9	13,758.3	12,244.9	51.0	52.7	-66.77	1,422.0	-1,281.0	717.6	620.0	97.58	7.354	
14,100.0	12,525.5	13,858.3	12,243.7	51.8	53.4	-66.78	1,522.0	-1,281.7	717.4	618.2	99.17	7.234	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	13,958.3	12,242.4	52.6	54.3	-66.79	1,622.0	-1,282.4	717.2	616.4	100.83	7.113	
14,300.0	12,522.5	14,058.3	12,241.1	53.5	55.1	-66.80	1,722.0	-1,283.1	717.1	614.5	102.56	6.992	
14,400.0	12,521.0	14,158.3	12,239.8	54.5	56.0	-66.81	1,822.0	-1,283.7	716.9	612.6	104.35	6.870	
14,500.0	12,519.6	14,258.3	12,238.5	55.4	57.0	-66.82	1,922.0	-1,284.4	716.7	610.5	106.21	6.749	
14,600.0	12,518.1	14,358.3	12,237.2	56.4	57.9	-66.83	2,022.0	-1,285.1	716.6	608.5	108.12	6.628	
14,700.0	12,516.6	14,458.3	12,235.9	57.4	58.9	-66.84	2,122.0	-1,285.8	716.4	606.3	110.09	6.508	
14,800.0	12,515.1	14,558.3	12,234.6	58.5	60.0	-66.85	2,222.0	-1,286.5	716.3	604.1	112.11	6.389	
14,900.0	12,513.7	14,658.3	12,233.3	59.6	61.0	-66.86	2,321.9	-1,287.1	716.1	601.9	114.17	6.272	
15,000.0	12,512.2	14,758.3	12,232.0	60.7	62.1	-66.87	2,421.9	-1,287.8	715.9	599.6	116.29	6.156	
15,100.0	12,510.7	14,858.3	12,230.7	61.8	63.2	-66.88	2,521.9	-1,288.5	715.8	597.3	118.45	6.043	
15,200.0	12,509.3	14,958.3	12,229.4	63.0	64.4	-66.89	2,621.9	-1,289.2	715.6	594.9	120.65	5.931	
15,300.0	12,507.8	15,058.3	12,228.1	64.2	65.5	-66.90	2,721.9	-1,289.9	715.4	592.5	122.89	5.822	
15,400.0	12,506.3	15,158.3	12,226.8	65.4	66.7	-66.91	2,821.9	-1,290.5	715.3	590.1	125.17	5.714	
15,500.0	12,504.8	15,258.3	12,225.5	66.6	67.9	-66.92	2,921.9	-1,291.2	715.1	587.6	127.49	5.609	
15,600.0	12,503.4	15,358.3	12,224.2	67.8	69.1	-66.93	3,021.9	-1,291.9	714.9	585.1	129.83	5.507	
15,700.0	12,501.9	15,458.3	12,223.0	69.1	70.3	-66.94	3,121.9	-1,292.6	714.8	582.6	132.21	5.406	
15,800.0	12,500.4	15,558.3	12,221.7	70.3	71.6	-66.95	3,221.8	-1,293.2	714.6	580.0	134.62	5.308	
15,900.0	12,498.9	15,658.3	12,220.4	71.6	72.8	-66.96	3,321.8	-1,293.9	714.4	577.4	137.06	5.212	
16,000.0	12,497.5	15,758.3	12,219.1	72.9	74.1	-66.97	3,421.8	-1,294.6	714.3	574.7	139.53	5.119	
16,100.0	12,496.0	15,858.3	12,217.8	74.3	75.4	-66.98	3,521.8	-1,295.3	714.1	572.1	142.02	5.028	
16,200.0	12,494.5	15,958.3	12,216.5	75.6	76.7	-66.99	3,621.8	-1,296.0	713.9	569.4	144.54	4.939	
16,300.0	12,493.0	16,058.3	12,215.2	76.9	78.1	-67.00	3,721.8	-1,296.6	713.8	566.7	147.08	4.853	
16,400.0	12,491.6	16,158.3	12,213.9	78.3	79.4	-67.01	3,821.8	-1,297.3	713.6	564.0	149.64	4.769	
16,500.0	12,490.1	16,258.3	12,212.6	79.6	80.7	-67.02	3,921.8	-1,298.0	713.5	561.2	152.22	4.687	
16,600.0	12,488.6	16,358.3	12,211.3	81.0	82.1	-67.03	4,021.8	-1,298.7	713.3	558.5	154.83	4.607	
16,700.0	12,487.2	16,458.3	12,210.0	82.4	83.5	-67.04	4,121.8	-1,299.4	713.1	555.7	157.45	4.529	
16,800.0	12,485.7	16,558.3	12,208.7	83.8	84.8	-67.05	4,221.7	-1,300.0	713.0	552.9	160.09	4.454	
16,900.0	12,484.2	16,658.3	12,207.4	85.2	86.2	-67.06	4,321.7	-1,300.7	712.8	550.1	162.75	4.380	
17,000.0	12,482.7	16,758.3	12,206.1	86.6	87.6	-67.07	4,421.7	-1,301.4	712.6	547.2	165.42	4.308	
17,100.0	12,481.3	16,858.3	12,204.8	88.1	89.0	-67.08	4,521.7	-1,302.1	712.5	544.4	168.11	4.238	
17,200.0	12,479.8	16,958.3	12,203.5	89.5	90.5	-67.09	4,621.7	-1,302.7	712.3	541.5	170.81	4.170	
17,300.0	12,478.3	17,058.3	12,202.2	90.9	91.9	-67.10	4,721.7	-1,303.4	712.1	538.6	173.53	4.104	
17,400.0	12,476.8	17,158.3	12,201.0	92.4	93.3	-67.11	4,821.7	-1,304.1	712.0	535.7	176.26	4.039	
17,500.0	12,475.4	17,258.3	12,199.7	93.8	94.7	-67.12	4,921.7	-1,304.8	711.8	532.8	179.01	3.976	
17,516.1	12,475.1	17,274.4	12,199.4	94.1	95.0	-67.12	4,937.8	-1,304.9	711.8	532.3	179.45	3.966	
17,600.0	12,473.9	17,270.5	12,199.5	95.3	94.9	-67.12	4,933.9	-1,304.9	717.0	534.9	182.12	3.937	
17,700.0	12,472.4	17,270.5	12,199.5	96.7	94.9	-67.12	4,933.9	-1,304.9	735.8	553.0	182.82	4.025	
17,800.0	12,471.0	17,270.5	12,199.5	98.2	94.9	-67.12	4,933.9	-1,304.9	767.3	586.1	181.21	4.234	
17,900.0	12,469.5	17,270.5	12,199.5	99.7	94.9	-67.12	4,933.9	-1,304.9	810.0	632.1	177.91	4.553	
18,000.0	12,468.0	17,270.5	12,199.5	101.2	94.9	-67.12	4,933.9	-1,304.9	862.2	688.7	173.56	4.968	
18,100.0	12,466.5	17,270.5	12,199.5	102.7	94.9	-67.12	4,933.9	-1,304.9	922.4	753.6	168.72	5.467	
18,200.0	12,465.1	17,270.5	12,199.5	104.2	94.9	-67.12	4,933.9	-1,304.9	989.0	825.2	163.78	6.038	
18,300.0	12,463.6	17,270.5	12,199.5	105.7	94.9	-67.12	4,933.9	-1,304.9	1,060.8	901.8	159.00	6.672	
18,400.0	12,462.1	17,270.5	12,199.5	107.2	94.9	-67.12	4,933.9	-1,304.9	1,137.0	982.5	154.52	7.358	
18,500.0	12,460.6	17,270.5	12,199.5	108.7	94.9	-67.12	4,933.9	-1,304.9	1,216.6	1,066.2	150.40	8.089	
18,600.0	12,459.2	17,270.5	12,199.5	110.2	94.9	-67.12	4,933.9	-1,304.9	1,299.0	1,152.3	146.66	8.857	
18,700.0	12,457.7	17,270.5	12,199.5	111.7	94.9	-67.12	4,933.9	-1,304.9	1,383.7	1,240.4	143.28	9.658	
18,800.0	12,456.2	17,270.5	12,199.5	113.2	94.9	-67.12	4,933.9	-1,304.9	1,470.4	1,330.1	140.24	10.485	
18,900.0	12,454.8	17,270.5	12,199.5	114.8	94.9	-67.12	4,933.9	-1,304.9	1,558.6	1,421.1	137.51	11.335	
19,000.0	12,453.3	17,270.5	12,199.5	116.3	94.9	-67.12	4,933.9	-1,304.9	1,648.2	1,513.2	135.06	12.204	
19,100.0	12,451.8	17,270.5	12,199.5	117.8	94.9	-67.12	4,933.9	-1,304.9	1,739.0	1,606.1	132.86	13.089	
19,200.0	12,450.3	17,270.5	12,199.5	119.3	94.9	-67.12	4,933.9	-1,304.9	1,830.7	1,699.8	130.88	13.988	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,300.0	12,448.9	17,270.5	12,199.5	120.9	94.9	-67.12	4,933.9	-1,304.9	1,923.2	1,794.1	129.09	14.898		
19,400.0	12,447.4	17,270.5	12,199.5	122.4	94.9	-67.12	4,933.9	-1,304.9	2,016.4	1,888.9	127.48	15.818		
19,500.0	12,445.9	17,270.5	12,199.5	124.0	94.9	-67.12	4,933.9	-1,304.9	2,110.3	1,984.3	126.02	16.746		
19,600.0	12,444.4	17,270.5	12,199.5	125.5	94.9	-67.12	4,933.9	-1,304.9	2,204.7	2,080.0	124.70	17.681		
19,700.0	12,443.0	17,270.5	12,199.5	127.1	94.9	-67.12	4,933.9	-1,304.9	2,299.5	2,176.1	123.49	18.621		
19,800.0	12,441.5	17,270.5	12,199.5	128.6	94.9	-67.12	4,933.9	-1,304.9	2,394.8	2,272.4	122.39	19.567		
19,900.0	12,440.0	17,270.5	12,199.5	130.2	94.9	-67.12	4,933.9	-1,304.9	2,490.5	2,369.1	121.39	20.516		
20,000.0	12,438.6	17,270.5	12,199.5	131.7	94.9	-67.12	4,933.9	-1,304.9	2,586.5	2,466.0	120.48	21.469		
20,100.0	12,437.1	17,270.5	12,199.5	133.3	94.9	-67.12	4,933.9	-1,304.9	2,682.8	2,563.1	119.64	22.424		
20,200.0	12,435.6	17,270.5	12,199.5	134.9	94.9	-67.12	4,933.9	-1,304.9	2,779.3	2,660.4	118.87	23.382		
20,300.0	12,434.1	17,270.5	12,199.5	136.4	94.9	-67.12	4,933.9	-1,304.9	2,876.1	2,757.9	118.16	24.341		
20,400.0	12,432.7	17,270.5	12,199.5	138.0	94.9	-67.12	4,933.9	-1,304.9	2,973.1	2,855.6	117.50	25.302		
20,500.0	12,431.2	17,270.5	12,199.5	139.6	94.9	-67.12	4,933.9	-1,304.9	3,070.3	2,953.4	116.90	26.263		
20,600.0	12,429.7	17,270.5	12,199.5	141.1	94.9	-67.12	4,933.9	-1,304.9	3,167.6	3,051.3	116.35	27.226		
20,700.0	12,428.2	17,270.5	12,199.5	142.7	94.9	-67.12	4,933.9	-1,304.9	3,265.1	3,149.3	115.83	28.189		
20,800.0	12,426.8	17,270.5	12,199.5	144.3	94.9	-67.12	4,933.9	-1,304.9	3,362.8	3,247.4	115.36	29.152		
20,900.0	12,425.3	17,270.5	12,199.5	145.9	94.9	-67.12	4,933.9	-1,304.9	3,460.6	3,345.7	114.91	30.115		
21,000.0	12,423.8	17,270.5	12,199.5	147.4	94.9	-67.12	4,933.9	-1,304.9	3,558.5	3,444.0	114.51	31.077		
21,100.0	12,422.4	17,270.5	12,199.5	149.0	94.9	-67.12	4,933.9	-1,304.9	3,656.6	3,542.4	114.13	32.040		
21,200.0	12,420.9	17,270.5	12,199.5	150.6	94.9	-67.12	4,933.9	-1,304.9	3,754.7	3,640.9	113.77	33.002		
21,300.0	12,419.4	17,270.5	12,199.5	152.2	94.9	-67.12	4,933.9	-1,304.9	3,852.9	3,739.5	113.45	33.963		
21,400.0	12,417.9	17,270.5	12,199.5	153.8	94.9	-67.12	4,933.9	-1,304.9	3,951.3	3,838.1	113.14	34.923		
21,500.0	12,416.5	17,270.5	12,199.5	155.3	94.9	-67.12	4,933.9	-1,304.9	4,049.7	3,936.8	112.86	35.883		
21,600.0	12,415.0	17,270.5	12,199.5	156.9	94.9	-67.12	4,933.9	-1,304.9	4,148.1	4,035.5	112.59	36.841		
21,700.0	12,413.5	17,270.5	12,199.5	158.5	94.9	-67.12	4,933.9	-1,304.9	4,246.7	4,134.3	112.35	37.799		
21,800.0	12,412.0	17,270.5	12,199.5	160.1	94.9	-67.12	4,933.9	-1,304.9	4,345.3	4,233.2	112.12	38.755		
21,900.0	12,410.6	17,270.5	12,199.5	161.7	94.9	-67.12	4,933.9	-1,304.9	4,444.0	4,332.1	111.91	39.710		
22,000.0	12,409.1	17,270.5	12,199.5	163.3	94.9	-67.12	4,933.9	-1,304.9	4,542.7	4,431.0	111.71	40.664		
22,100.0	12,407.6	17,270.5	12,199.5	164.9	94.9	-67.12	4,933.9	-1,304.9	4,641.5	4,530.0	111.53	41.616		
22,200.0	12,406.1	17,270.5	12,199.5	166.5	94.9	-67.12	4,933.9	-1,304.9	4,740.4	4,629.0	111.36	42.567		
22,300.0	12,404.7	17,270.5	12,199.5	168.1	94.9	-67.12	4,933.9	-1,304.9	4,839.2	4,728.0	111.20	43.517		
22,400.0	12,403.2	17,270.5	12,199.5	169.7	94.9	-67.12	4,933.9	-1,304.9	4,938.2	4,827.1	111.06	44.465		
22,500.0	12,401.7	17,270.5	12,199.5	171.3	94.9	-67.12	4,933.9	-1,304.9	5,037.2	4,926.2	110.92	45.411		
22,600.0	12,400.3	17,270.5	12,199.5	172.9	94.9	-67.12	4,933.9	-1,304.9	5,136.2	5,025.4	110.80	46.356		
22,700.0	12,398.8	17,270.5	12,199.5	174.5	94.9	-67.12	4,933.9	-1,304.9	5,235.2	5,124.5	110.68	47.299		
22,787.3	12,397.5	17,270.5	12,199.5	175.7	94.9	-67.12	4,933.9	-1,304.9	5,321.7	5,207.8	113.93	46.711		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	179.76	-30.0	0.1	30.0				
100.0	100.0	100.0	100.0	0.1	0.1	179.76	-30.0	0.1	30.0	29.7	0.26	116.962	
200.0	200.0	200.0	200.0	0.5	0.5	179.76	-30.0	0.1	30.0	29.0	0.97	30.802	
300.0	300.0	300.0	300.0	0.8	0.8	179.76	-30.0	0.1	30.0	28.3	1.69	17.737	
400.0	400.0	400.0	400.0	1.2	1.2	179.76	-30.0	0.1	30.0	27.6	2.41	12.454	
500.0	500.0	500.0	500.0	1.6	1.6	179.76	-30.0	0.1	30.0	26.9	3.12	9.596	
600.0	600.0	600.0	600.0	1.9	1.9	179.76	-30.0	0.1	30.0	26.1	3.84	7.805	
700.0	700.0	700.0	700.0	2.3	2.3	179.76	-30.0	0.1	30.0	25.4	4.56	6.577	
800.0	800.0	800.0	800.0	2.6	2.6	179.76	-30.0	0.1	30.0	24.7	5.27	5.683	
900.0	900.0	900.0	900.0	3.0	3.0	179.76	-30.0	0.1	30.0	24.0	5.99	5.003	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	179.76	-30.0	0.1	30.0	23.3	6.71	4.468 CC	
1,100.0	1,100.0	1,099.9	1,099.9	3.7	3.7	178.15	-30.2	1.0	30.2	22.8	7.41	4.071 ES	
1,200.0	1,200.0	1,199.7	1,199.6	4.1	4.0	173.47	-30.7	3.5	30.9	22.8	8.11	3.815	
1,300.0	1,300.0	1,299.4	1,299.2	4.4	4.4	166.26	-31.7	7.8	32.6	23.8	8.81	3.704 SF	
1,400.0	1,400.0	1,398.9	1,398.6	4.8	4.7	157.54	-33.0	13.7	35.8	26.3	9.52	3.760	
1,500.0	1,500.0	1,498.2	1,497.5	5.1	5.1	148.58	-34.8	21.2	40.8	30.6	10.22	3.994	
1,600.0	1,600.0	1,597.0	1,596.0	5.5	5.4	-106.27	-36.8	30.4	48.2	37.3	10.90	4.423	
1,700.0	1,700.0	1,695.4	1,693.7	5.8	5.8	-115.13	-39.3	41.2	58.7	47.1	11.56	5.077	
1,800.0	1,799.9	1,807.1	1,790.3	6.2	6.2	-122.79	-42.1	53.5	72.7	60.4	12.27	5.926	
1,900.0	1,899.7	1,891.0	1,887.5	6.5	6.5	-128.97	-45.1	66.9	89.6	76.7	12.89	6.951	
2,000.0	1,999.4	1,988.9	1,984.4	6.9	6.9	-133.80	-48.1	80.1	108.5	94.9	13.58	7.988	
2,100.0	2,098.9	2,086.4	2,081.0	7.2	7.3	-137.67	-51.1	93.4	129.1	114.8	14.26	9.052	
2,200.0	2,198.3	2,183.5	2,177.2	7.6	7.7	-140.85	-54.1	106.6	151.5	136.6	14.95	10.134	
2,300.0	2,297.4	2,280.2	2,273.0	7.9	8.1	-143.51	-57.0	119.7	175.6	160.0	15.64	11.229	
2,400.0	2,396.4	2,376.8	2,368.5	8.3	8.5	-145.80	-60.0	132.8	200.8	184.5	16.34	12.291	
2,500.0	2,495.5	2,473.3	2,464.1	8.7	8.8	-147.57	-63.0	145.9	226.2	209.1	17.03	13.278	
2,600.0	2,594.5	2,569.8	2,559.7	9.1	9.2	-148.99	-65.9	159.0	251.7	234.0	17.73	14.195	
2,700.0	2,693.5	2,666.3	2,655.3	9.5	9.6	-150.14	-68.9	172.1	277.4	258.9	18.43	15.046	
2,800.0	2,792.5	2,762.8	2,750.8	9.8	10.0	-151.10	-71.9	185.2	303.1	284.0	19.14	15.838	
2,900.0	2,891.6	2,859.3	2,846.4	10.2	10.4	-151.91	-74.8	198.3	328.9	309.1	19.84	16.575	
3,000.0	2,990.6	2,955.8	2,942.0	10.6	10.8	-152.60	-77.8	211.4	354.8	334.2	20.55	17.262	
3,100.0	3,089.6	3,052.4	3,037.6	11.0	11.2	-153.20	-80.8	224.5	380.7	359.4	21.26	17.904	
3,200.0	3,188.6	3,148.9	3,133.2	11.4	11.6	-153.72	-83.7	237.6	406.6	384.6	21.97	18.505	
3,300.0	3,287.7	3,245.4	3,228.7	11.8	12.0	-154.18	-86.7	250.7	432.6	409.9	22.68	19.069	
3,400.0	3,386.7	3,341.9	3,324.3	12.2	12.4	-154.59	-89.7	263.8	458.6	435.2	23.40	19.598	
3,500.0	3,485.7	3,438.4	3,419.9	12.6	12.8	-154.95	-92.6	276.9	484.6	460.4	24.11	20.095	
3,600.0	3,584.8	3,534.9	3,515.5	13.0	13.2	-155.28	-95.6	290.0	510.6	485.8	24.83	20.564	
3,700.0	3,683.8	3,631.5	3,611.0	13.4	13.6	-155.58	-98.6	303.1	536.6	511.1	25.55	21.006	
3,800.0	3,782.8	3,728.0	3,706.6	13.8	14.0	-155.84	-101.5	316.2	562.7	536.4	26.26	21.424	
3,900.0	3,881.8	3,824.5	3,802.2	14.3	14.4	-156.09	-104.5	329.3	588.7	561.8	26.98	21.819	
4,000.0	3,980.9	3,921.0	3,897.8	14.7	14.8	-156.31	-107.5	342.4	614.8	587.1	27.70	22.194	
4,100.0	4,079.9	4,017.5	3,993.3	15.1	15.2	-156.52	-110.4	355.5	640.9	612.5	28.42	22.549	
4,200.0	4,178.9	4,114.0	4,088.9	15.5	15.6	-156.70	-113.4	368.6	667.0	637.8	29.14	22.887	
4,300.0	4,277.9	4,210.5	4,184.5	15.9	16.0	-156.88	-116.4	381.7	693.1	663.2	29.86	23.208	
4,400.0	4,377.0	4,307.1	4,280.1	16.3	16.4	-157.04	-119.3	394.8	719.1	688.6	30.58	23.513	
4,500.0	4,476.0	4,403.6	4,375.6	16.7	16.8	-157.19	-122.3	407.9	745.3	713.9	31.31	23.804	
4,600.0	4,575.0	4,500.1	4,471.2	17.1	17.2	-157.33	-125.3	421.0	771.4	739.3	32.03	24.082	
4,700.0	4,674.0	4,603.4	4,566.8	17.5	17.6	-157.46	-128.2	434.1	797.5	764.7	32.78	24.329	
4,800.0	4,773.1	4,706.9	4,662.4	18.0	18.1	-157.59	-131.2	447.2	823.6	790.0	33.53	24.564	
4,900.0	4,872.1	4,789.6	4,758.0	18.4	18.4	-157.70	-134.2	460.3	849.7	815.5	34.20	24.844	
5,000.0	4,971.1	4,886.2	4,853.5	18.8	18.8	-157.81	-137.1	473.4	875.8	840.9	34.93	25.077	
5,100.0	5,070.2	4,982.7	4,949.1	19.2	19.2	-157.91	-140.1	486.5	901.9	866.3	35.65	25.300	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	5,079.2	5,044.7	19.6	19.6	-158.01	-143.1	499.6	928.1	891.7	36.38	25.513	
5,300.0	5,268.2	5,175.7	5,140.3	20.0	20.0	-158.10	-146.0	512.7	954.2	917.1	37.10	25.719	
5,400.0	5,367.2	5,272.2	5,235.8	20.5	20.4	-158.19	-149.0	525.8	980.3	942.5	37.83	25.916	
5,500.0	5,466.3	5,368.7	5,331.4	20.9	20.8	-158.27	-151.9	538.9	1,006.4	967.9	38.55	26.106	
5,600.0	5,565.3	5,465.3	5,427.0	21.3	21.3	-158.35	-154.9	552.0	1,032.6	993.3	39.28	26.288	
5,643.3	5,608.2	5,507.1	5,468.4	21.5	21.4	-158.38	-156.2	557.7	1,043.9	1,004.3	39.59	26.365	
5,700.0	5,664.4	5,561.9	5,522.7	21.7	21.7	-158.50	-157.9	565.1	1,058.3	1,018.3	40.01	26.455	
5,800.0	5,763.7	5,659.0	5,618.9	22.1	22.1	-158.64	-160.9	578.3	1,082.0	1,041.2	40.73	26.564	
5,900.0	5,863.4	5,756.8	5,715.6	22.5	22.5	-158.73	-163.9	591.6	1,103.2	1,061.7	41.45	26.613	
6,000.0	5,963.2	5,854.9	5,812.9	22.8	22.9	-158.75	-166.9	604.9	1,122.1	1,079.9	42.18	26.604	
6,100.0	6,063.1	5,953.5	5,910.5	23.2	23.3	-158.71	-169.9	618.3	1,138.5	1,095.6	42.89	26.542	
6,176.7	6,139.8	6,029.4	5,985.6	23.4	23.6	87.14	-172.2	628.6	1,149.5	1,106.1	43.44	26.463	
6,200.0	6,163.1	6,052.5	6,008.5	23.5	23.7	87.19	-173.0	631.7	1,152.6	1,109.0	43.60	26.436	
6,300.0	6,263.1	6,151.5	6,106.6	23.8	24.1	87.37	-176.0	645.2	1,166.1	1,121.8	44.30	26.320	
6,400.0	6,363.1	6,250.5	6,204.6	24.2	24.6	87.55	-179.0	658.6	1,179.5	1,134.5	45.01	26.207	
6,500.0	6,463.1	6,349.6	6,302.7	24.5	25.0	87.73	-182.1	672.1	1,192.9	1,147.2	45.71	26.098	
6,600.0	6,563.1	6,448.6	6,400.7	24.8	25.4	87.90	-185.1	685.5	1,206.4	1,160.0	46.41	25.993	
6,700.0	6,663.1	6,547.6	6,498.8	25.1	25.8	88.06	-188.2	698.9	1,219.9	1,172.7	47.12	25.890	
6,800.0	6,763.1	6,646.6	6,596.9	25.4	26.2	88.23	-191.2	712.4	1,233.3	1,185.5	47.82	25.790	
6,900.0	6,863.1	6,745.7	6,694.9	25.8	26.6	88.39	-194.3	725.8	1,246.8	1,198.3	48.53	25.693	
7,000.0	6,963.1	6,844.7	6,793.0	26.1	27.1	88.55	-197.3	739.3	1,260.3	1,211.1	49.23	25.599	
7,100.0	7,063.1	6,943.7	6,891.1	26.4	27.5	88.70	-200.3	752.7	1,273.8	1,223.9	49.94	25.508	
7,200.0	7,163.1	7,042.7	6,989.1	26.7	27.9	88.85	-203.4	766.2	1,287.3	1,236.7	50.65	25.418	
7,300.0	7,263.1	7,152.0	7,097.4	27.1	28.3	89.01	-206.7	780.9	1,300.8	1,249.3	51.43	25.290	
7,400.0	7,363.1	7,300.9	7,245.3	27.4	28.9	89.18	-210.4	797.1	1,311.6	1,259.1	52.49	24.989	
7,500.0	7,463.1	7,450.9	7,394.8	27.7	29.5	89.30	-212.8	807.7	1,318.7	1,265.3	53.47	24.664	
7,600.0	7,563.1	7,601.4	7,545.3	28.1	30.0	89.35	-213.9	812.7	1,322.0	1,267.6	54.36	24.317	
7,700.0	7,663.1	7,719.2	7,663.1	28.4	30.4	89.35	-214.0	813.0	1,322.2	1,267.1	55.09	24.002	
7,800.0	7,763.1	7,819.2	7,763.1	28.7	30.7	89.35	-214.0	813.0	1,322.2	1,266.5	55.76	23.713	
7,900.0	7,863.1	7,919.2	7,863.1	29.0	31.0	89.35	-214.0	813.0	1,322.2	1,265.8	56.43	23.431	
8,000.0	7,963.1	8,019.2	7,963.1	29.4	31.3	89.35	-214.0	813.0	1,322.2	1,265.1	57.10	23.155	
8,100.0	8,063.1	8,119.2	8,063.1	29.7	31.6	89.35	-214.0	813.0	1,322.2	1,264.4	57.78	22.885	
8,200.0	8,163.1	8,219.2	8,163.1	30.0	31.9	89.35	-214.0	813.0	1,322.2	1,263.8	58.45	22.620	
8,300.0	8,263.1	8,319.2	8,263.1	30.4	32.2	89.35	-214.0	813.0	1,322.2	1,263.1	59.13	22.362	
8,400.0	8,363.1	8,419.2	8,363.1	30.7	32.6	89.35	-214.0	813.0	1,322.2	1,262.4	59.81	22.109	
8,500.0	8,463.1	8,519.2	8,463.1	31.0	32.9	89.35	-214.0	813.0	1,322.2	1,261.7	60.48	21.861	
8,600.0	8,563.1	8,619.2	8,563.1	31.4	33.2	89.35	-214.0	813.0	1,322.2	1,261.1	61.16	21.618	
8,700.0	8,663.1	8,719.2	8,663.1	31.7	33.5	89.35	-214.0	813.0	1,322.2	1,260.4	61.84	21.381	
8,800.0	8,763.1	8,819.2	8,763.1	32.1	33.8	89.35	-214.0	813.0	1,322.2	1,259.7	62.52	21.148	
8,900.0	8,863.1	8,919.2	8,863.1	32.4	34.1	89.35	-214.0	813.0	1,322.2	1,259.0	63.20	20.920	
9,000.0	8,963.1	9,019.2	8,963.1	32.7	34.5	89.35	-214.0	813.0	1,322.2	1,258.3	63.89	20.697	
9,100.0	9,063.1	9,119.2	9,063.1	33.1	34.8	89.35	-214.0	813.0	1,322.2	1,257.6	64.57	20.478	
9,200.0	9,163.1	9,219.2	9,163.1	33.4	35.1	89.35	-214.0	813.0	1,322.2	1,257.0	65.25	20.263	
9,300.0	9,263.1	9,319.2	9,263.1	33.7	35.4	89.35	-214.0	813.0	1,322.2	1,256.3	65.94	20.053	
9,400.0	9,363.1	9,419.2	9,363.1	34.1	35.7	89.35	-214.0	813.0	1,322.2	1,255.6	66.62	19.847	
9,500.0	9,463.1	9,519.2	9,463.1	34.4	36.1	89.35	-214.0	813.0	1,322.2	1,254.9	67.31	19.645	
9,600.0	9,563.1	9,619.2	9,563.1	34.8	36.4	89.35	-214.0	813.0	1,322.2	1,254.2	67.99	19.446	
9,700.0	9,663.1	9,719.2	9,663.1	35.1	36.7	89.35	-214.0	813.0	1,322.2	1,253.5	68.68	19.252	
9,800.0	9,763.1	9,819.2	9,763.1	35.4	37.0	89.35	-214.0	813.0	1,322.2	1,252.9	69.37	19.061	
9,900.0	9,863.1	9,919.2	9,863.1	35.8	37.4	89.35	-214.0	813.0	1,322.2	1,252.2	70.06	18.874	
10,000.0	9,963.1	10,019.2	9,963.1	36.1	37.7	89.35	-214.0	813.0	1,322.2	1,251.5	70.74	18.690	
10,100.0	10,063.1	10,119.2	10,063.1	36.5	38.0	89.35	-214.0	813.0	1,322.2	1,250.8	71.43	18.510	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,200.0	10,163.1	10,219.2	10,163.1	36.8	38.3	89.35	-214.0	813.0	1,322.2	1,250.1	72.12	18.333		
10,300.0	10,263.1	10,319.2	10,263.1	37.1	38.7	89.35	-214.0	813.0	1,322.2	1,249.4	72.81	18.159		
10,400.0	10,363.1	10,419.2	10,363.1	37.5	39.0	89.35	-214.0	813.0	1,322.2	1,248.7	73.50	17.988		
10,500.0	10,463.1	10,519.2	10,463.1	37.8	39.3	89.35	-214.0	813.0	1,322.2	1,248.0	74.19	17.821		
10,600.0	10,563.1	10,619.2	10,563.1	38.2	39.6	89.35	-214.0	813.0	1,322.2	1,247.3	74.89	17.656		
10,700.0	10,663.1	10,719.2	10,663.1	38.5	40.0	89.35	-214.0	813.0	1,322.2	1,246.6	75.58	17.495		
10,800.0	10,763.1	10,819.2	10,763.1	38.9	40.3	89.35	-214.0	813.0	1,322.2	1,245.9	76.27	17.336		
10,900.0	10,863.1	10,919.2	10,863.1	39.2	40.6	89.35	-214.0	813.0	1,322.2	1,245.3	76.96	17.180		
11,000.0	10,963.1	11,019.2	10,963.1	39.6	41.0	89.35	-214.0	813.0	1,322.2	1,244.6	77.66	17.026		
11,100.0	11,063.1	11,119.2	11,063.1	39.9	41.3	89.35	-214.0	813.0	1,322.2	1,243.9	78.35	16.875		
11,200.0	11,163.1	11,219.2	11,163.1	40.2	41.6	89.35	-214.0	813.0	1,322.2	1,243.2	79.05	16.727		
11,300.0	11,263.1	11,319.2	11,263.1	40.6	42.0	89.35	-214.0	813.0	1,322.2	1,242.5	79.74	16.581		
11,400.0	11,363.1	11,419.2	11,363.1	40.9	42.3	89.35	-214.0	813.0	1,322.2	1,241.8	80.44	16.438		
11,500.0	11,463.1	11,519.2	11,463.1	41.3	42.6	89.35	-214.0	813.0	1,322.2	1,241.1	81.13	16.297		
11,600.0	11,563.1	11,619.2	11,563.1	41.6	43.0	89.35	-214.0	813.0	1,322.2	1,240.4	81.83	16.159		
11,700.0	11,663.1	11,719.2	11,663.1	42.0	43.3	89.35	-214.0	813.0	1,322.2	1,239.7	82.52	16.022		
11,800.0	11,763.1	11,819.2	11,763.1	42.3	43.6	89.35	-214.0	813.0	1,322.2	1,239.0	83.22	15.888		
11,900.0	11,863.1	11,919.2	11,863.1	42.7	44.0	89.35	-214.0	813.0	1,322.2	1,238.3	83.92	15.756		
12,006.9	11,970.0	12,026.1	11,970.0	43.0	44.3	89.35	-214.0	813.0	1,322.2	1,237.6	84.66	15.617		
12,050.0	12,013.1	12,082.5	12,026.3	43.2	44.5	97.26	-212.2	812.8	1,322.3	1,237.3	84.99	15.558		
12,100.0	12,062.7	12,153.0	12,096.1	43.3	44.7	97.21	-202.4	811.4	1,322.1	1,236.8	85.36	15.489		
12,150.0	12,111.7	12,223.1	12,163.7	43.5	44.9	97.08	-184.4	808.9	1,321.8	1,236.1	85.69	15.425		
12,200.0	12,159.5	12,292.3	12,227.9	43.7	45.1	96.86	-158.6	805.3	1,321.2	1,235.2	85.99	15.364		
12,250.0	12,205.9	12,360.5	12,287.5	43.8	45.2	96.57	-126.0	800.8	1,320.5	1,234.2	86.27	15.306		
12,300.0	12,250.5	12,427.2	12,341.6	43.9	45.4	96.21	-87.5	795.5	1,319.6	1,233.1	86.54	15.248		
12,350.0	12,293.0	12,492.3	12,389.8	44.1	45.5	95.79	-44.1	789.5	1,318.6	1,231.8	86.81	15.190		
12,400.0	12,333.0	12,555.7	12,431.6	44.2	45.5	95.33	3.0	782.9	1,317.6	1,230.6	87.08	15.132		
12,450.0	12,370.3	12,617.2	12,467.0	44.3	45.6	94.83	52.9	776.0	1,316.6	1,229.2	87.35	15.073		
12,500.0	12,404.5	12,677.0	12,495.9	44.3	45.6	94.29	104.6	768.8	1,315.6	1,228.0	87.62	15.014		
12,550.0	12,435.4	12,734.9	12,518.6	44.4	45.6	93.73	157.3	761.5	1,314.6	1,226.7	87.90	14.956		
12,600.0	12,462.7	12,791.0	12,535.4	44.5	45.6	93.15	210.4	754.1	1,313.8	1,225.6	88.19	14.897		
12,650.0	12,486.3	12,845.5	12,546.7	44.5	45.6	92.56	263.2	746.8	1,313.1	1,224.6	88.47	14.841		
12,700.0	12,506.0	12,898.4	12,552.6	44.6	45.6	91.95	315.2	739.6	1,312.5	1,223.7	88.75	14.788		
12,750.0	12,521.6	12,949.8	12,553.8	44.7	45.7	91.35	366.1	732.5	1,312.0	1,223.0	89.03	14.737		
12,769.4	12,526.5	12,961.2	12,553.7	44.7	45.7	91.22	377.4	731.0	1,312.0	1,222.9	89.12	14.722		
12,800.0	12,533.0	12,981.6	12,553.3	44.7	45.7	91.00	397.6	728.4	1,312.1	1,222.9	89.26	14.700		
12,850.0	12,540.1	13,015.5	12,552.8	44.9	45.7	90.69	431.2	724.4	1,312.9	1,223.4	89.49	14.671		
12,900.0	12,542.9	13,049.6	12,552.3	45.0	45.8	90.43	465.2	720.7	1,314.4	1,224.7	89.73	14.649		
12,915.3	12,542.9	13,060.1	12,552.2	45.0	45.8	90.37	475.6	719.6	1,315.0	1,225.2	89.80	14.644		
13,000.0	12,541.7	13,118.1	12,551.3	45.3	46.0	90.39	533.4	714.6	1,318.0	1,227.8	90.24	14.606		
13,100.0	12,540.2	13,186.6	12,550.2	45.6	46.2	90.42	601.7	710.1	1,320.5	1,229.7	90.83	14.539		
13,200.0	12,538.7	13,255.0	12,549.2	46.0	46.5	90.45	670.0	707.2	1,321.9	1,230.4	91.50	14.447		
13,287.8	12,537.4	13,321.2	12,548.3	46.4	46.8	90.47	729.0	706.0	1,322.2	1,230.0	92.17	14.346		
13,300.0	12,537.2	13,326.1	12,548.1	46.5	46.8	90.47	741.1	705.9	1,322.2	1,230.0	92.25	14.333		
13,400.0	12,535.8	13,426.1	12,546.6	47.0	47.3	90.47	841.1	705.1	1,322.2	1,228.9	93.24	14.180		
13,500.0	12,534.3	13,526.1	12,545.0	47.5	47.9	90.47	941.1	704.3	1,322.2	1,227.8	94.34	14.015		
13,600.0	12,532.8	13,626.1	12,543.5	48.1	48.5	90.46	1,041.1	703.5	1,322.1	1,226.6	95.54	13.838		
13,700.0	12,531.3	13,726.1	12,542.0	48.7	49.1	90.46	1,141.1	702.7	1,322.1	1,225.3	96.84	13.652		
13,800.0	12,529.9	13,826.1	12,540.5	49.4	49.9	90.46	1,241.1	701.9	1,322.1	1,223.8	98.24	13.458		
13,900.0	12,528.4	13,926.1	12,539.0	50.2	50.6	90.46	1,341.1	701.1	1,322.0	1,222.3	99.72	13.257		
14,000.0	12,526.9	14,026.1	12,537.4	51.0	51.4	90.46	1,441.0	700.3	1,322.0	1,220.7	101.29	13.051		
14,100.0	12,525.5	14,126.1	12,535.9	51.8	52.2	90.45	1,541.0	699.5	1,322.0	1,219.0	102.95	12.841		

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	14,226.1	12,534.4	52.6	53.1	90.45	1,641.0	698.6	1,322.0	1,217.3	104.68	12.628	
14,300.0	12,522.5	14,326.1	12,532.9	53.5	54.0	90.45	1,741.0	697.8	1,321.9	1,215.4	106.49	12.414	
14,400.0	12,521.0	14,426.1	12,531.3	54.5	54.9	90.45	1,841.0	697.0	1,321.9	1,213.5	108.37	12.198	
14,500.0	12,519.6	14,526.1	12,529.8	55.4	55.9	90.44	1,941.0	696.2	1,321.9	1,211.6	110.32	11.983	
14,600.0	12,518.1	14,626.1	12,528.3	56.4	56.9	90.44	2,040.9	695.4	1,321.8	1,209.5	112.33	11.768	
14,700.0	12,516.6	14,726.1	12,526.8	57.4	58.0	90.44	2,140.9	694.6	1,321.8	1,207.4	114.40	11.554	
14,800.0	12,515.1	14,826.1	12,525.2	58.5	59.0	90.44	2,240.9	693.8	1,321.8	1,205.3	116.53	11.343	
14,900.0	12,513.7	14,926.1	12,523.7	59.6	60.1	90.44	2,340.9	693.0	1,321.8	1,203.0	118.71	11.134	
15,000.0	12,512.2	15,026.1	12,522.2	60.7	61.2	90.43	2,440.9	692.2	1,321.7	1,200.8	120.95	10.928	
15,100.0	12,510.7	15,126.1	12,520.7	61.8	62.4	90.43	2,540.9	691.4	1,321.7	1,198.5	123.23	10.725	
15,200.0	12,509.3	15,226.1	12,519.1	63.0	63.5	90.43	2,640.9	690.6	1,321.7	1,196.1	125.56	10.526	
15,300.0	12,507.8	15,326.1	12,517.6	64.2	64.7	90.43	2,740.8	689.7	1,321.7	1,193.7	127.94	10.331	
15,400.0	12,506.3	15,426.1	12,516.1	65.4	65.9	90.42	2,840.8	688.9	1,321.6	1,191.3	130.35	10.139	
15,500.0	12,504.8	15,526.1	12,514.6	66.6	67.1	90.42	2,940.8	688.1	1,321.6	1,188.8	132.80	9.951	
15,600.0	12,503.4	15,626.1	12,513.0	67.8	68.4	90.42	3,040.8	687.3	1,321.6	1,186.3	135.29	9.768	
15,700.0	12,501.9	15,726.1	12,511.5	69.1	69.6	90.42	3,140.8	686.5	1,321.5	1,183.7	137.82	9.589	
15,800.0	12,500.4	15,826.1	12,510.0	70.3	70.9	90.42	3,240.8	685.7	1,321.5	1,181.1	140.38	9.414	
15,900.0	12,498.9	15,926.1	12,508.5	71.6	72.2	90.41	3,340.8	684.9	1,321.5	1,178.5	142.97	9.243	
16,000.0	12,497.5	16,026.1	12,506.9	72.9	73.5	90.41	3,440.7	684.1	1,321.5	1,175.9	145.58	9.077	
16,100.0	12,496.0	16,126.1	12,505.4	74.3	74.8	90.41	3,540.7	683.3	1,321.4	1,173.2	148.23	8.915	
16,200.0	12,494.5	16,226.1	12,503.9	75.6	76.1	90.41	3,640.7	682.5	1,321.4	1,170.5	150.90	8.757	
16,300.0	12,493.0	16,326.1	12,502.4	76.9	77.5	90.40	3,740.7	681.7	1,321.4	1,167.8	153.60	8.603	
16,400.0	12,491.6	16,426.1	12,500.8	78.3	78.8	90.40	3,840.7	680.9	1,321.3	1,165.0	156.32	8.453	
16,500.0	12,490.1	16,526.1	12,499.3	79.6	80.2	90.40	3,940.7	680.0	1,321.3	1,162.2	159.07	8.307	
16,600.0	12,488.6	16,626.1	12,497.8	81.0	81.6	90.40	4,040.6	679.2	1,321.3	1,159.5	161.83	8.164	
16,700.0	12,487.2	16,726.1	12,496.3	82.4	83.0	90.40	4,140.6	678.4	1,321.3	1,156.6	164.62	8.026	
16,800.0	12,485.7	16,826.1	12,494.8	83.8	84.4	90.39	4,240.6	677.6	1,321.2	1,153.8	167.42	7.892	
16,900.0	12,484.2	16,926.1	12,493.2	85.2	85.8	90.39	4,340.6	676.8	1,321.2	1,151.0	170.25	7.760	
17,000.0	12,482.7	17,026.1	12,491.7	86.6	87.2	90.39	4,440.6	676.0	1,321.2	1,148.1	173.09	7.633	
17,100.0	12,481.3	17,126.1	12,490.2	88.1	88.6	90.39	4,540.6	675.2	1,321.1	1,145.2	175.95	7.509	
17,200.0	12,479.8	17,226.1	12,488.7	89.5	90.0	90.38	4,640.6	674.4	1,321.1	1,142.3	178.82	7.388	
17,300.0	12,478.3	17,326.1	12,487.1	90.9	91.5	90.38	4,740.5	673.6	1,321.1	1,139.4	181.71	7.270	
17,400.0	12,476.8	17,426.1	12,485.6	92.4	92.9	90.38	4,840.5	672.8	1,321.1	1,136.4	184.61	7.156	
17,500.0	12,475.4	17,526.1	12,484.1	93.8	94.4	90.38	4,940.5	672.0	1,321.0	1,133.5	187.53	7.045	
17,600.0	12,473.9	17,626.1	12,482.6	95.3	95.8	90.38	5,040.5	671.1	1,321.0	1,130.5	190.46	6.936	
17,700.0	12,472.4	17,726.1	12,481.0	96.7	97.3	90.37	5,140.5	670.3	1,321.0	1,127.6	193.40	6.830	
17,800.0	12,471.0	17,826.1	12,479.5	98.2	98.8	90.37	5,240.5	669.5	1,320.9	1,124.6	196.35	6.727	
17,900.0	12,469.5	17,926.1	12,478.0	99.7	100.3	90.37	5,340.5	668.7	1,320.9	1,121.6	199.32	6.627	
18,000.0	12,468.0	18,026.1	12,476.5	101.2	101.7	90.37	5,440.4	667.9	1,320.9	1,118.6	202.29	6.530	
18,100.0	12,466.5	18,126.1	12,474.9	102.7	103.2	90.36	5,540.4	667.1	1,320.9	1,115.6	205.28	6.434	
18,200.0	12,465.1	18,226.1	12,473.4	104.2	104.7	90.36	5,640.4	666.3	1,320.8	1,112.6	208.27	6.342	
18,300.0	12,463.6	18,326.1	12,471.9	105.7	106.2	90.36	5,740.4	665.5	1,320.8	1,109.5	211.28	6.251	
18,400.0	12,462.1	18,426.1	12,470.4	107.2	107.7	90.36	5,840.4	664.7	1,320.8	1,106.5	214.30	6.163	
18,500.0	12,460.6	18,526.1	12,468.8	108.7	109.2	90.36	5,940.4	663.9	1,320.7	1,103.4	217.32	6.077	
18,600.0	12,459.2	18,626.1	12,467.3	110.2	110.7	90.35	6,040.3	663.1	1,320.7	1,100.4	220.35	5.994	
18,700.0	12,457.7	18,726.1	12,465.8	111.7	112.3	90.35	6,140.3	662.2	1,320.7	1,097.3	223.39	5.912	
18,800.0	12,456.2	18,826.1	12,464.3	113.2	113.8	90.35	6,240.3	661.4	1,320.7	1,094.2	226.44	5.832	
18,900.0	12,454.8	18,926.1	12,462.7	114.8	115.3	90.35	6,340.3	660.6	1,320.6	1,091.1	229.49	5.755	
19,000.0	12,453.3	19,026.1	12,461.2	116.3	116.8	90.34	6,440.3	659.8	1,320.6	1,088.1	232.56	5.679	
19,100.0	12,451.8	19,126.1	12,459.7	117.8	118.4	90.34	6,540.3	659.0	1,320.6	1,085.0	235.63	5.605	
19,200.0	12,450.3	19,226.1	12,458.2	119.3	119.9	90.34	6,640.3	658.2	1,320.6	1,081.9	238.70	5.532	
19,300.0	12,448.9	19,326.1	12,456.6	120.9	121.4	90.34	6,740.2	657.4	1,320.5	1,078.7	241.78	5.462	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
19,400.0	12,447.4	19,426.1	12,455.1	122.4	123.0	90.34	6,840.2	656.6	1,320.5	1,075.6	244.87	5.393	
19,500.0	12,445.9	19,526.1	12,453.6	124.0	124.5	90.33	6,940.2	655.8	1,320.5	1,072.5	247.97	5.325	
19,600.0	12,444.4	19,626.1	12,452.1	125.5	126.1	90.33	7,040.2	655.0	1,320.4	1,069.4	251.07	5.259	
19,700.0	12,443.0	19,726.1	12,450.6	127.1	127.6	90.33	7,140.2	654.2	1,320.4	1,066.2	254.17	5.195	
19,800.0	12,441.5	19,826.1	12,449.0	128.6	129.2	90.33	7,240.2	653.3	1,320.4	1,063.1	257.28	5.132	
19,900.0	12,440.0	19,926.1	12,447.5	130.2	130.7	90.32	7,340.2	652.5	1,320.4	1,060.0	260.40	5.071	
20,000.0	12,438.6	20,026.1	12,446.0	131.7	132.3	90.32	7,440.1	651.7	1,320.3	1,056.8	263.52	5.010	
20,100.0	12,437.1	20,126.1	12,444.5	133.3	133.8	90.32	7,540.1	650.9	1,320.3	1,053.7	266.64	4.952	
20,200.0	12,435.6	20,226.1	12,442.9	134.9	135.4	90.32	7,640.1	650.1	1,320.3	1,050.5	269.77	4.894	
20,300.0	12,434.1	20,326.1	12,441.4	136.4	137.0	90.32	7,740.1	649.3	1,320.2	1,047.3	272.91	4.838	
20,400.0	12,432.7	20,426.1	12,439.9	138.0	138.5	90.31	7,840.1	648.5	1,320.2	1,044.2	276.04	4.783	
20,500.0	12,431.2	20,526.1	12,438.4	139.6	140.1	90.31	7,940.1	647.7	1,320.2	1,041.0	279.19	4.729	
20,600.0	12,429.7	20,626.1	12,436.8	141.1	141.7	90.31	8,040.1	646.9	1,320.2	1,037.8	282.33	4.676	
20,700.0	12,428.2	20,726.1	12,435.3	142.7	143.2	90.31	8,140.0	646.1	1,320.1	1,034.6	285.48	4.624	
20,800.0	12,426.8	20,826.1	12,433.8	144.3	144.8	90.30	8,240.0	645.3	1,320.1	1,031.5	288.64	4.574	
20,900.0	12,425.3	20,926.1	12,432.3	145.9	146.4	90.30	8,340.0	644.4	1,320.1	1,028.3	291.79	4.524	
21,000.0	12,423.8	21,026.1	12,430.7	147.4	148.0	90.30	8,440.0	643.6	1,320.0	1,025.1	294.96	4.475	
21,100.0	12,422.4	21,126.1	12,429.2	149.0	149.5	90.30	8,540.0	642.8	1,320.0	1,021.9	298.12	4.428	
21,200.0	12,420.9	21,226.1	12,427.7	150.6	151.1	90.30	8,640.0	642.0	1,320.0	1,018.7	301.29	4.381	
21,300.0	12,419.4	21,326.1	12,426.2	152.2	152.7	90.29	8,739.9	641.2	1,320.0	1,015.5	304.46	4.335	
21,400.0	12,417.9	21,426.1	12,424.6	153.8	154.3	90.29	8,839.9	640.4	1,319.9	1,012.3	307.63	4.291	
21,500.0	12,416.5	21,526.1	12,423.1	155.3	155.9	90.29	8,939.9	639.6	1,319.9	1,009.1	310.81	4.247	
21,600.0	12,415.0	21,626.1	12,421.6	156.9	157.5	90.29	9,039.9	638.8	1,319.9	1,005.9	313.99	4.204	
21,700.0	12,413.5	21,726.1	12,420.1	158.5	159.1	90.28	9,139.9	638.0	1,319.9	1,002.7	317.17	4.161	
21,800.0	12,412.0	21,826.1	12,418.5	160.1	160.6	90.28	9,239.9	637.2	1,319.8	999.5	320.35	4.120	
21,900.0	12,410.6	21,926.1	12,417.0	161.7	162.2	90.28	9,339.9	636.4	1,319.8	996.3	323.54	4.079	
22,000.0	12,409.1	22,026.1	12,415.5	163.3	163.8	90.28	9,439.8	635.6	1,319.8	993.0	326.73	4.039	
22,100.0	12,407.6	22,126.1	12,414.0	164.9	165.4	90.28	9,539.8	634.7	1,319.7	989.8	329.92	4.000	
22,200.0	12,406.1	22,226.1	12,412.4	166.5	167.0	90.27	9,639.8	633.9	1,319.7	986.6	333.12	3.962	
22,300.0	12,404.7	22,326.1	12,410.9	168.1	168.6	90.27	9,739.8	633.1	1,319.7	983.4	336.32	3.924	
22,400.0	12,403.2	22,426.1	12,409.4	169.7	170.2	90.27	9,839.8	632.3	1,319.7	980.1	339.52	3.887	
22,500.0	12,401.7	22,526.1	12,407.9	171.3	171.8	90.27	9,939.8	631.5	1,319.6	976.9	342.72	3.850	
22,600.0	12,400.3	22,626.1	12,406.3	172.9	173.4	90.26	10,039.8	630.7	1,319.6	973.7	345.92	3.815	
22,700.0	12,398.8	22,726.1	12,404.8	174.5	175.0	90.26	10,139.7	629.9	1,319.6	970.4	349.13	3.780	
22,787.3	12,397.5	22,813.4	12,403.5	175.7	176.4	90.26	10,227.0	629.2	1,319.5	967.8	351.74	3.751	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	-1.0	0.0	0.0	90.06	-2.3	2,423.2	2,423.2				
100.0	100.0	101.0	99.0	0.1	0.1	90.06	-2.3	2,423.2	2,423.2	2,423.0	0.26	9,323.960	
200.0	200.0	201.0	199.0	0.5	0.5	90.06	-2.3	2,423.2	2,423.2	2,422.2	0.98	2,480.689	
300.0	300.0	301.0	299.0	0.8	0.8	90.06	-2.3	2,423.2	2,423.2	2,421.5	1.69	1,430.662	
400.0	400.0	401.0	399.0	1.2	1.2	90.06	-2.3	2,423.2	2,423.2	2,420.8	2.41	1,005.186	
500.0	500.0	501.0	499.0	1.6	1.6	90.06	-2.3	2,423.2	2,423.2	2,420.1	3.13	774.771	
600.0	600.0	601.0	599.0	1.9	1.9	90.06	-2.3	2,423.2	2,423.2	2,419.4	3.84	630.292	
700.0	700.0	701.0	699.0	2.3	2.3	90.06	-2.3	2,423.2	2,423.2	2,418.7	4.56	531.228	
800.0	800.0	801.0	799.0	2.6	2.6	90.06	-2.3	2,423.2	2,423.2	2,417.9	5.28	459.075	
900.0	900.0	901.0	899.0	3.0	3.0	90.06	-2.3	2,423.2	2,423.2	2,417.2	6.00	404.178	
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	90.06	-2.3	2,423.2	2,423.2	2,416.5	6.71	361.008	
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	90.06	-2.3	2,423.2	2,423.2	2,415.8	7.43	326.170	
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	90.06	-2.3	2,423.2	2,423.2	2,415.1	8.15	297.464	
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	90.06	-2.3	2,423.2	2,423.2	2,414.4	8.86	273.403	
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	90.06	-2.3	2,423.2	2,423.2	2,413.6	9.58	252.942	
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	90.06	-2.3	2,423.2	2,423.2	2,412.9	10.29	235.495	
1,600.0	1,600.0	1,652.1	1,652.1	5.5	5.7	-155.71	-3.5	2,421.6	2,422.9	2,411.8	11.16	217.202	
1,700.0	1,700.0	1,805.8	1,805.6	5.8	6.2	-155.67	-6.9	2,416.5	2,422.0	2,410.0	12.00	201.863	
1,800.0	1,799.9	1,959.3	1,958.8	6.2	6.7	-155.61	-12.7	2,408.0	2,420.5	2,407.6	12.85	188.421	
1,900.0	1,899.7	2,112.6	2,111.5	6.5	7.2	-155.52	-20.8	2,396.2	2,418.3	2,404.6	13.70	176.563	
2,000.0	1,999.4	2,265.8	2,263.5	6.9	7.8	-155.40	-31.1	2,381.0	2,415.6	2,401.0	14.55	166.005	
2,100.0	2,098.9	2,377.5	2,374.2	7.2	8.2	-155.31	-39.8	2,368.2	2,412.9	2,397.6	15.29	157.845	
2,200.0	2,198.3	2,477.5	2,473.2	7.6	8.6	-155.24	-47.6	2,356.7	2,411.7	2,395.7	15.99	150.804	
2,223.7	2,221.8	2,501.2	2,496.6	7.7	8.7	-155.22	-49.5	2,354.0	2,411.6	2,395.5	16.16	149.230 CC	
2,300.0	2,297.4	2,577.4	2,572.1	7.9	9.0	-155.17	-55.5	2,345.2	2,412.1	2,395.4	16.70	144.399	
2,400.0	2,396.4	2,677.4	2,671.1	8.3	9.3	-155.12	-63.3	2,333.7	2,413.3	2,395.9	17.42	138.521	
2,500.0	2,495.5	2,777.4	2,770.1	8.7	9.7	-155.07	-71.1	2,322.2	2,414.5	2,396.4	18.14	133.072	
2,600.0	2,594.5	2,877.4	2,869.1	9.1	10.1	-155.02	-79.0	2,310.7	2,415.8	2,396.9	18.87	128.013	
2,700.0	2,693.5	2,977.3	2,968.1	9.5	10.5	-154.97	-86.8	2,299.2	2,417.0	2,397.4	19.60	123.304	
2,800.0	2,792.5	3,077.3	3,067.1	9.8	10.9	-154.92	-94.6	2,287.7	2,418.2	2,397.9	20.34	118.915	
2,900.0	2,891.6	3,177.3	3,166.1	10.2	11.3	-154.87	-102.5	2,276.2	2,419.4	2,398.3	21.07	114.814	
3,000.0	2,990.6	3,277.2	3,265.1	10.6	11.7	-154.82	-110.3	2,264.7	2,420.6	2,398.8	21.81	110.976	
3,100.0	3,089.6	3,377.2	3,364.1	11.0	12.1	-154.77	-118.1	2,253.2	2,421.9	2,399.3	22.55	107.379	
3,200.0	3,188.6	3,477.2	3,463.1	11.4	12.5	-154.72	-126.0	2,241.7	2,423.1	2,399.8	23.30	104.000	
3,300.0	3,287.7	3,577.1	3,562.1	11.8	12.9	-154.68	-133.8	2,230.2	2,424.3	2,400.3	24.05	100.822	
3,400.0	3,386.7	3,677.1	3,661.1	12.2	13.3	-154.63	-141.6	2,218.7	2,425.5	2,400.7	24.79	97.828	
3,500.0	3,485.7	3,777.1	3,760.1	12.6	13.7	-154.58	-149.5	2,207.2	2,426.8	2,401.2	25.54	95.003	
3,600.0	3,584.8	3,877.1	3,859.1	13.0	14.1	-154.53	-157.3	2,195.7	2,428.0	2,401.7	26.30	92.333	
3,700.0	3,683.8	3,977.0	3,958.1	13.4	14.5	-154.48	-165.1	2,184.2	2,429.2	2,402.2	27.05	89.807	
3,800.0	3,782.8	4,077.0	4,057.1	13.8	14.9	-154.43	-173.0	2,172.7	2,430.5	2,402.7	27.80	87.413	
3,900.0	3,881.8	4,169.5	4,148.7	14.3	15.3	-154.38	-180.2	2,162.1	2,431.7	2,403.2	28.54	85.218	
4,000.0	3,980.9	4,235.4	4,214.1	14.7	15.6	-154.36	-184.9	2,155.2	2,434.0	2,404.8	29.17	83.431	
4,100.0	4,079.9	4,300.0	4,278.3	15.1	15.8	-154.35	-188.9	2,149.3	2,437.6	2,407.8	29.80	81.799	
4,200.0	4,178.9	4,366.9	4,344.9	15.5	16.1	-154.36	-192.4	2,144.2	2,442.7	2,412.3	30.42	80.287	
4,300.0	4,277.9	4,432.5	4,410.3	15.9	16.3	-154.39	-195.2	2,140.1	2,449.1	2,418.1	31.04	78.914	
4,400.0	4,377.0	4,500.0	4,477.7	16.3	16.6	-154.43	-197.4	2,136.9	2,457.0	2,425.3	31.64	77.642	
4,500.0	4,476.0	4,563.2	4,540.9	16.7	16.8	-154.48	-198.8	2,134.7	2,466.2	2,434.0	32.23	76.529	
4,600.0	4,575.0	4,628.3	4,605.9	17.1	17.0	-154.55	-199.7	2,133.4	2,476.8	2,444.0	32.80	75.505	
4,700.0	4,674.0	4,704.6	4,673.0	17.5	17.3	-154.64	-200.0	2,133.0	2,488.8	2,455.4	33.41	74.498	
4,800.0	4,773.1	4,805.5	4,772.1	18.0	17.6	-154.78	-200.0	2,133.0	2,501.4	2,467.3	34.12	73.323	
4,900.0	4,872.1	4,906.5	4,871.1	18.4	18.0	-154.91	-200.0	2,133.0	2,514.0	2,479.2	34.82	72.193	
5,000.0	4,971.1	5,007.5	4,970.1	18.8	18.3	-155.05	-200.0	2,133.0	2,526.7	2,491.1	35.53	71.106	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,070.2	5,108.5	5,069.2	19.2	18.6	-155.18	-200.0	2,133.0	2,539.3	2,503.1	36.24	70.060	
5,200.0	5,169.2	5,209.4	5,168.2	19.6	19.0	-155.31	-200.0	2,133.0	2,552.0	2,515.0	36.96	69.053	
5,300.0	5,268.2	5,289.6	5,267.2	20.0	19.2	-155.44	-200.0	2,133.0	2,564.7	2,527.1	37.60	68.210	
5,400.0	5,367.2	5,388.6	5,366.2	20.5	19.6	-155.57	-200.0	2,133.0	2,577.3	2,539.0	38.31	67.283	
5,500.0	5,466.3	5,487.6	5,465.3	20.9	19.9	-155.69	-200.0	2,133.0	2,590.0	2,551.0	39.01	66.387	
5,600.0	5,565.3	5,586.7	5,564.3	21.3	20.2	-155.82	-200.0	2,133.0	2,602.7	2,563.0	39.72	65.523	
5,643.3	5,608.2	5,629.6	5,607.2	21.5	20.4	-155.87	-200.0	2,133.0	2,608.3	2,568.2	40.03	65.158	
5,700.0	5,664.4	5,685.8	5,663.4	21.7	20.5	-155.98	-200.0	2,133.0	2,615.1	2,574.7	40.43	64.680	
5,800.0	5,763.7	5,785.1	5,762.7	22.1	20.9	-156.14	-200.0	2,133.0	2,625.3	2,584.1	41.14	63.818	
5,900.0	5,863.4	5,884.8	5,862.4	22.5	21.2	-156.27	-200.0	2,133.0	2,633.1	2,591.3	41.84	62.932	
6,000.0	5,963.2	5,984.6	5,962.2	22.8	21.6	-156.35	-200.0	2,133.0	2,638.5	2,596.0	42.54	62.024	
6,100.0	6,063.1	6,084.5	6,062.1	23.2	21.9	-156.40	-200.0	2,133.0	2,641.6	2,598.3	43.24	61.096	
6,176.7	6,139.8	6,161.2	6,138.8	23.4	22.1	89.37	-200.0	2,133.0	2,642.3	2,598.5	43.76	60.379	
6,200.0	6,163.1	6,184.5	6,162.1	23.5	22.2	89.37	-200.0	2,133.0	2,642.3	2,598.4	43.92	60.162	
6,300.0	6,263.1	6,284.5	6,262.1	23.8	22.6	89.37	-200.0	2,133.0	2,642.3	2,597.7	44.60	59.249	
6,400.0	6,363.1	6,384.5	6,362.1	24.2	22.9	89.37	-200.0	2,133.0	2,642.3	2,597.0	45.27	58.362	
6,500.0	6,463.1	6,484.5	6,462.1	24.5	23.2	89.37	-200.0	2,133.0	2,642.3	2,596.3	45.95	57.500	
6,600.0	6,563.1	6,584.5	6,562.1	24.8	23.6	89.37	-200.0	2,133.0	2,642.3	2,595.6	46.63	56.661	
6,700.0	6,663.1	6,684.5	6,662.1	25.1	23.9	89.37	-200.0	2,133.0	2,642.3	2,595.0	47.31	55.845	
6,800.0	6,763.1	6,784.5	6,762.1	25.4	24.3	89.37	-200.0	2,133.0	2,642.3	2,594.3	48.00	55.051	
6,900.0	6,863.1	6,884.5	6,862.1	25.8	24.6	89.37	-200.0	2,133.0	2,642.3	2,593.6	48.68	54.279	
7,000.0	6,963.1	6,984.5	6,962.1	26.1	25.0	89.37	-200.0	2,133.0	2,642.3	2,592.9	49.36	53.526	
7,100.0	7,063.1	7,084.5	7,062.1	26.4	25.3	89.37	-200.0	2,133.0	2,642.3	2,592.2	50.05	52.794	
7,200.0	7,163.1	7,184.5	7,162.1	26.7	25.6	89.37	-200.0	2,133.0	2,642.3	2,591.5	50.74	52.080	
7,300.0	7,263.1	7,284.5	7,262.1	27.1	26.0	89.37	-200.0	2,133.0	2,642.3	2,590.9	51.42	51.384	
7,400.0	7,363.1	7,384.5	7,362.1	27.4	26.3	89.37	-200.0	2,133.0	2,642.3	2,590.2	52.11	50.706	
7,500.0	7,463.1	7,484.5	7,462.1	27.7	26.7	89.37	-200.0	2,133.0	2,642.3	2,589.5	52.80	50.045	
7,600.0	7,563.1	7,584.5	7,562.1	28.1	27.0	89.37	-200.0	2,133.0	2,642.3	2,588.8	53.49	49.400	
7,700.0	7,663.1	7,684.5	7,662.1	28.4	27.4	89.37	-200.0	2,133.0	2,642.3	2,588.1	54.18	48.771	
7,800.0	7,763.1	7,784.5	7,762.1	28.7	27.7	89.37	-200.0	2,133.0	2,642.3	2,587.4	54.87	48.157	
7,900.0	7,863.1	7,884.5	7,862.1	29.0	28.1	89.37	-200.0	2,133.0	2,642.3	2,586.7	55.56	47.558	
8,000.0	7,963.1	7,984.5	7,962.1	29.4	28.4	89.37	-200.0	2,133.0	2,642.3	2,586.0	56.25	46.973	
8,100.0	8,063.1	8,084.5	8,062.1	29.7	28.7	89.37	-200.0	2,133.0	2,642.3	2,585.3	56.94	46.402	
8,200.0	8,163.1	8,184.5	8,162.1	30.0	29.1	89.37	-200.0	2,133.0	2,642.3	2,584.6	57.64	45.844	
8,300.0	8,263.1	8,284.5	8,262.1	30.4	29.4	89.37	-200.0	2,133.0	2,642.3	2,584.0	58.33	45.298	
8,400.0	8,363.1	8,384.5	8,362.1	30.7	29.8	89.37	-200.0	2,133.0	2,642.3	2,583.3	59.02	44.766	
8,500.0	8,463.1	8,484.5	8,462.1	31.0	30.1	89.37	-200.0	2,133.0	2,642.3	2,582.6	59.72	44.245	
8,600.0	8,563.1	8,584.5	8,562.1	31.4	30.5	89.37	-200.0	2,133.0	2,642.3	2,581.9	60.41	43.736	
8,700.0	8,663.1	8,684.5	8,662.1	31.7	30.8	89.37	-200.0	2,133.0	2,642.3	2,581.2	61.11	43.238	
8,800.0	8,763.1	8,784.5	8,762.1	32.1	31.2	89.37	-200.0	2,133.0	2,642.3	2,580.5	61.81	42.751	
8,900.0	8,863.1	8,884.5	8,862.1	32.4	31.5	89.37	-200.0	2,133.0	2,642.3	2,579.8	62.50	42.274	
9,000.0	8,963.1	8,984.5	8,962.1	32.7	31.9	89.37	-200.0	2,133.0	2,642.3	2,579.1	63.20	41.808	
9,100.0	9,063.1	9,084.5	9,062.1	33.1	32.2	89.37	-200.0	2,133.0	2,642.3	2,578.4	63.90	41.351	
9,200.0	9,163.1	9,184.5	9,162.1	33.4	32.6	89.37	-200.0	2,133.0	2,642.3	2,577.7	64.60	40.904	
9,300.0	9,263.1	9,284.5	9,262.1	33.7	32.9	89.37	-200.0	2,133.0	2,642.3	2,577.0	65.30	40.467	
9,400.0	9,363.1	9,384.5	9,362.1	34.1	33.3	89.37	-200.0	2,133.0	2,642.3	2,576.3	65.99	40.038	
9,500.0	9,463.1	9,484.5	9,462.1	34.4	33.6	89.37	-200.0	2,133.0	2,642.3	2,575.6	66.69	39.618	
9,600.0	9,563.1	9,584.5	9,562.1	34.8	34.0	89.37	-200.0	2,133.0	2,642.3	2,574.9	67.39	39.207	
9,700.0	9,663.1	9,684.5	9,662.1	35.1	34.3	89.37	-200.0	2,133.0	2,642.3	2,574.2	68.09	38.804	
9,800.0	9,763.1	9,784.5	9,762.1	35.4	34.7	89.37	-200.0	2,133.0	2,642.3	2,573.5	68.79	38.409	
9,900.0	9,863.1	9,884.5	9,862.1	35.8	35.0	89.37	-200.0	2,133.0	2,642.3	2,572.8	69.49	38.022	
10,000.0	9,963.1	9,984.5	9,962.1	36.1	35.4	89.37	-200.0	2,133.0	2,642.3	2,572.1	70.19	37.642	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,100.0	10,063.1	10,084.5	10,062.1	36.5	35.7	89.37	-200.0	2,133.0	2,642.3	2,571.4	70.90	37.270	
10,200.0	10,163.1	10,184.5	10,162.1	36.8	36.1	89.37	-200.0	2,133.0	2,642.3	2,570.7	71.60	36.905	
10,300.0	10,263.1	10,284.5	10,262.1	37.1	36.4	89.37	-200.0	2,133.0	2,642.3	2,570.0	72.30	36.546	
10,400.0	10,363.1	10,384.5	10,362.1	37.5	36.8	89.37	-200.0	2,133.0	2,642.3	2,569.3	73.00	36.195	
10,500.0	10,463.1	10,484.5	10,462.1	37.8	37.1	89.37	-200.0	2,133.0	2,642.3	2,568.6	73.70	35.850	
10,600.0	10,563.1	10,584.5	10,562.1	38.2	37.5	89.37	-200.0	2,133.0	2,642.3	2,567.9	74.41	35.511	
10,700.0	10,663.1	10,684.5	10,662.1	38.5	37.8	89.37	-200.0	2,133.0	2,642.3	2,567.2	75.11	35.179	
10,800.0	10,763.1	10,784.5	10,762.1	38.9	38.2	89.37	-200.0	2,133.0	2,642.3	2,566.5	75.81	34.852	
10,900.0	10,863.1	10,884.5	10,862.1	39.2	38.5	89.37	-200.0	2,133.0	2,642.3	2,565.8	76.52	34.532	
11,000.0	10,963.1	10,984.5	10,962.1	39.6	38.9	89.37	-200.0	2,133.0	2,642.3	2,565.1	77.22	34.217	
11,100.0	11,063.1	11,084.5	11,062.1	39.9	39.2	89.37	-200.0	2,133.0	2,642.3	2,564.4	77.92	33.908	
11,200.0	11,163.1	11,184.5	11,162.1	40.2	39.6	89.37	-200.0	2,133.0	2,642.3	2,563.7	78.63	33.604	
11,300.0	11,263.1	11,284.5	11,262.1	40.6	40.0	89.37	-200.0	2,133.0	2,642.3	2,562.9	79.33	33.306	
11,400.0	11,363.1	11,384.5	11,362.1	40.9	40.3	89.37	-200.0	2,133.0	2,642.3	2,562.2	80.04	33.013	
11,500.0	11,463.1	11,484.5	11,462.1	41.3	40.7	89.37	-200.0	2,133.0	2,642.3	2,561.5	80.74	32.725	
11,600.0	11,563.1	11,584.5	11,562.1	41.6	41.0	89.37	-200.0	2,133.0	2,642.3	2,560.8	81.45	32.441	
11,700.0	11,663.1	11,684.5	11,662.1	42.0	41.4	89.37	-200.0	2,133.0	2,642.3	2,560.1	82.15	32.163	
11,800.0	11,763.1	11,784.5	11,762.1	42.3	41.7	89.37	-200.0	2,133.0	2,642.3	2,559.4	82.86	31.889	
11,900.0	11,863.1	11,884.5	11,862.1	42.7	42.1	89.37	-200.0	2,133.0	2,642.3	2,558.7	83.56	31.620	
12,006.9	11,970.0	11,991.4	11,969.0	43.0	42.4	89.37	-200.0	2,133.0	2,642.3	2,558.0	84.32	31.337	
12,050.0	12,013.1	12,070.1	12,047.6	43.2	42.7	97.27	-196.7	2,132.6	2,642.3	2,557.5	84.77	31.170	
12,100.0	12,062.7	12,186.6	12,161.3	43.3	43.1	97.10	-172.8	2,129.3	2,641.8	2,556.4	85.33	30.960	
12,150.0	12,111.7	12,297.9	12,263.3	43.5	43.4	96.74	-129.1	2,123.3	2,640.6	2,554.8	85.79	30.779	
12,200.0	12,159.5	12,401.2	12,348.8	43.7	43.7	96.24	-71.7	2,115.4	2,638.8	2,552.7	86.18	30.619	
12,250.0	12,205.9	12,495.4	12,416.5	43.8	43.8	95.68	-7.0	2,106.6	2,636.8	2,550.2	86.54	30.470	
12,300.0	12,250.5	12,580.5	12,467.7	43.9	44.0	95.09	60.2	2,097.4	2,634.6	2,547.7	86.87	30.326	
12,350.0	12,293.0	12,657.3	12,504.8	44.1	44.1	94.50	126.8	2,088.3	2,632.3	2,545.1	87.20	30.187	
12,400.0	12,333.0	12,726.8	12,530.4	44.2	44.2	93.92	190.8	2,079.5	2,630.1	2,542.6	87.52	30.052	
12,450.0	12,370.3	12,790.3	12,546.8	44.3	44.4	93.36	251.5	2,071.2	2,628.2	2,540.3	87.83	29.923	
12,500.0	12,404.5	12,848.7	12,555.8	44.3	44.6	92.82	308.6	2,063.4	2,626.4	2,538.3	88.13	29.802	
12,550.0	12,435.4	12,902.8	12,558.9	44.4	44.7	92.28	362.1	2,056.0	2,625.0	2,536.6	88.41	29.690	
12,600.0	12,462.7	12,932.9	12,558.6	44.5	44.8	92.02	392.0	2,052.0	2,624.0	2,535.3	88.62	29.608	
12,645.5	12,484.4	12,953.6	12,558.3	44.5	44.9	91.82	412.5	2,049.4	2,623.7	2,534.9	88.79	29.549	
12,650.0	12,486.3	12,955.7	12,558.3	44.5	44.9	91.80	414.6	2,049.1	2,623.7	2,534.9	88.81	29.544	
12,700.0	12,506.0	12,979.5	12,557.9	44.6	45.0	91.55	438.2	2,046.3	2,624.1	2,535.1	88.99	29.488	
12,750.0	12,521.6	13,000.0	12,557.6	44.7	45.0	91.30	458.6	2,044.0	2,625.1	2,536.0	89.15	29.445	
12,800.0	12,533.0	13,029.5	12,557.2	44.7	45.1	90.97	487.9	2,041.0	2,626.8	2,537.4	89.37	29.393	
12,850.0	12,540.1	13,055.2	12,556.8	44.9	45.2	90.67	513.5	2,038.6	2,628.9	2,539.4	89.57	29.352	
12,900.0	12,542.9	13,081.1	12,556.4	45.0	45.3	90.36	539.3	2,036.5	2,631.6	2,541.9	89.77	29.316	
12,915.3	12,542.9	13,100.0	12,556.1	45.0	45.4	90.26	558.1	2,035.1	2,632.6	2,542.7	89.88	29.291	
13,000.0	12,541.7	13,133.2	12,555.6	45.3	45.5	90.28	591.2	2,032.8	2,637.2	2,547.0	90.22	29.229	
13,100.0	12,540.2	13,200.0	12,554.5	45.6	45.8	90.31	658.0	2,029.6	2,641.2	2,550.4	90.81	29.085	
13,200.0	12,538.7	13,237.2	12,554.0	46.0	46.0	90.34	695.1	2,028.4	2,643.3	2,552.0	91.31	28.950	
13,287.8	12,537.4	13,283.9	12,553.3	46.4	46.2	90.37	741.9	2,027.7	2,643.9	2,552.1	91.85	28.785	
13,300.0	12,537.2	13,306.0	12,553.1	46.5	46.3	90.37	752.0	2,027.6	2,643.9	2,551.9	92.01	28.735	
13,400.0	12,535.8	13,406.0	12,551.6	47.0	46.8	90.36	851.9	2,026.8	2,643.9	2,550.9	93.01	28.427	
13,500.0	12,534.3	13,506.0	12,550.0	47.5	47.4	90.36	951.9	2,026.0	2,643.9	2,549.8	94.11	28.094	
13,600.0	12,532.8	13,606.0	12,548.5	48.1	48.0	90.36	1,051.9	2,025.1	2,643.8	2,548.5	95.31	27.738	
13,700.0	12,531.3	13,706.0	12,547.0	48.7	48.6	90.36	1,151.9	2,024.3	2,643.8	2,547.2	96.62	27.364	
13,800.0	12,529.9	13,806.0	12,545.4	49.4	49.3	90.36	1,251.9	2,023.5	2,643.8	2,545.8	98.02	26.973	
13,900.0	12,528.4	13,906.0	12,543.9	50.2	50.1	90.36	1,351.9	2,022.7	2,643.7	2,544.2	99.51	26.569	
14,000.0	12,526.9	14,006.0	12,542.4	51.0	50.9	90.36	1,451.9	2,021.9	2,643.7	2,542.6	101.08	26.154	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	12,525.5	14,106.0	12,540.8	51.8	51.7	90.36	1,551.8	2,021.1	2,643.7	2,540.9	102.74	25.732	
14,200.0	12,524.0	14,206.0	12,539.3	52.6	52.6	90.35	1,651.8	2,020.3	2,643.7	2,539.2	104.48	25.303	
14,300.0	12,522.5	14,306.0	12,537.8	53.5	53.5	90.35	1,751.8	2,019.5	2,643.6	2,537.3	106.29	24.871	
14,400.0	12,521.0	14,406.0	12,536.2	54.5	54.4	90.35	1,851.8	2,018.7	2,643.6	2,535.4	108.18	24.438	
14,500.0	12,519.6	14,506.0	12,534.7	55.4	55.4	90.35	1,951.8	2,017.9	2,643.6	2,533.4	110.13	24.005	
14,600.0	12,518.1	14,606.0	12,533.2	56.4	56.4	90.35	2,051.8	2,017.0	2,643.5	2,531.4	112.14	23.573	
14,700.0	12,516.6	14,706.0	12,531.6	57.4	57.5	90.35	2,151.8	2,016.2	2,643.5	2,529.3	114.22	23.144	
14,800.0	12,515.1	14,806.0	12,530.1	58.5	58.5	90.35	2,251.7	2,015.4	2,643.5	2,527.1	116.35	22.719	
14,900.0	12,513.7	14,906.0	12,528.6	59.6	59.6	90.34	2,351.7	2,014.6	2,643.4	2,524.9	118.54	22.300	
15,000.0	12,512.2	15,006.0	12,527.0	60.7	60.7	90.34	2,451.7	2,013.8	2,643.4	2,522.6	120.78	21.886	
15,100.0	12,510.7	15,106.0	12,525.5	61.8	61.9	90.34	2,551.7	2,013.0	2,643.4	2,520.3	123.07	21.479	
15,200.0	12,509.3	15,206.0	12,523.9	63.0	63.0	90.34	2,651.7	2,012.2	2,643.4	2,518.0	125.40	21.079	
15,300.0	12,507.8	15,294.0	12,522.4	64.2	64.1	90.34	2,751.7	2,011.4	2,643.3	2,515.7	127.64	20.710	
15,400.0	12,506.3	15,406.0	12,520.9	65.4	65.4	90.34	2,851.6	2,010.6	2,643.3	2,513.1	130.20	20.302	
15,500.0	12,504.8	15,506.0	12,519.3	66.6	66.7	90.34	2,951.6	2,009.8	2,643.3	2,510.6	132.66	19.926	
15,600.0	12,503.4	15,606.0	12,517.8	67.8	67.9	90.34	3,051.6	2,008.9	2,643.2	2,508.1	135.15	19.558	
15,700.0	12,501.9	15,694.0	12,516.3	69.1	69.0	90.33	3,151.6	2,008.1	2,643.2	2,505.7	137.53	19.220	
15,800.0	12,500.4	15,806.0	12,514.7	70.3	70.5	90.33	3,251.6	2,007.3	2,643.2	2,502.9	140.24	18.848	
15,900.0	12,498.9	15,906.0	12,513.2	71.6	71.8	90.33	3,351.6	2,006.5	2,643.2	2,500.3	142.83	18.505	
16,000.0	12,497.5	16,006.0	12,511.7	72.9	73.1	90.33	3,451.6	2,005.7	2,643.1	2,497.7	145.45	18.172	
16,100.0	12,496.0	16,106.0	12,510.1	74.3	74.4	90.33	3,551.5	2,004.9	2,643.1	2,495.0	148.10	17.846	
16,200.0	12,494.5	16,206.0	12,508.6	75.6	75.7	90.33	3,651.5	2,004.1	2,643.1	2,492.3	150.78	17.529	
16,300.0	12,493.0	16,306.0	12,507.1	76.9	77.1	90.33	3,751.5	2,003.3	2,643.0	2,489.6	153.48	17.221	
16,400.0	12,491.6	16,406.0	12,505.5	78.3	78.4	90.32	3,851.5	2,002.5	2,643.0	2,486.8	156.20	16.920	
16,500.0	12,490.1	16,506.0	12,504.0	79.6	79.8	90.32	3,951.5	2,001.6	2,643.0	2,484.0	158.95	16.628	
16,600.0	12,488.6	16,606.0	12,502.5	81.0	81.2	90.32	4,051.5	2,000.8	2,642.9	2,481.2	161.72	16.343	
16,700.0	12,487.2	16,706.0	12,500.9	82.4	82.6	90.32	4,151.5	2,000.0	2,642.9	2,478.4	164.51	16.066	
16,800.0	12,485.7	16,806.0	12,499.4	83.8	84.0	90.32	4,251.4	1,999.2	2,642.9	2,475.6	167.31	15.796	
16,900.0	12,484.2	16,906.0	12,497.9	85.2	85.4	90.32	4,351.4	1,998.4	2,642.9	2,472.7	170.14	15.533	
17,000.0	12,482.7	17,006.0	12,496.3	86.6	86.8	90.32	4,451.4	1,997.6	2,642.8	2,469.8	172.98	15.278	
17,100.0	12,481.3	17,106.0	12,494.8	88.1	88.2	90.32	4,551.4	1,996.8	2,642.8	2,467.0	175.84	15.029	
17,200.0	12,479.8	17,206.0	12,493.3	89.5	89.7	90.31	4,651.4	1,996.0	2,642.8	2,464.0	178.72	14.787	
17,300.0	12,478.3	17,306.0	12,491.7	90.9	91.1	90.31	4,751.4	1,995.2	2,642.7	2,461.1	181.61	14.552	
17,400.0	12,476.8	17,406.0	12,490.2	92.4	92.6	90.31	4,851.3	1,994.4	2,642.7	2,458.2	184.51	14.323	
17,500.0	12,475.4	17,506.0	12,488.7	93.8	94.0	90.31	4,951.3	1,993.5	2,642.7	2,455.2	187.43	14.099	
17,600.0	12,473.9	17,606.0	12,487.1	95.3	95.5	90.31	5,051.3	1,992.7	2,642.6	2,452.3	190.36	13.882	
17,700.0	12,472.4	17,706.0	12,485.6	96.7	97.0	90.31	5,151.3	1,991.9	2,642.6	2,449.3	193.31	13.671	
17,800.0	12,471.0	17,806.0	12,484.1	98.2	98.4	90.31	5,251.3	1,991.1	2,642.6	2,446.3	196.26	13.465	
17,900.0	12,469.5	17,906.0	12,482.5	99.7	99.9	90.30	5,351.3	1,990.3	2,642.6	2,443.3	199.23	13.264	
18,000.0	12,468.0	17,994.0	12,481.0	101.2	101.2	90.30	5,451.3	1,989.5	2,642.5	2,440.5	202.03	13.080	
18,100.0	12,466.5	18,106.0	12,479.5	102.7	102.9	90.30	5,551.2	1,988.7	2,642.5	2,437.3	205.19	12.878	
18,200.0	12,465.1	18,206.0	12,477.9	104.2	104.4	90.30	5,651.2	1,987.9	2,642.5	2,434.3	208.19	12.692	
18,300.0	12,463.6	18,306.0	12,476.4	105.7	105.9	90.30	5,751.2	1,987.1	2,642.4	2,431.2	211.20	12.512	
18,400.0	12,462.1	18,406.0	12,474.9	107.2	107.4	90.30	5,851.2	1,986.3	2,642.4	2,428.2	214.22	12.335	
18,500.0	12,460.6	18,506.0	12,473.3	108.7	108.9	90.30	5,951.2	1,985.4	2,642.4	2,425.1	217.24	12.163	
18,600.0	12,459.2	18,606.0	12,471.8	110.2	110.4	90.30	6,051.2	1,984.6	2,642.4	2,422.1	220.27	11.996	
18,700.0	12,457.7	18,706.0	12,470.3	111.7	112.0	90.29	6,151.2	1,983.8	2,642.3	2,419.0	223.32	11.832	
18,800.0	12,456.2	18,806.0	12,468.7	113.2	113.5	90.29	6,251.1	1,983.0	2,642.3	2,415.9	226.36	11.673	
18,900.0	12,454.8	18,906.0	12,467.2	114.8	115.0	90.29	6,351.1	1,982.2	2,642.3	2,412.8	229.42	11.517	
19,000.0	12,453.3	19,006.0	12,465.6	116.3	116.5	90.29	6,451.1	1,981.4	2,642.2	2,409.7	232.49	11.365	
19,100.0	12,451.8	19,106.0	12,464.1	117.8	118.1	90.29	6,551.1	1,980.6	2,642.2	2,406.6	235.56	11.217	
19,200.0	12,450.3	19,206.0	12,462.6	119.3	119.6	90.29	6,651.1	1,979.8	2,642.2	2,403.5	238.63	11.072	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #223H - Wellbore #1 - BLM Plan #1												Offset Well Error:	0.0 usft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,300.0	12,448.9	19,306.0	12,461.0	120.9	121.2	90.29	6,751.1	1,979.0	2,642.1	2,400.4	241.72	10.931	
19,400.0	12,447.4	19,406.0	12,459.5	122.4	122.7	90.28	6,851.0	1,978.1	2,642.1	2,397.3	244.81	10.793	
19,500.0	12,445.9	19,506.0	12,458.0	124.0	124.3	90.28	6,951.0	1,977.3	2,642.1	2,394.2	247.90	10.658	
19,600.0	12,444.4	19,606.0	12,456.4	125.5	125.8	90.28	7,051.0	1,976.5	2,642.1	2,391.1	251.00	10.526	
19,700.0	12,443.0	19,706.0	12,454.9	127.1	127.4	90.28	7,151.0	1,975.7	2,642.0	2,387.9	254.11	10.397	
19,800.0	12,441.5	19,806.0	12,453.4	128.6	128.9	90.28	7,251.0	1,974.9	2,642.0	2,384.8	257.22	10.271	
19,900.0	12,440.0	19,906.0	12,451.8	130.2	130.5	90.28	7,351.0	1,974.1	2,642.0	2,381.6	260.34	10.148	
20,000.0	12,438.6	20,006.0	12,450.3	131.7	132.0	90.28	7,451.0	1,973.3	2,641.9	2,378.5	263.46	10.028	
20,100.0	12,437.1	20,106.0	12,448.8	133.3	133.6	90.28	7,550.9	1,972.5	2,641.9	2,375.3	266.58	9.910	
20,200.0	12,435.6	20,206.0	12,447.2	134.9	135.2	90.27	7,650.9	1,971.7	2,641.9	2,372.2	269.71	9.795	
20,300.0	12,434.1	20,306.0	12,445.7	136.4	136.7	90.27	7,750.9	1,970.9	2,641.8	2,369.0	272.85	9.682	
20,400.0	12,432.7	20,406.0	12,444.2	138.0	138.3	90.27	7,850.9	1,970.0	2,641.8	2,365.8	275.99	9.572	
20,500.0	12,431.2	20,506.0	12,442.6	139.6	139.9	90.27	7,950.9	1,969.2	2,641.8	2,362.7	279.13	9.464	
20,600.0	12,429.7	20,606.0	12,441.1	141.1	141.4	90.27	8,050.9	1,968.4	2,641.8	2,359.5	282.28	9.359	
20,700.0	12,428.2	20,706.0	12,439.6	142.7	143.0	90.27	8,150.8	1,967.6	2,641.7	2,356.3	285.43	9.255	
20,800.0	12,426.8	20,806.0	12,438.0	144.3	144.6	90.27	8,250.8	1,966.8	2,641.7	2,353.1	288.58	9.154	
20,900.0	12,425.3	20,906.0	12,436.5	145.9	146.2	90.26	8,350.8	1,966.0	2,641.7	2,349.9	291.74	9.055	
21,000.0	12,423.8	21,006.0	12,435.0	147.4	147.7	90.26	8,450.8	1,965.2	2,641.6	2,346.7	294.90	8.958	
21,100.0	12,422.4	21,106.0	12,433.4	149.0	149.3	90.26	8,550.8	1,964.4	2,641.6	2,343.5	298.07	8.862	
21,200.0	12,420.9	21,206.0	12,431.9	150.6	150.9	90.26	8,650.8	1,963.6	2,641.6	2,340.3	301.24	8.769	
21,300.0	12,419.4	21,306.0	12,430.4	152.2	152.5	90.26	8,750.8	1,962.7	2,641.6	2,337.1	304.41	8.678	
21,400.0	12,417.9	21,406.0	12,428.8	153.8	154.1	90.26	8,850.7	1,961.9	2,641.5	2,333.9	307.58	8.588	
21,500.0	12,416.5	21,506.0	12,427.3	155.3	155.7	90.26	8,950.7	1,961.1	2,641.5	2,330.7	310.76	8.500	
21,600.0	12,415.0	21,606.0	12,425.8	156.9	157.3	90.26	9,050.7	1,960.3	2,641.5	2,327.5	313.94	8.414	
21,700.0	12,413.5	21,706.0	12,424.2	158.5	158.8	90.25	9,150.7	1,959.5	2,641.4	2,324.3	317.12	8.329	
21,800.0	12,412.0	21,806.0	12,422.7	160.1	160.4	90.25	9,250.7	1,958.7	2,641.4	2,321.1	320.31	8.246	
21,900.0	12,410.6	21,906.0	12,421.2	161.7	162.0	90.25	9,350.7	1,957.9	2,641.4	2,317.9	323.49	8.165	
22,000.0	12,409.1	22,006.0	12,419.6	163.3	163.6	90.25	9,450.7	1,957.1	2,641.3	2,314.7	326.69	8.085	
22,100.0	12,407.6	22,106.0	12,418.1	164.9	165.2	90.25	9,550.6	1,956.3	2,641.3	2,311.4	329.88	8.007	
22,200.0	12,406.1	22,206.0	12,416.6	166.5	166.8	90.25	9,650.6	1,955.5	2,641.3	2,308.2	333.07	7.930	
22,300.0	12,404.7	22,306.0	12,415.0	168.1	168.4	90.25	9,750.6	1,954.6	2,641.3	2,305.0	336.27	7.855	
22,400.0	12,403.2	22,406.0	12,413.5	169.7	170.0	90.25	9,850.6	1,953.8	2,641.2	2,301.8	339.47	7.780	
22,500.0	12,401.7	22,506.0	12,412.0	171.3	171.6	90.24	9,950.6	1,953.0	2,641.2	2,298.5	342.67	7.708	
22,600.0	12,400.3	22,594.0	12,410.4	172.9	173.0	90.24	10,050.6	1,952.2	2,641.2	2,295.5	345.69	7.640	
22,700.0	12,398.8	22,694.0	12,408.9	174.5	174.6	90.24	10,150.5	1,951.4	2,641.1	2,292.2	348.89	7.570	
22,787.3	12,397.5	22,781.3	12,407.5	175.7	176.0	90.24	10,237.8	1,950.7	2,641.1	2,289.6	351.53	7.513 ES, SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	89.35	27.6	2,423.1	2,423.3				
100.0	100.0	100.0	100.0	0.1	0.1	89.35	27.6	2,423.1	2,423.3	2,423.0	0.26	9,454.475	
200.0	200.0	200.0	200.0	0.5	0.5	89.35	27.6	2,423.1	2,423.3	2,422.3	0.97	2,489.855	
300.0	300.0	300.0	300.0	0.8	0.8	89.35	27.6	2,423.1	2,423.3	2,421.6	1.69	1,433.713	
400.0	400.0	400.0	400.0	1.2	1.2	89.35	27.6	2,423.1	2,423.3	2,420.8	2.41	1,006.695	
500.0	500.0	500.0	500.0	1.6	1.6	89.35	27.6	2,423.1	2,423.3	2,420.1	3.12	775.669	
600.0	600.0	600.0	600.0	1.9	1.9	89.35	27.6	2,423.1	2,423.3	2,419.4	3.84	630.887	
700.0	700.0	700.0	700.0	2.3	2.3	89.35	27.6	2,423.1	2,423.3	2,418.7	4.56	531.652	
800.0	800.0	800.0	800.0	2.6	2.6	89.35	27.6	2,423.1	2,423.3	2,418.0	5.27	459.392	
900.0	900.0	900.0	900.0	3.0	3.0	89.35	27.6	2,423.1	2,423.3	2,417.3	5.99	404.425	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	89.35	27.6	2,423.1	2,423.3	2,416.5	6.71	361.205	
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	89.35	27.6	2,423.1	2,423.3	2,415.8	7.43	326.332	
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	89.35	27.6	2,423.1	2,423.3	2,415.1	8.14	297.599	
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	89.35	27.6	2,423.1	2,423.3	2,414.4	8.86	273.516	
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	89.35	27.6	2,423.1	2,423.3	2,413.7	9.58	253.040	
1,500.0	1,500.0	1,500.0	1,500.0	5.1	5.1	89.35	27.6	2,423.1	2,423.3	2,413.0	10.29	235.416	CC, ES
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	-156.44	27.6	2,423.1	2,424.1	2,413.1	11.00	220.413	
1,700.0	1,700.0	1,700.0	1,700.0	5.8	5.9	-156.45	27.6	2,423.1	2,426.5	2,414.8	11.69	207.534	
1,800.0	1,799.9	1,800.1	1,799.9	6.2	6.2	-156.48	27.6	2,423.1	2,430.5	2,418.1	12.39	196.182	
1,900.0	1,899.7	1,900.3	1,899.7	6.5	6.6	-156.51	27.6	2,423.1	2,436.1	2,423.0	13.09	186.123	
2,000.0	1,999.4	1,999.4	1,999.4	6.9	6.9	-156.56	27.6	2,423.1	2,443.3	2,429.5	13.79	177.225	
2,100.0	2,098.9	2,069.8	2,069.8	7.2	7.2	-156.58	27.5	2,423.5	2,452.6	2,438.3	14.37	170.625	
2,200.0	2,198.3	2,139.8	2,139.7	7.6	7.4	-156.60	27.2	2,424.8	2,464.8	2,449.9	14.96	164.796	
2,300.0	2,297.4	2,209.3	2,209.3	7.9	7.7	-156.61	26.7	2,426.8	2,479.7	2,464.2	15.53	159.631	
2,400.0	2,396.4	2,278.6	2,278.4	8.3	7.9	-156.69	26.1	2,429.7	2,496.6	2,480.5	16.11	154.976	
2,500.0	2,495.5	2,347.5	2,347.3	8.7	8.1	-156.75	25.3	2,433.4	2,514.7	2,498.0	16.68	150.735	
2,600.0	2,594.5	2,416.2	2,415.8	9.1	8.4	-156.82	24.4	2,437.9	2,533.9	2,516.7	17.25	146.858	
2,700.0	2,693.5	2,484.5	2,483.9	9.5	8.6	-156.87	23.2	2,443.1	2,554.3	2,536.4	17.82	143.313	
2,800.0	2,792.5	2,552.6	2,551.7	9.8	8.8	-156.92	21.9	2,449.1	2,575.8	2,557.4	18.39	140.070	
2,900.0	2,891.6	2,620.2	2,619.0	10.2	9.1	-156.97	20.4	2,455.9	2,598.4	2,579.4	18.95	137.103	
3,000.0	2,990.6	2,687.6	2,685.9	10.6	9.3	-157.01	18.8	2,463.4	2,622.1	2,602.6	19.51	134.388	
3,100.0	3,089.6	2,754.5	2,752.4	11.0	9.6	-157.05	17.0	2,471.6	2,646.9	2,626.9	20.07	131.903	
3,200.0	3,188.6	2,830.7	2,827.8	11.4	9.8	-157.08	14.8	2,481.8	2,672.8	2,652.2	20.66	129.348	
3,300.0	3,287.7	2,927.2	2,923.3	11.8	10.2	-157.13	12.0	2,494.9	2,698.9	2,677.6	21.36	126.378	
3,400.0	3,386.7	3,023.7	3,018.9	12.2	10.6	-157.17	9.1	2,508.0	2,725.1	2,703.0	22.05	123.579	
3,500.0	3,485.7	3,120.2	3,114.5	12.6	10.9	-157.21	6.3	2,521.1	2,751.2	2,728.5	22.75	120.939	
3,600.0	3,584.8	3,216.7	3,210.0	13.0	11.3	-157.25	3.4	2,534.3	2,777.3	2,753.9	23.45	118.446	
3,700.0	3,683.8	3,313.2	3,305.6	13.4	11.7	-157.30	0.6	2,547.4	2,803.5	2,779.3	24.15	116.087	
3,800.0	3,782.8	3,409.7	3,401.2	13.8	12.0	-157.34	-2.3	2,560.5	2,829.6	2,804.8	24.85	113.854	
3,900.0	3,881.8	3,506.2	3,496.7	14.3	12.4	-157.37	-5.1	2,573.6	2,855.8	2,830.2	25.56	111.736	
4,000.0	3,980.9	3,602.7	3,592.3	14.7	12.8	-157.41	-7.9	2,586.8	2,881.9	2,855.6	26.26	109.726	
4,100.0	4,079.9	3,700.8	3,687.9	15.1	13.2	-157.45	-10.8	2,599.9	2,908.0	2,881.1	26.98	107.793	
4,200.0	4,178.9	3,795.7	3,783.4	15.5	13.5	-157.49	-13.6	2,613.0	2,934.2	2,906.5	27.68	105.998	
4,300.0	4,277.9	3,907.8	3,879.0	15.9	14.0	-157.52	-16.5	2,626.1	2,960.3	2,931.9	28.45	104.060	
4,400.0	4,377.0	3,988.7	3,974.6	16.3	14.3	-157.56	-19.3	2,639.3	2,986.5	2,957.4	29.10	102.616	
4,500.0	4,476.0	4,085.2	4,070.1	16.7	14.7	-157.59	-22.2	2,652.4	3,012.6	2,982.8	29.82	101.041	
4,600.0	4,575.0	4,181.7	4,165.7	17.1	15.1	-157.63	-25.0	2,665.5	3,038.8	3,008.2	30.53	99.536	
4,700.0	4,674.0	4,278.2	4,261.3	17.5	15.5	-157.66	-27.9	2,678.6	3,064.9	3,033.7	31.24	98.097	
4,800.0	4,773.1	4,374.7	4,356.8	18.0	15.9	-157.70	-30.7	2,691.8	3,091.1	3,059.1	31.96	96.720	
4,900.0	4,872.1	4,471.2	4,452.4	18.4	16.2	-157.73	-33.6	2,704.9	3,117.2	3,084.5	32.67	95.401	
5,000.0	4,971.1	4,567.8	4,548.0	18.8	16.6	-157.76	-36.4	2,718.0	3,143.4	3,110.0	33.39	94.136	
5,100.0	5,070.2	4,664.3	4,643.5	19.2	17.0	-157.79	-39.3	2,731.1	3,169.5	3,135.4	34.11	92.923	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,200.0	5,169.2	4,760.8	4,739.1	19.6	17.4	-157.82	-42.1	2,744.3	3,195.7	3,160.8	34.83	91.758	
5,300.0	5,268.2	4,857.3	4,834.7	20.0	17.8	-157.86	-45.0	2,757.4	3,221.8	3,186.3	35.55	90.638	
5,400.0	5,367.2	4,953.8	4,930.2	20.5	18.2	-157.89	-47.8	2,770.5	3,248.0	3,211.7	36.27	89.562	
5,500.0	5,466.3	5,050.3	5,025.8	20.9	18.6	-157.92	-50.7	2,783.6	3,274.1	3,237.1	36.98	88.526	
5,600.0	5,565.3	5,146.8	5,121.4	21.3	19.0	-157.94	-53.5	2,796.8	3,300.3	3,262.6	37.71	87.528	
5,643.3	5,608.2	5,188.6	5,162.8	21.5	19.2	-157.96	-54.7	2,802.5	3,311.6	3,273.6	38.02	87.107	
5,700.0	5,664.4	5,243.4	5,217.0	21.7	19.4	-158.05	-56.4	2,809.9	3,326.1	3,287.6	38.43	86.558	
5,800.0	5,763.7	5,340.6	5,313.2	22.1	19.8	-158.20	-59.2	2,823.1	3,349.7	3,310.6	39.14	85.572	
5,900.0	5,863.4	5,438.3	5,410.0	22.5	20.2	-158.31	-62.1	2,836.4	3,371.0	3,331.1	39.86	84.564	
6,000.0	5,963.2	5,536.4	5,507.2	22.8	20.6	-158.40	-65.0	2,849.8	3,389.9	3,349.3	40.58	83.536	
6,100.0	6,063.1	5,635.0	5,604.9	23.2	21.0	-158.45	-67.9	2,863.2	3,406.4	3,365.1	41.29	82.490	
6,176.7	6,139.8	5,710.9	5,680.0	23.4	21.3	87.31	-70.1	2,873.5	3,417.4	3,375.6	41.83	81.688	
6,200.0	6,163.1	5,734.0	5,702.8	23.5	21.4	87.33	-70.8	2,876.6	3,420.5	3,378.5	42.00	81.447	
6,300.0	6,263.1	5,833.0	5,800.9	23.8	21.8	87.38	-73.8	2,890.1	3,434.0	3,391.3	42.70	80.431	
6,400.0	6,363.1	5,932.0	5,899.0	24.2	22.2	87.44	-76.7	2,903.6	3,447.5	3,404.1	43.39	79.446	
6,500.0	6,463.1	6,031.1	5,997.0	24.5	22.6	87.50	-79.6	2,917.0	3,460.9	3,416.8	44.09	78.490	
6,600.0	6,563.1	6,130.1	6,095.1	24.8	23.0	87.56	-82.5	2,930.5	3,474.4	3,429.6	44.79	77.563	
6,700.0	6,663.1	6,229.1	6,193.1	25.1	23.4	87.62	-85.4	2,944.0	3,487.9	3,442.4	45.50	76.664	
6,800.0	6,763.1	6,328.1	6,291.2	25.4	23.9	87.68	-88.4	2,957.4	3,501.4	3,455.2	46.20	75.790	
6,900.0	6,863.1	6,427.2	6,389.3	25.8	24.3	87.73	-91.3	2,970.9	3,514.8	3,467.9	46.90	74.942	
7,000.0	6,963.1	6,526.2	6,487.3	26.1	24.7	87.79	-94.2	2,984.4	3,528.3	3,480.7	47.60	74.117	
7,100.0	7,063.1	6,625.2	6,585.4	26.4	25.1	87.85	-97.1	2,997.9	3,541.8	3,493.5	48.31	73.316	
7,200.0	7,163.1	6,724.2	6,683.5	26.7	25.5	87.90	-100.0	3,011.3	3,555.3	3,506.3	49.01	72.537	
7,300.0	7,263.1	6,823.3	6,781.5	27.1	25.9	87.96	-103.0	3,024.8	3,568.8	3,519.1	49.72	71.779	
7,400.0	7,363.1	6,922.3	6,879.6	27.4	26.3	88.01	-105.9	3,038.3	3,582.3	3,531.9	50.43	71.042	
7,500.0	7,463.1	7,021.3	6,977.6	27.7	26.7	88.07	-108.8	3,051.7	3,595.8	3,544.7	51.13	70.324	
7,600.0	7,563.1	7,120.4	7,075.7	28.1	27.1	88.12	-111.7	3,065.2	3,609.3	3,557.4	51.84	69.625	
7,700.0	7,663.1	7,219.4	7,173.8	28.4	27.6	88.17	-114.7	3,078.7	3,622.8	3,570.2	52.55	68.945	
7,800.0	7,763.1	7,318.4	7,271.8	28.7	28.0	88.23	-117.6	3,092.1	3,636.3	3,583.0	53.25	68.281	
7,900.0	7,863.1	7,417.4	7,369.9	29.0	28.4	88.28	-120.5	3,105.6	3,649.8	3,595.9	53.96	67.635	
8,000.0	7,963.1	7,516.5	7,468.0	29.4	28.8	88.33	-123.4	3,119.1	3,663.3	3,608.7	54.67	67.005	
8,100.0	8,063.1	7,615.5	7,566.0	29.7	29.2	88.39	-126.3	3,132.5	3,676.8	3,621.5	55.38	66.391	
8,200.0	8,163.1	7,714.5	7,664.1	30.0	29.6	88.44	-129.3	3,146.0	3,690.4	3,634.3	56.09	65.792	
8,300.0	8,263.1	7,813.5	7,762.2	30.4	30.0	88.49	-132.2	3,159.5	3,703.9	3,647.1	56.80	65.207	
8,400.0	8,363.1	7,912.6	7,860.2	30.7	30.5	88.54	-135.1	3,172.9	3,717.4	3,659.9	57.51	64.636	
8,500.0	8,463.1	8,011.6	7,958.3	31.0	30.9	88.59	-138.0	3,186.4	3,731.0	3,672.7	58.22	64.079	
8,600.0	8,563.1	8,110.6	8,056.3	31.4	31.3	88.64	-141.0	3,199.9	3,744.5	3,685.6	58.94	63.535	
8,700.0	8,663.1	8,209.6	8,154.4	31.7	31.7	88.69	-143.9	3,213.4	3,758.0	3,698.4	59.65	63.004	
8,800.0	8,763.1	8,308.7	8,252.5	32.1	32.1	88.74	-146.8	3,226.8	3,771.6	3,711.2	60.36	62.485	
8,900.0	8,863.1	8,407.7	8,350.5	32.4	32.5	88.79	-149.7	3,240.3	3,785.1	3,724.0	61.07	61.978	
9,000.0	8,963.1	8,506.7	8,448.6	32.7	32.9	88.84	-152.6	3,253.8	3,798.6	3,736.9	61.78	61.482	
9,100.0	9,063.1	8,605.8	8,546.7	33.1	33.3	88.89	-155.6	3,267.2	3,812.2	3,749.7	62.50	60.997	
9,200.0	9,163.1	8,704.8	8,644.7	33.4	33.8	88.93	-158.5	3,280.7	3,825.7	3,762.5	63.21	60.523	
9,300.0	9,263.1	8,803.8	8,742.8	33.7	34.2	88.98	-161.4	3,294.2	3,839.3	3,775.4	63.93	60.059	
9,400.0	9,363.1	8,902.8	8,840.8	34.1	34.6	89.03	-164.3	3,307.6	3,852.8	3,788.2	64.64	59.605	
9,500.0	9,463.1	9,001.9	8,938.9	34.4	35.0	89.08	-167.2	3,321.1	3,866.4	3,801.1	65.35	59.161	
9,600.0	9,563.1	9,100.9	9,037.0	34.8	35.4	89.12	-170.2	3,334.6	3,880.0	3,813.9	66.07	58.727	
9,700.0	9,663.1	9,200.1	9,135.0	35.1	35.8	89.17	-173.1	3,348.0	3,893.5	3,826.7	66.78	58.301	
9,800.0	9,763.1	9,301.1	9,233.1	35.4	36.3	89.22	-176.0	3,361.5	3,907.1	3,839.6	67.51	57.878	
9,900.0	9,863.1	9,398.0	9,331.2	35.8	36.7	89.26	-178.9	3,375.0	3,920.7	3,852.4	68.21	57.476	
10,000.0	9,963.1	10,031.7	9,963.1	36.1	39.0	89.39	-187.0	3,412.1	3,921.5	3,850.3	71.20	55.080	
10,100.0	10,063.1	10,131.7	10,063.1	36.5	39.3	89.39	-187.0	3,412.1	3,921.5	3,849.6	71.88	54.557	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,163.1	10,231.7	10,163.1	36.8	39.6	89.39	-187.0	3,412.1	3,921.5	3,848.9	72.56	54.044	
10,300.0	10,263.1	10,331.7	10,263.1	37.1	39.9	89.39	-187.0	3,412.1	3,921.5	3,848.2	73.24	53.540	
10,400.0	10,363.1	10,431.7	10,363.1	37.5	40.2	89.39	-187.0	3,412.1	3,921.5	3,847.5	73.93	53.045	
10,500.0	10,463.1	10,531.7	10,463.1	37.8	40.5	89.39	-187.0	3,412.1	3,921.5	3,846.9	74.61	52.558	
10,600.0	10,563.1	10,631.7	10,563.1	38.2	40.9	89.39	-187.0	3,412.1	3,921.5	3,846.2	75.30	52.080	
10,700.0	10,663.1	10,731.7	10,663.1	38.5	41.2	89.39	-187.0	3,412.1	3,921.5	3,845.5	75.98	51.610	
10,800.0	10,763.1	10,831.7	10,763.1	38.9	41.5	89.39	-187.0	3,412.1	3,921.5	3,844.8	76.67	51.149	
10,900.0	10,863.1	10,931.7	10,863.1	39.2	41.8	89.39	-187.0	3,412.1	3,921.5	3,844.1	77.36	50.694	
11,000.0	10,963.1	11,031.7	10,963.1	39.6	42.1	89.39	-187.0	3,412.1	3,921.5	3,843.4	78.04	50.248	
11,100.0	11,063.1	11,131.7	11,063.1	39.9	42.5	89.39	-187.0	3,412.1	3,921.5	3,842.7	78.73	49.809	
11,200.0	11,163.1	11,231.7	11,163.1	40.2	42.8	89.39	-187.0	3,412.1	3,921.5	3,842.1	79.42	49.377	
11,300.0	11,263.1	11,331.7	11,263.1	40.6	43.1	89.39	-187.0	3,412.1	3,921.5	3,841.4	80.11	48.953	
11,400.0	11,363.1	11,431.7	11,363.1	40.9	43.4	89.39	-187.0	3,412.1	3,921.5	3,840.7	80.80	48.535	
11,500.0	11,463.1	11,531.7	11,463.1	41.3	43.7	89.39	-187.0	3,412.1	3,921.5	3,840.0	81.49	48.125	
11,600.0	11,563.1	11,631.7	11,563.1	41.6	44.1	89.39	-187.0	3,412.1	3,921.5	3,839.3	82.18	47.720	
11,700.0	11,663.1	11,731.7	11,663.1	42.0	44.4	89.39	-187.0	3,412.1	3,921.5	3,838.6	82.87	47.323	
11,800.0	11,763.1	11,831.7	11,763.1	42.3	44.7	89.39	-187.0	3,412.1	3,921.5	3,837.9	83.56	46.931	
11,900.0	11,863.1	11,931.7	11,863.1	42.7	45.0	89.39	-187.0	3,412.1	3,921.5	3,837.2	84.25	46.546	
12,006.9	11,970.0	12,038.6	11,970.0	43.0	45.4	89.39	-187.0	3,412.1	3,921.5	3,836.5	84.99	46.141	
12,050.0	12,013.1	12,098.9	12,030.3	43.2	45.6	97.30	-186.1	3,412.1	3,921.6	3,836.3	85.34	45.955	
12,100.0	12,062.7	12,209.6	12,139.5	43.3	45.9	97.23	-169.6	3,410.6	3,921.8	3,836.0	85.82	45.696	
12,150.0	12,111.7	12,317.6	12,241.1	43.5	46.2	97.02	-133.6	3,407.3	3,921.7	3,835.5	86.25	45.467	
12,200.0	12,159.5	12,420.0	12,329.6	43.7	46.4	96.69	-82.4	3,402.6	3,921.5	3,834.9	86.63	45.266	
12,250.0	12,205.9	12,515.2	12,402.4	43.8	46.5	96.28	-21.6	3,397.1	3,921.3	3,834.3	86.97	45.086	
12,300.0	12,250.5	12,602.6	12,459.6	43.9	46.6	95.82	44.2	3,391.1	3,921.0	3,833.7	87.29	44.920	
12,350.0	12,293.0	12,682.3	12,502.4	44.1	46.6	95.33	111.1	3,385.0	3,920.9	3,833.3	87.59	44.766	
12,366.6	12,306.6	12,707.3	12,513.8	44.1	46.6	95.16	133.2	3,383.0	3,920.9	3,833.2	87.68	44.716	
12,400.0	12,333.0	12,755.1	12,533.0	44.2	46.7	94.82	176.8	3,379.0	3,920.9	3,833.0	87.87	44.620	
12,450.0	12,370.3	12,821.8	12,553.5	44.3	46.7	94.30	239.9	3,373.3	3,921.2	3,833.0	88.16	44.480	
12,500.0	12,404.5	12,883.2	12,565.7	44.3	46.7	93.78	299.8	3,367.8	3,921.7	3,833.3	88.43	44.350	
12,550.0	12,435.4	12,940.1	12,571.3	44.4	46.7	93.24	356.3	3,362.7	3,922.5	3,833.8	88.69	44.229	
12,600.0	12,462.7	12,977.1	12,571.9	44.5	46.7	92.83	393.1	3,359.4	3,923.7	3,834.8	88.91	44.131	
12,650.0	12,486.3	13,000.0	12,571.5	44.5	46.7	92.50	415.9	3,357.4	3,925.4	3,836.3	89.10	44.054	
12,700.0	12,506.0	13,000.0	12,571.5	44.6	46.7	92.25	415.9	3,357.4	3,927.8	3,838.5	89.24	44.013	
12,750.0	12,521.6	13,040.1	12,570.8	44.7	46.8	91.76	455.9	3,354.3	3,930.5	3,841.1	89.48	43.925	
12,800.0	12,533.0	13,060.5	12,570.5	44.7	46.8	91.35	476.2	3,353.0	3,933.9	3,844.3	89.67	43.872	
12,850.0	12,540.1	13,100.0	12,569.8	44.9	46.8	90.88	515.6	3,350.8	3,937.9	3,848.0	89.90	43.802	
12,900.0	12,542.9	13,100.0	12,569.8	45.0	46.8	90.46	515.6	3,350.8	3,942.1	3,852.1	90.03	43.786	
12,915.3	12,542.9	13,100.0	12,569.8	45.0	46.8	90.31	515.6	3,350.8	3,943.6	3,853.5	90.07	43.783	
13,000.0	12,541.7	13,144.0	12,569.1	45.3	46.9	90.34	559.6	3,349.1	3,950.7	3,860.2	90.46	43.674	
13,100.0	12,540.2	13,200.0	12,568.2	45.6	47.1	90.36	615.6	3,347.8	3,957.3	3,866.3	90.98	43.495	
13,200.0	12,538.7	13,246.4	12,567.4	46.0	47.2	90.39	661.9	3,347.4	3,961.7	3,870.2	91.55	43.273	
13,287.8	12,537.4	13,334.2	12,566.0	46.4	47.5	90.41	749.7	3,346.7	3,963.0	3,870.7	92.31	42.934	
13,300.0	12,537.2	13,346.3	12,565.8	46.5	47.6	90.41	761.9	3,346.6	3,963.0	3,870.6	92.42	42.882	
13,400.0	12,535.8	13,446.3	12,564.1	47.0	48.0	90.41	861.9	3,345.8	3,963.0	3,869.7	93.39	42.435	
13,500.0	12,534.3	13,546.3	12,562.4	47.5	48.6	90.41	961.9	3,345.1	3,963.0	3,868.6	94.47	41.951	
13,600.0	12,532.8	13,646.3	12,560.8	48.1	49.1	90.40	1,061.8	3,344.3	3,963.0	3,867.4	95.65	41.432	
13,700.0	12,531.3	13,746.3	12,559.1	48.7	49.8	90.40	1,161.8	3,343.5	3,963.0	3,866.1	96.93	40.884	
13,800.0	12,529.9	13,846.3	12,557.5	49.4	50.4	90.40	1,261.8	3,342.7	3,963.0	3,864.7	98.31	40.312	
13,900.0	12,528.4	13,946.3	12,555.8	50.2	51.2	90.40	1,361.8	3,341.9	3,963.0	3,863.2	99.78	39.719	
14,000.0	12,526.9	14,046.3	12,554.2	51.0	51.9	90.39	1,461.8	3,341.1	3,963.0	3,861.7	101.33	39.110	
14,100.0	12,525.5	14,146.3	12,552.5	51.8	52.7	90.39	1,561.8	3,340.3	3,963.0	3,860.0	102.97	38.488	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.0	12,524.0	14,246.3	12,550.9	52.6	53.6	90.39	1,661.7	3,339.6	3,963.0	3,858.3	104.69	37.856	
14,300.0	12,522.5	14,346.3	12,549.2	53.5	54.5	90.39	1,761.7	3,338.8	3,963.0	3,856.5	106.48	37.219	
14,400.0	12,521.0	14,446.3	12,547.5	54.5	55.4	90.38	1,861.7	3,338.0	3,963.0	3,854.6	108.34	36.578	
14,500.0	12,519.6	14,546.3	12,545.9	55.4	56.3	90.38	1,961.7	3,337.2	3,963.0	3,852.7	110.28	35.937	
14,600.0	12,518.1	14,646.3	12,544.2	56.4	57.3	90.38	2,061.7	3,336.4	3,963.0	3,850.7	112.27	35.298	
14,700.0	12,516.6	14,746.3	12,542.6	57.4	58.3	90.38	2,161.7	3,335.6	3,963.0	3,848.6	114.33	34.662	
14,800.0	12,515.1	14,846.3	12,540.9	58.5	59.4	90.37	2,261.6	3,334.8	3,963.0	3,846.5	116.45	34.032	
14,900.0	12,513.7	14,946.3	12,539.3	59.6	60.4	90.37	2,361.6	3,334.1	3,963.0	3,844.3	118.62	33.409	
15,000.0	12,512.2	15,046.3	12,537.6	60.7	61.5	90.37	2,461.6	3,333.3	3,962.9	3,842.1	120.84	32.794	
15,100.0	12,510.7	15,146.3	12,535.9	61.8	62.7	90.36	2,561.6	3,332.5	3,962.9	3,839.8	123.12	32.189	
15,200.0	12,509.3	15,246.3	12,534.3	63.0	63.8	90.36	2,661.6	3,331.7	3,962.9	3,837.5	125.44	31.593	
15,300.0	12,507.8	15,346.3	12,532.6	64.2	65.0	90.36	2,761.6	3,330.9	3,962.9	3,835.1	127.80	31.009	
15,400.0	12,506.3	15,446.3	12,531.0	65.4	66.2	90.36	2,861.5	3,330.1	3,962.9	3,832.7	130.20	30.437	
15,500.0	12,504.8	15,546.3	12,529.3	66.6	67.4	90.35	2,961.5	3,329.3	3,962.9	3,830.3	132.65	29.876	
15,600.0	12,503.4	15,646.3	12,527.7	67.8	68.6	90.35	3,061.5	3,328.6	3,962.9	3,827.8	135.13	29.327	
15,700.0	12,501.9	15,746.3	12,526.0	69.1	69.8	90.35	3,161.5	3,327.8	3,962.9	3,825.3	137.64	28.791	
15,800.0	12,500.4	15,846.3	12,524.4	70.3	71.1	90.35	3,261.5	3,327.0	3,962.9	3,822.7	140.19	28.267	
15,900.0	12,498.9	15,946.3	12,522.7	71.6	72.4	90.34	3,361.4	3,326.2	3,962.9	3,820.1	142.77	27.756	
16,000.0	12,497.5	16,046.3	12,521.0	72.9	73.7	90.34	3,461.4	3,325.4	3,962.9	3,817.5	145.38	27.258	
16,100.0	12,496.0	16,146.3	12,519.4	74.3	75.0	90.34	3,561.4	3,324.6	3,962.9	3,814.9	148.02	26.772	
16,200.0	12,494.5	16,246.3	12,517.7	75.6	76.3	90.34	3,661.4	3,323.8	3,962.9	3,812.2	150.69	26.298	
16,300.0	12,493.0	16,346.3	12,516.1	76.9	77.6	90.33	3,761.4	3,323.1	3,962.9	3,809.5	153.38	25.837	
16,400.0	12,491.6	16,446.3	12,514.4	78.3	78.9	90.33	3,861.4	3,322.3	3,962.9	3,806.8	156.09	25.388	
16,500.0	12,490.1	16,546.3	12,512.8	79.6	80.3	90.33	3,961.3	3,321.5	3,962.9	3,804.0	158.83	24.950	
16,600.0	12,488.6	16,646.3	12,511.1	81.0	81.7	90.33	4,061.3	3,320.7	3,962.9	3,801.3	161.59	24.524	
16,700.0	12,487.2	16,746.3	12,509.5	82.4	83.0	90.32	4,161.3	3,319.9	3,962.9	3,798.5	164.37	24.109	
16,800.0	12,485.7	16,846.3	12,507.8	83.8	84.4	90.32	4,261.3	3,319.1	3,962.8	3,795.7	167.17	23.705	
16,900.0	12,484.2	16,946.3	12,506.1	85.2	85.8	90.32	4,361.3	3,318.3	3,962.8	3,792.9	169.99	23.312	
17,000.0	12,482.7	17,046.3	12,504.5	86.6	87.2	90.31	4,461.3	3,317.6	3,962.8	3,790.0	172.82	22.930	
17,100.0	12,481.3	17,146.3	12,502.8	88.1	88.6	90.31	4,561.2	3,316.8	3,962.8	3,787.2	175.68	22.558	
17,200.0	12,479.8	17,246.3	12,501.2	89.5	90.1	90.31	4,661.2	3,316.0	3,962.8	3,784.3	178.54	22.195	
17,300.0	12,478.3	17,346.3	12,499.5	90.9	91.5	90.31	4,761.2	3,315.2	3,962.8	3,781.4	181.43	21.842	
17,400.0	12,476.8	17,446.3	12,497.9	92.4	92.9	90.30	4,861.2	3,314.4	3,962.8	3,778.5	184.33	21.499	
17,500.0	12,475.4	17,546.3	12,496.2	93.8	94.4	90.30	4,961.2	3,313.6	3,962.8	3,775.6	187.24	21.165	
17,600.0	12,473.9	17,646.3	12,494.5	95.3	95.8	90.30	5,061.2	3,312.8	3,962.8	3,772.6	190.16	20.839	
17,700.0	12,472.4	17,746.3	12,492.9	96.7	97.3	90.30	5,161.1	3,312.1	3,962.8	3,769.7	193.10	20.522	
17,800.0	12,471.0	17,846.3	12,491.2	98.2	98.8	90.29	5,261.1	3,311.3	3,962.8	3,766.7	196.05	20.213	
17,900.0	12,469.5	17,946.3	12,489.6	99.7	100.2	90.29	5,361.1	3,310.5	3,962.8	3,763.8	199.01	19.912	
18,000.0	12,468.0	18,046.3	12,487.9	101.2	101.7	90.29	5,461.1	3,309.7	3,962.8	3,760.8	201.98	19.619	
18,100.0	12,466.5	18,146.3	12,486.3	102.7	103.2	90.29	5,561.1	3,308.9	3,962.8	3,757.8	204.97	19.334	
18,200.0	12,465.1	18,246.3	12,484.6	104.2	104.7	90.28	5,661.1	3,308.1	3,962.8	3,754.8	207.96	19.055	
18,300.0	12,463.6	18,346.3	12,483.0	105.7	106.2	90.28	5,761.0	3,307.3	3,962.8	3,751.8	210.96	18.784	
18,400.0	12,462.1	18,446.3	12,481.3	107.2	107.7	90.28	5,861.0	3,306.6	3,962.8	3,748.8	213.97	18.520	
18,500.0	12,460.6	18,546.3	12,479.6	108.7	109.2	90.27	5,961.0	3,305.8	3,962.8	3,745.8	216.99	18.262	
18,600.0	12,459.2	18,646.3	12,478.0	110.2	110.7	90.27	6,061.0	3,305.0	3,962.7	3,742.7	220.02	18.011	
18,700.0	12,457.7	18,746.3	12,476.3	111.7	112.2	90.27	6,161.0	3,304.2	3,962.7	3,739.7	223.06	17.765	
18,800.0	12,456.2	18,846.3	12,474.7	113.2	113.7	90.27	6,261.0	3,303.4	3,962.7	3,736.6	226.11	17.526	
18,900.0	12,454.8	18,946.3	12,473.0	114.8	115.2	90.26	6,360.9	3,302.6	3,962.7	3,733.6	229.16	17.293	
19,000.0	12,453.3	19,046.3	12,471.4	116.3	116.7	90.26	6,460.9	3,301.8	3,962.7	3,730.5	232.22	17.065	
19,100.0	12,451.8	19,146.3	12,469.7	117.8	118.3	90.26	6,560.9	3,301.1	3,962.7	3,727.4	235.29	16.842	
19,200.0	12,450.3	19,246.3	12,468.0	119.3	119.8	90.26	6,660.9	3,300.3	3,962.7	3,724.4	238.36	16.625	
19,300.0	12,448.9	19,346.3	12,466.4	120.9	121.3	90.25	6,760.9	3,299.5	3,962.7	3,721.3	241.44	16.413	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

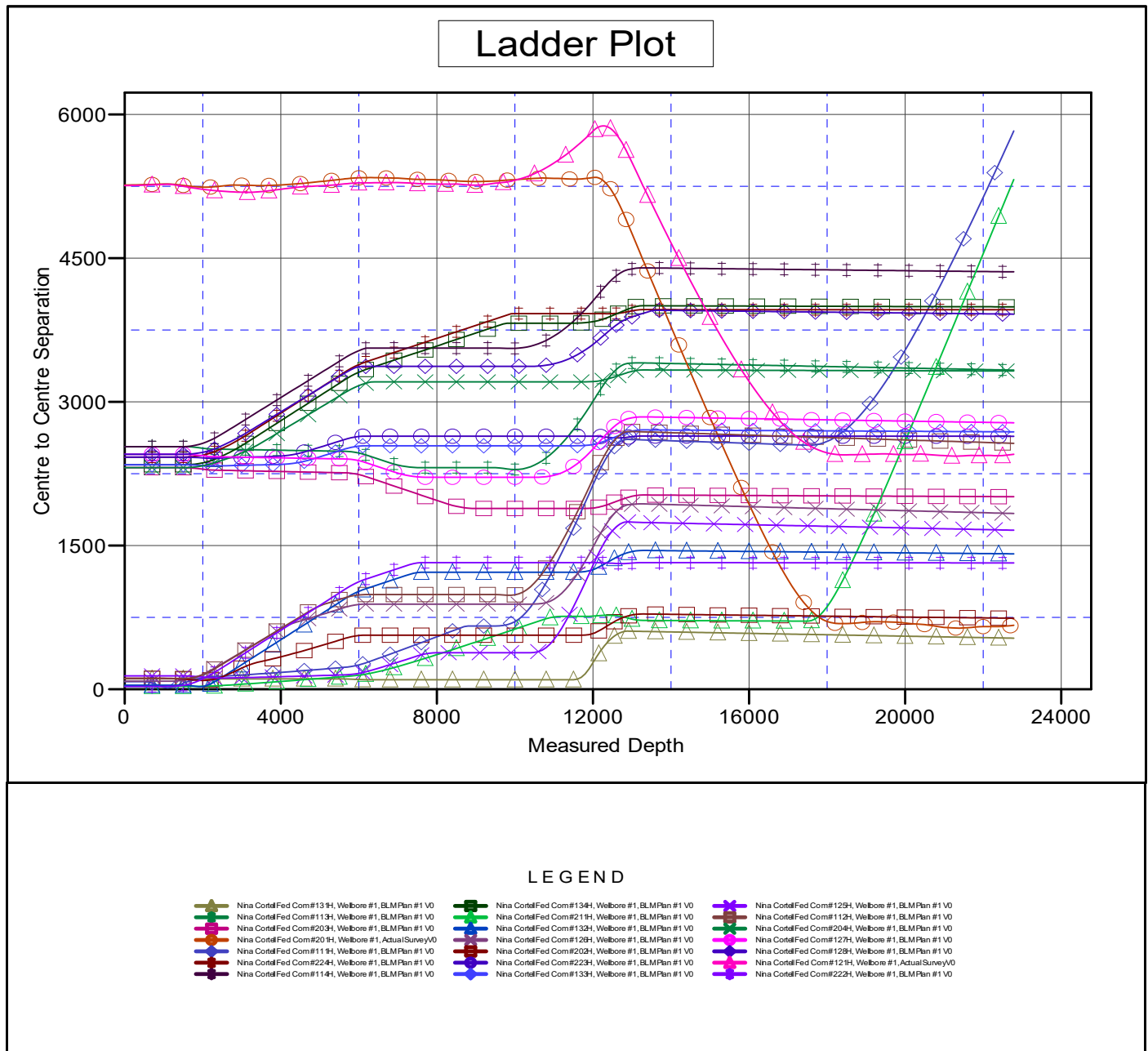
Offset Design Nina Cortell - Nina Cortell Fed Com #224H - Wellbore #1 - BLM Plan #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.0	12,447.4	19,446.3	12,464.7	122.4	122.9	90.25	6,860.9	3,298.7	3,962.7	3,718.2	244.52	16.206	
19,500.0	12,445.9	19,546.3	12,463.1	124.0	124.4	90.25	6,960.8	3,297.9	3,962.7	3,715.1	247.62	16.003	
19,600.0	12,444.4	19,646.3	12,461.4	125.5	125.9	90.25	7,060.8	3,297.1	3,962.7	3,712.0	250.71	15.806	
19,700.0	12,443.0	19,746.3	12,459.8	127.1	127.5	90.24	7,160.8	3,296.3	3,962.7	3,708.9	253.82	15.612	
19,800.0	12,441.5	19,846.3	12,458.1	128.6	129.0	90.24	7,260.8	3,295.6	3,962.7	3,705.8	256.92	15.424	
19,900.0	12,440.0	19,946.3	12,456.5	130.2	130.6	90.24	7,360.8	3,294.8	3,962.7	3,702.6	260.04	15.239	
20,000.0	12,438.6	20,046.3	12,454.8	131.7	132.1	90.23	7,460.8	3,294.0	3,962.7	3,699.5	263.16	15.058	
20,100.0	12,437.1	20,146.3	12,453.1	133.3	133.7	90.23	7,560.7	3,293.2	3,962.7	3,696.4	266.28	14.882	
20,200.0	12,435.6	20,246.3	12,451.5	134.9	135.2	90.23	7,660.7	3,292.4	3,962.7	3,693.3	269.41	14.709	
20,300.0	12,434.1	20,346.3	12,449.8	136.4	136.8	90.23	7,760.7	3,291.6	3,962.7	3,690.1	272.54	14.540	
20,400.0	12,432.7	20,446.3	12,448.2	138.0	138.4	90.22	7,860.7	3,290.8	3,962.7	3,687.0	275.68	14.374	
20,500.0	12,431.2	20,546.3	12,446.5	139.6	139.9	90.22	7,960.7	3,290.1	3,962.6	3,683.8	278.82	14.212	
20,600.0	12,429.7	20,646.3	12,444.9	141.1	141.5	90.22	8,060.7	3,289.3	3,962.6	3,680.7	281.96	14.054	
20,700.0	12,428.2	20,746.3	12,443.2	142.7	143.1	90.22	8,160.6	3,288.5	3,962.6	3,677.5	285.11	13.899	
20,800.0	12,426.8	20,846.3	12,441.5	144.3	144.6	90.21	8,260.6	3,287.7	3,962.6	3,674.4	288.26	13.747	
20,900.0	12,425.3	20,946.3	12,439.9	145.9	146.2	90.21	8,360.6	3,286.9	3,962.6	3,671.2	291.42	13.598	
21,000.0	12,423.8	21,046.3	12,438.2	147.4	147.8	90.21	8,460.6	3,286.1	3,962.6	3,668.0	294.58	13.452	
21,100.0	12,422.4	21,146.3	12,436.6	149.0	149.4	90.21	8,560.6	3,285.3	3,962.6	3,664.9	297.74	13.309	
21,200.0	12,420.9	21,246.3	12,434.9	150.6	150.9	90.20	8,660.5	3,284.6	3,962.6	3,661.7	300.90	13.169	
21,300.0	12,419.4	21,346.3	12,433.3	152.2	152.5	90.20	8,760.5	3,283.8	3,962.6	3,658.5	304.07	13.032	
21,400.0	12,417.9	21,446.3	12,431.6	153.8	154.1	90.20	8,860.5	3,283.0	3,962.6	3,655.4	307.25	12.897	
21,500.0	12,416.5	21,546.3	12,430.0	155.3	155.7	90.20	8,960.5	3,282.2	3,962.6	3,652.2	310.42	12.765	
21,600.0	12,415.0	21,646.3	12,428.3	156.9	157.3	90.19	9,060.5	3,281.4	3,962.6	3,649.0	313.60	12.636	
21,700.0	12,413.5	21,746.3	12,426.6	158.5	158.8	90.19	9,160.5	3,280.6	3,962.6	3,645.8	316.78	12.509	
21,800.0	12,412.0	21,846.3	12,425.0	160.1	160.4	90.19	9,260.4	3,279.8	3,962.6	3,642.6	319.96	12.384	
21,900.0	12,410.6	21,946.3	12,423.3	161.7	162.0	90.18	9,360.4	3,279.1	3,962.6	3,639.4	323.15	12.262	
22,000.0	12,409.1	22,046.3	12,421.7	163.3	163.6	90.18	9,460.4	3,278.3	3,962.6	3,636.2	326.34	12.142	
22,100.0	12,407.6	22,146.3	12,420.0	164.9	165.2	90.18	9,560.4	3,277.5	3,962.6	3,633.0	329.53	12.025	
22,200.0	12,406.1	22,246.3	12,418.4	166.5	166.8	90.18	9,660.4	3,276.7	3,962.6	3,629.8	332.72	11.909	
22,300.0	12,404.7	22,346.3	12,416.7	168.1	168.4	90.17	9,760.4	3,275.9	3,962.6	3,626.6	335.92	11.796	
22,400.0	12,403.2	22,446.3	12,415.1	169.7	170.0	90.17	9,860.3	3,275.1	3,962.5	3,623.4	339.12	11.685	
22,500.0	12,401.7	22,546.3	12,413.4	171.3	171.6	90.17	9,960.3	3,274.3	3,962.5	3,620.2	342.32	11.576	
22,600.0	12,400.3	22,646.3	12,411.7	172.9	173.2	90.17	10,060.3	3,273.6	3,962.5	3,617.0	345.52	11.468	
22,700.0	12,398.8	22,746.3	12,410.1	174.5	174.8	90.16	10,160.3	3,272.8	3,962.5	3,613.8	348.73	11.363	
22,787.3	12,397.5	22,833.6	12,408.6	175.7	176.2	90.16	10,247.6	3,272.1	3,962.5	3,611.2	351.37	11.278 SF	

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

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #221H
Project:	Antelope Ridge	TVD Reference:	KB @ 3818.5usft (Original Well Elev)
Reference Site:	Nina Cortell	MD Reference:	KB @ 3818.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Nina Cortell Fed Com #221H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Server
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3818.5usft (Original Well Elev) Coordinates are relative to: Nina Cortell Fed Com #221H
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Central Meridian is 104° 20' 0.000 W Grid Convergence at Surface is: 0.36°



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

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COMPASS 5000.14 Build 83

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
LEASE NO.:	NMNM86147
WELL NAME & NO.:	Nina Cortell Fed Com 221H
SURFACE HOLE FOOTAGE:	272'S & 1601'W
BOTTOM HOLE FOOTAGE:	60'N & 90'W
LOCATION:	Section 10, T.22 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated **WHEN DRILLING OUT SURFACE CASING**. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **975** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of

six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The 7-5/8 inch intermediate casing shall be set at approximately **11,857 feet. Keep casing full during run to meet collapse SF. CEMENT EXCESS < CFO RECOMMENDATION OF 25%. MORE CEMENT MIGHT BE NEEDED TO ACHIEVE CEMENT TO SURFACE.** The minimum required fill of cement behind the 7-5/8 inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 13-3/8" X 7-5/8" annulus. Operator must run a CBL or ECHOMETER to verify TOC. Submit results to BLM.

3. The 5-1/2 inch production casing shall be set at approximately **22,787 feet. EXCESS < 25% CFO RECOMMENDATION. ENSURE CEMENT VOLUMES EVALUATED TO ACHIEVE TIE BACK.** The minimum required fill of cement behind the 5-1/2 inch production casing is:

Option 1 (Single Stage):

- Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (3.5M) psi.**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.

- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

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

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
- b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours.

WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

KPI – 2/27/2023

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Hydrogen Sulfide Drilling
Operations Plan
Matador Resources

1 H2S safety instructions to the following:

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

2 H2S Detection and Alarm Systems:

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

3 Windssocks and / Wind Streamers:

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

4 Condition Flags and Signs:

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

5 Well Control Equipment:

- See Exhibit E-1

6 Communication:

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

7 Drilling Stem Testing:

- No DST cores are planned at this time

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

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

11 Emergency Contacts

- See exhibit E-6

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HYDROGEN SULFIDE CONTINGENCY PLAN Drilling, Testing, & Completion

MRC ENERGY CO.

Reviewers

----- Operations Manager
----- Operations Supt.
----- Staff RES
----- Field Supt.
Blake Hermes---Engineering

H2S Contingency Plan # **0165**

Revision# **0**

This H2S Contingency Plan is subject to updating

Effective date: July 8, 2015

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INTRODUCTION

The H2S equipment will be rigged up 2 days prior to reaching a potential H2S containing zone. Drilling into any potential H2S zone shall not commence until the on-site MRC Drilling Supervisor has confirmed this plan in place.

The onsite Drilling Foreman will give Total Safety one week (7 days) notice to prepare for rig up of H2S equipment)

To be effective, the plan requires the cooperation and effort of each person participating in the drilling of an H₂S well. Each person must know his/her responsibilities and all emergency and safety procedures. He/she should thoroughly understand and be able to use with accuracy, all safety equipment while performing his/her normal duties, if the circumstance should arise. He/she should therefore familiarize himself/herself with the location of all safety equipment and check to see that it is properly stored, easily accessible at all times, and routinely maintained.

It is the intention of MRC ENERGY CO. and the Drilling Contractor to make every effort to provide adequate safeguards against harm to persons on the rig and in the immediate vicinity from the effects of hydrogen sulfide, which may be released into the atmosphere under emergency conditions. However, the initiative rests with the individual in utilizing the safeguards provided. The ideas and suggestions of the individuals involved in the drilling of this well are highly welcomed and act as a fundamental tool for providing the safest working conditions possible.

The drilling representative is required to enforce these procedures. They are set up for your safety and the safety of all others.

II. PURPOSE

It is MRC Energy Co.'s intent to provide a safe working place, not only for its employees, but also for other contractors who are aiding in the drilling of this well. The safety of the general public is of utmost concern. All precautions will be taken to keep a safe working environment and protect the public.

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There is a possibility of encountering toxic hydrogen sulfide gas. Safety procedures must be adhered to in order to protect all personnel connected with the operations as well as people living within the area.

The MRC Energy Co. representative will enforce all aspects of the H2S Contingency Plan. This job will become easier by a careful study of the following pages and training and informing all personnel that will be working on the well, their duties and responsibilities.

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A. OPERATING PROCEDURES**DEFINITIONS:**

For purpose of this plan, on-site personnel shall be referred to as “In Scope Personnel” or “Out of Scope Personnel”, per the following definitions:

In Scope Personnel – Personnel who will be working or otherwise present in potential H₂S release areas, including the rig floor, cellar, pits, and shaker areas.

Out of Scope Personnel – Personnel who will not be working or Otherwise present in potential H₂S areas. Such personnel include rig Site visitor, delivery and camp services personnel.

GENERAL:

Before this H₂S contingency plan becomes operational, all regularly assigned In Scope Personnel (primarily the MRC, drilling contractor, and certain service personnel,) shall be thoroughly trained in the use of breathing equipment, emergency procedures, and responsibilities. Total Safety Technician or a designee assigned by the MRC Drilling Foreman shall keep a list of all personnel who have been through the on-site H₂S training program at the drill site.

All In Scope Personnel shall be given H₂S training and the steps to be taken during H₂S conditions under which the well may be drilled. General information will be explained about toxic gases, as well as the physiological effects of H₂S and the various classified operating conditions. In addition, the reader will be informed his/her general responsibility concerning safety equipment and emergency procedures.

The Total Safety H₂S Safety Technician or MRC on-site RSE Technician shall make available the H₂S Contingency Plan for all personnel to review.

Without exception, all personnel that arrive on location must proceed directly to and sign-in with the on-site MRC RSE Technician. In Scope Personnel will be required to complete an on-site H₂S training and respirator fit testing before starting work, or produce evidence that they have received equivalent training. Out of Scope Personnel will be required to complete a site H₂S awareness and general safety briefing. This briefing will consist of a H₂S hazard overview, alarm review and required response to alarms.

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B. PROCEDURES TO BE INITIATED PRIOR TO H2S CONTINGENCY PLAN COMPLIANCE:

A list of emergency phone numbers and contacts will be on location and posted at the following locations:

1. MRC ENERGY CO.'S Representative's Office
2. Drilling Contractor's, Toolpusher Office
3. Living Quarters Area

All safety equipment and H₂S related hardware must be set up as required by MRC Energy Co. with regard to location of briefing areas, breathing equipment, etc. All safety equipment must be inspected periodically (at least weekly) with particular attention to resuscitators and breathing equipment.

In Scope Personnel working in the well site area will be assigned breathing apparatus. Operator and drilling contractor personnel required to work in the following areas will be provided with Self Contained Breathing Apparatus:

1. Rig Floor
2. Mud Pits
3. Derrick
4. Shale Shaker
5. Cellar

The Total Safety H₂S Safety Technician will be responsible for rigging up all H₂S continuous monitoring-type detectors. The Total Safety Technician will monitor and bump test the detector units periodically (at least at least once a week to test alarm function during drilling conditions. In the event H₂S is detected, or when drilling in a zone confirmed to contain H₂S, the units shall be bump tested at least once every 24 hours. A bump test/calibration log will be kept on location. All results will be reported to the MRC on-site Drilling Foreman.

All Total Safety H₂S equipment will be maintained and inspected by a Total Safety Technician on at least a Weekly basis.

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C. DRILLING BELOW CONTINGENCY PLAN DEPTH

H₂S response drills will be held at least once per week if possible or as often as necessary to acquaint the crews and service company personnel of their responsibilities and the proper procedures to shut-in a well. Initial drills will be performed until crews demonstrate competency donning and working under mask. After the MRC Energy Co.'s representative is satisfied with initial blowout drill procedures, a drill will be conducted weekly with each crew, as necessary. The H₂S Safety Technician or designee will conduct safety talks and maintain the safety equipment, consult and carry out the instructions of the drilling supervisor. All personnel allowed in the well work area during drilling or testing operations will be instructed in the use of breathing equipment until supervisory personnel are satisfied that they are capable of using it.

After familiarization, each person must perform a drill with breathing equipment. The drill should include getting the breathing equipment, donning the breathing apparatus, and performing expected duties for a short period. A record shall be kept of all personnel drilled and the date of the drill. H₂S training records will be kept on location for all personnel.

Rig crews and service company personnel shall be made aware of the location of spare air bottles, resuscitation equipment, portable fire extinguishers, H₂S monitors and detectors. Knowledge of the location of the H₂S monitors and detectors are vital in determining as our gas location and the severity of the emergency conditions.

After any device has initially detected H₂S, all areas of poor ventilation shall be inspected periodically by means of a portable H₂S detector instrument. The buddy system will be utilized. (When an alarm sounds, personnel will don an SCBA, shut the well in, and proceed to SBA for roll call. The H₂S Technician or designee will mask up, with a buddy and will verify source of H₂S and report back to the on-site MRC Foreman.)

D. PROCEDURES PROGRAM

1. Drill Site
 - a. The drilling rig will be located to allow prevailing winds to blow across the reserve pit.
 - b. A Safe Briefing Area will be provided with a breathing air cascade trailer and or 30-minute SCBA's at the Primary Area. Personnel will assemble at the most up-wind station under alarm conditions, or when so ordered by the MRC Energy Co. representative, the Contractor representative, or

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the Total Safety H₂S Safety Technician. Windssocks or streamers will be anchored to various strategic places on a pole about 10 feet high, so it is in easy view from the rig floor at all times.

- c. Warning signs will be posted on the perimeters. "No Smoking" signs will be posted by MRC Energy Co.as well.
- d. One multi-channel automatic H₂S monitor will be provided by Total Safety and the detector heads will be at the shale shaker, bell nipple, mud pits, rig floor, and quarter's area. The monitor will be located inside HSE or Company man trailer. Should the alarm be shut off to silence the sirens, the blinker light must continue to warn of H₂S presence. The Total Safety H₂S Safety Technician or designee will continuously monitor the detectors and will reactivate the alarm if H₂S concentrations increase to a dangerous level.
- e. A method of escape will be open at all times.
- f. If available, land line telephone service will be provided or cell phones provided. (Primary communications provided)
- g. A rig communication system will be provided, as needed.
- h. A gas trap, choke manifold, and degasser will be installed.
- i. A kill line, securely anchored and of ample strength, will be laid to the well-head from a safe location. This line is to be used only in an emergency.

General

- a. The MRC Energy Co. representative and/or the Contractor's Toolpusher will be available at all times. The drilling supervisor, while on duty, will have complete charge of the rig and location operations and will take whatever action is deemed necessary to insure personnel safety, to protect the well, and to prevent damage.
- b. A Mud Engineer will be on location at all times when drilling takes place at the depth H₂S may be expected. The mud engineer will be able to verify the presence or absence of H₂S.

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III. CONDITIONS AND EMERGENCY PROCEDURES**A. DEFINITION OF OPERATIONAL "CONDITIONS"**

CONDITION I	"POSSIBLE DANGER"
Warning Flags	Green
Alarms	No Alarm. Less than 10 ppm
Characterized By:	Drilling operations in zones that may contain hydrogen sulfide. This condition remains in effect unless H ₂ S is detected and it becomes necessary to go to Condition II.
General Action:	- Be alert for a condition change - Check all safety equipment for availability and proper functioning. - Perform all drills for familiarization and proficiency.
CONDITION II	"MODERATE DANGER"
Warning Flags	Yellow
Alarms:	Actuates at 10 ppm. Continuous flashing light.
Characterized By:	Drilling operations in zones containing hydrogen sulfide. This condition will remain in effect until adding chemicals to the mud system neutralizes the hydrogen sulfide or it becomes necessary to go to Condition III.
General Action:	- Be alert for a condition change WHEN DRILLING AHEAD - Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area. WHEN TRIPPING – Driller and two designated crewmembers will don 30 min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will

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don a 5-minute escape pack, descend to the rig floor, don a 30-min SCBA (if necessary) and immediately proceed to the Safe Briefing Area.

- c. All In Scope Personnel will proceed directly to the appropriate Safe Briefing Area.
- d. Remain in safe briefing area, take roll call and wait for instructions
- e. Contact the Total H₂S Technician if not on location.
- f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H₂S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases.
- g. All Out of Scope Personnel will report to the appropriate Safe Briefing Area.

CONDITION III “EXTREME DANGER”
Warning Flags Red

Alarms Actuate at 15 ppm. Continuous Sirens and Flashing Lights

Characterized by: Critical well operations which pose an immediate threat of H₂S exposure to on-site personnel and a potential threat to the public.

- General Action:
- a. WHEN DRILLING AHEAD - Driller and designated crewmember will don 30 min SCBA, shut-in the well and immediately proceed to the Safe Briefing Area.
- WHEN TRIPPING – Driller and two designated crewmembers will don 30

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- min SCBA, shut in the well and immediately proceed to the Safe Briefing Area. The Derrickman will don a 5-minute escape pack, descend to the rig floor, don a 30-min SCBA (if necessary) and immediately proceed to the Safe Briefing Area.
- b. All In Scope Personnel should don SCBA if nearby and immediately proceed to Safe Briefing Area. If SCBA is not nearby at time of alarm, DO NOT GO TOWARDS RIG AREA, but proceed directly to the Safe Briefing Area
 - c. All out of Scope Personnel shall evacuate the location.
 - d. Remain in the Safe Briefing Area, take roll call and wait for instructions.
 - e. Contact the Total H2S Technician if not on location.
 - f. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering an H₂S contaminated area to provide assistance to anyone who may be injured or overcome by toxic gases. Use the buddy system.
 - g. Remain in safe briefing area, take roll call and wait for instructions.
 - h. A cascade breathing air systems shall be mobilized and utilized to conduct any additional on rig work required to correct the H₂S release condition.
 - i. If well is ignited do not assume area is safe. SO₂ is hazardous and not all H₂S will burn.

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H₂S EMERGENCY PROCEDURES; IN SCOPE PERSONNEL**A. Day To Day Drilling Operations**

1. Upon discovering a release of H₂S gas in the ambient air by warning alarms or in any other way **Do Not Panic**.
2. Hold your breath donning the nearest Self Contained Breathing Apparatus and rapidly move up or across-wind away from the areas where H₂S sensing devices are in place, to the closest available safe briefing area. Continue to use breathing apparatus until it has been determined that the exposure of H₂S gas in the ambient air no longer exists. **Do Not Panic!**
3. Utilize the "Buddy System", i.e.; select and pair up each person participating in the drilling of an H₂S well prior to an emergency situation.
4. Help anyone who is overcome or affected by the H₂S gas by taking him/her up-wind out of the contaminated area. (This should be done utilizing an SCBA and with a buddy.)
5. Take necessary steps to confirm the release of the H₂S gas into the ambient air.
 - When an H₂S alarm activates, two designated personnel using the buddy system, while wearing their self contained breathing apparatus, will determine by the read-out on the fixed monitor which sensing device has detected the release of the H₂S gas.
 - They will utilize the hand-held sniffer type device at the particular sensing point disclosed on the fixed monitor to corroborate the fact that H₂S gas has actually been released. This will rule out the possibility of a false alarm. This will be done with a buddy and under mask after reporting to the Safe Briefing Area for roll call and instructions by on-site MRC Foreman.
6. Refer to the Emergency Phone Numbers and call emergency personnel.
7. Take the necessary steps to suppress the release of H₂S gas into the ambient air. Comply with the MRC Energy Co. Representative to physically suppress the release of H₂S gas at the actual release point.

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8. Check all of MRC Energy Co.'s monitoring devices and increase gas-monitoring activities with the portable hand-operated H₂S and gas detector units.

Do Not Panic!

The MRC Energy Co. representative will assess the situation and with assistance of the Contractor's Representative and Total Safety's H₂S Safety Technician or on site designee, will assign duties to each person to bring the situation under control.

B. RESPONSIBILITIES OF WELL-SITE PERSONNEL

In the event of a release of potentially hazardous amounts of H₂S, all personnel will immediately don their protective breathing apparatus, the well will be shut in and personnel will proceed upwind to the nearest designated safe briefing area for roll call and instructions by MRC Foreman. Consideration will be given to evacuating Out of Scope Personnel, as situation warrants.

1. MRC ENERGY CO.'S Well-site Representatives

- a. If MRC Energy Co.'s well-site representative is incapacitated or not on location, this responsibility will fall to the Toolpusher/Driller.
- b. Immediately upon assessing the situation, set this plan into Action by initiating the proper procedures to contain the gas and notify the appropriate people and agencies.
- c. Ensure that the alarm area indicated by the fixed H₂S Monitor is checked and verified with a portable H₂S detector. (Safety Technician if on location or MRC assigned designee with a buddy utilizing SCBA's)
- d. Consult Pusher/driller of remedial actions as needed.
- e. Ensure that non-essential personnel proceed to the safe briefing area.
- f. Ensure location entrance barricades are positioned. Keep the number of persons on location to a minimum during hazardous operations.

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- g. Consult each contractor, Service Company and all others allowed to enter the site, that H₂S gas may be encountered and the potential hazards that may exist.
- h. Authorize the evacuation of local residents if H₂S threatens Their safety.
- i. Non essential personnel should be evacuated from location if Situation warrants.

2. Toolpusher

- a. Toolpusher/Driller will assume responsibilities of MRC Energy Co.'s well-site representative if that person is incapacitated or not on location.
- b. Ensure that the alarm area indicated by the fixed H₂S monitor is checked and verified with a portable H₂S gas detector. (Alarm area indicated by the monitor will be Checked by the H₂S Technician and a buddy, under mask.) This will be done after checking in and roll call at the Upwind Safe Briefing Area.
- c. Confer with MRC Energy Co.'s well-site representative or superintendent and direct remedial action to suppress the H₂S and control the well.
- d. Ensure that personnel at the safe briefing area are instructed on emergency actions required.
- e. Ensure that personnel at the drill floor area are instructed on emergency actions required.
- f. Ensure that all personnel observe the appropriate safety and emergency procedures.
- g. Ensure that all persons are accounted for and provided emergency assistance as necessary.

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3. Mud Engineer

- a. Run a sulfide check on the flowline mud.
- b. Take steps to determine the source of the H₂S and suppress it. Lime and H₂S scavenger shall be added to the mud as necessary.

4. Total H₂S Safety Technician, if on location, or MRC Designee

- a. H₂S Safety Technician or designee don nearest SCBA and report to Safe Briefing Area for roll call, take a buddy masked up and check monitor and verify with a portable H₂S detector the alarm area indicated by the fixed H₂S monitor. Advise the Toolpusher/Driller and MRC Energy Co.'s well-site representative of findings. Record all findings.
- b. If H₂S is flared, check for sulfur dioxide (SO₂) near the flare as necessary. Take hourly readings at different perimeters, log readings and record on location.
- c. Ensure that personnel at the safe briefing area are instructed on emergency actions required.
- d. Ensure that the appropriate warning flags are displayed.
- e. Ensure that all personnel are in S.C.B.A. as necessary.
- f. Ensure that all persons are accounted for and provide emergency assistance as necessary.
- g. Be prepared to evacuate rig if order is issued.

5. General Personnel & Visitors

- a. All In Scope Personnel, if not specifically designated to shut the well in or control the well, shall proceed to the (upwind) safe briefing area. All Out of Scope Personnel shall immediately proceed to the appropriate (upwind) safe briefing area or evacuate the site as conditions warrant.

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- b. During any emergency, use the "buddy" system to prevent anyone from entering or being left in a gas area alone, even wearing breathing apparatus.
- c. Provide assistance to anyone who may be injured or overcome by toxic gases. Personnel shall ensure that their breathing apparatus is properly fitted and operational before entering a potentially H₂S contaminated area.
- d. Remain in safe briefing area and wait for instructions.

C. INSTRUCTIONS FOR IGNITING THE WELL

1. The Toolpusher/Driller will confer with MRC Energy Co.'s well-site representative who will secure the approval of the "Texas Wells Delivery Manager, prior to igniting the well, if at all possible.

The Toolpusher/Driller will be responsible for igniting the well in the event of severe well control problems. This decision should be made only as a last resort in situations where it is clear that:

- a. Human life and property are endangered, or
 - b. There is no hope of controlling the well under current conditions.
2. Once the decision has been made, the following procedures should be followed:
 - a. Two people wearing self-contained breathing apparatus will be needed for the actual lighting of the well. They must first establish the flammable perimeter by using an explosimeter. This should be established at 30% to 40% of the lower flammable limits.
 - b. After the flammable perimeter has been established and everyone removed from the area, the ignition team should select a site upwind of the well from which to ignite the well. This site should offer the maximum protection and have a clear path for retreat from the area.

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- c. The ignition team should have safety belts and lifeline attached and manned before attempting ignition. If the leak is not ignited on the first attempt, move in 20 to 30 feet and fire again. Continue to monitor with the explosimeter and NEVER fire from an area with over 75% of the Lower Explosive Limit (LEL). If having trouble igniting the well, try firing 40 degrees to 90 degrees on either side of the well.
- d. If ignition is not possible due to the makeup of the gas, the toxic perimeter must be established and evacuation continued until the well is contained.
- e. All personnel must act only as directed by the person in charge of the operations.

NOTE: After the well is ignited, burning hydrogen sulfide (H_2S) will convert to sulfur dioxide (SO_2), which is also a highly toxic gas.

DO NOT ASSUME THE AREA IS SAFE AFTER THE WELL IS IGNITED

D. CORING PROCEDURES

Only essential personnel shall be on the rig floor. Ten (10) stands prior to retrieving core barrel; all personnel on drill floor and in derrick shall confirm self-Contained breathing apparatus available and ready for use.

A Total H₂S Technician will don a SCBA with a buddy assigned from the rig crew, and continuously monitor for H₂S at each connection. Any levels detected will require operations to be shut down and all involved personnel to don SCBAs. Precautions will remain in place until barrel is laid down.

All involved personnel will don SCBAs when removing the inner barrel from the outer barrel. SCBAs can be removed once the absence of H₂S is confirmed by the Total H₂S Technician.

Cores will be appropriately marked and sealed for transportation.

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Normal Operations**1. Responsibilities of well-site personnel****a. Well-site Representative**

1. Notify H₂S Technician of expected date to reach Contingency Plan implementation depth (Two (2) days prior to reaching suspected H₂S bearing zone) or prior to starting well work.
2. Ensure H₂S Safety Technician completes rig-up procedures prior to reaching Contingency Plan effective depth.
3. Restrict the number of personnel at the drilling rig or well site to a minimum while drilling, starting well work, testing or coring.
4. Ensure weekly H₂S drills/training are performed, if possible.

B. Toolpusher

1. Ensure that necessary H₂S safety equipment is provided on the rig, and that it is properly inspected and maintained.
2. Ensure that all personnel that work in the well area, are thoroughly trained in the use of H₂S safety equipment and periodic drills are held to maintain an adequate level of proficiency.

C. In Scope Personnel

1. Remain clean-shaven. Beards and long sideburns do not allow a proper facepiece seal.
2. Receive H₂S safety training on location, or confirm prior training by certification that is one year within date.
3. Familiarize yourself with the rig's Contingency Plan.
4. Inspect and practice putting on your breathing apparatus.

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5. Know the location of the "safe briefing areas".
6. Keep yourself "wind conscious". Be prepared to quickly move upwind and away in the event of any emergency involving release of H₂S.

D. Total Safety H₂S Safety Technician or MRC Designee

1. Conduct training as necessary to ensure all personnel working in well area are familiar with the contingency procedures and the operation of emergency equipment.
2. Check all H₂S safety equipment to ensure that it is ready for emergency use:
 - Check pressure weekly for each shift on breathing apparatus (both 30-minute and hip-packs) to make sure they are charged to full volume.
 - Check pressure on cascade air bottles, if on location, to see that they are capable of recharging breathing apparatus.
 - Check oxygen resuscitator, if on location, to ensure that it is charged to full volume.
 - Check H₂S detectors weekly for each shift (fixed and portable), and explosimeter, to ensure they are working properly.
3. Provide a weekly report to MRC Energy Co.'s well-site representative documenting:
 - Calibrations performed on H₂S detectors.
 - Proper location and working order of H₂S safety equipment.
 - Attendance of all personnel, trained or retrained, and their company.
 - Weekly drills, if held and a list of personnel participating and summary of actions.

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OUT OF SCOPE PERSONNEL

MRC Energy Co. policy will not require Out of Scope Personnel to be clean shaven, have processed medical questionnaires, fit testing, or have certified H2S Training.

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SAFETY EQUIPMENT

All respirators will be designed, selected, used and maintained in conformance with ANSI Z88.2, American National Standard for respiratory protection.

Personal protective equipment must be provided and used. Those who are expected to use respiratory equipment in case of an emergency will be carefully instructed in the proper use and told why the equipment is being used. Careful attention will be given to the minute details in order to avoid possible misuse of the equipment during periods of extreme stress.

Self-contained breathing apparatus provides complete respiratory and eye protection in any concentration of toxic gases and under any condition of oxygen deficiency. The wearer is independent of the surrounding atmosphere because he/she is breathing with a system admitting no outside air. It consists of a full face mask, breathing tube, pressure demand regulator, air supply cylinder, and harness. Pure breathing air from the supply cylinder flows to the mask automatically through the pressure demand regulator which reduces the pressure to a breathing level. Upon inhalation, air flows into the mask at a rate precisely regulated to the user's demand. Upon exhalation, the flow to the mask stops and the exhaled breath passes through a valve in the face piece to the surrounding atmosphere. The apparatus includes an alarm & gauge which warns the wearer to leave the contaminated area for a new cylinder of air or cylinder refill.

The derrickman is provided with a full face piece unit attached to a 5– minute escape cylinder. He will also have his own self-contained 30-minute unit breathing apparatus located on the drilling floor. He will use the 5-minute unit to exit the derrick to the floor, donning the 30-minute unit located on the floor, if needed.

All respiratory protective equipment, when not in use, should be stored in a clean, cool, dry place, and out of direct sunlight to retard the deterioration of rubber parts. After each use, the mask assembly will be scrubbed with soap and water, rinsed thoroughly, and dried. Air cylinders can be recharged to a full condition from a cascade system.

Personnel in each crew will be trained in the proper techniques of bottle filling.

The primary piece of equipment to be utilized, should anyone be overcome by hydrogen sulfide, is the oxygen resuscitator, if on location.

When asphyxiation occurs, the victim must be moved to fresh air and immediately given artificial respiration. In order to assure readiness, the bottles of oxygen will be checked at regular intervals and an extra tank kept on hand.

Hand-operated pump-type detectors incorporating detector tubes will give more accurate readings of hydrogen sulfide. The pump-type draws air to be tested through the detector tube containing lead acetate-silica gel granules. Presence of hydrogen sulfide in the air sample is shown by the development of a dark brown stain on the granules, which is the

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scale reading of the concentration of hydrogen sulfide. By changing the type of detector tube used, this detector may also be used for sulfur dioxide (SO₂) detection when hydrogen sulfide (H₂S) is being burned in the flare area.

Provisions must be made for the storage of all safety equipment as is evident from the foregoing discussion. All equipment must be stored in an available location so that anyone engaged in normal work situations is no more than "one breath away" from a mask.

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V – TOXICITY OF VARIOUS GASES

Lethal Common Name ppm⁴	Chemical Formula	Specific Gravity¹	PEL (OSHA)²	STEL³
Hydrogen Cyanide 300	HCN	0.94	10	150
Hydrogen Sulfide 600	H ₂ S	1.18	20	Peak- 50ppm
Note: The ACGIH(7) recommends a TWA(6) value of 10ppm as the TLV(5) for H ₂ S and an STEL of 15ppm.				
Sulfur Dioxide 1000	SO ₂	2.21	2	5 ppm
Chlorine	CL ₂	2.45	1	
Carbon Monoxide 1000	CO	0.97	35	200/1 Hour
Carbon Dioxide 10%	CO ₂	1.52	5000	5%
Methane	CH ₄	0.55	90000	

¹ **Air = 1.0**² **Permissible** - Concentration at which is believed that all workers may repeatedly be exposed, day after day, without adverse effect.³ **STEL** - Short Term Exposure Limit. A 15-minute time weighted average.⁴ **Lethal** - Concentration that will cause death with short-term exposure.**TLV** – Threshold Limit Value; a concentration recommended by the American Conference of Governmental Industrial Hygienists (ACGIH)**TWA** – Time Weighted Average; the average concentration of contaminant one can be exposed to over a given eight-hour period.

ACGIH – (American Conference of Governmental Industrial Hygienists) is an organization comprised of Occupational Health Professionals believed by many to be the top experts in the field of Industrial Hygiene. They are recognized as an expert resource by OSHA. The ACGIH releases a bi-annual publication "Threshold Limit Values and Biological Indices" that many safety professionals consider to be the authoritative document on airborne contaminants.

Reference: API RP-49, September 1974 - Reissued August 1978

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VI. PROPERTIES OF GASES**A. CARBON DIOXIDE**

1. Carbon Dioxide (CO₂) is usually considered inert and is commonly used to extinguish fires. It is 1.52 times heavier than air and will concentrate in low areas of still air. Humans cannot breathe air containing more than 10% CO₂ without losing conscience or becoming disorientation in a few minutes. Continued exposure to CO₂ after being affected will cause convulsions, coma, and respiratory failure.

2. The threshold limit of CO₂ is 5000 ppm. Short-term exposure to 50,000 ppm (5%) is reasonable. This gas is colorless, odorless, and can be tolerated in relatively high concentrations.

B. HYDROGEN SULFIDE

1. Hydrogen Sulfide (H₂S) is a colorless, transparent, flammable gas. It is heavier than air and, hence, may accumulate in low places.

2. Although the slightest presence of H₂S in the air is normally detectable by its characteristic "rotten egg" odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost, allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of H₂S.

CONCENTRATION			EFFECTS
% H ₂ S	PPM	GR/100 SCF ¹	
0.001	10	.65	Safe for 8 hours without respirator. Obvious and unpleasant odor.
0.0015	15	0.975	Safe for 15 minutes of exposure without respirator.
0.01	100	6.48	Kills smell in 3-15 minutes; may sting eyes and throat.
0.02	200	12.96	Kills smell quickly; stings eyes and throat.
0.05	500	32.96	Dizziness; breathing ceases in a few minutes; need prompt artificial respiration.
0.07	700	45.92	Rapid Unconsciousness; death will result if not rescued promptly.
0.1	1000	64.80	Instant unconsciousness, followed by death within minutes.

¹ Grains per 100 Cubic Feet

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VII. Treatment Procedures for Hydrogen Sulfide Poisoning

- A. Remove the victim to fresh air.
- B. If breathing has ceased or is labored, begin resuscitation immediately.
Note: This is the quickest and preferred method of clearing victim's lungs of contaminated air; however, under disaster conditions, it may not be practical to move the victim to fresh air. In such instances, where those rendering first aid must continue to wear masks, a resuscitator should be used.
- C. Apply resuscitator to help purge H₂S from the blood stream.
- D. Keep the victim at rest and prevent chilling.
- E. Get victim under physician's care as soon as possible.

C. SULPHUR DIOXIDE

1. Sulfur Dioxide (SO₂) is a colorless, non-flammable, transparent gas.
2. SO₂ is produced during the burning of H₂S. Although SO₂ is heavier than air, it can be picked up by a breeze and carried downwind at elevated temperatures. Since SO₂ is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of SO₂:

CONCENTRATION		EFFECTS
% SO ₂	PPM	
0.0005	3 to 5	Pungent odor, normally a person can detect SO ₂ in this range.
0.0012	12	Throat irritation, coughing, constriction of the chest, tearing and smarting of eyes.
0.015	150	So irritating that it can only be endured for a few minutes.
.05	500	Causes a sense of suffocation, event with the first breath.

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VIII. BREATHING AIR EQUIPMENT DRILLS FOR ON & OFF DUTY PERSONNEL

An H₂S Drill and Training Session must be given once a week to ALL on-duty personnel with off duty personnel. On-duty and Off-duty personnel will reverse roles on alternate drills.

An H₂S drill and training session must be given once a week to all off-duty personnel in coincidence with on-duty personnel reversing roles on alternate drills.

The purpose of this drill is to instruct the crews in the operation and use of breathing air and H₂S related emergency equipment and to allow the personnel to become acquainted with using the equipment under working conditions. The crews should be trained to put on the breathing air equipment within one minute when required or requested to do so.

The following procedure should be used for weekly drills. The MRC supervisor must be satisfied that the crews are proficient with the equipment.

1. All personnel should be informed that a drill will be held.
2. The Total H₂S Safety Technician or a designee assigned by the MRC Drilling Foreman should initiate the drill by signaling as he/she would if H₂S was detected.
3. Personnel should don their breathing apparatus.
4. Once the breathing air equipment is on, the H₂S Technician should check all personnel to insure proper operation.

A training and information session will be conducted after each drill to answer any H₂S related questions and to cover any gaps identified from one of the following topics:

- Condition II, and III alerts and steps to be taken by all personnel.
- The importance of wind direction when dealing with H₂S.
- Proper use and storage of all types of breathing equipment.
- Proper use and storage of oxygen resuscitators.
- Proper use and storage of H₂S detectors (Mini Checks or equivalent).
- The "buddy system" and the procedure for rescuing a person overcome by H₂S.
- Responsibilities and duties.
- Location of H₂S safety equipment.
- Other parts of the "H₂S Contingency Plan" that should be reviewed.

NOTE: A record of attendance must be kept for weekly drills and training sessions.

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IX. HYDROGEN SULFIDE TRAINING CURRICULUM

(FOR EMPLOYERS, VISITORS, AND CONTRACTORS)

EACH PERSON WILL BE INFORMED ON THE RESTRICTIONS OF HAVING BEARDS AND CONTACT LENS. THEY WILL ALSO BE INFORMED OF THE AVAILABILITY OF SPECTACLE KITS.

AFTER THE H₂S EQUIPMENT IS RIGGED UP, ALL IN SCOPE PERSONNEL WILL BE H₂S TRAINED AND PUT THROUGH A DRILL. ANY DEFICIENCIES WILL BE CORRECTED.

Training Completion cards are good for one year and will indicate date of completion or expiration. Personnel previously trained on another facility and visiting, must attend a "supplemental briefing" on H₂S equipment and procedures before beginning duty. Visitors who remain on the location more than 24 hours must receive full H₂S training given all crew members. A "supplemental briefing" will include but not be limited to: Location of respirators, familiarization with safe briefing areas, alarms with instruction on responsibilities in the event of a release and hazards of H₂S and (SO₂, if applicable). A training and drill log will be kept.

Topics for full H₂S training shall include the following equipment if on location, but not be limited to the following:

1. **Brief Introduction on H₂S**
 - A. Slide or Computer presentation (If Available)
 - B. H₂S material will be distributed
 - C. Re-emphasize the properties, toxicity, and hazards of H₂S
 - D. Source of SO₂ (if applicable)
2. **H₂S Detection**
 - A. Description of H₂S sensors
 - B. Description of warning system (how it works & it's location)
 - C. Actual location of H₂S sensors
 - D. Instruction on use of pump type detector (Gastec)
 - E. Use of card detectors, ampoules, or dosimeters
 - F. Use of combustible gas detector
 - G. Other personnel detectors used
 - H. Alarm conditions I & II,
 - I. SO₂ alarms (if applicable)

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3. **H2S Protection**
 - A. Types of breathing apparatus provided (30-minute SCBA & 5-minute SCBA (with voice diaphragms for communication if supplied)
 - B. Principle of how breathing apparatus works
 - C. Demonstration on how to use breathing apparatus
 - D. Location of breathing apparatus
4. **Cascade System**
 - A. Description of cascade system
 - B. How system works
 - C. Cascade location of rig with reference to briefing areas
 - D. How to use cascade system (with 5-minute hose work line units & refill, if supplied)
 - E. Importance of wind direction and actual location of Windsocks
 - F. Purpose of compressor/ function (if one is on site)
5. **H2S Rescue and First Aid**
 - A. Importance of wind direction
 - B. Safe briefing area
 - C. Buddy system
 - D. H2S symptoms
 - E. Methods of rescue
6. **Hands on Training**
 - A. Donning/ familiarization of SCBA 30-minute unit
 - B. Donning/ familiarization of SKADA 5- MIN. Packs
 - C. Familiarization of cascades
 - D. Use of O2 resuscitator
 - E. Alarm conditions - upwind briefing areas, etc...
 - F. Duties and responsibilities of all personnel
 - G. Procedures for evacuation
 - H. Search and Rescue teams
7. **Certification**
 - A. Testing on material covered

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TOTAL SAFETY US INC., FIT TEST**X. EMPLOYEE INFORMATION**

Employee Name: _____ Date: _____

Date of Employee Medical Evaluation: _____

Medical Status (circle): Unrestricted Limitations on Use Use Not
Authorized**RESPIRATOR INFORMATION**

Respirator Type (Dustmask, SCBA, etc): _____

Brand: _____

Size: (circle): XS S M L XL

FIT TEST INFORMATION

Type of Fit Test Performed:

Quantitative

Porta Count

Fit Factor: _____

Fittester 3000

Fit Factor: _____

Qualitative

Irritant Smoke

Passed / Failed

Isoamyl Acetate (Banana Oil)

Passed / Failed

Saccharin

Passed / Failed

Bitrex

Passed / Failed

I hereby certify that this fittest was conducted in accordance with the OSHA Fit Testing
Protocols found in Appendix A of 1910.134.

Fit Tester Name (Print): _____

Signature: _____ Date: _____

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XI. H₂S SAFETY SERVICES

HYDROGEN SULFIDE SAFETY PACKAGE – Contained on location in Total Safety H₂S Equipment Trailer, unless otherwise noted:

RESPIRATORY SAFETY SYSTEMS**QTY DESCRIPTION**

- 12 30-Minute Pressure Demand SCBA
(4-Primary Safe Briefing Area, 4-Secondary Safe Briefing Area, 4-floor with one of these for derrick man)
- 9 Hose Line 5-minute Work Unit w/Escapes Cylinder (1 in derrick, 6 on drill floor, 1 in mud pit wt area, 1 in shaker area)

The following shall be part of the package if requested by the MRC Foremen (at least one trailer with cascade system is required to be located in the MRC Magnolia asset for use as needed)

- 1 Breathing air cascade of 10 bottles w/regulator
- 2 Refill lines to refill 30-minute units on location
- 1 6-Man manifold that can be rigged up to work area on floor, if needed
- 6 25 foot hose lines
- 2 50 foot hose lines
- 100 Feet of hose line to rig cascade up to 12 man manifold on floor
- 12 30-minute Self Contained Breathing apparatus

DETECTION AND ALARM SAFETY SYSTEM

- 1 H₂S Fixed Monitor w/8Channels (Loc determined at rig up) suggested.
(Mud pit area, shaker area, bell nipple area, floor/driller area, & outside quarters)
- 5 H₂S Sensors
- 3 Explosion Proof Alarms (Light and Siren)
(1 on floor, 1 in work area, 1 in trailer area where quarters are located)
- 2 Personal H₂S monitors
- 1 Portable Tri-Gas Hand Held Meter (O₂, LEL, H₂S)
- 1 Sensidyne/Gastech Manual Pump Type Detector
- 8 Boxes H₂S Tubes Various Ranges
- 2 Boxes SO₂ Tubes Various Ranges
- 1 Calibration Gas
- 1 Set Paper Work for Records: Training, Cal, Inspection, other

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ADDITIONAL SAFETY RELATED EQUIPMENT**QTY DESCRIPTION**

2	Windsacks with Pole and Bracket
1	Set Well Condition Sign w/Green, Yellow, Red Flags
1	Primary Safe Briefing Area Sign
1	Secondary Safe Briefing Area Sign
6	Operating Condition Signs for Work Areas & Living Quarters

**TRAILER WITH BREATHING AIR CASCADE WILL
ALSO INCLUDE THE FOLLOWING:**

This equipment will be part of the H2S equipment stored in the trailer, when on location

1	First aid kit
1	Fire Blanket
1	Eye wash station
2	Safety Harness w/150' safety line

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XII. EMERGENCY PHONE NUMBERS (Updated March 18, 2009)**EMERGENCY PHONE NUMBERS**

MRC Energy Co. Emergency Phone #

MRC Energy Co. Permian Operations Phone-----

MRC Energy Co. Production

113 Daw Rd

Mansfield LA 71052

Title	Names	Phone	Cell
Operations Manager			
Operation Supt.			
Operations Supervisor			
Operations Supervisor			
Office Supervisor			
HSE			
Scheduler Planner			

Hydrogen Sulfide Safety Consultants

Total Safety W. Bender Blvd. Hobbs, NM	575-392-2973	After Hours 24 Hour Call Center Through Office Number
Tommy Throckmorton Operations Manager	575-392-2973	940-268-9614
Rodney Jourdan Sales Contact	575-392-2973	432-349-3928

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MRC Energy Co. MEDICAL RESPONSE PLAN AND IT'S MEDICAL PROTOCOLS WILL BE FOLLOWED**MEDICAL COORDINATOR # -----**[Emergency Numbers & Directions](#)**Hospitals (911)**

Artesia General Hospital 702 N. 13th St. Artesia, NM 88210	Main Phone Number	575-748-3333
Nor-Lea General Hospital 1600 N. Main Ave. Lovington, NM 88260	Main Phone Number	575-396-6611
Lea Regional Medical Center 5419 N. Lovington Hwy Hobbs, NM 88240	Main Phone Number	575-492-5260
Carlsbad General Hospital 2430 W. Pierce St. Carlsbad, NM	Main Phone Number	575-887-4100
Lovelace Regional Hospital 117 E. 19th St Roswell, NM 88201	Main Phone Number	575-627-7000
Winkler Co. Memorial Hospital 821 Jeffee Dr. Kermit, Texas 79745	Main Phone Number	432-586-8299
Reeves County Hospital 2323 Texas St. Pecos, Texas 79772	Main Phone Number	432-447-3551

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State Police (911)

Texas DPS Loving co. 225 N.Pecos Mentone, Texas 79754	Office Number	432-377-2411
Texas DPS Winkler Co. 100 E Winkler Kermit, Texas 79745	Office Number	432-586-3465
Texas DPS Pecos Co. 148 N I-20 Frontage RD Pecos, Texas 79772	Office Number	432-447-3532
New Mexico State Police 3300 W. Main St Artesia, NM	Office Number	575-748-9718
New Mexico State Police 304 N. Canyon St Carlsbad, NM 88220	Office Number	575-885-3137
New Mexico State Police 5100 Jack Gomez Blvd. Hobbs, NM 88240	Office Number	575-392-5588

Local Law Enforcement (911) (Sheriff)

Reeves Co. Sheriff 500 N. Oak ST Pecos, Texas 79722	Office Number	432-445-4901
Winkler Co. Sheriff 1300 Bellaire St. Kermit, Texas 79745	Office Number	432-586-3461
Loving Co. Sheriff Courthouse Mentone, Texas	Office Number	432-377-2411
Lea Co. Sheriff 1417 S. Commercial St. Lovington, NM 88260	Office Number	
Eddy Co. Sheriff 305 N 7th St. Artesia, NM 88210	Office Number	575-766-9888
Eddy Co. Sheriff 305 N 7th St. Carlsbad, NM 88220	Office Number	575-746-9888

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Federal & State Agencies

OSHA Lubbock Area Office 1205 Texas Av. Room 806 Lubbock, Texas 79401	Main Number	806-472-7681 EXT 7685
New Mexico Environment Department 400 N Pennsylvania Roswell, NM 88201	Joe Fresquez	575-623-3935
Texas Railroad Commission Midland, Texas	Main Number	844-773-0305
BLM Carlsbad, NM Field Office 620 E. Green ST Carlsbad, NM 88220	Main Number	575-234-5972
BLM Hobbs Field Station 414 W. Taylor Rd. Hobbs, NM 88240	Main Number	575-393-3612
BLM Roswell District Office 2909 W. Second St. Roswell, NM 88201	Main Number	575-627-0272
TECQ Texas Commission on Environmental Quality	Main Number	800-832-8224
New Mexico OCD		
U.S. Environmental Protection Agency Region 6 Texas/New Mexico	Main Number	214-655-2222
National Response Center Toxic Chemicals & Oil Spills	Main Number	800-424-8802

Rig Company

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XIII. EVACUATION OF THE GENERAL PUBLIC

The procedure to be used in alerting nearby persons in the event of any occurrence that could pose a threat to life or property will be arranged and completed with public officials in detail, prior to drilling into the hydrogen sulfide formations.

In the event of an actual emergency, the following steps will be immediately taken:

1. The MRC Energy Co.'s representative will dispatch sufficient personnel to immediately warn each resident and transients down-wind within radius of exposure from the well site. Then warn all residence in the radius of exposure. Additional evacuation zones may be necessary as the situation warrants.
2. The MRC Energy Co.'s representative will immediately notify proper authorities, including the Sheriff's Office, Highway Patrol, and any other public officials as described above and will enlist their assistance in warning residents and transients in the calculated radius of exposure.
3. The MRC Energy Co.'s representative will dispatch sufficient personnel to divert traffic in the vicinity away from the potentially dangerous area. A guard to the entrance of the well site will be posted to monitor essential and non essential traffic.
4. General:
 - A. The area included within the radius of exposure is considered to be the zone of maximum potential hazard from a hydrogen sulfide gas escape. Immediate evacuation of public areas, in accordance with the provisions of this contingency plan, is imperative. When it is determined that conditions exist which create an additional area (beyond the initial zone of maximum potential hazard) vulnerable to possible hazard, public areas in the additional hazardous area will be evacuated in accordance with the contingency plan.
 - B. In the event of a disaster, after the public areas have been evacuated and traffic stopped, it is expected that local civil authorities will have arrived and within a few hours will have assumed direction of and control of the public, including all public areas. MRC Energy Co. will cooperate with these authorities to the fullest extent and will exert every effort by careful advice to such authorities to prevent panic or rumors.
 - C. MRC Energy Co. will dispatch appropriate management personnel at the disaster site as soon as possible. The company's personnel

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will cooperate with and provide such information to civil authorities as they might require.

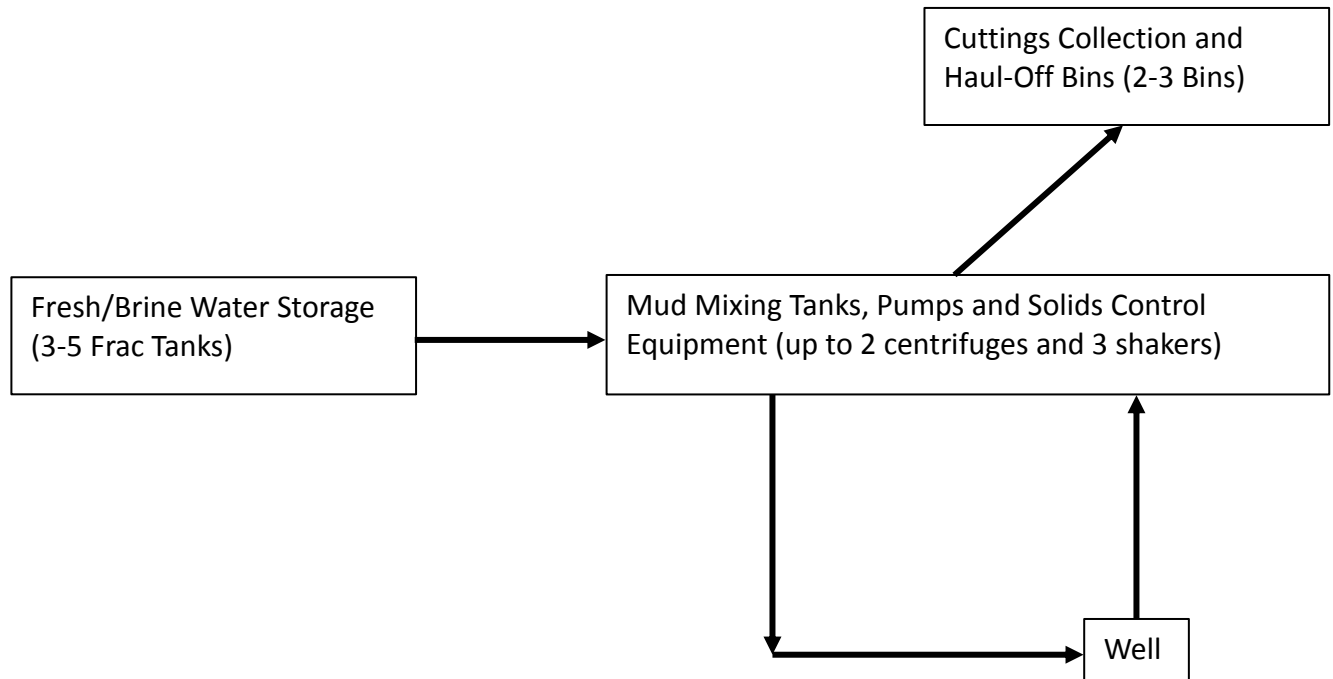
- D. One of the products of the combustion of hydrogen sulfide is sulfur dioxide (SO₂). Under certain conditions this gas may be equally as dangerous as H₂S. A pump type detector device, which determines the percent of SO₂ in air through concentrations in ppm, will be available. Although normal air movement is sufficient to dissipate this material to safe levels, the SO₂ detector should be utilized to check concentrations in the proximity of the well once every hour, or as necessary and the situation warrants. Also, if any low areas are suspected of having high concentrations, personnel should be made aware of these areas, and steps should be taken to determine whether or not these low areas are hazardous.

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Exhibit E-6: H2S Contingency Plan Emergency Contacts
Matador Resources Company

Company Office			
Matador Resources Company		(972)-371-5200	
Key Personnel			
Name	Title	Office	Mobile
Billy Goodwin	Vice President Drilling	972-371-5210	817-522-2928
Gary Martin	Drilling Superintendent		601-669-1774
Dee Smith	Drilling Superintendent	972-371-5447	972-822-1010
Blake Hermes	Drilling Engineer	972-371-5485	713-876-8558
	Construction Superintendent		
	Construction Superintendent		
Artesia			
Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	
Carlsbad			
Ambulance		911	
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		575-887-3798	
Local Emergency Planning Committee		575-887-6544	
New Mexico Oil Conservation Division		575-887-6544	
Santa Fe			
New Mexico Emergency Response Comission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Comission (Santa Fe) 24 hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	
National			
National Emegency Response Center (Washington, D.C.)		800-424-8802	
Medical			
Flight for Life- 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare- R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb- 2301 Yale Blvd S.E., D3; Albuquerque, NM		505-842-4433	
SB Air Med Service- 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	
Other			
Boots & Coots IWC		800-256-9688	or 281-931-8884
Cudd Pressure Control		432-699-0139	or 432-563-3356
Haliburton		575-746-2757	
B.J. Services		575-746-3569	

Closed-Loop System



Operating and Maintenance Plan:

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluids and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

Closure Plan:

During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 192947

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 192947
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/9/2023
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	3/9/2023
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	3/9/2023
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	3/9/2023