

Well Name: NINA CORTELL FED COM	Well Location: T22S / R32E / SEC 10 / SESE /	County or Parish/State:
Well Number: 138H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM086147	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002550471	Well Status: Approved Application for Permit to Drill	Operator: MATADOR PRODUCTION COMPANY

Notice of Intent

Sundry ID: 2742141

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 07/20/2023	Time Sundry Submitted: 04:39
Date proposed operation will begin: 06/20/2024	

Procedure Description: BLM Bond NMB001079 Surety Bond No.: RLB0015172 - Matador respectfully requests the option to amend the well design of the Nina Cortell Fed Com 138H and make the following changes to the current APD: - Change well name from Nina Cortell Fed Com #224H to Nina Cortell Fed Com #138H - Change target zone from Wolfcamp to Bone Spring - Change BHL from 60' FNL & 330' FEL to 110' FNL & 985' FEL. All perforations will be within the setback requirements as previously approved. - Amend Casing and Cementing plan by changing Intermediate 1 casing from 7-5/8" to 9-5/8" and revising set depth as described below. - Amend pressure control requirements from 10M to 5M with the change from Wolfcamp to Bone Springs.

NOI Attachments

Procedure Description

- Nina_Cortell_Fed_Com_138H_Directional_Well_Plan_v3_20230720162226.pdf
- Nina_Cortell_Fed_Com_138H_Directional_Wall_Plot_v3_20230720162159.pdf
- Nina_Cortell_Fed_Com_138H_Sundry_20230720162135.pdf
- Nina_Cortell_Fed_Com_138H_Directional_AC_Report_v3_20230720162114.pdf
- LO_NINA_CORTELL_FED_COM_138H_REV3_S_20230720162028.pdf

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Conditions of Approval

Additional

NINA_CORTELL_FED_COM138H___Sundry_COA_20230906101856.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: NICKY FITZGERALD	Signed on: JUL 20, 2023 04:06 PM
Name: MATADOR PRODUCTION COMPANY	
Title: Regulatory Consultant	
Street Address: 5400 LBJ FREEWAY STE 1500	
City: DALLAS	State: TX
Phone: (972) 371-5448	
Email address: nicky.fitzgerald@matadorresources.com	

Field

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

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 09/06/2023
Signature: Chris Walls	

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No.	
10. Field and Pool or Exploratory Area	11. Country or Parish, State

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

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

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

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

THE SPACE FOR FEDERAL OR STATE OFFICE USE

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SESE / 274 FSL / 1260 FEL / TWSP: 22S / RANGE: 32E / SECTION: 10 / LAT: 32.3997492 / LONG: -103.658091 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 100 FSL / 330 FEL / TWSP: 22S / RANGE: 32E / SECTION: 10 / LAT: 32.399281 / LONG: -103.6550795 (TVD: 12285 feet, MD: 12370 feet)

PPP: LOT 1 / 1316 FNL / 332 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4243984 / LONG: -103.6551249 (TVD: 12429 feet, MD: 21600 feet)

PPP: SESE / 0 FNL / 338 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4135161 / LONG: -103.6551052 (TVD: 12493 feet, MD: 17700 feet)

BHL: LOT 1 / 60 FNL / 330 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4278499 / LONG: -103.6551311 (TVD: 12409 feet, MD: 22842 feet)

CONFIDENTIAL

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Matador Production Company
WELL NAME & NO.:	Nina Cortell Fed Com 138H
SURFACE HOLE FOOTAGE:	274'/S & 1260'/E
BOTTOM HOLE FOOTAGE:	110'/N & 985'/E
SURFACE HOLE LOCATION:	P, Section 10, T.22 S., R.32 E.
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

SEE THE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.

This well was previously known as NINA CORTELL FED COM 224H.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet **43 CFR 3176** 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 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.

Note: Operator has requested to have the option to drill either 17.5" or 20" surface hole. Both hole sizes meet 0.422" casing clearance requirements specified in title 43 CFR 3172. This request was approved.

Note: Operator has proposed to set the intermediate casing at 5,039 ft which it will be in the Bell canyon formation. BLM recommends setting intermediate casing in the base of the BX BLM and at the top of the Lamar at approximately 4,875 ft.

2. The 9-5/8 inch intermediate casing shall be set in a competent bed at approximately 4,875 ft. The minimum required fill of cement behind the 9-5/8 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 (Two-stage):

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 is responsible to report the following within two miles of mineworking to BLM Geologist jrutley@blm.gov:
 - Any fluid flow outside of casing in the Salado Formation.
 - Any well collision events.
 - Sustained annuli pressures 500 psi above maximum allowable wellhead operating pressure (MAWOP) observed in monitored annuli.
 - Sustained mud losses occur through the Salado interval for projects within one mile of mineworking and WIPP Boundary.

Note: Intermediate casing must be kept fluid-filled to meet CFO's collapse requirement.

3. Operator has proposed to set 5-1/2 inch production casing at approximately **21,606 ft.** The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

Note: Excess cement for production casing is below CFO's recommendation of %25. More cement might be needed.

Note: operator has requested to have the option to drill 8.5" hole (instead of 8.75") throughout the 5.5" production casing section. This request was approved. Adjust cement volume accordingly.

Note: Target has changed from Wolfcamp to Bone Spring.

C. PRESSURE CONTROL

1. Variance approved to use **flex line** from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a **multi-bowl wellhead assembly**. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. Before drilling out surface casing shoe, the BOP/BOPE and annular preventer shall be pressure-tested in accordance with 43 CFR 3172.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

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 43 CFR part 3170 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 43 CFR part 3170 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 43 CFR 3172.6(b)(9) must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR part 3170 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 43 CFR 3170 subpart 3172.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

SA 09/06/2023

Matador Production Company

Antelope Ridge

Nina Cortell

Nina Cortell Fed Com #138H (Previous #224H)

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

13 July, 2023

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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 #138H (Previous #224H),					
Well Position	+N/-S	59.1 usft	Northing:	509,757.54 usft	Latitude:	32° 23' 58.654 N
	+E/-W	2,563.0 usft	Easting:	708,561.04 usft	Longitude:	103° 39' 27.374 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	47,578.84191629

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	7/13/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,606.0	BLM Plan #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,300.0	8.00	118.17	3,297.4	-26.3	49.2	1.00	1.00	0.00	118.17	
5,623.7	8.00	118.17	5,598.5	-179.0	334.2	0.00	0.00	0.00	0.00	
6,157.0	0.00	0.00	6,130.1	-196.6	367.0	1.50	-1.50	0.00	180.00	
10,903.9	0.00	0.00	10,877.0	-196.6	367.0	0.00	0.00	0.00	0.00	KOP - Nina Cortell Fe
11,803.9	90.00	352.20	11,450.0	371.1	289.2	10.00	10.00	0.00	352.20	
12,048.6	90.00	359.54	11,450.0	615.0	271.6	3.00	0.00	3.00	90.00	
21,606.0	90.00	359.54	11,450.0	10,172.0	194.9	0.00	0.00	0.00	0.00	BHL - Nina Cortell Fe

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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
839.0	0.00	0.00	839.0	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
1,191.0	0.00	0.00	1,191.0	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
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
2,600.0	1.00	118.17	2,600.0	-0.4	0.8	-0.4	1.00	1.00	0.00
2,700.0	2.00	118.17	2,700.0	-1.6	3.1	-1.7	1.00	1.00	0.00
2,800.0	3.00	118.17	2,799.9	-3.7	6.9	-3.8	1.00	1.00	0.00
2,900.0	4.00	118.17	2,899.7	-6.6	12.3	-6.7	1.00	1.00	0.00
3,000.0	5.00	118.17	2,999.4	-10.3	19.2	-10.4	1.00	1.00	0.00
3,100.0	6.00	118.17	3,098.9	-14.8	27.7	-15.0	1.00	1.00	0.00
3,200.0	7.00	118.17	3,198.3	-20.2	37.6	-20.5	1.00	1.00	0.00
3,287.5	7.87	118.17	3,285.0	-25.5	47.6	-25.9	1.00	1.00	0.00
Z (Castile (TI))									
3,300.0	8.00	118.17	3,297.4	-26.3	49.2	-26.7	1.00	1.00	0.00
Start 2323.7 hold at 3300.0 MD									
3,400.0	8.00	118.17	3,396.4	-32.9	61.4	-33.4	0.00	0.00	0.00
3,500.0	8.00	118.17	3,495.5	-39.5	73.7	-40.0	0.00	0.00	0.00
3,600.0	8.00	118.17	3,594.5	-46.0	86.0	-46.7	0.00	0.00	0.00
3,700.0	8.00	118.17	3,693.5	-52.6	98.2	-53.4	0.00	0.00	0.00
3,800.0	8.00	118.17	3,792.5	-59.2	110.5	-60.0	0.00	0.00	0.00
3,900.0	8.00	118.17	3,891.6	-65.8	122.8	-66.7	0.00	0.00	0.00
4,000.0	8.00	118.17	3,990.6	-72.3	135.0	-73.4	0.00	0.00	0.00
4,100.0	8.00	118.17	4,089.6	-78.9	147.3	-80.0	0.00	0.00	0.00
4,200.0	8.00	118.17	4,188.6	-85.5	159.6	-86.7	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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)	
4,300.0	8.00	118.17	4,287.7	-92.0	171.8	-93.4	0.00	0.00	0.00	
4,400.0	8.00	118.17	4,386.7	-98.6	184.1	-100.0	0.00	0.00	0.00	
4,500.0	8.00	118.17	4,485.7	-105.2	196.4	-106.7	0.00	0.00	0.00	
4,600.0	8.00	118.17	4,584.8	-111.7	208.6	-113.4	0.00	0.00	0.00	
4,700.0	8.00	118.17	4,683.8	-118.3	220.9	-120.0	0.00	0.00	0.00	
4,800.0	8.00	118.17	4,782.8	-124.9	233.2	-126.7	0.00	0.00	0.00	
4,900.0	8.00	118.17	4,881.8	-131.5	245.4	-133.4	0.00	0.00	0.00	
4,915.3	8.00	118.17	4,897.0	-132.5	247.3	-134.4	0.00	0.00	0.00	
Z (G30:CS14-CSB)										
4,957.7	8.00	118.17	4,939.0	-135.3	252.5	-137.2	0.00	0.00	0.00	
Z (G26: Bell Cyn.)										
5,000.0	8.00	118.17	4,980.9	-138.0	257.7	-140.1	0.00	0.00	0.00	
5,100.0	8.00	118.17	5,079.9	-144.6	270.0	-146.7	0.00	0.00	0.00	
5,200.0	8.00	118.17	5,178.9	-151.2	282.3	-153.4	0.00	0.00	0.00	
5,300.0	8.00	118.17	5,277.9	-157.7	294.5	-160.1	0.00	0.00	0.00	
5,400.0	8.00	118.17	5,377.0	-164.3	306.8	-166.7	0.00	0.00	0.00	
5,500.0	8.00	118.17	5,476.0	-170.9	319.1	-173.4	0.00	0.00	0.00	
5,600.0	8.00	118.17	5,575.0	-177.5	331.3	-180.1	0.00	0.00	0.00	
5,623.7	8.00	118.17	5,598.5	-179.0	334.2	-181.6	0.00	0.00	0.00	
Start Drop -1.50										
5,700.0	6.86	118.17	5,674.1	-183.7	342.9	-186.4	1.50	-1.50	0.00	
5,800.0	5.36	118.17	5,773.6	-188.7	352.3	-191.5	1.50	-1.50	0.00	
5,868.7	4.33	118.17	5,842.0	-191.4	357.4	-194.2	1.50	-1.50	0.00	
Z (G13: Cherry Cyn.)										
5,900.0	3.86	118.17	5,873.3	-192.5	359.4	-195.3	1.50	-1.50	0.00	
6,000.0	2.36	118.17	5,973.1	-195.0	364.2	-197.9	1.50	-1.50	0.00	
6,100.0	0.86	118.17	6,073.1	-196.4	366.6	-199.2	1.50	-1.50	0.00	
6,157.0	0.00	0.00	6,130.1	-196.6	367.0	-199.4	1.50	-1.50	0.00	
Start 4746.9 hold at 6157.0 MD										
6,200.0	0.00	0.00	6,173.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,273.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,373.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,473.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,573.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,673.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,773.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,873.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,973.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,011.9	0.00	0.00	6,985.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Z (G7: Brushy Cyn.) Antelope Ridge										
7,100.0	0.00	0.00	7,073.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,173.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,273.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,373.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,473.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,573.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,673.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,773.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,873.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,973.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,073.1	-196.6	367.0	-199.4	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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)	
8,200.0	0.00	0.00	8,173.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,273.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,373.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,473.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,573.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,673.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,773.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
8,852.9	0.00	0.00	8,826.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Z (G4: BSG) (CS9))										
8,900.0	0.00	0.00	8,873.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,973.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,073.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,173.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,273.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,373.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,473.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,573.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,690.9	0.00	0.00	9,664.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Z (L5.3: FBSC)										
9,700.0	0.00	0.00	9,673.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,773.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,873.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
9,923.9	0.00	0.00	9,897.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Z (L5.1: FBSC)										
10,000.0	0.00	0.00	9,973.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,073.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,173.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,204.9	0.00	0.00	10,178.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Z (L4.3: SBSC)										
10,300.0	0.00	0.00	10,273.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,373.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,473.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,583.9	0.00	0.00	10,557.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Z (L4.1: SBSC)										
10,600.0	0.00	0.00	10,573.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,673.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,773.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,873.1	-196.6	367.0	-199.4	0.00	0.00	0.00	
10,903.9	0.00	0.00	10,877.0	-196.6	367.0	-199.4	0.00	0.00	0.00	
Start Build 10.00 - KOP - Nina Cortell Fed Com #138H										
11,000.0	9.61	352.20	10,972.6	-188.6	365.9	-191.5	10.00	10.00	0.00	
11,006.5	10.25	352.20	10,979.0	-187.5	365.8	-190.4	10.00	10.00	0.00	
Z (L3.3: TBSC)										
11,076.4	17.24	352.20	11,046.8	-171.1	363.5	-173.9	10.00	10.00	0.00	
FTP - Nina Cortell #138H										
11,100.0	19.61	352.20	11,069.3	-163.7	362.5	-166.5	10.00	10.00	0.00	
11,200.0	29.61	352.20	11,160.1	-122.5	356.9	-125.3	10.00	10.00	0.00	
11,300.0	39.61	352.20	11,242.3	-66.3	349.2	-69.0	10.00	10.00	0.00	
11,400.0	49.61	352.20	11,313.4	3.2	339.6	0.6	10.00	10.00	0.00	
11,500.0	59.61	352.20	11,371.2	83.9	328.6	81.3	10.00	10.00	0.00	
11,600.0	69.61	352.20	11,414.0	173.3	316.3	170.8	10.00	10.00	0.00	

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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)
11,700.0	79.61	352.20	11,440.6	268.7	303.3	266.3	10.00	10.00	0.00
11,800.0	89.61	352.20	11,449.9	367.2	289.8	364.9	10.00	10.00	0.00
11,803.9	90.00	352.20	11,450.0	371.1	289.2	368.8	10.00	10.00	0.00
Start DLS 3.00 TFO 90.00									
11,900.0	90.00	355.08	11,450.0	466.5	278.6	464.3	3.00	0.00	3.00
12,000.0	90.00	358.08	11,450.0	566.4	272.6	564.2	3.00	0.00	3.00
12,048.6	90.00	359.54	11,450.0	615.0	271.6	612.8	3.00	0.00	3.00
Start 9557.3 hold at 12048.6 MD									
12,100.0	90.00	359.54	11,450.0	666.3	271.2	664.2	0.00	0.00	0.00
12,200.0	90.00	359.54	11,450.0	766.3	270.4	764.2	0.00	0.00	0.00
12,300.0	90.00	359.54	11,450.0	866.3	269.6	864.2	0.00	0.00	0.00
12,400.0	90.00	359.54	11,450.0	966.3	268.8	964.2	0.00	0.00	0.00
12,500.0	90.00	359.54	11,450.0	1,066.3	268.0	1,064.2	0.00	0.00	0.00
12,600.0	90.00	359.54	11,450.0	1,166.3	267.2	1,164.2	0.00	0.00	0.00
12,700.0	90.00	359.54	11,450.0	1,266.3	266.4	1,264.2	0.00	0.00	0.00
12,800.0	90.00	359.54	11,450.0	1,366.3	265.6	1,364.2	0.00	0.00	0.00
12,900.0	90.00	359.54	11,450.0	1,466.3	264.8	1,464.2	0.00	0.00	0.00
13,000.0	90.00	359.54	11,450.0	1,566.3	264.0	1,564.2	0.00	0.00	0.00
13,100.0	90.00	359.54	11,450.0	1,666.3	263.2	1,664.2	0.00	0.00	0.00
13,200.0	90.00	359.54	11,450.0	1,766.3	262.4	1,764.2	0.00	0.00	0.00
13,300.0	90.00	359.54	11,450.0	1,866.3	261.6	1,864.2	0.00	0.00	0.00
13,400.0	90.00	359.54	11,450.0	1,966.3	260.8	1,964.2	0.00	0.00	0.00
13,500.0	90.00	359.54	11,450.0	2,066.3	260.0	2,064.2	0.00	0.00	0.00
13,600.0	90.00	359.54	11,450.0	2,166.3	259.2	2,164.2	0.00	0.00	0.00
13,700.0	90.00	359.54	11,450.0	2,266.3	258.4	2,264.2	0.00	0.00	0.00
13,800.0	90.00	359.54	11,450.0	2,366.3	257.6	2,364.2	0.00	0.00	0.00
13,900.0	90.00	359.54	11,450.0	2,466.3	256.8	2,464.2	0.00	0.00	0.00
14,000.0	90.00	359.54	11,450.0	2,566.3	256.0	2,564.2	0.00	0.00	0.00
14,100.0	90.00	359.54	11,450.0	2,666.3	255.2	2,664.2	0.00	0.00	0.00
14,200.0	90.00	359.54	11,450.0	2,766.3	254.4	2,764.2	0.00	0.00	0.00
14,300.0	90.00	359.54	11,450.0	2,866.3	253.6	2,864.2	0.00	0.00	0.00
14,400.0	90.00	359.54	11,450.0	2,966.3	252.8	2,964.2	0.00	0.00	0.00
14,500.0	90.00	359.54	11,450.0	3,066.3	252.0	3,064.2	0.00	0.00	0.00
14,600.0	90.00	359.54	11,450.0	3,166.3	251.2	3,164.2	0.00	0.00	0.00
14,700.0	90.00	359.54	11,450.0	3,266.3	250.4	3,264.2	0.00	0.00	0.00
14,800.0	90.00	359.54	11,450.0	3,366.3	249.6	3,364.2	0.00	0.00	0.00
14,900.0	90.00	359.54	11,450.0	3,466.3	248.8	3,464.2	0.00	0.00	0.00
15,000.0	90.00	359.54	11,450.0	3,566.3	248.0	3,564.2	0.00	0.00	0.00
15,100.0	90.00	359.54	11,450.0	3,666.2	247.2	3,664.2	0.00	0.00	0.00
15,200.0	90.00	359.54	11,450.0	3,766.2	246.3	3,764.2	0.00	0.00	0.00
15,300.0	90.00	359.54	11,450.0	3,866.2	245.5	3,864.2	0.00	0.00	0.00
15,400.0	90.00	359.54	11,450.0	3,966.2	244.7	3,964.2	0.00	0.00	0.00
15,500.0	90.00	359.54	11,450.0	4,066.2	243.9	4,064.2	0.00	0.00	0.00
15,600.0	90.00	359.54	11,450.0	4,166.2	243.1	4,164.2	0.00	0.00	0.00
15,700.0	90.00	359.54	11,450.0	4,266.2	242.3	4,264.2	0.00	0.00	0.00
15,800.0	90.00	359.54	11,450.0	4,366.2	241.5	4,364.2	0.00	0.00	0.00
15,900.0	90.00	359.54	11,450.0	4,466.2	240.7	4,464.2	0.00	0.00	0.00
16,000.0	90.00	359.54	11,450.0	4,566.2	239.9	4,564.2	0.00	0.00	0.00
16,100.0	90.00	359.54	11,450.0	4,666.2	239.1	4,664.2	0.00	0.00	0.00
16,200.0	90.00	359.54	11,450.0	4,766.2	238.3	4,764.2	0.00	0.00	0.00
16,300.0	90.00	359.54	11,450.0	4,866.2	237.5	4,864.2	0.00	0.00	0.00
16,400.0	90.00	359.54	11,450.0	4,966.2	236.7	4,964.2	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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)
16,440.5	90.00	359.54	11,450.0	5,006.8	236.4	5,004.7	0.00	0.00	0.00
BPP1 - Nina Cortell #138H									
16,500.0	90.00	359.54	11,450.0	5,066.2	235.9	5,064.2	0.00	0.00	0.00
16,600.0	90.00	359.54	11,450.0	5,166.2	235.1	5,164.2	0.00	0.00	0.00
16,700.0	90.00	359.54	11,450.0	5,266.2	234.3	5,264.2	0.00	0.00	0.00
16,800.0	90.00	359.54	11,450.0	5,366.2	233.5	5,364.2	0.00	0.00	0.00
16,900.0	90.00	359.54	11,450.0	5,466.2	232.7	5,464.2	0.00	0.00	0.00
17,000.0	90.00	359.54	11,450.0	5,566.2	231.9	5,564.2	0.00	0.00	0.00
17,100.0	90.00	359.54	11,450.0	5,666.2	231.1	5,664.2	0.00	0.00	0.00
17,200.0	90.00	359.54	11,450.0	5,766.2	230.3	5,764.2	0.00	0.00	0.00
17,300.0	90.00	359.54	11,450.0	5,866.2	229.5	5,864.2	0.00	0.00	0.00
17,400.0	90.00	359.54	11,450.0	5,966.2	228.7	5,964.2	0.00	0.00	0.00
17,500.0	90.00	359.54	11,450.0	6,066.2	227.9	6,064.2	0.00	0.00	0.00
17,600.0	90.00	359.54	11,450.0	6,166.2	227.1	6,164.2	0.00	0.00	0.00
17,700.0	90.00	359.54	11,450.0	6,266.2	226.3	6,264.2	0.00	0.00	0.00
17,800.0	90.00	359.54	11,450.0	6,366.2	225.5	6,364.2	0.00	0.00	0.00
17,900.0	90.00	359.54	11,450.0	6,466.2	224.7	6,464.2	0.00	0.00	0.00
18,000.0	90.00	359.54	11,450.0	6,566.2	223.9	6,564.2	0.00	0.00	0.00
18,100.0	90.00	359.54	11,450.0	6,666.2	223.1	6,664.2	0.00	0.00	0.00
18,200.0	90.00	359.54	11,450.0	6,766.2	222.3	6,764.2	0.00	0.00	0.00
18,300.0	90.00	359.54	11,450.0	6,866.1	221.5	6,864.2	0.00	0.00	0.00
18,400.0	90.00	359.54	11,450.0	6,966.1	220.7	6,964.2	0.00	0.00	0.00
18,500.0	90.00	359.54	11,450.0	7,066.1	219.9	7,064.2	0.00	0.00	0.00
18,600.0	90.00	359.54	11,450.0	7,166.1	219.1	7,164.2	0.00	0.00	0.00
18,700.0	90.00	359.54	11,450.0	7,266.1	218.3	7,264.2	0.00	0.00	0.00
18,800.0	90.00	359.54	11,450.0	7,366.1	217.5	7,364.2	0.00	0.00	0.00
18,900.0	90.00	359.54	11,450.0	7,466.1	216.7	7,464.2	0.00	0.00	0.00
19,000.0	90.00	359.54	11,450.0	7,566.1	215.9	7,564.2	0.00	0.00	0.00
19,080.0	90.00	359.54	11,450.0	7,646.2	215.2	7,644.2	0.00	0.00	0.00
BPP2 - Nina Cortell #138H									
19,100.0	90.00	359.54	11,450.0	7,666.1	215.1	7,664.2	0.00	0.00	0.00
19,200.0	90.00	359.54	11,450.0	7,766.1	214.2	7,764.2	0.00	0.00	0.00
19,300.0	90.00	359.54	11,450.0	7,866.1	213.4	7,864.2	0.00	0.00	0.00
19,400.0	90.00	359.54	11,450.0	7,966.1	212.6	7,964.2	0.00	0.00	0.00
19,500.0	90.00	359.54	11,450.0	8,066.1	211.8	8,064.2	0.00	0.00	0.00
19,600.0	90.00	359.54	11,450.0	8,166.1	211.0	8,164.2	0.00	0.00	0.00
19,700.0	90.00	359.54	11,450.0	8,266.1	210.2	8,264.2	0.00	0.00	0.00
19,800.0	90.00	359.54	11,450.0	8,366.1	209.4	8,364.2	0.00	0.00	0.00
19,900.0	90.00	359.54	11,450.0	8,466.1	208.6	8,464.2	0.00	0.00	0.00
20,000.0	90.00	359.54	11,450.0	8,566.1	207.8	8,564.2	0.00	0.00	0.00
20,100.0	90.00	359.54	11,450.0	8,666.1	207.0	8,664.2	0.00	0.00	0.00
20,200.0	90.00	359.54	11,450.0	8,766.1	206.2	8,764.2	0.00	0.00	0.00
20,300.0	90.00	359.54	11,450.0	8,866.1	205.4	8,864.2	0.00	0.00	0.00
20,398.8	90.00	359.54	11,450.0	8,964.9	204.6	8,963.0	0.00	0.00	0.00
BPP3 - Nina Cortell #138H									
20,400.0	90.00	359.54	11,450.0	8,966.1	204.6	8,964.2	0.00	0.00	0.00
20,500.0	90.00	359.54	11,450.0	9,066.1	203.8	9,064.2	0.00	0.00	0.00
20,600.0	90.00	359.54	11,450.0	9,166.1	203.0	9,164.2	0.00	0.00	0.00
20,700.0	90.00	359.54	11,450.0	9,266.1	202.2	9,264.2	0.00	0.00	0.00
20,800.0	90.00	359.54	11,450.0	9,366.1	201.4	9,364.2	0.00	0.00	0.00
20,900.0	90.00	359.54	11,450.0	9,466.1	200.6	9,464.2	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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)
21,000.0	90.00	359.54	11,450.0	9,566.1	199.8	9,564.2	0.00	0.00	0.00
21,100.0	90.00	359.54	11,450.0	9,666.1	199.0	9,664.2	0.00	0.00	0.00
21,200.0	90.00	359.54	11,450.0	9,766.1	198.2	9,764.2	0.00	0.00	0.00
21,300.0	90.00	359.54	11,450.0	9,866.1	197.4	9,864.2	0.00	0.00	0.00
21,400.0	90.00	359.54	11,450.0	9,966.0	196.6	9,964.2	0.00	0.00	0.00
21,500.0	90.00	359.54	11,450.0	10,066.0	195.8	10,064.2	0.00	0.00	0.00
21,600.0	90.00	359.54	11,450.0	10,166.0	195.0	10,164.2	0.00	0.00	0.00
21,606.0	90.00	359.54	11,450.0	10,172.0	194.9	10,170.2	0.00	0.00	0.00
TD at 21606.0 - BHL - Nina Cortell Fed Com #138H									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - Nina Cortell Fed C - plan hits target center - Point	0.00	0.00	10,877.0	-196.6	367.0	509,561.00	708,928.00	32° 23' 56.687 N	103° 39' 23.108 W
FTP - Nina Cortell #138H - plan misses target center by 0.4usft at 11076.3usft MD (11046.8 TVD, -171.1 N, 363.5 E) - Point	0.00	0.00	11,046.8	-171.0	363.9	509,586.60	708,924.91	32° 23' 56.940 N	103° 39' 23.142 W
BPP1 - Nina Cortell #138H - plan misses target center by 8.1usft at 16440.5usft MD (11450.0 TVD, 5006.8 N, 236.4 E) - Point	0.00	0.00	11,450.0	5,006.8	244.5	514,764.12	708,805.57	32° 24' 48.181 N	103° 39' 24.152 W
BPP3 - Nina Cortell #138H - plan misses target center by 1.9usft at 20398.8usft MD (11450.0 TVD, 8964.9 N, 204.6 E) - Point	0.00	0.00	11,450.0	8,964.9	206.5	518,722.33	708,767.52	32° 25' 27.352 N	103° 39' 24.304 W
BPP2 - Nina Cortell #138H - plan misses target center by 3.9usft at 19080.0usft MD (11450.0 TVD, 7646.2 N, 215.2 E) - Point	0.00	0.00	11,450.0	7,646.2	219.2	517,403.58	708,780.20	32° 25' 14.301 N	103° 39' 24.253 W
BHL - Nina Cortell Fed C - plan hits target center - Point	0.00	0.00	11,450.0	10,172.0	194.9	519,929.52	708,755.98	32° 25' 39.298 N	103° 39' 24.349 W

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
839.0	839.0	Z (Rustler)		0.00	359.54
1,191.0	1,191.0	Z (Salado)		0.00	359.54
3,287.5	3,285.0	Z (Castile (T))		0.00	359.54
4,915.3	4,897.0	Z (G30:CS14-CSB)		0.00	359.54
4,957.7	4,939.0	Z (G26: Bell Cyn.)		0.00	359.54
5,868.7	5,842.0	Z (G13: Cherry Cyn.)		0.00	359.54
7,011.9	6,985.0	Z (G7: Brushy Cyn.) Antelope Ridge		0.00	359.54
8,852.9	8,826.0	Z (G4: BSG (CS9))		0.00	359.54
9,690.9	9,664.0	Z (L5.3: FBSC)		0.00	359.54
9,923.9	9,897.0	Z (L5.1: FBSC)		0.00	359.54
10,204.9	10,178.0	Z (L4.3: SBSC)		0.00	359.54
10,583.9	10,557.0	Z (L4.1: SBSC)		0.00	359.54
11,006.5	10,979.0	Z (L3.3: TBSC)		0.00	359.54

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,500.0	2,500.0	0.0	0.0	Start Build 1.00	
3,300.0	3,297.4	-26.3	49.2	Start 2323.7 hold at 3300.0 MD	
5,623.7	5,598.5	-179.0	334.2	Start Drop -1.50	
6,157.0	6,130.1	-196.6	367.0	Start 4746.9 hold at 6157.0 MD	
10,903.9	10,877.0	-196.6	367.0	Start Build 10.00	
11,803.9	11,450.0	371.1	289.2	Start DLS 3.00 TFO 90.00	
12,048.6	11,450.0	615.0	271.6	Start 9557.3 hold at 12048.6 MD	
21,606.0	11,450.0	10,172.0	194.9	TD at 21606.0	



SURVEY PROGRAM

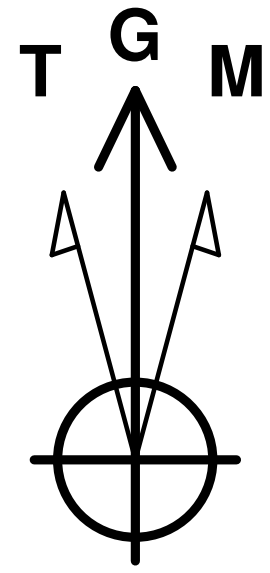
WELL DETAILS: Nina Cortell Fed Com #138H (Previous #224H)

Depth From	Depth To	Survey/Plan	Tool	+N/-S	+E/-W	GL @ 3790.0	KB @ 3818.5usft (Original Well Elev)	Slot
0.0	21606.0	BLM Plan #1 (Wellbore #1)	MWD	0.0	0.0	Northing 509757.54	Easting 708561.04 Latitude 32° 23' 58.654 N Longitude 103° 39' 27.374 W	

Company: Matador Production Company
Well: Nina Cortell Fed Com #138H (Previous #224H)
County: Lea County, NM
Wellbore: Wellbore #1
Plan: BLM Plan #1
Date: 7/13/2023

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: 6.17°

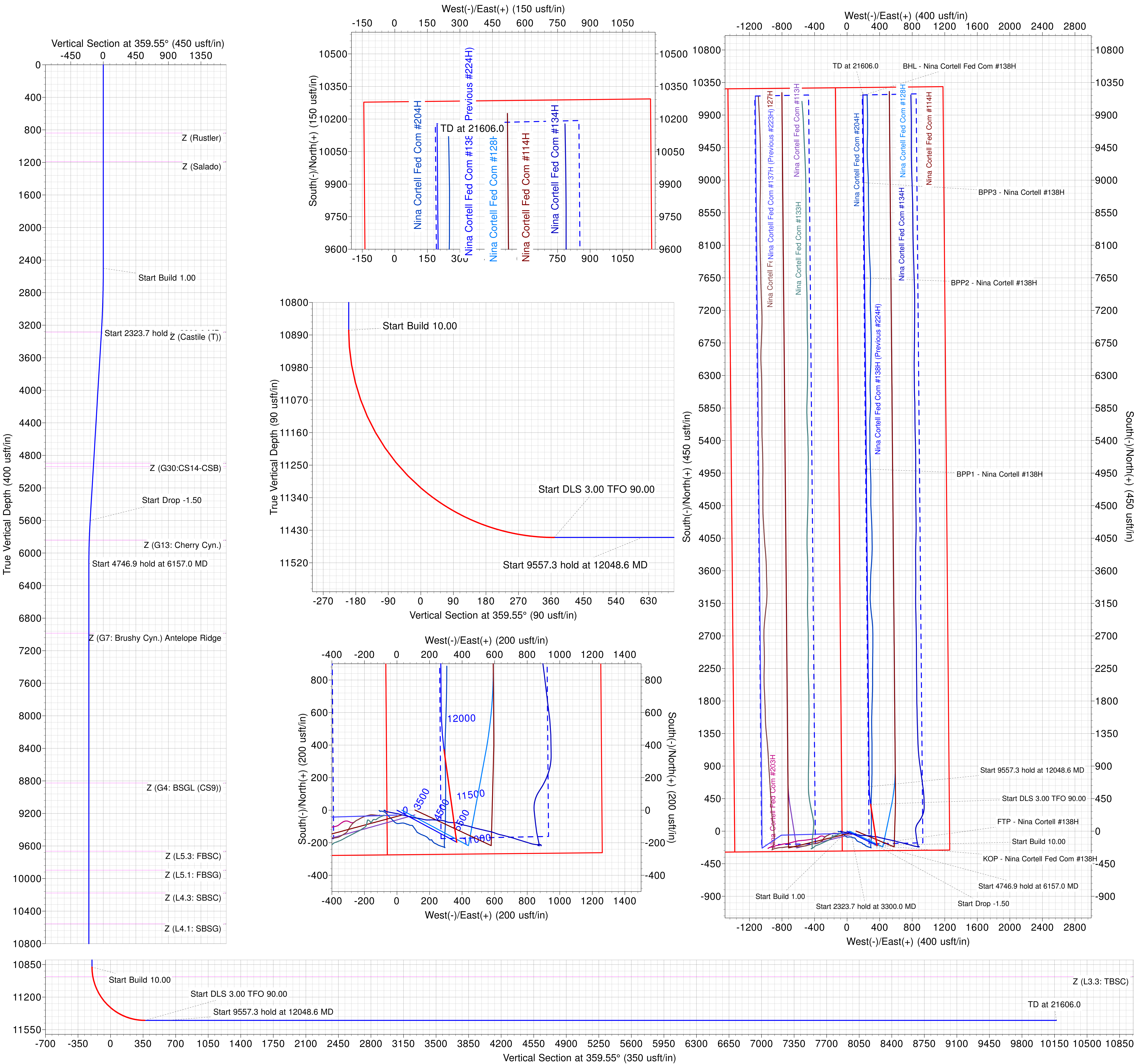
Magnetic Field
Strength: 47578.8snT
Dip Angle: 60.15°
Date: 11/5/2021
Model: IGRF2015

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP - Nina Cortell Fed Com #138H	10877.0	-196.6	367.0	509561.00	708928.00	32° 23' 56.687 N	103° 39' 23.108 W
BHL - Nina Cortell Fed Com #138H	11450.0	10172.0	194.9	519929.52	708755.99	32° 25' 39.298 N	103° 39' 24.349 W
BPP1 - Nina Cortell #138H	11450.0	5006.8	244.5	514764.12	708805.57	32° 24' 48.181 N	103° 39' 24.152 W
BPP2 - Nina Cortell #138H	11450.0	7646.2	219.2	517403.58	708780.20	32° 25' 14.301 N	103° 39' 24.253 W
BPP3 - Nina Cortell #138H	11450.0	8964.9	206.5	518722.33	708767.52	32° 25' 27.352 N	103° 39' 24.304 W
FTP - Nina Cortell #138H	11046.8	-171.0	363.9	509586.60	708924.91	32° 23' 56.940 N	103° 39' 23.142 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 1.00
3300.0	8.00	118.17	3297.4	-26.3	49.2	1.00	118.17	-26.7	Start 2323.7 hold at 3300.0 MD
5623.7	8.00	118.17	5598.5	-179.0	334.2	0.00	0.00	-181.6	Start Drop -1.50
6157.0	0.00	0.00	6130.1	-196.6	367.0	1.50	180.00	-199.4	Start 4746.9 hold at 6157.0 MD
10903.9	0.00	0.00	10877.0	-196.6	367.0	0.00	0.00	-199.4	Start Build 10.00
11803.9	90.00	352.20	11450.0	371.1	289.2	10.00	352.20	368.8	Start DLS 3.00 TFO 90.00
12048.6	90.00	359.54	11450.0	615.0	271.6	3.00	90.00	612.8	Start 9557.3 hold at 12048.6 MD
21606.0	90.00	359.54	11450.0	10172.0	194.9	0.00	0.00	10170.2	TD at 21606.0



Nina Cortell Fed Com 138H
SHL: 274 FSL & 1260' FEL Section 10
BHL: 110' FNL & 985' FEL Section 3
Township/Range: 22S 32E
Elevation Above Sea Level: 3789

Sundry Request

- Matador respectfully requests the option to amend the well design of the Nina Cortell Fed Com 138H and make the following changes to the current APD:

- Change well name from Nina Cortell Fed Com #224H to Nina Cortell Fed Com #138H
- Change target zone from Wolfcamp to Bone Spring
- Change BHL from 60' FNL & 330' FEL to 110' FNL & 985' FEL. All perforations will be within the setback requirements as previously approved.
- Amend Casing and Cementing plan by changing Intermediate 1 casing from 7-5/8" to 9-5/8" and revising set depth as described below.
- Amend pressure control requirements from 10M to 5M with the change from Wolfcamp to Bone Springs.

3. Pressure Control

Equipment

A 12,000' 5,000-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 5M BOPE system will be installed. Test pressures will be 250 psi low and 5,000 psi high with the annular preventer being tested to 250 psi low and 2500 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 5M 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.

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 - 975	0 - 975	13.375	54.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	12.25	0 - 5039	0 - 5039	9.625	40	J-55	BUTT	1.125	1.125	1.8
Production	8.75	0 - 21606	0 - 11450	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 drill either 8.75" or 8.5" production hole section, cement volumes will be adjusted accordingly

Variance Request

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	450	1.72	775	12.5	50%	0	C	5% NaCl + LCM
	Tail	250	1.38	347	14.8	50%	675	C	5% NaCl + LCM
Intermediate 1	Lead	480	3.66	1773	10.3	35%	0	A/C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	330	1.38	457	13.2	35%	4039	A/C	5% NaCl + LCM
Production	Lead	520	3.66	1904	10.3	25%	4839	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	2350	1.44	3390	13.2	25%	10903	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 - 975	8.4 - 8.8	28-30	NC

Sundry

Intermediate 1	12.25	Brine	975 - 5039	9.6 - 10.2	28-30	NC
Production	8.75	OBM / Cut Brine	5039 - 21606	9 - 10.5	30-50	<20

Matador Production Company

Antelope Ridge

Nina Cortell

Nina Cortell Fed Com #138H (Previous #224H)

Wellbore #1

BLM Plan #1

Anticollision Report

13 July, 2023

Anticollision Report

Company:	Matador Production Company	Local Co-ordinate Reference:	Well Nina Cortell Fed Com #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	7/13/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	21,606.0	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 #113H - Wellbore #1 - BLM Plan #	2,636.0	2,640.1	56.5	38.1	3.066	CC, ES
Nina Cortell Fed Com #113H - Wellbore #1 - BLM Plan #	2,700.0	2,703.2	57.2	38.4	3.033	SF
Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #	1,500.0	1,499.0	110.0	99.8	10.694	CC, ES
Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #	9,700.0	9,704.6	213.0	144.8	3.123	SF
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	1,997.2	1,996.8	36.5	22.7	2.647	CC
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	2,000.0	1,999.6	36.5	22.7	2.643	ES
Nina Cortell Fed Com #127H - Wellbore #1 - BLM Plan #	2,100.0	2,099.1	37.8	23.3	2.604	SF
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	2,000.0	1,999.0	30.1	16.2	2.169	CC
Nina Cortell Fed Com #128H - Wellbore #1 - BLM Plan #	10,512.0	10,514.7	74.6	1.0	1.013	Level 2, ES, SF
Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1	957.7	958.0	85.4	79.2	13.734	CC
Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1	1,200.0	1,198.9	86.2	78.3	10.870	ES
Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1	21,606.3	22,057.0	871.4	560.3	2.801	SF
Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1	1,857.8	1,863.0	20.5	7.7	1.602	CC, ES, SF
Nina Cortell Fed Com #137H (Previous #223H) - Wellbor	1,000.0	999.0	29.9	23.2	4.460	CC
Nina Cortell Fed Com #137H (Previous #223H) - Wellbor	1,200.0	1,198.9	30.2	22.1	3.721	ES
Nina Cortell Fed Com #137H (Previous #223H) - Wellbor	1,400.0	1,398.3	33.3	23.8	3.496	SF
Nina Cortell Fed Com #203H - Sidetrack - Sidetrack	572.6	572.6	109.8	106.4	32.085	CC
Nina Cortell Fed Com #203H - Sidetrack - Sidetrack	700.0	699.1	110.4	106.0	25.602	ES
Nina Cortell Fed Com #203H - Sidetrack - Sidetrack	21,606.3	22,284.0	1,427.0	1,107.0	4.459	SF
Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1	572.6	572.6	109.8	106.4	32.085	CC
Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1	700.0	699.1	110.4	106.0	25.602	ES
Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1	2,600.0	2,589.6	240.0	222.2	13.500	SF
Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1	3,669.4	3,674.7	61.7	36.1	2.414	CC
Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1	10,950.0	10,938.3	83.8	6.0	1.077	Level 2, ES, SF

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)	Offset Wellbore Centre +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	104.69	-28.9	110.2	113.9				
100.0	100.0	101.0	99.0	0.1	0.1	104.69	-28.9	110.2	113.9	113.6	0.26	438.210	

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 #138H (Previous #224H)
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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 #138H (Previous #224H)	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 Single User Db
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		
200.0	200.0	201.0	199.0	0.5	0.5	104.69	-28.9	110.2	113.9	112.9	0.98	116.588		
300.0	300.0	301.0	299.0	0.8	0.8	104.69	-28.9	110.2	113.9	112.2	1.69	67.239		
400.0	400.0	401.0	399.0	1.2	1.2	104.69	-28.9	110.2	113.9	111.5	2.41	47.242		
500.0	500.0	501.0	499.0	1.6	1.6	104.69	-28.9	110.2	113.9	110.8	3.13	36.413		
600.0	600.0	601.0	599.0	1.9	1.9	104.69	-28.9	110.2	113.9	110.0	3.84	29.623		
700.0	700.0	701.0	699.0	2.3	2.3	104.69	-28.9	110.2	113.9	109.3	4.56	24.967		
800.0	800.0	801.0	799.0	2.6	2.6	104.69	-28.9	110.2	113.9	108.6	5.28	21.576		
900.0	900.0	901.0	899.0	3.0	3.0	104.69	-28.9	110.2	113.9	107.9	6.00	18.996		
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	104.69	-28.9	110.2	113.9	107.2	6.71	16.967		
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	104.69	-28.9	110.2	113.9	106.5	7.43	15.329		
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	104.69	-28.9	110.2	113.9	105.7	8.15	13.980		
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	104.69	-28.9	110.2	113.9	105.0	8.86	12.849		
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	104.69	-28.9	110.2	113.9	104.3	9.58	11.888		
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	104.69	-28.9	110.2	113.9	103.6	10.29	11.068		
1,600.0	1,600.0	1,600.7	1,600.7	5.5	5.5	104.92	-29.1	109.3	113.1	102.1	11.00	10.284		
1,700.0	1,700.0	1,702.4	1,702.4	5.9	5.8	105.62	-29.8	106.7	110.9	99.2	11.70	9.476		
1,800.0	1,800.0	1,803.9	1,803.8	6.2	6.2	106.86	-31.0	102.4	107.1	94.7	12.40	8.639		
1,900.0	1,900.0	1,905.3	1,905.0	6.6	6.5	108.76	-32.7	96.4	101.9	88.8	13.10	7.783		
2,000.0	2,000.0	2,006.4	2,005.7	6.9	6.9	111.48	-34.9	88.6	95.5	81.7	13.80	6.920		
2,100.0	2,100.0	2,107.2	2,106.0	7.3	7.3	115.33	-37.5	79.2	87.9	73.4	14.50	6.063		
2,200.0	2,200.0	2,207.6	2,205.8	7.7	7.6	120.77	-40.6	68.1	79.6	64.4	15.21	5.232		
2,300.0	2,300.0	2,307.6	2,304.9	8.0	8.0	128.51	-44.1	55.4	71.1	55.1	15.93	4.460		
2,400.0	2,400.0	2,406.5	2,402.9	8.4	8.4	138.58	-47.8	42.2	63.8	47.2	16.69	3.826		
2,500.0	2,500.0	2,505.6	2,501.0	8.7	8.7	150.71	-51.5	28.9	59.1	41.6	17.45	3.385		
2,600.0	2,600.0	2,604.5	2,598.9	9.1	9.1	46.66	-55.2	15.6	56.7	38.5	18.18	3.120		
2,636.0	2,636.0	2,640.1	2,634.2	9.2	9.2	52.23	-56.5	10.8	56.5	38.1	18.44	3.066 CC, ES		
2,700.0	2,700.0	2,703.2	2,696.7	9.4	9.5	62.48	-58.8	2.4	57.2	38.4	18.87	3.033 SF		
2,800.0	2,799.9	2,801.7	2,794.2	9.7	9.9	78.43	-62.5	-10.8	61.6	42.1	19.52	3.156		
2,900.0	2,899.7	2,900.0	2,891.5	10.1	10.3	92.77	-66.2	-24.0	70.1	50.0	20.14	3.483		
3,000.0	2,999.4	2,997.9	2,988.5	10.4	10.6	104.62	-69.8	-37.1	82.6	61.8	20.76	3.977		
3,100.0	3,098.9	3,104.5	3,085.1	10.8	11.1	114.02	-73.5	-50.2	98.3	76.9	21.43	4.588		
3,200.0	3,198.3	3,192.7	3,181.5	11.1	11.4	121.39	-77.1	-63.3	116.9	94.9	22.06	5.302		
3,300.0	3,297.4	3,289.6	3,277.4	11.5	11.8	127.23	-80.7	-76.3	138.0	115.3	22.73	6.072		
3,400.0	3,396.4	3,386.3	3,373.1	11.8	12.2	131.87	-84.3	-89.2	160.7	137.3	23.41	6.866		
3,500.0	3,495.5	3,482.9	3,468.8	12.2	12.6	135.36	-87.9	-102.2	184.2	160.1	24.10	7.644		
3,600.0	3,594.5	3,579.6	3,564.5	12.6	13.0	138.06	-91.5	-115.1	208.2	183.4	24.79	8.398		
3,700.0	3,693.5	3,676.3	3,660.3	12.9	13.4	140.20	-95.1	-128.1	232.5	207.0	25.49	9.123		
3,800.0	3,792.5	3,772.9	3,756.0	13.3	13.8	141.94	-98.7	-141.1	257.1	230.9	26.19	9.818		
3,900.0	3,891.6	3,869.6	3,851.7	13.7	14.2	143.37	-102.3	-154.0	281.9	255.0	26.89	10.482		
4,000.0	3,990.6	3,966.2	3,947.4	14.1	14.5	144.57	-105.9	-167.0	306.8	279.2	27.60	11.116		
4,100.0	4,089.6	4,062.9	4,043.2	14.5	14.9	145.60	-109.5	-179.9	331.8	303.5	28.31	11.722		
4,200.0	4,188.6	4,159.6	4,138.9	14.8	15.3	146.48	-113.1	-192.9	356.9	327.9	29.01	12.301		
4,300.0	4,287.7	4,256.2	4,234.6	15.2	15.7	147.24	-116.7	-205.9	382.1	352.4	29.72	12.854		
4,400.0	4,386.7	4,352.9	4,330.3	15.6	16.1	147.91	-120.3	-218.8	407.3	376.9	30.44	13.382		
4,500.0	4,485.7	4,449.6	4,426.0	16.0	16.5	148.50	-123.9	-231.8	432.6	401.4	31.15	13.887		
4,600.0	4,584.8	4,546.2	4,521.8	16.4	16.9	149.03	-127.5	-244.8	457.9	426.0	31.86	14.370		
4,700.0	4,683.8	4,642.9	4,617.5	16.8	17.3	149.50	-131.1	-257.7	483.2	450.7	32.58	14.833		
4,800.0	4,782.8	4,739.5	4,713.2	17.2	17.7	149.92	-134.7	-270.7	508.6	475.3	33.30	15.276		
4,900.0	4,881.8	4,836.2	4,808.9	17.6	18.1	150.30	-138.3	-283.6	534.0	500.0	34.01	15.700		
5,000.0	4,980.9	4,932.9	4,904.7	18.0	18.5	150.65	-141.9	-296.6	559.4	524.7	34.73	16.107		
5,100.0	5,079.9	5,029.5	5,000.4	18.4	18.9	150.97	-145.5	-309.6	584.8	549.4	35.45	16.498		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
5,200.0	5,178.9	5,126.2	5,096.1	18.8	19.3	151.26	-149.1	-322.5	610.3	574.1	36.17	16.873			
5,300.0	5,277.9	5,222.9	5,191.8	19.2	19.7	151.53	-152.7	-335.5	635.8	598.9	36.89	17.234			
5,400.0	5,377.0	5,319.5	5,287.5	19.6	20.1	151.78	-156.3	-348.5	661.2	623.6	37.61	17.581			
5,500.0	5,476.0	5,416.2	5,383.3	20.0	20.5	152.01	-159.9	-361.4	686.7	648.4	38.33	17.914			
5,600.0	5,575.0	5,512.8	5,479.0	20.4	20.9	152.22	-163.5	-374.4	712.2	673.2	39.06	18.236			
5,623.7	5,598.5	5,535.8	5,501.7	20.5	21.0	152.27	-164.4	-377.4	718.3	679.0	39.23	18.310			
5,700.0	5,674.1	5,609.7	5,574.9	20.8	21.3	152.53	-167.2	-387.4	737.1	697.3	39.78	18.529			
5,800.0	5,773.6	5,707.1	5,671.3	21.2	21.8	152.76	-170.8	-400.4	759.7	719.2	40.50	18.758			
5,900.0	5,873.3	5,805.0	5,768.3	21.6	22.2	152.88	-174.4	-413.5	780.1	738.9	41.22	18.925			
6,000.0	5,973.1	5,903.3	5,865.6	21.9	22.6	152.89	-178.1	-426.7	798.2	756.3	41.94	19.032			
6,100.0	6,073.1	6,002.0	5,963.4	22.3	23.0	152.81	-181.8	-440.0	814.0	771.4	42.66	19.083			
6,157.0	6,130.1	6,058.4	6,019.3	22.5	23.2	-89.11	-183.9	-447.5	822.0	778.9	43.06	19.089			
6,200.0	6,173.1	6,101.0	6,061.4	22.6	23.4	-89.22	-185.5	-453.2	827.7	784.4	43.37	19.088			
6,300.0	6,273.1	6,200.0	6,159.5	23.0	23.8	-89.49	-189.2	-466.5	841.1	797.1	44.07	19.084			
6,400.0	6,373.1	6,301.0	6,257.5	23.3	24.2	-89.75	-192.8	-479.8	854.5	809.7	44.79	19.078			
6,500.0	6,473.1	6,398.1	6,355.6	23.6	24.6	-90.00	-196.5	-493.1	867.9	822.4	45.49	19.079			
6,600.0	6,573.1	6,502.9	6,453.7	24.0	25.1	-90.24	-200.2	-506.4	881.4	835.1	46.22	19.067			
6,700.0	6,673.1	6,603.9	6,551.7	24.3	25.5	-90.47	-203.9	-519.6	894.8	847.9	46.94	19.062			
6,800.0	6,773.1	6,695.2	6,649.8	24.6	25.9	-90.70	-207.6	-532.9	908.3	860.6	47.62	19.072			
6,900.0	6,873.1	6,794.2	6,747.8	25.0	26.3	-90.92	-211.3	-546.2	921.7	873.4	48.33	19.071			
7,000.0	6,973.1	6,906.8	6,845.9	25.3	26.8	-91.14	-215.0	-559.5	935.2	886.1	49.09	19.049			
7,100.0	7,073.1	6,992.2	6,944.0	25.6	27.1	-91.35	-218.7	-572.7	948.7	898.9	49.75	19.068			
7,200.0	7,173.1	7,097.7	7,048.5	26.0	27.6	-91.56	-222.6	-586.8	962.1	911.6	50.52	19.043			
7,300.0	7,273.1	7,229.5	7,179.3	26.3	28.1	-91.78	-226.6	-601.4	973.3	921.8	51.50	18.901			
7,400.0	7,373.1	7,362.2	7,311.6	26.7	28.6	-91.93	-229.5	-611.7	981.2	928.8	52.41	18.721			
7,500.0	7,473.1	7,495.4	7,444.7	27.0	29.1	-92.01	-231.2	-617.7	985.6	932.4	53.26	18.505			
7,600.0	7,573.1	7,622.8	7,572.1	27.3	29.5	-92.03	-231.6	-619.2	986.8	932.8	54.03	18.264			
7,700.0	7,673.1	7,722.8	7,672.1	27.7	29.8	-92.03	-231.6	-619.2	986.8	932.1	54.71	18.037			
7,800.0	7,773.1	7,822.8	7,772.1	28.0	30.1	-92.03	-231.6	-619.2	986.8	931.4	55.39	17.816			
7,900.0	7,873.1	7,922.8	7,872.1	28.4	30.4	-92.03	-231.6	-619.2	986.8	930.7	56.07	17.599			
8,000.0	7,973.1	8,022.8	7,972.1	28.7	30.8	-92.03	-231.6	-619.2	986.8	930.0	56.75	17.388			
8,100.0	8,073.1	8,122.8	8,072.1	29.1	31.1	-92.03	-231.6	-619.2	986.8	929.3	57.44	17.181			
8,200.0	8,173.1	8,222.8	8,172.1	29.4	31.4	-92.03	-231.6	-619.2	986.8	928.7	58.12	16.978			
8,300.0	8,273.1	8,322.8	8,272.1	29.7	31.7	-92.03	-231.6	-619.2	986.8	928.0	58.80	16.781			
8,400.0	8,373.1	8,422.8	8,372.1	30.1	32.0	-92.03	-231.6	-619.2	986.8	927.3	59.49	16.587			
8,500.0	8,473.1	8,522.8	8,472.1	30.4	32.4	-92.03	-231.6	-619.2	986.8	926.6	60.18	16.398			
8,600.0	8,573.1	8,622.8	8,572.1	30.8	32.7	-92.03	-231.6	-619.2	986.8	925.9	60.86	16.213			
8,700.0	8,673.1	8,722.8	8,672.1	31.1	33.0	-92.03	-231.6	-619.2	986.8	925.2	61.55	16.032			
8,800.0	8,773.1	8,822.8	8,772.1	31.5	33.3	-92.03	-231.6	-619.2	986.8	924.5	62.24	15.854			
8,900.0	8,873.1	8,922.8	8,872.1	31.8	33.6	-92.03	-231.6	-619.2	986.8	923.9	62.93	15.681			
9,000.0	8,973.1	9,022.8	8,972.1	32.2	34.0	-92.03	-231.6	-619.2	986.8	923.2	63.62	15.511			
9,100.0	9,073.1	9,122.8	9,072.1	32.5	34.3	-92.03	-231.6	-619.2	986.8	922.5	64.31	15.344			
9,200.0	9,173.1	9,222.8	9,172.1	32.9	34.6	-92.03	-231.6	-619.2	986.8	921.8	65.00	15.181			
9,300.0	9,273.1	9,322.8	9,272.1	33.2	34.9	-92.03	-231.6	-619.2	986.8	921.1	65.69	15.021			
9,400.0	9,373.1	9,422.8	9,372.1	33.5	35.3	-92.03	-231.6	-619.2	986.8	920.4	66.38	14.865			
9,413.3	9,386.4	9,436.2	9,385.4	33.6	35.3	-92.03	-231.6	-619.2	986.8	920.3	66.48	14.844			
9,500.0	9,473.1	9,521.4	9,470.7	33.9	35.6	-92.03	-231.5	-619.2	986.8	919.7	67.07	14.712			
9,600.0	9,573.1	9,605.5	9,554.3	34.2	35.9	-91.61	-224.3	-620.2	987.7	920.0	67.72	14.586			
9,700.0	9,673.1	9,685.7	9,632.4	34.6	36.1	-90.56	-206.2	-622.7	990.6	922.3	68.31	14.501			
9,800.0	9,773.1	9,759.6	9,701.4	34.9	36.3	-89.05	-180.1	-626.4	996.0	927.2	68.82	14.473			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
9,900.0	9,873.1	9,825.7	9,759.8	35.3	36.5	-87.30	-149.5	-630.7	1,005.1	935.9	69.18	14.529			
10,000.0	9,973.1	9,883.8	9,807.8	35.6	36.6	-85.48	-117.3	-635.2	1,018.7	949.4	69.32	14.695			
10,100.0	10,073.1	9,934.1	9,846.7	36.0	36.7	-83.71	-85.6	-639.7	1,037.6	968.4	69.20	14.994			
10,200.0	10,173.1	9,977.6	9,877.8	36.3	36.8	-82.06	-55.6	-643.9	1,062.2	993.5	68.77	15.445			
10,300.0	10,273.1	10,015.2	9,902.8	36.7	36.9	-80.56	-27.8	-647.8	1,093.0	1,024.9	68.05	16.061			
10,400.0	10,373.1	10,050.0	9,924.3	37.0	36.9	-79.12	-0.7	-651.6	1,129.8	1,062.7	67.10	16.837			
10,500.0	10,473.1	10,075.7	9,939.1	37.4	36.9	-78.02	20.2	-654.5	1,172.4	1,106.6	65.85	17.804			
10,600.0	10,573.1	10,100.0	9,952.2	37.7	37.0	-76.98	40.4	-657.4	1,220.6	1,156.1	64.48	18.931			
10,700.0	10,673.1	10,121.8	9,963.2	38.1	37.0	-76.02	59.1	-660.0	1,273.8	1,210.8	63.00	20.218			
10,800.0	10,773.1	10,150.0	9,976.3	38.4	37.1	-74.78	83.7	-663.5	1,331.8	1,270.2	61.63	21.608			
10,903.9	10,877.0	10,150.0	9,976.3	38.8	37.1	-74.78	83.7	-663.5	1,396.4	1,336.7	59.73	23.379			
10,950.0	10,923.0	10,165.9	9,983.2	38.9	37.1	-62.85	98.0	-665.5	1,425.7	1,366.5	59.17	24.093			
11,000.0	10,972.6	10,175.1	9,987.0	39.1	37.1	-59.01	106.2	-666.6	1,456.9	1,398.5	58.41	24.942			
11,050.0	11,021.5	10,185.0	9,990.9	39.3	37.1	-55.46	115.3	-667.9	1,487.3	1,429.6	57.66	25.794			
11,100.0	11,069.3	10,200.0	9,996.5	39.4	37.1	-52.12	129.0	-669.8	1,516.5	1,459.6	56.99	26.611			
11,150.0	11,115.6	10,200.0	9,996.5	39.6	37.1	-49.51	129.0	-669.8	1,544.5	1,488.4	56.08	27.539			
11,200.0	11,160.1	10,218.7	10,003.1	39.7	37.2	-46.77	146.4	-672.3	1,570.9	1,515.4	55.50	28.304			
11,250.0	11,202.4	10,231.0	10,007.1	39.8	37.2	-44.51	157.9	-673.9	1,595.6	1,540.8	54.83	29.100			
11,300.0	11,242.3	10,250.0	10,012.7	39.9	37.2	-42.44	175.8	-676.4	1,618.6	1,564.3	54.29	29.813			
11,350.0	11,279.3	10,250.0	10,012.7	40.0	37.2	-40.91	175.8	-676.4	1,639.5	1,586.0	53.51	30.637			
11,400.0	11,313.4	10,270.0	10,018.0	40.1	37.3	-39.37	195.0	-679.1	1,658.3	1,605.2	53.06	31.252			
11,450.0	11,344.1	10,283.6	10,021.2	40.1	37.3	-38.14	208.1	-680.9	1,674.9	1,622.4	52.57	31.861			
11,500.0	11,371.2	10,300.0	10,024.7	40.2	37.3	-37.10	223.9	-683.2	1,689.3	1,637.1	52.17	32.381			
11,550.0	11,394.6	10,300.0	10,024.7	40.2	37.3	-36.35	223.9	-683.2	1,701.4	1,649.7	51.66	32.937			
11,600.0	11,414.0	10,325.7	10,029.2	40.3	37.4	-35.66	248.9	-686.7	1,710.8	1,659.3	51.49	33.226			
11,650.0	11,429.4	10,350.0	10,032.4	40.4	37.5	-35.17	272.8	-690.0	1,718.0	1,666.6	51.37	33.446			
11,700.0	11,440.6	10,350.0	10,032.4	40.5	37.5	-34.92	272.8	-690.0	1,722.4	1,671.3	51.12	33.692			
11,750.0	11,447.4	10,368.7	10,034.2	40.6	37.5	-34.78	291.2	-692.6	1,724.4	1,673.3	51.12	33.733			
11,803.9	11,450.0	10,400.0	10,035.8	40.7	37.6	-34.84	322.2	-697.0	1,724.0	1,672.7	51.27	33.627			
11,860.3	11,450.0	10,400.0	10,035.8	40.9	37.6	-34.88	322.2	-697.0	1,722.6	1,671.2	51.36	33.542			
11,900.0	11,450.0	10,416.0	10,036.0	41.0	37.6	-34.89	338.0	-699.2	1,723.1	1,671.6	51.53	33.438			
12,000.0	11,450.0	10,546.7	10,035.4	41.4	38.1	-35.00	467.8	-714.4	1,726.9	1,674.5	52.39	32.964			
12,048.6	11,450.0	10,621.0	10,035.2	41.6	38.4	-35.07	541.8	-720.4	1,728.7	1,675.8	52.87	32.697			
12,100.0	11,450.0	10,699.6	10,034.9	41.8	38.8	-35.17	620.4	-724.7	1,730.2	1,676.8	53.39	32.406			
12,200.0	11,450.0	10,832.3	10,034.3	42.3	39.5	-35.20	753.1	-727.3	1,731.1	1,676.8	54.34	31.854			
12,300.0	11,450.0	10,932.3	10,034.0	42.9	40.1	-35.19	853.1	-728.1	1,731.4	1,676.2	55.25	31.337			
12,400.0	11,450.0	11,032.3	10,033.6	43.5	40.8	-35.18	953.1	-728.9	1,731.7	1,675.5	56.24	30.794			
12,500.0	11,450.0	11,132.3	10,033.2	44.1	41.5	-35.17	1,053.0	-729.6	1,732.0	1,674.7	57.30	30.229			
12,600.0	11,450.0	11,232.3	10,032.8	44.9	42.3	-35.16	1,153.0	-730.4	1,732.3	1,673.9	58.43	29.650			
12,700.0	11,450.0	11,332.3	10,032.4	45.6	43.1	-35.16	1,253.0	-731.2	1,732.6	1,673.0	59.62	29.059			
12,800.0	11,450.0	11,432.3	10,032.0	46.4	44.0	-35.15	1,353.0	-732.0	1,732.9	1,672.1	60.88	28.463			
12,900.0	11,450.0	11,532.3	10,031.6	47.3	44.9	-35.14	1,453.0	-732.7	1,733.3	1,671.1	62.20	27.865			
13,000.0	11,450.0	11,632.3	10,031.2	48.2	45.8	-35.13	1,553.0	-733.5	1,733.6	1,670.0	63.58	27.267			
13,100.0	11,450.0	11,732.3	10,030.8	49.1	46.8	-35.12	1,653.0	-734.3	1,733.9	1,668.9	65.00	26.674			
13,200.0	11,450.0	11,832.3	10,030.4	50.1	47.9	-35.12	1,753.0	-735.1	1,734.2	1,667.7	66.48	26.087			
13,300.0	11,450.0	11,932.3	10,030.1	51.1	48.9	-35.11	1,853.0	-735.9	1,734.5	1,666.5	67.99	25.509			
13,400.0	11,450.0	12,032.3	10,029.7	52.1	50.0	-35.10	1,953.0	-736.6	1,734.8	1,665.2	69.56	24.941			
13,500.0	11,450.0	12,132.3	10,029.3	53.2	51.2	-35.09	2,053.0	-737.4	1,735.1	1,663.9	71.16	24.384			
13,600.0	11,450.0	12,232.3	10,028.9	54.3	52.3	-35.08	2,153.0	-738.2	1,735.4	1,662.6	72.79	23.840			
13,700.0	11,450.0	12,332.3	10,028.5	55.4	53.5	-35.08	2,253.0	-739.0	1,735.7	1,661.2	74.46	23.309			
13,800.0	11,450.0	12,432.3	10,028.1	56.5	54.7	-35.07	2,353.0	-739.8	1,736.0	1,659.8	76.17	22.792			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
13,900.0	11,450.0	12,532.3	10,027.7	57.7	55.9	-35.06	2,453.0	-740.5	1,736.3	1,658.4	77.90	22.289			
14,000.0	11,450.0	12,632.3	10,027.3	58.9	57.2	-35.05	2,553.0	-741.3	1,736.6	1,657.0	79.66	21.800			
14,100.0	11,450.0	12,732.3	10,026.9	60.1	58.5	-35.04	2,653.0	-742.1	1,736.9	1,655.5	81.45	21.326			
14,200.0	11,450.0	12,832.3	10,026.5	61.4	59.8	-35.04	2,753.0	-742.9	1,737.2	1,654.0	83.26	20.866			
14,300.0	11,450.0	12,932.3	10,026.2	62.6	61.1	-35.03	2,853.0	-743.7	1,737.5	1,652.4	85.09	20.420			
14,400.0	11,450.0	13,032.3	10,025.8	63.9	62.4	-35.02	2,953.0	-744.4	1,737.8	1,650.9	86.95	19.988			
14,500.0	11,450.0	13,132.3	10,025.4	65.2	63.7	-35.01	3,053.0	-745.2	1,738.1	1,649.3	88.82	19.569			
14,600.0	11,450.0	13,232.3	10,025.0	66.5	65.1	-35.00	3,152.9	-746.0	1,738.5	1,647.7	90.71	19.164			
14,700.0	11,450.0	13,332.3	10,024.6	67.8	66.5	-35.00	3,252.9	-746.8	1,738.8	1,646.1	92.62	18.772			
14,800.0	11,450.0	13,432.3	10,024.2	69.2	67.8	-34.99	3,352.9	-747.6	1,739.1	1,644.5	94.55	18.393			
14,900.0	11,450.0	13,532.3	10,023.8	70.5	69.2	-34.98	3,452.9	-748.3	1,739.4	1,642.9	96.49	18.026			
15,000.0	11,450.0	13,632.3	10,023.4	71.9	70.6	-34.97	3,552.9	-749.1	1,739.7	1,641.2	98.45	17.671			
15,100.0	11,450.0	13,732.3	10,023.0	73.3	72.1	-34.96	3,652.9	-749.9	1,740.0	1,639.6	100.42	17.327			
15,200.0	11,450.0	13,832.3	10,022.7	74.7	73.5	-34.96	3,752.9	-750.7	1,740.3	1,637.9	102.40	16.995			
15,300.0	11,450.0	13,932.3	10,022.3	76.1	74.9	-34.95	3,852.9	-751.4	1,740.6	1,636.2	104.40	16.673			
15,400.0	11,450.0	14,032.3	10,021.9	77.5	76.4	-34.94	3,952.9	-752.2	1,740.9	1,634.5	106.40	16.361			
15,500.0	11,450.0	14,132.3	10,021.5	78.9	77.8	-34.93	4,052.9	-753.0	1,741.2	1,632.8	108.42	16.060			
15,600.0	11,450.0	14,232.3	10,021.1	80.3	79.3	-34.92	4,152.9	-753.8	1,741.5	1,631.1	110.45	15.768			
15,700.0	11,450.0	14,332.3	10,020.7	81.8	80.7	-34.92	4,252.9	-754.6	1,741.8	1,629.3	112.48	15.485			
15,800.0	11,450.0	14,432.3	10,020.3	83.2	82.2	-34.91	4,352.9	-755.3	1,742.1	1,627.6	114.53	15.212			
15,900.0	11,450.0	14,532.3	10,019.9	84.7	83.7	-34.90	4,452.9	-756.1	1,742.4	1,625.9	116.58	14.946			
16,000.0	11,450.0	14,632.3	10,019.5	86.1	85.2	-34.89	4,552.9	-756.9	1,742.7	1,624.1	118.64	14.689			
16,100.0	11,450.0	14,732.3	10,019.1	87.6	86.7	-34.88	4,652.9	-757.7	1,743.0	1,622.3	120.71	14.440			
16,200.0	11,450.0	14,832.3	10,018.8	89.1	88.2	-34.88	4,752.9	-758.5	1,743.4	1,620.6	122.78	14.199			
16,300.0	11,450.0	14,932.3	10,018.4	90.5	89.7	-34.87	4,852.9	-759.2	1,743.7	1,618.8	124.86	13.964			
16,400.0	11,450.0	15,032.3	10,018.0	92.0	91.2	-34.86	4,952.9	-760.0	1,744.0	1,617.0	126.95	13.737			
16,500.0	11,450.0	15,132.3	10,017.6	93.5	92.7	-34.85	5,052.9	-760.8	1,744.3	1,615.2	129.05	13.517			
16,600.0	11,450.0	15,232.3	10,017.2	95.0	94.2	-34.84	5,152.9	-761.6	1,744.6	1,613.4	131.15	13.302			
16,700.0	11,450.0	15,332.3	10,016.8	96.5	95.8	-34.84	5,252.9	-762.4	1,744.9	1,611.6	133.25	13.095			
16,800.0	11,450.0	15,432.3	10,016.4	98.0	97.3	-34.83	5,352.8	-763.1	1,745.2	1,609.8	135.36	12.893			
16,900.0	11,450.0	15,532.3	10,016.0	99.5	98.8	-34.82	5,452.8	-763.9	1,745.5	1,608.0	137.48	12.697			
17,000.0	11,450.0	15,632.3	10,015.6	101.1	100.4	-34.81	5,552.8	-764.7	1,745.8	1,606.2	139.60	12.506			
17,100.0	11,450.0	15,732.3	10,015.3	102.6	101.9	-34.80	5,652.8	-765.5	1,746.1	1,604.4	141.72	12.321			
17,200.0	11,450.0	15,832.3	10,014.9	104.1	103.5	-34.80	5,752.8	-766.3	1,746.4	1,602.6	143.85	12.141			
17,300.0	11,450.0	15,932.3	10,014.5	105.6	105.0	-34.79	5,852.8	-767.0	1,746.7	1,600.7	145.98	11.965			
17,400.0	11,450.0	16,032.3	10,014.1	107.2	106.6	-34.78	5,952.8	-767.8	1,747.0	1,598.9	148.12	11.795			
17,500.0	11,450.0	16,132.3	10,013.7	108.7	108.1	-34.77	6,052.8	-768.6	1,747.3	1,597.1	150.26	11.629			
17,600.0	11,450.0	16,232.3	10,013.3	110.3	109.7	-34.77	6,152.8	-769.4	1,747.6	1,595.2	152.40	11.467			
17,700.0	11,450.0	16,332.3	10,012.9	111.8	111.2	-34.76	6,252.8	-770.1	1,748.0	1,593.4	154.55	11.310			
17,800.0	11,450.0	16,432.3	10,012.5	113.3	112.8	-34.75	6,352.8	-770.9	1,748.3	1,591.6	156.70	11.157			
17,900.0	11,450.0	16,532.3	10,012.1	114.9	114.4	-34.74	6,452.8	-771.7	1,748.6	1,589.7	158.85	11.008			
18,000.0	11,450.0	16,632.3	10,011.7	116.5	115.9	-34.73	6,552.8	-772.5	1,748.9	1,587.9	161.01	10.862			
18,100.0	11,450.0	16,732.3	10,011.4	118.0	117.5	-34.73	6,652.8	-773.3	1,749.2	1,586.0	163.16	10.720			
18,200.0	11,450.0	16,832.3	10,011.0	119.6	119.1	-34.72	6,752.8	-774.0	1,749.5	1,584.2	165.32	10.582			
18,300.0	11,450.0	16,932.3	10,010.6	121.1	120.7	-34.71	6,852.8	-774.8	1,749.8	1,582.3	167.49	10.447			
18,400.0	11,450.0	17,032.3	10,010.2	122.7	122.2	-34.70	6,952.8	-775.6	1,750.1	1,580.5	169.65	10.316			
18,500.0	11,450.0	17,132.3	10,009.8	124.3	123.8	-34.69	7,052.8	-776.4	1,750.4	1,578.6	171.82	10.187			
18,600.0	11,450.0	17,232.3	10,009.4	125.8	125.4	-34.69	7,152.8	-777.2	1,750.7	1,576.7	173.99	10.062			
18,700.0	11,450.0	17,332.3	10,009.0	127.4	127.0	-34.68	7,252.8	-777.9	1,751.0	1,574.9	176.16	9.940			
18,800.0	11,450.0	17,432.3	10,008.6	129.0	128.6	-34.67	7,352.8	-778.7	1,751.3	1,573.0	178.33	9.820			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
18,900.0	11,450.0	17,532.3	10,008.2	130.5	130.1	-34.66	7,452.8	-779.5	1,751.6	1,571.1	180.51	9.704			
19,000.0	11,450.0	17,632.3	10,007.9	132.1	131.7	-34.65	7,552.7	-780.3	1,751.9	1,569.3	182.69	9.590			
19,100.0	11,450.0	17,732.3	10,007.5	133.7	133.3	-34.65	7,652.7	-781.1	1,752.3	1,567.4	184.87	9.479			
19,200.0	11,450.0	17,832.3	10,007.1	135.3	134.9	-34.64	7,752.7	-781.8	1,752.6	1,565.5	187.05	9.370			
19,300.0	11,450.0	17,932.3	10,006.7	136.9	136.5	-34.63	7,852.7	-782.6	1,752.9	1,563.6	189.23	9.263			
19,400.0	11,450.0	18,032.3	10,006.3	138.5	138.1	-34.62	7,952.7	-783.4	1,753.2	1,561.8	191.41	9.159			
19,500.0	11,450.0	18,132.3	10,005.9	140.0	139.7	-34.62	8,052.7	-784.2	1,753.5	1,559.9	193.60	9.057			
19,600.0	11,450.0	18,232.3	10,005.5	141.6	141.3	-34.61	8,152.7	-784.9	1,753.8	1,558.0	195.78	8.958			
19,700.0	11,450.0	18,332.3	10,005.1	143.2	142.9	-34.60	8,252.7	-785.7	1,754.1	1,556.1	197.97	8.860			
19,800.0	11,450.0	18,432.3	10,004.7	144.8	144.5	-34.59	8,352.7	-786.5	1,754.4	1,554.3	200.16	8.765			
19,900.0	11,450.0	18,532.3	10,004.3	146.4	146.1	-34.58	8,452.7	-787.3	1,754.7	1,552.4	202.35	8.672			
20,000.0	11,450.0	18,632.3	10,004.0	148.0	147.7	-34.58	8,552.7	-788.1	1,755.0	1,550.5	204.54	8.580			
20,100.0	11,450.0	18,732.3	10,003.6	149.6	149.3	-34.57	8,652.7	-788.8	1,755.3	1,548.6	206.73	8.491			
20,200.0	11,450.0	18,832.3	10,003.2	151.2	150.9	-34.56	8,752.7	-789.6	1,755.6	1,546.7	208.92	8.403			
20,300.0	11,450.0	18,932.3	10,002.8	152.8	152.5	-34.55	8,852.7	-790.4	1,756.0	1,544.8	211.12	8.317			
20,400.0	11,450.0	19,032.3	10,002.4	154.4	154.1	-34.54	8,952.7	-791.2	1,756.3	1,542.9	213.31	8.233			
20,500.0	11,450.0	19,132.3	10,002.0	156.0	155.7	-34.54	9,052.7	-792.0	1,756.6	1,541.1	215.51	8.151			
20,600.0	11,450.0	19,232.3	10,001.6	157.6	157.4	-34.53	9,152.7	-792.7	1,756.9	1,539.2	217.70	8.070			
20,700.0	11,450.0	19,332.3	10,001.2	159.2	159.0	-34.52	9,252.7	-793.5	1,757.2	1,537.3	219.90	7.991			
20,800.0	11,450.0	19,432.3	10,000.8	160.8	160.6	-34.51	9,352.7	-794.3	1,757.5	1,535.4	222.10	7.913			
20,900.0	11,450.0	19,532.3	10,000.5	162.4	162.2	-34.51	9,452.7	-795.1	1,757.8	1,533.5	224.30	7.837			
21,000.0	11,450.0	19,632.3	10,000.1	164.0	163.8	-34.50	9,552.7	-795.9	1,758.1	1,531.6	226.50	7.762			
21,100.0	11,450.0	19,732.3	9,999.7	165.6	165.4	-34.49	9,652.7	-796.6	1,758.4	1,529.7	228.70	7.689			
21,200.0	11,450.0	19,832.3	9,999.3	167.2	167.0	-34.48	9,752.6	-797.4	1,758.7	1,527.8	230.90	7.617			
21,300.0	11,450.0	19,932.3	9,998.9	168.8	168.7	-34.47	9,852.6	-798.2	1,759.0	1,525.9	233.10	7.546			
21,400.0	11,450.0	20,032.3	9,998.5	170.4	170.3	-34.47	9,952.6	-799.0	1,759.3	1,524.0	235.30	7.477			
21,500.0	11,450.0	20,132.3	9,998.1	172.0	171.9	-34.46	10,052.6	-799.8	1,759.6	1,522.1	237.51	7.409			
21,606.0	11,450.0	20,238.2	9,997.7	173.8	173.5	-34.45	10,158.6	-800.6	1,760.0	1,520.2	239.73	7.341			
21,606.3	11,450.0	20,238.5	9,997.7	173.8	173.5	-34.45	10,158.9	-800.6	1,760.0	1,520.2	239.74	7.341			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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	89.39	1.2	110.0	110.0					
100.0	100.0	101.0	99.0	0.1	0.1	89.39	1.2	110.0	110.0	109.8	0.26	423.415		
200.0	200.0	201.0	199.0	0.5	0.5	89.39	1.2	110.0	110.0	109.1	0.98	112.652		
300.0	300.0	301.0	299.0	0.8	0.8	89.39	1.2	110.0	110.0	108.3	1.69	64.968		
400.0	400.0	401.0	399.0	1.2	1.2	89.39	1.2	110.0	110.0	107.6	2.41	45.647		
500.0	500.0	501.0	499.0	1.6	1.6	89.39	1.2	110.0	110.0	106.9	3.13	35.183		
600.0	600.0	601.0	599.0	1.9	1.9	89.39	1.2	110.0	110.0	106.2	3.84	28.622		
700.0	700.0	701.0	699.0	2.3	2.3	89.39	1.2	110.0	110.0	105.5	4.56	24.124		
800.0	800.0	801.0	799.0	2.6	2.6	89.39	1.2	110.0	110.0	104.8	5.28	20.847		
900.0	900.0	901.0	899.0	3.0	3.0	89.39	1.2	110.0	110.0	104.0	6.00	18.354		
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	89.39	1.2	110.0	110.0	103.3	6.71	16.394		
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	89.39	1.2	110.0	110.0	102.6	7.43	14.812		
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	89.39	1.2	110.0	110.0	101.9	8.15	13.508		
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	89.39	1.2	110.0	110.0	101.2	8.86	12.416		
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	89.39	1.2	110.0	110.0	100.5	9.58	11.486		
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	89.39	1.2	110.0	110.0	99.8	10.29	10.694 CC, ES		
1,600.0	1,600.0	1,597.3	1,597.3	5.5	5.5	89.58	0.8	110.8	110.8	99.8	10.99	10.084		
1,700.0	1,700.0	1,695.5	1,695.5	5.9	5.8	90.12	-0.2	113.1	113.1	101.4	11.67	9.691		
1,800.0	1,800.0	1,793.7	1,793.5	6.2	6.1	90.99	-2.0	116.9	117.0	104.6	12.36	9.469		
1,900.0	1,900.0	1,891.6	1,891.3	6.6	6.5	92.10	-4.5	122.2	122.5	109.4	13.04	9.394		
2,000.0	2,000.0	1,989.3	1,988.7	6.9	6.8	93.40	-7.7	129.0	129.6	115.9	13.72	9.447		
2,100.0	2,100.0	2,086.7	2,085.7	7.3	7.2	94.80	-11.5	137.2	138.4	124.0	14.39	9.612		
2,200.0	2,200.0	2,183.8	2,182.2	7.7	7.5	96.24	-16.1	147.0	148.8	133.7	15.07	9.877		
2,300.0	2,300.0	2,280.5	2,278.1	8.0	7.9	97.66	-21.3	158.1	160.9	145.2	15.73	10.229		
2,400.0	2,400.0	2,379.0	2,375.7	8.4	8.2	99.01	-27.0	170.5	174.2	157.8	16.42	10.608		
2,500.0	2,500.0	2,478.1	2,473.7	8.7	8.6	100.18	-32.9	183.0	187.7	170.5	17.13	10.957		
2,600.0	2,600.0	2,577.2	2,571.9	9.1	9.0	-17.01	-38.7	195.5	200.3	182.5	17.82	11.243		
2,700.0	2,700.0	2,676.6	2,670.3	9.4	9.4	-16.28	-44.6	208.1	211.4	192.9	18.50	11.426		
2,800.0	2,799.9	2,776.1	2,768.9	9.7	9.7	-15.75	-50.4	220.6	220.8	201.6	19.19	11.507		
2,900.0	2,899.7	2,875.8	2,867.6	10.1	10.1	-15.39	-56.3	233.2	228.5	208.7	19.88	11.497		
3,000.0	2,999.4	2,975.6	2,966.4	10.4	10.5	-15.16	-62.1	245.8	234.6	214.0	20.57	11.404		
3,100.0	3,098.9	3,075.5	3,065.4	10.8	10.9	-15.05	-68.0	258.4	239.0	217.7	21.27	11.235		
3,200.0	3,198.3	3,175.5	3,164.3	11.1	11.3	-15.06	-73.9	271.0	241.7	219.7	21.97	10.999		
3,300.0	3,297.4	3,275.5	3,263.4	11.5	11.7	-15.18	-79.8	283.6	242.7	220.0	22.68	10.702		
3,400.0	3,396.4	3,375.5	3,362.4	11.8	12.1	-15.36	-85.7	296.2	242.9	219.5	23.39	10.385		
3,500.0	3,495.5	3,475.4	3,461.4	12.2	12.5	-15.54	-91.5	308.8	243.1	219.0	24.10	10.086		
3,600.0	3,594.5	3,575.4	3,560.4	12.6	12.9	-15.71	-97.4	321.4	243.3	218.5	24.82	9.803		
3,700.0	3,693.5	3,675.4	3,659.5	12.9	13.3	-15.89	-103.3	334.1	243.5	217.9	25.53	9.535		
3,800.0	3,792.5	3,775.4	3,758.5	13.3	13.7	-16.06	-109.2	346.7	243.7	217.4	26.25	9.282		
3,900.0	3,891.6	3,875.4	3,857.5	13.7	14.1	-16.24	-115.1	359.3	243.9	216.9	26.97	9.040		
4,000.0	3,990.6	3,975.4	3,956.5	14.1	14.6	-16.41	-121.0	371.9	244.0	216.4	27.70	8.811		
4,100.0	4,089.6	4,075.4	4,055.6	14.5	15.0	-16.59	-126.8	384.5	244.2	215.8	28.42	8.594		
4,200.0	4,188.6	4,175.4	4,154.6	14.8	15.4	-16.76	-132.7	397.1	244.4	215.3	29.15	8.386		
4,300.0	4,287.7	4,275.4	4,253.6	15.2	15.8	-16.93	-138.6	409.7	244.7	214.8	29.88	8.188		
4,400.0	4,386.7	4,375.4	4,352.6	15.6	16.2	-17.11	-144.5	422.3	244.9	214.2	30.61	8.000		
4,500.0	4,485.7	4,475.4	4,451.7	16.0	16.6	-17.28	-150.4	435.0	245.1	213.7	31.34	7.820		
4,600.0	4,584.8	4,575.4	4,550.7	16.4	17.0	-17.45	-156.3	447.6	245.3	213.2	32.07	7.647		
4,700.0	4,683.8	4,675.4	4,649.7	16.8	17.4	-17.63	-162.1	460.2	245.5	212.7	32.81	7.483		
4,800.0	4,782.8	4,775.4	4,748.7	17.2	17.8	-17.80	-168.0	472.8	245.7	212.2	33.54	7.325		
4,900.0	4,881.8	4,875.4	4,847.7	17.6	18.3	-17.97	-173.9	485.4	245.9	211.6	34.28	7.174		
5,000.0	4,980.9	4,975.4	4,946.8	18.0	18.7	-18.14	-179.8	498.0	246.1	211.1	35.02	7.029		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #114H - Wellbore #1 - BLM Plan #1													Offset Well Error:	0.0 usft
Survey Program: 0-MWD														
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	5,079.9	5,075.4	5,045.8	18.4	19.1	-18.32	-185.7	510.6	246.4	210.6	35.76	6.889		
5,200.0	5,178.9	5,175.4	5,144.8	18.8	19.5	-18.49	-191.6	523.2	246.6	210.1	36.50	6.756		
5,300.0	5,277.9	5,275.4	5,243.8	19.2	19.9	-18.66	-197.4	535.9	246.8	209.6	37.24	6.627		
5,400.0	5,377.0	5,377.0	5,344.5	19.6	20.3	-18.84	-203.4	548.6	246.9	208.9	38.00	6.498		
5,500.0	5,476.0	5,483.6	5,450.3	20.0	20.8	-19.16	-208.7	560.0	245.2	206.4	38.81	6.317		
5,600.0	5,575.0	5,590.0	5,556.3	20.4	21.2	-19.69	-212.8	568.8	240.7	201.1	39.59	6.081		
5,623.7	5,598.5	5,615.2	5,581.4	20.5	21.3	-19.84	-213.6	570.5	239.3	199.5	39.77	6.017		
5,700.0	5,674.1	5,696.1	5,662.1	20.8	21.6	-20.35	-215.6	574.8	234.4	194.0	40.34	5.810		
5,800.0	5,773.6	5,801.9	5,767.9	21.2	21.9	-21.03	-217.2	578.2	227.8	186.7	41.05	5.548		
5,900.0	5,873.3	5,906.3	5,872.3	21.6	22.3	-21.70	-217.6	579.0	221.1	179.3	41.73	5.297		
6,000.0	5,973.1	6,006.1	5,972.1	21.9	22.6	-22.20	-217.6	579.0	216.1	173.6	42.44	5.091		
6,100.0	6,073.1	6,106.1	6,072.1	22.3	22.9	-22.47	-217.6	579.0	213.5	170.3	43.14	4.949		
6,157.0	6,130.1	6,163.1	6,129.1	22.5	23.1	95.66	-217.6	579.0	213.1	169.5	43.53	4.895		
6,200.0	6,173.1	6,206.1	6,172.1	22.6	23.2	95.66	-217.6	579.0	213.1	169.3	43.82	4.863		
6,300.0	6,273.1	6,306.1	6,272.1	23.0	23.6	95.66	-217.6	579.0	213.1	168.6	44.50	4.788		
6,400.0	6,373.1	6,406.1	6,372.1	23.3	23.9	95.66	-217.6	579.0	213.1	167.9	45.18	4.716		
6,500.0	6,473.1	6,506.1	6,472.1	23.6	24.2	95.66	-217.6	579.0	213.1	167.2	45.86	4.646		
6,600.0	6,573.1	6,606.1	6,572.1	24.0	24.5	95.66	-217.6	579.0	213.1	166.5	46.54	4.578		
6,700.0	6,673.1	6,706.1	6,672.1	24.3	24.9	95.66	-217.6	579.0	213.1	165.8	47.23	4.512		
6,800.0	6,773.1	6,806.1	6,772.1	24.6	25.2	95.66	-217.6	579.0	213.1	165.2	47.91	4.447		
6,900.0	6,873.1	6,906.1	6,872.1	25.0	25.5	95.66	-217.6	579.0	213.1	164.5	48.60	4.385		
7,000.0	6,973.1	7,006.1	6,972.1	25.3	25.9	95.66	-217.6	579.0	213.1	163.8	49.28	4.324		
7,100.0	7,073.1	7,106.1	7,072.1	25.6	26.2	95.66	-217.6	579.0	213.1	163.1	49.97	4.264		
7,200.0	7,173.1	7,206.1	7,172.1	26.0	26.5	95.66	-217.6	579.0	213.1	162.4	50.66	4.206		
7,300.0	7,273.1	7,306.1	7,272.1	26.3	26.8	95.66	-217.6	579.0	213.1	161.7	51.35	4.150		
7,400.0	7,373.1	7,406.1	7,372.1	26.7	27.2	95.66	-217.6	579.0	213.1	161.0	52.04	4.095		
7,500.0	7,473.1	7,506.1	7,472.1	27.0	27.5	95.66	-217.6	579.0	213.1	160.3	52.73	4.041		
7,600.0	7,573.1	7,606.1	7,572.1	27.3	27.8	95.66	-217.6	579.0	213.1	159.7	53.42	3.989		
7,700.0	7,673.1	7,706.1	7,672.1	27.7	28.2	95.66	-217.6	579.0	213.1	159.0	54.11	3.938		
7,800.0	7,773.1	7,806.1	7,772.1	28.0	28.5	95.66	-217.6	579.0	213.1	158.3	54.80	3.888		
7,900.0	7,873.1	7,906.1	7,872.1	28.4	28.8	95.66	-217.6	579.0	213.1	157.6	55.49	3.840		
8,000.0	7,973.1	8,006.1	7,972.1	28.7	29.2	95.66	-217.6	579.0	213.1	156.9	56.19	3.792		
8,100.0	8,073.1	8,106.1	8,072.1	29.1	29.5	95.66	-217.6	579.0	213.1	156.2	56.88	3.746		
8,200.0	8,173.1	8,206.1	8,172.1	29.4	29.9	95.66	-217.6	579.0	213.1	155.5	57.58	3.701		
8,300.0	8,273.1	8,306.1	8,272.1	29.7	30.2	95.66	-217.6	579.0	213.1	154.8	58.27	3.657		
8,400.0	8,373.1	8,406.1	8,372.1	30.1	30.5	95.66	-217.6	579.0	213.1	154.1	58.97	3.613		
8,500.0	8,473.1	8,506.1	8,472.1	30.4	30.9	95.66	-217.6	579.0	213.1	153.4	59.66	3.571		
8,600.0	8,573.1	8,606.1	8,572.1	30.8	31.2	95.66	-217.6	579.0	213.1	152.7	60.36	3.530		
8,700.0	8,673.1	8,706.1	8,672.1	31.1	31.5	95.66	-217.6	579.0	213.1	152.0	61.06	3.490		
8,800.0	8,773.1	8,806.1	8,772.1	31.5	31.9	95.66	-217.6	579.0	213.1	151.3	61.75	3.450		
8,900.0	8,873.1	8,906.1	8,872.1	31.8	32.2	95.66	-217.6	579.0	213.1	150.6	62.45	3.412		
9,000.0	8,973.1	9,006.1	8,972.1	32.2	32.6	95.66	-217.6	579.0	213.1	149.9	63.15	3.374		
9,100.0	9,073.1	9,106.1	9,072.1	32.5	32.9	95.66	-217.6	579.0	213.1	149.2	63.85	3.337		
9,200.0	9,173.1	9,206.1	9,172.1	32.9	33.2	95.66	-217.6	579.0	213.1	148.5	64.55	3.301		
9,300.0	9,273.1	9,306.1	9,272.1	33.2	33.6	95.66	-217.6	579.0	213.1	147.8	65.25	3.265		
9,400.0	9,373.1	9,406.1	9,372.1	33.5	33.9	95.66	-217.6	579.0	213.1	147.1	65.95	3.231		
9,500.0	9,473.1	9,506.1	9,472.1	33.9	34.3	95.66	-217.6	579.0	213.1	146.4	66.65	3.197		
9,600.0	9,573.1	9,607.8	9,573.4	34.2	34.6	93.86	-210.9	579.2	212.7	145.3	67.36	3.157		
9,646.1	9,619.2	9,653.4	9,618.2	34.4	34.8	91.50	-202.1	579.4	212.5	144.8	67.74	3.137		
9,700.0	9,673.1	9,704.6	9,667.4	34.6	34.9	87.73	-188.1	579.8	213.0	144.8	68.22	3.123 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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
9,800.0	9,773.1	9,791.6	9,747.6	34.9	35.1	78.84	-154.4	580.7	219.2	150.3	68.87	3.182			
9,900.0	9,873.1	9,867.0	9,812.2	35.3	35.3	69.36	-115.7	581.7	237.1	168.8	68.31	3.471			
10,000.0	9,973.1	9,930.9	9,862.5	35.6	35.4	60.91	-76.5	582.7	270.1	204.2	65.88	4.099			
10,100.0	10,073.1	9,984.3	9,901.1	36.0	35.5	54.08	-39.6	583.7	317.5	255.4	62.15	5.109			
10,200.0	10,173.1	10,029.0	9,930.7	36.3	35.6	48.79	-6.0	584.6	376.7	318.7	58.05	6.489			
10,300.0	10,273.1	10,066.6	9,953.3	36.7	35.6	44.73	23.8	585.4	444.8	390.6	54.20	8.207			
10,400.0	10,373.1	10,100.0	9,971.9	37.0	35.6	41.43	51.7	586.1	519.4	468.4	50.95	10.194			
10,500.0	10,473.1	10,125.2	9,984.8	37.4	35.7	39.14	73.3	586.7	598.8	550.8	47.96	12.486			
10,600.0	10,573.1	10,150.0	9,996.5	37.7	35.7	37.05	95.1	587.2	681.8	636.1	45.66	14.931			
10,700.0	10,673.1	10,168.3	10,004.5	38.1	35.7	35.61	111.5	587.7	767.6	724.0	43.57	17.617			
10,800.0	10,773.1	10,185.6	10,011.7	38.4	35.7	34.31	127.4	588.1	855.6	813.6	41.92	20.408			
10,903.9	10,877.0	10,200.0	10,017.2	38.8	35.7	33.29	140.6	588.4	948.8	908.3	40.45	23.457			
10,950.0	10,923.0	10,200.0	10,017.2	38.9	35.7	35.34	140.6	588.4	990.1	950.5	39.59	25.008			
11,000.0	10,972.6	10,217.0	10,023.4	39.1	35.7	29.90	156.5	588.8	1,033.4	994.1	39.31	26.287			
11,050.0	11,021.5	10,226.4	10,026.6	39.3	35.7	26.05	165.3	589.1	1,075.3	1,036.6	38.68	27.802			
11,100.0	11,069.3	10,250.0	10,033.9	39.4	35.7	22.89	187.7	589.7	1,115.8	1,077.2	38.51	28.971			
11,150.0	11,115.6	10,250.0	10,033.9	39.6	35.7	20.71	187.7	589.7	1,153.8	1,116.3	37.50	30.767			
11,200.0	11,160.1	10,250.0	10,033.9	39.7	35.7	18.92	187.7	589.7	1,190.1	1,153.6	36.54	32.571			
11,250.0	11,202.4	10,270.7	10,039.6	39.8	35.8	17.39	207.6	590.2	1,224.0	1,187.8	36.23	33.787			
11,300.0	11,242.3	10,283.1	10,042.7	39.9	35.8	16.19	219.6	590.5	1,255.6	1,219.9	35.67	35.197			
11,350.0	11,279.3	10,300.0	10,046.4	40.0	35.8	15.22	236.1	590.9	1,284.8	1,249.5	35.26	36.434			
11,400.0	11,313.4	10,300.0	10,046.4	40.1	35.8	14.41	236.1	590.9	1,311.5	1,277.0	34.51	37.999			
11,450.0	11,344.1	10,322.4	10,050.7	40.1	35.9	13.79	258.1	591.5	1,335.3	1,301.0	34.32	38.908			
11,500.0	11,371.2	10,350.0	10,054.7	40.2	35.9	13.33	285.4	592.2	1,356.7	1,322.5	34.25	39.610			
11,550.0	11,394.6	10,350.0	10,054.7	40.2	35.9	12.89	285.4	592.2	1,374.9	1,341.1	33.78	40.705			
11,600.0	11,414.0	10,350.0	10,054.7	40.3	35.9	12.52	285.4	592.2	1,390.6	1,357.1	33.47	41.546			
11,650.0	11,429.4	10,378.2	10,057.4	40.4	36.0	12.37	313.4	592.9	1,403.0	1,369.4	33.61	41.747			
11,700.0	11,440.6	10,400.0	10,058.6	40.5	36.1	12.28	335.2	593.5	1,412.7	1,378.9	33.74	41.871			
11,750.0	11,447.4	10,400.0	10,058.6	40.6	36.1	12.13	335.2	593.5	1,419.3	1,385.5	33.84	41.947			
11,803.9	11,450.0	10,424.0	10,058.9	40.7	36.1	12.20	359.2	594.1	1,423.1	1,388.9	34.20	41.609			
11,900.0	11,450.0	10,524.4	10,058.2	41.0	36.5	12.75	459.6	595.0	1,426.3	1,391.3	35.00	40.745			
12,000.0	11,450.0	10,623.9	10,057.5	41.4	36.9	13.00	559.1	594.2	1,428.1	1,392.4	35.73	39.967			
12,048.6	11,450.0	10,672.5	10,057.2	41.6	37.2	13.03	607.7	593.9	1,428.6	1,392.5	36.06	39.617			
12,100.0	11,450.0	10,723.9	10,056.8	41.8	37.4	13.03	659.1	593.5	1,428.9	1,392.5	36.41	39.251			
12,200.0	11,450.0	10,823.9	10,056.1	42.3	38.0	13.02	759.0	592.7	1,429.6	1,392.5	37.13	38.505			
12,300.0	11,450.0	10,923.9	10,055.4	42.9	38.6	13.02	859.0	591.9	1,430.3	1,392.4	37.91	37.725			
12,400.0	11,450.0	11,023.9	10,054.7	43.5	39.3	13.01	959.0	591.1	1,431.0	1,392.3	38.76	36.921			
12,500.0	11,450.0	11,123.9	10,054.0	44.1	40.0	13.01	1,059.0	590.3	1,431.7	1,392.1	39.66	36.101			
12,600.0	11,450.0	11,223.9	10,053.3	44.9	40.8	13.00	1,159.0	589.6	1,432.4	1,391.8	40.61	35.273			
12,700.0	11,450.0	11,323.9	10,052.6	45.6	41.6	13.00	1,259.0	588.8	1,433.1	1,391.5	41.61	34.444			
12,800.0	11,450.0	11,423.9	10,051.9	46.4	42.5	12.99	1,359.0	588.0	1,433.8	1,391.1	42.65	33.619			
12,900.0	11,450.0	11,523.9	10,051.2	47.3	43.4	12.99	1,459.0	587.2	1,434.5	1,390.7	43.73	32.802			
13,000.0	11,450.0	11,623.9	10,050.5	48.2	44.4	12.98	1,559.0	586.5	1,435.2	1,390.3	44.85	31.997			
13,100.0	11,450.0	11,723.9	10,049.8	49.1	45.4	12.98	1,659.0	585.7	1,435.9	1,389.9	46.01	31.208			
13,200.0	11,450.0	11,823.9	10,049.1	50.1	46.4	12.97	1,759.0	584.9	1,436.6	1,389.4	47.20	30.437			
13,300.0	11,450.0	11,923.9	10,048.4	51.1	47.5	12.97	1,859.0	584.1	1,437.2	1,388.8	48.42	29.685			
13,400.0	11,450.0	12,023.9	10,047.7	52.1	48.6	12.96	1,959.0	583.3	1,437.9	1,388.3	49.66	28.954			
13,500.0	11,450.0	12,123.9	10,047.0	53.2	49.7	12.95	2,058.9	582.6	1,438.6	1,387.7	50.94	28.244			
13,600.0	11,450.0	12,223.9	10,046.3	54.3	50.9	12.95	2,158.9	581.8	1,439.3	1,387.1	52.23	27.556			
13,700.0	11,450.0	12,323.9	10,045.6	55.4	52.1	12.94	2,258.9	581.0	1,440.0	1,386.5	53.55	26.890			
13,800.0	11,450.0	12,423.9	10,044.9	56.5	53.3	12.94	2,358.9	580.2	1,440.7	1,385.8	54.89	26.247			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
13,900.0	11,450.0	12,523.9	10,044.2	57.7	54.6	12.93	2,458.9	579.4	1,441.4	1,385.1	56.25	25.625			
14,000.0	11,450.0	12,623.9	10,043.5	58.9	55.8	12.93	2,558.9	578.7	1,442.1	1,384.5	57.63	25.025			
14,100.0	11,450.0	12,723.9	10,042.8	60.1	57.1	12.92	2,658.9	577.9	1,442.8	1,383.8	59.02	24.447			
14,200.0	11,450.0	12,823.9	10,042.1	61.4	58.4	12.92	2,758.9	577.1	1,443.5	1,383.0	60.43	23.888			
14,300.0	11,450.0	12,923.9	10,041.4	62.6	59.7	12.91	2,858.9	576.3	1,444.2	1,382.3	61.85	23.350			
14,400.0	11,450.0	13,023.9	10,040.6	63.9	61.1	12.91	2,958.9	575.6	1,444.9	1,381.6	63.28	22.831			
14,500.0	11,450.0	13,123.8	10,039.9	65.2	62.4	12.90	3,058.9	574.8	1,445.5	1,380.8	64.73	22.331			
14,600.0	11,450.0	13,223.8	10,039.2	66.5	63.8	12.90	3,158.9	574.0	1,446.2	1,380.0	66.19	21.849			
14,700.0	11,450.0	13,323.8	10,038.5	67.8	65.2	12.89	3,258.8	573.2	1,446.9	1,379.3	67.66	21.385			
14,800.0	11,450.0	13,423.8	10,037.8	69.2	66.6	12.89	3,358.8	572.4	1,447.6	1,378.5	69.14	20.937			
14,900.0	11,450.0	13,523.8	10,037.1	70.5	68.0	12.88	3,458.8	571.7	1,448.3	1,377.7	70.63	20.505			
15,000.0	11,450.0	13,623.8	10,036.4	71.9	69.4	12.87	3,558.8	570.9	1,449.0	1,376.9	72.13	20.088			
15,100.0	11,450.0	13,723.8	10,035.7	73.3	70.8	12.87	3,658.8	570.1	1,449.7	1,376.1	73.64	19.687			
15,200.0	11,450.0	13,823.8	10,035.0	74.7	72.2	12.86	3,758.8	569.3	1,450.4	1,375.2	75.15	19.299			
15,300.0	11,450.0	13,923.8	10,034.3	76.1	73.7	12.86	3,858.8	568.5	1,451.1	1,374.4	76.68	18.925			
15,400.0	11,450.0	14,023.8	10,033.6	77.5	75.1	12.85	3,958.8	567.8	1,451.8	1,373.6	78.21	18.563			
15,500.0	11,450.0	14,123.8	10,032.9	78.9	76.6	12.85	4,058.8	567.0	1,452.5	1,372.7	79.74	18.215			
15,600.0	11,450.0	14,223.8	10,032.2	80.3	78.1	12.84	4,158.8	566.2	1,453.2	1,371.9	81.28	17.878			
15,700.0	11,450.0	14,323.8	10,031.5	81.8	79.5	12.84	4,258.8	565.4	1,453.9	1,371.0	82.83	17.552			
15,800.0	11,450.0	14,423.8	10,030.8	83.2	81.0	12.83	4,358.8	564.7	1,454.5	1,370.2	84.39	17.237			
15,900.0	11,450.0	14,523.8	10,030.1	84.7	82.5	12.83	4,458.8	563.9	1,455.2	1,369.3	85.94	16.932			
16,000.0	11,450.0	14,623.8	10,029.4	86.1	84.0	12.82	4,558.7	563.1	1,455.9	1,368.4	87.51	16.638			
16,100.0	11,450.0	14,723.8	10,028.7	87.6	85.5	12.82	4,658.7	562.3	1,456.6	1,367.5	89.07	16.353			
16,200.0	11,450.0	14,823.8	10,028.0	89.1	87.0	12.81	4,758.7	561.5	1,457.3	1,366.7	90.65	16.077			
16,300.0	11,450.0	14,923.8	10,027.3	90.5	88.5	12.81	4,858.7	560.8	1,458.0	1,365.8	92.22	15.810			
16,400.0	11,450.0	15,023.8	10,026.6	92.0	90.1	12.80	4,958.7	560.0	1,458.7	1,364.9	93.80	15.551			
16,500.0	11,450.0	15,123.8	10,025.9	93.5	91.6	12.80	5,058.7	559.2	1,459.4	1,364.0	95.39	15.300			
16,600.0	11,450.0	15,223.8	10,025.2	95.0	93.1	12.79	5,158.7	558.4	1,460.1	1,363.1	96.97	15.056			
16,700.0	11,450.0	15,323.8	10,024.5	96.5	94.6	12.79	5,258.7	557.6	1,460.8	1,362.2	98.56	14.820			
16,800.0	11,450.0	15,423.8	10,023.8	98.0	96.2	12.78	5,358.7	556.9	1,461.5	1,361.3	100.16	14.592			
16,900.0	11,450.0	15,523.8	10,023.1	99.5	97.7	12.78	5,458.7	556.1	1,462.2	1,360.4	101.76	14.369			
17,000.0	11,450.0	15,623.8	10,022.3	101.1	99.3	12.77	5,558.7	555.3	1,462.8	1,359.5	103.35	14.154			
17,100.0	11,450.0	15,723.8	10,021.6	102.6	100.8	12.76	5,658.7	554.5	1,463.5	1,358.6	104.96	13.944			
17,200.0	11,450.0	15,823.8	10,020.9	104.1	102.4	12.76	5,758.6	553.8	1,464.2	1,357.7	106.56	13.741			
17,300.0	11,450.0	15,923.8	10,020.2	105.6	103.9	12.75	5,858.6	553.0	1,464.9	1,356.8	108.17	13.543			
17,400.0	11,450.0	16,023.8	10,019.5	107.2	105.5	12.75	5,958.6	552.2	1,465.6	1,355.8	109.78	13.351			
17,500.0	11,450.0	16,123.8	10,018.8	108.7	107.0	12.74	6,058.6	551.4	1,466.3	1,354.9	111.39	13.164			
17,600.0	11,450.0	16,223.8	10,018.1	110.3	108.6	12.74	6,158.6	550.6	1,467.0	1,354.0	113.01	12.982			
17,700.0	11,450.0	16,323.8	10,017.4	111.8	110.2	12.73	6,258.6	549.9	1,467.7	1,353.1	114.62	12.805			
17,800.0	11,450.0	16,423.8	10,016.7	113.3	111.7	12.73	6,358.6	549.1	1,468.4	1,352.1	116.24	12.632			
17,900.0	11,450.0	16,523.8	10,016.0	114.9	113.3	12.72	6,458.6	548.3	1,469.1	1,351.2	117.86	12.465			
18,000.0	11,450.0	16,623.8	10,015.3	116.5	114.9	12.72	6,558.6	547.5	1,469.8	1,350.3	119.48	12.301			
18,100.0	11,450.0	16,723.8	10,014.6	118.0	116.4	12.71	6,658.6	546.7	1,470.5	1,349.4	121.10	12.142			
18,200.0	11,450.0	16,823.8	10,013.9	119.6	118.0	12.71	6,758.6	546.0	1,471.2	1,348.4	122.73	11.987			
18,300.0	11,450.0	16,923.8	10,013.2	121.1	119.6	12.70	6,858.6	545.2	1,471.8	1,347.5	124.36	11.836			
18,400.0	11,450.0	17,023.8	10,012.5	122.7	121.2	12.70	6,958.6	544.4	1,472.5	1,346.6	125.98	11.688			
18,500.0	11,450.0	17,123.8	10,011.8	124.3	122.8	12.69	7,058.5	543.6	1,473.2	1,345.6	127.61	11.544			
18,600.0	11,450.0	17,223.7	10,011.1	125.8	124.4	12.69	7,158.5	542.9	1,473.9	1,344.7	129.24	11.404			
18,700.0	11,450.0	17,323.7	10,010.4	127.4	125.9	12.68	7,258.5	542.1	1,474.6	1,343.7	130.88	11.267			
18,800.0	11,450.0	17,423.7	10,009.7	129.0	127.5	12.68	7,358.5	541.3	1,475.3	1,342.8	132.51	11.134			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #114H - 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		
18,900.0	11,450.0	17,523.7	10,009.0	130.5	129.1	12.67	7,458.5	540.5	1,476.0	1,341.9	134.14	11.003			
19,000.0	11,450.0	17,623.7	10,008.3	132.1	130.7	12.67	7,558.5	539.7	1,476.7	1,340.9	135.78	10.876			
19,100.0	11,450.0	17,723.7	10,007.6	133.7	132.3	12.66	7,658.5	539.0	1,477.4	1,340.0	137.42	10.751			
19,200.0	11,450.0	17,823.7	10,006.9	135.3	133.9	12.66	7,758.5	538.2	1,478.1	1,339.0	139.06	10.629			
19,300.0	11,450.0	17,923.7	10,006.2	136.9	135.5	12.65	7,858.5	537.4	1,478.8	1,338.1	140.69	10.511			
19,400.0	11,450.0	18,023.7	10,005.5	138.5	137.1	12.65	7,958.5	536.6	1,479.5	1,337.1	142.33	10.394			
19,500.0	11,450.0	18,123.7	10,004.8	140.0	138.7	12.64	8,058.5	535.8	1,480.2	1,336.2	143.97	10.281			
19,600.0	11,450.0	18,223.7	10,004.0	141.6	140.3	12.64	8,158.5	535.1	1,480.8	1,335.2	145.62	10.170			
19,700.0	11,450.0	18,323.7	10,003.3	143.2	141.9	12.63	8,258.4	534.3	1,481.5	1,334.3	147.26	10.061			
19,800.0	11,450.0	18,423.7	10,002.6	144.8	143.5	12.63	8,358.4	533.5	1,482.2	1,333.3	148.90	9.954			
19,900.0	11,450.0	18,523.7	10,001.9	146.4	145.1	12.62	8,458.4	532.7	1,482.9	1,332.4	150.55	9.850			
20,000.0	11,450.0	18,623.7	10,001.2	148.0	146.7	12.62	8,558.4	532.0	1,483.6	1,331.4	152.19	9.748			
20,100.0	11,450.0	18,723.7	10,000.5	149.6	148.3	12.61	8,658.4	531.2	1,484.3	1,330.5	153.84	9.649			
20,200.0	11,450.0	18,823.7	9,999.8	151.2	149.9	12.61	8,758.4	530.4	1,485.0	1,329.5	155.48	9.551			
20,300.0	11,450.0	18,923.7	9,999.1	152.8	151.6	12.60	8,858.4	529.6	1,485.7	1,328.6	157.13	9.455			
20,400.0	11,450.0	19,023.7	9,998.4	154.4	153.2	12.60	8,958.4	528.8	1,486.4	1,327.6	158.78	9.361			
20,500.0	11,450.0	19,123.7	9,997.7	156.0	154.8	12.59	9,058.4	528.1	1,487.1	1,326.7	160.43	9.270			
20,600.0	11,450.0	19,223.7	9,997.0	157.6	156.4	12.59	9,158.4	527.3	1,487.8	1,325.7	162.07	9.180			
20,700.0	11,450.0	19,323.7	9,996.3	159.2	158.0	12.58	9,258.4	526.5	1,488.5	1,324.7	163.72	9.091			
20,800.0	11,450.0	19,423.7	9,995.6	160.8	159.6	12.58	9,358.4	525.7	1,489.2	1,323.8	165.37	9.005			
20,900.0	11,450.0	19,523.7	9,994.9	162.4	161.2	12.57	9,458.4	524.9	1,489.9	1,322.8	167.02	8.920			
21,000.0	11,450.0	19,623.7	9,994.2	164.0	162.9	12.57	9,558.3	524.2	1,490.5	1,321.9	168.68	8.837			
21,100.0	11,450.0	19,723.7	9,993.5	165.6	164.5	12.56	9,658.3	523.4	1,491.2	1,320.9	170.33	8.755			
21,200.0	11,450.0	19,823.7	9,992.8	167.2	166.1	12.56	9,758.3	522.6	1,491.9	1,320.0	171.98	8.675			
21,300.0	11,450.0	19,923.7	9,992.1	168.8	167.7	12.55	9,858.3	521.8	1,492.6	1,319.0	173.63	8.597			
21,400.0	11,450.0	20,023.7	9,991.4	170.4	169.3	12.55	9,958.3	521.1	1,493.3	1,318.0	175.28	8.519			
21,500.0	11,450.0	20,123.7	9,990.7	172.0	170.9	12.54	10,058.3	520.3	1,494.0	1,317.1	176.94	8.444			
21,606.0	11,450.0	20,229.6	9,989.9	173.8	172.6	12.54	10,164.3	519.5	1,494.7	1,316.2	178.58	8.370			
21,606.3	11,450.0	20,229.9	9,989.9	173.8	172.6	12.54	10,164.6	519.4	1,494.7	1,316.2	178.57	8.371			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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	134.39	-29.6	30.3	42.4					
100.0	100.0	101.0	99.0	0.1	0.1	134.39	-29.6	30.3	42.4	42.1	0.26	163.052		
200.0	200.0	201.0	199.0	0.5	0.5	134.39	-29.6	30.3	42.4	41.4	0.98	43.381		
300.0	300.0	301.0	299.0	0.8	0.8	134.39	-29.6	30.3	42.4	40.7	1.69	25.019		
400.0	400.0	401.0	399.0	1.2	1.2	134.39	-29.6	30.3	42.4	40.0	2.41	17.578		
500.0	500.0	501.0	499.0	1.6	1.6	134.39	-29.6	30.3	42.4	39.2	3.13	13.549		
600.0	600.0	601.0	599.0	1.9	1.9	134.39	-29.6	30.3	42.4	38.5	3.84	11.022		
700.0	700.0	701.0	699.0	2.3	2.3	134.39	-29.6	30.3	42.4	37.8	4.56	9.290		
800.0	800.0	801.0	799.0	2.6	2.6	134.39	-29.6	30.3	42.4	37.1	5.28	8.028		
900.0	900.0	901.0	899.0	3.0	3.0	134.39	-29.6	30.3	42.4	36.4	6.00	7.068		
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	134.39	-29.6	30.3	42.4	35.7	6.71	6.313		
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	134.39	-29.6	30.3	42.4	34.9	7.43	5.704		
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	134.39	-29.6	30.3	42.4	34.2	8.15	5.202		
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	134.39	-29.6	30.3	42.4	33.5	8.86	4.781		
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	134.39	-29.6	30.3	42.4	32.8	9.58	4.423		
1,500.0	1,500.0	1,499.0	1,499.0	5.1	5.1	134.39	-29.6	30.3	42.4	32.1	10.29	4.118		
1,600.0	1,600.0	1,599.4	1,599.4	5.5	5.5	135.40	-29.9	29.5	41.9	30.9	11.00	3.814		
1,700.0	1,700.0	1,699.7	1,699.6	5.9	5.8	138.61	-30.5	26.9	40.7	29.0	11.69	3.482		
1,800.0	1,800.0	1,799.9	1,799.7	6.2	6.2	144.37	-31.7	22.7	39.0	26.6	12.39	3.146		
1,900.0	1,900.0	1,899.9	1,899.5	6.6	6.5	153.19	-33.3	16.8	37.3	24.2	13.10	2.846		
1,997.2	1,997.2	1,996.8	1,996.2	6.9	6.9	164.92	-35.2	9.5	36.5	22.7	13.79	2.647 CC		
2,000.0	2,000.0	1,999.6	1,999.0	6.9	6.9	165.30	-35.3	9.3	36.5	22.7	13.81	2.643 ES		
2,100.0	2,100.0	2,099.1	2,098.0	7.3	7.2	179.89	-37.8	0.1	37.8	23.3	14.51	2.604 SF		
2,200.0	2,200.0	2,198.2	2,196.4	7.7	7.6	-165.22	-40.7	-10.7	42.2	27.0	15.21	2.773		
2,300.0	2,300.0	2,303.2	2,294.3	8.0	8.0	-152.29	-44.0	-23.1	50.0	34.1	15.90	3.142		
2,400.0	2,400.0	2,404.2	2,392.3	8.4	8.3	-142.58	-47.6	-36.4	60.3	43.7	16.59	3.637		
2,500.0	2,500.0	2,505.1	2,490.4	8.7	8.7	-135.83	-51.2	-49.7	71.9	54.6	17.29	4.160		
2,600.0	2,600.0	2,606.2	2,588.3	9.1	9.1	111.27	-54.8	-63.0	84.5	66.5	17.97	4.702		
2,700.0	2,700.0	2,707.5	2,686.1	9.4	9.5	116.03	-58.4	-76.3	98.4	79.8	18.65	5.276		
2,800.0	2,799.9	2,791.0	2,783.6	9.7	9.8	120.33	-61.9	-89.5	113.7	94.4	19.27	5.901		
2,900.0	2,899.7	2,889.2	2,880.9	10.1	10.2	124.20	-65.5	-102.7	130.5	110.5	19.94	6.542		
3,000.0	2,999.4	2,987.2	2,977.9	10.4	10.6	127.68	-69.0	-115.9	148.7	128.1	20.62	7.214		
3,100.0	3,098.9	3,084.8	3,074.5	10.8	11.0	130.80	-72.6	-129.0	168.6	147.3	21.30	7.915		
3,200.0	3,198.3	3,182.0	3,170.8	11.1	11.4	133.62	-76.1	-142.1	190.1	168.1	21.99	8.645		
3,300.0	3,297.4	3,278.9	3,266.7	11.5	11.8	136.15	-79.6	-155.1	213.2	190.5	22.67	9.401		
3,400.0	3,396.4	3,375.5	3,362.5	11.8	12.2	138.47	-83.1	-168.1	237.2	213.9	23.36	10.154		
3,500.0	3,495.5	3,472.2	3,458.2	12.2	12.5	140.36	-86.6	-181.1	261.6	237.6	24.06	10.875		
3,600.0	3,594.5	3,568.8	3,553.9	12.6	12.9	141.93	-90.1	-194.1	286.2	261.5	24.75	11.563		
3,700.0	3,693.5	3,665.5	3,649.6	12.9	13.3	143.25	-93.6	-207.0	311.0	285.5	25.45	12.219		
3,800.0	3,792.5	3,762.1	3,745.3	13.3	13.7	144.37	-97.1	-220.0	335.9	309.7	26.15	12.844		
3,900.0	3,891.6	3,858.8	3,841.0	13.7	14.1	145.34	-100.6	-233.0	360.9	334.1	26.85	13.439		
4,000.0	3,990.6	3,955.4	3,936.7	14.1	14.5	146.19	-104.1	-246.0	386.0	358.4	27.56	14.006		
4,100.0	4,089.6	4,052.1	4,032.4	14.5	14.9	146.93	-107.6	-259.0	411.2	382.9	28.27	14.546		
4,200.0	4,188.6	4,148.7	4,128.1	14.8	15.3	147.59	-111.1	-272.0	436.4	407.4	28.97	15.061		
4,300.0	4,287.7	4,245.4	4,223.9	15.2	15.7	148.17	-114.6	-285.0	461.7	432.0	29.68	15.552		
4,400.0	4,386.7	4,342.0	4,319.6	15.6	16.1	148.70	-118.1	-298.0	487.0	456.6	30.40	16.021		
4,500.0	4,485.7	4,438.7	4,415.3	16.0	16.5	149.17	-121.6	-311.0	512.3	481.2	31.11	16.469		
4,600.0	4,584.8	4,535.3	4,511.0	16.4	16.9	149.60	-125.1	-323.9	537.7	505.9	31.82	16.897		
4,700.0	4,683.8	4,632.0	4,606.7	16.8	17.3	149.99	-128.6	-336.9	563.1	530.6	32.54	17.307		
4,800.0	4,782.8	4,728.6	4,702.4	17.2	17.7	150.34	-132.1	-349.9	588.5	555.3	33.25	17.699		
4,900.0	4,881.8	4,825.3	4,798.1	17.6	18.1	150.67	-135.6	-362.9	614.0	580.0	33.97	18.074		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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		
5,000.0	4,980.9	4,922.0	4,893.8	18.0	18.5	150.97	-139.1	-375.9	639.4	604.7	34.69	18.434		
5,100.0	5,079.9	5,018.6	4,989.5	18.4	18.9	151.25	-142.6	-388.9	664.9	629.5	35.41	18.780		
5,200.0	5,178.9	5,115.3	5,085.3	18.8	19.3	151.50	-146.1	-401.9	690.4	654.3	36.12	19.111		
5,300.0	5,277.9	5,211.9	5,181.0	19.2	19.7	151.74	-149.6	-414.9	715.9	679.0	36.84	19.430		
5,400.0	5,377.0	5,308.6	5,276.7	19.6	20.1	151.96	-153.1	-427.8	741.4	703.8	37.57	19.736		
5,500.0	5,476.0	5,405.2	5,372.4	20.0	20.5	152.17	-156.6	-440.8	766.9	728.6	38.29	20.031		
5,600.0	5,575.0	5,501.9	5,468.1	20.4	20.9	152.37	-160.1	-453.8	792.5	753.4	39.01	20.315		
5,623.7	5,598.5	5,524.8	5,490.8	20.5	21.0	152.41	-160.9	-456.9	798.5	759.3	39.18	20.380		
5,700.0	5,674.1	5,598.7	5,564.0	20.8	21.3	152.66	-163.6	-466.8	817.3	777.6	39.73	20.572		
5,800.0	5,773.6	5,703.9	5,660.4	21.2	21.7	152.88	-167.1	-479.9	840.0	799.5	40.48	20.751		
5,900.0	5,873.3	5,806.0	5,757.4	21.6	22.2	153.01	-170.7	-493.1	860.4	819.2	41.22	20.875		
6,000.0	5,973.1	5,907.7	5,854.7	21.9	22.6	153.03	-174.2	-506.3	878.6	836.6	41.95	20.944		
6,100.0	6,073.1	5,991.0	5,952.5	22.3	22.9	152.97	-177.8	-519.6	894.4	851.8	42.61	20.991		
6,157.0	6,130.1	6,047.4	6,008.4	22.5	23.2	-88.93	-179.8	-527.1	902.4	859.4	43.01	20.980		
6,200.0	6,173.1	6,090.0	6,050.5	22.6	23.4	-89.03	-181.4	-532.9	908.2	864.8	43.32	20.965		
6,300.0	6,273.1	6,189.0	6,148.6	23.0	23.8	-89.27	-185.0	-546.2	921.6	877.5	44.03	20.932		
6,400.0	6,373.1	6,288.0	6,246.6	23.3	24.2	-89.50	-188.5	-559.5	935.0	890.2	44.74	20.900		
6,500.0	6,473.1	6,387.1	6,344.7	23.6	24.6	-89.73	-192.1	-572.8	948.4	902.9	45.44	20.869		
6,600.0	6,573.1	6,486.1	6,442.8	24.0	25.0	-89.95	-195.7	-586.1	961.8	915.7	46.15	20.839		
6,700.0	6,673.1	6,585.1	6,540.8	24.3	25.4	-90.16	-199.3	-599.4	975.3	928.4	46.86	20.811		
6,800.0	6,773.1	6,684.1	6,638.9	24.6	25.8	-90.37	-202.9	-612.7	988.7	941.2	47.57	20.783		
6,900.0	6,873.1	6,783.2	6,736.9	25.0	26.3	-90.57	-206.5	-626.0	1,002.2	953.9	48.29	20.756		
7,000.0	6,973.1	6,882.2	6,835.0	25.3	26.7	-90.77	-210.1	-639.3	1,015.7	966.7	49.00	20.730		
7,100.0	7,073.1	6,981.2	6,933.1	25.6	27.1	-90.96	-213.6	-652.6	1,029.2	979.5	49.71	20.705		
7,200.0	7,173.1	7,080.2	7,031.1	26.0	27.5	-91.15	-217.2	-665.9	1,042.7	992.3	50.42	20.681		
7,300.0	7,273.1	7,179.3	7,129.2	26.3	27.9	-91.33	-220.8	-679.2	1,056.2	1,005.1	51.13	20.657		
7,400.0	7,373.1	7,304.2	7,253.0	26.7	28.4	-91.54	-225.0	-694.9	1,068.9	1,016.9	52.06	20.535		
7,500.0	7,473.1	7,441.2	7,389.4	27.0	29.0	-91.70	-228.5	-707.7	1,078.3	1,025.3	53.02	20.339		
7,600.0	7,573.1	7,578.9	7,526.9	27.3	29.5	-91.80	-230.7	-715.8	1,084.2	1,030.3	53.92	20.110		
7,700.0	7,673.1	7,717.1	7,665.0	27.7	29.9	-91.84	-231.5	-719.1	1,086.7	1,031.9	54.74	19.850		
7,800.0	7,773.1	7,824.2	7,772.1	28.0	30.3	-91.85	-231.6	-719.1	1,086.7	1,031.3	55.44	19.601		
7,900.0	7,873.1	7,924.2	7,872.1	28.4	30.6	-91.85	-231.6	-719.1	1,086.7	1,030.6	56.12	19.363		
8,000.0	7,973.1	8,024.2	7,972.1	28.7	30.9	-91.85	-231.6	-719.1	1,086.7	1,029.9	56.80	19.131		
8,100.0	8,073.1	8,124.2	8,072.1	29.1	31.2	-91.85	-231.6	-719.1	1,086.7	1,029.2	57.49	18.904		
8,200.0	8,173.1	8,224.2	8,172.1	29.4	31.5	-91.85	-231.6	-719.1	1,086.7	1,028.5	58.17	18.682		
8,300.0	8,273.1	8,324.2	8,272.1	29.7	31.9	-91.85	-231.6	-719.1	1,086.7	1,027.9	58.85	18.465		
8,400.0	8,373.1	8,424.2	8,372.1	30.1	32.2	-91.85	-231.6	-719.1	1,086.7	1,027.2	59.54	18.252		
8,500.0	8,473.1	8,524.2	8,472.1	30.4	32.5	-91.85	-231.6	-719.1	1,086.7	1,026.5	60.22	18.045		
8,600.0	8,573.1	8,624.2	8,572.1	30.8	32.8	-91.85	-231.6	-719.1	1,086.7	1,025.8	60.91	17.841		
8,700.0	8,673.1	8,724.2	8,672.1	31.1	33.1	-91.85	-231.6	-719.1	1,086.7	1,025.1	61.60	17.642		
8,800.0	8,773.1	8,824.2	8,772.1	31.5	33.5	-91.85	-231.6	-719.1	1,086.7	1,024.4	62.28	17.448		
8,900.0	8,873.1	8,924.2	8,872.1	31.8	33.8	-91.85	-231.6	-719.1	1,086.7	1,023.7	62.97	17.257		
9,000.0	8,973.1	9,024.2	8,972.1	32.2	34.1	-91.85	-231.6	-719.1	1,086.7	1,023.1	63.66	17.070		
9,100.0	9,073.1	9,124.2	9,072.1	32.5	34.4	-91.85	-231.6	-719.1	1,086.7	1,022.4	64.35	16.887		
9,200.0	9,173.1	9,224.2	9,172.1	32.9	34.7	-91.85	-231.6	-719.1	1,086.7	1,021.7	65.04	16.708		
9,300.0	9,273.1	9,324.2	9,272.1	33.2	35.1	-91.85	-231.6	-719.1	1,086.7	1,021.0	65.73	16.533		
9,400.0	9,373.1	9,424.2	9,372.1	33.5	35.4	-91.85	-231.6	-719.1	1,086.7	1,020.3	66.42	16.361		
9,500.0	9,473.1	9,524.2	9,472.1	33.9	35.7	-91.85	-231.6	-719.1	1,086.7	1,019.6	67.11	16.192		
9,600.0	9,573.1	9,624.2	9,572.1	34.2	36.0	-91.85	-231.6	-719.1	1,086.7	1,018.9	67.81	16.027		
9,700.0	9,673.1	9,724.2	9,672.1	34.6	36.4	-91.85	-231.6	-719.1	1,086.7	1,018.2	68.50	15.865		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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			
9,800.0	9,773.1	9,824.2	9,772.1	34.9	36.7	-91.85	-231.6	-719.1	1,086.7	1,017.5	69.19	15.706			
9,900.0	9,873.1	9,924.2	9,872.1	35.3	37.0	-91.85	-231.6	-719.1	1,086.7	1,016.8	69.89	15.550			
10,000.0	9,973.1	10,024.2	9,972.1	35.6	37.4	-91.85	-231.6	-719.1	1,086.7	1,016.1	70.58	15.397			
10,100.0	10,073.1	10,124.2	10,072.1	36.0	37.7	-91.85	-231.6	-719.1	1,086.7	1,015.4	71.27	15.247			
10,200.0	10,173.1	10,224.2	10,172.1	36.3	38.0	-91.85	-231.6	-719.1	1,086.7	1,014.7	71.97	15.100			
10,300.0	10,273.1	10,324.2	10,272.1	36.7	38.3	-91.85	-231.6	-719.1	1,086.7	1,014.1	72.67	14.955			
10,400.0	10,373.1	10,426.9	10,374.7	37.0	38.7	-91.65	-227.8	-719.2	1,086.6	1,013.3	73.36	14.812			
10,500.0	10,473.1	10,527.3	10,472.9	37.4	39.0	-90.59	-207.8	-719.3	1,086.4	1,012.4	74.04	14.673			
10,509.6	10,482.6	10,536.4	10,481.6	37.4	39.0	-90.45	-205.1	-719.4	1,086.4	1,012.3	74.10	14.660			
10,600.0	10,573.1	10,618.2	10,557.6	37.7	39.2	-88.87	-175.1	-719.6	1,086.9	1,012.2	74.68	14.555			
10,700.0	10,673.1	10,697.2	10,626.3	38.1	39.4	-86.81	-136.1	-719.9	1,089.5	1,014.3	75.24	14.482			
10,800.0	10,773.1	10,764.1	10,679.7	38.4	39.5	-84.71	-95.9	-720.2	1,095.8	1,020.1	75.64	14.487			
10,903.9	10,877.0	10,821.9	10,721.9	38.8	39.6	-82.66	-56.4	-720.5	1,107.3	1,031.5	75.81	14.606			
10,950.0	10,923.0	10,845.2	10,737.7	38.9	39.6	-73.38	-39.3	-720.7	1,113.8	1,038.0	75.79	14.696			
11,000.0	10,972.6	10,870.4	10,754.0	39.1	39.7	-71.81	-20.1	-720.8	1,121.0	1,045.3	75.71	14.808			
11,050.0	11,021.5	10,900.0	10,772.1	39.3	39.7	-70.16	3.3	-721.0	1,128.2	1,052.6	75.60	14.923			
11,100.0	11,069.3	10,920.7	10,784.0	39.4	39.7	-68.86	20.2	-721.1	1,135.3	1,059.9	75.36	15.066			
11,150.0	11,115.6	10,950.0	10,799.8	39.6	39.8	-67.38	44.9	-721.3	1,142.1	1,066.9	75.15	15.198			
11,200.0	11,160.1	10,970.9	10,810.3	39.7	39.8	-66.24	63.0	-721.5	1,148.4	1,073.6	74.80	15.352			
11,250.0	11,202.4	11,000.0	10,823.8	39.8	39.8	-64.98	88.8	-721.7	1,154.2	1,079.7	74.52	15.489			
11,300.0	11,242.3	11,021.0	10,832.7	39.9	39.8	-64.03	107.8	-721.8	1,159.4	1,085.3	74.14	15.639			
11,350.0	11,279.3	11,050.0	10,843.8	40.0	39.8	-63.02	134.6	-722.0	1,163.9	1,090.1	73.81	15.768			
11,400.0	11,313.4	11,071.0	10,851.0	40.1	39.9	-62.29	154.3	-722.2	1,167.5	1,094.1	73.42	15.903			
11,450.0	11,344.1	11,100.0	10,859.8	40.1	39.9	-61.54	181.9	-722.4	1,170.3	1,097.2	73.11	16.007			
11,500.0	11,371.2	11,121.0	10,865.3	40.2	39.9	-61.06	202.1	-722.6	1,172.1	1,099.3	72.76	16.109			
11,550.0	11,394.6	11,150.0	10,871.6	40.2	39.9	-60.59	230.5	-722.8	1,173.0	1,100.4	72.52	16.175			
11,600.0	11,414.0	11,170.9	10,875.3	40.3	40.0	-60.35	251.0	-722.9	1,172.7	1,100.5	72.27	16.228			
11,650.0	11,429.4	11,200.0	10,879.1	40.4	40.0	-60.16	279.9	-723.2	1,171.5	1,099.4	72.13	16.242			
11,700.0	11,440.6	11,220.7	10,881.0	40.5	40.0	-60.19	300.5	-723.3	1,169.1	1,097.1	72.01	16.235			
11,750.0	11,447.4	11,250.0	10,882.3	40.6	40.1	-60.29	329.8	-723.6	1,165.7	1,093.7	72.02	16.187			
11,803.9	11,450.0	11,281.5	10,882.4	40.7	40.1	-60.59	361.3	-723.8	1,160.8	1,088.7	72.11	16.098			
11,900.0	11,450.0	11,377.0	10,882.1	41.0	40.4	-60.46	456.8	-724.6	1,152.3	1,079.7	72.55	15.883			
12,000.0	11,450.0	11,476.9	10,881.7	41.4	40.7	-60.38	556.6	-725.3	1,147.9	1,074.8	73.19	15.684			
12,045.3	11,450.0	11,522.2	10,881.6	41.6	40.9	-60.37	602.0	-725.7	1,147.5	1,073.9	73.54	15.603			
12,048.6	11,450.0	11,525.5	10,881.6	41.6	40.9	-60.37	605.2	-725.7	1,147.5	1,073.9	73.57	15.597			
12,100.0	11,450.0	11,576.9	10,881.4	41.8	41.2	-60.36	656.6	-726.1	1,147.6	1,073.6	74.01	15.506			
12,200.0	11,450.0	11,676.9	10,881.1	42.3	41.7	-60.34	756.6	-726.9	1,147.7	1,072.8	74.94	15.316			
12,300.0	11,450.0	11,776.9	10,880.8	42.9	42.2	-60.33	856.6	-727.7	1,147.9	1,071.9	75.97	15.109			
12,400.0	11,450.0	11,876.9	10,880.4	43.5	42.9	-60.31	956.6	-728.5	1,148.0	1,070.9	77.11	14.888			
12,500.0	11,450.0	11,976.9	10,880.1	44.1	43.6	-60.30	1,056.6	-729.3	1,148.2	1,069.8	78.35	14.655			
12,600.0	11,450.0	12,076.9	10,879.8	44.9	44.3	-60.28	1,156.6	-730.0	1,148.3	1,068.6	79.67	14.413			
12,700.0	11,450.0	12,176.9	10,879.4	45.6	45.1	-60.27	1,256.6	-730.8	1,148.5	1,067.4	81.08	14.164			
12,800.0	11,450.0	12,276.9	10,879.1	46.4	45.9	-60.26	1,356.6	-731.6	1,148.6	1,066.0	82.58	13.909			
12,900.0	11,450.0	12,376.9	10,878.8	47.3	46.8	-60.24	1,456.6	-732.4	1,148.8	1,064.6	84.16	13.650			
13,000.0	11,450.0	12,476.9	10,878.4	48.2	47.7	-60.23	1,556.6	-733.2	1,148.9	1,063.1	85.80	13.390			
13,100.0	11,450.0	12,576.9	10,878.1	49.1	48.6	-60.21	1,656.6	-734.0	1,149.1	1,061.5	87.52	13.129			
13,200.0	11,450.0	12,676.9	10,877.8	50.1	49.6	-60.20	1,756.6	-734.8	1,149.2	1,059.9	89.31	12.868			
13,300.0	11,450.0	12,776.9	10,877.4	51.1	50.7	-60.18	1,856.6	-735.5	1,149.4	1,058.2	91.15	12.609			
13,400.0	11,450.0	12,876.9	10,877.1	52.1	51.7	-60.17	1,956.6	-736.3	1,149.5	1,056.5	93.06	12.353			
13,500.0	11,450.0	12,976.9	10,876.8	53.2	52.8	-60.15	2,056.6	-737.1	1,149.7	1,054.6	95.02	12.100			
13,600.0	11,450.0	13,076.9	10,876.4	54.3	53.9	-60.14	2,156.6	-737.9	1,149.8	1,052.8	97.03	11.851			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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			
13,700.0	11,450.0	13,176.9	10,876.1	55.4	55.1	-60.12	2,256.6	-738.7	1,150.0	1,050.9	99.08	11.606			
13,800.0	11,450.0	13,276.9	10,875.8	56.5	56.2	-60.11	2,356.6	-739.5	1,150.1	1,048.9	101.19	11.366			
13,900.0	11,450.0	13,376.9	10,875.4	57.7	57.4	-60.09	2,456.6	-740.3	1,150.3	1,046.9	103.33	11.132			
14,000.0	11,450.0	13,476.9	10,875.1	58.9	58.6	-60.08	2,556.6	-741.0	1,150.4	1,044.9	105.52	10.903			
14,100.0	11,450.0	13,576.9	10,874.8	60.1	59.9	-60.06	2,656.5	-741.8	1,150.6	1,042.8	107.74	10.679			
14,200.0	11,450.0	13,676.9	10,874.5	61.4	61.1	-60.05	2,756.5	-742.6	1,150.7	1,040.7	109.99	10.462			
14,300.0	11,450.0	13,776.9	10,874.1	62.6	62.4	-60.03	2,856.5	-743.4	1,150.9	1,038.6	112.28	10.250			
14,400.0	11,450.0	13,876.9	10,873.8	63.9	63.7	-60.02	2,956.5	-744.2	1,151.0	1,036.4	114.60	10.044			
14,500.0	11,450.0	13,976.9	10,873.5	65.2	65.0	-60.00	3,056.5	-745.0	1,151.2	1,034.2	116.95	9.843			
14,600.0	11,450.0	14,076.9	10,873.1	66.5	66.3	-59.99	3,156.5	-745.8	1,151.3	1,032.0	119.33	9.649			
14,700.0	11,450.0	14,176.9	10,872.8	67.8	67.7	-59.97	3,256.5	-746.5	1,151.5	1,029.7	121.73	9.460			
14,800.0	11,450.0	14,276.9	10,872.5	69.2	69.0	-59.96	3,356.5	-747.3	1,151.6	1,027.5	124.15	9.276			
14,900.0	11,450.0	14,376.9	10,872.1	70.5	70.4	-59.95	3,456.5	-748.1	1,151.8	1,025.2	126.60	9.098			
15,000.0	11,450.0	14,476.9	10,871.8	71.9	71.8	-59.93	3,556.5	-748.9	1,151.9	1,022.9	129.07	8.925			
15,100.0	11,450.0	14,576.9	10,871.5	73.3	73.2	-59.92	3,656.5	-749.7	1,152.1	1,020.5	131.55	8.757			
15,200.0	11,450.0	14,676.9	10,871.1	74.7	74.6	-59.90	3,756.5	-750.5	1,152.2	1,018.2	134.06	8.595			
15,300.0	11,450.0	14,776.9	10,870.8	76.1	76.0	-59.89	3,856.5	-751.3	1,152.4	1,015.8	136.59	8.437			
15,400.0	11,450.0	14,876.9	10,870.5	77.5	77.4	-59.87	3,956.5	-752.0	1,152.5	1,013.4	139.13	8.284			
15,500.0	11,450.0	14,976.9	10,870.1	78.9	78.8	-59.86	4,056.5	-752.8	1,152.7	1,011.0	141.68	8.136			
15,600.0	11,450.0	15,076.9	10,869.8	80.3	80.3	-59.84	4,156.5	-753.6	1,152.8	1,008.6	144.26	7.992			
15,700.0	11,450.0	15,176.9	10,869.5	81.8	81.7	-59.83	4,256.5	-754.4	1,153.0	1,006.1	146.84	7.852			
15,800.0	11,450.0	15,276.9	10,869.1	83.2	83.2	-59.81	4,356.5	-755.2	1,153.1	1,003.7	149.44	7.716			
15,900.0	11,450.0	15,376.9	10,868.8	84.7	84.6	-59.80	4,456.5	-756.0	1,153.3	1,001.2	152.05	7.585			
16,000.0	11,450.0	15,476.9	10,868.5	86.1	86.1	-59.78	4,556.5	-756.8	1,153.4	998.8	154.68	7.457			
16,100.0	11,450.0	15,576.9	10,868.2	87.6	87.6	-59.77	4,656.5	-757.5	1,153.6	996.3	157.31	7.333			
16,200.0	11,450.0	15,676.9	10,867.8	89.1	89.1	-59.75	4,756.5	-758.3	1,153.7	993.8	159.96	7.213			
16,300.0	11,450.0	15,776.8	10,867.5	90.5	90.6	-59.74	4,856.5	-759.1	1,153.9	991.3	162.61	7.096			
16,400.0	11,450.0	15,876.8	10,867.2	92.0	92.0	-59.72	4,956.5	-759.9	1,154.1	988.8	165.28	6.983			
16,500.0	11,450.0	15,976.8	10,866.8	93.5	93.5	-59.71	5,056.4	-760.7	1,154.2	986.3	167.95	6.872			
16,600.0	11,450.0	16,076.8	10,866.5	95.0	95.0	-59.70	5,156.4	-761.5	1,154.4	983.7	170.63	6.765			
16,700.0	11,450.0	16,176.8	10,866.2	96.5	96.6	-59.68	5,256.4	-762.2	1,154.5	981.2	173.32	6.661			
16,800.0	11,450.0	16,276.8	10,865.8	98.0	98.1	-59.67	5,356.4	-763.0	1,154.7	978.6	176.02	6.560			
16,900.0	11,450.0	16,376.8	10,865.5	99.5	99.6	-59.65	5,456.4	-763.8	1,154.8	976.1	178.73	6.461			
17,000.0	11,450.0	16,476.8	10,865.2	101.1	101.1	-59.64	5,556.4	-764.6	1,155.0	973.5	181.44	6.366			
17,100.0	11,450.0	16,576.8	10,864.8	102.6	102.6	-59.62	5,656.4	-765.4	1,155.1	971.0	184.16	6.272			
17,200.0	11,450.0	16,676.8	10,864.5	104.1	104.2	-59.61	5,756.4	-766.2	1,155.3	968.4	186.89	6.182			
17,300.0	11,450.0	16,776.8	10,864.2	105.6	105.7	-59.59	5,856.4	-767.0	1,155.4	965.8	189.62	6.093			
17,400.0	11,450.0	16,876.8	10,863.8	107.2	107.2	-59.58	5,956.4	-767.7	1,155.6	963.2	192.36	6.007			
17,500.0	11,450.0	16,976.8	10,863.5	108.7	108.8	-59.56	6,056.4	-768.5	1,155.7	960.6	195.10	5.924			
17,600.0	11,450.0	17,076.8	10,863.2	110.3	110.3	-59.55	6,156.4	-769.3	1,155.9	958.0	197.85	5.842			
17,700.0	11,450.0	17,176.8	10,862.8	111.8	111.9	-59.53	6,256.4	-770.1	1,156.0	955.4	200.61	5.763			
17,800.0	11,450.0	17,276.8	10,862.5	113.3	113.4	-59.52	6,356.4	-770.9	1,156.2	952.8	203.36	5.685			
17,900.0	11,450.0	17,376.8	10,862.2	114.9	115.0	-59.51	6,456.4	-771.7	1,156.4	950.2	206.13	5.610			
18,000.0	11,450.0	17,476.8	10,861.9	116.5	116.5	-59.49	6,556.4	-772.5	1,156.5	947.6	208.89	5.536			
18,100.0	11,450.0	17,576.8	10,861.5	118.0	118.1	-59.48	6,656.4	-773.2	1,156.7	945.0	211.67	5.465			
18,200.0	11,450.0	17,676.8	10,861.2	119.6	119.7	-59.46	6,756.4	-774.0	1,156.8	942.4	214.44	5.395			
18,300.0	11,450.0	17,776.8	10,860.9	121.1	121.2	-59.45	6,856.4	-774.8	1,157.0	939.7	217.22	5.326			
18,400.0	11,450.0	17,876.8	10,860.5	122.7	122.8	-59.43	6,956.4	-775.6	1,157.1	937.1	220.00	5.260			
18,500.0	11,450.0	17,976.8	10,860.2	124.3	124.4	-59.42	7,056.4	-776.4	1,157.3	934.5	222.79	5.194			
18,600.0	11,450.0	18,076.8	10,859.9	125.8	125.9	-59.40	7,156.4	-777.2	1,157.4	931.9	225.58	5.131			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #127H - 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		
18,700.0	11,450.0	18,176.8	10,859.5	127.4	127.5	-59.39	7,256.4	-778.0	1,157.6	929.2	228.37	5.069		
18,800.0	11,450.0	18,276.8	10,859.2	129.0	129.1	-59.37	7,356.4	-778.7	1,157.7	926.6	231.17	5.008		
18,900.0	11,450.0	18,376.8	10,858.9	130.5	130.7	-59.36	7,456.3	-779.5	1,157.9	923.9	233.97	4.949		
19,000.0	11,450.0	18,476.8	10,858.5	132.1	132.3	-59.34	7,556.3	-780.3	1,158.0	921.3	236.77	4.891		
19,100.0	11,450.0	18,576.8	10,858.2	133.7	133.8	-59.33	7,656.3	-781.1	1,158.2	918.6	239.57	4.834		
19,200.0	11,450.0	18,676.8	10,857.9	135.3	135.4	-59.32	7,756.3	-781.9	1,158.4	916.0	242.38	4.779		
19,300.0	11,450.0	18,776.8	10,857.5	136.9	137.0	-59.30	7,856.3	-782.7	1,158.5	913.3	245.19	4.725		
19,400.0	11,450.0	18,876.8	10,857.2	138.5	138.6	-59.29	7,956.3	-783.5	1,158.7	910.7	248.00	4.672		
19,500.0	11,450.0	18,976.8	10,856.9	140.0	140.2	-59.27	8,056.3	-784.2	1,158.8	908.0	250.82	4.620		
19,600.0	11,450.0	19,076.8	10,856.5	141.6	141.8	-59.26	8,156.3	-785.0	1,159.0	905.3	253.63	4.570		
19,700.0	11,450.0	19,176.8	10,856.2	143.2	143.4	-59.24	8,256.3	-785.8	1,159.1	902.7	256.45	4.520		
19,800.0	11,450.0	19,276.8	10,855.9	144.8	145.0	-59.23	8,356.3	-786.6	1,159.3	900.0	259.27	4.471		
19,900.0	11,450.0	19,376.8	10,855.6	146.4	146.6	-59.21	8,456.3	-787.4	1,159.4	897.4	262.09	4.424		
20,000.0	11,450.0	19,476.8	10,855.2	148.0	148.2	-59.20	8,556.3	-788.2	1,159.6	894.7	264.91	4.377		
20,100.0	11,450.0	19,576.8	10,854.9	149.6	149.8	-59.19	8,656.3	-789.0	1,159.8	892.0	267.74	4.332		
20,200.0	11,450.0	19,676.8	10,854.6	151.2	151.4	-59.17	8,756.3	-789.7	1,159.9	889.3	270.56	4.287		
20,300.0	11,450.0	19,776.8	10,854.2	152.8	153.0	-59.16	8,856.3	-790.5	1,160.1	886.7	273.39	4.243		
20,400.0	11,450.0	19,876.8	10,853.9	154.4	154.6	-59.14	8,956.3	-791.3	1,160.2	884.0	276.22	4.200		
20,500.0	11,450.0	19,976.8	10,853.6	156.0	156.2	-59.13	9,056.3	-792.1	1,160.4	881.3	279.05	4.158		
20,600.0	11,450.0	20,076.8	10,853.2	157.6	157.8	-59.11	9,156.3	-792.9	1,160.5	878.6	281.89	4.117		
20,700.0	11,450.0	20,176.8	10,852.9	159.2	159.4	-59.10	9,256.3	-793.7	1,160.7	876.0	284.72	4.077		
20,800.0	11,450.0	20,276.8	10,852.6	160.8	161.0	-59.08	9,356.3	-794.4	1,160.8	873.3	287.55	4.037		
20,900.0	11,450.0	20,376.8	10,852.2	162.4	162.6	-59.07	9,456.3	-795.2	1,161.0	870.6	290.39	3.998		
21,000.0	11,450.0	20,476.8	10,851.9	164.0	164.2	-59.05	9,556.3	-796.0	1,161.2	867.9	293.23	3.960		
21,100.0	11,450.0	20,576.8	10,851.6	165.6	165.8	-59.04	9,656.3	-796.8	1,161.3	865.2	296.07	3.922		
21,200.0	11,450.0	20,676.8	10,851.2	167.2	167.4	-59.03	9,756.3	-797.6	1,161.5	862.6	298.91	3.886		
21,300.0	11,450.0	20,776.8	10,850.9	168.8	169.0	-59.01	9,856.2	-798.4	1,161.6	859.9	301.75	3.850		
21,400.0	11,450.0	20,876.8	10,850.6	170.4	170.6	-59.00	9,956.2	-799.2	1,161.8	857.2	304.59	3.814		
21,500.0	11,450.0	20,976.8	10,850.2	172.0	172.2	-58.98	10,056.2	-799.9	1,161.9	854.5	307.43	3.780		
21,606.0	11,450.0	21,082.8	10,849.9	173.8	174.0	-58.97	10,162.2	-800.8	1,162.1	851.7	310.44	3.743		
21,606.3	11,450.0	21,083.1	10,849.9	173.8	174.0	-58.97	10,162.5	-800.8	1,162.1	851.7	310.45	3.743		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #128H - 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			
0.0	0.0	1.0	-1.0	0.0	0.0	89.22	0.4	30.1	30.1						
100.0	100.0	101.0	99.0	0.1	0.1	89.22	0.4	30.1	30.1	29.8	0.26	115.803			
200.0	200.0	201.0	199.0	0.5	0.5	89.22	0.4	30.1	30.1	29.1	0.98	30.810			
300.0	300.0	301.0	299.0	0.8	0.8	89.22	0.4	30.1	30.1	28.4	1.69	17.769			
400.0	400.0	401.0	399.0	1.2	1.2	89.22	0.4	30.1	30.1	27.7	2.41	12.484			
500.0	500.0	501.0	499.0	1.6	1.6	89.22	0.4	30.1	30.1	27.0	3.13	9.623			
600.0	600.0	601.0	599.0	1.9	1.9	89.22	0.4	30.1	30.1	26.3	3.84	7.828			
700.0	700.0	701.0	699.0	2.3	2.3	89.22	0.4	30.1	30.1	25.5	4.56	6.598			
800.0	800.0	801.0	799.0	2.6	2.6	89.22	0.4	30.1	30.1	24.8	5.28	5.702			
900.0	900.0	901.0	899.0	3.0	3.0	89.22	0.4	30.1	30.1	24.1	6.00	5.020			
1,000.0	1,000.0	1,001.0	999.0	3.4	3.4	89.22	0.4	30.1	30.1	23.4	6.71	4.484			
1,100.0	1,100.0	1,101.0	1,099.0	3.7	3.7	89.22	0.4	30.1	30.1	22.7	7.43	4.051			
1,200.0	1,200.0	1,201.0	1,199.0	4.1	4.1	89.22	0.4	30.1	30.1	21.9	8.15	3.694			
1,300.0	1,300.0	1,301.0	1,299.0	4.4	4.4	89.22	0.4	30.1	30.1	21.2	8.86	3.396			
1,400.0	1,400.0	1,401.0	1,399.0	4.8	4.8	89.22	0.4	30.1	30.1	20.5	9.58	3.142			
1,500.0	1,500.0	1,501.0	1,499.0	5.1	5.2	89.22	0.4	30.1	30.1	19.8	10.30	2.923			
1,600.0	1,600.0	1,601.0	1,599.0	5.5	5.5	89.22	0.4	30.1	30.1	19.1	11.01	2.733			
1,700.0	1,700.0	1,701.0	1,699.0	5.9	5.9	89.22	0.4	30.1	30.1	18.4	11.73	2.566			
1,800.0	1,800.0	1,801.0	1,799.0	6.2	6.2	89.22	0.4	30.1	30.1	17.6	12.45	2.418			
1,900.0	1,900.0	1,901.0	1,899.0	6.6	6.6	89.22	0.4	30.1	30.1	16.9	13.16	2.286			
2,000.0	2,000.0	1,999.0	1,999.0	6.9	6.9	89.22	0.4	30.1	30.1	16.2	13.87	2.169 CC			
2,100.0	2,100.0	2,098.5	2,098.5	7.3	7.3	89.98	0.0	30.8	30.8	16.3	14.58	2.116			
2,200.0	2,200.0	2,198.0	2,198.0	7.7	7.6	92.08	-1.2	33.1	33.2	17.9	15.26	2.172			
2,300.0	2,300.0	2,297.4	2,297.2	8.0	7.9	94.99	-3.2	36.9	37.1	21.1	15.94	2.326			
2,400.0	2,400.0	2,396.5	2,396.2	8.4	8.3	98.15	-6.0	42.2	42.7	26.1	16.62	2.570			
2,500.0	2,500.0	2,495.5	2,494.9	8.7	8.6	101.16	-9.7	49.0	50.1	32.8	17.30	2.897			
2,600.0	2,600.0	2,594.2	2,593.1	9.1	9.0	-14.56	-14.1	57.3	58.4	40.5	17.95	3.254			
2,700.0	2,700.0	2,692.8	2,691.1	9.4	9.3	-12.72	-19.3	67.0	66.8	48.2	18.59	3.593			
2,800.0	2,799.9	2,808.9	2,788.6	9.7	9.7	-11.30	-25.2	78.2	75.2	55.9	19.28	3.899			
2,900.0	2,899.7	2,909.2	2,887.3	10.1	10.1	-10.24	-31.8	90.5	82.9	62.9	19.96	4.152			
3,000.0	2,999.4	3,009.4	2,986.2	10.4	10.5	-9.55	-38.3	102.7	88.9	68.3	20.65	4.306			
3,100.0	3,098.9	3,109.5	3,085.1	10.8	10.8	-9.12	-44.8	115.0	93.2	71.9	21.33	4.369			
3,200.0	3,198.3	3,190.5	3,184.1	11.1	11.2	-8.88	-51.4	127.3	95.8	73.8	21.96	4.363			
3,300.0	3,297.4	3,290.5	3,283.1	11.5	11.5	-8.81	-57.9	139.5	96.7	74.0	22.65	4.267			
3,400.0	3,396.4	3,390.5	3,382.1	11.8	11.9	-8.83	-64.5	151.8	96.7	73.3	23.35	4.140			
3,500.0	3,495.5	3,509.5	3,481.2	12.2	12.4	-8.85	-71.0	164.1	96.7	72.6	24.12	4.008			
3,600.0	3,594.5	3,609.5	3,580.2	12.6	12.8	-8.86	-77.6	176.4	96.7	71.9	24.83	3.894			
3,700.0	3,693.5	3,709.5	3,679.2	12.9	13.2	-8.88	-84.1	188.7	96.7	71.2	25.53	3.787			
3,800.0	3,792.5	3,790.5	3,778.2	13.3	13.5	-8.89	-90.7	200.9	96.7	70.5	26.17	3.694			
3,900.0	3,891.6	3,909.5	3,877.3	13.7	13.9	-8.91	-97.2	213.2	96.7	69.7	26.95	3.587			
4,000.0	3,990.6	4,009.5	3,976.3	14.1	14.3	-8.93	-103.8	225.5	96.7	69.0	27.67	3.495			
4,100.0	4,089.6	4,109.5	4,075.3	14.5	14.7	-8.94	-110.3	237.8	96.7	68.3	28.38	3.407			
4,200.0	4,188.6	4,190.5	4,174.3	14.8	15.1	-8.96	-116.9	250.1	96.7	67.7	29.03	3.331			
4,300.0	4,287.7	4,309.5	4,273.4	15.2	15.5	-8.98	-123.4	262.4	96.7	66.9	29.82	3.244			
4,400.0	4,386.7	4,409.5	4,372.4	15.6	15.9	-8.99	-129.9	274.6	96.7	66.2	30.54	3.167			
4,500.0	4,485.7	4,490.5	4,471.4	16.0	16.3	-9.01	-136.5	286.9	96.7	65.5	31.19	3.101			
4,600.0	4,584.8	4,609.5	4,570.5	16.4	16.7	-9.02	-143.0	299.2	96.7	64.7	31.98	3.025			
4,700.0	4,683.8	4,709.5	4,669.5	16.8	17.2	-9.04	-149.6	311.5	96.7	64.0	32.70	2.958			
4,800.0	4,782.8	4,790.5	4,768.5	17.2	17.5	-9.06	-156.1	323.8	96.7	63.4	33.36	2.900			
4,900.0	4,881.8	4,890.5	4,867.5	17.6	17.9	-9.07	-162.7	336.0	96.7	62.7	34.08	2.838			
5,000.0	4,980.9	5,009.5	4,966.6	18.0	18.4	-9.09	-169.2	348.3	96.7	61.9	34.88	2.774			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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	5,079.9	5,109.5	5,065.6	18.4	18.8	-9.10	-175.8	360.6	96.7	61.1	35.61	2.717			
5,200.0	5,178.9	5,209.5	5,164.6	18.8	19.2	-9.12	-182.3	372.9	96.7	60.4	36.33	2.663			
5,300.0	5,277.9	5,309.5	5,263.6	19.2	19.6	-9.14	-188.9	385.2	96.8	59.7	37.06	2.611			
5,400.0	5,377.0	5,390.5	5,362.7	19.6	19.9	-9.15	-195.4	397.4	96.8	59.0	37.72	2.565			
5,500.0	5,476.0	5,491.2	5,462.4	20.0	20.3	-9.18	-202.0	409.7	96.7	58.2	38.47	2.512			
5,600.0	5,575.0	5,593.7	5,564.2	20.4	20.8	-9.40	-207.7	420.4	94.6	55.3	39.26	2.409			
5,623.7	5,598.5	5,618.0	5,588.4	20.5	20.9	-9.50	-208.8	422.6	93.7	54.3	39.44	2.376			
5,700.0	5,674.1	5,696.1	5,666.2	20.8	21.2	-9.83	-212.1	428.7	90.6	50.6	40.02	2.264			
5,800.0	5,773.6	5,798.3	5,768.2	21.2	21.5	-10.31	-215.2	434.5	86.5	45.8	40.74	2.123			
5,900.0	5,873.3	5,900.5	5,870.2	21.6	21.9	-10.84	-217.0	438.0	82.4	40.9	41.43	1.988			
6,000.0	5,973.1	6,002.3	5,972.1	21.9	22.2	-11.43	-217.6	439.0	78.2	36.1	42.09	1.857			
6,100.0	6,073.1	6,102.3	6,072.1	22.3	22.6	-11.85	-217.6	439.0	75.4	32.6	42.79	1.763			
6,157.0	6,130.1	6,159.3	6,129.1	22.5	22.7	106.26	-217.6	439.0	75.0	31.8	43.18	1.737			
6,200.0	6,173.1	6,202.3	6,172.1	22.6	22.9	106.26	-217.6	439.0	75.0	31.5	43.48	1.725			
6,300.0	6,273.1	6,302.3	6,272.1	23.0	23.2	106.26	-217.6	439.0	75.0	30.9	44.16	1.699			
6,400.0	6,373.1	6,402.3	6,372.1	23.3	23.5	106.26	-217.6	439.0	75.0	30.2	44.85	1.673			
6,500.0	6,473.1	6,502.3	6,472.1	23.6	23.9	106.26	-217.6	439.0	75.0	29.5	45.54	1.647			
6,600.0	6,573.1	6,602.3	6,572.1	24.0	24.2	106.26	-217.6	439.0	75.0	28.8	46.22	1.623			
6,700.0	6,673.1	6,702.3	6,672.1	24.3	24.5	106.26	-217.6	439.0	75.0	28.1	46.91	1.599			
6,800.0	6,773.1	6,802.3	6,772.1	24.6	24.9	106.26	-217.6	439.0	75.0	27.4	47.60	1.576			
6,900.0	6,873.1	6,902.3	6,872.1	25.0	25.2	106.26	-217.6	439.0	75.0	26.7	48.29	1.553			
7,000.0	6,973.1	7,002.3	6,972.1	25.3	25.5	106.26	-217.6	439.0	75.0	26.0	48.99	1.531			
7,100.0	7,073.1	7,102.3	7,072.1	25.6	25.9	106.26	-217.6	439.0	75.0	25.3	49.68	1.510			
7,200.0	7,173.1	7,202.3	7,172.1	26.0	26.2	106.26	-217.6	439.0	75.0	24.6	50.37	1.489 Level 3			
7,300.0	7,273.1	7,302.3	7,272.1	26.3	26.5	106.26	-217.6	439.0	75.0	23.9	51.07	1.469 Level 3			
7,400.0	7,373.1	7,402.3	7,372.1	26.7	26.9	106.26	-217.6	439.0	75.0	23.3	51.76	1.449 Level 3			
7,500.0	7,473.1	7,502.3	7,472.1	27.0	27.2	106.26	-217.6	439.0	75.0	22.6	52.46	1.430 Level 3			
7,600.0	7,573.1	7,602.3	7,572.1	27.3	27.6	106.26	-217.6	439.0	75.0	21.9	53.15	1.411 Level 3			
7,700.0	7,673.1	7,702.3	7,672.1	27.7	27.9	106.26	-217.6	439.0	75.0	21.2	53.85	1.393 Level 3			
7,800.0	7,773.1	7,802.3	7,772.1	28.0	28.2	106.26	-217.6	439.0	75.0	20.5	54.54	1.375 Level 3			
7,900.0	7,873.1	7,902.3	7,872.1	28.4	28.6	106.26	-217.6	439.0	75.0	19.8	55.24	1.358 Level 3			
8,000.0	7,973.1	8,002.3	7,972.1	28.7	28.9	106.26	-217.6	439.0	75.0	19.1	55.94	1.341 Level 3			
8,100.0	8,073.1	8,102.3	8,072.1	29.1	29.2	106.26	-217.6	439.0	75.0	18.4	56.64	1.324 Level 3			
8,200.0	8,173.1	8,202.3	8,172.1	29.4	29.6	106.26	-217.6	439.0	75.0	17.7	57.34	1.308 Level 3			
8,300.0	8,273.1	8,302.3	8,272.1	29.7	29.9	106.26	-217.6	439.0	75.0	17.0	58.03	1.293 Level 3			
8,400.0	8,373.1	8,402.3	8,372.1	30.1	30.3	106.26	-217.6	439.0	75.0	16.3	58.73	1.277 Level 3			
8,500.0	8,473.1	8,502.3	8,472.1	30.4	30.6	106.26	-217.6	439.0	75.0	15.6	59.43	1.262 Level 3			
8,600.0	8,573.1	8,602.3	8,572.1	30.8	31.0	106.26	-217.6	439.0	75.0	14.9	60.13	1.247 Level 2			
8,700.0	8,673.1	8,702.3	8,672.1	31.1	31.3	106.26	-217.6	439.0	75.0	14.2	60.83	1.233 Level 2			
8,800.0	8,773.1	8,802.3	8,772.1	31.5	31.6	106.26	-217.6	439.0	75.0	13.5	61.54	1.219 Level 2			
8,900.0	8,873.1	8,902.3	8,872.1	31.8	32.0	106.26	-217.6	439.0	75.0	12.8	62.24	1.205 Level 2			
9,000.0	8,973.1	9,002.3	8,972.1	32.2	32.3	106.26	-217.6	439.0	75.0	12.1	62.94	1.192 Level 2			
9,100.0	9,073.1	9,102.3	9,072.1	32.5	32.7	106.26	-217.6	439.0	75.0	11.4	63.64	1.179 Level 2			
9,200.0	9,173.1	9,202.3	9,172.1	32.9	33.0	106.26	-217.6	439.0	75.0	10.7	64.34	1.166 Level 2			
9,300.0	9,273.1	9,302.3	9,272.1	33.2	33.4	106.26	-217.6	439.0	75.0	10.0	65.05	1.153 Level 2			
9,400.0	9,373.1	9,402.3	9,372.1	33.5	33.7	106.26	-217.6	439.0	75.0	9.3	65.75	1.141 Level 2			
9,500.0	9,473.1	9,502.3	9,472.1	33.9	34.0	106.26	-217.6	439.0	75.0	8.6	66.45	1.129 Level 2			
9,600.0	9,573.1	9,602.3	9,572.1	34.2	34.4	106.26	-217.6	439.0	75.0	7.9	67.16	1.117 Level 2			
9,700.0	9,673.1	9,702.3	9,672.1	34.6	34.7	106.26	-217.6	439.0	75.0	7.2	67.86	1.105 Level 2			
9,800.0	9,773.1	9,802.3	9,772.1	34.9	35.1	106.26	-217.6	439.0	75.0	6.4	68.56	1.094 Level 2			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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			
9,900.0	9,873.1	9,902.3	9,872.1	35.3	35.4	106.26	-217.6	439.0	75.0	5.7	69.27	1.083	Level 2		
10,000.0	9,973.1	10,002.3	9,972.1	35.6	35.8	106.26	-217.6	439.0	75.0	5.0	69.97	1.072	Level 2		
10,100.0	10,073.1	10,102.3	10,072.1	36.0	36.1	106.26	-217.6	439.0	75.0	4.3	70.68	1.061	Level 2		
10,200.0	10,173.1	10,202.3	10,172.1	36.3	36.5	106.26	-217.6	439.0	75.0	3.6	71.38	1.051	Level 2		
10,300.0	10,273.1	10,302.3	10,272.1	36.7	36.8	106.26	-217.6	439.0	75.0	2.9	72.09	1.041	Level 2		
10,400.0	10,373.1	10,402.3	10,372.1	37.0	37.2	106.26	-217.6	439.0	75.0	2.2	72.79	1.030	Level 2		
10,500.0	10,473.1	10,502.8	10,472.3	37.4	37.5	101.88	-211.9	440.1	74.7	1.1	73.54	1.015	Level 2		
10,512.0	10,485.1	10,514.7	10,484.1	37.4	37.5	100.50	-210.2	440.4	74.6	1.0	73.65	1.013	Level 2, ES, SF		
10,600.0	10,573.1	10,598.8	10,565.8	37.7	37.8	85.77	-190.9	444.0	77.4	3.0	74.47	1.040	Level 2		
10,700.0	10,673.1	10,685.6	10,646.2	38.1	38.1	65.54	-158.9	449.9	94.7	21.1	73.55	1.287	Level 3		
10,800.0	10,773.1	10,761.2	10,711.4	38.4	38.2	50.14	-121.6	456.8	131.8	62.2	69.61	1.893			
10,903.9	10,877.0	10,827.7	10,764.3	38.8	38.4	40.29	-82.0	464.1	187.2	122.6	64.63	2.896			
10,950.0	10,923.0	10,854.4	10,784.2	38.9	38.4	42.95	-64.4	467.4	214.7	152.2	62.53	3.433			
11,000.0	10,972.6	10,883.0	10,804.5	39.1	38.5	38.70	-44.7	471.1	244.3	183.9	60.38	4.046			
11,050.0	11,021.5	10,911.2	10,823.5	39.3	38.5	35.47	-24.2	474.9	273.3	215.0	58.32	4.686			
11,100.0	11,069.3	10,939.0	10,841.3	39.4	38.6	32.98	-3.1	478.8	301.3	245.0	56.34	5.348			
11,150.0	11,115.6	10,966.6	10,857.9	39.6	38.6	31.05	18.5	482.8	328.2	273.8	54.45	6.028			
11,200.0	11,160.1	11,000.0	10,876.5	39.7	38.7	29.56	45.8	487.8	354.0	300.6	53.42	6.626			
11,250.0	11,202.4	11,020.9	10,887.3	39.8	38.7	28.36	63.4	491.1	378.3	327.3	50.99	7.419			
11,300.0	11,242.3	11,050.0	10,901.2	39.9	38.7	27.48	88.5	495.7	401.3	351.6	49.72	8.071			
11,350.0	11,279.3	11,074.3	10,911.9	40.0	38.8	26.76	110.0	499.7	422.9	374.8	48.14	8.784			
11,400.0	11,313.4	11,100.0	10,922.1	40.1	38.8	26.24	133.2	504.0	443.0	396.0	46.95	9.435			
11,450.0	11,344.1	11,127.0	10,931.7	40.1	38.9	25.90	158.0	508.6	461.5	415.4	46.12	10.008			
11,500.0	11,371.2	11,150.0	10,938.9	40.2	38.9	25.62	179.5	512.6	478.6	433.3	45.29	10.565			
11,550.0	11,394.6	11,179.1	10,946.8	40.2	39.0	25.60	207.0	517.7	494.0	448.8	45.17	10.937			
11,600.0	11,414.0	11,200.0	10,951.6	40.3	39.0	25.49	227.0	521.4	507.8	462.9	44.93	11.304			
11,650.0	11,429.4	11,230.9	10,957.3	40.4	39.1	25.75	256.8	526.9	520.0	474.6	45.45	11.442			
11,700.0	11,440.6	11,250.0	10,960.0	40.5	39.1	25.80	275.4	530.4	530.7	484.8	45.91	11.559			
11,750.0	11,447.4	11,282.4	10,963.1	40.6	39.2	26.32	307.1	536.3	539.6	492.6	47.00	11.481			
11,803.9	11,450.0	11,310.1	10,964.3	40.7	39.3	26.80	334.4	541.3	547.5	499.2	48.32	11.330			
11,900.0	11,450.0	11,397.9	10,964.2	41.0	39.6	29.37	420.9	556.4	560.6	509.7	50.88	11.017			
12,000.0	11,450.0	11,507.1	10,963.8	41.4	40.0	31.51	529.0	571.4	571.0	518.0	52.97	10.779			
12,048.6	11,450.0	11,561.0	10,963.7	41.6	40.3	32.18	582.6	577.3	574.5	520.7	53.77	10.684			
12,100.0	11,450.0	11,618.3	10,963.5	41.8	40.5	32.65	639.7	582.5	577.3	522.8	54.50	10.593			
12,200.0	11,450.0	11,730.5	10,963.1	42.3	41.1	33.27	751.6	589.3	581.3	525.6	55.77	10.423			
12,300.0	11,450.0	11,843.0	10,962.7	42.9	41.7	33.52	864.1	591.7	583.2	526.4	56.83	10.263			
12,400.0	11,450.0	11,946.2	10,962.4	43.5	42.4	33.52	967.3	591.1	583.6	525.8	57.76	10.103			
12,500.0	11,450.0	12,046.2	10,962.1	44.1	43.0	33.50	1,067.3	590.3	583.9	525.1	58.76	9.936			
12,600.0	11,450.0	12,146.2	10,961.8	44.9	43.7	33.49	1,167.3	589.5	584.2	524.3	59.83	9.764			
12,700.0	11,450.0	12,246.2	10,961.4	45.6	44.5	33.47	1,267.3	588.7	584.4	523.5	60.96	9.587			
12,800.0	11,450.0	12,346.2	10,961.1	46.4	45.3	33.46	1,367.3	588.0	584.7	522.6	62.15	9.408			
12,900.0	11,450.0	12,446.2	10,960.8	47.3	46.2	33.44	1,467.3	587.2	585.0	521.6	63.40	9.227			
13,000.0	11,450.0	12,546.2	10,960.5	48.2	47.1	33.42	1,567.3	586.4	585.3	520.6	64.70	9.046			
13,100.0	11,450.0	12,646.2	10,960.2	49.1	48.0	33.41	1,667.2	585.6	585.6	519.5	66.05	8.866			
13,200.0	11,450.0	12,746.2	10,959.8	50.1	49.0	33.39	1,767.2	584.8	585.9	518.4	67.45	8.686			
13,300.0	11,450.0	12,846.2	10,959.5	51.1	50.0	33.38	1,867.2	584.1	586.1	517.2	68.89	8.508			
13,400.0	11,450.0	12,946.2	10,959.2	52.1	51.0	33.36	1,967.2	583.3	586.4	516.0	70.37	8.333			
13,500.0	11,450.0	13,046.2	10,958.9	53.2	52.1	33.35	2,067.2	582.5	586.7	514.8	71.89	8.161			
13,600.0	11,450.0	13,146.2	10,958.5	54.3	53.2	33.33	2,167.2	581.7	587.0	513.5	73.45	7.992			
13,700.0	11,450.0	13,246.2	10,958.2	55.4	54.3	33.32	2,267.2	580.9	587.3	512.2	75.04	7.826			
13,800.0	11,450.0	13,346.2	10,957.9	56.5	55.5	33.30	2,367.2	580.2	587.6	510.9	76.66	7.664			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #128H - 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				
13,900.0	11,450.0	13,446.2	10,957.6	57.7	56.7	33.29	2,467.2	579.4	587.8	509.5	78.31	7.506				
14,000.0	11,450.0	13,546.2	10,957.2	58.9	57.9	33.27	2,567.2	578.6	588.1	508.1	79.99	7.352				
14,100.0	11,450.0	13,646.2	10,956.9	60.1	59.1	33.25	2,667.2	577.8	588.4	506.7	81.70	7.202				
14,200.0	11,450.0	13,746.2	10,956.6	61.4	60.4	33.24	2,767.2	577.1	588.7	505.3	83.42	7.057				
14,300.0	11,450.0	13,846.2	10,956.3	62.6	61.6	33.22	2,867.2	576.3	589.0	503.8	85.18	6.915				
14,400.0	11,450.0	13,946.2	10,956.0	63.9	62.9	33.21	2,967.2	575.5	589.3	502.3	86.95	6.777				
14,500.0	11,450.0	14,046.2	10,955.6	65.2	64.2	33.19	3,067.2	574.7	589.5	500.8	88.74	6.643				
14,600.0	11,450.0	14,146.2	10,955.3	66.5	65.6	33.18	3,167.2	573.9	589.8	499.3	90.55	6.514				
14,700.0	11,450.0	14,246.2	10,955.0	67.8	66.9	33.16	3,267.2	573.2	590.1	497.7	92.38	6.388				
14,800.0	11,450.0	14,346.2	10,954.7	69.2	68.2	33.15	3,367.2	572.4	590.4	496.2	94.23	6.266				
14,900.0	11,450.0	14,446.2	10,954.3	70.5	69.6	33.13	3,467.2	571.6	590.7	494.6	96.09	6.147				
15,000.0	11,450.0	14,546.2	10,954.0	71.9	71.0	33.12	3,567.2	570.8	591.0	493.0	97.96	6.033				
15,100.0	11,450.0	14,646.2	10,953.7	73.3	72.4	33.10	3,667.2	570.0	591.2	491.4	99.85	5.921				
15,200.0	11,450.0	14,746.2	10,953.4	74.7	73.8	33.09	3,767.2	569.3	591.5	489.8	101.75	5.814				
15,300.0	11,450.0	14,846.2	10,953.0	76.1	75.2	33.07	3,867.2	568.5	591.8	488.1	103.66	5.709				
15,400.0	11,450.0	14,946.2	10,952.7	77.5	76.6	33.06	3,967.2	567.7	592.1	486.5	105.59	5.608				
15,500.0	11,450.0	15,046.2	10,952.4	78.9	78.0	33.04	4,067.1	566.9	592.4	484.9	107.52	5.509				
15,600.0	11,450.0	15,146.2	10,952.1	80.3	79.5	33.03	4,167.1	566.1	592.7	483.2	109.47	5.414				
15,700.0	11,450.0	15,246.2	10,951.8	81.8	80.9	33.01	4,267.1	565.4	592.9	481.5	111.42	5.322				
15,800.0	11,450.0	15,346.2	10,951.4	83.2	82.4	33.00	4,367.1	564.6	593.2	479.8	113.38	5.232				
15,900.0	11,450.0	15,446.2	10,951.1	84.7	83.8	32.98	4,467.1	563.8	593.5	478.2	115.35	5.145				
16,000.0	11,450.0	15,546.2	10,950.8	86.1	85.3	32.97	4,567.1	563.0	593.8	476.5	117.33	5.061				
16,100.0	11,450.0	15,646.2	10,950.5	87.6	86.8	32.95	4,667.1	562.3	594.1	474.8	119.32	4.979				
16,200.0	11,450.0	15,746.2	10,950.1	89.1	88.2	32.94	4,767.1	561.5	594.4	473.1	121.31	4.899				
16,300.0	11,450.0	15,846.2	10,949.8	90.5	89.7	32.92	4,867.1	560.7	594.6	471.3	123.31	4.822				
16,400.0	11,450.0	15,946.2	10,949.5	92.0	91.2	32.91	4,967.1	559.9	594.9	469.6	125.32	4.747				
16,500.0	11,450.0	16,046.2	10,949.2	93.5	92.7	32.89	5,067.1	559.1	595.2	467.9	127.33	4.675				
16,600.0	11,450.0	16,146.2	10,948.8	95.0	94.2	32.88	5,167.1	558.4	595.5	466.2	129.35	4.604				
16,700.0	11,450.0	16,246.2	10,948.5	96.5	95.7	32.86	5,267.1	557.6	595.8	464.4	131.37	4.535				
16,800.0	11,450.0	16,346.2	10,948.2	98.0	97.2	32.85	5,367.1	556.8	596.1	462.7	133.40	4.468				
16,900.0	11,450.0	16,446.2	10,947.9	99.5	98.8	32.83	5,467.1	556.0	596.4	460.9	135.44	4.403				
17,000.0	11,450.0	16,546.2	10,947.6	101.1	100.3	32.82	5,567.1	555.2	596.6	459.2	137.47	4.340				
17,100.0	11,450.0	16,646.2	10,947.2	102.6	101.8	32.80	5,667.1	554.5	596.9	457.4	139.52	4.279				
17,200.0	11,450.0	16,746.2	10,946.9	104.1	103.3	32.79	5,767.1	553.7	597.2	455.6	141.56	4.219				
17,300.0	11,450.0	16,846.2	10,946.6	105.6	104.9	32.77	5,867.1	552.9	597.5	453.9	143.61	4.160				
17,400.0	11,450.0	16,946.2	10,946.3	107.2	106.4	32.76	5,967.1	552.1	597.8	452.1	145.67	4.104				
17,500.0	11,450.0	17,046.2	10,945.9	108.7	108.0	32.74	6,067.1	551.4	598.1	450.3	147.72	4.049				
17,600.0	11,450.0	17,146.2	10,945.6	110.3	109.5	32.73	6,167.1	550.6	598.4	448.6	149.78	3.995				
17,700.0	11,450.0	17,246.2	10,945.3	111.8	111.1	32.71	6,267.1	549.8	598.6	446.8	151.85	3.942				
17,800.0	11,450.0	17,346.2	10,945.0	113.3	112.6	32.70	6,367.1	549.0	598.9	445.0	153.91	3.891				
17,900.0	11,450.0	17,446.2	10,944.6	114.9	114.2	32.68	6,467.1	548.2	599.2	443.2	155.98	3.841				
18,000.0	11,450.0	17,546.2	10,944.3	116.5	115.7	32.67	6,567.0	547.5	599.5	441.4	158.05	3.793				
18,100.0	11,450.0	17,646.2	10,944.0	118.0	117.3	32.65	6,667.0	546.7	599.8	439.6	160.13	3.746				
18,200.0	11,450.0	17,746.2	10,943.7	119.6	118.8	32.64	6,767.0	545.9	600.1	437.9	162.21	3.699				
18,300.0	11,450.0	17,846.2	10,943.4	121.1	120.4	32.62	6,867.0	545.1	600.3	436.1	164.28	3.654				
18,400.0	11,450.0	17,946.2	10,943.0	122.7	122.0	32.61	6,967.0	544.3	600.6	434.3	166.37	3.610				
18,500.0	11,450.0	18,046.2	10,942.7	124.3	123.5	32.59	7,067.0	543.6	600.9	432.5	168.45	3.567				
18,600.0	11,450.0	18,146.2	10,942.4	125.8	125.1	32.58	7,167.0	542.8	601.2	430.7	170.53	3.525				
18,700.0	11,450.0	18,246.2	10,942.1	127.4	126.7	32.56	7,267.0	542.0	601.5	428.9	172.62	3.484				
18,800.0	11,450.0	18,346.2	10,941.7	129.0	128.3	32.55	7,367.0	541.2	601.8	427.1	174.71	3.444				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.0 usft
Nina Cortell - Nina Cortell Fed Com #128H - 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		
18,900.0	11,450.0	18,446.2	10,941.4	130.5	129.9	32.53	7,467.0	540.4	602.1	425.3	176.80	3.405			
19,000.0	11,450.0	18,546.1	10,941.1	132.1	131.4	32.52	7,567.0	539.7	602.3	423.5	178.89	3.367			
19,100.0	11,450.0	18,646.1	10,940.8	133.7	133.0	32.50	7,667.0	538.9	602.6	421.6	180.98	3.330			
19,200.0	11,450.0	18,746.1	10,940.4	135.3	134.6	32.49	7,767.0	538.1	602.9	419.8	183.08	3.293			
19,300.0	11,450.0	18,846.1	10,940.1	136.9	136.2	32.48	7,867.0	537.3	603.2	418.0	185.17	3.257			
19,400.0	11,450.0	18,946.1	10,939.8	138.5	137.8	32.46	7,967.0	536.6	603.5	416.2	187.27	3.223			
19,500.0	11,450.0	19,046.1	10,939.5	140.0	139.4	32.45	8,067.0	535.8	603.8	414.4	189.37	3.188			
19,600.0	11,450.0	19,146.1	10,939.1	141.6	141.0	32.43	8,167.0	535.0	604.1	412.6	191.47	3.155			
19,700.0	11,450.0	19,246.1	10,938.8	143.2	142.5	32.42	8,267.0	534.2	604.3	410.8	193.57	3.122			
19,800.0	11,450.0	19,346.1	10,938.5	144.8	144.1	32.40	8,367.0	533.4	604.6	409.0	195.67	3.090			
19,900.0	11,450.0	19,446.1	10,938.2	146.4	145.7	32.39	8,467.0	532.7	604.9	407.1	197.77	3.059			
20,000.0	11,450.0	19,546.1	10,937.9	148.0	147.3	32.37	8,567.0	531.9	605.2	405.3	199.88	3.028			
20,100.0	11,450.0	19,646.1	10,937.5	149.6	148.9	32.36	8,667.0	531.1	605.5	403.5	201.98	2.998			
20,200.0	11,450.0	19,746.1	10,937.2	151.2	150.5	32.34	8,767.0	530.3	605.8	401.7	204.08	2.968			
20,300.0	11,450.0	19,846.1	10,936.9	152.8	152.1	32.33	8,867.0	529.5	606.1	399.9	206.19	2.939			
20,400.0	11,450.0	19,946.1	10,936.6	154.4	153.7	32.32	8,966.9	528.8	606.3	398.0	208.30	2.911			
20,500.0	11,450.0	20,046.1	10,936.2	156.0	155.3	32.30	9,066.9	528.0	606.6	396.2	210.40	2.883			
20,600.0	11,450.0	20,146.1	10,935.9	157.6	156.9	32.29	9,166.9	527.2	606.9	394.4	212.51	2.856			
20,700.0	11,450.0	20,246.1	10,935.6	159.2	158.5	32.27	9,266.9	526.4	607.2	392.6	214.62	2.829			
20,800.0	11,450.0	20,346.1	10,935.3	160.8	160.1	32.26	9,366.9	525.6	607.5	390.8	216.72	2.803			
20,900.0	11,450.0	20,446.1	10,934.9	162.4	161.8	32.24	9,466.9	524.9	607.8	388.9	218.83	2.777			
21,000.0	11,450.0	20,546.1	10,934.6	164.0	163.4	32.23	9,566.9	524.1	608.1	387.1	220.94	2.752			
21,100.0	11,450.0	20,646.1	10,934.3	165.6	165.0	32.21	9,666.9	523.3	608.3	385.3	223.05	2.727			
21,200.0	11,450.0	20,746.1	10,934.0	167.2	166.6	32.20	9,766.9	522.5	608.6	383.5	225.16	2.703			
21,300.0	11,450.0	20,846.1	10,933.7	168.8	168.2	32.19	9,866.9	521.8	608.9	381.6	227.27	2.679			
21,400.0	11,450.0	20,946.1	10,933.3	170.4	169.8	32.17	9,966.9	521.0	609.2	379.8	229.38	2.656			
21,500.0	11,450.0	21,046.1	10,933.0	172.0	171.4	32.16	10,066.9	520.2	609.5	378.0	231.49	2.633			
21,606.0	11,450.0	21,152.1	10,932.7	173.8	173.1	32.14	10,172.9	519.4	609.8	376.1	233.73	2.609			
21,606.3	11,450.0	21,152.4	10,932.7	173.8	173.1	32.14	10,173.2	519.4	609.8	376.1	233.73	2.609			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 161-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	-111.08	-30.7	-79.7	85.4					
100.0	100.0	99.9	99.9	0.1	0.1	-111.02	-30.7	-79.8	85.5	85.2	0.28	310.160		
200.0	200.0	199.9	199.9	0.5	0.4	-110.86	-30.5	-80.0	85.6	84.7	0.86	99.100		
300.0	300.0	299.7	299.7	0.8	0.7	-110.75	-30.4	-80.2	85.8	84.2	1.58	54.383		
400.0	400.0	400.2	400.2	1.2	1.1	-110.72	-30.4	-80.3	85.9	83.6	2.28	37.628		
500.0	500.0	500.1	500.1	1.6	1.4	-110.77	-30.4	-80.1	85.7	82.7	2.98	28.751		
534.5	534.5	534.5	534.5	1.7	1.5	-110.80	-30.4	-80.1	85.7	82.5	3.22	26.580		
600.0	600.0	599.9	599.9	1.9	1.8	-110.87	-30.5	-80.1	85.8	82.1	3.68	23.273		
700.0	700.0	700.1	700.1	2.3	2.1	-110.95	-30.7	-80.1	85.8	81.4	4.39	19.528		
800.0	800.0	800.1	800.1	2.6	2.5	-111.04	-30.7	-79.9	85.6	80.5	5.10	16.779		
900.0	900.0	900.1	900.1	3.0	2.8	-111.06	-30.7	-79.8	85.5	79.7	5.81	14.725		
957.7	957.7	958.0	958.0	3.2	3.0	-111.10	-30.7	-79.7	85.4	79.2	6.22	13.734 CC		
1,000.0	1,000.0	999.8	999.8	3.4	3.2	-111.12	-30.8	-79.7	85.5	79.0	6.51	13.119		
1,100.0	1,100.0	1,099.8	1,099.8	3.7	3.5	-111.22	-31.0	-79.9	85.7	78.5	7.22	11.864		
1,200.0	1,200.0	1,198.9	1,198.9	4.1	3.9	-111.43	-31.5	-80.3	86.2	78.3	7.93	10.870 ES		
1,300.0	1,300.0	1,296.9	1,296.9	4.4	4.2	-111.61	-32.6	-82.4	88.6	80.0	8.63	10.265		
1,400.0	1,400.0	1,394.9	1,394.8	4.8	4.6	-111.75	-34.5	-86.4	93.2	83.9	9.33	9.984		
1,500.0	1,500.0	1,492.1	1,491.7	5.1	4.9	-111.87	-37.1	-92.5	100.0	90.0	10.03	9.977		
1,600.0	1,600.0	1,589.6	1,588.8	5.5	5.3	-111.91	-40.7	-101.2	109.6	98.9	10.72	10.228		
1,700.0	1,700.0	1,689.9	1,688.5	5.9	5.6	-112.17	-45.0	-110.5	119.9	108.4	11.43	10.483		
1,800.0	1,800.0	1,791.9	1,790.1	6.2	6.0	-112.80	-49.7	-118.1	128.5	116.3	12.17	10.562		
1,900.0	1,900.0	1,893.9	1,891.9	6.6	6.4	-113.60	-54.1	-123.8	135.3	122.4	12.90	10.490		
2,000.0	2,000.0	1,997.2	1,995.1	6.9	6.7	-114.09	-57.2	-127.9	140.1	126.5	13.63	10.279		
2,100.0	2,100.0	2,098.6	2,096.4	7.3	7.1	-113.99	-58.1	-130.6	143.1	128.7	14.35	9.966		
2,200.0	2,200.0	2,197.8	2,195.6	7.7	7.5	-113.43	-57.9	-133.7	145.8	130.7	15.06	9.678		
2,300.0	2,300.0	2,295.7	2,293.4	8.0	7.8	-112.53	-57.2	-138.0	149.5	133.7	15.76	9.484		
2,400.0	2,400.0	2,395.5	2,393.1	8.4	8.2	-111.80	-57.1	-142.8	154.0	137.5	16.48	9.346		
2,500.0	2,500.0	2,496.2	2,493.6	8.7	8.5	-111.88	-58.9	-146.7	158.2	141.0	17.20	9.198		
2,600.0	2,600.0	2,595.8	2,593.2	9.1	8.9	129.23	-62.9	-149.6	163.0	145.1	17.90	9.105		
2,700.0	2,700.0	2,697.2	2,694.4	9.4	9.3	128.95	-66.8	-152.0	168.3	149.7	18.60	9.050		
2,800.0	2,799.9	2,796.5	2,793.7	9.7	9.6	129.43	-69.7	-154.2	174.2	154.9	19.28	9.034		
2,900.0	2,899.7	2,894.1	2,891.2	10.1	10.0	130.21	-73.1	-157.3	182.4	162.4	19.97	9.134		
3,000.0	2,999.4	2,995.9	2,992.9	10.4	10.4	131.42	-76.5	-160.9	192.0	171.3	20.68	9.285		
3,100.0	3,098.9	3,100.9	3,097.8	10.8	10.7	133.40	-77.5	-162.6	200.3	178.9	21.39	9.364		
3,200.0	3,198.3	3,202.7	3,199.6	11.1	11.1	136.03	-76.2	-162.7	208.1	186.0	22.08	9.422		
3,300.0	3,297.4	3,300.3	3,297.2	11.5	11.4	139.04	-73.4	-163.0	217.3	194.5	22.76	9.545		
3,400.0	3,396.4	3,395.1	3,391.9	11.8	11.7	142.16	-69.9	-164.6	229.1	205.6	23.44	9.774		
3,500.0	3,495.5	3,490.1	3,486.8	12.2	12.1	145.08	-66.2	-167.8	243.1	219.0	24.10	10.087		
3,600.0	3,594.5	3,587.1	3,583.6	12.6	12.4	147.67	-62.8	-172.0	258.7	233.9	24.79	10.438		
3,700.0	3,693.5	3,687.3	3,683.7	12.9	12.7	149.86	-60.2	-176.1	274.6	249.1	25.49	10.773		
3,800.0	3,792.5	3,788.6	3,784.9	13.3	13.1	151.32	-60.0	-179.3	289.9	263.7	26.21	11.061		
3,900.0	3,891.6	3,888.8	3,885.1	13.7	13.5	151.83	-64.0	-181.7	304.5	277.6	26.92	11.310		
4,000.0	3,990.6	3,987.7	3,983.5	14.1	13.8	151.50	-72.4	-183.8	318.9	291.3	27.63	11.542		
4,100.0	4,089.6	4,087.3	4,082.5	14.5	14.2	150.79	-83.0	-185.9	333.3	305.0	28.35	11.757		
4,200.0	4,188.6	4,183.6	4,178.3	14.8	14.5	150.34	-92.3	-188.2	348.0	319.0	29.05	11.980		
4,300.0	4,287.7	4,277.1	4,271.5	15.2	14.9	150.32	-99.0	-191.6	363.8	334.1	29.73	12.238		
4,400.0	4,386.7	4,369.6	4,363.8	15.6	15.2	150.59	-103.7	-196.3	381.1	350.7	30.40	12.537		
4,500.0	4,485.7	4,459.6	4,453.5	16.0	15.6	150.91	-107.7	-202.6	400.3	369.2	31.04	12.897		
4,600.0	4,584.8	4,549.4	4,542.8	16.4	15.9	151.09	-112.6	-210.7	421.4	389.7	31.66	13.309		
4,700.0	4,683.8	4,648.3	4,641.1	16.8	16.3	151.13	-119.0	-220.4	443.3	410.9	32.40	13.685		
4,800.0	4,782.8	4,750.5	4,742.7	17.2	16.7	151.28	-124.8	-229.5	464.4	431.2	33.16	14.002		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.0 usft
Survey Program: 161-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					
4,900.0	4,881.8	4,841.1	4,832.7	17.6	17.0	151.46	-129.3	-238.0	486.0	452.2	33.81	14.375					
5,000.0	4,980.9	4,937.3	4,928.3	18.0	17.4	151.63	-134.3	-247.9	508.4	473.9	34.51	14.732					
5,100.0	5,079.9	5,040.8	5,031.2	18.4	17.8	151.79	-139.5	-258.2	530.5	495.2	35.29	15.030					
5,200.0	5,178.9	5,147.0	5,136.9	18.8	18.2	152.05	-144.1	-266.9	550.8	514.7	36.09	15.261					
5,300.0	5,277.9	5,246.7	5,236.2	19.2	18.6	152.31	-148.0	-274.5	570.6	533.8	36.83	15.492					
5,400.0	5,377.0	5,346.9	5,336.1	19.6	18.9	152.57	-151.7	-281.7	590.0	552.4	37.57	15.703					
5,500.0	5,476.0	5,446.7	5,435.6	20.0	19.3	152.82	-155.4	-288.5	609.1	570.8	38.31	15.899					
5,600.0	5,575.0	5,541.4	5,530.0	20.4	19.7	153.05	-158.8	-295.1	628.3	589.3	39.00	16.110					
5,623.7	5,598.5	5,564.4	5,552.9	20.5	19.8	153.10	-159.6	-296.8	632.9	593.8	39.17	16.158					
5,700.0	5,674.1	5,639.0	5,627.3	20.8	20.0	153.35	-162.2	-302.3	647.2	607.5	39.72	16.295					
5,800.0	5,773.6	5,749.7	5,737.7	21.2	20.4	153.60	-165.6	-309.3	663.0	622.5	40.54	16.356					
5,900.0	5,873.3	5,854.4	5,842.2	21.6	20.8	153.74	-168.4	-314.5	675.0	633.7	41.30	16.346					
6,000.0	5,973.1	5,951.5	5,939.1	21.9	21.2	153.76	-171.2	-319.2	684.7	642.7	42.00	16.303					
6,100.0	6,073.1	6,056.3	6,043.8	22.3	21.6	153.66	-174.1	-324.5	692.1	649.3	42.75	16.191					
6,157.0	6,130.1	6,123.2	6,110.6	22.5	21.8	-88.25	-175.3	-326.9	694.5	651.3	43.21	16.071					
6,200.0	6,173.1	6,163.5	6,150.9	22.6	22.0	-88.31	-176.0	-328.2	695.9	652.4	43.50	15.998					
6,300.0	6,273.1	6,263.0	6,250.4	23.0	22.3	-88.47	-177.9	-331.4	699.1	654.9	44.20	15.817					
6,400.0	6,373.1	6,363.3	6,350.6	23.3	22.7	-88.62	-179.7	-334.7	702.3	657.4	44.90	15.640					
6,500.0	6,473.1	6,461.2	6,448.4	23.6	23.1	-88.77	-181.4	-338.0	705.6	660.0	45.59	15.476					
6,600.0	6,573.1	6,561.5	6,548.6	24.0	23.4	-88.91	-183.1	-341.6	709.1	662.8	46.30	15.316					
6,700.0	6,673.1	6,661.5	6,648.5	24.3	23.8	-89.05	-184.8	-345.0	712.6	665.6	47.00	15.160					
6,800.0	6,773.1	6,760.1	6,747.1	24.6	24.1	-89.18	-186.4	-348.5	716.1	668.4	47.70	15.012					
6,900.0	6,873.1	6,859.0	6,845.9	25.0	24.5	-89.31	-187.9	-352.2	719.8	671.4	48.40	14.872					
7,000.0	6,973.1	6,957.8	6,944.6	25.3	24.9	-89.42	-189.3	-356.1	723.7	674.6	49.10	14.740					
7,100.0	7,073.1	7,058.1	7,044.9	25.6	25.2	-89.54	-190.7	-360.0	727.6	677.8	49.80	14.609					
7,200.0	7,173.1	7,158.9	7,145.6	26.0	25.6	-89.66	-192.3	-363.8	731.3	680.8	50.52	14.478					
7,300.0	7,273.1	7,256.5	7,243.0	26.3	25.9	-89.79	-193.8	-367.7	735.3	684.1	51.21	14.360					
7,400.0	7,373.1	7,357.6	7,344.1	26.7	26.3	-89.91	-195.4	-371.7	739.3	687.4	51.92	14.239					
7,500.0	7,473.1	7,458.5	7,444.9	27.0	26.7	-90.02	-196.8	-375.7	743.2	690.6	52.63	14.121					
7,600.0	7,573.1	7,559.5	7,545.8	27.3	27.1	-90.13	-198.2	-379.3	746.8	693.5	53.35	14.000					
7,700.0	7,673.1	7,657.9	7,644.2	27.7	27.4	-90.23	-199.6	-383.0	750.6	696.6	54.04	13.889					
7,800.0	7,773.1	7,755.8	7,742.0	28.0	27.8	-90.34	-201.1	-386.9	754.6	699.8	54.74	13.785					
7,900.0	7,873.1	7,854.3	7,840.3	28.4	28.1	-90.57	-204.1	-391.1	758.8	703.4	55.44	13.687					
8,000.0	7,973.1	7,952.1	7,937.9	28.7	28.5	-90.87	-208.1	-395.3	763.2	707.1	56.14	13.596					
8,100.0	8,073.1	8,063.1	8,048.7	29.1	28.9	-91.20	-212.6	-399.9	767.4	710.5	56.92	13.482					
8,200.0	8,173.1	8,167.4	8,153.0	29.4	29.3	-91.44	-216.0	-402.7	770.2	712.5	57.66	13.358					
8,300.0	8,273.1	8,268.8	8,254.2	29.7	29.6	-91.67	-219.1	-405.2	772.7	714.3	58.37	13.237					
8,400.0	8,373.1	8,370.8	8,356.2	30.1	30.0	-91.90	-222.2	-407.4	775.0	715.9	59.10	13.115					
8,500.0	8,473.1	8,465.7	8,451.0	30.4	30.4	-92.06	-224.5	-409.7	777.6	717.8	59.78	13.008					
8,600.0	8,573.1	8,563.6	8,548.9	30.8	30.7	-92.19	-226.3	-412.6	780.6	720.1	60.47	12.907					
8,700.0	8,673.1	8,664.4	8,649.7	31.1	31.1	-92.33	-228.4	-415.6	783.6	722.4	61.19	12.806					
8,800.0	8,773.1	8,764.0	8,749.1	31.5	31.4	-92.48	-230.6	-418.5	786.6	724.7	61.90	12.708					
8,900.0	8,873.1	8,861.0	8,846.1	31.8	31.8	-92.60	-232.3	-421.5	789.8	727.2	62.59	12.618					
9,000.0	8,973.1	8,959.8	8,944.9	32.2	32.1	-92.70	-233.9	-425.0	793.4	730.1	63.29	12.535					
9,100.0	9,073.1	9,062.7	9,047.7	32.5	32.5	-92.87	-236.4	-428.3	796.7	732.6	64.02	12.444					
9,200.0	9,173.1	9,164.1	9,148.9	32.9	32.9	-93.06	-239.2	-431.3	799.8	735.1	64.74	12.354					
9,300.0	9,273.1	9,272.3	9,257.1	33.2	33.3	-93.11	-240.0	-434.1	802.5	737.0	65.49	12.253					
9,400.0	9,373.1	9,377.2	9,362.0	33.5	33.7	-93.10	-240.0	-435.8	804.0	737.8	66.22	12.141					
9,500.0	9,473.1	9,481.9	9,466.6	33.9	34.0	-93.07	-239.6	-437.0	805.1	738.2	66.94	12.028					
9,600.0	9,573.1	9,580.8	9,565.5	34.2	34.4	-93.05	-239.5	-437.8	805.9	738.3	67.64	11.915					

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		161-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			
9,700.0	9,673.1	9,678.0	9,662.7	34.6	34.7	-93.08	-239.9	-438.8	807.0	738.7	68.33	11.810			
9,800.0	9,773.1	9,776.3	9,761.0	34.9	35.1	-93.17	-241.2	-440.1	808.4	739.4	69.04	11.711			
9,900.0	9,873.1	9,879.6	9,864.3	35.3	35.4	-93.29	-243.0	-441.4	809.7	740.0	69.76	11.608			
10,000.0	9,973.1	9,985.5	9,970.2	35.6	35.8	-93.29	-243.1	-442.1	810.4	739.9	70.48	11.499			
10,100.0	10,073.1	10,088.4	10,073.2	36.0	36.1	-93.26	-242.7	-442.2	810.6	739.4	71.18	11.388			
10,200.0	10,173.1	10,191.1	10,175.8	36.3	36.5	-93.28	-243.0	-442.1	810.5	738.6	71.88	11.275			
10,300.0	10,273.1	10,295.7	10,280.4	36.7	36.8	-93.33	-243.6	-441.4	809.8	737.2	72.58	11.157			
10,400.0	10,373.1	10,403.2	10,387.9	37.0	37.2	-93.38	-244.3	-440.0	808.6	735.3	73.28	11.034			
10,500.0	10,473.1	10,502.8	10,487.5	37.4	37.5	-93.37	-243.9	-438.0	806.5	732.5	73.96	10.904			
10,600.0	10,573.1	10,599.6	10,584.2	37.7	37.8	-93.29	-242.8	-436.6	805.0	730.3	74.63	10.786			
10,700.0	10,673.1	10,699.0	10,683.6	38.1	38.1	-93.25	-242.2	-435.3	803.6	728.3	75.31	10.671			
10,800.0	10,773.1	10,796.1	10,780.8	38.4	38.4	-93.26	-242.1	-434.1	802.5	726.5	75.99	10.560			
10,903.9	10,877.0	10,895.6	10,880.2	38.8	38.8	-93.26	-242.1	-433.4	801.7	725.0	76.69	10.455			
10,950.0	10,923.0	10,942.4	10,927.1	38.9	38.9	-85.60	-241.7	-433.3	801.4	724.4	77.00	10.408			
11,000.0	10,972.6	10,995.1	10,979.7	39.1	39.1	-86.10	-241.1	-432.9	800.6	723.3	77.34	10.352			
11,050.0	11,021.5	11,046.8	11,031.4	39.3	39.3	-86.95	-240.5	-432.4	799.4	721.7	77.67	10.293			
11,100.0	11,069.3	11,097.3	11,082.0	39.4	39.4	-88.11	-239.7	-431.8	798.0	720.0	77.98	10.233			
11,150.0	11,115.6	11,145.2	11,129.8	39.6	39.6	-89.49	-238.9	-431.0	796.7	718.4	78.28	10.177			
11,200.0	11,160.1	11,191.1	11,175.7	39.7	39.7	-91.05	-238.2	-430.3	795.7	717.2	78.57	10.128			
11,234.0	11,189.1	11,220.8	11,205.4	39.8	39.8	-92.15	-237.7	-429.7	795.5	716.8	78.75	10.102			
11,250.0	11,202.4	11,234.4	11,219.0	39.8	39.9	-92.68	-237.5	-429.5	795.6	716.7	78.84	10.091			
11,300.0	11,242.3	11,275.1	11,259.6	39.9	40.0	-94.32	-236.9	-428.7	796.6	717.5	79.09	10.071			
11,350.0	11,279.3	11,315.3	11,299.8	40.0	40.1	-95.99	-236.4	-427.9	799.1	719.7	79.34	10.072			
11,400.0	11,313.4	11,348.5	11,333.1	40.1	40.2	-97.28	-236.1	-427.1	803.5	723.9	79.56	10.098			
11,450.0	11,344.1	11,380.0	11,364.5	40.1	40.3	-98.35	-235.3	-426.6	810.2	730.4	79.78	10.156			
11,500.0	11,371.2	11,410.6	11,395.1	40.2	40.4	-99.18	-233.5	-426.4	819.3	739.4	79.97	10.245			
11,550.0	11,394.6	11,440.4	11,424.8	40.2	40.5	-99.76	-230.9	-426.5	831.1	750.9	80.15	10.369			
11,600.0	11,414.0	11,521.3	11,504.0	40.3	40.8	-103.06	-215.2	-428.2	844.6	764.5	80.15	10.538			
11,650.0	11,429.4	11,863.6	11,791.8	40.4	41.5	-117.34	-38.3	-418.4	853.7	778.5	75.22	11.348			
11,700.0	11,440.6	11,920.7	11,828.1	40.5	41.6	-118.77	5.7	-415.6	858.0	783.4	74.59	11.503			
11,750.0	11,447.4	11,963.0	11,854.5	40.6	41.7	-119.66	38.6	-413.5	864.7	790.6	74.14	11.664			
11,803.9	11,450.0	12,008.3	11,882.8	40.7	41.8	-120.53	73.9	-411.0	875.3	801.8	73.48	11.912			
11,900.0	11,450.0	12,073.7	11,920.0	41.0	42.0	-123.25	127.7	-411.8	901.3	828.6	72.78	12.385			
12,000.0	11,450.0	12,425.7	11,984.1	41.4	43.1	-125.78	464.5	-465.5	916.8	845.2	71.58	12.808			
12,048.6	11,450.0	12,048.6	11,986.2	41.6	41.9	-125.75	567.6	-473.0	918.9	848.5	70.38	13.056			
12,100.0	11,450.0	12,620.5	11,987.3	41.8	44.0	-125.76	658.8	-475.0	919.6	847.0	72.59	12.668			
12,200.0	11,450.0	12,756.2	11,985.2	42.3	44.7	-125.68	794.5	-475.2	918.3	844.6	73.66	12.465			
12,300.0	11,450.0	12,866.0	11,980.6	42.9	45.4	-125.56	904.2	-473.0	913.5	838.7	74.80	12.212			
12,400.0	11,450.0	12,946.2	11,978.8	43.5	45.9	-125.55	984.4	-471.4	909.9	834.1	75.77	12.008			
12,500.0	11,450.0	13,041.5	11,978.1	44.1	46.5	-125.60	1,079.7	-469.8	907.5	830.6	76.87	11.806			
12,600.0	11,450.0	13,137.3	11,977.4	44.9	47.2	-125.63	1,175.5	-468.8	905.6	827.5	78.07	11.600			
12,700.0	11,450.0	13,230.5	11,976.8	45.6	47.9	-125.63	1,268.6	-468.6	904.4	825.0	79.35	11.398			
12,800.0	11,450.0	13,334.9	11,975.8	46.4	48.8	-125.60	1,373.1	-468.8	903.3	822.5	80.80	11.178			
12,900.0	11,450.0	13,439.6	11,974.5	47.3	49.7	-125.59	1,477.7	-468.3	901.5	819.2	82.33	10.949			
13,000.0	11,450.0	13,536.3	11,973.2	48.2	50.5	-125.57	1,574.4	-467.8	899.7	815.8	83.87	10.727			
13,100.0	11,450.0	13,626.4	11,972.5	49.1	51.4	-125.56	1,664.6	-467.8	898.6	813.1	85.42	10.519			
13,126.4	11,450.0	13,648.7	11,972.5	49.3	51.6	-125.56	1,686.8	-467.9	898.5	812.7	85.82	10.469			
13,200.0	11,450.0	13,720.0	11,973.1	50.1	52.3	-125.59	1,758.1	-468.5	898.8	811.8	87.02	10.329			
13,300.0	11,450.0	13,827.5	11,972.6	51.1	53.3	-125.58	1,865.6	-469.0	898.3	809.5	88.83	10.113			
13,397.0	11,450.0	13,919.3	11,971.7	52.1	54.3	-125.52	1,957.4	-470.1	898.1	807.5	90.58	9.915			
13,400.0	11,450.0	13,922.2	11,971.6	52.1	54.3	-125.51	1,960.3	-470.2	898.1	807.4	90.63	9.909			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program:		161-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				
13,500.0	11,450.0	14,013.8	11,970.3	53.2	55.3	-125.40	2,051.9	-472.3	898.4	805.9	92.50	9.713				
13,600.0	11,450.0	14,113.5	11,969.2	54.3	56.4	-125.25	2,151.6	-475.5	899.8	805.3	94.53	9.519				
13,700.0	11,450.0	14,237.7	11,967.5	55.4	57.8	-125.12	2,275.7	-477.4	899.6	802.8	96.82	9.291				
13,800.0	11,450.0	14,335.0	11,967.1	56.5	58.9	-125.17	2,373.0	-476.4	897.8	799.1	98.75	9.092				
13,900.0	11,450.0	14,432.6	11,966.8	57.7	60.0	-125.21	2,470.6	-475.8	896.6	795.9	100.72	8.901				
13,977.9	11,450.0	14,500.4	11,966.4	58.6	60.8	-125.19	2,538.3	-476.1	896.1	793.9	102.25	8.764				
14,000.0	11,450.0	14,519.3	11,966.4	58.9	61.1	-125.19	2,557.3	-476.4	896.2	793.5	102.68	8.728				
14,100.0	11,450.0	14,644.7	11,964.9	60.1	62.6	-125.12	2,682.6	-477.3	895.5	790.4	105.12	8.519				
14,200.0	11,450.0	14,729.5	11,962.4	61.4	63.6	-124.97	2,767.4	-478.4	894.2	787.0	107.26	8.337				
14,300.0	11,450.0	14,826.3	11,959.2	62.6	64.8	-124.74	2,864.2	-480.7	893.6	784.0	109.63	8.151				
14,367.6	11,450.0	14,890.3	11,956.7	63.5	65.7	-124.56	2,928.0	-482.8	893.5	782.2	111.27	8.029				
14,400.0	11,450.0	14,922.1	11,955.3	63.9	66.1	-124.44	2,959.8	-484.0	893.5	781.4	112.10	7.970				
14,500.0	11,450.0	15,028.5	11,953.1	65.2	67.4	-124.29	3,066.1	-486.0	893.2	778.6	114.58	7.795				
14,600.0	11,450.0	15,138.3	11,951.7	66.5	68.9	-124.22	3,176.0	-486.5	892.2	775.1	117.03	7.623				
14,700.0	11,450.0	15,254.2	11,950.0	67.8	70.4	-124.23	3,291.8	-484.7	889.4	769.9	119.49	7.443				
14,800.0	11,450.0	15,353.7	11,947.0	69.2	71.7	-124.16	3,391.3	-483.1	885.7	763.8	121.90	7.266				
14,900.0	11,450.0	15,440.4	11,944.2	70.5	72.9	-124.05	3,477.9	-482.6	882.8	758.6	124.24	7.106				
15,000.0	11,450.0	15,525.7	11,942.6	71.9	74.0	-123.97	3,563.1	-483.3	881.7	755.2	126.54	6.968				
15,021.1	11,450.0	15,544.0	11,942.5	72.2	74.3	-123.96	3,581.5	-483.4	881.7	754.6	127.02	6.941				
15,100.0	11,450.0	15,611.5	11,943.1	73.3	75.2	-123.99	3,648.9	-484.1	882.2	753.4	128.74	6.852				
15,200.0	11,450.0	15,697.6	11,945.1	74.7	76.4	-124.07	3,735.0	-485.7	884.3	753.4	130.88	6.757				
15,300.0	11,450.0	15,789.4	11,947.6	76.1	77.7	-124.12	3,826.8	-488.5	887.7	754.6	133.13	6.668				
15,400.0	11,450.0	15,898.0	11,951.1	77.5	79.2	-124.22	3,935.2	-491.8	891.4	755.8	135.61	6.573				
15,500.0	11,450.0	16,022.5	11,954.8	78.9	81.0	-124.44	4,059.6	-492.3	892.7	754.6	138.17	6.461				
15,600.0	11,450.0	16,152.5	11,955.2	80.3	82.8	-124.56	4,189.7	-490.4	891.0	750.2	140.82	6.327				
15,700.0	11,450.0	16,254.6	11,954.8	81.8	84.2	-124.68	4,291.7	-487.4	887.7	744.5	143.18	6.200				
15,800.0	11,450.0	16,357.3	11,953.7	83.2	85.7	-124.78	4,394.3	-484.1	883.8	738.2	145.59	6.070				
15,900.0	11,450.0	16,448.8	11,952.4	84.7	87.0	-124.82	4,485.8	-482.0	880.4	732.4	147.97	5.950				
16,000.0	11,450.0	16,540.6	11,952.1	86.1	88.3	-124.89	4,577.6	-480.3	878.1	727.7	150.32	5.841				
16,100.0	11,450.0	16,633.6	11,952.4	87.6	89.7	-124.98	4,670.6	-478.9	876.4	723.7	152.65	5.741				
16,168.1	11,450.0	16,691.6	11,952.8	88.6	90.5	-125.03	4,728.6	-478.7	876.0	721.8	154.17	5.682				
16,200.0	11,450.0	16,722.3	11,953.2	89.1	91.0	-125.06	4,759.3	-478.7	876.0	721.1	154.93	5.654				
16,300.0	11,450.0	16,827.8	11,954.2	90.5	92.5	-125.15	4,864.8	-478.5	875.8	718.3	157.44	5.563				
16,400.0	11,450.0	16,929.5	11,955.3	92.0	94.0	-125.26	4,966.5	-477.9	875.2	715.4	159.87	5.475				
16,500.0	11,450.0	17,025.2	11,956.6	93.5	95.5	-125.40	5,062.1	-476.9	874.5	712.3	162.18	5.392				
16,510.8	11,450.0	17,034.3	11,956.8	93.7	95.6	-125.42	5,071.3	-476.8	874.5	712.1	162.42	5.384				
16,600.0	11,450.0	17,111.7	11,958.7	95.0	96.7	-125.55	5,148.7	-476.8	875.2	710.8	164.36	5.325				
16,700.0	11,450.0	17,202.5	11,961.0	96.5	98.1	-125.65	5,239.4	-478.0	877.1	710.4	166.63	5.263				
16,800.0	11,450.0	17,301.5	11,963.6	98.0	99.6	-125.73	5,338.3	-480.2	879.8	710.7	169.09	5.203				
16,900.0	11,450.0	17,395.8	11,966.9	99.5	101.0	-125.90	5,432.5	-481.0	881.9	710.6	171.32	5.148				
17,000.0	11,450.0	17,462.0	11,969.5	101.1	102.0	-125.95	5,498.6	-483.9	887.1	713.9	173.12	5.124				
17,100.0	11,450.0	17,603.3	11,972.0	102.6	104.2	-125.87	5,639.8	-490.8	891.3	714.5	176.74	5.043				
17,200.0	11,450.0	17,701.1	11,973.0	104.1	105.6	-125.85	5,737.5	-493.3	893.3	713.9	179.34	4.981				
17,300.0	11,450.0	17,853.3	11,975.1	105.6	108.0	-125.99	5,889.6	-493.8	894.2	711.7	182.43	4.901				
17,400.0	11,450.0	17,945.3	11,975.4	107.2	109.4	-126.12	5,981.6	-491.4	891.5	706.8	184.76	4.825				
17,500.0	11,450.0	18,058.3	11,974.2	108.7	111.1	-126.21	6,094.5	-488.4	888.1	700.7	187.35	4.740				
17,600.0	11,450.0	18,146.2	11,972.8	110.3	112.4	-126.24	6,182.4	-486.3	884.6	694.8	189.81	4.661				
17,700.0	11,450.0	18,223.6	11,973.3	111.8	113.6	-126.32	6,259.8	-485.7	883.6	691.6	192.04	4.601				
17,744.9	11,450.0	18,283.7	11,973.5	112.5	114.5	-126.35	6,319.9	-485.5	883.3	689.9	193.37	4.568				
17,800.0	11,450.0	18,352.2	11,972.0	113.3	115.6	-126.31	6,388.4	-485.0	881.9	686.9	195.02	4.522				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #133H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		161-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			
17,900.0	11,450.0	18,452.1	11,968.5	114.9	117.1	-126.21	6,488.2	-483.8	878.3	680.4	197.85	4.439			
18,000.0	11,450.0	18,539.8	11,966.7	116.5	118.5	-126.16	6,575.9	-483.3	875.9	675.4	200.48	4.369			
18,100.0	11,450.0	18,635.5	11,965.2	118.0	119.9	-126.10	6,671.6	-483.6	874.6	671.4	203.18	4.304			
18,200.0	11,450.0	18,728.4	11,962.8	119.6	121.4	-125.96	6,764.4	-484.7	873.4	667.4	206.02	4.239			
18,221.6	11,450.0	18,746.2	11,962.5	119.9	121.7	-125.93	6,782.2	-485.1	873.3	666.7	206.59	4.227			
18,300.0	11,450.0	18,818.5	11,961.6	121.1	122.8	-125.84	6,854.5	-486.8	873.8	665.0	208.76	4.186			
18,400.0	11,450.0	18,930.4	11,959.7	122.7	124.5	-125.67	6,966.4	-489.4	874.0	662.1	211.94	4.124			
18,500.0	11,450.0	19,047.9	11,955.8	124.3	126.4	-125.46	7,083.8	-490.5	872.3	657.1	215.22	4.053			
18,600.0	11,450.0	19,137.8	11,953.0	125.8	127.8	-125.33	7,173.6	-490.7	870.0	651.9	218.06	3.990			
18,700.0	11,450.0	19,228.6	11,951.5	127.4	129.2	-125.24	7,264.4	-491.5	869.1	648.2	220.82	3.936			
18,758.1	11,450.0	19,282.7	11,951.1	128.3	130.1	-125.22	7,318.5	-492.1	868.9	646.5	222.38	3.907			
18,800.0	11,450.0	19,321.9	11,951.0	129.0	130.7	-125.21	7,357.7	-492.5	869.0	645.5	223.50	3.888			
18,900.0	11,450.0	19,407.7	11,951.5	130.5	132.0	-125.21	7,443.5	-493.9	870.0	644.0	225.97	3.850			
19,000.0	11,450.0	19,499.0	11,953.3	132.1	133.5	-125.24	7,534.7	-496.3	872.6	644.2	228.45	3.820			
19,100.0	11,450.0	19,586.1	11,955.6	133.7	134.8	-125.29	7,621.7	-499.0	876.1	645.3	230.78	3.796			
19,200.0	11,450.0	19,719.7	11,960.2	135.3	136.9	-125.42	7,755.3	-503.0	880.3	646.4	233.92	3.763			
19,300.0	11,450.0	19,828.2	11,961.3	136.9	138.7	-125.51	7,863.7	-503.1	880.2	643.7	236.59	3.721			
19,311.0	11,450.0	19,835.9	11,961.3	137.0	138.8	-125.52	7,871.4	-503.1	880.2	643.4	236.83	3.717			
19,400.0	11,450.0	19,911.0	11,962.6	138.5	140.0	-125.59	7,946.5	-503.5	880.9	642.1	238.87	3.688			
19,500.0	11,450.0	20,033.6	11,964.1	140.0	141.9	-125.72	8,069.1	-503.1	880.6	638.9	241.66	3.644			
19,543.7	11,450.0	20,068.6	11,964.5	140.7	142.4	-125.76	8,104.1	-502.8	880.4	637.7	242.64	3.628			
19,600.0	11,450.0	20,115.6	11,965.5	141.6	143.2	-125.82	8,151.1	-502.9	880.7	636.8	243.89	3.611			
19,700.0	11,450.0	20,214.2	11,968.3	143.2	144.8	-125.99	8,249.6	-503.2	882.0	635.8	246.22	3.582			
19,800.0	11,450.0	20,335.3	11,969.4	144.8	146.7	-126.09	8,370.7	-503.3	882.0	632.9	249.06	3.541			
19,900.0	11,450.0	20,440.6	11,966.8	146.4	148.3	-125.96	8,476.0	-503.8	880.2	628.1	252.12	3.491			
20,000.0	11,450.0	20,543.1	11,963.9	148.0	150.0	-125.81	8,578.5	-504.5	878.4	623.2	255.20	3.442			
20,100.0	11,450.0	20,652.8	11,959.6	149.6	151.7	-125.60	8,688.1	-505.0	875.9	617.4	258.49	3.388			
20,200.0	11,450.0	20,752.2	11,954.4	151.2	153.3	-125.33	8,787.3	-505.5	872.6	610.8	261.84	3.333			
20,300.0	11,450.0	20,858.0	11,947.9	152.8	155.0	-124.97	8,892.9	-506.6	869.3	603.9	265.44	3.275			
20,400.0	11,450.0	20,946.4	11,942.8	154.4	156.4	-124.69	8,981.2	-507.6	866.2	597.4	268.78	3.223			
20,500.0	11,450.0	21,026.4	11,939.6	156.0	157.7	-124.48	9,061.1	-509.2	864.9	593.1	271.81	3.182			
20,503.4	11,450.0	21,029.1	11,939.5	156.0	157.7	-124.47	9,063.8	-509.3	864.9	593.0	271.91	3.181			
20,600.0	11,450.0	21,130.7	11,936.1	157.6	159.4	-124.19	9,165.2	-512.5	865.0	589.7	275.30	3.142			
20,700.0	11,450.0	21,239.5	11,929.9	159.2	161.1	-123.75	9,273.8	-516.1	863.9	584.7	279.22	3.094			
20,800.0	11,450.0	21,337.1	11,923.1	160.8	162.7	-123.27	9,371.1	-519.7	862.5	579.4	283.11	3.047			
20,900.0	11,450.0	21,428.3	11,916.6	162.4	164.2	-122.78	9,462.0	-523.9	861.8	574.9	286.94	3.003			
21,000.0	11,450.0	21,529.8	11,910.6	164.0	165.8	-122.32	9,563.3	-528.3	861.5	570.7	290.87	2.962			
21,012.5	11,450.0	21,539.3	11,910.1	164.2	165.9	-122.28	9,572.7	-528.6	861.5	570.3	291.26	2.958			
21,100.0	11,450.0	21,615.3	11,907.5	165.6	167.2	-122.05	9,648.6	-531.5	862.1	568.0	294.08	2.932			
21,200.0	11,450.0	21,722.6	11,904.3	167.2	168.9	-121.77	9,755.8	-535.3	862.9	565.2	297.71	2.898			
21,300.0	11,450.0	21,813.5	11,900.9	168.8	170.4	-121.46	9,846.5	-539.4	864.0	562.9	301.12	2.869			
21,400.0	11,450.0	21,915.1	11,895.4	170.4	172.0	-120.98	9,947.8	-545.2	865.4	560.3	305.14	2.836			
21,500.0	11,450.0	22,010.7	11,889.0	172.0	173.6	-120.42	10,042.9	-551.7	867.1	557.9	309.21	2.804			
21,606.0	11,450.0	22,057.0	11,885.7	173.8	174.3	-120.13	10,089.0	-555.1	871.4	560.4	311.00	2.802			
21,606.3	11,450.0	22,057.0	11,885.7	173.8	174.3	-120.13	10,089.0	-555.1	871.4	560.3	311.05	2.801 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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		174-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	-90.47	-0.7	-80.0	80.0						
100.0	100.0	100.3	100.3	0.1	0.2	-90.49	-0.7	-79.8	79.8	79.5	0.28	285.144			
200.0	200.0	200.6	200.6	0.5	0.4	-90.57	-0.8	-79.2	79.2	78.4	0.84	93.829			
300.0	300.0	300.6	300.6	0.8	0.7	-90.55	-0.7	-78.4	78.4	76.8	1.56	50.230			
400.0	400.0	400.9	400.9	1.2	1.1	-90.47	-0.6	-77.5	77.5	75.2	2.28	34.000			
500.0	500.0	500.9	500.9	1.6	1.4	-90.36	-0.5	-76.3	76.3	73.3	3.00	25.469			
600.0	600.0	600.7	600.7	1.9	1.8	-90.13	-0.2	-75.2	75.2	71.5	3.71	20.270			
700.0	700.0	700.5	700.4	2.3	2.1	-90.10	-0.1	-74.5	74.5	70.1	4.43	16.840			
800.0	800.0	800.4	800.4	2.6	2.5	-90.16	-0.2	-73.9	73.9	68.8	5.14	14.376			
900.0	900.0	900.1	900.1	3.0	2.9	-90.37	-0.5	-73.5	73.5	67.7	5.85	12.573			
923.4	923.4	923.4	923.4	3.1	2.9	-90.42	-0.5	-73.5	73.5	67.5	6.01	12.228			
1,000.0	1,000.0	999.6	999.6	3.4	3.2	-90.57	-0.7	-73.7	73.8	67.2	6.54	11.270			
1,100.0	1,100.0	1,099.5	1,099.5	3.7	3.5	-91.16	-1.5	-74.4	74.4	67.2	7.24	10.283			
1,200.0	1,200.0	1,200.4	1,200.4	4.1	3.9	-92.16	-2.8	-74.6	74.7	66.7	7.95	9.393			
1,300.0	1,300.0	1,302.3	1,302.2	4.4	4.2	-93.75	-4.8	-72.8	73.0	64.3	8.67	8.424			
1,400.0	1,400.0	1,404.5	1,404.3	4.8	4.6	-96.09	-7.3	-67.9	68.4	59.1	9.39	7.292			
1,500.0	1,500.0	1,506.9	1,506.2	5.1	5.0	-99.38	-9.8	-59.1	60.2	50.1	10.09	5.965			
1,600.0	1,600.0	1,608.0	1,606.5	5.5	5.4	-105.14	-12.5	-46.1	48.2	37.4	10.79	4.469			
1,700.0	1,700.0	1,707.6	1,704.7	5.9	5.7	-117.49	-15.7	-30.2	34.4	22.8	11.52	2.983			
1,800.0	1,800.0	1,806.2	1,801.8	6.2	6.1	-144.09	-18.5	-13.4	22.9	10.6	12.32	1.858			
1,857.8	1,857.8	1,863.0	1,857.8	6.4	6.4	-169.30	-20.1	-3.8	20.5	7.7	12.78	1.602 CC, ES, SF			
1,900.0	1,900.0	1,904.5	1,898.7	6.6	6.5	171.84	-21.5	3.1	21.8	8.7	13.07	1.666			
2,000.0	2,000.0	2,003.4	1,996.4	6.9	6.9	144.54	-25.3	18.0	31.2	17.5	13.70	2.280			
2,100.0	2,100.0	2,102.6	2,094.6	7.3	7.3	132.29	-28.8	31.7	43.2	28.8	14.39	3.002			
2,200.0	2,200.0	2,201.2	2,192.1	7.7	7.7	124.78	-31.9	45.9	56.4	41.3	15.07	3.743			
2,300.0	2,300.0	2,300.1	2,289.9	8.0	8.1	120.21	-35.3	60.6	70.8	55.0	15.78	4.488			
2,400.0	2,400.0	2,399.7	2,388.4	8.4	8.5	117.74	-39.0	74.2	84.6	68.1	16.50	5.127			
2,500.0	2,500.0	2,498.5	2,486.3	8.7	8.9	116.10	-42.9	87.5	98.4	81.2	17.21	5.718			
2,600.0	2,600.0	2,598.3	2,585.1	9.1	9.4	-3.75	-46.1	101.3	111.4	93.5	17.93	6.215			
2,700.0	2,700.0	2,697.8	2,683.7	9.4	9.8	-5.58	-48.0	114.6	121.9	103.3	18.62	6.547			
2,800.0	2,799.9	2,797.2	2,782.0	9.7	10.2	-7.56	-49.4	128.6	131.2	111.9	19.31	6.794			
2,900.0	2,899.7	2,897.0	2,880.9	10.1	10.6	-9.03	-51.5	142.2	138.7	118.7	20.01	6.932			
3,000.0	2,999.4	2,994.4	2,977.3	10.4	11.0	-10.03	-54.8	155.6	145.2	124.5	20.68	7.022			
3,100.0	3,098.9	3,092.8	3,074.5	10.8	11.4	-11.14	-58.3	170.9	151.6	130.3	21.36	7.100			
3,200.0	3,198.3	3,195.1	3,175.5	11.1	11.8	-13.04	-60.1	186.9	156.1	134.0	22.11	7.062			
3,300.0	3,297.4	3,296.3	3,275.6	11.5	12.3	-15.65	-59.8	201.7	157.6	134.8	22.84	6.901			
3,400.0	3,396.4	3,399.9	3,378.3	11.8	12.7	-18.36	-59.2	215.2	157.1	133.5	23.61	6.653			
3,500.0	3,495.5	3,499.4	3,477.0	12.2	13.1	-20.58	-59.5	227.0	155.7	131.3	24.32	6.399			
3,577.2	3,571.9	3,574.8	3,551.9	12.5	13.4	-22.12	-60.2	236.3	155.2	130.3	24.86	6.242			
3,600.0	3,594.5	3,596.9	3,573.8	12.6	13.5	-22.56	-60.5	239.1	155.2	130.2	25.02	6.205			
3,700.0	3,693.5	3,692.9	3,668.8	12.9	13.9	-24.58	-61.5	253.1	157.0	131.4	25.69	6.114			
3,800.0	3,792.5	3,790.3	3,764.8	13.3	14.3	-26.64	-62.3	269.3	161.3	134.9	26.38	6.113			
3,900.0	3,891.6	3,892.9	3,866.1	13.7	14.7	-28.23	-64.6	286.1	165.3	138.1	27.18	6.082			
4,000.0	3,990.6	3,996.2	3,968.1	14.1	15.2	-28.91	-69.4	301.0	167.5	139.5	27.98	5.986			
4,100.0	4,089.6	4,097.5	4,068.5	14.5	15.6	-29.68	-73.7	314.0	168.1	139.4	28.75	5.848			
4,200.0	4,188.6	4,196.6	4,166.7	14.8	16.0	-31.35	-75.3	326.7	168.8	139.3	29.49	5.725			
4,300.0	4,287.7	4,296.3	4,265.6	15.2	16.4	-33.29	-76.0	339.9	170.2	140.0	30.26	5.625			
4,400.0	4,386.7	4,396.8	4,365.2	15.6	16.8	-35.17	-76.9	352.8	171.4	140.4	31.04	5.522			
4,500.0	4,485.7	4,496.7	4,464.3	16.0	17.3	-36.90	-78.2	365.5	172.6	140.8	31.82	5.425			
4,600.0	4,584.8	4,602.4	4,569.3	16.4	17.7	-38.23	-81.2	378.0	172.8	140.1	32.66	5.290			
4,700.0	4,683.8	4,704.1	4,670.5	16.8	18.1	-39.55	-84.5	387.1	170.1	136.6	33.45	5.084			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1		Offset Site Error: 0.0 usft	
Survey Program: 174-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			
4,800.0	4,782.8	4,804.5	4,770.4	17.2	18.5	-41.09	-87.3	395.5	167.0	132.8	34.24	4.878				
4,900.0	4,881.8	4,903.2	4,868.8	17.6	18.8	-42.80	-89.7	403.8	164.3	129.3	35.03	4.690				
5,000.0	4,980.9	5,000.7	4,965.8	18.0	19.2	-44.48	-91.8	413.2	162.8	127.0	35.82	4.547				
5,084.6	5,064.6	5,084.2	5,048.8	18.3	19.6	-45.81	-93.8	422.0	162.6	126.1	36.49	4.454				
5,100.0	5,079.9	5,099.4	5,063.9	18.4	19.6	-46.05	-94.2	423.7	162.6	126.0	36.62	4.440				
5,200.0	5,178.9	5,197.9	5,161.7	18.8	20.0	-47.35	-96.9	435.2	163.2	125.8	37.41	4.363				
5,300.0	5,277.9	5,296.5	5,259.4	19.2	20.4	-48.25	-100.5	448.0	164.8	126.6	38.20	4.315				
5,400.0	5,377.0	5,395.4	5,357.3	19.6	20.8	-48.86	-104.5	461.6	167.1	128.1	38.98	4.287				
5,500.0	5,476.0	5,493.9	5,454.7	20.0	21.3	-49.34	-108.6	476.0	170.2	130.4	39.76	4.280				
5,600.0	5,575.0	5,592.2	5,551.7	20.4	21.7	-49.78	-112.4	491.2	174.1	133.6	40.54	4.296				
5,623.7	5,598.5	5,615.5	5,574.7	20.5	21.8	-49.86	-113.3	494.9	175.2	134.5	40.72	4.303				
5,700.0	5,674.1	5,691.0	5,649.1	20.8	22.1	-49.94	-116.2	507.3	179.4	138.1	41.31	4.344				
5,800.0	5,773.6	5,789.7	5,746.3	21.2	22.6	-49.43	-120.2	524.0	186.9	144.9	42.04	4.446				
5,900.0	5,873.3	5,887.7	5,842.7	21.6	23.0	-48.28	-124.4	541.4	196.7	154.0	42.71	4.606				
6,000.0	5,973.1	5,984.4	5,937.6	21.9	23.5	-46.73	-128.5	559.4	209.3	166.0	43.33	4.831				
6,100.0	6,073.1	6,086.9	6,038.1	22.3	23.9	-44.77	-132.8	578.6	224.1	180.0	44.05	5.087				
6,157.0	6,130.1	6,147.1	6,097.4	22.5	24.2	74.65	-135.7	588.7	232.2	187.8	44.47	5.222				
6,200.0	6,173.1	6,192.6	6,142.4	22.6	24.4	75.63	-138.0	595.7	238.0	193.3	44.78	5.315				
6,300.0	6,273.1	6,292.5	6,241.1	23.0	24.8	77.62	-143.2	610.0	250.8	205.4	45.42	5.521				
6,400.0	6,373.1	6,394.1	6,341.7	23.3	25.3	79.23	-147.7	623.7	263.2	217.1	46.09	5.709				
6,500.0	6,473.1	6,493.4	6,440.0	23.6	25.7	80.39	-151.0	636.4	275.2	228.4	46.76	5.885				
6,600.0	6,573.1	6,593.2	6,539.0	24.0	26.1	81.39	-153.9	648.9	287.1	239.7	47.43	6.053				
6,700.0	6,673.1	6,692.6	6,637.6	24.3	26.5	82.34	-157.0	661.1	298.9	250.8	48.10	6.213				
6,800.0	6,773.1	6,789.9	6,734.1	24.6	26.9	83.21	-160.1	673.5	311.1	262.3	48.76	6.380				
6,900.0	6,873.1	6,886.8	6,830.1	25.0	27.3	84.11	-163.6	686.4	323.9	274.5	49.41	6.556				
7,000.0	6,973.1	6,982.8	6,925.0	25.3	27.7	84.98	-167.3	700.0	337.7	287.7	50.05	6.748				
7,100.0	7,073.1	7,080.6	7,021.6	25.6	28.1	85.89	-171.6	714.6	352.2	301.5	50.72	6.945				
7,200.0	7,173.1	7,178.0	7,117.8	26.0	28.6	86.76	-176.1	729.2	366.9	315.5	51.39	7.141				
7,300.0	7,273.1	7,277.8	7,216.3	26.3	29.0	87.64	-181.0	744.7	382.3	330.2	52.08	7.340				
7,400.0	7,373.1	7,381.4	7,318.8	26.7	29.4	88.37	-185.4	759.4	396.3	343.5	52.83	7.502				
7,500.0	7,473.1	7,480.5	7,416.8	27.0	29.9	89.02	-189.6	773.0	410.0	356.4	53.52	7.660				
7,600.0	7,573.1	7,576.8	7,512.1	27.3	30.3	89.62	-193.8	786.5	423.9	369.8	54.18	7.824				
7,700.0	7,673.1	7,672.8	7,606.9	27.7	30.7	90.19	-198.0	800.7	438.7	383.9	54.85	7.999				
7,800.0	7,773.1	7,767.1	7,700.0	28.0	31.1	90.79	-202.8	815.3	454.2	398.7	55.49	8.186				
7,900.0	7,873.1	7,867.5	7,799.0	28.4	31.6	91.34	-207.4	831.4	470.4	414.2	56.21	8.368				
8,000.0	7,973.1	7,978.1	7,908.3	28.7	32.0	91.63	-210.2	847.6	485.1	428.0	57.04	8.504				
8,100.0	8,073.1	8,091.9	8,021.3	29.1	32.5	91.80	-212.0	861.0	497.0	439.1	57.86	8.589				
8,200.0	8,173.1	8,205.0	8,134.0	29.4	32.9	91.76	-212.1	871.5	506.2	447.6	58.63	8.634				
8,300.0	8,273.1	8,321.0	8,249.7	29.7	33.3	91.68	-211.6	878.5	512.2	452.8	59.36	8.629				
8,400.0	8,373.1	8,434.7	8,363.4	30.1	33.7	91.67	-211.6	882.1	515.4	455.4	60.04	8.586				
8,500.0	8,473.1	8,539.1	8,467.7	30.4	34.1	91.71	-212.0	883.5	516.7	456.0	60.72	8.511				
8,600.0	8,573.1	8,639.8	8,568.5	30.8	34.4	91.81	-212.9	884.4	517.7	456.3	61.41	8.430				
8,700.0	8,673.1	8,741.2	8,669.9	31.1	34.7	91.93	-214.0	885.1	518.4	456.3	62.09	8.350				
8,800.0	8,773.1	8,841.4	8,770.0	31.5	35.0	92.07	-215.3	885.7	519.0	456.3	62.78	8.268				
8,900.0	8,873.1	8,942.2	8,870.8	31.8	35.3	92.22	-216.7	886.1	519.5	456.1	63.46	8.187				
9,000.0	8,973.1	9,043.3	8,971.9	32.2	35.7	92.36	-218.0	886.5	519.9	455.8	64.14	8.107				
9,100.0	9,073.1	9,148.0	9,076.6	32.5	36.0	92.42	-218.5	886.2	519.7	454.9	64.78	8.022				
9,200.0	9,173.1	9,250.3	9,178.9	32.9	36.3	92.32	-217.6	885.3	518.7	453.3	65.44	7.927				
9,300.0	9,273.1	9,350.7	9,279.3	33.2	36.5	92.13	-215.8	884.1	517.5	451.4	66.11	7.829				
9,400.0	9,373.1	9,449.3	9,377.9	33.5	36.8	91.98	-214.4	883.1	516.4	449.6	66.79	7.732				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft	
Survey Program:		174-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			
9,500.0	9,473.1	9,549.9	9,478.5	33.9	37.1	91.90	-213.7	882.2	515.5	448.1	67.45	7.643			
9,600.0	9,573.1	9,653.1	9,581.6	34.2	37.4	91.84	-213.0	880.9	514.2	446.1	68.10	7.551			
9,700.0	9,673.1	9,756.7	9,685.2	34.6	37.7	91.73	-212.1	878.8	512.2	443.5	68.74	7.451			
9,800.0	9,773.1	9,856.8	9,785.2	34.9	38.0	91.62	-211.0	876.4	509.7	440.3	69.41	7.344			
9,900.0	9,873.1	9,952.1	9,880.6	35.3	38.3	91.52	-210.0	874.5	507.8	437.6	70.11	7.242			
10,000.0	9,973.1	10,051.6	9,980.0	35.6	38.6	91.45	-209.4	873.2	506.4	435.6	70.79	7.154			
10,100.0	10,073.1	10,153.6	10,082.0	36.0	38.9	91.46	-209.4	871.6	504.8	433.4	71.44	7.066			
10,200.0	10,173.1	10,252.1	10,180.5	36.3	39.2	91.49	-209.6	870.0	503.2	431.1	72.12	6.977			
10,300.0	10,273.1	10,351.1	10,279.5	36.7	39.4	91.49	-209.7	868.6	501.9	429.0	72.80	6.893			
10,400.0	10,373.1	10,448.0	10,376.4	37.0	39.7	91.52	-209.8	867.8	501.0	427.5	73.50	6.816			
10,500.0	10,473.1	10,551.0	10,479.4	37.4	40.0	91.59	-210.5	866.7	499.9	425.8	74.16	6.742			
10,600.0	10,573.1	10,648.5	10,576.8	37.7	40.3	91.70	-211.4	865.5	498.8	423.9	74.85	6.663			
10,639.5	10,612.5	10,684.2	10,612.5	37.9	40.5	91.75	-211.7	865.4	498.6	423.5	75.14	6.635			
10,700.0	10,673.1	10,740.9	10,669.3	38.1	40.6	91.81	-212.3	865.7	498.9	423.3	75.58	6.601			
10,800.0	10,773.1	10,842.0	10,770.4	38.4	41.0	91.96	-213.7	866.3	499.6	423.3	76.27	6.550			
10,903.9	10,877.0	10,948.7	10,877.0	38.8	41.3	92.16	-215.4	866.5	499.9	422.9	76.98	6.494			
10,904.1	10,877.1	10,948.8	10,877.2	38.8	41.3	92.16	-215.4	866.5	499.9	422.9	76.98	6.494			
10,950.0	10,923.0	10,996.0	10,924.3	38.9	41.5	100.25	-216.3	866.4	500.2	422.9	77.28	6.472			
11,000.0	10,972.6	11,041.3	10,969.7	39.1	41.6	100.85	-217.1	866.4	501.3	423.7	77.62	6.459			
11,050.0	11,021.5	11,085.4	11,013.7	39.3	41.8	101.67	-217.5	866.9	504.0	426.1	77.93	6.467			
11,100.0	11,069.3	11,131.3	11,059.6	39.4	41.9	102.76	-217.6	867.7	508.2	430.0	78.22	6.497			
11,150.0	11,115.6	11,176.9	11,105.2	39.6	42.1	104.07	-217.6	868.6	513.9	435.4	78.50	6.547			
11,200.0	11,160.1	11,221.5	11,149.8	39.7	42.2	105.50	-217.5	869.5	521.5	442.8	78.76	6.622			
11,250.0	11,202.4	11,264.5	11,192.7	39.8	42.4	106.96	-217.5	870.4	531.3	452.2	79.02	6.723			
11,300.0	11,242.3	11,304.6	11,232.8	39.9	42.5	108.28	-217.5	871.1	543.5	464.2	79.28	6.855			
11,350.0	11,279.3	11,341.4	11,269.7	40.0	42.6	109.32	-217.6	871.7	558.6	479.0	79.55	7.022			
11,400.0	11,313.4	11,375.1	11,303.4	40.1	42.7	109.99	-217.7	872.3	576.8	496.9	79.83	7.225			
11,450.0	11,344.1	11,407.6	11,335.8	40.1	42.9	110.37	-217.9	872.8	598.1	518.0	80.10	7.467			
11,500.0	11,371.2	11,433.9	11,362.1	40.2	42.9	109.95	-218.2	873.1	622.7	542.4	80.38	7.747			
11,550.0	11,394.6	11,455.8	11,384.1	40.2	43.0	108.78	-218.4	873.4	650.5	569.9	80.66	8.066			
11,600.0	11,414.0	11,473.9	11,402.2	40.3	43.1	106.78	-218.5	873.6	681.3	600.4	80.92	8.420			
11,650.0	11,429.4	11,880.2	11,771.4	40.4	44.0	130.95	-85.8	851.7	710.2	638.4	71.83	9.888			
11,700.0	11,440.6	11,944.9	11,817.5	40.5	44.1	131.51	-40.6	846.7	730.1	659.4	70.66	10.333			
11,750.0	11,447.4	12,002.3	11,856.7	40.6	44.1	131.73	0.9	842.3	752.1	682.5	69.66	10.797			
11,803.9	11,450.0	11,993.0	11,850.5	40.7	44.1	128.84	-5.9	843.0	780.5	709.2	71.29	10.948			
11,900.0	11,450.0	12,036.5	11,880.0	41.0	44.2	129.38	26.0	842.4	834.8	763.2	71.67	11.648			
12,000.0	11,450.0	12,766.6	12,041.1	41.4	46.0	132.10	677.0	923.6	886.2	821.7	64.56	13.727			
12,048.6	11,450.0	12,816.8	12,038.3	41.6	46.2	132.29	726.7	917.6	880.9	816.1	64.79	13.596			
12,100.0	11,450.0	12,878.3	12,034.0	41.8	46.4	132.37	787.7	910.6	874.4	809.3	65.14	13.424			
12,200.0	11,450.0	12,986.3	12,024.6	42.3	46.9	132.45	894.4	897.6	860.2	794.3	65.86	13.061			
12,300.0	11,450.0	13,072.4	12,017.6	42.9	47.4	132.54	979.6	887.3	846.5	779.9	66.52	12.726			
12,400.0	11,450.0	13,151.2	12,011.1	43.5	47.8	132.52	1,057.9	880.0	834.8	767.5	67.33	12.399			
12,500.0	11,450.0	13,227.8	12,006.0	44.1	48.3	132.48	1,134.0	874.8	825.8	757.5	68.27	12.095			
12,600.0	11,450.0	13,305.3	12,002.0	44.9	48.9	132.41	1,211.4	871.3	819.6	750.2	69.37	11.815			
12,700.0	11,450.0	13,408.3	11,996.9	45.6	49.6	132.26	1,314.2	867.9	814.3	743.6	70.69	11.519			
12,800.0	11,450.0	13,491.7	11,993.2	46.4	50.3	132.14	1,397.5	865.7	810.0	738.0	72.04	11.245			
12,900.0	11,450.0	13,605.2	11,987.9	47.3	51.2	131.95	1,510.8	862.9	805.7	732.1	73.58	10.949			
13,000.0	11,450.0	13,693.9	11,983.4	48.2	52.0	131.76	1,599.4	861.1	801.3	726.2	75.16	10.662			
13,100.0	11,450.0	13,775.0	11,981.4	49.1	52.7	131.70	1,680.5	859.6	799.0	722.3	76.69	10.419			
13,200.0	11,450.0	13,880.6	11,980.7	50.1	53.7	131.75	1,786.0	857.0	797.3	719.1	78.20	10.195			
13,300.0	11,450.0	13,965.8	11,979.8	51.1	54.5	131.71	1,871.2	856.1	796.4	716.5	79.84	9.975			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft	
Survey Program:		174-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				
13,338.3	11,450.0	14,003.9	11,979.4	51.5	54.9	131.67	1,909.4	856.2	796.4	715.9	80.52	9.891				
13,400.0	11,450.0	14,066.6	11,979.0	52.1	55.5	131.63	1,972.0	856.0	796.4	714.8	81.59	9.761				
13,500.0	11,450.0	14,182.1	11,976.9	53.2	56.7	131.51	2,087.5	855.3	795.3	711.9	83.44	9.531				
13,600.0	11,450.0	14,292.1	11,973.0	54.3	57.9	131.33	2,197.4	853.7	792.4	707.0	85.41	9.278				
13,700.0	11,450.0	14,385.2	11,969.1	55.4	58.9	131.15	2,290.4	852.3	789.2	701.8	87.42	9.028				
13,798.6	11,450.0	14,464.5	11,966.7	56.5	59.7	130.98	2,369.6	852.3	787.9	698.4	89.43	8.810				
13,800.0	11,450.0	14,465.5	11,966.7	56.5	59.8	130.98	2,370.7	852.3	787.9	698.4	89.46	8.807				
13,900.0	11,450.0	14,546.4	11,967.8	57.7	60.7	131.00	2,451.5	852.5	789.5	698.1	91.34	8.643				
14,000.0	11,450.0	14,662.3	11,970.6	58.9	62.0	131.16	2,567.4	851.6	791.1	698.0	93.15	8.493				
14,100.0	11,450.0	14,772.5	11,970.1	60.1	63.3	131.14	2,677.6	850.4	790.5	695.4	95.16	8.308				
14,200.0	11,450.0	14,875.7	11,968.9	61.4	64.5	131.09	2,780.8	849.3	789.6	692.4	97.24	8.120				
14,300.0	11,450.0	14,979.7	11,967.4	62.6	65.8	131.05	2,884.7	847.7	788.1	688.7	99.35	7.933				
14,400.0	11,450.0	15,075.9	11,966.1	63.9	67.0	131.02	2,980.9	846.0	786.5	685.0	101.47	7.751				
14,500.0	11,450.0	15,184.6	11,965.3	65.2	68.4	131.05	3,089.6	843.5	784.8	681.3	103.54	7.580				
14,590.3	11,450.0	15,256.3	11,964.6	66.4	69.3	131.05	3,161.3	842.3	783.7	678.2	105.48	7.430				
14,600.0	11,450.0	15,263.9	11,964.6	66.5	69.4	131.04	3,168.9	842.2	783.7	678.0	105.70	7.415				
14,700.0	11,450.0	15,362.0	11,964.1	67.8	70.6	130.95	3,267.0	842.8	784.4	676.5	107.97	7.265				
14,800.0	11,450.0	15,458.0	11,963.5	69.2	71.9	130.85	3,363.0	843.4	785.1	674.8	110.29	7.119				
14,900.0	11,450.0	15,565.8	11,962.7	70.5	73.3	130.73	3,470.8	844.2	785.8	673.1	112.66	6.975				
15,000.0	11,450.0	15,669.5	11,961.7	71.9	74.7	130.65	3,574.4	843.9	785.6	670.6	115.01	6.831				
15,100.0	11,450.0	15,772.2	11,960.8	73.3	76.0	130.61	3,677.1	842.9	784.8	667.5	117.32	6.689				
15,155.7	11,450.0	15,821.8	11,960.4	74.0	76.7	130.59	3,726.7	842.5	784.6	666.0	118.62	6.614				
15,200.0	11,450.0	15,866.2	11,960.2	74.7	77.3	130.56	3,771.1	842.5	784.7	665.0	119.67	6.557				
15,300.0	11,450.0	15,972.7	11,957.2	76.1	78.8	130.35	3,877.6	842.5	783.4	661.2	122.25	6.408				
15,324.1	11,450.0	15,990.2	11,956.7	76.4	79.0	130.31	3,895.1	842.7	783.3	660.5	122.86	6.376				
15,400.0	11,450.0	16,047.0	11,956.1	77.5	79.8	130.20	3,951.9	843.7	784.3	659.6	124.75	6.287				
15,500.0	11,450.0	16,135.1	11,956.8	78.9	81.0	130.10	4,040.0	846.1	787.5	660.3	127.18	6.192				
15,600.0	11,450.0	16,231.4	11,959.9	80.3	82.4	130.14	4,136.2	848.1	791.8	662.3	129.47	6.116				
15,700.0	11,450.0	16,363.5	11,962.7	81.8	84.2	130.23	4,268.2	848.4	793.8	662.0	131.79	6.023				
15,800.0	11,450.0	16,480.4	11,962.1	83.2	85.9	130.23	4,385.2	846.9	793.1	658.9	134.18	5.911				
15,900.0	11,450.0	16,577.4	11,960.1	84.7	87.3	130.15	4,482.1	845.4	791.2	654.5	136.69	5.788				
16,000.0	11,450.0	16,683.6	11,958.0	86.1	88.8	130.05	4,588.2	844.2	789.7	650.5	139.24	5.672				
16,100.0	11,450.0	16,782.0	11,955.2	87.6	90.2	129.91	4,686.6	842.9	787.5	645.7	141.87	5.551				
16,187.5	11,450.0	16,854.0	11,953.7	88.9	91.2	129.82	4,758.6	842.5	786.6	642.4	144.16	5.456				
16,200.0	11,450.0	16,864.0	11,953.6	89.1	91.4	129.81	4,768.6	842.6	786.6	642.1	144.48	5.444				
16,300.0	11,450.0	16,961.2	11,953.2	90.5	92.8	129.72	4,865.8	843.2	787.4	640.4	147.06	5.354				
16,400.0	11,450.0	17,069.0	11,952.3	92.0	94.4	129.62	4,973.6	843.4	787.6	637.9	149.68	5.262				
16,419.5	11,450.0	17,090.2	11,951.9	92.3	94.7	129.59	4,994.8	843.4	787.5	637.3	150.22	5.243				
16,500.0	11,450.0	17,153.1	11,952.1	93.5	95.6	129.58	5,057.7	843.5	788.2	636.0	152.22	5.178				
16,600.0	11,450.0	17,259.6	11,954.1	95.0	97.2	129.66	5,164.2	843.1	789.8	635.3	154.57	5.110				
16,700.0	11,450.0	17,371.0	11,954.9	96.5	98.8	129.73	5,275.6	841.8	790.0	633.0	156.96	5.033				
16,800.0	11,450.0	17,476.7	11,954.9	98.0	100.4	129.79	5,381.3	839.6	789.0	629.6	159.35	4.951				
16,900.0	11,450.0	17,579.0	11,954.6	99.5	101.9	129.85	5,483.5	837.2	787.6	625.9	161.76	4.869				
17,000.0	11,450.0	17,674.7	11,953.7	101.1	103.3	129.87	5,579.2	835.0	785.9	621.7	164.25	4.785				
17,040.4	11,450.0	17,707.0	11,953.7	101.7	103.8	129.88	5,611.4	834.5	785.7	620.5	165.25	4.755				
17,100.0	11,450.0	17,760.6	11,954.3	102.6	104.6	129.91	5,665.1	834.1	786.1	619.4	166.69	4.716				
17,200.0	11,450.0	17,863.3	11,954.7	104.1	106.2	129.92	5,767.8	833.4	786.4	617.3	169.19	4.648				
17,300.0	11,450.0	17,960.9	11,955.6	105.6	107.6	129.97	5,865.4	832.8	787.2	615.6	171.64	4.586				
17,400.0	11,450.0	18,065.6	11,957.2	107.2	109.2	130.10	5,970.0	831.1	787.5	613.6	173.94	4.528				
17,500.0	11,450.0	18,161.2	11,960.3	108.7	110.7	130.38	6,065.6	828.0	787.8	611.8	175.97	4.477				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #134H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		174-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			
17,600.0	11,450.0	18,255.8	11,962.2	110.3	112.1	130.49	6,160.1	827.1	788.9	610.7	178.28	4.425			
17,700.0	11,450.0	18,355.8	11,964.5	111.8	113.6	130.62	6,260.1	826.2	790.4	609.8	180.57	4.377			
17,800.0	11,450.0	18,457.5	11,966.7	113.3	115.2	130.75	6,361.7	825.2	791.6	608.8	182.86	4.329			
17,900.0	11,450.0	18,562.7	11,968.0	114.9	116.8	130.82	6,467.0	824.5	792.5	607.3	185.29	4.277			
18,000.0	11,450.0	18,665.6	11,966.4	116.5	118.4	130.64	6,569.8	825.4	792.8	604.6	188.18	4.213			
18,100.0	11,450.0	18,755.1	11,965.2	118.0	119.7	130.49	6,659.3	826.6	793.5	602.5	191.02	4.154			
18,200.0	11,450.0	18,858.8	11,965.2	119.6	121.3	130.40	6,763.0	827.7	795.0	601.2	193.78	4.103			
18,300.0	11,450.0	18,951.5	11,965.1	121.1	122.8	130.31	6,855.7	828.7	796.4	599.9	196.49	4.053			
18,400.0	11,450.0	19,053.4	11,966.4	122.7	124.3	130.32	6,957.6	829.3	798.3	599.2	199.05	4.010			
18,500.0	11,450.0	19,154.7	11,967.3	124.3	125.9	130.30	7,058.9	829.9	799.9	598.2	201.68	3.966			
18,600.0	11,450.0	19,258.9	11,967.9	125.8	127.5	130.29	7,163.1	830.2	801.1	596.8	204.30	3.921			
18,700.0	11,450.0	19,363.1	11,968.1	127.4	129.1	130.24	7,267.3	830.4	801.9	594.9	206.98	3.874			
18,800.0	11,450.0	19,469.6	11,966.7	129.0	130.8	130.13	7,373.7	830.4	801.7	591.9	209.82	3.821			
18,900.0	11,450.0	19,569.6	11,967.1	130.5	132.4	130.18	7,473.7	829.1	801.6	589.3	212.31	3.776			
19,000.0	11,450.0	19,676.7	11,967.8	132.1	134.0	130.30	7,580.8	826.4	800.7	586.1	214.63	3.731			
19,100.0	11,450.0	19,773.1	11,968.1	133.7	135.5	130.40	7,677.2	823.9	799.5	582.5	217.02	3.684			
19,200.0	11,450.0	19,872.0	11,969.7	135.3	137.1	130.58	7,776.0	821.1	799.1	579.8	219.22	3.645			
19,300.0	11,450.0	19,974.6	11,970.4	136.9	138.7	130.69	7,878.5	818.6	798.2	576.7	221.56	3.603			
19,400.0	11,450.0	20,075.8	11,970.7	138.5	140.3	130.78	7,979.7	816.1	797.2	573.3	223.94	3.560			
19,500.0	11,450.0	20,191.6	11,969.7	140.0	142.1	130.83	8,095.5	813.1	795.3	568.9	226.35	3.513			
19,600.0	11,450.0	20,282.8	11,967.5	141.6	143.6	130.76	8,186.7	811.2	792.8	563.6	229.17	3.459			
19,700.0	11,450.0	20,367.2	11,966.9	143.2	144.9	130.75	8,271.0	810.0	791.7	559.9	231.83	3.415			
19,700.7	11,450.0	20,367.8	11,966.9	143.2	144.9	130.75	8,271.6	810.0	791.7	559.9	231.85	3.415			
19,800.0	11,450.0	20,455.5	11,968.2	144.8	146.3	130.84	8,359.3	809.0	792.5	558.3	234.21	3.384			
19,900.0	11,450.0	20,558.3	11,970.5	146.4	147.9	130.97	8,462.1	808.2	794.0	557.5	236.50	3.357			
20,000.0	11,450.0	20,664.1	11,971.8	148.0	149.6	131.04	8,567.9	807.2	794.7	555.8	238.94	3.326			
20,100.0	11,450.0	20,762.2	11,973.1	149.6	151.1	131.14	8,666.0	806.0	795.2	553.9	241.31	3.295			
20,200.0	11,450.0	20,859.8	11,975.8	151.2	152.7	131.34	8,763.5	803.8	796.0	552.6	243.38	3.271			
20,300.0	11,450.0	20,964.0	11,979.1	152.8	154.3	131.62	8,867.6	801.1	796.8	551.5	245.29	3.248			
20,400.0	11,450.0	21,077.2	11,980.9	154.4	156.1	131.82	8,980.8	797.9	796.3	548.9	247.35	3.219			
20,500.0	11,450.0	21,185.8	11,980.7	156.0	157.9	131.92	9,089.3	794.6	794.5	544.8	249.64	3.182			
20,600.0	11,450.0	21,289.9	11,978.2	157.6	159.5	131.87	9,193.3	792.2	791.8	539.4	252.35	3.138			
20,700.0	11,450.0	21,389.0	11,975.5	159.2	161.1	131.79	9,292.3	790.0	788.9	533.8	255.17	3.092			
20,800.0	11,450.0	21,495.0	11,970.4	160.8	162.8	131.49	9,398.2	789.6	786.0	527.5	258.53	3.040			
20,900.0	11,450.0	21,602.2	11,963.2	162.4	164.5	131.06	9,505.2	789.4	782.0	519.8	262.23	2.982			
21,000.0	11,450.0	21,698.1	11,956.3	164.0	166.0	130.65	9,600.8	789.3	777.9	511.8	266.03	2.924			
21,100.0	11,450.0	21,774.7	11,952.6	165.6	167.3	130.40	9,677.4	789.4	775.5	505.9	269.50	2.877			
21,200.0	11,450.0	21,871.0	11,951.4	167.2	168.8	130.30	9,773.6	789.4	775.2	502.8	272.43	2.845			
21,300.0	11,450.0	21,975.2	11,950.0	168.8	170.5	130.21	9,877.9	788.9	774.6	499.2	275.33	2.813			
21,400.0	11,450.0	22,073.3	11,949.4	170.4	172.0	130.19	9,975.9	787.6	773.8	495.7	278.02	2.783			
21,500.0	11,450.0	22,178.1	11,948.7	172.0	173.7	130.19	10,080.7	786.0	772.8	492.1	280.68	2.753			
21,606.0	11,450.0	22,275.0	11,947.8	173.8	175.3	130.18	10,177.6	784.3	771.5	488.0	283.52	2.721			
21,606.3	11,450.0	22,275.0	11,947.8	173.8	175.3	130.18	10,177.6	784.3	771.5	488.0	283.53	2.721			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
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	179.76	-29.9	0.1	29.9					
100.0	100.0	101.0	99.0	0.1	0.1	179.76	-29.9	0.1	29.9	29.6	0.26	115.069		
200.0	200.0	201.0	199.0	0.5	0.5	179.76	-29.9	0.1	29.9	28.9	0.98	30.615		
300.0	300.0	301.0	299.0	0.8	0.8	179.76	-29.9	0.1	29.9	28.2	1.69	17.656		
400.0	400.0	401.0	399.0	1.2	1.2	179.76	-29.9	0.1	29.9	27.5	2.41	12.405		
500.0	500.0	501.0	499.0	1.6	1.6	179.76	-29.9	0.1	29.9	26.8	3.13	9.562		
600.0	600.0	601.0	599.0	1.9	1.9	179.76	-29.9	0.1	29.9	26.1	3.84	7.779		
700.0	700.0	701.0	699.0	2.3	2.3	179.76	-29.9	0.1	29.9	25.3	4.56	6.556		
800.0	800.0	801.0	799.0	2.6	2.6	179.76	-29.9	0.1	29.9	24.6	5.28	5.666		
900.0	900.0	901.0	899.0	3.0	3.0	179.76	-29.9	0.1	29.9	23.9	6.00	4.988		
1,000.0	1,000.0	999.0	999.0	3.4	3.4	179.76	-29.9	0.1	29.9	23.2	6.71	4.460 CC		
1,100.0	1,100.0	1,099.0	1,099.0	3.7	3.7	-178.61	-29.9	-0.7	29.9	22.5	7.41	4.039		
1,200.0	1,200.0	1,198.9	1,198.9	4.1	4.0	-173.68	-30.0	-3.3	30.2	22.1	8.12	3.721 ES		
1,300.0	1,300.0	1,298.7	1,298.6	4.4	4.4	-165.76	-30.1	-7.7	31.1	22.3	8.82	3.527		
1,400.0	1,400.0	1,398.3	1,398.0	4.8	4.7	-155.69	-30.3	-13.7	33.3	23.8	9.53	3.496 SF		
1,500.0	1,500.0	1,497.7	1,497.0	5.1	5.1	-144.94	-30.6	-21.5	37.4	27.2	10.23	3.657		
1,600.0	1,600.0	1,596.7	1,595.7	5.5	5.5	-134.97	-30.9	-30.9	43.8	32.9	10.93	4.010		
1,700.0	1,700.0	1,695.5	1,693.8	5.9	5.8	-126.62	-31.2	-42.0	52.6	41.0	11.62	4.528		
1,800.0	1,800.0	1,805.7	1,791.7	6.2	6.2	-120.08	-31.6	-54.6	63.5	51.1	12.35	5.141		
1,900.0	1,900.0	1,906.6	1,890.1	6.6	6.6	-115.40	-32.0	-67.4	75.2	62.1	13.06	5.755		
2,000.0	2,000.0	1,992.6	1,988.4	6.9	6.9	-111.99	-32.4	-80.3	87.2	73.5	13.72	6.356		
2,100.0	2,100.0	2,091.7	2,086.7	7.3	7.3	-109.42	-32.8	-93.1	99.5	85.1	14.43	6.895		
2,200.0	2,200.0	2,190.9	2,185.0	7.7	7.7	-107.41	-33.2	-105.9	111.9	96.8	15.14	7.392		
2,300.0	2,300.0	2,310.0	2,283.4	8.0	8.2	-105.80	-33.6	-118.8	124.4	108.5	15.92	7.816		
2,400.0	2,400.0	2,389.2	2,381.7	8.4	8.5	-104.49	-34.0	-131.6	137.0	120.5	16.56	8.275		
2,500.0	2,500.0	2,488.4	2,480.0	8.7	8.9	-103.40	-34.4	-144.5	149.7	132.4	17.27	8.667		
2,600.0	2,600.0	2,587.4	2,578.2	9.1	9.3	139.46	-34.8	-157.3	163.1	145.1	17.97	9.074		
2,700.0	2,700.0	2,686.2	2,676.2	9.4	9.7	140.67	-35.2	-170.1	177.8	159.2	18.66	9.531		
2,800.0	2,799.9	2,784.8	2,774.0	9.7	10.1	142.00	-35.6	-182.8	194.0	174.7	19.35	10.029		
2,900.0	2,899.7	2,883.1	2,871.4	10.1	10.5	143.39	-36.0	-195.6	211.7	191.7	20.04	10.566		
3,000.0	2,999.4	2,981.1	2,968.6	10.4	10.9	144.80	-36.4	-208.2	230.9	210.2	20.72	11.141		
3,100.0	3,098.9	3,078.7	3,065.4	10.8	11.3	146.19	-36.8	-220.9	251.6	230.2	21.41	11.751		
3,200.0	3,198.3	3,175.9	3,161.8	11.1	11.7	147.55	-37.2	-233.5	274.0	251.9	22.10	12.395		
3,300.0	3,297.4	3,272.8	3,257.8	11.5	12.1	148.85	-37.6	-246.0	297.9	275.1	22.79	13.069		
3,400.0	3,396.4	3,369.4	3,353.6	11.8	12.4	150.15	-38.0	-258.5	322.7	299.2	23.48	13.742		
3,500.0	3,495.5	3,466.0	3,449.5	12.2	12.8	151.27	-38.4	-271.0	347.6	323.5	24.18	14.380		
3,600.0	3,594.5	3,562.7	3,545.3	12.6	13.2	152.24	-38.8	-283.5	372.7	347.8	24.87	14.985		
3,700.0	3,693.5	3,659.3	3,641.1	12.9	13.6	153.08	-39.2	-296.0	397.8	372.3	25.57	15.560		
3,800.0	3,792.5	3,755.9	3,736.9	13.3	14.0	153.83	-39.6	-308.6	423.1	396.8	26.27	16.106		
3,900.0	3,891.6	3,852.6	3,832.7	13.7	14.4	154.49	-39.9	-321.1	448.3	421.4	26.97	16.625		
4,000.0	3,990.6	3,949.2	3,928.5	14.1	14.8	155.08	-40.3	-333.6	473.7	446.0	27.67	17.119		
4,100.0	4,089.6	4,045.8	4,024.4	14.5	15.2	155.61	-40.7	-346.1	499.0	470.6	28.37	17.589		
4,200.0	4,188.6	4,142.5	4,120.2	14.8	15.6	156.09	-41.1	-358.6	524.4	495.3	29.08	18.036		
4,300.0	4,287.7	4,239.1	4,216.0	15.2	16.0	156.53	-41.5	-371.1	549.9	520.1	29.78	18.463		
4,400.0	4,386.7	4,335.7	4,311.8	15.6	16.4	156.92	-41.9	-383.6	575.3	544.8	30.49	18.870		
4,500.0	4,485.7	4,432.4	4,407.6	16.0	16.8	157.29	-42.3	-396.1	600.8	569.6	31.20	19.259		
4,600.0	4,584.8	4,529.0	4,503.4	16.4	17.2	157.62	-42.7	-408.6	626.3	594.4	31.90	19.631		
4,700.0	4,683.8	4,625.6	4,599.3	16.8	17.6	157.93	-43.1	-421.1	651.8	619.2	32.61	19.986		
4,800.0	4,782.8	4,722.3	4,695.1	17.2	18.0	158.21	-43.5	-433.7	677.4	644.0	33.32	20.327		
4,900.0	4,881.8	4,818.9	4,790.9	17.6	18.4	158.48	-43.9	-446.2	702.9	668.9	34.03	20.653		
5,000.0	4,980.9	4,915.5	4,886.7	18.0	18.8	158.72	-44.2	-458.7	728.5	693.7	34.75	20.966		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #137H (Previous #223H) - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
5,100.0	5,079.9	5,012.1	4,982.5	18.4	19.2	158.95	-44.6	-471.2	754.1	718.6	35.46	21.266			
5,200.0	5,178.9	5,108.8	5,078.3	18.8	19.6	159.17	-45.0	-483.7	779.7	743.5	36.17	21.554			
5,300.0	5,277.9	5,205.4	5,174.2	19.2	20.0	159.37	-45.4	-496.2	805.3	768.4	36.89	21.831			
5,400.0	5,377.0	5,302.0	5,270.0	19.6	20.4	159.55	-45.8	-508.7	830.9	793.3	37.60	22.098			
5,500.0	5,476.0	5,401.3	5,365.8	20.0	20.8	159.73	-46.2	-521.2	856.5	818.2	38.32	22.348			
5,600.0	5,575.0	5,495.3	5,461.6	20.4	21.2	159.90	-46.6	-533.7	882.1	843.1	39.03	22.601			
5,623.7	5,598.5	5,518.2	5,484.3	20.5	21.3	159.93	-46.7	-536.7	888.2	849.0	39.20	22.658			
5,700.0	5,674.1	5,592.1	5,557.6	20.8	21.6	160.14	-47.0	-546.3	907.0	867.3	39.74	22.822			
5,800.0	5,773.6	5,689.5	5,654.2	21.2	22.0	160.33	-47.4	-558.9	929.6	889.2	40.46	22.977			
5,900.0	5,873.3	5,787.4	5,751.3	21.6	22.4	160.46	-47.8	-571.6	949.9	908.7	41.18	23.068			
6,000.0	5,973.1	5,885.8	5,848.9	21.9	22.8	160.51	-48.2	-584.3	967.6	925.7	41.89	23.098			
6,100.0	6,073.1	5,984.6	5,946.8	22.3	23.2	160.51	-48.6	-597.1	983.0	940.4	42.61	23.071			
6,157.0	6,130.1	6,041.2	6,002.9	22.5	23.4	-81.35	-48.8	-604.4	990.7	947.6	43.01	23.032			
6,200.0	6,173.1	6,083.8	6,045.1	22.6	23.6	-81.41	-49.0	-609.9	996.1	952.8	43.32	22.997			
6,300.0	6,273.1	6,182.9	6,143.4	23.0	24.0	-81.54	-49.4	-622.8	1,008.9	964.9	44.03	22.916			
6,400.0	6,373.1	6,282.1	6,241.8	23.3	24.4	-81.67	-49.8	-635.6	1,021.6	976.9	44.73	22.838			
6,500.0	6,473.1	6,381.2	6,340.1	23.6	24.8	-81.80	-50.2	-648.4	1,034.4	988.9	45.44	22.762			
6,600.0	6,573.1	6,480.4	6,438.4	24.0	25.2	-81.92	-50.6	-661.3	1,047.2	1,001.0	46.15	22.688			
6,700.0	6,673.1	6,579.5	6,536.7	24.3	25.6	-82.04	-51.0	-674.1	1,059.9	1,013.1	46.86	22.617			
6,800.0	6,773.1	6,678.7	6,635.0	24.6	26.0	-82.16	-51.4	-686.9	1,072.7	1,025.1	47.57	22.548			
6,900.0	6,873.1	6,777.9	6,733.4	25.0	26.5	-82.27	-51.8	-699.8	1,085.5	1,037.2	48.29	22.480			
7,000.0	6,973.1	6,877.0	6,831.7	25.3	26.9	-82.38	-52.2	-712.6	1,098.2	1,049.2	49.00	22.415			
7,100.0	7,073.1	6,976.2	6,930.0	25.6	27.3	-82.49	-52.6	-725.5	1,111.0	1,061.3	49.71	22.351			
7,200.0	7,173.1	7,075.3	7,028.3	26.0	27.7	-82.60	-53.0	-738.3	1,123.8	1,073.4	50.42	22.289			
7,300.0	7,273.1	7,174.5	7,126.7	26.3	28.1	-82.70	-53.4	-751.1	1,136.6	1,085.5	51.13	22.229			
7,400.0	7,373.1	7,273.6	7,225.0	26.7	28.5	-82.80	-53.8	-764.0	1,149.4	1,097.6	51.84	22.170			
7,500.0	7,473.1	7,372.8	7,323.3	27.0	28.9	-82.90	-54.2	-776.8	1,162.2	1,109.6	52.56	22.113			
7,600.0	7,573.1	7,472.0	7,421.6	27.3	29.3	-83.00	-54.6	-789.6	1,175.0	1,121.7	53.27	22.057			
7,700.0	7,673.1	7,600.9	7,549.6	27.7	29.9	-83.15	-55.6	-805.8	1,187.5	1,133.3	54.21	21.908			
7,800.0	7,773.1	7,744.6	7,692.6	28.0	30.4	-83.54	-62.4	-817.5	1,194.7	1,139.6	55.18	21.650			
7,900.0	7,873.1	7,844.2	7,791.7	28.4	30.8	-83.84	-67.9	-824.8	1,201.4	1,145.5	55.89	21.496			
8,000.0	7,973.1	7,943.8	7,890.9	28.7	31.1	-84.14	-73.4	-832.1	1,208.1	1,151.5	56.60	21.346			
8,100.0	8,073.1	8,043.3	7,990.1	29.1	31.5	-84.43	-78.9	-839.3	1,214.8	1,157.5	57.30	21.200			
8,200.0	8,173.1	8,142.9	8,089.2	29.4	31.9	-84.72	-84.4	-846.6	1,221.6	1,163.6	58.01	21.058			
8,300.0	8,273.1	8,242.5	8,188.4	29.7	32.2	-85.01	-89.9	-853.9	1,228.4	1,169.7	58.72	20.920			
8,400.0	8,373.1	8,342.1	8,287.5	30.1	32.6	-85.29	-95.4	-861.2	1,235.2	1,175.8	59.43	20.785			
8,500.0	8,473.1	8,441.7	8,386.7	30.4	33.0	-85.57	-100.9	-868.4	1,242.1	1,181.9	60.14	20.654			
8,600.0	8,573.1	8,541.2	8,485.9	30.8	33.3	-85.85	-106.4	-875.7	1,249.0	1,188.1	60.85	20.527			
8,700.0	8,673.1	8,640.8	8,585.0	31.1	33.7	-86.12	-111.9	-883.0	1,255.9	1,194.3	61.56	20.402			
8,800.0	8,773.1	8,740.4	8,684.2	31.5	34.1	-86.40	-117.4	-890.3	1,262.8	1,200.6	62.27	20.282			
8,900.0	8,873.1	8,840.0	8,783.4	31.8	34.5	-86.66	-122.9	-897.5	1,269.8	1,206.8	62.97	20.164			
9,000.0	8,973.1	8,939.6	8,882.5	32.2	34.8	-86.93	-128.4	-904.8	1,276.8	1,213.1	63.68	20.049			
9,100.0	9,073.1	9,039.1	8,981.7	32.5	35.2	-87.19	-133.9	-912.1	1,283.8	1,219.4	64.40	19.937			
9,200.0	9,173.1	9,138.7	9,080.8	32.9	35.6	-87.45	-139.4	-919.4	1,290.9	1,225.8	65.11	19.827			
9,300.0	9,273.1	9,238.3	9,180.0	33.2	35.9	-87.71	-144.8	-926.6	1,298.0	1,232.1	65.82	19.721			
9,400.0	9,373.1	9,337.9	9,279.2	33.5	36.3	-87.97	-150.3	-933.9	1,305.1	1,238.5	66.53	19.617			
9,500.0	9,473.1	9,437.5	9,378.3	33.9	36.7	-88.22	-155.8	-941.2	1,312.2	1,245.0	67.24	19.515			
9,600.0	9,573.1	9,537.0	9,477.5	34.2	37.1	-88.47	-161.3	-948.5	1,319.3	1,251.4	67.95	19.416			
9,700.0	9,673.1	9,636.6	9,576.7	34.6	37.4	-88.71	-166.8	-955.8	1,326.5	1,257.9	68.66	19.320			
9,800.0	9,773.1	9,736.2	9,675.8	34.9	37.8	-88.96	-172.3	-963.0	1,333.7	1,264.4	69.37	19.225			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #137H (Previous #223H) - 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					
9,900.0	9,873.1	9,835.8	9,775.0	35.3	38.2	-89.20	-177.8	-970.3	1,341.0	1,270.9	70.09	19.133					
10,000.0	9,973.1	9,935.4	9,874.1	35.6	38.6	-89.44	-183.3	-977.6	1,348.2	1,277.4	70.80	19.043					
10,100.0	10,073.1	10,034.9	9,973.3	36.0	38.9	-89.67	-188.8	-984.9	1,355.5	1,284.0	71.51	18.955					
10,200.0	10,173.1	10,134.5	10,072.5	36.3	39.3	-89.90	-194.3	-992.1	1,362.8	1,290.6	72.22	18.869					
10,300.0	10,273.1	10,234.1	10,171.6	36.7	39.7	-90.14	-199.8	-999.4	1,370.1	1,297.2	72.94	18.785					
10,400.0	10,373.1	10,333.7	10,270.8	37.0	40.1	-90.36	-205.3	-1,006.7	1,377.4	1,303.8	73.65	18.703					
10,500.0	10,473.1	10,433.3	10,369.9	37.4	40.4	-90.59	-210.8	-1,014.0	1,384.8	1,310.4	74.36	18.623					
10,600.0	10,573.1	10,532.8	10,469.1	37.7	40.8	-90.81	-216.3	-1,021.2	1,392.2	1,317.1	75.08	18.544					
10,700.0	10,673.1	10,632.4	10,568.3	38.1	41.2	-91.04	-221.8	-1,028.5	1,399.6	1,323.8	75.79	18.467					
10,800.0	10,773.1	10,732.0	10,667.4	38.4	41.6	-91.25	-227.3	-1,035.8	1,407.0	1,330.5	76.50	18.392					
10,903.9	10,877.0	10,939.6	10,874.6	38.8	42.3	-91.51	-233.8	-1,044.5	1,412.0	1,334.3	77.63	18.188					
10,950.0	10,923.0	10,989.1	10,924.1	38.9	42.5	-83.74	-231.9	-1,044.5	1,411.7	1,333.8	77.95	18.111					
11,000.0	10,972.6	11,041.5	10,976.1	39.1	42.6	-83.80	-225.2	-1,044.5	1,410.9	1,332.7	78.28	18.025					
11,050.0	11,021.5	11,093.8	11,027.1	39.3	42.8	-83.92	-213.8	-1,044.6	1,409.6	1,331.0	78.59	17.935					
11,100.0	11,069.3	11,146.1	11,076.8	39.4	42.9	-84.08	-197.9	-1,044.8	1,407.7	1,328.8	78.90	17.842					
11,150.0	11,115.6	11,198.2	11,124.8	39.6	43.0	-84.28	-177.5	-1,044.9	1,405.3	1,326.1	79.18	17.747					
11,200.0	11,160.1	11,250.2	11,170.6	39.7	43.1	-84.53	-152.9	-1,045.1	1,402.3	1,322.9	79.46	17.648					
11,250.0	11,202.4	11,302.0	11,213.8	39.8	43.2	-84.81	-124.4	-1,045.3	1,398.9	1,319.2	79.73	17.546					
11,300.0	11,242.3	11,353.7	11,254.2	39.9	43.3	-85.14	-92.1	-1,045.6	1,395.0	1,315.1	79.98	17.442					
11,350.0	11,279.3	11,405.2	11,291.4	40.0	43.4	-85.50	-56.6	-1,045.9	1,390.7	1,310.5	80.23	17.333					
11,400.0	11,313.4	11,456.5	11,325.1	40.1	43.4	-85.90	-17.9	-1,046.2	1,386.0	1,305.6	80.48	17.222					
11,450.0	11,344.1	11,507.5	11,355.1	40.1	43.5	-86.33	23.4	-1,046.5	1,381.0	1,300.3	80.73	17.107					
11,500.0	11,371.2	11,558.4	11,381.2	40.2	43.5	-86.79	67.0	-1,046.9	1,375.6	1,294.6	80.97	16.988					
11,550.0	11,394.6	11,609.1	11,403.3	40.2	43.6	-87.28	112.6	-1,047.2	1,369.9	1,288.7	81.22	16.866					
11,600.0	11,414.0	11,659.5	11,421.2	40.3	43.6	-87.79	159.8	-1,047.6	1,364.0	1,282.6	81.48	16.741					
11,650.0	11,429.4	11,709.8	11,434.8	40.4	43.7	-88.32	208.1	-1,048.0	1,357.9	1,276.2	81.74	16.614					
11,700.0	11,440.6	11,759.8	11,444.1	40.5	43.7	-88.86	257.3	-1,048.4	1,351.7	1,269.7	82.00	16.484					
11,750.0	11,447.4	11,809.7	11,449.1	40.6	43.8	-89.42	306.9	-1,048.8	1,345.4	1,263.1	82.28	16.352					
11,803.9	11,450.0	11,863.3	11,450.0	40.7	43.9	-90.04	360.5	-1,049.2	1,338.5	1,255.9	82.58	16.209					
11,900.0	11,450.0	11,958.8	11,450.0	41.0	44.1	-90.04	456.0	-1,049.9	1,328.6	1,245.4	83.19	15.971					
12,000.0	11,450.0	12,058.7	11,450.0	41.4	44.4	-90.04	555.8	-1,050.7	1,323.4	1,239.5	83.94	15.767					
12,048.6	11,450.0	12,107.3	11,450.0	41.6	44.5	-90.04	604.5	-1,051.1	1,322.8	1,238.5	84.34	15.685					
12,100.0	11,450.0	12,158.7	11,450.0	41.8	44.7	-90.04	655.8	-1,051.5	1,322.8	1,238.0	84.80	15.599					
12,200.0	11,450.0	12,258.7	11,450.0	42.3	45.2	-90.04	755.8	-1,052.3	1,322.8	1,237.0	85.79	15.419					
12,300.0	11,450.0	12,358.7	11,450.0	42.9	45.7	-90.04	855.8	-1,053.1	1,322.8	1,235.9	86.89	15.223					
12,400.0	11,450.0	12,458.7	11,450.0	43.5	46.3	-90.04	955.8	-1,053.9	1,322.8	1,234.7	88.10	15.014					
12,500.0	11,450.0	12,558.7	11,450.0	44.1	46.9	-90.04	1,055.8	-1,054.7	1,322.8	1,233.3	89.42	14.792					
12,600.0	11,450.0	12,658.7	11,450.0	44.9	47.6	-90.04	1,155.8	-1,055.5	1,322.8	1,231.9	90.84	14.561					
12,700.0	11,450.0	12,758.7	11,450.0	45.6	48.4	-90.04	1,255.8	-1,056.3	1,322.8	1,230.4	92.36	14.321					
12,800.0	11,450.0	12,858.7	11,450.0	46.4	49.2	-90.04	1,355.8	-1,057.1	1,322.7	1,228.8	93.97	14.076					
12,900.0	11,450.0	12,958.7	11,450.0	47.3	50.0	-90.04	1,455.8	-1,057.9	1,322.7	1,227.1	95.67	13.826					
13,000.0	11,450.0	13,058.7	11,450.0	48.2	50.9	-90.04	1,555.8	-1,058.7	1,322.7	1,225.3	97.45	13.573					
13,100.0	11,450.0	13,158.7	11,450.0	49.1	51.8	-90.04	1,655.8	-1,059.5	1,322.7	1,223.4	99.31	13.319					
13,200.0	11,450.0	13,258.7	11,450.0	50.1	52.7	-90.04	1,755.8	-1,060.3	1,322.7	1,221.5	101.25	13.064					
13,300.0	11,450.0	13,358.7	11,450.0	51.1	53.7	-90.04	1,855.8	-1,061.1	1,322.7	1,219.5	103.25	12.810					
13,400.0	11,450.0	13,458.7	11,450.0	52.1	54.7	-90.04	1,955.8	-1,061.9	1,322.7	1,217.4	105.33	12.558					
13,500.0	11,450.0	13,558.7	11,450.0	53.2	55.8	-90.04	2,055.8	-1,062.7	1,322.7	1,215.2	107.46	12.309					
13,600.0	11,450.0	13,658.7	11,450.0	54.3	56.8	-90.04	2,155.8	-1,063.5	1,322.7	1,213.0	109.65	12.063					
13,700.0	11,450.0	13,758.7	11,450.0	55.4	57.9	-90.04	2,255.8	-1,064.3	1,322.7	1,210.8	111.90	11.820					
13,800.0	11,450.0	13,858.7	11,450.0	56.5	59.1	-90.04	2,355.8	-1,065.0	1,322.7	1,208.5	114.20	11.582					
13,900.0	11,450.0	13,958.7	11,450.0	57.7	60.2	-90.04	2,455.8	-1,065.8	1,322.7	1,206.1	116.55	11.349					

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #137H (Previous #223H) - 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			
14,000.0	11,450.0	14,058.7	11,450.0	58.9	61.4	-90.04	2,555.8	-1,066.6	1,322.7	1,203.7	118.94	11.120			
14,100.0	11,450.0	14,158.7	11,450.0	60.1	62.6	-90.04	2,655.8	-1,067.4	1,322.6	1,201.3	121.38	10.897			
14,200.0	11,450.0	14,258.7	11,450.0	61.4	63.8	-90.04	2,755.8	-1,068.2	1,322.6	1,198.8	123.86	10.679			
14,300.0	11,450.0	14,358.7	11,450.0	62.6	65.0	-90.04	2,855.8	-1,069.0	1,322.6	1,196.3	126.37	10.466			
14,400.0	11,450.0	14,458.7	11,450.0	63.9	66.3	-90.04	2,955.8	-1,069.8	1,322.6	1,193.7	128.93	10.259			
14,500.0	11,450.0	14,558.7	11,450.0	65.2	67.6	-90.04	3,055.8	-1,070.6	1,322.6	1,191.1	131.51	10.057			
14,600.0	11,450.0	14,658.7	11,450.0	66.5	68.8	-90.04	3,155.8	-1,071.4	1,322.6	1,188.5	134.13	9.861			
14,700.0	11,450.0	14,758.7	11,450.0	67.8	70.2	-90.04	3,255.8	-1,072.2	1,322.6	1,185.8	136.78	9.670			
14,800.0	11,450.0	14,858.7	11,450.0	69.2	71.5	-90.04	3,355.7	-1,073.0	1,322.6	1,183.1	139.46	9.484			
14,900.0	11,450.0	14,958.7	11,450.0	70.5	72.8	-90.04	3,455.7	-1,073.8	1,322.6	1,180.4	142.16	9.303			
15,000.0	11,450.0	15,058.7	11,450.0	71.9	74.1	-90.04	3,555.7	-1,074.6	1,322.6	1,177.7	144.89	9.128			
15,100.0	11,450.0	15,158.7	11,450.0	73.3	75.5	-90.04	3,655.7	-1,075.4	1,322.6	1,174.9	147.65	8.958			
15,200.0	11,450.0	15,258.7	11,450.0	74.7	76.9	-90.04	3,755.7	-1,076.2	1,322.6	1,172.1	150.42	8.792			
15,300.0	11,450.0	15,358.7	11,450.0	76.1	78.2	-90.04	3,855.7	-1,077.0	1,322.6	1,169.3	153.22	8.632			
15,400.0	11,450.0	15,458.7	11,450.0	77.5	79.6	-90.04	3,955.7	-1,077.8	1,322.5	1,166.5	156.04	8.476			
15,500.0	11,450.0	15,558.7	11,450.0	78.9	81.0	-90.04	4,055.7	-1,078.6	1,322.5	1,163.7	158.87	8.324			
15,600.0	11,450.0	15,658.7	11,450.0	80.3	82.4	-90.04	4,155.7	-1,079.3	1,322.5	1,160.8	161.73	8.177			
15,700.0	11,450.0	15,758.7	11,450.0	81.8	83.9	-90.04	4,255.7	-1,080.1	1,322.5	1,157.9	164.60	8.035			
15,800.0	11,450.0	15,858.7	11,450.0	83.2	85.3	-90.04	4,355.7	-1,080.9	1,322.5	1,155.0	167.49	7.896			
15,900.0	11,450.0	15,958.7	11,450.0	84.7	86.7	-90.04	4,455.7	-1,081.7	1,322.5	1,152.1	170.40	7.761			
16,000.0	11,450.0	16,058.7	11,450.0	86.1	88.2	-90.04	4,555.7	-1,082.5	1,322.5	1,149.2	173.31	7.631			
16,100.0	11,450.0	16,158.7	11,450.0	87.6	89.6	-90.04	4,655.7	-1,083.3	1,322.5	1,146.2	176.25	7.504			
16,200.0	11,450.0	16,258.7	11,450.0	89.1	91.1	-90.04	4,755.7	-1,084.1	1,322.5	1,143.3	179.19	7.380			
16,300.0	11,450.0	16,358.7	11,450.0	90.5	92.5	-90.04	4,855.7	-1,084.9	1,322.5	1,140.3	182.15	7.260			
16,400.0	11,450.0	16,458.7	11,450.0	92.0	94.0	-90.04	4,955.7	-1,085.7	1,322.5	1,137.3	185.12	7.144			
16,500.0	11,450.0	16,558.7	11,450.0	93.5	95.5	-90.04	5,055.7	-1,086.5	1,322.5	1,134.4	188.11	7.030			
16,600.0	11,450.0	16,658.7	11,450.0	95.0	97.0	-90.04	5,155.7	-1,087.3	1,322.5	1,131.4	191.10	6.920			
16,700.0	11,450.0	16,758.7	11,450.0	96.5	98.5	-90.04	5,255.7	-1,088.1	1,322.4	1,128.3	194.10	6.813			
16,800.0	11,450.0	16,858.7	11,450.0	98.0	100.0	-90.04	5,355.7	-1,088.9	1,322.4	1,125.3	197.12	6.709			
16,900.0	11,450.0	16,958.7	11,450.0	99.5	101.5	-90.04	5,455.7	-1,089.7	1,322.4	1,122.3	200.14	6.607			
17,000.0	11,450.0	17,058.7	11,450.0	101.1	103.0	-90.04	5,555.7	-1,090.5	1,322.4	1,119.2	203.17	6.509			
17,100.0	11,450.0	17,158.7	11,450.0	102.6	104.5	-90.04	5,655.7	-1,091.3	1,322.4	1,116.2	206.21	6.413			
17,200.0	11,450.0	17,258.7	11,450.0	104.1	106.0	-90.04	5,755.7	-1,092.1	1,322.4	1,113.1	209.26	6.319			
17,300.0	11,450.0	17,358.7	11,450.0	105.6	107.5	-90.04	5,855.7	-1,092.9	1,322.4	1,110.1	212.32	6.228			
17,400.0	11,450.0	17,458.7	11,450.0	107.2	109.0	-90.04	5,955.7	-1,093.7	1,322.4	1,107.0	215.39	6.140			
17,500.0	11,450.0	17,558.7	11,450.0	108.7	110.5	-90.04	6,055.7	-1,094.4	1,322.4	1,103.9	218.46	6.053			
17,600.0	11,450.0	17,658.7	11,450.0	110.3	112.1	-90.04	6,155.7	-1,095.2	1,322.4	1,100.8	221.54	5.969			
17,700.0	11,450.0	17,758.7	11,450.0	111.8	113.6	-90.04	6,255.7	-1,096.0	1,322.4	1,097.7	224.62	5.887			
17,800.0	11,450.0	17,858.7	11,450.0	113.3	115.1	-90.04	6,355.7	-1,096.8	1,322.4	1,094.6	227.72	5.807			
17,900.0	11,450.0	17,958.7	11,450.0	114.9	116.7	-90.04	6,455.7	-1,097.6	1,322.3	1,091.5	230.81	5.729			
18,000.0	11,450.0	18,058.7	11,450.0	116.5	118.2	-90.04	6,555.6	-1,098.4	1,322.3	1,088.4	233.92	5.653			
18,100.0	11,450.0	18,158.7	11,450.0	118.0	119.8	-90.04	6,655.6	-1,099.2	1,322.3	1,085.3	237.03	5.579			
18,200.0	11,450.0	18,258.7	11,450.0	119.6	121.3	-90.04	6,755.6	-1,100.0	1,322.3	1,082.2	240.14	5.506			
18,300.0	11,450.0	18,358.7	11,450.0	121.1	122.9	-90.04	6,855.6	-1,100.8	1,322.3	1,079.1	243.26	5.436			
18,400.0	11,450.0	18,458.7	11,450.0	122.7	124.4	-90.04	6,955.6	-1,101.6	1,322.3	1,075.9	246.39	5.367			
18,500.0	11,450.0	18,558.7	11,450.0	124.3	126.0	-90.04	7,055.6	-1,102.4	1,322.3	1,072.8	249.52	5.299			
18,600.0	11,450.0	18,658.7	11,450.0	125.8	127.5	-90.04	7,155.6	-1,103.2	1,322.3	1,069.6	252.66	5.234			
18,700.0	11,450.0	18,758.7	11,450.0	127.4	129.1	-90.04	7,255.6	-1,104.0	1,322.3	1,066.5	255.80	5.169			
18,800.0	11,450.0	18,858.7	11,450.0	129.0	130.6	-90.04	7,355.6	-1,104.8	1,322.3	1,063.3	258.94	5.106			
18,900.0	11,450.0	18,958.7	11,450.0	130.5	132.2	-90.04	7,455.6	-1,105.6	1,322.3	1,060.2	262.09	5.045			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #137H (Previous #223H) - 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			
19,000.0	11,450.0	19,058.7	11,450.0	132.1	133.8	-90.04	7,555.6	-1,106.4	1,322.3	1,057.0	265.24	4.985			
19,100.0	11,450.0	19,158.7	11,450.0	133.7	135.4	-90.04	7,655.6	-1,107.2	1,322.3	1,053.9	268.40	4.926			
19,200.0	11,450.0	19,258.7	11,450.0	135.3	136.9	-90.04	7,755.6	-1,108.0	1,322.2	1,050.7	271.56	4.869			
19,300.0	11,450.0	19,358.7	11,450.0	136.9	138.5	-90.04	7,855.6	-1,108.7	1,322.2	1,047.5	274.72	4.813			
19,400.0	11,450.0	19,458.7	11,450.0	138.5	140.1	-90.04	7,955.6	-1,109.5	1,322.2	1,044.3	277.89	4.758			
19,500.0	11,450.0	19,558.7	11,450.0	140.0	141.7	-90.04	8,055.6	-1,110.3	1,322.2	1,041.2	281.06	4.704			
19,600.0	11,450.0	19,658.7	11,450.0	141.6	143.2	-90.04	8,155.6	-1,111.1	1,322.2	1,038.0	284.24	4.652			
19,700.0	11,450.0	19,758.7	11,450.0	143.2	144.8	-90.04	8,255.6	-1,111.9	1,322.2	1,034.8	287.41	4.600			
19,800.0	11,450.0	19,858.7	11,450.0	144.8	146.4	-90.04	8,355.6	-1,112.7	1,322.2	1,031.6	290.59	4.550			
19,900.0	11,450.0	19,958.7	11,450.0	146.4	148.0	-90.04	8,455.6	-1,113.5	1,322.2	1,028.4	293.78	4.501			
20,000.0	11,450.0	20,058.7	11,450.0	148.0	149.6	-90.04	8,555.6	-1,114.3	1,322.2	1,025.2	296.96	4.452			
20,100.0	11,450.0	20,158.7	11,450.0	149.6	151.2	-90.04	8,655.6	-1,115.1	1,322.2	1,022.0	300.15	4.405			
20,200.0	11,450.0	20,258.7	11,450.0	151.2	152.7	-90.04	8,755.6	-1,115.9	1,322.2	1,018.8	303.34	4.359			
20,300.0	11,450.0	20,358.7	11,450.0	152.8	154.3	-90.04	8,855.6	-1,116.7	1,322.2	1,015.6	306.54	4.313			
20,400.0	11,450.0	20,458.7	11,450.0	154.4	155.9	-90.04	8,955.6	-1,117.5	1,322.2	1,012.4	309.73	4.269			
20,500.0	11,450.0	20,558.7	11,450.0	156.0	157.5	-90.04	9,055.6	-1,118.3	1,322.1	1,009.2	312.93	4.225			
20,600.0	11,450.0	20,658.7	11,450.0	157.6	159.1	-90.04	9,155.6	-1,119.1	1,322.1	1,006.0	316.13	4.182			
20,700.0	11,450.0	20,758.7	11,450.0	159.2	160.7	-90.04	9,255.6	-1,119.9	1,322.1	1,002.8	319.34	4.140			
20,800.0	11,450.0	20,858.7	11,450.0	160.8	162.3	-90.04	9,355.6	-1,120.7	1,322.1	999.6	322.54	4.099			
20,900.0	11,450.0	20,958.7	11,450.0	162.4	163.9	-90.04	9,455.6	-1,121.5	1,322.1	996.4	325.75	4.059			
21,000.0	11,450.0	21,058.7	11,450.0	164.0	165.5	-90.04	9,555.6	-1,122.3	1,322.1	993.1	328.96	4.019			
21,100.0	11,450.0	21,158.7	11,450.0	165.6	167.1	-90.04	9,655.6	-1,123.1	1,322.1	989.9	332.18	3.980			
21,200.0	11,450.0	21,258.7	11,450.0	167.2	168.7	-90.04	9,755.5	-1,123.8	1,322.1	986.7	335.39	3.942			
21,300.0	11,450.0	21,358.7	11,450.0	168.8	170.3	-90.04	9,855.5	-1,124.6	1,322.1	983.5	338.61	3.904			
21,400.0	11,450.0	21,458.7	11,450.0	170.4	171.9	-90.04	9,955.5	-1,125.4	1,322.1	980.3	341.82	3.868			
21,500.0	11,450.0	21,558.7	11,450.0	172.0	173.5	-90.04	10,055.5	-1,126.2	1,322.1	977.0	345.04	3.832			
21,606.0	11,450.0	21,664.6	11,450.0	173.8	175.2	-90.04	10,161.5	-1,127.1	1,322.1	973.6	348.46	3.794			
21,606.3	11,450.0	21,664.9	11,450.0	173.8	175.2	-90.04	10,161.8	-1,127.1	1,322.1	973.6	348.47	3.794			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 220-MWD, 3018-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	-105.80	-31.1	-109.8	114.1					
100.0	100.0	100.5	100.5	0.1	0.2	-105.81	-31.0	-109.5	113.9	113.6	0.29	396.009		
200.0	200.0	201.1	201.1	0.5	0.3	-105.84	-30.9	-108.8	113.1	112.3	0.80	140.994		
300.0	300.0	301.4	301.4	0.8	0.6	-105.93	-30.7	-107.7	112.0	110.5	1.48	75.584		
400.0	400.0	401.3	401.2	1.2	1.0	-106.19	-30.9	-106.4	110.8	108.6	2.20	50.438		
500.0	500.0	500.7	500.6	1.6	1.3	-106.47	-31.2	-105.5	110.0	107.1	2.91	37.782		
572.6	572.6	572.6	572.6	1.8	1.6	-106.59	-31.3	-105.2	109.8	106.4	3.42	32.085 CC		
600.0	600.0	599.8	599.8	1.9	1.7	-106.61	-31.4	-105.2	109.8	106.2	3.61	30.390		
700.0	700.0	699.1	699.1	2.3	2.0	-106.79	-31.9	-105.6	110.4	106.0	4.31	25.602 ES		
800.0	800.0	798.8	798.7	2.6	2.4	-107.00	-32.6	-106.5	111.3	106.3	5.01	22.222		
900.0	900.0	898.7	898.7	3.0	2.7	-107.18	-33.2	-107.6	112.6	106.9	5.71	19.701		
1,000.0	1,000.0	999.0	998.9	3.4	3.1	-107.32	-33.8	-108.5	113.6	107.2	6.42	17.699		
1,100.0	1,100.0	1,099.8	1,099.7	3.7	3.4	-107.30	-34.0	-109.1	114.2	107.1	7.13	16.026		
1,200.0	1,200.0	1,195.6	1,195.5	4.1	3.7	-106.67	-33.3	-111.1	116.0	108.2	7.82	14.843		
1,300.0	1,300.0	1,289.0	1,288.7	4.4	4.1	-105.26	-32.1	-117.8	122.6	114.1	8.49	14.431		
1,400.0	1,400.0	1,387.3	1,386.4	4.8	4.4	-103.55	-30.9	-128.1	132.5	123.3	9.19	14.411		
1,500.0	1,500.0	1,487.5	1,486.0	5.1	4.8	-102.04	-29.6	-138.6	142.4	132.5	9.90	14.386		
1,600.0	1,600.0	1,586.9	1,585.0	5.5	5.2	-100.94	-28.8	-148.8	152.3	141.7	10.61	14.358		
1,700.0	1,700.0	1,687.0	1,684.5	5.9	5.5	-100.10	-28.3	-158.8	162.1	150.7	11.32	14.312		
1,800.0	1,800.0	1,787.3	1,784.3	6.2	5.9	-100.05	-29.8	-168.0	171.4	159.3	12.04	14.233		
1,900.0	1,900.0	1,887.5	1,884.2	6.6	6.3	-100.21	-31.9	-176.8	180.4	167.6	12.76	14.140		
2,000.0	2,000.0	1,988.3	1,984.6	6.9	6.7	-100.43	-34.1	-185.1	188.8	175.3	13.48	14.010		
2,100.0	2,100.0	2,086.9	2,082.9	7.3	7.0	-100.69	-36.4	-192.8	197.0	182.8	14.18	13.888		
2,200.0	2,200.0	2,185.3	2,180.9	7.7	7.4	-101.13	-39.6	-201.4	206.2	191.3	14.89	13.846		
2,300.0	2,300.0	2,285.4	2,280.5	8.0	7.8	-101.60	-43.1	-210.1	215.4	199.8	15.61	13.798		
2,400.0	2,400.0	2,386.4	2,381.0	8.4	8.2	-102.15	-47.0	-218.4	224.2	207.9	16.33	13.725		
2,500.0	2,500.0	2,488.1	2,482.5	8.7	8.5	-102.69	-50.9	-225.9	232.2	215.1	17.06	13.607		
2,600.0	2,600.0	2,589.6	2,583.6	9.1	8.9	138.70	-54.6	-232.5	240.0	222.2	17.78	13.500		
2,700.0	2,700.0	2,684.1	2,677.9	9.4	9.3	138.56	-58.1	-239.1	249.6	231.2	18.43	13.542		
2,800.0	2,799.9	2,784.5	2,777.8	9.7	9.6	138.69	-62.1	-247.2	261.7	242.6	19.13	13.677		
2,900.0	2,899.7	2,886.1	2,879.1	10.1	10.0	138.86	-66.7	-254.5	274.3	254.4	19.85	13.820		
3,000.0	2,999.4	2,990.8	2,983.5	10.4	10.4	139.13	-71.8	-260.3	286.7	266.1	20.57	13.935		
3,100.0	3,098.9	3,079.3	3,071.6	10.8	10.5	139.45	-76.7	-266.7	302.1	281.1	20.91	14.443		
3,200.0	3,198.3	3,177.3	3,169.1	11.1	10.5	139.64	-83.9	-274.2	319.6	298.3	21.27	15.025		
3,300.0	3,297.4	3,274.7	3,265.8	11.5	10.6	139.72	-92.7	-281.6	338.8	317.1	21.64	15.653		
3,400.0	3,396.4	3,374.8	3,365.1	11.8	10.7	139.80	-102.9	-288.7	358.4	336.4	22.04	16.261		
3,500.0	3,495.5	3,474.7	3,464.3	12.2	10.8	139.80	-113.4	-295.3	377.6	355.2	22.46	16.812		
3,600.0	3,594.5	3,576.7	3,565.5	12.6	10.9	139.78	-124.0	-301.1	395.9	373.0	22.90	17.286		
3,700.0	3,693.5	3,673.9	3,662.2	12.9	11.0	139.99	-132.6	-306.7	414.0	390.6	23.34	17.738		
3,800.0	3,792.5	3,771.1	3,759.0	13.3	11.1	140.51	-138.8	-313.1	432.3	408.5	23.79	18.175		
3,900.0	3,891.6	3,865.7	3,853.2	13.7	11.2	141.19	-143.3	-319.9	451.1	426.8	24.23	18.615		
4,000.0	3,990.6	3,953.8	3,940.9	14.1	11.4	141.74	-148.0	-327.6	471.4	446.7	24.65	19.121		
4,100.0	4,089.6	4,038.8	4,025.1	14.5	11.5	142.12	-153.7	-336.9	494.2	469.1	25.05	19.725		
4,200.0	4,188.6	4,132.4	4,117.8	14.8	11.7	142.47	-160.6	-348.6	518.6	493.1	25.52	20.320		
4,300.0	4,287.7	4,242.2	4,226.6	15.2	11.9	143.09	-166.3	-361.7	542.1	516.0	26.12	20.757		
4,400.0	4,386.7	4,349.7	4,333.5	15.6	12.1	143.92	-168.8	-372.3	563.3	536.7	26.69	21.105		
4,500.0	4,485.7	4,442.4	4,425.8	16.0	12.3	144.66	-170.2	-381.0	584.1	556.9	27.18	21.487		
4,600.0	4,584.8	4,531.8	4,514.7	16.4	12.5	145.34	-171.5	-390.9	606.6	579.0	27.66	21.930		
4,700.0	4,683.8	4,633.9	4,616.1	16.8	12.7	146.08	-172.9	-402.4	629.4	601.1	28.23	22.295		
4,800.0	4,782.8	4,733.6	4,715.3	17.2	13.0	146.79	-173.7	-412.7	651.2	622.4	28.79	22.619		
4,900.0	4,881.8	4,832.2	4,813.3	17.6	13.2	147.41	-175.0	-422.9	673.2	643.9	29.35	22.938		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack		Offset Site Error:		0.0 usft
Survey Program: 220-MWD, 3018-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	4,980.9	4,935.1	4,915.7	18.0	13.4	147.90	-177.5	-432.8	694.7	664.8	29.95	23.196					
5,100.0	5,079.9	5,027.2	5,007.3	18.4	13.7	148.27	-180.4	-441.4	716.0	685.5	30.49	23.484					
5,200.0	5,178.9	5,122.9	5,102.5	18.8	13.9	148.61	-183.7	-451.3	738.2	707.2	31.06	23.768					
5,300.0	5,277.9	5,231.9	5,210.9	19.2	14.2	148.98	-187.2	-461.7	759.8	728.1	31.72	23.953					
5,400.0	5,377.0	5,329.6	5,308.3	19.6	14.5	149.33	-190.0	-470.2	780.4	748.1	32.32	24.149					
5,500.0	5,476.0	5,422.1	5,400.3	20.0	14.7	149.63	-192.7	-478.5	801.4	768.5	32.88	24.371					
5,600.0	5,575.0	5,508.0	5,485.8	20.4	14.9	149.87	-195.7	-487.1	823.5	790.1	33.41	24.644					
5,623.7	5,598.5	5,528.7	5,506.3	20.5	15.0	149.91	-196.6	-489.3	828.9	795.4	33.54	24.713					
5,700.0	5,674.1	5,619.3	5,596.4	20.8	15.3	150.21	-200.2	-498.5	845.2	811.0	34.12	24.771					
5,800.0	5,773.6	5,725.8	5,702.4	21.2	15.6	150.56	-202.9	-507.7	863.1	828.3	34.78	24.814					
5,900.0	5,873.3	5,832.0	5,808.3	21.6	15.9	150.86	-204.2	-515.9	877.8	842.3	35.44	24.771					
6,000.0	5,973.1	5,930.8	5,906.8	21.9	16.1	151.05	-205.4	-523.2	889.9	853.9	36.04	24.690					
6,100.0	6,073.1	6,030.6	6,006.3	22.3	16.4	151.16	-206.3	-530.6	899.8	863.2	36.66	24.547					
6,157.0	6,130.1	6,087.9	6,063.5	22.5	16.6	-90.66	-207.0	-534.9	904.4	867.4	37.01	24.439					
6,200.0	6,173.1	6,131.2	6,106.7	22.6	16.7	-90.70	-207.6	-538.0	907.5	870.3	37.27	24.351					
6,300.0	6,273.1	6,231.5	6,206.7	23.0	17.0	-90.75	-208.5	-545.3	914.8	876.9	37.88	24.149					
6,400.0	6,373.1	6,330.0	6,305.0	23.3	17.3	-90.82	-209.7	-552.5	922.1	883.6	38.49	23.957					
6,500.0	6,473.1	6,431.3	6,405.9	23.6	17.6	-90.89	-210.9	-560.0	929.5	890.4	39.12	23.762					
6,600.0	6,573.1	6,531.9	6,506.2	24.0	17.9	-90.93	-211.7	-567.1	936.6	896.9	39.74	23.567					
6,700.0	6,673.1	6,630.1	6,604.2	24.3	18.2	-90.97	-212.5	-574.2	943.8	903.5	40.36	23.386					
6,800.0	6,773.1	6,733.2	6,707.1	24.6	18.5	-91.03	-213.7	-581.6	951.0	910.0	41.01	23.192					
6,900.0	6,873.1	6,830.2	6,803.9	25.0	18.8	-91.08	-214.6	-588.3	958.0	916.4	41.62	23.017					
7,000.0	6,973.1	6,930.6	6,904.0	25.3	19.1	-91.12	-215.4	-595.6	965.2	923.0	42.26	22.841					
7,100.0	7,073.1	7,038.0	7,011.1	25.6	19.4	-91.15	-216.1	-602.9	972.0	929.1	42.94	22.637					
7,200.0	7,173.1	7,140.5	7,113.4	26.0	19.7	-91.20	-217.0	-609.0	978.1	934.5	43.59	22.436					
7,300.0	7,273.1	7,221.3	7,194.0	26.3	20.0	-91.23	-217.6	-614.7	985.1	941.0	44.12	22.327					
7,400.0	7,373.1	7,307.8	7,280.1	26.7	20.3	-91.22	-217.6	-622.2	993.8	949.1	44.68	22.243					
7,500.0	7,473.1	7,411.6	7,383.5	27.0	20.6	-91.19	-217.4	-631.8	1,003.0	957.7	45.35	22.115					
7,600.0	7,573.1	7,507.3	7,478.8	27.3	20.9	-91.16	-217.0	-640.6	1,012.2	966.2	45.98	22.016					
7,700.0	7,673.1	7,615.1	7,586.2	27.7	21.3	-91.10	-216.1	-650.2	1,021.1	974.4	46.68	21.874					
7,800.0	7,773.1	7,716.9	7,687.6	28.0	21.6	-91.05	-215.4	-658.7	1,029.4	982.1	47.34	21.744					
7,900.0	7,873.1	7,818.9	7,789.3	28.4	22.0	-91.03	-215.1	-667.1	1,037.7	989.7	48.01	21.613					
8,000.0	7,973.1	7,921.9	7,891.9	28.7	22.3	-91.00	-214.7	-675.2	1,045.5	996.8	48.69	21.473					
8,100.0	8,073.1	8,021.9	7,991.7	29.1	22.6	-90.97	-214.3	-683.0	1,053.3	1,003.9	49.35	21.344					
8,200.0	8,173.1	8,120.0	8,089.5	29.4	23.0	-90.96	-214.3	-690.6	1,061.0	1,011.0	50.00	21.220					
8,300.0	8,273.1	8,220.0	8,189.2	29.7	23.3	-90.96	-214.4	-698.5	1,069.0	1,018.3	50.66	21.099					
8,400.0	8,373.1	8,320.1	8,289.0	30.1	23.6	-90.95	-214.4	-706.3	1,076.7	1,025.4	51.33	20.976					
8,500.0	8,473.1	8,422.8	8,391.3	30.4	24.0	-90.96	-214.6	-714.2	1,084.5	1,032.5	52.02	20.849					
8,600.0	8,573.1	8,523.1	8,491.4	30.8	24.3	-90.97	-215.0	-721.7	1,091.9	1,039.3	52.69	20.725					
8,700.0	8,673.1	8,620.0	8,588.0	31.1	24.6	-91.01	-215.9	-729.1	1,099.5	1,046.2	53.34	20.614					
8,800.0	8,773.1	8,720.7	8,688.4	31.5	25.0	-91.05	-216.7	-736.8	1,107.2	1,053.2	54.02	20.498					
8,900.0	8,873.1	8,827.9	8,795.3	31.8	25.3	-91.09	-217.7	-744.7	1,114.6	1,059.9	54.74	20.363					
9,000.0	8,973.1	8,935.6	8,902.8	32.2	25.7	-91.13	-218.5	-751.5	1,120.9	1,065.5	55.46	20.213					
9,100.0	9,073.1	9,021.2	8,988.1	32.5	26.0	-91.15	-219.1	-757.5	1,127.9	1,071.9	56.05	20.125					
9,200.0	9,173.1	9,126.8	9,093.4	32.9	26.4	-91.21	-220.4	-765.3	1,135.3	1,078.5	56.76	20.002					
9,300.0	9,273.1	9,225.4	9,191.8	33.2	26.7	-91.28	-222.1	-771.7	1,141.9	1,084.5	57.43	19.883					
9,400.0	9,373.1	9,304.3	9,270.4	33.5	27.0	-91.33	-223.1	-778.2	1,150.1	1,092.2	57.98	19.838					
9,500.0	9,473.1	9,423.9	9,389.6	33.9	27.4	-91.40	-224.7	-787.9	1,158.2	1,099.4	58.79	19.702					
9,600.0	9,573.1	9,517.8	9,483.3	34.2	27.7	-91.46	-226.2	-794.3	1,165.2	1,105.7	59.43	19.604					
9,700.0	9,673.1	9,600.6	9,565.8	34.6	28.0	-91.47	-226.6	-801.6	1,173.9	1,113.9	60.00	19.564					

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack		Offset Site Error:		0.0 usft
Survey Program: 220-MWD, 3018-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				
9,800.0	9,773.1	9,720.3	9,685.1	34.9	28.4	-91.44	-226.3	-811.7	1,182.3	1,121.5	60.82	19.441					
9,900.0	9,873.1	9,814.6	9,779.1	35.3	28.8	-91.44	-226.5	-818.5	1,189.6	1,128.1	61.47	19.353					
10,000.0	9,973.1	9,897.4	9,861.6	35.6	29.1	-91.46	-227.0	-825.6	1,198.2	1,136.2	62.04	19.315					
10,100.0	10,073.1	9,994.0	9,957.7	36.0	29.4	-91.51	-228.2	-835.0	1,207.9	1,145.2	62.70	19.264					
10,200.0	10,173.1	10,105.3	10,068.6	36.3	29.8	-91.58	-230.1	-845.0	1,217.0	1,153.5	63.47	19.173					
10,300.0	10,273.1	10,225.1	10,188.0	36.7	30.2	-91.66	-231.9	-854.4	1,224.8	1,160.6	64.29	19.052					
10,400.0	10,373.1	10,341.5	10,304.2	37.0	30.6	-91.75	-234.0	-861.3	1,230.8	1,165.7	65.07	18.915					
10,500.0	10,473.1	10,414.7	10,377.2	37.4	30.9	-91.81	-235.5	-866.1	1,237.5	1,171.9	65.60	18.863					
10,600.0	10,573.1	10,521.4	10,483.6	37.7	31.3	-91.88	-237.3	-874.2	1,245.1	1,178.8	66.34	18.769					
10,700.0	10,673.1	10,627.5	10,589.4	38.1	31.7	-91.95	-239.1	-881.3	1,251.9	1,184.8	67.07	18.666					
10,800.0	10,773.1	10,707.9	10,669.6	38.4	31.9	-92.01	-240.6	-887.3	1,259.3	1,191.7	67.64	18.618					
10,903.9	10,877.0	10,818.8	10,780.1	38.8	32.3	-92.12	-243.3	-895.9	1,267.5	1,199.1	68.41	18.529					
10,950.0	10,923.0	10,864.7	10,825.9	38.9	32.5	-84.13	-244.7	-899.4	1,270.9	1,202.1	68.72	18.493					
11,000.0	10,972.6	10,915.7	10,876.6	39.1	32.7	-84.16	-246.3	-903.2	1,274.1	1,205.0	69.06	18.447					
11,050.0	11,021.5	10,968.2	10,929.1	39.3	32.9	-84.44	-247.9	-907.0	1,276.8	1,207.4	69.41	18.395					
11,100.0	11,069.3	11,048.7	11,009.4	39.4	33.2	-85.40	-249.8	-911.9	1,278.7	1,208.8	69.90	18.295					
11,150.0	11,115.6	11,114.7	11,075.3	39.6	33.4	-86.46	-250.6	-914.3	1,279.2	1,208.9	70.28	18.202					
11,200.0	11,160.1	11,161.6	11,122.2	39.7	33.5	-87.40	-251.1	-915.7	1,279.6	1,209.0	70.57	18.133					
11,250.0	11,202.4	11,204.7	11,165.2	39.8	33.7	-88.38	-251.6	-916.9	1,280.1	1,209.3	70.83	18.073					
11,300.0	11,242.3	11,244.4	11,204.9	39.9	33.8	-89.35	-252.1	-918.0	1,281.2	1,210.1	71.08	18.024					
11,350.0	11,279.3	11,282.5	11,243.0	40.0	33.9	-90.32	-252.6	-919.0	1,283.0	1,211.7	71.32	17.989					
11,400.0	11,313.4	11,320.6	11,281.1	40.1	34.1	-91.31	-253.2	-919.9	1,285.8	1,214.2	71.56	17.968					
11,450.0	11,344.1	11,354.4	11,314.9	40.1	34.2	-92.12	-253.9	-920.6	1,289.7	1,217.9	71.78	17.966					
11,500.0	11,371.2	11,386.9	11,347.4	40.2	34.3	-92.82	-254.6	-921.1	1,294.9	1,222.9	72.00	17.985					
11,550.0	11,394.6	11,416.3	11,376.8	40.2	34.4	-93.31	-255.3	-921.4	1,301.7	1,229.5	72.21	18.027					
11,600.0	11,414.0	11,437.1	11,397.6	40.3	34.4	-93.31	-255.8	-921.5	1,310.2	1,237.8	72.39	18.100					
11,650.0	11,429.4	11,452.5	11,412.9	40.4	34.5	-92.90	-256.2	-921.6	1,320.6	1,248.0	72.55	18.203					
11,700.0	11,440.6	11,994.6	11,900.8	40.5	35.6	-111.50	-85.4	-895.5	1,332.0	1,261.7	70.33	18.939					
11,750.0	11,447.4	12,068.4	11,941.2	40.6	35.6	-112.46	-23.7	-897.3	1,336.3	1,266.2	70.08	19.068					
11,803.9	11,450.0	12,118.1	11,964.1	40.7	35.7	-112.75	20.2	-900.2	1,342.5	1,272.4	70.02	19.171					
11,900.0	11,450.0	12,180.5	11,990.8	41.0	35.7	-114.02	76.4	-905.9	1,359.3	1,289.2	70.07	19.398					
12,000.0	11,450.0	12,584.5	12,102.5	41.4	36.7	-118.29	460.2	-937.2	1,378.7	1,309.2	69.51	19.834					
12,048.6	11,450.0	12,656.0	12,105.4	41.6	37.0	-118.38	531.5	-941.2	1,381.1	1,311.2	69.93	19.751					
12,100.0	11,450.0	12,721.8	12,106.1	41.8	37.4	-118.34	597.2	-944.9	1,383.6	1,313.2	70.44	19.644					
12,200.0	11,450.0	12,818.5	12,106.5	42.3	37.9	-118.26	693.7	-950.1	1,387.8	1,316.4	71.41	19.433					
12,300.0	11,450.0	12,905.6	12,107.3	42.9	38.5	-118.21	780.7	-955.3	1,392.8	1,320.3	72.46	19.221					
12,400.0	11,450.0	13,015.5	12,109.1	43.5	39.2	-118.16	890.4	-961.9	1,398.1	1,324.4	73.70	18.970					
12,500.0	11,450.0	13,135.9	12,109.5	44.1	40.2	-118.08	1,010.6	-967.7	1,401.8	1,326.7	75.12	18.661					
12,600.0	11,450.0	13,208.1	12,109.9	44.9	40.7	-118.03	1,082.7	-971.5	1,406.1	1,329.7	76.38	18.408					
12,700.0	11,450.0	13,319.3	12,109.6	45.6	41.7	-117.90	1,193.7	-978.8	1,411.0	1,333.0	77.99	18.092					
12,800.0	11,450.0	13,388.9	12,109.3	46.4	42.3	-117.80	1,263.1	-984.0	1,416.7	1,337.2	79.43	17.835					
12,900.0	11,450.0	13,481.2	12,109.6	47.3	43.2	-117.68	1,355.1	-991.9	1,423.7	1,342.6	81.10	17.555					
13,000.0	11,450.0	13,627.5	12,110.9	48.2	44.7	-117.56	1,501.0	-1,002.1	1,429.8	1,346.6	83.21	17.184					
13,100.0	11,450.0	13,787.1	12,111.1	49.1	46.3	-117.52	1,660.5	-1,005.8	1,430.9	1,345.4	85.43	16.749					
13,111.8	11,450.0	13,802.7	12,110.6	49.2	46.5	-117.50	1,676.1	-1,006.0	1,430.8	1,345.1	85.68	16.699					
13,200.0	11,450.0	13,854.1	12,110.0	50.1	47.1	-117.46	1,727.5	-1,007.6	1,431.8	1,344.6	87.12	16.434					
13,300.0	11,450.0	13,959.4	12,109.4	51.1	48.2	-117.38	1,832.7	-1,011.4	1,434.0	1,344.8	89.15	16.085					
13,400.0	11,450.0	14,029.0	12,109.4	52.1	49.0	-117.35	1,902.3	-1,013.8	1,436.5	1,345.6	90.94	15.796					
13,500.0	11,450.0	14,141.4	12,111.4	53.2	50.3	-117.34	2,014.5	-1,018.9	1,440.8	1,347.7	93.10	15.476					
13,600.0	11,450.0	14,328.3	12,115.1	54.3	52.5	-117.48	2,201.3	-1,019.9	1,442.1	1,346.3	95.76	15.060					
13,700.0	11,450.0	14,440.0	12,111.5	55.4	53.9	-117.43	2,312.9	-1,016.5	1,437.1	1,339.1	98.02	14.661					

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack		Offset Site Error: 0.0 usft	
Survey Program: 220-MWD, 3018-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			
13,800.0	11,450.0	14,500.4	12,109.4	56.5	54.6	-117.38	2,373.3	-1,015.7	1,433.9	1,333.9	99.98	14.341				
13,827.6	11,450.0	14,513.3	12,109.2	56.9	54.8	-117.38	2,386.2	-1,015.8	1,433.7	1,333.2	100.49	14.267				
13,900.0	11,450.0	14,571.0	12,109.1	57.7	55.5	-117.36	2,443.9	-1,016.9	1,434.3	1,332.3	102.01	14.061				
14,000.0	11,450.0	14,668.0	12,108.6	58.9	56.7	-117.33	2,540.9	-1,018.4	1,434.7	1,330.4	104.29	13.757				
14,100.0	11,450.0	14,747.6	12,109.1	60.1	57.8	-117.31	2,620.4	-1,020.7	1,436.8	1,330.3	106.44	13.499				
14,200.0	11,450.0	15,033.4	12,111.0	61.4	61.5	-117.57	2,905.7	-1,013.0	1,436.2	1,326.3	109.85	13.074				
14,300.0	11,450.0	15,210.7	12,099.0	62.6	63.8	-117.47	3,081.9	-996.6	1,425.0	1,312.5	112.50	12.667				
14,400.0	11,450.0	15,274.7	12,091.7	63.9	64.6	-117.33	3,145.1	-990.3	1,410.4	1,295.5	114.91	12.274				
14,500.0	11,450.0	15,323.8	12,086.5	65.2	65.3	-117.22	3,193.9	-986.8	1,398.6	1,281.4	117.26	11.927				
14,600.0	11,450.0	15,384.0	12,082.4	66.5	66.1	-117.11	3,253.8	-984.6	1,390.9	1,271.3	119.62	11.628				
14,700.0	11,450.0	15,416.5	12,081.2	67.8	66.6	-117.08	3,286.3	-984.3	1,386.8	1,265.1	121.70	11.395				
14,759.0	11,450.0	15,445.6	12,080.7	68.6	67.0	-117.07	3,315.4	-984.4	1,386.1	1,263.2	122.94	11.274				
14,800.0	11,450.0	15,479.0	12,081.0	69.2	67.4	-117.07	3,348.8	-985.0	1,386.6	1,262.6	123.91	11.190				
14,900.0	11,450.0	15,535.5	12,082.7	70.5	68.2	-117.11	3,405.3	-986.5	1,389.2	1,263.2	125.97	11.028				
15,000.0	11,450.0	15,630.0	12,087.6	71.9	69.6	-117.26	3,499.6	-989.2	1,393.4	1,265.0	128.35	10.856				
15,100.0	11,450.0	15,772.6	12,093.0	73.3	71.6	-117.42	3,642.0	-992.0	1,396.3	1,265.1	131.25	10.638				
15,200.0	11,450.0	15,833.2	12,094.1	74.7	72.5	-117.44	3,702.6	-993.9	1,399.0	1,265.6	133.41	10.486				
15,300.0	11,450.0	15,903.1	12,096.3	76.1	73.5	-117.46	3,772.4	-997.2	1,403.9	1,268.3	135.63	10.351				
15,400.0	11,450.0	15,981.6	12,099.5	77.5	74.7	-117.49	3,850.7	-1,002.3	1,410.8	1,272.9	137.93	10.228				
15,500.0	11,450.0	16,079.7	12,103.2	78.9	76.1	-117.51	3,948.4	-1,009.6	1,418.5	1,277.9	140.55	10.092				
15,600.0	11,450.0	16,212.5	12,108.9	80.3	78.1	-117.58	4,080.7	-1,017.9	1,425.4	1,281.8	143.61	9.925				
15,700.0	11,450.0	16,325.1	12,111.1	81.8	79.8	-117.57	4,193.3	-1,023.6	1,430.0	1,283.5	146.47	9.763				
15,800.0	11,450.0	16,407.1	12,113.3	83.2	81.0	-117.58	4,275.1	-1,027.7	1,435.0	1,286.1	148.91	9.636				
15,900.0	11,450.0	16,632.1	12,114.2	84.7	84.4	-117.52	4,499.8	-1,034.6	1,438.3	1,285.3	153.00	9.401				
16,000.0	11,450.0	16,706.0	12,111.8	86.1	85.5	-117.44	4,573.7	-1,034.6	1,436.2	1,280.6	155.59	9.231				
16,069.8	11,450.0	16,758.2	12,111.9	87.1	86.3	-117.45	4,625.8	-1,034.6	1,435.7	1,278.4	157.32	9.126				
16,100.0	11,450.0	16,780.5	12,112.4	87.6	86.6	-117.47	4,648.2	-1,034.6	1,435.8	1,277.8	158.05	9.085				
16,200.0	11,450.0	16,850.6	12,115.2	89.1	87.7	-117.58	4,718.2	-1,034.9	1,437.4	1,277.0	160.34	8.965				
16,300.0	11,450.0	16,900.0	12,121.4	90.5	79.4	-117.80	4,832.1	-1,035.6	1,439.7	1,285.9	153.78	9.362				
16,394.2	11,450.0	17,082.8	12,125.3	91.9	91.2	-117.98	4,950.2	-1,034.5	1,439.6	1,273.9	165.63	8.691				
16,400.0	11,450.0	17,088.5	12,125.4	92.0	91.2	-117.98	4,955.8	-1,034.5	1,439.6	1,273.8	165.78	8.683				
16,404.2	11,450.0	17,092.7	12,125.5	92.1	91.3	-117.99	4,960.0	-1,034.5	1,439.6	1,273.7	165.90	8.677				
16,500.0	11,450.0	17,186.1	12,126.0	93.5	92.7	-118.01	5,053.4	-1,035.0	1,439.6	1,271.1	168.49	8.544				
16,600.0	11,450.0	17,267.9	12,126.2	95.0	94.0	-118.00	5,135.2	-1,036.3	1,440.4	1,269.3	171.07	8.420				
16,700.0	11,450.0	17,380.6	12,125.6	96.5	95.7	-117.96	5,247.9	-1,038.7	1,441.3	1,267.2	174.03	8.282				
16,800.0	11,450.0	17,456.5	12,125.3	98.0	96.9	-117.92	5,323.8	-1,040.7	1,442.7	1,266.1	176.60	8.169				
16,900.0	11,450.0	17,542.7	12,126.2	99.5	98.2	-117.91	5,409.9	-1,043.5	1,445.4	1,266.2	179.23	8.065				
17,000.0	11,450.0	17,745.0	12,127.3	101.1	101.3	-117.93	5,612.1	-1,046.2	1,447.2	1,264.3	182.97	7.910				
17,100.0	11,450.0	17,810.5	12,124.9	102.6	102.3	-117.87	5,677.6	-1,045.7	1,444.3	1,258.7	185.61	7.781				
17,200.0	11,450.0	17,893.9	12,123.6	104.1	103.6	-117.81	5,761.0	-1,046.7	1,443.8	1,255.4	188.34	7.666				
17,289.8	11,450.0	17,978.6	12,122.9	105.5	104.9	-117.79	5,845.7	-1,047.4	1,443.5	1,252.6	190.86	7.563				
17,300.0	11,450.0	17,987.3	12,122.8	105.6	105.1	-117.78	5,854.3	-1,047.5	1,443.5	1,252.3	191.13	7.552				
17,400.0	11,450.0	17,400.0	12,121.3	107.2	96.0	-117.73	5,975.5	-1,048.2	1,442.7	1,258.5	184.12	7.835				
17,500.0	11,450.0	18,195.6	12,120.0	108.7	108.3	-117.71	6,062.6	-1,047.8	1,441.0	1,244.0	196.96	7.316				
17,514.7	11,450.0	18,204.9	12,120.0	108.9	108.4	-117.71	6,071.9	-1,047.9	1,440.9	1,243.6	197.33	7.302				
17,600.0	11,450.0	18,288.9	12,119.7	110.3	109.8	-117.70	6,155.9	-1,048.8	1,441.1	1,241.3	199.75	7.214				
17,700.0	11,450.0	18,376.8	12,119.2	111.8	111.1	-117.67	6,243.8	-1,050.1	1,441.3	1,238.8	202.51	7.117				
17,800.0	11,450.0	18,450.2	12,119.3	113.3	112.3	-117.65	6,317.2	-1,051.9	1,443.0	1,237.9	205.07	7.037				
17,900.0	11,450.0	18,540.8	12,120.9	114.9	113.7	-117.65	6,407.7	-1,055.6	1,446.6	1,238.8	207.80	6.961				
18,000.0	11,450.0	18,000.0	12,120.8	116.5	105.3	-117.62	6,607.7	-1,058.6	1,447.9	1,246.8	201.05	7.202				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #203H - Sidetrack - Sidetrack		Offset Site Error:		0.0 usft
Survey Program: 220-MWD, 3018-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					
18,100.0	11,450.0	18,861.0	12,115.9	118.0	118.7	-117.54	6,727.5	-1,054.6	1,442.1	1,227.3	214.74	6.715					
18,200.0	11,450.0	18,933.4	12,115.2	119.6	119.8	-117.56	6,800.0	-1,052.4	1,438.2	1,220.7	217.43	6.614					
18,300.0	11,450.0	19,039.7	12,117.2	121.1	121.5	-117.72	6,906.2	-1,048.8	1,435.4	1,215.3	220.10	6.522					
18,400.0	11,450.0	19,129.1	12,117.4	122.7	122.9	-117.79	6,995.5	-1,045.9	1,432.0	1,209.2	222.79	6.427					
18,500.0	11,450.0	19,213.0	12,115.0	124.3	124.2	-117.72	7,079.4	-1,045.8	1,429.8	1,204.2	225.65	6.336					
18,600.0	11,450.0	19,305.3	12,111.1	125.8	125.7	-117.57	7,171.5	-1,047.3	1,428.6	1,199.8	228.71	6.246					
18,700.0	11,450.0	19,390.5	12,106.3	127.4	127.0	-117.36	7,256.6	-1,049.7	1,427.8	1,196.0	231.78	6.160					
18,702.7	11,450.0	19,392.5	12,106.2	127.4	127.1	-117.36	7,258.6	-1,049.8	1,427.8	1,196.0	231.86	6.158					
18,800.0	11,450.0	19,473.6	12,103.8	129.0	128.4	-117.24	7,339.5	-1,052.4	1,428.5	1,193.8	234.69	6.087					
18,900.0	11,450.0	19,575.5	12,101.8	130.5	130.0	-117.12	7,441.4	-1,055.6	1,429.7	1,191.9	237.80	6.012					
19,000.0	11,450.0	19,672.5	12,100.2	132.1	131.5	-117.03	7,538.3	-1,058.2	1,430.6	1,189.8	240.82	5.941					
19,100.0	11,450.0	19,763.1	12,101.5	133.7	133.0	-117.06	7,628.9	-1,059.9	1,432.3	1,188.7	243.57	5.880					
19,200.0	11,450.0	19,864.6	12,104.4	135.3	134.6	-117.15	7,730.4	-1,061.4	1,434.2	1,187.8	246.36	5.821					
19,300.0	11,450.0	19,960.7	12,106.4	136.9	136.1	-117.21	7,826.4	-1,063.0	1,435.9	1,186.8	249.13	5.764					
19,400.0	11,450.0	20,079.4	12,107.5	138.5	138.0	-117.21	7,945.1	-1,066.0	1,437.9	1,185.6	252.28	5.700					
19,500.0	11,450.0	20,180.0	12,106.4	140.0	139.6	-117.15	8,045.7	-1,067.8	1,438.3	1,183.0	255.31	5.634					
19,600.0	11,450.0	20,322.3	12,103.7	141.6	141.9	-117.05	8,188.0	-1,069.2	1,437.7	1,178.9	258.78	5.556					
19,700.0	11,450.0	20,423.5	12,100.5	143.2	143.5	-116.96	8,289.1	-1,068.8	1,435.1	1,173.2	261.87	5.480					
19,800.0	11,450.0	20,508.9	12,098.6	144.8	144.9	-116.90	8,374.4	-1,068.9	1,433.4	1,168.6	264.79	5.413					
19,900.0	11,450.0	20,612.4	12,095.6	146.4	146.5	-116.80	8,477.9	-1,069.6	1,432.1	1,164.1	267.93	5.345					
20,000.0	11,450.0	20,731.1	12,091.7	148.0	148.4	-116.68	8,596.5	-1,069.8	1,430.1	1,158.9	271.21	5.273					
20,100.0	11,450.0	20,825.3	12,089.9	149.6	149.9	-116.65	8,690.8	-1,068.3	1,427.1	1,152.9	274.16	5.205					
20,200.0	11,450.0	20,916.5	12,090.7	151.2	151.4	-116.72	8,781.9	-1,066.6	1,425.1	1,148.2	276.92	5.146					
20,300.0	11,450.0	21,025.6	12,090.8	152.8	153.1	-116.77	8,891.0	-1,065.0	1,423.1	1,143.3	279.83	5.086					
20,400.0	11,450.0	21,106.9	12,090.2	154.4	154.4	-116.78	8,972.3	-1,064.0	1,421.0	1,138.4	282.62	5.028					
20,500.0	11,450.0	21,193.3	12,091.6	156.0	155.8	-116.85	9,058.7	-1,063.7	1,420.6	1,135.3	285.32	4.979					
20,600.0	11,450.0	21,299.6	12,092.6	157.6	157.5	-116.90	9,165.0	-1,063.5	1,420.2	1,132.0	288.22	4.928					
20,700.0	11,450.0	21,402.2	12,091.7	159.2	159.2	-116.88	9,267.5	-1,063.9	1,419.5	1,128.2	291.23	4.874					
20,800.0	11,450.0	21,520.8	12,088.3	160.8	161.1	-116.76	9,386.1	-1,064.8	1,418.2	1,123.6	294.56	4.814					
20,896.4	11,450.0	21,587.0	12,086.5	162.3	162.1	-116.69	9,452.3	-1,065.4	1,417.1	1,119.8	297.29	4.767					
20,900.0	11,450.0	21,589.5	12,086.5	162.4	162.2	-116.69	9,454.7	-1,065.5	1,417.1	1,119.7	297.39	4.765					
21,000.0	11,450.0	21,670.9	12,086.2	164.0	163.5	-116.66	9,536.1	-1,067.1	1,418.0	1,117.8	300.18	4.724					
21,100.0	11,450.0	21,774.0	12,085.4	165.6	165.2	-116.59	9,639.2	-1,070.1	1,419.5	1,116.2	303.33	4.680					
21,200.0	11,450.0	21,865.1	12,083.7	167.2	166.6	-116.49	9,730.2	-1,073.0	1,420.8	1,114.4	306.37	4.637					
21,300.0	11,450.0	21,966.1	12,082.6	168.8	168.3	-116.40	9,831.1	-1,076.5	1,422.8	1,113.3	309.54	4.597					
21,400.0	11,450.0	22,073.3	12,079.8	170.4	170.0	-116.25	9,938.2	-1,080.6	1,424.3	1,111.3	312.93	4.551					
21,500.0	11,450.0	22,164.8	12,076.3	172.0	171.5	-116.06	10,029.6	-1,084.5	1,425.7	1,109.6	316.16	4.509					
21,606.0	11,450.0	22,283.7	12,070.8	173.8	173.5	-115.79	10,148.3	-1,089.8	1,427.0	1,107.0	320.06	4.459					
21,606.3	11,450.0	22,284.0	12,070.8	173.8	173.5	-115.79	10,148.6	-1,089.8	1,427.0	1,107.0	320.07	4.459 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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-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	-105.80	-31.1	-109.8	114.1						
100.0	100.0	100.5	100.5	0.1	0.2	-105.81	-31.0	-109.5	113.9	113.6	0.29	396.009			
200.0	200.0	201.1	201.1	0.5	0.3	-105.84	-30.9	-108.8	113.1	112.3	0.80	140.994			
300.0	300.0	301.4	301.4	0.8	0.6	-105.93	-30.7	-107.7	112.0	110.5	1.48	75.584			
400.0	400.0	401.3	401.2	1.2	1.0	-106.19	-30.9	-106.4	110.8	108.6	2.20	50.438			
500.0	500.0	500.7	500.6	1.6	1.3	-106.47	-31.2	-105.5	110.0	107.1	2.91	37.782			
572.6	572.6	572.6	572.6	1.8	1.6	-106.59	-31.3	-105.2	109.8	106.4	3.42	32.085 CC			
600.0	600.0	599.8	599.8	1.9	1.7	-106.61	-31.4	-105.2	109.8	106.2	3.61	30.390			
700.0	700.0	699.1	699.1	2.3	2.0	-106.79	-31.9	-105.6	110.4	106.0	4.31	25.602 ES			
800.0	800.0	798.8	798.7	2.6	2.4	-107.00	-32.6	-106.5	111.3	106.3	5.01	22.222			
900.0	900.0	898.7	898.7	3.0	2.7	-107.18	-33.2	-107.6	112.6	106.9	5.71	19.701			
1,000.0	1,000.0	999.0	998.9	3.4	3.1	-107.32	-33.8	-108.5	113.6	107.2	6.42	17.699			
1,100.0	1,100.0	1,099.8	1,099.7	3.7	3.4	-107.30	-34.0	-109.1	114.2	107.1	7.13	16.026			
1,200.0	1,200.0	1,195.6	1,195.5	4.1	3.7	-106.67	-33.3	-111.1	116.0	108.2	7.82	14.843			
1,300.0	1,300.0	1,289.0	1,288.7	4.4	4.1	-105.26	-32.1	-117.8	122.6	114.1	8.49	14.431			
1,400.0	1,400.0	1,387.3	1,386.4	4.8	4.4	-103.55	-30.9	-128.1	132.5	123.3	9.19	14.411			
1,500.0	1,500.0	1,487.5	1,486.0	5.1	4.8	-102.04	-29.6	-138.6	142.4	132.5	9.90	14.386			
1,600.0	1,600.0	1,586.9	1,585.0	5.5	5.2	-100.94	-28.8	-148.8	152.3	141.7	10.61	14.357			
1,700.0	1,700.0	1,687.0	1,684.5	5.9	5.5	-100.10	-28.3	-158.8	162.1	150.7	11.32	14.312			
1,800.0	1,800.0	1,787.3	1,784.3	6.2	5.9	-100.05	-29.8	-168.0	171.4	159.3	12.04	14.233			
1,900.0	1,900.0	1,887.5	1,884.2	6.6	6.3	-100.21	-31.9	-176.8	180.4	167.6	12.76	14.140			
2,000.0	2,000.0	1,988.3	1,984.6	6.9	6.7	-100.43	-34.1	-185.1	188.8	175.3	13.48	14.010			
2,100.0	2,100.0	2,086.9	2,082.9	7.3	7.0	-100.69	-36.4	-192.8	197.0	182.8	14.18	13.888			
2,200.0	2,200.0	2,185.3	2,180.9	7.7	7.4	-101.13	-39.6	-201.4	206.2	191.3	14.89	13.846			
2,300.0	2,300.0	2,285.4	2,280.5	8.0	7.8	-101.60	-43.1	-210.1	215.4	199.8	15.61	13.798			
2,400.0	2,400.0	2,386.4	2,381.0	8.4	8.2	-102.15	-47.0	-218.4	224.2	207.9	16.33	13.725			
2,500.0	2,500.0	2,488.1	2,482.5	8.7	8.5	-102.69	-50.9	-225.9	232.2	215.1	17.06	13.607			
2,600.0	2,600.0	2,589.6	2,583.6	9.1	8.9	138.70	-54.6	-232.5	240.0	222.2	17.78	13.500 SF			
2,700.0	2,700.0	2,684.1	2,677.9	9.4	9.3	138.56	-58.1	-239.1	249.6	231.2	18.43	13.542			
2,800.0	2,799.9	2,784.5	2,777.8	9.7	9.7	138.69	-62.1	-247.2	261.7	242.6	19.13	13.677			
2,900.0	2,899.7	2,886.1	2,879.1	10.1	10.0	138.86	-66.7	-254.5	274.3	254.4	19.85	13.820			
3,000.0	2,999.4	2,990.8	2,983.5	10.4	10.4	139.13	-71.8	-260.3	286.7	266.1	20.57	13.935			
3,100.0	3,098.9	3,090.0	3,082.6	10.8	10.8	139.88	-74.8	-265.2	299.4	278.1	21.27	14.076			
3,200.0	3,198.3	3,185.7	3,178.0	11.1	11.1	141.02	-76.3	-270.9	314.3	292.3	21.95	14.318			
3,300.0	3,297.4	3,288.1	3,280.3	11.5	11.5	142.45	-77.1	-276.7	330.2	307.6	22.67	14.566			
3,400.0	3,396.4	3,384.2	3,376.3	11.8	11.9	144.15	-75.9	-281.9	346.6	323.2	23.36	14.839			
3,500.0	3,495.5	3,474.5	3,466.2	12.2	12.2	145.90	-73.1	-288.7	365.1	341.1	24.00	15.215			
3,600.0	3,594.5	3,569.6	3,560.9	12.6	12.6	147.76	-69.1	-296.7	384.9	360.2	24.67	15.601			
3,700.0	3,693.5	3,660.5	3,651.3	12.9	12.9	149.19	-66.4	-305.8	406.5	381.2	25.31	16.062			
3,800.0	3,792.5	3,762.4	3,752.6	13.3	13.3	150.21	-66.7	-316.0	428.4	402.3	26.05	16.447			
3,900.0	3,891.6	3,861.1	3,851.0	13.7	13.7	150.84	-68.8	-324.5	449.2	422.4	26.76	16.784			
4,000.0	3,990.6	3,951.2	3,940.5	14.1	14.0	151.08	-73.1	-333.5	471.2	443.8	27.40	17.195			
4,100.0	4,089.6	4,046.9	4,035.4	14.5	14.4	151.01	-80.2	-343.9	494.2	466.1	28.10	17.588			
4,200.0	4,188.6	4,149.3	4,136.9	14.8	14.8	150.84	-88.6	-354.8	517.0	488.1	28.86	17.914			
4,300.0	4,287.7	4,252.3	4,239.3	15.2	15.2	150.93	-95.0	-364.3	538.3	508.7	29.62	18.177			
4,400.0	4,386.7	4,353.5	4,339.9	15.6	15.6	151.31	-98.2	-373.2	559.2	528.9	30.36	18.422			
4,500.0	4,485.7	4,446.4	4,432.5	16.0	16.0	151.74	-100.2	-381.0	579.8	548.8	31.03	18.685			
4,600.0	4,584.8	4,538.4	4,524.1	16.4	16.3	152.15	-102.0	-390.1	601.9	570.2	31.70	18.986			
4,700.0	4,683.8	4,637.3	4,622.4	16.8	16.7	152.57	-103.9	-400.1	624.2	591.7	32.43	19.248			
4,800.0	4,782.8	4,739.2	4,723.8	17.2	17.1	152.96	-105.8	-409.8	646.0	612.8	33.18	19.470			
4,900.0	4,881.8	4,841.7	4,825.9	17.6	17.5	153.34	-107.8	-418.8	667.1	633.1	33.93	19.660			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 220-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	4,980.9	4,943.0	4,926.9	18.0	17.9	153.67	-110.0	-427.1	687.5	652.9	34.67	19.829		
5,100.0	5,079.9	5,026.2	5,009.8	18.4	18.2	153.94	-111.6	-434.4	708.7	673.4	35.28	20.087		
5,200.0	5,178.9	5,113.3	5,096.3	18.8	18.5	154.20	-113.3	-443.9	731.8	695.9	35.91	20.380		
5,300.0	5,277.9	5,208.3	5,190.6	19.2	18.9	154.47	-115.0	-454.9	755.8	719.1	36.61	20.646		
5,400.0	5,377.0	5,306.8	5,288.5	19.6	19.3	154.73	-116.9	-466.4	779.7	742.3	37.34	20.883		
5,500.0	5,476.0	5,408.1	5,389.1	20.0	19.7	154.99	-118.7	-477.8	803.3	765.2	38.09	21.089		
5,600.0	5,575.0	5,512.8	5,493.2	20.4	20.1	155.26	-120.4	-488.8	826.2	787.3	38.87	21.255		
5,623.7	5,598.5	5,536.5	5,516.8	20.5	20.2	155.32	-120.8	-491.1	831.5	792.4	39.04	21.296		
5,700.0	5,674.1	5,612.0	5,591.9	20.8	20.5	155.59	-122.0	-498.6	847.8	808.2	39.60	21.409		
5,800.0	5,773.6	5,715.1	5,694.5	21.2	20.9	155.86	-123.5	-508.5	866.8	826.5	40.36	21.480		
5,900.0	5,873.3	5,817.1	5,796.1	21.6	21.3	156.06	-124.7	-517.7	883.1	842.0	41.10	21.487		
6,000.0	5,973.1	5,919.1	5,897.7	21.9	21.7	156.18	-125.7	-526.5	896.6	854.7	41.83	21.432		
6,100.0	6,073.1	6,021.7	5,999.9	22.3	22.1	156.22	-126.6	-535.1	907.4	864.8	42.57	21.316		
6,157.0	6,130.1	6,081.7	6,059.7	22.5	22.3	-85.62	-127.2	-539.9	912.3	869.3	42.99	21.218		
6,200.0	6,173.1	6,125.0	6,103.0	22.6	22.5	-85.66	-127.5	-543.3	915.6	872.3	43.30	21.145		
6,300.0	6,273.1	6,226.5	6,204.2	23.0	22.9	-85.74	-128.1	-551.0	923.1	879.1	44.02	20.973		
6,400.0	6,373.1	6,316.5	6,293.9	23.3	23.2	-85.80	-128.7	-558.0	930.8	886.2	44.65	20.847		
6,500.0	6,473.1	6,400.3	6,377.3	23.6	23.5	-85.89	-129.5	-566.0	940.3	895.1	45.23	20.788		
6,600.0	6,573.1	6,495.0	6,471.4	24.0	23.9	-86.01	-130.7	-576.1	950.9	905.0	45.90	20.716		
6,700.0	6,673.1	6,597.8	6,573.7	24.3	24.3	-86.11	-131.7	-587.1	961.4	914.8	46.64	20.615		
6,800.0	6,773.1	6,701.3	6,676.5	24.6	24.7	-86.22	-132.8	-597.6	971.5	924.2	47.38	20.507		
6,900.0	6,873.1	6,803.0	6,777.7	25.0	25.1	-86.40	-135.2	-607.8	981.4	933.3	48.10	20.401		
7,000.0	6,973.1	6,906.3	6,880.5	25.3	25.5	-86.60	-138.0	-617.8	990.9	942.1	48.84	20.287		
7,100.0	7,073.1	7,010.0	6,983.7	25.6	25.9	-86.78	-140.5	-627.5	1,000.1	950.5	49.59	20.168		
7,200.0	7,173.1	7,112.9	7,086.1	26.0	26.3	-86.93	-142.8	-636.6	1,008.8	958.5	50.32	20.048		
7,300.0	7,273.1	7,214.6	7,187.4	26.3	26.7	-87.08	-144.9	-645.4	1,017.3	966.3	51.05	19.930		
7,400.0	7,373.1	7,319.8	7,292.3	26.7	27.1	-87.24	-147.3	-654.1	1,025.5	973.7	51.80	19.799		
7,500.0	7,473.1	7,423.4	7,395.5	27.0	27.5	-87.40	-149.8	-662.0	1,033.0	980.5	52.53	19.664		
7,600.0	7,573.1	7,511.0	7,482.8	27.3	27.8	-87.54	-152.1	-669.3	1,041.2	988.0	53.16	19.586		
7,700.0	7,673.1	7,612.7	7,584.1	27.7	28.2	-87.71	-154.7	-678.2	1,049.8	995.9	53.89	19.482		
7,800.0	7,773.1	7,719.5	7,690.6	28.0	28.6	-87.87	-157.4	-686.9	1,057.9	1,003.2	54.65	19.358		
7,900.0	7,873.1	7,822.0	7,792.7	28.4	29.0	-88.02	-159.8	-694.8	1,065.5	1,010.1	55.38	19.241		
8,000.0	7,973.1	7,925.2	7,895.6	28.7	29.4	-88.15	-162.1	-702.6	1,072.9	1,016.8	56.11	19.122		
8,100.0	8,073.1	8,023.6	7,993.7	29.1	29.8	-88.29	-164.4	-709.7	1,080.1	1,023.3	56.81	19.011		
8,200.0	8,173.1	8,123.5	8,093.3	29.4	30.2	-88.46	-167.4	-717.2	1,087.6	1,030.0	57.53	18.905		
8,300.0	8,273.1	8,219.4	8,188.8	29.7	30.6	-88.59	-169.7	-724.4	1,094.9	1,036.7	58.21	18.809		
8,400.0	8,373.1	8,299.5	8,268.7	30.1	30.9	-88.67	-171.0	-731.1	1,103.3	1,044.5	58.79	18.769		
8,500.0	8,473.1	8,379.4	8,348.1	30.4	31.2	-88.73	-172.0	-739.6	1,113.9	1,054.5	59.34	18.771		
8,600.0	8,573.1	8,478.6	8,446.6	30.8	31.6	-88.80	-173.1	-750.9	1,125.3	1,065.3	60.05	18.739		
8,700.0	8,673.1	8,590.2	8,557.6	31.1	32.0	-88.88	-174.4	-762.8	1,135.9	1,075.1	60.86	18.664		
8,800.0	8,773.1	8,700.3	8,667.1	31.5	32.4	-88.96	-175.9	-773.6	1,145.7	1,084.0	61.66	18.581		
8,900.0	8,873.1	8,811.0	8,777.4	31.8	32.9	-89.05	-177.5	-783.3	1,154.4	1,092.0	62.45	18.486		
9,000.0	8,973.1	8,922.9	8,889.0	32.2	33.3	-89.16	-179.5	-792.0	1,162.2	1,098.9	63.24	18.377		
9,100.0	9,073.1	9,000.8	8,966.6	32.5	33.6	-89.26	-181.4	-798.5	1,170.5	1,106.7	63.81	18.343		
9,200.0	9,173.1	9,118.3	9,083.6	32.9	34.0	-89.43	-184.9	-808.5	1,179.0	1,114.3	64.65	18.237		
9,300.0	9,273.1	9,210.7	9,175.6	33.2	34.4	-89.53	-186.8	-816.1	1,187.2	1,121.9	65.31	18.177		
9,400.0	9,373.1	9,320.6	9,285.3	33.5	34.8	-89.58	-187.8	-824.2	1,194.5	1,128.4	66.09	18.073		
9,500.0	9,473.1	9,406.9	9,371.2	33.9	35.1	-89.66	-189.5	-831.3	1,202.6	1,135.9	66.71	18.027		
9,600.0	9,573.1	9,511.9	9,475.8	34.2	35.6	-89.80	-192.3	-839.6	1,210.5	1,143.1	67.46	17.943		
9,700.0	9,673.1	9,602.5	9,566.1	34.6	35.9	-89.88	-193.9	-847.5	1,219.2	1,151.1	68.12	17.899		

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-MWD											Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
9,800.0	9,773.1	9,707.8	9,671.0	34.9	36.3	-89.95	-195.4	-856.2	1,227.4	1,158.6	68.87	17.823			
9,900.0	9,873.1	9,800.1	9,763.0	35.3	36.7	-90.03	-197.1	-864.2	1,236.1	1,166.6	69.53	17.778			
10,000.0	9,973.1	9,897.9	9,860.4	35.6	37.0	-90.15	-199.8	-873.0	1,245.1	1,174.9	70.24	17.728			
10,100.0	10,073.1	10,004.8	9,966.8	36.0	37.5	-90.29	-203.0	-882.5	1,254.1	1,183.1	71.00	17.662			
10,200.0	10,173.1	10,101.2	10,062.8	36.3	37.8	-90.42	-205.9	-890.5	1,262.4	1,190.7	71.70	17.608			
10,300.0	10,273.1	10,203.3	10,164.5	36.7	38.2	-90.56	-209.1	-899.6	1,271.3	1,198.9	72.43	17.553			
10,400.0	10,373.1	10,295.1	10,255.8	37.0	38.6	-90.68	-211.7	-907.4	1,279.9	1,206.8	73.09	17.512			
10,500.0	10,473.1	10,408.0	10,368.2	37.4	39.0	-90.82	-214.9	-917.6	1,289.0	1,215.1	73.90	17.443			
10,600.0	10,573.1	10,509.5	10,469.4	37.7	39.4	-90.92	-217.4	-925.6	1,297.0	1,222.3	74.63	17.380			
10,700.0	10,673.1	10,593.1	10,552.7	38.1	39.7	-90.99	-219.1	-932.8	1,305.5	1,230.3	75.23	17.354			
10,800.0	10,773.1	10,686.9	10,646.0	38.4	40.1	-91.10	-221.6	-941.7	1,315.1	1,239.1	75.90	17.325			
10,903.9	10,877.0	10,806.1	10,764.7	38.8	40.6	-91.25	-225.3	-952.6	1,324.7	1,247.9	76.76	17.257			
10,950.0	10,923.0	10,881.8	10,840.1	38.9	40.8	-83.38	-228.2	-958.1	1,327.8	1,250.6	77.27	17.184			
11,000.0	10,972.6	10,940.0	10,898.2	39.1	41.1	-83.56	-230.5	-961.4	1,330.0	1,252.4	77.67	17.125			
11,050.0	11,021.5	10,995.0	10,953.0	39.3	41.3	-83.98	-232.7	-964.3	1,331.7	1,253.6	78.03	17.066			
11,100.0	11,069.3	11,075.4	11,033.3	39.4	41.6	-85.02	-234.9	-967.3	1,332.2	1,253.7	78.49	16.973			
11,150.0	11,115.6	11,126.5	11,084.5	39.6	41.7	-85.90	-235.6	-968.5	1,331.9	1,253.1	78.81	16.900			
11,200.0	11,160.1	11,172.4	11,130.4	39.7	41.9	-86.85	-236.3	-969.5	1,331.6	1,252.5	79.11	16.833			
11,250.0	11,202.4	11,224.8	11,182.7	39.8	42.1	-88.09	-236.8	-970.5	1,331.3	1,251.9	79.41	16.765			
11,298.4	11,241.1	11,274.1	11,232.0	39.9	42.2	-89.39	-237.0	-971.0	1,331.2	1,251.5	79.69	16.704			
11,300.0	11,242.3	11,275.7	11,233.6	39.9	42.3	-89.43	-237.0	-971.0	1,331.2	1,251.5	79.70	16.702			
11,350.0	11,279.3	11,314.0	11,271.9	40.0	42.4	-90.50	-237.1	-971.2	1,331.6	1,251.6	79.95	16.655			
11,400.0	11,313.4	11,349.5	11,307.5	40.1	42.5	-91.49	-237.3	-971.4	1,332.9	1,252.7	80.18	16.623			
11,450.0	11,344.1	11,382.0	11,340.0	40.1	42.6	-92.35	-237.6	-971.5	1,335.4	1,255.0	80.40	16.609			
11,500.0	11,371.2	11,410.5	11,368.4	40.2	42.7	-92.99	-237.9	-971.5	1,339.3	1,258.7	80.61	16.614			
11,550.0	11,394.6	11,433.3	11,391.2	40.2	42.8	-93.31	-238.2	-971.4	1,344.8	1,264.0	80.80	16.643			
11,600.0	11,414.0	11,452.2	11,410.1	40.3	42.8	-93.33	-238.4	-971.4	1,352.0	1,271.0	80.98	16.696			
11,650.0	11,429.4	11,466.9	11,424.8	40.4	42.9	-93.02	-238.6	-971.4	1,361.0	1,279.9	81.14	16.774			
11,700.0	11,440.6	11,468.0	11,425.9	40.5	42.9	-91.94	-238.6	-971.4	1,372.0	1,290.7	81.26	16.884			
11,750.0	11,447.4	11,468.0	11,425.9	40.6	42.9	-90.61	-238.6	-971.4	1,384.8	1,303.4	81.37	17.018			
11,803.9	11,450.0	11,468.0	11,425.9	40.7	42.9	-88.97	-238.6	-971.4	1,400.6	1,319.1	81.49	17.188			
11,900.0	11,450.0	11,468.0	11,425.9	41.0	42.9	-88.94	-238.6	-971.4	1,435.4	1,353.7	81.70	17.569			
12,000.0	11,450.0	11,468.0	11,425.9	41.4	42.9	-88.92	-238.6	-971.4	1,482.0	1,400.0	81.94	18.086			
12,048.6	11,450.0	11,468.0	11,425.9	41.6	42.9	-88.90	-238.6	-971.4	1,508.1	1,426.0	82.05	18.379			
12,100.0	11,450.0	11,468.0	11,425.9	41.8	42.9	-88.90	-238.6	-971.4	1,537.4	1,455.2	82.18	18.709			
12,200.0	11,450.0	11,468.0	11,425.9	42.3	42.9	-88.90	-238.6	-971.4	1,597.7	1,515.3	82.42	19.386			
12,300.0	11,450.0	11,468.0	11,425.9	42.9	42.9	-88.90	-238.6	-971.4	1,661.8	1,579.2	82.65	20.106			
12,400.0	11,450.0	11,468.0	11,425.9	43.5	42.9	-88.90	-238.6	-971.4	1,729.4	1,646.5	82.88	20.865			
12,500.0	11,450.0	11,468.0	11,425.9	44.1	42.9	-88.90	-238.6	-971.4	1,799.9	1,716.8	83.11	21.658			
12,600.0	11,450.0	11,468.0	11,425.9	44.9	42.9	-88.90	-238.6	-971.4	1,873.1	1,789.8	83.32	22.482			
12,700.0	11,450.0	11,474.1	11,432.1	45.6	42.9	-89.18	-238.7	-971.4	1,948.7	1,865.2	83.54	23.328			
12,800.0	11,450.0	11,472.9	11,430.8	46.4	42.9	-89.12	-238.7	-971.4	2,026.5	1,942.8	83.72	24.205			
12,900.0	11,450.0	11,471.6	11,429.5	47.3	42.9	-89.06	-238.7	-971.4	2,106.1	2,022.2	83.90	25.103			
13,000.0	11,450.0	11,470.3	11,428.2	48.2	42.9	-89.00	-238.7	-971.4	2,187.4	2,103.3	84.06	26.021			
13,100.0	11,450.0	11,469.1	11,427.0	49.1	42.9	-88.95	-238.6	-971.4	2,270.2	2,185.9	84.22	26.956			
13,200.0	11,450.0	11,467.8	11,425.7	50.1	42.9	-88.89	-238.6	-971.4	2,354.3	2,269.9	84.36	27.907			
13,300.0	11,450.0	11,466.5	11,424.4	51.1	42.9	-88.83	-238.6	-971.4	2,439.6	2,355.1	84.50	28.871			
13,400.0	11,450.0	11,465.2	11,423.2	52.1	42.9	-88.77	-238.6	-971.4	2,526.0	2,441.4	84.63	29.848			
13,500.0	11,450.0	11,464.0	11,421.9	53.2	42.9	-88.71	-238.6	-971.4	2,613.3	2,528.6	84.75	30.836			
13,600.0	11,450.0	11,462.7	11,420.6	54.3	42.9	-88.66	-238.6	-971.4	2,701.6	2,616.7	84.86	31.834			
13,700.0	11,450.0	11,461.4	11,419.3	55.4	42.9	-88.60	-238.5	-971.4	2,790.6	2,705.6	84.97	32.841			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-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			
13,800.0	11,450.0	11,460.2	11,418.1	56.5	42.9	-88.54	-238.5	-971.4	2,880.4	2,795.3	85.08	33.856			
13,900.0	11,450.0	11,458.9	11,416.8	57.7	42.9	-88.48	-238.5	-971.4	2,970.8	2,885.6	85.18	34.878			
14,000.0	11,450.0	11,457.6	11,415.5	58.9	42.9	-88.42	-238.5	-971.4	3,061.8	2,976.5	85.27	35.907			
14,100.0	11,450.0	11,456.4	11,414.3	60.1	42.8	-88.36	-238.5	-971.4	3,153.3	3,068.0	85.36	36.941			
14,200.0	11,450.0	11,455.1	11,413.0	61.4	42.8	-88.31	-238.5	-971.4	3,245.4	3,159.9	85.45	37.981			
14,300.0	11,450.0	11,453.8	11,411.7	62.6	42.8	-88.25	-238.4	-971.4	3,337.9	3,252.3	85.53	39.025			
14,400.0	11,450.0	11,452.5	11,410.5	63.9	42.8	-88.19	-238.4	-971.4	3,430.8	3,345.2	85.61	40.073			
14,500.0	11,450.0	11,451.3	11,409.2	65.2	42.8	-88.13	-238.4	-971.4	3,524.1	3,438.4	85.69	41.125			
14,600.0	11,450.0	11,450.0	11,407.9	66.5	42.8	-88.07	-238.4	-971.4	3,617.8	3,532.0	85.77	42.181			
14,700.0	11,450.0	11,448.7	11,406.6	67.8	42.8	-88.02	-238.4	-971.4	3,711.8	3,625.9	85.84	43.239			
14,800.0	11,450.0	11,447.5	11,405.4	69.2	42.8	-87.96	-238.4	-971.4	3,806.1	3,720.1	85.92	44.300			
14,900.0	11,450.0	11,446.2	11,404.1	70.5	42.8	-87.90	-238.3	-971.4	3,900.6	3,814.7	85.99	45.363			
15,000.0	11,450.0	11,444.9	11,402.8	71.9	42.8	-87.84	-238.3	-971.4	3,995.5	3,909.4	86.06	46.428			
15,100.0	11,450.0	11,443.6	11,401.6	73.3	42.8	-87.78	-238.3	-971.4	4,090.6	4,004.5	86.13	47.495			
15,200.0	11,450.0	11,442.4	11,400.3	74.7	42.8	-87.72	-238.3	-971.4	4,185.9	4,099.7	86.19	48.563			
15,300.0	11,450.0	11,441.1	11,399.0	76.1	42.8	-87.67	-238.3	-971.4	4,281.4	4,195.2	86.26	49.633			
15,400.0	11,450.0	11,439.8	11,397.7	77.5	42.8	-87.61	-238.3	-971.4	4,377.2	4,290.9	86.33	50.704			
15,500.0	11,450.0	11,438.6	11,396.5	78.9	42.8	-87.55	-238.3	-971.4	4,473.1	4,386.7	86.39	51.776			
15,600.0	11,450.0	11,437.3	11,395.2	80.3	42.8	-87.49	-238.2	-971.4	4,569.2	4,482.7	86.46	52.848			
15,700.0	11,450.0	11,436.0	11,393.9	81.8	42.8	-87.43	-238.2	-971.4	4,665.5	4,578.9	86.52	53.921			
15,800.0	11,450.0	11,434.8	11,392.7	83.2	42.8	-87.38	-238.2	-971.4	4,761.9	4,675.3	86.59	54.994			
15,900.0	11,450.0	11,433.5	11,391.4	84.7	42.8	-87.32	-238.2	-971.4	4,858.4	4,771.8	86.65	56.068			
16,000.0	11,450.0	11,432.2	11,390.1	86.1	42.8	-87.26	-238.2	-971.4	4,955.1	4,868.4	86.72	57.142			
16,100.0	11,450.0	11,430.9	11,388.9	87.6	42.8	-87.20	-238.2	-971.4	5,051.9	4,965.2	86.78	58.215			
16,200.0	11,450.0	11,429.7	11,387.6	89.1	42.8	-87.14	-238.1	-971.4	5,148.9	5,062.0	86.84	59.289			
16,300.0	11,450.0	11,428.4	11,386.3	90.5	42.8	-87.09	-238.1	-971.4	5,245.9	5,159.0	86.91	60.362			
16,400.0	11,450.0	11,427.1	11,385.0	92.0	42.8	-87.03	-238.1	-971.4	5,343.1	5,256.1	86.97	61.435			
16,500.0	11,450.0	11,425.9	11,383.8	93.5	42.7	-86.97	-238.1	-971.4	5,440.4	5,353.3	87.04	62.507			
16,600.0	11,450.0	11,424.6	11,382.5	95.0	42.7	-86.91	-238.1	-971.4	5,537.7	5,450.6	87.10	63.579			
16,700.0	11,450.0	11,423.3	11,381.2	96.5	42.7	-86.85	-238.1	-971.4	5,635.2	5,548.0	87.16	64.650			
16,800.0	11,450.0	11,422.0	11,380.0	98.0	42.7	-86.79	-238.0	-971.4	5,732.7	5,645.5	87.23	65.721			
16,900.0	11,450.0	11,420.8	11,378.7	99.5	42.7	-86.74	-238.0	-971.4	5,830.4	5,743.1	87.29	66.790			
17,000.0	11,450.0	11,419.5	11,377.4	101.1	42.7	-86.68	-238.0	-971.4	5,928.1	5,840.7	87.36	67.859			
17,100.0	11,450.0	11,418.2	11,376.1	102.6	42.7	-86.62	-238.0	-971.4	6,025.9	5,938.4	87.42	68.927			
17,200.0	11,450.0	11,417.0	11,374.9	104.1	42.7	-86.56	-238.0	-971.4	6,123.7	6,036.2	87.49	69.993			
17,300.0	11,450.0	11,415.7	11,373.6	105.6	42.7	-86.50	-238.0	-971.5	6,221.6	6,134.1	87.56	71.059			
17,400.0	11,450.0	11,414.4	11,372.3	107.2	42.7	-86.45	-237.9	-971.5	6,319.6	6,232.0	87.62	72.123			
17,500.0	11,450.0	11,413.2	11,371.1	108.7	42.7	-86.39	-237.9	-971.5	6,417.7	6,330.0	87.69	73.186			
17,600.0	11,450.0	11,411.9	11,369.8	110.3	42.7	-86.33	-237.9	-971.5	6,515.8	6,428.0	87.76	74.248			
17,700.0	11,450.0	11,410.6	11,368.5	111.8	42.7	-86.27	-237.9	-971.5	6,613.9	6,526.1	87.82	75.308			
17,800.0	11,450.0	11,409.3	11,367.3	113.3	42.7	-86.21	-237.9	-971.5	6,712.1	6,624.3	87.89	76.367			
17,900.0	11,450.0	11,408.1	11,366.0	114.9	42.7	-86.16	-237.9	-971.5	6,810.4	6,722.5	87.96	77.425			
18,000.0	11,450.0	11,406.8	11,364.7	116.5	42.7	-86.10	-237.8	-971.5	6,908.7	6,820.7	88.03	78.481			
18,100.0	11,450.0	11,405.5	11,363.4	118.0	42.7	-86.04	-237.8	-971.5	7,007.1	6,919.0	88.10	79.535			
18,200.0	11,450.0	11,404.3	11,362.2	119.6	42.7	-85.98	-237.8	-971.5	7,105.5	7,017.3	88.17	80.588			
18,300.0	11,450.0	11,405.0	11,360.9	121.1	42.7	-85.92	-237.8	-971.5	7,204.0	7,115.7	88.25	81.633			
18,400.0	11,450.0	11,406.3	11,359.6	122.7	42.7	-85.87	-237.8	-971.5	7,302.5	7,214.1	88.33	82.674			
18,500.0	11,450.0	11,407.6	11,358.4	124.3	42.7	-85.81	-237.8	-971.5	7,401.0	7,312.6	88.41	83.714			
18,600.0	11,450.0	11,408.8	11,357.1	125.8	42.7	-85.75	-237.8	-971.5	7,499.6	7,411.1	88.49	84.751			
18,700.0	11,450.0	11,410.1	11,355.8	127.4	42.7	-85.69	-237.7	-971.5	7,598.2	7,509.6	88.57	85.787			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design				Nina Cortell - Nina Cortell Fed Com #203H - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft
Survey Program: 220-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				
18,800.0	11,450.0	11,404.0	11,361.9	129.0	42.7	-85.97	-237.8	-971.5	7,696.8	7,608.2	88.62	86.848				
18,900.0	11,450.0	11,404.0	11,361.9	130.5	42.7	-85.97	-237.8	-971.5	7,795.5	7,706.8	88.70	87.884				
19,000.0	11,450.0	11,404.0	11,361.9	132.1	42.7	-85.97	-237.8	-971.5	7,894.2	7,805.5	88.78	88.919				
19,100.0	11,450.0	11,404.0	11,361.9	133.7	42.7	-85.97	-237.8	-971.5	7,993.0	7,904.1	88.86	89.951				
19,200.0	11,450.0	11,404.0	11,361.9	135.3	42.7	-85.97	-237.8	-971.5	8,091.8	8,002.8	88.94	90.981				
19,300.0	11,450.0	11,404.0	11,361.9	136.9	42.7	-85.97	-237.8	-971.5	8,190.6	8,101.5	89.02	92.010				
19,400.0	11,450.0	11,404.0	11,361.9	138.5	42.7	-85.97	-237.8	-971.5	8,289.4	8,200.3	89.10	93.036				
19,500.0	11,450.0	11,404.0	11,361.9	140.0	42.7	-85.97	-237.8	-971.5	8,388.3	8,299.1	89.18	94.059				
19,600.0	11,450.0	11,395.8	11,353.7	141.6	42.7	-85.60	-237.7	-971.5	8,487.2	8,397.9	89.24	95.105				
19,700.0	11,450.0	11,395.2	11,353.1	143.2	42.6	-85.57	-237.7	-971.5	8,586.1	8,496.7	89.32	96.126				
19,800.0	11,450.0	11,394.7	11,352.6	144.8	42.6	-85.55	-237.7	-971.5	8,685.0	8,595.6	89.40	97.145				
19,900.0	11,450.0	11,394.2	11,352.1	146.4	42.6	-85.52	-237.7	-971.5	8,784.0	8,694.5	89.49	98.161				
20,000.0	11,450.0	11,393.7	11,351.6	148.0	42.6	-85.50	-237.7	-971.5	8,883.0	8,793.4	89.57	99.175				
20,100.0	11,450.0	11,393.2	11,351.1	149.6	42.6	-85.48	-237.7	-971.5	8,982.0	8,892.3	89.65	100.187				
20,200.0	11,450.0	11,392.7	11,350.6	151.2	42.6	-85.45	-237.7	-971.5	9,081.0	8,991.3	89.74	101.197				
20,300.0	11,450.0	11,392.2	11,350.1	152.8	42.6	-85.43	-237.7	-971.5	9,180.1	9,090.2	89.82	102.204				
20,400.0	11,450.0	11,391.7	11,349.6	154.4	42.6	-85.41	-237.7	-971.5	9,279.1	9,189.2	89.91	103.208				
20,500.0	11,450.0	11,391.2	11,349.1	156.0	42.6	-85.39	-237.7	-971.5	9,378.2	9,288.2	89.99	104.211				
20,600.0	11,450.0	11,390.7	11,348.6	157.6	42.6	-85.37	-237.7	-971.5	9,477.3	9,387.3	90.08	105.210				
20,700.0	11,450.0	11,390.2	11,348.2	159.2	42.6	-85.34	-237.7	-971.5	9,576.5	9,486.3	90.17	106.208				
20,800.0	11,450.0	11,389.8	11,347.7	160.8	42.6	-85.32	-237.6	-971.5	9,675.6	9,585.4	90.26	107.202				
20,900.0	11,450.0	11,389.3	11,347.2	162.4	42.6	-85.30	-237.6	-971.5	9,774.8	9,684.4	90.34	108.195				
21,000.0	11,450.0	11,388.9	11,346.8	164.0	42.6	-85.28	-237.6	-971.5	9,874.0	9,783.5	90.43	109.184				
21,100.0	11,450.0	11,388.4	11,346.3	165.6	42.6	-85.26	-237.6	-971.5	9,973.2	9,882.6	90.52	110.171				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-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	-90.55	-1.1	-110.0	110.0						
100.0	100.0	100.7	100.7	0.1	0.2	-90.74	-1.4	-109.7	109.7	109.4	0.29	377.505			
200.0	200.0	201.4	201.4	0.5	0.3	-91.31	-2.5	-108.7	108.7	107.9	0.81	134.876			
300.0	300.0	301.6	301.6	0.8	0.6	-92.14	-4.0	-107.2	107.3	105.8	1.49	72.158			
400.0	400.0	401.6	401.5	1.2	1.0	-92.93	-5.4	-105.6	105.8	103.6	2.20	48.004			
500.0	500.0	501.4	501.4	1.6	1.4	-93.60	-6.5	-104.2	104.4	101.5	2.92	35.748			
600.0	600.0	600.8	600.7	1.9	1.7	-94.06	-7.3	-103.1	103.4	99.7	3.63	28.443			
700.0	700.0	700.1	700.0	2.3	2.1	-94.29	-7.7	-102.8	103.0	98.7	4.34	23.722			
718.9	718.9	719.0	718.9	2.3	2.1	-94.31	-7.7	-102.8	103.0	98.6	4.48	23.021			
800.0	800.0	799.9	799.8	2.6	2.4	-94.29	-7.7	-102.8	103.1	98.1	5.04	20.469			
900.0	900.0	899.6	899.5	3.0	2.7	-94.14	-7.5	-103.2	103.5	97.8	5.73	18.068			
1,000.0	1,000.0	999.9	999.8	3.4	3.1	-94.00	-7.2	-103.7	104.0	97.6	6.43	16.178			
1,100.0	1,100.0	1,100.7	1,100.6	3.7	3.4	-93.86	-7.0	-103.6	103.8	96.7	7.13	14.551			
1,200.0	1,200.0	1,201.2	1,201.1	4.1	3.8	-93.66	-6.6	-102.7	102.9	95.1	7.84	13.127			
1,300.0	1,300.0	1,302.1	1,302.0	4.4	4.1	-93.35	-5.9	-101.4	101.6	93.0	8.55	11.876			
1,400.0	1,400.0	1,404.0	1,403.9	4.8	4.5	-93.36	-5.8	-98.5	98.8	89.5	9.27	10.653			
1,500.0	1,500.0	1,506.2	1,505.9	5.1	4.9	-93.85	-6.3	-93.2	93.6	83.7	9.98	9.378			
1,600.0	1,600.0	1,607.2	1,606.6	5.5	5.2	-95.04	-7.6	-86.0	86.6	75.9	10.70	8.091			
1,700.0	1,700.0	1,706.3	1,705.4	5.9	5.6	-97.47	-10.3	-78.3	79.2	67.7	11.41	6.936			
1,800.0	1,800.0	1,804.2	1,803.1	6.2	5.9	-100.91	-13.9	-72.2	73.6	61.4	12.14	6.063			
1,900.0	1,900.0	1,902.9	1,901.6	6.6	6.3	-104.35	-17.4	-68.2	70.4	57.5	12.86	5.474			
2,000.0	2,000.0	2,002.5	2,001.1	6.9	6.7	-107.60	-20.7	-65.2	68.4	54.8	13.58	5.039			
2,100.0	2,100.0	2,102.9	2,101.3	7.3	7.0	-111.86	-24.8	-61.8	66.6	52.3	14.30	4.654			
2,200.0	2,200.0	2,203.3	2,201.5	7.7	7.4	-118.18	-30.4	-56.7	64.3	49.3	15.03	4.280			
2,300.0	2,300.0	2,303.0	2,300.8	8.0	7.8	-125.98	-36.7	-50.6	62.5	46.8	15.77	3.965			
2,381.7	2,381.7	2,384.2	2,381.7	8.3	8.1	-132.50	-41.9	-45.7	62.0	45.7	16.37	3.789			
2,400.0	2,400.0	2,402.5	2,399.9	8.4	8.1	-133.90	-43.0	-44.7	62.0	45.5	16.50	3.760			
2,500.0	2,500.0	2,502.4	2,499.5	8.7	8.5	-140.65	-48.4	-39.7	62.6	45.3	17.23	3.631			
2,600.0	2,600.0	2,602.4	2,599.3	9.1	8.9	95.88	-53.1	-34.9	63.6	45.7	17.95	3.545			
2,700.0	2,700.0	2,702.4	2,699.1	9.4	9.2	92.62	-57.5	-30.2	65.0	46.4	18.65	3.486			
2,800.0	2,799.9	2,802.1	2,798.6	9.7	9.6	91.23	-61.8	-25.9	66.7	47.3	19.35	3.446			
2,900.0	2,899.7	2,901.9	2,898.1	10.1	10.0	90.65	-66.9	-21.0	68.9	48.9	20.06	3.437			
3,000.0	2,999.4	3,002.2	2,998.2	10.4	10.4	90.71	-72.5	-15.2	71.1	50.3	20.78	3.422			
3,100.0	3,098.9	3,103.1	3,098.6	10.8	10.7	91.75	-77.5	-8.5	72.4	50.8	21.50	3.365			
3,200.0	3,198.3	3,204.1	3,199.4	11.1	11.1	94.74	-81.0	-1.6	72.4	50.2	22.23	3.256			
3,300.0	3,297.4	3,305.0	3,300.0	11.5	11.5	100.57	-82.2	4.7	71.4	48.5	22.95	3.113			
3,400.0	3,396.4	3,406.6	3,401.5	11.8	11.9	107.50	-81.6	12.2	69.4	45.8	23.64	2.938			
3,500.0	3,495.5	3,507.7	3,502.0	12.2	12.2	114.15	-79.9	22.3	65.7	41.4	24.31	2.703			
3,600.0	3,594.5	3,606.6	3,600.3	12.6	12.6	120.39	-78.8	33.2	62.4	37.4	25.03	2.494			
3,669.4	3,663.2	3,674.7	3,668.0	12.8	12.9	124.36	-79.2	40.1	61.7	36.1	25.54	2.414 CC			
3,700.0	3,693.5	3,704.8	3,698.0	12.9	13.0	126.03	-79.6	42.8	61.8	36.0	25.76	2.399			
3,800.0	3,792.5	3,803.7	3,796.5	13.3	13.3	130.87	-82.0	51.1	63.7	37.3	26.48	2.407			
3,900.0	3,891.6	3,903.1	3,895.6	13.7	13.7	135.17	-85.0	58.6	67.1	40.0	27.18	2.470			
4,000.0	3,990.6	4,002.4	3,994.7	14.1	14.1	140.03	-86.9	65.1	71.5	43.7	27.87	2.567			
4,100.0	4,089.6	4,101.4	4,093.5	14.5	14.5	144.44	-88.8	70.8	77.3	48.7	28.56	2.705			
4,200.0	4,188.6	4,200.5	4,192.5	14.8	14.8	147.99	-91.0	75.7	84.2	54.9	29.25	2.878			
4,300.0	4,287.7	4,300.0	4,291.8	15.2	15.2	151.42	-92.6	80.3	91.7	61.7	29.93	3.062			
4,400.0	4,386.7	4,399.5	4,391.2	15.6	15.5	155.07	-92.9	84.7	99.7	69.1	30.62	3.257			
4,500.0	4,485.7	4,499.0	4,490.6	16.0	15.9	158.16	-93.2	89.3	107.9	76.6	31.31	3.447			
4,600.0	4,584.8	4,597.7	4,589.2	16.4	16.3	160.54	-93.9	93.3	116.8	84.8	32.00	3.650			
4,700.0	4,683.8	4,696.7	4,688.1	16.8	16.6	161.79	-96.3	96.5	126.4	93.7	32.70	3.866			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1		Offset Site Error: 0.0 usft	
Survey Program: 220-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				
4,800.0	4,782.8	4,795.9	4,787.2	17.2	17.0	162.35	-99.8	99.2	136.4	102.9	33.41	4.081				
4,900.0	4,881.8	4,895.1	4,886.3	17.6	17.3	162.84	-103.3	101.7	146.5	112.4	34.13	4.294				
5,000.0	4,980.9	4,994.5	4,985.7	18.0	17.7	163.28	-106.7	104.1	156.8	122.0	34.84	4.502				
5,100.0	5,079.9	5,094.0	5,085.0	18.4	18.1	163.69	-110.0	106.6	167.1	131.6	35.56	4.700				
5,200.0	5,178.9	5,193.4	5,184.4	18.8	18.4	164.06	-113.3	109.0	177.4	141.2	36.27	4.892				
5,300.0	5,277.9	5,292.5	5,283.4	19.2	18.8	164.40	-116.6	111.3	187.8	150.9	36.99	5.079				
5,400.0	5,377.0	5,391.3	5,382.2	19.6	19.1	164.71	-119.8	113.4	198.5	160.8	37.70	5.266				
5,500.0	5,476.0	5,491.0	5,481.8	20.0	19.5	165.04	-122.8	115.5	209.2	170.8	38.42	5.446				
5,600.0	5,575.0	5,590.0	5,580.7	20.4	19.8	165.34	-125.7	117.5	220.1	181.0	39.13	5.625				
5,623.7	5,598.5	5,613.6	5,604.3	20.5	19.9	165.40	-126.4	117.9	222.7	183.4	39.30	5.666				
5,700.0	5,674.1	5,689.7	5,680.3	20.8	20.2	165.59	-128.7	119.5	230.2	190.4	39.85	5.777				
5,800.0	5,773.6	5,788.9	5,779.5	21.2	20.6	165.63	-131.8	121.4	237.9	197.3	40.56	5.865				
5,900.0	5,873.3	5,890.7	5,881.2	21.6	20.9	165.52	-135.0	123.3	243.1	201.8	41.30	5.887				
6,000.0	5,973.1	5,994.6	5,985.0	21.9	21.3	165.47	-137.6	127.1	244.2	202.1	42.04	5.808				
6,100.0	6,073.1	6,095.2	6,085.4	22.3	21.7	165.31	-140.1	131.9	241.7	198.9	42.76	5.653				
6,157.0	6,130.1	6,152.0	6,142.2	22.5	21.9	-76.70	-141.6	134.5	239.2	196.1	43.16	5.543				
6,200.0	6,173.1	6,195.0	6,185.1	22.6	22.0	-76.85	-142.7	136.5	237.1	193.6	43.47	5.454				
6,300.0	6,273.1	6,294.5	6,284.5	23.0	22.4	-77.18	-145.1	141.0	232.0	187.9	44.17	5.253				
6,400.0	6,373.1	6,394.8	6,384.6	23.3	22.8	-77.55	-147.7	145.6	227.1	182.2	44.89	5.059				
6,500.0	6,473.1	6,493.7	6,483.4	23.6	23.1	-77.82	-149.8	150.1	222.1	176.6	45.59	4.873				
6,600.0	6,573.1	6,592.8	6,582.5	24.0	23.5	-78.00	-151.4	154.3	217.7	171.4	46.29	4.702				
6,700.0	6,673.1	6,692.6	6,682.1	24.3	23.9	-78.19	-152.9	158.3	213.4	166.4	47.00	4.540				
6,800.0	6,773.1	6,791.9	6,781.3	24.6	24.2	-78.41	-154.5	162.1	209.3	161.6	47.70	4.388				
6,900.0	6,873.1	6,891.9	6,881.2	25.0	24.6	-78.61	-156.1	165.9	205.3	156.9	48.41	4.241				
7,000.0	6,973.1	6,990.9	6,980.2	25.3	25.0	-78.81	-157.5	169.4	201.6	152.5	49.11	4.105				
7,100.0	7,073.1	7,090.6	7,079.8	25.6	25.3	-79.02	-158.9	172.7	198.1	148.3	49.82	3.976				
7,200.0	7,173.1	7,190.1	7,179.2	26.0	25.7	-79.32	-160.5	175.7	194.8	144.3	50.52	3.856				
7,300.0	7,273.1	7,289.8	7,278.9	26.3	26.0	-79.60	-162.0	178.5	191.7	140.5	51.23	3.742				
7,400.0	7,373.1	7,389.5	7,378.5	26.7	26.4	-79.91	-163.5	181.3	188.7	136.7	51.94	3.633				
7,500.0	7,473.1	7,488.9	7,477.9	27.0	26.8	-80.33	-165.3	183.7	186.0	133.3	52.65	3.533				
7,600.0	7,573.1	7,588.9	7,577.9	27.3	27.1	-80.73	-167.0	186.1	183.4	130.0	53.36	3.436				
7,700.0	7,673.1	7,688.5	7,677.4	27.7	27.5	-81.23	-169.0	188.4	180.8	126.7	54.07	3.343				
7,800.0	7,773.1	7,788.4	7,777.3	28.0	27.8	-81.82	-171.2	190.4	178.5	123.7	54.79	3.257				
7,900.0	7,873.1	7,887.9	7,876.7	28.4	28.2	-82.39	-173.2	192.4	176.2	120.7	55.50	3.174				
8,000.0	7,973.1	7,987.9	7,976.7	28.7	28.6	-83.04	-175.5	194.2	174.1	117.9	56.22	3.098				
8,100.0	8,073.1	8,087.5	8,076.3	29.1	28.9	-83.72	-177.7	196.0	172.1	115.2	56.94	3.023				
8,200.0	8,173.1	8,188.3	8,177.0	29.4	29.3	-84.49	-180.2	197.7	170.1	112.4	57.67	2.950				
8,300.0	8,273.1	8,288.0	8,276.6	29.7	29.6	-85.13	-182.3	199.8	167.8	109.4	58.38	2.875				
8,400.0	8,373.1	8,389.6	8,378.3	30.1	30.0	-85.28	-183.0	202.4	165.2	106.1	59.11	2.795				
8,500.0	8,473.1	8,489.3	8,477.8	30.4	30.3	-85.10	-182.7	205.5	162.2	102.4	59.80	2.712				
8,600.0	8,573.1	8,588.6	8,577.2	30.8	30.7	-84.90	-182.4	208.3	159.4	98.9	60.50	2.635				
8,700.0	8,673.1	8,688.1	8,676.6	31.1	31.1	-84.69	-182.0	210.7	157.0	95.8	61.19	2.566				
8,800.0	8,773.1	8,787.5	8,775.9	31.5	31.4	-84.62	-182.0	212.8	154.9	93.0	61.89	2.503				
8,900.0	8,873.1	8,886.4	8,874.9	31.8	31.8	-84.94	-183.0	214.2	153.4	90.8	62.59	2.451				
9,000.0	8,973.1	8,986.4	8,974.8	32.2	32.1	-85.61	-184.9	215.1	152.4	89.1	63.31	2.407				
9,100.0	9,073.1	9,088.3	9,076.7	32.5	32.5	-86.71	-187.9	216.5	150.8	86.7	64.06	2.354				
9,200.0	9,173.1	9,189.9	9,178.2	32.9	32.8	-88.13	-191.8	219.6	147.6	82.7	64.81	2.277				
9,300.0	9,273.1	9,290.7	9,278.8	33.2	33.2	-89.80	-196.1	223.2	143.9	78.4	65.55	2.196				
9,400.0	9,373.1	9,391.8	9,379.7	33.5	33.6	-91.59	-200.4	227.7	139.5	73.2	66.30	2.105				
9,500.0	9,473.1	9,492.2	9,480.0	33.9	34.0	-92.99	-203.6	232.8	134.5	67.5	67.04	2.007				

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft
Survey Program:		220-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		
9,600.0	9,573.1	9,591.7	9,579.3	34.2	34.3	-94.19	-206.0	238.0	129.5	61.7	67.78	1.911		
9,700.0	9,673.1	9,691.0	9,678.4	34.6	34.7	-95.26	-208.0	242.7	124.9	56.4	68.52	1.823		
9,800.0	9,773.1	9,790.5	9,777.8	34.9	35.1	-96.67	-210.6	247.1	120.8	51.5	69.26	1.744		
9,900.0	9,873.1	9,890.0	9,877.2	35.3	35.4	-98.19	-213.2	251.2	117.1	47.1	70.00	1.672		
10,000.0	9,973.1	9,990.4	9,977.5	35.6	35.8	-99.43	-215.1	255.3	113.4	42.6	70.74	1.603		
10,100.0	10,073.1	10,090.4	10,077.4	36.0	36.2	-100.61	-216.7	259.5	109.4	38.0	71.48	1.531		
10,200.0	10,173.1	10,189.4	10,176.3	36.3	36.5	-101.69	-218.0	263.3	106.0	33.7	72.21	1.467	Level 3	
10,300.0	10,273.1	10,289.3	10,276.1	36.7	36.9	-102.87	-219.5	266.7	103.0	30.0	72.94	1.411	Level 3	
10,400.0	10,373.1	10,389.3	10,376.1	37.0	37.2	-104.00	-220.7	270.1	100.0	26.3	73.68	1.357	Level 3	
10,500.0	10,473.1	10,489.4	10,476.1	37.4	37.6	-105.05	-221.7	273.6	96.8	22.4	74.41	1.301	Level 3	
10,600.0	10,573.1	10,589.4	10,576.0	37.7	38.0	-106.31	-222.9	277.1	93.8	18.6	75.15	1.248	Level 2	
10,700.0	10,673.1	10,689.7	10,676.3	38.1	38.3	-107.56	-223.8	281.0	90.3	14.4	75.89	1.189	Level 2	
10,800.0	10,773.1	10,789.2	10,775.7	38.4	38.7	-109.09	-225.0	284.9	86.9	10.2	76.63	1.134	Level 2	
10,903.9	10,877.0	10,892.4	10,878.8	38.8	39.1	-111.07	-226.8	288.4	84.3	6.8	77.41	1.088	Level 2	
10,946.5	10,919.5	10,934.8	10,921.1	38.9	39.2	-105.19	-227.7	289.7	83.8	6.0	77.75	1.077	Level 2	
10,950.0	10,923.0	10,938.3	10,924.6	38.9	39.2	-105.44	-227.7	289.8	83.8	6.0	77.78	1.077	Level 2, ES, SF	
11,000.0	10,972.6	10,987.8	10,974.2	39.1	39.4	-110.25	-228.6	291.2	84.7	6.5	78.21	1.083	Level 2	
11,050.0	11,021.5	11,036.6	11,022.9	39.3	39.6	-117.03	-229.2	292.6	88.2	9.5	78.67	1.121	Level 2	
11,100.0	11,069.3	11,084.3	11,070.6	39.4	39.8	-124.74	-229.7	293.9	95.2	16.1	79.09	1.204	Level 2	
11,150.0	11,115.6	11,130.7	11,116.9	39.6	39.9	-132.33	-229.9	295.1	106.8	27.4	79.46	1.344	Level 3	
11,200.0	11,160.1	11,174.0	11,160.2	39.7	40.1	-138.64	-230.0	295.6	123.7	44.0	79.75	1.551		
11,250.0	11,202.4	11,215.5	11,201.7	39.8	40.2	-143.60	-230.0	295.4	145.8	65.8	79.99	1.822		
11,300.0	11,242.3	11,255.4	11,241.7	39.9	40.3	-147.40	-229.9	294.8	172.4	92.3	80.19	2.150		
11,350.0	11,279.3	11,293.0	11,279.3	40.0	40.5	-150.19	-229.8	294.2	203.1	122.7	80.36	2.527		
11,400.0	11,313.4	11,327.8	11,314.0	40.1	40.6	-152.06	-229.6	293.4	237.4	156.8	80.51	2.948		
11,450.0	11,344.1	11,366.4	11,352.6	40.1	40.7	-153.87	-228.8	292.6	274.5	193.9	80.62	3.405		
11,500.0	11,371.2	11,411.2	11,397.3	40.2	40.8	-155.87	-226.2	291.7	313.4	232.8	80.55	3.891		
11,550.0	11,394.6	11,471.7	11,457.3	40.2	41.0	-158.88	-218.4	291.3	353.1	273.2	79.85	4.421		
11,600.0	11,414.0	11,551.5	11,534.7	40.3	41.3	-162.51	-198.9	290.9	392.1	314.3	77.81	5.039		
11,650.0	11,429.4	11,650.3	11,625.7	40.4	41.5	-166.58	-160.9	292.5	429.2	355.4	73.81	5.815		
11,700.0	11,440.6	11,705.4	11,674.0	40.5	41.6	-168.16	-134.4	294.7	465.9	393.6	72.33	6.441		
11,750.0	11,447.4	11,777.9	11,735.2	40.6	41.8	-170.24	-95.7	296.7	503.7	434.2	69.51	7.247		
11,803.9	11,450.0	11,883.8	11,817.3	40.7	42.0	-172.91	-28.9	297.9	543.1	478.9	64.22	8.458		
11,900.0	11,450.0	12,068.9	11,939.4	41.0	42.3	-178.79	109.7	299.0	606.1	550.6	55.43	10.934		
12,000.0	11,450.0	12,161.9	11,992.9	41.4	42.6	178.59	185.8	298.8	663.5	608.7	54.78	12.111		
12,048.6	11,450.0	12,215.3	12,023.4	41.6	42.7	177.70	229.6	297.8	691.4	637.4	53.99	12.806		
12,100.0	11,450.0	12,707.5	12,140.2	41.8	44.8	177.25	696.5	304.1	691.7	655.8	35.86	19.287		
12,200.0	11,450.0	12,804.6	12,136.2	42.3	45.3	177.04	793.5	305.7	687.7	651.3	36.39	18.896		
12,300.0	11,450.0	12,901.5	12,132.4	42.9	45.8	176.93	890.3	306.1	683.8	646.9	36.98	18.492		
12,400.0	11,450.0	13,000.3	12,129.2	43.5	46.4	176.84	989.1	306.1	680.7	643.0	37.65	18.080		
12,500.0	11,450.0	13,091.7	12,126.3	44.1	47.1	176.76	1,080.5	306.2	677.6	639.3	38.29	17.696		
12,600.0	11,450.0	13,185.2	12,125.3	44.9	47.7	176.70	1,173.9	306.1	676.5	637.5	39.01	17.341		
12,700.0	11,450.0	13,296.8	12,123.3	45.6	48.5	176.71	1,285.5	305.0	674.7	634.7	39.95	16.887		
12,800.0	11,450.0	13,409.9	12,119.0	46.4	49.5	176.79	1,398.5	302.9	670.9	629.9	41.00	16.363		
12,900.0	11,450.0	13,497.1	12,115.5	47.3	50.2	176.78	1,485.6	302.1	666.9	625.1	41.73	15.979		
13,000.0	11,450.0	13,580.6	12,114.1	48.2	50.9	176.67	1,569.1	302.6	665.3	622.7	42.52	15.647		
13,014.8	11,450.0	13,592.9	12,114.0	48.3	51.0	176.64	1,581.4	302.9	665.2	622.6	42.64	15.600		
13,100.0	11,450.0	13,672.8	12,114.4	49.1	51.8	176.41	1,661.3	304.9	665.7	622.3	43.46	15.319		
13,200.0	11,450.0	13,776.0	12,114.9	50.1	52.7	176.14	1,764.5	307.3	666.4	621.9	44.52	14.969		
13,300.0	11,450.0	13,866.7	12,115.3	51.1	53.6	175.87	1,855.1	309.7	667.2	621.7	45.54	14.653		
13,400.0	11,450.0	13,962.7	12,117.3	52.1	54.6	175.62	1,951.1	312.1	669.5	622.9	46.62	14.359		

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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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1											Offset Site Error:		0.0 usft
Survey Program:		220-MWD											Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)				
13,500.0	11,450.0	14,060.1	12,119.5	53.2	55.6	175.44	2,048.4	313.5	672.0	624.2	47.74	14.074			
13,600.0	11,450.0	14,172.0	12,121.8	54.3	56.8	175.42	2,160.3	313.1	674.1	625.1	48.96	13.767			
13,700.0	11,450.0	14,300.5	12,119.6	55.4	58.2	175.26	2,288.8	313.7	672.3	621.8	50.46	13.323			
13,800.0	11,450.0	14,395.1	12,116.4	56.5	59.2	175.07	2,383.3	314.9	669.1	617.5	51.61	12.965			
13,900.0	11,450.0	14,482.7	12,115.1	57.7	60.3	174.93	2,470.9	315.8	667.8	615.1	52.69	12.673			
14,000.0	11,450.0	14,583.5	12,114.2	58.9	61.4	174.75	2,571.7	317.0	667.1	613.1	53.96	12.361			
14,100.0	11,450.0	14,681.0	12,113.6	60.1	62.6	174.69	2,669.2	316.8	666.5	611.3	55.20	12.074			
14,200.0	11,450.0	14,783.3	12,113.3	61.4	63.8	174.70	2,771.5	315.9	666.2	609.7	56.49	11.794			
14,275.9	11,450.0	14,854.5	12,112.7	62.3	64.7	174.78	2,842.7	314.3	665.5	608.1	57.39	11.596			
14,300.0	11,450.0	14,871.6	12,112.9	62.6	64.9	174.85	2,859.7	313.3	665.6	608.0	57.61	11.554			
14,400.0	11,450.0	14,981.2	12,116.4	63.9	66.3	175.84	2,968.6	301.2	668.2	609.4	58.83	11.359			
14,480.2	11,450.0	15,059.7	12,115.4	64.9	67.3	176.33	3,046.8	294.8	666.8	607.0	59.79	11.153			
14,500.0	11,450.0	15,072.0	12,115.5	65.2	67.4	176.41	3,059.1	293.7	666.9	606.9	59.95	11.124			
14,600.0	11,450.0	15,149.4	12,118.8	66.5	68.4	176.96	3,136.1	286.9	670.5	609.5	60.99	10.993			
14,700.0	11,450.0	15,270.6	12,123.0	67.8	70.0	177.16	3,257.0	283.8	673.9	611.4	62.51	10.782			
14,800.0	11,450.0	15,361.1	12,124.0	69.2	71.2	176.77	3,347.5	287.8	675.3	611.6	63.78	10.589			
14,900.0	11,450.0	15,499.5	12,125.7	70.5	73.0	176.58	3,485.9	289.0	677.2	611.6	65.61	10.321			
15,000.0	11,450.0	15,591.9	12,123.5	71.9	74.3	176.20	3,578.2	292.6	675.1	608.2	66.92	10.089			
15,054.3	11,450.0	15,634.8	12,122.9	72.6	74.8	175.96	3,621.0	295.1	674.7	607.1	67.55	9.987			
15,100.0	11,450.0	15,670.8	12,123.0	73.3	75.3	175.74	3,656.9	297.4	675.0	606.9	68.11	9.911			
15,200.0	11,450.0	15,799.4	12,120.2	74.7	77.1	175.02	3,785.3	304.6	673.0	603.0	70.00	9.614			
15,259.2	11,450.0	15,840.1	12,119.4	75.5	77.6	174.86	3,825.9	306.1	672.2	601.5	70.63	9.516			
15,300.0	11,450.0	15,871.2	12,119.6	76.1	78.1	174.76	3,856.9	307.0	672.5	601.4	71.11	9.457			
15,400.0	11,450.0	15,981.0	12,119.9	77.5	79.6	174.63	3,966.8	307.8	672.8	600.2	72.68	9.258			
15,400.4	11,450.0	15,981.4	12,119.9	77.5	79.6	174.63	3,967.2	307.8	672.8	600.2	72.68	9.258			
15,500.0	11,450.0	16,072.1	12,120.7	78.9	80.8	174.65	4,057.9	306.9	673.7	599.7	73.98	9.107			
15,600.0	11,450.0	16,183.2	12,121.6	80.3	82.4	174.73	4,169.0	305.0	674.5	599.0	75.50	8.934			
15,659.7	11,450.0	16,259.3	12,120.6	81.2	83.5	174.89	4,244.9	302.5	673.6	597.1	76.52	8.803			
15,700.0	11,450.0	16,266.5	12,121.1	81.8	83.6	174.91	4,252.1	302.3	674.0	597.3	76.67	8.791			
15,800.0	11,450.0	16,334.0	12,126.5	83.2	84.6	175.12	4,319.4	299.7	680.6	603.0	77.66	8.764			
15,900.0	11,450.0	16,387.9	12,133.8	84.7	85.3	175.31	4,372.8	297.6	692.6	614.0	78.55	8.817			
16,000.0	11,450.0	16,526.8	12,150.6	86.1	87.3	175.78	4,510.5	292.0	704.7	624.5	80.26	8.780			
16,100.0	11,450.0	16,688.3	12,154.9	87.6	89.7	175.69	4,671.9	292.2	707.0	624.5	82.47	8.573			
16,200.0	11,450.0	16,789.3	12,153.7	89.1	91.1	175.58	4,772.9	292.7	705.9	621.9	83.96	8.407			
16,300.0	11,450.0	16,892.3	12,152.7	90.5	92.6	175.65	4,875.9	290.9	704.8	619.4	85.43	8.251			
16,400.0	11,450.0	16,995.7	12,151.3	92.0	94.2	175.86	4,979.1	287.4	703.3	616.4	86.87	8.096			
16,500.0	11,450.0	17,087.3	12,150.4	93.5	95.5	175.97	5,070.7	285.2	702.1	614.0	88.19	7.961			
16,531.2	11,450.0	17,114.4	12,150.3	94.0	95.9	175.97	5,097.8	285.0	702.1	613.5	88.60	7.924			
16,600.0	11,450.0	17,174.1	12,150.8	95.0	96.8	176.07	5,157.5	283.3	702.5	613.0	89.46	7.853			
16,700.0	11,450.0	17,278.9	12,152.1	96.5	98.3	176.29	5,262.2	279.8	703.6	612.6	90.94	7.737			
16,800.0	11,450.0	17,374.8	12,153.0	98.0	99.8	176.23	5,358.1	279.9	704.6	612.2	92.37	7.628			
16,900.0	11,450.0	17,500.3	12,151.3	99.5	101.7	176.07	5,483.6	280.8	703.2	608.9	94.21	7.463			
17,000.0	11,450.0	17,590.2	12,149.6	101.1	103.0	176.14	5,573.5	279.1	701.3	605.7	95.54	7.340			
17,040.5	11,450.0	17,623.8	12,149.5	101.7	103.5	176.14	5,607.0	278.7	701.1	605.0	96.05	7.299			
17,100.0	11,450.0	17,678.7	12,149.7	102.6	104.3	176.09	5,662.0	279.0	701.4	604.5	96.88	7.240			
17,200.0	11,450.0	17,788.2	12,149.6	104.1	106.0	175.66	5,771.3	283.4	701.6	603.0	98.63	7.114			
17,300.0	11,450.0	17,899.7	12,147.3	105.6	107.7	175.18	5,882.7	288.2	699.9	599.5	100.43	6.969			
17,400.0	11,450.0	17,990.0	12,145.4	107.2	109.0	175.16	5,972.9	287.6	698.0	596.2	101.81	6.856			
17,436.8	11,450.0	18,020.5	12,145.4	107.7	109.5	175.23	6,003.5	286.5	697.8	595.6	102.25	6.824			
17,500.0	11,450.0	18,079.0	12,145.8	108.7	110.4	175.37	6,061.9	284.2	698.1	595.0	103.08	6.772			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Offset Design		Nina Cortell - Nina Cortell Fed Com #204H - Wellbore #1 - Wellbore #1										Offset Site Error:		0.0 usft	
Survey Program:		220-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			
17,600.0	11,450.0	18,178.3	12,146.7	110.3	111.9	175.44	6,161.2	282.7	699.0	594.4	104.55	6.686			
17,700.0	11,450.0	18,274.4	12,147.3	111.8	113.4	175.26	6,257.3	284.2	699.8	593.8	106.07	6.598			
17,800.0	11,450.0	18,376.9	12,148.4	113.3	114.9	174.88	6,359.7	288.1	701.3	593.5	107.77	6.507			
17,900.0	11,450.0	18,452.2	12,149.6	114.9	116.1	174.58	6,434.9	291.3	703.5	594.4	109.07	6.449			
18,000.0	11,450.0	18,547.8	12,155.5	116.5	117.5	174.43	6,530.3	293.0	709.8	599.2	110.60	6.418			
18,100.0	11,450.0	18,678.4	12,158.4	118.0	119.6	174.20	6,660.8	295.1	712.0	599.4	112.69	6.319			
18,200.0	11,450.0	18,816.8	12,155.2	119.6	121.7	173.95	6,799.2	296.7	709.9	595.1	114.80	6.184			
18,300.0	11,450.0	18,921.5	12,149.6	121.1	123.3	173.96	6,903.7	295.2	704.5	588.1	116.35	6.054			
18,400.0	11,450.0	19,021.1	12,144.8	122.7	124.9	173.99	7,003.2	293.5	699.6	581.7	117.86	5.936			
18,500.0	11,450.0	19,106.0	12,140.7	124.3	126.2	174.05	7,088.0	291.7	694.8	575.6	119.20	5.828			
18,600.0	11,450.0	19,185.2	12,140.2	125.8	127.4	174.23	7,167.1	288.8	693.7	573.3	120.37	5.763			
18,700.0	11,450.0	19,297.4	12,139.6	127.4	129.2	174.39	7,279.2	285.9	693.1	571.1	121.96	5.683			
18,800.0	11,450.0	19,400.0	12,137.0	129.0	130.8	174.41	7,381.9	284.6	690.5	567.0	123.52	5.590			
18,900.0	11,450.0	19,493.9	12,135.4	130.5	132.3	174.27	7,475.7	285.4	688.9	563.8	125.06	5.508			
19,000.0	11,450.0	19,589.3	12,134.1	132.1	133.7	174.02	7,571.0	287.5	687.8	561.1	126.70	5.429			
19,045.5	11,450.0	19,632.0	12,133.8	132.8	134.4	173.97	7,613.8	287.7	687.6	560.3	127.40	5.398			
19,100.0	11,450.0	19,667.6	12,134.3	133.7	135.0	173.97	7,649.3	287.5	688.3	560.4	127.97	5.379			
19,200.0	11,450.0	19,746.1	12,138.4	135.3	136.2	174.15	7,727.7	285.1	693.1	564.1	129.01	5.372			
19,300.0	11,450.0	19,872.6	12,143.3	136.9	138.2	174.51	7,854.0	280.2	696.6	565.8	130.77	5.327			
19,400.0	11,450.0	19,990.9	12,144.2	138.5	140.1	174.88	7,972.2	274.8	697.0	564.7	132.34	5.267			
19,500.0	11,450.0	20,105.2	12,142.4	140.0	141.9	175.10	8,086.4	271.0	695.2	561.3	133.92	5.191			
19,600.0	11,450.0	20,189.7	12,141.1	141.6	143.2	175.22	8,170.8	268.8	693.5	558.3	135.20	5.130			
19,700.0	11,450.0	20,287.8	12,140.9	143.2	144.8	175.39	8,268.9	265.9	693.1	556.5	136.62	5.073			
19,800.0	11,450.0	20,394.2	12,140.1	144.8	146.4	175.39	8,375.3	265.1	692.4	554.2	138.24	5.009			
19,900.0	11,450.0	20,505.0	12,137.2	146.4	148.2	175.22	8,486.0	265.9	689.8	549.8	140.00	4.928			
20,000.0	11,450.0	20,592.5	12,135.6	148.0	149.6	175.19	8,573.6	265.4	688.0	546.6	141.41	4.865			
20,100.0	11,450.0	20,690.9	12,134.9	149.6	151.1	175.26	8,671.9	263.8	687.3	544.4	142.89	4.810			
20,200.0	11,450.0	20,792.4	12,133.8	151.2	152.8	175.33	8,773.4	262.0	686.1	541.7	144.41	4.751			
20,269.1	11,450.0	20,854.6	12,133.4	152.3	153.7	175.30	8,835.6	261.9	685.8	540.4	145.40	4.716			
20,300.0	11,450.0	20,883.6	12,133.5	152.8	154.2	175.27	8,864.6	262.0	685.8	539.9	145.87	4.701			
20,400.0	11,450.0	20,984.4	12,134.0	154.4	155.8	175.22	8,965.4	261.8	686.4	538.9	147.46	4.655			
20,500.0	11,450.0	21,086.6	12,133.5	156.0	157.4	175.33	9,067.6	259.6	685.8	536.8	148.97	4.604			
20,507.1	11,450.0	21,092.7	12,133.5	156.1	157.5	175.35	9,073.6	259.4	685.8	536.7	149.05	4.601			
20,600.0	11,450.0	21,199.3	12,133.9	157.6	159.2	175.75	9,180.1	253.7	685.9	535.5	150.43	4.560			
20,700.0	11,450.0	21,295.3	12,131.5	159.2	160.8	175.93	9,276.0	250.6	683.3	531.4	151.83	4.500			
20,800.0	11,450.0	21,410.7	12,129.9	160.8	162.6	176.13	9,391.3	247.2	681.9	528.4	153.44	4.444			
20,900.0	11,450.0	21,500.3	12,126.8	162.4	164.0	175.99	9,480.8	248.0	678.6	523.7	154.95	4.380			
21,000.0	11,450.0	21,599.5	12,124.8	164.0	165.6	175.73	9,580.0	250.1	676.8	520.2	156.63	4.321			
21,073.5	11,450.0	21,659.5	12,123.9	165.2	166.6	175.55	9,640.0	251.6	675.9	518.2	157.69	4.287			
21,100.0	11,450.0	21,680.0	12,124.0	165.6	166.9	175.52	9,660.5	251.8	676.0	518.0	158.03	4.278			
21,200.0	11,450.0	21,811.6	12,123.2	167.2	169.0	175.40	9,792.1	252.2	675.9	515.9	160.04	4.223			
21,300.0	11,450.0	21,900.7	12,120.9	168.8	170.4	175.35	9,881.1	251.9	673.3	511.8	161.51	4.168			
21,400.0	11,450.0	21,991.7	12,119.6	170.4	171.9	175.38	9,972.1	250.7	671.8	508.9	162.94	4.123			
21,500.0	11,450.0	22,112.7	12,116.9	172.0	173.8	175.47	10,093.0	248.4	669.6	504.9	164.65	4.067			
21,604.8	11,450.0	22,191.0	12,113.6	173.7	175.1	175.59	10,171.3	246.1	665.6	499.7	165.90	4.012			
21,606.0	11,450.0	22,191.0	12,113.6	173.8	175.1	175.59	10,171.3	246.1	665.6	499.7	165.90	4.012			
21,606.3	11,450.0	22,191.0	12,113.6	173.8	175.1	175.59	10,171.3	246.1	665.6	499.7	165.90	4.012			

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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3818.5usft (Original Well Elev)

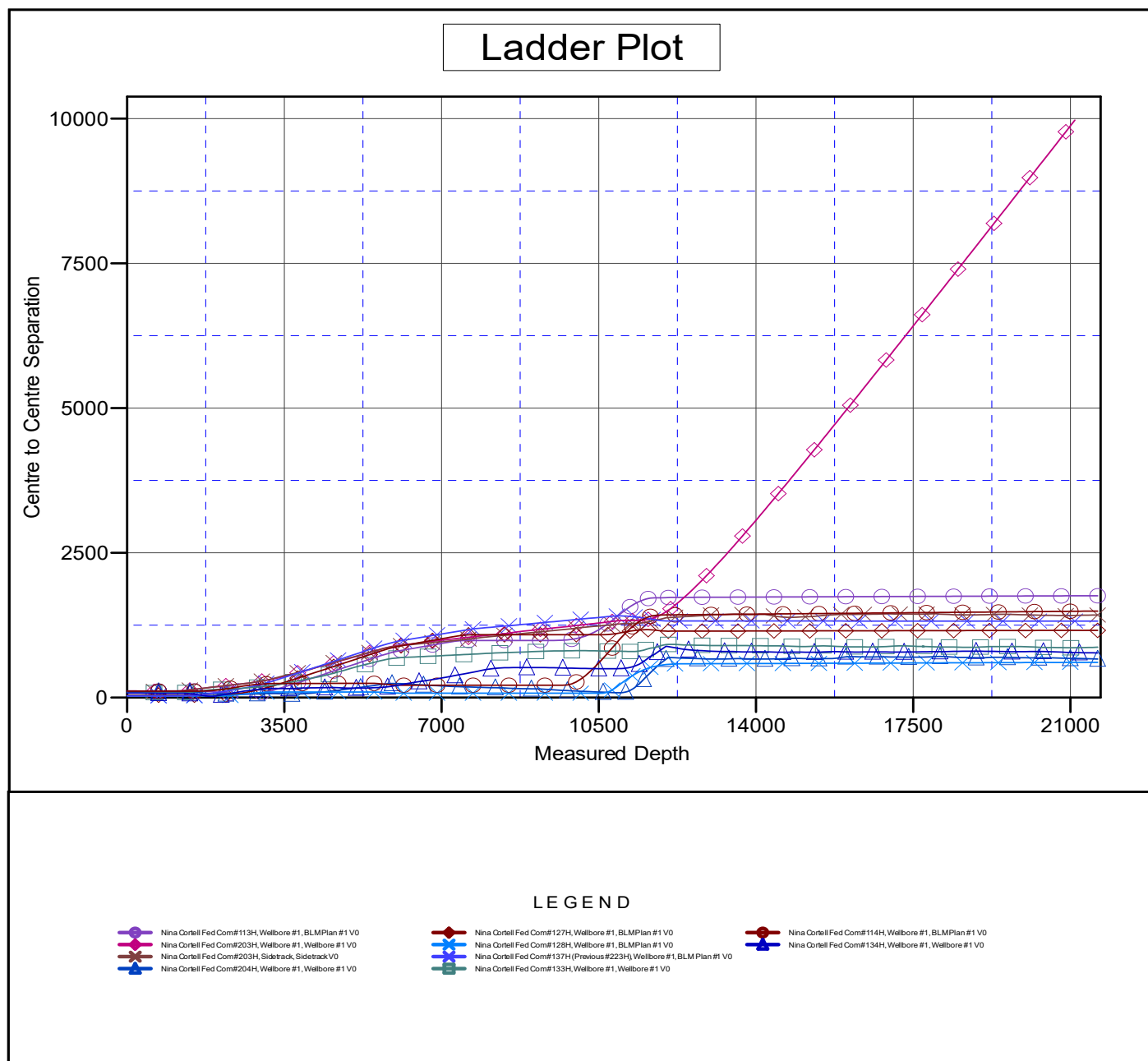
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Nina Cortell Fed Com #138H (Previous #224H)

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.36°



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 #138H (Previous #224H)
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 #138H (Previous #224H)	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 Single User Db
Reference Design:	BLM Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3818.5usft (Original Well Elev)

Offset Depths are relative to Offset Datum

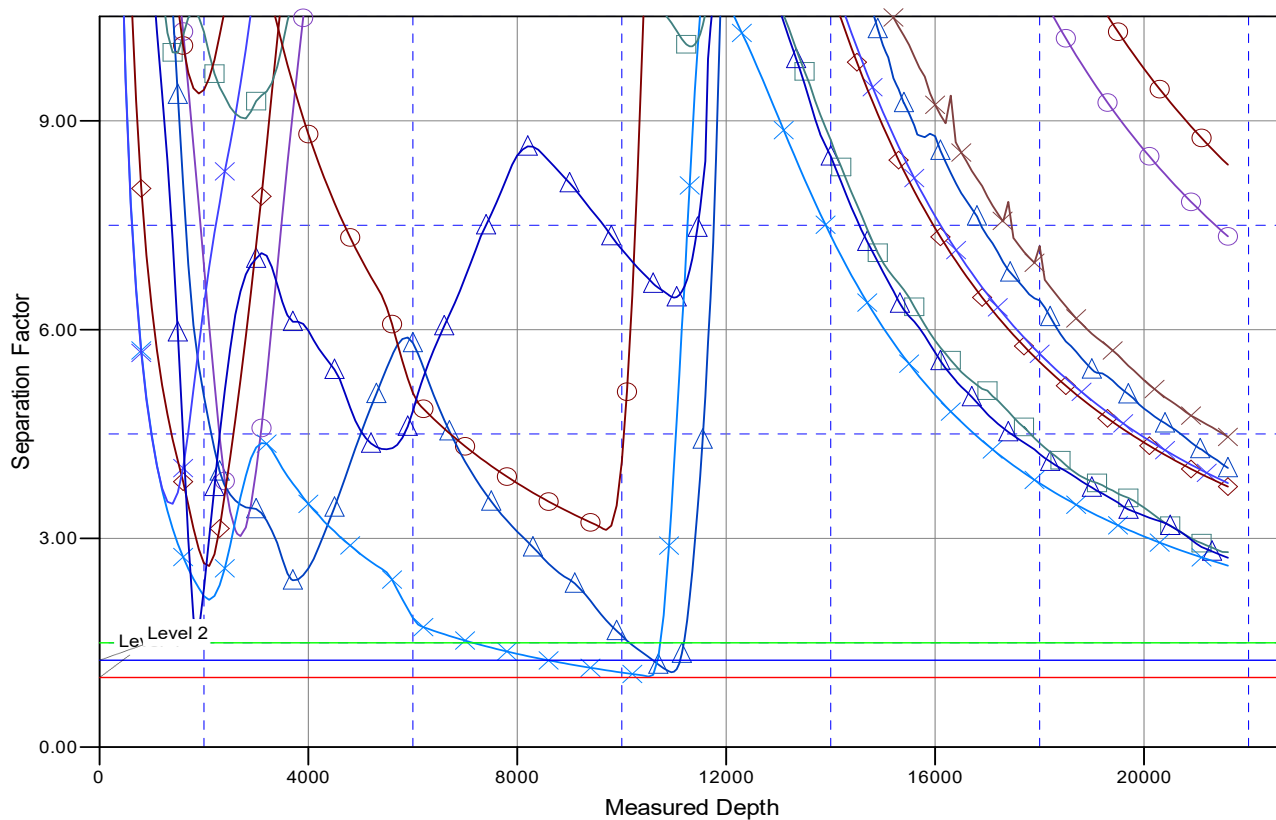
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Nina Cortell Fed Com #138H (Previous #224H)

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.36°

Separation Factor Plot



LEGEND

Nina Cortell Fed Com#113H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#203H, Wellbore #1, Wellbore #1 V0
 Nina Cortell Fed Com#203H, Sidetrack, Sidetrack V0
 Nina Cortell Fed Com#204H, Wellbore #1, Wellbore #1 V0

Nina Cortell Fed Com#127H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#128H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#137H (Previous #223H), Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#134H, Wellbore #1, Wellbore #1 V0

Nina Cortell Fed Com#114H, Wellbore #1, BLMPlan #1 V0
 Nina Cortell Fed Com#134H, Wellbore #1, Wellbore #1 V0

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

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

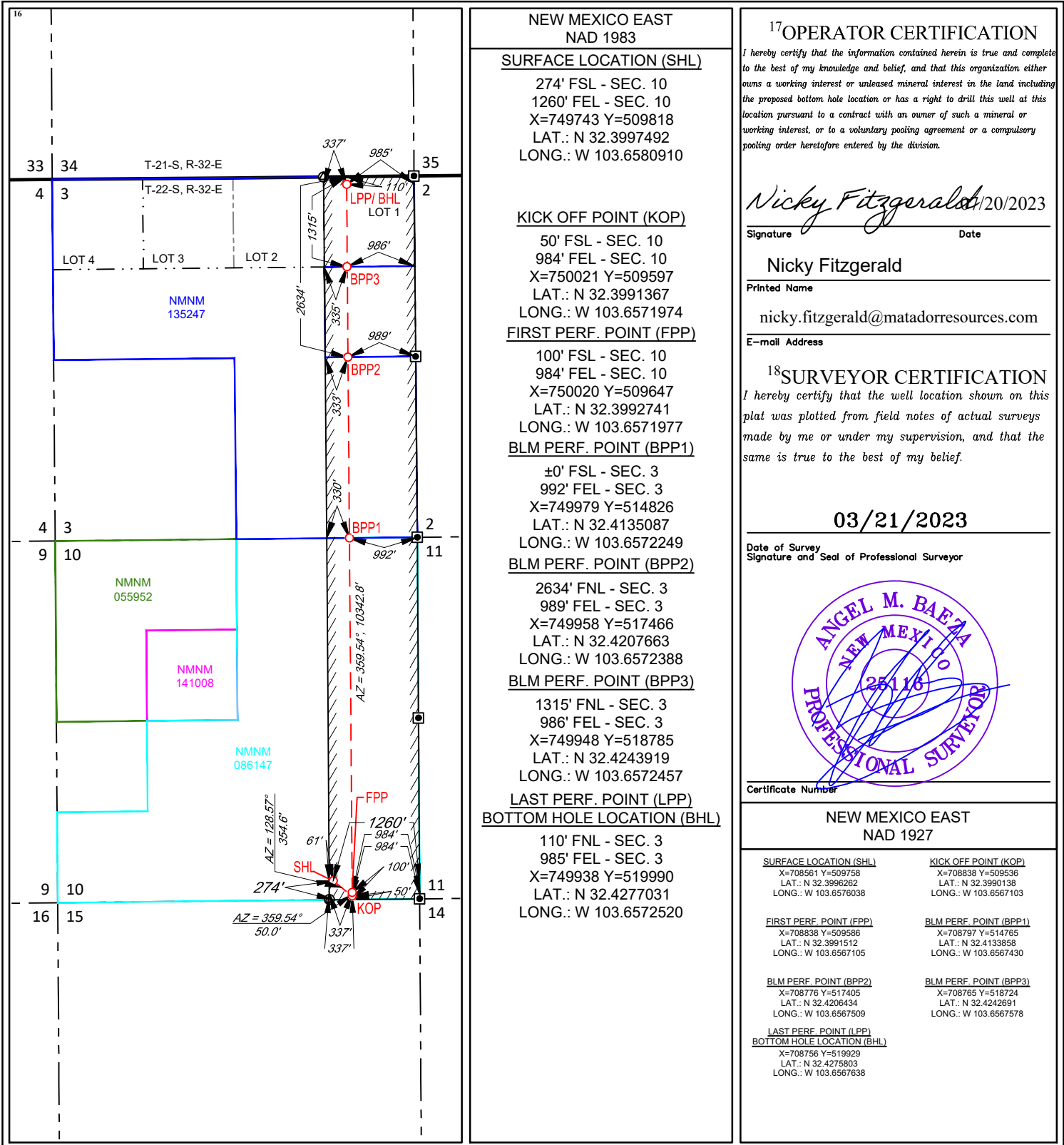
¹ API Number 30-025-50471	² Pool Code 5695	³ Pool Name BILBREY BASIN; BONE SPRING
⁴ Property Code 320841	⁵ Property Name NINA CORTELL FED COM	⁶ Well Number 138H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 3789'

¹⁰ Surface Location									
UL or lot no. P	Section 10	Township 22-S	Range 32-E	Lot Idn -	Feet from the 274'	North/South line SOUTH	Feet from the 1260'	East/West line EAST	County LEA

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. 1	Section 3	Township 22-S	Range 32-E	Lot Idn -	Feet from the 110'	North/South line NORTH	Feet from the 985'	East/West line EAST	County LEA

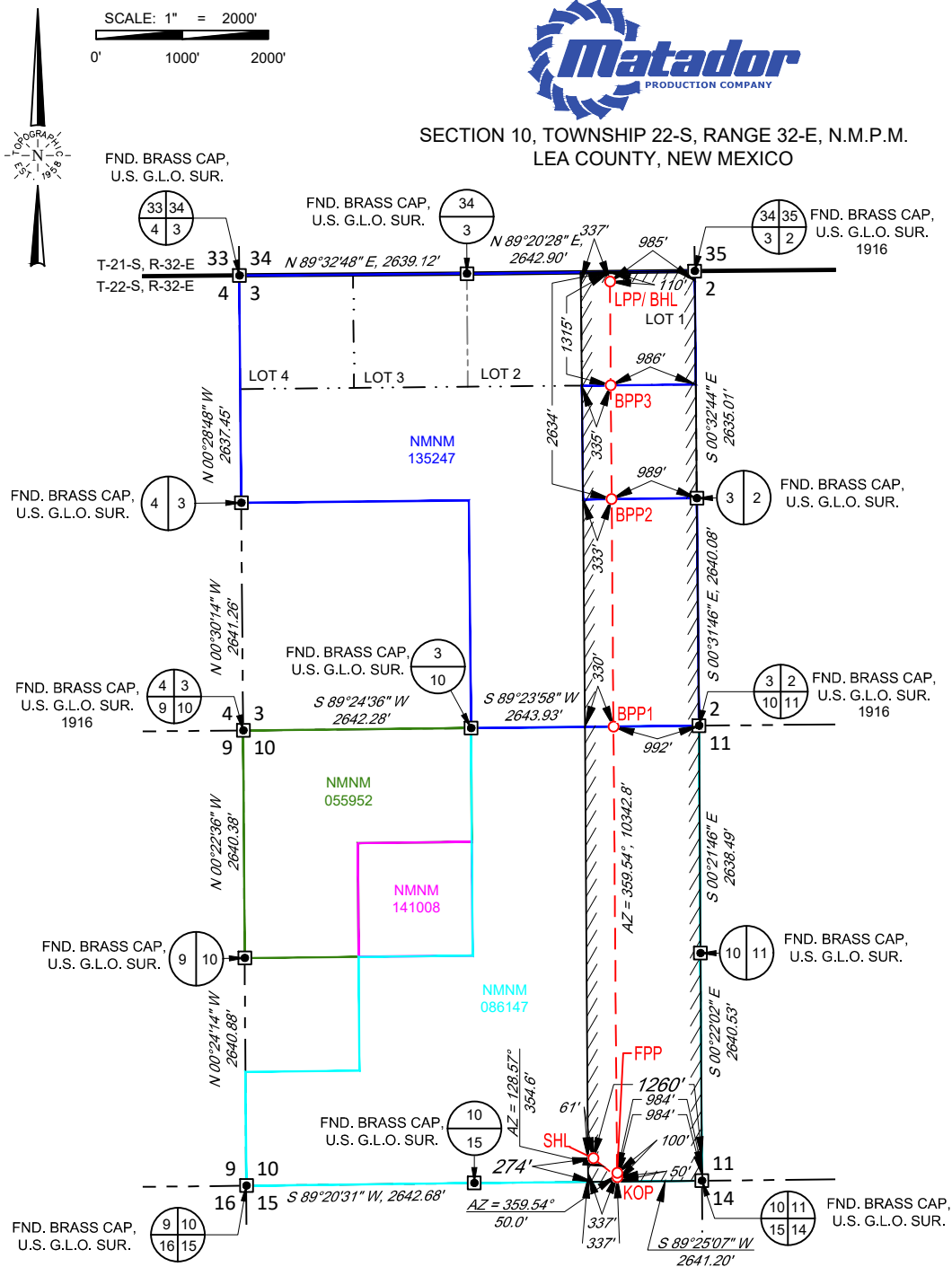
¹² Dedicated Acres 319.92	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





SECTION 10, TOWNSHIP 22-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



NEW MEXICO EAST
NAD 1983

SURFACE LOCATION (SHL)

274' FSL - SEC. 10
1260' FEL - SEC. 10
X=749743 Y=509818
LAT.: N 32.3997492
LONG.: W 103.6580910

KICK OFF POINT (KOP)

50' FSL - SEC. 10
984' FEL - SEC. 10
X=750021 Y=509597
LAT.: N 32.3991367
LONG.: W 103.6571974

FIRST PERF. POINT (FPP)

100' FSL - SEC. 10
984' FEL - SEC. 10
X=750020 Y=509647
LAT.: N 32.3992741
LONG.: W 103.6571977

BLM PERF. POINT (BPP1)

±0' FSL - SEC. 3
992' FEL - SEC. 3
X=749979 Y=514826
LAT.: N 32.4135087
LONG.: W 103.6572249

BLM PERF. POINT (BPP2)

2634' FNL - SEC. 3
989' FEL - SEC. 3
X=749958 Y=517466
LAT.: N 32.4207663
LONG.: W 103.6572388

BLM PERF. POINT (BPP3)

1315' FNL - SEC. 3
986' FEL - SEC. 3
X=749948 Y=518785
LAT.: N 32.4243919
LONG.: W 103.6572457

LAST PERF. POINT (LPP)

BOTTOM HOLE LOCATION (BHL)

110' FNL - SEC. 3
985' FEL - SEC. 3
X=749938 Y=519990
LAT.: N 32.4277031
LONG.: W 103.6572520

LEASE NAME & WELL NO.: NINA CORTELL FED COM 138H

SECTION 10 TWP 22-S RGE 32-E SURVEY N.M.P.M.

COUNTY LEA STATE NM

DESCRIPTION 274' FSL & 1260' FEL

DISTANCE & DIRECTION

FROM INT. OF US-180 W/US-62 W & NM-176 W. GO SOUTHWEST ON US-180 W/US-62 W ±1.2 MILES, THENCE SOUTH (LEFT) ON CAMPBELL RD. ±10.5 MILES, THENCE NORTHEAST (LEFT) ON A LEASE RD. ±2.8 MILES, THENCE SOUTH (RIGHT) ON A LEASE RD. ±1.1 MILES, THENCE EAST (LEFT) ON A PROPOSED RD. ±6591 FEET TO A POINT ±282 FEET NORTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.



Angel M. Baeza, P.S. No. 25116

April 5, 2023



481 WINSOFT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
TEXAS FIRM REGISTRATION NO. 10042504
WWW.TOPOGRAPHIC.COM

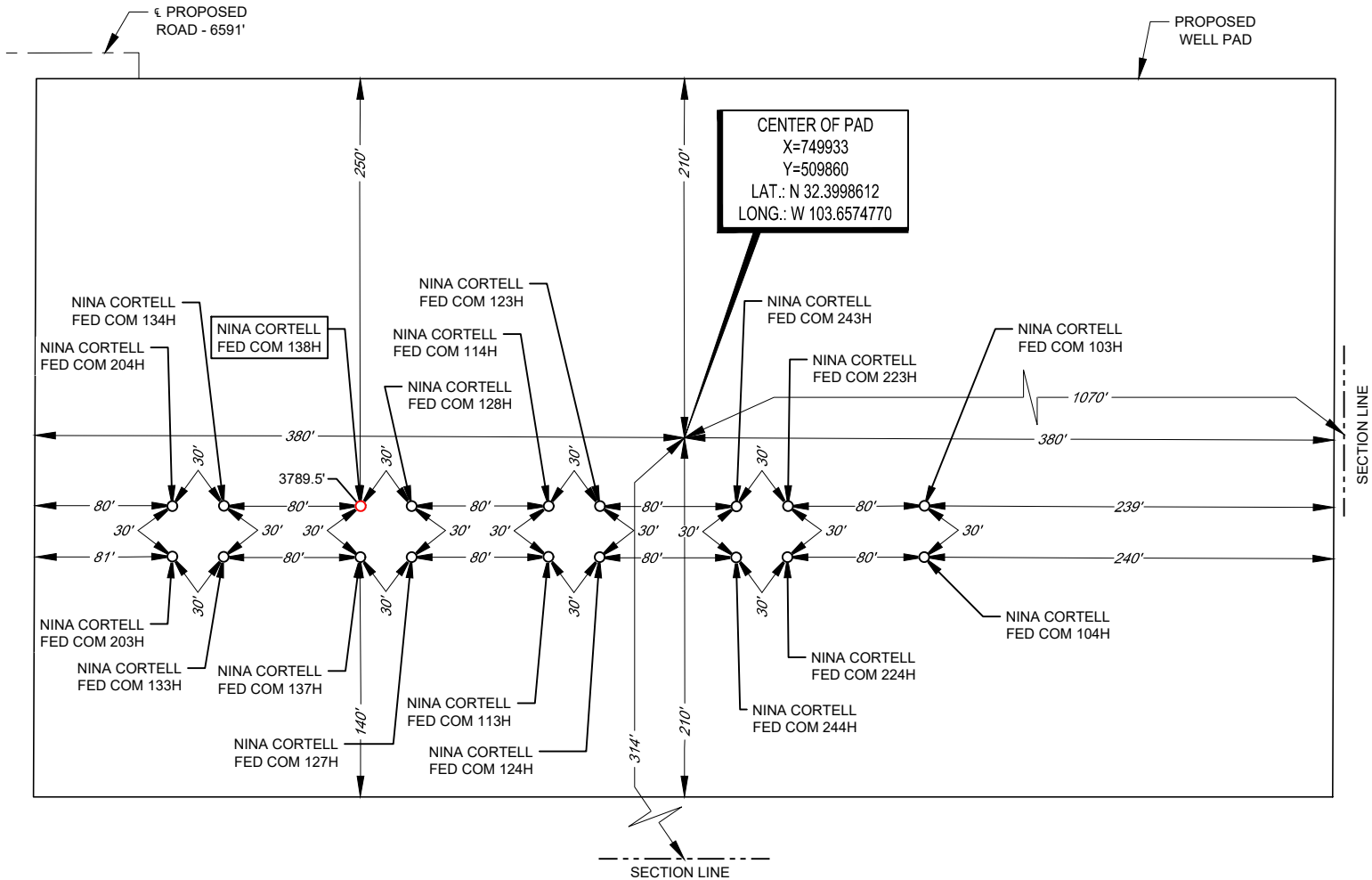


LEGEND

----- SECTION LINE
 --- PROPOSED ROAD

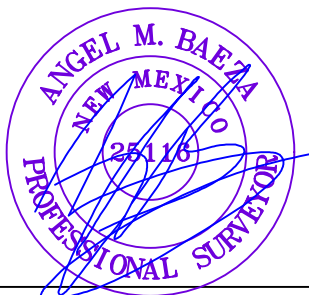
SECTION 10, TOWNSHIP 22-S, RANGE 32-E, N.M.P.M.
 LEA COUNTY, NEW MEXICO

DETAIL VIEW
 SCALE: 1" = 100'



LEASE NAME & WELL NO.: NINA CORTELL FED COM 138H
 138H LATITUDE N 32.3997492 138H LONGITUDE W 103.6580910

CENTER OF PAD IS 314' FSL & 1070' FEL



Angel M. Baeza, P.S. No. 25116

April 5, 2023

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



SCALE: 1" = 100'
 0' 50' 100'



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 TEXAS FIRM REGISTRATION NO. 10042504
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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 263469

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 263469
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	10/25/2023