U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

06/12/2023

Well Name: BIG STAG FED COM

Well Location: T21S / R32E / SEC 1 / SWSE / 32.5007 / -103.627113

County or Parish/State: LEA / NM

Well Number: 303H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM127892

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547528

Well Status: Approved Application for Permit to Drill

Operator: MATADOR PRODUCTION COMPANY

Notice of Intent

Sundry ID: 2699441

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 10/24/2022

Time Sundry Submitted: 02:15

Date proposed operation will begin: 08/01/2023

Procedure Description: BLM Bond No: NMB001079 Surety Bond No RLB0015172 “Matador respectfully request the option to make the following changes to the Big Stag Fed Com #303H: - Change the SHL from 195’ FNL & 2166’ FEL (NWNE) of section 12-21S-32E to 5’ FSL & 2247’ FEL (SWSE) of section 1-21S-32E. SHL remains on previously approved pad site. - Change BHL from 1268' FNL & 1650' FEL of sec. 13-21S-32E to 1209' FNL & 1650' FEL of sec. 13-21S-32E - Revise casing program to 16”, 10-3/4”, 8-5/8” by 5.5” and deepen well to Wolfcamp, attached is revised drill plan with updated casing depths.”

NOI Attachments

Procedure Description

Big_Stag_Fed_Com_303H_Directional_AC_Report_v1_20230427164739.pdf

Big_Stag_Fed_Com_303H_Drill_Plan_Sundry_20230427164214.pdf

Big_Stag_Fed_Com_303H_Directional_Well_Plan_v1_20230427163704.pdf

Big_Stag_Fed_Com_303H_Directional_Wall_Plot_v1_20230427163508.pdf

2022101653_MATADOR_BIG_STAG_FED_COM_LEA_303H_C_102_FINAL_04_20_2023_FINAL_signed_20230424161408.pdf

Big_Stag_Fed_Com_303H_Casing_Specs_8.625in_32ppf_P110EC_SPRINT_FJ_20221024141406.pdf

Big_Stag_Fed_Com_303H_Casing_Specs_5.5in_20lb_P110EC_VAM_SPRINT_SF_20221024141359.pdf

Big_Stag_Fed_Com_303H_4_String_Wellhead_Diagram_with_16in_CRC_20221024141348.pdf

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County or Parish/State: LEA / NM

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Operator: MATADOR PRODUCTION COMPANY

2022101653_MATADOR_BIG_STAG_303H_WELL_SITE_20221024141341.pdf

Conditions of Approval

Additional

BIG_STAG_FED_COM_303H_APD_Change_COA_20230601144837.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: CASSIE HAHN

Signed on: MAY 31, 2023 09:57 AM

Name: MATADOR PRODUCTION COMPANY

Title: Senior Landman

Street Address: 5400 LBJ FREEWAY, SUITE 1500

City: DALLAS **State:** TX

Phone: (972) 371-5440

Email address: CHAHN@MATADORRESOURCES.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KEITH P IMMATTY

BLM POC Title: ENGINEER

BLM POC Phone: 5759884722

BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition: Approved

Disposition Date: 06/01/2023

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.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

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

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
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ 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 recomplete 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 OFICE 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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand 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: NWNE / 195 FNL / 2166 FEL / TWSP: 21S / RANGE: 32E / SECTION: 12 / LAT: 32.50015 / LONG: -103.626852 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 48 FSL / 1478 FEL / TWSP: 21S / RANGE: 32E / SECTION: 1 / LAT: 32.5008153 / LONG: -103.6246265 (TVD: 8855 feet, MD: 8932 feet)

PPP: NWSE / 2640 FSL / 1650 FEL / TWSP: 21S / RANGE: 32E / SECTION: 12 / LAT: 32.493438 / LONG: -103.62519 (TVD: 9225 feet, MD: 11785 feet)

BHL: NWNE / 1268 FNL / 1650 FEL / TWSP: 21S / RANGE: 32E / SECTION: 13 / LAT: 32.482681 / LONG: -103.625195 (TVD: 9213 feet, MD: 15707 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
WELL NAME & NO.:	BIG STAG FED COM 304H
SURFACE HOLE FOOTAGE:	5'/S & 2247'/E
BOTTOM HOLE FOOTAGE	1209'/N & 1650'/E
LOCATION:	Section 1, T.21 S., R.32 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	( ) None	( ) Secretary	(•) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[x] 4 String	[x] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[x] Contingency Cement Squeeze	[ ] EchoMeter	[ ] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[ ] Break Testing	[ ] Offline Cementing	[ ] Casing Clearance

SEE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.

A. CASING

Primary Casing Design:

1. The **16** inch surface casing shall be set at approximately **1,675 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 **8 hours** or **500 psi 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 psi compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The **10-3/4** inch 1st intermediate casing shall be set at approximately **3,300** feet. The minimum required fill of cement behind the **10-3/4** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2 (2-stage with DV tool):

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. Operator must run a CBL from TD of the 10-3/4" casing to surface. Submit results to BLM.

- In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing string must come to surface.

3. The **8-5/8** inch 2nd intermediate casing shall be set at approximately **5,808** feet. The minimum required fill of cement behind the **8-5/8 inch** intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2 (2-stage with DV tool):

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.

c. 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.

d. Second stage above DV tool:
   - ❖ Cement to surface. If cement does not circulate, contact the appropriate BLM office. Operator must run a CBL from TD of the 10-3/4" casing to surface. Submit results to BLM.

- ❖ In Capitan Reef 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.

- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
  (Ensure FW based mud used across the Capitan Reef interval)

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

Bradenhead cement squeeze option for this intermediate string is approved. In this case, operator must run a CBL or echometer from TD of the 8-5/8" casing to surface. Submit results to BLM.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   - Cement should tie-back at least **50 feet** above top of Capitan reef formation. Operator shall provide method of verification.

Excess cement for production casing is below CFO's recommendation of 25%.

GENERAL REQUIREMENTS

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

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

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

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

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

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity 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 intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-

off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

SA 06/01/2023

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Well Number: 303H

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Allottee or Tribe Name:

Lease Number: NMNM127892

Unit or CA Name:

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Sundry ID: 2699441

Type of Submission: Notice of Intent

Type of Action: APD Change

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Time Sundry Submitted: 02:15

Date proposed operation will begin: 12/24/2022

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NOI Attachments

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Big_Stag_303_plat_001_20221024141259.pdf

Well Name: BIG STAG FED COM

Well Location: T21S / R32E / SEC 12 / NWNE / 32.50015 / -103.626852

County or Parish/State: LEA / NM

Well Number: 303H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM127892

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Unit or CA Number:

US Well Number: 3002547528

Well Status: Approved Application for Permit to Drill

Operator: MATADOR PRODUCTION COMPANY

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: CASSIE HAHN

Signed on: OCT 24, 2022 02:15 PM

Name: MATADOR PRODUCTION COMPANY

Title: Landman

Street Address: 5400 LBJ Freeway, Suite 1500

City: Dallas **State:** TX

Phone: (972) 371-5440

Email address: chahn@matadorresources.com

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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	[2] Pool Code	[3] Pool Name
30-025		

[4] Property Code	[5] Property Name	[6] Well Number
	BIG STAG FED COM	303H

[7] OGRID No.	[8] Operator Name	[9] Elevation
228937	MATADOR PRODUCTION COMPANY	3,793'

[10] Surface Location

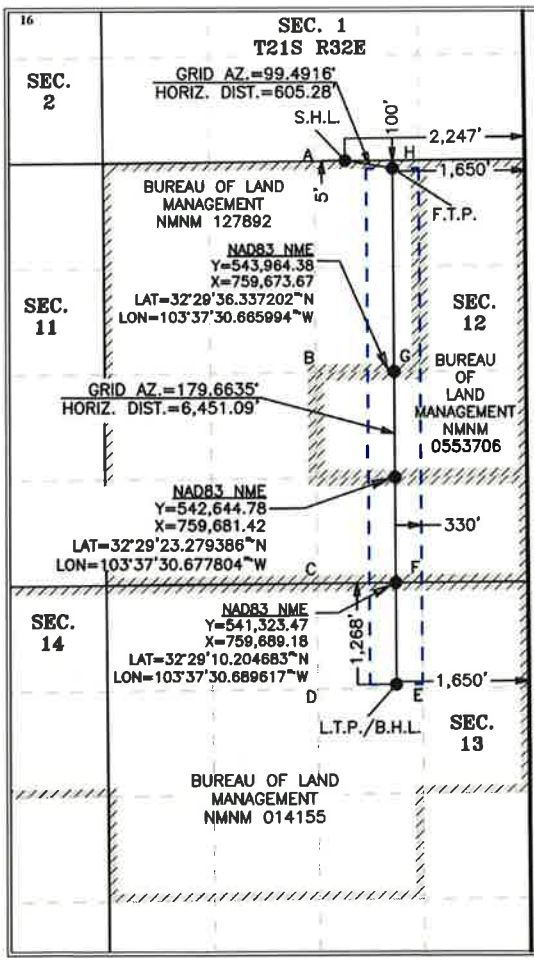
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	1	21 S	32 E		5	SOUTH	2,247	EAST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	13	21 S	32 E		1,268	NORTH	1,650	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
200			

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.



SHL (NAD83 NME)		LTP (NAD83 NME)	
Y =	546,606.3	Y =	540,055.5
X =	759,061.7	X =	759,696.6
LAT. =	32.500700 °N	LAT. =	32.482683 °N
LONG. =	103.627113 °W	LONG. =	103.625195 °W
FTP (NAD83 NME)		**BHL (NAD83 NME)**	
Y =	546,506.5	Y =	540,055.5
X =	759,658.7	X =	759,696.6
LAT. =	32.500414 °N	LAT. =	32.482683 °N
LONG. =	103.625179 °W	LONG. =	103.625195 °W

CORNER COORDINATES (NAD83 NME)

A - Y =	546,597.8 N ,	X =	758,674.7 E
B - Y =	543,956.2 N ,	X =	758,690.6 E
C - Y =	541,317.0 N ,	X =	758,706.4 E
D - Y =	539,996.6 N ,	X =	758,714.8 E
E - Y =	540,007.9 N ,	X =	760,030.6 E
F - Y =	541,325.6 N ,	X =	760,022.1 E
G - Y =	543,967.1 N ,	X =	760,005.4 E
H - Y =	546,609.4 N ,	X =	759,991.5 E

SHL (NAD27 NME)		LTP (NAD27 NME)	
Y =	546,545.5	Y =	539,994.8
X =	717,880.4	X =	718,515.1
LAT. =	32.500579 °N	LAT. =	32.482562 °N
LONG. =	103.626622 °W	LONG. =	103.624705 °W
FTP (NAD27 NME)		**BHL (NAD27 NME)**	
Y =	546,445.7	Y =	539,994.8
X =	718,477.4	X =	718,515.1
LAT. =	32.500294 °N	LAT. =	32.482562 °N
LONG. =	103.624688 °W	LONG. =	103.624705 °W

CORNER COORDINATES (NAD27 NME)

A - Y =	546,537.0 N ,	X =	717,493.4 E
B - Y =	543,895.5 N ,	X =	717,509.2 E
C - Y =	541,256.4 N ,	X =	717,524.9 E
D - Y =	539,935.9 N ,	X =	717,533.3 E
E - Y =	539,947.2 N ,	X =	718,849.2 E
F - Y =	541,264.9 N ,	X =	718,840.7 E
G - Y =	543,906.4 N ,	X =	718,824.1 E
H - Y =	546,548.6 N ,	X =	718,810.3 E

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 10/24/22

Cassie Hahn
Printed Name

chahn@matadorresources.com
E-mail Address

[18] SURVEYOR CERTIFICATION

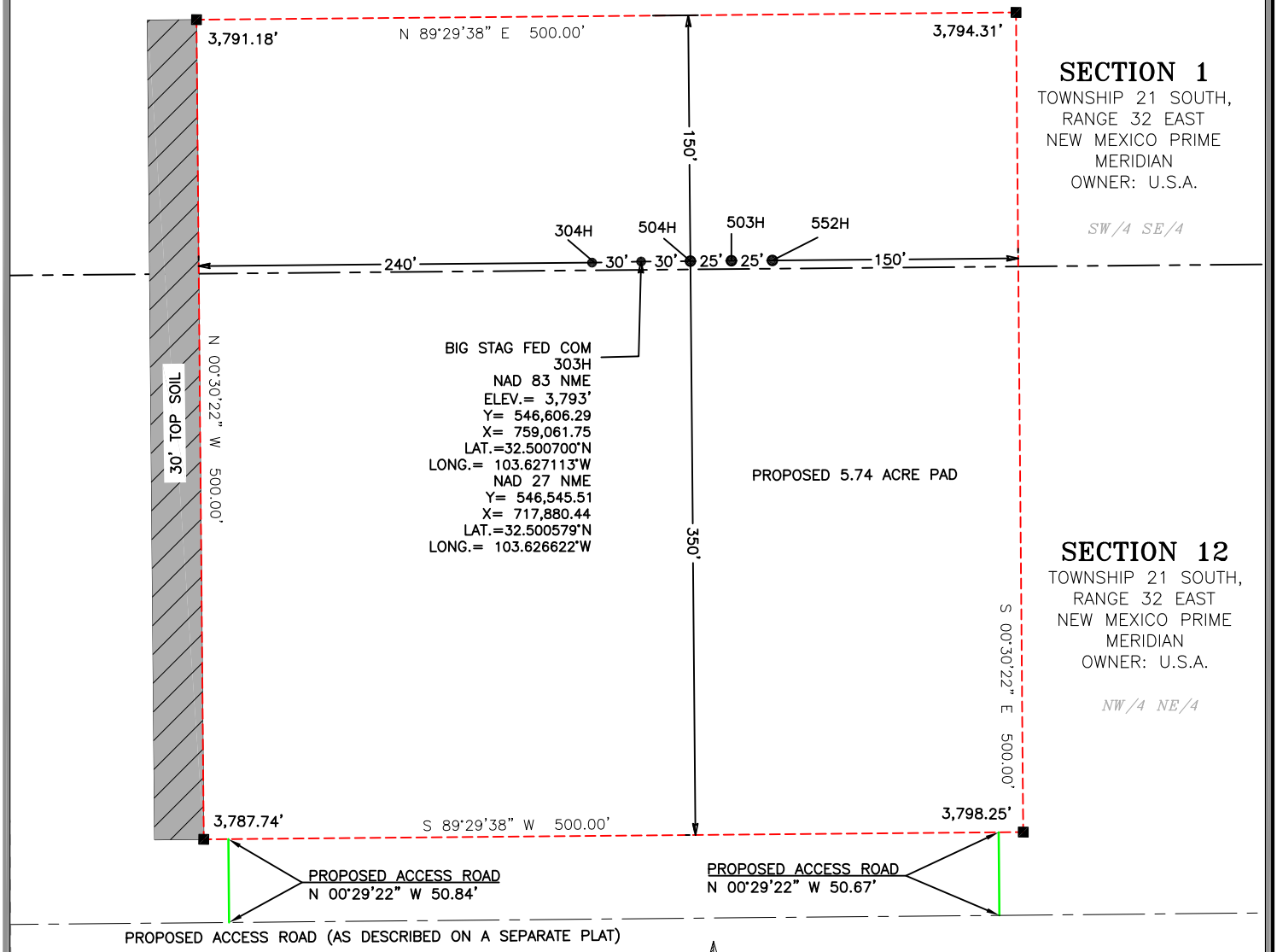
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

10-24-2022
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP 23786
Certificate Number

AW 2022101653



NOTE:

1). SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF N.M. HIGHWAY 176 AND BOOTLEG LANE, GO SOUTH ON BOOTLEG LANE APPROX. 1.7 MILES . TURN LEFT (EAST) ON A GRAVEL ROAD AND GO APPROX. 0.47 MILES TURN LEFT (NORTH) ,THE LOCATION IS TO THE NORTH.

LEGEND

PROPOSED ACCESS RD.
PROPOSED PAD
SECTION LINE

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

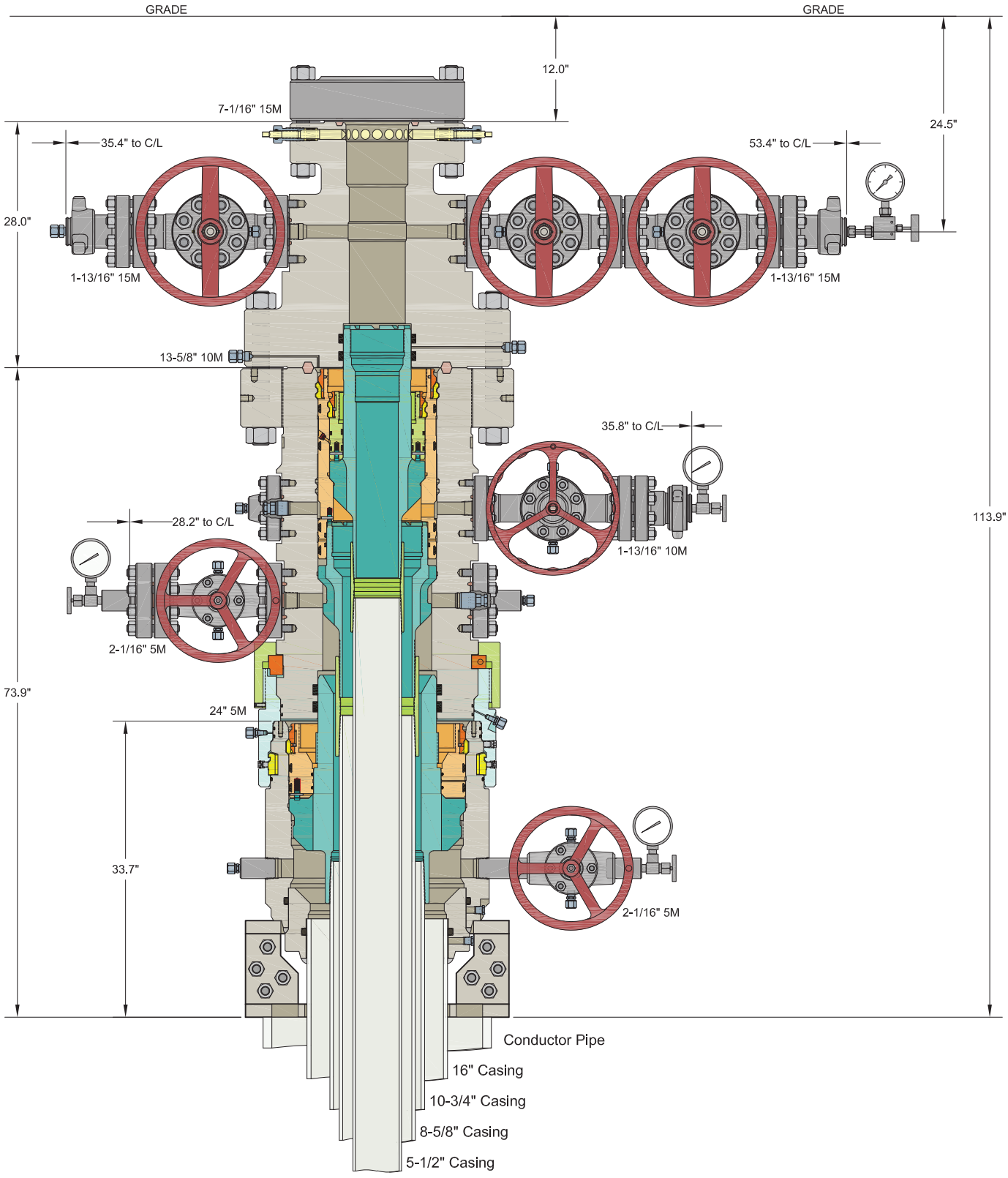
FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

MATADOR PRODUCTION COMPANY

WELL SITE PLAN

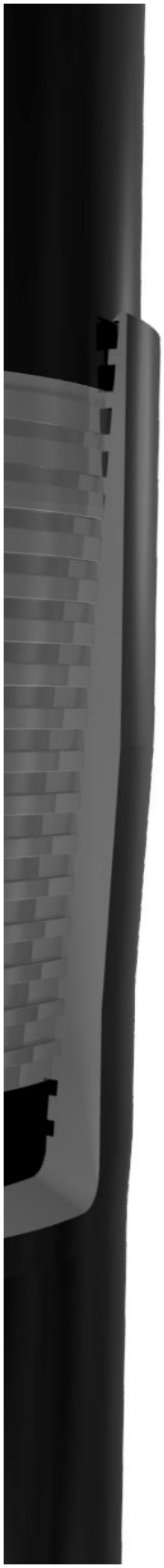
BIG STAG FED COM 303H
LOCATED 2,247 FEET FROM THE EAST LINE AND 5 FEET FROM THE SOUTH LINE OF SECTION 1, TOWNSHIP 21 SOUTH, RANGE 32 EAST, N.M.P.M. LEA COUNTY, NEW MEXICO

DATE:	10-7-2022	PROJECT NO:	2022101653
DRAWN BY:	RE	SCALE:	1" = 100'
CHECKED BY:	AR	SHEET:	1 OF 3
FIELD CREW:	RD	REVISION:	1



ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC	MATADOR PRODUCTION COMPANY WEST TEXAS		
16" x 10-3/4" x 8-5/8" x 5-1/2" CRC / MBU-3T-CFL Wellhead With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And 10-3/4", 8-5/8" & 5-1/2" Mandrel Casing Hangers	DRAWN	DLE	08JUL22
	APPRV		
	DRAWING NO.	HBE0000778	



Issued on: 08 Jul. 2020 by Wesley Ott

VAM® SPRINT-SF
Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift:	Connection
5 1/2 in.	20.00 lb/ft	0.361 in.	P110EC	4.653 in.	VAM® SPRINT-SF

PIPE PROPERTIES		
Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Cross Section Area	5.828	sqin.
Grade Type	High Yield	
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

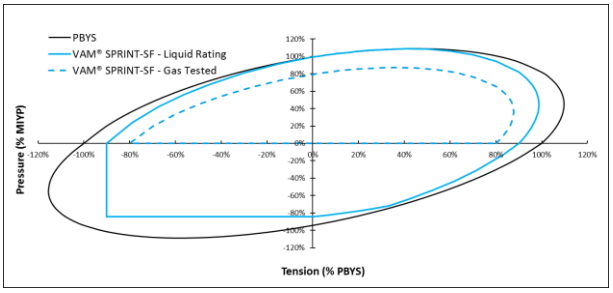
CONNECTION PROPERTIES		
Connection Type	Semi-Premium Integral Semi-Flush	
Connection OD (nom):	5.783	in.
Connection ID (nom):	4.717	in.
Make-Up Loss	5.965	in.
Critical Cross Section	5.244	sqin.
Tension Efficiency	90.0	% of pipe
Compression Efficiency	90.0	% of pipe
Internal Pressure Efficiency	100	% of pipe
External Pressure Efficiency	100	% of pipe

CONNECTION PERFORMANCES		
Tensile Yield Strength	656	klb
Compression Resistance	656	klb
Internal Yield Pressure	14,360	psi
Collapse Resistance	12,080	psi
Max. Structural Bending	89	°/100ft
Max. Bending with ISO/API Sealability	30	°/100ft

* 87.5% RBW

TORQUE VALUES		
Min. Make-up torque	20,000	ft.lb
Opt. Make-up torque	22,500	ft.lb
Max. Make-up torque	25,000	ft.lb
Max. Torque with Sealability (MTS)	40,000	ft.lb

VAM® SPRINT-SF is a semi-flush connection innovatively designed for extreme shale applications. Its high tension rating and ultra high torque capacity make it ideal to run a fill string length as production casing in shale wells with extended horizontal sections and tight clearance requirements.



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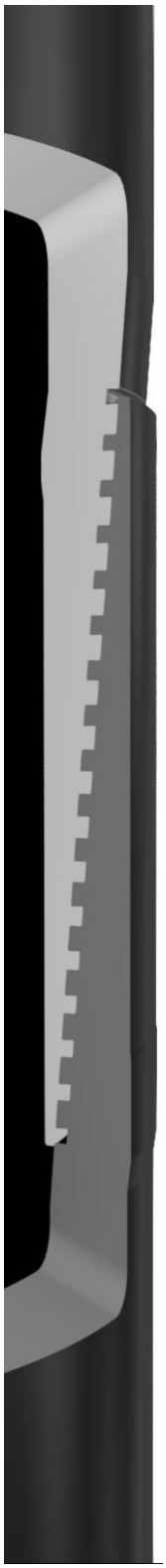
VAM USA



Issued on: 22 Apr. 2021 by Logan Van Gorp

VAM SPRINT-FJ

Connection Data Sheet

OD	Weight (lb/ft)	Wall Th.	Grade	Alt. Drift:	Connection
8 5/8 in.	Nominal: 32.00 Plain End: 31.13	0.352 in.	P110EC	7.875 in.	VAM® SPRINT-FJ

PIPE PROPERTIES		
Nominal OD	8.625	in.
Nominal ID	7.921	in.
Nominal Cross Section Area	9.149	sqin.
Grade Type	High Yield	
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

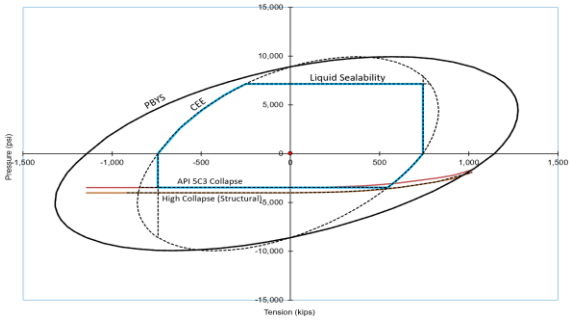
CONNECTION PROPERTIES		
Connection Type	Semi-Premium Integral Flush	
Connection OD (nom):	8.665	in.
Connection ID (nom):	7.954	in.
Make-Up Loss	2.614	in.
Critical Cross Section	6.038	sqin.
Tension Efficiency	65.0	% of pipe
Compression Efficiency	65.0	% of pipe
Internal Pressure Efficiency	80.0	% of pipe
External Pressure Efficiency	100	% of pipe

CONNECTION PERFORMANCES		
Tensile Yield Strength	744	klb
Compression Resistance	744	klb
Max. Internal Pressure	7,150	psi
Structural Collapse Resistance	4,000	psi
Max. Structural Bending	41	°/100ft
Max. Bending with Sealability	10	°/100ft

* 87.5% RBW

TORQUE VALUES		
Min. Make-up torque	15,000	ft.lb
Opt. Make-up torque	16,500	ft.lb
Max. Make-up torque	18,000	ft.lb
Max. Torque with Sealability (MTS)	48,000	ft.lb

VAM® SPRINT-FJ is a semi-premium flush connection designed for shale applications, where maximum clearance and high tension capacity are required for intermediate casing strings.



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Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance

VAM USA

Matador Production Company

Ranger/Arrowhead
Big Game
Big Stag Fed Com #303H

Wellbore #1
BLM Plan #1

Anticollision Report

17 October, 2022

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Reference BLM Plan #1

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

Survey Tool Program **Date** 10/17/2022

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,427.9	BLM Plan #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Big Game						
Big Bucks Fed Com #501H - Wellbore #1 - Actual	6,630.4	6,657.5	1,291.7	1,243.4	26.778	CC
Big Bucks Fed Com #501H - Wellbore #1 - Actual	7,600.0	7,629.5	1,293.9	1,239.3	23.722	ES
Big Bucks Fed Com #501H - Wellbore #1 - Actual	18,428.0	17,019.7	1,638.8	1,440.5	8.262	SF
Big Bucks Fed Com #502H - Wellbore #1 - Actual	4,827.6	4,885.3	310.6	273.2	8.307	CC, ES
Big Bucks Fed Com #502H - Wellbore #1 - Actual	18,428.0	17,190.0	952.9	804.8	6.434	SF
Big Bucks Fed Com #601H - Wellbore #1 - BLM Plan #1	12,499.2	11,917.2	1,106.0	1,021.3	13.066	CC
Big Bucks Fed Com #601H - Wellbore #1 - BLM Plan #1	18,428.0	17,836.5	1,106.3	874.9	4.780	ES, SF
Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1	500.0	483.0	907.7	904.6	296.334	CC
Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1	600.0	583.0	908.4	904.6	240.567	ES
Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1	18,428.0	17,350.5	2,324.3	2,096.6	10.205	SF
Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1	500.0	483.0	877.7	874.6	286.535	CC
Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1	600.0	583.0	878.4	874.6	232.618	ES
Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1	18,428.0	17,835.4	1,866.3	1,632.4	7.979	SF
Big Stag Fed Com #304H - Wellbore #1 - BLM Plan #1	500.0	500.0	29.9	26.8	9.573	CC, ES
Big Stag Fed Com #304H - Wellbore #1 - BLM Plan #1	18,428.0	18,306.6	667.5	435.1	2.872	SF
Big Stag Fed Com #503H - Wellbore #1 - Actual	783.2	784.2	18.7	14.0	3.964	CC
Big Stag Fed Com #503H - Wellbore #1 - Actual	800.0	801.0	18.8	13.9	3.872	ES
Big Stag Fed Com #503H - Wellbore #1 - Actual	900.0	900.8	20.3	14.8	3.652	SF
Big Stag Fed Com #504H - Wellbore #1 - Actual	944.1	945.5	23.1	17.3	3.961	CC, ES
Big Stag Fed Com #504H - Wellbore #1 - Actual	1,000.0	1,001.3	23.6	17.4	3.783	SF
Big Stag Fed Com #703H - Wellbore #1 - Actual	1,178.4	1,178.8	8.1	0.3	1.042	Level 2, CC, ES, SF
Minis 1 Fed Com #011H - Wellbore #1 - Actual	10,847.7	17,952.7	564.4	399.1	3.413	CC, ES, SF
Minis 1 Federal Com #004H - Wellbore #1 - Actual	12,055.4	18,931.0	3,241.2	3,065.1	18.411	CC, ES
Minis 1 Federal Com #004H - Wellbore #1 - Actual	12,100.0	18,931.0	3,241.8	3,065.7	18.407	SF
Minis 1 Federal Com #005H - Wellbore #1 - Actual	11,800.0	18,876.0	1,842.9	1,668.3	10.555	SF
Minis 1 Federal Com #005H - Wellbore #1 - Actual	11,900.0	18,876.0	1,840.4	1,666.4	10.579	ES
Minis 1 Federal Com #005H - Wellbore #1 - Actual	11,904.2	18,876.0	1,840.4	1,666.4	10.581	CC
Minis 1 Federal Com #006H - Wellbore #1 - Actual	11,740.3	18,949.0	706.6	533.8	4.090	CC
Minis 1 Federal Com #006H - Wellbore #1 - Actual	11,750.0	18,949.0	706.6	533.7	4.086	ES, SF
Minis 1 Federal Com #007H - Wellbore #1 - Actual	11,646.7	19,030.0	1,158.1	986.4	6.745	CC
Minis 1 Federal Com #007H - Wellbore #1 - Actual	11,650.0	19,030.0	1,158.1	986.3	6.742	ES
Minis 1 Federal Com #007H - Wellbore #1 - Actual	11,700.0	19,030.0	1,159.7	987.1	6.722	SF
Minis 1 Federal Com #010H - Wellbore #1 - Actual	11,797.7	18,850.0	157.5	3.3	1.021	Level 2, CC
Minis 1 Federal Com #010H - Wellbore #1 - Actual	11,800.0	18,850.0	157.5	3.1	1.020	Level 2, ES, SF
Minis 1 Federal Com #016H - Wellbore #1 - Actual	11,722.6	19,030.0	1,228.2	1,056.0	7.134	CC
Minis 1 Federal Com #016H - Wellbore #1 - Actual	11,750.0	19,030.0	1,228.5	1,055.9	7.118	ES
Minis 1 Federal Com #016H - Wellbore #1 - Actual	11,800.0	19,030.0	1,231.0	1,057.8	7.106	SF

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning

Offset Design Big Game - Big Bucks Fed Com #501H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 339-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	21.0	21.0	0.0	0.0	92.76	-88.9	1,846.3	1,848.4				
100.0	100.0	120.9	120.9	0.1	0.2	92.75	-88.8	1,846.3	1,848.4	1,848.1	0.33	5,658.371	
200.0	200.0	220.9	220.9	0.5	0.4	92.75	-88.7	1,846.3	1,848.4	1,847.6	0.85	2,176.655	
300.0	300.0	320.8	320.8	0.8	0.5	92.74	-88.5	1,846.3	1,848.4	1,847.1	1.37	1,347.510	
400.0	400.0	429.2	429.2	1.2	0.9	92.74	-88.2	1,846.1	1,848.3	1,846.2	2.08	888.433	
500.0	500.0	526.4	526.4	1.6	1.2	92.73	-88.0	1,845.8	1,847.9	1,845.1	2.78	664.316	
600.0	600.0	625.9	625.9	1.9	1.6	34.50	-87.9	1,845.5	1,846.9	1,843.4	3.49	529.349	
700.0	700.0	727.4	727.4	2.3	1.9	34.56	-87.9	1,845.2	1,844.4	1,840.3	4.20	439.237	
800.0	799.9	827.7	827.7	2.6	2.3	34.67	-88.1	1,844.8	1,840.4	1,835.5	4.91	375.120	
900.0	899.7	924.9	924.9	3.0	2.6	34.80	-88.1	1,844.5	1,835.2	1,829.6	5.61	327.312	
1,000.0	999.4	1,021.7	1,021.7	3.4	3.0	34.98	-88.2	1,844.3	1,828.5	1,822.2	6.30	290.093	
1,100.0	1,098.9	1,115.4	1,115.4	3.7	3.3	35.19	-88.4	1,844.4	1,820.8	1,813.8	6.98	260.749	
1,200.0	1,198.3	1,208.3	1,208.3	4.1	3.6	35.45	-88.8	1,844.8	1,811.9	1,804.2	7.66	236.489	
1,300.0	1,297.4	1,311.1	1,311.1	4.5	3.9	35.77	-89.3	1,845.4	1,801.9	1,793.5	8.38	214.982	
1,400.0	1,396.4	1,416.4	1,416.4	4.9	4.3	36.07	-89.9	1,845.6	1,790.8	1,781.7	9.12	196.412	
1,500.0	1,495.5	1,520.4	1,520.4	5.3	4.7	36.35	-90.1	1,845.5	1,779.5	1,769.6	9.85	180.575	
1,600.0	1,594.5	1,614.5	1,614.5	5.7	5.0	36.60	-90.1	1,845.4	1,768.1	1,757.6	10.56	167.443	
1,700.0	1,693.5	1,708.8	1,708.8	6.1	5.3	36.84	-89.5	1,845.6	1,757.1	1,745.9	11.27	155.982	
1,800.0	1,792.5	1,803.9	1,803.8	6.5	5.7	37.08	-88.8	1,846.1	1,746.4	1,734.4	11.97	145.879	
1,900.0	1,891.6	1,896.6	1,896.6	6.9	6.0	37.32	-88.3	1,846.8	1,736.0	1,723.4	12.67	136.990	
2,000.0	1,990.6	1,995.4	1,995.4	7.3	6.3	37.57	-87.5	1,847.9	1,725.9	1,712.5	13.40	128.835	
2,100.0	2,089.6	2,099.5	2,099.5	7.7	6.7	37.84	-86.8	1,848.8	1,715.6	1,701.5	14.14	121.332	
2,200.0	2,188.6	2,198.6	2,198.6	8.1	7.0	38.10	-86.2	1,849.4	1,705.2	1,690.3	14.87	114.681	
2,300.0	2,287.7	2,293.3	2,293.2	8.5	7.4	38.35	-85.5	1,850.2	1,695.0	1,679.4	15.59	108.755	
2,400.0	2,386.7	2,388.7	2,388.7	8.9	7.7	38.58	-84.1	1,851.4	1,685.1	1,668.8	16.31	103.340	
2,500.0	2,485.7	2,480.5	2,480.3	9.4	8.0	38.74	-80.9	1,852.9	1,675.5	1,658.5	17.02	98.461	
2,600.0	2,584.8	2,566.3	2,566.0	9.8	8.3	38.83	-76.4	1,855.2	1,666.6	1,648.9	17.71	94.114	
2,700.0	2,683.8	2,652.6	2,652.0	10.2	8.6	38.87	-70.3	1,858.3	1,658.4	1,640.0	18.40	90.125	
2,800.0	2,782.8	2,734.5	2,733.4	10.6	8.9	38.83	-62.3	1,862.4	1,651.3	1,632.2	19.08	86.543	
2,900.0	2,881.8	2,815.4	2,813.5	11.0	9.2	38.70	-52.2	1,867.5	1,645.2	1,625.5	19.76	83.274	
3,000.0	2,980.9	2,890.5	2,887.6	11.4	9.5	38.53	-41.5	1,873.4	1,640.5	1,620.1	20.41	80.371	
3,100.0	3,079.9	2,964.4	2,960.3	11.9	9.8	38.32	-30.0	1,880.5	1,637.3	1,616.3	21.06	77.745	
3,200.0	3,178.9	3,042.7	3,036.9	12.3	10.1	38.05	-16.5	1,889.4	1,635.8	1,614.0	21.73	75.287	
3,300.0	3,277.9	3,133.3	3,125.3	12.7	10.4	37.71	-0.1	1,900.5	1,635.1	1,612.7	22.45	72.836	
3,400.0	3,377.0	3,555.9	3,534.7	13.1	12.2	35.50	95.6	1,914.2	1,626.4	1,602.0	24.31	66.889	
3,500.0	3,476.0	3,622.2	3,598.3	13.5	12.4	35.05	113.8	1,910.4	1,607.7	1,582.6	25.03	64.218	
3,600.0	3,575.0	3,690.8	3,664.4	13.9	12.7	34.59	131.7	1,907.7	1,590.9	1,565.2	25.76	61.766	
3,700.0	3,674.0	3,774.4	3,745.3	14.3	13.1	34.06	152.8	1,905.5	1,575.8	1,549.2	26.52	59.416	
3,800.0	3,773.1	3,869.6	3,837.5	14.8	13.5	33.45	176.4	1,903.5	1,561.2	1,533.9	27.32	57.146	
3,900.0	3,872.1	3,965.7	3,930.7	15.2	13.9	32.85	199.9	1,901.5	1,547.0	1,518.8	28.13	55.002	
4,000.0	3,971.1	4,065.2	4,027.2	15.6	14.4	32.22	223.8	1,899.4	1,532.9	1,503.9	28.94	52.961	
4,100.0	4,070.2	4,161.5	4,120.7	16.0	14.8	31.61	247.0	1,897.3	1,518.9	1,489.1	29.75	51.047	
4,200.0	4,169.2	4,252.8	4,209.4	16.4	15.2	31.04	268.4	1,895.6	1,505.4	1,474.8	30.55	49.274	
4,300.0	4,268.2	4,341.7	4,296.2	16.9	15.6	30.52	288.0	1,894.4	1,492.5	1,461.2	31.33	47.631	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #501H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 339-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,400.0	4,367.2	4,433.8	4,386.3	17.3	16.0	30.04	306.7	1,893.7	1,480.3	1,448.2	32.12	46.084	
4,500.0	4,466.3	4,526.3	4,477.2	17.7	16.4	29.63	323.6	1,893.5	1,468.6	1,435.7	32.90	44.637	
4,600.0	4,565.3	4,625.4	4,575.1	18.1	16.9	29.27	339.4	1,893.5	1,457.2	1,423.6	33.69	43.253	
4,700.0	4,664.3	4,722.8	4,671.5	18.5	17.3	28.98	353.3	1,893.7	1,445.9	1,411.4	34.47	41.949	
4,800.0	4,763.3	4,813.2	4,761.1	18.9	17.6	28.75	365.2	1,894.1	1,434.9	1,399.7	35.22	40.745	
4,900.0	4,862.4	4,902.5	4,849.8	19.4	18.0	28.57	375.6	1,895.3	1,424.7	1,388.7	35.96	39.623	
5,000.0	4,961.4	4,997.5	4,944.3	19.8	18.4	28.46	384.7	1,897.2	1,415.0	1,378.3	36.70	38.555	
5,100.0	5,060.4	5,089.6	5,036.2	20.2	18.7	28.44	391.5	1,899.5	1,405.6	1,368.2	37.43	37.557	
5,200.0	5,159.4	5,182.0	5,128.4	20.6	19.0	28.49	396.6	1,902.4	1,396.8	1,358.7	38.14	36.621	
5,300.0	5,258.5	5,280.0	5,226.3	21.0	19.4	28.63	400.0	1,906.0	1,388.4	1,349.5	38.87	35.722	
5,400.0	5,357.5	5,378.3	5,324.4	21.5	19.7	28.81	402.3	1,909.7	1,380.0	1,340.4	39.59	34.861	
5,500.0	5,456.5	5,475.2	5,421.2	21.9	20.0	29.01	404.3	1,913.4	1,371.8	1,331.5	40.30	34.039	
5,600.0	5,555.6	5,579.1	5,525.1	22.3	20.4	29.23	406.3	1,917.5	1,363.6	1,322.5	41.03	33.230	
5,700.0	5,654.6	5,683.1	5,629.0	22.7	20.7	29.48	407.8	1,921.1	1,354.9	1,313.2	41.77	32.439	
5,800.0	5,753.6	5,779.5	5,725.3	23.1	21.1	29.71	409.1	1,924.5	1,346.4	1,303.9	42.48	31.693	
5,900.0	5,852.6	5,877.9	5,823.6	23.5	21.4	29.97	409.9	1,928.1	1,337.9	1,294.7	43.20	30.973	
6,000.0	5,951.7	5,978.6	5,924.2	24.0	21.7	30.36	408.1	1,931.9	1,329.6	1,285.7	43.91	30.281	
6,098.6	6,049.3	6,092.3	6,037.7	24.4	22.0	30.94	402.8	1,935.7	1,321.0	1,276.3	44.63	29.595	
6,100.0	6,050.7	6,094.1	6,039.5	24.4	22.0	30.95	402.7	1,935.7	1,320.8	1,276.2	44.65	29.585	
6,200.0	6,149.9	6,211.7	6,156.9	24.8	22.4	31.51	395.9	1,937.8	1,311.7	1,266.3	45.37	28.912	
6,300.0	6,249.4	6,312.2	6,257.2	25.2	22.7	31.99	389.0	1,938.7	1,304.2	1,258.1	46.05	28.319	
6,400.0	6,349.1	6,427.3	6,371.9	25.6	23.0	32.55	379.6	1,939.2	1,298.4	1,251.7	46.74	27.777	
6,500.0	6,449.0	6,532.6	6,476.6	25.9	23.3	33.15	368.0	1,938.7	1,294.1	1,246.7	47.41	27.298	
6,600.0	6,549.0	6,630.4	6,573.3	26.2	23.6	33.83	353.6	1,937.8	1,291.8	1,243.8	48.05	26.886	
6,630.4	6,579.4	6,657.5	6,600.0	26.3	23.6	34.02	349.2	1,937.6	1,291.7	1,243.4	48.24	26.778	CC
6,631.9	6,580.9	6,658.8	6,601.3	26.3	23.6	92.28	349.0	1,937.6	1,291.7	1,243.4	48.25	26.773	
6,700.0	6,649.0	6,721.0	6,662.6	26.5	23.8	92.73	338.8	1,937.3	1,291.9	1,243.2	48.67	26.546	
6,800.0	6,749.0	6,817.7	6,758.1	26.9	24.1	93.41	323.4	1,937.2	1,292.7	1,243.4	49.30	26.223	
6,900.0	6,849.0	6,923.1	6,862.3	27.2	24.4	94.12	307.4	1,937.1	1,293.6	1,243.7	49.94	25.902	
7,000.0	6,949.0	7,033.2	6,971.1	27.5	24.7	94.87	290.6	1,935.9	1,293.6	1,243.0	50.60	25.565	
7,052.4	7,001.4	7,085.2	7,022.5	27.7	24.8	95.22	282.5	1,935.1	1,293.6	1,242.7	50.94	25.395	
7,100.0	7,049.0	7,129.3	7,066.1	27.8	25.0	95.52	275.9	1,934.6	1,293.7	1,242.5	51.24	25.246	
7,200.0	7,149.0	7,240.5	7,176.1	28.1	25.3	96.24	259.7	1,933.1	1,293.9	1,242.0	51.91	24.924	
7,300.0	7,249.0	7,341.3	7,275.7	28.4	25.6	96.92	244.6	1,930.8	1,293.3	1,240.7	52.57	24.600	
7,400.0	7,349.0	7,436.9	7,370.1	28.8	25.9	97.57	230.0	1,928.7	1,293.0	1,239.8	53.23	24.294	
7,402.8	7,351.8	7,439.6	7,372.8	28.8	25.9	97.59	229.6	1,928.6	1,293.0	1,239.8	53.24	24.285	
7,500.0	7,449.0	7,531.8	7,464.0	29.1	26.2	98.21	215.6	1,926.9	1,293.3	1,239.4	53.88	24.002	
7,600.0	7,549.0	7,629.5	7,560.6	29.4	26.5	98.85	201.2	1,925.3	1,293.9	1,239.3	54.54	23.722	ES
7,700.0	7,649.0	7,725.4	7,655.4	29.7	26.8	99.50	186.7	1,923.9	1,294.8	1,239.6	55.20	23.455	
7,800.0	7,749.0	7,822.8	7,751.8	30.1	27.1	100.11	172.8	1,922.7	1,296.1	1,240.2	55.87	23.197	
7,900.0	7,849.0	7,912.2	7,840.2	30.4	27.3	100.66	160.2	1,922.0	1,297.9	1,241.4	56.52	22.964	
8,000.0	7,949.0	8,005.3	7,932.2	30.7	27.6	101.29	145.9	1,921.7	1,300.5	1,243.3	57.18	22.746	
8,100.0	8,049.0	8,105.5	8,031.2	31.0	28.0	101.95	130.5	1,921.6	1,303.5	1,245.6	57.86	22.530	
8,200.0	8,149.0	8,206.2	8,130.9	31.4	28.3	102.59	115.6	1,921.4	1,306.5	1,247.9	58.54	22.317	
8,300.0	8,249.0	8,302.9	8,226.5	31.7	28.6	103.21	101.3	1,921.2	1,309.6	1,250.4	59.22	22.116	
8,400.0	8,349.0	8,400.1	8,322.6	32.0	28.9	103.81	87.2	1,921.2	1,313.1	1,253.2	59.89	21.924	
8,500.0	8,449.0	8,499.8	8,421.3	32.3	29.3	104.40	73.0	1,921.5	1,316.8	1,256.2	60.58	21.737	
8,600.0	8,549.0	8,625.0	8,545.4	32.7	29.7	105.14	55.7	1,920.2	1,319.3	1,258.0	61.36	21.503	
8,700.0	8,649.0	8,727.8	8,647.3	33.0	30.1	105.71	42.6	1,918.4	1,321.1	1,259.0	62.06	21.287	
8,800.0	8,749.0	8,828.5	8,747.3	33.3	30.4	106.21	31.2	1,917.0	1,322.8	1,260.1	62.76	21.079	
8,900.0	8,849.0	8,926.0	8,844.3	33.7	30.7	106.64	21.2	1,915.8	1,324.6	1,261.1	63.44	20.878	
9,000.0	8,949.0	9,019.5	8,937.5	34.0	31.1	106.93	14.2	1,915.8	1,326.7	1,262.6	64.11	20.694	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #501H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 339-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.0	9,049.0	9,118.2	9,036.0	34.3	31.4	107.16	8.2	1,916.6	1,329.3	1,264.5	64.80	20.514	
9,200.0	9,149.0	9,218.8	9,136.6	34.6	31.8	107.35	3.3	1,917.7	1,331.8	1,266.3	65.49	20.335	
9,300.0	9,249.0	9,329.6	9,247.2	35.0	32.1	107.54	-1.6	1,918.7	1,334.0	1,267.8	66.22	20.146	
9,400.0	9,349.0	9,461.8	9,379.4	35.3	32.6	107.71	-5.3	1,917.4	1,333.7	1,266.7	66.99	19.910	
9,445.5	9,394.5	9,498.0	9,415.5	35.5	32.7	107.73	-5.9	1,917.1	1,333.5	1,266.3	67.28	19.821	
9,500.0	9,449.0	9,554.5	9,472.0	35.6	32.9	107.76	-6.4	1,917.0	1,333.6	1,266.0	67.66	19.711	
9,600.0	9,549.0	9,664.6	9,582.1	36.0	33.3	107.66	-4.0	1,916.8	1,332.7	1,264.4	68.36	19.495	
9,700.0	9,649.0	9,764.7	9,682.2	36.3	33.6	107.54	-1.0	1,916.9	1,332.0	1,262.9	69.04	19.291	
9,800.0	9,749.0	9,861.3	9,778.6	36.7	34.0	107.37	3.0	1,917.2	1,331.0	1,261.3	69.72	19.091	
9,900.0	9,849.0	9,990.9	9,908.2	37.0	34.4	107.22	6.8	1,916.7	1,329.9	1,259.4	70.44	18.879	
10,000.0	9,949.0	10,091.4	10,008.6	37.3	34.8	107.08	10.9	1,914.4	1,326.5	1,255.4	71.13	18.649	
10,100.0	10,049.0	10,161.0	10,078.2	37.7	35.0	107.11	10.6	1,913.0	1,324.7	1,253.0	71.78	18.456	
10,124.2	10,073.2	10,177.0	10,094.2	37.7	35.1	107.14	10.0	1,912.7	1,324.7	1,252.7	71.93	18.416	
10,200.0	10,149.0	10,210.0	10,127.0	38.0	35.2	107.25	7.3	1,912.5	1,325.9	1,253.5	72.32	18.332	
10,300.0	10,249.0	10,271.0	10,187.0	38.3	35.4	107.69	-3.4	1,913.1	1,331.6	1,258.8	72.85	18.280	
10,400.0	10,349.0	10,294.9	10,210.2	38.7	35.5	107.93	-9.5	1,913.8	1,341.1	1,268.1	73.04	18.362	
10,500.0	10,449.0	10,338.1	10,251.3	39.0	35.6	108.44	-22.7	1,915.6	1,355.1	1,281.9	73.22	18.508	
10,600.0	10,549.0	10,365.0	10,276.3	39.3	35.7	108.81	-32.3	1,917.1	1,373.6	1,300.5	73.09	18.792	
10,700.0	10,649.0	10,419.9	10,326.4	39.7	35.9	109.64	-54.3	1,921.2	1,395.9	1,322.7	73.18	19.075	
10,800.0	10,749.0	10,460.0	10,362.0	40.0	36.1	110.29	-72.3	1,925.2	1,422.6	1,349.6	72.99	19.490	
10,900.0	10,849.0	10,505.6	10,401.0	40.4	36.2	111.13	-95.5	1,929.8	1,453.1	1,380.3	72.79	19.964	
11,000.0	10,949.0	10,554.0	10,439.8	40.7	36.4	112.17	-124.1	1,933.7	1,487.2	1,414.7	72.54	20.502	
11,100.0	11,049.0	10,615.5	10,485.8	41.0	36.6	113.67	-164.9	1,936.5	1,524.4	1,452.0	72.43	21.048	
11,148.0	11,097.0	10,646.5	10,507.7	41.2	36.7	114.48	-186.8	1,936.8	1,543.1	1,470.8	72.36	21.327	
11,148.1	11,097.0	10,646.6	10,507.7	41.2	36.7	114.48	-186.9	1,936.8	1,543.1	1,470.8	72.36	21.327	
11,150.0	11,099.0	10,647.8	10,508.5	41.2	36.7	-69.56	-187.7	1,936.8	1,543.9	1,471.5	72.35	21.339	
11,200.0	11,148.9	10,648.0	10,508.7	41.4	36.7	-67.56	-187.9	1,936.8	1,563.6	1,491.9	71.75	21.793	
11,250.0	11,198.4	10,648.0	10,508.7	41.5	36.7	-65.62	-187.9	1,936.8	1,583.1	1,512.0	71.09	22.269	
11,300.0	11,247.2	10,687.9	10,535.1	41.6	36.9	-63.02	-217.8	1,936.8	1,600.9	1,529.8	71.06	22.529	
11,350.0	11,294.8	10,702.0	10,543.9	41.7	36.9	-61.12	-228.8	1,936.8	1,618.4	1,547.8	70.58	22.929	
11,400.0	11,340.9	10,742.0	10,567.3	41.8	37.1	-59.01	-261.2	1,937.1	1,635.6	1,565.0	70.51	23.196	
11,450.0	11,385.2	10,742.0	10,567.3	41.9	37.1	-57.68	-261.2	1,937.1	1,650.5	1,580.7	69.80	23.645	
11,500.0	11,427.3	10,742.0	10,567.3	42.0	37.1	-56.45	-261.2	1,937.1	1,664.6	1,595.5	69.10	24.089	
11,550.0	11,466.8	10,742.0	10,567.3	42.1	37.1	-55.32	-261.2	1,937.1	1,677.7	1,609.3	68.41	24.524	
11,600.0	11,503.5	10,742.0	10,567.3	42.1	37.1	-54.30	-261.2	1,937.1	1,689.9	1,622.1	67.75	24.942	
11,650.0	11,537.2	10,786.5	10,590.1	42.1	37.3	-53.26	-299.4	1,937.6	1,698.9	1,631.1	67.82	25.050	
11,700.0	11,567.5	10,800.2	10,596.3	42.2	37.3	-52.53	-311.7	1,937.8	1,707.3	1,639.9	67.45	25.312	
11,750.0	11,594.2	10,837.0	10,611.1	42.2	37.5	-51.93	-345.3	1,938.3	1,714.7	1,647.3	67.44	25.425	
11,800.0	11,617.1	10,837.0	10,611.1	42.2	37.5	-51.55	-345.3	1,938.3	1,719.5	1,652.5	67.00	25.664	
11,850.0	11,636.1	10,837.0	10,611.1	42.2	37.5	-51.28	-345.3	1,938.3	1,723.0	1,656.4	66.64	25.856	
11,900.0	11,651.0	10,870.3	10,622.4	42.1	37.6	-51.23	-376.6	1,938.6	1,724.6	1,657.9	66.76	25.832	
11,950.0	11,661.6	10,895.1	10,629.9	42.1	37.7	-51.35	-400.3	1,938.5	1,724.2	1,657.4	66.84	25.795	
12,000.0	11,668.0	10,932.0	10,639.4	42.1	37.9	-51.72	-435.9	1,937.8	1,722.0	1,654.9	67.11	25.661	
12,048.1	11,670.0	10,932.0	10,639.4	42.1	37.9	-52.04	-435.9	1,937.8	1,717.9	1,650.8	67.10	25.603	
12,100.0	11,670.0	10,974.6	10,647.6	42.2	38.0	-52.20	-477.6	1,935.7	1,712.3	1,644.8	67.48	25.374	
12,200.0	11,670.0	11,026.0	10,652.8	42.3	38.3	-52.15	-528.5	1,930.7	1,701.5	1,633.6	67.90	25.059	
12,272.6	11,670.0	11,062.3	10,654.4	42.5	38.4	-52.02	-564.6	1,926.8	1,693.8	1,625.6	68.19	24.838	
12,300.0	11,670.0	11,074.2	10,654.8	42.6	38.5	-52.01	-576.5	1,925.7	1,691.0	1,622.7	68.31	24.757	
12,400.0	11,670.0	11,120.0	10,656.0	43.0	38.7	-51.96	-622.1	1,922.4	1,683.1	1,614.4	68.79	24.466	
12,500.0	11,670.0	11,208.4	10,657.9	43.4	39.2	-51.90	-710.3	1,917.7	1,677.2	1,607.7	69.55	24.117	
12,600.0	11,670.0	11,300.9	10,659.3	43.9	39.7	-51.84	-802.7	1,913.1	1,671.9	1,601.5	70.40	23.749	
12,700.0	11,670.0	11,500.2	10,662.5	44.4	41.0	-51.52	-1,001.1	1,895.7	1,663.5	1,591.8	71.68	23.206	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #501H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 339-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,800.0	11,670.0	11,561.0	10,663.6	45.0	41.4	-51.41	-1,061.6	1,889.3	1,653.6	1,581.0	72.52	22.801	
12,900.0	11,670.0	11,609.9	10,664.1	45.7	41.8	-51.33	-1,110.4	1,885.5	1,646.3	1,572.9	73.43	22.421	
13,000.0	11,670.0	11,666.3	10,664.3	46.4	42.2	-51.27	-1,166.7	1,882.9	1,642.0	1,567.5	74.45	22.056	
13,100.0	11,670.0	11,763.7	10,664.4	47.1	43.0	-51.20	-1,264.0	1,879.9	1,639.0	1,563.3	75.73	21.643	
13,200.0	11,670.0	11,844.0	10,664.7	47.9	43.7	-51.13	-1,344.3	1,877.1	1,635.8	1,558.8	77.00	21.243	
13,279.6	11,670.0	11,894.7	10,664.5	48.6	44.2	-51.10	-1,394.9	1,876.1	1,634.6	1,556.6	78.02	20.951	
13,300.0	11,670.0	11,903.9	10,664.5	48.7	44.2	-51.10	-1,404.1	1,876.1	1,634.7	1,556.4	78.27	20.886	
13,400.0	11,670.0	11,938.0	10,663.9	49.6	44.6	-51.09	-1,438.2	1,876.8	1,637.1	1,557.7	79.47	20.602	
13,500.0	11,670.0	12,008.9	10,662.4	50.5	45.2	-51.12	-1,509.0	1,880.4	1,642.2	1,561.3	80.94	20.290	
13,600.0	11,670.0	12,096.2	10,661.3	51.5	46.1	-51.25	-1,596.0	1,888.2	1,649.4	1,566.8	82.62	19.963	
13,700.0	11,670.0	12,419.8	10,675.0	52.4	49.5	-51.92	-1,918.4	1,903.8	1,650.6	1,564.4	86.19	19.152	
13,800.0	11,670.0	12,507.0	10,677.7	53.4	50.5	-51.91	-2,005.5	1,900.3	1,645.0	1,557.1	87.92	18.710	
13,900.0	11,670.0	12,593.0	10,680.1	54.5	51.4	-51.89	-2,091.4	1,897.1	1,640.0	1,550.3	89.69	18.284	
14,000.0	11,670.0	12,679.1	10,682.0	55.6	52.4	-51.88	-2,177.5	1,894.6	1,635.7	1,544.2	91.51	17.875	
14,100.0	11,670.0	12,735.9	10,682.8	56.7	53.1	-51.87	-2,234.3	1,893.5	1,633.1	1,539.9	93.19	17.524	
14,139.1	11,670.0	12,756.0	10,682.6	57.1	53.3	-51.86	-2,254.3	1,893.3	1,632.9	1,539.0	93.83	17.402	
14,200.0	11,670.0	12,787.3	10,681.8	57.8	53.7	-51.83	-2,285.6	1,893.2	1,633.4	1,538.6	94.82	17.226	
14,300.0	11,670.0	12,883.1	10,678.0	59.0	54.9	-51.72	-2,381.4	1,893.2	1,635.4	1,538.6	96.71	16.909	
14,400.0	11,670.0	12,954.4	10,674.9	60.1	55.8	-51.64	-2,452.6	1,893.9	1,638.3	1,539.8	98.49	16.635	
14,500.0	11,670.0	13,059.4	10,670.8	61.3	57.1	-51.57	-2,557.5	1,896.6	1,642.3	1,541.7	100.55	16.333	
14,600.0	11,670.0	13,170.2	10,668.7	62.5	58.5	-51.57	-2,668.2	1,900.0	1,645.5	1,542.7	102.75	16.014	
14,700.0	11,670.0	13,285.3	10,668.0	63.8	60.0	-51.62	-2,783.3	1,903.6	1,647.8	1,542.7	105.06	15.684	
14,800.0	11,670.0	13,384.9	10,668.8	65.0	61.3	-51.70	-2,882.8	1,907.1	1,649.6	1,542.3	107.32	15.370	
14,900.0	11,670.0	13,477.1	10,669.3	66.3	62.5	-51.78	-2,974.9	1,910.8	1,652.0	1,542.4	109.56	15.079	
15,000.0	11,670.0	13,593.6	10,669.7	67.6	64.1	-51.86	-3,091.4	1,914.7	1,653.9	1,541.9	112.00	14.767	
15,100.0	11,670.0	13,699.2	10,670.0	68.9	65.5	-51.91	-3,196.9	1,917.1	1,655.0	1,540.7	114.36	14.473	
15,200.0	11,670.0	13,805.5	10,670.9	70.2	67.0	-51.97	-3,303.1	1,919.7	1,656.0	1,539.2	116.76	14.183	
15,300.0	11,670.0	13,905.6	10,671.3	71.6	68.4	-52.01	-3,403.2	1,921.5	1,656.7	1,537.6	119.11	13.909	
15,400.0	11,670.0	14,012.3	10,671.5	72.9	69.9	-52.04	-3,509.9	1,923.1	1,657.2	1,535.7	121.52	13.638	
15,500.0	11,670.0	14,098.0	10,671.9	74.3	71.1	-52.07	-3,595.6	1,924.6	1,657.9	1,534.2	123.79	13.393	
15,600.0	11,670.0	14,205.5	10,671.9	75.7	72.6	-52.10	-3,703.1	1,926.7	1,659.0	1,532.7	126.26	13.140	
15,700.0	11,670.0	14,322.5	10,674.0	77.1	74.3	-52.18	-3,820.1	1,928.8	1,658.8	1,529.9	128.87	12.872	
15,718.9	11,670.0	14,336.3	10,674.3	77.3	74.5	-52.20	-3,833.9	1,929.0	1,658.7	1,529.4	129.30	12.829	
15,800.0	11,670.0	14,396.5	10,675.0	78.5	75.4	-52.24	-3,894.1	1,930.4	1,659.3	1,528.1	131.14	12.653	
15,900.0	11,670.0	14,486.8	10,675.5	79.9	76.7	-52.30	-3,984.3	1,933.2	1,660.8	1,527.3	133.56	12.435	
16,000.0	11,670.0	14,575.2	10,676.0	81.3	78.0	-52.37	-4,072.6	1,936.5	1,663.0	1,527.0	135.98	12.230	
16,100.0	11,670.0	14,680.7	10,675.6	82.7	79.5	-52.42	-4,178.1	1,940.1	1,665.5	1,526.9	138.54	12.021	
16,200.0	11,670.0	14,785.9	10,674.9	84.1	81.1	-52.43	-4,283.2	1,942.3	1,667.0	1,526.0	141.07	11.817	
16,300.0	11,670.0	14,854.0	10,674.2	85.6	82.1	-52.46	-4,351.3	1,944.7	1,670.0	1,526.7	143.28	11.655	
16,400.0	11,670.0	15,161.3	10,686.2	87.0	86.6	-52.74	-4,658.1	1,944.4	1,665.9	1,518.5	147.40	11.302	
16,500.0	11,670.0	15,267.0	10,691.0	88.5	88.2	-52.70	-4,763.3	1,936.4	1,656.7	1,506.8	149.84	11.056	
16,600.0	11,670.0	15,343.7	10,691.9	89.9	89.4	-52.57	-4,839.8	1,929.7	1,648.4	1,496.3	152.12	10.837	
16,700.0	11,670.0	15,430.0	10,691.3	91.4	90.6	-52.38	-4,925.7	1,922.0	1,641.3	1,487.0	154.32	10.636	
16,800.0	11,670.0	15,527.2	10,690.9	92.9	92.1	-52.18	-5,022.6	1,913.9	1,634.5	1,477.9	156.55	10.441	
16,900.0	11,670.0	15,593.8	10,690.8	94.4	93.1	-52.07	-5,089.0	1,909.5	1,628.9	1,470.1	158.79	10.258	
17,000.0	11,670.0	15,655.7	10,690.6	95.9	94.0	-52.01	-5,150.9	1,907.0	1,625.5	1,464.5	161.02	10.095	
17,100.0	11,670.0	15,722.9	10,690.5	97.3	95.0	-51.98	-5,218.1	1,906.5	1,624.5	1,461.2	163.31	9.948	
17,120.7	11,670.0	15,740.7	10,690.5	97.7	95.3	-51.98	-5,235.9	1,906.6	1,624.5	1,460.7	163.81	9.917	
17,200.0	11,670.0	15,806.2	10,690.9	98.8	96.3	-52.01	-5,301.3	1,907.6	1,624.8	1,459.0	165.76	9.802	
17,300.0	11,670.0	15,875.1	10,691.1	100.3	97.4	-52.05	-5,370.2	1,909.7	1,626.6	1,458.5	168.10	9.676	
17,400.0	11,670.0	16,002.0	10,691.2	101.9	99.3	-52.13	-5,497.1	1,914.1	1,628.8	1,457.8	171.05	9.523	
17,500.0	11,670.0	16,120.6	10,691.7	103.4	101.1	-52.17	-5,615.7	1,915.9	1,629.3	1,455.5	173.84	9.373	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #501H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 339-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,585.0	11,670.0	16,205.1	10,692.0	104.7	102.5	-52.18	-5,700.1	1,916.4	1,629.1	1,453.1	176.04	9.254	
17,600.0	11,670.0	16,217.3	10,692.0	104.9	102.6	-52.18	-5,712.3	1,916.5	1,629.1	1,452.7	176.41	9.235	
17,700.0	11,670.0	16,302.1	10,692.6	106.4	104.0	-52.22	-5,797.2	1,918.2	1,629.8	1,450.9	178.94	9.108	
17,800.0	11,670.0	16,413.0	10,693.3	107.9	105.7	-52.29	-5,908.0	1,921.1	1,631.0	1,449.3	181.74	8.974	
17,855.4	11,670.0	16,475.5	10,693.8	108.8	106.7	-52.31	-5,970.5	1,921.7	1,630.9	1,447.7	183.27	8.899	
17,900.0	11,670.0	16,507.6	10,693.9	109.5	107.1	-52.31	-6,002.6	1,922.1	1,631.1	1,446.8	184.35	8.848	
18,000.0	11,670.0	16,594.3	10,693.9	111.0	108.5	-52.35	-6,089.2	1,924.3	1,632.5	1,445.7	186.89	8.735	
18,100.0	11,670.0	16,704.8	10,693.5	112.5	110.2	-52.37	-6,199.7	1,926.5	1,633.8	1,444.2	189.65	8.615	
18,200.0	11,670.0	16,807.8	10,693.7	114.1	111.8	-52.40	-6,302.7	1,928.2	1,634.6	1,442.3	192.35	8.498	
18,300.0	11,670.0	16,886.5	10,693.7	115.6	113.1	-52.42	-6,381.4	1,929.8	1,635.9	1,441.0	194.82	8.397	
18,400.0	11,670.0	16,990.3	10,693.2	117.2	114.7	-52.47	-6,485.1	1,933.4	1,638.4	1,440.8	197.58	8.292	
18,428.0	11,670.0	17,019.7	10,693.3	117.6	115.2	-52.49	-6,514.6	1,934.3	1,638.8	1,440.5	198.37	8.262	SF

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #502H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 241-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	20.9	20.9	0.0	0.0	94.00	-69.4	992.7	995.1				
100.0	100.0	120.5	120.5	0.1	0.2	93.98	-69.1	992.7	995.1	994.8	0.32	3,123.247	
200.0	200.0	220.0	220.0	0.5	0.3	93.94	-68.4	992.9	995.2	994.4	0.83	1,192.631	
300.0	300.0	320.4	320.4	0.8	0.7	93.87	-67.2	993.0	995.3	993.8	1.51	658.729	
400.0	400.0	418.0	418.0	1.2	1.0	93.78	-65.6	993.3	995.5	993.2	2.22	448.464	
500.0	500.0	520.7	520.7	1.6	1.4	93.66	-63.6	993.6	995.6	992.7	2.95	337.864	
600.0	600.0	624.3	624.2	1.9	1.8	35.32	-61.3	993.5	994.7	991.0	3.67	270.797	
700.0	700.0	723.1	723.0	2.3	2.1	35.24	-58.2	993.5	992.4	988.0	4.38	226.453	
800.0	799.9	825.4	825.2	2.6	2.5	35.17	-54.1	993.5	988.5	983.4	5.11	193.562	
900.0	899.7	921.0	920.7	3.0	2.8	35.17	-50.1	993.3	983.1	977.3	5.81	169.237	
1,000.0	999.4	1,009.0	1,008.7	3.4	3.1	35.28	-47.6	994.0	977.3	970.8	6.48	150.716	
1,100.0	1,098.9	1,099.1	1,098.7	3.7	3.5	35.49	-45.6	995.6	971.2	964.0	7.17	135.487	
1,200.0	1,198.3	1,193.9	1,193.4	4.1	3.8	35.71	-42.6	998.2	964.5	956.6	7.87	122.505	
1,300.0	1,297.4	1,293.0	1,292.5	4.5	4.2	35.98	-38.8	1,001.2	956.6	948.0	8.60	111.244	
1,400.0	1,396.4	1,399.5	1,398.8	4.9	4.5	36.26	-35.0	1,004.1	947.7	938.3	9.35	101.316	
1,500.0	1,495.5	1,496.1	1,495.4	5.3	4.9	36.56	-32.0	1,006.3	938.5	928.4	10.08	93.144	
1,600.0	1,594.5	1,593.5	1,592.6	5.7	5.3	36.82	-28.4	1,008.9	929.7	918.9	10.80	86.050	
1,700.0	1,693.5	1,694.6	1,693.7	6.1	5.6	37.09	-24.4	1,011.6	920.9	909.3	11.55	79.746	
1,800.0	1,792.5	1,793.2	1,792.1	6.5	6.0	37.37	-20.8	1,014.3	912.1	899.8	12.28	74.255	
1,900.0	1,891.6	1,907.1	1,906.0	6.9	6.4	37.74	-17.2	1,016.3	902.5	889.4	13.07	69.042	
2,000.0	1,990.6	2,015.6	2,014.4	7.3	6.8	38.17	-14.7	1,016.9	891.7	877.9	13.84	64.446	
2,100.0	2,089.6	2,131.1	2,130.0	7.7	7.2	38.76	-13.6	1,015.7	879.7	865.0	14.61	60.215	
2,200.0	2,188.6	2,249.0	2,247.8	8.1	7.6	39.52	-14.2	1,011.6	865.5	850.1	15.37	56.326	
2,300.0	2,287.7	2,370.5	2,369.0	8.5	8.0	40.40	-15.3	1,004.4	849.1	833.0	16.12	52.676	
2,400.0	2,386.7	2,480.4	2,478.6	8.9	8.3	41.21	-15.7	996.0	831.0	814.1	16.85	49.311	
2,500.0	2,485.7	2,599.4	2,597.0	9.4	8.7	42.13	-15.8	984.1	810.8	793.2	17.59	46.097	
2,600.0	2,584.8	2,713.9	2,710.6	9.8	9.1	43.13	-16.0	969.8	788.3	770.0	18.31	43.053	
2,700.0	2,683.8	2,835.3	2,830.6	10.2	9.6	44.36	-16.9	951.4	763.5	744.5	19.01	40.155	
2,800.0	2,782.8	2,961.8	2,954.8	10.6	10.1	45.77	-16.9	927.3	735.2	715.5	19.68	37.352	
2,900.0	2,881.8	3,066.1	3,056.5	11.0	10.5	47.08	-16.7	904.3	704.2	683.8	20.38	34.556	
3,000.0	2,980.9	3,157.8	3,145.9	11.4	10.8	48.33	-16.3	883.9	673.3	652.2	21.12	31.885	
3,100.0	3,079.9	3,253.7	3,239.4	11.9	11.2	49.76	-15.9	862.8	643.0	621.1	21.85	29.425	
3,200.0	3,178.9	3,349.4	3,332.7	12.3	11.6	51.37	-15.8	841.2	612.6	590.0	22.60	27.106	
3,300.0	3,277.9	3,442.3	3,423.1	12.7	12.0	53.15	-16.3	819.9	582.6	559.2	23.37	24.928	
3,400.0	3,377.0	3,536.3	3,514.6	13.1	12.4	55.15	-17.0	798.5	553.4	529.2	24.16	22.906	
3,500.0	3,476.0	3,630.1	3,605.9	13.5	12.8	57.39	-17.9	776.9	524.7	499.8	24.97	21.017	
3,600.0	3,575.0	3,724.2	3,697.5	13.9	13.3	59.92	-19.1	755.1	497.0	471.2	25.80	19.264	
3,700.0	3,674.0	3,819.3	3,789.8	14.3	13.7	62.84	-20.8	732.5	470.0	443.3	26.66	17.632	
3,800.0	3,773.1	3,913.9	3,881.6	14.8	14.1	66.17	-22.9	709.4	444.0	416.4	27.55	16.115	
3,900.0	3,872.1	4,008.1	3,972.7	15.2	14.6	69.95	-25.5	685.8	419.3	390.8	28.49	14.717	
4,000.0	3,971.1	4,102.2	4,063.6	15.6	15.0	74.18	-28.0	661.8	396.4	366.9	29.48	13.447	
4,100.0	4,070.2	4,195.0	4,153.4	16.0	15.5	78.64	-29.6	638.6	375.6	345.1	30.50	12.314	
4,200.0	4,169.2	4,286.5	4,242.4	16.4	15.9	83.20	-30.1	617.1	357.6	326.1	31.54	11.338	
4,300.0	4,268.2	4,377.6	4,331.2	16.9	16.3	87.88	-30.1	597.1	343.0	310.4	32.58	10.528	
4,400.0	4,367.2	4,470.7	4,422.5	17.3	16.7	92.65	-29.6	578.8	331.7	298.2	33.57	9.881	
4,500.0	4,466.3	4,565.5	4,515.7	17.7	17.2	97.64	-28.8	560.9	323.3	288.7	34.53	9.361	
4,600.0	4,565.3	4,663.7	4,612.2	18.1	17.6	102.93	-27.6	542.8	317.6	282.1	35.46	8.956	
4,700.0	4,664.3	4,763.3	4,710.0	18.5	18.1	108.28	-24.5	524.8	313.0	276.6	36.34	8.613	
4,800.0	4,763.3	4,859.0	4,804.1	18.9	18.5	113.51	-21.0	507.5	310.7	273.6	37.17	8.360	
4,827.6	4,790.7	4,885.3	4,829.9	19.1	18.6	114.97	-20.1	502.7	310.6	273.2	37.39	8.307	CC, ES
4,900.0	4,862.4	4,954.1	4,897.6	19.4	18.9	118.78	-17.6	490.0	311.4	273.5	37.95	8.207	
5,000.0	4,961.4	5,048.9	4,990.7	19.8	19.3	123.92	-14.4	472.9	315.0	276.4	38.66	8.150	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #502H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 241-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,060.4	5,143.6	5,083.8	20.2	19.8	128.88	-11.4	455.9	321.7	282.4	39.31	8.184	
5,200.0	5,159.4	5,238.6	5,177.3	20.6	20.2	133.62	-8.6	439.0	331.1	291.1	39.91	8.294	
5,300.0	5,258.5	5,334.1	5,271.3	21.0	20.6	138.02	-6.0	422.5	342.8	302.3	40.49	8.466	
5,400.0	5,357.5	5,429.4	5,365.2	21.5	21.0	142.03	-3.6	406.5	356.5	315.5	41.05	8.685	
5,500.0	5,456.5	5,523.9	5,458.2	21.9	21.5	145.75	-1.3	390.3	372.2	330.6	41.58	8.951	
5,600.0	5,555.6	5,618.7	5,551.7	22.3	21.9	149.18	0.6	374.0	389.8	347.7	42.12	9.254	
5,700.0	5,654.6	5,715.3	5,646.8	22.7	22.3	152.32	2.4	357.8	408.7	366.0	42.69	9.574	
5,800.0	5,753.6	5,812.1	5,742.3	23.1	22.7	155.13	4.2	342.0	428.4	385.1	43.26	9.902	
5,900.0	5,852.6	5,909.3	5,838.3	23.5	23.2	157.70	6.1	326.4	448.8	404.9	43.86	10.233	
6,000.0	5,951.7	6,007.0	5,934.7	24.0	23.6	160.04	8.1	311.0	469.7	425.2	44.47	10.562	
6,098.6	6,049.3	6,102.1	6,028.7	24.4	24.0	162.07	10.1	296.5	490.7	445.6	45.07	10.888	
6,100.0	6,050.7	6,103.5	6,030.0	24.4	24.0	162.10	10.1	296.3	491.0	445.9	45.08	10.892	
6,200.0	6,149.9	6,200.1	6,125.5	24.8	24.4	164.06	12.2	281.5	511.6	465.9	45.69	11.197	
6,300.0	6,249.4	6,297.2	6,221.5	25.2	24.8	165.81	14.4	266.4	530.2	483.9	46.32	11.447	
6,400.0	6,349.1	6,396.4	6,319.4	25.6	25.3	167.38	16.6	251.3	546.6	499.6	46.98	11.636	
6,500.0	6,449.0	6,497.1	6,419.0	25.9	25.7	168.77	19.0	236.4	560.4	512.8	47.65	11.761	
6,600.0	6,549.0	6,596.0	6,516.9	26.2	26.1	169.97	21.0	222.2	571.7	523.4	48.31	11.835	
6,631.9	6,580.9	6,632.2	6,552.8	26.3	26.3	-131.38	21.8	217.3	574.7	526.1	48.57	11.832	
6,700.0	6,649.0	6,710.9	6,630.8	26.5	26.6	-130.56	24.1	207.3	580.0	530.8	49.14	11.803	
6,800.0	6,749.0	6,832.1	6,751.1	26.9	27.1	-129.34	29.7	194.7	585.0	535.0	49.98	11.704	
6,900.0	6,849.0	6,949.9	6,868.5	27.2	27.5	-128.40	36.0	187.2	586.6	535.8	50.75	11.559	
7,000.0	6,949.0	7,051.9	6,970.4	27.5	27.8	-127.88	40.2	184.0	586.5	535.1	51.42	11.406	
7,023.2	6,972.2	7,074.9	6,993.4	27.6	27.9	-127.84	40.6	183.7	586.5	534.9	51.57	11.371	
7,100.0	7,049.0	7,149.6	7,068.1	27.8	28.2	-127.78	41.0	183.3	586.6	534.5	52.07	11.265	
7,200.0	7,149.0	7,248.3	7,166.7	28.1	28.4	-127.81	40.4	183.1	587.0	534.3	52.72	11.135	
7,300.0	7,249.0	7,347.9	7,266.4	28.4	28.7	-127.88	39.6	183.1	587.6	534.2	53.37	11.009	
7,400.0	7,349.0	7,448.9	7,367.4	28.8	29.0	-127.96	38.6	183.2	588.2	534.1	54.04	10.885	
7,500.0	7,449.0	7,548.6	7,467.1	29.1	29.3	-128.06	37.5	183.4	588.7	534.0	54.69	10.763	
7,600.0	7,549.0	7,651.2	7,569.6	29.4	29.6	-128.17	36.4	183.9	588.9	533.5	55.36	10.637	
7,700.0	7,649.0	7,752.1	7,670.5	29.7	29.9	-128.26	35.6	184.5	588.9	532.9	56.02	10.512	
7,800.0	7,749.0	7,854.1	7,772.6	30.1	30.2	-128.36	35.0	185.4	588.6	531.9	56.69	10.383	
7,900.0	7,849.0	7,954.9	7,873.3	30.4	30.5	-128.48	34.4	186.5	588.1	530.8	57.35	10.254	
8,000.0	7,949.0	8,054.3	7,972.7	30.7	30.8	-128.62	33.7	187.8	587.5	529.5	58.01	10.128	
8,100.0	8,049.0	8,152.2	8,070.6	31.0	31.1	-128.75	32.8	188.9	587.2	528.6	58.67	10.010	
8,129.4	8,078.4	8,181.0	8,099.4	31.1	31.2	-128.80	32.4	189.2	587.2	528.4	58.86	9.977	
8,200.0	8,149.0	8,249.9	8,168.3	31.4	31.4	-128.92	31.4	190.0	587.3	528.0	59.32	9.901	
8,300.0	8,249.0	8,348.6	8,267.0	31.7	31.7	-129.10	29.7	190.8	587.8	527.8	59.98	9.799	
8,400.0	8,349.0	8,447.4	8,365.8	32.0	32.0	-129.29	27.8	191.5	588.3	527.7	60.65	9.701	
8,500.0	8,449.0	8,545.1	8,463.4	32.3	32.3	-129.47	25.8	192.1	589.2	527.9	61.30	9.612	
8,600.0	8,549.0	8,630.4	8,548.7	32.7	32.5	-129.67	23.2	192.1	591.3	529.4	61.88	9.555	
8,700.0	8,649.0	8,719.3	8,637.4	33.0	32.8	-129.88	18.6	190.1	596.2	533.7	62.46	9.545	
8,800.0	8,749.0	8,818.7	8,736.7	33.3	33.1	-130.05	13.8	187.0	601.7	538.6	63.14	9.530	
8,900.0	8,849.0	8,916.6	8,834.4	33.7	33.5	-130.06	10.1	182.9	607.3	543.5	63.80	9.519	
9,000.0	8,949.0	9,019.5	8,937.1	34.0	33.8	-130.02	6.6	178.0	613.2	548.6	64.51	9.504	
9,100.0	9,049.0	9,126.0	9,043.5	34.3	34.2	-129.95	3.9	173.6	618.0	552.7	65.26	9.469	
9,200.0	9,149.0	9,243.9	9,161.3	34.6	34.6	-129.70	3.8	169.2	620.9	554.9	66.07	9.398	
9,300.0	9,249.0	9,354.6	9,272.0	35.0	35.0	-129.24	7.3	165.7	621.3	554.5	66.81	9.300	
9,400.0	9,349.0	9,452.7	9,370.0	35.3	35.3	-128.90	10.4	163.6	621.0	553.6	67.48	9.203	
9,400.1	9,349.0	9,452.8	9,370.0	35.3	35.3	-128.90	10.4	163.6	621.0	553.6	67.48	9.203	
9,500.0	9,449.0	9,545.3	9,462.5	35.6	35.7	-128.61	12.5	161.3	621.5	553.4	68.12	9.124	
9,600.0	9,549.0	9,634.0	9,551.1	36.0	36.0	-128.45	12.7	158.7	623.7	554.9	68.74	9.073	
9,700.0	9,649.0	9,724.0	9,641.1	36.3	36.3	-128.39	11.0	155.6	627.6	558.2	69.34	9.050	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #502H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 241-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.0	9,749.0	9,820.8	9,737.7	36.7	36.6	-128.33	8.6	151.5	632.4	562.4	70.00	9.034	
9,900.0	9,849.0	9,918.9	9,835.8	37.0	37.0	-128.25	6.0	146.8	637.8	567.1	70.68	9.024	
10,000.0	9,949.0	10,027.3	9,944.0	37.3	37.3	-128.18	3.5	142.3	642.5	571.1	71.44	8.994	
10,100.0	10,049.0	10,134.2	10,050.8	37.7	37.7	-128.25	0.7	139.9	645.9	573.7	72.18	8.948	
10,200.0	10,149.0	10,240.0	10,156.6	38.0	38.0	-128.38	-2.2	138.7	648.5	575.6	72.91	8.895	
10,300.0	10,249.0	10,313.9	10,230.4	38.3	38.3	-128.58	-5.5	138.1	652.1	578.7	73.38	8.887	
10,400.0	10,349.0	10,378.6	10,294.4	38.7	38.5	-129.21	-14.7	138.2	660.8	587.2	73.62	8.977	
10,500.0	10,449.0	10,441.6	10,355.6	39.0	38.7	-130.27	-29.6	139.3	675.0	601.4	73.64	9.166	
10,600.0	10,549.0	10,504.5	10,415.0	39.3	38.8	-131.68	-49.9	141.1	694.7	621.2	73.50	9.452	
10,700.0	10,649.0	10,563.3	10,469.1	39.7	39.0	-133.24	-73.1	143.5	719.7	646.6	73.05	9.852	
10,800.0	10,749.0	10,614.3	10,514.5	40.0	39.1	-134.69	-96.1	145.1	750.7	678.5	72.23	10.393	
10,900.0	10,849.0	10,662.8	10,556.4	40.4	39.2	-136.13	-120.5	146.1	787.6	716.5	71.19	11.064	
11,000.0	10,949.0	10,708.3	10,594.1	40.7	39.3	-137.56	-145.9	147.4	830.2	760.3	69.95	11.868	
11,100.0	11,049.0	10,740.0	10,619.3	41.0	39.4	-138.61	-165.1	148.5	878.2	810.0	68.17	12.883	
11,148.0	11,097.0	10,740.0	10,619.3	41.2	39.4	-138.61	-165.1	148.5	903.8	837.1	66.71	13.547	
11,148.1	11,097.0	10,740.0	10,619.3	41.2	39.4	-138.61	-165.1	148.5	903.8	837.1	66.71	13.548	
11,150.0	11,099.0	10,740.0	10,619.3	41.2	39.4	37.17	-165.1	148.5	904.9	838.2	66.65	13.576	
11,200.0	11,148.9	10,777.9	10,648.0	41.4	39.5	34.19	-189.8	149.9	929.9	863.4	66.56	13.970	
11,250.0	11,198.4	10,793.3	10,659.2	41.5	39.5	32.27	-200.4	150.3	953.9	888.4	65.54	14.554	
11,300.0	11,247.2	10,835.0	10,687.8	41.6	39.6	30.07	-230.8	151.3	977.0	911.5	65.48	14.921	
11,350.0	11,294.8	10,835.0	10,687.8	41.7	39.6	29.03	-230.8	151.3	996.3	932.6	63.77	15.625	
11,400.0	11,340.9	10,835.0	10,687.8	41.8	39.6	28.11	-230.8	151.3	1,014.3	952.3	61.99	16.362	
11,450.0	11,385.2	10,835.0	10,687.8	41.9	39.6	27.30	-230.8	151.3	1,030.8	970.7	60.18	17.130	
11,500.0	11,427.3	10,873.8	10,712.0	42.0	39.7	26.16	-261.1	152.2	1,043.8	983.9	59.86	17.437	
11,550.0	11,466.8	10,890.3	10,721.6	42.1	39.7	25.46	-274.5	152.7	1,055.2	996.5	58.65	17.992	
11,600.0	11,503.5	10,929.0	10,742.0	42.1	39.8	24.69	-307.3	153.8	1,064.8	1,006.6	58.26	18.277	
11,650.0	11,537.2	10,929.0	10,742.0	42.1	39.8	24.44	-307.3	153.8	1,070.9	1,014.4	56.42	18.981	
11,700.0	11,567.5	10,929.0	10,742.0	42.2	39.8	24.25	-307.3	153.8	1,075.2	1,020.6	54.61	19.691	
11,750.0	11,594.2	10,957.4	10,755.3	42.2	39.8	23.98	-332.3	154.9	1,076.9	1,023.0	53.85	19.996	
11,800.0	11,617.1	10,974.4	10,762.5	42.2	39.9	23.90	-347.7	155.7	1,076.2	1,023.5	52.73	20.411	
11,850.0	11,636.1	10,991.3	10,769.1	42.2	39.9	23.93	-363.3	156.7	1,073.1	1,021.5	51.65	20.776	
11,900.0	11,651.0	11,023.0	10,779.9	42.1	39.9	24.00	-393.0	158.7	1,067.9	1,016.8	51.10	20.899	
11,950.0	11,661.6	11,023.0	10,779.9	42.1	39.9	24.34	-393.0	158.7	1,059.6	1,010.0	49.66	21.338	
12,000.0	11,668.0	11,023.0	10,779.9	42.1	39.9	24.76	-393.0	158.7	1,049.7	1,001.4	48.39	21.691	
12,048.1	11,670.0	11,023.0	10,779.9	42.1	39.9	25.24	-393.0	158.7	1,038.7	991.4	47.38	21.926	
12,100.0	11,670.0	11,064.2	10,790.6	42.2	40.0	25.49	-432.7	160.8	1,024.5	977.1	47.37	21.628	
12,200.0	11,670.0	11,118.0	10,798.6	42.3	40.1	25.94	-485.9	161.1	1,007.1	960.1	46.97	21.443	
12,272.6	11,670.0	11,118.0	10,798.6	42.5	40.1	26.11	-485.9	161.1	997.7	951.4	46.34	21.529	
12,300.0	11,670.0	11,118.0	10,798.6	42.6	40.1	26.11	-485.9	161.1	995.7	949.4	46.26	21.525	
12,400.0	11,670.0	11,184.7	10,802.9	43.0	40.3	26.32	-552.4	159.7	991.1	944.3	46.80	21.176	
12,500.0	11,670.0	11,260.3	10,805.2	43.4	40.6	26.51	-627.9	157.4	989.9	942.4	47.53	20.828	
12,515.4	11,670.0	11,273.2	10,805.5	43.5	40.6	26.55	-640.8	157.0	989.9	942.2	47.66	20.770	
12,600.0	11,670.0	11,345.0	10,806.6	43.9	40.9	26.74	-712.6	154.2	990.4	942.0	48.40	20.463	
12,700.0	11,670.0	11,452.6	10,807.6	44.4	41.5	27.01	-820.1	150.2	991.6	942.2	49.40	20.074	
12,800.0	11,670.0	11,550.8	10,809.1	45.0	42.0	27.27	-918.2	146.5	992.2	941.8	50.46	19.663	
12,900.0	11,670.0	11,639.9	10,810.8	45.7	42.5	27.61	-1,007.1	141.3	993.5	941.8	51.67	19.230	
13,000.0	11,670.0	11,728.8	10,811.9	46.4	43.1	27.99	-1,095.8	135.0	995.9	943.0	52.98	18.800	
13,100.0	11,670.0	11,844.4	10,813.1	47.1	44.0	28.42	-1,211.1	127.7	998.3	943.9	54.40	18.350	
13,200.0	11,670.0	11,959.7	10,814.4	47.9	44.9	28.67	-1,326.3	124.2	999.0	943.3	55.76	17.917	
13,300.0	11,670.0	12,067.1	10,816.7	48.7	45.8	28.86	-1,433.8	122.2	998.4	941.3	57.13	17.477	
13,400.0	11,670.0	12,167.4	10,818.4	49.6	46.6	28.99	-1,534.1	121.3	997.6	939.2	58.47	17.062	
13,500.0	11,670.0	12,281.3	10,820.3	50.5	47.7	29.06	-1,647.8	121.6	996.3	936.5	59.86	16.645	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #502H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 241-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,600.0	11,670.0	12,415.5	10,823.6	51.5	48.9	28.86	-1,781.9	128.2	992.0	930.8	61.14	16.224	
13,700.0	11,670.0	12,494.0	10,826.4	52.4	49.7	28.84	-1,860.3	130.5	987.7	925.3	62.40	15.828	
13,800.0	11,670.0	12,578.2	10,828.7	53.4	50.5	28.92	-1,944.4	130.8	985.3	921.5	63.83	15.436	
13,900.0	11,670.0	12,680.0	10,831.1	54.5	51.6	29.00	-2,046.3	131.1	983.4	918.0	65.37	15.043	
14,000.0	11,670.0	12,789.1	10,834.3	55.6	52.8	29.09	-2,155.3	131.8	980.8	913.8	66.97	14.645	
14,100.0	11,670.0	12,882.6	10,836.9	56.7	53.9	29.15	-2,248.7	132.7	978.2	909.7	68.53	14.274	
14,200.0	11,670.0	12,976.1	10,838.7	57.8	54.9	29.17	-2,342.2	133.7	976.2	906.1	70.09	13.928	
14,300.0	11,670.0	13,079.6	10,839.3	59.0	56.1	29.00	-2,445.6	138.0	974.1	902.6	71.50	13.623	
14,400.0	11,670.0	13,164.6	10,839.0	60.1	57.1	28.88	-2,530.5	140.8	973.0	900.1	72.93	13.342	
14,500.0	11,670.0	13,290.8	10,838.9	61.3	58.6	28.54	-2,656.5	147.9	970.5	896.2	74.27	13.067	
14,600.0	11,670.0	13,375.5	10,839.4	62.5	59.7	28.34	-2,741.1	152.5	967.8	892.1	75.65	12.793	
14,655.8	11,670.0	13,415.8	10,839.4	63.2	60.2	28.31	-2,781.4	153.4	967.3	890.8	76.49	12.646	
14,700.0	11,670.0	13,451.4	10,839.2	63.8	60.6	28.32	-2,817.0	153.4	967.6	890.4	77.22	12.531	
14,800.0	11,670.0	13,554.4	10,838.3	65.0	61.9	28.28	-2,920.0	154.2	968.3	889.4	78.86	12.278	
14,900.0	11,670.0	13,651.9	10,836.9	66.3	63.2	28.18	-3,017.5	156.1	968.9	888.5	80.43	12.047	
15,000.0	11,670.0	13,748.6	10,835.4	67.6	64.5	28.12	-3,114.2	157.0	970.1	888.0	82.06	11.821	
15,100.0	11,670.0	13,866.7	10,833.7	68.9	66.0	27.96	-3,232.2	159.8	970.6	886.9	83.65	11.603	
15,200.0	11,670.0	13,981.4	10,833.8	70.2	67.5	27.75	-3,346.8	164.5	968.9	883.7	85.18	11.374	
15,300.0	11,670.0	14,075.2	10,834.5	71.6	68.8	27.63	-3,440.6	167.8	966.8	880.1	86.77	11.143	
15,400.0	11,670.0	14,187.0	10,835.8	72.9	70.3	27.55	-3,552.2	170.6	965.0	876.5	88.46	10.908	
15,500.0	11,670.0	14,283.6	10,837.3	74.3	71.7	27.45	-3,648.8	173.8	962.3	872.2	90.10	10.680	
15,600.0	11,670.0	14,372.1	10,838.1	75.7	72.9	27.36	-3,737.3	176.4	960.4	868.7	91.75	10.469	
15,689.6	11,670.0	14,449.9	10,838.4	76.9	74.0	27.34	-3,815.1	177.5	959.9	866.6	93.29	10.289	
15,700.0	11,670.0	14,458.9	10,838.4	77.1	74.1	27.34	-3,824.0	177.4	959.9	866.4	93.48	10.268	
15,800.0	11,670.0	14,548.1	10,838.4	78.5	75.4	27.42	-3,913.3	176.6	960.6	865.3	95.36	10.074	
15,900.0	11,670.0	14,643.6	10,837.7	79.9	76.7	27.51	-4,008.7	175.2	962.2	864.9	97.28	9.891	
16,000.0	11,670.0	14,737.6	10,836.6	81.3	78.1	27.58	-4,102.8	173.8	964.2	865.0	99.19	9.721	
16,100.0	11,670.0	14,836.9	10,834.9	82.7	79.5	27.64	-4,202.0	172.4	966.7	865.6	101.11	9.561	
16,200.0	11,670.0	14,942.3	10,833.5	84.1	81.0	27.72	-4,307.4	170.7	968.9	865.8	103.10	9.397	
16,300.0	11,670.0	15,050.0	10,833.2	85.6	82.6	27.87	-4,415.1	168.4	970.3	865.1	105.20	9.224	
16,400.0	11,670.0	15,158.9	10,833.4	87.0	84.2	27.99	-4,524.0	166.7	971.2	863.9	107.29	9.052	
16,500.0	11,670.0	15,274.3	10,836.1	88.5	85.9	28.18	-4,639.3	165.2	970.0	860.5	109.50	8.858	
16,600.0	11,670.0	15,370.8	10,838.4	89.9	87.3	28.35	-4,735.8	163.7	968.9	857.2	111.66	8.677	
16,700.0	11,670.0	15,472.6	10,841.1	91.4	88.8	28.56	-4,837.6	161.8	967.7	853.8	113.91	8.495	
16,800.0	11,670.0	15,563.1	10,843.3	92.9	90.2	28.73	-4,928.0	160.2	966.7	850.6	116.09	8.328	
16,900.0	11,670.0	15,673.5	10,845.1	94.4	91.8	28.94	-5,038.4	157.8	966.7	848.3	118.39	8.165	
17,000.0	11,670.0	15,763.8	10,847.7	95.9	93.2	29.12	-5,128.6	156.4	965.3	844.7	120.60	8.004	
17,013.3	11,670.0	15,774.1	10,847.9	96.1	93.3	29.14	-5,138.9	156.1	965.3	844.4	120.89	7.985	
17,100.0	11,670.0	15,851.0	10,848.5	97.3	94.5	29.28	-5,215.8	154.3	965.9	843.1	122.78	7.867	
17,200.0	11,670.0	15,945.1	10,848.3	98.8	95.9	29.38	-5,309.9	152.7	967.2	842.3	124.90	7.744	
17,300.0	11,670.0	16,050.7	10,847.9	100.3	97.5	29.50	-5,415.4	150.8	968.8	841.7	127.10	7.622	
17,400.0	11,670.0	16,169.0	10,847.5	101.9	99.3	29.48	-5,533.7	151.8	969.0	839.9	129.09	7.506	
17,500.0	11,670.0	16,264.2	10,846.8	103.4	100.7	29.34	-5,628.8	154.7	968.3	837.5	130.80	7.403	
17,600.0	11,670.0	16,365.0	10,846.2	104.9	102.3	29.23	-5,729.6	157.1	968.0	835.4	132.58	7.301	
17,700.0	11,670.0	16,479.3	10,846.9	106.4	104.0	29.16	-5,843.9	159.5	966.7	832.3	134.46	7.189	
17,800.0	11,670.0	16,581.9	10,848.4	107.9	105.6	29.11	-5,946.5	161.9	964.6	828.3	136.36	7.074	
17,900.0	11,670.0	16,681.5	10,849.4	109.5	107.1	29.01	-6,046.0	164.9	962.5	824.4	138.16	6.967	
18,000.0	11,670.0	16,781.6	10,850.6	111.0	108.7	28.92	-6,146.1	167.8	960.4	820.4	139.99	6.860	
18,100.0	11,670.0	16,879.5	10,852.0	112.5	110.2	28.88	-6,243.9	170.0	958.3	816.4	141.89	6.754	
18,200.0	11,670.0	16,979.1	10,853.2	114.1	111.7	28.83	-6,343.5	172.2	956.5	812.7	143.78	6.652	
18,300.0	11,670.0	17,075.4	10,854.3	115.6	113.2	28.77	-6,439.7	174.5	954.7	809.0	145.65	6.554	
18,400.0	11,670.0	17,176.4	10,855.3	117.2	114.8	28.74	-6,540.8	176.2	953.3	805.7	147.58	6.459	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #502H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 241-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,428.0	11,670.0	17,190.0	10,855.4	117.6	115.0	28.74	-6,554.3	176.4	952.9	804.8	148.11	6.434 SF	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #601H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	18.0	18.0	0.0	0.0	91.05	-33.9	1,845.6	1,845.9				
100.0	100.0	118.0	118.0	0.1	0.2	91.05	-33.9	1,845.6	1,845.9	1,845.6	0.32	5,753.523	
200.0	200.0	218.0	218.0	0.5	0.6	91.05	-33.9	1,845.6	1,845.9	1,844.9	1.04	1,778.724	
300.0	300.0	318.0	318.0	0.8	0.9	91.05	-33.9	1,845.6	1,845.9	1,844.2	1.75	1,051.973	
400.0	400.0	418.0	418.0	1.2	1.3	91.05	-33.9	1,845.6	1,845.9	1,843.4	2.47	746.832	
500.0	500.0	518.0	518.0	1.6	1.6	91.05	-33.9	1,845.6	1,845.9	1,842.7	3.19	578.910	
600.0	600.0	618.0	618.0	1.9	2.0	32.82	-33.9	1,845.6	1,845.2	1,841.3	3.90	472.933	
700.0	700.0	718.0	718.0	2.3	2.3	32.88	-33.9	1,845.6	1,843.0	1,838.4	4.61	399.540	
800.0	799.9	817.9	817.9	2.6	2.7	32.97	-33.9	1,845.6	1,839.3	1,834.0	5.33	345.358	
900.0	899.7	917.7	917.7	3.0	3.1	33.10	-33.9	1,845.6	1,834.2	1,828.2	6.04	303.653	
1,000.0	999.4	1,017.4	1,017.4	3.4	3.4	33.27	-33.9	1,845.6	1,827.6	1,820.9	6.76	270.493	
1,100.0	1,098.9	1,116.9	1,116.9	3.7	3.8	33.48	-33.9	1,845.6	1,819.6	1,812.1	7.47	243.437	
1,200.0	1,198.3	1,216.3	1,216.3	4.1	4.1	33.73	-33.9	1,845.6	1,810.2	1,802.0	8.19	220.889	
1,300.0	1,297.4	1,315.4	1,315.4	4.5	4.5	34.03	-33.9	1,845.6	1,799.3	1,790.4	8.92	201.765	
1,400.0	1,396.4	1,414.4	1,414.4	4.9	4.8	34.27	-33.9	1,845.6	1,787.7	1,778.1	9.64	185.403	
1,500.0	1,495.5	1,519.5	1,519.5	5.3	5.2	34.54	-33.9	1,845.6	1,776.2	1,765.8	10.39	170.988	
1,600.0	1,594.5	1,662.2	1,662.2	5.7	5.7	34.92	-34.0	1,843.3	1,763.2	1,751.9	11.25	156.776	
1,700.0	1,693.5	1,803.9	1,803.8	6.1	6.2	35.31	-34.3	1,837.6	1,747.7	1,735.6	12.09	144.551	
1,800.0	1,792.5	1,944.4	1,943.9	6.5	6.7	35.72	-34.6	1,828.4	1,729.9	1,717.0	12.93	133.821	
1,900.0	1,891.6	2,083.4	2,082.4	6.9	7.2	36.15	-35.1	1,816.0	1,709.7	1,696.0	13.75	124.321	
2,000.0	1,990.6	2,221.0	2,219.1	7.3	7.7	36.61	-35.8	1,800.3	1,687.3	1,672.7	14.57	115.833	
2,100.0	2,089.6	2,340.5	2,337.5	7.7	8.1	37.02	-36.4	1,784.3	1,662.8	1,647.5	15.33	108.456	
2,200.0	2,188.6	2,436.9	2,432.9	8.1	8.5	37.37	-37.0	1,770.9	1,638.0	1,622.0	16.05	102.089	
2,300.0	2,287.7	2,533.2	2,528.4	8.5	8.9	37.74	-37.5	1,757.5	1,613.3	1,596.5	16.76	96.250	
2,400.0	2,386.7	2,629.6	2,623.8	8.9	9.2	38.11	-38.1	1,744.1	1,588.6	1,571.1	17.48	90.879	
2,500.0	2,485.7	2,718.8	2,712.1	9.4	9.6	38.46	-38.6	1,731.7	1,564.1	1,545.9	18.19	85.993	
2,600.0	2,584.8	2,787.8	2,780.6	9.8	9.8	38.74	-38.9	1,723.0	1,540.8	1,522.0	18.86	81.712	
2,700.0	2,683.8	2,857.4	2,849.8	10.2	10.1	39.02	-39.2	1,715.6	1,519.4	1,499.9	19.53	77.812	
2,800.0	2,782.8	2,927.5	2,919.6	10.6	10.4	39.29	-39.5	1,709.3	1,499.8	1,479.6	20.20	74.262	
2,900.0	2,881.8	3,000.0	2,991.9	11.0	10.6	39.58	-39.7	1,704.2	1,482.0	1,461.2	20.87	71.017	
3,000.0	2,980.9	3,069.4	3,061.2	11.4	10.9	39.84	-39.9	1,700.5	1,466.1	1,444.6	21.53	68.099	
3,100.0	3,079.9	3,141.0	3,132.8	11.9	11.1	40.12	-40.0	1,698.1	1,452.1	1,429.9	22.19	65.436	
3,200.0	3,178.9	3,213.1	3,204.8	12.3	11.4	40.38	-40.0	1,697.0	1,440.0	1,417.1	22.85	63.021	
3,300.0	3,277.9	3,304.2	3,295.9	12.7	11.7	40.71	-40.0	1,697.0	1,429.3	1,405.7	23.56	60.655	
3,400.0	3,377.0	3,403.2	3,395.0	13.1	12.1	41.08	-40.0	1,697.0	1,418.7	1,394.4	24.31	58.369	
3,500.0	3,476.0	3,502.2	3,494.0	13.5	12.4	41.45	-40.0	1,697.0	1,408.2	1,383.1	25.05	56.218	
3,600.0	3,575.0	3,601.3	3,593.0	13.9	12.7	41.83	-40.0	1,697.0	1,397.7	1,372.0	25.79	54.191	
3,700.0	3,674.0	3,700.3	3,692.0	14.3	13.1	42.21	-40.0	1,697.0	1,387.4	1,360.8	26.54	52.277	
3,800.0	3,773.1	3,800.7	3,791.1	14.8	13.4	42.59	-40.0	1,697.0	1,377.0	1,349.7	27.29	50.459	
3,900.0	3,872.1	3,901.7	3,890.1	15.2	13.8	42.99	-40.0	1,697.0	1,366.8	1,338.7	28.04	48.735	
4,000.0	3,971.1	4,002.6	3,989.1	15.6	14.1	43.39	-40.0	1,697.0	1,356.6	1,327.8	28.80	47.102	
4,100.0	4,070.2	4,103.6	4,088.2	16.0	14.5	43.79	-40.0	1,697.0	1,346.5	1,316.9	29.56	45.552	
4,200.0	4,169.2	4,204.6	4,187.2	16.4	14.9	44.20	-40.0	1,697.0	1,336.4	1,306.1	30.32	44.081	
4,300.0	4,268.2	4,305.6	4,286.2	16.9	15.2	44.62	-40.0	1,697.0	1,326.4	1,295.3	31.08	42.682	
4,400.0	4,367.2	4,406.5	4,385.2	17.3	15.6	45.04	-40.0	1,697.0	1,316.5	1,284.7	31.84	41.350	
4,500.0	4,466.3	4,507.5	4,484.3	17.7	15.9	45.47	-40.0	1,697.0	1,306.6	1,274.0	32.60	40.082	
4,600.0	4,565.3	4,608.5	4,583.3	18.1	16.3	45.91	-40.0	1,697.0	1,296.9	1,263.5	33.36	38.872	
4,700.0	4,664.3	4,709.5	4,682.3	18.5	16.6	46.35	-40.0	1,697.0	1,287.2	1,253.1	34.13	37.717	
4,800.0	4,763.3	4,789.6	4,781.3	18.9	16.9	46.80	-40.0	1,697.0	1,277.6	1,242.7	34.82	36.692	
4,900.0	4,862.4	4,888.6	4,880.4	19.4	17.3	47.26	-40.0	1,697.0	1,268.0	1,232.4	35.58	35.640	
5,000.0	4,961.4	4,987.6	4,979.4	19.8	17.6	47.72	-40.0	1,697.0	1,258.6	1,222.2	36.34	34.633	
5,100.0	5,060.4	5,086.7	5,078.4	20.2	18.0	48.19	-40.0	1,697.0	1,249.2	1,212.1	37.10	33.669	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #601H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	5,185.7	5,177.4	20.6	18.3	48.67	-40.0	1,697.0	1,239.9	1,202.1	37.87	32.745	
5,300.0	5,258.5	5,284.7	5,276.5	21.0	18.7	49.15	-40.0	1,697.0	1,230.7	1,192.1	38.63	31.858	
5,400.0	5,357.5	5,383.7	5,375.5	21.5	19.0	49.64	-40.0	1,697.0	1,221.6	1,182.2	39.40	31.008	
5,500.0	5,456.5	5,482.8	5,474.5	21.9	19.4	50.14	-40.0	1,697.0	1,212.6	1,172.4	40.16	30.191	
5,600.0	5,555.6	5,581.8	5,573.6	22.3	19.7	50.64	-40.0	1,697.0	1,203.7	1,162.7	40.93	29.406	
5,700.0	5,654.6	5,680.8	5,672.6	22.7	20.1	51.16	-40.0	1,697.0	1,194.8	1,153.1	41.70	28.651	
5,800.0	5,753.6	5,779.8	5,771.6	23.1	20.4	51.68	-40.0	1,697.0	1,186.1	1,143.6	42.47	27.926	
5,900.0	5,852.6	5,878.9	5,870.6	23.5	20.8	52.21	-40.0	1,697.0	1,177.5	1,134.2	43.25	27.227	
6,000.0	5,951.7	5,977.9	5,969.7	24.0	21.1	52.74	-40.0	1,697.0	1,168.9	1,124.9	44.02	26.555	
6,098.6	6,049.3	6,075.5	6,067.3	24.4	21.5	53.28	-40.0	1,697.0	1,160.6	1,115.9	44.78	25.917	
6,100.0	6,050.7	6,076.9	6,068.7	24.4	21.5	53.28	-40.0	1,697.0	1,160.5	1,115.7	44.79	25.908	
6,200.0	6,149.9	6,176.1	6,167.9	24.8	21.8	53.69	-40.0	1,697.0	1,153.0	1,107.4	45.56	25.306	
6,300.0	6,249.4	6,275.6	6,267.4	25.2	22.2	54.02	-40.0	1,697.0	1,147.1	1,100.8	46.31	24.769	
6,400.0	6,349.1	6,375.3	6,367.1	25.6	22.5	54.27	-40.0	1,697.0	1,142.8	1,095.7	47.05	24.291	
6,500.0	6,449.0	6,475.2	6,467.0	25.9	22.9	54.43	-40.0	1,697.0	1,140.0	1,092.2	47.76	23.869	
6,600.0	6,549.0	6,575.2	6,567.0	26.2	23.2	54.50	-40.0	1,697.0	1,138.7	1,090.3	48.46	23.500	
6,631.9	6,580.9	6,607.1	6,598.9	26.3	23.4	112.75	-40.0	1,697.0	1,138.7	1,090.0	48.67	23.394	
6,700.0	6,649.0	6,675.2	6,667.0	26.5	23.6	112.75	-40.0	1,697.0	1,138.7	1,089.5	49.13	23.174	
6,800.0	6,749.0	6,775.2	6,767.0	26.9	23.9	112.75	-40.0	1,697.0	1,138.7	1,088.8	49.81	22.859	
6,900.0	6,849.0	6,875.2	6,867.0	27.2	24.3	112.75	-40.0	1,697.0	1,138.7	1,088.2	50.49	22.552	
7,000.0	6,949.0	6,975.2	6,967.0	27.5	24.7	112.75	-40.0	1,697.0	1,138.7	1,087.5	51.17	22.252	
7,100.0	7,049.0	7,075.2	7,067.0	27.8	25.0	112.75	-40.0	1,697.0	1,138.7	1,086.8	51.85	21.960	
7,200.0	7,149.0	7,175.2	7,167.0	28.1	25.4	112.75	-40.0	1,697.0	1,138.7	1,086.1	52.53	21.675	
7,300.0	7,249.0	7,275.2	7,267.0	28.4	25.7	112.75	-40.0	1,697.0	1,138.7	1,085.4	53.22	21.397	
7,400.0	7,349.0	7,375.2	7,367.0	28.8	26.1	112.75	-40.0	1,697.0	1,138.7	1,084.8	53.90	21.126	
7,500.0	7,449.0	7,475.2	7,467.0	29.1	26.4	112.75	-40.0	1,697.0	1,138.7	1,084.1	54.58	20.861	
7,600.0	7,549.0	7,575.2	7,567.0	29.4	26.8	112.75	-40.0	1,697.0	1,138.7	1,083.4	55.27	20.603	
7,700.0	7,649.0	7,675.2	7,667.0	29.7	27.2	112.75	-40.0	1,697.0	1,138.7	1,082.7	55.95	20.350	
7,800.0	7,749.0	7,775.2	7,767.0	30.1	27.5	112.75	-40.0	1,697.0	1,138.7	1,082.0	56.64	20.104	
7,900.0	7,849.0	7,875.2	7,867.0	30.4	27.9	112.75	-40.0	1,697.0	1,138.7	1,081.3	57.33	19.863	
8,000.0	7,949.0	7,975.2	7,967.0	30.7	28.2	112.75	-40.0	1,697.0	1,138.7	1,080.6	58.01	19.627	
8,100.0	8,049.0	8,075.2	8,067.0	31.0	28.6	112.75	-40.0	1,697.0	1,138.7	1,080.0	58.70	19.397	
8,200.0	8,149.0	8,175.2	8,167.0	31.4	28.9	112.75	-40.0	1,697.0	1,138.7	1,079.3	59.39	19.172	
8,300.0	8,249.0	8,275.2	8,267.0	31.7	29.3	112.75	-40.0	1,697.0	1,138.7	1,078.6	60.08	18.952	
8,400.0	8,349.0	8,375.2	8,367.0	32.0	29.6	112.75	-40.0	1,697.0	1,138.7	1,077.9	60.77	18.737	
8,500.0	8,449.0	8,475.2	8,467.0	32.3	30.0	112.75	-40.0	1,697.0	1,138.7	1,077.2	61.46	18.526	
8,600.0	8,549.0	8,575.2	8,567.0	32.7	30.4	112.75	-40.0	1,697.0	1,138.7	1,076.5	62.15	18.320	
8,700.0	8,649.0	8,675.2	8,667.0	33.0	30.7	112.75	-40.0	1,697.0	1,138.7	1,075.8	62.85	18.118	
8,800.0	8,749.0	8,775.2	8,767.0	33.3	31.1	112.75	-40.0	1,697.0	1,138.7	1,075.1	63.54	17.921	
8,900.0	8,849.0	8,875.2	8,867.0	33.7	31.4	112.75	-40.0	1,697.0	1,138.7	1,074.4	64.23	17.727	
9,000.0	8,949.0	8,975.2	8,967.0	34.0	31.8	112.75	-40.0	1,697.0	1,138.7	1,073.7	64.93	17.538	
9,100.0	9,049.0	9,075.2	9,067.0	34.3	32.1	112.75	-40.0	1,697.0	1,138.7	1,073.0	65.62	17.352	
9,200.0	9,149.0	9,175.2	9,167.0	34.6	32.5	112.75	-40.0	1,697.0	1,138.7	1,072.3	66.31	17.171	
9,300.0	9,249.0	9,275.2	9,267.0	35.0	32.9	112.75	-40.0	1,697.0	1,138.7	1,071.7	67.01	16.993	
9,400.0	9,349.0	9,375.2	9,367.0	35.3	33.2	112.75	-40.0	1,697.0	1,138.7	1,071.0	67.70	16.818	
9,500.0	9,449.0	9,475.2	9,467.0	35.6	33.6	112.75	-40.0	1,697.0	1,138.7	1,070.3	68.40	16.647	
9,600.0	9,549.0	9,575.2	9,567.0	36.0	33.9	112.75	-40.0	1,697.0	1,138.7	1,069.6	69.10	16.479	
9,700.0	9,649.0	9,675.2	9,667.0	36.3	34.3	112.75	-40.0	1,697.0	1,138.7	1,068.9	69.79	16.315	
9,800.0	9,749.0	9,775.2	9,767.0	36.7	34.6	112.75	-40.0	1,697.0	1,138.7	1,068.2	70.49	16.153	
9,900.0	9,849.0	9,875.2	9,867.0	37.0	35.0	112.75	-40.0	1,697.0	1,138.7	1,067.5	71.19	15.995	
10,000.0	9,949.0	9,975.2	9,967.0	37.3	35.4	112.75	-40.0	1,697.0	1,138.7	1,066.8	71.89	15.840	
10,100.0	10,049.0	10,075.2	10,067.0	37.7	35.7	112.75	-40.0	1,697.0	1,138.7	1,066.1	72.58	15.688	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #601H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	10,175.2	10,167.0	38.0	36.1	112.75	-40.0	1,697.0	1,138.7	1,065.4	73.28	15.538	
10,300.0	10,249.0	10,275.2	10,267.0	38.3	36.4	112.75	-40.0	1,697.0	1,138.7	1,064.7	73.98	15.391	
10,400.0	10,349.0	10,375.2	10,367.0	38.7	36.8	112.75	-40.0	1,697.0	1,138.7	1,064.0	74.68	15.247	
10,500.0	10,449.0	10,475.2	10,467.0	39.0	37.1	112.75	-40.0	1,697.0	1,138.7	1,063.3	75.38	15.106	
10,600.0	10,549.0	10,575.2	10,567.0	39.3	37.5	112.75	-40.0	1,697.0	1,138.7	1,062.6	76.08	14.967	
10,700.0	10,649.0	10,675.2	10,667.0	39.7	37.9	112.75	-40.0	1,697.0	1,138.7	1,061.9	76.78	14.830	
10,800.0	10,749.0	10,775.2	10,767.0	40.0	38.2	112.75	-40.0	1,697.0	1,138.7	1,061.2	77.48	14.696	
10,900.0	10,849.0	10,875.2	10,867.0	40.4	38.6	112.75	-40.0	1,697.0	1,138.7	1,060.5	78.18	14.564	
11,000.0	10,949.0	10,975.2	10,967.0	40.7	38.9	112.75	-40.0	1,697.0	1,138.7	1,059.8	78.88	14.435	
11,100.0	11,049.0	11,050.0	11,041.7	41.0	39.2	112.83	-41.8	1,697.0	1,139.6	1,060.1	79.49	14.336	
11,148.0	11,097.0	11,071.4	11,063.0	41.2	39.3	112.93	-43.8	1,697.0	1,141.3	1,061.6	79.70	14.321	
11,148.1	11,097.0	11,071.4	11,063.1	41.2	39.3	112.93	-43.8	1,697.0	1,141.3	1,061.6	79.70	14.321	
11,150.0	11,099.0	11,072.5	11,064.1	41.2	39.3	-71.21	-44.0	1,697.0	1,141.4	1,061.7	79.71	14.321	
11,200.0	11,148.9	11,100.0	11,091.3	41.4	39.4	-70.90	-47.8	1,697.0	1,143.5	1,063.6	79.89	14.313	
11,250.0	11,198.4	11,128.1	11,118.9	41.5	39.4	-70.68	-53.1	1,697.0	1,145.1	1,065.0	80.03	14.307	
11,300.0	11,247.2	11,150.0	11,140.2	41.6	39.5	-70.56	-58.2	1,697.0	1,146.2	1,066.1	80.08	14.313	
11,350.0	11,294.8	11,183.5	11,172.4	41.7	39.6	-70.54	-67.5	1,697.1	1,146.8	1,066.6	80.20	14.300	
11,400.0	11,340.9	11,211.3	11,198.6	41.8	39.7	-70.62	-76.7	1,697.1	1,147.0	1,066.7	80.23	14.296	
11,450.0	11,385.2	11,239.1	11,224.4	41.9	39.8	-70.79	-87.1	1,697.1	1,146.6	1,066.4	80.24	14.290	
11,500.0	11,427.3	11,266.8	11,249.6	42.0	39.9	-71.06	-98.7	1,697.2	1,145.9	1,065.6	80.23	14.282	
11,550.0	11,466.8	11,300.0	11,278.9	42.1	39.9	-71.48	-114.2	1,697.2	1,144.7	1,064.4	80.28	14.258	
11,600.0	11,503.5	11,322.5	11,298.3	42.1	40.0	-71.88	-125.7	1,697.3	1,143.1	1,062.9	80.20	14.252	
11,650.0	11,537.2	11,350.0	11,321.3	42.1	40.1	-72.42	-140.6	1,697.3	1,141.1	1,060.9	80.20	14.229	
11,700.0	11,567.5	11,378.5	11,344.4	42.2	40.2	-73.05	-157.4	1,697.4	1,138.8	1,058.6	80.22	14.196	
11,750.0	11,594.2	11,400.0	11,361.3	42.2	40.2	-73.63	-170.7	1,697.4	1,136.3	1,056.2	80.19	14.171	
11,800.0	11,617.1	11,434.8	11,387.4	42.2	40.3	-74.53	-193.6	1,697.5	1,133.6	1,053.2	80.36	14.107	
11,850.0	11,636.1	11,463.1	11,407.7	42.2	40.4	-75.37	-213.4	1,697.6	1,130.8	1,050.3	80.49	14.049	
11,900.0	11,651.0	11,491.6	11,427.0	42.1	40.5	-76.27	-234.3	1,697.7	1,127.9	1,047.3	80.66	13.984	
11,950.0	11,661.6	11,520.2	11,445.4	42.1	40.5	-77.22	-256.3	1,697.7	1,125.1	1,044.2	80.88	13.911	
12,000.0	11,668.0	11,550.0	11,463.3	42.1	40.6	-78.24	-280.1	1,697.8	1,122.4	1,041.3	81.15	13.831	
12,048.1	11,670.0	11,577.0	11,478.5	42.1	40.7	-79.21	-302.4	1,697.9	1,120.1	1,038.6	81.43	13.755	
12,100.0	11,670.0	11,608.4	11,494.8	42.2	40.8	-80.04	-329.2	1,698.0	1,117.8	1,036.0	81.77	13.670	
12,200.0	11,670.0	11,674.8	11,524.2	42.3	41.0	-81.54	-388.7	1,698.2	1,113.8	1,031.3	82.44	13.510	
12,272.6	11,670.0	11,727.6	11,542.6	42.5	41.2	-82.47	-438.2	1,698.4	1,110.8	1,027.8	82.95	13.390	
12,300.0	11,670.0	11,748.5	11,548.6	42.6	41.3	-82.78	-458.1	1,698.4	1,109.6	1,026.5	83.15	13.346	
12,400.0	11,670.0	11,827.8	11,564.7	43.0	41.5	-83.61	-535.8	1,698.7	1,106.9	1,023.1	83.87	13.198	
12,499.2	11,670.0	11,917.2	11,570.0	43.4	41.8	-83.87	-615.4	1,699.0	1,106.0	1,021.3	84.64	13.066	CC
12,500.0	11,670.0	11,916.4	11,570.0	43.4	41.8	-83.87	-616.3	1,699.0	1,106.0	1,021.3	84.64	13.066	
12,600.0	11,670.0	12,008.5	11,570.0	43.9	42.2	-83.87	-716.3	1,699.6	1,106.0	1,020.5	85.48	12.938	
12,700.0	11,670.0	12,108.5	11,570.0	44.4	42.7	-83.87	-816.2	1,700.2	1,106.0	1,019.5	86.47	12.791	
12,800.0	11,670.0	12,208.5	11,570.0	45.0	43.2	-83.87	-916.2	1,700.8	1,106.0	1,018.4	87.56	12.631	
12,900.0	11,670.0	12,308.5	11,570.0	45.7	43.7	-83.87	-1,016.2	1,701.4	1,106.0	1,017.2	88.77	12.459	
13,000.0	11,670.0	12,408.5	11,570.0	46.4	44.4	-83.87	-1,116.2	1,702.0	1,106.0	1,015.9	90.08	12.278	
13,100.0	11,670.0	12,508.5	11,570.0	47.1	45.0	-83.87	-1,216.2	1,702.6	1,106.0	1,014.5	91.49	12.088	
13,200.0	11,670.0	12,608.5	11,570.0	47.9	45.8	-83.87	-1,316.2	1,703.2	1,106.0	1,013.0	93.00	11.893	
13,300.0	11,670.0	12,708.5	11,570.0	48.7	46.5	-83.87	-1,416.2	1,703.8	1,106.0	1,011.4	94.60	11.692	
13,400.0	11,670.0	12,808.5	11,570.0	49.6	47.4	-83.87	-1,516.2	1,704.4	1,106.0	1,009.8	96.29	11.487	
13,500.0	11,670.0	12,908.5	11,570.0	50.5	48.2	-83.87	-1,616.2	1,705.0	1,106.0	1,008.0	98.06	11.280	
13,600.0	11,670.0	13,008.5	11,570.0	51.5	49.1	-83.87	-1,716.2	1,705.6	1,106.1	1,006.2	99.90	11.071	
13,700.0	11,670.0	13,108.5	11,570.0	52.4	50.1	-83.87	-1,816.2	1,706.2	1,106.1	1,004.2	101.82	10.863	
13,800.0	11,670.0	13,208.5	11,570.0	53.4	51.0	-83.87	-1,916.2	1,706.8	1,106.1	1,002.3	103.81	10.655	
13,900.0	11,670.0	13,308.5	11,570.0	54.5	52.1	-83.87	-2,016.2	1,707.4	1,106.1	1,000.2	105.87	10.448	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bucks Fed Com #601H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	13,408.5	11,570.0	55.6	53.1	-83.87	-2,116.2	1,708.0	1,106.1	998.1	107.98	10.243	
14,100.0	11,670.0	13,508.5	11,570.0	56.7	54.2	-83.87	-2,216.2	1,708.6	1,106.1	995.9	110.16	10.041	
14,200.0	11,670.0	13,608.5	11,570.0	57.8	55.3	-83.87	-2,316.2	1,709.2	1,106.1	993.7	112.39	9.842	
14,300.0	11,670.0	13,708.5	11,570.0	59.0	56.4	-83.87	-2,416.2	1,709.8	1,106.1	991.4	114.67	9.646	
14,400.0	11,670.0	13,808.5	11,570.0	60.1	57.6	-83.87	-2,516.2	1,710.4	1,106.1	989.1	117.00	9.454	
14,500.0	11,670.0	13,908.5	11,570.0	61.3	58.8	-83.87	-2,616.2	1,711.0	1,106.1	986.7	119.38	9.266	
14,600.0	11,670.0	14,008.5	11,570.0	62.5	60.0	-83.87	-2,716.2	1,711.6	1,106.1	984.3	121.80	9.082	
14,700.0	11,670.0	14,108.5	11,570.0	63.8	61.2	-83.87	-2,816.2	1,712.2	1,106.1	981.9	124.26	8.902	
14,800.0	11,670.0	14,208.5	11,570.0	65.0	62.4	-83.87	-2,916.2	1,712.8	1,106.1	979.4	126.76	8.726	
14,900.0	11,670.0	14,308.5	11,570.0	66.3	63.7	-83.87	-3,016.2	1,713.4	1,106.1	976.8	129.29	8.555	
15,000.0	11,670.0	14,408.5	11,570.0	67.6	65.0	-83.87	-3,116.2	1,714.0	1,106.1	974.3	131.86	8.389	
15,100.0	11,670.0	14,508.5	11,570.0	68.9	66.3	-83.87	-3,216.2	1,714.6	1,106.1	971.7	134.46	8.226	
15,200.0	11,670.0	14,608.5	11,570.0	70.2	67.6	-83.88	-3,316.2	1,715.2	1,106.1	969.1	137.09	8.069	
15,300.0	11,670.0	14,708.5	11,570.0	71.6	68.9	-83.88	-3,416.2	1,715.8	1,106.2	966.4	139.75	7.915	
15,400.0	11,670.0	14,808.5	11,570.0	72.9	70.3	-83.88	-3,516.2	1,716.4	1,106.2	963.7	142.44	7.766	
15,500.0	11,670.0	14,908.5	11,570.0	74.3	71.6	-83.88	-3,616.2	1,717.0	1,106.2	961.0	145.15	7.621	
15,600.0	11,670.0	15,008.5	11,570.0	75.7	73.0	-83.88	-3,716.2	1,717.6	1,106.2	958.3	147.89	7.480	
15,700.0	11,670.0	15,108.5	11,570.0	77.1	74.4	-83.88	-3,816.2	1,718.2	1,106.2	955.5	150.65	7.343	
15,800.0	11,670.0	15,208.5	11,570.0	78.5	75.8	-83.88	-3,916.2	1,718.8	1,106.2	952.8	153.43	7.210	
15,900.0	11,670.0	15,308.5	11,570.0	79.9	77.2	-83.88	-4,016.2	1,719.4	1,106.2	950.0	156.23	7.081	
16,000.0	11,670.0	15,408.5	11,570.0	81.3	78.6	-83.88	-4,116.2	1,720.0	1,106.2	947.1	159.05	6.955	
16,100.0	11,670.0	15,508.5	11,570.0	82.7	80.0	-83.88	-4,216.2	1,720.6	1,106.2	944.3	161.89	6.833	
16,200.0	11,670.0	15,608.5	11,570.0	84.1	81.4	-83.88	-4,316.2	1,721.2	1,106.2	941.5	164.74	6.715	
16,300.0	11,670.0	15,708.5	11,570.0	85.6	82.9	-83.88	-4,416.2	1,721.8	1,106.2	938.6	167.61	6.600	
16,400.0	11,670.0	15,808.5	11,570.0	87.0	84.3	-83.88	-4,516.2	1,722.4	1,106.2	935.7	170.50	6.488	
16,500.0	11,670.0	15,908.5	11,570.0	88.5	85.8	-83.88	-4,616.2	1,723.0	1,106.2	932.8	173.40	6.380	
16,600.0	11,670.0	16,008.5	11,570.0	89.9	87.2	-83.88	-4,716.2	1,723.6	1,106.2	929.9	176.32	6.274	
16,700.0	11,670.0	16,108.5	11,570.0	91.4	88.7	-83.88	-4,816.2	1,724.2	1,106.2	927.0	179.25	6.172	
16,800.0	11,670.0	16,208.5	11,570.0	92.9	90.2	-83.88	-4,916.2	1,724.8	1,106.2	924.1	182.19	6.072	
16,900.0	11,670.0	16,308.5	11,570.0	94.4	91.6	-83.88	-5,016.2	1,725.4	1,106.2	921.1	185.14	5.975	
17,000.0	11,670.0	16,408.5	11,570.0	95.9	93.1	-83.88	-5,116.2	1,726.0	1,106.3	918.1	188.11	5.881	
17,100.0	11,670.0	16,508.5	11,570.0	97.3	94.6	-83.88	-5,216.2	1,726.6	1,106.3	915.2	191.09	5.789	
17,200.0	11,670.0	16,608.5	11,570.0	98.8	96.1	-83.88	-5,316.2	1,727.2	1,106.3	912.2	194.08	5.700	
17,300.0	11,670.0	16,708.5	11,570.0	100.3	97.6	-83.88	-5,416.2	1,727.8	1,106.3	909.2	197.07	5.614	
17,400.0	11,670.0	16,808.5	11,570.0	101.9	99.1	-83.88	-5,516.2	1,728.4	1,106.3	906.2	200.08	5.529	
17,500.0	11,670.0	16,908.5	11,570.0	103.4	100.7	-83.88	-5,616.2	1,729.0	1,106.3	903.2	203.10	5.447	
17,600.0	11,670.0	17,008.5	11,570.0	104.9	102.2	-83.88	-5,716.2	1,729.6	1,106.3	900.2	206.12	5.367	
17,700.0	11,670.0	17,108.5	11,570.0	106.4	103.7	-83.88	-5,816.2	1,730.2	1,106.3	897.1	209.16	5.289	
17,800.0	11,670.0	17,208.5	11,570.0	107.9	105.2	-83.88	-5,916.2	1,730.8	1,106.3	894.1	212.20	5.214	
17,900.0	11,670.0	17,308.5	11,570.0	109.5	106.7	-83.88	-6,016.2	1,731.4	1,106.3	891.1	215.25	5.140	
18,000.0	11,670.0	17,408.5	11,570.0	111.0	108.3	-83.88	-6,116.2	1,732.0	1,106.3	888.0	218.30	5.068	
18,100.0	11,670.0	17,508.5	11,570.0	112.5	109.8	-83.88	-6,216.2	1,732.6	1,106.3	885.0	221.37	4.998	
18,200.0	11,670.0	17,608.5	11,570.0	114.1	111.4	-83.88	-6,316.1	1,733.2	1,106.3	881.9	224.44	4.929	
18,300.0	11,670.0	17,708.5	11,570.0	115.6	112.9	-83.88	-6,416.1	1,733.8	1,106.3	878.8	227.51	4.863	
18,400.0	11,670.0	17,808.5	11,570.0	117.2	114.5	-83.88	-6,516.1	1,734.4	1,106.3	875.7	230.60	4.798	
18,428.0	11,670.0	17,836.5	11,570.0	117.6	114.9	-83.88	-6,544.2	1,734.6	1,106.3	874.9	231.46	4.780	ES, SF

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-83.87	97.0	-902.5	907.9				
100.0	100.0	83.0	83.0	0.1	0.1	-83.87	97.0	-902.5	907.7	907.5	0.23	3,870.489	
200.0	200.0	183.0	183.0	0.5	0.4	-83.87	97.0	-902.5	907.7	906.8	0.91	994.960	
300.0	300.0	283.0	283.0	0.8	0.8	-83.87	97.0	-902.5	907.7	906.1	1.63	557.134	
400.0	400.0	383.0	383.0	1.2	1.1	-83.87	97.0	-902.5	907.7	905.4	2.35	386.887	
500.0	500.0	483.0	483.0	1.6	1.5	-83.87	97.0	-902.5	907.7	904.6	3.06	296.334	CC
600.0	600.0	583.0	583.0	1.9	1.9	-142.14	97.0	-902.5	908.4	904.6	3.78	240.567	ES
700.0	700.0	683.0	683.0	2.3	2.2	-142.23	97.0	-902.5	910.5	906.0	4.49	202.902	
800.0	799.9	782.9	782.9	2.6	2.6	-142.38	97.0	-902.5	913.9	908.7	5.20	175.743	
900.0	899.7	882.7	882.7	3.0	2.9	-142.58	97.0	-902.5	918.8	912.9	5.92	155.325	
1,000.0	999.4	982.4	982.4	3.4	3.3	-142.84	97.0	-902.5	925.0	918.4	6.63	139.484	
1,100.0	1,098.9	1,081.9	1,081.9	3.7	3.6	-143.15	97.0	-902.5	932.7	925.3	7.35	126.891	
1,200.0	1,198.3	1,181.3	1,181.3	4.1	4.0	-143.51	97.0	-902.5	941.8	933.7	8.07	116.686	
1,300.0	1,297.4	1,280.4	1,280.4	4.5	4.4	-143.91	97.0	-902.5	952.3	943.5	8.79	108.289	
1,400.0	1,396.4	1,379.4	1,379.4	4.9	4.7	-144.39	97.0	-902.5	963.7	954.1	9.52	101.234	
1,500.0	1,495.5	1,478.5	1,478.5	5.3	5.1	-144.87	97.0	-902.5	975.0	964.8	10.24	95.177	
1,600.0	1,594.5	1,566.4	1,566.4	5.7	5.4	-145.29	96.9	-902.9	986.9	976.0	10.92	90.365	
1,700.0	1,693.5	1,651.0	1,651.0	6.1	5.7	-145.70	96.6	-904.5	1,000.3	988.7	11.58	86.401	
1,800.0	1,792.5	1,735.2	1,735.2	6.5	6.0	-146.12	95.9	-907.2	1,015.1	1,002.8	12.23	83.027	
1,900.0	1,891.6	1,819.0	1,818.8	6.9	6.2	-146.54	95.1	-911.2	1,031.3	1,018.5	12.87	80.130	
2,000.0	1,990.6	1,902.3	1,902.0	7.3	6.5	-146.97	93.9	-916.3	1,049.1	1,035.6	13.51	77.644	
2,100.0	2,089.6	1,985.1	1,984.5	7.7	6.8	-147.39	92.5	-922.5	1,068.3	1,054.1	14.15	75.512	
2,200.0	2,188.6	2,067.4	2,066.4	8.1	7.1	-147.81	90.9	-929.9	1,088.9	1,074.2	14.78	73.689	
2,300.0	2,287.7	2,149.1	2,147.7	8.5	7.4	-148.23	89.0	-938.4	1,111.0	1,095.6	15.40	72.136	
2,400.0	2,386.7	2,230.3	2,228.3	8.9	7.7	-148.65	86.9	-947.9	1,134.6	1,118.5	16.02	70.822	
2,500.0	2,485.7	2,313.0	2,310.2	9.4	8.0	-149.07	84.5	-958.7	1,159.5	1,142.8	16.64	69.667	
2,600.0	2,584.8	2,409.2	2,405.5	9.8	8.4	-149.54	81.6	-971.8	1,185.0	1,167.6	17.34	68.323	
2,700.0	2,683.8	2,505.4	2,500.8	10.2	8.7	-150.00	78.6	-984.8	1,210.6	1,192.5	18.05	67.082	
2,800.0	2,782.8	2,601.7	2,596.1	10.6	9.1	-150.43	75.7	-997.9	1,236.2	1,217.4	18.75	65.933	
2,900.0	2,881.8	2,697.9	2,691.4	11.0	9.5	-150.85	72.8	-1,011.0	1,261.9	1,242.4	19.45	64.866	
3,000.0	2,980.9	2,805.9	2,786.7	11.4	9.9	-151.25	69.9	-1,024.1	1,287.7	1,267.5	20.20	63.741	
3,100.0	3,079.9	2,909.6	2,882.0	11.9	10.3	-151.64	67.0	-1,037.1	1,313.5	1,292.6	20.94	62.740	
3,200.0	3,178.9	2,986.6	2,977.3	12.3	10.6	-152.01	64.1	-1,050.2	1,339.4	1,317.8	21.57	62.085	
3,300.0	3,277.9	3,082.8	3,072.6	12.7	11.0	-152.37	61.2	-1,063.3	1,365.3	1,343.0	22.28	61.276	
3,400.0	3,377.0	3,179.1	3,167.9	13.1	11.4	-152.71	58.3	-1,076.4	1,391.3	1,368.3	22.99	60.518	
3,500.0	3,476.0	3,275.3	3,263.2	13.5	11.8	-153.04	55.3	-1,089.4	1,417.3	1,393.6	23.70	59.805	
3,600.0	3,575.0	3,371.5	3,358.5	13.9	12.1	-153.36	52.4	-1,102.5	1,443.4	1,419.0	24.41	59.135	
3,700.0	3,674.0	3,467.8	3,453.8	14.3	12.5	-153.67	49.5	-1,115.6	1,469.5	1,444.4	25.12	58.503	
3,800.0	3,773.1	3,564.0	3,549.1	14.8	12.9	-153.97	46.6	-1,128.6	1,495.6	1,469.8	25.83	57.906	
3,900.0	3,872.1	3,660.2	3,644.4	15.2	13.3	-154.25	43.7	-1,141.7	1,521.8	1,495.3	26.54	57.342	
4,000.0	3,971.1	3,756.5	3,739.7	15.6	13.7	-154.53	40.8	-1,154.8	1,548.0	1,520.8	27.25	56.807	
4,100.0	4,070.2	3,852.7	3,835.0	16.0	14.1	-154.80	37.9	-1,167.9	1,574.3	1,546.3	27.96	56.301	
4,200.0	4,169.2	3,948.9	3,930.3	16.4	14.5	-155.06	34.9	-1,180.9	1,600.5	1,571.9	28.67	55.820	
4,300.0	4,268.2	4,045.2	4,025.6	16.9	14.9	-155.31	32.0	-1,194.0	1,626.9	1,597.5	29.39	55.363	
4,400.0	4,367.2	4,141.4	4,120.9	17.3	15.3	-155.55	29.1	-1,207.1	1,653.2	1,623.1	30.10	54.928	
4,500.0	4,466.3	4,237.6	4,216.2	17.7	15.7	-155.79	26.2	-1,220.1	1,679.6	1,648.8	30.81	54.513	
4,600.0	4,565.3	4,333.9	4,311.5	18.1	16.1	-156.02	23.3	-1,233.2	1,706.0	1,674.4	31.52	54.118	
4,700.0	4,664.3	4,430.1	4,406.8	18.5	16.5	-156.24	20.4	-1,246.3	1,732.4	1,700.1	32.24	53.741	
4,800.0	4,763.3	4,526.3	4,502.1	18.9	16.9	-156.45	17.5	-1,259.4	1,758.8	1,725.9	32.95	53.380	
4,900.0	4,862.4	4,622.6	4,597.4	19.4	17.3	-156.66	14.6	-1,272.4	1,785.3	1,751.6	33.66	53.035	
5,000.0	4,961.4	4,718.8	4,692.7	19.8	17.7	-156.87	11.6	-1,285.5	1,811.8	1,777.4	34.38	52.705	
5,100.0	5,060.4	4,815.0	4,788.0	20.2	18.1	-157.06	8.7	-1,298.6	1,838.3	1,803.2	35.09	52.388	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	4,911.3	4,883.3	20.6	18.5	-157.25	5.8	-1,311.7	1,864.8	1,829.0	35.80	52.084	
5,300.0	5,258.5	5,007.5	4,978.6	21.0	18.9	-157.44	2.9	-1,324.7	1,891.3	1,854.8	36.52	51.793	
5,400.0	5,357.5	5,103.7	5,073.8	21.5	19.3	-157.62	0.0	-1,337.8	1,917.9	1,880.6	37.23	51.513	
5,500.0	5,456.5	5,200.0	5,169.1	21.9	19.7	-157.80	-2.9	-1,350.9	1,944.5	1,906.5	37.95	51.243	
5,600.0	5,555.6	5,303.8	5,264.4	22.3	20.1	-157.97	-5.8	-1,363.9	1,971.0	1,932.4	38.69	50.947	
5,700.0	5,654.6	5,392.4	5,359.7	22.7	20.5	-158.13	-8.7	-1,377.0	1,997.7	1,958.3	39.37	50.735	
5,800.0	5,753.6	5,488.7	5,455.0	23.1	20.9	-158.29	-11.7	-1,390.1	2,024.3	1,984.2	40.09	50.494	
5,900.0	5,852.6	5,584.9	5,550.3	23.5	21.3	-158.45	-14.6	-1,403.2	2,050.9	2,010.1	40.80	50.262	
6,000.0	5,951.7	5,681.1	5,645.6	24.0	21.7	-158.61	-17.5	-1,416.2	2,077.6	2,036.1	41.52	50.039	
6,098.6	6,049.3	5,776.0	5,739.5	24.4	22.1	-158.75	-20.4	-1,429.1	2,103.9	2,061.6	42.22	49.826	
6,100.0	6,050.7	5,777.4	5,740.9	24.4	22.1	-158.76	-20.4	-1,429.3	2,104.2	2,062.0	42.23	49.823	
6,200.0	6,149.9	5,874.0	5,836.6	24.8	22.5	-159.03	-23.3	-1,442.4	2,129.7	2,086.8	42.95	49.587	
6,300.0	6,249.4	5,971.2	5,932.8	25.2	22.9	-159.26	-26.3	-1,455.6	2,152.8	2,109.2	43.66	49.307	
6,400.0	6,349.1	6,069.0	6,029.7	25.6	23.3	-159.45	-29.2	-1,468.9	2,173.5	2,129.2	44.37	48.983	
6,500.0	6,449.0	6,167.2	6,127.0	25.9	23.7	-159.60	-32.2	-1,482.3	2,191.9	2,146.8	45.08	48.618	
6,600.0	6,549.0	6,266.0	6,224.8	26.2	24.1	-159.71	-35.2	-1,495.7	2,207.8	2,162.0	45.79	48.215	
6,631.9	6,580.9	6,302.5	6,256.0	26.3	24.3	-101.49	-36.1	-1,500.0	2,212.3	2,166.3	46.03	48.060	
6,700.0	6,649.0	6,365.0	6,322.8	26.5	24.5	-101.50	-38.2	-1,509.1	2,221.8	2,175.3	46.49	47.791	
6,800.0	6,749.0	6,464.0	6,420.9	26.9	24.9	-101.50	-41.2	-1,522.6	2,235.7	2,188.5	47.19	47.377	
6,900.0	6,849.0	6,563.0	6,518.9	27.2	25.3	-101.51	-44.2	-1,536.0	2,249.6	2,201.7	47.89	46.975	
7,000.0	6,949.0	6,662.0	6,617.0	27.5	25.8	-101.52	-47.2	-1,549.5	2,263.5	2,214.9	48.59	46.583	
7,100.0	7,049.0	6,761.1	6,715.1	27.8	26.2	-101.52	-50.2	-1,562.9	2,277.5	2,228.2	49.29	46.202	
7,200.0	7,149.0	6,860.1	6,813.1	28.1	26.6	-101.53	-53.2	-1,576.4	2,291.4	2,241.4	50.00	45.832	
7,300.0	7,249.0	6,959.1	6,911.2	28.4	27.0	-101.54	-56.2	-1,589.8	2,305.3	2,254.6	50.70	45.471	
7,400.0	7,349.0	7,058.2	7,009.3	28.8	27.4	-101.54	-59.2	-1,603.3	2,319.2	2,267.8	51.40	45.119	
7,500.0	7,449.0	7,189.8	7,139.6	29.1	28.0	-101.55	-63.1	-1,620.8	2,333.0	2,280.7	52.32	44.593	
7,600.0	7,549.0	7,446.4	7,395.1	29.4	29.0	-101.56	-68.2	-1,643.8	2,342.2	2,288.3	53.89	43.460	
7,700.0	7,649.0	7,683.4	7,632.0	29.7	29.8	-101.56	-69.6	-1,650.2	2,344.7	2,289.6	55.14	42.521	
7,800.0	7,749.0	7,783.4	7,732.0	30.1	30.1	-101.56	-69.6	-1,650.2	2,344.7	2,288.9	55.82	42.005	
7,900.0	7,849.0	7,883.4	7,832.0	30.4	30.4	-101.56	-69.6	-1,650.2	2,344.7	2,288.2	56.50	41.501	
8,000.0	7,949.0	7,983.4	7,932.0	30.7	30.7	-101.56	-69.6	-1,650.2	2,344.7	2,287.5	57.18	41.008	
8,100.0	8,049.0	8,083.4	8,032.0	31.0	31.0	-101.56	-69.6	-1,650.2	2,344.7	2,286.8	57.86	40.526	
8,200.0	8,149.0	8,183.4	8,132.0	31.4	31.4	-101.56	-69.6	-1,650.2	2,344.7	2,286.2	58.54	40.055	
8,300.0	8,249.0	8,283.4	8,232.0	31.7	31.7	-101.56	-69.6	-1,650.2	2,344.7	2,285.5	59.22	39.594	
8,400.0	8,349.0	8,383.4	8,332.0	32.0	32.0	-101.56	-69.6	-1,650.2	2,344.7	2,284.8	59.90	39.143	
8,500.0	8,449.0	8,483.4	8,432.0	32.3	32.3	-101.56	-69.6	-1,650.2	2,344.7	2,284.1	60.58	38.702	
8,600.0	8,549.0	8,583.4	8,532.0	32.7	32.6	-101.56	-69.6	-1,650.2	2,344.7	2,283.4	61.27	38.270	
8,700.0	8,649.0	8,683.4	8,632.0	33.0	32.9	-101.56	-69.6	-1,650.2	2,344.7	2,282.7	61.95	37.847	
8,800.0	8,749.0	8,783.4	8,732.0	33.3	33.3	-101.56	-69.6	-1,650.2	2,344.7	2,282.1	62.64	37.433	
8,900.0	8,849.0	8,883.4	8,832.0	33.7	33.6	-101.56	-69.6	-1,650.2	2,344.7	2,281.4	63.32	37.027	
9,000.0	8,949.0	8,983.4	8,932.0	34.0	33.9	-101.56	-69.6	-1,650.2	2,344.7	2,280.7	64.01	36.630	
9,100.0	9,049.0	9,083.4	9,032.0	34.3	34.2	-101.56	-69.6	-1,650.2	2,344.7	2,280.0	64.70	36.240	
9,200.0	9,149.0	9,183.4	9,132.0	34.6	34.6	-101.56	-69.6	-1,650.2	2,344.7	2,279.3	65.39	35.859	
9,300.0	9,249.0	9,283.4	9,232.0	35.0	34.9	-101.56	-69.6	-1,650.2	2,344.7	2,278.6	66.08	35.485	
9,400.0	9,349.0	9,383.4	9,332.0	35.3	35.2	-101.56	-69.6	-1,650.2	2,344.7	2,277.9	66.76	35.119	
9,500.0	9,449.0	9,483.4	9,432.0	35.6	35.5	-101.56	-69.6	-1,650.2	2,344.7	2,277.2	67.45	34.760	
9,600.0	9,549.0	9,583.4	9,532.0	36.0	35.9	-101.56	-69.6	-1,650.2	2,344.7	2,276.5	68.14	34.408	
9,700.0	9,649.0	9,683.4	9,632.0	36.3	36.2	-101.56	-69.6	-1,650.2	2,344.7	2,275.9	68.84	34.062	
9,800.0	9,749.0	9,783.4	9,732.0	36.7	36.5	-101.56	-69.6	-1,650.2	2,344.7	2,275.2	69.53	33.723	
9,900.0	9,849.0	9,883.4	9,832.0	37.0	36.9	-101.56	-69.6	-1,650.2	2,344.7	2,274.5	70.22	33.391	
10,000.0	9,949.0	9,983.4	9,932.0	37.3	37.2	-101.56	-69.6	-1,650.2	2,344.7	2,273.8	70.91	33.065	
10,100.0	10,049.0	10,083.4	10,032.0	37.7	37.5	-101.56	-69.6	-1,650.2	2,344.7	2,273.1	71.60	32.745	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	10,183.4	10,132.0	38.0	37.8	-101.56	-69.6	-1,650.2	2,344.7	2,272.4	72.30	32.431	
10,300.0	10,249.0	10,283.4	10,232.0	38.3	38.2	-101.56	-69.6	-1,650.2	2,344.7	2,271.7	72.99	32.123	
10,400.0	10,349.0	10,383.4	10,332.0	38.7	38.5	-101.56	-69.6	-1,650.2	2,344.7	2,271.0	73.69	31.820	
10,500.0	10,449.0	10,483.4	10,432.0	39.0	38.8	-101.56	-69.6	-1,650.2	2,344.7	2,270.3	74.38	31.523	
10,506.0	10,455.0	10,489.4	10,438.0	39.0	38.9	-101.56	-69.6	-1,650.2	2,344.7	2,270.3	74.42	31.505	
10,600.0	10,549.0	10,559.0	10,507.6	39.3	39.1	-101.58	-70.4	-1,650.2	2,345.0	2,270.0	74.99	31.272	
10,700.0	10,649.0	10,614.1	10,562.4	39.7	39.3	-101.72	-76.0	-1,650.2	2,347.0	2,271.5	75.50	31.088	
10,800.0	10,749.0	10,667.6	10,614.9	40.0	39.4	-101.97	-86.5	-1,650.1	2,350.9	2,275.0	75.97	30.946	
10,900.0	10,849.0	10,718.8	10,663.9	40.4	39.6	-102.31	-101.0	-1,650.0	2,357.0	2,280.6	76.40	30.852	
11,000.0	10,949.0	10,767.0	10,708.8	40.7	39.8	-102.73	-118.6	-1,649.9	2,365.3	2,288.5	76.77	30.809	
11,100.0	11,049.0	10,811.9	10,749.1	41.0	39.9	-103.20	-138.3	-1,649.8	2,375.9	2,298.8	77.09	30.822	
11,148.0	11,097.0	10,832.2	10,766.8	41.2	40.0	-103.44	-148.3	-1,649.7	2,381.9	2,304.7	77.21	30.850	
11,148.1	11,097.0	10,832.2	10,766.8	41.2	40.0	-103.44	-148.3	-1,649.7	2,381.9	2,304.7	77.21	30.850	
11,150.0	11,099.0	10,833.0	10,767.5	41.2	40.0	72.38	-148.7	-1,649.7	2,382.2	2,305.0	77.22	30.851	
11,200.0	11,148.9	10,850.0	10,782.0	41.4	40.0	71.59	-157.5	-1,649.7	2,388.4	2,311.1	77.29	30.902	
11,250.0	11,198.4	10,874.8	10,802.7	41.5	40.1	70.81	-171.2	-1,649.6	2,393.9	2,316.5	77.40	30.930	
11,300.0	11,247.2	10,900.0	10,823.1	41.6	40.2	70.14	-186.0	-1,649.5	2,398.6	2,321.1	77.49	30.953	
11,350.0	11,294.8	10,917.1	10,836.6	41.7	40.3	69.64	-196.5	-1,649.4	2,402.4	2,324.9	77.51	30.993	
11,400.0	11,340.9	10,950.0	10,861.6	41.8	40.4	69.14	-217.9	-1,649.3	2,405.4	2,327.8	77.63	30.984	
11,450.0	11,385.2	10,950.0	10,861.6	41.9	40.4	68.95	-217.9	-1,649.3	2,407.4	2,329.9	77.51	31.058	
11,500.0	11,427.3	10,981.2	10,884.1	42.0	40.5	68.70	-239.4	-1,649.1	2,408.4	2,330.8	77.61	31.033	
11,550.0	11,466.8	11,000.0	10,897.1	42.1	40.5	68.62	-253.0	-1,649.1	2,408.5	2,330.9	77.61	31.033	
11,600.0	11,503.5	11,024.2	10,913.2	42.1	40.6	68.64	-271.1	-1,648.9	2,407.5	2,329.9	77.66	31.003	
11,650.0	11,537.2	11,050.0	10,929.5	42.1	40.7	68.78	-291.1	-1,648.8	2,405.6	2,327.9	77.72	30.953	
11,700.0	11,567.5	11,067.2	10,939.8	42.2	40.7	69.04	-304.8	-1,648.7	2,402.7	2,325.0	77.73	30.911	
11,750.0	11,594.2	11,100.0	10,958.4	42.2	40.8	69.43	-331.9	-1,648.6	2,398.9	2,321.0	77.87	30.807	
11,800.0	11,617.1	11,100.0	10,958.4	42.2	40.8	69.89	-331.9	-1,648.6	2,394.1	2,316.3	77.79	30.775	
11,850.0	11,636.1	11,131.6	10,974.8	42.2	40.9	70.51	-358.9	-1,648.4	2,388.3	2,310.3	77.97	30.632	
11,900.0	11,651.0	11,150.0	10,983.6	42.1	41.0	71.21	-375.0	-1,648.3	2,381.7	2,303.6	78.07	30.507	
11,950.0	11,661.6	11,174.3	10,994.5	42.1	41.1	72.04	-396.7	-1,648.2	2,374.3	2,296.1	78.25	30.344	
12,000.0	11,668.0	11,200.0	11,005.0	42.1	41.2	72.99	-420.2	-1,648.0	2,366.3	2,287.8	78.46	30.158	
12,048.1	11,670.0	11,215.9	11,011.0	42.1	41.2	73.93	-434.9	-1,647.9	2,357.8	2,279.2	78.64	29.983	
12,100.0	11,670.0	11,238.1	11,018.7	42.2	41.3	74.15	-455.8	-1,647.8	2,349.2	2,270.3	78.89	29.780	
12,200.0	11,670.0	11,282.7	11,031.5	42.3	41.5	74.51	-498.4	-1,647.5	2,337.0	2,257.6	79.41	29.428	
12,272.6	11,670.0	11,316.3	11,039.0	42.5	41.6	74.71	-531.2	-1,647.3	2,331.7	2,251.8	79.84	29.206	
12,300.0	11,670.0	11,329.2	11,041.4	42.6	41.7	74.77	-543.9	-1,647.2	2,330.3	2,250.3	80.00	29.128	
12,400.0	11,670.0	11,377.1	11,047.7	43.0	41.9	74.92	-591.3	-1,646.9	2,326.8	2,246.2	80.64	28.855	
12,500.0	11,670.0	11,428.4	11,050.0	43.4	42.1	74.97	-642.6	-1,646.6	2,325.6	2,244.3	81.32	28.597	
12,540.4	11,670.0	11,462.9	11,050.0	43.6	42.3	74.97	-677.1	-1,646.4	2,325.6	2,243.9	81.68	28.471	
12,600.0	11,670.0	11,522.5	11,050.0	43.9	42.6	74.97	-736.7	-1,646.0	2,325.6	2,243.3	82.26	28.271	
12,700.0	11,670.0	11,622.5	11,050.0	44.4	43.1	74.97	-836.7	-1,645.4	2,325.5	2,242.2	83.33	27.908	
12,800.0	11,670.0	11,722.5	11,050.0	45.0	43.7	74.97	-936.7	-1,644.8	2,325.5	2,241.0	84.51	27.518	
12,900.0	11,670.0	11,822.5	11,050.0	45.7	44.3	74.97	-1,036.7	-1,644.2	2,325.5	2,239.7	85.79	27.106	
13,000.0	11,670.0	11,922.5	11,050.0	46.4	45.0	74.97	-1,136.7	-1,643.6	2,325.5	2,238.3	87.18	26.675	
13,100.0	11,670.0	12,022.5	11,050.0	47.1	45.8	74.97	-1,236.7	-1,643.0	2,325.5	2,236.8	88.66	26.229	
13,200.0	11,670.0	12,122.5	11,050.0	47.9	46.6	74.97	-1,336.7	-1,642.3	2,325.4	2,235.2	90.23	25.772	
13,300.0	11,670.0	12,222.5	11,050.0	48.7	47.4	74.97	-1,436.7	-1,641.7	2,325.4	2,233.5	91.89	25.306	
13,400.0	11,670.0	12,322.5	11,050.0	49.6	48.3	74.97	-1,536.7	-1,641.1	2,325.4	2,231.8	93.63	24.835	
13,500.0	11,670.0	12,422.5	11,050.0	50.5	49.3	74.97	-1,636.7	-1,640.5	2,325.4	2,229.9	95.45	24.362	
13,600.0	11,670.0	12,522.5	11,050.0	51.5	50.2	74.97	-1,736.7	-1,639.9	2,325.3	2,228.0	97.34	23.888	
13,700.0	11,670.0	12,622.5	11,050.0	52.4	51.2	74.97	-1,836.7	-1,639.3	2,325.3	2,226.0	99.30	23.416	
13,800.0	11,670.0	12,722.5	11,050.0	53.4	52.3	74.97	-1,936.7	-1,638.6	2,325.3	2,224.0	101.33	22.948	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #305H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.0	11,670.0	12,822.5	11,050.0	54.5	53.3	74.97	-2,036.7	-1,638.0	2,325.3	2,221.9	103.41	22.485	
14,000.0	11,670.0	12,922.5	11,050.0	55.6	54.4	74.97	-2,136.7	-1,637.4	2,325.3	2,219.7	105.56	22.028	
14,100.0	11,670.0	13,022.5	11,050.0	56.7	55.5	74.97	-2,236.7	-1,636.8	2,325.2	2,217.5	107.76	21.579	
14,200.0	11,670.0	13,122.5	11,050.0	57.8	56.7	74.97	-2,336.7	-1,636.2	2,325.2	2,215.2	110.01	21.137	
14,300.0	11,670.0	13,222.5	11,050.0	59.0	57.9	74.97	-2,436.7	-1,635.6	2,325.2	2,212.9	112.30	20.705	
14,400.0	11,670.0	13,322.5	11,050.0	60.1	59.1	74.97	-2,536.7	-1,634.9	2,325.2	2,210.5	114.64	20.282	
14,500.0	11,670.0	13,422.5	11,050.0	61.3	60.3	74.97	-2,636.7	-1,634.3	2,325.2	2,208.1	117.03	19.868	
14,600.0	11,670.0	13,522.5	11,050.0	62.5	61.5	74.97	-2,736.7	-1,633.7	2,325.1	2,205.7	119.45	19.465	
14,700.0	11,670.0	13,622.5	11,050.0	63.8	62.8	74.97	-2,836.7	-1,633.1	2,325.1	2,203.2	121.91	19.072	
14,800.0	11,670.0	13,722.5	11,050.0	65.0	64.1	74.97	-2,936.7	-1,632.5	2,325.1	2,200.7	124.41	18.689	
14,900.0	11,670.0	13,822.5	11,050.0	66.3	65.3	74.97	-3,036.7	-1,631.9	2,325.1	2,198.1	126.94	18.317	
15,000.0	11,670.0	13,922.5	11,050.0	67.6	66.7	74.97	-3,136.7	-1,631.2	2,325.1	2,195.6	129.50	17.954	
15,100.0	11,670.0	14,022.5	11,050.0	68.9	68.0	74.97	-3,236.7	-1,630.6	2,325.0	2,192.9	132.09	17.602	
15,200.0	11,670.0	14,122.5	11,050.0	70.2	69.3	74.97	-3,336.7	-1,630.0	2,325.0	2,190.3	134.70	17.260	
15,300.0	11,670.0	14,222.5	11,050.0	71.6	70.7	74.97	-3,436.7	-1,629.4	2,325.0	2,187.6	137.35	16.928	
15,400.0	11,670.0	14,322.5	11,050.0	72.9	72.0	74.97	-3,536.7	-1,628.8	2,325.0	2,185.0	140.01	16.605	
15,500.0	11,670.0	14,422.5	11,050.0	74.3	73.4	74.97	-3,636.7	-1,628.2	2,324.9	2,182.2	142.70	16.292	
15,600.0	11,670.0	14,522.5	11,050.0	75.7	74.8	74.97	-3,736.6	-1,627.5	2,324.9	2,179.5	145.42	15.988	
15,700.0	11,670.0	14,622.5	11,050.0	77.1	76.2	74.97	-3,836.6	-1,626.9	2,324.9	2,176.8	148.15	15.693	
15,800.0	11,670.0	14,722.5	11,050.0	78.5	77.6	74.97	-3,936.6	-1,626.3	2,324.9	2,174.0	150.90	15.406	
15,900.0	11,670.0	14,822.5	11,050.0	79.9	79.0	74.97	-4,036.6	-1,625.7	2,324.9	2,171.2	153.67	15.128	
16,000.0	11,670.0	14,922.5	11,050.0	81.3	80.5	74.97	-4,136.6	-1,625.1	2,324.8	2,168.4	156.46	14.859	
16,100.0	11,670.0	15,022.5	11,050.0	82.7	81.9	74.97	-4,236.6	-1,624.5	2,324.8	2,165.6	159.27	14.597	
16,200.0	11,670.0	15,122.5	11,050.0	84.1	83.4	74.97	-4,336.6	-1,623.8	2,324.8	2,162.7	162.09	14.343	
16,300.0	11,670.0	15,222.5	11,050.0	85.6	84.8	74.97	-4,436.6	-1,623.2	2,324.8	2,159.9	164.93	14.096	
16,400.0	11,670.0	15,322.5	11,050.0	87.0	86.3	74.97	-4,536.6	-1,622.6	2,324.8	2,157.0	167.78	13.856	
16,500.0	11,670.0	15,422.5	11,050.0	88.5	87.7	74.97	-4,636.6	-1,622.0	2,324.7	2,154.1	170.64	13.624	
16,600.0	11,670.0	15,522.5	11,050.0	89.9	89.2	74.97	-4,736.6	-1,621.4	2,324.7	2,151.2	173.52	13.398	
16,700.0	11,670.0	15,622.5	11,050.0	91.4	90.7	74.97	-4,836.6	-1,620.8	2,324.7	2,148.3	176.41	13.178	
16,800.0	11,670.0	15,722.5	11,050.0	92.9	92.2	74.97	-4,936.6	-1,620.1	2,324.7	2,145.4	179.31	12.965	
16,900.0	11,670.0	15,822.5	11,050.0	94.4	93.7	74.97	-5,036.6	-1,619.5	2,324.7	2,142.4	182.22	12.758	
17,000.0	11,670.0	15,922.5	11,050.0	95.9	95.2	74.97	-5,136.6	-1,618.9	2,324.6	2,139.5	185.14	12.556	
17,100.0	11,670.0	16,022.5	11,050.0	97.3	96.7	74.97	-5,236.6	-1,618.3	2,324.6	2,136.5	188.07	12.360	
17,200.0	11,670.0	16,122.5	11,050.0	98.8	98.2	74.97	-5,336.6	-1,617.7	2,324.6	2,133.6	191.01	12.170	
17,300.0	11,670.0	16,222.5	11,050.0	100.3	99.7	74.97	-5,436.6	-1,617.1	2,324.6	2,130.6	193.96	11.985	
17,400.0	11,670.0	16,322.5	11,050.0	101.9	101.2	74.97	-5,536.6	-1,616.5	2,324.5	2,127.6	196.92	11.804	
17,500.0	11,670.0	16,422.5	11,050.0	103.4	102.7	74.96	-5,636.6	-1,615.8	2,324.5	2,124.6	199.89	11.629	
17,600.0	11,670.0	16,522.5	11,050.0	104.9	104.3	74.96	-5,736.6	-1,615.2	2,324.5	2,121.6	202.87	11.458	
17,700.0	11,670.0	16,622.5	11,050.0	106.4	105.8	74.96	-5,836.6	-1,614.6	2,324.5	2,118.6	205.85	11.292	
17,800.0	11,670.0	16,722.5	11,050.0	107.9	107.3	74.96	-5,936.6	-1,614.0	2,324.5	2,115.6	208.84	11.130	
17,900.0	11,670.0	16,822.5	11,050.0	109.5	108.9	74.96	-6,036.6	-1,613.4	2,324.4	2,112.6	211.84	10.973	
18,000.0	11,670.0	16,922.5	11,050.0	111.0	110.4	74.96	-6,136.6	-1,612.8	2,324.4	2,109.6	214.84	10.819	
18,100.0	11,670.0	17,022.5	11,050.0	112.5	112.0	74.96	-6,236.6	-1,612.1	2,324.4	2,106.5	217.85	10.670	
18,200.0	11,670.0	17,122.5	11,050.0	114.1	113.5	74.96	-6,336.6	-1,611.5	2,324.4	2,103.5	220.87	10.524	
18,300.0	11,670.0	17,222.5	11,050.0	115.6	115.1	74.96	-6,436.6	-1,610.9	2,324.4	2,100.5	223.89	10.382	
18,400.0	11,670.0	17,322.5	11,050.0	117.2	116.6	74.96	-6,536.6	-1,610.3	2,324.3	2,097.4	226.92	10.243	
18,428.0	11,670.0	17,350.5	11,050.0	117.6	117.0	74.96	-6,564.6	-1,610.1	2,324.3	2,096.6	227.77	10.205	SF

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-83.64	97.2	-872.3	877.9				
100.0	100.0	83.0	83.0	0.1	0.1	-83.64	97.2	-872.3	877.7	877.5	0.23	3,742.509	
200.0	200.0	183.0	183.0	0.5	0.4	-83.64	97.2	-872.3	877.7	876.8	0.91	962.061	
300.0	300.0	283.0	283.0	0.8	0.8	-83.64	97.2	-872.3	877.7	876.1	1.63	538.712	
400.0	400.0	383.0	383.0	1.2	1.1	-83.64	97.2	-872.3	877.7	875.4	2.35	374.094	
500.0	500.0	483.0	483.0	1.6	1.5	-83.64	97.2	-872.3	877.7	874.6	3.06	286.535	CC
600.0	600.0	583.0	583.0	1.9	1.9	-141.92	97.2	-872.3	878.4	874.6	3.78	232.618	ES
700.0	700.0	683.0	683.0	2.3	2.2	-142.01	97.2	-872.3	880.4	876.0	4.49	196.211	
800.0	799.9	782.9	782.9	2.6	2.6	-142.17	97.2	-872.3	883.9	878.7	5.20	169.968	
900.0	899.7	882.7	882.7	3.0	2.9	-142.38	97.2	-872.3	888.7	882.8	5.92	150.245	
1,000.0	999.4	982.4	982.4	3.4	3.3	-142.65	97.2	-872.3	895.0	888.3	6.63	134.950	
1,100.0	1,098.9	1,081.9	1,081.9	3.7	3.6	-142.97	97.2	-872.3	902.6	895.3	7.35	122.797	
1,200.0	1,198.3	1,181.3	1,181.3	4.1	4.0	-143.34	97.2	-872.3	911.7	903.6	8.07	112.955	
1,300.0	1,297.4	1,280.4	1,280.4	4.5	4.4	-143.76	97.2	-872.3	922.2	913.4	8.79	104.862	
1,400.0	1,396.4	1,379.4	1,379.4	4.9	4.7	-144.27	97.2	-872.3	933.5	924.0	9.52	98.066	
1,500.0	1,495.5	1,478.5	1,478.5	5.3	5.1	-144.76	97.2	-872.3	944.9	934.6	10.24	92.231	
1,600.0	1,594.5	1,567.3	1,567.3	5.7	5.4	-145.20	97.0	-872.7	956.7	945.8	10.92	87.581	
1,700.0	1,693.5	1,653.0	1,653.0	6.1	5.7	-145.65	96.4	-874.2	970.0	958.4	11.58	83.752	
1,800.0	1,792.5	1,738.2	1,738.2	6.5	6.0	-146.11	95.3	-876.9	984.6	972.4	12.23	80.495	
1,900.0	1,891.6	1,823.0	1,822.8	6.9	6.2	-146.59	93.7	-880.7	1,000.7	987.8	12.88	77.696	
2,000.0	1,990.6	1,907.3	1,907.0	7.3	6.5	-147.08	91.7	-885.7	1,018.2	1,004.7	13.52	75.295	
2,100.0	2,089.6	1,991.1	1,990.5	7.7	6.8	-147.58	89.2	-891.8	1,037.1	1,022.9	14.16	73.235	
2,200.0	2,188.6	2,074.3	2,073.4	8.1	7.1	-148.09	86.3	-898.9	1,057.4	1,042.6	14.79	71.474	
2,300.0	2,287.7	2,157.0	2,155.5	8.5	7.4	-148.60	82.9	-907.1	1,079.2	1,063.8	15.42	69.976	
2,400.0	2,386.7	2,239.0	2,236.9	8.9	7.7	-149.12	79.1	-916.3	1,102.4	1,086.3	16.04	68.710	
2,500.0	2,485.7	2,324.2	2,321.3	9.4	8.0	-149.65	74.7	-927.0	1,126.9	1,110.2	16.68	67.559	
2,600.0	2,584.8	2,420.3	2,416.5	9.8	8.4	-150.24	69.6	-939.4	1,151.9	1,134.5	17.38	66.280	
2,700.0	2,683.8	2,516.5	2,511.8	10.2	8.8	-150.80	64.6	-951.7	1,177.0	1,159.0	18.08	65.100	
2,800.0	2,782.8	2,612.6	2,607.0	10.6	9.1	-151.34	59.5	-964.1	1,202.3	1,183.5	18.78	64.008	
2,900.0	2,881.8	2,708.8	2,702.2	11.0	9.5	-151.85	54.4	-976.5	1,227.6	1,208.1	19.49	62.997	
3,000.0	2,980.9	2,804.9	2,797.4	11.4	9.9	-152.35	49.3	-988.9	1,253.0	1,232.8	20.19	62.057	
3,100.0	3,079.9	2,901.1	2,892.6	11.9	10.2	-152.83	44.2	-1,001.3	1,278.5	1,257.6	20.90	61.183	
3,200.0	3,178.9	3,002.8	2,987.8	12.3	10.6	-153.28	39.1	-1,013.6	1,304.1	1,282.4	21.62	60.311	
3,300.0	3,277.9	3,106.6	3,083.1	12.7	11.1	-153.72	34.1	-1,026.0	1,329.7	1,307.4	22.36	59.476	
3,400.0	3,377.0	3,189.5	3,178.3	13.1	11.4	-154.15	29.0	-1,038.4	1,355.4	1,332.4	23.02	58.890	
3,500.0	3,476.0	3,285.7	3,273.5	13.5	11.8	-154.56	23.9	-1,050.8	1,381.2	1,357.5	23.72	58.221	
3,600.0	3,575.0	3,381.8	3,368.7	13.9	12.2	-154.95	18.8	-1,063.1	1,407.1	1,382.7	24.43	57.591	
3,700.0	3,674.0	3,478.0	3,463.9	14.3	12.5	-155.33	13.7	-1,075.5	1,433.0	1,407.9	25.14	56.999	
3,800.0	3,773.1	3,574.1	3,559.1	14.8	12.9	-155.70	8.6	-1,087.9	1,459.0	1,433.1	25.85	56.440	
3,900.0	3,872.1	3,670.3	3,654.4	15.2	13.3	-156.05	3.5	-1,100.3	1,485.0	1,458.4	26.56	55.913	
4,000.0	3,971.1	3,766.4	3,749.6	15.6	13.7	-156.39	-1.5	-1,112.7	1,511.1	1,483.8	27.27	55.414	
4,100.0	4,070.2	3,862.6	3,844.8	16.0	14.1	-156.72	-6.6	-1,125.0	1,537.2	1,509.2	27.98	54.942	
4,200.0	4,169.2	3,958.7	3,940.0	16.4	14.5	-157.04	-11.7	-1,137.4	1,563.4	1,534.7	28.69	54.495	
4,300.0	4,268.2	4,054.9	4,035.2	16.9	14.9	-157.35	-16.8	-1,149.8	1,589.6	1,560.2	29.40	54.070	
4,400.0	4,367.2	4,151.0	4,130.4	17.3	15.3	-157.64	-21.9	-1,162.2	1,615.8	1,585.7	30.11	53.666	
4,500.0	4,466.3	4,247.2	4,225.7	17.7	15.7	-157.93	-27.0	-1,174.6	1,642.1	1,611.3	30.82	53.282	
4,600.0	4,565.3	4,343.3	4,320.9	18.1	16.1	-158.21	-32.0	-1,186.9	1,668.5	1,636.9	31.53	52.916	
4,700.0	4,664.3	4,439.5	4,416.1	18.5	16.5	-158.48	-37.1	-1,199.3	1,694.8	1,662.6	32.24	52.567	
4,800.0	4,763.3	4,535.7	4,511.3	18.9	16.9	-158.75	-42.2	-1,211.7	1,721.3	1,688.3	32.95	52.234	
4,900.0	4,862.4	4,631.8	4,606.5	19.4	17.3	-159.00	-47.3	-1,224.1	1,747.7	1,714.0	33.66	51.915	
5,000.0	4,961.4	4,732.4	4,706.1	19.8	17.7	-159.26	-52.6	-1,237.0	1,774.2	1,739.8	34.40	51.567	
5,100.0	5,060.4	4,911.6	4,884.2	20.2	18.4	-159.68	-60.3	-1,255.8	1,798.2	1,762.6	35.62	50.485	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	5,094.8	5,067.0	20.6	19.1	-160.03	-64.9	-1,267.0	1,817.7	1,780.9	36.77	49.433	
5,300.0	5,258.5	5,269.4	5,241.5	21.0	19.7	-160.31	-66.2	-1,270.2	1,832.6	1,794.8	37.80	48.480	
5,400.0	5,357.5	5,368.4	5,340.5	21.5	20.0	-160.46	-66.2	-1,270.2	1,845.7	1,807.2	38.51	47.934	
5,500.0	5,456.5	5,467.4	5,439.5	21.9	20.3	-160.60	-66.2	-1,270.2	1,858.9	1,819.7	39.21	47.407	
5,600.0	5,555.6	5,566.5	5,538.6	22.3	20.6	-160.74	-66.2	-1,270.2	1,872.0	1,832.1	39.92	46.898	
5,700.0	5,654.6	5,665.5	5,637.6	22.7	21.0	-160.88	-66.2	-1,270.2	1,885.2	1,844.5	40.62	46.406	
5,800.0	5,753.6	5,764.5	5,736.6	23.1	21.3	-161.02	-66.2	-1,270.2	1,898.3	1,857.0	41.33	45.931	
5,900.0	5,852.6	5,863.5	5,835.6	23.5	21.6	-161.15	-66.2	-1,270.2	1,911.5	1,869.5	42.04	45.472	
6,000.0	5,951.7	5,962.6	5,934.7	24.0	21.9	-161.29	-66.2	-1,270.2	1,924.7	1,882.0	42.75	45.027	
6,098.6	6,049.3	6,060.2	6,032.3	24.4	22.3	-161.42	-66.2	-1,270.2	1,937.7	1,894.3	43.44	44.602	
6,100.0	6,050.7	6,061.6	6,033.7	24.4	22.3	-161.42	-66.2	-1,270.2	1,937.9	1,894.5	43.45	44.596	
6,200.0	6,149.9	6,160.8	6,132.9	24.8	22.6	-161.59	-66.2	-1,270.2	1,949.8	1,905.7	44.16	44.152	
6,300.0	6,249.4	6,260.3	6,232.4	25.2	22.9	-161.73	-66.2	-1,270.2	1,959.3	1,914.5	44.87	43.670	
6,400.0	6,349.1	6,360.0	6,332.1	25.6	23.3	-161.83	-66.2	-1,270.2	1,966.3	1,920.8	45.57	43.152	
6,500.0	6,449.0	6,459.9	6,432.0	25.9	23.6	-161.90	-66.2	-1,270.2	1,970.9	1,924.6	46.27	42.599	
6,600.0	6,549.0	6,559.9	6,532.0	26.2	23.9	-161.93	-66.2	-1,270.2	1,972.9	1,925.9	46.96	42.014	
6,631.9	6,580.9	6,608.2	6,563.9	26.3	24.1	-103.68	-66.2	-1,270.2	1,973.0	1,925.8	47.23	41.771	
6,700.0	6,649.0	6,659.9	6,632.0	26.5	24.3	-103.68	-66.2	-1,270.2	1,973.0	1,925.4	47.64	41.414	
6,800.0	6,749.0	6,759.9	6,732.0	26.9	24.6	-103.68	-66.2	-1,270.2	1,973.0	1,924.7	48.33	40.828	
6,900.0	6,849.0	6,859.9	6,832.0	27.2	24.9	-103.68	-66.2	-1,270.2	1,973.0	1,924.0	49.01	40.258	
7,000.0	6,949.0	6,959.9	6,932.0	27.5	25.3	-103.68	-66.2	-1,270.2	1,973.0	1,923.3	49.69	39.703	
7,100.0	7,049.0	7,059.9	7,032.0	27.8	25.6	-103.68	-66.2	-1,270.2	1,973.0	1,922.6	50.38	39.162	
7,200.0	7,149.0	7,159.9	7,132.0	28.1	25.9	-103.68	-66.2	-1,270.2	1,973.0	1,922.0	51.07	38.636	
7,300.0	7,249.0	7,259.9	7,232.0	28.4	26.3	-103.68	-66.2	-1,270.2	1,973.0	1,921.3	51.76	38.122	
7,400.0	7,349.0	7,359.9	7,332.0	28.8	26.6	-103.68	-66.2	-1,270.2	1,973.0	1,920.6	52.44	37.622	
7,500.0	7,449.0	7,459.9	7,432.0	29.1	27.0	-103.68	-66.2	-1,270.2	1,973.0	1,919.9	53.13	37.134	
7,600.0	7,549.0	7,559.9	7,532.0	29.4	27.3	-103.68	-66.2	-1,270.2	1,973.0	1,919.2	53.82	36.658	
7,700.0	7,649.0	7,659.9	7,632.0	29.7	27.6	-103.68	-66.2	-1,270.2	1,973.0	1,918.5	54.51	36.193	
7,800.0	7,749.0	7,759.9	7,732.0	30.1	28.0	-103.68	-66.2	-1,270.2	1,973.0	1,917.8	55.20	35.740	
7,900.0	7,849.0	7,859.9	7,832.0	30.4	28.3	-103.68	-66.2	-1,270.2	1,973.0	1,917.1	55.90	35.298	
8,000.0	7,949.0	7,959.9	7,932.0	30.7	28.7	-103.68	-66.2	-1,270.2	1,973.0	1,916.4	56.59	34.866	
8,100.0	8,049.0	8,059.9	8,032.0	31.0	29.0	-103.68	-66.2	-1,270.2	1,973.0	1,915.7	57.28	34.444	
8,200.0	8,149.0	8,159.9	8,132.0	31.4	29.4	-103.68	-66.2	-1,270.2	1,973.0	1,915.0	57.98	34.031	
8,300.0	8,249.0	8,259.9	8,232.0	31.7	29.7	-103.68	-66.2	-1,270.2	1,973.0	1,914.3	58.67	33.629	
8,400.0	8,349.0	8,359.9	8,332.0	32.0	30.0	-103.68	-66.2	-1,270.2	1,973.0	1,913.7	59.37	33.235	
8,500.0	8,449.0	8,459.9	8,432.0	32.3	30.4	-103.68	-66.2	-1,270.2	1,973.0	1,913.0	60.06	32.850	
8,600.0	8,549.0	8,559.9	8,532.0	32.7	30.7	-103.68	-66.2	-1,270.2	1,973.0	1,912.3	60.76	32.474	
8,700.0	8,649.0	8,659.9	8,632.0	33.0	31.1	-103.68	-66.2	-1,270.2	1,973.0	1,911.6	61.45	32.106	
8,800.0	8,749.0	8,759.9	8,732.0	33.3	31.4	-103.68	-66.2	-1,270.2	1,973.0	1,910.9	62.15	31.746	
8,900.0	8,849.0	8,859.9	8,832.0	33.7	31.8	-103.68	-66.2	-1,270.2	1,973.0	1,910.2	62.85	31.394	
9,000.0	8,949.0	8,959.9	8,932.0	34.0	32.1	-103.68	-66.2	-1,270.2	1,973.0	1,909.5	63.54	31.049	
9,100.0	9,049.0	9,059.9	9,032.0	34.3	32.5	-103.68	-66.2	-1,270.2	1,973.0	1,908.8	64.24	30.712	
9,200.0	9,149.0	9,159.9	9,132.0	34.6	32.8	-103.68	-66.2	-1,270.2	1,973.0	1,908.1	64.94	30.382	
9,300.0	9,249.0	9,259.9	9,232.0	35.0	33.1	-103.68	-66.2	-1,270.2	1,973.0	1,907.4	65.64	30.058	
9,400.0	9,349.0	9,359.9	9,332.0	35.3	33.5	-103.68	-66.2	-1,270.2	1,973.0	1,906.7	66.34	29.741	
9,500.0	9,449.0	9,459.9	9,432.0	35.6	33.8	-103.68	-66.2	-1,270.2	1,973.0	1,906.0	67.04	29.431	
9,600.0	9,549.0	9,559.9	9,532.0	36.0	34.2	-103.68	-66.2	-1,270.2	1,973.0	1,905.3	67.74	29.127	
9,700.0	9,649.0	9,659.9	9,632.0	36.3	34.5	-103.68	-66.2	-1,270.2	1,973.0	1,904.6	68.44	28.829	
9,800.0	9,749.0	9,759.9	9,732.0	36.7	34.9	-103.68	-66.2	-1,270.2	1,973.0	1,903.9	69.14	28.536	
9,900.0	9,849.0	9,859.9	9,832.0	37.0	35.2	-103.68	-66.2	-1,270.2	1,973.0	1,903.2	69.84	28.250	
10,000.0	9,949.0	9,959.9	9,932.0	37.3	35.6	-103.68	-66.2	-1,270.2	1,973.0	1,902.5	70.54	27.969	
10,100.0	10,049.0	10,059.9	10,032.0	37.7	35.9	-103.68	-66.2	-1,270.2	1,973.0	1,901.8	71.24	27.694	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	10,159.9	10,132.0	38.0	36.3	-103.68	-66.2	-1,270.2	1,973.0	1,901.1	71.95	27.423	
10,300.0	10,249.0	10,259.9	10,232.0	38.3	36.6	-103.68	-66.2	-1,270.2	1,973.0	1,900.4	72.65	27.158	
10,400.0	10,349.0	10,359.9	10,332.0	38.7	37.0	-103.68	-66.2	-1,270.2	1,973.0	1,899.7	73.35	26.898	
10,500.0	10,449.0	10,459.9	10,432.0	39.0	37.3	-103.68	-66.2	-1,270.2	1,973.0	1,899.0	74.05	26.643	
10,600.0	10,549.0	10,559.9	10,532.0	39.3	37.7	-103.68	-66.2	-1,270.2	1,973.0	1,898.3	74.76	26.392	
10,700.0	10,649.0	10,659.9	10,632.0	39.7	38.0	-103.68	-66.2	-1,270.2	1,973.0	1,897.6	75.46	26.146	
10,800.0	10,749.0	10,759.9	10,732.0	40.0	38.4	-103.68	-66.2	-1,270.2	1,973.0	1,896.9	76.16	25.905	
10,900.0	10,849.0	10,859.9	10,832.0	40.4	38.7	-103.68	-66.2	-1,270.2	1,973.0	1,896.2	76.87	25.668	
11,000.0	10,949.0	10,959.9	10,932.0	40.7	39.1	-103.68	-66.2	-1,270.2	1,973.0	1,895.4	77.57	25.435	
11,008.7	10,957.7	10,968.6	10,940.7	40.7	39.1	-103.68	-66.2	-1,270.2	1,973.0	1,895.4	77.63	25.414	
11,100.0	11,049.0	11,044.4	11,016.5	41.0	39.4	-103.69	-66.6	-1,270.2	1,973.2	1,894.9	78.21	25.229	
11,148.0	11,097.0	11,071.1	11,043.1	41.2	39.4	-103.73	-68.1	-1,270.1	1,973.8	1,895.3	78.45	25.161	
11,148.1	11,097.0	11,071.1	11,043.2	41.2	39.4	-103.73	-68.1	-1,270.1	1,973.8	1,895.3	78.45	25.161	
11,150.0	11,099.0	11,072.2	11,044.2	41.2	39.4	72.11	-68.2	-1,270.1	1,973.8	1,895.4	78.46	25.158	
11,200.0	11,148.9	11,100.0	11,071.9	41.4	39.5	72.02	-71.1	-1,270.1	1,974.3	1,895.7	78.68	25.094	
11,250.0	11,198.4	11,127.5	11,099.1	41.5	39.6	72.02	-75.4	-1,270.1	1,974.1	1,895.2	78.88	25.026	
11,300.0	11,247.2	11,150.0	11,121.1	41.6	39.7	72.13	-79.8	-1,270.1	1,973.0	1,894.0	79.04	24.962	
11,350.0	11,294.8	11,182.9	11,153.0	41.7	39.8	72.35	-87.9	-1,270.0	1,971.2	1,892.0	79.25	24.874	
11,400.0	11,340.9	11,210.6	11,179.5	41.8	39.9	72.66	-96.1	-1,270.0	1,968.6	1,889.2	79.41	24.790	
11,450.0	11,385.2	11,238.3	11,205.5	41.9	40.0	73.08	-105.5	-1,269.9	1,965.3	1,885.8	79.57	24.700	
11,500.0	11,427.3	11,266.1	11,231.1	42.0	40.1	73.59	-116.2	-1,269.8	1,961.3	1,881.6	79.72	24.604	
11,550.0	11,466.8	11,300.0	11,261.6	42.1	40.2	74.23	-131.0	-1,269.8	1,956.7	1,876.8	79.90	24.489	
11,600.0	11,503.5	11,321.7	11,280.7	42.1	40.3	74.90	-141.4	-1,269.7	1,951.4	1,871.4	80.00	24.391	
11,650.0	11,537.2	11,350.0	11,304.9	42.1	40.4	75.69	-156.0	-1,269.6	1,945.6	1,865.4	80.16	24.273	
11,700.0	11,567.5	11,377.7	11,327.9	42.2	40.5	76.55	-171.4	-1,269.5	1,939.3	1,859.0	80.31	24.148	
11,750.0	11,594.2	11,400.0	11,345.9	42.2	40.5	77.44	-184.7	-1,269.4	1,932.6	1,852.1	80.44	24.026	
11,800.0	11,617.1	11,434.0	11,372.2	42.2	40.6	78.52	-206.2	-1,269.3	1,925.5	1,844.9	80.66	23.872	
11,850.0	11,636.1	11,462.4	11,393.2	42.2	40.7	79.59	-225.3	-1,269.2	1,918.2	1,837.3	80.86	23.724	
11,900.0	11,651.0	11,490.9	11,413.3	42.1	40.8	80.73	-245.5	-1,269.0	1,910.7	1,829.6	81.07	23.568	
11,950.0	11,661.6	11,519.7	11,432.5	42.1	40.9	81.90	-266.9	-1,268.9	1,903.1	1,821.8	81.30	23.408	
12,000.0	11,668.0	11,550.0	11,451.6	42.1	41.0	83.13	-290.5	-1,268.8	1,895.6	1,814.1	81.56	23.241	
12,048.1	11,670.0	11,576.7	11,467.3	42.1	41.1	84.30	-312.0	-1,268.6	1,888.5	1,806.7	81.81	23.084	
12,100.0	11,670.0	11,608.3	11,484.7	42.2	41.2	84.83	-338.4	-1,268.5	1,881.7	1,799.6	82.10	22.919	
12,200.0	11,670.0	11,675.8	11,516.7	42.3	41.5	85.82	-397.9	-1,268.1	1,873.0	1,790.3	82.73	22.640	
12,272.6	11,670.0	11,730.1	11,537.2	42.5	41.7	86.45	-448.1	-1,267.8	1,870.1	1,786.9	83.23	22.469	
12,300.0	11,670.0	11,751.7	11,544.0	42.6	41.8	86.66	-468.6	-1,267.6	1,869.5	1,786.1	83.43	22.409	
12,400.0	11,670.0	11,834.3	11,562.8	43.0	42.1	87.23	-548.9	-1,267.1	1,868.2	1,784.0	84.19	22.191	
12,500.0	11,670.0	11,929.6	11,570.0	43.4	42.6	87.45	-634.5	-1,266.6	1,867.8	1,782.8	85.05	21.962	
12,600.0	11,670.0	12,020.3	11,570.0	43.9	43.0	87.45	-734.5	-1,266.0	1,867.8	1,781.8	85.96	21.729	
12,700.0	11,670.0	12,120.3	11,570.0	44.4	43.5	87.45	-834.5	-1,265.4	1,867.8	1,780.7	87.03	21.462	
12,800.0	11,670.0	12,220.3	11,570.0	45.0	44.1	87.45	-934.5	-1,264.7	1,867.7	1,779.5	88.20	21.175	
12,900.0	11,670.0	12,320.3	11,570.0	45.7	44.8	87.45	-1,034.5	-1,264.1	1,867.7	1,778.2	89.49	20.871	
13,000.0	11,670.0	12,420.3	11,570.0	46.4	45.5	87.45	-1,134.5	-1,263.5	1,867.7	1,776.8	90.88	20.551	
13,100.0	11,670.0	12,520.3	11,570.0	47.1	46.2	87.45	-1,234.5	-1,262.8	1,867.6	1,775.3	92.36	20.220	
13,200.0	11,670.0	12,620.3	11,570.0	47.9	47.0	87.45	-1,334.5	-1,262.2	1,867.6	1,773.7	93.94	19.880	
13,300.0	11,670.0	12,720.3	11,570.0	48.7	47.8	87.45	-1,434.5	-1,261.6	1,867.6	1,772.0	95.61	19.533	
13,400.0	11,670.0	12,820.3	11,570.0	49.6	48.7	87.45	-1,534.5	-1,261.0	1,867.5	1,770.2	97.36	19.181	
13,500.0	11,670.0	12,920.3	11,570.0	50.5	49.6	87.45	-1,634.5	-1,260.3	1,867.5	1,768.3	99.20	18.826	
13,600.0	11,670.0	13,020.3	11,570.0	51.5	50.6	87.45	-1,734.5	-1,259.7	1,867.5	1,766.4	101.11	18.471	
13,700.0	11,670.0	13,120.3	11,570.0	52.4	51.6	87.45	-1,834.5	-1,259.1	1,867.4	1,764.4	103.08	18.116	
13,800.0	11,670.0	13,220.3	11,570.0	53.4	52.6	87.45	-1,934.5	-1,258.5	1,867.4	1,762.3	105.13	17.763	
13,900.0	11,670.0	13,320.3	11,570.0	54.5	53.6	87.45	-2,034.5	-1,257.8	1,867.4	1,760.1	107.24	17.413	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Bull Fed Com #602H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	13,420.3	11,570.0	55.6	54.7	87.45	-2,134.5	-1,257.2	1,867.4	1,757.9	109.41	17.067	
14,100.0	11,670.0	13,520.3	11,570.0	56.7	55.8	87.45	-2,234.5	-1,256.6	1,867.3	1,755.7	111.64	16.727	
14,200.0	11,670.0	13,620.3	11,570.0	57.8	57.0	87.45	-2,334.5	-1,256.0	1,867.3	1,753.4	113.91	16.392	
14,300.0	11,670.0	13,720.3	11,570.0	59.0	58.1	87.45	-2,434.5	-1,255.3	1,867.3	1,751.0	116.24	16.063	
14,400.0	11,670.0	13,820.3	11,570.0	60.1	59.3	87.45	-2,534.5	-1,254.7	1,867.2	1,748.6	118.62	15.741	
14,500.0	11,670.0	13,920.3	11,570.0	61.3	60.5	87.45	-2,634.5	-1,254.1	1,867.2	1,746.2	121.04	15.427	
14,600.0	11,670.0	14,020.3	11,570.0	62.5	61.8	87.45	-2,734.5	-1,253.5	1,867.2	1,743.7	123.50	15.119	
14,700.0	11,670.0	14,120.3	11,570.0	63.8	63.0	87.45	-2,834.5	-1,252.8	1,867.1	1,741.1	126.00	14.819	
14,800.0	11,670.0	14,220.3	11,570.0	65.0	64.3	87.45	-2,934.5	-1,252.2	1,867.1	1,738.6	128.54	14.526	
14,900.0	11,670.0	14,320.3	11,570.0	66.3	65.6	87.45	-3,034.5	-1,251.6	1,867.1	1,736.0	131.11	14.241	
15,000.0	11,670.0	14,420.3	11,570.0	67.6	66.9	87.45	-3,134.5	-1,251.0	1,867.0	1,733.3	133.71	13.963	
15,100.0	11,670.0	14,520.3	11,570.0	68.9	68.2	87.45	-3,234.5	-1,250.3	1,867.0	1,730.7	136.35	13.693	
15,200.0	11,670.0	14,620.3	11,570.0	70.2	69.5	87.45	-3,334.5	-1,249.7	1,867.0	1,728.0	139.01	13.430	
15,300.0	11,670.0	14,720.3	11,570.0	71.6	70.9	87.45	-3,434.5	-1,249.1	1,866.9	1,725.2	141.70	13.175	
15,400.0	11,670.0	14,820.3	11,570.0	72.9	72.2	87.45	-3,534.5	-1,248.5	1,866.9	1,722.5	144.42	12.927	
15,500.0	11,670.0	14,920.3	11,570.0	74.3	73.6	87.45	-3,634.5	-1,247.8	1,866.9	1,719.7	147.16	12.686	
15,600.0	11,670.0	15,020.3	11,570.0	75.7	75.0	87.45	-3,734.5	-1,247.2	1,866.9	1,716.9	149.93	12.452	
15,700.0	11,670.0	15,120.3	11,570.0	77.1	76.4	87.45	-3,834.5	-1,246.6	1,866.8	1,714.1	152.71	12.224	
15,800.0	11,670.0	15,220.3	11,570.0	78.5	77.8	87.45	-3,934.5	-1,245.9	1,866.8	1,711.3	155.52	12.003	
15,900.0	11,670.0	15,320.3	11,570.0	79.9	79.2	87.45	-4,034.5	-1,245.3	1,866.8	1,708.4	158.35	11.789	
16,000.0	11,670.0	15,420.3	11,570.0	81.3	80.6	87.45	-4,134.5	-1,244.7	1,866.7	1,705.5	161.20	11.581	
16,100.0	11,670.0	15,520.3	11,570.0	82.7	82.1	87.45	-4,234.5	-1,244.1	1,866.7	1,702.6	164.06	11.378	
16,200.0	11,670.0	15,620.3	11,570.0	84.1	83.5	87.45	-4,334.5	-1,243.4	1,866.7	1,699.7	166.94	11.182	
16,300.0	11,670.0	15,720.3	11,570.0	85.6	85.0	87.45	-4,434.5	-1,242.8	1,866.6	1,696.8	169.83	10.991	
16,400.0	11,670.0	15,820.3	11,570.0	87.0	86.4	87.45	-4,534.5	-1,242.2	1,866.6	1,693.9	172.75	10.806	
16,500.0	11,670.0	15,920.3	11,570.0	88.5	87.9	87.45	-4,634.5	-1,241.6	1,866.6	1,690.9	175.67	10.625	
16,600.0	11,670.0	16,020.3	11,570.0	89.9	89.4	87.45	-4,734.5	-1,240.9	1,866.5	1,687.9	178.61	10.450	
16,700.0	11,670.0	16,120.3	11,570.0	91.4	90.8	87.45	-4,834.5	-1,240.3	1,866.5	1,685.0	181.56	10.280	
16,800.0	11,670.0	16,220.3	11,570.0	92.9	92.3	87.45	-4,934.5	-1,239.7	1,866.5	1,682.0	184.52	10.115	
16,900.0	11,670.0	16,320.3	11,570.0	94.4	93.8	87.45	-5,034.5	-1,239.1	1,866.5	1,679.0	187.50	9.954	
17,000.0	11,670.0	16,420.3	11,570.0	95.9	95.3	87.45	-5,134.4	-1,238.4	1,866.4	1,675.9	190.49	9.798	
17,100.0	11,670.0	16,520.3	11,570.0	97.3	96.8	87.45	-5,234.4	-1,237.8	1,866.4	1,672.9	193.48	9.646	
17,200.0	11,670.0	16,620.3	11,570.0	98.8	98.3	87.45	-5,334.4	-1,237.2	1,866.4	1,669.9	196.49	9.498	
17,300.0	11,670.0	16,720.3	11,570.0	100.3	99.8	87.45	-5,434.4	-1,236.6	1,866.3	1,666.8	199.51	9.355	
17,400.0	11,670.0	16,820.3	11,570.0	101.9	101.3	87.45	-5,534.4	-1,235.9	1,866.3	1,663.8	202.54	9.215	
17,500.0	11,670.0	16,920.3	11,570.0	103.4	102.8	87.45	-5,634.4	-1,235.3	1,866.3	1,660.7	205.57	9.078	
17,600.0	11,670.0	17,020.3	11,570.0	104.9	104.4	87.45	-5,734.4	-1,234.7	1,866.2	1,657.6	208.62	8.946	
17,700.0	11,670.0	17,120.3	11,570.0	106.4	105.9	87.45	-5,834.4	-1,234.1	1,866.2	1,654.5	211.67	8.817	
17,800.0	11,670.0	17,220.3	11,570.0	107.9	107.4	87.45	-5,934.4	-1,233.4	1,866.2	1,651.4	214.73	8.691	
17,900.0	11,670.0	17,320.3	11,570.0	109.5	109.0	87.45	-6,034.4	-1,232.8	1,866.1	1,648.3	217.79	8.568	
18,000.0	11,670.0	17,420.3	11,570.0	111.0	110.5	87.45	-6,134.4	-1,232.2	1,866.1	1,645.2	220.87	8.449	
18,100.0	11,670.0	17,520.3	11,570.0	112.5	112.0	87.45	-6,234.4	-1,231.6	1,866.1	1,642.1	223.95	8.333	
18,200.0	11,670.0	17,620.3	11,570.0	114.1	113.6	87.45	-6,334.4	-1,230.9	1,866.0	1,639.0	227.04	8.219	
18,300.0	11,670.0	17,720.3	11,570.0	115.6	115.1	87.45	-6,434.4	-1,230.3	1,866.0	1,635.9	230.13	8.108	
18,389.7	11,670.0	17,810.0	11,570.0	117.0	116.5	87.45	-6,524.1	-1,229.7	1,866.0	1,633.1	232.91	8.012	
18,400.0	11,670.0	17,807.4	11,570.0	117.2	116.5	87.45	-6,521.6	-1,229.8	1,866.1	1,633.1	233.02	8.008	
18,428.0	11,670.0	17,835.4	11,570.0	117.6	116.9	87.45	-6,549.6	-1,229.8	1,866.3	1,632.4	233.89	7.979 SF	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #304H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.38	-0.2	-29.9	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	-90.38	-0.2	-29.9	29.9	29.7	0.26	116.687	
200.0	200.0	200.0	200.0	0.5	0.5	-90.38	-0.2	-29.9	29.9	28.9	0.97	30.730	
300.0	300.0	300.0	300.0	0.8	0.8	-90.38	-0.2	-29.9	29.9	28.2	1.69	17.695	
400.0	400.0	400.0	400.0	1.2	1.2	-90.38	-0.2	-29.9	29.9	27.5	2.41	12.425	
500.0	500.0	500.0	500.0	1.6	1.6	-90.38	-0.2	-29.9	29.9	26.8	3.12	9.573	CC, ES
600.0	600.0	600.0	600.0	1.9	1.9	-149.47	-0.2	-29.9	30.7	26.8	3.84	7.989	
700.0	700.0	700.0	700.0	2.3	2.3	-151.78	-0.2	-29.9	32.9	28.4	4.55	7.241	
800.0	799.9	800.1	799.9	2.6	2.6	-154.97	-0.2	-29.9	36.8	31.6	5.26	7.001	
900.0	899.7	900.3	899.7	3.0	3.0	-158.44	-0.2	-29.9	42.5	36.5	5.98	7.101	
1,000.0	999.4	1,000.6	999.4	3.4	3.4	-161.73	-0.2	-29.9	49.8	43.1	6.70	7.443	
1,100.0	1,098.9	1,101.1	1,098.9	3.7	3.7	-164.62	-0.2	-29.9	59.0	51.6	7.41	7.959	
1,200.0	1,198.3	1,201.7	1,198.3	4.1	4.1	-167.05	-0.2	-29.9	70.0	61.9	8.14	8.604	
1,300.0	1,297.4	1,302.6	1,297.4	4.5	4.4	-169.05	-0.2	-29.9	82.8	73.9	8.86	9.344	
1,400.0	1,396.4	1,403.6	1,396.4	4.9	4.8	-170.62	-0.2	-29.9	96.5	86.9	9.58	10.070	
1,500.0	1,495.5	1,495.5	1,495.5	5.3	5.1	-171.80	-0.2	-29.9	110.2	100.0	10.27	10.733	
1,600.0	1,594.5	1,594.7	1,594.7	5.7	5.5	-172.36	0.5	-30.2	124.0	113.0	10.99	11.281	
1,700.0	1,693.5	1,694.0	1,693.9	6.1	5.8	-172.08	2.9	-31.0	137.5	125.8	11.71	11.747	
1,800.0	1,792.5	1,793.3	1,793.1	6.5	6.2	-171.20	6.9	-32.3	150.9	138.5	12.43	12.146	
1,900.0	1,891.6	1,892.5	1,892.2	6.9	6.6	-169.86	12.5	-34.2	164.3	151.1	13.15	12.495	
2,000.0	1,990.6	1,991.6	1,991.0	7.3	6.9	-168.17	19.8	-36.6	177.6	163.8	13.87	12.807	
2,100.0	2,089.6	2,090.5	2,089.4	7.7	7.3	-166.20	28.6	-39.6	191.2	176.6	14.60	13.095	
2,200.0	2,188.6	2,189.1	2,187.5	8.1	7.6	-164.01	39.0	-43.1	204.9	189.6	15.33	13.369	
2,300.0	2,287.7	2,287.5	2,285.0	8.5	8.0	-161.67	51.0	-47.2	219.1	203.0	16.07	13.638	
2,400.0	2,386.7	2,386.0	2,382.5	8.9	8.4	-159.35	64.0	-51.6	233.7	216.9	16.81	13.904	
2,500.0	2,485.7	2,484.5	2,480.1	9.4	8.7	-157.30	77.0	-55.9	248.7	231.2	17.56	14.163	
2,600.0	2,584.8	2,583.0	2,577.6	9.8	9.1	-155.48	89.9	-60.3	264.0	245.6	18.32	14.412	
2,700.0	2,683.8	2,681.5	2,675.2	10.2	9.5	-153.87	102.9	-64.7	279.4	260.4	19.07	14.650	
2,800.0	2,782.8	2,780.0	2,772.7	10.6	9.9	-152.42	115.9	-69.1	295.1	275.3	19.84	14.878	
2,900.0	2,881.8	2,878.5	2,870.2	11.0	10.3	-151.12	128.9	-73.5	311.0	290.4	20.60	15.095	
3,000.0	2,980.9	2,977.0	2,967.8	11.4	10.6	-149.94	141.9	-77.9	326.9	305.6	21.37	15.301	
3,100.0	3,079.9	3,075.5	3,065.3	11.9	11.0	-148.87	154.9	-82.2	343.0	320.9	22.14	15.497	
3,200.0	3,178.9	3,174.0	3,162.9	12.3	11.4	-147.90	167.9	-86.6	359.2	336.3	22.91	15.684	
3,300.0	3,277.9	3,272.5	3,260.4	12.7	11.8	-147.02	180.9	-91.0	375.5	351.9	23.68	15.861	
3,400.0	3,377.0	3,371.0	3,358.0	13.1	12.2	-146.20	193.9	-95.4	391.9	367.5	24.45	16.029	
3,500.0	3,476.0	3,469.5	3,455.5	13.5	12.6	-145.46	206.9	-99.8	408.4	383.2	25.23	16.189	
3,600.0	3,575.0	3,568.0	3,553.0	13.9	13.0	-144.77	219.8	-104.1	424.9	398.9	26.00	16.341	
3,700.0	3,674.0	3,666.5	3,650.6	14.3	13.4	-144.13	232.8	-108.5	441.5	414.7	26.78	16.486	
3,800.0	3,773.1	3,765.0	3,748.1	14.8	13.8	-143.54	245.8	-112.9	458.1	430.5	27.56	16.624	
3,900.0	3,872.1	3,863.5	3,845.7	15.2	14.2	-142.99	258.8	-117.3	474.8	446.4	28.33	16.755	
4,000.0	3,971.1	3,962.0	3,943.2	15.6	14.6	-142.47	271.8	-121.7	491.5	462.3	29.11	16.881	
4,100.0	4,070.2	4,060.5	4,040.8	16.0	15.0	-141.99	284.8	-126.1	508.2	478.3	29.89	17.001	
4,200.0	4,169.2	4,159.0	4,138.3	16.4	15.4	-141.54	297.8	-130.4	525.0	494.3	30.67	17.115	
4,300.0	4,268.2	4,257.5	4,235.8	16.9	15.8	-141.12	310.8	-134.8	541.8	510.3	31.45	17.224	
4,400.0	4,367.2	4,356.0	4,333.4	17.3	16.2	-140.73	323.8	-139.2	558.6	526.4	32.24	17.329	
4,500.0	4,466.3	4,454.5	4,430.9	17.7	16.6	-140.35	336.7	-143.6	575.5	542.4	33.02	17.429	
4,600.0	4,565.3	4,553.0	4,528.5	18.1	17.0	-140.00	349.7	-148.0	592.3	558.5	33.80	17.525	
4,700.0	4,664.3	4,653.5	4,628.0	18.5	17.4	-139.67	362.9	-152.4	609.2	574.6	34.60	17.608	
4,800.0	4,763.3	4,760.0	4,733.8	18.9	17.8	-139.52	374.8	-156.4	625.2	589.7	35.44	17.642	
4,900.0	4,862.4	4,866.9	4,840.3	19.4	18.2	-139.61	384.0	-159.5	639.9	603.6	36.25	17.649	
5,000.0	4,961.4	4,974.1	4,947.2	19.8	18.6	-139.94	390.3	-161.7	653.3	616.3	37.05	17.632	
5,100.0	5,060.4	5,081.4	5,054.5	20.2	19.0	-140.49	393.8	-162.8	665.6	627.8	37.83	17.594	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #304H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	5,186.4	5,159.4	20.6	19.4	-141.22	394.5	-163.1	676.7	638.2	38.57	17.545	
5,300.0	5,258.5	5,285.4	5,258.5	21.0	19.7	-141.95	394.5	-163.1	687.7	648.4	39.28	17.507	
5,400.0	5,357.5	5,384.5	5,357.5	21.5	20.0	-142.65	394.5	-163.1	698.7	658.8	39.99	17.474	
5,500.0	5,456.5	5,483.5	5,456.5	21.9	20.4	-143.33	394.5	-163.1	709.9	669.2	40.69	17.445	
5,600.0	5,555.6	5,582.5	5,555.6	22.3	20.7	-143.98	394.5	-163.1	721.1	679.7	41.40	17.419	
5,700.0	5,654.6	5,681.5	5,654.6	22.7	21.0	-144.62	394.5	-163.1	732.5	690.4	42.11	17.396	
5,800.0	5,753.6	5,780.6	5,753.6	23.1	21.4	-145.24	394.5	-163.1	743.9	701.1	42.81	17.376	
5,900.0	5,852.6	5,879.6	5,852.6	23.5	21.7	-145.84	394.5	-163.1	755.4	711.9	43.52	17.359	
6,000.0	5,951.7	5,978.6	5,951.7	24.0	22.1	-146.42	394.5	-163.1	767.0	722.8	44.22	17.344	
6,098.6	6,049.3	6,076.2	6,049.3	24.4	22.4	-146.98	394.5	-163.1	778.5	733.6	44.92	17.331	
6,100.0	6,050.7	6,077.7	6,050.7	24.4	22.4	-146.99	394.5	-163.1	778.7	733.7	44.93	17.331	
6,200.0	6,149.9	6,176.9	6,149.9	24.8	22.7	-147.57	394.5	-163.1	789.3	743.7	45.63	17.296	
6,300.0	6,249.4	6,276.4	6,249.4	25.2	23.1	-148.02	394.5	-163.1	797.7	751.4	46.33	17.217	
6,400.0	6,349.1	6,376.1	6,349.1	25.6	23.4	-148.35	394.5	-163.1	804.0	757.0	47.03	17.096	
6,500.0	6,449.0	6,476.0	6,449.0	25.9	23.8	-148.56	394.5	-163.1	808.1	760.4	47.72	16.933	
6,600.0	6,549.0	6,575.9	6,549.0	26.2	24.1	-148.65	394.5	-163.1	809.9	761.5	48.41	16.731	
6,631.9	6,580.9	6,607.8	6,580.9	26.3	24.2	-90.41	394.5	-163.1	810.0	761.4	48.62	16.659	
6,700.0	6,649.0	6,675.9	6,649.0	26.5	24.4	-90.41	394.5	-163.1	810.0	760.9	49.09	16.502	
6,800.0	6,749.0	6,775.9	6,749.0	26.9	24.8	-90.41	394.5	-163.1	810.0	760.3	49.76	16.278	
6,900.0	6,849.0	6,875.9	6,849.0	27.2	25.1	-90.41	394.5	-163.1	810.0	759.6	50.44	16.059	
7,000.0	6,949.0	6,975.9	6,949.0	27.5	25.5	-90.41	394.5	-163.1	810.0	758.9	51.12	15.845	
7,100.0	7,049.0	7,075.9	7,049.0	27.8	25.8	-90.41	394.5	-163.1	810.0	758.2	51.80	15.637	
7,200.0	7,149.0	7,175.9	7,149.0	28.1	26.2	-90.41	394.5	-163.1	810.0	757.5	52.48	15.434	
7,300.0	7,249.0	7,275.9	7,249.0	28.4	26.5	-90.41	394.5	-163.1	810.0	756.9	53.16	15.236	
7,400.0	7,349.0	7,375.9	7,349.0	28.8	26.9	-90.41	394.5	-163.1	810.0	756.2	53.85	15.043	
7,500.0	7,449.0	7,475.9	7,449.0	29.1	27.2	-90.41	394.5	-163.1	810.0	755.5	54.53	14.854	
7,600.0	7,549.0	7,575.9	7,549.0	29.4	27.6	-90.41	394.5	-163.1	810.0	754.8	55.22	14.670	
7,700.0	7,649.0	7,675.9	7,649.0	29.7	27.9	-90.41	394.5	-163.1	810.0	754.1	55.90	14.490	
7,800.0	7,749.0	7,775.9	7,749.0	30.1	28.2	-90.41	394.5	-163.1	810.0	753.4	56.59	14.314	
7,900.0	7,849.0	7,875.9	7,849.0	30.4	28.6	-90.41	394.5	-163.1	810.0	752.7	57.27	14.143	
8,000.0	7,949.0	7,975.9	7,949.0	30.7	28.9	-90.41	394.5	-163.1	810.0	752.1	57.96	13.975	
8,100.0	8,049.0	8,075.9	8,049.0	31.0	29.3	-90.41	394.5	-163.1	810.0	751.4	58.65	13.811	
8,200.0	8,149.0	8,175.9	8,149.0	31.4	29.6	-90.41	394.5	-163.1	810.0	750.7	59.34	13.650	
8,300.0	8,249.0	8,275.9	8,249.0	31.7	30.0	-90.41	394.5	-163.1	810.0	750.0	60.03	13.494	
8,400.0	8,349.0	8,375.9	8,349.0	32.0	30.3	-90.41	394.5	-163.1	810.0	749.3	60.72	13.340	
8,500.0	8,449.0	8,475.9	8,449.0	32.3	30.7	-90.41	394.5	-163.1	810.0	748.6	61.41	13.190	
8,600.0	8,549.0	8,575.9	8,549.0	32.7	31.0	-90.41	394.5	-163.1	810.0	747.9	62.10	13.043	
8,700.0	8,649.0	8,675.9	8,649.0	33.0	31.4	-90.41	394.5	-163.1	810.0	747.2	62.80	12.899	
8,800.0	8,749.0	8,775.9	8,749.0	33.3	31.7	-90.41	394.5	-163.1	810.0	746.5	63.49	12.759	
8,900.0	8,849.0	8,875.9	8,849.0	33.7	32.1	-90.41	394.5	-163.1	810.0	745.8	64.18	12.621	
9,000.0	8,949.0	8,975.9	8,949.0	34.0	32.4	-90.41	394.5	-163.1	810.0	745.1	64.88	12.486	
9,100.0	9,049.0	9,075.9	9,049.0	34.3	32.8	-90.41	394.5	-163.1	810.0	744.4	65.57	12.354	
9,200.0	9,149.0	9,175.9	9,149.0	34.6	33.1	-90.41	394.5	-163.1	810.0	743.8	66.26	12.224	
9,300.0	9,249.0	9,275.9	9,249.0	35.0	33.5	-90.41	394.5	-163.1	810.0	743.1	66.96	12.097	
9,400.0	9,349.0	9,375.9	9,349.0	35.3	33.8	-90.41	394.5	-163.1	810.0	742.4	67.66	11.973	
9,500.0	9,449.0	9,475.9	9,449.0	35.6	34.2	-90.41	394.5	-163.1	810.0	741.7	68.35	11.851	
9,600.0	9,549.0	9,575.9	9,549.0	36.0	34.5	-90.41	394.5	-163.1	810.0	741.0	69.05	11.731	
9,700.0	9,649.0	9,675.9	9,649.0	36.3	34.9	-90.41	394.5	-163.1	810.0	740.3	69.75	11.614	
9,800.0	9,749.0	9,775.9	9,749.0	36.7	35.3	-90.41	394.5	-163.1	810.0	739.6	70.44	11.499	
9,900.0	9,849.0	9,875.9	9,849.0	37.0	35.6	-90.41	394.5	-163.1	810.0	738.9	71.14	11.386	
10,000.0	9,949.0	9,975.9	9,949.0	37.3	36.0	-90.41	394.5	-163.1	810.0	738.2	71.84	11.276	
10,100.0	10,049.0	10,075.9	10,049.0	37.7	36.3	-90.41	394.5	-163.1	810.0	737.5	72.54	11.167	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #304H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	10,175.9	10,149.0	38.0	36.7	-90.41	394.5	-163.1	810.0	736.8	73.24	11.060	
10,300.0	10,249.0	10,275.9	10,249.0	38.3	37.0	-90.41	394.5	-163.1	810.0	736.1	73.94	10.956	
10,400.0	10,349.0	10,375.9	10,349.0	38.7	37.4	-90.41	394.5	-163.1	810.0	735.4	74.63	10.853	
10,500.0	10,449.0	10,475.9	10,449.0	39.0	37.7	-90.41	394.5	-163.1	810.0	734.7	75.33	10.752	
10,600.0	10,549.0	10,575.9	10,549.0	39.3	38.1	-90.41	394.5	-163.1	810.0	734.0	76.03	10.653	
10,700.0	10,649.0	10,675.9	10,649.0	39.7	38.4	-90.41	394.5	-163.1	810.0	733.3	76.74	10.556	
10,800.0	10,749.0	10,775.9	10,749.0	40.0	38.8	-90.41	394.5	-163.1	810.0	732.6	77.44	10.460	
10,900.0	10,849.0	10,875.9	10,849.0	40.4	39.1	-90.41	394.5	-163.1	810.0	731.9	78.14	10.367	
11,000.0	10,949.0	10,975.9	10,949.0	40.7	39.5	-90.41	394.5	-163.1	810.0	731.2	78.84	10.274	
11,100.0	11,049.0	11,087.0	11,060.0	41.0	39.8	-90.65	391.1	-162.6	809.7	730.1	79.57	10.176	
11,148.0	11,097.0	11,144.0	11,116.2	41.2	40.0	-91.29	382.1	-161.4	808.8	728.9	79.89	10.124	
11,148.1	11,097.0	11,144.1	11,116.2	41.2	40.0	-91.29	382.1	-161.4	808.7	728.9	79.89	10.124	
11,150.0	11,099.0	11,146.3	11,118.4	41.2	40.0	84.53	381.6	-161.3	808.7	728.8	79.90	10.122	
11,200.0	11,148.9	11,203.8	11,173.9	41.4	40.2	83.82	366.8	-159.3	807.1	726.9	80.19	10.065	
11,250.0	11,198.4	11,259.8	11,226.3	41.5	40.3	83.16	347.1	-156.7	804.6	724.2	80.44	10.002	
11,300.0	11,247.2	11,314.4	11,275.1	41.6	40.4	82.56	323.1	-153.4	801.4	720.7	80.68	9.933	
11,350.0	11,294.8	11,367.5	11,320.3	41.7	40.5	82.02	295.5	-149.7	797.5	716.6	80.90	9.859	
11,400.0	11,340.9	11,419.2	11,361.6	41.8	40.6	81.53	264.7	-145.5	792.9	711.9	81.09	9.778	
11,450.0	11,385.2	11,469.6	11,399.1	41.9	40.7	81.12	231.3	-141.0	787.8	706.5	81.27	9.693	
11,500.0	11,427.3	11,518.8	11,432.6	42.0	40.7	80.77	195.6	-136.2	782.0	700.6	81.42	9.604	
11,550.0	11,466.8	11,566.8	11,462.2	42.1	40.8	80.49	158.2	-131.1	775.7	694.1	81.56	9.511	
11,600.0	11,503.5	11,613.8	11,488.0	42.1	40.9	80.27	119.4	-125.9	768.9	687.3	81.67	9.415	
11,650.0	11,537.2	11,659.7	11,510.1	42.1	40.9	80.12	79.4	-120.5	761.7	680.0	81.76	9.316	
11,700.0	11,567.5	11,704.8	11,528.6	42.2	41.0	80.03	38.7	-115.0	754.1	672.3	81.83	9.216	
11,750.0	11,594.2	11,749.1	11,543.5	42.2	41.1	80.01	-2.6	-109.4	746.2	664.3	81.88	9.113	
11,800.0	11,617.1	11,792.6	11,555.0	42.2	41.1	80.05	-44.2	-103.8	737.9	656.0	81.92	9.009	
11,850.0	11,636.1	11,835.5	11,563.1	42.2	41.2	80.15	-86.0	-98.1	729.4	647.5	81.94	8.902	
11,900.0	11,651.0	11,877.9	11,568.1	42.1	41.3	80.31	-127.6	-92.5	720.7	638.7	81.95	8.794	
11,950.0	11,661.6	11,919.7	11,569.9	42.1	41.4	80.53	-169.0	-86.9	711.8	629.8	81.96	8.684	
12,000.0	11,668.0	11,959.0	11,570.0	42.1	41.4	80.93	-208.0	-81.8	702.8	620.8	82.01	8.570	
12,048.1	11,670.0	11,997.0	11,570.0	42.1	41.5	81.58	-245.8	-77.5	694.2	612.1	82.11	8.454	
12,100.0	11,670.0	12,038.4	11,570.0	42.2	41.6	81.52	-286.9	-73.3	685.8	603.5	82.29	8.333	
12,200.0	11,670.0	12,118.8	11,570.0	42.3	41.8	81.44	-367.1	-66.8	674.2	591.5	82.71	8.151	
12,272.6	11,670.0	12,177.6	11,570.0	42.5	42.0	81.40	-425.8	-63.5	669.7	586.6	83.08	8.061	
12,300.0	11,670.0	12,200.0	11,570.0	42.6	42.1	81.39	-448.2	-62.6	668.7	585.5	83.23	8.034	
12,400.0	11,670.0	12,281.1	11,570.0	43.0	42.4	81.37	-529.3	-60.6	666.9	583.1	83.86	7.953	
12,412.8	11,670.0	12,293.0	11,570.0	43.0	42.5	81.37	-539.6	-60.5	666.9	583.0	83.95	7.944	
12,500.0	11,670.0	12,378.6	11,570.0	43.4	42.8	81.37	-626.7	-60.0	666.9	582.3	84.68	7.876	
12,600.0	11,670.0	12,478.6	11,570.0	43.9	43.3	81.37	-726.7	-59.5	666.9	581.3	85.62	7.789	
12,700.0	11,670.0	12,578.6	11,570.0	44.4	43.9	81.37	-826.7	-58.9	666.9	580.3	86.69	7.694	
12,800.0	11,670.0	12,678.6	11,570.0	45.0	44.5	81.37	-926.7	-58.3	667.0	579.1	87.86	7.591	
12,900.0	11,670.0	12,778.6	11,570.0	45.7	45.1	81.37	-1,026.7	-57.7	667.0	577.8	89.14	7.482	
13,000.0	11,670.0	12,878.6	11,570.0	46.4	45.8	81.37	-1,126.7	-57.1	667.0	576.5	90.52	7.368	
13,100.0	11,670.0	12,978.6	11,570.0	47.1	46.6	81.37	-1,226.7	-56.5	667.0	575.0	92.00	7.250	
13,200.0	11,670.0	13,078.6	11,570.0	47.9	47.4	81.37	-1,326.7	-55.9	667.0	573.4	93.57	7.128	
13,300.0	11,670.0	13,178.6	11,570.0	48.7	48.2	81.37	-1,426.7	-55.4	667.0	571.8	95.23	7.004	
13,400.0	11,670.0	13,278.6	11,570.0	49.6	49.1	81.37	-1,526.7	-54.8	667.0	570.0	96.97	6.879	
13,500.0	11,670.0	13,378.6	11,570.0	50.5	50.0	81.37	-1,626.7	-54.2	667.0	568.2	98.79	6.752	
13,600.0	11,670.0	13,478.6	11,570.0	51.5	51.0	81.37	-1,726.7	-53.6	667.0	566.3	100.68	6.625	
13,700.0	11,670.0	13,578.6	11,570.0	52.4	52.0	81.38	-1,826.7	-53.0	667.0	564.4	102.65	6.498	
13,800.0	11,670.0	13,678.6	11,570.0	53.4	53.0	81.38	-1,926.7	-52.4	667.0	562.4	104.68	6.373	
13,900.0	11,670.0	13,778.6	11,570.0	54.5	54.1	81.38	-2,026.7	-51.8	667.1	560.3	106.77	6.248	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #304H - Wellbore #1 - BLM Plan #1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	13,878.6	11,570.0	55.6	55.2	81.38	-2,126.7	-51.3	667.1	558.1	108.92	6.124	
14,100.0	11,670.0	13,978.6	11,570.0	56.7	56.3	81.38	-2,226.7	-50.7	667.1	555.9	111.13	6.003	
14,200.0	11,670.0	14,078.6	11,570.0	57.8	57.4	81.38	-2,326.7	-50.1	667.1	553.7	113.39	5.883	
14,300.0	11,670.0	14,178.6	11,570.0	59.0	58.6	81.38	-2,426.7	-49.5	667.1	551.4	115.70	5.766	
14,400.0	11,670.0	14,278.6	11,570.0	60.1	59.8	81.38	-2,526.7	-48.9	667.1	549.0	118.05	5.651	
14,500.0	11,670.0	14,378.6	11,570.0	61.3	61.0	81.38	-2,626.7	-48.3	667.1	546.7	120.45	5.538	
14,600.0	11,670.0	14,478.6	11,570.0	62.5	62.2	81.38	-2,726.7	-47.7	667.1	544.2	122.89	5.428	
14,700.0	11,670.0	14,578.6	11,570.0	63.8	63.5	81.38	-2,826.7	-47.2	667.1	541.8	125.37	5.321	
14,800.0	11,670.0	14,678.6	11,570.0	65.0	64.8	81.38	-2,926.7	-46.6	667.1	539.3	127.89	5.217	
14,900.0	11,670.0	14,778.6	11,570.0	66.3	66.1	81.38	-3,026.7	-46.0	667.1	536.7	130.44	5.115	
15,000.0	11,670.0	14,878.6	11,570.0	67.6	67.4	81.38	-3,126.7	-45.4	667.2	534.1	133.02	5.015	
15,100.0	11,670.0	14,978.6	11,570.0	68.9	68.7	81.38	-3,226.7	-44.8	667.2	531.5	135.63	4.919	
15,200.0	11,670.0	15,078.6	11,570.0	70.2	70.0	81.38	-3,326.7	-44.2	667.2	528.9	138.28	4.825	
15,300.0	11,670.0	15,178.6	11,570.0	71.6	71.4	81.38	-3,426.7	-43.6	667.2	526.2	140.94	4.734	
15,400.0	11,670.0	15,278.6	11,570.0	72.9	72.7	81.38	-3,526.7	-43.1	667.2	523.6	143.64	4.645	
15,500.0	11,670.0	15,378.6	11,570.0	74.3	74.1	81.38	-3,626.7	-42.5	667.2	520.8	146.36	4.559	
15,600.0	11,670.0	15,478.6	11,570.0	75.7	75.5	81.38	-3,726.7	-41.9	667.2	518.1	149.10	4.475	
15,700.0	11,670.0	15,578.6	11,570.0	77.1	76.9	81.38	-3,826.7	-41.3	667.2	515.4	151.86	4.394	
15,800.0	11,670.0	15,678.6	11,570.0	78.5	78.3	81.38	-3,926.7	-40.7	667.2	512.6	154.65	4.315	
15,900.0	11,670.0	15,778.6	11,570.0	79.9	79.7	81.38	-4,026.7	-40.1	667.2	509.8	157.45	4.238	
16,000.0	11,670.0	15,878.6	11,570.0	81.3	81.1	81.38	-4,126.7	-39.6	667.3	507.0	160.27	4.163	
16,100.0	11,670.0	15,978.6	11,570.0	82.7	82.6	81.38	-4,226.7	-39.0	667.3	504.2	163.11	4.091	
16,200.0	11,670.0	16,078.6	11,570.0	84.1	84.0	81.38	-4,326.7	-38.4	667.3	501.3	165.97	4.021	
16,300.0	11,670.0	16,178.6	11,570.0	85.6	85.5	81.38	-4,426.7	-37.8	667.3	498.4	168.84	3.952	
16,400.0	11,670.0	16,278.6	11,570.0	87.0	86.9	81.38	-4,526.7	-37.2	667.3	495.6	171.72	3.886	
16,500.0	11,670.0	16,378.6	11,570.0	88.5	88.4	81.38	-4,626.7	-36.6	667.3	492.7	174.62	3.821	
16,600.0	11,670.0	16,478.6	11,570.0	89.9	89.8	81.38	-4,726.6	-36.0	667.3	489.8	177.54	3.759	
16,700.0	11,670.0	16,578.6	11,570.0	91.4	91.3	81.38	-4,826.6	-35.5	667.3	486.9	180.46	3.698	
16,800.0	11,670.0	16,678.6	11,570.0	92.9	92.8	81.38	-4,926.6	-34.9	667.3	483.9	183.40	3.639	
16,900.0	11,670.0	16,778.6	11,570.0	94.4	94.3	81.38	-5,026.6	-34.3	667.3	481.0	186.35	3.581	
17,000.0	11,670.0	16,878.6	11,570.0	95.9	95.8	81.38	-5,126.6	-33.7	667.3	478.0	189.32	3.525	
17,100.0	11,670.0	16,978.6	11,570.0	97.3	97.3	81.38	-5,226.6	-33.1	667.4	475.1	192.29	3.471	
17,200.0	11,670.0	17,078.6	11,570.0	98.8	98.8	81.38	-5,326.6	-32.5	667.4	472.1	195.27	3.418	
17,300.0	11,670.0	17,178.6	11,570.0	100.3	100.3	81.38	-5,426.6	-31.9	667.4	469.1	198.26	3.366	
17,400.0	11,670.0	17,278.6	11,570.0	101.9	101.8	81.38	-5,526.6	-31.4	667.4	466.1	201.26	3.316	
17,500.0	11,670.0	17,378.6	11,570.0	103.4	103.3	81.38	-5,626.6	-30.8	667.4	463.1	204.27	3.267	
17,600.0	11,670.0	17,478.6	11,570.0	104.9	104.9	81.38	-5,726.6	-30.2	667.4	460.1	207.29	3.220	
17,700.0	11,670.0	17,578.6	11,570.0	106.4	106.4	81.38	-5,826.6	-29.6	667.4	457.1	210.32	3.173	
17,800.0	11,670.0	17,678.6	11,570.0	107.9	107.9	81.38	-5,926.6	-29.0	667.4	454.1	213.35	3.128	
17,900.0	11,670.0	17,778.6	11,570.0	109.5	109.5	81.38	-6,026.6	-28.4	667.4	451.0	216.39	3.084	
18,000.0	11,670.0	17,878.6	11,570.0	111.0	111.0	81.38	-6,126.6	-27.8	667.4	448.0	219.44	3.041	
18,100.0	11,670.0	17,978.6	11,570.0	112.5	112.5	81.38	-6,226.6	-27.3	667.4	444.9	222.50	3.000	
18,200.0	11,670.0	18,078.6	11,570.0	114.1	114.1	81.38	-6,326.6	-26.7	667.5	441.9	225.56	2.959	
18,300.0	11,670.0	18,178.6	11,570.0	115.6	115.6	81.38	-6,426.6	-26.1	667.5	438.8	228.63	2.919	
18,400.0	11,670.0	18,278.6	11,570.0	117.2	117.0	81.38	-6,526.6	-25.5	667.5	435.9	231.56	2.883	
18,428.0	11,670.0	18,306.6	11,570.0	117.6	117.4	81.38	-6,554.6	-25.3	667.5	435.1	232.37	2.872 SF	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #503H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 333-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.1	1.1	0.0	0.0	-8.97	23.4	-3.7	23.7				
100.0	100.0	101.1	101.1	0.1	0.2	-9.07	23.3	-3.7	23.6	23.3	0.29	80.327	
200.0	200.0	201.2	201.2	0.5	0.3	-9.37	23.1	-3.8	23.4	22.6	0.82	28.621	
300.0	300.0	301.2	301.2	0.8	0.5	-9.89	22.6	-3.9	22.9	21.6	1.34	17.127	
400.0	400.0	401.3	401.3	1.2	0.8	-10.56	21.9	-4.1	22.3	20.3	1.99	11.179	
500.0	500.0	501.3	501.2	1.6	1.1	-11.23	21.1	-4.2	21.5	18.8	2.71	7.937	
600.0	600.0	601.2	601.2	1.9	1.5	-72.53	20.4	-4.3	20.6	17.1	3.42	6.007	
700.0	700.0	701.2	701.2	2.3	1.9	-80.88	19.7	-4.5	19.3	15.2	4.14	4.670	
783.2	783.1	784.2	784.2	2.6	2.2	-92.92	19.1	-4.7	18.7	14.0	4.73	3.964	CC
800.0	799.9	801.0	801.0	2.6	2.2	-95.90	19.0	-4.8	18.8	13.9	4.85	3.872	ES
900.0	899.7	900.8	900.8	3.0	2.6	-115.20	18.4	-5.2	20.3	14.8	5.56	3.652	SF
1,000.0	999.4	1,000.4	1,000.4	3.4	2.9	-133.36	17.8	-5.6	24.9	18.6	6.28	3.969	
1,100.0	1,098.9	1,100.0	1,100.0	3.7	3.3	-146.83	17.2	-5.7	32.4	25.4	7.00	4.637	
1,200.0	1,198.3	1,199.3	1,199.3	4.1	3.6	-155.64	16.9	-5.8	42.5	34.8	7.71	5.518	
1,300.0	1,297.4	1,298.5	1,298.4	4.5	4.0	-161.21	16.9	-5.9	54.8	46.3	8.40	6.516	
1,400.0	1,396.4	1,397.4	1,397.4	4.9	4.3	-164.88	17.0	-6.1	68.3	59.2	9.10	7.498	
1,500.0	1,495.5	1,496.4	1,496.4	5.3	4.7	-167.45	16.9	-6.3	82.0	72.2	9.81	8.355	
1,600.0	1,594.5	1,595.8	1,595.8	5.7	5.0	-169.23	16.9	-6.3	95.6	85.1	10.51	9.093	
1,700.0	1,693.5	1,695.1	1,695.1	6.1	5.3	-170.42	17.4	-6.1	109.0	97.8	11.21	9.724	
1,800.0	1,792.5	1,795.5	1,795.4	6.5	5.7	-171.41	17.9	-5.3	121.8	109.9	11.91	10.225	
1,900.0	1,891.6	1,895.8	1,895.8	6.9	6.0	-172.40	18.5	-3.5	133.7	121.1	12.62	10.595	
2,000.0	1,990.6	1,995.7	1,995.7	7.3	6.4	-173.39	18.9	-0.9	145.0	131.7	13.33	10.880	
2,100.0	2,089.6	2,095.5	2,095.3	7.7	6.7	-174.30	19.4	2.0	156.0	142.0	14.04	11.115	
2,200.0	2,188.6	2,194.6	2,194.4	8.1	7.0	-175.14	19.7	5.2	166.9	152.1	14.75	11.317	
2,300.0	2,287.7	2,292.3	2,292.1	8.5	7.4	-175.87	19.7	7.6	178.5	163.1	15.45	11.555	
2,400.0	2,386.7	2,391.1	2,390.9	8.9	7.7	-176.58	19.3	9.7	190.8	174.6	16.16	11.803	
2,500.0	2,485.7	2,490.2	2,490.0	9.4	8.1	-177.28	18.7	12.0	203.0	186.1	16.88	12.029	
2,600.0	2,584.8	2,588.9	2,588.7	9.8	8.4	-177.98	17.6	14.1	215.6	198.0	17.59	12.254	
2,700.0	2,683.8	2,688.0	2,687.6	10.2	8.8	-178.66	16.3	16.3	228.2	209.9	18.31	12.464	
2,800.0	2,782.8	2,786.7	2,786.3	10.6	9.1	-179.04	15.8	17.9	241.0	222.0	19.02	12.670	
2,900.0	2,881.8	2,886.4	2,886.0	11.0	9.5	-179.16	16.1	19.0	253.9	234.2	19.74	12.862	
3,000.0	2,980.9	2,986.2	2,985.8	11.4	9.8	-179.26	16.6	20.3	266.5	246.0	20.46	13.023	
3,100.0	3,079.9	3,087.4	3,087.0	11.9	10.2	-179.35	17.2	21.9	278.7	257.5	21.19	13.152	
3,200.0	3,178.9	3,188.1	3,187.7	12.3	10.5	-179.51	18.0	24.4	290.1	268.2	21.91	13.239	
3,300.0	3,277.9	3,287.8	3,287.4	12.7	10.9	-179.68	18.7	27.1	301.4	278.7	22.64	13.314	
3,400.0	3,377.0	3,385.1	3,384.6	13.1	11.2	-179.86	19.2	29.6	312.8	289.5	23.34	13.401	
3,500.0	3,476.0	3,482.7	3,482.2	13.5	11.6	179.86	18.8	31.9	324.9	300.9	24.05	13.509	
3,600.0	3,575.0	3,579.8	3,579.3	13.9	11.9	179.46	17.5	34.2	337.6	312.8	24.76	13.634	
3,700.0	3,674.0	3,679.5	3,678.9	14.3	12.3	179.05	15.8	36.5	350.5	325.0	25.49	13.753	
3,800.0	3,773.1	3,779.4	3,778.8	14.8	12.6	178.69	14.3	38.8	363.3	337.1	26.22	13.857	
3,900.0	3,872.1	3,878.4	3,877.8	15.2	13.0	178.35	12.9	41.2	375.9	349.0	26.94	13.956	
4,000.0	3,971.1	3,975.1	3,974.4	15.6	13.3	178.16	12.0	42.9	389.0	361.3	27.64	14.075	
4,100.0	4,070.2	4,072.2	4,071.5	16.0	13.7	178.18	11.9	43.2	402.6	374.3	28.33	14.211	
4,200.0	4,169.2	4,171.7	4,171.0	16.4	14.0	178.29	12.2	43.2	416.4	387.3	29.04	14.338	
4,300.0	4,268.2	4,270.2	4,269.5	16.9	14.4	178.40	12.7	43.0	430.2	400.4	29.74	14.463	
4,400.0	4,367.2	4,368.6	4,367.9	17.3	14.7	178.51	13.0	42.8	444.1	413.7	30.45	14.588	
4,500.0	4,466.3	4,466.9	4,466.2	17.7	15.0	178.63	13.4	42.3	458.2	427.1	31.15	14.712	
4,600.0	4,565.3	4,565.4	4,564.7	18.1	15.4	178.76	13.9	41.7	472.4	440.6	31.85	14.835	
4,700.0	4,664.3	4,664.0	4,663.3	18.5	15.7	178.89	14.4	40.9	486.7	454.2	32.55	14.954	
4,800.0	4,763.3	4,763.3	4,762.6	18.9	16.0	179.04	15.0	40.0	501.1	467.8	33.26	15.066	
4,900.0	4,862.4	4,863.3	4,862.6	19.4	16.4	179.19	15.7	39.1	515.3	481.3	33.97	15.166	
5,000.0	4,961.4	4,961.9	4,961.2	19.8	16.7	179.34	16.7	38.4	529.3	494.6	34.68	15.263	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #503H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 333-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,060.4	5,060.1	5,059.4	20.2	17.1	179.51	17.7	37.3	543.6	508.2	35.38	15.363	
5,200.0	5,159.4	5,159.6	5,158.8	20.6	17.4	179.69	18.9	36.2	557.9	521.8	36.10	15.455	
5,300.0	5,258.5	5,258.2	5,257.4	21.0	17.7	179.88	20.2	35.0	572.1	535.3	36.80	15.545	
5,400.0	5,357.5	5,355.8	5,355.0	21.5	18.1	-179.96	21.3	33.7	586.5	549.0	37.50	15.639	
5,500.0	5,456.5	5,456.1	5,455.3	21.9	18.4	-179.78	22.6	32.3	601.0	562.7	38.22	15.722	
5,600.0	5,555.6	5,554.6	5,553.8	22.3	18.8	-179.62	24.0	31.0	615.3	576.3	38.93	15.803	
5,700.0	5,654.6	5,653.8	5,652.9	22.7	19.1	-179.47	25.1	29.7	629.6	590.0	39.65	15.882	
5,800.0	5,753.6	5,752.6	5,751.8	23.1	19.5	-179.37	26.0	28.6	644.1	603.7	40.36	15.960	
5,900.0	5,852.6	5,853.3	5,852.4	23.5	19.8	-179.27	27.0	27.7	658.3	617.2	41.08	16.023	
6,000.0	5,951.7	5,951.5	5,950.7	24.0	20.2	-179.17	27.9	26.8	672.4	630.6	41.79	16.091	
6,098.6	6,049.3	6,048.8	6,047.9	24.4	20.5	-179.08	28.9	25.9	686.5	644.0	42.49	16.156	
6,100.0	6,050.7	6,050.2	6,049.3	24.4	20.5	-179.08	28.9	25.9	686.7	644.2	42.50	16.157	
6,200.0	6,149.9	6,150.4	6,149.5	24.8	20.9	-178.94	30.3	24.6	699.6	656.4	43.22	16.186	
6,300.0	6,249.4	6,252.8	6,251.7	25.2	21.2	-178.50	35.2	21.7	709.6	665.7	43.95	16.145	
6,400.0	6,349.1	6,346.8	6,345.3	25.6	21.5	-177.78	43.2	17.1	717.0	672.4	44.62	16.070	
6,500.0	6,449.0	6,438.9	6,436.8	25.9	21.9	-176.97	51.7	10.9	723.2	677.9	45.26	15.979	
6,600.0	6,549.0	6,551.6	6,548.7	26.2	22.3	-175.94	62.5	3.3	726.8	680.7	46.06	15.780	
6,631.9	6,580.9	6,592.0	6,588.7	26.3	22.4	-117.27	67.3	0.9	726.8	680.5	46.34	15.684	
6,700.0	6,649.0	6,672.2	6,668.2	26.5	22.7	-116.39	77.9	-3.0	725.7	678.8	46.89	15.476	
6,800.0	6,749.0	6,784.6	6,779.7	26.9	23.1	-115.35	91.3	-5.4	722.4	674.7	47.66	15.158	
6,900.0	6,849.0	6,878.9	6,873.7	27.2	23.4	-114.77	99.3	-5.6	718.9	670.6	48.33	14.876	
7,000.0	6,949.0	6,978.8	6,973.5	27.5	23.8	-114.45	104.3	-4.2	715.6	666.6	49.03	14.597	
7,100.0	7,049.0	7,074.4	7,069.0	27.8	24.1	-114.35	106.6	-2.1	712.6	662.9	49.70	14.339	
7,200.0	7,149.0	7,167.1	7,161.6	28.1	24.4	-114.38	107.1	-0.2	710.5	660.2	50.34	14.114	
7,300.0	7,249.0	7,264.5	7,259.0	28.4	24.8	-114.49	106.4	1.7	709.1	658.1	51.01	13.900	
7,400.0	7,349.0	7,364.1	7,358.6	28.8	25.1	-114.63	105.4	3.5	707.9	656.2	51.70	13.692	
7,500.0	7,449.0	7,463.3	7,457.8	29.1	25.5	-114.77	104.2	5.2	706.7	654.3	52.38	13.492	
7,600.0	7,549.0	7,563.4	7,557.9	29.4	25.8	-114.92	103.1	7.0	705.6	652.5	53.07	13.295	
7,700.0	7,649.0	7,663.7	7,658.1	29.7	26.2	-115.07	101.8	8.8	704.5	650.7	53.76	13.104	
7,800.0	7,749.0	7,764.1	7,758.6	30.1	26.5	-115.22	100.6	10.7	703.3	648.9	54.46	12.915	
7,900.0	7,849.0	7,864.5	7,858.9	30.4	26.9	-115.37	99.5	12.6	702.1	646.9	55.15	12.730	
8,000.0	7,949.0	7,961.5	7,955.9	30.7	27.2	-115.50	98.5	14.3	701.0	645.1	55.83	12.556	
8,100.0	8,049.0	8,056.4	8,050.7	31.0	27.5	-115.55	98.2	14.9	700.5	644.0	56.48	12.402	
8,112.7	8,061.6	8,068.4	8,062.7	31.1	27.6	-115.56	98.2	14.9	700.5	643.9	56.56	12.384	
8,200.0	8,149.0	8,154.9	8,149.3	31.4	27.9	-115.57	97.9	14.9	700.6	643.4	57.16	12.256	
8,300.0	8,249.0	8,255.3	8,249.7	31.7	28.2	-115.60	97.6	15.0	700.7	642.8	57.86	12.110	
8,400.0	8,349.0	8,355.1	8,349.4	32.0	28.6	-115.63	97.3	15.1	700.7	642.2	58.55	11.968	
8,500.0	8,449.0	8,454.6	8,449.0	32.3	28.9	-115.66	96.8	15.2	700.9	641.6	59.24	11.831	
8,600.0	8,549.0	8,555.3	8,549.7	32.7	29.3	-115.71	96.2	15.3	701.0	641.0	59.94	11.695	
8,700.0	8,649.0	8,654.2	8,648.5	33.0	29.6	-115.78	95.5	15.6	701.1	640.5	60.63	11.565	
8,800.0	8,749.0	8,752.1	8,746.4	33.3	29.9	-115.84	94.6	15.5	701.5	640.2	61.30	11.443	
8,900.0	8,849.0	8,850.2	8,844.6	33.7	30.3	-115.90	93.7	15.3	702.1	640.1	61.98	11.328	
9,000.0	8,949.0	8,942.7	8,937.0	34.0	30.6	-115.96	92.5	14.5	703.5	640.9	62.62	11.235	
9,100.0	9,049.0	9,031.7	9,026.0	34.3	30.9	-116.05	90.4	12.9	706.1	642.9	63.21	11.172	
9,200.0	9,149.0	9,141.7	9,136.0	34.6	31.3	-116.11	88.4	10.5	708.9	644.9	64.00	11.077	
9,300.0	9,249.0	9,241.6	9,235.9	35.0	31.6	-116.14	87.2	8.8	710.9	646.2	64.69	10.990	
9,400.0	9,349.0	9,345.2	9,339.4	35.3	32.0	-116.24	85.2	7.5	712.9	647.5	65.42	10.898	
9,500.0	9,449.0	9,455.9	9,450.1	35.6	32.4	-116.29	84.3	7.4	713.4	647.2	66.20	10.776	
9,600.0	9,549.0	9,561.7	9,555.9	36.0	32.8	-116.32	84.2	7.7	713.1	646.2	66.94	10.654	
9,700.0	9,649.0	9,670.8	9,665.0	36.3	33.1	-116.30	85.1	9.1	711.6	643.9	67.69	10.513	
9,800.0	9,749.0	9,773.3	9,767.5	36.7	33.5	-116.29	86.3	11.2	709.3	640.8	68.40	10.369	
9,900.0	9,849.0	9,872.7	9,866.8	37.0	33.8	-116.27	87.6	13.3	706.8	637.7	69.10	10.229	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #503H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 333-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,949.0	9,971.9	9,966.0	37.3	34.2	-116.23	89.1	15.1	704.5	634.7	69.80	10.094	
10,100.0	10,049.0	10,069.6	10,063.6	37.7	34.5	-116.18	90.5	16.7	702.4	631.9	70.48	9.966	
10,140.8	10,089.8	10,096.8	10,090.9	37.8	34.6	-116.22	90.2	17.1	702.1	631.4	70.68	9.932	
10,200.0	10,149.0	10,137.7	10,131.7	38.0	34.8	-116.42	87.7	17.7	702.8	631.9	70.94	9.907	
10,300.0	10,249.0	10,209.6	10,202.9	38.3	35.0	-117.18	77.8	18.9	707.5	636.2	71.31	9.922	
10,400.0	10,349.0	10,277.2	10,268.7	38.7	35.2	-118.31	62.8	20.3	716.3	644.8	71.50	10.019	
10,500.0	10,449.0	10,334.5	10,323.0	39.0	35.4	-119.63	44.6	21.5	730.7	659.4	71.32	10.245	
10,600.0	10,549.0	10,389.1	10,372.7	39.3	35.6	-121.21	22.1	22.6	751.2	680.3	70.86	10.601	
10,700.0	10,649.0	10,444.0	10,420.0	39.7	35.8	-123.12	-5.8	24.4	778.1	707.9	70.18	11.086	
10,800.0	10,749.0	10,478.8	10,448.2	40.0	35.9	-124.46	-26.0	25.6	811.7	743.0	68.73	11.811	
10,900.0	10,849.0	10,514.5	10,475.9	40.4	36.0	-125.89	-48.5	26.5	852.3	785.2	67.11	12.699	
11,000.0	10,949.0	10,538.0	10,493.3	40.7	36.1	-126.85	-64.3	26.9	899.4	834.4	65.01	13.834	
11,100.0	11,049.0	10,573.7	10,518.3	41.0	36.2	-128.34	-89.7	27.2	952.4	889.0	63.32	15.040	
11,148.0	11,097.0	10,585.7	10,526.3	41.2	36.2	-128.85	-98.8	27.3	979.8	917.4	62.35	15.714	
11,148.1	11,097.0	10,585.7	10,526.3	41.2	36.2	-128.85	-98.8	27.3	979.8	917.5	62.35	15.714	
11,150.0	11,099.0	10,586.2	10,526.6	41.2	36.2	46.88	-99.1	27.3	980.9	918.6	62.31	15.742	
11,200.0	11,148.9	10,598.7	10,534.7	41.4	36.3	43.92	-108.6	27.3	1,009.5	948.2	61.27	16.474	
11,250.0	11,198.4	10,633.0	10,555.5	41.5	36.4	40.60	-135.9	27.3	1,037.3	976.3	60.95	17.018	
11,300.0	11,247.2	10,633.0	10,555.5	41.6	36.4	38.75	-135.9	27.3	1,062.4	1,003.0	59.41	17.882	
11,350.0	11,294.8	10,633.0	10,555.5	41.7	36.4	37.07	-135.9	27.3	1,086.4	1,028.5	57.85	18.779	
11,400.0	11,340.9	10,633.0	10,555.5	41.8	36.4	35.56	-135.9	27.3	1,109.0	1,052.8	56.28	19.708	
11,450.0	11,385.2	10,665.8	10,573.4	41.9	36.5	33.68	-163.4	27.1	1,128.9	1,073.1	55.79	20.234	
11,500.0	11,427.3	10,679.8	10,580.5	42.0	36.5	32.39	-175.5	26.9	1,147.2	1,092.5	54.67	20.983	
11,550.0	11,466.8	10,694.0	10,587.3	42.1	36.6	31.29	-187.9	26.8	1,163.4	1,109.8	53.57	21.719	
11,600.0	11,503.5	10,727.0	10,601.6	42.1	36.7	30.18	-217.7	26.3	1,177.9	1,124.9	53.05	22.204	
11,650.0	11,537.2	10,727.0	10,601.6	42.1	36.7	29.59	-217.7	26.3	1,189.3	1,137.7	51.56	23.067	
11,700.0	11,567.5	10,727.0	10,601.6	42.2	36.7	29.11	-217.7	26.3	1,198.9	1,148.8	50.14	23.913	
11,750.0	11,594.2	10,727.0	10,601.6	42.2	36.7	28.72	-217.7	26.3	1,206.9	1,158.0	48.81	24.726	
11,800.0	11,617.1	10,765.8	10,615.6	42.2	36.8	28.31	-253.8	25.3	1,210.9	1,162.3	48.58	24.926	
11,850.0	11,636.1	10,780.2	10,620.1	42.2	36.9	28.15	-267.5	24.7	1,213.4	1,165.6	47.78	25.394	
11,900.0	11,651.0	10,821.0	10,630.7	42.1	37.0	28.11	-306.8	22.5	1,214.5	1,166.8	47.69	25.465	
11,950.0	11,661.6	10,821.0	10,630.7	42.1	37.0	28.25	-306.8	22.5	1,211.5	1,164.7	46.76	25.910	
12,000.0	11,668.0	10,821.0	10,630.7	42.1	37.0	28.48	-306.8	22.5	1,206.6	1,160.6	46.00	26.230	
12,048.1	11,670.0	10,821.0	10,630.7	42.1	37.0	28.79	-306.8	22.5	1,200.3	1,154.9	45.47	26.399	
12,100.0	11,670.0	10,863.1	10,638.2	42.2	37.1	29.07	-348.1	20.2	1,192.1	1,146.5	45.66	26.107	
12,200.0	11,670.0	10,915.0	10,643.1	42.3	37.3	29.33	-399.8	19.2	1,182.5	1,136.8	45.66	25.897	
12,272.6	11,670.0	10,962.4	10,645.3	42.5	37.5	29.45	-447.1	19.1	1,178.9	1,133.1	45.86	25.708	
12,300.0	11,670.0	10,989.9	10,646.8	42.6	37.6	29.49	-474.6	19.1	1,177.8	1,131.8	46.03	25.589	
12,400.0	11,670.0	11,080.3	10,650.9	43.0	38.0	29.61	-565.0	19.1	1,174.1	1,127.5	46.62	25.187	
12,500.0	11,670.0	11,178.5	10,654.4	43.4	38.5	29.69	-663.0	19.8	1,171.0	1,123.7	47.30	24.758	
12,600.0	11,670.0	11,290.3	10,658.3	43.9	39.1	29.74	-774.7	21.5	1,167.5	1,119.3	48.12	24.260	
12,700.0	11,670.0	11,408.5	10,662.4	44.4	39.9	29.64	-892.8	27.1	1,162.4	1,113.4	48.97	23.736	
12,800.0	11,670.0	11,502.8	10,665.8	45.0	40.5	29.50	-986.8	32.7	1,156.7	1,107.0	49.69	23.276	
12,900.0	11,670.0	11,580.8	10,668.9	45.7	41.1	29.51	-1,064.8	34.8	1,152.2	1,101.7	50.48	22.826	
13,000.0	11,670.0	11,654.4	10,671.4	46.4	41.7	29.62	-1,138.3	34.0	1,150.1	1,098.7	51.41	22.371	
13,055.5	11,670.0	11,697.9	10,672.7	46.8	42.0	29.73	-1,181.8	32.5	1,149.8	1,097.8	52.02	22.102	
13,100.0	11,670.0	11,730.0	10,673.5	47.1	42.3	29.82	-1,213.8	30.9	1,150.0	1,097.5	52.51	21.899	
13,200.0	11,670.0	11,804.8	10,675.1	47.9	42.9	30.11	-1,288.4	25.6	1,152.0	1,098.3	53.77	21.426	
13,300.0	11,670.0	11,887.4	10,676.2	48.7	43.6	30.52	-1,370.5	17.3	1,156.2	1,101.0	55.23	20.934	
13,400.0	11,670.0	11,986.0	10,676.8	49.6	44.5	30.99	-1,468.6	7.1	1,161.3	1,104.4	56.88	20.416	
13,500.0	11,670.0	12,164.0	10,675.6	50.5	46.2	31.17	-1,646.4	3.1	1,163.7	1,104.9	58.85	19.774	
13,600.0	11,670.0	12,308.7	10,675.2	51.5	47.7	30.67	-1,790.6	15.7	1,159.7	1,099.5	60.14	19.283	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #503H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 333-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,700.0	11,670.0	12,385.0	10,675.2	52.4	48.6	30.40	-1,866.5	22.4	1,155.4	1,094.3	61.08	18.916	
13,800.0	11,670.0	12,457.7	10,674.9	53.4	49.4	30.24	-1,939.2	26.6	1,153.1	1,090.9	62.13	18.558	
13,900.0	11,670.0	12,582.3	10,675.6	54.5	50.8	30.14	-2,063.6	29.9	1,151.7	1,088.0	63.74	18.069	
14,000.0	11,670.0	12,684.2	10,678.4	55.6	52.0	30.12	-2,165.5	32.5	1,148.3	1,083.1	65.28	17.592	
14,100.0	11,670.0	12,779.2	10,681.0	56.7	53.1	30.12	-2,260.4	34.7	1,145.1	1,078.3	66.79	17.145	
14,200.0	11,670.0	12,875.6	10,683.4	57.8	54.3	30.13	-2,356.8	36.4	1,142.4	1,074.0	68.36	16.711	
14,300.0	11,670.0	12,980.3	10,686.2	59.0	55.6	30.15	-2,461.5	38.3	1,139.4	1,069.4	70.05	16.266	
14,400.0	11,670.0	13,078.3	10,689.0	60.1	56.8	30.16	-2,559.4	40.3	1,136.3	1,064.7	71.69	15.850	
14,500.0	11,670.0	13,174.5	10,691.5	61.3	58.1	30.19	-2,655.5	41.5	1,133.7	1,060.4	73.37	15.452	
14,600.0	11,670.0	13,275.0	10,693.8	62.5	59.4	30.18	-2,756.0	43.7	1,130.9	1,055.9	75.06	15.066	
14,700.0	11,670.0	13,389.1	10,696.2	63.8	60.9	30.15	-2,870.0	46.3	1,128.4	1,051.4	76.90	14.673	
14,800.0	11,670.0	13,482.2	10,697.8	65.0	62.1	29.97	-2,962.9	52.0	1,124.1	1,045.7	78.36	14.345	
14,900.0	11,670.0	13,567.6	10,699.4	66.3	63.3	29.96	-3,048.3	53.6	1,121.8	1,041.8	79.97	14.028	
15,000.0	11,670.0	13,688.8	10,701.4	67.6	64.9	29.89	-3,169.4	57.1	1,119.3	1,037.4	81.87	13.672	
15,100.0	11,670.0	13,777.9	10,702.4	68.9	66.2	29.69	-3,258.3	62.7	1,115.6	1,032.3	83.30	13.391	
15,200.0	11,670.0	13,852.8	10,703.2	70.2	67.2	29.65	-3,333.2	64.5	1,113.7	1,028.9	84.80	13.133	
15,225.9	11,670.0	13,871.6	10,703.4	70.6	67.5	29.66	-3,352.0	64.4	1,113.7	1,028.4	85.21	13.069	
15,300.0	11,670.0	13,935.2	10,703.9	71.6	68.4	29.76	-3,415.5	63.0	1,114.2	1,027.6	86.56	12.871	
15,400.0	11,670.0	14,028.6	10,704.4	72.9	69.7	29.90	-3,509.0	60.6	1,115.2	1,026.7	88.51	12.600	
15,500.0	11,670.0	14,115.4	10,704.1	74.3	70.9	30.04	-3,595.7	57.8	1,117.5	1,027.1	90.39	12.362	
15,600.0	11,670.0	14,218.5	10,702.8	75.7	72.3	30.17	-3,698.7	54.7	1,120.4	1,027.9	92.46	12.118	
15,700.0	11,670.0	14,337.3	10,701.9	77.1	74.0	30.23	-3,817.5	53.6	1,121.7	1,027.1	94.62	11.855	
15,800.0	11,670.0	14,445.5	10,702.8	78.5	75.6	30.36	-3,925.7	51.9	1,122.1	1,025.4	96.78	11.595	
15,900.0	11,670.0	14,548.1	10,703.6	79.9	77.1	30.43	-4,028.3	51.3	1,122.0	1,023.2	98.82	11.355	
16,000.0	11,670.0	14,654.0	10,705.0	81.3	78.6	30.53	-4,134.2	50.5	1,121.6	1,020.6	100.94	11.111	
16,055.4	11,670.0	14,701.4	10,705.9	82.1	79.3	30.60	-4,181.6	49.6	1,121.4	1,019.4	102.03	10.990	
16,100.0	11,670.0	14,739.6	10,706.4	82.7	79.9	30.66	-4,219.7	48.8	1,121.5	1,018.6	102.91	10.898	
16,200.0	11,670.0	14,849.0	10,708.1	84.1	81.5	30.86	-4,329.2	46.0	1,121.8	1,016.6	105.25	10.658	
16,300.0	11,670.0	14,947.1	10,710.8	85.6	82.9	31.11	-4,427.1	42.3	1,121.7	1,014.1	107.58	10.427	
16,305.0	11,670.0	14,951.2	10,710.9	85.6	83.0	31.13	-4,431.2	42.1	1,121.7	1,014.0	107.68	10.416	
16,400.0	11,670.0	15,038.8	10,713.5	87.0	84.3	31.40	-4,518.7	37.9	1,122.0	1,012.1	109.90	10.209	
16,500.0	11,670.0	15,130.4	10,715.7	88.5	85.7	31.71	-4,610.1	32.9	1,123.0	1,010.8	112.26	10.004	
16,600.0	11,670.0	15,225.4	10,717.4	89.9	87.1	31.99	-4,704.9	27.8	1,124.7	1,010.1	114.66	9.809	
16,700.0	11,670.0	15,327.0	10,718.1	91.4	88.6	32.22	-4,806.5	23.6	1,126.6	1,009.6	117.06	9.624	
16,800.0	11,670.0	15,444.1	10,718.2	92.9	90.4	32.32	-4,923.5	21.9	1,127.7	1,008.2	119.47	9.439	
16,900.0	11,670.0	15,559.9	10,718.3	94.4	92.1	32.29	-5,039.3	23.6	1,127.1	1,005.5	121.63	9.267	
17,000.0	11,670.0	15,664.2	10,718.3	95.9	93.7	32.17	-5,143.6	27.0	1,125.7	1,002.2	123.51	9.114	
17,100.0	11,670.0	15,777.6	10,717.6	97.3	95.5	31.91	-5,256.8	33.1	1,123.7	998.5	125.25	8.972	
17,200.0	11,670.0	15,897.9	10,716.9	98.8	97.3	31.49	-5,376.6	43.2	1,120.1	993.4	126.72	8.839	
17,300.0	11,670.0	15,997.9	10,716.2	100.3	98.9	31.02	-5,476.1	53.9	1,115.4	987.4	127.93	8.719	
17,400.0	11,670.0	16,074.8	10,716.1	101.9	100.0	30.78	-5,552.7	59.7	1,112.0	982.7	129.30	8.600	
17,500.0	11,670.0	16,170.9	10,716.1	103.4	101.5	30.60	-5,648.8	64.4	1,109.8	978.8	130.95	8.475	
17,600.0	11,670.0	16,268.0	10,716.2	104.9	103.0	30.45	-5,745.7	68.4	1,107.9	975.2	132.66	8.351	
17,700.0	11,670.0	16,368.3	10,716.4	106.4	104.6	30.32	-5,846.0	72.2	1,106.1	971.6	134.44	8.227	
17,800.0	11,670.0	16,465.2	10,717.1	107.9	106.1	30.22	-5,942.8	75.2	1,104.3	968.0	136.25	8.104	
17,878.8	11,670.0	16,527.2	10,717.4	109.1	107.1	30.22	-6,004.8	75.8	1,103.7	966.0	137.65	8.018	
17,900.0	11,670.0	16,544.1	10,717.5	109.5	107.4	30.23	-6,021.7	75.7	1,103.7	965.6	138.05	7.995	
18,000.0	11,670.0	16,638.9	10,717.8	111.0	108.8	30.32	-6,116.6	74.6	1,104.3	964.1	140.19	7.878	
18,100.0	11,670.0	16,738.8	10,718.1	112.5	110.4	30.42	-6,216.4	73.0	1,105.2	962.8	142.43	7.760	
18,200.0	11,670.0	16,841.8	10,718.4	114.1	112.0	30.52	-6,319.4	71.6	1,105.9	961.2	144.71	7.642	
18,300.0	11,670.0	16,939.0	10,718.7	115.6	113.5	30.61	-6,416.6	70.2	1,106.7	959.7	146.92	7.532	
18,400.0	11,670.0	17,003.0	10,719.1	117.2	114.5	30.69	-6,480.6	69.0	1,108.1	959.5	148.62	7.456	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #503H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 333-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,428.0	11,670.0	17,003.0	10,719.1	117.6	114.5	30.69	-6,480.6	69.0	1,109.6	960.9	148.72	7.461	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #504H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 364-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.0	2.0	0.0	0.0	89.62	0.2	29.9	29.9				
100.0	100.0	102.0	102.0	0.1	0.2	90.00	0.0	29.9	29.9	29.6	0.30	100.514	
200.0	200.0	202.0	202.0	0.5	0.3	91.11	-0.6	29.8	29.8	29.0	0.82	36.287	
300.0	300.0	302.0	302.0	0.8	0.5	92.96	-1.5	29.7	29.7	28.4	1.35	22.084	
400.0	400.0	402.0	402.0	1.2	0.7	95.52	-2.9	29.5	29.7	27.7	1.94	15.255	
409.4	409.4	411.4	411.4	1.2	0.8	95.78	-3.0	29.5	29.7	27.6	2.01	14.746	
500.0	500.0	502.0	502.0	1.6	1.1	98.35	-4.3	29.4	29.7	27.1	2.66	11.163	
600.0	600.0	602.0	602.0	1.9	1.5	43.75	-5.6	29.2	29.1	25.8	3.38	8.633	
700.0	700.0	702.0	701.9	2.3	1.8	50.03	-6.8	29.0	27.5	23.4	4.09	6.716	
800.0	799.9	801.8	801.8	2.6	2.2	60.72	-8.1	28.7	25.2	20.4	4.80	5.250	
900.0	899.7	901.6	901.6	3.0	2.5	76.71	-9.2	28.4	23.4	17.9	5.52	4.235	
944.1	943.6	945.5	945.5	3.1	2.7	85.39	-9.6	28.3	23.1	17.3	5.84	3.961	CC, ES
1,000.0	999.4	1,001.3	1,001.2	3.4	2.9	97.36	-10.0	28.3	23.6	17.4	6.24	3.783	SF
1,100.0	1,098.9	1,100.8	1,100.7	3.7	3.2	118.87	-10.8	28.0	27.4	20.4	6.96	3.931	
1,200.0	1,198.3	1,200.1	1,200.0	4.1	3.6	135.99	-11.3	27.6	34.9	27.2	7.68	4.547	
1,300.0	1,297.4	1,299.2	1,299.2	4.5	4.0	147.44	-11.9	27.3	45.9	37.5	8.40	5.466	
1,400.0	1,396.4	1,398.3	1,398.2	4.9	4.3	154.77	-12.3	27.1	58.6	49.5	9.11	6.429	
1,500.0	1,495.5	1,497.2	1,497.1	5.3	4.7	159.64	-12.6	26.8	71.8	62.0	9.82	7.315	
1,600.0	1,594.5	1,596.5	1,596.4	5.7	5.0	162.96	-12.7	26.5	85.3	74.8	10.53	8.103	
1,700.0	1,693.5	1,695.7	1,695.6	6.1	5.3	165.43	-12.6	26.4	98.7	87.5	11.23	8.790	
1,800.0	1,792.5	1,795.6	1,795.6	6.5	5.7	167.23	-12.3	26.8	111.7	99.8	11.93	9.371	
1,900.0	1,891.6	1,895.0	1,894.9	6.9	6.0	168.55	-11.7	27.6	124.4	111.8	12.62	9.856	
2,000.0	1,990.6	1,994.3	1,994.2	7.3	6.3	169.67	-11.0	28.5	137.0	123.6	13.32	10.284	
2,100.0	2,089.6	2,093.6	2,093.5	7.7	6.7	170.62	-10.3	29.4	149.5	135.5	14.02	10.666	
2,200.0	2,188.6	2,193.3	2,193.2	8.1	7.0	171.45	-9.3	30.4	161.9	147.2	14.72	10.995	
2,300.0	2,287.7	2,293.2	2,293.1	8.5	7.4	172.26	-7.9	31.5	173.9	158.5	15.43	11.271	
2,400.0	2,386.7	2,392.8	2,392.7	8.9	7.7	172.98	-6.2	32.8	185.6	169.5	16.14	11.505	
2,500.0	2,485.7	2,492.5	2,492.4	9.4	8.0	173.63	-4.4	34.2	197.3	180.4	16.84	11.711	
2,600.0	2,584.8	2,592.5	2,592.3	9.8	8.4	174.23	-2.4	35.8	208.6	191.1	17.56	11.883	
2,700.0	2,683.8	2,692.7	2,692.4	10.2	8.7	174.77	-0.1	37.6	219.7	201.4	18.27	12.024	
2,800.0	2,782.8	2,793.4	2,793.1	10.6	9.1	175.17	2.1	40.1	230.3	211.3	18.99	12.127	
2,900.0	2,881.8	2,894.2	2,893.9	11.0	9.4	175.47	4.5	43.2	240.3	220.6	19.71	12.191	
3,000.0	2,980.9	2,995.0	2,994.5	11.4	9.8	175.72	7.1	46.8	249.8	229.3	20.43	12.224	
3,100.0	3,079.9	3,096.2	3,095.6	11.9	10.1	175.91	9.9	51.0	258.7	237.5	21.16	12.228	
3,200.0	3,178.9	3,195.7	3,195.0	12.3	10.5	176.06	12.8	55.5	267.3	245.4	21.87	12.219	
3,300.0	3,277.9	3,296.1	3,295.2	12.7	10.8	176.25	15.9	59.9	275.8	253.2	22.60	12.205	
3,400.0	3,377.0	3,389.4	3,388.4	13.1	11.2	176.41	18.3	63.4	285.2	261.9	23.29	12.249	
3,500.0	3,476.0	3,480.9	3,479.9	13.5	11.5	176.58	19.5	64.8	297.1	273.2	23.95	12.407	
3,600.0	3,575.0	3,574.2	3,573.2	13.9	11.8	177.02	20.6	63.6	311.4	286.8	24.61	12.652	
3,700.0	3,674.0	3,661.2	3,660.1	14.3	12.1	177.76	22.0	59.5	328.2	303.0	25.19	13.028	
3,800.0	3,773.1	3,747.3	3,745.8	14.8	12.4	178.80	23.6	51.6	348.7	322.9	25.73	13.549	
3,900.0	3,872.1	3,833.9	3,831.6	15.2	12.7	-179.95	25.3	40.4	372.4	346.1	26.27	14.177	
4,000.0	3,971.1	3,918.2	3,914.8	15.6	13.0	-178.60	27.4	26.5	399.0	372.2	26.75	14.914	
4,100.0	4,070.2	4,002.5	3,997.3	16.0	13.3	-177.18	29.5	9.6	428.8	401.6	27.23	15.747	
4,200.0	4,169.2	4,092.9	4,085.5	16.4	13.6	-175.77	31.6	-10.2	460.6	432.8	27.82	16.553	
4,300.0	4,268.2	4,189.2	4,179.4	16.9	14.0	-174.39	34.3	-31.3	492.5	464.0	28.53	17.261	
4,400.0	4,367.2	4,283.3	4,271.1	17.3	14.3	-173.18	37.2	-52.0	524.5	495.2	29.21	17.956	
4,500.0	4,466.3	4,375.8	4,361.3	17.7	14.7	-172.15	39.9	-72.3	556.8	526.9	29.86	18.645	
4,600.0	4,565.3	4,467.5	4,450.7	18.1	15.0	-171.26	42.0	-92.7	589.6	559.1	30.51	19.326	
4,700.0	4,664.3	4,563.1	4,543.9	18.5	15.4	-170.47	43.9	-114.0	622.8	591.5	31.22	19.946	
4,800.0	4,763.3	4,664.0	4,642.4	18.9	15.8	-169.75	46.0	-135.6	655.2	623.2	32.02	20.464	
4,900.0	4,862.4	4,767.9	4,744.0	19.4	16.2	-169.01	49.1	-157.2	686.8	654.0	32.85	20.905	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #504H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 364-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,961.4	4,868.4	4,842.2	19.8	16.7	-168.15	55.2	-177.6	717.0	683.4	33.64	21.318	
5,100.0	5,060.4	4,966.0	4,937.4	20.2	17.1	-167.23	63.0	-197.7	747.2	712.8	34.38	21.732	
5,200.0	5,159.4	5,062.1	5,031.1	20.6	17.5	-166.29	71.9	-217.6	777.1	742.0	35.11	22.131	
5,300.0	5,258.5	5,157.9	5,124.3	21.0	17.9	-165.42	81.0	-237.3	807.1	771.3	35.84	22.519	
5,400.0	5,357.5	5,252.9	5,216.9	21.5	18.3	-164.62	90.1	-256.7	837.2	800.6	36.56	22.897	
5,500.0	5,456.5	5,347.5	5,309.0	21.9	18.7	-163.86	99.4	-276.2	867.4	830.1	37.28	23.265	
5,600.0	5,555.6	5,442.0	5,401.0	22.3	19.1	-163.13	108.8	-295.7	897.7	859.7	38.00	23.623	
5,700.0	5,654.6	5,536.2	5,492.7	22.7	19.5	-162.46	118.2	-315.2	928.2	889.5	38.72	23.972	
5,800.0	5,753.6	5,630.9	5,584.9	23.1	20.0	-161.82	127.6	-334.8	958.9	919.4	39.45	24.306	
5,900.0	5,852.6	5,728.2	5,679.5	23.5	20.4	-161.20	137.5	-354.8	989.5	949.2	40.21	24.607	
6,000.0	5,951.7	5,822.6	5,771.4	24.0	20.8	-160.64	147.0	-374.1	1,020.1	979.1	40.94	24.918	
6,098.6	6,049.3	5,920.7	5,867.1	24.4	21.3	-160.14	156.1	-393.8	1,050.1	1,008.4	41.71	25.174	
6,100.0	6,050.7	5,922.2	5,868.5	24.4	21.3	-160.14	156.2	-394.1	1,050.5	1,008.8	41.73	25.178	
6,200.0	6,149.9	6,020.4	5,964.6	24.8	21.7	-159.86	164.3	-413.3	1,079.5	1,037.0	42.49	25.407	
6,300.0	6,249.4	6,115.3	6,057.3	25.2	22.2	-159.59	171.6	-431.6	1,106.2	1,063.0	43.20	25.603	
6,400.0	6,349.1	6,212.9	6,152.9	25.6	22.6	-159.28	178.9	-450.5	1,130.5	1,086.5	43.94	25.725	
6,500.0	6,449.0	6,309.9	6,247.8	25.9	23.0	-158.93	186.2	-469.2	1,152.4	1,107.7	44.67	25.800	
6,600.0	6,549.0	6,400.5	6,336.4	26.2	23.5	-158.62	192.2	-486.7	1,172.3	1,127.0	45.31	25.875	
6,631.9	6,580.9	6,428.1	6,363.5	26.3	23.6	-100.28	193.7	-492.2	1,178.3	1,132.8	45.49	25.902	
6,700.0	6,649.0	6,487.4	6,421.5	26.5	23.8	-100.05	196.4	-504.1	1,191.2	1,145.3	45.89	25.960	
6,800.0	6,749.0	6,592.9	6,524.9	26.9	24.3	-99.78	198.4	-524.7	1,210.2	1,163.5	46.67	25.928	
6,900.0	6,849.0	6,688.4	6,618.7	27.2	24.7	-99.66	197.9	-542.9	1,229.1	1,181.7	47.34	25.964	
7,000.0	6,949.0	6,786.9	6,715.4	27.5	25.2	-99.57	196.5	-561.3	1,247.7	1,199.7	48.03	25.976	
7,100.0	7,049.0	6,864.0	6,791.0	27.8	25.5	-99.53	195.0	-576.6	1,267.6	1,219.1	48.49	26.142	
7,200.0	7,149.0	6,956.1	6,881.0	28.1	25.9	-99.50	192.5	-595.7	1,288.5	1,239.4	49.11	26.236	
7,300.0	7,249.0	7,065.1	6,987.7	28.4	26.4	-99.48	189.2	-617.9	1,309.0	1,259.1	49.93	26.217	
7,400.0	7,349.0	7,162.5	7,083.1	28.8	26.8	-99.48	185.8	-637.1	1,329.1	1,278.5	50.62	26.258	
7,500.0	7,449.0	7,242.7	7,161.5	29.1	27.2	-99.49	183.0	-653.6	1,349.9	1,298.8	51.11	26.413	
7,600.0	7,549.0	7,338.1	7,254.8	29.4	27.6	-99.48	179.8	-673.9	1,371.4	1,319.6	51.77	26.488	
7,700.0	7,649.0	7,443.8	7,358.0	29.7	28.1	-99.49	175.9	-696.1	1,392.8	1,340.2	52.56	26.499	
7,800.0	7,749.0	7,557.0	7,468.8	30.1	28.6	-99.52	171.2	-718.9	1,413.3	1,359.9	53.42	26.455	
7,900.0	7,849.0	7,657.0	7,566.8	30.4	29.1	-99.56	167.0	-738.0	1,432.9	1,378.7	54.14	26.466	
8,000.0	7,949.0	7,739.3	7,647.4	30.7	29.4	-99.58	163.9	-754.6	1,453.3	1,398.7	54.67	26.586	
8,100.0	8,049.0	7,835.1	7,741.1	31.0	29.9	-99.59	160.3	-774.3	1,474.3	1,419.0	55.34	26.640	
8,200.0	8,149.0	7,988.4	7,891.3	31.4	30.6	-99.57	155.6	-804.6	1,494.7	1,438.1	56.62	26.401	
8,300.0	8,249.0	8,285.1	8,185.9	31.7	31.8	-99.28	157.7	-837.8	1,505.8	1,447.1	58.76	25.627	
8,400.0	8,349.0	8,442.4	8,343.1	32.0	32.3	-99.24	158.4	-840.8	1,507.3	1,447.6	59.68	25.256	
8,500.0	8,449.0	8,546.5	8,447.2	32.3	32.6	-99.23	158.4	-841.2	1,507.6	1,447.3	60.38	24.970	
8,600.0	8,549.0	8,643.9	8,544.6	32.7	32.9	-99.24	158.2	-841.5	1,508.0	1,446.9	61.05	24.699	
8,700.0	8,649.0	8,742.8	8,643.5	33.0	33.2	-99.25	157.8	-841.9	1,508.4	1,446.7	61.73	24.434	
8,800.0	8,749.0	8,842.4	8,743.1	33.3	33.5	-99.28	157.1	-842.3	1,508.9	1,446.5	62.41	24.176	
8,900.0	8,849.0	8,938.2	8,838.9	33.7	33.8	-99.31	156.2	-842.8	1,509.6	1,446.5	63.08	23.931	
9,000.0	8,949.0	9,036.2	8,936.9	34.0	34.1	-99.33	155.4	-843.5	1,510.5	1,446.7	63.76	23.690	
9,100.0	9,049.0	9,142.6	9,043.3	34.3	34.5	-99.35	154.8	-844.1	1,511.1	1,446.7	64.47	23.440	
9,200.0	9,149.0	9,236.9	9,137.6	34.6	34.8	-99.38	154.0	-844.6	1,511.8	1,446.6	65.13	23.210	
9,300.0	9,249.0	9,319.2	9,219.9	35.0	35.0	-99.40	153.2	-845.7	1,513.2	1,447.5	65.76	23.013	
9,400.0	9,349.0	9,413.3	9,313.9	35.3	35.4	-99.45	151.6	-847.6	1,515.5	1,449.1	66.42	22.816	
9,500.0	9,449.0	9,517.7	9,418.3	35.6	35.7	-99.49	150.0	-849.7	1,517.7	1,450.6	67.13	22.608	
9,600.0	9,549.0	9,605.5	9,506.1	36.0	36.0	-99.49	149.8	-852.0	1,520.3	1,452.6	67.77	22.432	
9,700.0	9,649.0	9,753.7	9,654.3	36.3	36.5	-99.41	151.7	-853.7	1,521.1	1,452.4	68.64	22.159	
9,760.4	9,709.4	9,810.9	9,711.4	36.5	36.7	-99.37	152.6	-853.7	1,520.9	1,451.9	69.05	22.026	
9,800.0	9,749.0	9,840.8	9,741.4	36.7	36.8	-99.36	152.9	-853.8	1,521.0	1,451.7	69.29	21.951	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #504H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 364-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.0	9,849.0	9,921.0	9,821.6	37.0	37.0	-99.34	153.3	-855.0	1,522.4	1,452.5	69.91	21.776	
10,000.0	9,949.0	10,048.4	9,948.9	37.3	37.5	-99.34	152.9	-857.2	1,524.3	1,453.6	70.70	21.560	
10,100.0	10,049.0	10,187.0	10,087.5	37.7	37.9	-99.28	154.8	-855.5	1,522.8	1,451.3	71.48	21.303	
10,200.0	10,149.0	10,315.9	10,216.2	38.0	38.3	-99.34	153.9	-851.4	1,519.8	1,447.6	72.20	21.051	
10,300.0	10,249.0	10,417.0	10,315.3	38.3	38.5	-100.05	136.2	-843.6	1,515.1	1,442.3	72.85	20.798	
10,400.0	10,349.0	10,496.7	10,390.3	38.7	38.7	-101.06	110.4	-836.2	1,511.7	1,438.2	73.46	20.579	
10,491.9	10,440.9	10,555.3	10,442.9	39.0	38.8	-102.04	85.2	-830.2	1,510.3	1,436.3	73.96	20.420	
10,500.0	10,449.0	10,559.2	10,446.3	39.0	38.8	-102.11	83.4	-829.8	1,510.3	1,436.3	74.00	20.410	
10,600.0	10,549.0	10,605.3	10,485.9	39.3	38.9	-103.01	60.2	-825.5	1,512.6	1,438.2	74.42	20.326	
10,700.0	10,649.0	10,632.0	10,508.1	39.7	39.0	-103.57	45.6	-823.3	1,519.2	1,444.5	74.62	20.359	
10,800.0	10,749.0	10,682.9	10,548.3	40.0	39.0	-104.74	14.5	-819.6	1,529.9	1,455.1	74.81	20.451	
10,900.0	10,849.0	10,726.0	10,579.4	40.4	39.1	-105.85	-15.1	-816.9	1,545.7	1,470.8	74.83	20.656	
11,000.0	10,949.0	10,726.0	10,579.4	40.7	39.1	-105.85	-15.1	-816.9	1,566.3	1,492.0	74.35	21.068	
11,100.0	11,049.0	10,773.8	10,611.4	41.0	39.2	-107.14	-50.5	-814.6	1,591.4	1,517.2	74.13	21.467	
11,148.0	11,097.0	10,787.2	10,620.1	41.2	39.2	-107.51	-60.7	-814.2	1,605.2	1,531.3	73.91	21.719	
11,148.1	11,097.0	10,787.2	10,620.1	41.2	39.2	-107.51	-60.7	-814.2	1,605.2	1,531.3	73.91	21.719	
11,150.0	11,099.0	10,787.8	10,620.5	41.2	39.2	68.27	-61.1	-814.1	1,605.8	1,531.9	73.90	21.730	
11,200.0	11,148.9	10,821.0	10,641.5	41.4	39.2	65.99	-86.9	-813.4	1,620.7	1,546.9	73.80	21.961	
11,250.0	11,198.4	10,821.0	10,641.5	41.5	39.2	64.68	-86.9	-813.4	1,634.5	1,561.2	73.33	22.291	
11,300.0	11,247.2	10,821.0	10,641.5	41.6	39.2	63.43	-86.9	-813.4	1,648.0	1,575.2	72.81	22.635	
11,350.0	11,294.8	10,852.2	10,659.9	41.7	39.3	61.65	-112.1	-813.1	1,660.6	1,588.0	72.62	22.867	
11,400.0	11,340.9	10,852.2	10,659.9	41.8	39.3	60.60	-112.1	-813.1	1,672.3	1,600.2	72.05	23.209	
11,450.0	11,385.2	10,852.2	10,659.9	41.9	39.3	59.63	-112.1	-813.1	1,683.3	1,611.8	71.46	23.554	
11,500.0	11,427.3	10,881.9	10,675.8	42.0	39.3	58.36	-137.2	-813.1	1,692.6	1,621.4	71.23	23.763	
11,550.0	11,466.8	10,915.0	10,691.4	42.1	39.4	57.24	-166.3	-813.5	1,701.4	1,630.4	71.02	23.957	
11,600.0	11,503.5	10,915.0	10,691.4	42.1	39.4	56.66	-166.3	-813.5	1,708.3	1,637.8	70.45	24.247	
11,650.0	11,537.2	10,915.0	10,691.4	42.1	39.4	56.17	-166.3	-813.5	1,714.2	1,644.3	69.90	24.522	
11,700.0	11,567.5	10,947.6	10,705.2	42.2	39.4	55.58	-195.8	-814.1	1,718.4	1,648.6	69.76	24.632	
11,750.0	11,594.2	10,968.7	10,713.7	42.2	39.4	55.25	-215.2	-814.6	1,721.1	1,651.5	69.53	24.753	
11,800.0	11,617.1	11,009.0	10,728.5	42.2	39.5	55.05	-252.6	-816.0	1,722.4	1,652.8	69.55	24.766	
11,850.0	11,636.1	11,009.0	10,728.5	42.2	39.5	55.13	-252.6	-816.0	1,721.5	1,652.3	69.19	24.880	
11,900.0	11,651.0	11,038.2	10,738.4	42.1	39.5	55.33	-280.1	-817.1	1,719.1	1,649.9	69.21	24.837	
11,950.0	11,661.6	11,064.5	10,746.6	42.1	39.6	55.74	-305.0	-818.2	1,715.0	1,645.7	69.27	24.758	
12,000.0	11,668.0	11,103.0	10,757.8	42.1	39.7	56.41	-341.8	-819.8	1,709.1	1,639.6	69.50	24.591	
12,048.1	11,670.0	11,103.0	10,757.8	42.1	39.7	57.02	-341.8	-819.8	1,701.8	1,632.4	69.45	24.503	
12,100.0	11,670.0	11,103.0	10,757.8	42.2	39.7	57.10	-341.8	-819.8	1,694.7	1,625.2	69.47	24.394	
12,200.0	11,670.0	11,154.3	10,769.4	42.3	39.8	57.55	-391.7	-822.6	1,684.9	1,614.9	70.03	24.059	
12,272.6	11,670.0	11,198.0	10,775.6	42.5	39.9	57.81	-434.8	-826.0	1,683.1	1,612.6	70.51	23.869	
12,300.0	11,670.0	11,198.0	10,775.6	42.6	39.9	57.81	-434.8	-826.0	1,682.8	1,612.2	70.60	23.835	
12,400.0	11,670.0	11,324.6	10,784.8	43.0	40.4	58.17	-560.9	-830.2	1,682.4	1,610.8	71.63	23.489	
12,500.0	11,670.0	11,433.4	10,788.2	43.4	40.8	58.27	-669.7	-829.6	1,680.8	1,608.2	72.54	23.170	
12,600.0	11,670.0	11,542.4	10,792.7	43.9	41.3	58.39	-778.6	-828.3	1,678.2	1,604.6	73.59	22.803	
12,700.0	11,670.0	11,654.8	10,798.7	44.4	42.0	58.55	-890.8	-827.2	1,675.0	1,600.2	74.81	22.390	
12,800.0	11,670.0	11,760.2	10,803.9	45.0	42.7	58.68	-996.0	-825.0	1,671.1	1,595.0	76.07	21.968	
12,900.0	11,670.0	11,846.4	10,808.0	45.7	43.3	58.78	-1,082.2	-823.4	1,667.6	1,590.3	77.31	21.572	
13,000.0	11,670.0	11,931.9	10,811.0	46.4	43.9	58.86	-1,167.6	-822.2	1,665.1	1,586.5	78.60	21.183	
13,100.0	11,670.0	12,032.8	10,813.8	47.1	44.7	58.92	-1,268.4	-820.6	1,662.8	1,582.8	80.07	20.768	
13,200.0	11,670.0	12,128.3	10,815.5	47.9	45.5	58.95	-1,363.9	-818.8	1,660.8	1,579.2	81.55	20.364	
13,300.0	11,670.0	12,232.7	10,817.1	48.7	46.4	58.97	-1,468.3	-816.7	1,658.8	1,575.6	83.17	19.944	
13,400.0	11,670.0	12,347.6	10,818.7	49.6	47.5	58.97	-1,583.1	-813.4	1,656.1	1,571.1	84.93	19.500	
13,500.0	11,670.0	12,438.8	10,820.3	50.5	48.3	58.98	-1,674.2	-810.5	1,653.0	1,566.4	86.59	19.090	
13,600.0	11,670.0	12,511.7	10,821.3	51.5	49.1	58.98	-1,747.1	-809.0	1,651.1	1,562.9	88.18	18.724	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #504H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 364-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,645.9	11,670.0	12,541.7	10,821.5	51.9	49.4	58.99	-1,777.2	-808.8	1,650.9	1,562.0	88.91	18.568	
13,700.0	11,670.0	12,578.2	10,821.7	52.4	49.8	59.00	-1,813.7	-808.9	1,651.2	1,561.4	89.77	18.393	
13,800.0	11,670.0	12,660.6	10,822.0	53.4	50.6	59.04	-1,896.0	-810.1	1,652.8	1,561.2	91.55	18.054	
13,900.0	11,670.0	12,783.5	10,822.2	54.5	52.0	59.09	-2,018.9	-811.6	1,654.2	1,560.5	93.70	17.654	
14,000.0	11,670.0	12,894.1	10,822.2	55.6	53.2	59.10	-2,129.5	-811.6	1,654.7	1,558.9	95.80	17.273	
14,100.0	11,670.0	12,997.7	10,822.8	56.7	54.4	59.12	-2,233.1	-811.1	1,654.6	1,556.7	97.89	16.902	
14,136.6	11,670.0	13,032.5	10,822.8	57.1	54.8	59.12	-2,267.9	-810.9	1,654.5	1,555.9	98.64	16.774	
14,200.0	11,670.0	13,085.7	10,822.7	57.8	55.4	59.12	-2,321.1	-810.7	1,654.7	1,554.8	99.88	16.567	
14,300.0	11,670.0	13,162.9	10,822.7	59.0	56.3	59.14	-2,398.3	-811.3	1,655.9	1,554.1	101.82	16.263	
14,400.0	11,670.0	13,234.0	10,822.7	60.1	57.2	59.18	-2,469.4	-813.3	1,658.8	1,555.1	103.75	15.989	
14,500.0	11,670.0	13,327.0	10,823.2	61.3	58.3	59.28	-2,562.3	-817.3	1,662.8	1,556.9	105.95	15.694	
14,600.0	11,670.0	13,444.5	10,823.8	62.5	59.8	59.39	-2,679.7	-821.9	1,666.3	1,557.9	108.45	15.365	
14,700.0	11,670.0	13,544.0	10,824.1	63.8	61.1	59.46	-2,779.2	-825.0	1,669.4	1,558.6	110.78	15.070	
14,800.0	11,670.0	13,644.9	10,824.3	65.0	62.4	59.53	-2,880.0	-828.3	1,672.6	1,559.5	113.16	14.782	
14,900.0	11,670.0	13,751.4	10,824.5	66.3	63.8	59.60	-2,986.4	-831.2	1,675.4	1,559.8	115.62	14.491	
15,000.0	11,670.0	13,878.8	10,824.2	67.6	65.4	59.64	-3,113.8	-833.5	1,677.7	1,559.4	118.30	14.182	
15,100.0	11,670.0	14,004.0	10,823.6	68.9	67.1	59.63	-3,239.0	-832.8	1,678.0	1,557.0	120.93	13.875	
15,200.0	11,670.0	14,120.2	10,823.9	70.2	68.7	59.61	-3,355.2	-830.6	1,676.7	1,553.2	123.50	13.576	
15,300.0	11,670.0	14,205.8	10,825.2	71.6	69.9	59.64	-3,440.7	-829.8	1,675.6	1,549.8	125.85	13.314	
15,347.2	11,670.0	14,243.7	10,825.8	72.2	70.4	59.67	-3,478.6	-829.8	1,675.5	1,548.5	126.95	13.198	
15,400.0	11,670.0	14,293.9	10,826.5	72.9	71.1	59.69	-3,528.9	-830.0	1,675.6	1,547.3	128.26	13.064	
15,500.0	11,670.0	14,406.6	10,827.0	74.3	72.7	59.71	-3,641.6	-829.2	1,675.2	1,544.3	130.89	12.798	
15,600.0	11,670.0	14,518.2	10,827.8	75.7	74.2	59.72	-3,753.2	-828.0	1,674.5	1,540.9	133.53	12.539	
15,700.0	11,670.0	14,608.2	10,827.8	77.1	75.5	59.70	-3,843.2	-826.1	1,673.1	1,537.2	135.96	12.307	
15,800.0	11,670.0	14,702.3	10,828.1	78.5	76.8	59.71	-3,937.2	-825.4	1,672.9	1,534.5	138.46	12.082	
15,900.0	11,670.0	14,807.2	10,828.8	79.9	78.3	59.72	-4,042.1	-824.5	1,672.3	1,531.2	141.09	11.853	
15,980.9	11,670.0	14,877.4	10,828.8	81.0	79.3	59.71	-4,112.3	-823.7	1,672.0	1,528.9	143.07	11.687	
16,000.0	11,670.0	14,892.6	10,828.7	81.3	79.6	59.71	-4,127.5	-823.6	1,672.0	1,528.5	143.52	11.650	
16,100.0	11,670.0	15,021.9	10,827.0	82.7	81.4	59.64	-4,256.8	-821.7	1,672.1	1,525.7	146.33	11.426	
16,200.0	11,670.0	15,108.0	10,825.3	84.1	82.7	59.55	-4,342.9	-819.0	1,670.9	1,522.2	148.72	11.235	
16,300.0	11,670.0	15,202.0	10,824.1	85.6	84.1	59.50	-4,436.8	-817.3	1,670.4	1,519.2	151.23	11.046	
16,400.0	11,670.0	15,306.2	10,823.8	87.0	85.6	59.48	-4,541.0	-815.9	1,670.0	1,516.1	153.88	10.853	
16,500.0	11,670.0	15,429.4	10,824.0	88.5	87.4	59.45	-4,664.1	-813.2	1,668.4	1,511.7	156.72	10.646	
16,600.0	11,670.0	15,517.0	10,824.9	89.9	88.7	59.45	-4,751.7	-811.5	1,666.9	1,507.6	159.27	10.466	
16,700.0	11,670.0	15,612.7	10,826.1	91.4	90.2	59.48	-4,847.4	-810.6	1,665.8	1,503.9	161.94	10.287	
16,800.0	11,670.0	15,716.0	10,827.2	92.9	91.7	59.50	-4,950.7	-809.2	1,664.7	1,500.0	164.67	10.109	
16,900.0	11,670.0	15,812.0	10,827.8	94.4	93.1	59.51	-5,046.6	-807.9	1,663.7	1,496.4	167.33	9.943	
17,000.0	11,670.0	15,916.3	10,828.8	95.9	94.7	59.53	-5,151.0	-806.6	1,662.7	1,492.6	170.09	9.775	
17,100.0	11,670.0	16,015.5	10,829.8	97.3	96.2	59.54	-5,250.1	-805.1	1,661.4	1,488.6	172.81	9.614	
17,200.0	11,670.0	16,126.6	10,831.0	98.8	97.9	59.56	-5,361.2	-803.7	1,660.2	1,484.6	175.66	9.451	
17,300.0	11,670.0	16,224.0	10,831.9	100.3	99.4	59.56	-5,458.6	-801.4	1,658.3	1,479.9	178.36	9.297	
17,400.0	11,670.0	16,323.2	10,832.8	101.9	100.9	59.56	-5,557.8	-799.6	1,656.8	1,475.7	181.10	9.148	
17,500.0	11,670.0	16,411.2	10,833.6	103.4	102.3	59.57	-5,645.8	-798.2	1,655.4	1,471.7	183.73	9.010	
17,600.0	11,670.0	16,507.2	10,834.5	104.9	103.7	59.59	-5,741.8	-797.4	1,654.8	1,468.3	186.47	8.874	
17,700.0	11,670.0	16,613.3	10,836.0	106.4	105.4	59.64	-5,847.8	-796.7	1,654.0	1,464.6	189.35	8.735	
17,785.9	11,670.0	16,682.6	10,836.6	107.7	106.4	59.65	-5,917.1	-796.1	1,653.5	1,461.9	191.57	8.631	
17,800.0	11,670.0	16,693.2	10,836.5	107.9	106.6	59.65	-5,927.8	-796.0	1,653.5	1,461.6	191.91	8.616	
17,900.0	11,670.0	16,799.8	10,835.1	109.5	108.2	59.60	-6,034.4	-795.0	1,653.9	1,459.2	194.69	8.495	
18,000.0	11,670.0	16,911.3	10,835.9	111.0	110.0	59.62	-6,145.8	-794.0	1,653.3	1,455.7	197.61	8.366	
18,100.0	11,670.0	17,007.5	10,836.9	112.5	111.5	59.65	-6,242.0	-793.2	1,652.5	1,452.1	200.38	8.247	
18,200.0	11,670.0	17,120.7	10,838.0	114.1	113.2	59.67	-6,355.2	-791.9	1,651.5	1,448.2	203.33	8.122	
18,300.0	11,670.0	17,212.4	10,839.3	115.6	114.6	59.68	-6,446.9	-790.0	1,649.7	1,443.6	206.07	8.006	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #504H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 364-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,400.0	11,670.0	17,312.5	10,839.2	117.2	116.2	59.67	-6,547.0	-788.9	1,649.2	1,440.4	208.85	7.897	
18,428.0	11,670.0	17,327.0	10,839.3	117.6	116.4	59.67	-6,561.5	-788.7	1,649.0	1,439.5	209.49	7.872	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #703H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 200-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	2.0	2.0	0.0	0.0	47.94	23.7	26.2	35.3				
100.0	100.0	101.7	101.7	0.1	0.2	47.71	24.0	26.4	35.7	35.4	0.29	123.103	
200.0	200.0	201.5	201.5	0.5	0.3	47.07	25.1	26.9	36.8	36.0	0.80	45.774	
300.0	300.0	301.5	301.5	0.8	0.7	46.49	26.3	27.7	38.2	36.7	1.52	25.166	
400.0	400.0	401.6	401.5	1.2	1.0	46.48	27.2	28.7	39.6	37.3	2.23	17.707	
500.0	500.0	501.6	501.6	1.6	1.4	47.10	27.7	29.8	40.7	37.7	2.95	13.795	
600.0	600.0	601.6	601.5	1.9	1.7	-10.78	28.1	30.9	40.9	37.2	3.66	11.176	
700.0	700.0	701.9	701.8	2.3	2.1	-11.00	28.4	31.7	39.1	34.7	4.37	8.940	
800.0	799.9	802.0	801.9	2.6	2.4	-12.16	28.2	31.7	34.8	29.7	5.07	6.865	
900.0	899.7	901.8	901.7	3.0	2.8	-14.83	28.2	31.6	28.7	23.0	5.76	4.987	
1,000.0	999.4	1,001.5	1,001.5	3.4	3.1	-21.53	28.1	31.0	20.7	14.3	6.46	3.214	
1,100.0	1,098.9	1,101.0	1,100.9	3.7	3.5	-39.47	28.1	30.7	12.2	5.1	7.17	1.705	
1,178.4	1,176.8	1,178.8	1,178.8	4.0	3.7	-87.55	28.1	30.2	8.1	0.3	7.74	1.042	Level 2, CC, ES, SF
1,200.0	1,198.3	1,200.3	1,200.2	4.1	3.8	-106.06	28.2	30.0	8.5	0.6	7.89	1.079	Level 2
1,300.0	1,297.4	1,299.3	1,299.3	4.5	4.1	-151.15	28.3	29.2	18.2	9.7	8.57	2.126	
1,400.0	1,396.4	1,398.4	1,398.3	4.9	4.5	-163.44	28.3	28.7	31.7	22.4	9.27	3.417	
1,500.0	1,495.5	1,497.4	1,497.3	5.3	4.8	-168.31	28.3	28.4	45.5	35.5	9.98	4.558	
1,600.0	1,594.5	1,596.2	1,596.2	5.7	5.2	-170.90	28.4	28.2	59.4	48.7	10.69	5.556	
1,700.0	1,693.5	1,694.3	1,694.2	6.1	5.5	-172.20	28.4	26.9	74.3	62.9	11.39	6.523	
1,800.0	1,792.5	1,795.1	1,795.0	6.5	5.9	-173.12	28.6	26.2	88.7	76.6	12.11	7.322	
1,900.0	1,891.6	1,894.4	1,894.3	6.9	6.2	-173.87	29.1	26.5	102.0	89.2	12.83	7.953	
2,000.0	1,990.6	1,995.1	1,995.0	7.3	6.6	-174.44	30.0	27.5	114.5	101.0	13.55	8.454	
2,100.0	2,089.6	2,097.3	2,097.2	7.7	6.9	-174.57	32.4	30.0	125.2	110.9	14.28	8.769	
2,200.0	2,188.6	2,200.7	2,200.3	8.1	7.3	-174.17	37.2	34.4	133.3	118.3	15.00	8.883	
2,300.0	2,287.7	2,304.4	2,303.6	8.5	7.7	-173.41	44.1	41.1	138.4	122.7	15.73	8.800	
2,400.0	2,386.7	2,406.0	2,404.5	8.9	8.0	-172.56	52.2	49.6	141.3	124.9	16.45	8.594	
2,500.0	2,485.7	2,506.5	2,504.3	9.4	8.4	-171.68	60.5	58.3	143.9	126.7	17.17	8.378	
2,600.0	2,584.8	2,607.4	2,604.4	9.8	8.8	-170.75	69.3	67.4	145.9	128.0	17.90	8.149	
2,700.0	2,683.8	2,707.8	2,704.0	10.2	9.2	-169.87	78.2	77.1	147.3	128.7	18.63	7.908	
2,800.0	2,782.8	2,807.9	2,803.2	10.6	9.5	-169.40	86.2	87.3	148.6	129.3	19.36	7.678	
2,900.0	2,881.8	2,908.8	2,903.3	11.0	9.9	-169.08	94.0	98.0	149.7	129.6	20.09	7.451	
3,000.0	2,980.9	3,008.3	3,001.8	11.4	10.3	-168.81	101.6	108.7	150.5	129.7	20.82	7.228	
3,100.0	3,079.9	3,108.2	3,100.9	11.9	10.7	-168.75	108.7	119.5	151.6	130.0	21.55	7.034	
3,200.0	3,178.9	3,208.2	3,200.1	12.3	11.1	-168.79	115.6	130.3	152.7	130.4	22.29	6.851	
3,300.0	3,277.9	3,308.6	3,299.7	12.7	11.5	-168.71	122.8	141.3	153.6	130.6	23.02	6.674	
3,400.0	3,377.0	3,408.0	3,398.2	13.1	11.9	-168.64	129.9	152.2	154.5	130.7	23.76	6.503	
3,500.0	3,476.0	3,505.1	3,494.6	13.5	12.2	-168.62	136.4	161.6	156.7	132.2	24.50	6.399	
3,600.0	3,575.0	3,604.1	3,593.0	13.9	12.6	-168.63	142.4	170.1	160.3	135.0	25.23	6.352	
3,700.0	3,674.0	3,704.4	3,692.8	14.3	13.0	-168.61	148.6	178.7	163.8	137.8	25.96	6.307	
3,800.0	3,773.1	3,804.2	3,792.0	14.8	13.4	-168.42	155.2	187.0	167.3	140.6	26.70	6.264	
3,900.0	3,872.1	3,904.2	3,891.5	15.2	13.8	-168.14	162.1	195.3	170.8	143.4	27.44	6.225	
4,000.0	3,971.1	4,004.6	3,991.2	15.6	14.1	-167.84	169.2	203.7	174.2	146.0	28.18	6.181	
4,100.0	4,070.2	4,104.6	4,090.6	16.0	14.5	-167.54	176.3	212.2	177.3	148.4	28.92	6.132	
4,200.0	4,169.2	4,204.5	4,189.8	16.4	14.9	-167.16	183.7	220.6	180.6	150.9	29.66	6.088	
4,300.0	4,268.2	4,304.6	4,289.3	16.9	15.3	-166.71	191.4	228.9	183.8	153.4	30.41	6.045	
4,400.0	4,367.2	4,404.3	4,388.4	17.3	15.7	-166.15	199.4	237.2	187.0	155.9	31.16	6.003	
4,500.0	4,466.3	4,504.3	4,487.7	17.7	16.1	-165.49	207.8	245.2	190.4	158.5	31.91	5.966	
4,600.0	4,565.3	4,604.2	4,586.9	18.1	16.5	-164.75	216.5	253.1	193.7	161.0	32.67	5.929	
4,700.0	4,664.3	4,702.3	4,684.4	18.5	16.9	-164.08	224.9	260.6	197.4	164.0	33.42	5.907	
4,800.0	4,763.3	4,801.8	4,783.3	18.9	17.3	-163.60	232.6	267.7	201.8	167.7	34.17	5.907	
4,900.0	4,862.4	4,902.2	4,883.1	19.4	17.6	-163.13	240.5	274.9	206.2	171.3	34.92	5.905	
5,000.0	4,961.4	5,002.5	4,982.9	19.8	18.0	-162.62	248.6	282.3	210.4	174.7	35.68	5.896	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #703H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 200-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,060.4	5,098.7	5,078.5	20.2	18.4	-162.31	255.5	288.7	215.4	179.0	36.42	5.916	
5,200.0	5,159.4	5,197.2	5,176.7	20.6	18.8	-162.25	261.5	294.4	221.6	184.4	37.15	5.965	
5,300.0	5,258.5	5,296.9	5,276.1	21.0	19.2	-162.27	267.2	300.1	228.0	190.1	37.89	6.018	
5,400.0	5,357.5	5,396.5	5,375.4	21.5	19.5	-162.29	272.9	305.7	234.5	195.9	38.63	6.071	
5,500.0	5,456.5	5,496.1	5,474.6	21.9	19.9	-162.32	278.5	311.2	241.1	201.7	39.36	6.124	
5,600.0	5,555.6	5,596.0	5,574.3	22.3	20.3	-162.37	284.0	316.7	247.6	207.5	40.10	6.176	
5,700.0	5,654.6	5,695.6	5,673.5	22.7	20.7	-162.41	289.5	322.2	254.2	213.4	40.84	6.225	
5,800.0	5,753.6	5,799.6	5,777.2	23.1	21.1	-162.42	295.6	328.4	260.3	218.7	41.60	6.258	
5,900.0	5,852.6	5,902.6	5,879.7	23.5	21.5	-162.25	302.8	336.1	264.6	222.2	42.36	6.247	
6,000.0	5,951.7	6,002.2	5,978.7	24.0	21.8	-162.03	310.2	344.0	268.4	225.3	43.11	6.227	
6,098.6	6,049.3	6,101.4	6,077.3	24.4	22.2	-161.79	317.7	351.8	272.2	228.4	43.85	6.208	
6,100.0	6,050.7	6,102.9	6,078.7	24.4	22.2	-161.79	317.8	351.9	272.3	228.4	43.86	6.207	
6,200.0	6,149.9	6,202.7	6,178.0	24.8	22.6	-161.43	325.5	359.8	274.7	230.1	44.62	6.156	
6,300.0	6,249.4	6,302.5	6,277.1	25.2	23.0	-160.86	333.4	367.7	274.7	229.3	45.38	6.054	
6,400.0	6,349.1	6,401.6	6,375.6	25.6	23.4	-160.09	341.3	375.3	272.5	226.3	46.14	5.906	
6,500.0	6,449.0	6,500.5	6,473.9	25.9	23.8	-159.14	348.9	382.6	268.1	221.3	46.89	5.718	
6,600.0	6,549.0	6,600.5	6,573.4	26.2	24.2	-157.97	356.3	389.6	261.8	214.2	47.66	5.494	
6,631.9	6,580.9	6,634.4	6,607.1	26.3	24.3	-99.25	358.9	392.3	259.1	211.2	47.91	5.408	
6,700.0	6,649.0	6,704.9	6,677.1	26.5	24.6	-98.22	364.5	398.6	252.3	203.8	48.43	5.209	
6,800.0	6,749.0	6,804.6	6,776.1	26.9	25.0	-96.70	372.3	408.0	241.8	192.6	49.21	4.914	
6,900.0	6,849.0	6,902.6	6,873.3	27.2	25.4	-95.13	379.7	417.2	231.7	181.7	49.99	4.636	
7,000.0	6,949.0	7,000.6	6,970.7	27.5	25.8	-93.58	386.5	425.7	222.5	171.8	50.77	4.384	
7,100.0	7,049.0	7,098.9	7,068.5	27.8	26.2	-92.04	392.7	433.8	214.0	162.4	51.54	4.151	
7,200.0	7,149.0	7,197.1	7,166.3	28.1	26.5	-90.55	398.4	441.3	206.2	153.8	52.32	3.941	
7,300.0	7,249.0	7,296.5	7,265.3	28.4	26.9	-88.96	403.9	448.5	199.0	145.9	53.11	3.747	
7,400.0	7,349.0	7,396.3	7,364.5	28.8	27.3	-86.79	411.1	455.9	191.8	137.9	53.93	3.557	
7,500.0	7,449.0	7,495.4	7,463.1	29.1	27.7	-84.44	418.2	463.2	185.0	130.2	54.77	3.378	
7,600.0	7,549.0	7,594.3	7,561.5	29.4	28.1	-82.05	425.0	470.1	178.8	123.2	55.61	3.215	
7,700.0	7,649.0	7,693.4	7,660.2	29.7	28.5	-79.61	431.6	476.8	173.2	116.8	56.46	3.068	
7,800.0	7,749.0	7,794.2	7,760.5	30.1	28.9	-76.94	438.2	483.7	167.8	110.5	57.32	2.927	
7,900.0	7,849.0	7,894.9	7,860.6	30.4	29.2	-73.59	446.0	491.8	162.0	103.7	58.23	2.782	
8,000.0	7,949.0	7,995.2	7,960.1	30.7	29.7	-69.52	454.8	501.0	156.1	96.9	59.18	2.637	
8,100.0	8,049.0	8,094.5	8,058.5	31.0	30.1	-65.17	463.5	510.4	150.7	90.5	60.14	2.505	
8,200.0	8,149.0	8,193.1	8,156.4	31.4	30.4	-60.79	471.7	519.3	146.3	85.2	61.08	2.396	
8,300.0	8,249.0	8,292.1	8,254.8	31.7	30.8	-56.87	478.5	527.1	143.1	81.1	61.97	2.309	
8,400.0	8,349.0	8,389.8	8,352.3	32.0	31.2	-54.05	483.3	532.5	141.3	78.5	62.77	2.251	
8,448.3	8,397.2	8,436.8	8,399.2	32.2	31.4	-53.13	485.0	534.0	141.1	78.0	63.12	2.235	
8,500.0	8,449.0	8,487.7	8,450.1	32.3	31.6	-52.46	486.4	534.9	141.3	77.8	63.49	2.225	
8,600.0	8,549.0	8,587.5	8,549.8	32.7	31.9	-51.29	489.2	536.1	142.0	77.8	64.21	2.212	
8,700.0	8,649.0	8,687.7	8,650.0	33.0	32.2	-50.21	491.7	537.2	142.8	77.9	64.93	2.199	
8,800.0	8,749.0	8,787.7	8,750.0	33.3	32.6	-49.17	494.1	538.3	143.5	77.8	65.64	2.186	
8,900.0	8,849.0	8,887.8	8,850.0	33.7	32.9	-48.22	496.4	539.4	144.2	77.8	66.35	2.173	
9,000.0	8,949.0	8,987.6	8,949.8	34.0	33.3	-47.60	498.0	539.9	144.9	77.8	67.04	2.161	
9,100.0	9,049.0	9,087.2	9,049.4	34.3	33.6	-47.50	498.8	539.4	145.8	78.1	67.70	2.153	
9,200.0	9,149.0	9,186.0	9,148.2	34.6	33.9	-47.63	499.5	538.2	147.2	78.8	68.33	2.154	
9,300.0	9,249.0	9,285.0	9,247.1	35.0	34.2	-47.95	500.4	536.0	149.5	80.5	68.96	2.168	
9,400.0	9,349.0	9,385.4	9,347.5	35.3	34.6	-48.30	501.5	533.4	152.0	82.4	69.61	2.184	
9,500.0	9,449.0	9,486.3	9,448.4	35.6	34.9	-48.32	502.7	531.9	154.0	83.7	70.29	2.191	
9,600.0	9,549.0	9,585.5	9,547.5	36.0	35.2	-48.17	504.3	530.8	155.8	84.9	70.95	2.197	
9,700.0	9,649.0	9,684.0	9,646.0	36.3	35.6	-48.11	506.1	529.0	158.5	86.9	71.59	2.214	
9,800.0	9,749.0	9,784.7	9,746.7	36.7	35.9	-47.82	508.7	527.3	161.5	89.2	72.28	2.234	
9,900.0	9,849.0	9,883.5	9,845.4	37.0	36.2	-47.30	511.8	526.1	164.4	91.5	72.95	2.254	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #703H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 200-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,949.0	9,989.6	9,951.5	37.3	36.6	-46.69	514.2	526.1	166.0	92.2	73.73	2.251	
10,100.0	10,049.0	10,092.2	10,054.1	37.7	36.9	-46.06	514.7	528.3	164.8	90.3	74.43	2.214	
10,200.0	10,149.0	10,192.5	10,154.3	38.0	37.3	-45.58	514.3	530.7	162.8	87.7	75.12	2.167	
10,300.0	10,249.0	10,292.9	10,254.7	38.3	37.6	-45.24	513.4	532.9	160.6	84.8	75.79	2.119	
10,400.0	10,349.0	10,393.7	10,355.5	38.7	38.0	-45.00	512.1	535.2	158.1	81.6	76.46	2.067	
10,500.0	10,449.0	10,493.9	10,455.6	39.0	38.3	-44.78	510.3	537.8	155.0	77.9	77.13	2.010	
10,600.0	10,549.0	10,595.0	10,556.7	39.3	38.6	-44.65	508.3	540.2	151.9	74.1	77.79	1.953	
10,700.0	10,649.0	10,714.7	10,675.6	39.7	39.0	-46.75	497.0	544.1	143.2	65.7	77.58	1.846	
10,800.0	10,749.0	10,826.4	10,782.0	40.0	39.3	-57.03	463.9	549.0	120.8	43.9	76.86	1.571	
10,900.0	10,849.0	10,917.1	10,865.3	40.4	39.4	-73.67	428.3	551.5	100.4	22.2	78.23	1.283	Level 3
10,989.0	10,937.9	10,999.5	10,939.9	40.7	39.6	-94.29	393.4	553.8	93.4	15.3	78.07	1.196	Level 2
11,000.0	10,949.0	11,009.5	10,948.8	40.7	39.6	-97.03	388.9	554.1	93.5	15.6	77.92	1.200	Level 2
11,100.0	11,049.0	11,089.6	11,017.9	41.0	39.7	-119.88	348.3	556.3	109.6	36.0	73.64	1.488	Level 3
11,148.0	11,097.0	11,124.4	11,046.1	41.2	39.8	-128.78	328.0	556.9	127.0	56.5	70.52	1.801	
11,148.1	11,097.0	11,124.5	11,046.2	41.2	39.8	-128.78	328.0	556.9	127.0	56.5	70.52	1.801	
11,150.0	11,099.0	11,125.8	11,047.3	41.2	39.8	46.68	327.2	556.9	127.8	57.4	70.40	1.815	
11,200.0	11,148.9	11,160.9	11,074.6	41.4	39.8	38.00	305.3	557.5	149.6	82.3	67.31	2.223	
11,250.0	11,198.4	11,195.5	11,100.6	41.5	39.9	31.48	282.3	557.9	172.2	107.7	64.45	2.672	
11,300.0	11,247.2	11,227.6	11,123.4	41.6	39.9	26.74	259.8	558.3	194.9	133.6	61.25	3.181	
11,350.0	11,294.8	11,258.8	11,144.1	41.7	39.9	23.07	236.5	558.6	217.3	159.3	58.05	3.744	
11,400.0	11,340.9	11,293.0	11,165.2	41.8	39.9	19.96	209.6	558.7	239.4	183.8	55.62	4.304	
11,450.0	11,385.2	11,319.6	11,180.3	41.9	39.9	17.82	187.7	558.7	260.5	208.7	51.87	5.023	
11,500.0	11,427.3	11,349.4	11,195.8	42.0	40.0	15.88	162.3	558.8	280.8	231.9	48.91	5.741	
11,550.0	11,466.8	11,387.0	11,213.2	42.1	40.0	13.98	128.9	559.0	300.1	252.8	47.30	6.344	
11,600.0	11,503.5	11,406.9	11,221.4	42.1	40.0	12.92	110.8	559.1	317.9	274.7	43.18	7.363	
11,650.0	11,537.2	11,434.3	11,231.4	42.1	39.9	11.82	85.2	559.0	334.8	294.3	40.49	8.268	
11,700.0	11,567.5	11,461.5	11,239.8	42.2	39.9	10.90	59.4	558.8	350.5	312.4	38.10	9.199	
11,750.0	11,594.2	11,481.0	11,244.8	42.2	39.9	10.26	40.6	558.5	365.0	329.5	35.48	10.288	
11,800.0	11,617.1	11,515.0	11,251.8	42.2	39.9	9.49	7.4	557.9	378.0	343.6	34.47	10.967	
11,850.0	11,636.1	11,541.3	11,255.5	42.2	39.9	8.95	-18.8	557.2	389.8	356.5	33.38	11.679	
11,900.0	11,651.0	11,576.0	11,258.0	42.1	39.9	8.41	-53.3	556.2	400.4	367.4	32.99	12.140	
11,950.0	11,661.6	11,603.7	11,258.9	42.1	39.9	8.04	-80.9	555.2	408.9	376.0	32.84	12.449	
12,000.0	11,668.0	11,644.7	11,259.4	42.1	40.0	7.68	-122.0	553.6	414.3	381.3	32.99	12.558	
12,048.1	11,670.0	11,689.5	11,259.1	42.1	40.1	7.43	-166.7	551.8	416.4	383.2	33.16	12.558	
12,100.0	11,670.0	11,746.2	11,259.2	42.2	40.3	7.18	-223.4	550.1	416.1	382.9	33.27	12.509	
12,200.0	11,670.0	11,845.9	11,259.8	42.3	40.6	7.20	-323.0	546.4	415.5	381.7	33.73	12.318	
12,214.9	11,670.0	11,860.0	11,259.9	42.4	40.7	7.26	-337.0	545.7	415.5	381.6	33.82	12.283	
12,272.6	11,670.0	11,914.4	11,259.9	42.5	40.9	7.59	-391.4	543.1	415.8	381.5	34.22	12.149	
12,300.0	11,670.0	11,941.9	11,259.8	42.6	41.0	7.79	-418.9	541.7	416.1	381.6	34.41	12.091	
12,400.0	11,670.0	12,043.9	11,259.6	43.0	41.4	8.33	-520.8	538.3	416.8	381.7	35.08	11.881	
12,500.0	11,670.0	12,143.4	11,259.4	43.4	41.9	8.71	-620.3	536.1	417.4	381.6	35.82	11.652	
12,600.0	11,670.0	12,242.7	11,259.1	43.9	42.4	9.15	-719.6	533.4	418.3	381.6	36.65	11.413	
12,700.0	11,670.0	12,344.5	11,258.6	44.4	43.0	9.36	-821.3	532.4	419.0	381.5	37.45	11.189	
12,800.0	11,670.0	12,443.7	11,258.1	45.0	43.7	9.28	-920.5	533.5	419.4	381.1	38.26	10.960	
12,900.0	11,670.0	12,542.2	11,257.0	45.7	44.4	9.11	-1,019.0	535.2	420.3	381.2	39.11	10.747	
13,000.0	11,670.0	12,641.4	11,255.9	46.4	45.1	9.07	-1,118.2	535.9	421.4	381.3	40.03	10.525	
13,100.0	11,670.0	12,744.7	11,254.8	47.1	46.0	8.95	-1,221.5	537.2	422.4	381.4	40.93	10.319	
13,200.0	11,670.0	12,843.9	11,254.0	47.9	46.8	8.58	-1,320.6	540.4	422.7	380.8	41.87	10.097	
13,300.0	11,670.0	12,942.1	11,253.0	48.7	47.7	8.39	-1,418.8	542.2	423.6	380.7	42.89	9.875	
13,400.0	11,670.0	13,042.5	11,251.9	49.6	48.6	8.36	-1,519.2	542.9	424.6	380.6	43.96	9.659	
13,500.0	11,670.0	13,141.4	11,250.9	50.5	49.6	8.32	-1,618.1	543.7	425.6	380.6	45.07	9.443	
13,600.0	11,670.0	13,242.1	11,249.6	51.5	50.6	8.17	-1,718.8	545.2	426.8	380.6	46.18	9.242	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #703H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 200-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,700.0	11,670.0	13,343.2	11,248.6	52.4	51.6	8.05	-1,819.9	546.6	427.7	380.4	47.31	9.041	
13,800.0	11,670.0	13,442.2	11,247.6	53.4	52.7	8.00	-1,918.9	547.4	428.6	380.1	48.50	8.837	
13,900.0	11,670.0	13,541.8	11,246.5	54.5	53.8	7.96	-2,018.5	548.2	429.6	379.9	49.72	8.642	
14,000.0	11,670.0	13,641.7	11,245.3	55.6	54.9	7.87	-2,118.3	549.2	430.8	379.8	50.94	8.457	
14,100.0	11,670.0	13,743.2	11,244.2	56.7	56.0	7.81	-2,219.8	550.2	431.8	379.6	52.17	8.277	
14,200.0	11,670.0	13,845.4	11,243.6	57.8	57.2	7.65	-2,322.0	551.9	432.2	378.8	53.39	8.095	
14,300.0	11,670.0	13,945.5	11,243.2	59.0	58.4	7.51	-2,422.1	553.5	432.5	377.9	54.65	7.914	
14,400.0	11,670.0	14,047.6	11,242.9	60.1	59.7	7.29	-2,524.1	555.8	432.6	376.7	55.90	7.738	
14,500.0	11,670.0	14,148.4	11,243.2	61.3	60.9	7.18	-2,625.0	557.2	432.2	375.0	57.19	7.556	
14,600.0	11,670.0	14,248.6	11,243.5	62.5	62.2	6.96	-2,725.1	559.5	431.7	373.3	58.48	7.382	
14,700.0	11,670.0	14,350.1	11,244.0	63.8	63.5	6.85	-2,826.6	561.0	431.1	371.3	59.80	7.210	
14,800.0	11,670.0	14,450.9	11,244.8	65.0	64.8	6.75	-2,927.4	562.5	430.2	369.1	61.13	7.037	
14,900.0	11,670.0	14,550.6	11,245.6	66.3	66.1	6.55	-3,027.1	564.7	429.2	366.8	62.46	6.872	
15,000.0	11,670.0	14,651.6	11,246.4	67.6	67.5	6.31	-3,128.1	567.2	428.2	364.4	63.79	6.713	
15,100.0	11,670.0	14,749.9	11,247.2	68.9	68.8	6.14	-3,226.3	569.1	427.2	362.1	65.16	6.556	
15,200.0	11,670.0	14,849.3	11,247.9	70.2	70.1	6.10	-3,325.7	570.1	426.6	360.0	66.56	6.408	
15,300.0	11,670.0	14,948.2	11,248.3	71.6	71.5	6.12	-3,424.6	570.6	426.1	358.1	67.99	6.268	
15,400.0	11,670.0	15,049.9	11,248.9	72.9	72.9	6.12	-3,526.3	571.3	425.5	356.2	69.39	6.133	
15,500.0	11,670.0	15,150.1	11,249.6	74.3	74.3	6.02	-3,626.5	572.7	424.8	354.0	70.79	6.001	
15,600.0	11,670.0	15,248.9	11,250.2	75.7	75.7	5.85	-3,725.3	574.6	424.0	351.8	72.19	5.873	
15,644.5	11,670.0	15,291.2	11,250.3	76.3	76.3	5.81	-3,767.6	575.1	423.8	351.0	72.85	5.818	
15,700.0	11,670.0	15,347.7	11,250.3	77.1	77.1	5.78	-3,824.1	575.7	423.9	350.3	73.63	5.757	
15,800.0	11,670.0	15,451.5	11,251.1	78.5	78.6	5.52	-3,927.8	578.3	422.9	348.0	74.97	5.641	
15,900.0	11,670.0	15,551.1	11,251.8	79.9	80.0	5.25	-4,027.4	581.0	422.0	345.6	76.37	5.526	
16,000.0	11,670.0	15,651.2	11,252.7	81.3	81.4	4.95	-4,127.4	583.9	420.9	343.1	77.76	5.412	
16,100.0	11,670.0	15,749.7	11,253.6	82.7	82.9	4.92	-4,225.9	584.7	420.0	340.7	79.22	5.301	
16,200.0	11,670.0	15,848.7	11,254.3	84.1	84.3	5.25	-4,324.9	583.0	419.4	338.7	80.76	5.193	
16,300.0	11,670.0	15,949.5	11,255.1	85.6	85.8	5.63	-4,425.7	580.8	418.9	336.6	82.31	5.090	
16,400.0	11,670.0	16,048.4	11,255.9	87.0	87.2	5.93	-4,524.6	579.3	418.4	334.5	83.89	4.987	
16,500.0	11,670.0	16,149.3	11,256.5	88.5	88.7	6.23	-4,625.5	577.8	418.0	332.5	85.45	4.891	
16,600.0	11,670.0	16,248.8	11,257.3	89.9	90.2	6.56	-4,724.9	576.1	417.4	330.4	87.06	4.795	
16,650.9	11,670.0	16,297.9	11,257.6	90.7	90.9	6.73	-4,774.0	575.1	417.3	329.4	87.90	4.747	
16,700.0	11,670.0	16,344.9	11,257.6	91.4	91.6	6.87	-4,821.0	574.3	417.4	328.7	88.72	4.705	
16,800.0	11,670.0	16,449.4	11,257.8	92.9	93.1	7.19	-4,925.5	572.6	417.5	327.2	90.31	4.623	
16,882.9	11,670.0	16,529.9	11,258.3	94.1	94.3	7.52	-5,006.0	570.8	417.2	325.5	91.73	4.549	
16,900.0	11,670.0	16,546.6	11,258.4	94.4	94.6	7.60	-5,022.7	570.3	417.3	325.2	92.03	4.534	
17,000.0	11,670.0	16,645.2	11,258.5	95.9	96.0	8.02	-5,121.2	567.9	417.5	323.8	93.77	4.453	
17,100.0	11,670.0	16,743.4	11,258.1	97.3	97.5	8.28	-5,219.4	566.4	418.3	322.8	95.45	4.382	
17,200.0	11,670.0	16,847.1	11,257.8	98.8	99.1	8.42	-5,323.1	566.0	418.7	321.7	97.03	4.315	
17,300.0	11,670.0	16,947.5	11,258.2	100.3	100.6	8.64	-5,423.5	565.0	418.5	319.8	98.70	4.240	
17,308.0	11,670.0	16,955.1	11,258.3	100.5	100.7	8.66	-5,431.1	564.9	418.5	319.7	98.84	4.234	
17,400.0	11,670.0	17,045.4	11,258.2	101.9	102.1	8.91	-5,521.4	563.6	418.9	318.4	100.43	4.171	
17,500.0	11,670.0	17,146.0	11,258.2	103.4	103.6	9.08	-5,622.0	562.9	419.1	317.0	102.09	4.105	
17,600.0	11,670.0	17,244.0	11,257.9	104.9	105.1	9.31	-5,719.9	561.8	419.6	315.8	103.81	4.042	
17,700.0	11,670.0	17,346.2	11,257.5	106.4	106.7	9.57	-5,822.2	560.3	420.4	314.8	105.55	3.983	
17,800.0	11,670.0	17,448.5	11,257.7	107.9	108.3	9.53	-5,924.5	561.3	420.1	313.1	107.06	3.924	
17,873.2	11,670.0	17,520.4	11,257.6	109.1	109.4	9.38	-5,996.4	562.8	420.0	311.9	108.10	3.885	
17,900.0	11,670.0	17,546.5	11,257.6	109.5	109.8	9.33	-6,022.5	563.3	420.0	311.5	108.49	3.871	
18,000.0	11,670.0	17,648.4	11,257.3	111.0	111.3	9.19	-6,124.4	565.0	420.1	310.2	109.93	3.822	
18,100.0	11,670.0	17,750.2	11,257.6	112.5	112.9	8.94	-6,226.1	567.5	419.5	308.3	111.29	3.770	
18,200.0	11,670.0	17,848.4	11,257.7	114.1	114.5	8.60	-6,324.3	570.6	419.0	306.4	112.62	3.721	
18,300.0	11,670.0	17,948.6	11,257.7	115.6	116.0	8.30	-6,424.4	573.4	418.7	304.7	113.96	3.674	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Big Stag Fed Com #703H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 200-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,340.4	11,670.0	17,987.7	11,257.7	116.2	116.6	8.19	-6,463.5	574.4	418.6	304.1	114.52	3.655	
18,400.0	11,670.0	18,029.0	11,257.5	117.2	117.3	8.08	-6,504.8	575.5	419.0	303.6	115.47	3.629	
18,428.0	11,670.0	18,029.0	11,257.5	117.6	117.3	8.08	-6,504.8	575.5	421.2	305.3	115.87	3.635	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Fed Com #011H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 325-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	6.26	7,731.2	848.1	7,778.0				
100.0	100.0	24.6	24.6	0.1	0.0	6.26	7,731.2	848.1	7,777.6	7,777.4	0.17	N/A	
200.0	200.0	144.7	144.7	0.5	0.2	6.26	7,731.0	847.9	7,777.4	7,776.7	0.73	N/A	
300.0	300.0	264.8	264.8	0.8	0.4	6.26	7,730.5	847.4	7,777.0	7,775.7	1.29	6,036.907	
400.0	400.0	384.9	384.9	1.2	0.6	6.25	7,729.8	846.6	7,776.3	7,774.4	1.85	4,208.776	
500.0	500.0	489.9	489.9	1.6	1.1	6.25	7,729.0	846.4	7,775.5	7,772.8	2.69	2,885.678	
600.0	600.0	629.6	629.6	1.9	1.6	-52.02	7,727.4	845.9	7,773.8	7,770.2	3.55	2,190.257	
700.0	700.0	749.0	749.0	2.3	2.1	-52.07	7,725.6	845.4	7,770.6	7,766.3	4.33	1,794.165	
800.0	799.9	990.9	990.8	2.6	2.9	-52.17	7,719.7	844.4	7,765.6	7,760.0	5.56	1,397.544	
900.0	899.7	1,023.6	1,023.4	3.0	3.1	-52.24	7,718.8	844.3	7,758.9	7,752.9	6.03	1,286.838	
1,000.0	999.4	1,072.7	1,072.5	3.4	3.2	-52.32	7,717.7	844.3	7,751.8	7,745.2	6.57	1,180.646	
1,100.0	1,098.9	1,160.0	1,159.9	3.7	3.5	-52.42	7,716.4	844.5	7,744.5	7,737.2	7.24	1,069.261	
1,200.0	1,198.3	1,186.2	1,186.0	4.1	3.6	-52.51	7,716.2	844.7	7,736.4	7,728.6	7.71	1,003.675	
1,300.0	1,297.4	1,304.5	1,304.4	4.5	4.1	-52.66	7,715.0	845.1	7,727.4	7,718.9	8.51	908.379	
1,400.0	1,396.4	1,407.8	1,407.6	4.9	4.4	-52.75	7,713.7	845.4	7,717.7	7,708.5	9.26	833.632	
1,500.0	1,495.5	1,502.8	1,502.6	5.3	4.8	-52.82	7,712.6	845.4	7,708.1	7,698.1	9.98	772.082	
1,600.0	1,594.5	1,612.9	1,612.7	5.7	5.2	-52.91	7,711.3	845.5	7,698.4	7,687.7	10.77	715.093	
1,700.0	1,693.5	1,681.1	1,680.9	6.1	5.4	-52.97	7,710.5	845.9	7,688.9	7,677.5	11.40	674.713	
1,800.0	1,792.5	1,743.8	1,743.6	6.5	5.6	-53.01	7,710.0	846.9	7,679.8	7,667.8	12.01	639.579	
1,900.0	1,891.6	1,818.0	1,817.8	6.9	5.9	-53.06	7,709.7	848.9	7,671.3	7,658.6	12.66	605.917	
2,000.0	1,990.6	1,866.8	1,866.5	7.3	6.0	-53.09	7,709.7	850.4	7,663.2	7,649.9	13.22	579.559	
2,100.0	2,089.6	1,911.0	1,910.7	7.7	6.2	-53.12	7,710.0	851.5	7,655.6	7,641.8	13.77	555.974	
2,200.0	2,188.6	1,969.9	1,969.7	8.1	6.4	-53.16	7,710.7	852.4	7,648.7	7,634.3	14.36	532.480	
2,300.0	2,287.7	2,042.4	2,042.1	8.5	6.6	-53.22	7,712.3	852.8	7,642.4	7,627.4	15.00	509.368	
2,400.0	2,386.7	2,159.0	2,158.6	8.9	7.0	-53.32	7,714.6	851.9	7,636.0	7,620.2	15.79	483.573	
2,500.0	2,485.7	2,222.3	2,222.0	9.4	7.2	-53.39	7,716.0	850.9	7,629.8	7,613.4	16.40	465.136	
2,600.0	2,584.8	2,268.9	2,268.5	9.8	7.4	-53.43	7,717.4	850.2	7,624.2	7,607.2	16.96	449.535	
2,700.0	2,683.8	2,528.8	2,528.3	10.2	8.3	-53.68	7,723.2	846.3	7,618.0	7,599.8	18.24	417.561	
2,800.0	2,782.8	2,581.9	2,581.4	10.6	8.4	-53.73	7,723.9	846.0	7,611.0	7,592.2	18.83	404.225	
2,900.0	2,881.8	2,669.0	2,668.5	11.0	8.7	-53.80	7,725.3	846.4	7,604.4	7,584.9	19.53	389.405	
3,000.0	2,980.9	2,718.1	2,717.6	11.4	8.9	-53.84	7,726.2	847.2	7,598.2	7,578.1	20.10	378.028	
3,100.0	3,079.9	2,764.0	2,763.5	11.9	9.1	-53.87	7,727.4	848.2	7,592.7	7,572.1	20.66	367.512	
3,200.0	3,178.9	2,840.4	2,839.8	12.3	9.3	-53.92	7,729.8	850.0	7,587.8	7,566.5	21.33	355.811	
3,300.0	3,277.9	18,145.0	10,719.5	12.7	129.7	-172.88	224.3	78.9	7,524.0	7,458.8	65.17	115.456	
3,400.0	3,377.0	18,140.7	10,719.4	13.1	129.6	-172.69	228.6	78.9	7,425.3	7,360.1	65.16	113.959	
3,500.0	3,476.0	3,500.0	10,719.1	13.5	102.8	-170.98	267.9	79.5	7,326.6	7,274.0	52.63	139.213	
3,600.0	3,575.0	3,600.0	10,719.1	13.9	101.2	-170.69	274.4	79.6	7,227.9	7,176.0	51.91	139.248	
3,700.0	3,674.0	3,700.0	10,719.0	14.3	99.6	-170.40	281.0	79.7	7,129.3	7,078.1	51.19	139.259	
3,800.0	3,773.1	18,105.8	10,719.2	14.8	129.1	-171.17	263.5	79.3	7,030.8	6,965.8	65.06	108.060	
3,900.0	3,872.1	18,063.5	10,718.9	15.2	128.4	-169.28	305.7	80.0	6,932.3	6,867.5	64.79	106.991	
4,000.0	3,971.1	18,029.3	10,718.4	15.6	127.9	-167.71	339.9	80.7	6,833.7	6,769.1	64.60	105.791	
4,100.0	4,070.2	18,023.1	10,718.3	16.0	127.8	-167.43	346.1	80.9	6,735.2	6,670.5	64.63	104.203	
4,200.0	4,169.2	18,017.0	10,718.2	16.4	127.7	-167.14	352.3	81.0	6,636.7	6,572.0	64.68	102.603	
4,300.0	4,268.2	18,010.8	10,718.1	16.9	127.6	-166.85	358.5	81.2	6,538.2	6,473.5	64.74	100.991	
4,400.0	4,367.2	18,004.5	10,718.0	17.3	127.5	-166.56	364.7	81.3	6,439.8	6,375.0	64.81	99.367	
4,500.0	4,466.3	17,998.3	10,717.9	17.7	127.4	-166.27	370.9	81.5	6,341.4	6,276.5	64.88	97.734	
4,600.0	4,565.3	17,992.1	10,717.8	18.1	127.3	-165.98	377.2	81.6	6,243.1	6,178.1	64.97	96.090	
4,700.0	4,664.3	17,985.8	10,717.7	18.5	127.2	-165.68	383.4	81.8	6,144.8	6,079.8	65.07	94.438	
4,800.0	4,763.3	17,979.6	10,717.6	18.9	127.1	-165.39	389.6	82.0	6,046.6	5,981.4	65.17	92.778	
4,900.0	4,862.4	17,973.3	10,717.5	19.4	127.0	-165.09	395.9	82.1	5,948.4	5,883.1	65.29	91.111	
5,000.0	4,961.4	17,967.1	10,717.4	19.8	126.9	-164.79	402.2	82.3	5,850.3	5,784.9	65.41	89.436	
5,100.0	5,060.4	17,960.8	10,717.3	20.2	126.8	-164.49	408.4	82.5	5,752.3	5,686.7	65.55	87.756	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Fed Com #011H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 325-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	17,954.5	10,717.2	20.6	126.7	-164.19	414.7	82.7	5,654.3	5,588.6	65.69	86.070	
5,300.0	5,258.5	17,948.2	10,717.1	21.0	126.6	-163.88	421.0	82.8	5,556.3	5,490.5	65.85	84.379	
5,400.0	5,357.5	17,941.9	10,717.0	21.5	126.5	-163.58	427.3	83.0	5,458.5	5,392.4	66.02	82.684	
5,500.0	5,456.5	17,935.6	10,716.9	21.9	126.4	-163.27	433.6	83.2	5,360.7	5,294.5	66.19	80.984	
5,600.0	5,555.6	17,929.2	10,716.8	22.3	126.3	-162.96	440.0	83.4	5,262.9	5,196.6	66.38	79.281	
5,700.0	5,654.6	17,922.9	10,716.7	22.7	126.2	-162.65	446.3	83.6	5,165.3	5,098.7	66.58	77.575	
5,800.0	5,753.6	17,916.6	10,716.6	23.1	126.1	-162.34	452.6	83.8	5,067.8	5,001.0	66.80	75.867	
5,900.0	5,852.6	17,910.2	10,716.5	23.5	126.0	-162.03	459.0	84.0	4,970.3	4,903.3	67.03	74.156	
6,000.0	5,951.7	17,903.8	10,716.4	24.0	125.9	-161.72	465.4	84.2	4,872.9	4,805.7	67.27	72.442	
6,098.6	6,049.3	17,897.5	10,716.3	24.4	125.8	-161.41	471.6	84.4	4,777.1	4,709.5	67.52	70.753	
6,100.0	6,050.7	17,897.5	10,716.3	24.4	125.8	-161.38	471.7	84.4	4,775.6	4,708.1	67.52	70.728	
6,200.0	6,149.9	17,891.8	10,716.3	24.8	125.7	-158.86	477.3	84.6	4,678.2	4,610.4	67.79	69.011	
6,300.0	6,249.4	17,887.7	10,716.2	25.2	125.6	-155.85	481.5	84.7	4,580.3	4,512.2	68.06	67.297	
6,400.0	6,349.1	17,885.1	10,716.2	25.6	125.6	-152.19	484.1	84.8	4,482.0	4,413.7	68.33	65.589	
6,500.0	6,449.0	17,884.0	10,716.1	25.9	125.6	-147.64	485.2	84.8	4,383.4	4,314.8	68.61	63.891	
6,600.0	6,549.0	17,884.3	10,716.1	26.2	125.6	-141.89	484.8	84.8	4,284.5	4,215.6	68.88	62.204	
6,631.9	6,580.9	17,884.8	10,716.1	26.3	125.6	-81.49	484.4	84.8	4,252.9	4,184.0	68.97	61.668	
6,700.0	6,649.0	17,885.9	10,716.2	26.5	125.6	-81.60	483.3	84.8	4,185.4	4,116.3	69.15	60.528	
6,800.0	6,749.0	17,887.5	10,716.2	26.9	125.6	-81.77	481.7	84.7	4,086.4	4,017.0	69.43	58.858	
6,900.0	6,849.0	17,889.1	10,716.2	27.2	125.6	-81.93	480.1	84.7	3,987.4	3,917.7	69.72	57.191	
7,000.0	6,949.0	17,890.7	10,716.2	27.5	125.7	-82.09	478.5	84.6	3,888.4	3,818.4	70.03	55.528	
7,100.0	7,049.0	17,892.3	10,716.3	27.8	125.7	-82.25	476.9	84.5	3,789.5	3,719.2	70.35	53.869	
7,200.0	7,149.0	17,893.9	10,716.3	28.1	125.7	-82.41	475.3	84.5	3,690.7	3,620.0	70.68	52.214	
7,300.0	7,249.0	17,895.5	10,716.3	28.4	125.7	-82.57	473.6	84.4	3,591.9	3,520.9	71.04	50.564	
7,400.0	7,349.0	17,897.2	10,716.3	28.8	125.8	-82.74	472.0	84.4	3,493.2	3,421.8	71.41	48.918	
7,500.0	7,449.0	17,898.8	10,716.4	29.1	125.8	-82.90	470.4	84.3	3,394.6	3,322.8	71.80	47.278	
7,600.0	7,549.0	17,900.4	10,716.4	29.4	125.8	-83.06	468.8	84.3	3,296.0	3,223.8	72.21	45.642	
7,700.0	7,649.0	17,902.0	10,716.4	29.7	125.8	-83.22	467.2	84.2	3,197.5	3,124.9	72.65	44.012	
7,800.0	7,749.0	17,903.6	10,716.4	30.1	125.9	-83.39	465.6	84.2	3,099.2	3,026.1	73.12	42.388	
7,900.0	7,849.0	17,905.2	10,716.5	30.4	125.9	-83.55	464.0	84.1	3,000.9	2,927.3	73.61	40.769	
8,000.0	7,949.0	17,906.8	10,716.5	30.7	125.9	-83.71	462.4	84.1	2,902.8	2,828.6	74.13	39.156	
8,100.0	8,049.0	17,908.4	10,716.5	31.0	125.9	-83.87	460.8	84.0	2,804.8	2,730.1	74.69	37.550	
8,200.0	8,149.0	17,910.1	10,716.5	31.4	126.0	-84.04	459.1	84.0	2,706.9	2,631.6	75.30	35.950	
8,300.0	8,249.0	17,911.7	10,716.6	31.7	126.0	-84.20	457.5	83.9	2,609.2	2,533.3	75.94	34.358	
8,400.0	8,349.0	17,913.3	10,716.6	32.0	126.0	-84.36	455.9	83.9	2,511.7	2,435.0	76.64	32.772	
8,500.0	8,449.0	17,914.9	10,716.6	32.3	126.0	-84.53	454.3	83.8	2,414.3	2,336.9	77.40	31.195	
8,600.0	8,549.0	17,916.5	10,716.6	32.7	126.1	-84.69	452.7	83.8	2,317.2	2,239.0	78.22	29.625	
8,700.0	8,649.0	17,918.1	10,716.7	33.0	126.1	-84.85	451.1	83.7	2,220.4	2,141.3	79.12	28.064	
8,800.0	8,749.0	17,919.7	10,716.7	33.3	126.1	-85.01	449.5	83.7	2,123.8	2,043.7	80.11	26.513	
8,900.0	8,849.0	17,921.3	10,716.7	33.7	126.1	-85.18	447.9	83.6	2,027.6	1,946.4	81.20	24.972	
9,000.0	8,949.0	17,923.0	10,716.7	34.0	126.2	-85.34	446.2	83.6	1,931.8	1,849.4	82.41	23.442	
9,100.0	9,049.0	17,924.6	10,716.8	34.3	126.2	-85.50	444.6	83.5	1,836.4	1,752.6	83.76	21.925	
9,200.0	9,149.0	17,926.2	10,716.8	34.6	126.2	-85.67	443.0	83.5	1,741.5	1,656.3	85.27	20.423	
9,300.0	9,249.0	17,927.8	10,716.8	35.0	126.3	-85.83	441.4	83.4	1,647.3	1,560.3	86.99	18.937	
9,400.0	9,349.0	17,929.4	10,716.8	35.3	126.3	-85.99	439.8	83.4	1,553.7	1,464.8	88.93	17.471	
9,500.0	9,449.0	17,931.0	10,716.9	35.6	126.3	-86.16	438.2	83.3	1,461.0	1,369.8	91.16	16.027	
9,600.0	9,549.0	17,932.6	10,716.9	36.0	126.3	-86.32	436.6	83.3	1,369.3	1,275.6	93.72	14.611	
9,700.0	9,649.0	17,934.2	10,716.9	36.3	126.4	-86.48	435.0	83.2	1,278.9	1,182.2	96.68	13.228	
9,800.0	9,749.0	17,935.9	10,716.9	36.7	126.4	-86.65	433.4	83.2	1,190.0	1,089.9	100.13	11.885	
9,900.0	9,849.0	17,937.5	10,717.0	37.0	126.4	-86.81	431.7	83.1	1,103.0	998.8	104.16	10.589	
10,000.0	9,949.0	17,939.1	10,717.0	37.3	126.4	-86.98	430.1	83.1	1,018.4	909.5	108.88	9.353	
10,100.0	10,049.0	17,940.7	10,717.0	37.7	126.5	-87.14	428.5	83.1	936.8	822.4	114.41	8.188	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Fed Com #011H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 325-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	17,942.3	10,717.0	38.0	126.5	-87.30	426.9	83.0	859.1	738.3	120.84	7.109	
10,300.0	10,249.0	17,943.9	10,717.1	38.3	126.5	-87.47	425.3	83.0	786.5	658.2	128.21	6.134	
10,400.0	10,349.0	17,945.5	10,717.1	38.7	126.5	-87.63	423.7	82.9	720.4	584.0	136.44	5.280	
10,500.0	10,449.0	17,947.1	10,717.1	39.0	126.6	-87.79	422.1	82.9	662.9	517.8	145.16	4.567	
10,600.0	10,549.0	17,948.8	10,717.1	39.3	126.6	-87.96	420.5	82.8	616.4	462.8	153.61	4.013	
10,700.0	10,649.0	17,950.4	10,717.2	39.7	126.6	-88.12	418.9	82.8	583.4	422.8	160.61	3.633	
10,800.0	10,749.0	17,952.0	10,717.2	40.0	126.6	-88.28	417.2	82.7	566.4	401.7	164.73	3.439	
10,847.7	10,796.7	17,952.7	10,717.2	40.2	126.6	-88.36	416.5	82.7	564.4	399.1	165.36	3.413	CC, ES, SF
10,900.0	10,849.0	17,953.6	10,717.2	40.4	126.7	-88.45	415.6	82.7	566.8	401.9	164.98	3.436	
11,000.0	10,949.0	17,955.2	10,717.2	40.7	126.7	-88.61	414.0	82.6	584.6	423.2	161.38	3.622	
11,100.0	11,049.0	17,956.8	10,717.3	41.0	126.7	-88.78	412.4	82.6	618.2	463.3	154.92	3.991	
11,148.0	11,097.0	17,957.6	10,717.3	41.2	126.7	-88.85	411.6	82.6	639.3	488.1	151.22	4.228	
11,148.1	11,097.0	17,957.6	10,717.3	41.2	126.7	-88.85	411.6	82.6	639.3	488.1	151.22	4.228	
11,150.0	11,099.0	17,957.6	10,717.3	41.2	126.7	86.89	411.6	82.6	640.3	489.2	151.06	4.238	
11,200.0	11,148.9	17,960.9	10,717.3	41.4	126.8	83.70	408.4	82.5	665.2	518.1	147.02	4.524	
11,250.0	11,198.4	17,968.6	10,717.4	41.5	126.9	79.73	400.6	82.3	692.4	549.4	143.00	4.842	
11,300.0	11,247.2	17,980.8	10,717.6	41.6	127.1	75.12	388.5	81.9	721.2	582.1	139.12	5.184	
11,350.0	11,294.8	17,997.3	10,717.9	41.7	127.3	70.08	371.9	81.5	751.2	615.7	135.48	5.545	
11,400.0	11,340.9	18,018.0	10,718.2	41.8	127.7	64.85	351.2	81.0	781.6	649.5	132.13	5.916	
11,450.0	11,385.2	18,042.8	10,718.6	41.9	128.1	59.69	326.4	80.4	812.0	682.9	129.11	6.289	
11,500.0	11,427.3	18,070.1	10,718.9	42.0	128.5	54.87	299.2	79.9	841.7	715.3	126.41	6.658	
11,550.0	11,466.8	18,100.9	10,719.2	42.1	129.0	50.44	268.3	79.4	870.3	746.3	124.04	7.017	
11,600.0	11,503.5	18,136.2	10,719.4	42.1	129.5	46.44	233.1	78.9	897.4	775.4	121.98	7.357	
11,650.0	11,537.2	18,178.3	10,719.7	42.1	130.2	42.84	191.0	78.6	922.4	802.2	120.22	7.672	
11,700.0	11,567.5	18,217.6	10,720.1	42.2	130.8	39.96	151.7	78.4	945.0	826.2	118.77	7.957	
11,750.0	11,594.2	18,260.0	10,720.4	42.2	131.5	37.54	109.3	78.2	964.9	847.3	117.59	8.206	
11,800.0	11,617.1	18,273.0	10,720.5	42.2	131.7	36.14	96.3	78.1	982.4	865.8	116.64	8.423	
11,850.0	11,636.1	18,273.0	10,720.5	42.2	131.7	35.13	96.3	78.1	998.8	882.9	115.85	8.621	
11,900.0	11,651.0	18,273.0	10,720.5	42.1	131.7	34.22	96.3	78.1	1,014.0	898.8	115.23	8.800	
11,950.0	11,661.6	18,273.0	10,720.5	42.1	131.7	33.41	96.3	78.1	1,028.0	913.3	114.77	8.957	
12,000.0	11,668.0	18,273.0	10,720.5	42.1	131.7	32.69	96.3	78.1	1,040.8	926.4	114.46	9.093	
12,048.1	11,670.0	18,273.0	10,720.5	42.1	131.7	32.08	96.3	78.1	1,051.9	937.6	114.30	9.203	
12,100.0	11,670.0	18,273.0	10,720.5	42.2	131.7	31.86	96.3	78.1	1,064.6	950.4	114.18	9.324	
12,200.0	11,670.0	18,273.0	10,720.5	42.3	131.7	31.27	96.3	78.1	1,097.0	983.0	113.92	9.629	
12,272.6	11,670.0	18,273.0	10,720.5	42.5	131.7	30.72	96.3	78.1	1,126.5	1,012.8	113.71	9.907	
12,300.0	11,670.0	18,273.0	10,720.5	42.6	131.7	30.72	96.3	78.1	1,138.8	1,025.2	113.61	10.024	
12,400.0	11,670.0	18,273.0	10,720.5	43.0	131.7	30.72	96.3	78.1	1,188.0	1,074.9	113.08	10.505	
12,500.0	11,670.0	18,273.0	10,720.5	43.4	131.7	30.72	96.3	78.1	1,243.3	1,130.9	112.34	11.067	
12,600.0	11,670.0	18,273.0	10,720.5	43.9	131.7	30.72	96.3	78.1	1,303.9	1,192.5	111.45	11.700	
12,700.0	11,670.0	18,273.0	10,720.5	44.4	131.7	30.72	96.3	78.1	1,369.2	1,258.7	110.45	12.397	
12,800.0	11,670.0	18,273.0	10,720.5	45.0	131.7	30.72	96.3	78.1	1,438.4	1,329.0	109.39	13.150	
12,900.0	11,670.0	18,273.0	10,720.5	45.7	131.7	30.72	96.3	78.1	1,511.1	1,402.8	108.31	13.952	
13,000.0	11,670.0	18,273.0	10,720.5	46.4	131.7	30.72	96.3	78.1	1,586.8	1,479.6	107.24	14.796	
13,100.0	11,670.0	18,273.0	10,720.5	47.1	131.7	30.72	96.3	78.1	1,665.1	1,558.9	106.20	15.678	
13,200.0	11,670.0	18,273.0	10,720.5	47.9	131.7	30.72	96.3	78.1	1,745.5	1,640.3	105.20	16.593	
13,300.0	11,670.0	18,273.0	10,720.5	48.7	131.7	30.72	96.3	78.1	1,827.9	1,723.7	104.24	17.535	
13,400.0	11,670.0	18,273.0	10,720.5	49.6	131.7	30.72	96.3	78.1	1,912.0	1,808.7	103.34	18.502	
13,500.0	11,670.0	18,273.0	10,720.5	50.5	131.7	30.72	96.3	78.1	1,997.5	1,895.1	102.49	19.491	
13,600.0	11,670.0	18,273.0	10,720.5	51.5	131.7	30.72	96.3	78.1	2,084.4	1,982.7	101.69	20.498	
13,700.0	11,670.0	18,273.0	10,720.5	52.4	131.7	30.72	96.3	78.1	2,172.3	2,071.4	100.94	21.521	
13,800.0	11,670.0	18,273.0	10,720.5	53.4	131.7	30.72	96.3	78.1	2,261.3	2,161.1	100.24	22.559	
13,900.0	11,670.0	18,273.0	10,720.5	54.5	131.7	30.72	96.3	78.1	2,351.2	2,251.6	99.59	23.608	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Fed Com #011H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 325-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	18,273.0	10,720.5	55.6	131.7	30.72	96.3	78.1	2,441.8	2,342.8	98.99	24.668	
14,100.0	11,670.0	18,273.0	10,720.5	56.7	131.7	30.72	96.3	78.1	2,533.2	2,434.7	98.42	25.738	
14,200.0	11,670.0	18,273.0	10,720.5	57.8	131.7	30.72	96.3	78.1	2,625.1	2,527.2	97.90	26.815	
14,300.0	11,670.0	18,273.0	10,720.5	59.0	131.7	30.72	96.3	78.1	2,717.7	2,620.3	97.41	27.900	
14,400.0	11,670.0	18,273.0	10,720.5	60.1	131.7	30.72	96.3	78.1	2,810.7	2,713.8	96.95	28.991	
14,500.0	11,670.0	18,273.0	10,720.5	61.3	131.7	30.72	96.3	78.1	2,904.2	2,807.7	96.53	30.087	
14,600.0	11,670.0	18,273.0	10,720.5	62.5	131.7	30.72	96.3	78.1	2,998.2	2,902.0	96.13	31.188	
14,700.0	11,670.0	18,273.0	10,720.5	63.8	131.7	30.72	96.3	78.1	3,092.5	2,996.7	95.77	32.292	
14,800.0	11,670.0	18,273.0	10,720.5	65.0	131.7	30.72	96.3	78.1	3,187.2	3,091.7	95.42	33.400	
14,900.0	11,670.0	18,273.0	10,720.5	66.3	131.7	30.72	96.3	78.1	3,282.1	3,187.0	95.10	34.511	
15,000.0	11,670.0	18,273.0	10,720.5	67.6	131.7	30.72	96.3	78.1	3,377.4	3,282.6	94.81	35.624	
15,100.0	11,670.0	18,273.0	10,720.5	68.9	131.7	30.72	96.3	78.1	3,472.9	3,378.4	94.53	36.739	
15,200.0	11,670.0	18,273.0	10,720.5	70.2	131.7	30.72	96.3	78.1	3,568.7	3,474.5	94.27	37.856	
15,300.0	11,670.0	18,273.0	10,720.5	71.6	131.7	30.72	96.3	78.1	3,664.7	3,570.7	94.03	38.975	
15,400.0	11,670.0	18,273.0	10,720.5	72.9	131.7	30.72	96.3	78.1	3,760.9	3,667.1	93.80	40.094	
15,500.0	11,670.0	18,273.0	10,720.5	74.3	131.7	30.72	96.3	78.1	3,857.3	3,763.8	93.59	41.214	
15,600.0	11,670.0	18,273.0	10,720.5	75.7	131.7	30.72	96.3	78.1	3,953.9	3,860.5	93.40	42.335	
15,700.0	11,670.0	18,273.0	10,720.5	77.1	131.7	30.72	96.3	78.1	4,050.7	3,957.5	93.21	43.456	
15,800.0	11,670.0	18,273.0	10,720.5	78.5	131.7	30.72	96.3	78.1	4,147.6	4,054.5	93.04	44.577	
15,900.0	11,670.0	18,273.0	10,720.5	79.9	131.7	30.72	96.3	78.1	4,244.6	4,151.7	92.88	45.698	
16,000.0	11,670.0	18,273.0	10,720.5	81.3	131.7	30.72	96.3	78.1	4,341.8	4,249.1	92.74	46.819	
16,100.0	11,670.0	18,273.0	10,720.5	82.7	131.7	30.72	96.3	78.1	4,439.1	4,346.5	92.60	47.940	
16,200.0	11,670.0	18,273.0	10,720.5	84.1	131.7	30.72	96.3	78.1	4,536.5	4,444.1	92.47	49.060	
16,300.0	11,670.0	18,273.0	10,720.5	85.6	131.7	30.72	96.3	78.1	4,634.1	4,541.7	92.35	50.179	
16,400.0	11,670.0	18,273.0	10,720.5	87.0	131.7	30.72	96.3	78.1	4,731.7	4,639.5	92.24	51.298	
16,500.0	11,670.0	18,273.0	10,720.5	88.5	131.7	30.72	96.3	78.1	4,829.4	4,737.3	92.14	52.416	
16,600.0	11,670.0	18,273.0	10,720.5	89.9	131.7	30.72	96.3	78.1	4,927.3	4,835.2	92.04	53.533	
16,700.0	11,670.0	18,273.0	10,720.5	91.4	131.7	30.72	96.3	78.1	5,025.2	4,933.2	91.95	54.648	
16,800.0	11,670.0	18,273.0	10,720.5	92.9	131.7	30.72	96.3	78.1	5,123.2	5,031.3	91.87	55.763	
16,900.0	11,670.0	18,273.0	10,720.5	94.4	131.7	30.72	96.3	78.1	5,221.2	5,129.4	91.80	56.876	
17,000.0	11,670.0	18,273.0	10,720.5	95.9	131.7	30.72	96.3	78.1	5,319.4	5,227.6	91.73	57.989	
17,100.0	11,670.0	18,273.0	10,720.5	97.3	131.7	30.72	96.3	78.1	5,417.6	5,325.9	91.67	59.099	
17,200.0	11,670.0	18,273.0	10,720.5	98.8	131.7	30.72	96.3	78.1	5,515.9	5,424.2	91.61	60.208	
17,300.0	11,670.0	18,273.0	10,720.5	100.3	131.7	30.72	96.3	78.1	5,614.2	5,522.6	91.56	61.316	
17,400.0	11,670.0	18,273.0	10,720.5	101.9	131.7	30.72	96.3	78.1	5,712.6	5,621.1	91.52	62.422	
17,500.0	11,670.0	18,273.0	10,720.5	103.4	131.7	30.72	96.3	78.1	5,811.0	5,719.6	91.47	63.526	
17,600.0	11,670.0	18,273.0	10,720.5	104.9	131.7	30.72	96.3	78.1	5,909.5	5,818.1	91.44	64.629	
17,700.0	11,670.0	18,273.0	10,720.5	106.4	131.7	30.72	96.3	78.1	6,008.1	5,916.7	91.41	65.730	
17,800.0	11,670.0	18,273.0	10,720.5	107.9	131.7	30.72	96.3	78.1	6,106.7	6,015.3	91.38	66.829	
17,900.0	11,670.0	18,273.0	10,720.5	109.5	131.7	30.72	96.3	78.1	6,205.3	6,114.0	91.35	67.926	
18,000.0	11,670.0	18,273.0	10,720.5	111.0	131.7	30.72	96.3	78.1	6,304.0	6,212.7	91.33	69.021	
18,100.0	11,670.0	18,273.0	10,720.5	112.5	131.7	30.72	96.3	78.1	6,402.7	6,311.4	91.32	70.115	
18,200.0	11,670.0	18,273.0	10,720.5	114.1	131.7	30.72	96.3	78.1	6,501.5	6,410.2	91.31	71.206	
18,300.0	11,670.0	18,273.0	10,720.5	115.6	131.7	30.72	96.3	78.1	6,600.3	6,509.0	91.30	72.295	
18,400.0	11,670.0	18,273.0	10,720.5	117.2	131.7	30.72	96.3	78.1	6,699.1	6,607.8	91.29	73.382	
18,428.0	11,670.0	18,273.0	10,720.5	117.6	131.7	30.72	96.3	78.1	6,726.8	6,635.5	91.29	73.686	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #004H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 198-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-13.47	7,730.5	-1,851.6	7,949.6				
100.0	100.0	8.8	8.8	0.1	0.0	-13.47	7,730.5	-1,851.6	7,949.1	7,949.0	0.14	N/A	
200.0	200.0	106.2	106.2	0.5	0.2	-13.47	7,730.5	-1,851.4	7,949.1	7,948.5	0.65	N/A	
300.0	300.0	207.3	207.3	0.8	0.3	-13.47	7,730.7	-1,851.1	7,949.2	7,948.0	1.18	6,718.118	
400.0	400.0	342.7	342.7	1.2	0.8	-13.46	7,730.4	-1,850.7	7,948.9	7,946.9	2.02	3,938.763	
500.0	500.0	428.6	428.6	1.6	1.1	-13.46	7,730.1	-1,850.4	7,948.6	7,945.9	2.68	2,964.471	
600.0	600.0	502.9	502.9	1.9	1.4	-71.72	7,730.1	-1,850.0	7,948.2	7,944.9	3.30	2,408.593	
700.0	700.0	611.3	611.3	2.3	1.8	-71.74	7,730.3	-1,849.8	7,947.5	7,943.4	4.04	1,968.524	
800.0	799.9	692.4	692.3	2.6	2.1	-71.78	7,730.4	-1,849.6	7,946.2	7,941.5	4.68	1,696.953	
900.0	899.7	797.8	797.8	3.0	2.4	-71.83	7,730.8	-1,849.1	7,944.5	7,939.1	5.42	1,466.443	
1,000.0	999.4	1,000.0	913.5	3.4	3.2	-71.91	7,730.9	-1,848.7	7,942.0	7,935.5	6.50	1,221.654	
1,100.0	1,098.9	980.1	980.1	3.7	3.1	-71.98	7,730.9	-1,848.6	7,939.1	7,932.3	6.80	1,168.273	
1,200.0	1,198.3	1,118.0	1,118.0	4.1	3.5	-72.12	7,731.0	-1,848.8	7,935.7	7,928.0	7.64	1,038.180	
1,300.0	1,297.4	1,194.2	1,194.2	4.5	3.8	-72.23	7,731.0	-1,849.1	7,931.7	7,923.4	8.29	957.131	
1,400.0	1,396.4	1,400.0	1,352.3	4.9	4.5	-72.39	7,730.4	-1,849.5	7,927.1	7,917.7	9.38	844.674	
1,500.0	1,495.5	1,455.5	1,455.4	5.3	4.7	-72.49	7,729.6	-1,849.1	7,922.1	7,912.1	9.98	793.964	
1,600.0	1,594.5	1,560.0	1,560.0	5.7	5.1	-72.58	7,728.7	-1,848.5	7,916.8	7,906.1	10.75	736.715	
1,700.0	1,693.5	1,605.2	1,605.2	6.1	5.2	-72.63	7,728.3	-1,848.6	7,912.1	7,900.8	11.30	699.903	
1,800.0	1,792.5	1,655.0	1,655.0	6.5	5.4	-72.69	7,728.4	-1,849.8	7,908.4	7,896.5	11.88	665.665	
1,900.0	1,891.6	1,655.0	1,655.0	6.9	5.4	-72.69	7,728.4	-1,849.8	7,905.5	7,893.2	12.29	643.481	
2,000.0	1,990.6	1,687.4	1,687.3	7.3	5.5	-72.73	7,728.8	-1,851.2	7,903.5	7,890.7	12.80	617.381	
2,100.0	2,089.6	1,715.0	1,714.8	7.7	5.6	-72.76	7,729.3	-1,852.6	7,902.5	7,889.2	13.30	594.105	
2,177.0	2,165.9	1,750.0	1,749.8	8.0	5.7	-72.81	7,730.2	-1,854.8	7,902.4	7,888.7	13.73	575.392	
2,200.0	2,188.6	1,750.0	1,749.8	8.1	5.7	-72.81	7,730.2	-1,854.8	7,902.5	7,888.6	13.83	571.520	
2,300.0	2,287.7	1,780.9	1,780.6	8.5	5.8	-72.85	7,731.2	-1,857.1	7,903.3	7,888.9	14.34	551.148	
2,400.0	2,386.7	1,844.0	1,843.4	8.9	6.1	-72.95	7,733.6	-1,862.5	7,904.9	7,889.9	14.96	528.245	
2,500.0	2,485.7	1,888.9	1,888.1	9.4	6.2	-73.02	7,735.4	-1,866.7	7,907.0	7,891.5	15.53	509.224	
2,600.0	2,584.8	2,251.9	2,248.6	9.8	7.5	-73.64	7,741.9	-1,908.0	7,907.8	7,890.5	17.25	458.370	
2,700.0	2,683.8	2,347.9	2,343.8	10.2	7.9	-73.82	7,741.6	-1,920.3	7,907.0	7,889.0	18.02	438.804	
2,800.0	2,782.8	2,442.9	2,438.0	10.6	8.2	-73.99	7,741.2	-1,932.5	7,906.2	7,887.5	18.79	420.830	
2,900.0	2,881.8	2,511.7	2,506.3	11.0	8.5	-74.12	7,741.1	-1,941.2	7,905.8	7,886.4	19.46	406.297	
3,000.0	2,980.9	2,611.7	2,605.5	11.4	8.9	-74.30	7,741.4	-1,953.3	7,905.7	7,885.4	20.25	390.416	
3,100.0	3,079.9	2,745.0	2,738.0	11.9	9.4	-74.53	7,741.7	-1,967.9	7,905.3	7,884.1	21.17	373.484	
3,200.0	3,178.9	2,832.9	2,825.5	12.3	9.7	-74.67	7,742.1	-1,976.4	7,904.7	7,882.8	21.91	360.785	
3,277.2	3,255.4	2,883.0	2,875.4	12.6	9.9	-74.75	7,742.5	-1,981.0	7,904.6	7,882.2	22.42	352.628	
3,300.0	3,277.9	2,883.0	2,875.4	12.7	9.9	-74.75	7,742.5	-1,981.0	7,904.6	7,882.1	22.51	351.168	
3,400.0	3,377.0	2,943.5	2,935.6	13.1	10.1	-74.85	7,743.3	-1,986.7	7,905.0	7,881.9	23.15	341.482	
3,500.0	3,476.0	2,994.5	2,986.4	13.5	10.3	-74.93	7,744.3	-1,991.9	7,906.2	7,882.4	23.75	332.861	
3,600.0	3,575.0	3,057.8	3,049.3	13.9	10.6	-75.03	7,745.8	-1,998.2	7,907.9	7,883.5	24.40	324.065	
3,700.0	3,674.0	3,171.2	3,162.2	14.3	11.0	-75.21	7,749.1	-2,008.8	7,909.8	7,884.5	25.24	313.340	
3,800.0	3,773.1	3,229.0	3,219.6	14.8	11.2	-75.30	7,750.6	-2,014.5	7,911.9	7,886.0	25.87	305.790	
3,900.0	3,872.1	3,286.3	3,276.5	15.2	11.4	-75.40	7,752.2	-2,021.3	7,914.5	7,888.0	26.50	298.621	
4,000.0	3,971.1	3,356.0	3,345.6	15.6	11.7	-75.52	7,754.2	-2,030.4	7,917.7	7,890.5	27.19	291.251	
4,100.0	4,070.2	3,466.3	3,454.9	16.0	12.1	-75.73	7,757.2	-2,045.2	7,921.1	7,893.0	28.03	282.553	
4,200.0	4,169.2	3,548.1	3,535.9	16.4	12.5	-75.87	7,759.4	-2,056.2	7,924.4	7,895.7	28.77	275.462	
4,300.0	4,268.2	18,698.4	11,469.4	16.9	130.8	-155.45	280.3	-2,630.5	7,897.8	7,817.0	80.85	97.680	
4,400.0	4,367.2	18,691.9	11,469.3	17.3	130.7	-155.36	286.8	-2,630.6	7,811.1	7,729.6	81.44	95.909	
4,500.0	4,466.3	18,685.4	11,469.3	17.7	130.6	-155.26	293.3	-2,630.7	7,724.6	7,642.6	82.05	94.145	
4,600.0	4,565.3	18,678.9	11,469.2	18.1	130.5	-155.17	299.9	-2,630.8	7,638.5	7,555.8	82.68	92.391	
4,700.0	4,664.3	18,672.2	11,469.1	18.5	130.4	-155.07	306.5	-2,630.9	7,552.7	7,469.4	83.32	90.647	
4,800.0	4,763.3	18,665.5	11,469.1	18.9	130.3	-154.97	313.2	-2,630.9	7,467.3	7,383.3	83.98	88.913	
4,900.0	4,862.4	18,658.8	11,469.0	19.4	130.2	-154.87	319.9	-2,631.0	7,382.2	7,297.5	84.67	87.190	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #004H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 198-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,961.4	18,651.9	11,468.9	19.8	130.1	-154.77	326.8	-2,631.1	7,297.5	7,212.1	85.37	85.478	
5,100.0	5,060.4	18,645.0	11,468.9	20.2	130.0	-154.67	333.7	-2,631.2	7,213.2	7,127.1	86.10	83.780	
5,200.0	5,159.4	18,638.1	11,468.8	20.6	129.8	-154.57	340.7	-2,631.3	7,129.3	7,042.4	86.84	82.094	
5,300.0	5,258.5	18,631.0	11,468.7	21.0	129.7	-154.47	347.7	-2,631.3	7,045.7	6,958.1	87.61	80.422	
5,400.0	5,357.5	18,623.9	11,468.7	21.5	129.6	-154.36	354.8	-2,631.4	6,962.7	6,874.3	88.40	78.765	
5,500.0	5,456.5	18,618.7	11,468.6	21.9	129.5	-154.29	360.1	-2,631.5	6,880.0	6,790.8	89.23	77.107	
5,600.0	5,555.6	18,610.1	11,468.6	22.3	129.4	-154.16	368.7	-2,631.5	6,797.9	6,707.8	90.05	75.491	
5,700.0	5,654.6	18,601.5	11,468.5	22.7	129.3	-154.04	377.2	-2,631.6	6,716.2	6,625.3	90.90	73.889	
5,800.0	5,753.6	18,593.0	11,468.4	23.1	129.1	-153.91	385.7	-2,631.6	6,635.0	6,543.2	91.77	72.303	
5,900.0	5,852.6	18,584.6	11,468.4	23.5	129.0	-153.79	394.1	-2,631.7	6,554.3	6,461.6	92.66	70.732	
6,000.0	5,951.7	18,576.2	11,468.3	24.0	128.9	-153.67	402.5	-2,631.8	6,474.1	6,380.5	93.59	69.178	
6,098.6	6,049.3	18,568.0	11,468.2	24.4	128.7	-153.55	410.7	-2,631.8	6,395.6	6,301.1	94.52	67.664	
6,100.0	6,050.7	18,567.9	11,468.2	24.4	128.7	-153.53	410.9	-2,631.8	6,394.5	6,299.9	94.53	67.642	
6,200.0	6,149.9	18,560.5	11,468.1	24.8	128.6	-152.52	418.2	-2,631.9	6,314.7	6,219.2	95.50	66.120	
6,300.0	6,249.4	18,554.9	11,468.1	25.2	128.5	-151.48	423.8	-2,631.9	6,234.1	6,137.6	96.49	64.612	
6,400.0	6,349.1	18,551.2	11,468.1	25.6	128.5	-150.40	427.5	-2,631.9	6,152.7	6,055.2	97.48	63.119	
6,500.0	6,449.0	18,549.2	11,468.0	25.9	128.4	-149.28	429.5	-2,631.9	6,070.5	5,972.1	98.48	61.642	
6,600.0	6,549.0	18,549.0	11,468.0	26.2	128.4	-148.12	429.7	-2,631.9	5,987.6	5,888.1	99.49	60.183	
6,631.9	6,580.9	18,549.3	11,468.0	26.3	128.5	-89.49	429.4	-2,631.9	5,961.0	5,861.2	99.82	59.720	
6,700.0	6,649.0	18,550.1	11,468.0	26.5	128.5	-89.51	428.6	-2,631.9	5,904.3	5,803.7	100.51	58.743	
6,800.0	6,749.0	18,551.4	11,468.1	26.9	128.5	-89.53	427.3	-2,631.9	5,821.4	5,719.8	101.55	57.323	
6,900.0	6,849.0	18,552.6	11,468.1	27.2	128.5	-89.55	426.1	-2,631.9	5,739.0	5,636.4	102.63	55.921	
7,000.0	6,949.0	18,553.8	11,468.1	27.5	128.5	-89.57	424.9	-2,631.9	5,657.2	5,553.5	103.73	54.538	
7,100.0	7,049.0	18,555.0	11,468.1	27.8	128.5	-89.59	423.7	-2,631.9	5,576.0	5,471.2	104.86	53.175	
7,200.0	7,149.0	18,556.2	11,468.1	28.1	128.6	-89.61	422.5	-2,631.9	5,495.5	5,389.4	106.03	51.831	
7,300.0	7,249.0	18,557.3	11,468.1	28.4	128.6	-89.63	421.4	-2,631.9	5,415.5	5,308.3	107.22	50.508	
7,400.0	7,349.0	18,558.5	11,468.1	28.8	128.6	-89.65	420.2	-2,631.9	5,336.3	5,227.8	108.45	49.206	
7,500.0	7,449.0	18,559.7	11,468.1	29.1	128.6	-89.67	419.0	-2,631.9	5,257.8	5,148.0	109.71	47.925	
7,600.0	7,549.0	18,560.8	11,468.1	29.4	128.6	-89.69	417.9	-2,631.8	5,180.0	5,069.0	111.00	46.666	
7,700.0	7,649.0	18,562.0	11,468.2	29.7	128.6	-89.71	416.7	-2,631.8	5,102.9	4,990.6	112.33	45.429	
7,800.0	7,749.0	18,563.1	11,468.2	30.1	128.7	-89.73	415.6	-2,631.8	5,026.7	4,913.0	113.69	44.216	
7,900.0	7,849.0	18,564.3	11,468.2	30.4	128.7	-89.75	414.5	-2,631.8	4,951.4	4,836.3	115.08	43.026	
8,000.0	7,949.0	18,565.4	11,468.2	30.7	128.7	-89.77	413.3	-2,631.8	4,876.9	4,760.4	116.51	41.859	
8,100.0	8,049.0	18,566.5	11,468.2	31.0	128.7	-89.79	412.2	-2,631.8	4,803.3	4,685.3	117.97	40.718	
8,200.0	8,149.0	18,567.6	11,468.2	31.4	128.7	-89.81	411.1	-2,631.8	4,730.7	4,611.3	119.46	39.601	
8,300.0	8,249.0	18,568.7	11,468.2	31.7	128.8	-89.83	410.0	-2,631.8	4,659.2	4,538.2	120.99	38.509	
8,400.0	8,349.0	18,569.8	11,468.2	32.0	128.8	-89.85	408.9	-2,631.8	4,588.6	4,466.1	122.55	37.444	
8,500.0	8,449.0	18,570.9	11,468.2	32.3	128.8	-89.87	407.8	-2,631.8	4,519.2	4,395.1	124.14	36.404	
8,600.0	8,549.0	18,572.0	11,468.2	32.7	128.8	-89.89	406.7	-2,631.8	4,451.0	4,325.3	125.76	35.392	
8,700.0	8,649.0	18,573.0	11,468.3	33.0	128.8	-89.91	405.7	-2,631.8	4,384.0	4,256.6	127.42	34.407	
8,800.0	8,749.0	18,574.1	11,468.3	33.3	128.8	-89.93	404.6	-2,631.8	4,318.3	4,189.2	129.10	33.449	
8,900.0	8,849.0	18,575.2	11,468.3	33.7	128.9	-89.94	403.5	-2,631.8	4,253.9	4,123.1	130.81	32.520	
9,000.0	8,949.0	18,576.2	11,468.3	34.0	128.9	-89.96	402.5	-2,631.8	4,190.9	4,058.3	132.54	31.619	
9,100.0	9,049.0	18,577.3	11,468.3	34.3	128.9	-89.98	401.4	-2,631.7	4,129.3	3,995.0	134.30	30.747	
9,200.0	9,149.0	18,578.3	11,468.3	34.6	128.9	-90.00	400.4	-2,631.7	4,069.3	3,933.2	136.07	29.905	
9,300.0	9,249.0	18,579.3	11,468.3	35.0	128.9	-90.02	399.4	-2,631.7	4,010.9	3,873.0	137.86	29.093	
9,400.0	9,349.0	18,580.4	11,468.3	35.3	128.9	-90.03	398.4	-2,631.7	3,954.1	3,814.4	139.67	28.311	
9,500.0	9,449.0	18,581.4	11,468.3	35.6	129.0	-90.05	397.3	-2,631.7	3,899.1	3,757.6	141.48	27.559	
9,600.0	9,549.0	18,582.4	11,468.3	36.0	129.0	-90.07	396.3	-2,631.7	3,845.9	3,702.6	143.30	26.838	
9,700.0	9,649.0	18,583.4	11,468.3	36.3	129.0	-90.09	395.3	-2,631.7	3,794.6	3,649.5	145.11	26.149	
9,800.0	9,749.0	18,584.4	11,468.4	36.7	129.0	-90.11	394.3	-2,631.7	3,745.2	3,598.3	146.92	25.491	
9,900.0	9,849.0	18,585.4	11,468.4	37.0	129.0	-90.12	393.3	-2,631.7	3,697.9	3,549.2	148.72	24.865	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #004H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 198-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,949.0	18,586.4	11,468.4	37.3	129.0	-90.14	392.3	-2,631.7	3,652.8	3,502.3	150.50	24.271	
10,100.0	10,049.0	18,587.4	11,468.4	37.7	129.0	-90.16	391.4	-2,631.7	3,609.8	3,457.5	152.25	23.709	
10,200.0	10,149.0	18,588.3	11,468.4	38.0	129.1	-90.17	390.4	-2,631.7	3,569.1	3,415.1	153.97	23.180	
10,300.0	10,249.0	18,589.3	11,468.4	38.3	129.1	-90.19	389.4	-2,631.7	3,530.8	3,375.1	155.65	22.684	
10,400.0	10,349.0	18,590.3	11,468.4	38.7	129.1	-90.21	388.5	-2,631.7	3,494.9	3,337.6	157.28	22.221	
10,500.0	10,449.0	18,591.2	11,468.4	39.0	129.1	-90.22	387.5	-2,631.7	3,461.5	3,302.7	158.86	21.790	
10,600.0	10,549.0	18,592.2	11,468.4	39.3	129.1	-90.24	386.5	-2,631.6	3,430.8	3,270.4	160.37	21.393	
10,700.0	10,649.0	18,593.1	11,468.4	39.7	129.1	-90.26	385.6	-2,631.6	3,402.6	3,240.8	161.80	21.029	
10,800.0	10,749.0	18,594.0	11,468.4	40.0	129.2	-90.27	384.7	-2,631.6	3,377.3	3,214.1	163.16	20.699	
10,900.0	10,849.0	18,595.0	11,468.4	40.4	129.2	-90.29	383.7	-2,631.6	3,354.7	3,190.2	164.43	20.402	
11,000.0	10,949.0	18,595.9	11,468.4	40.7	129.2	-90.31	382.8	-2,631.6	3,334.9	3,169.3	165.60	20.138	
11,100.0	11,049.0	18,596.8	11,468.5	41.0	129.2	-90.32	381.9	-2,631.6	3,318.1	3,151.4	166.67	19.908	
11,148.0	11,097.0	18,597.3	11,468.5	41.2	129.2	-90.33	381.4	-2,631.6	3,311.0	3,143.9	167.15	19.809	
11,148.1	11,097.0	18,597.3	11,468.5	41.2	129.2	-90.33	381.4	-2,631.6	3,311.0	3,143.9	167.15	19.809	
11,150.0	11,099.0	18,597.3	11,468.5	41.2	129.2	85.55	381.4	-2,631.6	3,310.8	3,143.6	167.17	19.805	
11,200.0	11,148.9	18,600.3	11,468.5	41.4	129.3	86.17	378.4	-2,631.6	3,304.0	3,136.3	167.66	19.707	
11,250.0	11,198.4	18,608.8	11,468.6	41.5	129.4	86.66	369.9	-2,631.5	3,297.7	3,129.5	168.19	19.607	
11,300.0	11,247.2	18,625.5	11,468.7	41.6	129.6	86.97	353.2	-2,631.4	3,291.8	3,123.0	168.78	19.503	
11,350.0	11,294.8	18,648.3	11,468.9	41.7	130.0	87.13	330.4	-2,631.2	3,286.4	3,117.0	169.43	19.397	
11,400.0	11,340.9	18,677.3	11,469.2	41.8	130.5	87.17	301.4	-2,630.8	3,281.4	3,111.3	170.12	19.288	
11,450.0	11,385.2	18,712.1	11,469.6	41.9	131.0	87.10	266.6	-2,630.2	3,276.7	3,105.8	170.86	19.178	
11,500.0	11,427.3	18,736.9	11,469.8	42.0	131.4	87.18	241.8	-2,629.8	3,272.3	3,100.9	171.45	19.086	
11,550.0	11,466.8	18,768.9	11,470.2	42.1	131.9	87.15	209.8	-2,629.3	3,268.2	3,096.1	172.11	18.989	
11,600.0	11,503.5	18,804.4	11,470.6	42.1	132.5	87.09	174.4	-2,628.6	3,264.3	3,091.5	172.80	18.891	
11,650.0	11,537.2	18,838.4	11,470.9	42.1	133.0	87.06	140.4	-2,628.1	3,260.6	3,087.1	173.46	18.798	
11,700.0	11,567.5	18,875.8	11,471.3	42.2	133.6	87.03	102.9	-2,627.5	3,257.0	3,082.8	174.15	18.703	
11,750.0	11,594.2	18,917.2	11,471.6	42.2	134.2	87.00	61.6	-2,626.8	3,253.4	3,078.5	174.88	18.604	
11,800.0	11,617.1	18,931.0	11,471.7	42.2	134.5	87.23	47.8	-2,626.6	3,249.9	3,074.7	175.27	18.542	
11,850.0	11,636.1	18,931.0	11,471.7	42.2	134.5	87.52	47.8	-2,626.6	3,247.0	3,071.5	175.47	18.504	
11,900.0	11,651.0	18,931.0	11,471.7	42.1	134.5	87.76	47.8	-2,626.6	3,244.6	3,069.0	175.65	18.472	
11,950.0	11,661.6	18,931.0	11,471.7	42.1	134.5	87.94	47.8	-2,626.6	3,242.9	3,067.1	175.80	18.446	
12,000.0	11,668.0	18,931.0	11,471.7	42.1	134.5	88.05	47.8	-2,626.6	3,241.7	3,065.8	175.93	18.426	
12,048.1	11,670.0	18,931.0	11,471.7	42.1	134.5	88.10	47.8	-2,626.6	3,241.2	3,065.2	176.03	18.413	
12,055.4	11,670.0	18,931.0	11,471.7	42.1	134.5	88.10	47.8	-2,626.6	3,241.2	3,065.1	176.05	18.411	CC, ES
12,100.0	11,670.0	18,931.0	11,471.7	42.2	134.5	88.10	47.8	-2,626.6	3,241.8	3,065.7	176.12	18.407	SF
12,200.0	11,670.0	18,931.0	11,471.7	42.3	134.5	88.10	47.8	-2,626.6	3,248.1	3,071.8	176.23	18.431	
12,272.6	11,670.0	18,931.0	11,471.7	42.5	134.5	88.09	47.8	-2,626.6	3,256.7	3,080.4	176.27	18.476	
12,300.0	11,670.0	18,931.0	11,471.7	42.6	134.5	88.09	47.8	-2,626.6	3,260.7	3,084.4	176.27	18.498	
12,400.0	11,670.0	18,931.0	11,471.7	43.0	134.5	88.09	47.8	-2,626.6	3,277.2	3,100.9	176.25	18.594	
12,500.0	11,670.0	18,931.0	11,471.7	43.4	134.5	88.09	47.8	-2,626.6	3,296.6	3,120.5	176.15	18.714	
12,600.0	11,670.0	18,931.0	11,471.7	43.9	134.5	88.09	47.8	-2,626.6	3,319.0	3,143.0	176.00	18.858	
12,700.0	11,670.0	18,931.0	11,471.7	44.4	134.5	88.09	47.8	-2,626.6	3,344.2	3,168.4	175.78	19.025	
12,800.0	11,670.0	18,931.0	11,471.7	45.0	134.5	88.09	47.8	-2,626.6	3,372.2	3,196.7	175.49	19.215	
12,900.0	11,670.0	18,931.0	11,471.7	45.7	134.5	88.09	47.8	-2,626.6	3,402.9	3,227.7	175.15	19.428	
13,000.0	11,670.0	18,931.0	11,471.7	46.4	134.5	88.09	47.8	-2,626.6	3,436.2	3,261.5	174.75	19.663	
13,100.0	11,670.0	18,931.0	11,471.7	47.1	134.5	88.09	47.8	-2,626.6	3,472.1	3,297.8	174.30	19.920	
13,200.0	11,670.0	18,931.0	11,471.7	47.9	134.5	88.09	47.8	-2,626.6	3,510.5	3,336.7	173.80	20.199	
13,300.0	11,670.0	18,931.0	11,471.7	48.7	134.5	88.09	47.8	-2,626.6	3,551.3	3,378.0	173.25	20.498	
13,400.0	11,670.0	18,931.0	11,471.7	49.6	134.5	88.09	47.8	-2,626.6	3,594.4	3,421.7	172.65	20.818	
13,500.0	11,670.0	18,931.0	11,471.7	50.5	134.5	88.09	47.8	-2,626.6	3,639.7	3,467.7	172.02	21.158	
13,600.0	11,670.0	18,931.0	11,471.7	51.5	134.5	88.09	47.8	-2,626.6	3,687.2	3,515.8	171.35	21.518	
13,700.0	11,670.0	18,931.0	11,471.7	52.4	134.5	88.09	47.8	-2,626.6	3,736.8	3,566.1	170.65	21.897	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #004H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 198-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,800.0	11,670.0	18,931.0	11,471.7	53.4	134.5	88.09	47.8	-2,626.6	3,788.3	3,618.4	169.92	22.294	
13,900.0	11,670.0	18,931.0	11,471.7	54.5	134.5	88.09	47.8	-2,626.6	3,841.8	3,672.6	169.17	22.710	
14,000.0	11,670.0	18,931.0	11,471.7	55.6	134.5	88.09	47.8	-2,626.6	3,897.1	3,728.7	168.39	23.143	
14,100.0	11,670.0	18,931.0	11,471.7	56.7	134.5	88.09	47.8	-2,626.6	3,954.1	3,786.5	167.60	23.593	
14,200.0	11,670.0	18,931.0	11,471.7	57.8	134.5	88.09	47.8	-2,626.6	4,012.9	3,846.1	166.79	24.059	
14,300.0	11,670.0	18,931.0	11,471.7	59.0	134.5	88.09	47.8	-2,626.6	4,073.2	3,907.2	165.97	24.542	
14,400.0	11,670.0	18,931.0	11,471.7	60.1	134.5	88.09	47.8	-2,626.6	4,135.1	3,970.0	165.14	25.039	
14,500.0	11,670.0	18,931.0	11,471.7	61.3	134.5	88.09	47.8	-2,626.6	4,198.5	4,034.1	164.31	25.552	
14,600.0	11,670.0	18,931.0	11,471.7	62.5	134.5	88.09	47.8	-2,626.6	4,263.2	4,099.7	163.47	26.079	
14,700.0	11,670.0	18,931.0	11,471.7	63.8	134.5	88.09	47.8	-2,626.6	4,329.3	4,166.7	162.63	26.620	
14,800.0	11,670.0	18,931.0	11,471.7	65.0	134.5	88.09	47.8	-2,626.6	4,396.7	4,234.9	161.80	27.174	
14,900.0	11,670.0	18,931.0	11,471.7	66.3	134.5	88.09	47.8	-2,626.6	4,465.3	4,304.3	160.96	27.742	
15,000.0	11,670.0	18,931.0	11,471.7	67.6	134.5	88.09	47.8	-2,626.6	4,535.1	4,374.9	160.13	28.321	
15,100.0	11,670.0	18,931.0	11,471.7	68.9	134.5	88.09	47.8	-2,626.6	4,605.9	4,446.6	159.30	28.913	
15,200.0	11,670.0	18,931.0	11,471.7	70.2	134.5	88.09	47.8	-2,626.6	4,677.9	4,519.4	158.48	29.516	
15,300.0	11,670.0	18,931.0	11,471.7	71.6	134.5	88.09	47.8	-2,626.6	4,750.9	4,593.2	157.67	30.131	
15,400.0	11,670.0	18,931.0	11,471.7	72.9	134.5	88.09	47.8	-2,626.6	4,824.8	4,667.9	156.87	30.756	
15,500.0	11,670.0	18,931.0	11,471.7	74.3	134.5	88.09	47.8	-2,626.6	4,899.7	4,743.6	156.08	31.391	
15,600.0	11,670.0	18,931.0	11,471.7	75.7	134.5	88.09	47.8	-2,626.6	4,975.4	4,820.1	155.30	32.037	
15,700.0	11,670.0	18,931.0	11,471.7	77.1	134.5	88.09	47.8	-2,626.6	5,052.0	4,897.4	154.54	32.691	
15,800.0	11,670.0	18,931.0	11,471.7	78.5	134.5	88.09	47.8	-2,626.6	5,129.4	4,975.6	153.78	33.355	
15,900.0	11,670.0	18,931.0	11,471.7	79.9	134.5	88.09	47.8	-2,626.6	5,207.5	5,054.5	153.04	34.028	
16,000.0	11,670.0	18,931.0	11,471.7	81.3	134.5	88.09	47.8	-2,626.6	5,286.4	5,134.1	152.31	34.709	
16,100.0	11,670.0	18,931.0	11,471.7	82.7	134.5	88.09	47.8	-2,626.6	5,366.0	5,214.4	151.59	35.398	
16,200.0	11,670.0	18,931.0	11,471.7	84.1	134.5	88.09	47.8	-2,626.6	5,446.3	5,295.4	150.89	36.095	
16,300.0	11,670.0	18,931.0	11,471.7	85.6	134.5	88.09	47.8	-2,626.6	5,527.2	5,377.0	150.20	36.800	
16,400.0	11,670.0	18,931.0	11,471.7	87.0	134.5	88.09	47.8	-2,626.6	5,608.8	5,459.2	149.52	37.511	
16,500.0	11,670.0	18,931.0	11,471.7	88.5	134.5	88.09	47.8	-2,626.6	5,690.9	5,542.0	148.86	38.229	
16,600.0	11,670.0	18,931.0	11,471.7	89.9	134.5	88.09	47.8	-2,626.6	5,773.6	5,625.4	148.21	38.954	
16,700.0	11,670.0	18,931.0	11,471.7	91.4	134.5	88.09	47.8	-2,626.6	5,856.8	5,709.2	147.58	39.685	
16,800.0	11,670.0	18,931.0	11,471.7	92.9	134.5	88.09	47.8	-2,626.6	5,940.5	5,793.6	146.96	40.422	
16,900.0	11,670.0	18,931.0	11,471.7	94.4	134.5	88.09	47.8	-2,626.6	6,024.8	5,878.4	146.36	41.165	
17,000.0	11,670.0	18,931.0	11,471.7	95.9	134.5	88.09	47.8	-2,626.6	6,109.5	5,963.7	145.76	41.913	
17,100.0	11,670.0	18,931.0	11,471.7	97.3	134.5	88.09	47.8	-2,626.6	6,194.7	6,049.5	145.19	42.667	
17,200.0	11,670.0	18,931.0	11,471.7	98.8	134.5	88.09	47.8	-2,626.6	6,280.3	6,135.7	144.62	43.425	
17,300.0	11,670.0	18,931.0	11,471.7	100.3	134.5	88.09	47.8	-2,626.6	6,366.3	6,222.2	144.07	44.189	
17,400.0	11,670.0	18,931.0	11,471.7	101.9	134.5	88.09	47.8	-2,626.6	6,452.7	6,309.2	143.53	44.956	
17,500.0	11,670.0	18,931.0	11,471.7	103.4	134.5	88.09	47.8	-2,626.6	6,539.6	6,396.5	143.01	45.729	
17,600.0	11,670.0	18,931.0	11,471.7	104.9	134.5	88.09	47.8	-2,626.6	6,626.7	6,484.2	142.50	46.505	
17,700.0	11,670.0	18,931.0	11,471.7	106.4	134.5	88.09	47.8	-2,626.6	6,714.3	6,572.3	142.00	47.285	
17,800.0	11,670.0	18,931.0	11,471.7	107.9	134.5	88.09	47.8	-2,626.6	6,802.2	6,660.7	141.51	48.069	
17,900.0	11,670.0	18,931.0	11,471.7	109.5	134.5	88.09	47.8	-2,626.6	6,890.4	6,749.4	141.03	48.857	
18,000.0	11,670.0	18,931.0	11,471.7	111.0	134.5	88.09	47.8	-2,626.6	6,978.9	6,838.4	140.57	49.648	
18,100.0	11,670.0	18,931.0	11,471.7	112.5	134.5	88.09	47.8	-2,626.6	7,067.8	6,927.7	140.12	50.442	
18,200.0	11,670.0	18,931.0	11,471.7	114.1	134.5	88.09	47.8	-2,626.6	7,156.9	7,017.2	139.68	51.239	
18,300.0	11,670.0	18,931.0	11,471.7	115.6	134.5	88.09	47.8	-2,626.6	7,246.3	7,107.1	139.25	52.039	
18,400.0	11,670.0	18,931.0	11,471.7	117.2	134.5	88.09	47.8	-2,626.6	7,336.0	7,197.2	138.83	52.842	
18,428.0	11,670.0	18,931.0	11,471.7	117.6	134.5	88.09	47.8	-2,626.6	7,361.2	7,222.5	138.71	53.068	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #005H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 288-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-13.26	7,730.7	-1,821.7	7,943.0				
100.0	100.0	0.0	0.0	0.1	0.0	-13.26	7,730.7	-1,821.7	7,942.4	7,942.3	0.13	N/A	
200.0	200.0	82.7	82.7	0.5	0.1	-13.26	7,730.8	-1,821.9	7,942.6	7,941.9	0.62	N/A	
300.0	300.0	160.4	160.4	0.8	0.3	-13.26	7,731.0	-1,822.5	7,943.0	7,941.9	1.11	7,166.686	
400.0	400.0	238.1	238.1	1.2	0.4	-13.27	7,731.3	-1,823.5	7,943.7	7,942.1	1.59	4,983.806	
500.0	500.0	348.9	348.9	1.6	0.7	-13.28	7,731.9	-1,825.5	7,944.7	7,942.4	2.25	3,526.649	
600.0	600.0	676.9	676.8	1.9	1.8	-71.58	7,728.9	-1,826.9	7,943.5	7,939.7	3.76	2,114.440	
700.0	700.0	750.0	749.9	2.3	2.1	-71.61	7,727.7	-1,826.0	7,940.7	7,936.3	4.36	1,821.838	
800.0	799.9	814.8	814.6	2.6	2.3	-71.66	7,726.8	-1,825.3	7,937.7	7,932.8	4.94	1,607.538	
900.0	899.7	881.5	881.4	3.0	2.5	-71.71	7,726.2	-1,824.5	7,934.6	7,929.1	5.53	1,435.297	
1,000.0	999.4	958.8	958.7	3.4	2.8	-71.78	7,725.8	-1,823.7	7,931.4	7,925.3	6.16	1,287.541	
1,100.0	1,098.9	1,087.4	1,087.3	3.7	3.3	-71.89	7,724.9	-1,821.9	7,927.4	7,920.4	6.98	1,135.700	
1,200.0	1,198.3	1,179.1	1,179.0	4.1	3.6	-71.99	7,724.3	-1,820.7	7,922.9	7,915.2	7.68	1,031.652	
1,300.0	1,297.4	1,265.4	1,265.2	4.5	3.9	-72.11	7,723.8	-1,819.7	7,918.0	7,909.6	8.37	946.080	
1,400.0	1,396.4	1,352.8	1,352.6	4.9	4.2	-72.19	7,723.4	-1,818.8	7,913.0	7,903.9	9.07	872.443	
1,500.0	1,495.5	1,453.1	1,452.9	5.3	4.6	-72.28	7,723.0	-1,817.9	7,908.1	7,898.2	9.82	805.250	
1,600.0	1,594.5	1,585.4	1,585.2	5.7	5.0	-72.40	7,722.2	-1,816.3	7,903.0	7,892.3	10.69	739.394	
1,700.0	1,693.5	1,707.1	1,706.9	6.1	5.5	-72.50	7,721.2	-1,814.2	7,897.5	7,886.0	11.52	685.429	
1,800.0	1,792.5	1,766.8	1,766.5	6.5	5.7	-72.55	7,721.0	-1,812.4	7,892.2	7,880.1	12.14	650.264	
1,900.0	1,891.6	1,839.6	1,839.2	6.9	5.9	-72.59	7,721.4	-1,808.9	7,887.3	7,874.5	12.80	616.199	
2,000.0	1,990.6	1,925.6	1,925.1	7.3	6.2	-72.64	7,722.4	-1,803.7	7,882.7	7,869.2	13.51	583.401	
2,100.0	2,089.6	2,015.1	2,014.4	7.7	6.6	-72.68	7,723.5	-1,797.9	7,878.2	7,864.0	14.24	553.318	
2,200.0	2,188.6	2,100.1	2,099.3	8.1	6.9	-72.72	7,724.9	-1,792.2	7,873.9	7,859.0	14.95	526.650	
2,300.0	2,287.7	2,203.8	2,202.7	8.5	7.2	-72.77	7,726.6	-1,785.0	7,869.7	7,854.0	15.73	500.204	
2,400.0	2,386.7	2,306.1	2,304.7	8.9	7.6	-72.81	7,728.4	-1,777.6	7,865.4	7,848.9	16.51	476.325	
2,500.0	2,485.7	2,406.1	2,404.4	9.4	8.0	-72.85	7,730.3	-1,769.7	7,861.1	7,843.8	17.29	454.738	
2,600.0	2,584.8	2,516.4	2,514.2	9.8	8.4	-72.88	7,732.6	-1,759.6	7,856.7	7,838.6	18.10	434.004	
2,700.0	2,683.8	2,654.8	2,651.7	10.2	8.9	-72.91	7,735.7	-1,744.7	7,852.1	7,833.1	19.03	412.679	
2,800.0	2,782.8	2,751.5	2,747.6	10.6	9.3	-72.91	7,738.1	-1,732.7	7,847.2	7,827.4	19.81	396.205	
2,900.0	2,881.8	2,827.0	2,822.6	11.0	9.5	-72.91	7,740.0	-1,723.5	7,842.5	7,822.0	20.51	382.450	
3,000.0	2,980.9	2,876.7	2,871.9	11.4	9.7	-72.92	7,741.4	-1,717.8	7,838.3	7,817.2	21.11	371.330	
3,100.0	3,079.9	2,938.9	2,933.8	11.9	10.0	-72.93	7,743.5	-1,711.1	7,834.6	7,812.9	21.76	360.068	
3,200.0	3,178.9	3,200.0	3,076.5	12.3	11.0	-72.96	7,748.0	-1,696.1	7,830.9	7,807.7	23.16	338.090	
3,300.0	3,277.9	3,272.9	3,266.3	12.7	11.2	-73.04	7,750.1	-1,682.1	7,825.7	7,801.9	23.83	328.356	
3,400.0	3,377.0	3,361.1	3,354.3	13.1	11.5	-73.09	7,750.6	-1,676.9	7,820.7	7,796.1	24.57	318.280	
3,500.0	3,476.0	3,446.3	3,439.4	13.5	11.9	-73.13	7,751.1	-1,672.0	7,815.8	7,790.5	25.30	308.928	
3,600.0	3,575.0	3,525.2	3,518.2	13.9	12.1	-73.18	7,751.7	-1,667.6	7,811.1	7,785.1	26.00	300.371	
3,700.0	3,674.0	3,599.9	3,592.8	14.3	12.4	-73.22	7,752.7	-1,663.2	7,806.7	7,780.0	26.70	292.437	
3,800.0	3,773.1	3,670.1	3,662.8	14.8	12.7	-73.26	7,753.8	-1,659.0	7,802.7	7,775.3	27.37	285.085	
3,900.0	3,872.1	3,745.3	3,737.9	15.2	13.0	-73.30	7,755.3	-1,654.5	7,799.0	7,770.9	28.06	277.911	
4,000.0	3,971.1	18,710.2	11,477.1	15.6	131.2	-160.28	249.1	-1,221.8	7,763.8	7,692.9	70.91	109.491	
4,100.0	4,070.2	18,702.6	11,477.1	16.0	131.1	-160.11	256.6	-1,221.9	7,669.4	7,598.2	71.20	107.712	
4,200.0	4,169.2	18,697.0	11,477.0	16.4	131.0	-159.98	262.2	-1,221.9	7,575.0	7,503.5	71.53	105.902	
4,300.0	4,268.2	18,697.0	11,477.0	16.9	131.0	-159.98	262.2	-1,221.9	7,480.8	7,408.9	71.92	104.017	
4,400.0	4,367.2	18,686.6	11,477.0	17.3	130.8	-159.75	272.6	-1,222.1	7,386.8	7,314.6	72.23	102.262	
4,500.0	4,466.3	18,681.9	11,477.0	17.7	130.8	-159.65	277.3	-1,222.2	7,292.9	7,220.3	72.61	100.433	
4,600.0	4,565.3	18,677.1	11,476.9	18.1	130.7	-159.54	282.1	-1,222.2	7,199.2	7,126.2	73.01	98.604	
4,700.0	4,664.3	18,672.3	11,476.9	18.5	130.6	-159.43	286.9	-1,222.3	7,105.6	7,032.2	73.42	96.775	
4,800.0	4,763.3	18,667.4	11,476.9	18.9	130.5	-159.33	291.8	-1,222.3	7,012.3	6,938.4	73.85	94.948	
4,900.0	4,862.4	18,662.5	11,476.9	19.4	130.5	-159.22	296.8	-1,222.4	6,919.1	6,844.8	74.30	93.124	
5,000.0	4,961.4	18,657.5	11,476.9	19.8	130.4	-159.10	301.8	-1,222.5	6,826.0	6,751.3	74.76	91.302	
5,100.0	5,060.4	18,652.4	11,476.9	20.2	130.3	-158.99	306.8	-1,222.5	6,733.2	6,658.0	75.25	89.484	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #005H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 288-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	18,647.3	11,476.8	20.6	130.2	-158.88	311.9	-1,222.6	6,640.6	6,564.9	75.75	87.670	
5,300.0	5,258.5	18,642.1	11,476.8	21.0	130.1	-158.76	317.1	-1,222.6	6,548.2	6,471.9	76.26	85.862	
5,400.0	5,357.5	18,636.9	11,476.8	21.5	130.1	-158.64	322.4	-1,222.7	6,456.0	6,379.2	76.80	84.059	
5,500.0	5,456.5	18,631.6	11,476.8	21.9	130.0	-158.52	327.7	-1,222.7	6,364.1	6,286.7	77.36	82.262	
5,600.0	5,555.6	18,626.2	11,476.8	22.3	129.9	-158.40	333.0	-1,222.8	6,272.4	6,194.4	77.94	80.473	
5,700.0	5,654.6	18,620.8	11,476.8	22.7	129.8	-158.28	338.5	-1,222.8	6,180.9	6,102.3	78.55	78.691	
5,800.0	5,753.6	18,621.5	11,476.8	23.1	129.8	-158.30	337.8	-1,222.8	6,089.7	6,010.4	79.23	76.859	
5,900.0	5,852.6	18,612.9	11,476.8	23.5	129.7	-158.11	346.3	-1,222.9	5,998.8	5,918.9	79.85	75.123	
6,000.0	5,951.7	18,604.5	11,476.8	24.0	129.5	-157.92	354.8	-1,223.0	5,908.1	5,827.6	80.50	73.393	
6,098.6	6,049.3	18,596.2	11,476.8	24.4	129.4	-157.73	363.0	-1,223.0	5,819.1	5,737.9	81.16	71.696	
6,100.0	6,050.7	18,596.1	11,476.8	24.4	129.4	-157.71	363.1	-1,223.0	5,817.8	5,736.6	81.17	71.671	
6,200.0	6,149.9	18,588.6	11,476.8	24.8	129.3	-156.29	370.6	-1,223.1	5,727.2	5,645.3	81.86	69.960	
6,300.0	6,249.4	18,582.7	11,476.8	25.2	129.2	-154.75	376.6	-1,223.1	5,635.9	5,553.4	82.56	68.263	
6,400.0	6,349.1	18,578.3	11,476.8	25.6	129.1	-153.10	380.9	-1,223.2	5,544.0	5,460.7	83.26	66.584	
6,500.0	6,449.0	18,575.6	11,476.8	25.9	129.1	-151.31	383.7	-1,223.2	5,451.4	5,367.5	83.97	64.925	
6,600.0	6,549.0	18,574.3	11,476.8	26.2	129.1	-149.37	384.9	-1,223.2	5,358.3	5,273.6	84.67	63.285	
6,631.9	6,580.9	18,574.3	11,476.8	26.3	129.1	-90.47	385.0	-1,223.2	5,328.4	5,243.5	84.89	62.766	
6,700.0	6,649.0	18,574.3	11,476.8	26.5	129.1	-90.47	385.0	-1,223.2	5,264.7	5,179.3	85.37	61.666	
6,800.0	6,749.0	18,574.3	11,476.8	26.9	129.1	-90.47	385.0	-1,223.2	5,171.4	5,085.2	86.10	60.060	
6,900.0	6,849.0	18,574.3	11,476.8	27.2	129.1	-90.47	384.9	-1,223.2	5,078.2	4,991.4	86.86	58.465	
7,000.0	6,949.0	18,574.3	11,476.8	27.5	129.1	-90.47	384.9	-1,223.2	4,985.4	4,897.8	87.65	56.880	
7,100.0	7,049.0	18,574.3	11,476.8	27.8	129.1	-90.47	384.9	-1,223.2	4,892.9	4,804.4	88.47	55.306	
7,200.0	7,149.0	18,574.3	11,476.8	28.1	129.1	-90.47	384.9	-1,223.2	4,800.6	4,711.3	89.32	53.745	
7,300.0	7,249.0	18,574.4	11,476.8	28.4	129.1	-90.47	384.9	-1,223.2	4,708.7	4,618.5	90.21	52.196	
7,400.0	7,349.0	18,574.4	11,476.8	28.8	129.1	-90.47	384.9	-1,223.2	4,617.1	4,525.9	91.14	50.661	
7,500.0	7,449.0	18,574.4	11,476.8	29.1	129.1	-90.47	384.9	-1,223.2	4,525.8	4,433.7	92.10	49.140	
7,600.0	7,549.0	18,574.4	11,476.8	29.4	129.1	-90.47	384.8	-1,223.2	4,434.9	4,341.8	93.11	47.633	
7,700.0	7,649.0	18,574.4	11,476.8	29.7	129.1	-90.48	384.8	-1,223.2	4,344.5	4,250.3	94.15	46.142	
7,800.0	7,749.0	18,574.4	11,476.8	30.1	129.1	-90.48	384.8	-1,223.2	4,254.4	4,159.2	95.25	44.667	
7,900.0	7,849.0	18,574.4	11,476.8	30.4	129.1	-90.48	384.8	-1,223.2	4,164.8	4,068.5	96.39	43.209	
8,000.0	7,949.0	18,574.4	11,476.8	30.7	129.1	-90.48	384.8	-1,223.2	4,075.7	3,978.2	97.58	41.769	
8,100.0	8,049.0	18,574.5	11,476.8	31.0	129.1	-90.48	384.8	-1,223.2	3,987.2	3,888.3	98.82	40.347	
8,200.0	8,149.0	18,574.5	11,476.8	31.4	129.1	-90.48	384.8	-1,223.2	3,899.1	3,799.0	100.12	38.944	
8,300.0	8,249.0	18,574.5	11,476.8	31.7	129.1	-90.48	384.8	-1,223.2	3,811.7	3,710.2	101.48	37.562	
8,400.0	8,349.0	18,574.5	11,476.8	32.0	129.1	-90.48	384.7	-1,223.2	3,724.9	3,622.0	102.90	36.200	
8,500.0	8,449.0	18,574.5	11,476.8	32.3	129.1	-90.48	384.7	-1,223.2	3,638.7	3,534.3	104.38	34.861	
8,600.0	8,549.0	18,574.5	11,476.8	32.7	129.1	-90.48	384.7	-1,223.2	3,553.3	3,447.4	105.92	33.546	
8,700.0	8,649.0	18,574.5	11,476.8	33.0	129.1	-90.48	384.7	-1,223.2	3,468.7	3,361.1	107.54	32.254	
8,800.0	8,749.0	18,574.6	11,476.8	33.3	129.1	-90.48	384.7	-1,223.2	3,384.9	3,275.7	109.23	30.987	
8,900.0	8,849.0	18,574.6	11,476.8	33.7	129.1	-90.48	384.7	-1,223.2	3,302.0	3,191.0	111.00	29.747	
9,000.0	8,949.0	18,574.6	11,476.8	34.0	129.1	-90.48	384.7	-1,223.2	3,220.1	3,107.2	112.85	28.535	
9,100.0	9,049.0	18,574.6	11,476.8	34.3	129.1	-90.48	384.7	-1,223.2	3,139.2	3,024.4	114.77	27.351	
9,200.0	9,149.0	18,574.6	11,476.8	34.6	129.1	-90.48	384.6	-1,223.2	3,059.5	2,942.7	116.79	26.197	
9,300.0	9,249.0	18,574.6	11,476.8	35.0	129.1	-90.48	384.6	-1,223.2	2,981.0	2,862.1	118.88	25.075	
9,400.0	9,349.0	18,574.6	11,476.8	35.3	129.1	-90.48	384.6	-1,223.2	2,903.8	2,782.7	121.07	23.985	
9,500.0	9,449.0	18,574.6	11,476.8	35.6	129.1	-90.48	384.6	-1,223.2	2,828.0	2,704.7	123.34	22.929	
9,600.0	9,549.0	18,574.6	11,476.8	36.0	129.1	-90.48	384.6	-1,223.2	2,753.8	2,628.1	125.70	21.908	
9,700.0	9,649.0	18,574.7	11,476.8	36.3	129.1	-90.48	384.6	-1,223.2	2,681.2	2,553.1	128.14	20.924	
9,800.0	9,749.0	18,574.7	11,476.8	36.7	129.1	-90.48	384.6	-1,223.2	2,610.5	2,479.8	130.67	19.977	
9,900.0	9,849.0	18,574.7	11,476.8	37.0	129.1	-90.48	384.6	-1,223.2	2,541.8	2,408.5	133.28	19.071	
10,000.0	9,949.0	18,574.7	11,476.8	37.3	129.1	-90.48	384.5	-1,223.2	2,475.1	2,339.2	135.96	18.205	
10,100.0	10,049.0	18,574.7	11,476.8	37.7	129.1	-90.48	384.5	-1,223.2	2,410.8	2,272.1	138.70	17.382	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #005H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 288-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	18,574.7	11,476.8	38.0	129.1	-90.48	384.5	-1,223.2	2,349.0	2,207.5	141.49	16.602	
10,300.0	10,249.0	18,574.7	11,476.8	38.3	129.1	-90.48	384.5	-1,223.2	2,289.9	2,145.6	144.31	15.868	
10,400.0	10,349.0	18,574.7	11,476.8	38.7	129.1	-90.49	384.5	-1,223.2	2,233.7	2,086.5	147.15	15.180	
10,500.0	10,449.0	18,574.7	11,476.8	39.0	129.1	-90.49	384.5	-1,223.2	2,180.6	2,030.6	149.97	14.540	
10,600.0	10,549.0	18,574.8	11,476.8	39.3	129.1	-90.49	384.5	-1,223.2	2,130.9	1,978.1	152.76	13.949	
10,700.0	10,649.0	18,574.8	11,476.8	39.7	129.1	-90.49	384.5	-1,223.2	2,084.8	1,929.3	155.47	13.409	
10,800.0	10,749.0	18,574.8	11,476.8	40.0	129.1	-90.49	384.5	-1,223.2	2,042.6	1,884.5	158.09	12.921	
10,900.0	10,849.0	18,574.8	11,476.8	40.4	129.1	-90.49	384.4	-1,223.2	2,004.5	1,843.9	160.55	12.485	
11,000.0	10,949.0	18,574.8	11,476.8	40.7	129.1	-90.49	384.4	-1,223.2	1,970.7	1,807.9	162.83	12.103	
11,100.0	11,049.0	18,574.8	11,476.8	41.0	129.1	-90.49	384.4	-1,223.2	1,941.5	1,776.6	164.88	11.775	
11,148.0	11,097.0	18,574.8	11,476.8	41.2	129.1	-90.49	384.4	-1,223.2	1,929.1	1,763.4	165.77	11.637	
11,148.1	11,097.0	18,574.8	11,476.8	41.2	129.1	-90.49	384.4	-1,223.2	1,929.1	1,763.4	165.77	11.637	
11,150.0	11,099.0	18,574.8	11,476.8	41.2	129.1	85.41	384.4	-1,223.2	1,928.7	1,762.8	165.81	11.632	
11,200.0	11,148.9	18,577.0	11,476.8	41.4	129.1	86.55	382.2	-1,223.2	1,916.9	1,750.2	166.68	11.501	
11,250.0	11,198.4	18,583.4	11,476.8	41.5	129.2	87.46	375.9	-1,223.1	1,906.1	1,738.6	167.52	11.378	
11,300.0	11,247.2	18,593.7	11,476.8	41.6	129.4	88.15	365.5	-1,223.0	1,896.3	1,728.0	168.32	11.266	
11,350.0	11,294.8	18,609.0	11,476.8	41.7	129.6	88.59	350.3	-1,222.9	1,887.6	1,718.5	169.10	11.162	
11,400.0	11,340.9	18,630.7	11,476.8	41.8	130.0	88.76	328.5	-1,222.7	1,879.8	1,709.9	169.90	11.064	
11,450.0	11,385.2	18,657.1	11,476.9	41.9	130.4	88.73	302.1	-1,222.5	1,873.0	1,702.4	170.67	10.974	
11,500.0	11,427.3	18,688.0	11,477.0	42.0	130.9	88.53	271.2	-1,222.1	1,867.1	1,695.6	171.43	10.891	
11,550.0	11,466.8	18,720.3	11,477.2	42.1	131.4	88.27	239.0	-1,221.6	1,861.8	1,689.7	172.13	10.816	
11,600.0	11,503.5	18,754.9	11,477.4	42.1	131.9	87.96	204.4	-1,221.1	1,857.2	1,684.4	172.79	10.748	
11,650.0	11,537.2	18,792.5	11,477.6	42.1	132.5	87.59	166.7	-1,220.5	1,853.0	1,679.6	173.45	10.683	
11,700.0	11,567.5	18,829.0	11,477.7	42.2	133.1	87.28	130.2	-1,220.0	1,849.3	1,675.3	174.04	10.626	
11,750.0	11,594.2	18,869.6	11,477.8	42.2	133.7	86.96	89.7	-1,219.5	1,845.8	1,671.2	174.67	10.568	
11,800.0	11,617.1	18,876.0	11,477.8	42.2	133.8	87.15	83.3	-1,219.4	1,842.9	1,668.3	174.60	10.555	SF
11,850.0	11,636.1	18,876.0	11,477.8	42.2	133.8	87.34	83.3	-1,219.4	1,841.1	1,666.7	174.32	10.561	
11,900.0	11,651.0	18,876.0	11,477.8	42.1	133.8	87.40	83.3	-1,219.4	1,840.4	1,666.4	173.97	10.579	ES
11,904.2	11,652.0	18,876.0	11,477.8	42.1	133.8	87.40	83.3	-1,219.4	1,840.4	1,666.4	173.93	10.581	CC
11,950.0	11,661.6	18,876.0	11,477.8	42.1	133.8	87.36	83.3	-1,219.4	1,840.9	1,667.3	173.53	10.608	
12,000.0	11,668.0	18,876.0	11,477.8	42.1	133.8	87.19	83.3	-1,219.4	1,842.5	1,669.5	173.02	10.649	
12,048.1	11,670.0	18,876.0	11,477.8	42.1	133.8	86.93	83.3	-1,219.4	1,845.1	1,672.7	172.47	10.698	
12,100.0	11,670.0	18,876.0	11,477.8	42.2	133.8	86.92	83.3	-1,219.4	1,849.8	1,678.0	171.81	10.767	
12,200.0	11,670.0	18,876.0	11,477.8	42.3	133.8	86.91	83.3	-1,219.4	1,865.3	1,695.0	170.32	10.952	
12,272.6	11,670.0	18,876.0	11,477.8	42.5	133.8	86.89	83.3	-1,219.4	1,882.0	1,712.9	169.10	11.130	
12,300.0	11,670.0	18,876.0	11,477.8	42.6	133.8	86.89	83.3	-1,219.4	1,889.3	1,720.7	168.60	11.205	
12,400.0	11,670.0	18,876.0	11,477.8	43.0	133.8	86.89	83.3	-1,219.4	1,919.1	1,752.4	166.68	11.513	
12,500.0	11,670.0	18,876.0	11,477.8	43.4	133.8	86.89	83.3	-1,219.4	1,953.5	1,788.9	164.59	11.869	
12,600.0	11,670.0	18,876.0	11,477.8	43.9	133.8	86.89	83.3	-1,219.4	1,992.4	1,830.0	162.36	12.271	
12,700.0	11,670.0	18,876.0	11,477.8	44.4	133.8	86.89	83.3	-1,219.4	2,035.4	1,875.4	160.03	12.719	
12,800.0	11,670.0	18,876.0	11,477.8	45.0	133.8	86.89	83.3	-1,219.4	2,082.4	1,924.8	157.63	13.210	
12,900.0	11,670.0	18,876.0	11,477.8	45.7	133.8	86.89	83.3	-1,219.4	2,133.0	1,977.8	155.20	13.744	
13,000.0	11,670.0	18,876.0	11,477.8	46.4	133.8	86.89	83.3	-1,219.4	2,187.0	2,034.3	152.75	14.318	
13,100.0	11,670.0	18,876.0	11,477.8	47.1	133.8	86.89	83.3	-1,219.4	2,244.2	2,093.9	150.31	14.931	
13,200.0	11,670.0	18,876.0	11,477.8	47.9	133.8	86.89	83.3	-1,219.4	2,304.3	2,156.4	147.89	15.581	
13,300.0	11,670.0	18,876.0	11,477.8	48.7	133.8	86.89	83.3	-1,219.4	2,367.1	2,221.6	145.52	16.266	
13,400.0	11,670.0	18,876.0	11,477.8	49.6	133.8	86.89	83.3	-1,219.4	2,432.4	2,289.2	143.21	16.985	
13,500.0	11,670.0	18,876.0	11,477.8	50.5	133.8	86.89	83.3	-1,219.4	2,500.0	2,359.1	140.96	17.735	
13,600.0	11,670.0	18,876.0	11,477.8	51.5	133.8	86.89	83.3	-1,219.4	2,569.7	2,430.9	138.79	18.516	
13,700.0	11,670.0	18,876.0	11,477.8	52.4	133.8	86.89	83.3	-1,219.4	2,641.4	2,504.7	136.69	19.324	
13,800.0	11,670.0	18,876.0	11,477.8	53.4	133.8	86.89	83.3	-1,219.4	2,714.8	2,580.1	134.67	20.159	
13,900.0	11,670.0	18,876.0	11,477.8	54.5	133.8	86.89	83.3	-1,219.4	2,789.9	2,657.2	132.73	21.019	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #005H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 288-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	18,876.0	11,477.8	55.6	133.8	86.89	83.3	-1,219.4	2,866.5	2,735.7	130.88	21.902	
14,100.0	11,670.0	18,876.0	11,477.8	56.7	133.8	86.89	83.3	-1,219.4	2,944.6	2,815.4	129.11	22.807	
14,200.0	11,670.0	18,876.0	11,477.8	57.8	133.8	86.89	83.3	-1,219.4	3,023.9	2,896.5	127.42	23.732	
14,300.0	11,670.0	18,876.0	11,477.8	59.0	133.8	86.89	83.3	-1,219.4	3,104.4	2,978.6	125.80	24.676	
14,400.0	11,670.0	18,876.0	11,477.8	60.1	133.8	86.89	83.3	-1,219.4	3,186.0	3,061.7	124.27	25.638	
14,500.0	11,670.0	18,876.0	11,477.8	61.3	133.8	86.89	83.3	-1,219.4	3,268.6	3,145.8	122.81	26.616	
14,600.0	11,670.0	18,876.0	11,477.8	62.5	133.8	86.89	83.3	-1,219.4	3,352.2	3,230.8	121.42	27.608	
14,700.0	11,670.0	18,876.0	11,477.8	63.8	133.8	86.89	83.3	-1,219.4	3,436.7	3,316.6	120.10	28.615	
14,800.0	11,670.0	18,876.0	11,477.8	65.0	133.8	86.89	83.3	-1,219.4	3,521.9	3,403.1	118.85	29.634	
14,900.0	11,670.0	18,876.0	11,477.8	66.3	133.8	86.89	83.3	-1,219.4	3,608.0	3,490.3	117.66	30.665	
15,000.0	11,670.0	18,876.0	11,477.8	67.6	133.8	86.89	83.3	-1,219.4	3,694.7	3,578.2	116.53	31.706	
15,100.0	11,670.0	18,876.0	11,477.8	68.9	133.8	86.89	83.3	-1,219.4	3,782.1	3,666.6	115.46	32.757	
15,200.0	11,670.0	18,876.0	11,477.8	70.2	133.8	86.89	83.3	-1,219.4	3,870.1	3,755.7	114.44	33.817	
15,300.0	11,670.0	18,876.0	11,477.8	71.6	133.8	86.89	83.3	-1,219.4	3,958.7	3,845.2	113.48	34.885	
15,400.0	11,670.0	18,876.0	11,477.8	72.9	133.8	86.89	83.3	-1,219.4	4,047.8	3,935.2	112.56	35.960	
15,500.0	11,670.0	18,876.0	11,477.8	74.3	133.8	86.89	83.3	-1,219.4	4,137.4	4,025.7	111.69	37.042	
15,600.0	11,670.0	18,876.0	11,477.8	75.7	133.8	86.89	83.3	-1,219.4	4,227.4	4,116.6	110.87	38.129	
15,700.0	11,670.0	18,876.0	11,477.8	77.1	133.8	86.89	83.3	-1,219.4	4,317.9	4,207.8	110.09	39.222	
15,800.0	11,670.0	18,876.0	11,477.8	78.5	133.8	86.89	83.3	-1,219.4	4,408.9	4,299.5	109.35	40.319	
15,900.0	11,670.0	18,876.0	11,477.8	79.9	133.8	86.89	83.3	-1,219.4	4,500.2	4,391.5	108.65	41.420	
16,000.0	11,670.0	18,876.0	11,477.8	81.3	133.8	86.89	83.3	-1,219.4	4,591.8	4,483.8	107.98	42.524	
16,100.0	11,670.0	18,876.0	11,477.8	82.7	133.8	86.89	83.3	-1,219.4	4,683.8	4,576.5	107.35	43.632	
16,200.0	11,670.0	18,876.0	11,477.8	84.1	133.8	86.89	83.3	-1,219.4	4,776.1	4,669.4	106.75	44.741	
16,300.0	11,670.0	18,876.0	11,477.8	85.6	133.8	86.89	83.3	-1,219.4	4,868.8	4,762.6	106.18	45.853	
16,400.0	11,670.0	18,876.0	11,477.8	87.0	133.8	86.89	83.3	-1,219.4	4,961.7	4,856.0	105.64	46.967	
16,500.0	11,670.0	18,876.0	11,477.8	88.5	133.8	86.89	83.3	-1,219.4	5,054.9	4,949.7	105.13	48.082	
16,600.0	11,670.0	18,876.0	11,477.8	89.9	133.8	86.89	83.3	-1,219.4	5,148.3	5,043.7	104.65	49.198	
16,700.0	11,670.0	18,876.0	11,477.8	91.4	133.8	86.89	83.3	-1,219.4	5,242.0	5,137.8	104.19	50.314	
16,800.0	11,670.0	18,876.0	11,477.8	92.9	133.8	86.89	83.3	-1,219.4	5,335.9	5,232.2	103.75	51.431	
16,900.0	11,670.0	18,876.0	11,477.8	94.4	133.8	86.89	83.3	-1,219.4	5,430.0	5,326.7	103.34	52.548	
17,000.0	11,670.0	18,876.0	11,477.8	95.9	133.8	86.89	83.3	-1,219.4	5,524.4	5,421.4	102.94	53.664	
17,100.0	11,670.0	18,876.0	11,477.8	97.3	133.8	86.89	83.3	-1,219.4	5,618.9	5,516.3	102.57	54.781	
17,200.0	11,670.0	18,876.0	11,477.8	98.8	133.8	86.89	83.3	-1,219.4	5,713.6	5,611.4	102.22	55.896	
17,300.0	11,670.0	18,876.0	11,477.8	100.3	133.8	86.89	83.3	-1,219.4	5,808.5	5,706.6	101.88	57.011	
17,400.0	11,670.0	18,876.0	11,477.8	101.9	133.8	86.89	83.3	-1,219.4	5,903.6	5,802.0	101.57	58.124	
17,500.0	11,670.0	18,876.0	11,477.8	103.4	133.8	86.89	83.3	-1,219.4	5,998.8	5,897.5	101.27	59.237	
17,600.0	11,670.0	18,876.0	11,477.8	104.9	133.8	86.89	83.3	-1,219.4	6,094.2	5,993.2	100.98	60.348	
17,700.0	11,670.0	18,876.0	11,477.8	106.4	133.8	86.89	83.3	-1,219.4	6,189.7	6,089.0	100.72	61.457	
17,800.0	11,670.0	18,876.0	11,477.8	107.9	133.8	86.89	83.3	-1,219.4	6,285.4	6,184.9	100.46	62.565	
17,900.0	11,670.0	18,876.0	11,477.8	109.5	133.8	86.89	83.3	-1,219.4	6,381.2	6,280.9	100.22	63.671	
18,000.0	11,670.0	18,876.0	11,477.8	111.0	133.8	86.89	83.3	-1,219.4	6,477.1	6,377.1	99.99	64.775	
18,100.0	11,670.0	18,876.0	11,477.8	112.5	133.8	86.89	83.3	-1,219.4	6,573.1	6,473.3	99.78	65.877	
18,200.0	11,670.0	18,876.0	11,477.8	114.1	133.8	86.89	83.3	-1,219.4	6,669.3	6,569.7	99.57	66.977	
18,300.0	11,670.0	18,876.0	11,477.8	115.6	133.8	86.89	83.3	-1,219.4	6,765.5	6,666.2	99.38	68.075	
18,400.0	11,670.0	18,876.0	11,477.8	117.2	133.8	86.89	83.3	-1,219.4	6,861.9	6,762.7	99.20	69.171	
18,428.0	11,670.0	18,876.0	11,477.8	117.6	133.8	86.89	83.3	-1,219.4	6,888.9	6,789.8	99.15	69.477	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #006H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 290-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	7.11	7,602.0	948.8	7,661.3				
100.0	100.0	32.7	32.7	0.1	0.1	7.11	7,602.0	948.8	7,661.0	7,660.8	0.18	N/A	
200.0	200.0	136.3	136.3	0.5	0.2	7.11	7,602.0	948.6	7,660.9	7,660.2	0.71	N/A	
300.0	300.0	240.0	240.0	0.8	0.4	7.11	7,602.0	948.1	7,660.9	7,659.6	1.23	6,230.509	
400.0	400.0	367.8	367.8	1.2	0.7	7.10	7,601.8	947.1	7,660.6	7,658.7	1.95	3,934.291	
500.0	500.0	449.8	449.8	1.6	1.0	7.10	7,601.5	946.4	7,660.2	7,657.6	2.60	2,947.442	
600.0	600.0	535.9	535.9	1.9	1.3	-51.17	7,601.5	945.5	7,659.6	7,656.3	3.26	2,347.904	
700.0	700.0	659.1	659.1	2.3	1.8	-51.21	7,601.6	943.9	7,657.8	7,653.7	4.06	1,887.135	
800.0	799.9	696.6	696.5	2.6	1.9	-51.25	7,601.6	943.5	7,655.1	7,650.5	4.54	1,684.354	
900.0	899.7	737.0	737.0	3.0	2.1	-51.28	7,602.0	943.5	7,652.2	7,647.1	5.04	1,516.945	
1,000.0	999.4	762.9	762.9	3.4	2.1	-51.32	7,602.5	943.8	7,649.0	7,643.5	5.50	1,391.838	
1,100.0	1,098.9	801.5	801.4	3.7	2.3	-51.37	7,603.4	944.3	7,645.6	7,639.6	5.99	1,275.629	
1,200.0	1,198.3	867.8	867.7	4.1	2.5	-51.43	7,605.5	945.7	7,641.9	7,635.3	6.59	1,159.441	
1,300.0	1,297.4	1,017.7	1,017.6	4.5	3.0	-51.57	7,609.8	948.8	7,636.8	7,629.3	7.48	1,020.486	
1,400.0	1,396.4	1,096.3	1,096.0	4.9	3.3	-51.62	7,611.9	950.3	7,631.0	7,622.9	8.14	937.438	
1,500.0	1,495.5	1,257.2	1,256.9	5.3	3.9	-51.74	7,615.9	953.2	7,625.0	7,615.9	9.09	838.924	
1,600.0	1,594.5	1,362.7	1,362.4	5.7	4.2	-51.81	7,618.0	954.8	7,618.5	7,608.6	9.85	773.536	
1,700.0	1,693.5	1,449.7	1,449.4	6.1	4.5	-51.88	7,619.8	955.9	7,612.0	7,601.5	10.55	721.718	
1,800.0	1,792.5	1,551.0	1,550.6	6.5	4.9	-51.95	7,621.9	957.6	7,605.7	7,594.4	11.30	673.218	
1,900.0	1,891.6	1,606.2	1,605.7	6.9	5.1	-51.99	7,623.1	958.9	7,599.5	7,587.7	11.89	639.280	
2,000.0	1,990.6	1,651.8	1,651.3	7.3	5.3	-52.02	7,624.4	960.4	7,594.1	7,581.7	12.45	610.209	
2,100.0	2,089.6	1,707.0	1,706.5	7.7	5.4	-52.05	7,626.3	962.6	7,589.4	7,576.4	13.04	582.114	
2,200.0	2,188.6	1,786.6	1,785.9	8.1	5.7	-52.08	7,629.3	966.7	7,585.2	7,571.4	13.72	552.914	
2,300.0	2,287.7	1,872.0	1,871.1	8.5	6.0	-52.12	7,632.5	971.4	7,580.9	7,566.4	14.42	525.663	
2,400.0	2,386.7	1,935.1	1,934.0	8.9	6.3	-52.15	7,635.0	975.1	7,577.0	7,561.9	15.05	503.564	
2,500.0	2,485.7	1,987.0	1,985.7	9.4	6.5	-52.17	7,637.4	978.8	7,573.8	7,558.2	15.63	484.513	
2,600.0	2,584.8	2,047.4	2,045.9	9.8	6.7	-52.18	7,640.6	983.4	7,571.3	7,555.0	16.25	465.938	
2,700.0	2,683.8	2,135.2	2,133.3	10.2	7.0	-52.21	7,645.5	990.4	7,569.0	7,552.1	16.97	446.048	
2,800.0	2,782.8	2,155.0	2,153.0	10.6	7.1	-52.21	7,646.6	992.0	7,567.3	7,549.9	17.44	433.955	
2,900.0	2,881.8	2,213.7	2,211.4	11.0	7.3	-52.23	7,650.3	997.1	7,566.1	7,548.1	18.05	419.125	
2,979.7	2,960.8	2,250.0	2,247.4	11.4	7.4	-52.23	7,653.0	1,000.7	7,566.0	7,547.5	18.50	408.929	
3,000.0	2,980.9	2,250.0	2,247.4	11.4	7.4	-52.23	7,653.0	1,000.7	7,566.0	7,547.4	18.58	407.176	
3,100.0	3,079.9	2,340.4	2,337.0	11.9	7.8	-52.24	7,660.1	1,010.3	7,566.4	7,547.1	19.32	391.664	
3,200.0	3,178.9	2,432.9	2,428.7	12.3	8.1	-52.25	7,667.4	1,020.3	7,566.8	7,546.8	20.07	377.102	
3,300.0	3,277.9	2,522.8	2,517.8	12.7	8.5	-52.26	7,674.6	1,029.9	7,567.4	7,546.6	20.80	363.735	
3,400.0	3,377.0	2,617.7	2,611.8	13.1	8.9	-52.26	7,682.2	1,040.3	7,568.1	7,546.5	21.57	350.940	
3,500.0	3,476.0	2,699.0	2,692.2	13.5	9.2	-52.27	7,688.9	1,049.5	7,568.9	7,546.6	22.27	339.796	
3,600.0	3,575.0	2,789.3	2,781.6	13.9	9.5	-52.27	7,696.4	1,060.1	7,569.9	7,546.9	23.02	328.813	
3,700.0	3,674.0	2,890.5	2,881.8	14.3	9.9	-52.27	7,704.9	1,072.2	7,571.0	7,547.2	23.81	317.917	
3,800.0	3,773.1	2,985.3	2,975.5	14.8	10.3	-52.27	7,712.8	1,083.7	7,572.1	7,547.5	24.58	308.019	
3,900.0	3,872.1	3,278.7	3,266.2	15.2	11.5	-52.27	7,733.0	1,117.6	7,571.0	7,544.8	26.14	289.664	
4,000.0	3,971.1	3,366.4	3,353.3	15.6	11.9	-52.28	7,738.4	1,126.8	7,569.6	7,542.7	26.88	281.634	
4,100.0	4,070.2	3,471.5	3,457.7	16.0	12.3	-52.30	7,745.0	1,137.2	7,568.3	7,540.7	27.68	273.384	
4,200.0	4,169.2	18,713.0	11,526.9	16.4	128.6	113.14	311.8	1,348.9	7,488.1	7,423.7	64.42	116.233	
4,300.0	4,268.2	18,709.0	11,526.9	16.9	128.5	113.06	315.9	1,349.0	7,388.3	7,323.9	64.44	114.660	
4,400.0	4,367.2	18,704.9	11,526.8	17.3	128.5	112.98	320.0	1,349.0	7,288.6	7,224.1	64.46	113.077	
4,500.0	4,466.3	18,700.7	11,526.8	17.7	128.4	112.91	324.1	1,349.1	7,188.8	7,124.3	64.48	111.483	
4,600.0	4,565.3	18,696.5	11,526.7	18.1	128.3	112.83	328.3	1,349.1	7,089.0	7,024.5	64.52	109.880	
4,700.0	4,664.3	18,692.3	11,526.7	18.5	128.3	112.75	332.5	1,349.1	6,989.2	6,924.6	64.55	108.268	
4,800.0	4,763.3	18,688.0	11,526.7	18.9	128.2	112.66	336.8	1,349.1	6,889.4	6,824.8	64.60	106.649	
4,900.0	4,862.4	18,683.7	11,526.6	19.4	128.1	112.58	341.1	1,349.1	6,789.6	6,725.0	64.65	105.021	
5,000.0	4,961.4	18,679.3	11,526.6	19.8	128.1	112.50	345.5	1,349.0	6,689.9	6,625.2	64.71	103.388	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #006H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 290-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.0	5,060.4	18,674.9	11,526.6	20.2	128.0	112.42	350.0	1,349.0	6,590.1	6,525.3	64.77	101.749	
5,200.0	5,159.4	18,670.4	11,526.6	20.6	127.9	112.33	354.4	1,348.9	6,490.3	6,425.5	64.84	100.105	
5,300.0	5,258.5	18,672.1	11,526.6	21.0	128.0	112.36	352.8	1,349.0	6,390.6	6,325.6	64.96	98.372	
5,400.0	5,357.5	18,661.7	11,526.5	21.5	127.8	112.16	363.1	1,348.8	6,290.8	6,225.8	64.99	96.801	
5,500.0	5,456.5	18,651.5	11,526.5	21.9	127.6	111.97	373.4	1,348.6	6,191.0	6,126.0	65.02	95.222	
5,600.0	5,555.6	18,641.4	11,526.5	22.3	127.5	111.76	383.4	1,348.4	6,091.3	6,026.2	65.05	93.636	
5,700.0	5,654.6	18,631.5	11,526.4	22.7	127.3	111.56	393.3	1,348.2	5,991.5	5,926.4	65.09	92.044	
5,800.0	5,753.6	18,621.8	11,526.4	23.1	127.2	111.35	403.1	1,347.9	5,891.7	5,826.6	65.14	90.446	
5,900.0	5,852.6	18,612.2	11,526.4	23.5	127.0	111.13	412.7	1,347.7	5,791.9	5,726.7	65.19	88.842	
6,000.0	5,951.7	18,602.7	11,526.3	24.0	126.9	110.91	422.1	1,347.4	5,692.2	5,626.9	65.25	87.234	
6,098.6	6,049.3	18,593.5	11,526.3	24.4	126.7	110.69	431.3	1,347.1	5,593.8	5,528.5	65.31	85.646	
6,100.0	6,050.7	18,593.4	11,526.3	24.4	126.7	110.37	431.4	1,347.1	5,592.4	5,527.1	65.31	85.622	
6,200.0	6,149.9	18,585.2	11,526.2	24.8	126.6	86.26	439.7	1,346.9	5,492.6	5,427.2	65.40	83.989	
6,300.0	6,249.4	18,578.9	11,526.2	25.2	126.5	63.09	445.9	1,346.7	5,392.8	5,327.3	65.51	82.321	
6,400.0	6,349.1	18,574.5	11,526.2	25.6	126.4	46.52	450.3	1,346.5	5,293.1	5,227.4	65.65	80.621	
6,500.0	6,449.0	18,572.0	11,526.1	25.9	126.4	35.91	452.8	1,346.5	5,193.5	5,127.7	65.83	78.893	
6,600.0	6,549.0	18,571.3	11,526.1	26.2	126.4	29.07	453.5	1,346.4	5,094.2	5,028.2	66.04	77.137	
6,631.9	6,580.9	18,571.5	11,526.1	26.3	126.4	85.67	453.3	1,346.4	5,062.6	4,996.5	66.11	76.573	
6,700.0	6,649.0	18,572.0	11,526.1	26.5	126.4	85.71	452.8	1,346.5	4,995.2	4,928.9	66.28	75.362	
6,800.0	6,749.0	18,572.8	11,526.2	26.9	126.4	85.78	452.0	1,346.5	4,896.2	4,829.7	66.54	73.585	
6,900.0	6,849.0	18,573.6	11,526.2	27.2	126.4	85.84	451.2	1,346.5	4,797.2	4,730.4	66.80	71.811	
7,000.0	6,949.0	18,574.4	11,526.2	27.5	126.4	85.91	450.4	1,346.5	4,698.3	4,631.3	67.08	70.041	
7,100.0	7,049.0	18,575.2	11,526.2	27.8	126.4	85.97	449.6	1,346.6	4,599.5	4,532.1	67.37	68.274	
7,200.0	7,149.0	18,576.0	11,526.2	28.1	126.4	86.03	448.8	1,346.6	4,500.7	4,433.0	67.67	66.511	
7,300.0	7,249.0	18,576.7	11,526.2	28.4	126.4	86.10	448.1	1,346.6	4,401.9	4,333.9	67.98	64.753	
7,400.0	7,349.0	18,577.5	11,526.2	28.8	126.5	86.16	447.3	1,346.6	4,303.2	4,234.9	68.31	62.999	
7,500.0	7,449.0	18,578.2	11,526.2	29.1	126.5	86.22	446.6	1,346.7	4,204.6	4,136.0	68.65	61.251	
7,600.0	7,549.0	18,579.0	11,526.2	29.4	126.5	86.28	445.8	1,346.7	4,106.0	4,037.0	69.00	59.507	
7,700.0	7,649.0	18,579.7	11,526.2	29.7	126.5	86.34	445.1	1,346.7	4,007.5	3,938.2	69.37	57.769	
7,800.0	7,749.0	18,580.5	11,526.2	30.1	126.5	86.40	444.3	1,346.7	3,909.1	3,839.4	69.76	56.037	
7,900.0	7,849.0	18,581.2	11,526.2	30.4	126.5	86.46	443.6	1,346.8	3,810.8	3,740.6	70.17	54.311	
8,000.0	7,949.0	18,581.9	11,526.2	30.7	126.5	86.52	442.9	1,346.8	3,712.5	3,642.0	70.59	52.590	
8,100.0	8,049.0	18,582.6	11,526.2	31.0	126.5	86.58	442.2	1,346.8	3,614.4	3,543.4	71.04	50.877	
8,200.0	8,149.0	18,583.3	11,526.2	31.4	126.6	86.64	441.5	1,346.8	3,516.3	3,444.8	71.52	49.169	
8,300.0	8,249.0	18,584.0	11,526.2	31.7	126.6	86.69	440.8	1,346.9	3,418.4	3,346.4	72.01	47.469	
8,400.0	8,349.0	18,584.7	11,526.2	32.0	126.6	86.75	440.1	1,346.9	3,320.6	3,248.1	72.54	45.775	
8,500.0	8,449.0	18,585.4	11,526.2	32.3	126.6	86.81	439.4	1,346.9	3,222.9	3,149.8	73.10	44.089	
8,600.0	8,549.0	18,586.1	11,526.2	32.7	126.6	86.86	438.7	1,346.9	3,125.4	3,051.7	73.69	42.410	
8,700.0	8,649.0	18,586.8	11,526.2	33.0	126.6	86.92	438.0	1,346.9	3,028.0	2,953.7	74.33	40.740	
8,800.0	8,749.0	18,587.5	11,526.2	33.3	126.6	86.97	437.3	1,347.0	2,930.8	2,855.8	75.00	39.077	
8,900.0	8,849.0	18,588.1	11,526.2	33.7	126.6	87.03	436.7	1,347.0	2,833.8	2,758.1	75.72	37.423	
9,000.0	8,949.0	18,588.8	11,526.2	34.0	126.6	87.08	436.0	1,347.0	2,737.1	2,660.6	76.50	35.778	
9,100.0	9,049.0	18,589.5	11,526.2	34.3	126.6	87.14	435.3	1,347.0	2,640.5	2,563.2	77.34	34.142	
9,200.0	9,149.0	18,590.1	11,526.2	34.6	126.7	87.19	434.7	1,347.0	2,544.2	2,466.0	78.24	32.517	
9,300.0	9,249.0	18,590.8	11,526.2	35.0	126.7	87.24	434.0	1,347.1	2,448.3	2,369.0	79.23	30.902	
9,400.0	9,349.0	18,591.4	11,526.3	35.3	126.7	87.30	433.4	1,347.1	2,352.6	2,272.3	80.30	29.299	
9,500.0	9,449.0	18,592.0	11,526.3	35.6	126.7	87.35	432.8	1,347.1	2,257.4	2,175.9	81.47	27.709	
9,600.0	9,549.0	18,592.7	11,526.3	36.0	126.7	87.40	432.1	1,347.1	2,162.5	2,079.8	82.75	26.132	
9,700.0	9,649.0	18,593.3	11,526.3	36.3	126.7	87.45	431.5	1,347.1	2,068.2	1,984.0	84.17	24.572	
9,800.0	9,749.0	18,593.9	11,526.3	36.7	126.7	87.50	430.9	1,347.2	1,974.4	1,888.7	85.74	23.028	
9,900.0	9,849.0	18,594.6	11,526.3	37.0	126.7	87.55	430.3	1,347.2	1,881.2	1,793.8	87.48	21.504	
10,000.0	9,949.0	18,595.2	11,526.3	37.3	126.7	87.60	429.6	1,347.2	1,788.8	1,699.4	89.43	20.002	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #006H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 290-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.0	10,049.0	18,595.8	11,526.3	37.7	126.7	87.65	429.0	1,347.2	1,697.3	1,605.7	91.62	18.526	
10,200.0	10,149.0	18,596.4	11,526.3	38.0	126.8	87.70	428.4	1,347.2	1,606.7	1,512.7	94.07	17.079	
10,300.0	10,249.0	18,597.0	11,526.3	38.3	126.8	87.75	427.8	1,347.3	1,517.4	1,420.5	96.85	15.667	
10,400.0	10,349.0	18,597.6	11,526.3	38.7	126.8	87.80	427.2	1,347.3	1,429.4	1,329.4	100.00	14.294	
10,500.0	10,449.0	18,598.2	11,526.3	39.0	126.8	87.85	426.6	1,347.3	1,343.2	1,239.6	103.58	12.967	
10,600.0	10,549.0	18,598.8	11,526.3	39.3	126.8	87.90	426.1	1,347.3	1,258.9	1,151.3	107.66	11.694	
10,700.0	10,649.0	18,599.3	11,526.3	39.7	126.8	87.95	425.5	1,347.3	1,177.2	1,064.9	112.29	10.484	
10,800.0	10,749.0	18,599.9	11,526.3	40.0	126.8	87.99	424.9	1,347.3	1,098.5	980.9	117.54	9.346	
10,900.0	10,849.0	18,600.5	11,526.3	40.4	126.8	88.04	424.3	1,347.4	1,023.5	900.0	123.45	8.291	
11,000.0	10,949.0	18,601.1	11,526.3	40.7	126.8	88.09	423.8	1,347.4	953.0	823.0	130.01	7.330	
11,100.0	11,049.0	18,601.6	11,526.3	41.0	126.8	88.13	423.2	1,347.4	888.3	751.2	137.15	6.477	
11,148.0	11,097.0	18,601.9	11,526.3	41.2	126.8	88.15	422.9	1,347.4	859.7	718.9	140.73	6.108	
11,148.1	11,097.0	18,601.9	11,526.3	41.2	126.8	88.15	422.9	1,347.4	859.6	718.9	140.74	6.108	
11,150.0	11,099.0	18,601.9	11,526.3	41.2	126.8	-96.13	422.9	1,347.4	858.5	717.6	140.88	6.094	
11,200.0	11,148.9	18,604.9	11,526.3	41.4	126.9	-99.18	419.9	1,347.5	830.9	686.2	144.69	5.743	
11,250.0	11,198.4	18,612.8	11,526.4	41.5	127.0	-101.37	412.0	1,347.7	806.0	657.4	148.54	5.426	
11,300.0	11,247.2	18,625.7	11,526.4	41.6	127.2	-102.75	399.2	1,348.0	784.1	631.8	152.33	5.147	
11,350.0	11,294.8	18,643.3	11,526.5	41.7	127.5	-103.38	381.6	1,348.4	765.6	609.6	155.97	4.908	
11,400.0	11,340.9	18,667.4	11,526.6	41.8	127.9	-103.18	357.4	1,348.9	750.4	591.0	159.38	4.708	
11,450.0	11,385.2	18,706.0	11,526.8	41.9	128.5	-101.72	318.9	1,349.0	738.3	575.7	162.55	4.542	
11,500.0	11,427.3	18,751.8	11,527.4	42.0	129.2	-99.65	273.1	1,348.0	728.8	563.6	165.27	4.410	
11,550.0	11,466.8	18,807.4	11,528.5	42.1	130.1	-96.97	217.5	1,345.0	721.4	553.9	167.50	4.307	
11,600.0	11,503.5	18,869.5	11,529.9	42.1	131.0	-94.03	155.8	1,339.4	715.1	545.9	169.17	4.227	
11,650.0	11,537.2	18,898.6	11,530.5	42.1	131.5	-92.97	126.8	1,336.7	710.6	539.9	170.69	4.163	
11,700.0	11,567.5	18,939.0	11,531.4	42.2	132.1	-91.35	86.6	1,332.7	707.7	535.8	171.87	4.117	
11,740.3	11,589.3	18,949.0	11,531.6	42.2	132.3	-91.02	76.6	1,331.7	706.6	533.8	172.76	4.090	CC
11,750.0	11,594.2	18,949.0	11,531.6	42.2	132.3	-91.02	76.6	1,331.7	706.6	533.7	172.94	4.086	ES, SF
11,800.0	11,617.1	18,949.0	11,531.6	42.2	132.3	-90.77	76.6	1,331.7	709.1	535.6	173.51	4.087	
11,850.0	11,636.1	18,949.0	11,531.6	42.2	132.3	-90.15	76.6	1,331.7	715.2	541.7	173.52	4.122	
11,900.0	11,651.0	18,949.0	11,531.6	42.1	132.3	-89.19	76.6	1,331.7	724.7	551.7	173.00	4.189	
11,950.0	11,661.6	18,949.0	11,531.6	42.1	132.3	-87.88	76.6	1,331.7	737.3	565.3	172.02	4.286	
12,000.0	11,668.0	18,949.0	11,531.6	42.1	132.3	-86.23	76.6	1,331.7	753.0	582.3	170.63	4.413	
12,048.1	11,670.0	18,949.0	11,531.6	42.1	132.3	-84.35	76.6	1,331.7	770.5	601.5	169.00	4.559	
12,100.0	11,670.0	18,949.0	11,531.6	42.2	132.3	-84.40	76.6	1,331.7	791.8	624.8	166.95	4.742	
12,200.0	11,670.0	18,949.0	11,531.6	42.3	132.3	-84.50	76.6	1,331.7	837.9	675.6	162.34	5.162	
12,272.6	11,670.0	18,949.0	11,531.6	42.5	132.3	-84.58	76.6	1,331.7	875.3	716.7	158.62	5.518	
12,300.0	11,670.0	18,949.0	11,531.6	42.6	132.3	-84.58	76.6	1,331.7	890.2	733.1	157.16	5.664	
12,400.0	11,670.0	18,949.0	11,531.6	43.0	132.3	-84.58	76.6	1,331.7	949.5	797.6	151.84	6.253	
12,500.0	11,670.0	18,949.0	11,531.6	43.4	132.3	-84.58	76.6	1,331.7	1,015.1	868.5	146.66	6.922	
12,600.0	11,670.0	18,949.0	11,531.6	43.9	132.3	-84.58	76.6	1,331.7	1,086.1	944.3	141.78	7.660	
12,700.0	11,670.0	18,949.0	11,531.6	44.4	132.3	-84.58	76.6	1,331.7	1,161.3	1,024.0	137.27	8.460	
12,800.0	11,670.0	18,949.0	11,531.6	45.0	132.3	-84.58	76.6	1,331.7	1,240.0	1,106.8	133.16	9.312	
12,900.0	11,670.0	18,949.0	11,531.6	45.7	132.3	-84.58	76.6	1,331.7	1,321.6	1,192.1	129.46	10.209	
13,000.0	11,670.0	18,949.0	11,531.6	46.4	132.3	-84.58	76.6	1,331.7	1,405.6	1,279.4	126.13	11.144	
13,100.0	11,670.0	18,949.0	11,531.6	47.1	132.3	-84.58	76.6	1,331.7	1,491.5	1,368.4	123.15	12.112	
13,200.0	11,670.0	18,949.0	11,531.6	47.9	132.3	-84.58	76.6	1,331.7	1,579.1	1,458.7	120.48	13.108	
13,300.0	11,670.0	18,949.0	11,531.6	48.7	132.3	-84.58	76.6	1,331.7	1,668.1	1,550.1	118.08	14.127	
13,400.0	11,670.0	18,949.0	11,531.6	49.6	132.3	-84.58	76.6	1,331.7	1,758.3	1,642.4	115.94	15.166	
13,500.0	11,670.0	18,949.0	11,531.6	50.5	132.3	-84.58	76.6	1,331.7	1,849.5	1,735.5	114.02	16.222	
13,600.0	11,670.0	18,949.0	11,531.6	51.5	132.3	-84.58	76.6	1,331.7	1,941.6	1,829.3	112.29	17.291	
13,700.0	11,670.0	18,949.0	11,531.6	52.4	132.3	-84.58	76.6	1,331.7	2,034.4	1,923.7	110.73	18.373	
13,800.0	11,670.0	18,949.0	11,531.6	53.4	132.3	-84.58	76.6	1,331.7	2,127.9	2,018.5	109.32	19.464	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #006H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 290-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.0	11,670.0	18,949.0	11,531.6	54.5	132.3	-84.58	76.6	1,331.7	2,221.9	2,113.8	108.05	20.564	
14,000.0	11,670.0	18,949.0	11,531.6	55.6	132.3	-84.58	76.6	1,331.7	2,316.4	2,209.5	106.90	21.670	
14,100.0	11,670.0	18,949.0	11,531.6	56.7	132.3	-84.58	76.6	1,331.7	2,411.4	2,305.6	105.85	22.782	
14,200.0	11,670.0	18,949.0	11,531.6	57.8	132.3	-84.58	76.6	1,331.7	2,506.8	2,401.9	104.89	23.898	
14,300.0	11,670.0	18,949.0	11,531.6	59.0	132.3	-84.58	76.6	1,331.7	2,602.5	2,498.5	104.03	25.018	
14,400.0	11,670.0	18,949.0	11,531.6	60.1	132.3	-84.58	76.6	1,331.7	2,698.5	2,595.3	103.23	26.140	
14,500.0	11,670.0	18,949.0	11,531.6	61.3	132.3	-84.58	76.6	1,331.7	2,794.8	2,692.3	102.51	27.265	
14,600.0	11,670.0	18,949.0	11,531.6	62.5	132.3	-84.58	76.6	1,331.7	2,891.4	2,789.5	101.84	28.391	
14,700.0	11,670.0	18,949.0	11,531.6	63.8	132.3	-84.58	76.6	1,331.7	2,988.1	2,886.9	101.23	29.518	
14,800.0	11,670.0	18,949.0	11,531.6	65.0	132.3	-84.58	76.6	1,331.7	3,085.1	2,984.5	100.67	30.646	
14,900.0	11,670.0	18,949.0	11,531.6	66.3	132.3	-84.58	76.6	1,331.7	3,182.3	3,082.1	100.15	31.774	
15,000.0	11,670.0	18,949.0	11,531.6	67.6	132.3	-84.58	76.6	1,331.7	3,279.6	3,180.0	99.68	32.902	
15,100.0	11,670.0	18,949.0	11,531.6	68.9	132.3	-84.58	76.6	1,331.7	3,377.1	3,277.9	99.24	34.030	
15,200.0	11,670.0	18,949.0	11,531.6	70.2	132.3	-84.58	76.6	1,331.7	3,474.8	3,375.9	98.83	35.158	
15,300.0	11,670.0	18,949.0	11,531.6	71.6	132.3	-84.58	76.6	1,331.7	3,572.5	3,474.1	98.46	36.285	
15,400.0	11,670.0	18,949.0	11,531.6	72.9	132.3	-84.58	76.6	1,331.7	3,670.4	3,572.3	98.11	37.411	
15,500.0	11,670.0	18,949.0	11,531.6	74.3	132.3	-84.58	76.6	1,331.7	3,768.4	3,670.6	97.79	38.536	
15,600.0	11,670.0	18,949.0	11,531.6	75.7	132.3	-84.58	76.6	1,331.7	3,866.5	3,769.0	97.49	39.660	
15,700.0	11,670.0	18,949.0	11,531.6	77.1	132.3	-84.58	76.6	1,331.7	3,964.7	3,867.5	97.22	40.782	
15,800.0	11,670.0	18,949.0	11,531.6	78.5	132.3	-84.58	76.6	1,331.7	4,063.0	3,966.1	96.96	41.903	
15,900.0	11,670.0	18,949.0	11,531.6	79.9	132.3	-84.58	76.6	1,331.7	4,161.4	4,064.7	96.72	43.023	
16,000.0	11,670.0	18,949.0	11,531.6	81.3	132.3	-84.58	76.6	1,331.7	4,259.8	4,163.3	96.50	44.141	
16,100.0	11,670.0	18,949.0	11,531.6	82.7	132.3	-84.58	76.6	1,331.7	4,358.4	4,262.1	96.30	45.258	
16,200.0	11,670.0	18,949.0	11,531.6	84.1	132.3	-84.58	76.6	1,331.7	4,456.9	4,360.8	96.11	46.373	
16,300.0	11,670.0	18,949.0	11,531.6	85.6	132.3	-84.58	76.6	1,331.7	4,555.6	4,459.6	95.94	47.486	
16,400.0	11,670.0	18,949.0	11,531.6	87.0	132.3	-84.58	76.6	1,331.7	4,654.3	4,558.5	95.77	48.597	
16,500.0	11,670.0	18,949.0	11,531.6	88.5	132.3	-84.58	76.6	1,331.7	4,753.0	4,657.4	95.62	49.706	
16,600.0	11,670.0	18,949.0	11,531.6	89.9	132.3	-84.58	76.6	1,331.7	4,851.8	4,756.4	95.48	50.814	
16,700.0	11,670.0	18,949.0	11,531.6	91.4	132.3	-84.58	76.6	1,331.7	4,950.7	4,855.3	95.35	51.920	
16,800.0	11,670.0	18,949.0	11,531.6	92.9	132.3	-84.58	76.6	1,331.7	5,049.6	4,954.4	95.23	53.023	
16,900.0	11,670.0	18,949.0	11,531.6	94.4	132.3	-84.58	76.6	1,331.7	5,148.5	5,053.4	95.12	54.125	
17,000.0	11,670.0	18,949.0	11,531.6	95.9	132.3	-84.58	76.6	1,331.7	5,247.5	5,152.5	95.02	55.224	
17,100.0	11,670.0	18,949.0	11,531.6	97.3	132.3	-84.58	76.6	1,331.7	5,346.5	5,251.6	94.93	56.322	
17,200.0	11,670.0	18,949.0	11,531.6	98.8	132.3	-84.58	76.6	1,331.7	5,445.6	5,350.8	94.84	57.417	
17,300.0	11,670.0	18,949.0	11,531.6	100.3	132.3	-84.58	76.6	1,331.7	5,544.7	5,449.9	94.76	58.510	
17,400.0	11,670.0	18,949.0	11,531.6	101.9	132.3	-84.58	76.6	1,331.7	5,643.8	5,549.1	94.69	59.602	
17,500.0	11,670.0	18,949.0	11,531.6	103.4	132.3	-84.58	76.6	1,331.7	5,743.0	5,648.3	94.63	60.690	
17,600.0	11,670.0	18,949.0	11,531.6	104.9	132.3	-84.58	76.6	1,331.7	5,842.1	5,747.6	94.57	61.777	
17,700.0	11,670.0	18,949.0	11,531.6	106.4	132.3	-84.58	76.6	1,331.7	5,941.3	5,846.8	94.51	62.862	
17,800.0	11,670.0	18,949.0	11,531.6	107.9	132.3	-84.58	76.6	1,331.7	6,040.6	5,946.1	94.47	63.944	
17,900.0	11,670.0	18,949.0	11,531.6	109.5	132.3	-84.58	76.6	1,331.7	6,139.8	6,045.4	94.42	65.024	
18,000.0	11,670.0	18,949.0	11,531.6	111.0	132.3	-84.58	76.6	1,331.7	6,239.1	6,144.7	94.39	66.101	
18,100.0	11,670.0	18,949.0	11,531.6	112.5	132.3	-84.58	76.6	1,331.7	6,338.4	6,244.1	94.35	67.177	
18,200.0	11,670.0	18,949.0	11,531.6	114.1	132.3	-84.58	76.6	1,331.7	6,437.8	6,343.4	94.33	68.250	
18,300.0	11,670.0	18,949.0	11,531.6	115.6	132.3	-84.58	76.6	1,331.7	6,537.1	6,442.8	94.30	69.321	
18,400.0	11,670.0	18,949.0	11,531.6	117.2	132.3	-84.58	76.6	1,331.7	6,636.5	6,542.2	94.28	70.389	
18,428.0	11,670.0	18,949.0	11,531.6	117.6	132.3	-84.58	76.6	1,331.7	6,664.3	6,570.0	94.28	70.688	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #007H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 284-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	6.70	7,731.6	907.9	7,785.1				
100.0	100.0	30.6	30.6	0.1	0.1	6.70	7,731.6	907.9	7,784.7	7,784.5	0.18	N/A	
200.0	200.0	172.7	172.7	0.5	0.3	6.70	7,731.1	907.7	7,784.3	7,783.6	0.77	N/A	
300.0	300.0	314.8	314.8	0.8	0.5	6.69	7,729.8	907.3	7,783.4	7,782.0	1.37	5,691.695	
400.0	400.0	407.4	407.3	1.2	0.9	6.69	7,728.9	907.0	7,782.4	7,780.3	2.12	3,677.356	
500.0	500.0	544.8	544.8	1.6	1.4	6.70	7,727.0	907.2	7,781.0	7,778.0	2.97	2,622.737	
600.0	600.0	631.0	631.0	1.9	1.7	-51.57	7,725.6	907.2	7,778.9	7,775.3	3.63	2,143.148	
700.0	700.0	752.8	752.8	2.3	2.2	-51.61	7,723.8	907.2	7,775.8	7,771.4	4.42	1,759.178	
800.0	799.9	896.1	896.0	2.6	2.7	-51.68	7,720.8	907.1	7,771.0	7,765.7	5.29	1,468.844	
900.0	899.7	989.1	989.0	3.0	3.0	-51.76	7,718.7	907.2	7,765.0	7,759.0	5.98	1,297.888	
1,000.0	999.4	1,107.8	1,107.6	3.4	3.4	-51.87	7,716.0	907.5	7,757.9	7,751.1	6.77	1,145.759	
1,100.0	1,098.9	1,167.2	1,167.1	3.7	3.6	-51.96	7,714.7	907.9	7,749.8	7,742.5	7.35	1,054.482	
1,200.0	1,198.3	1,256.1	1,255.9	4.1	4.0	-52.08	7,713.0	908.9	7,741.1	7,733.1	8.04	963.049	
1,300.0	1,297.4	1,362.6	1,362.4	4.5	4.3	-52.23	7,711.0	909.8	7,731.2	7,722.4	8.80	878.881	
1,400.0	1,396.4	1,456.0	1,455.8	4.9	4.7	-52.30	7,709.1	910.9	7,720.8	7,711.3	9.51	811.675	
1,500.0	1,495.5	1,545.0	1,544.7	5.3	5.0	-52.36	7,707.4	912.8	7,710.5	7,700.3	10.21	754.983	
1,600.0	1,594.5	1,626.8	1,626.5	5.7	5.3	-52.40	7,705.8	915.4	7,700.4	7,689.5	10.89	707.149	
1,700.0	1,693.5	1,706.2	1,705.8	6.1	5.6	-52.45	7,704.4	918.5	7,690.6	7,679.0	11.56	665.295	
1,800.0	1,792.5	1,785.1	1,784.5	6.5	5.8	-52.47	7,703.0	923.7	7,681.0	7,668.8	12.23	628.063	
1,900.0	1,891.6	1,871.6	1,870.7	6.9	6.2	-52.48	7,701.5	931.8	7,671.6	7,658.7	12.93	593.321	
2,000.0	1,990.6	1,958.0	1,956.5	7.3	6.5	-52.48	7,699.9	940.8	7,662.4	7,648.8	13.63	561.998	
2,100.0	2,089.6	1,993.0	1,991.3	7.7	6.6	-52.48	7,699.4	944.5	7,653.7	7,639.5	14.16	540.601	
2,200.0	2,188.6	2,052.0	2,050.0	8.1	6.8	-52.48	7,699.3	951.1	7,646.0	7,631.2	14.77	517.736	
2,300.0	2,287.7	2,052.0	2,050.0	8.5	6.8	-52.48	7,699.3	951.1	7,638.9	7,623.7	15.17	503.655	
2,400.0	2,386.7	2,093.6	2,091.3	8.9	6.9	-52.48	7,699.8	955.9	7,632.8	7,617.1	15.72	485.669	
2,500.0	2,485.7	2,147.0	2,144.3	9.4	7.1	-52.48	7,701.0	962.6	7,627.6	7,611.3	16.31	467.729	
2,600.0	2,584.8	2,186.3	2,183.2	9.8	7.3	-52.47	7,702.1	967.7	7,623.1	7,606.2	16.85	452.415	
2,700.0	2,683.8	2,260.4	2,256.6	10.2	7.6	-52.47	7,704.4	977.2	7,618.9	7,601.4	17.52	434.862	
2,800.0	2,782.8	2,311.0	2,306.8	10.6	7.7	-52.46	7,706.2	983.6	7,615.3	7,597.2	18.11	420.616	
2,900.0	2,881.8	2,361.0	2,356.4	11.0	7.9	-52.46	7,708.3	989.9	7,612.4	7,593.7	18.69	407.341	
3,000.0	2,980.9	2,410.5	2,405.4	11.4	8.1	-52.45	7,710.8	996.1	7,610.1	7,590.8	19.27	394.945	
3,100.0	3,079.9	2,484.1	2,478.3	11.9	8.4	-52.45	7,714.8	1,005.4	7,608.3	7,588.4	19.94	381.524	
3,200.0	3,178.9	2,569.1	2,562.4	12.3	8.7	-52.44	7,719.6	1,016.5	7,606.8	7,586.1	20.66	368.171	
3,300.0	3,277.9	2,656.7	2,649.0	12.7	9.0	-52.43	7,724.7	1,028.4	7,605.5	7,584.1	21.39	355.491	
3,400.0	3,377.0	2,742.9	2,734.3	13.1	9.4	-52.41	7,729.8	1,040.7	7,604.3	7,582.1	22.13	343.684	
3,500.0	3,476.0	2,819.0	2,809.5	13.5	9.7	-52.40	7,734.5	1,051.5	7,603.4	7,580.5	22.82	333.188	
3,600.0	3,575.0	2,935.5	2,924.5	13.9	10.1	-52.37	7,741.6	1,068.2	7,602.4	7,578.7	23.68	321.071	
3,700.0	3,674.0	3,058.0	3,045.5	14.3	10.6	-52.35	7,749.0	1,085.9	7,601.4	7,576.9	24.56	309.452	
3,800.0	3,773.1	3,282.0	3,267.0	14.8	11.5	-52.31	7,759.8	1,117.0	7,599.0	7,573.1	25.86	293.832	
3,900.0	3,872.1	3,402.4	3,386.4	15.2	12.0	-52.30	7,764.9	1,131.9	7,595.9	7,569.2	26.74	284.095	
4,000.0	3,971.1	3,512.4	3,495.6	15.6	12.4	-52.30	7,769.4	1,144.3	7,592.7	7,565.1	27.57	275.427	
4,100.0	4,070.2	3,622.5	3,605.1	16.0	12.8	-52.31	7,773.9	1,155.8	7,589.3	7,560.9	28.39	267.281	
4,200.0	4,169.2	3,733.9	3,715.8	16.4	13.3	-52.33	7,778.4	1,166.8	7,585.8	7,556.6	29.22	259.578	
4,300.0	4,268.2	19,030.0	11,592.2	16.9	132.6	80.79	228.5	1,781.8	7,529.9	7,462.2	67.72	111.192	
4,400.0	4,367.2	19,030.0	11,592.2	17.3	132.6	80.79	228.5	1,781.8	7,430.4	7,362.6	67.81	109.570	
4,500.0	4,466.3	19,030.0	11,592.2	17.7	132.6	80.79	228.5	1,781.8	7,331.0	7,263.1	67.92	107.941	
4,600.0	4,565.3	19,030.0	11,592.2	18.1	132.6	80.79	228.5	1,781.8	7,231.5	7,163.5	68.03	106.305	
4,700.0	4,664.3	19,030.0	11,592.2	18.5	132.6	80.79	228.5	1,781.8	7,132.1	7,063.9	68.14	104.663	
4,800.0	4,763.3	19,030.0	11,592.2	18.9	132.6	80.79	228.5	1,781.8	7,032.6	6,964.4	68.27	103.015	
4,900.0	4,862.4	19,030.0	11,592.2	19.4	132.6	80.79	228.5	1,781.8	6,933.2	6,864.8	68.40	101.363	
5,000.0	4,961.4	19,030.0	11,592.2	19.8	132.6	80.79	228.5	1,781.8	6,833.8	6,765.3	68.54	99.707	
5,100.0	5,060.4	19,030.0	11,592.2	20.2	132.6	80.79	228.5	1,781.8	6,734.4	6,665.7	68.68	98.049	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #007H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 284-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	19,030.0	11,592.2	20.6	132.6	80.79	228.5	1,781.8	6,635.1	6,566.2	68.84	96.387	
5,300.0	5,258.5	19,030.0	11,592.2	21.0	132.6	80.79	228.5	1,781.8	6,535.7	6,466.7	69.00	94.724	
5,400.0	5,357.5	19,030.0	11,592.2	21.5	132.6	80.79	228.5	1,781.8	6,436.4	6,367.2	69.16	93.060	
5,500.0	5,456.5	19,030.0	11,592.2	21.9	132.6	80.79	228.5	1,781.8	6,337.1	6,267.8	69.34	91.395	
5,600.0	5,555.6	19,030.0	11,592.2	22.3	132.6	80.79	228.5	1,781.8	6,237.8	6,168.3	69.52	89.730	
5,700.0	5,654.6	19,030.0	11,592.2	22.7	132.6	80.79	228.5	1,781.8	6,138.6	6,068.8	69.70	88.066	
5,800.0	5,753.6	19,030.0	11,592.2	23.1	132.6	80.79	228.5	1,781.8	6,039.3	5,969.4	69.90	86.402	
5,900.0	5,852.6	19,030.0	11,592.2	23.5	132.6	80.79	228.5	1,781.8	5,940.1	5,870.0	70.10	84.739	
6,000.0	5,951.7	19,030.0	11,592.2	24.0	132.6	80.79	228.5	1,781.8	5,840.9	5,770.6	70.31	83.079	
6,098.6	6,049.3	19,030.0	11,592.2	24.4	132.6	80.79	228.5	1,781.8	5,743.2	5,672.7	70.52	81.444	
6,100.0	6,050.7	19,030.0	11,592.2	24.4	132.6	80.62	228.5	1,781.8	5,741.8	5,671.3	70.52	81.420	
6,200.0	6,149.9	19,030.0	11,592.2	24.8	132.6	70.01	228.5	1,781.8	5,642.7	5,572.0	70.75	79.756	
6,300.0	6,249.4	19,030.0	11,592.2	25.2	132.6	60.81	228.5	1,781.8	5,543.8	5,472.8	71.00	78.080	
6,400.0	6,349.1	19,030.0	11,592.2	25.6	132.6	53.15	228.5	1,781.8	5,445.1	5,373.8	71.28	76.392	
6,500.0	6,449.0	19,029.0	11,592.2	25.9	132.6	46.82	229.5	1,781.9	5,346.7	5,275.2	71.57	74.704	
6,600.0	6,549.0	19,025.9	11,592.3	26.2	132.5	41.57	232.6	1,782.1	5,248.8	5,176.9	71.88	73.024	
6,631.9	6,580.9	19,025.2	11,592.3	26.3	132.5	98.37	233.3	1,782.1	5,217.7	5,145.7	71.98	72.485	
6,700.0	6,649.0	19,023.9	11,592.3	26.5	132.5	98.31	234.5	1,782.2	5,151.2	5,079.0	72.22	71.326	
6,800.0	6,749.0	19,022.1	11,592.3	26.9	132.5	98.22	236.4	1,782.3	5,053.8	4,981.2	72.59	69.625	
6,900.0	6,849.0	19,021.8	11,592.4	27.2	132.5	98.12	238.3	1,782.5	4,956.5	4,883.5	72.98	67.914	
7,000.0	6,949.0	19,018.3	11,592.4	27.5	132.4	98.03	240.1	1,782.6	4,859.2	4,785.9	73.37	66.230	
7,100.0	7,049.0	19,016.5	11,592.4	27.8	132.4	97.94	242.0	1,782.7	4,762.1	4,688.3	73.79	64.537	
7,200.0	7,149.0	19,014.6	11,592.5	28.1	132.3	97.84	243.9	1,782.8	4,665.1	4,590.9	74.23	62.848	
7,300.0	7,249.0	19,012.7	11,592.5	28.4	132.3	97.75	245.7	1,782.9	4,568.3	4,493.6	74.69	61.163	
7,400.0	7,349.0	19,010.9	11,592.6	28.8	132.3	97.66	247.6	1,783.1	4,471.5	4,396.3	75.17	59.482	
7,500.0	7,449.0	19,009.0	11,592.6	29.1	132.3	97.56	249.4	1,783.2	4,374.9	4,299.3	75.68	57.806	
7,600.0	7,549.0	19,007.1	11,592.6	29.4	132.2	97.47	251.3	1,783.3	4,278.5	4,202.3	76.22	56.135	
7,700.0	7,649.0	7,700.0	11,593.0	29.7	46.1	96.30	274.7	1,784.8	4,182.3	4,147.2	35.01	119.463	
7,800.0	7,749.0	7,800.0	11,593.0	30.1	44.7	96.24	276.0	1,784.9	4,086.2	4,051.5	34.65	117.936	
7,900.0	7,849.0	7,900.0	11,593.0	30.4	43.3	96.17	277.3	1,784.9	3,990.3	3,956.0	34.30	116.325	
8,000.0	7,949.0	8,000.0	11,593.0	30.7	42.7	96.10	278.7	1,785.0	3,894.6	3,860.6	33.98	114.629	
8,100.0	8,049.0	8,100.0	11,593.1	31.0	42.8	96.04	280.0	1,785.1	3,799.1	3,765.4	33.67	112.842	
8,200.0	8,149.0	8,200.0	11,593.1	31.4	43.0	95.97	281.3	1,785.2	3,703.9	3,670.5	33.38	110.962	
8,300.0	8,249.0	18,956.4	11,593.3	31.7	131.4	94.93	302.0	1,786.5	3,608.9	3,528.3	80.57	44.793	
8,400.0	8,349.0	18,955.5	11,593.3	32.0	131.4	94.89	302.8	1,786.6	3,514.2	3,432.8	81.41	43.167	
8,500.0	8,449.0	18,954.7	11,593.3	32.3	131.4	94.85	303.7	1,786.6	3,419.8	3,337.5	82.30	41.552	
8,600.0	8,549.0	18,953.8	11,593.3	32.7	131.4	94.81	304.5	1,786.7	3,325.7	3,242.5	83.25	39.948	
8,700.0	8,649.0	18,953.0	11,593.3	33.0	131.4	94.76	305.3	1,786.7	3,232.0	3,147.7	84.26	38.357	
8,800.0	8,749.0	18,952.1	11,593.3	33.3	131.4	94.72	306.2	1,786.8	3,138.7	3,053.3	85.34	36.779	
8,900.0	8,849.0	18,951.3	11,593.3	33.7	131.4	94.68	307.0	1,786.8	3,045.8	2,959.3	86.49	35.215	
9,000.0	8,949.0	18,950.5	11,593.4	34.0	131.4	94.64	307.8	1,786.9	2,953.3	2,865.6	87.72	33.666	
9,100.0	9,049.0	18,949.7	11,593.4	34.3	131.3	94.60	308.6	1,786.9	2,861.4	2,772.4	89.04	32.135	
9,200.0	9,149.0	18,948.9	11,593.4	34.6	131.3	94.56	309.5	1,787.0	2,770.0	2,679.6	90.46	30.621	
9,300.0	9,249.0	18,948.1	11,593.4	35.0	131.3	94.52	310.3	1,787.0	2,679.3	2,587.3	91.98	29.128	
9,400.0	9,349.0	18,947.3	11,593.4	35.3	131.3	94.48	311.1	1,787.1	2,589.2	2,495.6	93.62	27.655	
9,500.0	9,449.0	18,946.5	11,593.4	35.6	131.3	94.44	311.9	1,787.1	2,499.9	2,404.5	95.39	26.207	
9,600.0	9,549.0	18,945.7	11,593.4	36.0	131.3	94.40	312.6	1,787.2	2,411.4	2,314.1	97.30	24.784	
9,700.0	9,649.0	18,944.9	11,593.4	36.3	131.3	94.36	313.4	1,787.2	2,323.8	2,224.5	99.36	23.388	
9,800.0	9,749.0	18,944.1	11,593.4	36.7	131.3	94.32	314.2	1,787.3	2,237.3	2,135.7	101.59	22.024	
9,900.0	9,849.0	18,943.3	11,593.4	37.0	131.2	94.28	315.0	1,787.3	2,152.0	2,048.0	104.00	20.692	
10,000.0	9,949.0	18,942.6	11,593.4	37.3	131.2	94.24	315.7	1,787.4	2,067.9	1,961.3	106.61	19.397	
10,100.0	10,049.0	18,941.8	11,593.4	37.7	131.2	94.20	316.5	1,787.4	1,985.4	1,876.0	109.44	18.142	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #007H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 284-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	18,941.0	11,593.4	38.0	131.2	94.17	317.3	1,787.5	1,904.5	1,792.0	112.50	16.930	
10,300.0	10,249.0	18,940.3	11,593.4	38.3	131.2	94.13	318.0	1,787.5	1,825.5	1,709.7	115.80	15.765	
10,400.0	10,349.0	18,939.5	11,593.4	38.7	131.2	94.09	318.8	1,787.6	1,748.7	1,629.4	119.36	14.651	
10,500.0	10,449.0	18,938.8	11,593.4	39.0	131.2	94.05	319.5	1,787.6	1,674.3	1,551.2	123.19	13.592	
10,600.0	10,549.0	18,938.1	11,593.4	39.3	131.2	94.02	320.2	1,787.7	1,602.7	1,475.5	127.27	12.593	
10,700.0	10,649.0	18,937.3	11,593.4	39.7	131.1	93.98	321.0	1,787.7	1,534.3	1,402.7	131.62	11.658	
10,800.0	10,749.0	18,936.6	11,593.5	40.0	131.1	93.94	321.7	1,787.8	1,469.6	1,333.4	136.18	10.791	
10,900.0	10,849.0	18,935.9	11,593.5	40.4	131.1	93.91	322.4	1,787.8	1,408.9	1,268.0	140.94	9.997	
11,000.0	10,949.0	18,935.2	11,593.5	40.7	131.1	93.87	323.1	1,787.8	1,352.9	1,207.1	145.80	9.280	
11,100.0	11,049.0	18,934.4	11,593.5	41.0	131.1	93.84	323.8	1,787.9	1,302.2	1,151.6	150.67	8.643	
11,148.0	11,097.0	18,934.1	11,593.5	41.2	131.1	93.82	324.2	1,787.9	1,280.0	1,127.0	152.98	8.367	
11,148.1	11,097.0	18,934.1	11,593.5	41.2	131.1	93.82	324.2	1,787.9	1,279.9	1,127.0	152.98	8.367	
11,150.0	11,099.0	18,934.1	11,593.5	41.2	131.1	-90.43	324.2	1,787.9	1,279.1	1,126.0	153.07	8.356	
11,200.0	11,148.9	18,936.2	11,593.5	41.4	131.1	-92.72	322.1	1,787.8	1,257.5	1,102.1	155.44	8.090	
11,250.0	11,198.4	18,942.7	11,593.4	41.5	131.2	-94.54	315.6	1,787.4	1,237.8	1,080.0	157.77	7.845	
11,300.0	11,247.2	18,953.6	11,593.3	41.6	131.4	-95.90	304.7	1,786.7	1,220.0	1,060.0	160.04	7.623	
11,350.0	11,294.8	18,969.2	11,593.2	41.7	131.6	-96.80	289.1	1,785.7	1,204.4	1,042.1	162.21	7.424	
11,400.0	11,340.9	18,990.3	11,592.9	41.8	132.0	-97.23	268.1	1,784.4	1,190.8	1,026.6	164.27	7.249	
11,450.0	11,385.2	19,013.2	11,592.5	41.9	132.3	-97.38	245.2	1,782.9	1,179.4	1,013.2	166.19	7.097	
11,500.0	11,427.3	19,030.0	11,592.2	42.0	132.6	-97.61	228.5	1,781.8	1,170.1	1,002.2	167.93	6.968	
11,550.0	11,466.8	19,030.0	11,592.2	42.1	132.6	-98.29	228.5	1,781.8	1,163.3	993.9	169.45	6.865	
11,600.0	11,503.5	19,030.0	11,592.2	42.1	132.6	-98.69	228.5	1,781.8	1,159.3	988.6	170.73	6.790	
11,646.7	11,535.1	19,030.0	11,592.2	42.1	132.6	-98.81	228.5	1,781.8	1,158.1	986.4	171.70	6.745	CC
11,650.0	11,537.2	19,030.0	11,592.2	42.1	132.6	-98.81	228.5	1,781.8	1,158.1	986.3	171.76	6.742	ES
11,700.0	11,567.5	19,030.0	11,592.2	42.2	132.6	-98.65	228.5	1,781.8	1,159.7	987.1	172.52	6.722	SF
11,750.0	11,594.2	19,030.0	11,592.2	42.2	132.6	-98.22	228.5	1,781.8	1,164.1	991.1	173.02	6.728	
11,800.0	11,617.1	19,030.0	11,592.2	42.2	132.6	-97.50	228.5	1,781.8	1,171.2	998.0	173.25	6.760	
11,850.0	11,636.1	19,030.0	11,592.2	42.2	132.6	-96.51	228.5	1,781.8	1,181.0	1,007.7	173.24	6.817	
11,900.0	11,651.0	19,030.0	11,592.2	42.1	132.6	-95.26	228.5	1,781.8	1,193.2	1,020.2	172.99	6.898	
11,950.0	11,661.6	19,030.0	11,592.2	42.1	132.6	-93.73	228.5	1,781.8	1,207.8	1,035.3	172.53	7.001	
12,000.0	11,668.0	19,030.0	11,592.2	42.1	132.6	-91.96	228.5	1,781.8	1,224.5	1,052.7	171.88	7.124	
12,048.1	11,670.0	19,030.0	11,592.2	42.1	132.6	-90.03	228.5	1,781.8	1,242.4	1,071.3	171.10	7.261	
12,100.0	11,670.0	19,030.0	11,592.2	42.2	132.6	-90.03	228.5	1,781.8	1,263.1	1,093.0	170.13	7.425	
12,200.0	11,670.0	19,030.0	11,592.2	42.3	132.6	-90.03	228.5	1,781.8	1,305.5	1,137.6	167.95	7.773	
12,272.6	11,670.0	19,030.0	11,592.2	42.5	132.6	-90.03	228.5	1,781.8	1,338.2	1,172.1	166.16	8.054	
12,300.0	11,670.0	19,030.0	11,592.2	42.6	132.6	-90.03	228.5	1,781.8	1,351.1	1,185.6	165.44	8.166	
12,400.0	11,670.0	19,030.0	11,592.2	43.0	132.6	-90.03	228.5	1,781.8	1,401.5	1,238.8	162.72	8.613	
12,500.0	11,670.0	19,030.0	11,592.2	43.4	132.6	-90.03	228.5	1,781.8	1,457.1	1,297.2	159.88	9.114	
12,600.0	11,670.0	19,030.0	11,592.2	43.9	132.6	-90.03	228.5	1,781.8	1,517.2	1,360.2	157.00	9.664	
12,700.0	11,670.0	19,030.0	11,592.2	44.4	132.6	-90.03	228.5	1,781.8	1,581.4	1,427.3	154.14	10.260	
12,800.0	11,670.0	19,030.0	11,592.2	45.0	132.6	-90.03	228.5	1,781.8	1,649.2	1,497.8	151.33	10.898	
12,900.0	11,670.0	19,030.0	11,592.2	45.7	132.6	-90.03	228.5	1,781.8	1,720.1	1,571.4	148.61	11.574	
13,000.0	11,670.0	19,030.0	11,592.2	46.4	132.6	-90.03	228.5	1,781.8	1,793.7	1,647.7	146.00	12.286	
13,100.0	11,670.0	19,030.0	11,592.2	47.1	132.6	-90.03	228.5	1,781.8	1,869.8	1,726.3	143.51	13.029	
13,200.0	11,670.0	19,030.0	11,592.2	47.9	132.6	-90.03	228.5	1,781.8	1,948.1	1,807.0	141.16	13.801	
13,300.0	11,670.0	19,030.0	11,592.2	48.7	132.6	-90.03	228.5	1,781.8	2,028.3	1,889.4	138.93	14.599	
13,400.0	11,670.0	19,030.0	11,592.2	49.6	132.6	-90.03	228.5	1,781.8	2,110.2	1,973.3	136.84	15.421	
13,500.0	11,670.0	19,030.0	11,592.2	50.5	132.6	-90.03	228.5	1,781.8	2,193.6	2,058.7	134.87	16.265	
13,600.0	11,670.0	19,030.0	11,592.2	51.5	132.6	-90.03	228.5	1,781.8	2,278.3	2,145.3	133.02	17.127	
13,700.0	11,670.0	19,030.0	11,592.2	52.4	132.6	-90.03	228.5	1,781.8	2,364.2	2,232.9	131.29	18.008	
13,800.0	11,670.0	19,030.0	11,592.2	53.4	132.6	-90.03	228.5	1,781.8	2,451.2	2,321.5	129.67	18.904	
13,900.0	11,670.0	19,030.0	11,592.2	54.5	132.6	-90.03	228.5	1,781.8	2,539.1	2,411.0	128.15	19.814	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #007H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 284-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	19,030.0	11,592.2	55.6	132.6	-90.03	228.5	1,781.8	2,627.9	2,501.2	126.73	20.737	
14,100.0	11,670.0	19,030.0	11,592.2	56.7	132.6	-90.03	228.5	1,781.8	2,717.5	2,592.1	125.40	21.671	
14,200.0	11,670.0	19,030.0	11,592.2	57.8	132.6	-90.03	228.5	1,781.8	2,807.8	2,683.7	124.15	22.617	
14,300.0	11,670.0	19,030.0	11,592.2	59.0	132.6	-90.03	228.5	1,781.8	2,898.7	2,775.7	122.98	23.571	
14,400.0	11,670.0	19,030.0	11,592.2	60.1	132.6	-90.03	228.5	1,781.8	2,990.2	2,868.3	121.88	24.534	
14,500.0	11,670.0	19,030.0	11,592.2	61.3	132.6	-90.03	228.5	1,781.8	3,082.3	2,961.4	120.85	25.504	
14,600.0	11,670.0	19,030.0	11,592.2	62.5	132.6	-90.03	228.5	1,781.8	3,174.8	3,054.9	119.89	26.481	
14,700.0	11,670.0	19,030.0	11,592.2	63.8	132.6	-90.03	228.5	1,781.8	3,267.7	3,148.7	118.98	27.464	
14,800.0	11,670.0	19,030.0	11,592.2	65.0	132.6	-90.03	228.5	1,781.8	3,361.1	3,243.0	118.13	28.453	
14,900.0	11,670.0	19,030.0	11,592.2	66.3	132.6	-90.03	228.5	1,781.8	3,454.8	3,337.5	117.33	29.446	
15,000.0	11,670.0	19,030.0	11,592.2	67.6	132.6	-90.03	228.5	1,781.8	3,548.9	3,432.3	116.57	30.444	
15,100.0	11,670.0	19,030.0	11,592.2	68.9	132.6	-90.03	228.5	1,781.8	3,643.3	3,527.4	115.86	31.445	
15,200.0	11,670.0	19,030.0	11,592.2	70.2	132.6	-90.03	228.5	1,781.8	3,738.0	3,622.8	115.19	32.450	
15,300.0	11,670.0	19,030.0	11,592.2	71.6	132.6	-90.03	228.5	1,781.8	3,832.9	3,718.4	114.56	33.458	
15,400.0	11,670.0	19,030.0	11,592.2	72.9	132.6	-90.03	228.5	1,781.8	3,928.1	3,814.2	113.96	34.468	
15,500.0	11,670.0	19,030.0	11,592.2	74.3	132.6	-90.03	228.5	1,781.8	4,023.5	3,910.1	113.40	35.480	
15,600.0	11,670.0	19,030.0	11,592.2	75.7	132.6	-90.03	228.5	1,781.8	4,119.2	4,006.3	112.87	36.495	
15,700.0	11,670.0	19,030.0	11,592.2	77.1	132.6	-90.03	228.5	1,781.8	4,215.1	4,102.7	112.37	37.511	
15,800.0	11,670.0	19,030.0	11,592.2	78.5	132.6	-90.03	228.5	1,781.8	4,311.1	4,199.2	111.89	38.528	
15,900.0	11,670.0	19,030.0	11,592.2	79.9	132.6	-90.03	228.5	1,781.8	4,407.3	4,295.9	111.44	39.547	
16,000.0	11,670.0	19,030.0	11,592.2	81.3	132.6	-90.03	228.5	1,781.8	4,503.7	4,392.7	111.02	40.567	
16,100.0	11,670.0	19,030.0	11,592.2	82.7	132.6	-90.03	228.5	1,781.8	4,600.2	4,489.6	110.62	41.587	
16,200.0	11,670.0	19,030.0	11,592.2	84.1	132.6	-90.03	228.5	1,781.8	4,696.9	4,586.7	110.24	42.608	
16,300.0	11,670.0	19,030.0	11,592.2	85.6	132.6	-90.03	228.5	1,781.8	4,793.7	4,683.9	109.88	43.629	
16,400.0	11,670.0	19,030.0	11,592.2	87.0	132.6	-90.03	228.5	1,781.8	4,890.7	4,781.1	109.53	44.650	
16,500.0	11,670.0	19,030.0	11,592.2	88.5	132.6	-90.03	228.5	1,781.8	4,987.7	4,878.5	109.21	45.671	
16,600.0	11,670.0	19,030.0	11,592.2	89.9	132.6	-90.03	228.5	1,781.8	5,084.9	4,976.0	108.90	46.693	
16,700.0	11,670.0	19,030.0	11,592.2	91.4	132.6	-90.03	228.5	1,781.8	5,182.2	5,073.6	108.61	47.714	
16,800.0	11,670.0	19,030.0	11,592.2	92.9	132.6	-90.03	228.5	1,781.8	5,279.6	5,171.3	108.33	48.735	
16,900.0	11,670.0	19,030.0	11,592.2	94.4	132.6	-90.03	228.5	1,781.8	5,377.1	5,269.0	108.07	49.755	
17,000.0	11,670.0	19,030.0	11,592.2	95.9	132.6	-90.03	228.5	1,781.8	5,474.7	5,366.8	107.82	50.775	
17,100.0	11,670.0	19,030.0	11,592.2	97.3	132.6	-90.03	228.5	1,781.8	5,572.3	5,464.7	107.59	51.794	
17,200.0	11,670.0	19,030.0	11,592.2	98.8	132.6	-90.03	228.5	1,781.8	5,670.1	5,562.7	107.36	52.812	
17,300.0	11,670.0	19,030.0	11,592.2	100.3	132.6	-90.03	228.5	1,781.8	5,767.9	5,660.7	107.15	53.830	
17,400.0	11,670.0	19,030.0	11,592.2	101.9	132.6	-90.03	228.5	1,781.8	5,865.8	5,758.8	106.95	54.846	
17,500.0	11,670.0	19,030.0	11,592.2	103.4	132.6	-90.03	228.5	1,781.8	5,963.7	5,857.0	106.76	55.862	
17,600.0	11,670.0	19,030.0	11,592.2	104.9	132.6	-90.03	228.5	1,781.8	6,061.8	5,955.2	106.58	56.876	
17,700.0	11,670.0	19,030.0	11,592.2	106.4	132.6	-90.03	228.5	1,781.8	6,159.9	6,053.5	106.41	57.890	
17,800.0	11,670.0	19,030.0	11,592.2	107.9	132.6	-90.03	228.5	1,781.8	6,258.0	6,151.8	106.24	58.902	
17,900.0	11,670.0	19,030.0	11,592.2	109.5	132.6	-90.03	228.5	1,781.8	6,356.2	6,250.1	106.09	59.913	
18,000.0	11,670.0	19,030.0	11,592.2	111.0	132.6	-90.03	228.5	1,781.8	6,454.5	6,348.5	105.94	60.923	
18,100.0	11,670.0	19,030.0	11,592.2	112.5	132.6	-90.03	228.5	1,781.8	6,552.8	6,447.0	105.81	61.932	
18,200.0	11,670.0	19,030.0	11,592.2	114.1	132.6	-90.03	228.5	1,781.8	6,651.2	6,545.5	105.68	62.939	
18,300.0	11,670.0	19,030.0	11,592.2	115.6	132.6	-90.03	228.5	1,781.8	6,749.6	6,644.0	105.55	63.945	
18,400.0	11,670.0	19,030.0	11,592.2	117.2	132.6	-90.03	228.5	1,781.8	6,848.1	6,742.6	105.44	64.949	
18,428.0	11,670.0	19,030.0	11,592.2	117.6	132.6	-90.03	228.5	1,781.8	6,875.6	6,770.2	105.41	65.230	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #010H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 211-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	6.89	7,601.8	918.9	7,657.4				
100.0	100.0	36.6	36.6	0.1	0.1	6.89	7,601.8	918.9	7,657.1	7,656.9	0.18	N/A	
200.0	200.0	152.6	152.6	0.5	0.2	6.89	7,601.6	918.9	7,657.0	7,656.2	0.72	N/A	
300.0	300.0	341.9	341.9	0.8	0.8	6.89	7,600.1	918.9	7,656.3	7,654.7	1.64	4,666.597	
400.0	400.0	456.2	456.2	1.2	1.2	6.89	7,598.3	918.8	7,654.6	7,652.2	2.41	3,178.218	
500.0	500.0	545.5	545.5	1.6	1.5	6.89	7,596.9	918.4	7,653.1	7,650.0	3.09	2,480.342	
600.0	600.0	642.7	642.7	1.9	1.9	-51.38	7,595.5	918.2	7,651.1	7,647.3	3.79	2,019.626	
700.0	700.0	745.6	745.5	2.3	2.2	-51.42	7,594.0	918.0	7,648.0	7,643.5	4.51	1,695.535	
800.0	799.9	842.0	842.0	2.6	2.6	-51.47	7,592.5	917.9	7,643.7	7,638.5	5.21	1,466.387	
900.0	899.7	911.0	910.9	3.0	2.8	-51.54	7,591.7	917.9	7,638.7	7,632.9	5.82	1,312.791	
1,000.0	999.4	985.9	985.8	3.4	3.1	-51.62	7,591.1	917.9	7,633.0	7,626.5	6.45	1,183.433	
1,100.0	1,098.9	1,086.5	1,086.4	3.7	3.5	-51.73	7,590.4	917.9	7,626.3	7,619.1	7.18	1,062.553	
1,200.0	1,198.3	1,181.3	1,181.2	4.1	3.8	-51.85	7,589.7	918.0	7,618.6	7,610.7	7.89	965.711	
1,300.0	1,297.4	1,281.9	1,281.8	4.5	4.2	-52.00	7,589.0	917.9	7,609.8	7,601.2	8.63	881.977	
1,400.0	1,396.4	1,371.8	1,371.7	4.9	4.5	-52.07	7,588.4	917.8	7,600.5	7,591.2	9.33	814.345	
1,500.0	1,495.5	1,459.8	1,459.7	5.3	4.8	-52.14	7,588.0	917.8	7,591.4	7,581.4	10.03	756.551	
1,600.0	1,594.5	1,574.8	1,574.8	5.7	5.2	-52.24	7,587.5	917.6	7,582.4	7,571.6	10.83	699.888	
1,700.0	1,693.5	1,720.7	1,720.6	6.1	5.7	-52.36	7,586.1	917.9	7,572.9	7,561.2	11.74	644.866	
1,800.0	1,792.5	1,833.3	1,833.2	6.5	6.1	-52.44	7,584.3	919.0	7,562.9	7,550.4	12.53	603.378	
1,900.0	1,891.6	1,896.5	1,896.4	6.9	6.4	-52.49	7,583.4	919.8	7,553.1	7,540.0	13.15	574.295	
2,000.0	1,990.6	1,954.0	1,953.9	7.3	6.6	-52.54	7,583.1	919.9	7,543.9	7,530.2	13.75	548.607	
2,100.0	2,089.6	1,984.0	1,983.9	7.7	6.7	-52.56	7,583.1	919.7	7,535.5	7,521.2	14.25	528.751	
2,200.0	2,188.6	2,017.5	2,017.3	8.1	6.8	-52.60	7,583.5	919.1	7,527.9	7,513.2	14.76	509.891	
2,300.0	2,287.7	2,048.0	2,047.8	8.5	6.9	-52.63	7,584.1	918.3	7,521.2	7,506.0	15.27	492.663	
2,400.0	2,386.7	2,089.4	2,089.3	8.9	7.0	-52.68	7,585.3	916.8	7,515.4	7,499.6	15.80	475.591	
2,500.0	2,485.7	2,142.0	2,141.7	9.4	7.2	-52.74	7,587.5	914.5	7,510.4	7,494.0	16.37	458.656	
2,600.0	2,584.8	2,203.2	2,202.7	9.8	7.4	-52.82	7,590.4	910.7	7,506.0	7,489.0	16.98	442.087	
2,700.0	2,683.8	2,266.4	2,265.7	10.2	7.6	-52.92	7,593.6	905.7	7,501.9	7,484.3	17.59	426.462	
2,800.0	2,782.8	2,331.0	2,329.9	10.6	7.8	-53.01	7,597.4	900.4	7,498.6	7,480.4	18.21	411.794	
2,900.0	2,881.8	2,390.8	2,389.4	11.0	8.0	-53.10	7,601.2	895.9	7,495.8	7,476.9	18.81	398.426	
3,000.0	2,980.9	2,471.9	2,470.1	11.4	8.3	-53.22	7,606.3	890.1	7,493.1	7,473.6	19.49	384.410	
3,100.0	3,079.9	2,790.3	2,787.1	11.9	9.4	-53.68	7,623.9	866.1	7,490.6	7,469.6	21.02	356.417	
3,200.0	3,178.9	3,027.8	3,023.8	12.3	10.3	-54.03	7,630.4	847.9	7,484.5	7,462.3	22.27	336.140	
3,300.0	3,277.9	3,124.1	3,119.9	12.7	10.6	-54.16	7,632.1	841.5	7,477.6	7,454.6	23.02	324.886	
3,400.0	3,377.0	3,230.3	3,226.0	13.1	11.0	-54.30	7,633.6	836.0	7,470.5	7,446.7	23.80	313.884	
3,500.0	3,476.0	3,315.7	3,311.2	13.5	11.3	-54.41	7,635.0	830.6	7,463.5	7,439.0	24.51	304.468	
3,600.0	3,575.0	3,408.5	3,403.7	13.9	11.6	-54.55	7,636.8	823.2	7,456.8	7,431.5	25.26	295.238	
3,700.0	3,674.0	3,554.4	3,549.0	14.3	12.2	-54.78	7,639.3	810.1	7,449.8	7,423.6	26.20	284.391	
3,800.0	3,773.1	3,688.3	3,682.3	14.8	12.7	-54.98	7,640.8	798.8	7,442.3	7,415.2	27.09	274.709	
3,900.0	3,872.1	3,831.2	3,824.8	15.2	13.2	-55.20	7,641.5	787.2	7,434.3	7,406.3	28.02	265.321	
4,000.0	3,971.1	3,924.2	3,917.5	15.6	13.5	-55.34	7,641.6	780.0	7,426.1	7,397.3	28.77	258.115	
4,100.0	4,070.2	3,992.9	3,986.0	16.0	13.8	-55.44	7,641.9	774.8	7,418.1	7,388.7	29.43	252.029	
4,200.0	4,169.2	4,064.5	4,057.4	16.4	14.1	-55.54	7,642.5	769.6	7,410.6	7,380.5	30.11	246.139	
4,300.0	4,268.2	4,156.2	4,148.9	16.9	14.4	-55.68	7,643.5	762.7	7,403.4	7,372.5	30.85	239.949	
4,400.0	4,367.2	18,541.0	11,615.7	17.3	126.6	175.69	404.2	747.6	7,326.1	7,264.6	61.49	119.137	
4,500.0	4,466.3	18,536.3	11,615.6	17.7	126.5	176.03	408.9	747.5	7,226.5	7,165.0	61.50	117.495	
4,600.0	4,565.3	18,531.5	11,615.5	18.1	126.4	176.37	413.6	747.4	7,126.9	7,065.4	61.52	115.840	
4,700.0	4,664.3	18,526.7	11,615.5	18.5	126.4	176.72	418.4	747.3	7,027.3	6,965.8	61.55	114.174	
4,800.0	4,763.3	18,521.9	11,615.4	18.9	126.3	177.07	423.2	747.2	6,927.8	6,866.2	61.58	112.498	
4,900.0	4,862.4	18,517.1	11,615.3	19.4	126.2	177.42	428.0	747.1	6,828.2	6,766.6	61.62	110.812	
5,000.0	4,961.4	18,512.3	11,615.2	19.8	126.1	177.78	432.8	747.0	6,728.7	6,667.0	61.66	109.117	
5,100.0	5,060.4	18,507.4	11,615.1	20.2	126.1	178.14	437.7	746.9	6,629.2	6,567.4	61.72	107.415	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #010H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 211-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	18,502.6	11,615.0	20.6	126.0	178.51	442.5	746.8	6,529.6	6,467.9	61.77	105.706	
5,300.0	5,258.5	18,497.7	11,614.9	21.0	125.9	178.88	447.4	746.7	6,430.1	6,368.3	61.83	103.991	
5,400.0	5,357.5	18,492.8	11,614.8	21.5	125.8	179.25	452.3	746.6	6,330.6	6,268.7	61.90	102.271	
5,500.0	5,456.5	18,487.9	11,614.7	21.9	125.8	179.63	457.2	746.6	6,231.1	6,169.2	61.97	100.546	
5,600.0	5,555.6	5,600.0	11,613.5	22.3	76.9	-176.44	506.1	745.9	6,131.6	6,088.8	42.80	143.268	
5,700.0	5,654.6	5,700.0	11,613.4	22.7	75.4	-176.06	510.7	745.8	6,032.1	5,989.9	42.17	143.040	
5,800.0	5,753.6	18,449.8	11,614.0	23.1	125.2	-177.34	495.3	746.0	5,932.7	5,870.7	62.02	95.651	
5,900.0	5,852.6	18,399.8	11,612.6	23.5	124.4	-173.08	545.3	745.3	5,833.3	5,771.5	61.74	94.480	
6,000.0	5,951.7	18,378.9	11,612.0	24.0	124.0	-171.21	566.2	745.1	5,733.8	5,672.1	61.71	92.921	
6,098.6	6,049.3	18,375.0	11,611.8	24.4	124.0	-170.86	570.0	745.1	5,635.8	5,573.9	61.81	91.173	
6,100.0	6,050.7	18,375.0	11,611.8	24.4	124.0	-170.82	570.1	745.1	5,634.3	5,572.5	61.82	91.147	
6,200.0	6,149.9	18,371.8	11,611.7	24.8	123.9	-167.38	573.3	745.0	5,534.7	5,472.8	61.93	89.365	
6,300.0	6,249.4	18,369.9	11,611.7	25.2	123.9	-161.02	575.2	745.0	5,435.0	5,372.9	62.06	87.570	
6,400.0	6,349.1	18,369.4	11,611.7	25.6	123.9	-145.36	575.7	745.0	5,335.1	5,272.9	62.20	85.769	
6,500.0	6,449.0	18,370.3	11,611.7	25.9	123.9	-91.89	574.8	745.0	5,235.1	5,172.7	62.35	83.963	
6,600.0	6,549.0	18,372.6	11,611.8	26.2	123.9	-35.81	572.5	745.0	5,135.1	5,072.6	62.51	82.154	
6,631.9	6,580.9	18,373.6	11,611.8	26.3	124.0	29.83	571.5	745.1	5,103.2	5,040.7	62.56	81.577	
6,700.0	6,649.0	18,375.8	11,611.9	26.5	124.0	30.17	569.2	745.1	5,035.2	4,972.5	62.67	80.344	
6,800.0	6,749.0	18,379.2	11,612.0	26.9	124.1	30.68	565.9	745.1	4,935.3	4,872.4	62.84	78.537	
6,900.0	6,849.0	18,387.2	11,612.2	27.2	124.2	31.97	557.9	745.2	4,835.3	4,772.3	63.05	76.688	
7,000.0	6,949.0	18,399.4	11,612.6	27.5	124.4	34.10	545.7	745.3	4,735.4	4,672.1	63.30	74.806	
7,100.0	7,049.0	18,410.2	11,612.9	27.8	124.5	36.21	534.9	745.5	4,635.5	4,571.9	63.55	72.946	
7,200.0	7,149.0	18,419.8	11,613.2	28.1	124.7	38.30	525.3	745.6	4,535.5	4,471.8	63.79	71.107	
7,300.0	7,249.0	18,428.5	11,613.4	28.4	124.8	40.36	516.6	745.7	4,435.6	4,371.6	64.02	69.285	
7,400.0	7,349.0	18,436.4	11,613.6	28.8	125.0	42.39	508.7	745.8	4,335.7	4,271.4	64.25	67.479	
7,500.0	7,449.0	18,443.6	11,613.8	29.1	125.1	44.37	501.5	745.9	4,235.7	4,171.2	64.48	65.688	
7,600.0	7,549.0	18,450.1	11,614.0	29.4	125.2	46.31	495.0	746.0	4,135.8	4,071.1	64.71	63.911	
7,700.0	7,649.0	18,456.1	11,614.1	29.7	125.3	48.20	489.0	746.1	4,035.8	3,970.9	64.94	62.147	
7,800.0	7,749.0	18,461.6	11,614.2	30.1	125.3	50.05	483.5	746.2	3,935.9	3,870.7	65.17	60.396	
7,900.0	7,849.0	18,466.7	11,614.3	30.4	125.4	51.85	478.4	746.2	3,835.9	3,770.5	65.40	58.656	
8,000.0	7,949.0	18,471.5	11,614.4	30.7	125.5	53.59	473.7	746.3	3,736.0	3,670.4	65.63	56.928	
8,100.0	8,049.0	18,475.9	11,614.5	31.0	125.6	55.28	469.3	746.4	3,636.0	3,570.2	65.86	55.211	
8,200.0	8,149.0	18,479.9	11,614.6	31.4	125.6	56.92	465.2	746.4	3,536.1	3,470.0	66.09	53.505	
8,300.0	8,249.0	18,483.8	11,614.6	31.7	125.7	58.50	461.4	746.5	3,436.2	3,369.8	66.32	51.810	
8,400.0	8,349.0	18,487.3	11,614.7	32.0	125.8	60.03	457.8	746.6	3,336.2	3,269.7	66.56	50.126	
8,500.0	8,449.0	18,490.7	11,614.8	32.3	125.8	61.51	454.5	746.6	3,236.3	3,169.5	66.79	48.451	
8,600.0	8,549.0	18,493.8	11,614.8	32.7	125.9	62.93	451.3	746.7	3,136.3	3,069.3	67.03	46.787	
8,700.0	8,649.0	18,486.2	11,614.7	33.0	125.7	59.54	458.9	746.5	3,036.4	2,969.2	67.18	45.197	
8,800.0	8,749.0	18,488.0	11,614.7	33.3	125.8	60.33	457.1	746.6	2,936.5	2,869.1	67.42	43.557	
8,900.0	8,849.0	18,489.8	11,614.8	33.7	125.8	61.14	455.3	746.6	2,836.6	2,768.9	67.66	41.925	
9,000.0	8,949.0	18,491.7	11,614.8	34.0	125.8	61.95	453.5	746.6	2,736.7	2,668.8	67.90	40.303	
9,100.0	9,049.0	18,493.5	11,614.8	34.3	125.9	62.78	451.6	746.7	2,636.7	2,568.6	68.15	38.690	
9,200.0	9,149.0	18,495.3	11,614.9	34.6	125.9	63.63	449.8	746.7	2,536.8	2,468.4	68.40	37.086	
9,300.0	9,249.0	18,497.1	11,614.9	35.0	125.9	64.48	448.0	746.7	2,436.9	2,368.3	68.66	35.491	
9,400.0	9,349.0	18,499.0	11,614.9	35.3	125.9	65.35	446.2	746.8	2,337.0	2,268.1	68.93	33.906	
9,500.0	9,449.0	18,500.8	11,615.0	35.6	126.0	66.23	444.3	746.8	2,237.2	2,168.0	69.20	32.330	
9,600.0	9,549.0	18,502.6	11,615.0	36.0	126.0	67.13	442.5	746.8	2,137.3	2,067.8	69.47	30.764	
9,700.0	9,649.0	18,504.5	11,615.0	36.3	126.0	68.04	440.6	746.9	2,037.4	1,967.7	69.76	29.207	
9,800.0	9,749.0	18,506.3	11,615.1	36.7	126.1	68.96	438.8	746.9	1,937.6	1,867.5	70.05	27.661	
9,900.0	9,849.0	18,508.2	11,615.1	37.0	126.1	69.89	437.0	746.9	1,837.7	1,767.4	70.35	26.123	
10,000.0	9,949.0	18,510.0	11,615.1	37.3	126.1	70.84	435.1	747.0	1,737.9	1,667.2	70.66	24.596	
10,100.0	10,049.0	18,511.9	11,615.2	37.7	126.1	71.80	433.3	747.0	1,638.1	1,567.1	70.98	23.079	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #010H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 211-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	18,513.7	11,615.2	38.0	126.2	72.76	431.4	747.0	1,538.3	1,467.0	71.32	21.571	
10,300.0	10,249.0	18,515.6	11,615.2	38.3	126.2	73.74	429.5	747.1	1,438.6	1,366.9	71.67	20.072	
10,400.0	10,349.0	18,517.5	11,615.3	38.7	126.2	74.73	427.7	747.1	1,338.8	1,266.8	72.05	18.583	
10,500.0	10,449.0	18,519.3	11,615.3	39.0	126.3	75.74	425.8	747.1	1,239.2	1,166.7	72.45	17.104	
10,600.0	10,549.0	18,521.2	11,615.4	39.3	126.3	76.75	424.0	747.2	1,139.5	1,066.7	72.89	15.633	
10,700.0	10,649.0	18,523.1	11,615.4	39.7	126.3	77.77	422.1	747.2	1,040.0	966.6	73.39	14.171	
10,800.0	10,749.0	18,524.9	11,615.4	40.0	126.3	78.79	420.2	747.3	940.5	866.6	73.96	12.716	
10,900.0	10,849.0	18,526.8	11,615.5	40.4	126.4	79.83	418.3	747.3	841.2	766.5	74.64	11.270	
11,000.0	10,949.0	18,528.7	11,615.5	40.7	126.4	80.88	416.5	747.3	742.0	666.5	75.50	9.829	
11,100.0	11,049.0	18,530.6	11,615.5	41.0	126.4	81.93	414.6	747.4	643.1	566.5	76.63	8.393	
11,148.0	11,097.0	18,531.5	11,615.5	41.2	126.4	82.43	413.7	747.4	595.7	518.4	77.32	7.704	
11,148.1	11,097.0	18,531.5	11,615.5	41.2	126.4	82.43	413.7	747.4	595.7	518.4	77.33	7.704	
11,150.0	11,099.0	18,531.5	11,615.5	41.2	126.4	-102.78	413.6	747.4	593.8	516.4	77.36	7.676	
11,200.0	11,148.9	18,534.7	11,615.6	41.4	126.5	-124.34	410.4	747.5	544.7	466.5	78.28	6.959	
11,250.0	11,198.4	18,542.2	11,615.8	41.5	126.6	-136.20	402.9	747.6	496.4	416.9	79.49	6.245	
11,300.0	11,247.2	18,553.9	11,616.0	41.6	126.8	-142.51	391.2	747.9	449.3	368.2	81.09	5.540	
11,350.0	11,294.8	18,569.8	11,616.3	41.7	127.1	-145.76	375.4	748.3	403.7	320.5	83.23	4.850	
11,400.0	11,340.9	18,589.6	11,616.7	41.8	127.4	-147.11	355.6	748.8	360.3	274.2	86.11	4.184	
11,450.0	11,385.2	18,612.6	11,617.1	41.9	127.7	-147.18	332.6	749.5	319.5	229.5	89.99	3.550	
11,500.0	11,427.3	18,639.0	11,617.6	42.0	128.1	-146.10	306.2	750.7	282.0	186.7	95.29	2.959	
11,550.0	11,466.8	18,668.8	11,618.1	42.1	128.6	-143.91	276.5	752.4	248.5	146.0	102.43	2.426	
11,600.0	11,503.5	18,702.8	11,618.8	42.1	129.2	-140.51	242.5	754.5	219.6	108.0	111.66	1.967	
11,650.0	11,537.2	18,739.9	11,619.5	42.1	129.7	-136.09	205.5	756.8	196.0	73.3	122.74	1.597	
11,700.0	11,567.5	18,785.8	11,620.4	42.2	130.5	-129.88	159.7	758.7	177.6	42.7	134.93	1.316	Level 3
11,750.0	11,594.2	18,828.2	11,621.2	42.2	131.1	-124.08	117.2	759.4	164.1	17.7	146.37	1.121	Level 2
11,797.7	11,616.1	18,850.0	11,621.7	42.2	131.5	-121.24	95.5	759.8	157.5	3.3	154.24	1.021	Level 2, CC
11,800.0	11,617.1	18,850.0	11,621.7	42.2	131.5	-121.23	95.5	759.8	157.5	3.1	154.39	1.020	Level 2, ES, SF
11,850.0	11,636.1	18,850.0	11,621.7	42.2	131.5	-120.38	95.5	759.8	167.2	15.1	152.04	1.099	Level 2
11,900.0	11,651.0	18,850.0	11,621.7	42.1	131.5	-117.89	95.5	759.8	191.7	49.1	142.64	1.344	Level 3
11,950.0	11,661.6	18,850.0	11,621.7	42.1	131.5	-113.54	95.5	759.8	226.2	94.2	132.05	1.713	
12,000.0	11,668.0	18,850.0	11,621.7	42.1	131.5	-107.04	95.5	759.8	266.7	143.6	123.06	2.167	
12,048.1	11,670.0	18,850.0	11,621.7	42.1	131.5	-98.51	95.5	759.8	308.7	192.4	116.33	2.654	
12,100.0	11,670.0	18,850.0	11,621.7	42.2	131.5	-98.18	95.5	759.8	355.9	245.2	110.73	3.214	
12,200.0	11,670.0	18,850.0	11,621.7	42.3	131.5	-97.49	95.5	759.8	448.9	345.8	103.07	4.355	
12,272.6	11,670.0	18,850.0	11,621.7	42.5	131.5	-96.97	95.5	759.8	517.4	418.2	99.16	5.218	
12,300.0	11,670.0	18,850.0	11,621.7	42.6	131.5	-96.97	95.5	759.8	543.4	445.4	97.94	5.548	
12,400.0	11,670.0	18,850.0	11,621.7	43.0	131.5	-96.97	95.5	759.8	639.3	544.7	94.57	6.760	
12,500.0	11,670.0	18,850.0	11,621.7	43.4	131.5	-96.97	95.5	759.8	736.3	644.0	92.32	7.976	
12,600.0	11,670.0	18,850.0	11,621.7	43.9	131.5	-96.97	95.5	759.8	834.1	743.3	90.77	9.189	
12,700.0	11,670.0	18,850.0	11,621.7	44.4	131.5	-96.97	95.5	759.8	932.3	842.6	89.67	10.397	
12,800.0	11,670.0	18,850.0	11,621.7	45.0	131.5	-96.97	95.5	759.8	1,030.8	942.0	88.86	11.601	
12,900.0	11,670.0	18,850.0	11,621.7	45.7	131.5	-96.97	95.5	759.8	1,129.7	1,041.4	88.25	12.800	
13,000.0	11,670.0	18,850.0	11,621.7	46.4	131.5	-96.97	95.5	759.8	1,228.7	1,140.9	87.79	13.995	
13,100.0	11,670.0	18,850.0	11,621.7	47.1	131.5	-96.97	95.5	759.8	1,327.8	1,240.4	87.44	15.186	
13,200.0	11,670.0	18,850.0	11,621.7	47.9	131.5	-96.97	95.5	759.8	1,427.1	1,339.9	87.16	16.373	
13,300.0	11,670.0	18,850.0	11,621.7	48.7	131.5	-96.97	95.5	759.8	1,526.4	1,439.5	86.94	17.558	
13,400.0	11,670.0	18,850.0	11,621.7	49.6	131.5	-96.97	95.5	759.8	1,625.9	1,539.1	86.77	18.739	
13,500.0	11,670.0	18,850.0	11,621.7	50.5	131.5	-96.97	95.5	759.8	1,725.4	1,638.8	86.63	19.918	
13,600.0	11,670.0	18,850.0	11,621.7	51.5	131.5	-96.97	95.5	759.8	1,825.0	1,738.4	86.51	21.094	
13,700.0	11,670.0	18,850.0	11,621.7	52.4	131.5	-96.97	95.5	759.8	1,924.6	1,838.1	86.43	22.268	
13,800.0	11,670.0	18,850.0	11,621.7	53.4	131.5	-96.97	95.5	759.8	2,024.2	1,937.9	86.36	23.440	
13,900.0	11,670.0	18,850.0	11,621.7	54.5	131.5	-96.97	95.5	759.8	2,123.9	2,037.6	86.30	24.611	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #010H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 211-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	18,850.0	11,621.7	55.6	131.5	-96.97	95.5	759.8	2,223.6	2,137.3	86.26	25.779	
14,100.0	11,670.0	18,850.0	11,621.7	56.7	131.5	-96.97	95.5	759.8	2,323.3	2,237.1	86.22	26.945	
14,200.0	11,670.0	18,850.0	11,621.7	57.8	131.5	-96.97	95.5	759.8	2,423.1	2,336.9	86.20	28.110	
14,300.0	11,670.0	18,850.0	11,621.7	59.0	131.5	-96.97	95.5	759.8	2,522.9	2,436.7	86.18	29.273	
14,400.0	11,670.0	18,850.0	11,621.7	60.1	131.5	-96.97	95.5	759.8	2,622.7	2,536.5	86.18	30.434	
14,500.0	11,670.0	18,850.0	11,621.7	61.3	131.5	-96.97	95.5	759.8	2,722.5	2,636.3	86.17	31.594	
14,600.0	11,670.0	18,850.0	11,621.7	62.5	131.5	-96.97	95.5	759.8	2,822.3	2,736.1	86.17	32.751	
14,700.0	11,670.0	18,850.0	11,621.7	63.8	131.5	-96.97	95.5	759.8	2,922.1	2,835.9	86.18	33.908	
14,800.0	11,670.0	18,850.0	11,621.7	65.0	131.5	-96.97	95.5	759.8	3,022.0	2,935.8	86.19	35.062	
14,900.0	11,670.0	18,850.0	11,621.7	66.3	131.5	-96.97	95.5	759.8	3,121.8	3,035.6	86.20	36.215	
15,000.0	11,670.0	18,850.0	11,621.7	67.6	131.5	-96.97	95.5	759.8	3,221.7	3,135.5	86.22	37.367	
15,100.0	11,670.0	18,850.0	11,621.7	68.9	131.5	-96.97	95.5	759.8	3,321.5	3,235.3	86.24	38.516	
15,200.0	11,670.0	18,850.0	11,621.7	70.2	131.5	-96.97	95.5	759.8	3,421.4	3,335.2	86.26	39.664	
15,300.0	11,670.0	18,850.0	11,621.7	71.6	131.5	-96.97	95.5	759.8	3,521.3	3,435.0	86.28	40.811	
15,400.0	11,670.0	18,850.0	11,621.7	72.9	131.5	-96.97	95.5	759.8	3,621.2	3,534.9	86.31	41.955	
15,500.0	11,670.0	18,850.0	11,621.7	74.3	131.5	-96.97	95.5	759.8	3,721.1	3,634.8	86.34	43.098	
15,600.0	11,670.0	18,850.0	11,621.7	75.7	131.5	-96.97	95.5	759.8	3,821.0	3,734.6	86.37	44.239	
15,700.0	11,670.0	18,850.0	11,621.7	77.1	131.5	-96.97	95.5	759.8	3,920.9	3,834.5	86.40	45.378	
15,800.0	11,670.0	18,850.0	11,621.7	78.5	131.5	-96.97	95.5	759.8	4,020.8	3,934.4	86.44	46.516	
15,900.0	11,670.0	18,850.0	11,621.7	79.9	131.5	-96.97	95.5	759.8	4,120.7	4,034.3	86.48	47.652	
16,000.0	11,670.0	18,850.0	11,621.7	81.3	131.5	-96.97	95.5	759.8	4,220.7	4,134.1	86.51	48.786	
16,100.0	11,670.0	18,850.0	11,621.7	82.7	131.5	-96.97	95.5	759.8	4,320.6	4,234.0	86.55	49.918	
16,200.0	11,670.0	18,850.0	11,621.7	84.1	131.5	-96.97	95.5	759.8	4,420.5	4,333.9	86.60	51.048	
16,300.0	11,670.0	18,850.0	11,621.7	85.6	131.5	-96.97	95.5	759.8	4,520.4	4,433.8	86.64	52.176	
16,400.0	11,670.0	18,850.0	11,621.7	87.0	131.5	-96.97	95.5	759.8	4,620.4	4,533.7	86.68	53.303	
16,500.0	11,670.0	18,850.0	11,621.7	88.5	131.5	-96.97	95.5	759.8	4,720.3	4,633.6	86.73	54.427	
16,600.0	11,670.0	18,850.0	11,621.7	89.9	131.5	-96.97	95.5	759.8	4,820.3	4,733.5	86.77	55.550	
16,700.0	11,670.0	18,850.0	11,621.7	91.4	131.5	-96.97	95.5	759.8	4,920.2	4,833.4	86.82	56.670	
16,800.0	11,670.0	18,850.0	11,621.7	92.9	131.5	-96.97	95.5	759.8	5,020.1	4,933.3	86.87	57.788	
16,900.0	11,670.0	18,850.0	11,621.7	94.4	131.5	-96.97	95.5	759.8	5,120.1	5,033.2	86.92	58.905	
17,000.0	11,670.0	18,850.0	11,621.7	95.9	131.5	-96.97	95.5	759.8	5,220.0	5,133.1	86.97	60.019	
17,100.0	11,670.0	18,850.0	11,621.7	97.3	131.5	-96.97	95.5	759.8	5,320.0	5,233.0	87.03	61.131	
17,200.0	11,670.0	18,850.0	11,621.7	98.8	131.5	-96.97	95.5	759.8	5,419.9	5,332.9	87.08	62.241	
17,300.0	11,670.0	18,850.0	11,621.7	100.3	131.5	-96.97	95.5	759.8	5,519.9	5,432.8	87.13	63.349	
17,400.0	11,670.0	18,850.0	11,621.7	101.9	131.5	-96.97	95.5	759.8	5,619.8	5,532.7	87.19	64.455	
17,500.0	11,670.0	18,850.0	11,621.7	103.4	131.5	-96.97	95.5	759.8	5,719.8	5,632.6	87.25	65.558	
17,600.0	11,670.0	18,850.0	11,621.7	104.9	131.5	-96.97	95.5	759.8	5,819.8	5,732.5	87.31	66.659	
17,700.0	11,670.0	18,850.0	11,621.7	106.4	131.5	-96.97	95.5	759.8	5,919.7	5,832.4	87.37	67.758	
17,800.0	11,670.0	18,850.0	11,621.7	107.9	131.5	-96.97	95.5	759.8	6,019.7	5,932.3	87.43	68.855	
17,900.0	11,670.0	18,850.0	11,621.7	109.5	131.5	-96.97	95.5	759.8	6,119.6	6,032.2	87.49	69.950	
18,000.0	11,670.0	18,850.0	11,621.7	111.0	131.5	-96.97	95.5	759.8	6,219.6	6,132.1	87.55	71.042	
18,100.0	11,670.0	18,850.0	11,621.7	112.5	131.5	-96.97	95.5	759.8	6,319.6	6,232.0	87.61	72.131	
18,200.0	11,670.0	18,850.0	11,621.7	114.1	131.5	-96.97	95.5	759.8	6,419.5	6,331.9	87.68	73.219	
18,300.0	11,670.0	18,850.0	11,621.7	115.6	131.5	-96.97	95.5	759.8	6,519.5	6,431.8	87.74	74.304	
18,400.0	11,670.0	18,850.0	11,621.7	117.2	131.5	-96.97	95.5	759.8	6,619.5	6,531.7	87.81	75.386	
18,428.0	11,670.0	18,850.0	11,621.7	117.6	131.5	-96.97	95.5	759.8	6,647.5	6,559.7	87.83	75.689	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #016H - Wellbore #1 - Actual

Offset Site Error: 0.0 usft

Survey Program: 284-MWD

Offset Well Error: 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	7.34	7,602.2	978.7	7,665.2				
100.0	100.0	44.5	44.5	0.1	0.1	7.34	7,602.2	978.7	7,664.9	7,664.7	0.20	N/A	
200.0	200.0	185.8	185.8	0.5	0.3	7.34	7,601.6	978.5	7,664.5	7,663.7	0.78	9,766.693	
300.0	300.0	327.2	327.1	0.8	0.5	7.33	7,600.2	978.1	7,663.5	7,662.1	1.37	5,595.687	
400.0	400.0	420.4	420.4	1.2	0.9	7.33	7,599.3	977.8	7,662.5	7,660.3	2.15	3,569.135	
500.0	500.0	554.7	554.6	1.6	1.4	7.34	7,597.4	978.0	7,661.1	7,658.1	2.99	2,565.775	
600.0	600.0	638.9	638.8	1.9	1.7	-50.93	7,596.1	978.0	7,659.0	7,655.4	3.64	2,103.123	
700.0	700.0	769.7	769.7	2.3	2.2	-50.97	7,594.1	978.1	7,655.9	7,651.4	4.46	1,714.732	
800.0	799.9	903.6	903.5	2.6	2.7	-51.04	7,591.2	977.9	7,650.9	7,645.6	5.30	1,443.192	
900.0	899.7	995.3	995.2	3.0	3.0	-51.12	7,589.2	978.1	7,644.9	7,638.9	5.99	1,276.448	
1,000.0	999.4	1,116.3	1,116.2	3.4	3.4	-51.23	7,586.4	978.4	7,637.7	7,630.9	6.79	1,125.607	
1,100.0	1,098.9	1,171.3	1,171.1	3.7	3.6	-51.32	7,585.2	978.8	7,629.6	7,622.3	7.35	1,038.378	
1,200.0	1,198.3	1,264.8	1,264.6	4.1	4.0	-51.44	7,583.5	979.8	7,620.8	7,612.8	8.05	946.375	
1,300.0	1,297.4	1,369.4	1,369.2	4.5	4.4	-51.59	7,581.4	980.7	7,610.8	7,602.0	8.80	864.467	
1,400.0	1,396.4	1,461.8	1,461.6	4.9	4.7	-51.66	7,579.6	981.8	7,600.3	7,590.8	9.52	798.699	
1,500.0	1,495.5	1,549.7	1,549.5	5.3	5.0	-51.72	7,577.9	983.8	7,589.9	7,579.7	10.21	743.213	
1,600.0	1,594.5	1,631.0	1,630.7	5.7	5.3	-51.76	7,576.3	986.4	7,579.8	7,568.9	10.89	696.246	
1,700.0	1,693.5	1,709.4	1,709.0	6.1	5.6	-51.80	7,574.9	989.5	7,569.8	7,558.3	11.55	655.232	
1,800.0	1,792.5	1,786.8	1,786.2	6.5	5.8	-51.83	7,573.6	994.6	7,560.2	7,548.0	12.22	618.803	
1,900.0	1,891.6	1,871.7	1,870.7	6.9	6.1	-51.84	7,572.0	1,002.6	7,550.9	7,537.9	12.91	584.815	
2,000.0	1,990.6	1,958.0	1,956.5	7.3	6.4	-51.84	7,570.5	1,011.7	7,541.6	7,528.0	13.62	553.902	
2,100.0	2,089.6	1,993.4	1,991.7	7.7	6.6	-51.84	7,570.0	1,015.4	7,532.9	7,518.8	14.14	532.739	
2,200.0	2,188.6	2,052.0	2,050.0	8.1	6.8	-51.84	7,569.9	1,021.9	7,525.2	7,510.5	14.75	510.236	
2,300.0	2,287.7	2,052.0	2,050.0	8.5	6.8	-51.84	7,569.9	1,021.9	7,518.2	7,503.0	15.15	496.355	
2,400.0	2,386.7	2,094.8	2,092.5	8.9	6.9	-51.84	7,570.4	1,026.9	7,512.1	7,496.4	15.70	478.487	
2,500.0	2,485.7	2,147.0	2,144.3	9.4	7.1	-51.83	7,571.6	1,033.4	7,506.9	7,490.7	16.29	460.928	
2,600.0	2,584.8	2,190.5	2,187.3	9.8	7.3	-51.83	7,572.8	1,039.0	7,502.5	7,485.6	16.84	445.428	
2,700.0	2,683.8	2,263.0	2,259.2	10.2	7.5	-51.82	7,575.0	1,048.3	7,498.3	7,480.8	17.51	428.286	
2,800.0	2,782.8	2,314.0	2,309.8	10.6	7.7	-51.81	7,576.9	1,054.8	7,494.8	7,476.7	18.09	414.219	
2,900.0	2,881.8	2,364.5	2,359.8	11.0	7.9	-51.81	7,579.1	1,061.2	7,491.9	7,473.2	18.68	401.121	
3,000.0	2,980.9	2,430.0	2,424.7	11.4	8.2	-51.80	7,582.4	1,069.4	7,489.7	7,470.3	19.32	387.703	
3,100.0	3,079.9	2,491.3	2,485.4	11.9	8.4	-51.80	7,585.8	1,077.2	7,487.9	7,468.0	19.94	375.443	
3,200.0	3,178.9	2,575.5	2,568.8	12.3	8.7	-51.79	7,590.6	1,088.2	7,486.4	7,465.8	20.66	362.360	
3,300.0	3,277.9	2,664.0	2,656.3	12.7	9.0	-51.78	7,595.8	1,100.3	7,485.2	7,463.8	21.40	349.824	
3,400.0	3,377.0	2,748.3	2,739.6	13.1	9.4	-51.76	7,600.7	1,112.3	7,484.0	7,461.9	22.12	338.338	
3,500.0	3,476.0	2,829.5	2,819.8	13.5	9.7	-51.74	7,605.7	1,123.9	7,483.1	7,460.3	22.83	327.716	
3,600.0	3,575.0	2,942.2	2,931.2	13.9	10.1	-51.72	7,612.6	1,140.0	7,482.2	7,458.5	23.68	316.015	
3,700.0	3,674.0	3,072.0	3,059.3	14.3	10.6	-51.69	7,620.4	1,158.7	7,481.2	7,456.6	24.59	304.217	
3,800.0	3,773.1	3,290.0	3,275.0	14.8	11.5	-51.66	7,630.7	1,188.8	7,478.7	7,452.8	25.86	289.152	
3,900.0	3,872.1	3,409.8	3,393.8	15.2	12.0	-51.65	7,635.7	1,203.6	7,475.6	7,448.9	26.74	279.608	
4,000.0	3,971.1	3,521.4	3,504.6	15.6	12.4	-51.65	7,640.4	1,216.1	7,472.4	7,444.8	27.57	271.019	
4,100.0	4,070.2	3,630.7	3,613.2	16.0	12.8	-51.66	7,644.8	1,227.5	7,469.0	7,440.6	28.39	263.040	
4,200.0	4,169.2	3,743.8	3,725.7	16.4	13.3	-51.67	7,649.4	1,238.6	7,465.4	7,436.2	29.23	255.406	
4,300.0	4,268.2	3,866.4	3,847.7	16.9	13.8	-51.70	7,654.0	1,249.5	7,461.6	7,431.5	30.10	247.923	
4,400.0	4,367.2	19,030.0	11,592.2	17.3	132.6	82.69	99.1	1,852.7	7,435.6	7,367.3	68.27	108.921	
4,500.0	4,466.3	19,030.0	11,592.2	17.7	132.6	82.69	99.1	1,852.7	7,336.4	7,268.0	68.38	107.285	
4,600.0	4,565.3	19,030.0	11,592.2	18.1	132.6	82.69	99.1	1,852.7	7,237.1	7,168.6	68.51	105.642	
4,700.0	4,664.3	19,030.0	11,592.2	18.5	132.6	82.69	99.1	1,852.7	7,137.9	7,069.3	68.64	103.994	
4,800.0	4,763.3	19,030.0	11,592.2	18.9	132.6	82.69	99.1	1,852.7	7,038.7	6,969.9	68.78	102.342	
4,900.0	4,862.4	19,030.0	11,592.2	19.4	132.6	82.69	99.1	1,852.7	6,939.5	6,870.6	68.92	100.686	
5,000.0	4,961.4	19,030.0	11,592.2	19.8	132.6	82.69	99.1	1,852.7	6,840.4	6,771.3	69.08	99.027	
5,100.0	5,060.4	19,030.7	11,592.2	20.2	132.6	82.72	98.4	1,852.6	6,741.3	6,672.0	69.24	97.356	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #016H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 284-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,159.4	19,020.8	11,592.4	20.6	132.4	82.30	108.3	1,853.3	6,642.2	6,572.8	69.33	95.811	
5,300.0	5,258.5	18,935.7	11,593.5	21.0	131.1	78.33	193.2	1,858.6	6,543.0	6,474.3	68.77	95.149	
5,400.0	5,357.5	18,924.6	11,593.5	21.5	130.9	77.77	204.3	1,859.3	6,443.8	6,375.0	68.85	93.593	
5,500.0	5,456.5	18,913.6	11,593.6	21.9	130.8	77.20	215.3	1,860.0	6,344.7	6,275.7	68.94	92.031	
5,600.0	5,555.6	18,902.6	11,593.7	22.3	130.6	76.63	226.2	1,860.7	6,245.5	6,176.5	69.04	90.464	
5,700.0	5,654.6	18,891.8	11,593.7	22.7	130.4	76.05	237.0	1,861.4	6,146.3	6,077.2	69.14	88.892	
5,800.0	5,753.6	18,881.0	11,593.8	23.1	130.3	75.47	247.8	1,862.1	6,047.2	5,978.0	69.26	87.315	
5,900.0	5,852.6	18,870.4	11,593.8	23.5	130.1	74.89	258.3	1,862.7	5,948.1	5,878.7	69.38	85.734	
6,000.0	5,951.7	18,861.3	11,593.9	24.0	130.0	74.38	267.4	1,863.3	5,849.0	5,779.5	69.52	84.134	
6,098.6	6,049.3	18,852.4	11,593.9	24.4	129.8	73.87	276.3	1,863.9	5,751.3	5,681.6	69.67	82.556	
6,100.0	6,050.7	18,852.2	11,593.9	24.4	129.8	73.71	276.5	1,863.9	5,749.9	5,680.2	69.67	82.532	
6,200.0	6,149.9	18,844.0	11,594.0	24.8	129.7	63.38	284.7	1,864.4	5,650.9	5,581.0	69.84	80.912	
6,300.0	6,249.4	18,837.4	11,594.0	25.2	129.6	54.71	291.3	1,864.8	5,552.1	5,482.0	70.05	79.258	
6,400.0	6,349.1	18,832.4	11,594.0	25.6	129.5	47.69	296.3	1,865.1	5,453.5	5,383.2	70.30	77.572	
6,500.0	6,449.0	18,829.0	11,594.0	25.9	129.5	42.08	299.7	1,865.3	5,355.4	5,284.8	70.60	75.856	
6,600.0	6,549.0	18,827.2	11,594.0	26.2	129.4	37.61	301.5	1,865.4	5,257.7	5,186.8	70.94	74.113	
6,631.9	6,580.9	18,827.0	11,594.0	26.3	129.4	94.63	301.7	1,865.5	5,226.7	5,155.6	71.06	73.552	
6,700.0	6,649.0	18,826.7	11,594.0	26.5	129.4	94.61	302.0	1,865.5	5,160.5	5,089.2	71.33	72.349	
6,800.0	6,749.0	18,826.2	11,594.1	26.9	129.4	94.59	302.5	1,865.5	5,063.4	4,991.6	71.74	70.584	
6,900.0	6,849.0	18,825.7	11,594.1	27.2	129.4	94.57	302.9	1,865.5	4,966.4	4,894.2	72.16	68.823	
7,000.0	6,949.0	18,825.3	11,594.1	27.5	129.4	94.55	303.4	1,865.6	4,869.5	4,796.9	72.61	67.066	
7,100.0	7,049.0	18,824.8	11,594.1	27.8	129.4	94.53	303.9	1,865.6	4,772.8	4,699.7	73.07	65.314	
7,200.0	7,149.0	18,824.3	11,594.1	28.1	129.4	94.51	304.3	1,865.6	4,676.2	4,602.6	73.56	63.567	
7,300.0	7,249.0	18,823.9	11,594.1	28.4	129.4	94.48	304.8	1,865.7	4,579.8	4,505.7	74.08	61.826	
7,400.0	7,349.0	18,823.4	11,594.1	28.8	129.4	94.46	305.2	1,865.7	4,483.5	4,408.9	74.61	60.091	
7,500.0	7,449.0	18,823.0	11,594.1	29.1	129.4	94.44	305.7	1,865.7	4,387.3	4,312.2	75.17	58.362	
7,600.0	7,549.0	18,822.5	11,594.1	29.4	129.4	94.42	306.1	1,865.7	4,291.4	4,215.6	75.76	56.641	
7,700.0	7,649.0	18,822.1	11,594.1	29.7	129.4	94.40	306.6	1,865.8	4,195.6	4,119.3	76.39	54.927	
7,800.0	7,749.0	18,821.6	11,594.1	30.1	129.4	94.38	307.1	1,865.8	4,100.1	4,023.0	77.04	53.221	
7,900.0	7,849.0	18,821.1	11,594.1	30.4	129.4	94.36	307.5	1,865.8	4,004.7	3,927.0	77.73	51.523	
8,000.0	7,949.0	18,820.7	11,594.1	30.7	129.3	94.33	308.0	1,865.9	3,909.6	3,831.2	78.45	49.835	
8,100.0	8,049.0	18,820.2	11,594.1	31.0	129.3	94.31	308.4	1,865.9	3,814.8	3,735.6	79.22	48.156	
8,200.0	8,149.0	18,819.8	11,594.1	31.4	129.3	94.29	308.9	1,865.9	3,720.2	3,640.2	80.02	46.488	
8,300.0	8,249.0	18,819.3	11,594.1	31.7	129.3	94.27	309.3	1,865.9	3,625.9	3,545.0	80.88	44.831	
8,400.0	8,349.0	18,818.9	11,594.1	32.0	129.3	94.25	309.8	1,866.0	3,531.9	3,450.1	81.78	43.185	
8,500.0	8,449.0	18,818.4	11,594.1	32.3	129.3	94.23	310.2	1,866.0	3,438.3	3,355.5	82.74	41.552	
8,600.0	8,549.0	18,818.0	11,594.1	32.7	129.3	94.21	310.6	1,866.0	3,345.0	3,261.2	83.76	39.933	
8,700.0	8,649.0	18,817.6	11,594.1	33.0	129.3	94.19	311.1	1,866.0	3,252.1	3,167.3	84.85	38.328	
8,800.0	8,749.0	18,817.1	11,594.1	33.3	129.3	94.17	311.5	1,866.1	3,159.7	3,073.7	86.00	36.739	
8,900.0	8,849.0	18,816.7	11,594.1	33.7	129.3	94.15	312.0	1,866.1	3,067.7	2,980.5	87.23	35.166	
9,000.0	8,949.0	18,816.2	11,594.1	34.0	129.3	94.12	312.4	1,866.1	2,976.2	2,887.7	88.55	33.611	
9,100.0	9,049.0	18,815.8	11,594.1	34.3	129.3	94.10	312.9	1,866.2	2,885.4	2,795.4	89.95	32.076	
9,200.0	9,149.0	18,815.3	11,594.1	34.6	129.3	94.08	313.3	1,866.2	2,795.1	2,703.6	91.46	30.562	
9,300.0	9,249.0	18,814.9	11,594.1	35.0	129.3	94.06	313.7	1,866.2	2,705.5	2,612.4	93.07	29.070	
9,400.0	9,349.0	18,814.5	11,594.1	35.3	129.3	94.04	314.2	1,866.2	2,616.7	2,521.9	94.80	27.602	
9,500.0	9,449.0	18,814.0	11,594.1	35.6	129.2	94.02	314.6	1,866.3	2,528.7	2,432.0	96.66	26.161	
9,600.0	9,549.0	18,813.6	11,594.1	36.0	129.2	94.00	315.0	1,866.3	2,441.6	2,343.0	98.66	24.749	
9,700.0	9,649.0	18,813.2	11,594.1	36.3	129.2	93.98	315.5	1,866.3	2,355.6	2,254.8	100.81	23.368	
9,800.0	9,749.0	18,812.7	11,594.1	36.7	129.2	93.96	315.9	1,866.3	2,270.7	2,167.6	103.12	22.020	
9,900.0	9,849.0	18,812.3	11,594.1	37.0	129.2	93.94	316.3	1,866.4	2,187.1	2,081.5	105.61	20.709	
10,000.0	9,949.0	18,811.9	11,594.1	37.3	129.2	93.92	316.8	1,866.4	2,104.9	1,996.6	108.29	19.437	
10,100.0	10,049.0	18,811.4	11,594.1	37.7	129.2	93.90	317.2	1,866.4	2,024.4	1,913.2	111.18	18.208	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #016H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 284-MWD — **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,149.0	18,811.0	11,594.1	38.0	129.2	93.88	317.6	1,866.5	1,945.6	1,831.3	114.28	17.025	
10,300.0	10,249.0	18,810.6	11,594.1	38.3	129.2	93.86	318.1	1,866.5	1,868.8	1,751.2	117.60	15.891	
10,400.0	10,349.0	18,810.1	11,594.1	38.7	129.2	93.84	318.5	1,866.5	1,794.4	1,673.2	121.16	14.811	
10,500.0	10,449.0	18,809.7	11,594.1	39.0	129.2	93.82	318.9	1,866.5	1,722.5	1,597.6	124.94	13.787	
10,600.0	10,549.0	18,809.3	11,594.1	39.3	129.2	93.80	319.3	1,866.6	1,653.6	1,524.6	128.94	12.824	
10,700.0	10,649.0	18,808.9	11,594.1	39.7	129.2	93.78	319.8	1,866.6	1,588.0	1,454.8	133.15	11.926	
10,800.0	10,749.0	18,808.4	11,594.1	40.0	129.2	93.76	320.2	1,866.6	1,526.1	1,388.5	137.53	11.097	
10,900.0	10,849.0	18,808.0	11,594.1	40.4	129.2	93.74	320.6	1,866.6	1,468.4	1,326.4	142.02	10.339	
11,000.0	10,949.0	18,807.6	11,594.1	40.7	129.1	93.72	321.0	1,866.7	1,415.4	1,268.9	146.56	9.657	
11,100.0	11,049.0	18,807.2	11,594.1	41.0	129.1	93.70	321.5	1,866.7	1,367.7	1,216.7	151.06	9.054	
11,148.0	11,097.0	18,807.0	11,594.1	41.2	129.1	93.69	321.7	1,866.7	1,346.9	1,193.7	153.17	8.794	
11,148.1	11,097.0	18,807.0	11,594.1	41.2	129.1	93.69	321.7	1,866.7	1,346.9	1,193.7	153.17	8.793	
11,150.0	11,099.0	18,807.0	11,594.1	41.2	129.1	-90.55	321.7	1,866.7	1,346.0	1,192.8	153.25	8.783	
11,200.0	11,148.9	18,809.1	11,594.1	41.4	129.2	-92.64	319.5	1,866.6	1,325.9	1,170.5	155.40	8.532	
11,250.0	11,198.4	18,815.6	11,594.1	41.5	129.3	-94.31	313.0	1,866.2	1,307.6	1,150.1	157.51	8.301	
11,300.0	11,247.2	18,826.5	11,594.1	41.6	129.4	-95.55	302.2	1,865.5	1,291.2	1,131.6	159.56	8.092	
11,350.0	11,294.8	18,841.5	11,594.0	41.7	129.7	-96.38	287.2	1,864.6	1,276.8	1,115.3	161.51	7.905	
11,400.0	11,340.9	18,860.6	11,593.9	41.8	130.0	-96.83	268.1	1,863.4	1,264.4	1,101.1	163.36	7.740	
11,450.0	11,385.2	18,884.0	11,593.8	41.9	130.3	-96.92	244.8	1,861.9	1,254.1	1,089.0	165.08	7.597	
11,500.0	11,427.3	18,911.3	11,593.6	42.0	130.7	-96.70	217.5	1,860.2	1,245.7	1,079.0	166.66	7.474	
11,550.0	11,466.8	18,942.3	11,593.4	42.1	131.2	-96.22	186.6	1,858.2	1,239.1	1,071.0	168.12	7.370	
11,600.0	11,503.5	18,976.8	11,593.1	42.1	131.8	-95.53	152.2	1,856.0	1,234.1	1,064.7	169.45	7.283	
11,650.0	11,537.2	19,013.9	11,592.5	42.1	132.3	-94.71	115.1	1,853.7	1,230.5	1,059.9	170.68	7.210	
11,700.0	11,567.5	19,030.0	11,592.2	42.2	132.6	-94.45	99.1	1,852.7	1,228.4	1,056.6	171.75	7.152	
11,722.6	11,580.0	19,030.0	11,592.2	42.2	132.6	-94.47	99.1	1,852.7	1,228.2	1,056.0	172.16	7.134	CC
11,750.0	11,594.2	19,030.0	11,592.2	42.2	132.6	-94.43	99.1	1,852.7	1,228.5	1,055.9	172.60	7.118	ES
11,800.0	11,617.1	19,030.0	11,592.2	42.2	132.6	-94.19	99.1	1,852.7	1,231.0	1,057.8	173.24	7.106	SF
11,850.0	11,636.1	19,030.0	11,592.2	42.2	132.6	-93.70	99.1	1,852.7	1,235.8	1,062.1	173.68	7.116	
11,900.0	11,651.0	19,030.0	11,592.2	42.1	132.6	-92.99	99.1	1,852.7	1,242.9	1,069.0	173.90	7.147	
11,950.0	11,661.6	19,030.0	11,592.2	42.1	132.6	-92.05	99.1	1,852.7	1,252.2	1,078.2	173.93	7.199	
12,000.0	11,668.0	19,030.0	11,592.2	42.1	132.6	-90.88	99.1	1,852.7	1,263.5	1,089.7	173.78	7.271	
12,048.1	11,670.0	19,030.0	11,592.2	42.1	132.6	-89.56	99.1	1,852.7	1,276.2	1,102.7	173.46	7.357	
12,100.0	11,670.0	19,030.0	11,592.2	42.2	132.6	-89.57	99.1	1,852.7	1,291.4	1,118.4	172.96	7.466	
12,200.0	11,670.0	19,030.0	11,592.2	42.3	132.6	-89.57	99.1	1,852.7	1,323.3	1,151.7	171.63	7.710	
12,272.6	11,670.0	19,030.0	11,592.2	42.5	132.6	-89.58	99.1	1,852.7	1,348.7	1,178.3	170.39	7.915	
12,300.0	11,670.0	19,030.0	11,592.2	42.6	132.6	-89.58	99.1	1,852.7	1,358.8	1,189.0	169.86	7.999	
12,400.0	11,670.0	19,030.0	11,592.2	43.0	132.6	-89.58	99.1	1,852.7	1,399.7	1,232.0	167.75	8.344	
12,500.0	11,670.0	19,030.0	11,592.2	43.4	132.6	-89.58	99.1	1,852.7	1,446.4	1,281.0	165.39	8.746	
12,600.0	11,670.0	19,030.0	11,592.2	43.9	132.6	-89.58	99.1	1,852.7	1,498.4	1,335.5	162.85	9.201	
12,700.0	11,670.0	19,030.0	11,592.2	44.4	132.6	-89.58	99.1	1,852.7	1,555.0	1,394.8	160.21	9.706	
12,800.0	11,670.0	19,030.0	11,592.2	45.0	132.6	-89.58	99.1	1,852.7	1,615.8	1,458.3	157.54	10.256	
12,900.0	11,670.0	19,030.0	11,592.2	45.7	132.6	-89.58	99.1	1,852.7	1,680.4	1,525.5	154.88	10.850	
13,000.0	11,670.0	19,030.0	11,592.2	46.4	132.6	-89.58	99.1	1,852.7	1,748.3	1,596.1	152.26	11.482	
13,100.0	11,670.0	19,030.0	11,592.2	47.1	132.6	-89.58	99.1	1,852.7	1,819.2	1,669.5	149.72	12.151	
13,200.0	11,670.0	19,030.0	11,592.2	47.9	132.6	-89.58	99.1	1,852.7	1,892.7	1,745.5	147.27	12.853	
13,300.0	11,670.0	19,030.0	11,592.2	48.7	132.6	-89.58	99.1	1,852.7	1,968.6	1,823.7	144.92	13.584	
13,400.0	11,670.0	19,030.0	11,592.2	49.6	132.6	-89.58	99.1	1,852.7	2,046.5	1,903.8	142.68	14.343	
13,500.0	11,670.0	19,030.0	11,592.2	50.5	132.6	-89.58	99.1	1,852.7	2,126.3	1,985.7	140.56	15.127	
13,600.0	11,670.0	19,030.0	11,592.2	51.5	132.6	-89.58	99.1	1,852.7	2,207.7	2,069.2	138.55	15.934	
13,700.0	11,670.0	19,030.0	11,592.2	52.4	132.6	-89.58	99.1	1,852.7	2,290.6	2,154.0	136.66	16.762	
13,800.0	11,670.0	19,030.0	11,592.2	53.4	132.6	-89.58	99.1	1,852.7	2,374.8	2,240.0	134.87	17.608	
13,900.0	11,670.0	19,030.0	11,592.2	54.5	132.6	-89.58	99.1	1,852.7	2,460.2	2,327.0	133.19	18.472	

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

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Big Game - Minis 1 Federal Com #016H - Wellbore #1 - Actual — **Offset Site Error:** 0.0 usft

Survey Program: 284-MWD — **Offset Well Error:** 0.0 usft

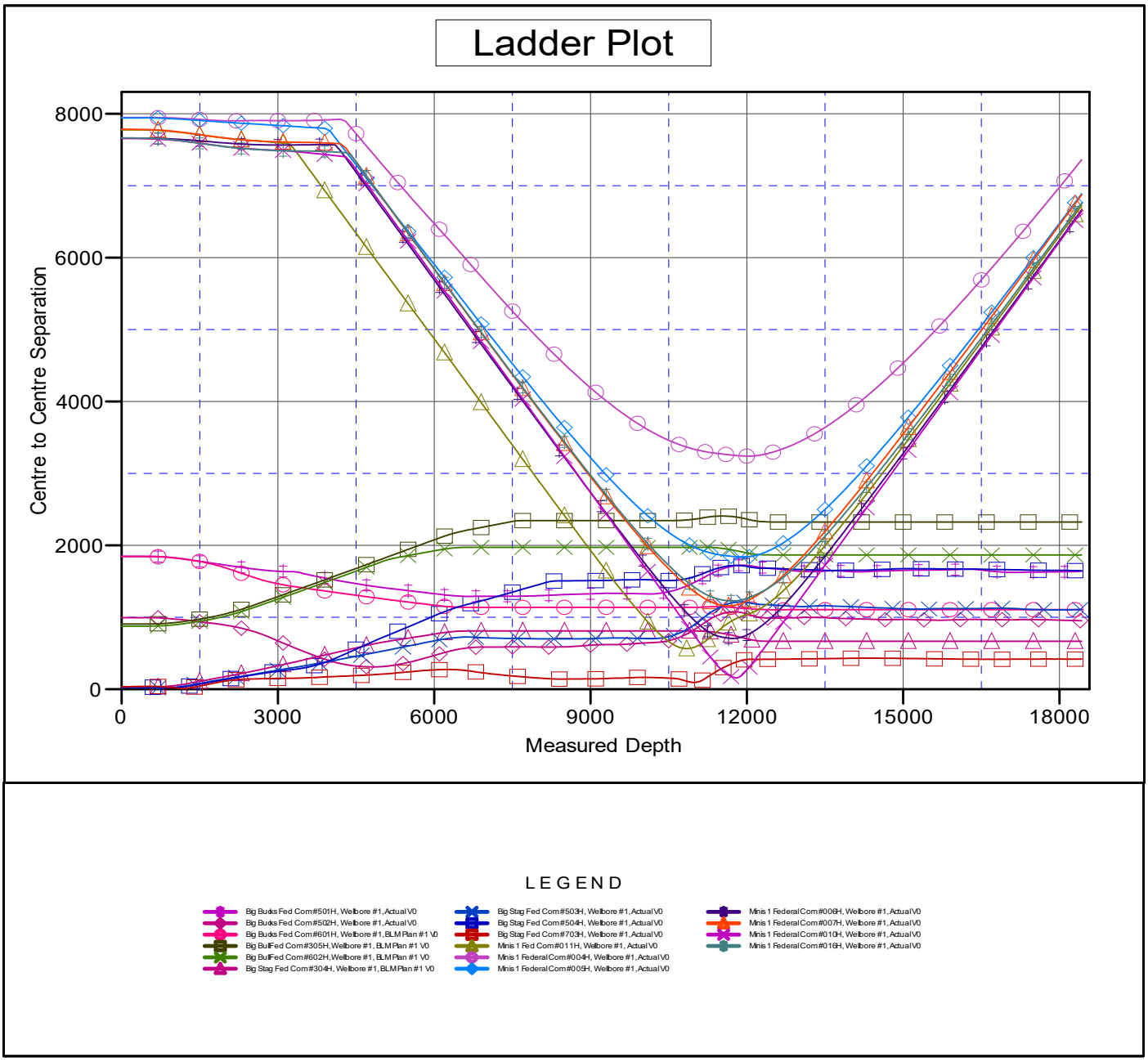
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,000.0	11,670.0	19,030.0	11,592.2	55.6	132.6	-89.58	99.1	1,852.7	2,546.7	2,415.1	131.60	19.351	
14,100.0	11,670.0	19,030.0	11,592.2	56.7	132.6	-89.58	99.1	1,852.7	2,634.1	2,504.0	130.11	20.244	
14,200.0	11,670.0	19,030.0	11,592.2	57.8	132.6	-89.58	99.1	1,852.7	2,722.4	2,593.7	128.71	21.150	
14,300.0	11,670.0	19,030.0	11,592.2	59.0	132.6	-89.58	99.1	1,852.7	2,811.5	2,684.1	127.40	22.068	
14,400.0	11,670.0	19,030.0	11,592.2	60.1	132.6	-89.58	99.1	1,852.7	2,901.2	2,775.1	126.16	22.996	
14,500.0	11,670.0	19,030.0	11,592.2	61.3	132.6	-89.58	99.1	1,852.7	2,991.7	2,866.7	125.00	23.934	
14,600.0	11,670.0	19,030.0	11,592.2	62.5	132.6	-89.58	99.1	1,852.7	3,082.7	2,958.8	123.90	24.880	
14,700.0	11,670.0	19,030.0	11,592.2	63.8	132.6	-89.58	99.1	1,852.7	3,174.2	3,051.4	122.87	25.834	
14,800.0	11,670.0	19,030.0	11,592.2	65.0	132.6	-89.58	99.1	1,852.7	3,266.3	3,144.4	121.90	26.795	
14,900.0	11,670.0	19,030.0	11,592.2	66.3	132.6	-89.58	99.1	1,852.7	3,358.8	3,237.8	120.99	27.762	
15,000.0	11,670.0	19,030.0	11,592.2	67.6	132.6	-89.58	99.1	1,852.7	3,451.7	3,331.6	120.12	28.735	
15,100.0	11,670.0	19,030.0	11,592.2	68.9	132.6	-89.58	99.1	1,852.7	3,545.1	3,425.7	119.31	29.713	
15,200.0	11,670.0	19,030.0	11,592.2	70.2	132.6	-89.58	99.1	1,852.7	3,638.7	3,520.2	118.54	30.695	
15,300.0	11,670.0	19,030.0	11,592.2	71.6	132.6	-89.58	99.1	1,852.7	3,732.7	3,614.9	117.82	31.682	
15,400.0	11,670.0	19,030.0	11,592.2	72.9	132.6	-89.58	99.1	1,852.7	3,827.0	3,709.9	117.13	32.672	
15,500.0	11,670.0	19,030.0	11,592.2	74.3	132.6	-89.58	99.1	1,852.7	3,921.6	3,805.1	116.49	33.665	
15,600.0	11,670.0	19,030.0	11,592.2	75.7	132.6	-89.58	99.1	1,852.7	4,016.5	3,900.6	115.88	34.662	
15,700.0	11,670.0	19,030.0	11,592.2	77.1	132.6	-89.58	99.1	1,852.7	4,111.5	3,996.2	115.30	35.660	
15,800.0	11,670.0	19,030.0	11,592.2	78.5	132.6	-89.58	99.1	1,852.7	4,206.9	4,092.1	114.75	36.661	
15,900.0	11,670.0	19,030.0	11,592.2	79.9	132.6	-89.58	99.1	1,852.7	4,302.4	4,188.2	114.23	37.664	
16,000.0	11,670.0	19,030.0	11,592.2	81.3	132.6	-89.58	99.1	1,852.7	4,398.1	4,284.4	113.74	38.668	
16,100.0	11,670.0	19,030.0	11,592.2	82.7	132.6	-89.58	99.1	1,852.7	4,494.0	4,380.8	113.27	39.674	
16,200.0	11,670.0	19,030.0	11,592.2	84.1	132.6	-89.58	99.1	1,852.7	4,590.1	4,477.3	112.83	40.681	
16,300.0	11,670.0	19,030.0	11,592.2	85.6	132.6	-89.58	99.1	1,852.7	4,686.4	4,574.0	112.41	41.689	
16,400.0	11,670.0	19,030.0	11,592.2	87.0	132.6	-89.58	99.1	1,852.7	4,782.8	4,670.8	112.02	42.698	
16,500.0	11,670.0	19,030.0	11,592.2	88.5	132.6	-89.58	99.1	1,852.7	4,879.3	4,767.7	111.64	43.707	
16,600.0	11,670.0	19,030.0	11,592.2	89.9	132.6	-89.58	99.1	1,852.7	4,976.0	4,864.7	111.28	44.716	
16,700.0	11,670.0	19,030.0	11,592.2	91.4	132.6	-89.58	99.1	1,852.7	5,072.8	4,961.9	110.94	45.726	
16,800.0	11,670.0	19,030.0	11,592.2	92.9	132.6	-89.58	99.1	1,852.7	5,169.8	5,059.2	110.62	46.736	
16,900.0	11,670.0	19,030.0	11,592.2	94.4	132.6	-89.58	99.1	1,852.7	5,266.8	5,156.5	110.31	47.746	
17,000.0	11,670.0	19,030.0	11,592.2	95.9	132.6	-89.58	99.1	1,852.7	5,364.0	5,254.0	110.02	48.756	
17,100.0	11,670.0	19,030.0	11,592.2	97.3	132.6	-89.58	99.1	1,852.7	5,461.3	5,351.5	109.74	49.765	
17,200.0	11,670.0	19,030.0	11,592.2	98.8	132.6	-89.58	99.1	1,852.7	5,558.6	5,449.1	109.48	50.774	
17,300.0	11,670.0	19,030.0	11,592.2	100.3	132.6	-89.58	99.1	1,852.7	5,656.1	5,546.8	109.23	51.783	
17,400.0	11,670.0	19,030.0	11,592.2	101.9	132.6	-89.58	99.1	1,852.7	5,753.6	5,644.6	108.99	52.791	
17,500.0	11,670.0	19,030.0	11,592.2	103.4	132.6	-89.58	99.1	1,852.7	5,851.2	5,742.5	108.76	53.798	
17,600.0	11,670.0	19,030.0	11,592.2	104.9	132.6	-89.58	99.1	1,852.7	5,948.9	5,840.4	108.55	54.804	
17,700.0	11,670.0	19,030.0	11,592.2	106.4	132.6	-89.58	99.1	1,852.7	6,046.7	5,938.4	108.34	55.810	
17,800.0	11,670.0	19,030.0	11,592.2	107.9	132.6	-89.58	99.1	1,852.7	6,144.6	6,036.4	108.15	56.815	
17,900.0	11,670.0	19,030.0	11,592.2	109.5	132.6	-89.58	99.1	1,852.7	6,242.5	6,134.5	107.97	57.819	
18,000.0	11,670.0	19,030.0	11,592.2	111.0	132.6	-89.58	99.1	1,852.7	6,340.5	6,232.7	107.79	58.821	
18,100.0	11,670.0	19,030.0	11,592.2	112.5	132.6	-89.58	99.1	1,852.7	6,438.5	6,330.9	107.63	59.823	
18,200.0	11,670.0	19,030.0	11,592.2	114.1	132.6	-89.58	99.1	1,852.7	6,536.6	6,429.1	107.47	60.823	
18,300.0	11,670.0	19,030.0	11,592.2	115.6	132.6	-89.58	99.1	1,852.7	6,634.8	6,527.4	107.32	61.823	
18,400.0	11,670.0	19,030.0	11,592.2	117.2	132.6	-89.58	99.1	1,852.7	6,733.0	6,625.8	107.18	62.821	
18,428.0	11,670.0	19,030.0	11,592.2	117.6	132.6	-89.58	99.1	1,852.7	6,760.5	6,653.4	107.14	63.100	

Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB @ 3821.5usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

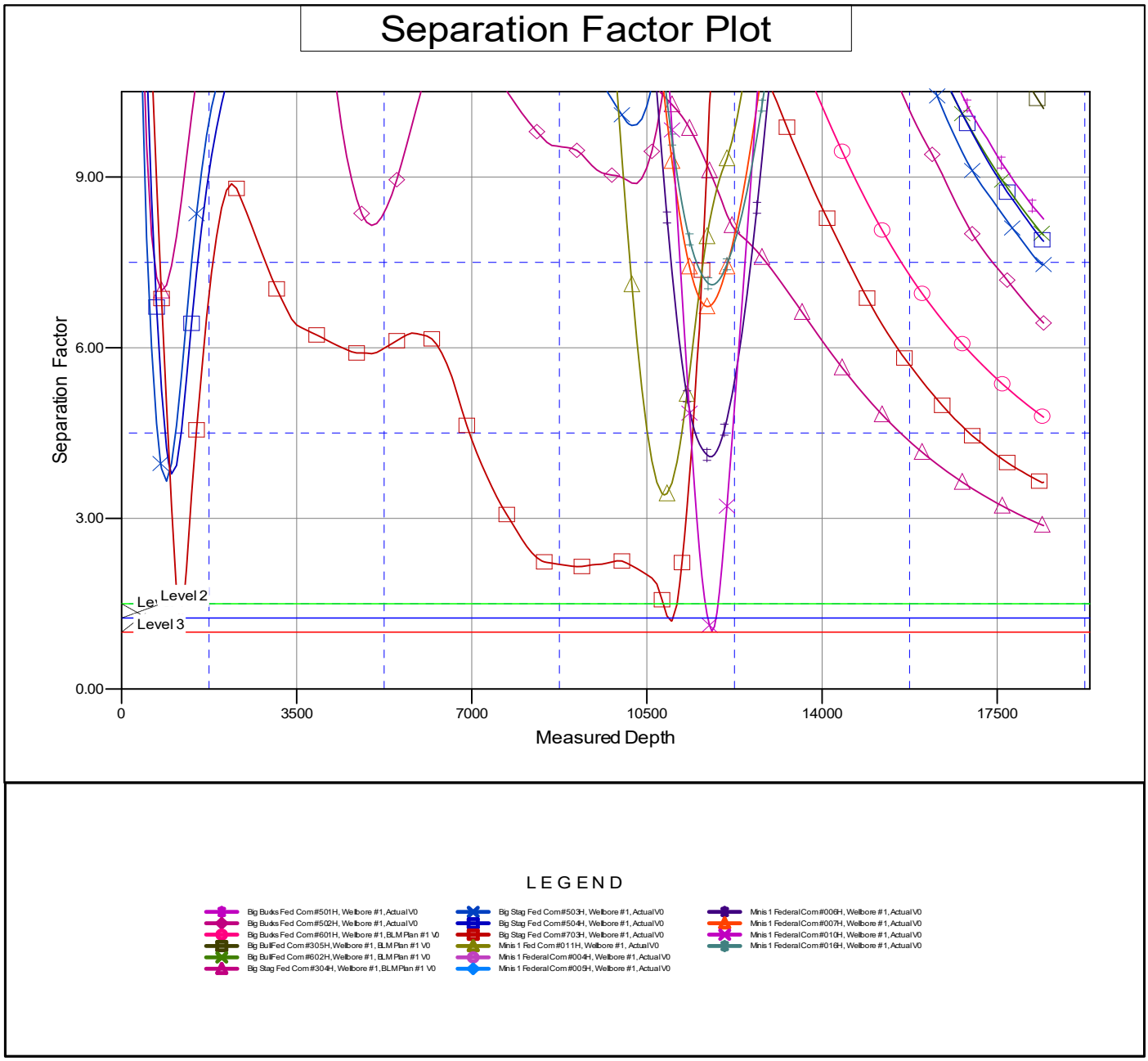
Coordinates are relative to: Big Stag Fed Com #303H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.38°



Anticollision Report

Company:	Matador Production Company	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Project:	Ranger/Arrowhead	**TVD Reference:**	KB @ 3821.5usft
Reference Site:	Big Game	**MD Reference:**	KB @ 3821.5usft
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.14 Server
Reference Design:	BLM Plan #1	**Offset TVD Reference:**	Offset Datum

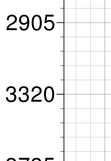
Reference Depths are relative to KB @ 3821.5usft	Coordinates are relative to: Big Stag Fed Com #303H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Central Meridian is 104° 20' 0.000 W	Grid Convergence at Surface is: 0.38°



Company: Matador Production Company
Well: Big Stag Fed Com #303H
County: Lea county, NM
Wellbore: Wellbore #1
Plan: BLM Plan #1
Date: 10/16/2022

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 6.04°
To convert a Magnetic Direction to a True Direction, Add 6.42° East
To convert a True Direction to a Grid Direction, Subtract 0.38°



Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.04°

Magnetic Field
Strength: 47543.7snT
Dip Angle: 60.23°
Date: 10/16/2022
Model: IGRF2015

SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
0.0	18427.9	BLM Plan #1 (Wellbore #1)	MWD

WELL DETAILS: Big Stag Fed Com #303H

GL @ 3793.0 KB @ 3821.5usft

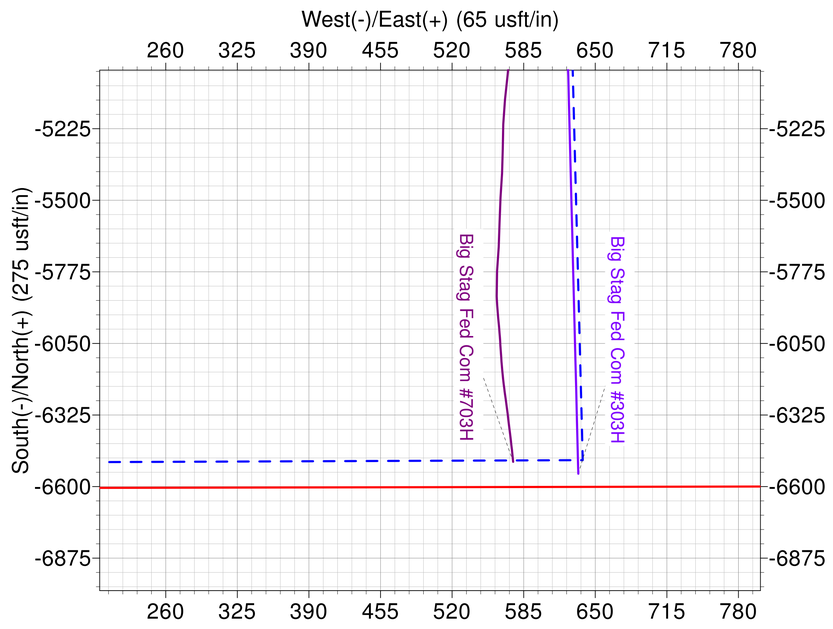
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	546545.41	717880.57	32° 30' 2.084 N	103° 37' 35.839 W	

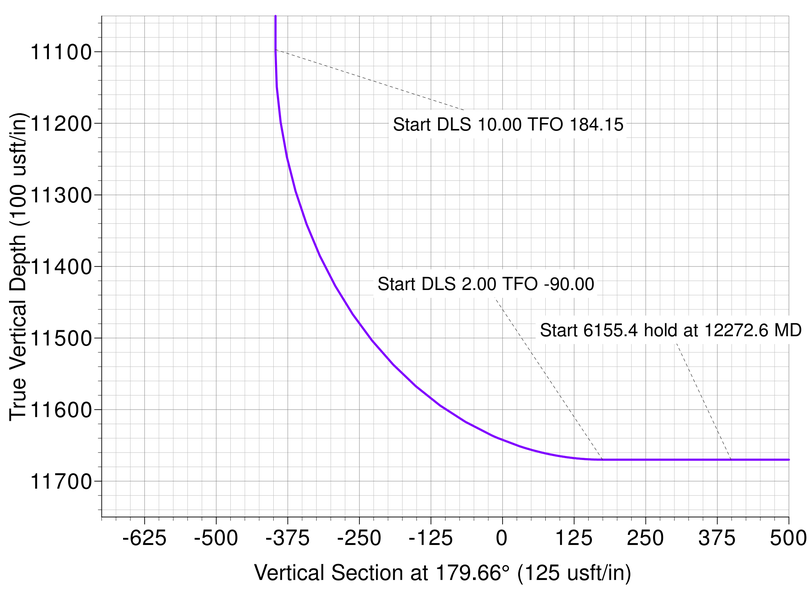
DESIGN TARGET DETAILS

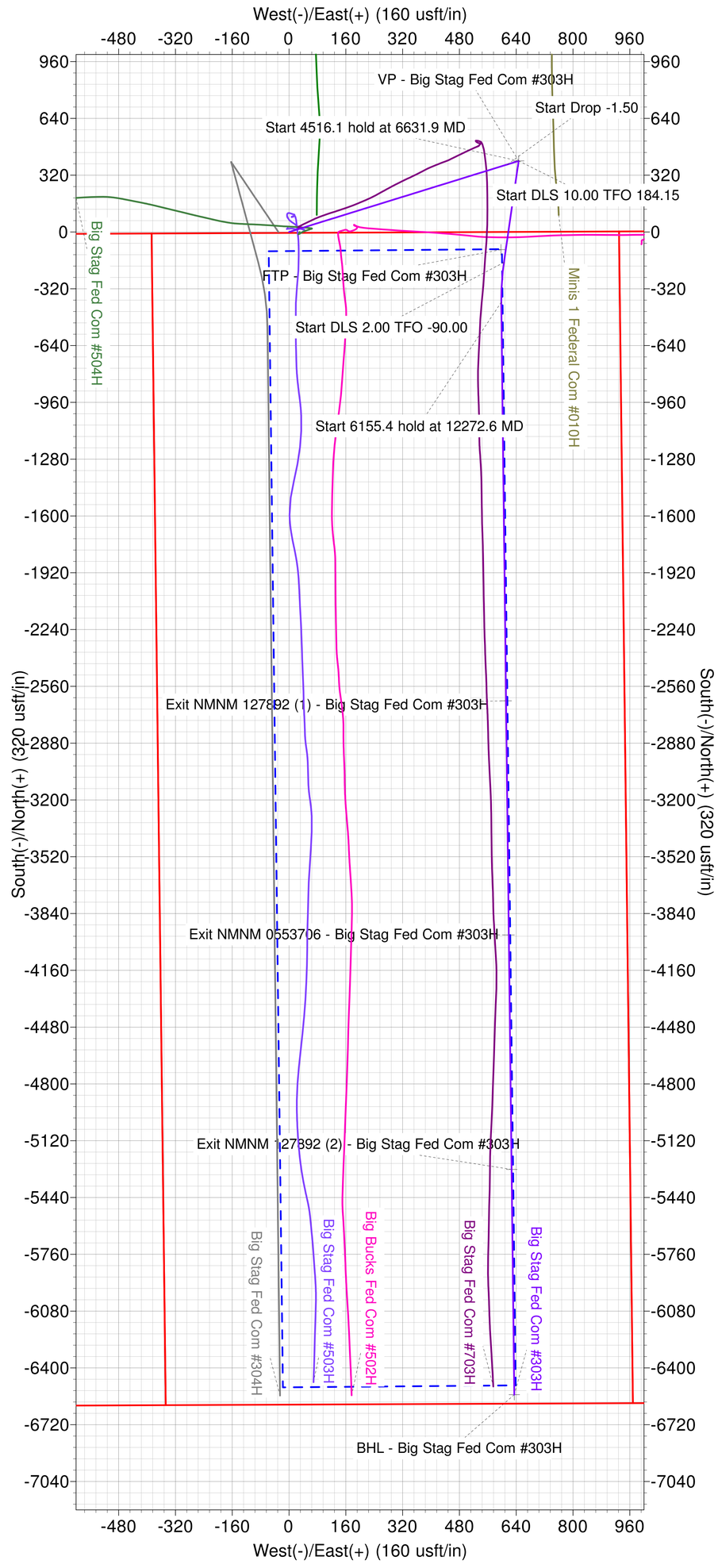
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
VP - Big Stag Fed Com #303H	11097.0	400.3	646.9	546945.70	718527.40	32° 30' 6.003 N	103° 37' 28.256 W
FTP - Big Stag Fed Com #303H	11670.0	-99.7	597.0	546445.68	718477.53	32° 30' 1.058 N	103° 37' 28.877 W
BHL - Big Stag Fed Com #303H	11670.0	-6550.8	634.6	539994.80	718515.15	32° 28' 57.223 N	103° 37' 28.938 W
Exit NMNM 0553706 - Big Stag Fed Com #303H	11670.0	-3960.6	619.7	542585.02	718500.27	32° 29' 22.855 N	103° 37' 28.911 W
Exit NMNM 127892 (1) - Big Stag Fed Com #303H	11670.0	-2641.3	612.0	543904.29	718492.51	32° 29' 35.910 N	103° 37' 28.899 W
Exit NMNM 127892 (2) - Big Stag Fed Com #303H	11670.0	-5281.6	627.5	541264.00	718508.04	32° 29' 9.783 N	103° 37' 28.923 W

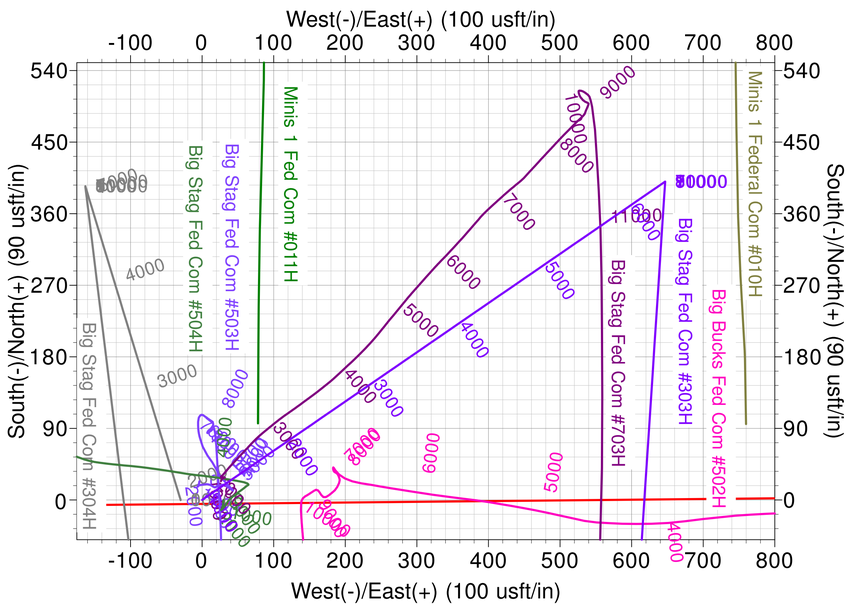
SECTION DETAILS

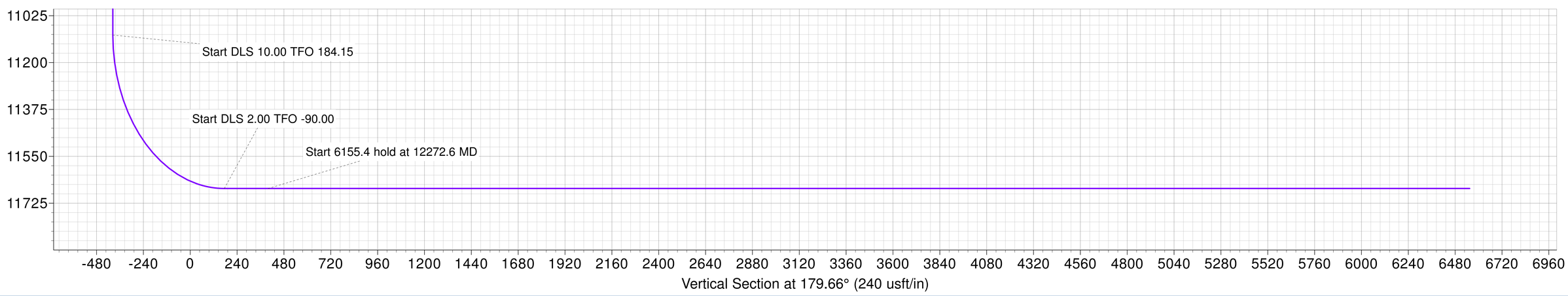
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	Start Build 1.00
1300.0	8.00	58.25	1297.4	29.3	47.4	1.00	58.25	-29.1	Start 4798.6 hold at 1300.0 MD
6098.6	8.00	58.25	6049.3	380.8	615.3	0.00	0.00	-377.1	Start Drop -1.50
6631.9	0.00	0.00	6580.9	400.3	646.9	1.50	180.00	-396.5	Start 4516.1 hold at 6631.9 MD
11148.0	0.00	0.00	11097.0	400.3	646.9	0.00	0.00	-396.5	Start DLS 10.00 TFO 184.15
11148.1	0.00	0.00	11097.0	400.3	646.9	0.00	0.00	-396.5	Start DLS 10.00 TFO 184.15
12048.1	90.00	184.15	11670.0	-171.1	605.4	10.00	184.15	174.7	Start DLS 2.00 TFO -90.00
12272.6	90.00	179.66	11670.0	-395.5	598.0	2.00	-90.00	399.0	Start 6155.4 hold at 12272.6 MD
18428.0	90.00	179.66	11670.0	-6550.8	634.6	0.00	0.00	6554.4	TD at 18428.0











Matador Production Company

Ranger/Arrowhead
Big Game
Big Stag Fed Com #303H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

21 October, 2022

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project Ranger/Arrowhead

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 Big Game

Site Position:		**Northing:**	546,545.41 usft	**Latitude:**	32° 30' 2.084 N
From:	Lat/Long	**Easting:**	717,880.57 usft	**Longitude:**	103° 37' 35.839 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.38 °

Well Big Stag Fed Com #303H, Lea county, NM

Well Position	**+N/-S**	0.0 usft	**Northing:**	546,545.41 usft	**Latitude:**	32° 30' 2.084 N
	+E/-W	0.0 usft	**Easting:**	717,880.57 usft	**Longitude:**	103° 37' 35.839 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,793.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/16/2022	6.42	60.23	47,543.65636769

Design BLM Plan #1

Audit Notes:

Version:	1	**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	179.66

Plan Survey Tool Program **Date** 10/17/2022

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,427.9	BLM Plan #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	8.00	58.25	1,297.4	29.3	47.4	1.00	1.00	0.00	58.25	
6,098.6	8.00	58.25	6,049.3	380.8	615.3	0.00	0.00	0.00	0.00	
6,631.9	0.00	0.00	6,580.9	400.3	646.9	1.50	-1.50	0.00	180.00	
11,148.0	0.00	0.00	11,097.0	400.3	646.9	0.00	0.00	0.00	0.00	VP - Big Stag Fed Co
11,148.1	0.00	0.00	11,097.0	400.3	646.9	0.00	0.00	0.00	0.00	
12,048.1	90.00	184.15	11,670.0	-171.1	605.4	10.00	10.00	-19.54	184.15	FTP - Big Stag Fed C
12,272.6	90.00	179.66	11,670.0	-395.5	598.0	2.00	0.00	-2.00	-90.00	
18,428.0	90.00	179.66	11,670.0	-6,550.8	634.6	0.00	0.00	0.00	0.00	BHL - Big Stag Fed C

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**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
Start Build 1.00									
600.0	1.00	58.25	600.0	0.5	0.7	-0.5	1.00	1.00	0.00
700.0	2.00	58.25	700.0	1.8	3.0	-1.8	1.00	1.00	0.00
800.0	3.00	58.25	799.9	4.1	6.7	-4.1	1.00	1.00	0.00
900.0	4.00	58.25	899.7	7.3	11.9	-7.3	1.00	1.00	0.00
1,000.0	5.00	58.25	999.4	11.5	18.5	-11.4	1.00	1.00	0.00
1,100.0	6.00	58.25	1,098.9	16.5	26.7	-16.4	1.00	1.00	0.00
1,200.0	7.00	58.25	1,198.3	22.5	36.3	-22.3	1.00	1.00	0.00
1,300.0	8.00	58.25	1,297.4	29.3	47.4	-29.1	1.00	1.00	0.00
Start 4798.6 hold at 1300.0 MD									
1,400.0	8.00	58.25	1,396.4	36.7	59.2	-36.3	0.00	0.00	0.00
1,500.0	8.00	58.25	1,495.5	44.0	71.1	-43.6	0.00	0.00	0.00
1,600.0	8.00	58.25	1,594.5	51.3	82.9	-50.8	0.00	0.00	0.00
1,700.0	8.00	58.25	1,693.5	58.6	94.8	-58.1	0.00	0.00	0.00
1,800.0	8.00	58.25	1,792.5	66.0	106.6	-65.3	0.00	0.00	0.00
1,900.0	8.00	58.25	1,891.6	73.3	118.4	-72.6	0.00	0.00	0.00
2,000.0	8.00	58.25	1,990.6	80.6	130.3	-79.8	0.00	0.00	0.00
2,100.0	8.00	58.25	2,089.6	87.9	142.1	-87.1	0.00	0.00	0.00
2,200.0	8.00	58.25	2,188.6	95.3	153.9	-94.3	0.00	0.00	0.00
2,300.0	8.00	58.25	2,287.7	102.6	165.8	-101.6	0.00	0.00	0.00
2,400.0	8.00	58.25	2,386.7	109.9	177.6	-108.8	0.00	0.00	0.00
2,500.0	8.00	58.25	2,485.7	117.2	189.4	-116.1	0.00	0.00	0.00
2,600.0	8.00	58.25	2,584.8	124.6	201.3	-123.4	0.00	0.00	0.00
2,700.0	8.00	58.25	2,683.8	131.9	213.1	-130.6	0.00	0.00	0.00
2,800.0	8.00	58.25	2,782.8	139.2	224.9	-137.9	0.00	0.00	0.00
2,900.0	8.00	58.25	2,881.8	146.5	236.8	-145.1	0.00	0.00	0.00
3,000.0	8.00	58.25	2,980.9	153.8	248.6	-152.4	0.00	0.00	0.00
3,100.0	8.00	58.25	3,079.9	161.2	260.4	-159.6	0.00	0.00	0.00
3,200.0	8.00	58.25	3,178.9	168.5	272.3	-166.9	0.00	0.00	0.00
3,300.0	8.00	58.25	3,277.9	175.8	284.1	-174.1	0.00	0.00	0.00
3,400.0	8.00	58.25	3,377.0	183.1	295.9	-181.4	0.00	0.00	0.00
3,500.0	8.00	58.25	3,476.0	190.5	307.8	-188.6	0.00	0.00	0.00
3,600.0	8.00	58.25	3,575.0	197.8	319.6	-195.9	0.00	0.00	0.00
3,700.0	8.00	58.25	3,674.0	205.1	331.4	-203.1	0.00	0.00	0.00
3,800.0	8.00	58.25	3,773.1	212.4	343.3	-210.4	0.00	0.00	0.00
3,900.0	8.00	58.25	3,872.1	219.8	355.1	-217.7	0.00	0.00	0.00
4,000.0	8.00	58.25	3,971.1	227.1	366.9	-224.9	0.00	0.00	0.00
4,100.0	8.00	58.25	4,070.2	234.4	378.8	-232.2	0.00	0.00	0.00
4,200.0	8.00	58.25	4,169.2	241.7	390.6	-239.4	0.00	0.00	0.00
4,300.0	8.00	58.25	4,268.2	249.1	402.4	-246.7	0.00	0.00	0.00
4,400.0	8.00	58.25	4,367.2	256.4	414.3	-253.9	0.00	0.00	0.00
4,500.0	8.00	58.25	4,466.3	263.7	426.1	-261.2	0.00	0.00	0.00
4,600.0	8.00	58.25	4,565.3	271.0	438.0	-268.4	0.00	0.00	0.00
4,700.0	8.00	58.25	4,664.3	278.4	449.8	-275.7	0.00	0.00	0.00
4,800.0	8.00	58.25	4,763.3	285.7	461.6	-282.9	0.00	0.00	0.00
4,900.0	8.00	58.25	4,862.4	293.0	473.5	-290.2	0.00	0.00	0.00
5,000.0	8.00	58.25	4,961.4	300.3	485.3	-297.4	0.00	0.00	0.00
5,100.0	8.00	58.25	5,060.4	307.6	497.1	-304.7	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**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)
5,200.0	8.00	58.25	5,159.4	315.0	509.0	-311.9	0.00	0.00	0.00
5,300.0	8.00	58.25	5,258.5	322.3	520.8	-319.2	0.00	0.00	0.00
5,400.0	8.00	58.25	5,357.5	329.6	532.6	-326.5	0.00	0.00	0.00
5,500.0	8.00	58.25	5,456.5	336.9	544.5	-333.7	0.00	0.00	0.00
5,600.0	8.00	58.25	5,555.6	344.3	556.3	-341.0	0.00	0.00	0.00
5,700.0	8.00	58.25	5,654.6	351.6	568.1	-348.2	0.00	0.00	0.00
5,800.0	8.00	58.25	5,753.6	358.9	580.0	-355.5	0.00	0.00	0.00
5,900.0	8.00	58.25	5,852.6	366.2	591.8	-362.7	0.00	0.00	0.00
6,000.0	8.00	58.25	5,951.7	373.6	603.6	-370.0	0.00	0.00	0.00
6,098.6	8.00	58.25	6,049.3	380.8	615.3	-377.1	0.00	0.00	0.00
Start Drop -1.50									
6,100.0	7.98	58.25	6,050.7	380.9	615.5	-377.2	1.50	-1.50	0.00
6,200.0	6.48	58.25	6,149.9	387.5	626.2	-383.8	1.50	-1.50	0.00
6,300.0	4.98	58.25	6,249.4	392.8	634.7	-389.0	1.50	-1.50	0.00
6,400.0	3.48	58.25	6,349.1	396.6	640.9	-392.8	1.50	-1.50	0.00
6,500.0	1.98	58.25	6,449.0	399.1	645.0	-395.3	1.50	-1.50	0.00
6,600.0	0.48	58.25	6,549.0	400.3	646.8	-396.4	1.50	-1.50	0.00
6,631.9	0.00	0.00	6,580.9	400.3	646.9	-396.5	1.50	-1.50	0.00
Start 4516.1 hold at 6631.9 MD									
6,700.0	0.00	0.00	6,649.0	400.3	646.9	-396.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,749.0	400.3	646.9	-396.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,849.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,949.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,049.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,149.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,249.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,349.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,449.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,549.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,649.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,749.0	400.3	646.9	-396.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,849.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,949.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,049.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,149.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,249.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,400.0	0.00	0.00	8,349.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,500.0	0.00	0.00	8,449.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,549.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,649.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,749.0	400.3	646.9	-396.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,849.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,949.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,049.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,200.0	0.00	0.00	9,149.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,249.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,349.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,449.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,600.0	0.00	0.00	9,549.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,649.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,800.0	0.00	0.00	9,749.0	400.3	646.9	-396.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,849.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,000.0	0.00	0.00	9,949.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,049.0	400.3	646.9	-396.5	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**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)
10,200.0	0.00	0.00	10,149.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,300.0	0.00	0.00	10,249.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,400.0	0.00	0.00	10,349.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,500.0	0.00	0.00	10,449.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,600.0	0.00	0.00	10,549.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,700.0	0.00	0.00	10,649.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,800.0	0.00	0.00	10,749.0	400.3	646.9	-396.5	0.00	0.00	0.00
10,900.0	0.00	0.00	10,849.0	400.3	646.9	-396.5	0.00	0.00	0.00
11,000.0	0.00	0.00	10,949.0	400.3	646.9	-396.5	0.00	0.00	0.00
11,100.0	0.00	0.00	11,049.0	400.3	646.9	-396.5	0.00	0.00	0.00
11,148.0	0.00	0.00	11,097.0	400.3	646.9	-396.5	0.00	0.00	0.00
Start DLS 10.00 TFO 184.15 - VP - Big Stag Fed Com #303H									
11,200.0	5.19	184.15	11,148.9	398.0	646.7	-394.2	9.99	9.99	0.00
11,300.0	15.19	184.15	11,247.2	380.4	645.5	-376.5	10.00	10.00	0.00
11,400.0	25.19	184.15	11,340.9	346.0	643.0	-342.2	10.00	10.00	0.00
11,500.0	35.19	184.15	11,427.3	295.9	639.3	-292.1	10.00	10.00	0.00
11,600.0	45.19	184.15	11,503.5	231.6	634.7	-227.8	10.00	10.00	0.00
11,700.0	55.19	184.15	11,567.5	155.1	629.1	-151.3	10.00	10.00	0.00
11,800.0	65.19	184.15	11,617.1	68.6	622.8	-65.0	10.00	10.00	0.00
11,900.0	75.19	184.15	11,651.0	-25.1	616.0	28.7	10.00	10.00	0.00
11,978.1	83.00	184.15	11,665.7	-101.5	610.5	105.1	10.00	10.00	0.00
FTP - Big Stag Fed Com #303H									
12,000.0	85.19	184.15	11,668.0	-123.2	608.9	126.8	10.00	10.00	0.00
12,048.1	90.00	184.15	11,670.0	-171.1	605.4	174.7	10.00	10.00	0.00
Start DLS 2.00 TFO -90.00									
12,100.0	90.00	183.11	11,670.0	-222.9	602.2	226.5	2.00	0.00	-2.00
12,200.0	90.00	181.11	11,670.0	-322.9	598.5	326.4	2.00	0.00	-2.00
12,272.6	90.00	179.66	11,670.0	-395.5	598.0	399.0	2.00	0.00	-2.00
Start 6155.4 hold at 12272.6 MD									
12,300.0	90.00	179.66	11,670.0	-422.9	598.1	426.4	0.00	0.00	0.00
12,400.0	90.00	179.66	11,670.0	-522.9	598.7	526.4	0.00	0.00	0.00
12,500.0	90.00	179.66	11,670.0	-622.9	599.3	626.4	0.00	0.00	0.00
12,600.0	90.00	179.66	11,670.0	-722.9	599.9	726.4	0.00	0.00	0.00
12,700.0	90.00	179.66	11,670.0	-822.9	600.5	826.4	0.00	0.00	0.00
12,800.0	90.00	179.66	11,670.0	-922.9	601.1	926.4	0.00	0.00	0.00
12,900.0	90.00	179.66	11,670.0	-1,022.9	601.7	1,026.4	0.00	0.00	0.00
13,000.0	90.00	179.66	11,670.0	-1,122.9	602.3	1,126.4	0.00	0.00	0.00
13,100.0	90.00	179.66	11,670.0	-1,222.8	602.9	1,226.4	0.00	0.00	0.00
13,200.0	90.00	179.66	11,670.0	-1,322.8	603.5	1,326.4	0.00	0.00	0.00
13,300.0	90.00	179.66	11,670.0	-1,422.8	604.1	1,426.4	0.00	0.00	0.00
13,400.0	90.00	179.66	11,670.0	-1,522.8	604.7	1,526.4	0.00	0.00	0.00
13,500.0	90.00	179.66	11,670.0	-1,622.8	605.3	1,626.4	0.00	0.00	0.00
13,600.0	90.00	179.66	11,670.0	-1,722.8	605.9	1,726.4	0.00	0.00	0.00
13,700.0	90.00	179.66	11,670.0	-1,822.8	606.5	1,826.4	0.00	0.00	0.00
13,800.0	90.00	179.66	11,670.0	-1,922.8	607.1	1,926.4	0.00	0.00	0.00
13,900.0	90.00	179.66	11,670.0	-2,022.8	607.7	2,026.4	0.00	0.00	0.00
14,000.0	90.00	179.66	11,670.0	-2,122.8	608.3	2,126.4	0.00	0.00	0.00
14,100.0	90.00	179.66	11,670.0	-2,222.8	608.8	2,226.4	0.00	0.00	0.00
14,200.0	90.00	179.66	11,670.0	-2,322.8	609.4	2,326.4	0.00	0.00	0.00
14,300.0	90.00	179.66	11,670.0	-2,422.8	610.0	2,426.4	0.00	0.00	0.00
14,400.0	90.00	179.66	11,670.0	-2,522.8	610.6	2,526.4	0.00	0.00	0.00
14,500.0	90.00	179.66	11,670.0	-2,622.8	611.2	2,626.4	0.00	0.00	0.00
14,518.5	90.00	179.66	11,670.0	-2,641.3	611.3	2,644.9	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**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)
Exit NMNM 127892 (1) - Big Stag Fed Com #303H									
14,600.0	90.00	179.66	11,670.0	-2,722.8	611.8	2,726.4	0.00	0.00	0.00
14,700.0	90.00	179.66	11,670.0	-2,822.8	612.4	2,826.4	0.00	0.00	0.00
14,800.0	90.00	179.66	11,670.0	-2,922.8	613.0	2,926.4	0.00	0.00	0.00
14,900.0	90.00	179.66	11,670.0	-3,022.8	613.6	3,026.4	0.00	0.00	0.00
15,000.0	90.00	179.66	11,670.0	-3,122.8	614.2	3,126.4	0.00	0.00	0.00
15,100.0	90.00	179.66	11,670.0	-3,222.8	614.8	3,226.4	0.00	0.00	0.00
15,200.0	90.00	179.66	11,670.0	-3,322.8	615.4	3,326.4	0.00	0.00	0.00
15,300.0	90.00	179.66	11,670.0	-3,422.8	616.0	3,426.4	0.00	0.00	0.00
15,400.0	90.00	179.66	11,670.0	-3,522.8	616.6	3,526.4	0.00	0.00	0.00
15,500.0	90.00	179.66	11,670.0	-3,622.8	617.2	3,626.4	0.00	0.00	0.00
15,600.0	90.00	179.66	11,670.0	-3,722.8	617.8	3,726.4	0.00	0.00	0.00
15,700.0	90.00	179.66	11,670.0	-3,822.8	618.4	3,826.4	0.00	0.00	0.00
15,800.0	90.00	179.66	11,670.0	-3,922.8	619.0	3,926.4	0.00	0.00	0.00
15,837.8	90.00	179.66	11,670.0	-3,960.6	619.2	3,964.2	0.00	0.00	0.00
Exit NMNM 0553706 - Big Stag Fed Com #303H									
15,900.0	90.00	179.66	11,670.0	-4,022.8	619.6	4,026.4	0.00	0.00	0.00
16,000.0	90.00	179.66	11,670.0	-4,122.8	620.2	4,126.4	0.00	0.00	0.00
16,100.0	90.00	179.66	11,670.0	-4,222.8	620.7	4,226.4	0.00	0.00	0.00
16,200.0	90.00	179.66	11,670.0	-4,322.8	621.3	4,326.4	0.00	0.00	0.00
16,300.0	90.00	179.66	11,670.0	-4,422.8	621.9	4,426.4	0.00	0.00	0.00
16,400.0	90.00	179.66	11,670.0	-4,522.8	622.5	4,526.4	0.00	0.00	0.00
16,500.0	90.00	179.66	11,670.0	-4,622.8	623.1	4,626.4	0.00	0.00	0.00
16,600.0	90.00	179.66	11,670.0	-4,722.8	623.7	4,726.4	0.00	0.00	0.00
16,700.0	90.00	179.66	11,670.0	-4,822.8	624.3	4,826.4	0.00	0.00	0.00
16,800.0	90.00	179.66	11,670.0	-4,922.8	624.9	4,926.4	0.00	0.00	0.00
16,900.0	90.00	179.66	11,670.0	-5,022.8	625.5	5,026.4	0.00	0.00	0.00
17,000.0	90.00	179.66	11,670.0	-5,122.8	626.1	5,126.4	0.00	0.00	0.00
17,100.0	90.00	179.66	11,670.0	-5,222.8	626.7	5,226.4	0.00	0.00	0.00
17,158.8	90.00	179.66	11,670.0	-5,281.6	627.0	5,285.2	0.00	0.00	0.00
Exit NMNM 127892 (2) - Big Stag Fed Com #303H									
17,200.0	90.00	179.66	11,670.0	-5,322.8	627.3	5,326.4	0.00	0.00	0.00
17,300.0	90.00	179.66	11,670.0	-5,422.8	627.9	5,426.4	0.00	0.00	0.00
17,400.0	90.00	179.66	11,670.0	-5,522.8	628.5	5,526.4	0.00	0.00	0.00
17,500.0	90.00	179.66	11,670.0	-5,622.8	629.1	5,626.4	0.00	0.00	0.00
17,600.0	90.00	179.66	11,670.0	-5,722.8	629.7	5,726.4	0.00	0.00	0.00
17,700.0	90.00	179.66	11,670.0	-5,822.8	630.3	5,826.4	0.00	0.00	0.00
17,800.0	90.00	179.66	11,670.0	-5,922.8	630.9	5,926.4	0.00	0.00	0.00
17,900.0	90.00	179.66	11,670.0	-6,022.8	631.5	6,026.4	0.00	0.00	0.00
18,000.0	90.00	179.66	11,670.0	-6,122.8	632.0	6,126.4	0.00	0.00	0.00
18,100.0	90.00	179.66	11,670.0	-6,222.8	632.6	6,226.4	0.00	0.00	0.00
18,200.0	90.00	179.66	11,670.0	-6,322.8	633.2	6,326.4	0.00	0.00	0.00
18,300.0	90.00	179.66	11,670.0	-6,422.8	633.8	6,426.4	0.00	0.00	0.00
18,400.0	90.00	179.66	11,670.0	-6,522.8	634.4	6,526.4	0.00	0.00	0.00
18,428.0	90.00	179.66	11,670.0	-6,550.7	634.6	6,554.4	0.00	0.00	0.00
TD at 18428.0 - BHL - Big Stag Fed Com #303H									

Planning Report

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well Big Stag Fed Com #303H
Company:	Matador Production Company	**TVD Reference:**	KB @ 3821.5usft
Project:	Ranger/Arrowhead	**MD Reference:**	KB @ 3821.5usft
Site:	Big Game	**North Reference:**	Grid
Well:	Big Stag Fed Com #303H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

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
VP - Big Stag Fed Com - plan hits target center - Point	0.00	0.00	11,097.0	400.3	646.9	546,945.70	718,527.40	32° 30' 6.003 N	103° 37' 28.256 W
Exit NMNM 127892 (2) - - plan misses target center by 0.4usft at 17158.8usft MD (11670.0 TVD, -5281.6 N, 627.0 E) - Point	0.00	0.00	11,670.0	-5,281.6	627.5	541,264.00	718,508.03	32° 29' 9.783 N	103° 37' 28.923 W
Exit NMNM 127892 (1) - - plan misses target center by 0.6usft at 14518.5usft MD (11670.0 TVD, -2641.3 N, 611.3 E) - Point	0.00	0.00	11,670.0	-2,641.3	612.0	543,904.29	718,492.51	32° 29' 35.910 N	103° 37' 28.899 W
Exit NMNM 0553706 - B - plan misses target center by 0.5usft at 15837.8usft MD (11670.0 TVD, -3960.6 N, 619.2 E) - Point	0.00	0.00	11,670.0	-3,960.6	619.7	542,585.02	718,500.26	32° 29' 22.855 N	103° 37' 28.911 W
BHL - Big Stag Fed Com - plan hits target center - Point	0.00	0.00	11,670.0	-6,550.8	634.6	539,994.81	718,515.15	32° 28' 57.223 N	103° 37' 28.938 W
FTP - Big Stag Fed Com - plan misses target center by 14.2usft at 11978.1usft MD (11665.7 TVD, -101.5 N, 610.5 E) - Point	0.00	0.00	11,670.0	-99.7	597.0	546,445.68	718,477.53	32° 30' 1.058 N	103° 37' 28.877 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
500.0	500.0	0.0	0.0	Start Build 1.00
1,300.0	1,297.4	29.3	47.4	Start 4798.6 hold at 1300.0 MD
6,098.6	6,049.3	380.8	615.3	Start Drop -1.50
6,631.9	6,580.9	400.3	646.9	Start 4516.1 hold at 6631.9 MD
11,148.1	11,097.0	400.3	646.9	Start DLS 10.00 TFO 184.15
12,048.1	11,670.0	-171.1	605.4	Start DLS 2.00 TFO -90.00
12,272.6	11,670.0	-395.5	598.0	Start 6155.4 hold at 12272.6 MD
18,428.0	11,670.0	-6,550.8	634.6	TD at 18428.0

Drill Plan

Big Stag Fed Com 303H
SHL: 5' FSL & 2247' FEL Section 1
BHL: 1268' FNL & 1650' FEL Section 13
Township/Range: 21S 32E
Elevation Above Sea Level: 3793

- Matador respectfully requests the option to amend the well design of the Big Stag Fed Com 303H to make the following changes to the current APD.

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	20	0 - 1675	0 - 1675	16	75	J-55	BUTT	1.125	1.125	1.8
Intermediate 1	13.5	0 - 3300	0 - 3300	10.75	45.5	J-55	BUTT	1.125	1.125	1.8
Intermediate 2	9.875	0 - 5808	0 - 5808	8.625	32	P-110	VAM-Sprint FJ	1.125	1.125	1.8
Production	7.875	0 - 18428	0 - 11670	5.5	20	P-110	VAM Sprint SF	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

String	Type	Sacks	Yield	Cu. Ft.	Weight	Percent Excess	Top of Cement (ft)	Class	Blend
Surface	Lead	940	1.78	1681	13.5	50%	0	C	5% NaCl + LCM
	Tail	1540	1.35	2075	14.8	50%	1340	C	5% NaCl + LCM
Intermediate 1	Lead	1120	1.78	2000	13.5	50%	0	C	5% NaCl + LCM
	Tail	280	1.35	382	14.8	50%	2640	C	5% NaCl + LCM
Intermediate 2	Lead	530	1.78	950	13.5	50%	0	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	160	1.35	217	14.8	50%	4808	C	5% NaCl + LCM
Production	Lead	400	3.66	1475	10.3	25%	3398	A/C	Fluid Loss + Dispersant + Retarder + LCM
	Tail	1160	1.35	1560	13.2	15%	10648	A/C	Fluid Loss + Dispersant + Retarder + LCM

-Matador requests the option to run a DV tool with annular packer as contingency in the intermediate 1 or 2 section on 10-3/4" or 8-5/8" casing if lost circulation is encountered. If losses occur, the DV tool with packer will be placed at least 100' above the loss zone to give the option to pump cement as either a single stage or two stage.
-Matador would also like to request a variance to perform a bradenhead squeeze on Intermediate 2 if needed.

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	20	Spud Mud	0 - 1675	8.4 - 8.8	28-30	NC
Intermediate 1	13.5	Brine Water	1675 - 3300	9.5 - 10.2	28-32	NC
Intermediate 2	9.875	Fresh Water	3300 - 5808	8.4 - 8.6	28-30	NC
Production	7.875	OBM/Cut Brine	5808 - 18428	8.6 - 9.4	28-30	NC

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Phone:(575) 393-6161 Fax:(575) 393-0720
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811 S. First St., Artesia, NM 88210
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District III
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District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 226407

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 226407
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	7/12/2023